

The 16th International Docomomo Conference
Tokyo Japan 2020+1
Proceedings

do.co.mo.mo_

Inheritable Resilience:
Sharing Values of Global Modernities **VOLUME 3**

EDITORS

Ana Tostões

Yoshiyuki Yamana

- 08. **Global / Local Modernities**
- 09. **Metabolism Reconsidered**
- 10. **Designing Daily Life**

Inheritable Resilience

Sharing Values of Global Modernities

EDITORS

ANA TOSTÕES

YOSHIYUKI YAMANA

The 16th International Docomomo Conference Tokyo Japan 2020+1 Proceedings

29 August – 2 September 2021

TOKYO BUNKA KAIKAN

KAWANA HOTEL

ROPPONGI ACADEMYHILLS

TOKYO, ITO • JAPAN

do.co.mo.mo_
international

CREDITS

TITLE

The 16th International Docomomo Conference Tokyo Japan 2020+1 Proceedings
Inheritable Resilience: Sharing Values of Global Modernities

PUBLISHER

docomomo International
docomomo Japan

DISTRIBUTER

Echelle-1

EDITORS

Ana Tostões
Yoshiyuki Yamana

EDITORIAL ASSISTANCE

Mariko Takatori
Robert Maximilian Woitschuetzke
Nanase Taniguchi
Sae Sueyoshi
Yui Katono
Sayaka Yamada
Yuko Nishimura
Joana Coutinho

DESIGN

Kazuma Nishiwaki
Asako Yamahara
Kyoko Kobayashi
Mio Silvey

PRINTING

MAPS

ISBN

978-4-904700-77-8

TOKYO, 29 August, 2021

Indexed by SCOPUS.

All the rights reserved. © of the edition,
docomomo International
© of the images, their authors and
© of the texts, their authors.

These Proceedings may not be reproduced,
In the whole or in part, in any form without written permission from the Publisher.

The 16th International Docomomo Conference Tokyo Japan 2020+1 Proceedings
29 August–2 September, 2021

CONTENTS

VOLUME 0	INTRODUCTION	1
	HERITAGE AND RESILIENCE	2
	Ana Tostões	
	WELCOME TO TOKYO:	
	THE 16TH INTERNATIONAL DOCOMOMO CONFERENCE TOKYO JAPAN 2020+1	
	INHERITABLE RESILIENCE: SHARING VALUES OF GLOBAL MODERNITIES	4
	Yoshiyuki Yamana	
	Conference Schedule	6
	Biographies	12
	Acknowledgements	66
VOLUME 1		
Theme 1	SPACE OF SPORTS	75
1-a	CONSERVATION OF OLYMPIC AND OTHER STADIA	76
	France Vanlaethem	
	PROJECTS FOR THE OLYMPICS AND THEIR COMPATIBLE RE-USE IN ITALY	78
	Ugo Carughi and Alessandro Colombo	
	ANY LEGACY FOR WINTER OLYMPICS?	
	THE INHERITABLE RESILIENCE OF CORTINA D'AMPEZZO 1956	84
	Sara Di Resta and Andrea Canziani	
	PRESERVING THE WORLD OF TOMORROW: SEATTLE'S CENTURY 21 COLISEUM	90
	Christine Lazzaretto	
	HELSINKI OLYMPIC STADIUM REVITALIZED	96
	Kimmo Lintula	
1-b	IN SEARCH OF LOST TIME OF SPORTS FACILITIES	102
	Shin Muramatsu	
	BODY, BUILDING, NATION: RIZAL STADIUM, COLONIAL MODERNITY, AND NATIONAL SPECTACLE	104
	Gerard Lico	
	MODERN VENATIO AND THE CASE OF J. S. DORTON ARENA IN RALEIGH, NC (1949–52)	110
	Marcos Amado Petrolí	
	USAGE TRANSITION OF YOYOGI NATIONAL STADIUM AFTER 1964 CHANGES IN SPORTS SPACES WITH ECONOMIC FLUCTUATION	116
	Katsura Sato and Saikaku Toyokawa	
	THE STRUCTURAL SIGNIFICANCE IN THE CONSERVATION PLAN OF THE STADIO FLAMINIO BY PIER LUIGI AND ANTONIO NERVI IN ROME	122
	Francesco Romeo	
Theme 2	URBAN LANDSCAPE	129
2-a	CRITICAL STUDIES ON URBAN LANDSCAPE: WHY, HOW AND FOR WHOM THE BUILDINGS OF THE MODERN MOVEMENT SHOULD BE PRESERVED	130
	Masaaki Iwamoto	
	OUTLINING BRASÍLIA:	
	IN-BETWEEN THE PILOT PLAN AND PARANOÁ'S LAKESHORE — FROM 1957 TO 2020	132
	Marina Oba and Emerson Vidigal	
	THE SIGNIFICANCE OF THE HISTORIC FABRIC	
	— WHY THE FINE GRAIN NEEDS CONSERVATION POLICIES	138
	Rui Miguel Rebelo Leão	
	URBAN LANDSCAPE HISTORY OF TOKYO OLYMPICS HERITAGE ZONE	
	— FROM IMPERIAL PARADE GROUNDS TO NATIONAL STADIUMS —	144
	Kaori Hasegawa	
	REEVALUATING VALUES: POST-WAR ARCHITECTURE IN HISTORIC URBAN LANDSCAPE	150
	Sandra Treija, Uģis Bratuškins and Līva Garkāje	

2-b		THE EMERGENCE OF ENVIRONMENTAL AND CULTURAL CONSCIOUSNESS IN URBAN LANDSCAPES	156
		Kengo Hayashi	
		THE PIETILÄS' AND BBPR'S PROJECTS FOR THE DEIRA CORNICHE IN DUBAI, 1974	158
		Tiziano Aglieri Rinella	
		BEIRA RAILWAY STATION: MODERN ARCHITECTURE AS AN URBAN CATALYST	164
		Maria Manuel Oliveira	
		"TERRA-1". INTENTIONAL ARCHITECTURE EXHIBITION. URBANISTIC UTOPIAS AND THE MODERNISM	170
		Agnieszka Tomaszewicz and Joanna Majczyk	
		OIL IS DEAD, ITS HERITAGE WITH IT?	176
		Stephan Hauser	
2-c		ANALYSING MODERNIST INFLUENCES ON HISTORIC URBAN PLANNING AND LANDSCAPES	182
		Ola Uduku	
		URBAN PORNOGRAPHY: ANTI-PLACES OF MODERN ARCHITECTURAL HERITAGE IN TURKEY	184
		Berk Kesim and Nilüfer Baturayoglu Yoney	
		GDYNIA — TRANSFORMATIONS OF THE URBAN LANDSCAPE	190
		Marek Stępa	
		THE CITY WITHOUT STREETS	196
		James Dunnett	
		MAKING MELBOURNE MODERN: URBAN TRANSFORMATION AND THE 1956 OLYMPIC GAMES	202
		Philip Goad	
2-d		DRIVING MODERN URBAN LANDSCAPE REGENERATION: COMMERCE, UTOPIA, AND QUALITIES	206
		Johannes Widodo	
		MONETARIZING MAGNANIMITY: SEMI-PUBLIC SPACES OF MODERN COMMERCIAL BUILDINGS IN HONG KONG	208
		Edward Leung	
		AN OPEN MEGASTRUCTURE IN CURITIBA	214
		Leonardo Tossiaki Oba and Raquel C. Millani Oba	
		SAVING COLLAGE CITY: THE FUTURE OF CARACAS MODERN URBAN LANDSCAPE	220
		Hannia Gómez	
		TACKLING SUSTAINABILITY IN MODERN HOUSING NEIGHBOURHOODS	226
		Fanny Gerbeaud, Aline Barlet and Caroline Mazel	
2-e		RE-ACCESSING THE URBAN VALUES OF MODERN ARTIFACTS	232
		Rui Miguel Rebelo Leão	
		PRESERVING MODERNISM: ADAPTIVE REUSE FOR AN URBAN FUTURE	234
		Frank Mahan and Van Kluytenaar	
		SPATIAL RETROFITTING OF MODERNIST HOUSING ESTATES	240
		Viktorija Prilenska	
		TOWARD NATURE. A TRANSFORMATION OF A STADIUM	246
		Maciej Janowski, Hanna Smulczyńska and Agnieszka Janowska	
		URBAN FURNITURE AND TOWNSCAPE IN MEXICO (1920–1960)	252
		Silvia Segarra Lagunes	
Theme 3		MODERN HOUSING	259
3-a		MODERN MASS HOUSING — A BATTLEFIELD OF CONFLICTING RECEPTION MODES	260
		Miles Glendinning	
		THE NEW LIVING. RESILIENT HERITAGE OF SOCIAL HOUSING IN FLANDERS	262
		Karina Van Herck	
		REGENERATION OF SUJAN SINGH PARK	268
		Gaurav Sharma	
		COMMERCIAL MIDDLE-CLASS MASS HOUSING IN BELGIUM	274
		Els De Vos	
		THE GROEIKERN LEGACY — HOUSING TYPOLOGIES IN DUTCH NEW TOWNS	280
		Lidwine Spoormans, Ana Pereira Rodgers, Wessel de Jonge and Leeke Reinders	

3-b		REFLECTION ON MODERN HOUSING	286
		Kaori Hasegawa	
		FROM LEISURE HOUSING TO MODERN HERITAGE: VILLAGE OF LES CARRATS BY GEORGES CANDILIS	288
		Catherine Blain and Laurent Duport	
		PREVI: THE METABOLISTS' FIRST, LAST AND ONLY PROJECT — PART 2	294
		Eui-Sung Yi and Alonso Toledo	
		FADED FAMILIES: HOUSING ELDERLY COUPLES IN FLANDERS	300
		Evert Vandeweghe	
		THE UNITÉ AS UNIVERSAL MODEL: HOUSING IN ANGOLA AND MOZAMBIQUE	306
		Ana Magalhães	
3-c		MODERN HOUSING IN CHANGING CONTEXT OF SOCIOCULTURAL VALUE	312
		Kenji Watanabe	
		AN UNUSUAL JOURNEY THROUGH POST-WAR RESIDENTIAL ARCHITECTURE	314
		Maria Tavares	
		ISOKON FLATS: A MULTILAYERED MODERNIST INTERSECTION IN 1930s LONDON	320
		Moe Omiya	
		ARTUR GLIKSON'S EXPERIMENTAL HOUSING: MEN-SOCIETY-NATURE	326
		Yamit Cohen	
		SÃO PAULO PLURALIST TOWER: AN UNBUILT BRAZILIAN HOUSING PROJECT	332
		Arthur J. de Macedo and Hugo L. Farias	
3-d		MODERNIST HOUSING ACROSS COUNTRIES AND TYPOLOGIES	338
		Ola Uduku	
		REUSE OF COMMON SPACE AS A TACTIC FOR MASS HOUSING REVITALIZATION	340
		Anica Dragutinovic and Uta Pottgiesser	
		RESILIENCE IN HOUSING: THE CASE OF THE CTT BUILDING, LUANDA	346
		Filomena Carvalho	
		DISAPPEARANCE OF MODERN HERITAGE IN KUWAIT, ADAPTIVE REUSE OF AL SAWABER HOUSING COMPLEX	352
		Diana Mosquera and Marie Moors	
		THE ADOPTION OF CROSS-SHAPED BUILDINGS FOR MASS HOUSING IN THE MODERN MOVEMENT	358
		Miguel Angel Calvo Salve	
3-e		BIRTH, LIFE AND RENEWAL OF MODERN HOUSING	364
		Louise Noelle Gras	
		LEARNING FROM LOSSES: NEW ZEALAND'S MEDIUM- & HIGH-DENSITY STATE-OWNED RENTAL FLATS, 1930s–1950s	366
		Julia Gatley	
		REVIVING MODERNIST HOUSING: ARENA DISTRICT OF RENAAT BRAEM	372
		Marie Moors	
		RESILIENCE AND CO-PRODUCTION: CONSERVING MODERN HOUSING IN CHILE	378
		Horacio Torrent	
		LE CORBUSIER AND THE IMMEUBLE-VILLAS. THE CUSTOMER AS A PRODUCTIVE RESOURCE	384
		Marta Sequeira	
3-f		MODERN HOUSING TOWARDS A RESILIENT CITY	390
		Kenji Watanabe	
		SOCIAL HOUSING AND URBAN SEGREGATION IN LATE COLONIAL MOZAMBIQUE	392
		Patricia Noormahomed	
		SOCIAL HOUSING IN VENICE. THE GIUDECCA HOUSING ESTATE BY GINO VALLE (1980–1986) AND THE CHALLENGES OF CHANGE	398
		Francesca Albani	
		Biographies	404

VOLUME 2

Theme 4		TECHNOLOGICAL/MATERIAL LEGACIES	421
4-a		CONSERVATION PLANNING: FROM RE-PROGRAMMING TO CONCRETE INTERVENTION Wessel de Jonge	422
		THE MELNIKOV HOUSE. RESEARCH, ANALYSES, FUTURE Tapani Mustonen and Mariël Polman	424
		CONSERVATION PRINCIPLES FOR CONCRETE: MULTIDISCIPLINARY CONTEXT Ana Paula Arato Gonçalves	430
		ÁLVARO SIZA'S TECTONIC SHIFT IN LEÇA DA PALMEIRA: FROM DESIGN TO CONSERVATION Teresa Cunha Ferreira and Eduardo Fernandes	436
		THE EVANS-FINTUBE BUILDING: ARCHITECTURE OF THE OKLAHOMA OIL INDUSTRY Francesco Cianfarani	442
4-b		MASSIVE MATERIAL CULTURES Uta Pottgiesser	448
		THE NATIONAL MUSEUM OF WESTERN ART, TOKYO: USING FAIR-FACED CONCRETE Naoki Hirai	450
		MODERNISM AND REGIONALISM IN JAPANESE LOCAL STONE BUILDINGS Akio Yasumori and Motosumi Kobayashi	456
		THE CONCRETE, STEEL AND TIMBER FOUNDATIONS OF THE ZURICH KONGRESSHAUS (1937–39) Patrick H. Fleming	462
		THE RESILIENT MATERIALITY OF BRICK IN 20TH CENTURY TAIWAN Nan-Wei Wu	468
4-c		TECHNOLOGIES FOR CLIMATE CONTROL Uta Pottgiesser	474
		“A WARM COLOUR THAT ENSURES COOLNESS!”: CURTAIN WALLS AND COATED GLAZING Giulia Marino	476
		POTENTIALS OF CEMENT BRICK IN IRAQI MODERN ARCHITECTURE Nawar Sami Al Ali and Saba Sami Al Ali	482
		REVALUING THE BIOCLIMATIC IN THE MODERN MOVEMENT: ARTÉ AND TEKNĚ Caterina Mele and Caterina Franchini	488
		VENTILATION BLOCK: THE MODERN TROPICAL BUILDING ELEMENT Yusra Binti Zulkifli	494
4-d		BRIDGING THE GAP: LARGE-SPAN CONSTRUCTION AS A PHENOMENON OF INTERNATIONAL EXCHANGE Wessel de Jonge	500
		BEYOND TECHNICAL RESTRICTIONS: A DOCUMENTARY REVIEW ABOUT THE STRUCTURAL FORMATION OF LUCE MEMORIAL CHAPEL'S CONOID SHELLS Chijeng Kuo	502
		EFFORTS TO BUILD SPACE STRUCTURES BY TANGE AND TSUBOI Saikaku Toyokawa and Mariko Fujioka	508
		BONELESS ARCHITECTURE: NIEMEYER, CONCRETE, STRUCTURAL ENGINEERING Monica Aguiar and Marcos Favero	514
		ELADIO DIESTE, EUGENIO MONTAÑEZ AND MODERNITY IN SOUTH AMERICA Hugo Segawa and Juliana Suzuki	520
4-e		TECHNOLOGICAL/MATERIAL LEGACIES AND CONCRETE. CRITICAL AND ORIGINAL CONSIDERATIONS Franz Graf	526
		THE CONCRETE HERITAGE OF LATE MODERNISM IN EAST AND CENTRAL EUROPE Blazej Ciarkowski	528
		MATERIALS OF VANN MOLYVANN: FROM POST-COLONIAL PERSPECTIVE Masaaki Iwamoto	534
		FROM IMITATION TO ACCEPTANCE TO WORLDWIDE PRODUCTION OF SCHOKBETON Wido J. Quist	540
		THE 'ASSIMILATED' CONCRETE; A GREEK VERSION OF A GLOBAL MATERIAL Antigoni Katsakou	546

4-f	TECHNOLOGICAL/MATERIAL HERITAGE AND TECHNOLOGICAL INNOVATION AND ARCHITECTURAL DEVELOPMENT. CRITICAL AND ORIGINAL CONSIDERATIONS Franz Graf	552
	BUILT WITH ELECTRIC LIGHT. SIMILITUDES AND DIFFERENCES BETWEEN FRANCE AND ITALY Giulio Sampaoli	554
	FLEXIBLE EVOLUTIONARY HOUSING IN THE 20TH CENTURY. DESIGN AND CONSTRUCTION OF THE RESIDENTIAL COMPLEX IN GENTER STRASSE, MUNICH, BY OTTO STEIDLE WITH DORIS AND RALPH THUT 1969–1972 Carlo Nozza	560
	PEDAGOGICAL ARCHITECTURE: THREE FACULTIES OF ENGINEERING BY AMORN SRIVONGSE Pinai Sirikiatikul	566
	TRADITION AND CONSTRUCTIVE INNOVATION IN PORTUGUESE ARCHITECTURE: BETWEEN THE “SURVEY OF PORTUGUESE REGIONAL ARCHITECTURE” AND THE APRIL REVOLUTION, 1955–1974 João Manuel Santa Rita	572
Theme 5	REGIONAL TIMBER STRUCTURE	579
5-a	RETURNING TO WOOD, LOOKING IN TRADITION THE ESSENTIAL OF ARCHITECTURE José Manuel Pozo	580
	MODERN TIMBER STRUCTURES IN FINLAND Jaime J. Ferrer Forés	582
	JAPANESE TEMPORARINESS IN NORWEGIAN SYSTEMS ARCHITECTURE Maryia Rusak	588
	THE FOUNDER OF ENGINEERING DESIGN IN JAPANESE WOODEN ARCHITECTURE Ayaka Yao	594
	LAMINATE, INTERLOCK, BOLT — EXPRESSIVE TIMBER ASSEMBLY IN YUSUHARA Ariel Genadt	600
5-b	MODERN ARCHITECTURAL THINKING IN REGIONAL TIMBER BUILDINGS: IN LIGHT OF REGIONAL ARCHITECTURAL INDUSTRY BACKGROUND Manabu Synbori	606
	MODERN WOOD ARCHITECTURE IN SOUTHERN CHILE: 1940–1970 Gonzalo Cerda Brintrup	608
	TERRITORIALITY AND TIMBER: WOODEN MODERNIST HOUSES IN NEW ZEALAND Linda Tyler	614
	ROLAND SCHWEITZER : LEARNING FROM KYOTO? Stéphane Berthier	620
	THE PIONEERING COMPUTATIONAL ARCHITECTURE OF SHOEI YOH: A STUDY OF THE AVANT GARDE TIMBER SPACE FRAME STRUCTURES OF OGUNI, KUMAMOTO Scott Hawken and Masaaki Iwamoto	626
Theme 6	PEDAGOGIES OF DOCOMOMO	633
6-a	SOCIO-CULTURAL LESSONS FOR FUTURE HERITAGE EDUCATION Junko Taguchi	634
	NEW CHALLENGES ON MODERN REUSE EDUCATION: SOCIAL PARTICIPATION AND GENDER Carolina Quiroga and Gonçalo Canto Moniz	636
	TIMELY TEACHING — FOSTERING PUBLIC AND PROFESSIONAL AWARENESS AND ACTION Inbal Ben-Asher Gitler and Yael Allweil	642
	HEAR THE VOICE OF THE SILENT MAJORITY FOR THE CONSERVATION OF MODERN MOVEMENT ARCHITECTURE: A CASE STUDY OF MIYAKONOJO CIVIC HALL Yuko Kawagoe and Shin Muramatsu	648
	GDYNIA — A CITY WHERE EDUCATION LEADS TO MODERNIST HERITAGE PRESERVATION Joanna Leman	654
6-b	TELLING STORIES FOR A NEW AUDIENCE Andrea Canziani	660
	PROFESSIONALS OR THE GENERAL PUBLIC? EMERGING LAY EXPERTS OF HERITAGE MANAGEMENT IN JAPAN Junko Taguchi	662

	WHY CURATE AND EXHIBIT MODERN DESIGN NOW?	668
	Bárbara Coutinho	
	A BRAIN NETWORK PERSPECTIVE TO APPRECIATE MODERNISM	674
	Sung Won Lee	
	HOUSES WITH A NAME. TOWARDS AN INVISIBLE HERITAGE	680
	Joana Couceiro and José Miguel Rodrigues	
Theme 7	DOCUMENTATION AND DISSEMINATION	687
7-a	MEDIATION OF ARCHITECTURE, MEANS AND EFFECTS	688
	Richard Klein	
	DEMOCRATIZING ACCESS TO MODERN ARCHITECTURE IN THE INTERWAR ERA	690
	Ágnes Anna Sebestyén	
	ON ARCHITECTURAL PUBLICATION ACTIVITIES BY MODERNISTS IN PREWAR JAPAN	696
	Masaru Kawashima	
	THE DISSEMINATION OF MODERNISM IN THE AUSTRALIAN BUILDING JOURNALS IN THE 1930s	702
	Carol Hardwick	
	JOURNALS AND THE POPULARIZATION OF SPANISH MODERNITY IN THE 1960s	708
	Pablo Arza Garaloces	
7-b	DIVERSE EVALUATION AND GENERALIZATION OF MODERN MOVEMENT OF ARCHITECTURE	714
	Shinnosuke Tadokoro	
	CULTIVATING A RESILIENT FUTURE FOR MODERNISM IN AUSTRALIA	716
	Hannah Lewi	
	ABANDONED (RE)CREATION: THE SLOVAK SPA EXPERIENCE	722
	Martin Zaiček	
	DOCUMENTING THE DESTRUCTION OF MODERN HERITAGE: SEMANTIC DATA MODELLING	728
	Aleksandar Staničić	
	DEUTSCHES ARCHITEKTURMUSEUM'S "ARCHITEKTUR IM 20. JAHRHUNDERT" EXHIBITION CYCLE. A SYNTHESIS ON MODERN EUROPEAN ARCHITECTURE AT THE EDGE OF THE NEW MILLENNIUM	734
	Ana Neiva	
	FERNANDO TÁVORA AND THE EXPERIENCE OF THE 1960 TOKYO WORLD DESIGN CONFERENCE	740
	Raffaella Maddaluno	
7-c	MEDIA POWER	746
	Carolina Quiroga	
	MODERN RUINS. LIFE AND DECAY AND REBIRTH OF THE HOTEL NACIONAL	748
	Cláudia Costa Cabral	
	POTENTIALS OF VR FOR PRESERVATION AND PRACTICAL USE OF BUILDINGS — THROUGH UTILIZATION ANALYSES OF SOME RESOURCES OF THE IMPERIAL HOTEL DESIGNED BY FLW	754
	Yutaka Mizukami, Akira Hizawa, Koichiro Nakayama, Tsuyoshi Kishigami, Haruka Miyazaki, Kozo Kakita, Yuko Nakano and Takeshi Nakagawa	
	PRINTED PHOTOGRAPHS: BRAZILIAN ARCHITECTURE AS IT SEEMS	760
	Eduardo Augusto Costa	
	ARCHITECTURAL EXHIBITIONS, DISSEMINATION AND CULTURAL TRANSFERS	764
	Marianna Cardoso	
7-d	ON WHAT BASIS CAN WE TALK ABOUT ARCHITECTURE	770
	Jo Toda	
	FROM MODERN ARCHITECTURE TO THE MODERN CITY: LESSONS FROM CINEMA	772
	Isabella Trindade	
	ENHANCING THE PRESENCE AND VISIBILITY OF LANDSCAPES IN DOCOMOMO	778
	Jan Haenraets, Andrew Saniga and Gulnur Cengiz	
	EAST MEETS WEST: JAPAN AND THE IAUS	784
	Thomas Daniell	
	VIEWING ANGLE TO SEE SCALE MODELS — VISUAL MODEL / MOTION MODEL —	790
	Kentaro Okamura	
	Biographies	796

VOLUME 3

Theme 8 | GLOBAL / LOCAL MODERNITIES 813

8-a | WEST AND EAST: MUTUAL INFATUATION 814

Scott Robertson

THE APPROPRIATION OF TRADITIONAL JAPANESE ARCHITECTURE IN THE CREATION OF THE MODERN AUSTRALIAN HOUSE 816
Jennifer Mitchelhill

ANTONIN RAYMOND'S "GLOCAL" MODERN ARCHITECTURE (1921–1976) 822
Helena Čapková

BERNARD RUDOLFSKY AND THE BRAZIL BUILDS EXHIBITION 828
Marcos José Carrilho

MODERNISMS IN ANTIPODES, THEORETICAL CONSIDERATIONS & A CASE STUDY 834
Ruth Verde Zein

8-b | EAST BUILDS WEST & NATIVE REGIONALISM 840

Kaori Hasegawa

JAPANESE METABOLIST ARCHITECT'S WORK IN HAWAII 842
Graham Hart

JAPAN'S TWO ACCOMMODATION FACILITIES: THE RYOKAN AND THE MODERN MOVEMENT HOTEL 848
Hiroshi Tashiro, Toru Ajisaka and Makiko Masudome

KENZO TANGE'S BUSINESS DISTRICT OF NAPLES. PAST AND FUTURE OF A SPECTACULAR MODERNITY 854
Francesca Castanò

ALTERNATIVE AFRICAN MODERNISMS: EXPRESSIVE HIGHVELD VERNACULARS 860
Brendan Hart

8-c | EXPLORATIONS OF THE TRAJECTORIES OF MODERN ARCHITECTURE WITHIN GLOBAL-LOCAL MODERNITIES 864

Sangeeta Bagga Mehta

TRACING TECTONIC WILHELMIENS: DUTCH-SOUTH AFRICAN HERITAGE AND MODERNITY 866
Nicholas Clarke and Marieke Kuipers

PROCESS OF A GLOBAL TRIANGULATION OF CULTURES: HOW ALVAR AALTO'S DESIGN METHODOLOGY CROSSED THE ASIA PACIFIC 872
Silvia Micheli and Marja Sarvimäki

MODERN METHOD FOR LOCAL ALTERNATIVES: A DISAPPEARING EVIDENCE 878
Elena Poma

8-d | THE ROLE OF THE SITE AS A DEFENSE FOR ARCHITECTURE IN THE INEVITABLE GLOBALIZATION 884

José Manuel Pozo

MODERN ARCHITECTURE OF KOSOVO, A REGIONAL BASED "ARCHITECTURAL EPICENTER" 886
Flaka Xërxa Beqiri

VOLCANIC MODERNITY. THE TEN-BEL ENSEMBLES, CANARY ISLANDS 892
Juan Antonio González Pérez

MODERN REGIONALISM: THE PIONEERING WORK OF MINNETTE DE SILVA 898
Rajiv Wanasundera

8-e | LOCAL MODERNITY IN THE MIDDLE EAST 904

George Kunihiro

WHERE LOCAL MODERNITIES MEET: THE CALOUSTE GULBENKIAN FOUNDATION IN IRAQ, 1957–1973 906
Ricardo Costa Agarez

NATION BUILDING NARRATIVES FROM LEBANON AND KUWAIT 912
Roula El-Khoury

ROLE OF GLOBAL MODERNITY ON REGIONAL IRAQI MODERN ARCHITECTURE 918
Ghada Al-Slik and Inaam Al-Bazzaz

LOCAL MODERNISM IN DANGER UNTIL THIS DAY. THE CASE OF THE LEBANESE PAVILION IN THE INTERNATIONAL PERMANENT FAIR OF LEBANON IN TRIPOLI BY OSCAR NIEMEYER 924
Joe Zaatar

8-f		DISCERNING GLOBAL-LOCAL MODERNIZATION PROCESS: MODERNITY, PEDAGOGY, AND IDEOLOGY	930
		Johannes Widodo	
		BUILDINGS THAT EMBODY MEMORY: EARLY ARCHITECTURE ON THE ICU CAMPUS	932
		Yu Kishi	
		THE INTEGRATION OF MODERNISM AND REGIONALISM IN CAMPUS DESIGN OF CHINESE UNIVERSITIES IN THE 1940s–1950s: FROM HUA TUNG UNIVERSITY TO TUNGHAI UNIVERSITY	938
		Gang Feng and Bo Lv	
		A STUDY ON THAILAND’S STANDARDISATION: VOCATIONAL SCHOOLS AND COLLEGES	944
		Waeovichian Abhichartvorapan	
		MATERIALIZING MODERNITY IN RURAL SOCIALIST ALBANIA	950
		Federica Pompejano	
8-g		BEYOND THE DICHOTOMY OF GLOBAL AND LOCAL	956
		Masaaki Iwamoto	
		ERSKINE’S SVAPPAVAARA: FROM MODERN ARCTIC TOWN TO GLOBAL VILLAGE	958
		Andrea Luciani and Ann Maudsley	
		ORIENTALISM, STANDARDIZATION, GLOBAL MODERNITY: ERNST NEUFERT, HEINO ENGEL, AND “THE JAPANESE HOUSE”	964
		Nader Vossoughian	
		DESTINY OF THE MODERN MOVEMENTS IN POSTWAR SOUTHEAST ASIA —RELATION BETWEEN MODERN NATION AND MODERN ARCHITECTURE	968
		Shoichi Ota	
		LOCAL MODERNISM AND UNIVERSAL AESTHETICS	974
		Susanne Bauer and Eliana Sousa Santos	
8-h		LOCAL CONTEXT — THE LANDING OF MODERNISM	980
		Shoichi Ota	
		LOCAL INTERPRETATIONS OF MODERN HOUSING IN POST-REPUBLICAN PERIOD IN İZMİR-TURKEY	982
		Gülner Ballıce, Gizem Güler and Eda Paykoç Özçelik	
		MODERNIST SCHOOL BUILDINGS IN KUWAIT	988
		Zainab Murtadhawi	
		THE MODERN ARCHITECTURE OF STATE EDUCATION: TROPICAL MODERNIST DISCOURSES OF WEST AFRICAN SCHOOL DESIGN (1945–1965)	994
		Kuukuwa Manful	
8-i		WILL GLOBAL/ LOCAL MODERNITIES CREATE A TRULY COSMOPOLITAN BUILT ENVIRONMENT?	1000
		Sumiko Ebara	
		SÃO PAULO’S ARMANDO ALVARES PENTEADO FOUNDATION: ITS ROOTS, RECEPTION AND FUTURE	1002
		Maria Cristina Wolff de Carvalho and Francisco Barros	
		AMERICA’S EXTREME SOUTH MODERNITY: CERRO SOMBRERO’S REDEFINITION	1008
		Boris Cvitanic Díaz	
		EVERYDAY MODERNISM: BUILT ENVIRONMENT AND SOCIETY IN SINGAPORE, 1930s TO 1980s	1014
		Jiat Hwee Chang and Justin Zhuang	
		HONGQIAO SANATORIUM: MODERN MOVEMENT DIASPORA & SINGULAR MODERNITY	1020
		João Delgado and Ana Tostões	
8-j		MODERN WAYS: MODERNISM IN THE SERVICE OF GOVERNMENT AND CAPITAL	1026
		Scott Robertson	
		EVALUATION OF MODERN TURKISH PUBLIC BUILDING ARCHITECTURE: THE CASE OF ANKARA, A YOUNG CAPITAL CITY	1028
		Nilgün Rengin Sazak	
		THE GLOBAL INHERITANCE OF FORLÌ AS PARADIGM OF ITALIAN MODERNITY	1034
		Giulia Favaretto	
		(MEGA)STRUCTURES’ RESILIENCE. ITALIAN MOTORWAY BRIDGE-RESTAURANTS BETWEEN GLOBAL/LOCAL MODERNISM	1040
		Verdiana Peron	
		STUDY ON MODERNISM PHILOSOPHY IN THE SUBURBS OF TOKYO	1046
		Yuta Genda	

8-k		PROCESSES OF REPLICA AND APPROPRIATION Andrea Canziani	1052
		JAPANIFICATION OF LE CORBUSIER'S PROTOTYPE "THE MUSEUM OF UNLIMITED GROWTH" BY JUNZO SAKAKURA — THROUGH THE ANALYSIS OF THE PAVILLON DU JAPON AT THE 1937 PARIS INTERNATIONAL EXPOSITION AND THE MUSEUM OF MODERN ART, KAMAKURA (1951) Yasuhiro Mandai	1054
		TRANSCULTURAL NARRATIVES FROM MODERNISM TO GLOBAL ARCHITECTURE Francesco Casalbordino	1060
		THE NIKKO YOUTH HOSTEL, INTERNATIONAL TOURISM, AND NIKKO'S CULTURAL HERITAGE Daizaburo Yoneyama	1066
Theme 9		METABOLISM RECONSIDERED	1073
9-a		METABOLISM FROM THE PERSPECTIVE OF HUMANISM AND CONTEXTUALISM Kengo Hayashi	1074
		THE METABOLIST IMPACT ON HEALTHCARE BUILDINGS. UNIKLINIKUM, THE UNIVERSITY HOSPITAL OF AACHEN, GERMANY Ana Tostões	1076
		TRANSFORMATION AND THE MOTOMACHI APARTMENTS Casey Mack	1082
		PROTO-METABOLISM — JAPAN AND TORONTO'S 1958 CITY HALL COMPETITION George Thomas Kapelos	1088
9-b		HOW CAN OUR WORLD BE RENEWED? Takayuki Suzuki	1094
		THE POSSIBILITY OF GOVERNMENT "CULTURAL PROPERTY REIT" FOR THE UTILIZATION OF HISTORICAL BUILDINGS Kenshiro Miyake	1096
		LEARNING FROM METABOLISM: TOWARD METABOLIC CONSERVATION Kenji Watanabe	1102
		RE-READING METABOLISM THROUGH THE REUSE PROJECTS OF ITS LEGACY Josephine Buzzzone	1108
		BESIDE MEGASTRUCTURES IN SEOUL. THE ECOLOGY OF THE SURROUNDINGS Dario Pedrabissi	1114
9-c		LEARNINGS FROM BEFORE AND AFTER METABOLISM Kengo Hayashi	1120
		IDEALISM AND REALISM: OKA RYUICHI'S "MULTISTORY CITY CONCEPT" Yusuke Tsunematsu	1122
		DAIKANYAMA HILLSIDE TERRACE AS CULTURAL LANDSCAPE — ARCHITECTURAL AND CULTURAL LINKAGE DEPLOYED IN THE CITY — Yuya Tomisaka, Yuusuke Ohno and Kaori Hasegawa	1128
Theme 10		DESIGNING DAILY LIFE	1135
10-a		DESIGNING MODERN DAILY LIFE IN POST WWII: EXPECTATIONS, CHALLENGES AND CONFLICTS. THE EXAMPLE OF JAPAN, TAIWAN AND COLOMBIA Bárbara Coutinho	1136
		THE GOOD DESIGN MOVEMENT BY THE JDC IN THE 1950s Maiko Nagamine	1138
		CULTURAL RESILIENCE IN THE MODERN JAPANESE INDUSTRIAL DESIGN AND HOUSING Izumi Kuroishi	1144
		'GOOD DESIGN' AS A PEDAGOGY OF MODERN LIVING IN COLOMBIA Ingrid Quintana-Guerrero	1150
		THE BIRTH OF THE FIRST MODERN SUBURBAN RESIDENTIAL COMMUNITY, THE "NEW GARDEN CITY VILLAGE" IN TAIWAN: A CASE STUDY ON THE ARCHITECTURAL PRACTICE OF ARCHITECT XIU, ZELAN Pao-Ning Yin	1156

10-b	LEARNING FROM THE MODERN INTERIOR DESIGNS AND LIFESTYLES Izumi Kuroishi	1162
	FURNITURE PARLANTE: BO BARDI, RODRIGUES, CHAIR TYPOLOGIES AND CULTURAL STEREOTYPES Marta Peixoto and Carlos Eduardo Comas	1164
	THE COUCH AND THE TRANSFORMATION OF THE MODERN INTERIOR Kostas Tsiambaos	1170
	STANDARDS AND SYSTEMS: OLIVETTI SYNTHESIS 45 OFFICE FURNITURE AnnMarie Brennan	1176
	Biographies	1182

VOLUME 4

Theme 11	LE CORBUSIER AND THE QUESTION OF CULTURAL HERITAGE	1199
11-a	THE INSCRIPTION OF LE CORBUSIER'S WORK ON THE WORLD HERITAGE LIST AND THE RECOGNITION OF HIS WORLDWIDE INFLUENCE Bénédicte Gandini	1200
	HOW TANGE WAS INFLUENCED BY LE CORBUSIER AND DEVELOPED HIS THEORY Mariko Fujioka	1202
	THE INFLUENCE OF LE CORBUSIER IN THE FAR EAST UNDER WWII Akira Suzuki	1208
	PERCEPTION AND RECEPTION OF LE CORBUSIER IN CHINA Yanfang Niu and Lu Yong Yi	1214
	FRAGILE ICON: UNDERSTANDING AND PRESERVING LE CORBUSIER'S CABANON Eve Roy	1220
11-b	LE CORBUSIER WORK'S, HISTORY AND RESTORATION Richard Klein	1226
	LA PREMIÈRE RUE ASSOCIATION'S ACTIONS: AN INTEGRAL PART OF UNITÉ D'HABITATION'S HISTORY IN BRIEY-EN-FORÊT Caroline Bauer	1228
	RESTORATION AND MODERNISATION OF THE SALVATION ARMY'S BUILDING "LA CITÉ DE REFUGE", 1933 François Chatillon	1234
	PANS DE VERRE ONDULATOIRES. GENESIS AND CONSERVATION STRATEGIES FOR A KEY-ELEMENT OF LE CORBUSIER'S POSTWAR ARCHITECTURE Roberta Grignolo	1240
	FROM ICONIC BUILDING TO ICONIC CONSTRUCTION? REFLECTIONS ON FILM MATERIAL OF THE VILLA SAVOYE Veronique Boone	1246
11-c	MODALITY OF MATERIAL CHANGE FOR RESPECTING THE CULTURAL SIGNIFICANCE OF LE CORBUSIER'S WORKS Yoshiyuki Yamana	1252
	LE CORBUSIER'S STUDIO APARTMENT. HOW TO TRANSMIT THE CULTURAL VALUES OF AN ARCHITECTURAL PALIMPSEST? Franz Graf and Giulia Marino	1254
	LE CORBUSIER'S CHANDIGARH — THE CITY AS AN AGENT OF CULTURAL TRANSFORMATION Deepika Gandhi	1260
	THE CITÉ FRUGÈS IN PESSAC: TRANSFORMATIONS OF A CULTURAL HERITAGE Paolo Faccio, Paola Scaramuzza and Bénédicte Gandini	1266
	AN INDUSTRIALIZATION CONCEPT OF LE CORBUSIER IN COLLABORATION WITH JEAN PROUVÉ Ryoma Kato and Kaori Hasegawa	1272
11-d	LE CORBUSIER, AN ARCHITECT OF UNIVERSALITY, OR ENTRE-DEUX? Lu Yong Yi	1278
	HISTORY AS A MISSION. THE CONCEPT OF TIME IN LE CORBUSIER'S NATIONAL MUSEUM OF WESTERN ART Robert Maximilian Woitschützke	1280

	CHANGING IMAGES IN LE CORBUSIER'S LATER YEARS: FROM REALIZATION OF A SINGLE AND UNIVERSAL IDEAL TOWARD COEXISTENCE OF MULTIPLE VISIONS	1284
	Michio Kato	
	PROMOTING BRUTALISM IN AUSTRALIA VIA JAPANESE BETON-BRUT, 1960–1968	1290
	Glenn Harper	
	CHARLES-EDUARD JEANNERET, LE CORBUSIER AND THE “ORIENT”	1296
	Miyuki Aoki Girardelli	
Theme 12	OTHERS	1301
12-a	ARCHITECTS; COME, BEHOLD, EARNEST EFFORTS OF BELOVED PROFESSIONALISM!	1302
	Shin Muramatsu	
	TWO EFFICIENCIES OF STRUCTURE; MATERIAL ENERGY AND CO₂ EMISSION	1304
	Norihide Imagawa	
	MODERN LANDSCAPE ARCHITECTURE IN ISRAEL BETWEEN THE 1950s AND THE 1970s: “A GOWN OF CONCRETE AND CEMENT”	1310
	Tal Alon-Mozes	
	SLOVENIAN STRUCTURALISM: A POST-PANDEMIC PERSPECTIVE	1316
	Nataša Koselj	
	ASSIGNING HERITAGE VALUE: PRIVATE SINGLE-FAMILY HOMES IN EARLY POST-OIL KUWAIT, 1954–1969	1322
	Noora AlMusallam	
12-b	CULTURAL TRANSFORMATION OF CONSERVATION IN MODERN MOVEMENT IN ARCHITECTURE	1328
	Kenji Watanabe	
	THE HAPPIER USE OF LANGUAGE IN THE PORTUGUESE 1950s	1330
	Lavinia Ann Minciaccchi	
	WHAT ABOUT INDUSTRIAL BUILDINGS? THE STATUS OF THEIR CONSERVATION, REBUILDING OR DEMOLITION	1336
	Jørgen Burchardt	
	CITÉ MIROIR: REFLECTIONS ON THE EXPERIENCE OF DISABLED PERSONS	1342
	Negin Eisazadeh, Ann Heylighen and Claudine Houbart	
	MAKING A CASE FOR TROPICAL MODERNISM AS BUILT HERITAGE IN UGANDA	1348
	Joseph G. K. Kasimbi	
12-c	INHERITANCE OF LIVING MODERN ARCHITECTURAL HERITAGE	1354
	Kentaro Okamura	
	HORTA 2020: AUGMENTING THE AUTO-ARCHITECTURAL AWARENESS @BOZAR, BRUSSELS	1356
	Francis Carpentier	
	MODERN LEGACY AND HISTORICAL CONTINUITY AT WORLD HERITAGE SITE: THE ARCHITECTURE OF GIANCARLO DE CARLO IN URBINO	1362
	Maria Paola Borgarino and Davide Del Curto	
	MISSÕES MUSEUM RECONSTRUCTION: RESILIENCE OR FORGERY?	1366
	Ana Carolina Santos Pellegrini	
	THE POSSIBILITY OF EFFECTIVELY INHERITING THE ASSETS OF THE TETENS VILLA (A MODERN MODERNIST WOODEN BUILDING) DESIGNED BY KUNIO MAEKAWA, BUILT IN ATAMI CITY, SHIZUOKA PREFECTURE IN THE EARLY SHOWA PERIOD (1942), BY USING IT AS A PRIVATE RESIDENCE, AND ITS EFFECTIVE USE IN MODERN TIMES	1372
	Yukitoshi Sasaki	
12-d	CULTURAL DIVERSITY OF MOMO IN ARCHITECTURE	1378
	Kenji Watanabe	
	MODERNISM FOR THE MASSES	1380
	Liz Waytkus	
	TECHNOLOGY, MATERIALS AND THE FUTURE OF KENZO TANGE'S FIERA DISTRICT IN BOLOGNA	1386
	Marco Pretelli and Ines Tolic	
	SIEGFRIED GIEDION'S THOUGHTS ON SPACE IN MODERN ARCHITECTURE: ANALYSIS OF DISCOURSES AND ILLUSTRATIONS ON VAULTS	1392
	Shintaro Karamoto	
	A FILMIC MONTAGE: REVISITING JEANNERET'S VOYAGE D'ORIENT	1398
	João Miguel Couto Duarte and Maria João Moreira Soares	

12-e	VARIOUS MODERN MOVEMENTS: ARCHITECTURE AND SOCIETY Kaori Hasegawa	1404
	MODERN SLAUGHTERHOUSES: BUILDINGS OF CONTROL AND REFORM Yi-Wen Wang	1406
	ASSEMBLING SONY'S PRESENCE IN GINZA Christian Dimmer and Erez Golani Solomon	1412
	READING PLACE: LINEAGE AND MODERNITY IN SAN FRANCISCO BAY REGION Sandhya Sood	1418
	SATELLITE ROOMS: FRANCESC MITJANS' MODERN HOUSING RESILIENCE IN BARCELONA Magda Mària Serrano, Isabela Rentería Cano and Claudia Rueda Velázquez	1424
12-f	MODERN HOUSES AS A LIVING HERITAGE Sumiko Ebara	1430
	LEARNING FROM 'EVA'. A HISTORY OF HOMES THAT WERE ADVERTISING GIFTS João Almeida e Silva	1432
	CAN MODERN ARCHITECTURE BE CONTEMPORARY? José Gonçalves	1438
	FROM WITHIN: UNCOVERING CULTURAL DOMESTICITY Francesca Romana Forlini	1444
	TAIWANESE INDIGENOUS PEOPLES' POST-HAZARD RESETTLEMENT HOUSING AND THEIR DIASPORA FROM TRADITIONAL LANDSCAPE Hsín-Yin Huang	1450
12-g	HEALTH AND WELL-BEING THROUGH RESILIENCY George Kunihiro	1456
	RURAL AND URBAN HEALING ENVIRONMENTS: ARCHITECTURE, RESILIENCE AND REUSE Marina Epstein-Pliouchtch and Talia Abramovich	1458
	THE MODERN URBAN PROJECT AND ITS ENVIRONMENTAL VALUE. VILLA LOS PRESIDENTES, ÑUÑO A, SANTIAGO, CHILE Rodrigo Gertosio Swanston	1464
	MODERN URBANISM AND THE HEALTHY CITY IN TIMES OF PANDEMIC: THE FIFTIETH ANNIVERSARY OF LUCIO COSTA'S PLANO PILOTO FOR BARRA DA TIJUCA IN RIO DE JANEIRO Carlos Eduardo Nunes-Ferreira	1470
	HISTORY AND DESTINY OF ITALIAN SANATORIA. THE HERITAGE IN ABRUZZO Alessandra Tosone	1476
Theme 13	HOME AND SOCIAL CHANGE	1483
13	EVERYDAY LIFE AND DOMESTICITY, PAST AND PRESENT CHALLENGES Ruth Verde Zein	1484
	THE GREATEST NUMBER UNDER LOCKDOWN Zara Ferreira and Ana Tostões	1486
	CONSTRUCTED FICTIONS AND EVERYDAY REALITIES IN RALPH ERSKINE'S BYKER David Franco	1492
	TWO HOUSES AND TWO WOMEN: CHALLENGING DOMESTICITY IN MODERN JAPAN Noemí Gómez Lobo	1498
Theme 14	ENVIRONMENTAL AWARENESS	1505
14	PRODUCING KNOWLEDGE THROUGH TECHNOLOGICAL RESEARCH ON PROJECTS Rui Miguel Rebelo Leão	1506
	PASSIVE DESIGN METHODS IN MODERN ANGOLA Margarida Quintã	1508
	LELÉ: SUSTAINABILITY THOUGHT INDUSTRY Ceila Cardoso, José Minho and Pablo Cal	1514
	ADAPTIVE THERMAL COMFORT MODEL FOR THE AIR-CONDITIONING OF MODERN MOVEMENT? Seija Linnanmäki	1520
	A LESSON OF SUSTAINABILITY BY THE TROPICAL MODERNISM IN KINSHASA (LEOPOLDVILLE) Manlio Michieletto and Alexis Tshiunza	1526

	MODERN AND SUSTAINABLE: ENVIRONMENTAL ISSUES AND UPGRADING IN NEAPOLITAN SOCIAL HOUSING Paola Ascione	1532
Theme 15	HEALTHCARE ARCHITECTURE	1539
15-a	RESILIENT HEALING SPACES Daniela Arnaut	1540
	SEASIDE HOLIDAY CAMPS IN THE ITALIAN RATIONALISM: ARCHITECTURE AND HEALTHCARE THROUGH PRESERVATION AND ADAPTIVE-REUSE Giorgio Danesi	1542
	THE MODERNITY OF CHIBA MEDICAL COLLEGE HOSPITAL BUILT IN 1936 Sumiko Ebara	1548
	THE FORMER GORIZIA SANATORIUM (1933): A PROTOTYPE OF FASCIST HEALTHCARE ARCHITECTURE. REFLECTIONS ABOUT ITS RESTORATION AND REUSE. Alessandra Biasi and Marco Acri	1554
15-b	RESILIENT HEALING SPACES Carolina Quiroga	1560
	SANATORIUMS AND PREVENTORIUMS IN BELGIUM: A FORGOTTEN HERITAGE REDISCOVERED Jean-Marc Basyn	1562
	MODERN HERITAGE AS TODAY'S SOLUTION — SAI YING PUN POLYCLINIC AND THE COMBAT AGAINST TUBERCULOSIS IN 1960S HONG KONG Chun Wai Charles Lai	1568
	ARID ZONES, HEALTH AND TYPOLOGIES: A CHILEAN LAB OF HOSPITALS Claudio Galeno-Ibaceta	1574
	CONTINUITY OR DISCONTINUITY? U.S. AID AND RURAL HEALTH CONSTRUCTION PROJECTS IN POSTWAR TAIWAN (1951–1965) Yun-Yun Yeh	1580
Theme 16	WELLBEING AND URBANISM	1587
16	WELLEBEING IS A DREAM OF NATION Takayuki Suzuki	1588
	URBAN OASIS: BATHING FACILITIES ALONG MANZANARES RIVER IN MADRID, SPAIN Ana Esteban-Maluenda and Marta García Carbonero	1590
	THE PLAYSCAPES OF A CHILD'S IMAGINATION Klára Brůhová	1596
	PUBLIC HEALTH IN CIVIL ARCHITECTURE PLANNED IN VIETNAM DURING THE FRENCH COLONIAL PERIOD: FOCUSED ON THE PROJECT OF COVERED MARKET AND ELEMENTARY SCHOOL Genta Kokubu and Yoshiyuki Yamana	1602
	WHEN CHANGE EMERGES — THE OLYMPIC PARK OF 1972 IN MUNICH Wiepke van Aaken	1608
	Biographies	1614

POSTER SESSION

URBAN LANDSCAPE OF MARUNOUCHI IN THE MIDDLE OF THE 20TH CENTURY

Yuto Fujise, Toru Ajsaka and Makiko Masudome

SOCIAL HOUSING IN LATE COLONIAL MOZAMBIQUE

Patricia Noormahomed

ERODING EDGES OF HOUSING ESTATES — 1960s RETAIL PAVILIONS AT DANGER

Grazyna Hryniewicz-Lamber

“ENGINEERED DWELLING” AND ITS IMPACT ON HOUSING DEVELOPMENTS

Hyun-Tae Jung

A REVIEW OF WOODEN COMPOSITE SYSTEM OF J. PROUVE’S F.8x8.BCC HOUSE

Mitsuru Hirai, Sayu Yamaguchi, Ryohei Kumagai and Masaki Ogawa

CONCRETE SHELLS IN THE MODERN ARCHITECTURE OF GUATEMALA

Victor Daniel Pozuelos Polanco

GUIDE TO SPECIFIC TERMINOLOGY: DOCUMENTING PORTUGUESE MODERNITY

Gisela Lameira and Luciana Rocha

MODERN PRACTICES IN HOUSING UNDER REACTIONARY RULING: POLICIES AND POLITICS IN THE PORTUGUESE DICTATORSHIP (1933–1974)

Sérgio Dias Silva

ARCHITECTURE AS THE HUMANISTIC BUDDHISM PRACTICE

Tshinn-Hun Liu and Kwang-Tyng Wu

BRUTAL ACT OF TIME: BRUTALISM IN JAPAN FROM WITHIN AND WITHOUT

Hiroshi Emoto

A STUDY IN THE ORIGIN OF THE NAKAGIN CAPSULE TOWER: ONE OF THE EARLIEST ‘ONE-ROOM MANSIONS’ IN JAPAN

Yuta Osaki

LIVING IN COLOUR. THE MODERN INTERIOR THROUGH NEW METHODOLOGIES

Zsuzsanna Böröcz

THE ACHIEVEMENTS OF THE ARCHITECTS MAMORU YAMADA, WHO INTRODUCED “INTERNATIONAL STYLE” TO JAPAN

Katsuhiro Daiguji

INHERITABLE RESILIENCE TYPE OF THE CITY:

RE-THINKING SHI-JIE (MACHI) NEIGHBOURHOOD UNIT FOR KAOHSIUNG CITY OF TOMORROW

Yu-Hsiang Hung

RESEARCH ON THE RELATIONSHIP BETWEEN THE PLAN OF CONSTRUCTING THE JAPAN-THAILAND CULTURE CENTER AND LUMPINI PARK

Yuta Genda

CHANGING IMAGES IN LE CORBUSIER’S LATER YEARS: FROM REALIZATION OF THE SINGLE AND UNIVERSAL IDEAL TOWARD THE COEXISTENCE OF MULTIPLE VISIONS

Michio Kato

DOCUMENTING THE FACTORY-TOWN OF TORVISCOSA (NE ITALY): 1938–2020

Maria Vittoria Santi and Anna Frangipane

PARALLEL NARRATIVES OF MODERNISM: INDIA & THE WORLD

Chaitra Sharad

READING THE SÄYNÄTSALO TOWN HALL BY ALVAR AALTO

Jonas Malmberg

INNOVATION AND TRADITION THROUGH ‘MINIMUM SPACE’: CAPSULE AND TEA HOUSE BY KISHO KUROKAWA

Nahoko Wada

PLASTICITY AND CHARLES-EDOUARD JEANNERET’S RHETORICAL DOMAIN: DIALOGUE AND POLEMICS 1907–1925

J. Kirk Irwin

LEARNING AND DISCOVERY OF THE CITY ATTRACTION: NEW TYPES OF ARCHITECTURAL EDUCATION

Access Point: Architecture-Tokyo

8

GLOBAL /
LOCAL MODERNITIES

Session 8-a

WEST AND EAST: MUTUAL INFATUATION

Scott Robertson

Director of a small architecture practice in Sydney, Australia, President of Docomomo Australia

Those of us educated with a Eurocentric view of history are aware of the exploitation of the continents outside Europe by European traders and then their colonisation by European powers. Our learning of history was conditioned by one viewpoint and this extended to the history of architecture taught in the European diaspora universities. The general architectural textbooks, even after World War 2, concentrated on the development of Western architecture and appended Asian architecture as a minor component. The 1946 edition of Sir Bannister Fletcher's, *History of Architecture on the Comparative Method*, had 870 pages on Ancient Architecture (Middle East and Europe) and the later architecture of Europe which were labelled the "Historical Styles" and then only 50 pages on the architecture of Asia (labelled the "Non-Historical Styles"). The 1967 edition had changed the labels to a slightly more politically-correct, "Ancient Architecture and the Western Succession" and "Architecture in the East" but the emphasis remained the same with 1170 pages for the former and only 80 pages for the latter. One has to remember that the first edition of Bannister Fletcher's book appeared in 1896 when the British Empire spanned the globe and the book remained a relic of that time period even with the demise of the empire and the rise of independent nation states through the former empire.

Despite the blinkered, prejudiced views of Europeans like Bannister Fletcher, the West was immediately fascinated by the exotic nature of the Other and Western decorative arts were inspired by the arts and cultures of Asia and the Pacific from first contact onwards.

Of course there were Western books by experts that investigated the architecture and culture of Asia, increasing in number in the interwar period, and the spread of Buddhism in all its forms throughout the West was a lasting layer of Asia within the West. Books on Japanese architecture and the ceremonies around tea were especially popular, and

there was a great dissemination of Asian plant material throughout Europe and the European diaspora from the first European contacts with other lands.

The "modernising" impact of European culture had an effect on the cultures of Asia, the Meiji Restoration in Japan being but one example. Equally, the culture of a modern Japan reciprocated by exerting its own influence on the culture of the West and drawing a generation of post-war architects into a deep infatuation with the culture of minimalism and beauty.

The papers in this session examine the effect of modern cultures upon one another, not only East and West but also North and South.



THE APPROPRIATION OF TRADITIONAL JAPANESE ARCHITECTURE IN THE CREATION OF THE MODERN AUSTRALIAN HOUSE

Jennifer Mitchelhill

University of Melbourne; Parkville 3052, Australia; jjmitchelhill@gmail.com

ABSTRACT.

In 1959 the *Australian Women's Weekly*, a popular fashion and house magazine, declared that a 'Modernistic' style showed 'a strong Japanese influence.' On the face of it, this 'Japanese influence' appeared to be a transient trend applying to decorative objects and home furnishings. However, the appropriation of Japanese design and architectural ideas in Australia in the mid-twentieth century went deeper. Australian architects explored Japanese ideas of planning, spatial arrangement, construction, materials and decoration in their quest to create a modern Australian home. Reasons for the use of Japanese ideas varied, as did the way in which architects learnt about Japanese design. Accordingly, the results ranged from the direct adoption of architectural elements such as *shoji* screens to the considered employment of transitional spaces.

This paper will explore the appropriation of traditional Japanese architecture in the creation of the modern Australian house. The work of architects McGlashan and Everist, Neville Gruzman, Peter Muller, John James, Robin Boyd and Richard Le Plastrier will be examined to show how Australian designers learnt about and used Japanese design. This paper will reveal that in the absence of suitable local culture and traditions, the appropriation of ideas from a seemingly vastly different culture become viable and valid when viewed from a regional perspective.

1. INTRODUCTION

Prior to the mid twentieth century, Australian houses followed British and American models: Georgian mansions, elaborate Italianate villas, narrow terrace houses and Californian Bungalows. With their rigid floor plans, boxed in rooms and small windows, these houses were found lacking by the mid twentieth century. Australians wanted houses that reflected a relaxed lifestyle in a temperate climate.

By the end of the Second World War there was a huge demand for housing.¹ Scarce materials and funds resulted in restrictions on house sizes. Innovative planning was required to maximise space and respond to the changing needs of the family. Fast, efficient methods of construction were needed to house the population quickly. Japanese architecture held solutions to the challenges faced by the mid-century Australian house in terms of planning, construction and space utilization.²

Popular American and Australian house magazines began to promote Japanese culture and design in the mid 1950s.³ An interest in Japan was instigated by the erection of a traditional Japanese teahouse in the garden of New York's Museum of Modern Art in 1954. Supported by the Rockefeller Foundation, it was organized by Philip Johnson and Arthur Drexler, who along with Walter Gropius saw Japanese architecture as a valid source for modernism.

This interest in Japanese architecture continued into the 1960s with the publication of a number of influential books on Japanese design.⁴ The Australian government was encouraging relations with Japan for trade and political purposes.⁵ Japan was in favour in the mid twentieth century and Australian designers began to explore how Japanese design could be used in the creation of the modern Australian house.

Interior furnishings were the most visible use of Japanese design. Sea-grass wallpaper, paper lamps, *shoji* screens, bamboo stick blinds, low furniture and floor cushions often adorned houses featured in popular house magazines. Articles on *Ikebana*, *sukiyaki* and how to create a Japanese garden proliferated.⁶ Headlines promised 'better ways of living' through 'Eastern' or 'Oriental' style, although they really meant 'Japanese' style, such terms appeased negative feelings lingering from the recent hostilities with Japan.⁷

A Japanese aesthetic of dark exposed framework with white infill was employed by a number of architects: The ceiling of white Cane-ite sheet bordered by narrow wooden battens of Sydney Ancher's Neutral Bay house, 1957, recalls *tatami* mat patterns. The rooms of Robin Boyd's Black Dolphin Inn, Merimbula, 1960 were white painted brick with exposed dark structural timbers. Project builders such as Petit and Sevvit, in Sydney, and Merchant Builders, Melbourne, commonly used dark exposed beams with rough white-washed bricks. Glenvill Homes' project house, the 'Oriental', had a screen at the entry made up of six translucent, dark framed rectangular panels.

A number of architects looked deeper than décor and aesthetics and adopted Japanese ideas in a considered way. Some travelled to Japan, others learnt from books.

Sydney architect Neville Gruzman (1925–2005) was one of the first architects to go to Japan after stumbling across the book *Architectural Beauty in Japan* in a Sydney bookshop in 1955.⁸ He recalled:

[it] opened my eyes to the existence of a whole world of architecture that had never been brought to my attention, and about which very few people in Australia knew, but what I found extremely interesting was the way in which the Japanese were building, and handling space and modular con-



Fig. 1. Neville Gruzman, Goodman House, Sydney, Australia, 1956. Image by Max Dupain, SLNSW ON 558/Box 21/nos. 1004–1011. © Tasker Ryrie.

struction...I felt an enormous urge to go and see it.⁹

Gruzman spent four and a half months studying Japanese buildings and gardens in 1955. He was impressed with the privacy of the Japanese garden, the use of natural materials and the high level of craftsmanship.¹⁰ On his return he wrote a persuasive article: "We Can Learn From Japanese Building" for the *Sydney Morning Herald*,¹¹ and began to incorporate Japanese themes in his work.

According to Gruzman, the curved roof of the Goodman House (Fig. 1), Middle Cove, 1956 was inspired by Kyoto temples and the "subtle way Japanese designers guide the eye of the users to the garden."¹²

The Benjamin House, Longueville, 1959 is planned as a series of interior and exterior spaces. A Japanese style rock garden screens the entrance from the carport; living zones are arranged around an internal, glazed courtyard, and bedrooms and living areas open to walled gardens. The entrance is partly divided from the living area, creating a transitional

space where guests are greeted before entering the house, similar to a *genkan* in a traditional Japanese house. The dark exposed timber structure and intricate timber wall recall the craftsmanship of *sukiya*-style architecture.¹³

Sydney architect Peter Muller (1927–) first visited Japan in 1959.¹⁴ Muller used Japanese elements literally such as *shoji* screens, straw matting, *engawa* and pebble gardens in his Paddington office, 1961.¹⁵ An admirer of Frank Lloyd Wright, Muller blended Japanese ideas with an 'organic Wrightian' style of architecture. The Hamilton House, Sydney 1962 is planned around a central living, dining area with all rooms opening out to terraces to embrace the landscape (Fig. 2). The huge roofs recall those of Japanese *minka* with their upturned roof ridge, exposed eaves and rafter ends. A *hisashi* or secondary roof protects the entrance. A band of river pebbles drains water away from the house — a suitable solution to Australian conditions eliminating a potential fire hazard from a build-up of leaf matter in the gutter.

Unlike Gruzman and Muller, Sydney architect John



Fig. 2. Peter Muller, Hamilton House, Sydney, Australia, 1962. © Peter Muller.

James (1931–) did not travel to Japan to study and suggests his buildings had a Japanese sensibility before he discovered Norman Carver's book, *Form and Space in Japanese Architecture* in 1959.¹⁶ He pursued his interest through a subscription to *Japan Architect* in the 1960s.¹⁷ James was impressed by the principles of Japanese construction — in particular 'the interpenetration of spaces and structure and the way beams continued past their supports'. He 'likes spaces to flow and move' and employed *shoji* screens to divide and open space at the Wildman House, Wahroonga, 1960.¹⁸

James aimed to integrate architecture with the Australian landscape. His house at Mosman, 1966 is built around the natural features of the site, with the living room extending onto a tree-supported platform. James describes the integration of the building with its site as 'the quintessence of Australian ideas with Japanese concepts'.¹⁹

Like James, Melbourne architect Robin Boyd (1919–1971) appeared to use Japanese ideas well before he went to Japan in 1961. Goad suggests that a Japanese aesthetic was "part of Boyd's domestic vocabulary from the late 1950s until his death in 1971."²⁰ It was not just the Japanese aesthetic that Boyd used, he also maximised space in a uniquely Japanese way. At Boyd's own house in South Yarra, 1958, the formal living room converts to a master bedroom at night. Using a room for multiple purposes is typical of traditional Japanese architecture but not an idea that was commonly adopted in Australia.

Boyd's library suggests he learnt about Japanese architecture from books and journals.²¹ His interest in Japan would have been fuelled by Walter Gropius whom he met in 1954 when Gropius was on his way to Japan.²² Gropius' enthusiasm for Japanese architecture would have left an im-

pression on Boyd then, and for the many years they remained in contact.²³ Gropius' recommendation of Boyd to George Braziller to write a book on Kenzo Tange, instigated the first of Boyd's three trips to Japan in the 1960s.²⁴

One of the most significant changes to the Australian house in the mid twentieth century was the acknowledgement of the landscape. American and European modernism typically achieved this with extensive glazing and large openings to terraces, decks or gardens.²⁵ Japanese architecture also provided a number of subtle ways to bring the exterior inside: by leading the eye to a distant view — a popular device used in Japanese tea gardens to make them appear larger; by including internal courtyards; and by using separate pavilions connected by covered corridors.

Melbourne architects David McGlashan (1927–1998) and Neil Everist (1929–2016) used layered and staggered platforms with low balustrading and decking to draw the eye out to the view at the Carnegie House, Sorrento, 1967 (Fig. 3). Sydney architect Richard Leplastrier (1939–) carefully sites buildings to take advantage of scenery and framed views through large openings, as at the Uren House, Balmain, 1988. Leplastrier spent two and a half years in Japan studying with Professor Tomoya Masuda in Kyoto then working for Kenzo Tange in Tokyo in the late 1960s, Leplastrier describes his experience of Japan as 'shattering', elaborating: '[I] have never been able to get out from underneath it'.²⁶

Leplastrier, McGlashan and Everist and Robin Boyd used separate pavilions for living and sleeping, requiring occupants to go outside to access different zones.²⁷ Boyd's own house in South Yarra, 1958 had a main pavilion for living and sleeping and a smaller pavilion for children at the rear of the property. These architects employed platforms, open walk-



Fig. 3. McGlashan and Everist, Carnegie House, Sorrento, Australia, 1967. Image by Wolfgang Sievers, 1967. © McGlashan Everist Pty Ltd Architects.

ways and courtyards to create a sequential journey when approaching and moving through the house, much like the meditative *roji* or path to a Japanese tea-house.

2. CONCLUSION

Japanese design enjoyed huge popularity in the mid twentieth century in Australia with furnishings, gardens and cultural activities making their way into the Australian home. Much of this interest was superficial and out of fashion by the 1970s.

It was ideas from traditional Japanese architecture that had a lasting impact on the Australian house. A post and beam construction enabled the house to be opened up to embrace the outdoors. Planning to a module facilitated the design and construction process allowing logical modifications when needs changed. Standard sized components expedited construction and the resulting rationality of the building fit with the principles of modernism. Ideas to maximise space through semi-permanent divisions that could

be opened and closed, transitional spaces such as dedicated entranceways and breezeways, and the intentional framing of views, gave architects a means to create houses as places to be experienced and enjoyed.

How architects learnt about Japanese architecture did not appear to affect the interpretation and employment of these ideas — some travelling to Japan to study buildings directly, others learning from publications.

Along with looking to traditional Japanese architecture for ideas in the mid twentieth century, Australian architects sought ideas in the work of European and American designers. Interestingly, a number of these such as Frank Lloyd Wright, Richard Neutra, Walter Gropius and Alvar Aalto used ideas from traditional Japanese architecture in the development of their own work suggesting there was both a direct and an indirect impact of Japanese design on the Australian house in the mid twentieth century.²⁸ It was in looking to sources outside of Australia, that architects were able to shape the Australian house to suit local conditions, in a way that earlier models were unable to do.

NOTES

- 1 300,000 homes were needed at the end of the war in 1945.
- 2 Japanese architecture first appeared in Australia in 1887 when a prefabricated house was shipped to Queensland by Judge G. W. Paul (1838–1909). After visiting Japan, Paul was convinced Japanese houses would be perfect for the hot north Australian climate. In 1930 Professor Arthur Sadler (1882–1970) built an authentic Japanese teahouse in his garden at Warrawee, Sydney. Sadler's teahouse featured in an article he wrote on the Japanese Tea Ceremony in *The Home* in 1932, the year before his book *Cha-no-yu: The Japanese Tea Ceremony* was published, Tokyo, Tuttle 1933. During the Allied Occupation of Japan (1945 to 1952) sixteen and a half thousand Australian soldiers lived in Japan, many with their wives and children. With a surplus of free time Australian families toured the country and joined clubs to master crafts such as *bonsai*, *origami* and *ikebana* as well as martial arts.
- 3 'The Ideal Home', *Architecture and Arts and The Modern Home*, Melbourne, March 1955, 27–33; 'Spacious Living Oriental Style', *Australian Home Beautiful*, Melbourne, June 1955, 15.
- 4 Jiro Harada, *The Lesson of Japanese Architecture*, Boston, 1954, (originally published London, Studio, 1936); Tetsuro Yoshida, *The Japanese House and Garden*, London, 1954; Bunji Kobayashi, *Japanese Architecture*, Japan, 1957; Yukio Futagawa, *The roots of Japanese architecture*, New York, 1963; Norman F. Carver, *Form and Space in Japanese Architecture*, Tokyo, 1956; Edward Morse, *Japanese Homes and their surroundings*, Vermont, 1961 (originally published 1886); Arthur Sadler, *A short history of Japanese Architecture*, Tokyo, 1962.
- 5 Following WWII Australia re-evaluated its place in the Pacific region turning from Britain and Europe to America and Asia as its new strategic and trading partners. In 1954 Prime Minister Robert Menzies argued that Japan should be considered as a trading nation and a bastion against Communism (see Werner Levi, *Australia's outlook on Asia*, Sydney, Angus & Robertson, 1958, 142).
- 6 Margaret O'Brien, 'How to arrange flowers', *Australian Women's Weekly*, Sydney, 22 July 1959, 29–35; 'An Introduction to Ikebana', Melbourne, *Australian Home Beautiful*, March 1964, 30–35; Norman J Sparnon, 'Ikebana: The art of Flower Arrangement in Japan', *Architecture and Arts*, Melbourne, May 1963, 31–35; 'An Introduction to Japanese Gardens', *Architectural Review*, Sydney, February 1956.; Margaret Muir, 'The Flowers that bloom in the Spring', *Australian Home Beautiful*, Melbourne, September 1958, 30–32, 128–131; Margaret David, 'The Gardens of Japan', *Australian Home Beautiful*, Melbourne, October 1960, 70–79; Olive Mellor, 'Garden planning — the Japanese way', *Australian Home Beautiful*, Melbourne, June 1962, 16–27.
- 7 'Spacious Living Oriental Style', 15, Eric Wilson, 'Japan is on our home front', *Australian Home Beautiful*, Melbourne, January 1962.
- 8 Sutei Horiguchi, *Architectural Beauty in Japan*, Tokyo, 1955.
- 9 Neville Gruzman, Hazel de Berg Tapes, 2 July 1974.
- 10 Gruzman, Hazel de Berg Tapes.
- 11 Neville Gruzman, "We Can Learn From Japanese Building", *Sydney Morning Herald*, 17 July 1956.
- 12 Philip Goad, *Gruzman: An Architect and His City*, 2006, 80.
- 13 This heavy geometric patterning is also in the vein of Frank Lloyd Wright, whose work Gruzman also admired. Gruzman was introduced to Wright's work by Bruce Rickard in 1958.
- 14 Muller went to Japan in 1959 by himself, then again in 1961 with the University of Melbourne study trip. He went in 1963 to study Buddhist and Eastern Philosophies. See Jacqueline Urford, "The Architecture of Peter Muller", Thesis (M. Arch), Univ. of Sydney, 1993, 204.
- 15 Brown, "The Impact of Traditional Japanese Architecture on Sydney Architecture", 54.
- 16 In particular his own house at 10 Kimo Street, Rosewell, 1957, Norman Carver, *Form and Space in Japanese Architecture*, Tokyo, Shokokusha, 1955.
- 17 James visited Japan in the 1990s.
- 18 Conversation, 18 August 2008. As well as admiring the work of Frank Lloyd Wright, James lists his other main influences as Le Corbusier, and the Bay Region architects of America — particularly in their use of timber and sense of scale.
- 19 Jennifer Taylor, *An Australian Identity: Houses for Sydney 1953–63*, Sydney, University of Sydney, 77.
- 20 "Bold expressed timber construction, sliding screens, broad timber balustrade and handrail details, platforms of space floating within an open volume and the *shibui* restraint of unfinished natural materials." Philip Goad, "Robin Boyd and the Design of the House 1959–1971: New Eclecticism: Ethic and Aesthetic", Harriet Edquist & Vanessa Bird (eds.), *Transition No 38, Special Issue Robin Boyd*, Melbourne, RMIT, 1992, 174.
- 21 Boyd's library contained contemporary books on Japanese architecture as well as bound copies of the journal *Japan Architect*.
- 22 Boyd and Gropius first met when Gropius stopped over in Australia on his way to Japan in 1954 although Boyd and Gropius had corresponded the previous year, prior to this meeting.
- 23 Walter Gropius wrote an essay in Tange and Ishimoto, *Katsura: tradition and creation in Japanese architecture*, Yale, New Haven, 1960, and he wrote the foreword to Heinrich Engel, *The Japanese house: a tradition for contemporary architecture*, Rutland, Tuttle, 1964.
- 24 Geoffrey Serle, *Robin Boyd: A Life*, Melbourne, Melbourne University Press, 1995, 248. George Braziller commissioned Boyd to write a subsequent book on Japan: *New Directions in Japanese architecture*, in 1968.
- 25 Made possible by a post and beam structure, the use of steel and popularized by European and American modernism in the early to mid-twentieth century.
- 26 Rory Spence, "Sources of Theory and Practice in The Work of Richard Leplastrier", M. Arch Thesis, Sydney, University of New South Wales, 1997, 149.
- 27 The Grimwade House, Rye, 1960 and the Reid House, Aspendale, 1961 have an external breezeway linking living and sleeping quarters. According to Neil Everist, he and partner David McGlashan were impressed with the external spaces in Japanese architecture and how they related to the building. Their houses were typically flat-roofed, with a post and beam construction and planned to a module. Ondine McGlashan believes that the modular plan of the Grimwade House at Rye, 1960 was inspired by Japanese architecture.
- 28 Richard Neutra, Frank Lloyd Wright, Walter Gropius, & Alvar Aalto were all inspired by Japanese architecture in the early to mid-twentieth century as evidenced by their writings and work. See Jennifer Mitchellhill, "Japan and Modernism" in 'Tradition and Transfer: Japan and the Postwar House in the Pan Pacific', PhD Thesis, University of Melbourne, 2014, 163–174. The work of Japanese modernists also reached Australia in the mid twentieth century through publications such as *Japan Architect*.

ANTONIN RAYMOND'S "GLOCAL" MODERN ARCHITECTURE (1921–1976)

Helena Čapková

College of Global Liberal Arts, Ritsumeikan University; 2-150 Iwakura-cho, Ibaraki, Osaka 567-8570 Japan;
helena.capkova@gmail.com

ABSTRACT.

The Czech-American architect Antonin Raymond (1888–1976) achieved unprecedented entrepreneurial success during his career in the US, and above all in Japan and elsewhere in Asia. Even today, architects often ask how Raymond, as a foreigner and therefore an outsider, could possibly have built hundreds of projects in Japan. From the beginning of his independent career in Tokyo in 1921, he negotiated tensions between formulating his original design creativity and achieving his ambitious business goals. Over the course of several decades, he established two offices in Tokyo and New York with an international scope of building activity. Due to his innovative and transnational management, he successfully restarted his career and the operation of his architectural office after World War II, combining the benefits of being an American with close ties to the leader of the US occupation forces, General Douglas A. MacArthur, with those of maintaining connections with his Japanese colleagues and clients. His Japanese office is still operating in Japan today. This paper aims to provide some answers to the burning questions about the key to success that Raymond clearly possessed. An insight will be provided into his networking strategies, offices management and operational processes. Furthermore, his original approach to modern design by merging traditional Japanese construction and aesthetics with contemporary ideas of modern living and transnational lifestyle will be explored and demonstrated, using examples of his projects in different locations, even continents.

1. INTRODUCTION

In 1921, Japan was experiencing a rapid expansion of its cityscape that provided a multitude of opportunities for architects and construction companies. As such, it became the perfect place for the young, ambitious thirty-three-year-old architect Antonin Raymond to launch his independent career. During the Taisho era of modernity (1912–1926), many Japanese were especially receptive to non-Japanese ideas, such as different, Euro-American aesthetics. In this climate, the existing institutions decided to modernize their buildings, and new urban complexes started mushrooming in the modern city centres, such as in Tokyo and Osaka. The most progressive construction technologies were being adopted and modified in relation to Japanese environment. A significant proportion of the growing middle- and upper-classes developed an interest in a commensurately modern lifestyle. Luxurious interiors and exotic goods, as well as many new forms of entertainment became familiar to these young, modern Japanese men and women (known in popular culture as *mobo* and *moga* — i.e. mo(dern) bo(y) and mo(dern) gi(rl)) during their travels, vacations spent abroad or while collaborating with foreign companies that were quickly establishing their businesses in Japan. Raymond sensed an opportunity and decided to abruptly leave his mentor and greatly esteemed architect Frank Lloyd Wright (1867–1959).

Wright arrived in Japan with a small design team, including the Raymonds, to direct the work on his new significant project, the Imperial Hotel (1914–1923), which became an icon of modern Tokyo. The attractive design of the hotel became popular with fashionable Japanese and foreign residents alike. Wright was a lover of Japan. He studied Japanese arts such as ukiyo-e, fusuma painting, and traditional

architecture, and travelled to Japan repeatedly as a buyer for his clients and to enrich his own collection. He was thrilled to be offered such an important commission.¹ Unfortunately, the successful project did not launch an ongoing engagement with Japanese clients for Wright. He designed a few more projects, but Wright's impact on Japanese architects remained limited, centred especially around Wright's assistant, the architect Arata Endo (1889–1951), as well as the Tsuchiuras, a married couple of architects.²

Instead, Japan provided the opportunity for Antonin Raymond and his French-American wife and talented designer, Noémi Pernessin Raymond (1889–1980), to build a lifelong, consistently successful and transnational career.

2. KEYS TO SUCCESS: EUROPEAN COSMOPOLITANISM

This paper aims to offer some clues to the basis for this unprecedented success, which has become an impossible goal for architects even today. One of them points to Raymond's type of Central European cosmopolitanism. Raymond gave a good explanation of this quality when he referred to his wife, Noémi:

Noémi had her finger in every single job since that time [1914] and continues to do so even now in 1970. Her classic European education, her family tradition, and her studies in the arts in general in France, in the U.S.A. and Japan, strange as it may seem, formed a foundation for a solid and definite knowledge of beauty and spiritual understanding. She became a source of inspiration for me, a teacher and a most faithful companion in our combined search for eternal values.³

Another key to his success lay in the collaborators with whom he worked during the first decade of his independent

career in the 1920s. Many of these architects' efforts became subsumed under the collective label of the Raymond office. However, some individuals provided Raymond with significant inspiration, which remained visible as a new element in the office's design production. Such a case was the collaboration with Bedřich Feuerstein (1892–1936), who was in charge of several significant projects of the late 1920s, such as the Rising Sun Company houses in Yokohama (1927–29), St. Luke's Hospital in Tsukiji, Tokyo (1929–33) and the Soviet Embassy in Azabu, Tokyo (1929–30).⁴

3. KEYS TO SUCCESS: SEARCH FOR “GLOCAL” MODERNISM

Raymond's study of Japanese architecture served as a point of departure for his own original approach and innovations and deserves further attention. For example, his use of the sliding wall, *fusuma*, above a sofa or bar in a “Western style” interior, was unorthodox and rather fascinating. He published an essay on Japanese house architecture in the magazine *Volné směry* (*Free Directions*) in 1935, in which he claimed that the principles of Japanese architecture are contained within contemporary modern architecture, yet cannot be clearly articulated because such statements would collide with contemporary stereotype.⁵ This synthesis can be identified as Raymond's “glocal” modernism. A good example of this style is the Raymonds' project of the summer house in the mountain resort of Karuizawa, finalised in 1935 (Fig. 1). The wooden house structure was nested into the relief of the mountains, located on a stream and reflected in a small pond. Here Raymond successfully combined Wrightian principles with traditional Japanese carpentry craftsmanship that he admired and observed attentively. His emphasis on economy, in both senses of the word, is manifested here in the simple design from the local wooden material, but also in the use of wood left behind from the other nearby constructions. The house had several strikingly modern elements, such as the large ramp instead of a staircase, the comfort of the modern kitchen and bathroom and the magnificent open-plan living room, partitioned from the greenery outside only by a set of removable sliding doors. The project garnered international interest, and even was associated with a scandal involving no less a figure than the famous architect Le Corbusier.⁶

Raymond's company management strategy in the first decade of his career was linked with foreign diplomatic networks and circles in Japan. Access to these circles came about through introductions from the clients of the Imperial Hotel. The construction of the hotel itself became a metaphor for a safe modern building when it survived intact after the great destruction of the Kanto earthquake of 1923. The friendly connection with the newly established Czechoslovak embassy (1920) was effective in providing access to exclusive clubs and parties. Raymond was always on the move, hoping to use his American contacts and develop two

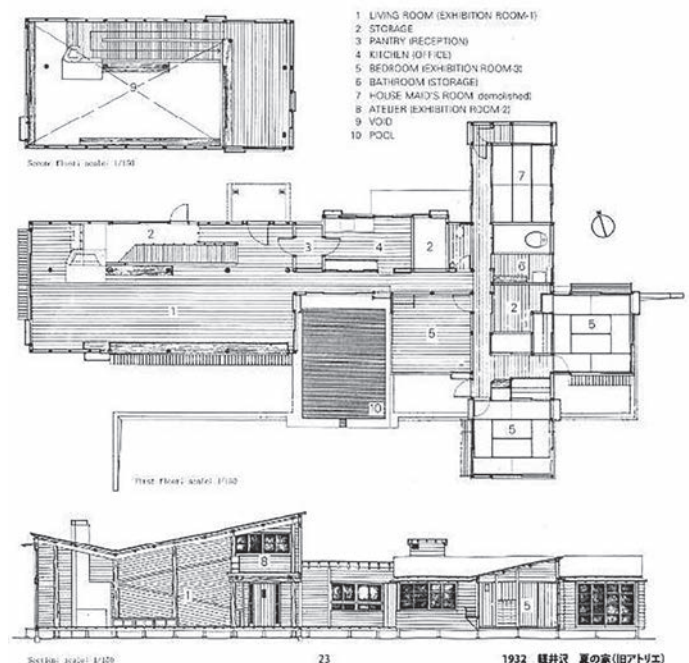


Fig. 1. Antonin Raymond, Reader's Digest building, Tokyo, 1951. © Kitazawa Archives.

parallel careers in the US and Japan.⁷ In addition, his business partners were recruited from among his American and European colleagues, such as in the case of the American Architectural and Engineering Company project that he shared with Leon Whittaker Slack (1887–1970). In the period of 1925–1927, he allied with a younger partner, Alec R. Sykes, under the label Raymond and Sykes, Architects. After breaking with Sykes, Raymond headed the company alone, but invited talented architects to join him, such as Feuerstein from 1926 to 1930.

4. KEYS TO SUCCESS: LEGACY THROUGH COLLABORATION

In the 1930s, with the slowing down of building activity and the global changes leading to World War II, Raymond began to consider leaving his Japanese company behind and relocating it to the US. After some discussion he decided to transform it instead and set up the company with Japanese shareholders. The Japanese ownership meant that the collaboration with Japanese architects intensified. This trend culminated on 20th July 1937 when he launched the new company Reimondo kenchiku sekkei jimusho (Raymond Architectural Design Office), which is still in operation today. During the war, Raymond began developing a stronger American architectural presence, building houses for his network of New York friends in New Jersey, Connecticut, or near his own farm, New Hope in Pennsylvania. Among this series of commissions was the Carrerà house on Long Is-



Fig. 2. Antonin Raymond, Reader's Digest building, Tokyo, 1951. © Kitazawa Archives.

land. Its overhanging roof and sliding doors, elegant simplicity and other Japanese elements became an inherent part of the design for this modern American home and other of Raymond's designs of this period.⁸ In 1942–1945, he was a partner in Tuttle, Seelye, Place & Raymond in New York. Finally, in 1946, he began a collaboration with the Slovak architect Ladislav Leland Rado (1909–1993), which lasted until the 1980s. As an American citizen and architect, Raymond took on an active role in the WWII conflict, designing models of Japanese cityscapes for test bombing purposes.⁹ Soon after the end of the war, Raymond contacted the American occupation forces and offered his expertise. As a result, he returned to Japan as soon as in 1948. Among the most successful post-war projects was the Reader's Digest building, finalised in 1951. The light and simple concrete structure became a symbol of the new era of post-war modern building in Japan. The main feature was large glass windows, meant to evoke openness and transparency and, by extension, the new age of democracy.¹⁰ The building was set in a large garden designed by Isamu Noguchi (1904–1988 / Fig. 2).

Recent research has shown that Raymond never lost interest in, or contact with, Czechoslovakia. He had hoped to secure projects there in the interwar years, and visited the country a few times in that period. During the war, most of his Jewish family was murdered in Nazi concentration

camps. However, Raymond continued corresponding with some friends and followed the developments of the country's post-war history. He even planned an exhibition of his work there in the 1960s. The decisive turning point for him was the Soviet invasion of 1968, which he regarded as a betrayal of the people by the regime.¹¹ The Czech connection, however, was re-activated in Japan. Raymond was first contacted in relation to the Czechoslovak pavilion at the Osaka Expo in 1970 and asked for assistance in building the design by architect Viktor Rudiš (born 1927).¹² One year after the ground-breaking exhibition, Raymond was approached again to supervise the construction of the Czechoslovak Embassy, which was a project he had always wanted to design. However, the competition chose the design by Ivan Skala and Jiří Louda (in collaboration with M. Kviz and K. Kotrbova / Fig. 3).¹³

In parallel with his international interests, Raymond's passion for Japan, its traditional construction principles and arts became progressively more profound, contributing to a shift in his *modus operandi* through the transformation of the company into a Japanese enterprise. Although Raymond always monitored the latest architecture trends and developments, his own style was ultimately an amalgam of the international and the local. It was this "glocal" modernism that had a decisive impact on his architectural ap-

proach. This development was captured in his publications: *Antonin Raymond: His Work in Japan 1920–1935* (1935) and *Architectural Details* (1938). The books show the creativity of the office, which drew inspiration from Japanese aesthetic principles and traditional timber construction. In the 1930s, as a part of the above-mentioned change, two talented young Japanese architects entered the office: Maekawa Kunio (1905–1986) and Yoshimura Junzo (1908–1997). The thirties also marked the beginning of more intensive collaboration with his wife Noémi.

Noémi Raymond possessed a deep love and admiration for Japan, which was rooted in her days in New York, when she studied at the Columbia University Teachers College under the progressive pedagogue and lover of Japan, Arthur Wesley Dow (1857–1922). Noémi's sharp judgement, combined with words of admiration for Dow, is captured in the following quote:

*[...] The head of the Art Dept was an interesting man, Arthur Dow. He had spent some time studying in Japan, and introduced us to Japanese arts. He was a minor painter, but like many who do not have a spark of genius, he was a good teacher.*¹⁴

Upon graduation, she embarked on a successful career as a graphic designer in New York and was effectively the breadwinner for the young couple.¹⁵ She had an outgoing, warm personality and, like Antonin, was an energetic networker who enjoyed meeting people and exchanging ideas about art, life and spirituality. It was her friend, the painter St. Clair Breckons, who introduced the couple to Frank Lloyd Wright's partner Maude Miriam Noël (1869–1930). This was the beginning of their work with Wright, which ultimately lead them to Japan.¹⁶ Noémi participated in the Imperial Hotel project and was involved in the Raymond office work, primarily in the interiors. However, her ideas about how the buildings should be structured in the interior often determined the architecture of the buildings themselves.

5. TESTING GROUND IN INDIA: CONCLUSION

As the 1930s continued, the signs from diplomatic circles towards the Raymonds that departure from Japan would be necessary became more frequent.¹⁷ In 1935, the office took on a project in Puducherry, India, which coincidentally became a bridge enabling the Raymonds to cross from Japan to the US as the outbreak of World War II became imminent. The elegant modernist structure of the dormitory, named the Golconde, for the Sri Aurobindo ashram, could be interpreted as the ultimate example of the Raymonds' pre-war "glocal" modernism (Fig. 4). The concrete building perfectly reflects modernist trends, local climate conditions and the needs of the ashram, as well as the criteria of Japanese aesthetics. The design team members included new members of the firm, such as the American Japanese architect George



Fig. 3. Ivan Skala, Jiří Louda (in collaboration with M. Kvíz and K. Kotrbová), Czechoslovak Embassy, Tokyo, Japan, ca. 1977. © Nishijima Yasuchika.

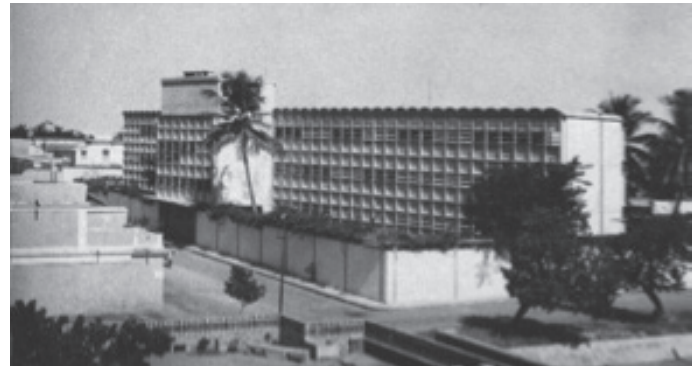


Fig. 4. Antonin Raymond, Golconde Dormitory, Puducherry, India, ca. 1948. © Sri Aurobindo Ashram.

Nakashima (1905–1990) and the Czech architect František Sammer (1907–1973). The project was developed in Japan, and plans and other guidance were sent across to the Indian site. Some of the building materials were also imported from Japan. Nakashima was the first office member to travel to Puducherry, and coordinated the work executed by the Indian workers, including a couple of engineers/ashramites. Gradually, the building became a part of the ashram activity supervised by the Raymonds' team on site. The construction was experimental, involving the construction of models, testing materials, and even the building of a true to scale model unit that is still used by the ashram today. This project became the turning point in the respective careers of both young men. Nakashima even joined the ashram and remained a devotee of the Sri Aurobindo teaching until the end of his life and successful career in the American furniture design scene. Sammer joined the Raymond office while seeking his next employment opportunity after his engagement with Le Corbusier finished in Moscow. He stayed in

India until 1942, when he joined the British Army in Burma. The creative process and the guidance provided by the Raymonds and the ashram leaders informed Sammer's architectural practice. Although he never returned to India, he remained in contact with the ashram during his successful career in Communist Czechoslovakia.¹⁸

The Raymonds stayed in contact with their Japanese employees after their departure from Japan in 1938. It was due the loyal service of these men and the sense of ownership they felt towards the company that it could restart its operations at the first opportunity in 1948.

REFERENCES

- DILWALI, Ashok, GANGULI, Robi, & Vir Mueller Architects, *Golconde: The Introduction of Modernism in India*, New Delhi, Urban Crayon Press, 2010.
- HELFRICH, Kurt G. F. & WHITAKER, William (eds.), *Crafting a Modern World: the Architecture and Design of Antonin and Noémi Raymond*, New York, Princeton Architectural Press, 2006.
- KRÄMER, Hans Martin, & STRUBE, Julian (eds.), *Theosophy across Boundaries Transcultural and Interdisciplinary Perspectives on a Modern Esoteric Movement*, Albany, SUNY Press, 2020.
- MEECH, Julia, *Frank Lloyd Wright and the art of Japan: the architect's other passion*, New York, London, Harry N. Abrams, 2001.
- RAYMOND, Antonin, *An Autobiography*, Rutland, Tokyo, Charles E. Tuttle Company, 1973.
- ČAPKOVÁ, Helena, *フォイエールシュタインと日本* Tokyo, Seibunsha, 2021.
- ČAPKOVÁ, Helena, & Kitazawa, Koichi (eds.), *日本におけるアントニン・レーモンド (1948-1976) 知人たちの回想 / Antonín Raymond v Japonsku (1948-1976) Vzpomínky Přátel*, Prague, Aula, 2019.
- ČAPKOVÁ, Helena, *Bedřich Feuerstein: Cesta do nejvýtvárnější země světa* (Bedřich Feuerstein — Czech Modern Architect on the Journey to Japan), Prague, Aula and KANT Publishers, 2014.

NOTES

- 1 More details about Wright's Japonisme in: Julia Meech, *Frank Lloyd Wright and the art of Japan: the architect's other passion*, New York, London, Harry N. Abrams, 2001.
- 2 See in Karen Severns, "Arata Endo: Wright Collaborator and Iconoclast to the Last", *Save Wright, Frank Lloyd Wright Bldg Conservancy — Spring 2015*, Chicago, Frank Lloyd Wright Bldg Conservancy, 8–13. Architects Nobuko Tsuchiura (1900–1998) and Kameki the Raymond firm, for example Kameki Tsuchiura acted as an architectural supervisor during the construction of the Soviet Embassy in Tokyo (finalized in 1931), design by the Raymond office. In: Helena Čapková, "Transnational correspondence — Tsuchiura Kameki, Tsuchiura Nobuko and Bedřich Feuerstein", *Design History*, issue 8, Tokyo, 2010, 117–152.
- 3 Antonín Raymond, *An Autobiography*, Rutland, Tokyo, Charles E. Tuttle Company, 1973, 318.
- 4 Helena Čapková, *フォイエールシュタインと日本*, Tokyo, Seibunsha 2021.
- 5 Antonín Raymond, "O architecture japonského domu" (On the Architecture of the Japanese House), *Volné směry* (Free Directions), XXXI, Prague, 1935, 168–74.
- 6 For more details: Helena Čapková, "Influence of Spirit and Not of Form: Antonín Raymond, Le Corbusier, and Architectural Piracy in the Transwar Era", S. Inaga (ed.), *A pirate's view of world history: a reversed perception of the order of things from a global perspective* (Kyoto: International Research Center for Japanese Studies, 2017), 85–93.
- 7 This ongoing effort, networking and travelling is documented in correspondence with his wife, *Noémi*, which was very frequent when the two were apart. The letters are kept in the Antonin Raymond archive in the Architecture Archive of the University of Pennsylvania, Philadelphia (AA UPENN).
- 8 Kurt G. F. Helfrich & William Whitaker (eds.), *Crafting a Modern World: The Architecture and Design of Antonin and Noemi Raymond*, New York, Princeton Architectural Press, 2006, 51–52.
- 9 Antonín Raymond, *An Autobiography*, 188–189.
- 10 Kurt G. F. Helfrich & William Whitaker (eds.), *Crafting a Modern World*, 2006, 198.
- 11 Based on a letter from Antonin Raymond to Harriet H. Hujer from Tokyo, 17th October 1968 (AA UPENN). Karel Hujer's article "An Open Letter to a Soviet Scientist" was first published in The Chatanooga Times, 8th October 1968, 10.
- 12 In an letter from architect Bohuslav Fuchs, dated 6th December 1968, Brno (AA UPENN).
- 13 More details about the Czechoslovak embassy project in: Helena Čapková & Koichi Kitazawa (eds.), *日本におけるアントニン・レーモンド (1948-1976) 知人たちの回想 /*

Antonín Raymond v Japonsku (1948-1976) Vzpomínky Přátel, Prague, Aula, 2019, 175–189.

- 14 Quote from a fragment of Noémi Raymond's autobiography, archived in the AA UPENN.
- 15 Kurt G. F. Helfrich & William Whitaker (eds.), *Crafting a Modern World*, 2006, 16.
- 16 Ibidem, 21.
- 17 These warnings came from Noémi's stepsister, Jeannette, who moved to Tokyo with her husband John Moore Allison, the American Ambassador to Japan.
- 18 A detailed analysis of the commission and construction process of the Golconde dormitory is presented in: Helena Čapková, "Theosophy as a Transnational Network: The Commission of the Golconde Dormitory in Puducherry (1935–ca. 1948)", Hans Martin Krämer & Julian Strube (eds.), *Theosophy across Boundaries Transcultural and Interdisciplinary Perspectives on a Modern Esoteric Movement*, Albany, SUNY Press, 2020.

BERNARD RUDOFSKY AND THE *BRAZIL BUILDS* EXHIBITION

Marcos José Carrilho

Adjunct-professor at Universidade Presbiteriana Mackenzie; Avenida Higienópolis, 360 ap.132 – 01238-000 – São Paulo-SP Brasil; marcos.carrilho@gmail.com

ABSTRACT.

In the early 1940s, as part of the war effort, the U.S. government developed a rapprochement campaign with Latin American countries, under its existing “Good Neighbour Policy.” During this period, government advisory agencies were established to implement the policy and to advance an ambitious program involving various Latin American countries.

One cultural event organized as part of the initiative was the 1943 *Brazil Builds: Architecture New and Old, 1652–1942* at New York’s Museum of Modern Art. It had a lasting impact, contributing to solidifying the international renown already achieved by nascent Brazilian Modernist architecture.

Bernard Rudofsky, the Austrian architect, designer, curator, and publisher was an important influence and contributor to the exhibition. In 1943, he delivered a lecture at the Fogg Museum in Boston, “On Being an Architect in Brazil.” In his presentation, he offered a detailed and multifaceted perspective on Brazilian Modernist architecture, evoking the influence of Italian architectural trends in Brazil as well as characteristic aspects of the Brazilian context. In this essay, the author explores the roots and components of *Brazil Builds* as well as Rudofsky’s lecture.

In the early 1940s, as part of the war effort, the U.S. government developed a rapprochement campaign with Latin American countries under its 1933 “Good Neighbour Policy.” During this period, government advisory agencies were established to implement the policy, for example the Office of the Coordinator of International America Affairs (CIAA), which, together with a wide range of institutions including the Library of Congress and The Museum of Modern Art in New York (MoMA) advanced an ambitious program involving various Latin American countries and promoting numerous events.¹ Within this scheme of things, Brazil would have a prominent role due to its strategic position in the South Atlantic.

The initiative included cultural events, perhaps most notably a 1943 exhibition that would have a more lasting impact far beyond the immediate objectives arising from the world conflict: *Brazil Builds: Architecture New and Old, 1652–1942*. The exhibition took place at MoMA from January 13 to February 28, and contributed to solidifying the international renown already achieved by nascent Brazilian Modernist architecture (Fig. 1).

This exhibition had considerable repercussions in the United States and attracted the public’s attention, either due to its unusual origin, its singular interpretation and focus on modern architecture, or for the freshness and optimism of its conception in the face of the devastating aspects of world conflict.

Not least, however, was the museum’s promotional campaign. The exhibition travelled to various cities in North America between 1943 and 1945, such as Boston, Philadelphia, Pittsburgh, San Francisco, Toronto, and Mexico City. The exhibition was also on view in the main cities of Brazil, resulting in local responses, a factor of great importance in terms of affirming the achievements of the new generation of Brazilian architects. Its impact was reflected in the main-

stream press, with reviews in *The New York Times* and *Life Magazine*. In addition, the opening of each of these events was also reported in the local Brazilian press.

The exhibition was conceived of by Philip Goodwin, a member of the American Institute of Architects and the MoMA Department of Architecture. It also included the collaboration of Bernard Rudofsky, the Austrian architect, designer, curator, and publisher. In this presentation I will be addressing Rudofsky’s influence on the exhibition.

When I first conducted research using MoMA’s archives, back in 1996, I was able to unearth little-known aspects of the exhibition. Access to documents allowed me to outline the themes of the exhibition and come to an understanding of its significance. I was particularly struck by the show’s version of the genealogy of Brazilian architecture, namely the continuity between old and modern architecture that was proposed. Side by side examples of traditional architecture and recent examples in itself induced a sense of association between these two universes. Furthermore, it was not a simple compilation of works, but rather a thorough selection of what was most representative from both periods. It became clear to me that the two American professionals — Goodwin and his photographer Kidder Smith — who were unfamiliar with the history of Brazilian architecture and its contemporary manifestations, did not achieve such results alone, given their impressive synthesis and presentation. As I pointed out in my 1998² article, the U.S. team not only relied on local support, but received their entire orientation locally.

In 1996 at MoMA, I read a note concerning the lecture “On Being an Architect in Brazil,” delivered by Bernard Rudofsky on March 27, 1943, at the Fogg Museum in Boston. To my great dismay, I was unable to find a transcript in the archives. Returning to the museum recently, I was thrilled to find the text in the newly reorganized files. The lecture is a little-known source, published by Pencil Points (April 1943)³

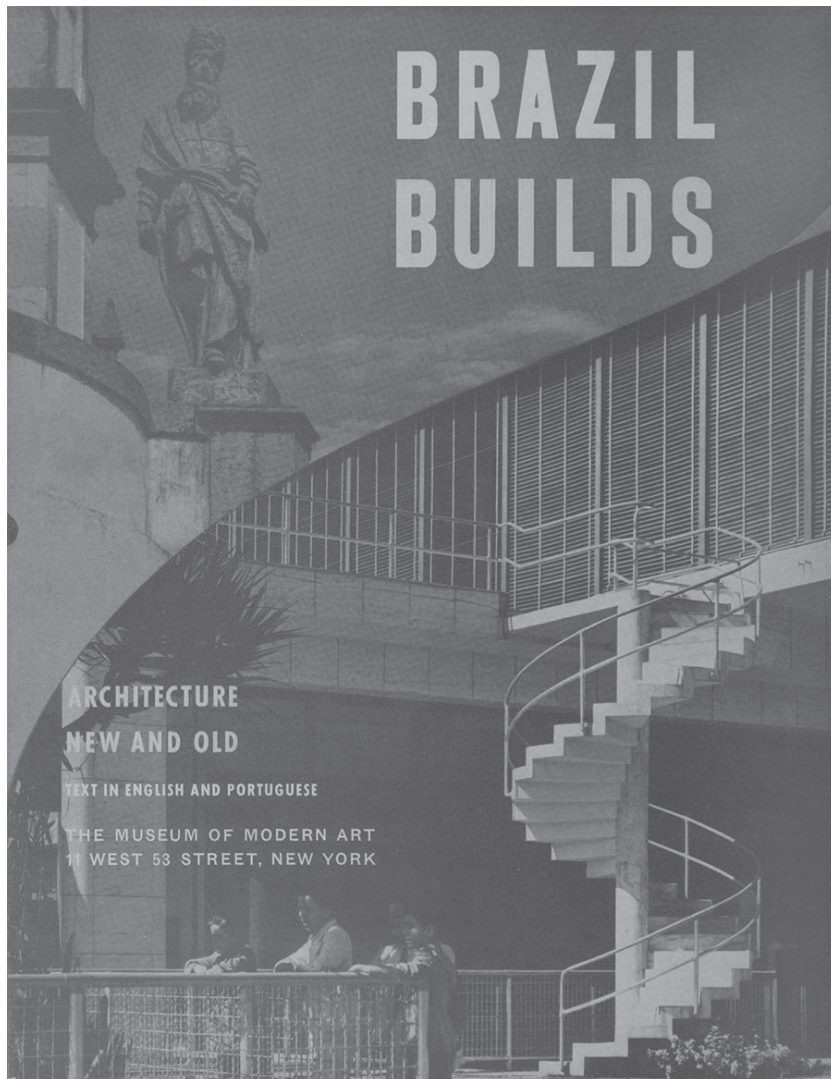


Fig. 1. *Brazil Builds* catalogue cover, the catalogue cover presents together both old and modern Brazilian architecture. © The Museum of Modern Art.

but offers a detailed and multi-faceted perspective on Brazilian Modernist architecture. Before turning to some of Rudofsky's observations, let us turn to the man himself.

1. BERNARD RUDOFSKY

Bernard Rudofsky's career was as significant as it was diverse. His background extended far beyond academia, due in large part to his curiosity as a researcher and his contact with different cultures across Europe and elsewhere. Soon after graduating in 1929, he travelled to Greece and its islands, researching and recording local architectural traditions. These studies would later serve as the basis for his doctoral dissertation based on a comparison between tradi-

tional techniques and modern concrete structures. His interest in vernacular architecture would persist throughout his career, eventually leading to his renowned exhibition *Architecture without Architects: A Short Introduction to Non-Pedigreed Architecture*.⁴

In 1932, he settled in Italy, where he began his professional activities in association with Luigi Cosenza, with whom he participated in competitions and developed important projects such as the Villa Oro in Naples. Later, as a result of the annexation of Austria by Germany in 1938, he was forced to emigrate to South America, initially to Buenos Aires, Argentina, and later to São Paulo, Brazil, where he worked as an architect and editor. In 1941, he was one of the winners of the MoMA's Organic Design⁵ competition, which afforded



Fig. 2. Rino Levi Instituto Sedes Sapientiae, São Paulo, Brazil, 1942. "school court is protected by an unusual concrete canopy". Photo by G. E. Kidder-Smith, published in *Brazil Builds* catalogue, 147. © The Museum of Modern Art.

him the opportunity to relocate to New York. As a result of his experience in Brazil, he was a key contributor in organizing *Brazil Builds*.

2. "ON BEING AN ARCHITECT IN BRAZIL"

Rudofsky offers a wide perspective on Brazilian Modernist architecture in his lecture. I will now briefly discuss some of his observations.

First, de-emphasizing Le Corbusier's recognized influence on Brazilian architectural culture, in his presentation, Rudofsky focuses on the exchange with Italian architects, as is indicated in the following excerpt:

*Whoever wants to investigate the rapid and unexpected development not only of Brazilian, but of South American, architecture cannot afford to overlook the history of modern Italian architecture. Many Brazilian architects grew up when that movement was under way and some older ones even participated in it.*⁶

Although the significance of Le Corbusier is unquestionable, the importance of his role has cast a shadow over other relevant aspects represented in the exhibition, both in relation to the origin and education of architects, and with regard to the works displayed.

In fact, some of the main protagonists involved in introducing Modernist architecture to Brazil had links to Italy. Examples include Gregori Warchavchik (Odessa, 1918 — Sao

Paulo, 1972), an architect of Ukrainian origin who completed his training in Rome before settling in São Paulo. Another Brazilian-born pioneer, Rino Levi (Sao Paulo, 1901 — Bahia, 1965), began his studies in Milan, later completing them in Rome and subsequently contributed directly to the architectural innovations underway in Brazil (Fig. 2).

In another passage, Rudofsky alludes to one of Italy's Modernist movements, specifically one known as *Architettura Razionale*, and suggests its links to precursors in Germany. Thus, he expands the horizon of possible influences in Brazil:

*In 1926, three years after the first soul-stirring Bauhaus exhibition in Weimar, Italy witnessed the first manifestations of similar events. It is quite characteristic of a Latin country that its appearance was plainly revolutionary. Its protagonists were students. In a memorable exhibition of what they then called rational architecture they assailed with unprecedented fury the prevailing training methods and criticised pitilessly their own teachers. This event provoked a long and heated battle and initiated an era of modern architecture in Italy.*⁷

Philipp Goodwin also acknowledges Germany and Italy's influence:

Through foreign travel and study, and specially through publications, Brazil became increasingly aware of the achievements of modern architecture abroad, not in France alone,

but in Germany and Italy.⁸

Let us turn to how these influences manifested themselves in cities in Brazil.

While new architectural projects executed in Rio de Janeiro were predominantly sponsored by the government, in São Paulo they were mainly financed by private initiatives, responding to market demands, and were, therefore, independent of groups or affiliations existing within government agencies.

Furthermore, when considering the urban landscape of São Paulo, it is indispensable to point out the influence of a significant contingent of European architects who immigrated before or during the war, such as Jacques Pilon, Lucjan Korngold, Francisco Beck, Andrea Calabi, Henri Sajous, August Rendu, as well as Bernard Rudofsky himself (Fig. 3).

In other cities, such as Salvador, Bahia, research has recently brought to light the importance of Alexander Buddeüs, an architect of German origin, whose professional career is associated with the dissemination of reinforced concrete technology, and who also participated as a professor in the restructuring of the National School of Fine Arts in Rio de Janeiro, in the early 1930s.

Among the works mentioned by Goodwin in the *Brazil Builds* catalogue, in São Paulo there is the Rino Levi's *Sedes Sapientiae*, the Jacques Pilon Public Library, the G. Warchavchik apartment building, the H. E. Mindlin apartments and automobile show room, and the office building attributed to Ramos de Azevedo, in fact designed by his successor, Escritório Severo Villares. Reference is also made to a newly-opened street — Rua Marconi — that very much impressed Goodwin.

In addition, there is the project for the Teacher Training School in Bahia, described as “a large school, well designed by a Brazilian architect who received his degree in Germany. The complex stands out for its wide-open galleries, well-ventilated classrooms, and its attractive swimming pool.”⁹ The project is attributed to Buddeüs.¹⁰

In his lecture, Rudofsky also cites internal quarrels that arose among Italian factions during this period of architectural innovation:

*The ensuing years of realization and the unending challenges between the genuine pioneers and the pseudo-modern architects of the reactionary Roman group were background and textbook for many Brazilian architects, who eventually carried the polemic spirit home.*¹¹

Although Rudofsky is referring to clashes in the Italian movement, the foundations of Brazilian Modernist architecture would also not be laid without conflict between groups disputing influence and conception, as well as the range of the projects being developed. The distinction between genuine and pseudo-modern, between progressive and conservative, between rupture or continuity with the past reveals



Fig. 3. Jacques Pilon Public City Library, São Paulo, Brazil, Postal Card, 1942.

certain camps in the history of how Brazilian architecture was transformed in the 1930s. What draws our attention, however, is the fact that for Rudofsky these clashes would have occurred within the framework of Italian influence. For example, he mentions Marcelo Piacentini, calling him the “Holy Father in Rome,” who was invited to design the project for the “cite universitaire” mentioned in this citation:

Brazil, which was intimately related to Italy in many cultural aspects, followed the developments closely; and, when its own first architectural problems sprang from rapid expansion of its cities, it seemed to be quite natural that foreign architects of merit were consulted. The invitation for planning the first great project, an enormous cite universitaire, went to what

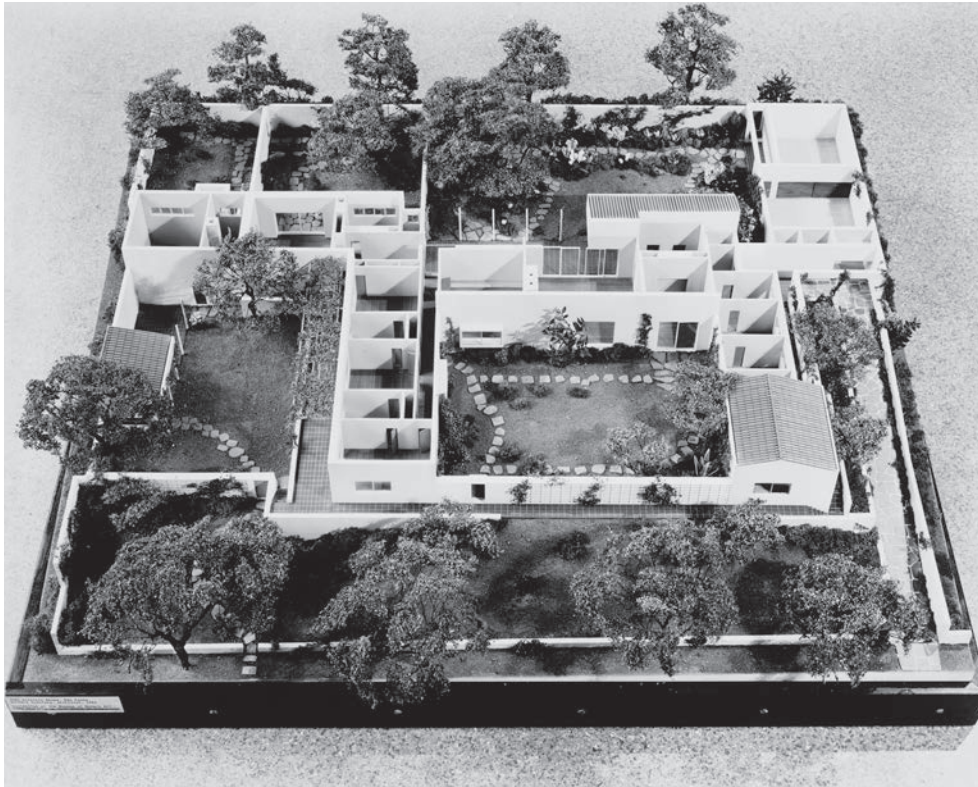


Fig. 4. Bernard Rudofsky Arnstein House, circa 1939–1941, model of the house presented at Brazil Builds exhibition, photographic copy of original photo record of the model. © Getty Foundation Archives.

was then the architectural Holy Father in Rome.¹²

Although Piacentini had come to Rio de Janeiro for a brief period, to carry out the “cite universitaire” at the request of Minister of Education, Gustavo Capanema, Lucio Costa — the main protagonist of architectural advances in Brazil, — would seek to dissuade him from the commitment he had made, favouring Le Corbusier instead. That was one of the motivating factors for Le Corbusier’s arrival in Brazil, whose most important task would have been to draft a study for the same “cite universitaire.” However, his alternative never unfolded.

This allows us to point out another relevant aspect, i.e., the government’s openness to initiating projects with architects from the new generation. In Rudofsky’s lecture, he says:

In architecture, Brazil follows a pattern similar to the one so vigorously established in Italy. The government lends an open ear to the young and eager. It takes a keen interest in architecture at home and in foreign countries, wherever there is an intelligent approach to it. Contests decide the bestowal of commissions, and no narrow-minded nationalism prevents it from inviting foreign architects and artists.¹³

In relation to local practices, Rudofsky’s lecture underscores

characteristic aspects of the Brazilian context, alluding to the convergence of local trades with architectural practices, the overall dearth of specialists, and the importance of teamwork. In this regard, he notes:

Brazil always had a constant influx of highly skilled people from abroad who were not immediately absorbed by industry as happened here, but continued, under propitious conditions, to flourish, thus constituting a most powerful bulwark against the less desirable type of mass production. The Brazilian architect likewise prides himself on having helped to maintain the purity of his vocation. His profession has not yet been infected by the pest of decorators, designers or architectural design factories.¹⁴

However, if the absence of specialists can be perceived as conducive to freedom and experimentation in the field of design, it nevertheless reveals the underdeveloped stage of the entire production system. While it is possible to accept this line of reasoning, since it would avoid subordination to industry-defined and -conditioned products and systems, the argument reveals a sort of naïveté by imagining that a culture not yet marked by industrialization offers better prospects for the creation of authentic, untainted products.

Elsewhere in the lecture, to demonstrate the distinctive nature of Brazilian architects and their fair-minded attitude,

Rudofsky recounts a familiar incident recounted in the Chronicle of Brazilian Architecture:

Nothing is more characteristic of this way of thinking than an incident which occurred in Rio a few years ago. The outcome of an architectural competition for a rather small, but comparatively significant, building had been very satisfactory to all involved — with the exception of the winner of the first prize. He defied the jury's judgment, maintaining that the best project had been submitted by a competitor who had won second prize. Yet nobody considered him insane, and his arguments must have been forceful because an arrangement was worked out to everybody's content whereby both winners agreed to join their talents and work together.¹⁵

This particular episode pertains to the competition for the design of the Brazilian pavilion at the 1939 World's Fair in New York. Although Lucio Costa won the competition, he was not entirely convinced of his project. Impressed by some aspects of Oscar Niemeyer's design, which placed second, he invited him to work alongside him in designing the Brazilian pavilion.

Rudofsky goes on to describe the spirit of collaboration evident in the Ministry of Education Building project, highlighting the teamwork and idealism of its designers.

The graduate student undergoes an apprenticeship lasting many years, comparable to that of an artisan, whose goal is not just to convey to him an all-embracing training, but rather to implant in him the thought that not a single one of the manifold problems of planning should escape his attention or be left to the decision of others.¹⁶

In fact, a sizable part of this generation of architects was trained through the practical experiences acquired by working at firms, by spending time with experienced architects, and by witnessing the completion of works.

The Italian magazine *Casabella* went on to publish, in 1939, an article by Rudofsky about this Ministry of Education Building, which also featured extensive photography.¹⁷ Other specialized journals in Italy followed suit. One noted the pioneering advances in the "remarkable production of buildings in both Rio de Janeiro and São Paulo."

3. FINAL OBSERVATIONS

Throughout his career, Rudofsky would continuously contemplate the meaning of the modern and its relationship with cultural inheritance. He had a particular vision of Modernism, one that was linked to the past but also to vernacular architecture, which he studied intensely. This is evident in *Brazil Builds* and also in his Fogg Lecture.

Although I remain convinced that most of the exhibition was proposed locally, upon re-examining the content of Rudofsky's lecture, I have expanded my view of the influenc-

es on the nascent production of Brazilian modern architecture; they go beyond the strict genealogy formulated by Lucio Costa, its main protagonist.

Rudofsky not only widened this view, he also contributed two important houses to the exhibition, despite having been welcomed as something foreign to what could be considered as the authentic development of the origins of Brazilian modernism (Fig. 4).

REFERENCES

- AZEVEDO, Paulo. O. de, *Alexander S. Buddeüs: a passagem do cometa pela Bahia*, Vitruvius, Arqutextos 081.01, ano 07, Fev. 2007, <https://www.vitruvius.com.br/revistas/read/arqutextos/07.081/268>.
RUDOFISKY, Bernard, "Cantieri di Rio de Janeiro", *Casabella*, Anno XVII — # 136 — April 1939.
CEGLIO, Clarissa, The wartime work of U.S. Museums, 2010, accessed on 01/09/2020, <https://www.issueab.org/resources/28073/28073.pdf>.
CARRILHO, Marcos J., *55 anos da Exposição Brazil Builds in Arquitetura e Urbanismo*, Ano 13, No. 77, April/May, 1998.
GUARNERI, Andrea B., & RUDOFISKY, Bernard, *A Humane Designer*, Wien, New York, Springer-Verlag, 2003.
GOODWIN, Philip, *Brazil Builds: Architecture New and Old 1642-1942*, New York, The Museum of Modern Art, 1943.
RUDOFISKY, Bernard, "On Architecture and Architects. An address delivered at the invitation of the Fogg Museum, at the Boston Museum of Art, in the course of the exhibition of Brazilian Architecture Brazil Builds", *New Pencil Points*, XXIV, April 1943.
RUDOFISKY, Bernard, *On Being an Architect in Brazil*, typed text, The Museum of Modern Art Archives, MoMA Exhs., 213.2.

NOTES

- 1 Clarissa Ceglie, *The wartime work of U.S. Museums*, 2010, accessed on 01/09/2020, <https://www.issueab.org/resources/28073/28073.pdf>.
- 2 Marcos J. Carrilho, "55 anos da Exposição Brazil Builds", *Arquitetura e Urbanismo*, Ano 13, No. 77, April/May, 1998, 55-61.
- 3 "On Architecture and Architects. An address delivered at the invitation of the Fogg Museum, at the Boston Museum of Art, in the course of the exhibition of Brazilian Architecture Brazil Builds", *New Pencil Points*, XXIV, April 1943, 62-64.
- 4 *Architecture without architects, an introduction to non-pedigreed architecture*, by Bernard Rudofsky, New York, The Museum of Modern Art: distributed by Doubleday, Garden City, N.Y., 1964.
- 5 Eliot F. Noyes, *Organic Design in Home Furnishings*, New York, The Modern Art Museum, 1941.
- 6 "On Being an Architect in Brazil" by Bernard Rudofsky, typed text, The Museum of Modern Art Archives, MoMA Exhs., 213.2.
- 7 *Ibid.*, 2.
- 8 Philip Goodwin, *Brazil Builds: Architecture New and Old 1642-1942*, New York, The Museum of Modern Art, 1943, 81.
- 9 *Ibid.*, 81.
- 10 Paulo O. de Azevedo, *Alexander S. Buddeüs: a passagem do cometa pela Bahia*, Vitruvius, Arqutextos 081.01, ano 07, fev. 2007, retrieved on 1/10/2020, <https://www.vitruvius.com.br/revistas/read/arqutextos/07.081/268>: "In a 1988 article, we attributed to Alexander Buddeüs another great work in Salvador, the Teacher Training Institute of Bahia (1936-39), now the ICEIA."
- 11 "On Being an Architect in Brazil" by Bernard Rudofsky, typed text, The Museum of Modern Art Archives, MoMA Exhs., 213.2., p.2.
- 12 *Ibid.*, 3.
- 13 *Ibid.*, 3.
- 14 *Ibid.*, 5.
- 15 *Ibid.*, 5.
- 16 *Ibid.*, 6.
- 17 *Casabella*, aprile 1939, Bernard Rudofsky: "Cantieri di Rio de Janeiro", *Casabella*, Anno XVII - # 136 - April 1939.

MODERNISMS IN ANTIPODES, THEORETICAL CONSIDERATIONS & A CASE STUDY¹

Ruth Verde Zein

Architect, PhD Professor Mackenzie Presbyterian University, São Paulo, Brazil; Rua João de Souza Dias 719 #121 04618-003 São Paulo SP Brazil; rvzein@gmail.com

ABSTRACT.

There is room for the reconsideration of the established definitions of Modernism in order to better apprehend it as a truly global phenomenon, reconsidering its accepted timeline and periodization framework, opening up to the plurality of its beginnings, debating whether we are now actually beyond its end point in time or if it is possible to define from which date onwards a building is precluded from receiving the tag of “modern architecture”. The quest for effectively producing broader and more inclusive narratives on the history of modern architecture, considering its manifestations on a world-wide basis, befitting a 21st century perspective, cannot be attained only from a theoretical debate; to put forward such a huge but necessary endeavour it is important to include and (re)consider a wide variety of world-wide examples. With that in mind, this paper will address both theoretical aspects and briefly, a single case study, examining some questions and queries on this subject as a starting point to help put forward a resignification process regarding the concepts and ideas of what should be called Modern architecture, from a broader and complex basis, either historically or geographically. The case study is a multi-cultural, multi-national example reuniting the experiences and peculiarities of two important, non-European, 20th century modernisms: Brazil’s Embassy in Tokyo, designed by Brazilian *nisei* architect Ruy Ohtake.

When considering the position of a place on Earth’s spherical surface one has to relativize the idea of high, low, up and down, centre and periphery. The canonical architectural historiography of Modernism often consider it as a by-product of late 19th and early 20th century “high” cultures of industrialized Europe: a definition that displaces all other geographically diverse modernisms to a secondary rank in history. But in the 20th century and beyond, “modernity is general, it steamrolls over the entire Earth”² and “historical laws are just schemes/abstracts of understanding, which do not grasp historical phenomena by their roots, and simplify them to the degree at which their essence and meaning is lost”.³

There is room for the reconsideration of the established definitions of Modernism and the revision of the oversimplified canonical narratives on Modern Architecture, to try and apprehend it as a truly global phenomenon.⁴ Some important issues are the reconsideration of its accepted timeline and periodization framework, the opening up to the plurality of its beginnings and developments, the inclusion of forgotten personages, genres and races; the debate whether we are now actually beyond its end point in time or if it is possible to define from which date onwards a building is precluded from receiving the tag of “modern architecture”. All those parameters that seemed to be definitely resolved should be scrutinized, since they are possibly not quite in phase with all the contemporary developments and research. To consolidate such a huge but necessary endeavour it is important to include and (re)consider a wide variety of widely dispersed international examples. A history of architecture is, finally, a history of some chosen selection of buildings and urban spaces, considering their materiality, intentions, uses, how they were appropriated by clients and

public, and how they are serving the aspirations and necessities for the betterment of human society. As a starting point, this paper will address both some theoretical aspects and a case study, to help put forward a resignification process on the concepts and ideas of what should be called Modern architecture from a broader and complex basis, either historically or geographically. For this paper the chosen example is a multi-cultural, multi-national example: Brazil’s Embassy in Tokyo, designed by Brazilian *nisei* architect Ruy Ohtake, whose conception reunites the experiences and peculiarities of two important, non-European, 20th century modernisms: Japan’s and Brazil’s.

Ruy Ohtake (São Paulo, 1938) is the eldest son of Japanese immigrants, worldwide known artist Tomie Ohtake (Kyoto, 1913 — São Paulo, 2015) and agronomist Alberto Ohtake (Kyoto, 1913 — São Paulo, 1961). He graduated as an architect from the Faculty of Architecture and Urbanism of the University of São Paulo in 1960. A prolific author of hundreds of diverse scale projects, from furniture and small buildings to infrastructural equipment and metropolitan parks, he believes that architecture is expressed by form, materials and colours and the architect’s responsibility extends from design to detailing and construction, to assure its meaningful presence in the city and its adequate appropriation by the users. For him, architecture must thrill, excite, surprise, be attentive to technological innovations and thrive in contemporaneity, since its permanence and importance can only be assured by history.

The architect’s notoriety in Brazil and abroad extends beyond the professional environment: he is constantly asked by diverse media to comment on new trends in architecture and culture. Despite the social, mediatic and popular recognition of his career, his works have received only a tim-

id recognition by academia. Many local critics and historians adopt a recurrent interpretation on the architect's career: as having had an initial, and precociously awarded, modern period, being one of the main personages of the Paulista Brutalist School of the 1960–70s, followed by a rupture and adherence to a postmodern attitude, of seemingly formal gratuitousness. But this is not quite our reading: there are other possible interpretations to be considered. The changes in Ruy Ohtake's work should be broadly understood from the historical circumstances of the last quarter of 20th century and the architect's personal propensity for formal and material experimentation and innovation displaying a consistent continuum of traits and appearances, with no sudden interruptions but with incremental changes, that are more evident in appearance than in essence. As so, his work may be a good example to help suggest other interpretations concerning the limits and frontiers of what may be considered as Modern Architecture.

1. SOME BASIC THEORETICAL ASSUMPTIONS

History is not a given fact but “a narrative of events”⁵, told by a particular person or group of persons, representing a particular point of view, inevitably permeated by their position in time, place, social background and acquired beliefs. Each time the same facts are examined by different people a different “history” will be construed, a different “narrative of events” will be defined, with alternative weights and significances, anchored in present realities. History manuals are necessary and useful, but their successful propagation tend to crystalize discourses, giving undue stability to some interpretations, defining a “canon”. In Modern Architecture History this canonization process has been consistently occurring.⁶ The existing manuals on the history of so-called “global” architecture, used almost everywhere as an important and considered source of information, contain only a restricted number of examples situated on a very restricted geographical area. So, the ideas on what “modern architecture” is and how it should be framed and understood, are being extracted from a limited set of examples; which, whilst being certainly beautiful, are, nonetheless, limited; and their traits and aspects are extrapolated as somehow having a universal value, establishing a hallmark of what should or should not be considered as “modern architecture”. Although we are quite aware of this process, it nevertheless affects us all, establishing a milestone that is very difficult to critically transcend.

With the passing of the decades even the authors and editors of the canonical narratives realize they are falling short on expectations. In some cases, these manuals have been given a boost by the inclusion of superficial revisions, incorporating or revalorizing facts, deeds, works and authors that were previously ignored, frequently by inserting new chapters. That helps broaden the variety of examples, but do not really change the narrative structure. Eventually,

the accumulation of additions will have to be acknowledged not as the completion of what was missing, and needs to be inserted, but as a claim on the necessity of proposing deeper revisions, new approaches favouring other discourses, narratives, arrangements, periodization, timelines, and selection criteria, valuing the variety of works and deeds, so as to be more in tune with the contemporary historical consciousness, and the steadily growing recollection of important facts enabled by new research, quests and concerns.

This process is already in train, by the hands and minds of so many contributors, all over the world. A particular example will help to exemplify it. Until the beginning of 21st century, the acceptance of Brutalist architecture manifestations within the realm of “modern architecture” was frequently disregarded. The revalorization of Brutalism as one of the major trends of 1960–70s modern architecture was then defended only by some experts, contrary to the then majority opinion. As things change, the increasing interest prompted by new research gradually gave notoriety to the subject, first among scholars, then among the general public, as a result of grounded, consistent analyses of several Brutalist works situated in different continents, with the recognition of their originality and quality — like the pioneer studies considering the architectural production of Boston's Heroic period, or the post-Brasilia Brazilian architecture of São Paulo, or the Metabolist works and manifestoes of mid-century Japan architecture, among others. The debate on Brutalist architecture has already helped to expand an unbiased understating of what may be considered as “modern” architecture, displacing modern architecture's “termination” dates to a few decades beyond.

But once this territory is consolidated, it confirms a new barrier, which is, in turn, ready to be challenged. There is no limit to research and to critical thinking; or at least, there should not be. As a principle, there is no reason why one should not examine the years after the peak of Brutalism's prevalence, and to enter fearlessly but with caution, into the beginning of the 1980s, in order to look at what happens with modern architecture then, everywhere — and which may be different, from place to place. To do so it is probably better to reconsider the facts — the buildings, the spaces, the materials, the intentions, the urban settlements, etc. — to avoid a priori generalizations grounded on other narratives, and serving other ideological frames. And then, to cautiously proceed from fact to fact, from building to building, in order to achieve a sufficient saturation point when one may finally reach the possibility of consistently elaborating some new-born generalizations.

The aim of this text is not reach fresh new broad and generalized interpretations, that are possibly not yet viable. But to help this effort we have chosen to briefly consider one singular work, designed and constructed in 1981 — beyond the limited dates of is still considered as the frontier of “modern architecture”.



2. BRAZIL'S EMBASSY IN TOKYO

The whole design and construction process of Brazil's Embassy in Tokyo took less than a year. There are other embassies at the Aoyama neighbourhood, situated in similar residential streets, characteristic of Tokyo's urban fabric. The narrow lane (5.90m) and the lot's relatively small area for the program (extended by the architect's suggestion to include open cultural spaces) prompted the decision of designing another project for the Ambassador's private housing facilities. The municipal regulations required the building not to occupy the rear side of the parcel; the architect decided to isolate it in the four sides, creating an elongated rectangular slab with a curved-concave main façade. A lower counter-curved volume was added between the north service and the south public entrances. A small plaza over a flight of stairs puts the main entrance level 1.25m above the street, giving some pri-

vacy without actually isolating the building (Fig. 1).

As seen from the posterior side (Fig. 2), the Embassy's design better reveals its affiliation to the "brutalist" language: Ohtake never completely cuts off from the legacy of his first 1960s works. Yet here he chooses not to display in full force its more evident aspects, which are more apparent behind and inside than in front and outside of the building. What is quite unlike the classical "brutalist" approach is the lack of homogeneity by the predominance of a single material (concrete) and the frequently exhibitionist display of superstructures, albeit the still little variety in the use of materials. The careful but unimpeded use of bold primary colors (Fig. 3), from great surfaces to minor details, gives the building a contained but cheerful aspect. Granted, several modernist buildings show the same trait, specially but not only Le Corbusier's; yet that is not exactly an expected attribute for an official building. There is relative permeability outside-inside,



Figs. 1 & 2. Embassy of Brazil, Tokyo. Architect Ruy Ohtake, 1981. © Cristiano Mascaro.

suggested by the glassed porch (Fig. 4) giving pass to cultural areas (an auditorium and an exhibition hall) that may be accessed even on off-business hours adds. This public character is also a quite modern idea of what should a governmental premise be: not a fortress, but a covered plaza.⁷

3. IS THAT A MODERN BUILDING?

The suggestion that “modern architecture” had abruptly ended in a given day of a sunny June is an ironic comment, not a precision. Yet, the idea that there is no more modern architecture after the 1970s or 1980s keeps pervading most interpretations of 1970–80s architecture and is widely accepted by the canonical bibliography on modern architecture — if not in a clear, at least in an implicit way. It fosters the legend, that is very much alive and implicitly accepted, that a generation of architects had by then betrayed their

ideals and defected as “postmodern” turncoats.

This ideological set is present in all scales and places. Most critics and historians consider architect Ruy Ohtake’s career by framing it as pervaded by a duality between modern and postmodern, with some sort of radical rupture crisis in the middle.⁸ But a close examination of his works suggests a more complex, dilated and incremental changing process, and no crisis at all. The changes are mostly concentrated in the use of newly available materials, with a more frequent use of colour and sensuous curved shapes. But many other traits — like Ohtake’s progressive vision on social housing and urban ecology, that has been present since the first works of his career — are still animating an important part of his work, from the 1960s until the present. Some appearances change, but not so much the intentions and ground base ideas.

Although the extraordinary quality of the formal and



Fig. 3. Embassy of Brazil, Tokyo. Architect Ruy Ohtake, 1981. © Cristiano Mascaro.

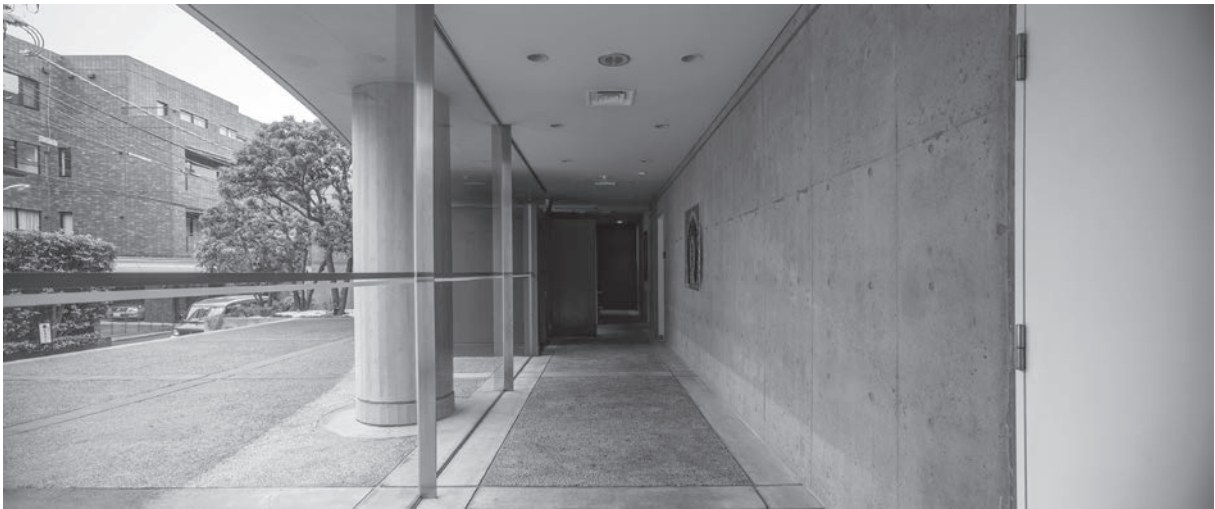


Fig. 4. Embassy of Brazil, Tokyo. Architect Ruy Ohtake, 1981. © Cristiano Mascaro.

structural experiments of modern Brutalist architecture in the 1960–70s (in São Paulo, and many other places) gradually gave way, in the 1980–90s, to bland standardized manifestations, the abandonment of utopian social ideas in favour of a neoliberal cynical pragmatism, Ruy Ohtake's design tra-

jectory somehow kept, as one of his work's core values, most of the Modern Movement ethical principles. For example, the necessity and unrestricted defence of the freedom of creation, with each artistic work establishing its own development rules, the quest for the proper use of new materials

and techniques, among other traits.

Should we keep on considering a building as part of “modern architecture” just by its formal characteristics? Or do we have to take into account the author’s intentions? But to which extent these intentions should be accepted as a fixed parameter, when they conflict with the given accepted “images” of what a modern architecture building is, as have been consecrated by the canonical bibliography on the subject? To which extent should we accept some works as meaningful “exceptions” — as for example, may be the case of the building here examined — without having to put into question the very core of the ideological and historiographical assumptions that define the basis on which the edifice of the idea of “modern architecture” has been supported?

In a recent article published in a local newspaper, architect Ruy Ohtake publicly revealed his discomfort with the idea that he should keep repeating the forms and materials that were praised and prized before in his early works. He considered that position as a conservative attitude: “there is an establishment, but I took a step forward”. Perhaps architectural history on the subject of modern architecture should do the same.

REFERENCES

- BOZDOGAN, S., “Architectural History in Professional Education: Reflections on Postcolonial Challenges to the Modern Survey”, *Journal of Architectural Education*, May 1999, 207–215.
- GUERRA, A., *Arquitetura e natureza*, São Paulo, Romano Guerra, 2018.
- GÜREL, M. & ANTHONY, K. H., “The canon and the void. Gender, Race and Architectural history Texts”, *Journal of Architectural Education*, Feb. 2006, 66–76.
- HELLER, A., *A theory of modernity*, Oxford Blackwell Publishers, 1999.
- JAMES-CHAKRABORTY, K., *Architecture Since 1400*, Minneapolis & London, University of Minnesota Press, 2014.
- JENCKS, C., *Canons in Crossfire Harvard Design Magazine*, N. 14, 2001, 42–9.
- LARA, F., “Urbis Americana. Preface”, FREIRE-MEDEIROS, B., & O'DONNEL, J. (org.), *Urban Latin America. Images, Words, Flows and the Built Environment*, New York, Routledge, 2018.
- RILEY, T., CLEMENCE, P., KATINSKY, J., & ANTUNES, B., *Ruy Ohtake: arquitetura para pessoas*, São Paulo, APC, 2016, 8–13.
- VEYNE, P., *Como se escreve a história*, Brasília, Editora UnB, 2014.
- WAISMAN, M., *O interior da História. Historiografia Arquitetônica para uso de Latino-americanos*, São Paulo, Perspectiva, 2013.
- ZEIN, R. V., *Critical Readings. Austin: Nhamérica*, São Paulo, Romano Guerra, 2019.

NOTES

- 1 The research on Ruy Ohtake’s archives and the interview with the architect that was held in preparation for this text was the responsibility of both Ruth Verde Zein and Abílio Guerra, who is also editing a new critical book on the architect’s career.
- 2 A. Heller, *A theory of modernity*, Oxford Blackwell Publishers, 1999, 4.
- 3 Ibid., 5.
- 4 S. Bozdogan, “Architectural History in Professional Education: Reflections on Postcolonial Challenges to the Modern Survey”, *Journal of Architectural Education*, May 1999, 207–215; K. James-Chakraborty, *Architecture Since 1400*, Minneapolis and London, University of Minnesota Press, 2014; F. Lara, “Urbis Americana. Preface”, B. Freire-Medeiros & J. O'Donnel (org.), *Urban Latin America. Images, Words, Flows and the Built Environment*, New York, Routledge, 2018; M. Gürel & K. H. Anthony, “The canon and the void. Gender, Race and Architectural history Texts”, *Journal of Architectural Education*, Feb. 2006, 66–76.
- 5 P. Veyne, *Como se escreve a história*, Brasília, Editora UnB, 2014, 18.
- 6 C. Jencks, *Canons in Crossfire Harvard Design Magazine*, N. 14, 2001, 42–9.
- 7 The same openness to the immediate surroundings happens in other notable Brutalist Buildings for government services, like Boston’s City Hall (Kallmann, McKinnell, Knowles, 1962–9) or the Government Service Center (Paul Rudolph, 1962–71)

or the Brasília’s Foreign Affairs Ministry (Oscar Niemeyer, 1962–70).

- 8 As for example, Terence Riley (2016) comments on his preface “Um olhar de fora para dentro” (Looking from outside to inside) to one of Ruy Ohtake’s monographic books.

Session 8-b

EAST BUILDS WEST & NATIVE REGIONALISM

Kaori Hasegawa

Lecturer at the Department of Architecture, Faculty of Fine Arts, Tokyo University of the Arts

The movement encompassed by modernism began in Europe and spread throughout the world. As embodied in the International Style, this movement introduced a new approach to architecture, universal and free of the influences of each country's nationality or traditions. Nevertheless, this conception of universality, conceived by and espoused by Europeans, was inherently Eurocentric.

For non-Western countries introduced to this concept of universality conceived in Europe, modernization and Westernization were strongly interconnected. The question of how to reconcile nationality and traditions remained a crucial issue throughout the process of modernization. Should they discard their nationality and traditions entirely? Should they emphasize their nationality and traditions? Or should they seek reconciliation and compromise between the two?

In late 19th century Japan, when the concept of architecture was introduced from Western countries, Chuta Ito, recognized as Japan's first architectural historian, insisted that Horyuji temple, among the oldest existing wooden building in Japan, had a certain thing in common with ancient Greek architecture. After modernism came to Japan in the first half of the twentieth century, Bruno Taut derided Nikkō Tōshō-gū as "kitsch", while praising the Katsura Palace as "as an eternal thing" — a judgment generally accepted by Japanese people. In other words, Japanese "nationality" or "tradition" of architecture was defined by Western standards.

World affairs and human values have changed over the decades. Architectural trends no longer flow in one direction from Western countries to non-Western countries. A framework that divides architecture in terms of Western and non-Western no longer makes sense. Nevertheless, nationality and tradition remain major issues.

Against this backdrop, it is worth noting that ICOMOS

has proposed the idea of a shared built heritage, which focuses on a shared, or mutual, built heritage from around the world. This concept allows us to appreciate buildings and infrastructures of former colonized countries in the colonial period as a transcultural heritage formed not just by Western countries, but by colonized countries.

From this perspective, locality, tradition, and post-Westernism are the main topics of this session. An overview of the papers in this session follows.

First, "The Japanese Metabolist architects in Hawaii," a paper by Graham Hart, is an engrossing study of three works by Japanese architects in Hawaii: the Hawaii Hōchi building by Kenzo Tange, Tensho-Kotai-Jingu-Kyo by Sachio Otani, and Marine City Hawaii by Kiyonori Kikutake. The author examines the background and design of these buildings and analyzes how and why these works came to be built in Hawaii.

Second, "From traditional Japanese-style hotels to modern movements," a paper by Hiroshi Tahiro, Toru Ajisaka, and Makiko Masudome, discusses the architectural history of Japanese accommodation facility, *Ryokan*, focusing on the influence of Westernization and modernism.

Third, "Business District of Naples: past and future of a spectacular modernity," a paper by Francesca Castanò, discusses the Naples Business District, designed by Kenzo Tange. The author examines the project's history from the 1960s through the 1980s, focusing on Tange's work in the 1980s and analyzing the commitment of local architects.

Finally, "Alternative African modernisms, expressive highveld vernaculars," a paper by Brendan Hart, is a noteworthy study of regional vernaculars that emerged in Pretoria and Johannesburg as alternative African Modernisms from the 1940s into the 1960s. The author focuses on the works of Norman Eaton and Stephan Ahrends and identifies their unique approach as alternative modernisms, influ-

enced by their African context.

As above, each paper discusses a different country, a different time, and a different building type. It is my hope that

the discussions in this session will contribute to and add various perspectives to our understanding of locality, tradition, and post-Westernism in architecture.



JAPANESE METABOLIST ARCHITECT'S WORK IN HAWAII

Graham Hart

Docomomo US Hawaii, University of Hawaii, and Kokomo Studio; 425 Ena Rd 802B Honolulu, HI, USA 96815;
ghart@hawaii.edu

ABSTRACT.

In the 1970s, Hawaii was a surprising architectural curiosity for Japanese architects associated with the Metabolist Movement. Built projects hide in urban Honolulu, while theoretical floating cities manifested off-shore. What brought these architects to Hawaii? Kenzo Tange designed the Hawaii Hochi Building in 1972 for his repeat client, Shizuoka Shimbun. Sachio Otani designed the Hawaii branch of Tensho-Kotai-Jingu-Kyo in 1976. While Kiyonori Kikutake spent a year as a visiting professor at the University of Hawaii in 1971, further his floating city concepts.

Due to various reasons, and Hawaii's strong connection with Japan, these architects came to the island, and in their wake, artefacts remain. Now forgotten, and too few to call it a formal movement, their work stands as an odd collection of projects and ideas. This isolated collection of built works and theoretical ideas desires to be catalogued and remembered as significant projects by prominent architects of the time. But what do these projects say, not only about the Japanese influence in Hawaii, but the theoretical study of these architects on Hawaii as a subject matter? These projects all suggest ideas of Japanese Modernism and Metabolism, normally associated with these architects, but they are also representations of Tropical Modernism, and Tropical Brutalism. Can the ideas behind these projects show what they think design in Hawaii should be? Are they representations of regional design to Hawaii? Or the global idea of Metabolism? Perhaps they are just the architectural oddities of prolific Japanese architects on an island not too far away.

1. INTRODUCTION

Hawaii has had a long history with Japan that dates back to the Hawaiian Kingdom. The Second World War, despite being on opposite sides, brought the two archipelagos closer together. The post-war period was a time of growth for most cities around the world, but during this time, Japan saw major growth due to the rebuilding efforts, and Hawaii saw major growth as technology and military influence opened the island up to exponential population increase.

In Japan, a handful of architects started collectively contributing to a new school of thought, a new idiom, and a discussion on both how things can be built for the future, and how things can still build from the past. Their idea was that architecture cannot be static, it is constantly changing and rearranging. Architecture is therefore a living organism with a lifecycle, and all living things metabolize. The movement started by architects like Kenzo Tange, Kiyonori Kikutake, Kishio Kurokawa and others, was called *Metabolism*. An approach stemmed from Buddhist philosophies on impermanence and change, manifesting for hundreds of years in the Ise Shrine and the Katsura Villa, but now changing again to reflect the technologies and possibilities of the future.

Their manifesto *Metabolism 1960*, and their climax of collective built projects at the *Expo '70*, in Japan, pushed their agenda out into the world. The architects associated with Metabolism grew to varying success, nationally and internationally, and their work in concrete and steel was shown in publications worldwide. But their ideas, concepts, and theoretical work left lasting impacts on architectural thought for generations to come. It is no wonder that with their popularity, critical thinking, and shared history be-

tween Hawaii and Japan, that some of their work would show up there. Hidden, forgotten, and out of site, these three projects are not only tied into the history of the Metabolist Movement, but are also intriguing perspectives on what it means to design in Hawaii. Kenzo Tange's Hawaii Hochi Building, 1972, is a Brutalist industrial building for a Japanese newspaper company. Student of Tange, Sachio Otani's Tensho-Kotai-Jingu-Kyo, around the corner from the Hawaii Hochi, is a concrete fortress standing in dense, urban Kalihi. Avant-garde thinker, Kiyonori Kikutake, spent a year at the University of Hawaii working on a proposal for a floating city five kilometres off of Waikiki Beach. It was his most realistic proposal to date, and would be the research necessary for his ideas to be built several years later in *Aquapolis*, 1975.

2. HAWAII HOCHI, KENZO TANGE, 1972

2.1. Brief History of Hawaii Hochi Leading up 1971

The Hawaii Hochi is a long-standing Japanese language newspaper founded in 1912 by Frederick Kinzaburo Makino. Makino was a Japanese equal-rights activist and started the paper to discuss local Japanese related politics and business. In 1962, Konosuke Oishi of the Shizuoka Shimbun purchased the Hawaii Hochi. In 1967, Oishi had Kenzo Tange design the Shizuoka Press and Broadcasting Centre in Ginza, Tokyo. Tange, who had completed the Yamanashi Press and Broadcasting Centre a few years prior, used the same idea of cylindrical infrastructure trunks with spaces branching off. In Yamanashi, multiple trunks connected together with horizontal bridges. In Ginza, a single trunk made use of a small urban site and offices cantilevered off. These works would be clear representations of *artificial ground* and were



Fig. 1. Kenzo Tange, Hawaii Hocht, Honolulu, Hawaii, 1972, interior courtyard and vertical circulation. © Graham Hart, 2020.

paralleled with Arata Isozaki's *City in the Sky* (1962). In 1970, Oishi asked Tange to design another building, the Shizuoka Shimbum-SBS Building, in the company's hometown of Shizuoka. The next year, focusing back on the Hawaii, Oishi asked Tange to design their building for the Hawaii Hocht.

2.2. The Hawaii Hocht Building, 1972

Kenzo Tange worked with the Hawaii architect Reuben Zane, of Roehrig, Onodera and Kinder. Tange, busy with many international projects, came to Hawaii several times but enlisted the help of his employee Kazuo Kimura to work in Hawaii on the project. The project site is located at 917 Kokea St, along the Kapalama Canal in the Kalihi neighbourhood of Honolulu.

The design of the building is essentially a two-storey concrete warehouse building with parking on the rooftop. The program is split into two parts, separated by an interior courtyard. The street side component originally held offices and a restaurant on the second floor. The second-floor mass

appears to float above the ground floor offices which are enclosed in glass. The rear mass holds warehouse space for the newspaper press, as well as space for the editorial staff. The exterior of the building has very few windows and a rather stark façade. The interior courtyard however, reveals a space that is cascading with volumes and open circulation, wildly landscaped with tropical foliage (Fig. 1). Green roofs, breezeways, catwalks, and sculptural brise-soleil connect this industrial building with its tropical location.

2.3. Why Hawaii?

The strong economic and cultural relationship between Japan and Hawaii brought Mr Oishi to purchase the Hawaii Hocht company, and in turn, use his repeat architect, Kenzo Tange, to build their new newspaper headquarters on the island. The Hawaii Hocht stands as the only building built by the Pritzker Prize winning architect in the United States, and should be considered the work of a master architect.

2.4. Metabolism or Tropical Modernism?

The outward appearance of the Hawaii Hocht isn't straightforward Metabolist. If anything, it is a superb example of Brutalist architecture, of which Honolulu has many. That is part of the reason why it has been forgotten and underappreciated — it is too contextual for its own good. The only metabolism it has undergone is through its changing program over the decades. As the newspaper company has downsized, spaces have been reconfigured and modified. The design permitted this, as minimum structural supports allowed for free reconfiguration of the interior. What is interesting are the adaptations created for the local climate. The concrete brise-soleil, deep overhangs, and interior courtyard space with open circulation are all manifestations of the tropical climate being either adapted to, or with. The building's future remains unclear, as the Hawaii Hocht plans on moving out, and there are no plans by the land owner to keep the structure.

3. TENSHO-KOTAI-JINGU-KYO HAWAII, SACHIO OTANI, 1976

3.1. Brief History of Tensho-Kotai-Jingu-Kyo

Tensho-Kotai-Jingu-Kyo is a religion started by Sayo Kitamura in 1945, in Tabuse, Kumage, Yamaguchi, Japan. In the beginning, Kitamura went on an evangelical mission trips to Hawaii to set up branches on several islands. Popular with first and second-generation Japanese immigrants, the religion gained a strong foothold in Hawaii, as it continued to grow in Japan. In 1964, Sachio Otani, a former student of Tange, completed the Tensho-Kotai-Jingu-Kyo International Headquarters in Tabuse, Japan. Between 1965 and 1976, Otani worked with the group to design a headquarters for their branch in Hawaii at their Kalihi property.

3.2. Tensho-Kotai-Jingu-Kyo Hawaii Building, 1976

Sachio Otani worked with Naoto Inada of Park Associates as the Hawaii architect for the project. Park Associates also designed Punahou Circle Apartments, the building where US President Barack Obama's grandmother lived. The contractor on the project was Robert Kaya Construction. Tensho-Kotai-Jingu-Kyo Hawaii member, and University of Hawaii School of Architecture graduate of 1972, Keith Sakata, was asked to assist overseeing the building and design of the project. Sakata worked alongside Yasu Morikawa to redraw Otani's drawings from Japanese into English. The site is at 888 N King St, a block away from the Hawaii Hocht.

The building remains relatively unchanged from its completion in 1976. Even today, walking in is like walking into a structure from 1970s, Japan. Conceived as a concrete fortress, a low-rise colonnade along the street with commercial spaces, protects the towering dojo mass at the rear. The entrance to the dojo is either through a front entry gate, or around the rear of the lot directly into the two-story entrance hall. The whole building is constructed out of cast-in-

place concrete, with special attention to the formwork and orientation of the plywood panels used to create it. The entrance hall opens up to a grand circulation space, with stairs that wrap upwards and details in Hawaiian Koa wood (Fig. 2). Offices, lounges, and classrooms connect outward from the central entrance hall. Otani chose to locate the dojo space at the highest level of the building, and open it to the view over the surrounding context in urban Kalihi. The swooping roof over the dojo is a direct reference to the headquarters building that Otani designed in Tabuse. A dormitory structure off to the side of the site can be reached via a second-floor bridge, connecting it back to the main dojo building.

3.3. Why Hawaii?

It seems that the main reason why Kitamura first made evangelical missions to Hawaii was a strategic one. She kept referring to Hawaii as a "Bridge to the World," and returned often to establish a following there. Yoshite Kitamura further reiterates its strategic location at the time stating "Hawaii, which, in recent years, stands in the international limelight as a place for East-West cultural exchange, the Hawaii Dojo will surely fulfil a vital role in the establishment of God's Kingdom on earth and world peace."¹ Otani's work in Hawaii then was seen as a step for the religion between East and West.

3.4. Metabolism or Tropical Modernism?

Other than being overtly Japanese in stylistic influence, the Brutalist-Japanese Modern structure is arguably Metabolist in form. It remains unchanged since its completion, and is intended to never be changed. Though formally and aesthetically it relates to Japanese architecture of the time, much of the building also relates to the tropical urban site. The building is orientated with the city grid, but also with the prevailing winds, and the entrance hall is louvered for passive ventilation, as well as the dojo space has the opportunity to completely open up. These adaptations show how the design is sympathetic to climate and style, bordering it between Brutalism and Tropical Modernism.

4. MARINE CITY HAWAII, KIYONORI KIKUTAKE, 1971

4.1. Marine City Hawaii, 1971

In 1971, Dr James Craven, Dean of Maritime Programs at the University of Hawaii, and State Marine Affairs Coordinator, was working on a proposal for the *Ocean Expo 76*, marking the bicentennial of the United States. Dr Craven came with knowledge of the Philips Submarine, which was a vessel that was able to turn 90 degrees upwards in the water. He enlisted Hugh Burgess, acting chairman of the Department of Architecture at the University of Hawaii, on the proposal. Coincidentally, Kiyonori Kikutake was a visiting professor at the University that year, and was invited to participate in the project. Kikutake, at this point, had already gained much



Fig. 2. Sachio Otani, Tensho-Kotai-Jingu-Kyo Hawaii Dojo, 1972, Entrance Hall. © Graham Hart, 2020.

notoriety for his *Ocean City* concepts, and seemed like the perfect expert to take on this floating city proposal in Hawaii.

The design was for a theoretical location, three miles South of Honolulu, accessed by sea and air. The proposal started as a few modules intended for the Expo, but then was planned to grow overtime as additional modules were added to accommodate different program. Each module consisted of three 200' towers, 80' in diameter, clustered together by a suspended platform, roughly 10 acres large. The towers would act as large ballast tanks, using the same technology as the Philips Submarine. Four-fifths of the towers would regularly be beneath the water's surface. The platform was then suspended above the water, high enough to be out of the way of any waves. The design created a highly stable artificial ground for the program to take place on. Program included not only the exhibition space, but also tourism accommodations, research and university space, restaurants, and other forms of amenities. Designed not around the automobile, the city was planned have everything within a 30-minute walk and a monorail system for mass-transit (Fig. 3).

4.2. Why Hawaii?

The theoretical background for the floating city study

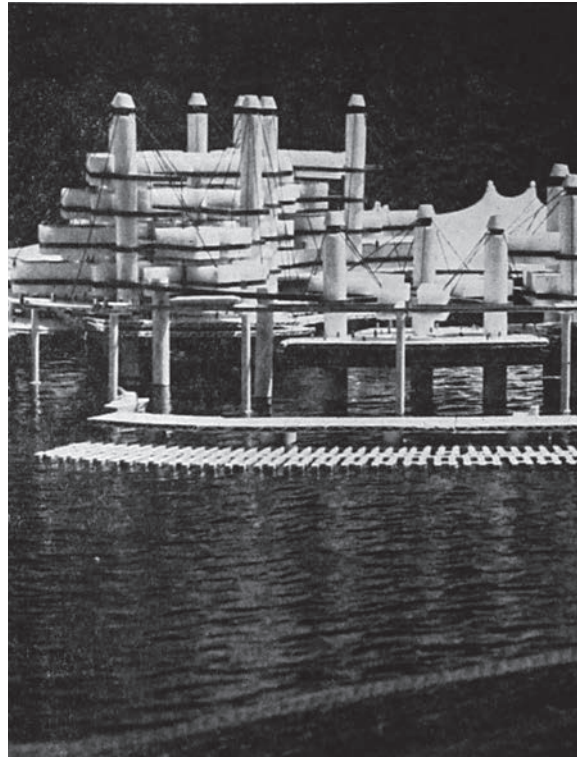


Fig. 3. Kiyonori Kikutake, Floating Marine Community and Exposition, Hawaii, 1971. Photos of the model. Kaijō Toshi, 1973.

was for a bicentennial Expo for the United States to be held in Hawaii. The Oceanic Foundation, which operates out of Makapuu Point, explained,

An ocean-orientated exposition in 1976–78 would make Hawaii the focus of development of this new frontier. The fair itself would attract visitors and investors to the island but more important, ocean-oriented industry and business would increase in Hawaii, providing a valuable economic base for the Islands and one natural to the physical assets of this state.²

In the materials produced by Burges and Kikutake, it asks the question, "... Why Hawaii? But then the answer easily unfolds. A finite amount of land surrounded by ocean with a rapidly growing population makes Hawaii a natural place for a development of this type."³ The same issues that drove Kikutake to start his *Ocean City* concepts a decade earlier in Japan, were easily applicable to Hawaii — another island metropolis with concerns for overdevelopment and prone to natural disasters.

4.3. History of Kikutake and the Floating City, Post-Hawaii

Kikutake's stint as a visiting professor in Hawaii, gained his floating city proposal some real validity.

The projects coincide with an invitation for a private audience with Prime Minister Kakuei Tanaka. With his architectural background, Tanaka pays serious attention to Kikutake's concepts for floating cities and offers his support. Later, Kikutake learns that Tanaka and US President Nixon had been planning to construct a floating school as a US Bicentennial project, for which Japan would collaborate as a final confirmation of the post-war reconciliation. But when Nixon insists on the Atlantic as the site rather than the more logical Pacific, the project collapses along with Kikutake's potential involvement.⁴

Kikutake's team in Hawaii continued progressing its research for a few more years, and in 1973, Kikutake published a book on his findings called *Kaijō-Toshi*. A scale model was made of a floating city proposal and tested in Kaneohe Bay. But the final act of Kikutake's floating cities is in the only built project of the series — the *Aquapolis* — an aquatic acropolis. Built as the Japanese Pavilion at the Okinawan Expo '75, and paid for by the Japanese government as a prototype for floating cities of the future. Finally, the technical knowledge acquired from Kikutake and his team was put to use.

5. CONCLUSION

These three projects are a forgotten past to Hawaii's architecture. Not truly of Hawaii, and not truly of Japan's history either, instead they represent a period when the two were bridged together. Their material intensive construction of cast-in-place concrete and giant steel "artificial ground" structures make them irresponsible models for design today, but their adaptations to the climate and reference to tropical living, do shine a light on these architect's understanding of Tropical Modernism. Now, Tange's Hawaii Hochi faces an unknown future; Otani's Tensho-Kotai-Jingu-Kyo Hawaii Dojo is built to outlast us all, but is relatively unknown; and Kikutake's solutions at the University were never seen to fruition in Hawaii. All designed with the future in mind, they now stand as outdated relics of a bygone era. For now, this documentation of the three projects, paints a small image of a short-lived movement of Metabolism in Hawaii.

REFERENCES

- KIKUTAKE, Kiyonori, & KOSUGI, Masanobu, *Floating City 2*, Honolulu, University of Hawaii, 1971.
 KIKUTAKE, Kiyonori, *Kaijō Toshi*, Tōkyō, Kashima Kenkyūjo Shuppankai, 1973.
 KAYA, Robert M., KITAMURA, Kiyokazu, KITAMURA, Yoshite, & OTANI, Sachio, *Dedication of Tensho-Kotai-Jingu-Kyo Hawaii Dojo*, Honolulu, Tensho-Kotai-Jingu-Kyo Hawaii, 1976.
 KOOLHAAS, Rem & OBRIST, Hans Ulrich, *Project Japan: Metabolism Talks*, Köln, Taschen, 2011.
 ROSS, Michael Franklin, *Beyond Metabolism: The New Japanese Architecture*, New York, Architectural Record, 1978.

NOTES

- 1 Yoshite Kitamura, *Dedication of Tensho-Kotai-Jingu-Kyo Hawaii Dojo*, Honolulu, Tensho-Kotai-Jingu-Kyo Hawaii, 1976, 4.
- 2 The Oceanic Foundation, "Purpose of the Floating City", *Floating City 2*, Waimanalo, 1971, 1.
- 3 Peter Testa and Greg Michaud, "The Ocean City", *Floating City 2*, Honolulu, 1971, 1.
- 4 Rem Koolhaas & Hans Ulrich Obrist, *Project Japan: Metabolism Talks*, Köln, 2011, 673.

JAPAN'S TWO ACCOMMODATION FACILITIES: THE RYOKAN AND THE MODERN MOVEMENT HOTEL

Hiroshi Tashiro¹, Toru Ajisaka² and Makiko Masudome³

1 Kagoshima Univ. doctoral program; Isogo Morigaoka 1-11-20, Kanagawa, Yokohama, Japan;

anno-tempeste@anno-spero.org

2 Kagoshima Univ. Professor, Kagoshima Univ. Official house; ajisaka@ae.kagoshima-u.ac.jp

3 Kagoshima Univ. Assistant Professor, Kagoshima Univ. Official house; masudome@ae.kagoshima-u.ac.jp

ABSTRACT.

In recent years, overseas travelers to Japan have increased, and may increase further still with the Olympics. The resultant increase in demand for accommodation has led to many hotels being established in regions throughout Japan, but Japan's traditional accommodation facility, the ryokan, continues to decline. Ryokan have been constructed in areas with hot springs since the Edo period, but following developments in construction technology following the Meiji period they have increased in scale, and transformed due to the influence of Modernization following Westernization.

Hotels built in the Meiji era to accommodate overseas guests had distinctly Japanese designs. In the 20th century, Modern Movement hotels began to be constructed throughout Japan. Diverging from the movement's international design, the planning for these hotels was influenced by the local ryokan. This influence can even be seen in the exterior of some hotels.

This essay will make clear how the ryokan transformed due to modernization as a consequence of Westernization in the Meiji era, and additionally in what ways the Japanese hotels of the Modern Movement were influenced by the ryokan. It will analyze these two modes of influence and make clear their value, as well as consider the inheritance of their architectural styles.

1. RESEARCH BACKGROUND, GOALS AND METHODOLOGY

In Vichy in France, Bath in England, and Baden-Baden in Germany there are hot spring areas that have long been known and sought out for their therapeutic properties. It is the same in Japan, where hot springs are wide-spread and numerous.¹ Large numbers of travelers visited them to recuperate, and so there were also a great many ryokan.² However, the two globalizing factors of post-Meiji Restoration modernization in response to Western influences and the functionalism of the later Modern Movement, had a significant impact on the ryokan. At present, policies are being enacted to make tourism one of Japan's main industries, and the lure of the Olympics combined with a relaxation of visa regulations are expected to result in an increase in overseas tourists. The construction of new hotels as well as the reconstruction and remodeling of previously existing ryokan has been remarkable.

In this paper the Japanese facilities called ryokan are defined as facilities where

1. shoes are removed at the entrance;
2. guest rooms are built using traditional wooden construction methods and with mostly tatami flooring;
3. Where taking meals and socializing in the guest rooms is the norm;
4. Futons are laid out after the evening meal;
5. Families or other groups can take meals and sleep in a single guest room.

This essay will analyze how globalization has shaped this traditional, characteristically Japanese local accommodation facility and illustrate its particular characteristics, with the

goal of making clear how the ryokan has been influenced by the hotels of the Modern Movement. It will focus on ryokan that are registered as tangible cultural assets, as well as the Modern Movement hotels designed by Japanese architects. It will shed light on the value, and transformations in form of both the ryokan and the Modern Movement hotel.

2. THE BIRTH OF THE JAPANESE-STYLE RYOKAN AND CHARACTERISTICS

Pilgrimages were undertaken in Edo period (1603–1868) Japan just as in Europe. There even existed a saying that everyone should visit Ise Jingu once in their lifetime. In the Edo period, it was popular for people of all ranks to go with their companions to pay homage at Ise Jingu, with its 2000 years of history.³ To complete a return journey of the pilgrimage from Edo to Ise jingu on foot took over one hundred days.

To travel from East Japan to Ise in central Japan was the kind of long journey undertaken once in a lifetime, so pilgrims would frequently push on as far as Kyushu. In other words, they crossed almost the entirety of Japan in a comprehensive sightseeing tour. On the road, these pilgrims would stop off in hot spring areas to recuperate from the journey, and also visit Kyoto with its many temples and shrines to prestigious objects of worship.

Naturally, travel costs were high. In order to make these journeys a reality, a system called "kou" allowed participating communities to save up funds all together, then in the agricultural off-season through lottery or other means send out groups in order. Every year the participants would differ,



Fig. 1. Hiroshige, 53 Stages on the Tokaido.

but as this journey to the sacred sites was a regular event, professional guides called “onshi” emerged in order to lead pilgrims to the shrines and temples they wished to visit. Living along main routes and operating lodging houses, these guides were in a sense the birth of the travel agency — 100 years earlier than Thomas Cook.⁴

Separate from pilgrimages were small-scale recuperative visits to hot springs, known as “toji”. Even foreigners in Japan at the start of the Meiji period (1868–1912), usually unable to leave their small reservation area, would use this as a pretext to be able to visit the Hakone hot springs. The facilities set up for pilgrimages and toji have continued through to the present day, with the ryokan flourishing as a leisure facility.⁵

The typical ryokan was built as a single or two-storey building, with a tatami-floored banquet hall, a large bath house by which to enjoy the hot springs, and guest rooms with engawa facing onto a garden (Fig. 1, right). Hiroshige’s *The Fifty-Three Stations of the Tokaido* (Fig. 1) conveys his thoughts on his travels, and doubles as a sort of guidebook. In Fig. 1 right the guests make themselves comfortable throughout the ryokan as though they are in their own home. That only a single fusuma sliding door separates the adjoining rooms displays how privacy was maintained only through good manners. There is naturally none of the earthquake strengthening, or fire proofing of the present day. However as even the second story rooms at least have engawa facing onto the garden, evacuation was straightforward. While pleasant in the high humidity Summer climate, in Winter only the guest rooms were heated and there was nothing for it but to wrap up warmly and brace oneself when washing or using the toilet.

3. THE INFLUENCE OF WESTERNISATION FOLLOWING THE MEIJI RESTORATION

Modernization in the Meiji period led to the introduc-

tion of buses and railways, and both the ease and scale of travel increased. Like with the “kou” system, saving up money together and travelling to strengthen friendships became a seasonal occasion.⁶ In order to cater to group travel, from the Taisyo era (1912–1926) to the Showa era (1926–1989) ryokan facilities expanded not only the number of guest rooms but also bathing facilities and banquet halls. These building additions were not just horizontal and more and more ryokan became multi-storey, exceptional for wooden buildings.

It became common to utilize Western, modern construction techniques including trusses and concrete foundations to increase span and add storeys. Through modernization due to Westernization, the three- and four-storey large-scale traditionally constructed wooden ryokan was born.⁷

Altogether different to the ryokan, Westernization also brought the hotel style accommodation facility to Japan. Japan’s successful bid for the Olympics in the 1930 created opportunities to establish international tourist hotels.⁸ However in response to foreign tourists confused by ryokan that only called themselves hotels, the government at the time set out the following definitions for the hotel:

1. Fireproof construction, that is, not wooden; Guest rooms with western fittings, that is a bed, bath, toilet;
2. Dining halls with tables and chairs;
3. A mandatory width for corridors and at least 30 guest rooms;⁹
4. No requirement to remove shoes at the entrance.

The differences between hotels and ryokan are therefore equivalent to the differences between Western and Japanese housing. In the Western living style there are permanently partitioned rooms that fulfil the function of sleeping room, dining room, and living room. These rooms are sealed off from the outside and air-conditioned. Conversely, in Japanese rooms are partitioned with sliding doors allowing for multi-purpose spaces of variable size. They have large entrances facing onto gardens and localized heating. These liv-

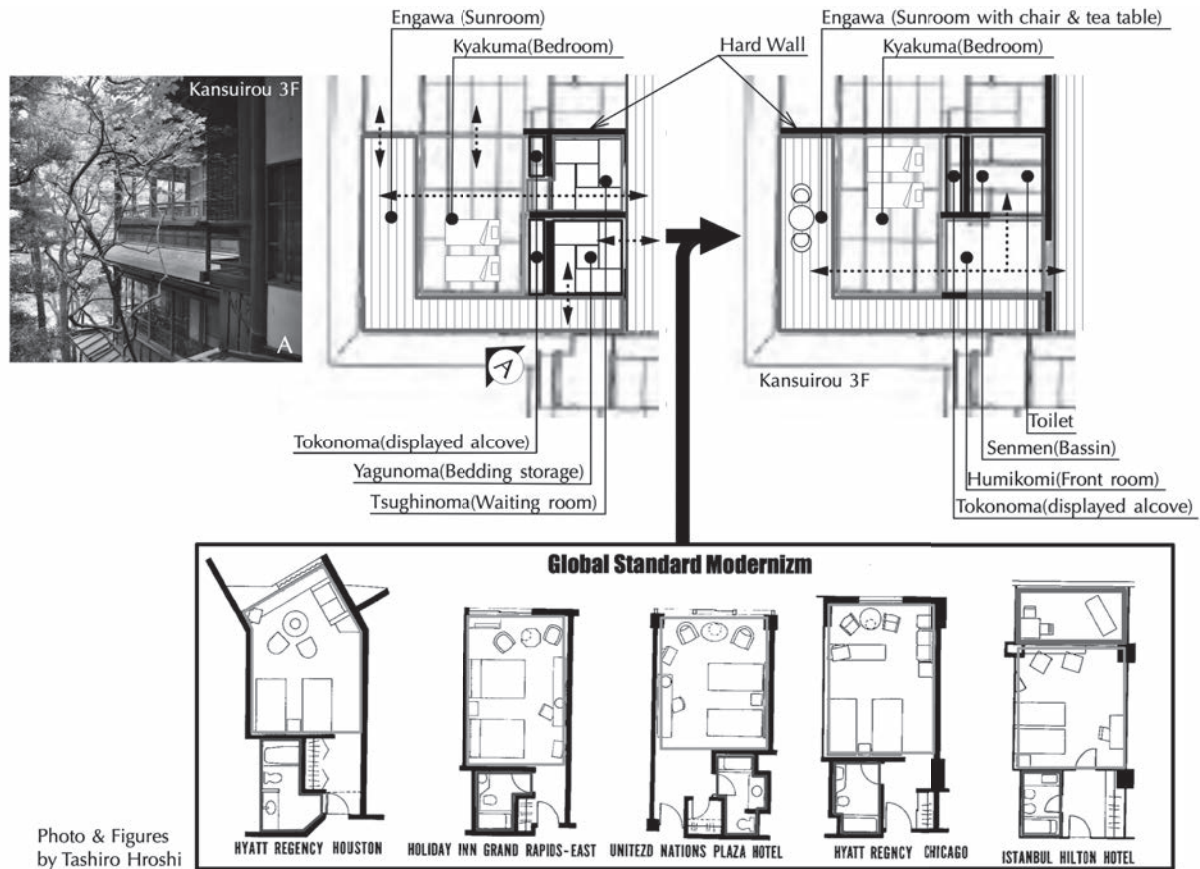


Fig. 2, The typical way of adding a toilet and wash basin.

ing styles stand in contrast to one another. Japanese people, familiar with both ryokan and hotels, have produced various accommodation facilities that fall between the two. This style is invaluable in illustrating the process of modernization.

At first, a uniquely Japanese style of incorporating Western ornamentation in faux-Western exteriors while maintaining the ryokan as a base emerged. We see this in Bansui-rou Fukizumi (1878) in Hakone-Yumoto, built by Master carpenter Miyake Yasuhithi and designated as a significant cultural asset.¹⁰ In the same period the Fujiya Hotel (1878) was established in Hakone-Miyanoshita by Yamaguchi Senosuke to cater exclusively to foreign guests. While Bansui-rou Fukizumi is in the same Giyofu style, it has Japanese style rooms as its standard, and one removes their shoes at the entrance; whereas in contrast at the Fujiya Hotel shoes were not removed.¹¹

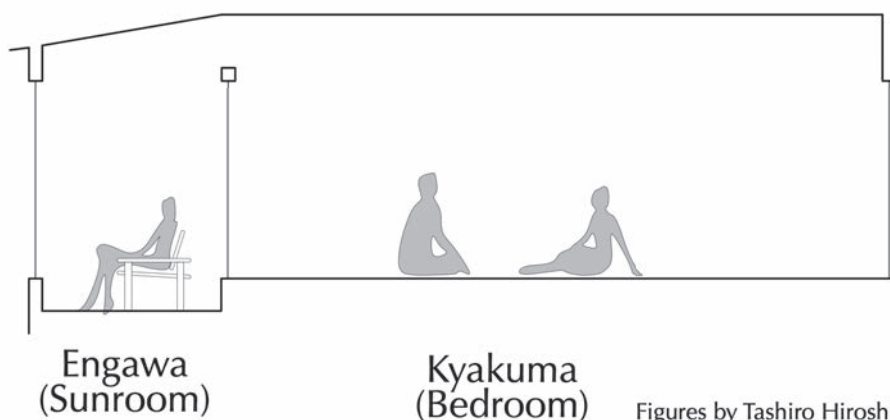
After this, traditionally constructed wooden ryokan were converted to multi-storey en masse. Fukuzumi-rou (1910) in Hakone-Tonosawa, a ryokan with seamlessly integrated gardens, was constructed in this period. Its white tiled entrance gives off a sense of modernity, and from the

road it appears to be no more than a small two story store. The interior, however, reaches up to three storeys. There is nothing to hint at this scale from the exterior seen from the road, but it is in fact a large-scale, wooden ryokan.¹²

As if to show off its multileveled grandeur, on the opposite bank of the river from Fukuzumi-rou stands Kansui-rou (1924). Kansui-rou was the first ryokan in Hakone to be provisioned with multiple large banquet halls, and a generously furnished large bath house. It has three main buildings that connect together like a maze. The guest rooms are entirely tatami, excluding the engawa, and the anteroom, bedrooms, and public-use corridors are all partitioned by fusuma sliding doors. Individual rooms are not furnished with a bathroom or toilets; instead guests use shared toilets and the bath-house. The guests move around the interior of the ryokan in indoor-wear, as though in their own home, and enjoy local cuisine and scenery from their rooms. This exemplifies the Japanese way of enjoying the ryokan.¹³ However as privacy has become more highly valued, and individuals and family groups have come to make up the majority of travelers, the addition of toilets and washing facilities became necessary. The tsuginoma, or anteroom room has been re-



Photos from Website: Website Title, "68 Yoshimura junzo memorial gallery" <https://hikagesun.exblog.jp/29451418/>



Figures by Tashiro Hiroshi

Fig. 3. The Modern Movement Hotel's Inheritance from the Ryokan.

placed with a toilet and washbasin (Fig. 2).

The ryokan has been influenced by modernization as a result of Westernization and the functionalist, modernist philosophy of the Modern Movement. Floor layout changed to reflect guests' desire for privacy, and the facilities increased in scale.

4. THE INFLUENCE OF RYOKAN ON THE MODERN MOVEMENT HOTEL

Numerous modern movement accommodation facilities planned by architects who had received proper educations in Western architecture began to appear from the mid-20th century. The Westin Miyako Kyoto hotel main building¹⁴ and Kasuien (1926),¹⁵ and the Shima Kanko Hotel (1951) designed by Murano Tougo are notable examples. Kasuien, regarded as Murano's masterpiece, is a single story wooden ryokan in the sukiya-zukuri style, erected on the roof of a typical RC hotel. Rather than a fusion of styles, this design allowed for the choice between ryokan and hotel depending on preference. The International House of Japan (1955) was designed in a cooperative effort by Maekawa Kunio, Sakakura Junzo, and Yoshimura Junzo. These three architects had a huge influence on the architecture world, propagating the Modern Movement in Japan. This was a rare example of the three coming together to work on a design.

The International House of Japan is an accommodation facility with a membership facility, akin to a hotel, and the very Japanese shoji sliding doors in guest rooms are striking. It makes heavy use of wooden fittings and furniture, and its construction in relation to its historic gardens carry on the genetic material of the ryokan.¹⁶

An excellent example of a Modern Movement hotel that was influenced by the ryokan is Hakone Kowakien (1959, Architect: Yoshimura Junzo). At present it is regrettably not in operation, but from the Hakone Kowakien homepage, two movies showing the facilities immediately after establishment are available for viewing.¹⁷

As can be seen in Fig. 3, a wooden-floored room serves as the engawa, but it is lowered a level down from the tatami. There is a low table and chairs, and a large opening facing the garden, and the room is devised so that there are no obstructions to the view. We can say that this is a compromise between Western and Japanese styles. The sloped ceiling is also worthy of note.

This technique nowadays involves only the area where the futon will be laid out being raised up a level, while the rest of the room has wooden flooring. In other words, the Japanese portion has been reduced and taken over. The remaining tatami is only as big as the bed.

All the hotels have level verandas and eaves on each floor, showing consideration of Japan's rainy climate. This

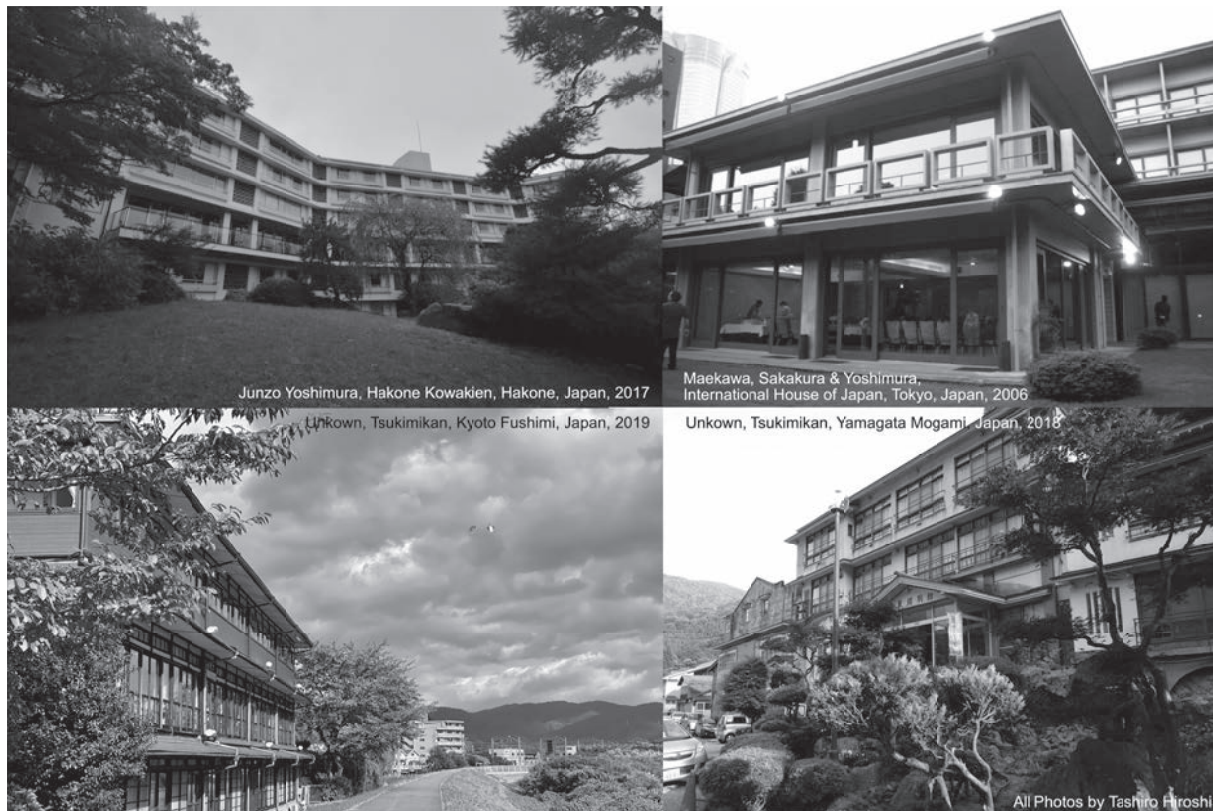


Fig. 4. Comparison of Hotel Exteriors.

can be considered a characteristic of the influence of the ryokan on Modern Movement hotels (Fig. 4).

5. THE CHALLENGES FOR TRADITIONALLY CONSTRUCTED WOODEN RYOKAN AND MODERN MOVEMENT HOTELS FROM HERE ON

In the present day, great numbers of people travel independently, and operation rates for large banquet halls and bath houses have greatly decreased. It can be said that this presents an existential threat to the ryokan building style itself. If architects cannot propose ways to improve guest comfort and reduce the burden on staff, there is a high possibility that ryokan will be replaced with hotels.

Conversely, while issues like noise pollution, earthquake strengthening, and general convenience are less pronounced for the Modern Movement hotels described previously, they are also rebuilt or closed down due to management issues and tired design. At present, it is common for core management itself to change.¹⁸ These hotels that hold such a great affinity with their gardens, are at risk of being rebuilt with more rooms to be more economical.¹⁹

There can be no doubt about the appeal of the ryokan.²⁰ If we consider the global context, the history of the bath-

house goes back to Ancient Rome, and in including saunas in the present day too, bathing facilities are used in a diverse variety of forms- from accommodation to youth hostels, and even in mountain cabins. The appeal of Japan's ryokan is in the synthesis into one of bathing, regional scenery, and food. In addition, this experience can be enjoyed alone or as part of a group. In the Meiji period, an Austrian diplomat visiting Japan took great pleasure in staying at Japan's ryokan.²¹ While mutually influencing one another, the international Modern Movement hotels, and the ryokan with their local flavor have brought diversity and liveliness to travel.

For us architects, changes in travel styles and economic concerns of individuals in the industry are not problems that we can be expected to solve. However, it should be possible for us to look at the value of these facilities, and to communicate that.

We need to straightforwardly present the value of the ryokan and the modern movement hotel from their historical story, so as to have it appreciated by many people. This task is perhaps best suited to be carried out by academic institutions such as the Architectural Institute of Japan, or universities. It may be challenging, however, to every year have a thorough discussion to evaluate buildings that may need repairs.

So what sort of agency is able to convey the importance and the charm of these establishments to the general public?

Docomomo's project is surely the best answer. The ryokan inspired Modern Movement hotels, and the ryokan themselves that have since the Edo period bound together garden and landscape, while in turn absorbing the functionalist influence of the Modern Movement, and of Western Modernization — both continue to exist in Japan. Through both, we can confirm how globalization imparts change at a local level, and how the local in turn changes the form of globalization. I hope this conference will be an opportunity for attempts at expanding on the value of both hotel and ryokan.

REFERENCES

Jippenshaikku, *Tōkaidōchū-hizakurige*, Modern translated by Harube Ima, Tokyo, Iwanami gendai bunko, 2014, original 1802–1814.

NOTES

- 1 Kazuhiro Kuramoto, *The birth of "Travel"*, Tokyo, Kawadesyobo shinnsya, 2015, 23.
- 2 Engelbert Kämpfer, *Heutiges Japan*, Makoto Saito (trans.), Tokyo, Heibonsya, 1997, 49.
- 3 Noritake Kanzaki, *Travel Culture of Edo*, Tokyo, Iwanami shinsyo, 2004, 4.
- 4 Ibid. 42.
- 5 Hakoneymoto Onsen Union, *Hakoneymoto, Tonosawa Onsen History and Culture*, Kanagwa, Yumekoubou, 2000, 135.
- 6 Kanzaki, *The birth of "Travel"*, 8.
- 7 Michio Ishikawa, *Japanese History of Onsen*, Tokyo, Chūkō shinsyo, 2018, 224.
- 8 Seizo Uchida, *Historic and Cultural Value of Timber Large Scale Accommodation Facilities*, Tokyo, Journal of Architecture and Building Science, Vol. 131, No. 1686, 2016.07, 16–17.
- 9 Fumihiko Sunamoto, *International Resort of Modernizing Japan*, Tokyo, Seikyusya, 2008, 22.
- 10 Ibid., 96–97.
- 11 Bansuiro-Fukuzumi, accessed on June 12, 2020, <http://www.2923.co.jp/history/>.
- 12 Fujiya Hotel, accessed on June 12, 2020, <https://www.fujiyahotel.jp/recommend/recommendo2.html>.
- 13 Fukuzumiro, accessed on June 12, 2020, <https://www.fukuzumi-ro.com/about/about.html>.
- 14 Kansuiro, accessed on June 12, 2020, <https://www.kansuiro.co.jp/history/>.
- 15 The Westin Miyako Kyoto, Keisuien, accessed on June 12, 2020, <https://www.miyakohotels.ne.jp/westinkyoto/facilities/garden/garden.html>.
- 16 The Westin Miyako Kyoto, accessed on June 12, 2020, <https://www.miyakohotels.ne.jp/westinkyoto/index.html>.
- 17 International House of Japan, accessed on June 12, 2020, <https://www.i-house.or.jp/facilities/accommodations/>.
- 18 Hakone Kowakien, accessed on June 12, 2020, https://www.yunessun.com/hakonehotelkowaki-en/movie_pc.html.
- 19 Takao Ikado, *Current Status and Issues of the Ryokan Industry*, Gunma, Takasaki University of Economics area policy study, 2017, 79.
- 20 Ishikawa, *Japanese History of Onsen*, 239–240.
- 21 Alexander Hübner, *Promenade autour du monde 1871 par M. le Baron de Hübner*, Paris, Librairie Hachette, 1877, 2 Vols., Ichikawa Shinichi & Matsumoto Masahiro (trans.), Tokyo, Shinjinbutsu Ouraisya, 1988, 33.

KENZO TANGE'S BUSINESS DISTRICT OF NAPLES. PAST AND FUTURE OF A SPECTACULAR MODERNITY

Francesca Castanò

Università of Campania Luigi Vanvitelli, Department of Architecture and Industrial Design; Abbazia di San Lorenzo ad Septimum, 81031 Aversa (Caserta); francesca.castano@unicampania.it

ABSTRACT.

In obvious contrast with the surrounding urban context, the Naples Business District has long been the subject of criticism and is still today a crucial point on the different interpretations of the contemporary city, for its extreme modernity considered for a long time too conflictual with the traditional characteristics of the historical city around it. Yet, the Directional Center still constitutes an exceptional *unicum*, concentrating within it a multitude of different activities, as well as being a residential area densely inhabited. There are many unresolved questions regarding the restoration operations it needs, technological obsolescence and physical deterioration and incompatibility with current energy standards. The paper, based on a careful historical reconstruction of the project's history and the various steps taken, aims to redefine the processes of correlation, appropriation, relationship and synthesis between the Neapolitan building tradition and the values of extreme modernity contained in this work, which has become an integral part of a controversial city like Naples, that Tange's plan has projected, perhaps for the first time, into a tangible future dimension.

1. INTRODUCTION

The year 2020 will celebrate the fortieth anniversary of the Business District of Naples. Its design was entrusted in 1980 to Kenzo Tange, during the last period of his activity, when his "humanistic" structuralism of the first season was replaced by a utopian and futuristic vision of urban planning. This period has been considered by the critics less original and pervasive of the previous positions. Commenting on the meanings of his work for Naples, the Japanese architect said that the project was born from the precise desire "to offer the Neapolitan people a comfortable, healthy environment of great social and cultural value": not only a set of buildings, but a new urban centre animated by activity, business and life.¹ Despite these initial intentions, the Business District in the landscape of the city is an unresolved knot. The urban planners have often analyzed it highlighting the character of extraneousness with respect to the building context. However, the architectural features of this urban ensemble, such as its large size and infrastructural flows, which can be attributed to Kenzo Tange's catalogue, make it a unique place in contemporary Naples. There is therefore a need to retrace the salient features of its history in order to place this business site at the centre of the reflections, with regard to its protection and a necessary process of valorisation.²

2. METHODOLOGY AND RESEARCH AIM

The research methodology is based on a detailed survey of the Business District project. More in detail, the investigation focuses on the approach given by Kenzo Tange to a project given in previous years to the Neapolitan architect Giulio De Luca. When Tange took over the design of the Management District, Naples experienced a season of build-

ing growth supported by huge investments for the development of the city. The decision to entrust the project to Kenzo Tange is above all political and represents the expression of a desire for radical change. This research is based on the analysis of Tange's project of 1979–1980 and the planovolumetric variants of 1982 and 1983, and the final approval in 1984. The research will also analyse the different buildings designed by the many architects involved in the construction of the individual lots, in line with Tange's planovolumetric device. Among the protagonists of this urban palimpsest, Massimo Pica Ciamarra, Michele Capobianco, Nicola Pagliara, Renzo Piano, Pierluigi Spadolini, and others. To each of them the paper will dedicate a short reading to illustrate the many solutions adopted and the differences in the use of materials, in the volumetric choices and in the cubatures.

3. THE CULTURAL CONTEXT

In the period between the Sixties and the Nineties the design of the business centre took on a sense recognized by international and Italian urban planning as a strategic turning point for the new city. Tertiary districts are built, designed to concentrate public and private offices and political-administrative functions. In some cases, such as that of Naples, the Business District also intends to include new residential buildings, mixed with office buildings. The new district becomes an economic and administrative hub of the city, and at the same time an equipped district that revitalizes entire metropolitan areas, connecting them with the urban context. In this key also in Naples the business centre was born as an integrated system with the rest of the ancient city.

This large-scale project triggers a new approach to market-oriented urban plan model, replacing traditional plan-

ning and its established primary intervention tools. The new Business District is perceived as a strategic event to reshape the city. Going beyond the classic planning tools of the Fordist age, this great and emblematic project intends to exploit the possibilities offered by the collaboration between public and private companies and the cooperation between international and local architects, through the strong symbolic charge of the large scale. It is a form of intervention that, once the theoretical approach has been established, proceeds by fragments, to which corresponds an eclectic style of design that pays attention to detail, morphology and aesthetics. Regardless of their effectiveness, the main result of this project has been to achieve a significant social and economic return and to revalue the urban land in the eastern part of the city.³

4. THEMES AND CHARACTERS OF THE SITE

The general volumetric plan of the Business District was set on an area of 110 hectares between the railway tracks of the central station, the penitentiary insula of Poggioreale and the ring road around the city. A large-scale real estate operation, commissioned to Tange in the 1980s, after a long process of conception started in 1964, who designed the plan as a large elevated platform conceived to clearly separate the pedestrian circulation of the surface from the vehicular traffic below. On it, a wide central green axis crossed by squares and arcades in hypermodern style, draws the path between the curtain-wall skyscrapers with reflecting curtain-walls. The towers, skyscrapers and all other buildings divided into functional lots were built by local architects, who concentrated in this site the highest buildings in the city. In obvious contrast with the surrounding urban context, the Business District has long been the subject of criticism and is still today a crucial point on the different interpretations of the contemporary city, for its extreme modernity considered for a long time too conflictual with the traditional characteristics of the historical city around it. The general building plan was designed in such a way as to make the construction of the buildings flexible in individual lots between island and island, with a percentage distribution of volumes between plates and towers, such as to respect a wide gap between one building and another. The respect of this solution would have ensured for all the building volumes the sunshine and natural ventilation for a perfect, consequent energy saving.

4.1. The First Project of the Business District

Luigi Piccinato, author of the 1964 Naples Master Plan, in his report identifies the area between Poggioreale and the station as the best location for a new business centre in the city. The choice resulted from the need to free the congested urban centre from directional functions, concentrated around the ancient Greek-Roman *insula*. With this relocation to the east of Naples, the new business centre was close to the main infrastructures, such as the station, port, motor-

way, ring road, and airport. It was also close to the busy industrial area, occupying land that was still completely free of buildings and could therefore be acquired without constraints by the Municipality of Naples. Moreover, this new location placed the Business District to be built in a position of continuity with respect to the dense urban fabric with a residential and popular character in the east of Naples, i.e. the workers' neighbourhoods close to the eastern industrial districts. The idea of the new management centre, on the basis of experiences already carried out, implemented a new solution based on the opportunity to make both tertiary and residential functions live together in the same place. At the beginning of the Seventies, the first plan project was committed to a team of Neapolitan architects, coordinated by Prof. Giulio De Luca.⁴ The outline plan for infrastructure and the building framework plan were approved in 1975 by a resolution of the City Council of Naples of 16 April.⁵ The Business centre is characterised by 18 building islands, one of which is destined to be the new Palace of Justice⁶, and the clear separation of vehicular and pedestrian traffic levels. The main feature of De Luca's project is represented by the different circulation flows. This choice aimed above all at safeguarding the human dimension and guaranteeing a healthy space for the entire neighbourhood. He also wanted to overcome the supremacy of cars by drawing the lines of a district on two or more levels.⁷ This will be the strong point of de Luca's project, later taken up in Kenzo Tange's project. The contract for the allotment of the newly built areas of the plan is stipulated with the company Mededil — Società Edilizia Mediterranea for itself and on behalf of the company Naced — Napoli Centro Edilizio and IRI — Istituto per la Ricostruzione Industriale.⁸

4.2. The Planovolumetric of Kenzo Tange

On the political level, providing the city with a business centre means recognising the new and great function of Naples as an economic metropolitan area on the national and international scene.⁹ Following the earthquake of 1980, taking into account the needs that occurred in the five years since the approval of the project, the Mededil Company required the architect Kenzo Tange to verify the validity of the planovolumetric plan of the Business District.¹⁰

There are essentially three ideas behind Tange's project. The first establishes a precise hierarchy for the circulation of vehicles and people; a large excavation of 12 metres moves all vehicular traffic and garages below the Business District so that the whole floor at urban level is exclusively for pedestrians. With cars, buses and subways running underground, man becomes the absolute protagonist of public space. The dominant features of this pedestrian system are characterised by a large green axis, east-west direction, equipped as a public park, a long central promenade on which the main buildings of the district are located, such as the courthouse, the firehouse, the palace of the Campania region, the church, up to the two tall terminal towers and a



Fig. 1. Kenzo Tange and Urtec, Masterplan for Business District of Naples, 1982 [© Kenzo Tange e Urtec, *Centro direzionale di Napoli: progetto planovolumetrico e sistemazione urbanistica*, s.l., Sograme, 1982].

sporting axis where the equipment dedicated to fitness and leisure are concentrated.¹¹ The second main idea of the project is related to the typological aspects of the whole context. A continuous system of low buildings, with mirror glass curtain walls, distributed along the green axis. On the main promenade, the skyscrapers by Tange are placed diagonally and cut in the shape of a rhombus, so as to characterise the significant intersections, also finished with large mirrored facades.¹² In Tange's planovolumetric plan, all the buildings, both 5-storey and tower buildings, have the same structural spacing and are characterised by covered walkways on the ground floor. The third idea introduced by Tange is the increase in residential construction in relation to tertiary construction, from 15% of the initial project to 30%, as proposed by the Japanese architect. In fact, he expands the boundaries of the Business District by occupying a neighbouring area not initially included in the plan, to create new housing, also in response to the post-earthquake. "Tali ultime scelte mirano a ridurre gli effetti negativi di una esasperata monofunzionalità già emersa da analoghe esperienze anche a livello europeo"¹³, so explains Tange himself presented his project. An avant-garde plan from a technical

and functional point of view, oriented to the use of the mirror curtain wall but showing a classic approach, in which the axial perspective is dominant, even more than masterplan for the Business District of Bologna.¹⁴ In February 1983, the Municipal Planning Commission gave a favourable opinion on the Tange planovolumetric plan (Fig. 1).¹⁵ However, Mededil pointed out that the volumes indicated in the building *insule* are only indicative and that the company itself is allowed to further subdivide the volumes of the lots. Thus began the drafting of the projects for the individual buildings entrusted by Mededil to Italian architects and professionals, under the remote supervision of Tange. The comparison between the first project and the executive plan elaborated later clearly expresses the variations between the two solutions: a greater variety of volumetric dimensions, the fragmentation of the single lots and the redesign of the central public axis, in which the twinned terminal towers are rotated at 45° but in the opposite direction to the previous project, opening up as gates to the city (Fig. 2).¹⁶ The only requirements imposed by Tange are the symmetry of the twin buildings along the public axis and the treatment of the surfaces with curtain wall finish. His intention is to

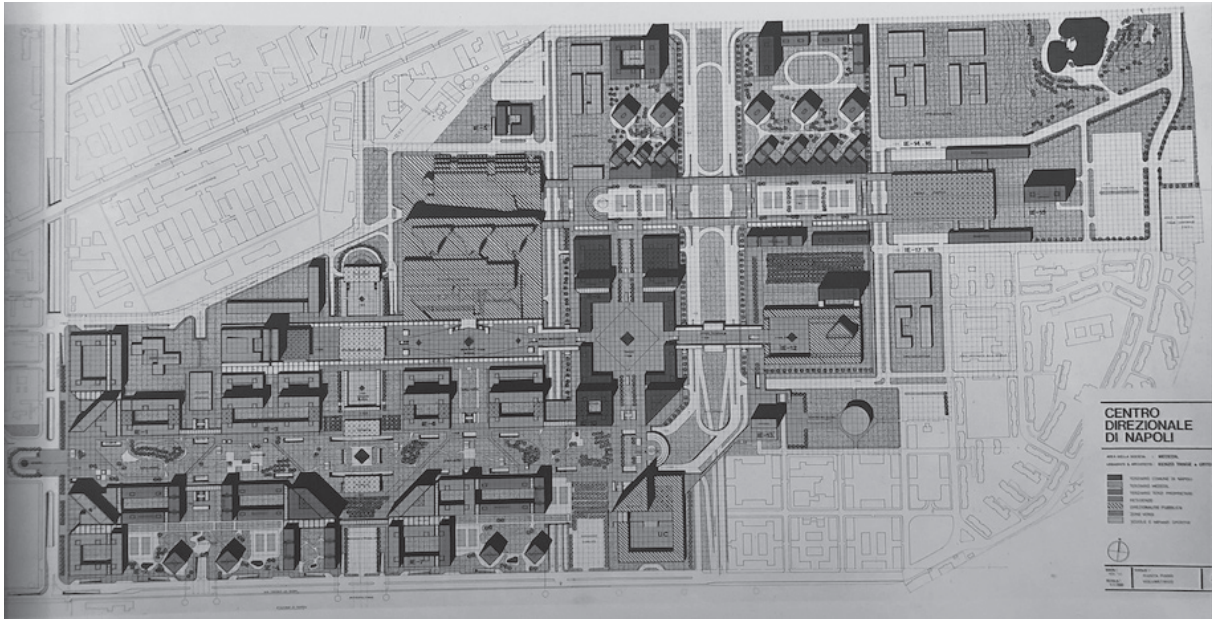


Fig. 2. Kenzo Tange, Masterplan for Business District of Naples project, 1985 [© Kenzo Tange, C.D.N. Centro Direzionale di Napoli, s.l., Tipar, 1987].

create a building complex composed of simple shapes that multiply the reflections of sunlight and views. For this purpose, the reflective glass of the facades must be clear and can be replaced by smooth stone panels, which are equally clear (Fig. 3).

4.3. A Polyphonic Architectural Space

Various architects contribute to the actual construction of the Business District, who are also involved in the construction of the main skyscrapers. The architect Massimo Pica Ciamarra realised the two high twin towers of the Enel, rotated at 45°, Renzo Piano the Olivetti building, Corrado Beguinot the impressive Telecom Italia Tower, Giulio De Luca the fire station, Corrado Beguinot, Michele Capobianco and others the Palace of Justice (Fig. 4).¹⁷ Pier Luigi Spadolini is commissioned by Mededil to study underground circulation and solutions to the urban level. In the executive project he reduces the extensive surface area of the green axis designed by Tange in order to create openings that give light to the underground spaces and redesigns the green layout of the pedestrian promenade.¹⁸ His also the project of the church of San Carlo Borromeo. Nicola Pagliara also has a singular approach to the projects for the towers of the Banco di Napoli and the Palazzo dell'Edilred.¹⁹ He replaces mirrored glass with the polychrome marbles and proposes a structural interaxle spacing different from that hypothesised by Tange. Massimo Pica Ciamarra has an essential role in the configuration of the district.²⁰ The twin towers at the end of the great public axis rotated 45° in the opposite direction to Tange's first project open the perspective of the Cen-



Fig. 3. A view of the public axis of Business District. © Photograph of Luigi Martinez.



Fig. 4. The Palace of Justice.
© Photograph of Luigi Martinez.

tre towards the city, crossed by the futuristic external elevators. And also the Enel skyscraper represents a record in the skyline of Naples, being the already tall building of the city.²¹

Certainly the new business and trade district, unique in Europe in terms of size, according to Tange's unitary design, involves a unitary and coherent characterization, even if it breaks with the Neapolitan building tradition.²² He recognizes the possibility for Italian professionalism to interpret with great creativity the innovation inherent in such an ambitious plan. So in Naples, more than in other contexts, once the planovolumetric plan has been approved, he does not realise any building, leaving only a tangible imprint of the design intentions.²³

5. CONCLUSIONS

The Business District is still an exceptional unicum, concentrating a multitude of different activities within it, as well as being a densely populated residential area. It is clearly visible from every part of the city, both for its macro-scale and for its technological impact on the surrounding urban context. In the idea of Tange and the rationalist culture from which it was born, it had to host a multitude of functions. However, it was suitable to contain large public and private institutions, but absolutely unsuitable for the service sector and for medium and small businesses. The functional anonymity of these architectural complexes made it impossible for a single professional or even a small entrepreneur

to settle there. Over time, this led to the progressive disposal of entire buildings that are now unused and remain in a state of disrepair. There are therefore many unresolved issues concerning the restoration activities that the business centre needs: technological obsolescence, physical degradation and incompatibility with current energy standards.²⁴ This brief historical reconnaissance of the project phases and the various steps taken, aims to redefine the processes of correlation, appropriation, relationship and synthesis between the local building tradition and the values of extreme modernity contained in this work, which has become an integral part of a controversial city like Naples.²⁵ Tange's project has projected the city, perhaps for the first time, into a tangible future dimension. But today it is important that the scientific community, cultural institutions and political bodies initiate a process of knowledge and enhancement that will protect the entire complex and ensure its sustainability and survival in the time to come.

REFERENCES

- Centro Direzionale di Napoli*, Bologna, Mededil, 1984.
CESTELLI GUIDI, Massimo, & MATTEI, Michele, "Il Centro Direzionale di Napoli / The Naples Management Centre", *L'industria italiana del cemento*, 2, 1990, 78–103.
FURITANO, Giuseppe, & DELLA ROCCA, Gian Aldo, *Il centro direzionale di Napoli: cronistoria tecnico-amministrativa*, Padova, Cedam, 1992.
Il nuovo centro direzionale di Napoli: l'armatura infrastrutturale, Quaderni di studio Spadolini, 1, Firenze, Alinea, 1989.
KOENIG, Giovanni Klaus, "Pulcinella al teatro Kabuki", *Ottagono*, June, 77, 1985, 80–88.

SINOPOLI, Antonella, & SURACI, Marco, *Al Centro: il Centro Direzionale di Napoli*, s.l., Editoriale Vivere, 1999.
 TANGE, Kenzo, & URTEC, *Centro direzionale di Napoli: progetto planovolumetrico e sistemazione urbanistica*, s.l., Sograme, 1982, *Centro Direzionale di Napoli*, Bologna, Mededil, 1984.
 TANGE, Kenzo, *C.D.N. Centro Direzionale di Napoli*, s.l., Tipar, 1987.

NOTES

- 1 "Discorso del prof. Arch. Kenzo Tange", *Rassegna Aniai*, VI. 1, 1983, 21–23.
- 2 Richard Plunz, Mojdeh Baratloo, & Michael Conard, *Naples: new urbanisms*, New York, trustees of Columbia University, 1997.
- 3 Serena Vicari Haddock, "Naples Business District", Frank Moulaert, Arantxa Rodriguez, & Erik Swyngedouw (eds.), *The Globalized City: Economic Restructuring and Social Polarization in European Cities*, New York, Oxford University Press, 2005, 237–246.
- 4 In addition to De Luca, the team included Enrico Casola, Vincenzo de Luca, Luigi de Rosa and Carlo Ricci.
- 5 Bianca Petrella, *Napoli, le fonti per un secolo di urbanistica*, Dipartimento di pianificazione e scienza del territorio, Ercolano, La Buona Stampa, 1990, 645.
- 6 The Courthouse is the decisive building for the choice of the new location of the business centre. It all began in 1967 with "Deliberazione di proposta al Consiglio della Giunta sulla ubicazione del nuovo palazzo di Giustizia" ... con la relazione illustrativa dell'Assessore avv. Alberto Servidio, 1/08/1967, Urbanistica Napoli Archive UrbaNa, Archivio Iannello, 169, f. 42.
- 7 Barbara Bertoli, *Giulio de Luca 1912–2004. Opere e progetti*, Napoli, Clean, 2013, 50–58.
- 8 Giuseppe Furitano & Gian Aldo Della Rocca, *Il centro direzionale di Napoli: cronistoria tecnico-amministrativa*, Padova, Cedam, 1992.
- 9 *Variante del Centro Direzionale*, Typescript document, Urbanistica Napoli Archive UrbaNa, Archivio Iannello, 235, f. a. Alberto Servidio, *Palazzo di giustizia e nuovo centro direzionale*, Aversa, tip. Nappa, 1967.
- 10 "Il Centro Direzionale di Napoli", *Rassegna Aniai*, VI. 1, 1983, 14–23.
- 11 Giovanni Cerami, Annalisa Cunsolo, & Alessandro Visalli, *Progettazione urbana e processi decisionali. Napoli: il nuovo Centro Direzionale e il Piano della Zona di Ponticelli*, Napoli, Clean Edizioni, 1994, 22–32.
- 12 Giovanni Klaus Koenig, "Pulcinella al teatro Kabuki", *Ottagono*, June, 77, 1985, 80–85.
- 13 "Discorso del prof. Arch. Kenzo Tange", *Rassegna Aniai*, VI. 1, 1983, 21–23.
- 14 Ines Tolic, *Kenzo Tange*, Milano, Motta Architettura, 2009, 58–61, where you see the essential bibliography.
- 15 Giovanni Cerami, Annalisa Cunsolo, & Alessandro Visalli, *Progettazione urbana*, cit., 68–69.
- 16 Kenzo Tange & URTEC, *Centro direzionale di Napoli: progetto planovolumetrico e sistemazione urbanistica*, s.l., Sograme, 1982; *Centro Direzionale di Napoli*, Bologna, Mededil, 1984; Kenzo Tange, *C.D.N. Centro Direzionale di Napoli*, s.l., Tipar, 1987; L. Manghi, "Il Centro Direzionale di Napoli", *l'Arca*, 32, November, 1989, 68–69.
- 17 Antonella Sinopoli & Marco Suraci, *Al Centro: il Centro Direzionale di Napoli*, s.l., Editoriale Vivere, 1999.
- 18 *Il nuovo centro direzionale di Napoli: l'armatura infrastrutturale*, Quaderni di studio Spadolini, 1, Firenze, Alinea, 1989.
- 19 Paolo Giordano, *Napoli: guida di architettura moderna*, Roma, Officina Edizioni, 1994, 188–189.
- 20 Massimo Pica Ciamarra, *Qualità e concezione del progetto: tesi e temi di architettura*, Roma, Officina, 1994.
- 21 *Pica Ciamarra Associati — Architettura e progetti*, Milano/Roma, Mondadori/De Luca Edizioni D'Arte, 1988, 164, Alba Cappellieri, "Centro Direzionale", Pasquale Belfiore, Benedetto Gravagnuolo, *Napoli architettura e urbanistica del Novecento*, Roma-Bari, Laterza, 1994, 305, *Architecture of Tall Buildings*, New York, McGraw — Hill, 1995, 53–56, Sergio Stenti & Vito Cappiello, *Napoli guida e dintorni, itinerari di architettura moderna*, Napoli, Clean Edizioni, 2010, 203.
- 22 Massimo Cestelli Guidi & Michele Mattei, "Il Centro Direzionale di Napoli / The Naples Management Centre", *L'industria italiana del cemento*, 2, 1990, 78–103.
- 23 Antonio Fiore, "Kenzo Tange dal Giappone un brivido di modernità sul vecchio skyline di Napoli", *Corriere del Mezzogiorno*, Napoli, 23 marzo 2005.
- 24 Attilio Belli, et al., *Quale Napoli: l'area del centro direzionale tra speculazione e produttività*, Napoli, Cooperativa editrice Sintesi, 1979.
- 25 Fabrizio Canfora, "Il Centro direzionale di Napoli. Verso una città-territorio?", Mario Cerasoli (ed.), *Città e Territorio Virtuale — Città Memoria Gente*, Book of Acts of the 9th Congress "Virtual City and Territory" Roma Tre-Press, 2015, 1054–1063, accessed on January 11, 2020, <https://upcommons.upc.edu/handle/2099/16445>.

ALTERNATIVE AFRICAN MODERNISMS: EXPRESSIVE HIGHVELD VERNACULARS

Brendan Hart

School of Architecture and Planning, University of the Witwatersrand, Johannesburg; Brendan.Hart@wits.ac.za

ABSTRACT.

The origins of modernism in South Africa are widely documented with an *avant garde* group of young academics and students from Johannesburg's University of the Witwatersrand coming into direct contact with early international modernist pioneers such as Le Corbusier in the early 1930s. This group, dubbed "*le groupe Transvaal*" by Le Corbusier, began producing white concrete framed apartment buildings and villa's in Johannesburg's booming Highveld landscape. Over time this international approach to the creation of modern architecture evolved to respond to the local environment creating a number of local modern vernaculars. This paper will explore a less documented regional vernacular that emerged simultaneously in Pretoria and Johannesburg from the 1940s into the 1960s.

In Pretoria the vernacular was pioneered by Norman Eaton, a locally educated architect, whose influential practice was defined through the development of an artistic vernacular that incorporated certain decorative African traditions and a concern for African space making. In Johannesburg the practice of Stephan Ahrends, a German trained immigrant architect influenced by the teachings of the Bauhaus, became a nursery for future proponents of the style. The resultant architecture, using a palette of rough, readily available local materials is expressive by its nature. It shows a unique approach to and the influence of the local African context, culture, climate, artistic traditions, and lifestyles.

1. INTRODUCTION

The origins of modernism in South Africa are well known. In the early 1930s, an *avant-garde* group of young architects from the School of Architecture at the University of the Witwatersrand (WITS) in Johannesburg became exposed to the work of the CIAM. Lecturer Rex Martienssen developed a relationship with Le Corbusier who dedicated his second volume of his *Oeuvre Complete* to them, dubbing them the *Groupe Transvaal*.^{1,2,3} From here, modern architecture was slowly disseminated through graduating students, local publication, and built works.

Initially, this first generation of South African modernist architects closely followed the traditions of the CIAM and the early works of Le Corbusier resulting in concrete framed, glass fronted apartment buildings and daring flat roofed white rendered villas for adventurous clients across the Highveld landscape. A shift in local modernism came in 1939 with the construction of Martienssen's own house. Here, the characteristic use of articulated concrete framing and the expressive use of local face brick saw the emergence of what has been described as the first local modernist vernacular. The styles almost ubiquitous adoption by architects and commercial developers, particularly in the high-rise apartment buildings of the inner city suburb of Hillbrow led it to be dubbed "Hillbrow Modern" by historian Nicholas Pevsner describing it in the 1953 *Architectural Review* as "a little Brazil within the commonwealth".⁴

Hillbrow became a testing ground for commercial building speculation. Large buildings were rapidly constructed using a combination of details taken directly from Martienssen's house or the *Oeuvre Complete*. As described by Johannesburg architectural historian Clive Chipkin⁵ "the source material, used in a routine, unquestioned manner —

sometimes blandly, sometimes with great boldness — contributed to a remarkably consistent modern vernacular which took foreign visitors by surprise."

Mainstream modernism in Johannesburg, South Africa's economic heart, followed a trajectory similar to its international counterparts, demonstrating the international connections made by local architects. The face brick and articulated white framed standard of the Hillbrow Modern began to show the influences of Brazilian Modernism, a climatically more appropriate precedent before being slowly replaced by a combination of late modernist influences as diverse as August Perret to American architects including Paul Rudolph and Louis Kahn.⁶ The result, by the 1970s, was a modernist architectural landscape of glass and exposed concrete buildings favoured by both industry as well as the apartheid state.

Elsewhere in Africa early modernist influences were often disseminated from the colonising power. Between 1957 and 1966, thirty-two African nations gained independence. Post-independence, modern architecture was seen as symbolic of new nationhood in contrast with colonial building stock. While often climatically and socially inappropriate, modernist styles were imported from both Europe and the Americas with tropical modernism being one of the few stylistically suitable introductions.

2. ALTERNATIVE MODERNISMS

Beyond the national spread of mainstream modernism, other modern architectures began to emerge. Some of what emerges is the work of individuals not spreading beyond their own practice, for example the work of pre-war German Jewish emigre W B Pabst (1905–1964) who's expressive architecture shows the influence of his contact with both the

Bauhaus as well as Russian Constructivism. Others evolve to become regional modernist vernaculars, such as the works of Bauhaus trained Pius Pahl (1909–2003), or locally trained Revel Fox (1924–2004) and Gawie Fagan (1925). Their works began to merge the modern with the Cape Vernacular⁷ architecture that had evolved in the former Dutch colony.

While these alternatives broadened the South African modernist cannon it was on the Highveld⁸ and more particularly the cities of Pretoria and Johannesburg that a vernacular emerged that embraced its African roots and context.

3. EATON

The pioneer of the Highveld modernist vernacular was Norman Eaton. Eaton (1902–1966) was educated at WITS at the same time as many of the local modernist pioneers. While undoubtedly affected by the emergence of modernism, Eaton would never completely subscribe to the principles of the International Style.⁹ Eaton's early career is marked by a time spent in Rome on a Baker scholarship where he had the opportunity to travel to Egypt, beginning a lifetime of journeys across Africa which would influence his architecture as his career progressed. Although his early houses can easily be called modernist you can already see the connection to landscape, climate and context which would become his hallmark.¹⁰

Eaton's individuality and influence cannot be underestimated. As his biographer Clinton Harrop-Allin describes:

*His employment of brick and stone and indeed his entire approach showed that he intended to endow building with a regional rather than international character. This did not represent a retreat from modernism on his part, though it did represent a retreat from the purist machine aesthetic which had so completely captured the imagination of many of his contemporaries.*¹¹

He had an ability to rise above the precepts of architectural style with his distinct use of materials, attention to detail and sensitivity to regional conditions. To this was added a reverence for Africa, its architecture and art as well as an awareness of the impact of architecture on people. His use of simple local materials effectively and evocatively was both a distinctive characteristic of his work and brought them into the material palette of modern architecture in the Highveld.¹²

4. PRETORIA REGIONALISM

The regional architecture that emerged around Eaton and fellow practitioners became known as Pretoria Regionalism, in many respects an adaptation to what were seen as the shortcomings of International Style to the local climate

and context. It has also been argued that the rise of Afrikaner Nationalist identity¹³ in Pretoria may have driven, even at a subconscious level, the desire for a locally derived modernist vernacular. Gilbert Herbert's¹⁴ description of the contrast between the "intellectual" modernism emerging in Johannesburg and Eaton's "romantic" approach can serve as a description of the emerging style. The International Style which Herbert describes as seeking "a dramatic confrontation of art and nature in a poignant dialectic interplay [with] forms" is contrasted with the "the deliberate cultivation of the rustic — the rough textures, the interpenetration of house and garden, the softening of the architecture by embracing it in planting".¹⁵ The style, the product of many practitioners influenced by Eaton, other pioneers and the newly opened University of Pretoria School of Architecture, was characterised by traditional plan forms, rustic brick (exposed or white washed), low pitched iron roofs, deep shaded eaves and verandahs, sun shy windows, sensitivity to landscape and responsive to climatic conditions.¹⁶ This was filtered through a financially restricted use of materials. In addition to this adept practitioners such as Eaton would work with the limited raw material palette in an almost decorative manner, indirectly evoking the decorative traditions of the local architecture of the Tswana and Ndebele or even those in east Africa with their connection to the Islamic world.

5. JOHANNESBURG

In Johannesburg, sixty kilometres to the South, a different set of influences and conditions were similarly leading to the emergence of a regional modern vernacular. Clive Chipkin¹⁷, the renowned architectural biographer of the city, describes the style that emerged as "Patio Houses", a vernacular of "cross-ventilation house[s], which were built with simple, evocative materials and whose large glazed sliding-doors opened onto unroofed exterior patio rooms." The architecture of the Johannesburg vernacular is almost exclusively domestic. While they may differ in detail and scale there are numerous commonalities.

*Interior walls are bagged with a granular texture or left in klinker brick or in earth-bound fair-face walling, sometimes painted startling white in the interiors....Living areas are paved [internally and externally] with red or dark quarry-tile laid in square pattern or in a brick stretcher bond, or they may be in square cut slate flags or paving brick. Bright patterned Afghans, kelims or circular coir or reeded mats form part of the spatial interaction. Built-in ledges for sitting or for private collections of indigenous sculpture or for local handcrafted pottery commonly reoccur. Large glazed sliding doors open out onto patios....described as tree bound spaces.*¹⁸

The influences that led to the emergence of the Johannesburg vernacular in the 1950s and 1960s are described as be-

ing diverse, including Gropius's The Architects' Collaborative, Scandinavian influences with their clean cut forms and use of unplastered cement block walls, Brazilian tropical modernism amongst others. The most important local influence was the existing works of Eaton and the Johannesburg based practice of Steffen Ahrends.¹⁹ Not burdened by the identity politics of Afrikaner Nationalism the proponents of the vernacular embraced the diversity of the city, its emerging art scene, and increasing interracial interactions.

Ahrends, described in the 1944 South African Architectural Record²⁰ as "a past pupil of the Bauhaus", was born in Berlin in 1907 and immigrated to South Africa in 1936 as part of the rise of the immigration of Jewish or liberal professional classes precipitated by the rise of fascism in Europe. While he cannot be said to be a proponent of the Johannesburg vernacular, his post-war practice was a nursery for many talented young architects who would develop the style. Ahrends architecture makes use of a vocabulary of thatched roofs and gumpoles, Brosley tiled roofs and bagged brick walls. This was a direct result of a chronic shortage of building material and restrictions on building sizes in post-war Johannesburg. Ahrends applied his modernist training, sensibilities and technical detailing abilities to the restrictions, exploiting the nature of the rough locally available materials. Ahrends material usage easily translated into the African idiom of architects such as Donald Turgel and Michael Sutton amongst others.^{21 22} Both were graduates of WITS and colleagues in Ahrends's practice in the early part of their careers.

6. DONALD TURGEL

In Turgel's (1922–1996) work you will find some of the purest evocations of the Johannesburg vernacular. Early in his career Turgel had the good fortune of spending three years travelling the then French colony of Morocco. This engagement with the continent, his formative professional experience working for Ahrends and his connections with the growing Johannesburg art scene strongly shaped his architecture. Turgel's buildings bear all of the hallmarks of the Johannesburg vernacular and were designed as a combined response to working in a sunny climate and within extremely tight budgets. Turgel himself described his houses as "economic palaces" with Chipkin arguing that the economy of means is as much an African response as the architecture. With their rough stock brick walls, low windows (often screened with brick grilles), sheeted roofs on rough sawn timber beams, his houses unfolded as a series of spaces, be they enclosed courtyards or rooms with integrated spaces for the display of art. Art was often integrated into the architecture itself with carved doors by contemporary artists such as Cecil Skotnes²³ or wall panels by Sydney Kumalo becoming a trademark of his work.^{24 25} Turgel's connection with the liberal Johannesburg art scene led him to design a number of galleries as well as the home of Sydney Kumalo,

the most successful Black South African artist in South Africa at the time, in Soweto.²⁶ This was highly unusual in apartheid South Africa with much of the segregated dormitory town of Soweto being made up of repeated sub-economic dwellings designed purely for cost and efficiency. For Kumalo, Turgel designed a low slung courtyard house and studio, in his interpretation of the local vernacular, in direct contrast with the prevailing standard.

7. MICHAEL SUTTON

Michael Sutton (1928) ran a prolific Johannesburg based practice which produced some of the most well-known examples of the local Johannesburg vernacular. Sutton's work bears the hallmarks of a pared back version of the vernacular through his use of materials and climatic response to context. His houses read as simple horizontal articulated masses in face brick or rough bagged plaster. The buildings are strongly connected to the site and, in the best examples, feel as if they are an extension of rock and earth itself. Internally they are pared back, stripped of much of their visual detail. White painted walls meet floors and ceilings in crisp unadorned horizontal lines, while a subtle play in height through the articulation of the floor and ceiling, further defines the internal spaces. Sutton's work is not intellectualised or self-conscious. He speaks of his approach to architecture by citing the Sri Lankan architect Geoffrey Bawa: "I have always enjoyed seeing buildings but seldom enjoyed explanations about them — as I feel, with others, that architecture cannot be totally explained but must be experienced."²⁷ When described by others:

*Michael Sutton — whose buildings display a sensibility to scale, to material and to the subtleties of function, (in terms of services, climate, access and enclosure) and space/place making — is representative of an important era in South African architecture. On entering a Sutton building one is struck by a sense of quietness, balance and peace. Living in a Sutton building allows one an intimate connection with the richness of his architectural language...Sutton's buildings have a timelessness in their language, as well as their material and spatial quality. Rough textures and a lack of embellishment, along with inexpensive materials, created an architecture that was unpretentious and that resonated strongly with its inhabitants.*²⁸

This is perhaps best represented in examples of his work such House Goodman (1963), built onto and read as an extension of the exposed rock of its site, evoking the ruins of Great Zimbabwe. House Mosendane (1974), located on a difficult Soweto township site, makes use of exposed rough brickwork vaults and built in furniture to articulate the internal spaces.

8. CONCLUSION

The search for an appropriate 'modern' African architecture has been a preoccupation in South Africa from its 1910 origin as a union of former colonies. It is as much a search for a unifying social identity as it is about being African. In its purest form, unsullied by politics or the country's complex history of segregation and oppression, the Highveld modernist vernacular fulfils, at least within its local context, this role. It is an intuitive, even functional response to the context, materiality, and place. It can be argued that it is modernist sensibilities and methodologies of the local adherents that allow for this. They were functionalists, unburdened by the complex colonial architectural history of the country. Simple building forms met clients lifestyle requirements while they exploited the nature (and aesthetics) of local materials as commonplace and crude as they might be in a way that echoes the methods of Louis Kahn in his use of concrete or brick.

The modernist vernacular that emerged in Pretoria and Johannesburg in the mid twentieth century was not a pastiche of African elements applied to modern forms but rather, as Harrop-Allin²⁹ describes it an evocation of Africa. Eaton, when asked about the African nature of his work said "I am working in Africa....naturally I am more influenced by Africa because I live here and travel here and my main interest is in Africa".³⁰ Its success is because of both the engagement with place and method of making speaking to and of Africa (or at least a corner of Africa that exists(ed) in Johannesburg and Pretoria).

Interesting comparisons can be drawn between this vernacular modernism and the work of second generation modernists across globe. Aalto shows a similar respect for local context, craftsmanship and building materials. Schindler or Neutra similarly embrace and encourage indoor/outdoor living. The vernacular that emerged through Eaton, Ahrends and subsequent practitioners is unique for its approach to and being influenced by the context of Africa. The expressive, sometimes decorative language, uses simple unadorned locally available materials — exposed rough timber poles, stock clay brick work *brise soleil* screens and plan forms that allow for outdoor living. The buildings respond to the local climate and directly and indirectly embrace and incorporate contemporary art. Already possessing African sensibilities in their response to context and place making, they embrace the decorative traditions found in many traditional African architectures. The result is a distinctly African form of modernism and space making.

NOTES

- 1 Transvaal was a province of South Africa before 1994. The name refers to the geographic location meaning "over the Vaal River".
- 2 Le Corbusier, *Oeuvre Complete de 1929–1934*, Zurich, H Ginsberger, 1935.
- 3 Herbert Gilbert, *Martienssen and the International Style*, Cape Town, Rotterdam, AA Balkema, 1975.
- 4 Ivor Prinsloo, "South African Synthesis", *Architectural Review*, 1995.
- 5 Clive Chipkin, *Johannesburg Style*, Cape Town, David Philips, 228.
- 6 Ibid.
- 7 The Cape Vernacular (Cape Dutch) is an architectural style that emerged in the Dutch Cape Colony in the 1600's. Characterised by white plastered walls, symmetry and ornate gabled roofs, the style has its origins in the Netherlands, Germany, France and Indonesia.
- 8 The Highveld is a portion of the South African inland plateau with an altitude above 1500m, but below 2100m and includes the both the cities of Pretoria and Johannesburg.
- 9 Clinton Harrop-Allin, *Norman Eaton: Architect*, Cape Town and Johannesburg, C. Struik Publishers, 1975, 15.
- 10 Ibid., 26.
- 11 Ibid., 32.
- 12 Ibid., 115.
- 13 Afrikaner Nationalism was a political and social ideology born in the late 19th century with a strong anti-British sentiment born out of the Boer Wars.
- 14 Herbert Gilbert, *Martienssen and the International Style*, Cape Town, Rotterdam, AA Balkema, 1975, 167.
- 15 Roger Fisher, "The Third Vernacular", *Architecture of the Transvaal*, Pretoria, Unisa Press, 1998, 125.
- 16 Ibid.
- 17 Clive Chipkin, *Johannesburg Style*, Cape Town, David Philips, 294.
- 18 Ibid., 295.
- 19 Ibid., 294, 305.
- 20 South African Architectural Review, 1944, 297.
- 21 Clive Chipkin, *Johannesburg Style*, Cape Town, David Philips, 305–306.
- 22 Stefan Ahrends, accessed on 28 January 2020, <http://www.artefacts.co.za/main/Buildings/archframes.php?archid=7>.
- 23 Cecil Skotnes (1926–2009), South African artist known for his incised wood panels, wood block prints, murals and sculpture.
- 24 Clive Chipkin, *Johannesburg Style*, Cape Town, David Philips, 297–298.
- 25 Donald Turgel, accessed on 28 January 2020, <http://www.artefacts.co.za/main/Buildings/archframes.php?archid=4080>.
- 26 SOWETO, abbreviation of South Western Township, a dormitory township for the black residents of Johannesburg from the 1930's onwards.
- 27 Michael Sutton, *Michael Sutton Architect*, Athens, Foinikas Publications, 2015, 10.
- 28 Ibid., 11.
- 29 Clinton Harrop-Allin, *Norman Eaton: Architect*, Cape Town and Johannesburg, C. Struik Publishers, 1975, 116–120.
- 30 Ibid.

Session 8-c

EXPLORATIONS OF THE TRAJECTORIES OF MODERN ARCHITECTURE WITHIN GLOBAL-LOCAL MODERNITIES

Sangeeta Bagga Mehta

Principal of Chandigarh College of Architecture, Chandigarh

Global Local modernities have emerged as a subject of concern especially with reference to Modern Heritage. The sensitive relationship between a building and its context is so deeply engrained and mutually enriching that it is a complicated was . The other is the aspect of original settlers engaged in local craft that has a bearing on the rehabilitation project if any. There are three diverse papers which delve into the more mature aspects of modern architecture elaborating on the principles advocated by the modern Masters notably - Le Corbusier, Alvar Alto, Kenzo Tange among others and how these have been imbibed and interpreted with the contextual attributes within different social, cultural, climatic regions influenced by political and technological conditions. The making of an architect is shaped on the journey and a process underlining a discourse that emerges out from the experiences that are gathered through his course of education, travels, publications, grand tours and exhibitions and also the influence and exposure gained while working under the tutorship of a modern master. Going a step beyond this, the exploration further builds on a context and its materials and crafts and the technology. The sum total of this shapes the thinking of an architect and thereby the work that he leaves behind as his legacy or the 'built residue'.

The aspect of furniture and the interiors in the Architecture of modernity evokes another point of interest. Furniture items are elements alongside photographs that can be transported whereas Architecture of the building cannot. Thus, as an example the transmission of an idea from the Nordic cultures to the Eastern world or even the Southern hemisphere and thereafter the negotiation of its appropriation in the cultural milieu is revealed. This narrative of the process of additive- subtractive and other forms of geometry are showcased through examples in architectural typologies as to how modernity has been translated into design

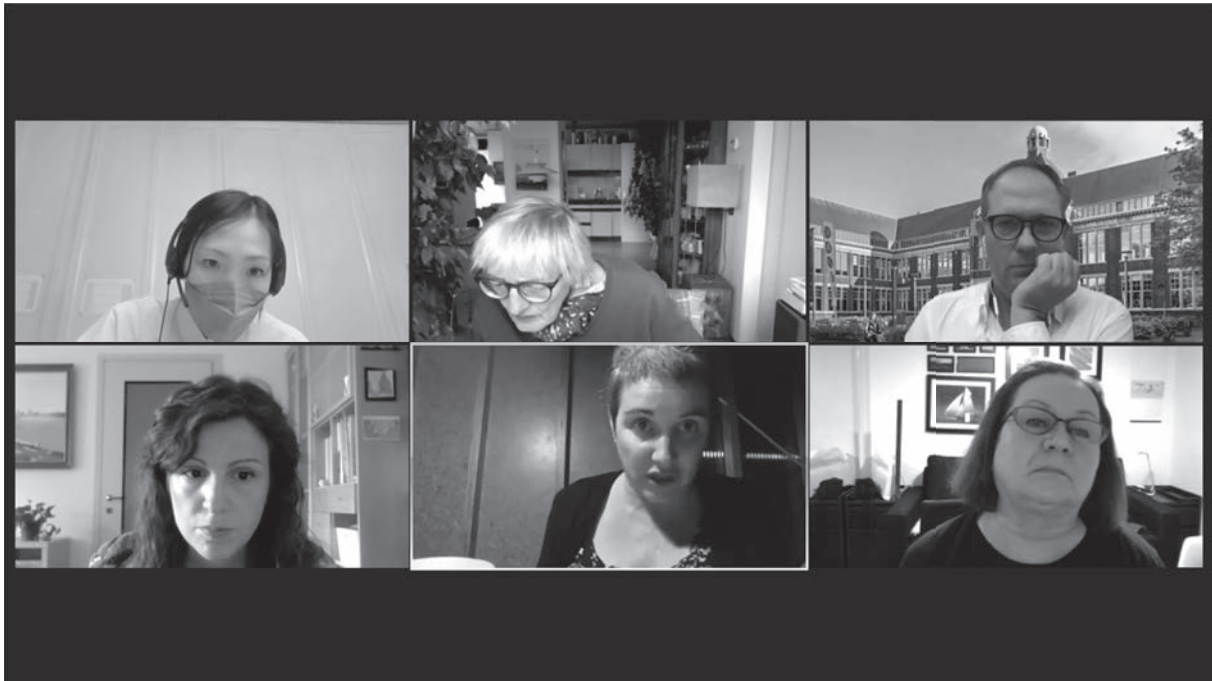
of interior spaces across geopolitical borders and rely or even exhibit borrowings from and being connected with the landscape as a primordial element of the design process. Attention to detail, engagement with indigenous craft, and the importance of Spatial sequence are also revealed and reflect the modernist qualities of architecture in style and content.

The Third paper focusses on the idea of migration and borrowed modernities which have been negotiated and have now created their own identity with time and through negotiation of the initiated with the indigenous. The deeper dialogue that is brought to the fore is the tension existing in an apartheid society and also how modernity is a heritage at risk in a rapidly changing world. The radical departure from the past in the hope of a new social and democratic world where egalitarian, standardised and prefabrication were the key words, the idea of Good Living and such concepts were advocated, the mass movement towards the lesser privileged and developed countries and regions was met with resistance and acceded negotiation in order to be realised. A salient feature of this dialogue was the engagement between the local artisan and the modern architect and one such paper examines the context, the process and the creation of a repository of modernity in South Africa where Dutch influence is predominant and the 'built residue' requires a deeper understanding of the heritage values of this repository. The cultural value raises the bar as the architectural typologies include Architecture in Public Service- Low cost housing, schools, health centres, administrative building stock and its adaptive reuse or retrofitting in the present day new requirements need a deeper and sensitisation to the understanding of the values and significance of heritage it expresses and the intrinsic dialogue between the global and the local. Histories of migration and trajectories of technology transfer are also aspects for reflection that have influenced the growth of modernity in a deeply rooted cultur-

al context of the South African tribes.

The questions that arise for discussion are centred on thought processes which encourage the engagement with modernity of an architects education. Further, modernity being a child of the modern movement must embrace the cultural context , and the technology discourse as it essentially aims at moving ahead and making living a comfortable and easy experience . Can we establish indigenous mo-

dernities and if its an affirmative yes, then what is its envelope and what are its thresholds? Indigenous modernities must be rooted in the local tradition, values and culture. In what ways can we push the envelope to encourage, support and cultivate the local traditions, crafts and techniques and this in turn can make the architecture of modernity purposeful, rich in meaning and content.



TRACING TECTONIC WILHELMIENS: DUTCH-SOUTH AFRICAN HERITAGE AND MODERNITY

Nicholas Clarke¹ and Marieke Kuipers²

¹ Delft University of Technology, Heritage & Architecture/AE+T/Faculty of Architecture; P.O. Box 5043, 2600 GA Delft — the Netherlands; n.j.clarke@tudelft.nl

² Delft University of Technology, Heritage & Architecture/AE+T/Faculty of Architecture; P.O. Box 5043, 2600 GA Delft — the Netherlands; m.c.kuipers@tudelft.nl

ABSTRACT.

The newly created Union of South Africa attracted over seventy Dutch-born architects and civil engineers who migrated to practice their profession there, when the country was still part of the British Commonwealth (1910–1961). These *Hollanders* brought with them knowledge on both modern technologies and global values of modernity, but they also struggled with the special conditions of a deeply divided society. Their legacy is subject of a transcontinental research and dissemination project, 'Tectonic ZA Wilhelmiens'. This explores their hitherto unrecognised contribution to the globalisation of the Modern Movement, their built residue and its local relevance for today and the future in a vastly changed environment. This paper presents the legacy of two Dutch modernists in South Africa, Henk Niegeman and Jaap van Niftrik. Their oeuvres present not only a geographic translocation and assimilation of ideas, but have also survived into a new South African era.

1. BLIND SPOTS IN MODERN HISTORIOGRAPHY

Despite the piles of literature on C20 architecture and the *docomomo* International registers, there are still blind spots in the current historiography. It does not proportionally reflect how and where the process of knowledge transfer took place in, for instance, the global South. A modest attempt to fill this gap is to identify the hardly known contribution of Dutch architects and engineers to the built environment of the Union of South Africa when it was still part of the British Commonwealth (1910–1961). Their works, even if not always utterly modern, show aspects of inherited cultural resilience from their Dutch architectural education, including a great interest in orientation and planning.

The transcontinental research and dissemination project 'Tectonic ZA Wilhelmiens' was initiated by the University of Pretoria and is supported by the Dutch Shared Heritage programme. The project title relates to the preceding project 'Eclectic ZA Wilhelmiens', dedicated to the historicist legacy of Dutch émigré architects (differing from 'Victorian'). The term 'Wilhelmiens' refers to the Dutch Queen Wilhelmina (reigning 1898–1948). 'Tectonic' is a reference to Kenneth Frampton's seminal studies and the profound impact of new technologies on the construction and aesthetics of the modern architecture of the Machine Age. 'ZA' is the international country code for South Africa, but is historically associated with the former Zuid-Afrikaansche Republiek (ZAR), forged by Paul Kruger as an independent Boer Republic in the 1880s. Dutch architects were invited to modernise the ZAR and, likewise, Dutch engineers to construct railroads and bridges.

Alongside the desired modernization, tensions among the mixed population became manifest. The conflicts led to the Anglo-Boer wars, and later to the unjust apartheid poli-

cy. Without denying these shadowing contexts, we are primarily researching and documenting the architectural legacy of the *Hollanders* in the Union, because their built residue is hitherto unrecognised and at risk in a rapidly changing world. This paper will just focus on two modernists: Henk Niegeman (Cape Town) and Jaap van Niftrik (Johannesburg).

2. DUTCH BACKGROUND¹

In early C20 Netherlands, the emancipation of labourers took shape together with a fundamental cultural turn towards modernity and a political turn towards full parliamentary democracy. These represented the typical *Verzuiling* ['Pillarisation'] of the Dutch society, subdivided in socio-culturally cohesive groups, which founded their own institutions (schools, housing corporations, mass media). Social-democrats were often decisive at local level, particularly for public funding of social housing schemes and healthy public schools.

The 1901 Housing Act was highly influential on subsidised housing and urban extensions, especially after 1914. Unlike many other European countries, the 'neutral' Netherlands were not directly involved in the Great War, but it kept its army mobilised and suffered from negative side-effects. In response to immediate shortages of materials and housing, some municipalities initiated social housing experiments in concrete, like the Amsterdam 'Concrete Village' (1922–25). Governmental support also implied far-reaching control over the residents' way of living for public health, economy and moral reasons. Based on detailed norms and sizes, a great variety of subsidised housing schemes was developed within a restrictive classification system related to income-groups and number of rooms while trying to avoid



Fig. 1. Jan Brinkman and Leen van der Vlugt, Van Nelle Factory, Rotterdam, The Netherlands, 1927–1930. © Collection Netherlands Heritage Agency, Amersfoort.

too strict uniformity.

In contrast, the modernist architects of the 'New Building' embraced prefabrication and standardization, focusing on functionality, transparency, hygiene and efficiency. They readily adopted industrial materials like steel, glass and reinforced concrete. Preferring geometric forms and flat roofs, they aimed at a pure ornamentless architecture with tectonic qualities, defined by material surfaces and varied colours (like the "constructivist" Rietveld Schröder House at Utrecht, 1924). Like Gerrit Rietveld, an early CIAM participant, the members of *de 8* and *Opbouw* eagerly spread the functionalist concepts in the Netherlands. In the battle against tuberculosis they often applied whitewashed facades with large windows and balconies to provide access to fresh air and healing sunshine for housing, sanatoria, schools and factories, such as the lucid Van Nelle Factory at Rotterdam (Fig. 1).

Despite their good intentions, the 'new builders' met a lot of criticism for their sometimes-rigid opinions about 'good' or 'bad' architecture and radical rupture with the past. But after the traumatic World War II, previous reservations towards standardisation, prefabrication and high-rise were put aside to speed up low-cost housing production during the reconstruction. Non-traditional construction methods

were broadly stimulated, often in combination with open urban planning. Compact family dwellings were built in huge quantities, alternated by small units for singles and elderly people (or special homes). All were orderly arranged to receive sun, light and fresh air, and views on public green and works of art. The idealistic organisation *Goed Wonen* ['Good Living'] (1948–68) zealously propagated modern living with light furniture, though the traditional roles of male breadwinners and nurturing 'housewives' persisted.

From this mixed background, dozens of Dutch architects migrated across the globe, to work in South Africa. Unlike their British colleagues, the Dutch trained architects had to pass a professional exam before they were entitled to start a private practice, like Niegeman and Van Niftrik experienced.

3. A DUTCH CONSTRUCTIVIST IN CAPE TOWN: HENK NIEGEMAN

Just like his elder brother Johan Niegeman, the lesser-known Hendrik Theodorus Otto Niegeman (1905–1972) was trained as an architect at the Arts and Crafts Academy at Haarlem. Henk was named after both his maternal grandfather, who had worked for the Netherlands South African

Workers' Club in Grosny

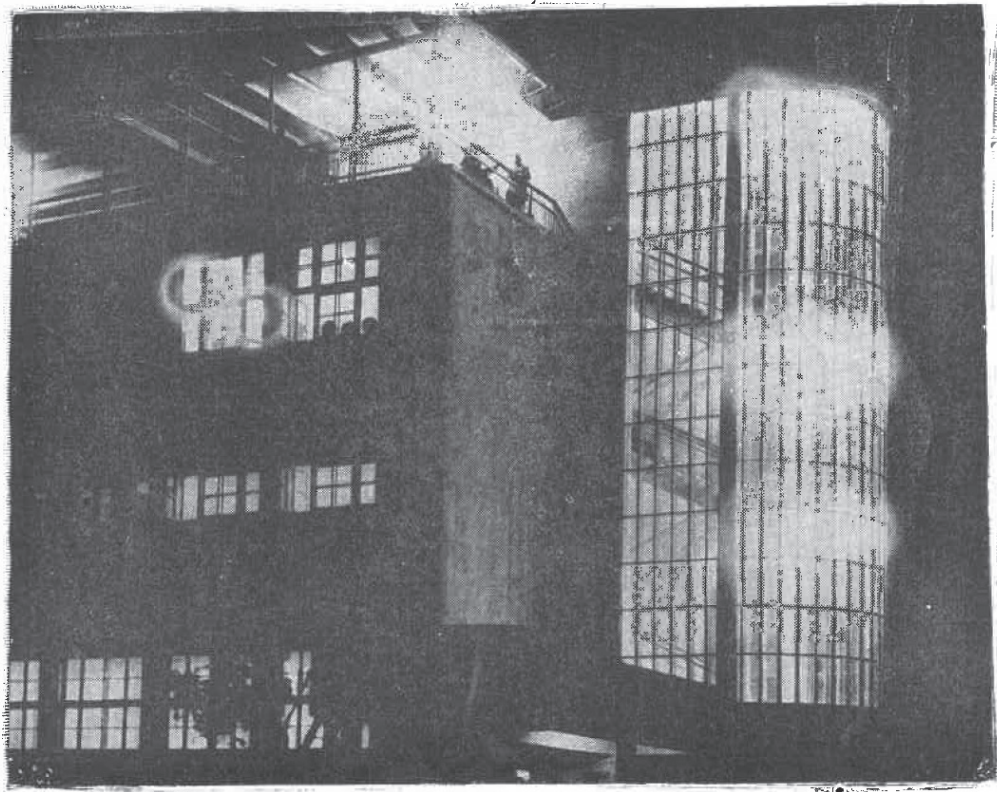


Fig. 2. Henk Niegeman, Grosny Workers Club, Grosny, Russia, c. 1931, *Architect, Builder and Engineer*, December 1938, 11.

Railroad Company, and his versatile uncle Henk Wijdeveld, founder of the expressionist monthly *Wendingen* and initiator of many utopian projects.² Wijdeveld was a well-travelled and enthusiast international networker. After meeting Erich Mendelsohn at Wijdeveld's architectural office at Amsterdam in the early 1920s, the two brothers Niegeman went to Germany where they worked for Mendelsohn and stayed at the Bauhaus at Dessau. From there, Johan, with the Dutch avantgardist Mart Stam, joined Ernst May's brigade to the young Soviet Union, hoping to realise the dream of socialist cities.³ Henk, though, signed a promising contract with the Soviet Building Trust to design heavy industry buildings at Yaroslavl. Before their completion, he was called to work at Moscow under the *Machinestroy* project, including on a locomotive factory (Lublinov), a workers' club (Grosny / Fig. 2), a theatre (Moscow) and a railway station (Vladivostok), but his attempts to modern architecture and open discussion were halted in 1932 by Stalin. An adventurous working period in Kazakhstan followed.⁴

Late 1933 he assisted Wijdeveld with establishing the Bauhaus-like European Mediterranean Academy (AEM) at Cavalière. The AEM, though short-lived, brought Niegeman in contact again with Mendelsohn, and also with Max Policansky, a Liverpool-trained architect born at Cape Town.

After the break-up of the AEM project (1934) each returned to his home country, but also worked and lectured abroad.⁵

Invited by Policansky and attracted by the new perspectives for work, Niegeman — with his Russian wife — settled at last in Cape Town. Reporting to building in South Africa in *de 8 en Opbouw* (1937), he made comparisons with his surprising experiences in Russia, while expressing an evident superiority of the Dutch avantgarde and a certain disdain for the unskilled (black) labour. He also mentioned a recent visit by either Brinkman or Van der Vlugt to Cape Town, regretting that none was invited for a lecture.⁶

At that time, Policansky was commissioned to design a modern clothing factory at Salt River, Cape Town: the Judge. Niegeman collaborated on this project, which resulted in an elongated whitewashed building with shed roofs and a glazed rounded corner like his Grosny Club building. By then, another architect, Cape-trained Edwin Douglas Andrews, was also working at Policansky's office, but obviously Niegeman was the most modern of them. The two founded the independent practice Andrews and Niegeman in 1939, designing the Rex Trueform Factory opposite the Judge and the neighbouring clothing factory for Bertish & Co. (Fig. 3), opened in the same year.⁷ Niegeman's name clearly appears as the major designer of the new firm and it was recalled

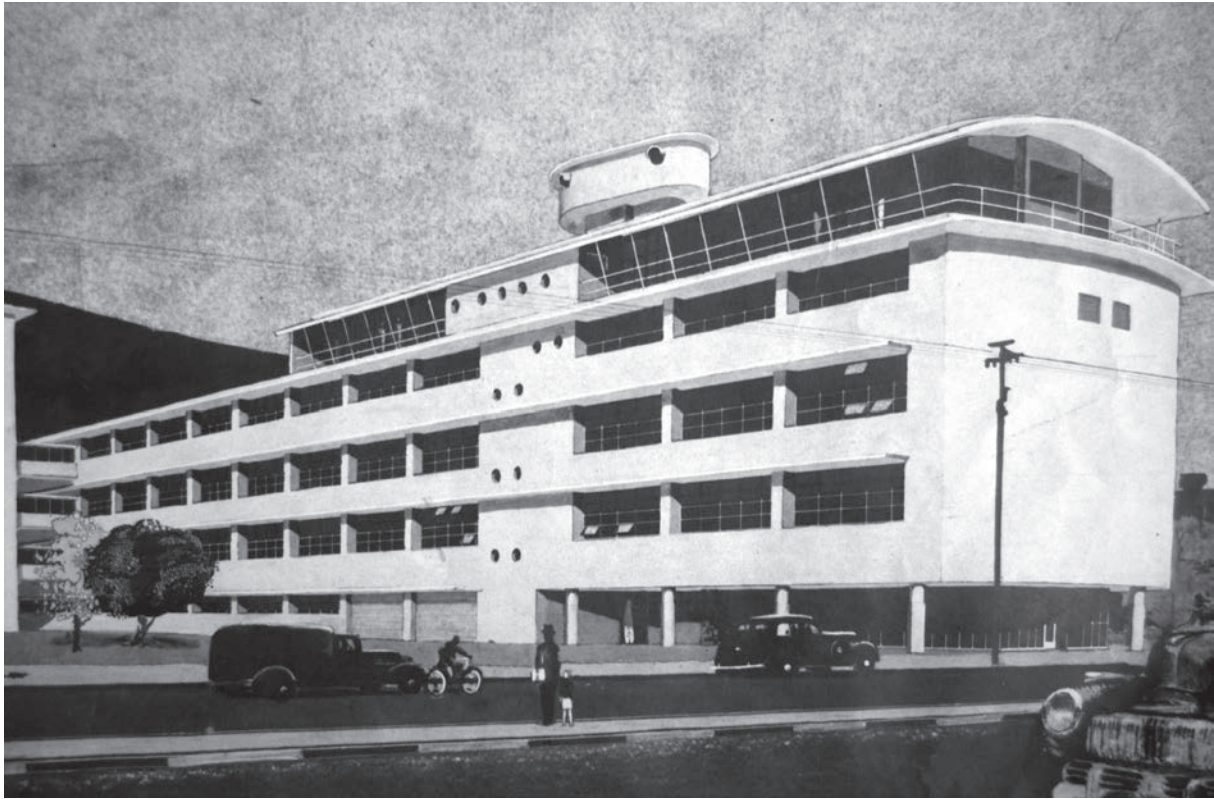


Fig. 3. Andrews and Niegeman, Bertish & Co. Factory, Salt River, Cape Town, South Africa, 1939. Presentation Watercolour. © Andrews and Niegeman Collection, University of Cape Town.

later that Niegeman's "practical experience from Holland, Russia and California" as well as "his clarity in design thought and meticulous attention to detail" had provided a "strong foundation" for it.⁸

The six-storied Rex Trueform building is an extraordinary example of a daylight factory, highlighted by its shallow elongated volume and spectacular curtain walls of steel framed, partly-operable windows to allow fresh air, light and shade. Though different in its detailing, it resonates the Van Nelle Factory for the functionalist approach and attention to comfort for the workers.

In 1943 Niegeman applied similar principles to his own house at Hout Bay, called Alma Ata after the former hometown of his wife. The minimalist layout of the compact unit, provided with self-designed tubular furniture, allowed for alternating separation and participation.⁹ For other interiors Niegeman also designed modern furniture, sometimes with less sophisticated materials.

Interested in shaping a healthy environment with concern for hygiene, ventilation and logistics, the firm not only designed modernist apartments with typical open air balconies at the front, e.g. Exeter Park, and other factories, but also premises for the Dutch-related Jan Kriel Institute at Kuils Rivier and the redevelopment of the Groote Schuur

Hospital. Their largest project, Tygerberg Hospital, commenced in 1956, was only completed four years after Niegeman's retirement and subsequent death.¹⁰ The practice continued to produce a large portfolio of hospitals tower blocks in modernist vocabulary.

4. A DUTCH DESIGNER AT JOHANNESBURG: JAAP VAN NIFTRIK

Unlike Niegeman, Jaap (Jacob Joseph) van Niftrik (1911–1964) started a solo practice as an architect at Johannesburg in 1949, after having worked for various architectural firms. Van Niftrik, a grandson of a well-known Amsterdam City Engineer, grew up near the upcoming broadcasting centre Hilversum, where his father Eduard worked as an electrical-engineer and Willem Marinus Dudok acted as city architect and town planner. Van Niftrik trained at the Arts and Crafts Academy at Amsterdam. After graduating he travelled north, staying with his arts-educated uncle Hendrik, who worked in Helsinki and Leningrad as the Dutch chancellor.

So, Van Niftrik already had first-hand knowledge of European modern architectural developments before he emigrated to South Africa in 1936. During the WWII, Van Niftrik



Fig. 4. Jaap van Niftrik, Netherlands Pavilion for the Rand Easter Show, Johannesburg, South Africa, 1957. © Van Niftrik Family Collection, Marieke Kuipers 2019.

formally qualified as an architect in South Africa, but was soon conscripted by the Dutch government and he initially worked in London as a draughtsman preparing the projected post-war reconstruction. Then, in summer 1944 he was called up to join the Princess Irene Brigade, which participated in the Allied landing at Grèce-sur-Mer. This traumatic experience left a lasting impression.¹¹

Back in Johannesburg he built his own family house, which gave him the opportunity to make his own furniture and practice his skills as a carpenter in interior wood detailing, inspired by Rietveld.¹² Typically Dutch, he was very keen on a beneficial orientation with regard to views and sun — especially when designing freestanding houses — and flexible functional planning. His houses show similarities with the early post-war work by Dudok and Dutch bungalows while he also followed his “desire to design a home with warmth and charm” by infusing some “traditional” elements, like visible wooden beams and plain brick walls around a fireplace” (House Endenburg, Pine Park).¹³

In the non-domestic architectural sector, some projects

were directly linked with commerce and the overseas connections with Europe, illustrating the expansion of air transportation (BOAC) and road traffic in the country (Total service stations). For the planning and redesign of the KLM (Royal Dutch Airlines) booking office at Johannesburg, “materials and fittings were flown in from Holland together with light fittings from Switzerland”. Likewise, Dutch artist Jan Dijker was imported to create a figurative mural on site.¹⁴ Van Niftrik had to incorporate the KLM colour scheme — essential for the company’s branding — and accommodate existing projections and columns in the new interior on a relatively narrow plot. For this purpose, sophisticated use was made of artificial lighting and partially lowered ceiling with built-in air conditioning ducts.

Such collaboration between architects and artists as well as clients was not uncommon in the Netherlands, where the ‘decorative furnishing’ of public buildings and schools was actively promoted in the framework of the post-war reconstruction, and accidentally also followed by some firms as a sign of cultural upliftment. A similarly-out-

standing showcase of post-war optimism, innovation and transparency was the Dutch Pavilion built for the 1957 Rand Easter Show (Milner Park, Johannesburg), an annual exhibition for commerce and industry (Fig. 4). Here, Van Niftrik opted for a striking curved front of green translucent fibre-glass fins with narrow slits to allow for constant natural ventilation. It could be artificially lit from inside and bathed in external floodlighting at night, making the whole both a demonstration of Philips' most advanced lightning technology and cutting-edge construction technology (constructed by Dura). The interior was equally stunning with a free-standing spiral staircase in reinforced concrete and 28 stands subdivided over two levels.¹⁵ The upper floor could also be converted into a cinema. Apart from the country's name, multi-coloured bricks, a huge map in orange, the flag and flowerbeds with tulips underlined the Dutch origin of the exhibited products in an appealing way. Dutch-produced DAF cars were prominently displayed outside. Today only publications and images survive.

Van Niftrik was also involved in school designs (Schweizer-Reneke), which fitted well with his concern for creating both a surveyable and agreeable atmosphere, but just as the other 'Tectonic' architectural oeuvres, his legacy needs to be further explored.

5. FUTURE PERSPECTIVES

At the time of writing, the research project is still underway. We have identified more buildings, structures and archival material than previously anticipated, because many Dutch-born professionals and their achievements were hitherto unrecorded. We have also learned that some of those architects in public service have contributed to a contentious heritage (including low-cost housing, schools and administrative buildings) as it relates to the time of the entrenchment of apartheid, which will be further studied in the next phase of our project. Yet, the built residue is an undeniable part of South Africa today and in daily service, for which adaptations for new requirements are made with various degrees of understanding of the heritage values.

Our discoveries are, or will be shared with the public through various media, in digital and paper form, such as the South African Heritage Resources Information System, the websites www.artefacts.co.za and www.dutchfootsteps.co.za and a theme-based book that will be published fall 2020. The chapters will also address the histories of migration and trajectories of technology transfer as well as the social contexts. These are essential for understanding the complex relations between the local and the global. Finally, we will critically reflect on the cogency and potential resilience of the ideas of the Modern Movement as a global heritage in the South African context.

ACKNOWLEDGEMENTS

The authors wish to express their great thanks to Bernard Shapiro (Rondebosch) and Colette van Niftrik (Pinelands) for sharing their collected documents and personal information.

NOTES

- 1 Marieke Kuipers, "The Netherlands: Country of Emigration", Nicholas Clarke, Fisher Roger, & Marieke Kuipers (eds.), *Common Ground, Dutch-South African Architectural Exchanges, 1902–1961*, Edam, LM Publishers, 2021.
- 2 Biographical notes in Wijdeveld archive at Het Nieuwe Instituut, Rotterdam (WIJD 168).
- 3 Cor de Wit, *Johan Niegeman 1902–1977. Bauhaus Sowjet Unie, Amsterdam*, Amsterdam, Nederlands Documentatiecentrum voor de Bouwkunst/Van Gennep, 1979.
- 4 Henk Niegeman, "My experience as an Architect in Soviet Russia", *Architect, Builder and Engineer*, December 1938, 8–12 & January 1939, 13–19.
- 5 André van Graan, *Negotiating modernism in Cape Town: 1918–1948: an investigation into the introduction, contestation, negotiation and adaptation of modernism in the architecture of Cape Town*, University of Cape Town, 2011, 133–134.
- 6 Henk Niegeman, "Het bouwen in Zuid-Afrika", *de 8 en Opbouw*, 1937, 151.
- 7 Van Graan, 133–134, 137–138, Ilze Wolff, *Unstitching Rex Trueform: exploring apartheid modernity and architectural modernism through the Rex Trueform garment factory, Salt River 1937–2013*, University of Cape Town, 2014, 11–12.
- 8 An., "Profile of a Practice, Andrews & Niegeman attain their Half Century", *Architect & Builder*, September 1990, s.n.
- 9 Henk Niegeman, "House Alma Ata", *South African Architectural Record*, November 1944, 277–278.
- 10 Communication with Bernard Shapiro (Rondebosch), 13 February 2019.
- 11 Communication with Betsy-Ann and Mariette van Niftrik (Amsterdam), 11 September 2018.
- 12 Communication with Colette Van Niftrik (Pinelands), 11 February 2019.
- 13 Jaap van Niftrik, "Two Houses, Northern Suburbs, Johannesburg", *Architect and Builder*, October 1956, 36–37.
- 14 Jaap van Niftrik, "K.L.M. The planning and redesigning of the Royal Dutch Airlines booking and information office, Loveday street, Johannesburg", *Industrial Architecture*, July 1956, 42–43.
- 15 An., "Netherlands New Pavilion at Rand Show", *Construction*, April 1957, 47–49, Jaap van Niftrik, "Nederlands Pavilion, Rand Easter Show", *Architect and Builder* 1957, 38–41.

PROCESS OF A GLOBAL TRIANGULATION OF CULTURES: HOW ALVAR AALTO'S DESIGN METHODOLOGY CROSSED THE ASIA PACIFIC

Silvia Micheli¹ and Marja Sarvimäki²

¹ The University of Queensland, School of Architecture; Zelman Cowen Building (51), The University of Queensland, Queensland 4072 Australia; s.micheli@uq.edu.au

² Bond University, Abedian School of Architecture; Gold Coast, Queensland 4229 Australia; msarvimaki@bond.edu.au

ABSTRACT.

Finnish modern culture has been shaping Australian society's taste for furniture and architecture since the post-war period. At the same time, Japanese influence is also seen in the work of many 20th century Australian as well as Finnish architects. Amongst the commonalities that these three architectural cultures share, there are the attention paid to nature; use of natural materials; preference for asymmetrical compositions; celebration of spatial sequences and thrive to represent the national identity through the built environment. This process involved a complex synthesis of interrelationships, whilst it has developed the sensibility to the reception of Finnish and Japanese modernism in Australia. This paper is an initial exploration of the cross-pollination of these three cultures by the means of publications, exhibitions, grand tours, and implications in the mid and late 20th century Australia. In so doing, it adds a layer of interpretation to the studies on the circulation of modernism globally through the notion of "triangulation of cultures". The paper considers projects from the post-war years — when Australian architects started travelling to Finland and Japan, as well as more recent works as examples of the synthesis of Japanese and Finnish architecture.

1. INTRODUCTION

Although Japanese influence on Aalto's work is well documented,¹ Aalto's impact on Japanese architecture is less explored. In this respect, it is worth noting that modern architecture in Japan was initially heavily influenced by other early European modernists, namely Le Corbusier, in whose atelier the two pioneering Japanese modernists, Kunio Maekawa and Junzo Sakakura, worked in 1928–30 and 1931–38 respectively. In fact, the first large monographic exhibition on Aalto was organized in Japan as late as in 1986, albeit national and international architectural journals had naturally introduced him to the Japanese audience already earlier. Also, in his significant publications, Tokyo-based architect Yoshinobu Ashihara compares Japanese architectural tradition with similar Finnish sensibilities, especially those found in Aalto's designs. By dividing the creation of architectural space into two categories by either subtraction or addition, Ashihara regards Le Corbusier as an example of the former approach. Aalto's architecture instead is that of addition in a similar way than traditional Japanese architecture expresses the relationship between the whole and its parts.² Indeed, even if the cosmopolitan Aalto never travelled to Japan or Australia, his architectural expression did. Besides photojournalism, the world-wide distribution of Aino and Alvar Aalto designed furniture and other artefacts played an important role as well, as stated by Eeva-Liisa Pelkonen: "Buildings don't move and circulate, but furniture and photographs do."³

By untangling the assumption of a straight and univocal influence of one culture onto another, we focus on ex-

ploring the exchange of Aalto's agencies and idioms between Finland and Japan and Australia — and back — by employing the method of triangulation of cultures. This analytical method allows us to explore how these three architectural cultures have shared the awareness of the connection with nature, the use of a wide variety of materials at their natural state, the celebration of asymmetry and the special sequences, often to be perceived diagonally. There are also parallels between Aalto's design methodology, including his concepts "extended rationalism", "elastic standardisation" and similar projections of nature, and the 1960s Japanese Metabolists' inspiration from biological processes in organisms. We also explore the agency of publications, exhibitions and field trips in the circulation of ideas amongst these three countries and the main advocates who have promoted such a flow of architectural design principles from Finland across the Asia Pacific region. We aim to answer the following questions: How did this information influence, impact and inspire Australian architects?

2. ACROSS THE ASIA PACIFIC

In Australia, too, the precedents of modern architecture at first originated from central Europe, particularly due to the many émigrés who arrived in Australia during and after WWII, including Karl Langer and Harry Seidler from Austria, among many others and, in more recent years, Brit Andresen from Norway. In a paper on Aalto's influence in Australia, Radford and Schrapel emphasize that, even though Australian architectural education in the 1930s was still dominated by the Classical, Gothic and Renaissance Europe-

an idioms, the students' interest had turned to Frank Lloyd Wright, Bauhaus, Le Corbusier, Walter Gropius, Mies van der Rohe, and other modernists — but not yet to Aalto.⁴

Nevertheless, starting in the 1940s, attitudes towards peripheral architectural realities changed, partially because many Australian architects studying or working in England had the opportunity to visit North European countries, and partially because of the grand tour tradition, where Australian architecture graduates were encouraged to visit Scandinavia as well, increasingly embodying the works of Aalto. Blair Wilson and Campbell Scott of Hayes & Scott firm in Brisbane, who had studied under the supervision of Langer, are among the most notable Australian architects who personally visited Aalto's projects in Finland and applied elements of those in their work. In Sydney, Allen Jack + Cottier Architects represented a great studio environment where to test design ideas markedly influenced by the formal solutions provided by the architecture of Aalto.

The *Architecture in Finland* exhibition, held at the Art Gallery of NSW in 1973, included 68 items, chiefly photographs of about 50 examples of Finnish architecture and landscapes, wooden furniture by Aalto, books and magazines on architecture and planning. The catalogue introduction was by Harry Seidler. In Japan, the first monographic exhibition on Aalto was organized in Tokyo in 1986 and designed by Shigeru Ban. It was followed in 2007 by an exhibition at the Barbican Art Gallery in London, accompanied by the publication *Alvar Aalto through the eyes of Shigeru Ban*. In 1995, *Alvar Aalto: Points of Contact* exhibition made its way to Australia. It was exhibited in Brisbane, at the Queensland Museum with an opening lecture about the work of Alvar Aalto by Brit Andresen and it also travelled to the Cullity Gallery UWA in Perth and at The Powerhouse Museum in Sydney. In this catalogue, too, Pallasmaa wrote an essay regarding the architecture of association of Aalto.⁵

Japan, on the other hand, was not yet a destination of the "grand tours" for most Australians, in spite of exhibitions and books, such as Bruno Taut's early writings on Japanese architecture (e.g., *Houses and People of Japan*, first published in 1937) and *Katsura: Tradition and Creation in Japanese Architecture* by Walter Gropius, Kenzo Tange, and Yasuhiro Ishimoto (1960). These sources of information were complemented by journals like *GA (Global Architecture)*, among many other publications, which gradually spread the Japanese interpretation of modern architecture across the world. Yet, already in 1941, A. L. Sadler, Professor of Oriental Studies at the University of Sydney, published the book *A Short History of Japanese Architecture*, an account of the growth of Japanese architecture and its connection with the history and culture of the people (Fig. 1).⁶ The number of architects and offices operating in Australia involved in the cultural triangulation with Japan and Finland is significant in terms of national proportion: Andresen-O'Gorman, Glenn Murcutt, Peter Stutchbury, Richard Leplastrier, Richard Johnson, Allen Jack + Cottier Architects, Wilson Architects,

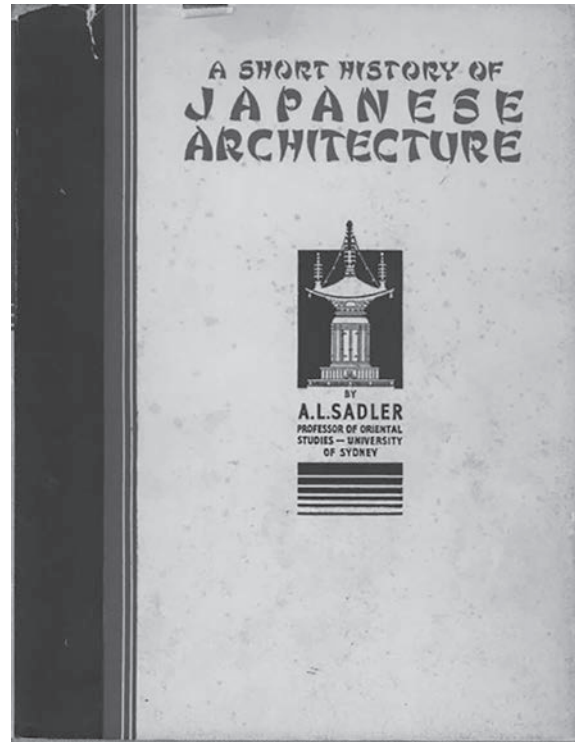


Fig. 1. A. L. Sadler, *A short history of Japanese Architecture*, 1941.

Brian Donovan and Timothy Hill, just to mention a few. In the limited space of this paper, we can only discuss a few practicing architects in NSW and southeast QLD, although the topic should certainly be extended to other parts of Australia, especially to the State of Victoria in the south coast.

In order to articulate the triangulation of architectural ideas across Finland, Japan and Australia in the second half of 20th/early 21st century, we have selected three exemplary stories by considering Australian architects in whose careers both Finnish and Japanese sensitivities have been crucial.

2.1. Japan Unveiled: Richard Johnson, Sydney

Soon after WWII, young Australian architects began to visit Finland, including Robert Woodward, who also worked in Aalto's office for a year, as well as Keith Cottier, followed by many others who added Finland in their travel itineraries. Richard Johnson, recipient of the 2008 RIAA Gold Medal among many other awards and acclaims, regards Cottier as a representative of the so-called Sydney School who best understood such Danish and Finnish concepts as materiality of unpainted timber, connection between the landscape, the site and the building, and other "Aaltoesque" characteristics Johnson finds apparent, for example, in Cottier's Clubbe Hall (1967) of the Frensham School in Mittagong, NSW.⁷

Richard Johnson is one of the Australian architects to



Fig. 2. National Portrait Gallery, Canberra (2005–08), © Johnson Pilton Walker Architects.

first explore Japanese architecture and culture before travelling to the Nordic countries. He recalls that during his studies at the University of New South Wales in 1962–68, the architectural history was conventional, although there was a lot of discussion on Scandinavian design, but still none on Japanese architecture. Johnson's first encounter with Japan took place in 1974, when he was designing the Australian Pavilion for the Expo 1975 in Okinawa. Supervision of the pavilion building took him back to Japan many times, during which he got to know Yoshinobu Ashihara. Later Johnson worked on the Tsukuba Expo 1985 in Japan with him, accompanied by Ashihara's architect son, Taro Ashihara. Given that Yoshinobu Ashihara is the author ruling out Aalto as the one Western architect incorporating similar additive principles into spatial organization than is customary in Japanese tradition, it is not surprising that Johnson regards the agency of his knowledge of Japanese architecture in the understanding of Finnish architecture. He first travelled to Finland in 1976, followed by other trips after his MPhil in Town Planning from the University College London in 1977, and numerous other travels both to Japan and Scandinavia.

When confronted with a question of how these cross-cultural influences have affected his own designs, Johnson without hesitation mentions the National Portrait Gallery in Canberra (2005–08 / Fig. 2). He elaborates that "I am a classicist and formalist, and the building is characterized by controlled geometry and rigorous structure, which is not particularly Japanese or Scandinavian." Yet, he clarifies that despite the formal layout, the Gallery has a relaxed feeling provided by the natural materials, diffuse light, connection to the site, attention to detail and craft. Also, the architecture is revealed by moving through a set of spatial sequences, which Johnson considers similar to Nordic and

Japanese architecture. "What I learned in Japan," he continues, "is the importance of texture and natural weathering of materials, the patina" which he also attributes being celebrated in Denmark and Finland.

2.2. Education at UQ: Brit Andresen, Brisbane

Karl Langer, who turned into an influential educator at the University of Queensland, "was also instrumental to the region's emerging interest in Japanese architecture and garden design."⁸ This is apparent in Langer's lectures and publications emphasizing the potential of Japanese architectural concepts, such as modularity and cross-ventilation, in sub-tropical Australia. However, those ideas were still based on his collection of literature on Japanese architecture⁹ not on personal experiences of it. During the 1970s and 1980s, Andresen O'Gorman architects played a key role in introducing amongst the architectural circles of Brisbane and Queensland first the Nordic and subsequently the Japanese design sensibility. Between 1965 and 1970, architect and educator Brit Andresen attended the University at NTH, Norway. As a post-graduate, her soon-to-be husband Peter O'Gorman was awarded the A.E. Brooks Travel Scholarship by the University of Queensland in 1964 and travelled through Europe and Russia returning to Australia via Siberian Railway and Japan. Their relationship with Japan consolidated in the 1990s, when Andresen's colleague from the AA London, Tom Heneghan, settled in Tokyo. Andresen and O'Gorman gave multiple lectures in Tokyo, while researching Buddhist temple gardens in Japan. Also, Andresen attended the Aalto Symposium in 2003, 2006, 2009 and 2012 in Finland. In 2003, Andresen released her article on Aalto and Utzon and their design principles. From 2010 to 2015, she organized six design studios in Kyoto for her students at the University of



Fig. 3. Mooloomba House, North Stradbroke Island, Queensland (1995–99), © Andresen-O’Gorman.



Fig. 4. Lovett Bay House (1994), © Richard Leplastrier.

Queensland, injecting into the School of Architecture and in the architectural community of Brisbane a design method based on the principles of asymmetry, constructions and detailing.¹⁰

All these design principles are reflected in Brit and Peter’s Mooloomba House at North Stradbroke Island, Queensland (1995–99 / Fig. 3), whose design intentions is twofold: on the one hand, it celebrates the presence of the surrounding subtropical landscape; on the other hand, it tests the characteristics of hardwood and its expressive potential, which

they have applied to other projects as well.

2.3. The Eco of the Island: Richard Leplastrier, Sydney

Amongst the architects operating in Australia, Richard Leplastrier has actively worked towards the synthesis of Japanese and Nordic architecture and its adaptation to the local conditions of New South Wales. Graduated in 1963 from The University of Sydney, he was employed in Jørn Utzon’s office at the time of the development of the projects for the Sydney Opera House and Bayview House until 1966,

when Utzon was ousted from the commission for the Opera House. In 1966, Leplastrier left for Japan. The three years spent in Kyoto first and then in the office of Kenzo Tange in Tokyo were a foundational experience for him, as “only Japan was to affect Leplastrier as deeply as his time with Jorn Utzon.”¹¹ At Kyoto University, Leplastrier met Professor Tomoya Masuda, who became his mentor. Masuda broke all the rules and did his PhD studies on the Aboriginal communities of central Australia and became thus an advocate of Australian culture in Japan.¹²

Leplastrier's building that best represents the synthesis of the Japanese and Finnish design lessons is his family house at Lovett Bay, Church Point, Sydney (Fig. 4). In this pavilion-like building, which blends into the lush subtropical forest, the key design element is the threshold between the elevated platform and the space under the cantilevered roof, framing the dramatic landscape. According to Leplastrier, the control of light, the process of reduction of both form and structure and the celebration of timber are principles learned from Utzon and experienced directly in Japan and later in Finland:

*The form of the building is simple — its central core room restrains a broad cantilever roof that surrounds the building, the lack of columns allowing the line of the landscape to continue unbroken. Being inside the house is like sitting under a strong overhanging tree.*¹³

3. CONCLUSIONS

The study cases above have confirmed the agency of publications, exhibitions, travels, and education in the “translation” of Finnish and Japanese architectural design principles in Australia. They also show how deeply in the second half of the 20th century these design principles have impacted Australian architecture and how they have reflected back through advocates such as Masuda and Pallasmaa respectively. At this stage of the research, we have detected a substantial number of architects who share similar design methodology, mainly in Queensland and Sydney. In particular, Sydney stands out as the cradle of this phenomenon, primarily due to the presence of the Department of Oriental studies and Professor A.L. Sadler. Between 1940s and 1970s, an increasing sensibility towards Japanese and Finnish architectural culture has eventuated in the so-called “School of Sydney”. Despite a general anti-Japanese attitude amongst Australian people due to WWII, architects expressed their interest in Japanese architecture quite early on, with Richard Johnson and Richard Leplastrier pioneering these initiatives.

REFERENCES

- Alvar Aalto: Points of contact*, exhibition catalogue, Helsinki, Museum of Finnish Architecture, 1994.
- ANDRESEN, Brit, “Alvar Aalto and Jørn Utzon: An Architecture of Gathering Forms”, *Proceedings of the Utzon Symposium: Nature Vision and Place*, Michael Mullins & Adrian Carter (eds.), University of Aalborg, Denmark, August 28–30, 2003.
- ANDRESEN, Brit, “Alvar Aalto and Jørn Utzon: An Architecture of Ancient Gathering Forms”, *UME* 22, 2011, 44–50.
- ASHIHARA, Yoshinobu, *The Hidden Order: Tokyo through the Twentieth Century*, Tokyo, Kodansha International, 1989.
- LEPLASTRIER, Richard, *Richard Leplastrier: Spirit of Nature Wood Architecture Award 2004*, Helsinki, Finland, Wood in Culture Association, 2004.
- MACARTHUR, John, VAN DER PLAAT, Deborah, GOSSEY, Janina, & WILSON, Andrew (eds.), *Hot Modernism: Queensland Architecture 1945–1975*, London, Artifice Books on Architecture, 2015.
- MICHEL, Silvia, & LAAKSONEN, Esa (eds.), *Aalto Beyond Finland: Architecture and Design*, Helsinki, Alvar Aalto Foundation, 2015.
- MICHEL, Silvia, & LAAKSONEN, Esa (eds.), *Aalto Beyond Finland (Vol 2): Projects, Buildings and Networks*, Helsinki, Alvar Aalto Foundation, 2018.
- PALLASMAA, Juhani, & SATO, Tomoko (eds.), *Alvar Aalto through the Eyes of Shigeru Ban*, London, Black Dog Publishing in association with Barbican Art Gallery, 2007.
- SPENCE, Rory, “Sources of Theory and Practice in the Work of Richard Leplastrier” (MArch thesis), University of Sydney, 1997.

NOTES

- Aalto never visited Japan, acquiring his knowledge of Japanese culture from books, exhibitions and by visiting the Japanese Zui-ki-tei teahouse in Stockholm.
- Ashihara, 1992, 68–77.
- Pelkonen, “Aalto's Entangled Geographies”, Micheli & Laaksonen (eds.) 2018, 56.
- Radford & Schaperl, “Dickson and Platten, Romaldo Giurgola and Aalto's influence in Australia”, Micheli & Laaksonen (eds.), 2014, 205.
- Alvar Aalto: Points of contact*, 1994.
- Sadler 1941, 1.
- The information from Richard Johnson is based on his presentation at the Nordic Symposium at the Abedian School of Architecture, Bond University, on 9 October 2015, followed by our informal discussion on 19 December 2019.
- Macarthur van der Laat, Gossey, & Wilson, 2015, 120.
- Macarthur van der Laat, Gossey, & Wilson, 2015.
- The biographical notes about Andresen and O'Gorman are unpublished and are based on a discussion between the architect and the authors on 8 January 2020 at Andresen's apartment in West End, Brisbane.
- Spence, 1997, 75.
- The information from Richard Leplastrier is based on his presentation at the Nordic Symposium at the Abedian School of Architecture, Bond University, on 9 October 2015, followed by our informal discussion on 29 January 2020 at the Lovett Bay House.
- Leplastrier, 2004.

MODERN METHOD FOR LOCAL ALTERNATIVES: A DISAPPEARING EVIDENCE

Elena Poma

Università della Svizzera italiana, Accademia di architettura; Largo Bernasconi 2, 6850, Mendrisio, Cantone Ticino; Switzerland; elena.poma@usi.ch

ABSTRACT.

This paper proposes to discuss the qualities of the Kvarteret Ortdrivaren, a disappearing fragment of Ralph Erskine's masterplan for a sub-Arctic Modern city realized in Kiruna, Swedish Lapland, as an evidence of a critical method to export Modern architecture in extreme climatic regions. The specifics of the preliminary studies for the masterplan and its built elements are investigated to highlight the effectiveness of a Modern grammar for northern regions, as it was codified by Erskine himself. The analysis of the selected project is linked to the architect's contribution to the last CIAM meeting and to the controversial interpretation of his planning attitude so as to stimulate further debate on the effectiveness and appropriateness of Modern urban development for regions very different from the ones where Modern architecture was defined.

1. INTRODUCTION

The Kvarteret Ortdrivaren (Fig. 1), completed in 1962, is the only realized part of Ralph Erskine's masterplan for the centre of the city of Kiruna, located in Lapland, northern Sweden. Internationally documented by architectural magazines at the time of its completion, the quarter was one of the first Modern large-scale complexes to be built in a sub-Arctic region. Analysis of Erskine's archival documents, writings and lectures allowed to assess the incisiveness of this project within the architect's definition of a grammar to apply Modern architecture in northern regions, considering the pragmatic and technological aspects, as well as the sociological dimension. The first part of the paper recalls the complexity within the modernization of Kiruna. Subsequently, the masterplan's preliminary studies are presented, highlighting how the local climate and cultural milieu interfered with Erskine's urban approach. The third section displays the architect's contribution to the CIAM '59 and to which extent it was influenced by his planning activity for Kiruna. In the last part, the specificities of the disappearing Kvarteret Ortdrivaren, are outlined to debate its validity as a try-out to adapt Modern architecture to the local context.

2. MODERN ARCHITECTURE COMES TO KIRUNA

The city of Kiruna is located 145 kilometres above the Northern Arctic Circle, in a region belonging to the homelands of the Sámi people. Kiruna was officially founded as a town in 1900 and developed through the Twentieth Century alongside mining activities in its surrounding mountains: the largest underground iron ore mine in the world.¹ Since its establishment in Kiruna, the mining company Luossavaara-Kiirunavaara AB was responsible for providing housing and facilities for its numerous incoming workers.² The development of this town, initially more akin to central Europe than to the surrounding traditional villages, has been argued as a unique phenomenon in Swedish urban planning.³ Kiruna acquired city rights in 1948 and in post-war

time the mine productivity resulted in a fast population growth (from 7,500 inhabitants, in 1910, to over 31,000 in the mid '70s⁴). In 1952 the local planning committee invited Ralph Erskine to discuss about an effective large-scale intervention to answer to the increasing need for dwellings and services. The premises for an urban scale renovation of Kiruna appeared exceptional for designing a Modern ideal settlement. Anyhow, the sub-Arctic region was at the time still untried by Modern architects since its modernization implied several obstacles, such as high construction cost, transport issues and lack of specialized local manpower. However, outstanding pieces of Modern architecture enriched the city of Kiruna, including not only Ralph Erskine's buildings, but also the award-winning⁵ Artur von Schmalensee's City Hall, lately demolished.

3. DESIGNING A LOCAL MASTERPLAN FOR THE CENTRE OF KIRUNA

From 1952 to 1959 Ralph Erskine developed several proposals for a deep transformation of Kiruna, implementing dwellings and facilities for the settlement's central zone. The design work was carried out in collaboration with the Swedish architect Erik Olof Holmberg, based in Stockholm. In Erskine's view Kiruna had to be magnificent, beautiful and cheap to build, as assessed by Lasse Brunnström.⁶ As a consequence of a progressive land acquisition process, the Modern renovation of the centre resulted only in a partial construction of Erskine's masterplan: the Kvarteret Ortdrivaren, an area of around 7,000m² in the south-eastern part of the centre, facing the mine. Erskine's preliminary studies for the masterplan of Kiruna, conserved at the ArkDes archive in Stockholm, reveal his efforts in understanding the local context. He produced a series of sketches, visualizing the main issues occurring locally in the different seasons, and their impact on the urban pattern. Analytical representation was applied to deduce the best shapes and organization schemes for the city centre. The snow management was a topic investigated on various scales: from mobility infrastructures' lay-



Fig. 1. Ralph Erskine, Kvarteret Ortdrivaren, Kiruna, Sweden, 1959–1962. According to a local tradition, each building has been nicknamed: the darker tower is called “Snusdosan” (Snus Box), the lighter brown block is called “Spottkoppen” (Spitton), the mid-rise yellow building is called “Mullbänken” (Pinch of smokeless tobacco), while the two lower yellow ones compose the “Berlinmuren” (Berlin Wall). Between the two higher block is located the building designed for mission church, named “Herrens pris” (Hallelujah Hall). © Riksantikvarieämbetet (Swedish National Heritage Board), photographer: Bengt A. Lundberg, 2006.

out to buildings' shapes and features. Several building typologies (traditional and Modern) were analysed to assume microclimatic conditions, deriving from the effects of snow, Sun and wind. Erskine also approached the shading phenomena, resulting from large-scale buildings placed at high latitudes. Density appeared as an option to respond effectively to the lack of dwellings and facilities in a cold region, reducing energy needs. However, in the positioning of dense buildings there arose several problems, such as temperature gaps and frost risk. In his proposals, Erskine adopted the strategy of a rational composition of diverse types of building, following rules determined by the climate conditions: tower elements were positioned mainly at the northern edges, reducing shading on other buildings, while the long mid-rise blocks were placed limiting north-facing surfaces. Each version seems in fact to be determined by the shadows, rather than by the volumes (Fig. 2). The latest completed masterplan, including the final layout of the Ortdrivaren quarter, featured a limited number of towers and a predominance of mid-rise and mid-size buildings, with street decks and covered yards (Fig. 3). Preliminary construction studies, dated 1956, compared diverse technologies for structures, enve-

lopes, finishes and partitions. Since the building phase of the realized elements only occurred in 1959, it may be assumed that Erskine's reasoning on the technologies adoptable within the harsh sub-Arctic climate played a significant role in the design process for the urban layout.

4. A MODERN GRAMMAR FOR SUB-ARCTIC REGIONS

It is relevant to outline how Erskine's contribution to the post-war Modern architectural debate is interrelated to his planning activity for the Swedish mining city. When Erskine was invited by the members of the Team X to take part into the CIAM '59 in Otterlo, he had in fact already been working on the masterplan for Kiruna for a few years and the Ortdrivaren quarter was approaching its construction phase. Erskine presented the congress his ideas for “The Sub-Arctic Habitat” through a general overview on the climatic, social and cultural specificities of Northern regions. He referred directly⁷ to the city of Kiruna when giving data related to climate conditions and population within his contribution. In addition, some of the schemes presented by Erskine in Otterlo were also part of the preliminary studies



Fig. 2. Ralph Erskine, Masterplan for Kiruna city centre, Sweden. Study version, undated. © From ArkDes Collections (photo Elena Poma).

related to the Kiruna city centre masterplan. By highlighting the local environmental contrasts, he formulated a series of requirements for planning in this extreme location. The sociological analysis was also a significant part of Erskine's contribution to the CIAM's debate. He considered the isolated condition of the inhabitants of settlements akin to Kiruna⁸, initially developed as colonial villages, and how Modern planning could contribute positively to the lack of recreational facilities. Therefore, the approach identified by Erskine to apply Modern architecture in the sub-Arctic regions consisted of both typological and psychological prescriptions. Architecture had to respond to climate and location, by means of adequate orientation, form, structure and materials⁹, while benefiting social well-being. Even if his contribution was criticised by Peter Smithson for its Walt Disneyan exaggerations¹⁰, Erskine's urban ideas were alike the ones of Team X, taking distance from the Ville Radieuse model.¹¹ Furthermore, in Otterlo Erskine introduced the topic of climate-responsive design, by linking Modern practice to vernacular knowledge. The attentive study of traditional architectural typologies of the local culture was in fact crucial for his definition of a grammar for Modern architecture in Northern regions. The approach tested by Erskine for the

masterplan of Kiruna is to be furtherly implemented by the architect in his following urban designs in northern regions as well as in temperate latitudes.

5. THE ORTDRIVAREN QUARTER

5.1. Typological and Construction Features

The only realized part of Erskine's masterplan for Kiruna is the Kvarteret Ortdrivaren, a central area of the city, previously occupied by wooden buildings, demolished to allow modernization of the city.¹² The complex, designed in collaboration with architect Peer-Ove Skånes, was completed in 1962 and hosts more than 130 dwellings. It comprehends two towers of thirteen and ten floors, a mid-length building of five floors, two connected buildings of three floors and a church. The blocks are linked by a common central space, indoor passages and underground garages. Climate-specific assumptions determined the positioning of each building: high-rise ones at the northern edge of the district and lower ones in the south-western parts. The asymmetrical volumes are shaped to limit shading.

The higher buildings, painted in brown tones, share the same program: commercial activities and facilities at the

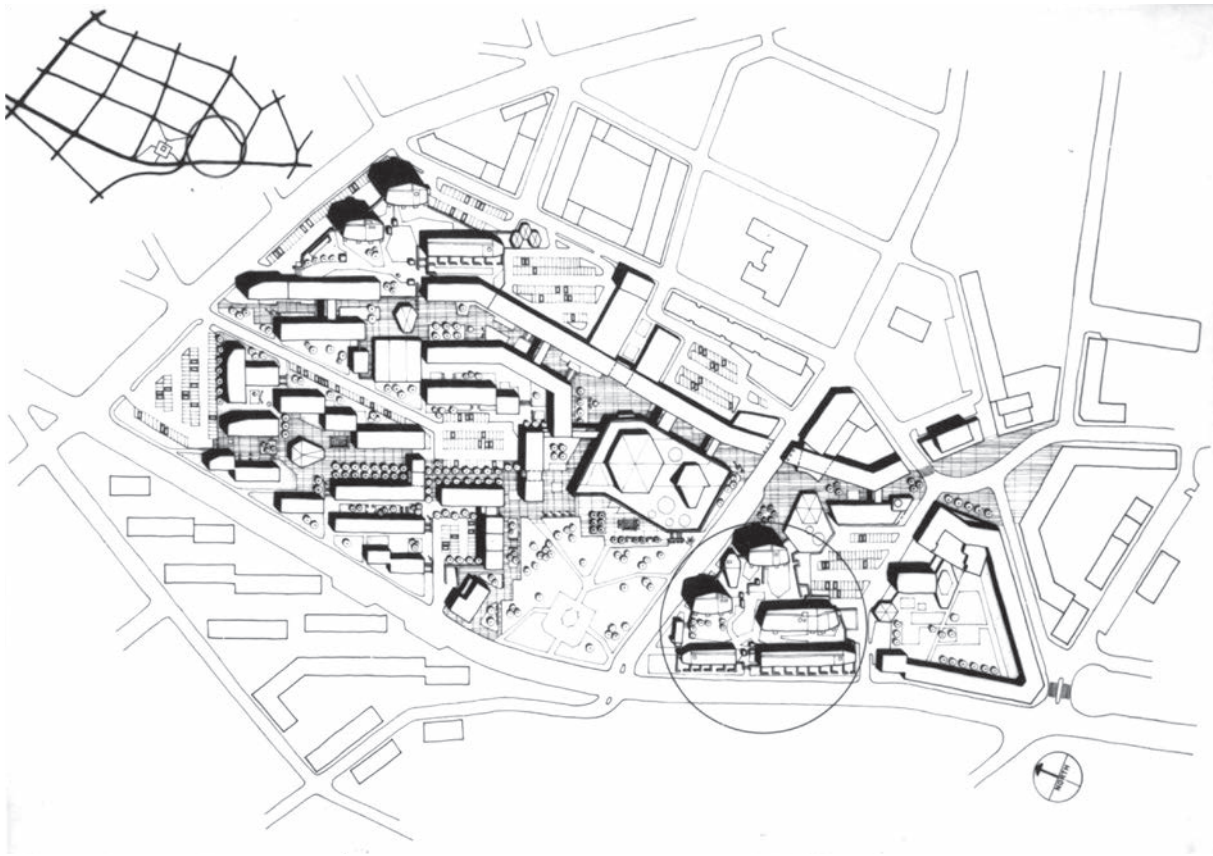


Fig. 3. Ralph Erskine, Masterplan for Kiruna city centre, Sweden. Latest completed version, 1957. © From ArkDes Collections (ARKM.1986-122-2129).

lower levels and dwellings on the upper floors. The towers have a central core with staircases and elevators. The recurring floor scheme consists of two 5-room apartments, two 3-room apartments and one 2-room apartment. The number of dwellings per floor decreases in the upper levels, where the volumetry is altered asymmetrically. The scheme of the plan is organized by orthogonal loadbearing walls enclosed by a rounded curtain wall. Each room is delimited by 2 or 3 orthogonal interior walls and one curved surface, containing the windows. A series of pillars, close to the envelope's interior side, completes the structural system. Predisposition of cupboard/wardrobe-partitions and curtains grants flexibility of the interiors. Kitchens and bathrooms are located towards the inner core. Each dwelling is equipped with a small balcony, designed primarily as a deep freezer for the cold months. The same scheme and construction technologies recur in the lower buildings, painted in a yellow shade and with less curved surfaces. The mid-rise one contains a larger variety of typologies, mostly provided with double exposure and served by multiple staircases. The lowest ones are equipped with private entrances and spaces for shops and facilities which are accessible from the street.

The blocks were designed since the early stage to be

built by assembly of prefabricated components. The harshness of the climate and the scarcity of light determined in fact the choice of a fast construction method, limiting concrete casting on site. The envelope, minimally anchored to the loadbearing structure, is composed of lightweight concrete elements, painted on the outer side. The colour combination was determined in accordance with Hesselgren's colour atlas¹³ and in relation to the sub-Arctic solar radiation tones. Erskine and Skånes chose tones from yellow to brown to highlight the volumetry of the district in relation to the surrounding landscape and to absorb the sun's warmth (Fig. 4). The outdoor spaces are equipped with concrete ramps, fences and playgrounds. These elements, like the balconies, have a rough finishing surface, contrasting with the painted envelope of heated spaces.

5.2. Contrasting Modern Evidence

The permanence of extreme opposites was identified by Ralph Erskine as a defining feature of the sub-Arctic regions. Therefore, it is interesting to discuss how contrast recurs within the Ortdrivaren neighbourhood at various scales. The project approaches two divergent aspects of the evolving needs of Kiruna: the wilderness of the landscape, with its

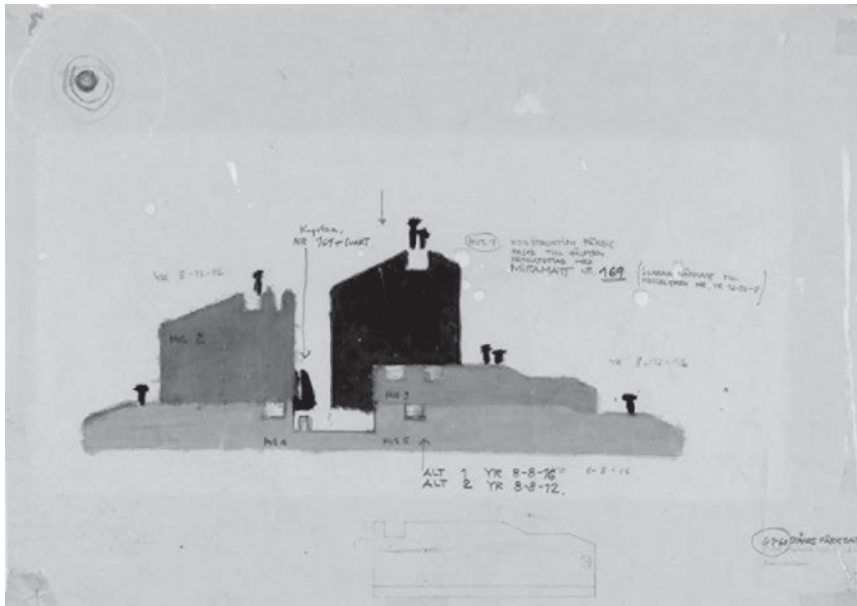


Fig. 4. Ralph Erskine, Peer-Ove Skånes, Kvarteret Ortdrivaren, Kiruna, Sweden, 1959–1962. Chromatic study. © From Ark-Des Collections (ARKM.1986-17-2271-01).

millenary local culture, and the sudden arrival of industrial technology, driven by the mining activity. The buildings would belong to both worlds: the industrial and the vernacular. Mine lift-like balconies, rough concrete surfaces and repetitive elements underline the connection with modernity and its industrial anonymity which are balanced by the presence of rounded edges, irregular volumes, colour shades and cosy interiors. The design process for the Ortdrivaren quarter implied consideration for the main elements listed in Erskine's "Grammar for High Latitudes"¹⁴ (The Cold, The Warm, Snow, Ground Frost, Light conditions, Wind, Air Drainage, and Solar Radiation), resulting in an effective and functional example of architecture that combines diverse typologies in an organic result. Since the layout of Kvarteret Ortdrivaren originated from the quest for urban Modernity¹⁵, the general masterplan design for the whole city centre has been argued as not so dissimilar from the Modern LeCorbusian model.¹⁶ Anyhow it is possible to recognise how this project represents an incisive attempt to import Modern architecture in a region very distant from the context where the International Style originated. The locality of this attempt is therefore to be identified, if not so obviously in the appearance of the resulting project, more evidently in the process of its definition. Prior observation of the local pre-industrial tradition was necessary to understand how to consciously apply Modern architectural features in the local context. Within this design method, Erskine intended Modern attitude as combination of understanding, inventiveness and artistry.¹⁷

6. CONCLUSION

While the debate on the controversial features of Erskine's design for Kiruna is still open, its realized part is approaching an inevitable epilogue. The demolition of Kvarteret Ortdrivaren is in fact forthcoming, due to the ongoing process of relocation of the entire city, determined by the mining activities. Even if the buildings will soon no longer exist, the presented analysis aims to highlight some of the features that make this project a significant evidence for the debate on the contributions of Modern architecture to the definition of local identities. The city of Kiruna was recognised as a heritage site in 1990 by the Swedish National Board, in faith of its peculiar combination of early XX century elements, industrial facilities and fragments of a vision of a model Modern society.¹⁸ The Kvarteret Ortdrivaren is a part of this milieu and it is a proof of the contrasting situation of Kiruna during post-war time. The masterplan designed by Erskine has in fact been claimed as part of an urban process regardless of the indigenous culture and activities.¹⁹ However, he claimed his studies regarding the climate conditions as a generative design strategy, inspired by the local tradition. His efforts represent one attempted methodology to export Modern architecture internationally in a critical way, within the process of urbanization of extreme regions occurring in post-war exploitation of mineral deposits. Economic interests and challenging local constraints allowed in fact to test the limits of Modern architecture, resulting in debated examples, from sub-Arctic to sub-Saharan contexts.²⁰ It is therefore desirable that the memory of Kvarteret Ortdrivaren, only a partial and disap-

pearing materialisation of a Modern sub-Arctic ideal city, would contribute to the debate on the evolution of methods and ideals for designing habitable cities, defined by typological, material and cultural attitudes, connected to their specific milieu.

REFERENCES

- BRUMMER, Hans Henrik, & BRUNNSTRÖM, Lasse, *Kiruna: Staden Som Konstverk*, Stockholm, Waldemarsudde, 1993.
- CALDENBY, Claes, "A Loyal Architecture?: Ralph Erskine and the Nordic Way", *Arq: Architectural Research Quarterly*, 3, 2014, 234–44.
- COLLYMORE, Peter, *The Architecture of Ralph Erskine*, London, Granada, 1982.
- ERSKINE, Ralph, "Architecture and Town Planning in the North", *Polar Record*, Vol. 14, 89, 1968, 165–171.
- ERSKINE, Ralph, "Building in the Arctic", *Architectural Design*, 30, 1960, 194–197.
- GÖLLING, Daniel, & CARRASCO, Carlos Mínguez, *Kiruna Forever*, Stockholm, Arkitektur förlag, 2020.
- S.n., "Housing at Kiruna and Svappavara", *Architectural Design*, Vol. 37, 3, Sweden, 1967, 128–131.

NOTES

- 1 Carlos Mínguez Carrasco, "Relocating a City", *Topos: European Landscape Magazine*, 113, 2020, 92–97.
- 2 Jennie Sjöholm, "Moving Costs: Buildings and Residents Testament to the Rich Seams of History and Identity of Kiruna in Sweden Are Ousted in Favour of the Profit-Laden Iron Ore Seams Lurking Beneath", *Architectural Review*, 1475, 2020, 30–35.
- 3 Lasse Brunnström, "Det modernistiska Kiruna", Hans Henrik Brummer & Lasse Brunnström, *Kiruna: Staden Som Konstverk*, Stockholm, Waldemarsudde, 1993, 124–149.
- 4 Population data from Kiruna Kommun website, accessed on March 11, 2021, <https://kiruna.se/arkiv/samlingssidor/in-english.html>.
- 5 The building was awarded the prestigious Kasper Salinpriset for its high architectural standard by Sveriges Arkitekter in 1964.
- 6 Brunnström, op. cit., 141.
- 7 Oscar Newman, *CIAM '59 in Otterlo: Group for the Research of Social and Visual Inter-Relationships*, London, Alec Tiranti, 1961, 162.
- 8 James Marston Fitch, *American Building: The Environmental Forces That Shape It*, 2nd ed., American Building, New York, Schocken Books, 1975, 272–277.
- 9 Mats Egelius, *Ralph Erskine, Architect*, Stockholm, Byggeförlaget, 1990, 74.
- 10 Newman, op. cit., 169.
- 11 Kenneth Frampton, *Modern Architecture: A Critical History* (4th ed.), London, Thames and Hudson, 2007, 269–279.
- 12 Jennie Sjöholm, "Malmberget Och Kiruna: Lika Men Olika", *Norrbottnens Läns Hembygdsförenings Tidskrift*, 2010, 102–115.
- 13 Brunnström, op. cit., 143.
- 14 Ralph Erskine, "Democratic Architecture — The Universal and Useful Art: Projects and Reflections", *Journal of the Royal Society of Arts*, 130, 1982, 642–659.
- 15 Sjöholm, op. cit., 2010, 110.
- 16 Brunnström, op. cit., 145.
- 17 Ralph Erskine, "Indigenous Architecture: Architecture in the SubArctic Region", *Perspecta*, 8, 1963, 59–62.
- 18 Jennie Sjöholm, "A Photograph is Not Always Enough — A Perspective on Kiruna's Disputed Cultural Heritage", Daniel Gölling & Carlos Mínguez Carrasco, *Kiruna Forever*, Stockholm, Arkitektur förlag, 2020, 201–209.
- 19 Michael Asgaard Andersen, "The Movement of Thought in Erskine's Writings", *Arq: Architectural Research Quarterly*, 3, 2014, 245–255.
- 20 Filippo De Dominicis, "Reports from Sahara: transitions and contradictions in Afro-European modernities: the case of Cansado-Zouerate, Mauritania", *Clara : recherche, architecture*, 4, 2017, 127–146.

Session 8-d

THE ROLE OF THE SITE AS A DEFENSE FOR ARCHITECTURE IN THE INEVITABLE GLOBALIZATION

José Manuel Pozo

School of Architecture, University of Navarra

It is well known that one of the most relevant issues in the ideological debate in the schools of architecture in the last century, in the sixties and seventies, was the reflection on the role played in the project by the place, and its cultural, landscape and morphological characteristics; to which Rossi would give his answer with the term *genius loci*, of great media fortune; but that was already beginning to be present in the practice of all architects, eager to recover the valid notes of the local, after the homogenizing and a-contextual gale of the first modernity; when an attempt was made to achieve an abstract architecture of universal value; as Hitchcock and Johnson show in 1932 in the exhibition and book *The International Style: Architecture since 1922*¹, whose title was already very expressive in relationship to the issue at hand.

But once the drama of the Second World War and its effects were over, when it came to shaping post-war societies, there was a profound revision of the "principles and truths" of which that exhibition of 32 had been the showcase.

And then, in addition to the discovery of the figure of Wright, completely forgotten in that exhibition, in the sixties started the tendency towards the contextual architecture, in terms of climate, territory and materials to be used, with positions gathered under the generic adjective of *Organic*. What, in many cases, with different intensities, meant a sort of adaptation of the advances achieved in previous decades to local and particular.

The papers included in this section offer three interesting cases of this process, which we could call "localization of the global"; they could later be presented as examples of Framptonian *critical regionalism*.²

These cases are distant from each other, geographically and culturally.

The first one is the case developed in González's contribution.

He presents a series of architectural actions carried out in the Canary Islands, of an abstract, modular and repetitive nature; the set, erected in the shadow of the Teide volcano, was a landscape response, based on the use of simple geometric forms and without ornament, although softened with the materials used, spaces and vegetation, seeking the adaptation to the landscape, between the profile of the coast and the distant reference of the volcano that dominated the island.

The consideration of the territory, with its climate and vegetation, characterizes the design, conceived as an organism that allows adaptation to the terrain, following the organicist and Metabolist maxims, then in vogue.

The Ten-Bel complex, that is the object of the text. "did be built, said his architect designer, at the scale of the landscape and derives meaning in and by the landscape".

Secondly, Xërxa's work provides an example of cultural contextualization; and shows us how the architectural 'updating' of Kosovo took place. When, buildings of very different architectural orientation emerged in Kosovo, which tried to take on, in a somewhat confusing mixture, the previous progress of Western architecture, adapting it to local traditions, of an Eastern nature; achieving it in a relatively short space of time, and after many years of remaining on the sidelines of architectural evolution, due to the isolation imposed by the communist government that controlled post-war Yugoslavia.

More than a review of local, it was a process to assume the western models, produced without too many critical references.

Thus, in those years, buildings of very different architectural orientation emerged in Kosovo, which tried to take on, in a somewhat confusing mixture, the Western architecture, adapting it to local traditions, of an Eastern nature; as Xërxa exemplified with the National Library building in Pristina,

which combines British modular brutalism, in vogue at the time, with the Eastern tradition of domes and lattices.

The results were not very cultured or purposefully new, and perhaps not very interesting in themselves, but they show the important role played by architecture as a cultural vehicle for generating and promoting social change.

Finally, Wanasundera presents the case of Minnette de Silva, a Sri Lankan architect trained in England, whose work bears also the imprint of her time in the studio of Le Corbusier, combined with local construction strategies; Wanasundera shows how, despite the local controversies, Minnette de Silva did achieve that the modernity would appear in her works, at least in little things, and although would be only in a formal and superficial way.

Through the contributions of Wanasundera and Xërxa we can see how difficult it is to assume modernity where there has been no cultural connection with the global world, usually generating models in which progress is assumed as a new fashion, in superficial, ephemeral and weak way, without would introduce real changes in the spatial and func-

tional characteristics.

But, at the same time, they show the importance that geographical and climatic characteristics have in architecture, which the modern movement initially rejected as a component of the project.

Which is, on the other hand, precisely what González offers us in his work.

Therefore, the contributions, as a whole, are of real interest at a time, like the present, in which we must make a great effort to combine the global and efficient with respect for local culture, landscape and territory, to avoid a dangerous uniformity, which could impose the most developed and technically powerful countries.

NOTES

- 1 Henry-Russell Hitchcock, & Philip Johnson, *The International Style: Architecture since 1922*, W. W. Norton, New York, 1932.
- 2 Kenneth Frampton, *Modern Architecture; A Critical History*, Oxford University Press, 1980.



MODERN ARCHITECTURE OF KOSOVO, A REGIONAL BASED “ARCHITECTURAL EPICENTER”

Flaka Xërxa Beqiri

Faculty of Architecture, University of Prishtina “Hasan Prishtina”; Bregu I Diellit, p.n., 10000 Prishtina, Kosovo; flaka.xerxa@uni-pr.edu

ABSTRACT.

This paper examines the construction of modern architecture of Kosovo, showing that the new architecture that took place in Kosovo during socialist period could be considered a regional based “architectural epicenter”. It was the socialist period when six constituent federal republics of Yugoslavia and two autonomous provinces, including Kosovo, followed the same socio-political and economical agenda defined by the central leader, Tito. This period is characterized also by the willingness of the Yugoslavian government to apply advanced urban planning and architectural design in the rapid process of urbanization. Furthermore, in 1960s and 1970s, the political position of non-Slavic groups within Yugoslavia improved significantly. The political status of the (until then) *Autonomous Province of Kosovo and Metohija* was in 1968 changed from the ‘autonomous region’ to ‘autonomous province’ and in 1968 to the ‘socialist autonomous province’. Accordingly, Kosovo witnessed political and juridical affirmation with major changes regarding its social and cultural development, becoming a land of opportunities for construction activity. New political, economical, social and cultural circumstances of the late twentieth century provoked a new architecture scene in Kosovo, the modern architecture of Kosovo. This paper aims on analyzing the construction of modernism as a form of a response to the developments that occurred in Kosovo during the period of the Socialist Federal Republic of Yugoslavia based on the concept of the “architectural epicentres”.

1. INTRODUCTION

The presence of Kosovo's modern architecture in the architectural and urban planning journals of Former Yugoslavia, its presence as the main theme unfolded at the Kosovo's Pavilion in 2014 Venice Architecture Biennale, “Fundamentals”, and its recent inauguration in the international exhibitions of modernist architecture, exhibition of Yugoslav architecture at the Museum of Modern Art (MoMA) in New York, “Towards Concrete Utopia/Architecture in Yugoslavia between 1948–1980”, speaks of the fact that this period of architectural development marks a turning point in the entire architectural development of Kosovo. Consequently, this paper argues that modern architecture of Kosovo could be considered an “architectural epicentre” in terms of the development of Kosovo's architecture.

The concept of the “architectural epicentres” was defined by Petra Čeferin in the framework of the lecture series and the book “Architectural Epicentres — Inventing Architecture, Inventing Reality”. Peter Krečič in his introduction to the book writes that this project tried to draw attention to a peculiar phenomenon in the development of modern architecture in the 20th century: the cyclical recurrence of architecture epicenters, and the shifting of the pivots of activity and their global co-dependence. According to Krečič, the purpose was on outlining

*the specific social, emotional and material circumstances in certain countries which contributed extraordinary, exceptional quality of local architectures and as a result of which these countries came to occupy the centre of the world's critical attention for some time.*¹

The examined architectural productions were recognized as an excellent answer to the social-economic, political, cultural and technological conditions within which they emerged; but not only that, they still insist as relevant architecture. Čeferin explains that

*each of the productions presented herein emerged in relation to its own, local situation — such as the prevailing political agendas, projects and strategies in the country in which the production was designed and built — and yet it was recognized as an excellent answer to the global situation, to our time.*²

It is understandable Kosovo was not an epicenter in the scale and influence of strong architectural epicentres such as the Netherlands in the 1990s or Ticino region in the 1980s but what this research tries to show is that it had the constitutive elements and features of an architectural epicenter.

Certain elements that characterized the development of the modern architecture of Kosovo, including three study cases unfolded in this paper, argue the possibility on considering the Kosovo's modernist production as one of the regional architecture productions that could fit the concept of architecture epicentres in terms of region: (1) Kosovo's modern architecture developed as an adequate response to socio — economic, political and cultural developments in the period of Socialist Yugoslavia, when Kosovo gained the nomination of the Socialist Autonomous Province of Yugoslavia, enjoying the constitutional rights and following the same basic ideals as all other political entities within the country; (2) many instances of built architecture produced during this time can be considered the architectural works of ex-



Fig. 1. Illustration of the map of the Federal Socialist Republic of Yugoslavia, under the leadership of Josip Broz Tito. © Composition of the author.

ceptional quality, as 'the right thing', and they still can be considered as such today; (3) The development of Kosovo architectural modernism of this period consisted not only in the built architectural works, but in broad architectural production, which included the development of the architectural discourse through publications; the development of the architectural profession (architectural competitions, etc.) as well as the regional school of architecture; (4) Kosovo modernist architecture was for the first time (and so far the only time) in the focus of regional professional discourse and (5) the architectural production influenced wider social and physical reality of Kosovo, including the development of cities and urban culture in the region.

2. MODERN ARCHITECTURE OF KOSOVO IN ITS SOCIAL AND POLITICAL CONTEXT 1970–1980

The independence of the state of Kosovo (2008) can be considered among the final developments of the disintegration of Yugoslavia. Since its consolidation, first as the Federal People's Republic of Yugoslavia (1945) and further on as the Socialist Federal Republic of Yugoslavia (1963), its republics and regions, including Kosovo, followed the socio-political and economical agenda defined by the governments led by its central leader Josip Broz Tito³ (Fig. 1).

The political, social and cultural developments during the Socialist Yugoslavia triggered extensive modernization and urbanization in all constitutive republics.⁴ More pre-

cisely, the decade of 1970s in Yugoslavia could in many ways be considered the golden age regarding the development of architecture.⁵ In the 1960s and 1970s also the political position of non-Slavic groups within Yugoslavia improved significantly.⁶ In this time period, today's Republic of Kosovo was announced as the 'socialist autonomous province of Yugoslavia' (1968), receiving its own constitution and state apparatus.⁷

Since Kosovo was granted to have its own administration, assembly and judiciary it also needed the buildings to house these political bodies and institutions. Modern architecture was seen as a tool that could be used in the process of modernization and urbanization as well as incorporation of the Province of Kosovo into the developed modern Socialist Federal Republic of Yugoslavia. Although not listed among the republics of Yugoslavia, Kosovo became a land of major investments, benefiting from "The Federal Fund for Crediting the Accelerated Development of the Less-Developed Republics and the Autonomous Province of Kosovo".⁸

The increased activity of economic, educational and cultural developments during the 1970s speaks of Yugoslavia's willingness to support Kosovo in its process of general development. The great economic and social changes of the Socialist Autonomous Province of Kosovo, came with the need of drastic changes of the city structures and the increase of facilities that could cope with the new public life.

In the name of the new spirit of architectural and urban development and in the name of modernism, Kosovo

seemed to express the willingness for new influences derived from the ideology of the time and the construction activity happening parallel in other countries of the wider region.⁹

3. CONSTRUCTING MODERN ARCHITECTURE OF KOSOVO

The socialist Yugoslavia brought in Kosovo's architecture the light of a cultural movement, modernism and more specifically the socialist modernism, that was already gravitating in most of the countries of the region.

During the 45 years of its existence, Yugoslavia became a country deriving between traditional cultures and competing concepts of modernization, based in a daring and experimental socio-political system. As a result of the ideologically based tendencies of rapid social modernization of the country, Yugoslavia has successfully invested in major housing neighbourhoods, the educational institutions, cultural institutions, etc.¹⁰

During the socialist period, the most significant development of modern architecture took place in Kosovo: some of the best architectural works were designed and built (mostly during 1970s), the School of Architecture was established (1978), architectural institutions did their most significant work and also Kosovo architecture began to be included in the written reviews and books on modern architecture in Yugoslavia and abroad.¹¹

Kosovo became the land of opportunities where architects from other republics of Yugoslavia, and later on also the local architects, could express their architectural views and ideas in built form. While cities of Kosovo were going through a process of transition, with the urban regeneration of old city cores and the construction of main public facilities, community of architects took the opportunity to participate as well to contribute to the political agenda of the state of Yugoslavia, that of a modernizing Kosovo and incorporating it or placing it on the same level of urban and technological development as the rest of Yugoslavia.

Modern architecture of the socialist period also began to be published in the main architectural magazines of Yugoslavia ('Arhitektura Urbanizam — časopis za arhitekturu, urbanizam, primenjene umetnosti i dizajn'; 'Arhitektura — časopis saveza arhitekata Hrvatske'). Some modernist buildings were included in foreign books on modern architecture as fine examples of modernism of the time.¹² In 1981, Kosovo modernist architecture of 1970s was presented among architecture of other republics in the Croatian magazine 'Arhitektura', speaking of similar architectural values and professional achievements during the 'golden ages' of architecture of Yugoslavia (Arhitektura 176–7/81 and Arhitektura 178–9/81).

With the beginnings of the modern architecture of Kosovo, architectural competitions also started being organized [Gjinolli, Kabashi, 2015]. Kosovo architectural buildings

were recognized as significant architectural achievements, and nominated for the most prestigious architectural prize in the country, Borba prize.

Distinctly, the constriction of modern architecture of Kosovo was not connected with the buildings only, but was grounded in three parallel developments, three foundations that together constituted the triangle of influences in constructing modern architecture of Kosovo: (1) Material Production — Buildings & Discourse, (2) Architecture Profession and the (3) School of Architecture.¹³

4. CASE STUDIES: THE REGIONAL BASED "ARCHITECTURAL EPICENTER"

The socialist modernism in Kosovo was accompanied with major transformations and developments, constructing a new identity in architecture and urbanism. The need to meet the demands of the new administrative centres brought the demand for the construction of many public facilities, accompanied by the public spaces needed.

Examples of modern architecture analysed in the framework of this paper, show the fact that during the modernist period in Kosovo happened to get constructed remarkable modernist buildings, with the presence of certain architecture qualities. These buildings contributed in building new public-urban cores, creating in this way a new urban context. In certain cases they were strongly connected with the existing contextual values of the local architecture heritage (National and University Library). Other cases show major influences from the wider region, being in tune with the constructing activity of other parts of Yugoslavia (Youth and Sports Centre). Some show even the coloration with the wider, international context, being in coloration with architecture tendencies applied internationally ('Grand' Hotel).

4.1. National and University Library

Kosovar modernist architecture marked its presence among the achievements of 20th century when Udo Klutermann included the case of the Kosovo National Library in his chapter on "Architecture in the Former Yugoslavia". Its presence in the professional discourse thereon, marks the National and University Library as the most representative building of the modern architecture of Kosovo.

In his aim to attain modernity and autochthony at the same time, Croatian architect Andrija Mutnjaković has promoted regionalist architecture as an adequate solution for a building that would become an acceptable structure for all citizens of Kosovo. According to him, Kosovo with its rich cultural heritage had the potential to occupy an important place in the rich development of European regionalism.¹⁴

The architectural heritage of Kosovo, with emphasis on the Byzantine and Ottoman heritage sites, was seen as potential inspiration for the architectural expressive form that the library in Kosovo would have, as seen in the dome placed



Fig. 2. National and University Library of Prishtina, architect: Andrija Mutnjaković, Prishtina, 1971-1984. © "The dominant example of Kosovo's Modern Architecture - Presentation of the National Library of Kosovo, an icon of the Modern Architecture Heritage of Kosovo", Flaka Xërxa Beqiri, Piranesi, No.40, Vol. 26.

over the cubic form. This element, the cube-dome combination, according to Mutnjaković, was found in the early buildings of Byzantine, Orthodox, and Islamic architecture in Kosovo. "A common characteristic of these buildings is their identical treatment of space: a square area of the building covered by a dome".¹⁵

Mutnjaković had the ability to transform this common feature into a decomposed structure. Domes of different sizes created the whole set of facilities, serving in the function of specific contents, including reading rooms, atrium, amphitheatres, administration units, and special collections. All of these components were jointly developed around the square planimetry that in the middle had a central atrium¹⁶ (Fig. 2).

A characteristic of the mastery of realizing this concept was the fact that Mutnjaković started everything from a sign that would become a symbol for the region of Kosovo. He came to the conclusion that the creation of this identifying sign would help the expressive power of architecture in Kosovo, by sturdily drawing parallels with features of architecture from Finland, Italy, Japan and Mexico. The Patriarchate of Peja and Hamam of Prizren would play a special role in a series of inspirational buildings for the architect. His aim to create an icon building was both ambitious and bold, as he would declare: "This building is a principal monument in preserving the essence of national identity, transmitting inspiration to new generations" [Mutnjaković, 1984].

The library, with the total storage capacity of 2,000,000 books, was designed to serve 600 readers in large and small reading rooms, a hall, special purpose room, and halls for researchers. Since readers have different requirements when during reading and studying, the architect took into account their need for quietness but at the same time the necessity

for interaction with the outer space, not leaving aside the need for lighting.

4.2. Youth and Sports Center "Boro and Ramizi"

Sports and recreational center "Boro and Ramizi" presents one of many examples of modern functionalist architecture (since functional modernism was promoted by Kosovo School of Architecture), but undoubtedly one of the most remarkable examples of them all. Živorad Janković (future professor at the Kosovo School of Architecture) Halid Muhasilović and Srećko Ešpek, all from Bosnia and Herzegovina, won the architectural competition (1971) for having the best conceptual and functional solution among six competing projects. However, only a part of the complex, which originally comprised two sports halls, open-air pools, multiple sports venues, a shopping mall and a multifunctional public space, was actually built.

"Boro and Ramizi" was conceptualized as a multi-purpose architectural complex, with the focus in sports, recreation and commercial contents. With a usable area of about 50,000m², it soon became famous for its biggest sport hall. But most importantly was very much known for its innovative structure, not only among modernist architectonic structures that were constructed in Kosovo, but also in the level of other republics of Yugoslavia. As a mega structure, in the sizes of the city such as Prishtina, the youth and sport center "Boro and Ramizi" consists of the first part with the multipurpose hall of the capacity of 3,000 spectators and the skating room with the capacity of 8,000 spectators. The middle part of the structure serves as an area dedicated to different potential cultural activities, with the total area of 10,000m². The third part consists of the Youth Center with two additional event halls, one of the 800 spectators capaci-

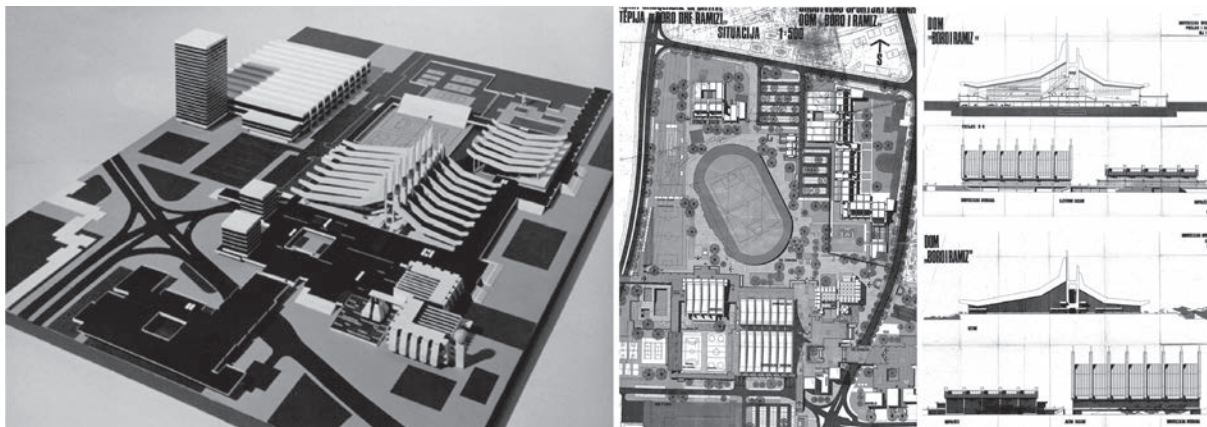


Fig. 3. Youth and Sports Center, architects: Živorad Janković, Halid Muhastiović and Srećko Ešpek, Prishtina, 1971. © "The undiscovered modern architecture of Kosovo – Overview of modern architecture in Kosovo, a fading architecture heritage", Flaka Xërxa Beqiri, Piranesi, No. 40, Vol. 26.

ty, and the other of 500. The structures are connected with the commercial area of 120 commercial units, which create a huge platform above¹⁷ (Fig. 3).

Because its architectural significance as one of the pieces of modernist architecture of the time, it is one of the few examples of modernist architecture of Kosovo that became part of professional discourse in the level of Yugoslavia, being compared with other similar and innovative structures of the constitutive republics of Socialist Yugoslavia.

The modernist architecture piece of Kosovo was elaborated in the regional based magazine "Arhitektura urbanizam — časopis za arhitekturu, urbanizam, primenjene umetnosti i dizajn" in the article named "Three significant social centers", together with the architecture complex "Gripe" in Split and the sports center "Vojvodina" in Novi Sad, speaking about equal architectural values between what was happening in Kosovo, Serbia and Croatia. "Boro and Ramizi" was built in Prishtina at a time when Janković was present in professional discourse for his other significant work, the "Skenderija" Sports and Cultural Center in Sarajevo, and therefore his impact on modernist Kosovar architecture is highly appreciated. It should also be noted that his experience with the Scandinavian School of Architecture also played a part in his architecture work in Kosovo.

4.3. "Grand" Hotel

"Grand" Hotel, stands as another icon of the architecture of Kosovo, being known not only as a modernist piece of the time, but also as a symbol of the general development that Kosovo was facing during the 1970s. This architecture piece came as a contribution of local architect, Bashkim Fehmiu, together with Belgrade architects Miša Jevremović and Dragan Kovačević. All three belonged to the Belgrade School of Architecture.

The hotel of "A" category was initiated to be designed in year 1973 with the request of the enterprise for hotels in Yu-

goslav level, named "Sloga".¹⁸

The "T" shape of the floor plan creates three dominant structures of the hotel, of a different height but of a same façade treatment. The vertical partitions of the façade creates an elegant composition. The capacity of the hotel is 500 rooms, with 600 beds, with two event halls, a conference room of 200 attendees capacity and several contents that a hotel of such category was requested to have for the time it was constructed (Fig. 4).

The "Grand" Hotel in Prishtina was discussed in the magazine "Arhitektura urbanizam — časopis za arhitekturu, urbanizam, primenjene umetnosti i dizajn". The article "Hotel Prishtina in Prishtina" highlights the architectural values of this modernist work, which brought the thread of international style in Kosovo. As such, it is valued by how it is related to the local context and the fact that with the monumentality of its own brought a "small town" in the urban area of Prishtina in the 1970s. The author of the article emphasizes: "Its form derives from the glorious modern international architecture, where the primary masses are accentuated — erected by the height of the cubes, creating a rhythmic play and correlating with the surrounding environment". The article continues with further interpretations on hotels' capacities, speaking also for the richness in terms of its content and hotel standards that this building brought to Kosovo at the time when it was constructed.

5. CONCLUSION

This paper opens the discussion that Kosovo Modern Architecture could be considered an "architectural epicenter". This inference is based on the fact that the architecture that took place in Kosovo during socialist period fits the elements on which the concept of the "architectural epicentres" were basically constructed: "its emergence in interrelation to its own, given situation; the tremors that incited and



Fig. 4. "Grand" Hotel in Prishtina, architects: Bashkim Fehmiu, Miša Jevremović, Dragan Kovačević, Prishtina, 1973–1978. © "The undiscovered modern architecture of Kosovo — Overview of modern architecture in Kosovo, a fading architecture heritage", Flaka Xërxa Beqiri, Piranesi, No. 40, Vol. 26.

the consequences it left behind".

Findings elaborated in this research speaks for the fact that during this period a valuable architecture was produced, serving as 'the right thing' and coping in 'the right way' with the new needs of administrative centers of the Socialist Autonomous Province of Kosovo. We are speaking for a new architecture, which emerged in relation with its own, given situation, indicating certain consequences that left behind. Most importantly it still serves as a 'good architecture', considering many elements: the new architecture coped with new needs of a country in prosperity, as was the Socialist Autonomous Province of Kosovo; it produced architecture edifices that were designed and constructed in the highest designing and constructing standards of the time; it produced landmark buildings that even today are considered the most representative national buildings; it contributed in the production of new urban context; was based contextually (in certain cases) in elements of the inherited local architecture of the country and last but not least, it was designed in tune with regional and international architecture tendencies of 1970s. Therefore we could consider that modern architecture of Kosovo fits the element on which it can be considered an architectural epicenter, or more precisely a regional architectural epicenter.

REFERENCES

- BISERKO, Sonja, *Yugoslavia from a Historical Perspective*, Belgrade, Helsinki Committee for Human Rights in Serbia, 2017.
- ČEGERIN, Petra, & POŽAR, Cvetka, *Architectural epicentres: inventing architecture, intervening in reality*, Ljubljana, Architecture Museum, 2008.
- GJINOLLI, Ilir, & KABASHI, Lulzim, *Kosovo Modern: An Architectural Primer*, Prishtina, National Gallery of Kosovo, 2015.
- HYSÄ, Bedri, (ed.), "Biblioteka Popullore dhe Universitare e Kosovës", *Narodna i Univerzitetska biblioteka Kosova*. Prishtina, Rilindja, 1984.
- ISMAJLI, Rexhep, & KRAJA, Mehmet (eds.), *Fjalor Enciklopedik i Kosovës*, Prishtinë, Akademia e Shkencave dhe e Arteve të Kosovës, 2018.
- KULTERMANN, Udo, *Architecture in the 20th Century*, New York, Van Nostrand Reinhold, 1993.
- KULIĆ, Vladimir, "Land of the in-between: modern architecture and the state

in Socialist Yugoslavia, 1945–65", PhD diss, The University of Texas at Austin, 2009.

MRDULJAŠ, Maroje, KULIĆ, Vladimir, & MCMASTER, Graham, *Unfinished modernisation: between utopia and pragmatism (architecture and urban planning in the former Yugoslavia and the successor states)*, Zagreb, UHA/CCA, 2012.

MUTNIAKOVIĆ, Andrija, "Narodna i universitetska Biblioteka Kosova u Prištini", *Arhitektura — časopis saveza arhitekata hrvatske*, 178+9/81, Zagreb, 1981.

XËRXA BEQIRI, Flaka, "The undiscovered modern architecture of Kosovo — Overview of modernist architecture in Kosovo, a fading architectural heritage", *Piranesi*, No. 40, Vol. 26, Ljubljana, 2018.

XËRXA BEQIRI, Flaka, "The dominant example of Kosovo's Modern Architecture - Presentation of the National Library of Kosovo, an icon of the Modern Architecture Heritage of Kosovo", *Piranesi*, No. 40, Vol. 26, Ljubljana, 2018.

NOTES

- 1 P. Čeferin & C. Požar, *Architectural epicentres: inventing architecture, intervening in reality*. Architecture Museum, Ljubljana, 2008, 7.
- 2 Ibid., 15.
- 3 S. Biserko, *Yugoslavia from a Historical Perspective*, Helsinki Committee for Human Rights in Serbia, Belgrade, 2017, 19–21.
- 4 M. Mrduljaš, V. Kulić & G. McMaster, *Unfinished modernizations: between utopia and pragmatism (architecture and urban planning in the former Yugoslavia and the successor states)*, UHA/CCA, Zagreb, 2012.
- 5 I. Gjinolli & L. Kabashi, *Kosovo Modern — an architectural primer*, National Gallery of Kosovo, Prishtina, 2015.
- 6 Mrduljaš, Kulić & McMaster, 2012.
- 7 Biserko, 2017, 271–294.
- 8 N.N., *Yugoslavia and the World Bank*, World Bank, Washington D.C., 1979, 19–20.
- 9 L. Kabashi, "The Dilemmas of Kosovar Architecture — Tracing an Article about Kosovan Architecture from 1981", *Kosovo Modern — an architectural primer*, National Gallery of Kosovo, Prishtina, 2015, 30.
- 10 V. Kulić, M. Mrduljaš & W. Thaler, *Modernism In-Between, The Mediatary Architecture of Socialist Yugoslavia*, Verlag GmbH, ISBN 978-86859-147-7, Berlin, 2012, 9–10.
- 11 Flaka Xërxa Beqiri, "The undiscovered modern architecture of Kosovo — Overview of modernist architecture in Kosovo, a fading architectural heritage", *Piranesi*, No. 40, Vol. 26, Ljubljana, 2018, 6–15.
- 12 Udo Kultermann, *Architecture in the 20th Century*, New York, Van Nostrand Reinhold, 1993, 224–225.
- 13 Xërxa Beqiri, 2018, 6–15.
- 14 Interview with Andrija Mutnjaković by B. Ramku & N. Binakaj, Zagreb. *Conservation and Management Plan — The National Library of Kosovo*, Viprint. Prishtina, 2016, 30–31.
- 15 Andrija Mutnjaković, »Architectonics«, Hysa, B. Rilindja (ed.), *National and University Library of Kosovo*, Prishtina, 1984, 33.
- 16 Xërxa Beqiri, 2018, 6–15.
- 17 Vlora Navakazi, "PALLATI I RINISË", *Fjalor Enciklopedik i Kosovës, Akademia e Shkencave dhe e Arteve të Kosovës*, Prishtina, 2018.
- 18 Vlora Navakazi, "HOTELI "GRAND" PRISHTINË", *Fjalor Enciklopedik i Kosovës, Akademia e Shkencave dhe e Arteve të Kosovës*, Prishtina, 2018.

VOLCANIC MODERNITY. THE *TEN-BEL ENSEMBLES*, CANARY ISLANDS

Juan Antonio González Pérez

Universidad de Las Palmas de Gran Canaria UPGC; Campus de Tafira, Las Palmas de Gran Canaria, Spain;
juanantonio.gonzalez@ulpgc.es

ABSTRACT.

This article reveals the innovative project mechanisms of the apartment ensembles making up the *Ten-Bel* tourist complex by architects Javier Díaz-Llanos, Vicente Saavedra and Luis Cabrera, the first intervention aimed at building a *landscape of leisure* to serve mass tourism on the island of Tenerife in the 1960s.

This study shows how the aggregate modular system used in the configuration of the various *Ten-Bel* ensembles weaves a spatial fabric that sketches out new ways of using space in tourist installations. It demonstrates how the architects sought out ingenious methods for generating forms of spatial organisation that would permit greater densities, while maintaining a large degree of privacy and intensifying the experiences of the landscape.

The study discovers that the uniqueness and relevance of the *Ten-Bel* apartment ensembles lie in the fact that they define complex residential units that reproduce the open spaces commonly found in urban contexts as part of the architecture itself. The ensembles are a means of interspersing architecture and urbanism, a way of constructing an integral space for tourism that unfolds in the territory as a function of the landscape.

The research concludes that *Ten-Bel's* ensembles forge a singular identity as a synthesis between modern architecture and local culture, constructing a modern space for tourism that preserves and promotes the idiosyncrasies of the vernacular architecture and the volcanic landscapes of Tenerife Island.

1. INTRODUCTION

In the 1960s, tourism in the Canary Islands began to expand from its initial roots in the traditional urban tourist centres and started to colonise the pristine volcanic landscapes along the southern coasts with villages dedicated exclusively to mass tourism.

Commissioned by the Belgian Company *Ten-Bel S.A.* in 1963, *Ten-Bel* was the first tourist complex developed in the south of Tenerife Island. The complex was designed by local architects Javier Díaz-Llanos and Vicente Saavedra together with Luis Cabrera following their *Costa del Silencio* Development Plan. The area to be developed consisted of a natural platform covered by lava beds and local vegetation, a region of special environmental and landscape value.

2. THE *TEN-BEL* TOURIST COMPLEX (1963–1982)

Given this situation, one of the main objectives of the project would be to protect and exploit to maximum effect the natural landscape in the area. The buildings would be grouped strategically into concentrated, yet sufficiently separated ensembles, so as to create areas of intense development interspersed with open spaces where nature could be preserved in its pristine state (Fig. 1).

The design of the *Ten-Bel* tourist complex is based on a combination of independent apartment ensembles, self-sufficient units offering an alternative to the traditional hotel format. This concept allowed for a phase-by-phase approach to the overall implementation, which took over twenty years to complete, such that the estate would appear com-

plete at the end of every building phase but could adapt to future demands.

Ten-Bel is an atypical case in the context of the Canary Islands, in that a single entity, *Ten-Bel S.A.*, developed, constructed and ran all of the facilities of the tourist village. This lent coherence to the project and gave the complex a strong spatial identity beyond the sum of its different residential ensembles.

Generated by a set of modular cubic units, forming spatially complex and seemingly random assemblies, each of *Ten-Bel's* apartment ensembles has its own internal logic, giving rise to widely varied, increasingly complex configurations and uses of space.

The flexible system of adding modules¹ enabled a broad range of formal solutions while at the same time allowing for a systematisation of construction processes required for mass production.

A closer look at three of the apartment ensembles developed in *Costa del Silencio* will explore the design mechanisms applied during the evolution of the *Ten-Bel* tourist complex and show how the project functioned as a laboratory for the development of the modern tourist space in the Canary Islands.

2.1. The *Santa Ana* Ensemble (1967)

The *Santa Ana* was the first apartment ensemble built in *Costa del Silencio* and the experience served as the basis for later ensembles developed in *Ten-Bel*. The *Santa Ana* Ensemble is like a jigsaw of houses and patios interlocking over a modular square mesh. The different apartment units are



Fig. 1. *Frontera Ensemble*.
© J. Bernadó, 2005.

grouped into blocks, with entrances off public footpaths that criss-cross to form small plazas.

The *Santa Ana* complex offers a range of urban solutions that ensure high-density occupation of the plot while respecting private space and almost completely transforming the plot's natural terrain. This model will be further developed in later complexes such as the *Drago* and the *Frontera* Ensembles to adapt to the new needs of mass tourism and a newfound respect for the untouched landscapes of the island's south.

2.2. The Drago Ensemble (1967)

This ensemble, which was designed after the *Santa Ana*, is similarly strung together by means of a modular mesh. The *Drago* Ensemble is characterised by the play of light and shade achieved through a staggering of volumes, and the alternation of well-lit and shady areas along covered corridors, which open at regular intervals into a series of courtyards.

The open-air walkway found in the *Santa Ana* is internalised in the *Drago*, transferred into the interior of the ensemble, and the interior patios of the *Santa Ana* are shifted and opened towards the exterior.

2.3. The Frontera Ensemble (1970)

The *Frontera* (Fig. 1) was the last apartment ensemble designed for *Ten-Bel*. It is the largest and most sophisticated ensemble of the complex. Its design builds on the experience garnered from all of the previous ensembles.

Its different apartment types were created by adding one- or two-bedroom modules to a basic, studio-type model. These types were then arranged and stacked to generate a series of linear bodies distributed along a continuous double strip (Fig. 2). This double strip and the interior passageway that meanders through the open air to the different apartments define the ensemble's public space.

The staggered structure, created by setting back the up-

per floors, converts the upper corridor of the central passageway into a *street-in-the-air*. Across the way, the apartments open through semi-covered terraces with views of the oasis that runs along the ensemble's perimeter, home to a palm grove, and fragments of badlands of thistle and spurge.

Using the U-shape of the *Santa Ana* and the *Drago* Ensembles as its basis, the *Frontera* adopts a more complex configuration, meandering freely through the plot and adapting to the slight unevenness of the land while skirting the sections of badlands left in their natural state. In this ensemble, the focus is on the open spaces, with particular attention paid to the borders between the newly-landscaped gardens and the existing lava beds.

3. THE TEN-BEL TOURIST COMPLEX AS A LABORATORY

Ten-Bel was the first intervention exclusively aimed at building a *landscape of leisure* to serve mass tourism in Tenerife. To make the most of the opportunities offered by such a comprehensive, long-term project, which took over twenty years to complete, the architects adopted a flexible approach to planning, allowing the experiences garnered in the early phases of development to be incorporated into later planning stages. This empirical, pragmatic approach was in line with the critical position taken by *Team X* as compared to the more universalist positions of the *CIAM*.

The possibility of being able to develop each apartment ensemble in succession converted the ongoing exploration into a form of laboratory, with the various interactions reminiscent of the dual strategy of *dissection and reconnection*² developed by Candilis, Josic and Woods in their proposals for a new leisure architecture. This emerging project-based culture found its reference in Rafael Leoz's *HELE Module* and spatial network system.³ The *HELE Module* consisted of four cubes arranged in an L shape that, thanks to

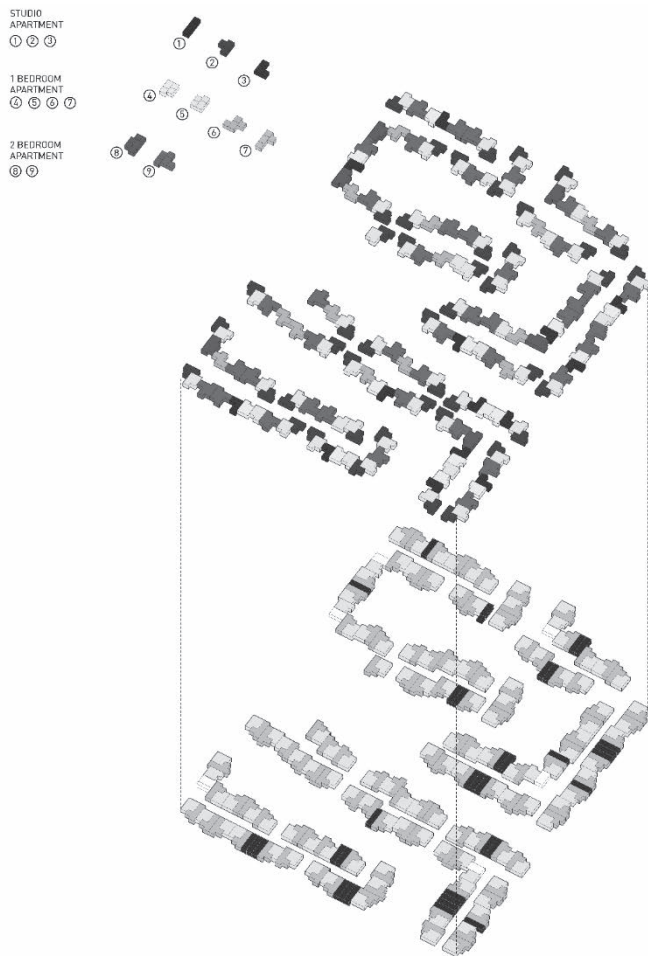


Fig. 2. *Frontera Ensemble*, Diagrams of standard types>sub-ensembles>ensemble. Drawing by Kevin Lam. © J. A. González Pérez, 2015.

its multiple possible combinations, allowed for an astonishing degree of spatial variety.

Inspired by Leoz's spatial network, in *Ten-Bel*, Díaz-Llanos, Saavedra and Cabrera sought out new methods for generating forms of spatial organisation that would permit greater densities, necessary for the development of mass tourism, while maintaining a large degree of privacy compatible with an intensification of the experiences of the landscape. At the same time, the architects defined new building processes adapted to the isolated conditions and low level of technological development in Tenerife.

The aggregate modular system used in the configuration of *Ten-Bel*'s various ensembles weaves a spatial network or fabric that sketches out new ways of using space in tourist installations. This fabric links the individual with the universal, uniting uniformity and diversity, repetition and change, allowing for the creation of building types that respond to the new demands of mass tourism while adapting

to unique local features.

Furthermore, the open system that underlies the formal expression of the project anticipates strategies of architecture employed in the digital age, as it is oriented towards the process, not the final object, and tends more toward differentiation than homogenisation.

The *Frontera Ensemble*, for example, is organised around different sub-ensembles, deployed across space and time in a linear sequence. The *Frontera Ensemble*, is a system, a building of buildings that acquires the maximum degree of serial development and produces a spatial multiplicity through the infinite articulation of a limited number of simple pieces that are perceived in time.

The three-dimensional serial composition represents a conceptual breakthrough in the research that has shaped the combinatorial-modular additive architecture of the *Ten-Bel* ensembles and its complex assemblies of apartments, as the ensembles offer a non-mimetic, astylistic compositional system, which assumes the value of language.

This type of formal experimentalism connects Díaz-Llanos' and Saavedra's work with geometric art, modular or constructive painting and serial music from the 1960s.

4. THE APARTMENT ENSEMBLES — PASSAGEWAYS BETWEEN THE LANDSCAPES

The interrelation between the architectural typology and urban morphology, between architectural typology and landscape, was taken as the starting point for conceiving new urban forms.

The apartment ensembles comprise "complex residential units"⁴ whose exteriors reproduce the hierarchy of the open spaces typical of a city, but which here are conceived as part of the whole. The complex syntheses between the built-over and open spaces in the *Ten-Bel* ensembles are both architecture and city at the same time.

From the *Santa Ana* to the *Frontera*, via the *Drago*, we witness a unique transformation of the block (Fig. 3) as an element for configuring urban space. The concave body of the *Santa Ana* Ensemble is progressively transformed into a convex form. The block as morphological unit mutates through a mechanism of syntactic inversion to the point where it unfolds, in the *Frontera Ensemble*, into parallel strips along the relief lines of the landscape. In the interior of the *Frontera*'s strips we have the mirrored double open-air public corridor; on the exterior, there are fragments of unspoilt nature.

Furthermore, the *Ten-Bel* estate's layout places special importance on shared landscaped areas and the radical separation of pedestrian and vehicle traffic. The densely built-up fragments of the ensembles are to be seen as concentrations of the footpaths running along a continuous strip of subtropical gardens. The apartment ensembles are thus configured as a space for transit, as passageways between the landscapes, spaces of interrelation, new forms of community.

In the successive development of the different ensembles there is a permanent questioning between interior and exterior, between the small scale of the residential units and the large scale of the tourist infrastructure and the landscape.

As a result of their particular configuration, the ensembles act as inter-scalar devices for relating to the landscape. The territorial framing, the inversion of figure and background and the use of the landscape fragment as an intensifier of meaning are just some of the design mechanisms that have made *Ten-Bel* a model of integration of architecture and landscape:

— Territorial Framing — the Distant Landscape.

Through the collective voids that frame the territory, the ensembles relate to the distant landscape: the volcanic cones of the surrounding area and the Teide Volcano, the scalar and symbolic reference of the island. Through the perception of the image of the Teide, each ensemble connects with the symbolic image of the island of Tenerife.

— Inversion of Figure and Background — the Intermediate Landscape.

The architecture of *Ten-Bel* responds to the figurative demands of nature, which has an active will of its own and produces a syntactic inversion, which will prove key to understanding the architecture-landscape synthesis found here. In *Ten-Bel*, the figure of architecture becomes the background to the figures of nature through a reinforcement of the abstract, where the white volumes of the ensembles act as a neutral background for the figurative vegetation of spurge and thistle.

— Landscape Fragment — the Nearby Landscape.

Small interspersed voids, such as the terraces, mediate between the ensemble and the nearby landscape. The interior/landscaped voids of the ensembles, onto which the apartments' private terraces face, are fragments of the natural volcanic landscape, representing the entire landscape of the island.

5. THE ISLAND PROJECT — PLACE AS IDENTITY

On the basis of these relationships, manifested at different scales, with the island landscape, *Ten-Bel* develops the idea of the place as identity, of the place as a basis of an *island project*,⁵ which is linked with reflections on geography first articulated by the island's avant-gardists.⁶

In his *Third Rationalist Manifesto*, published in the art revue *Gaceta de Arte* in 1932, entitled *The function of plants in the landscape*,⁷ Eduardo Westerdahl outlined how to work with the shapes of the island and how to highlight the images of the island landscape through urban rationalism, functional architecture and the use of indigenous plants. With Westerdahl's guidance in mind, the architects paid attention to density, placed limits on occupation levels and



Fig. 3 Diagrams of metamorphosis of the block, Top: Santa Ana Ensemble, Middle: Drago Ensemble, Bottom: Frontera Ensemble. © J. A. González Pérez, 2015.

building height, and adopted an approach of buildings “half-opening” up to the surrounding landscapes and protecting natural lava beds and indigenous plants.

Alberto Sartoris noted the need to “use the air, the light, the greenery, the natural and invented landscapes as one’s own true, unprecedented building materials”,⁸ making the most of individual traits and appreciating geographical differences and local features.

With these historic influences in mind, the architects of *Ten-Bel* integrated the landscape completely into the tourist complex’s leisure infrastructure and gave it an active role. The territory, its topography, its materials, its plant life — all these inform the structure of the complex, which is built at the scale of the landscape and derives meaning in and by the landscape.

6. CONCLUSION

Ten-Bel approaches the construction of the modern tourist space as a complex, non-linear process. Using the en-



Fig. 4. Left: *El Médano*, Tenerife, 1958. ©M. Brito, Right: *Santa Ana Ensemble*, *Ten-Bel*, 1972-. ©DLL/S Archive.

semble as a device, *Ten-Bel* defines the new city of leisure by means of a unifying model in which architecture unfolds as a function of the landscape.

Apartment ensembles such as the *Santa Ana*, the *Drago* or the *Frontera* reflect how the tourist model evolved over the period in question: there was a progressive transformation from types of spatial organization and buildings with clear urban references to new, more open forms directly linked to the surrounding nature and landscape.

Furthermore, the disjointed, broken profile of the ensembles' outlines — the result of the irregular aggregation of modules — is employed as a scalar strategy for making the various ensembles appear smaller than they really are, but, what is more, a reference to the popular architecture, common to this part of the island (Fig. 4).

The research concludes that *Ten-Bel*'s ensembles forge a singular identity through the empathetic integration of architecture and landscape, constructing a modern space for tourism that links with the scale and idiosyncrasies of the vernacular architecture and preserves and highlights the unique nature of the volcanic landscapes of Tenerife Island.

REFERENCES

- DÍAZ-LLANOS, Javier, & SAAVEDRA, Vicente, "Viviendas turísticas en *Ten-Bel*", *Periferia*, No. 13, 1994, 78–87.
- GONZÁLEZ PÉREZ, Juan Antonio, *Díaz-Llanos / Saavedra*, S/C de Tenerife, COAC / ACTAR, 2017.
- GONZÁLEZ PÉREZ, Juan Antonio, "Díaz-Llanos/Saavedra, Modernidad domesticada", *Basa*, No. 30–31, 2008, 158–159.
- GONZÁLEZ PÉREZ, Juan Antonio, "*Ten-Bel*" / "Agrupación Santa Ana" / "Agrupación Drago" / "Agrupación Frontera", *Sunland Architecture*, Barcelona, ACTAR, 2002, 340, 351, 352, 357.
- LANDROVE, Susana (ed.), *Equipamientos II. Registro DOCOMOMO Ibérico, 1925–1965*, Barcelona, Fundación Caja de Arquitectos, 2011.
- NAVARRO SEGURA, María, "Arte Contemporáneo", AGERO, Juan (ed.), *Canarias*, Madrid, Mediterráneo, 1995, 171–184.
- RUIZ CABRERO, Gabriel, *El moderno en España, Arquitectura 1948–2000*, Sevilla, Tanais, 2000.
- SOSA DÍAZ-SAAVEDRA, J. A., & GONZÁLEZ, M. L., "Relieves Insulares: Canarias, entre la tradición local y la cultura global", *Arquitectura Viva*, No. 51, 1996, 26–31.
- DOCOMOMO Ibérico, "Agrupación Frontera", accessed on January 8, 2020, http://docomomoiberico.com/index.php?option=com_k2&view=item&id=4381:ten-bel-plan-parcial-costa-del-silencio-agrupacion-frontera&lang=es.

NOTES

- 1 Fullaondo defines the "additive line" [línea aditiva] as the "line of structures in constant potential growth" [transl. the author], in reference to the thinking of Rafael Leoz & Juan Daniel Fullaondo, "Agonía, Utopía, Renacimiento", *Nueva Forma*, No. 28, 1968, 39.
- 2 "In the first dissecting move, the tourism project was unravelled into its smallest composing entities; be it the simple dwelling cell or even only parts of it. In a second instance these different parts were combined, juxtaposed and superimposed and thus reconnected as a new urban figure", Tom Avermaete, *Another Modern*, Rotterdam, NAI, 2005, 354.
- 3 Rafael Leoz, *Redes y Ritmos espaciales*, Madrid, Blume, 1956.
- 4 Antonio Monestiroli, *La arquitectura de la realidad*, Barcelona, 1993, 74.
- 5 "Artists on the Canary Islands in this period were able to speak, paint and write from, in and about a territory in particular." [transl. the author]. This landscape and geographical reformulation of the island's vision forms the basis for the *island project*. A. Sánchez Robayna (ed.), *Canarias, las vanguardias históricas*, Tenerife, CAAM, 1992, 16.
- 6 "Tourism led to a reflection on the Canarian identity [...] on identity as a cultural trait" [transl. the author]. María Isabel Navarro Segura, "Eduardo Westerdahl y la construcción de Canarias como identidad espacial", *Gaceta de Arte y su época. 1932–1936*, Las Palmas de Gran Canaria, CAAM, 1997, 29–31.
- 7 Eduardo Westerdahl, "Tercer manifiesto racionalista de GA. Tema: Función de la planta en el paisaje", *Gaceta de Arte*, No. 8, 1932, 4.
- 8 [transl. the author], Alberto Sartoris, "Orientaciones de la Arquitectura Contemporánea", *Cuadernos de Arquitectura*, No. 11/12, 1950, 51.

MODERN REGIONALISM: THE PIONEERING WORK OF MINNETTE DE SILVA

Rajiv Wanasundera

Lord Aeck Sargent; 1175 Peachtree St, Suite 2400, Atlanta GA 30361; rwanasundera@lordaecksargent.com

ABSTRACT.

This paper will evaluate the concept of regionally appropriate modern architecture as espoused by a pioneering Asian architect, Minnette de Silva (1918–1998). Her approach was a departure from the orthodoxy of Tropical Modernism which promoted a universal way of building applicable throughout the entire tropical world. In fact, her advocating for a “modern regionalism” presaged the concept of critical regionalism by almost three decades. This paper will examine Minnette de Silva’s search for an architecture that was both progressive and compatible with the climate and culture of her homeland. It will also trace her influence on the development of a contemporary Sri Lankan architectural identity.

1. INTRODUCTION

Minnette de Silva was Sri Lanka’s first female architect and the first Asian woman to be admitted to the Royal Institute of British Architects. She is also noteworthy as one of the few women of her generation to establish an independent practice. For de Silva, architecture was more than designing buildings. She saw architecture as an embodiment of culture and the creation of buildings as a political act. For her, to be an architect was to also be an activist. Her mindset can be explained by her family background, her upbringing and the circumstances of her childhood.

2. EARLY YEARS AND EDUCATION

Minnette was born in 1918, the youngest of five children of George and Agnes de Silva. Her father was Sinhalese by birth and a lawyer by training and later an activist and politician. Her mother Agnes Nell belonged to the island’s Burgher community. The Burghers were mixed-race descendants of the European settlers who had arrived in the 17th and 18th centuries during the Dutch colonial period. Her parents’ marriage, crossing racial, religious and class divides was unusual for the time, and it heralded the unconventional approach to life taken by Minnette herself.

Minnette grew up in Kandy, a town in the central hills of Ceylon.¹ Kandy, although a backwater in comparison to the cosmopolitan capital of Colombo, was considered the cultural capital of the country as it had been the citadel of the Sinhalese kings since the 15th century. Although her hometown was provincial, Minnette’s home, St. George’s, was a hub of progressive thought, filled with visiting intellectuals, artists and politicians. George and Agnes’ involvement in the independence movement instilled in their daughter a strong sense of national pride and also an appreciation of the indigenous culture and crafts of the island which had been overshadowed by four centuries of foreign rule.

The decision to study architecture was an act of rebellion by Minnette. With Ceylon lacking a school of architecture, she travelled to India in 1938 and eventually enrolled in Bombay’s Sir JJ School of Art whose pedagogy was based on

the Beaux-Arts tradition. Minnette’s activism soon rose to the forefront and she joined her fellow students in striking in support of the Indian independence movement. This led to her being expelled. Minnette made the best of the situation by moving to Bangalore to work under Otto Koenigsberger.² While in India, Minnette and her sister Anil were involved in the founding of the magazine *MARG*, which became an influential voice promoting modern architecture in the sub-continent.

With the close of the Second World War, Minnette moved to London in 1945 and enrolled in the Architectural Association. She confesses she was an indifferent student and spent more of her time at the theatre or museums rather than in studio.³ However, she was a skilled networker and made connections with many architects and artists. On a trip to Paris she visited Le Corbusier in his studio, and he became a lifelong friend and mentor. Minnette’s association with *MARG* allowed her to attend the 6th CIAM conference in Bridgewater as the self-appointed delegate from India.⁴ The official group photograph shows her seated in the front row, next to Walter Gropius, a rare honour for a young student.⁵

Sri Lanka received its independence from Britain in 1948, the same year that Minnette received her diploma. Although she may have wanted to stay on longer in London, her parents felt it was her duty to put her skills to work in the service of her fledgling nation. She returned in 1949 and set up her practice in her parents’ home in Kandy. She named it “The Studio of Modern Architecture,” making the intent of her work unequivocally clear. In an article published in 1950 in a local newspaper, she wrote

*it is essential for us to absorb what we absolutely need from the modern West, and to learn to keep the best of our own traditional forms. We have to think understandingly in order to develop an indigenous contemporary architecture.*⁶

In 1953 she authored an article in *MARG* where she presented her work as “experiments in modern regional architecture in the tropics.”⁷

This paper will examine two of Minnette de Silva’s early



Fig. 1. Minnette de Silva, Karunaratne House, Kandy, Sri Lanka, 1951. The house has been vacant and derelict for a number of years. © Rajiv Wanasundera, 2020.

buildings and evaluate her attempts to achieve a workable synthesis of modernity and tradition.

3. THE KARUNARATNE HOUSE

The Karunaratne House was Minnette's first built project. The clients, Algy and Letty Karunaratne were friends of her parents and owned a hillside site overlooking the Kandy Lake. In a letter written to her in 1950, Algy says "I have limited means and would be happy with a simple house, which is more in keeping with my habits and mode of living, to a luxurious one."⁸ Minnette responded to this brief with an innovative, unconventional house, the first of its kind in Sri Lanka.

The challenge Minnette set for herself was to design a modern home that was suitable to the way of life of a contemporary Sinhalese Buddhist family. She wanted her design to meet the needs of the nuclear family but to also accommodate large gatherings of the extended family and even religious activities such as a *dana* ceremony, an alms giving for Buddhist monks. The house is an open plan two-story structure, with four distinct levels. Minnette located the building as close to the edge of the property line as the setback requirements allowed. This was daringly innovative as the urban house typology prevailing at the time was the bungalow — a free standing house in the middle of a

garden, with boundary walls defining the perimeter. By bringing the house to the edge of the site, Minnette created a new paradigm for the urban house, which eventually became the norm as lot sizes shrank as cities became denser. From the street the house appears to be one storey tall, with the lower floor nestled into the hillside to minimize the cut and fill on the hilly land (Fig. 1). This also left as much of the level area of the land free for a garden. The front (south) façade is opaque, with minimal fenestration. The severity of the façade is softened by separating it into three volumes, with the garage, public spaces and bedrooms reading as distinct elements. These volumes are clad in different materials, granite — in random and ashlar patterns — and stucco further differentiating the public and private wings of the house. The stucco cladding on the bedroom wing is given scale and texture with a superimposed grid, inset with decorative tiles. The garden (north) façade is a complete contrast to the south, with large expanses of glass and generous overhangs for shade (Fig. 2).

The layout of the spaces is unconventional. The public spaces are to the left of the main entry and are on both floors on four levels, connected by sculptural stair encased in glass block. The private and service spaces are to the right of the entry with three bedrooms on the entry level with an additional bedroom, kitchen and staff quarters on the lower level. Service spaces such as the bathrooms are on the south



Fig. 2. Karunaratne House. A view of the garden façade in the 1980s. © C. Anjalendran Studio, 1989.

side adjacent to the street. Living spaces face the north and east, looking toward the expansive view. Minnette wanted to blur the boundary between inside and outside. She wrote

*all the rooms have been designed as enclosed verandahs. They can be as open as a verandah by the sliding of glass doors, which can be drawn together in inclement weather, or for privacy or safety. Even when the glass doors are closed the magnificent view and the garden are never shut out of sight.*⁹

Most of the materials are locally sourced, including the granite cladding, the wood used for roof framing, flooring and the doors and windows. Traditional Kandyan crafts are

an integral part of the design. Traditional Dumbara mats are inset in the doors and decorative terracotta tiles are installed on the front façade. The skills of the local stone masons are showcased on the exterior granite walls. Minnette also convinced the clients to commission a renowned artist, George Keyt, to paint a mural for the living room. Her aim was to create a structure that was a seamless collaboration between architect, craftsman and artist.¹⁰

The clients were initially nonplussed by their house. In a letter to their architect in 1950, Letty says

I came to Colombo last Friday. From that day to this it's a case of my listening to sarcastic comments or jokes about our



Fig. 3. Minnette de Silva, Pieris House, Colombo, Sri Lanka, 1961. © Rajiv Wanasundera, 2020.

*house from practically every friend or relation I meet... When I came away from Kandy I was fed up enough about the house, now I have decided never to live in it.*¹¹

Having moved in, Letty and Algy did end up appreciating their house and lived in it for the rest of their lives. Forty years later their daughter wrote to Minnette and said “living in this house has been a wonderful experience, for the view outside, the hills, the lakes, the town and the temple are part of the life within the house.”¹²

Minnette admits that her first attempt to meld the traditional and the modern was not a success. In her memoir she confesses

*I tried everything, some of which wasn't good, but it was my first house and my first attempt to mix old and new. The Karunaratnes were terribly embarrassed that their humble home resembled a temple in others eyes, with its amalgam of arts and crafts.*¹³

Despite all the new ideas she implemented, the house with its low-slope roofs and cantilevered shading elements at first glance resembled the countless “American Style” houses built by upper middle class families in the 1950s and 60s. Despite being attuned to the climate and culture, the regional characteristics are limited to materials and applied decoration, such as the clay tiles on the façade or the woven mats

on the doors.

4. THE PIERIS HOUSE

Minnette's next significant commission came from another close family friend, Ian Pieris. In a letter written to her in 1949, he starts off by saying “are you a good girl? If you are quite sure you are, I may give you a job...” He goes on to add “Being old fashioned, I would like something not ultra modern, but oldish (sensibly), Dutchish, essentially cool, simple etc, a sort of modern version of the [Villa] Rotunda.”¹⁴ Despite his paternal attitude and conservative taste, Minnette was excited to take on the project as this would be her first building in Colombo. Her design resulted in the most revolutionary house post-independence Sri Lanka had seen (Fig. 3). It may have been a far cry from her client's initial wish, but as she said, “He [Ian] let me do whatever I liked with the house — he'd argue but in the end I'd get my own way.”¹⁵

Many aspects of the Pieris House appear to be inspired by Corbusier's Villa Savoye. A majority of the living space is located on the upper floor, which is supported on pilotis. Minnette wanted the upper floor to be a flat slab which was apparently beyond the capabilities of the local structural engineers, so she had it detailed by her friend Ove Arup's firm. The layout of the lower level is dictated by the requirements of the motor car with a semi-circular drive leading to a car port. Just as the lower level of the Villa Savoye was

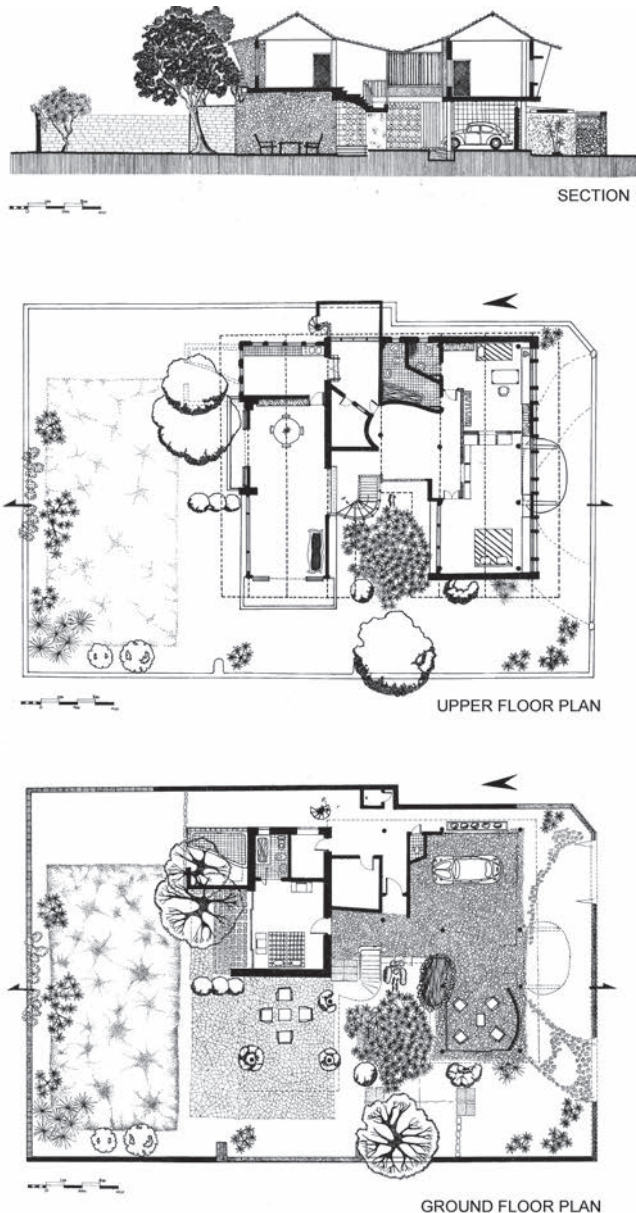


Fig. 4. Pieris House, plans and section. © C. Anjalendran Studio.

based on the turning circle of a Voisin automobile, Minnette configured the ground floor to specifically accommodate Ian's imposing Mercedes 300 as well as his diminutive Fiat 1100. However the flat roof of the Savoye was replaced with a sloped roof, which was more suitable for the tropical climate.

As in the Karunaratne House, the layout of the space is unconventional (Fig. 4). More than two thirds of the ground floor is left open for informal gathering, with just a single bedroom and the staff quarters being enclosed by walls. In her floor plan Minnette calls out a "loggia" and a "garden log-

gia" separated by a courtyard. It is noteworthy that the courtyard is labelled a "*midula*" by Minnette, the Sinhalese word for garden, thereby referring to vernacular courtyard houses. A sculptural stair leads to the second floor, which is separated into two distinct pavilions. In another unconventional move, Minnette located the kitchen, living and dining rooms overlooking the garden while the bedrooms are placed in the pavilion facing the street. This allows for increasing degrees of privacy and intimacy for a person moving through the house. A colleague of Ian's could consult him on the front loggia, visitors would move deeper inside and be entertained on the garden loggia. Close friends of the family may be invited for dinner upstairs and only the family and relatives would visit the bedroom pavilion.

Minnette used a rich palette of local materials in the house. The exterior boundary wall is made of coral limestone while the interior boundary walls are of a soft red laterite stone called *kabook*. Granite is used for some interior walls on the ground floor as well as for paving. The wood balustrades of the stair are decorated with a traditional Kandyan lacquer technique known as *beeralu*. The roof is covered in half round clay tiles, another traditional material, introduced to the island in the 16th century by the Portuguese. Minnette introduced a subtle variation in the roof pitch, referencing the double pitched roof form that is a hallmark of traditional Kandyan architecture. Minnette said the inspiration for the Pieris House were the *Tampita Vihara* — two storey temples from the Kandyan medieval period. In her memoir she juxtaposes images of two of these temples with the plans and sections of the house.¹⁶

Completed in 1956, the house was an undeniable tour-de-force, serving as a prototype for living in a tropical, urban environment.¹⁷ As Minnette writes: "No space is wasted in pretentious inadequate driveways. You drive straight under or beside your house. All the garden area possible is collected within for the enjoyment of the householder."¹⁸ For Ulrik Plesner, a young Danish architect who Minnette invited to Sri Lanka to work with her, the house "was like a poem in breeze and air surrounded by a garden of giant leaves. For someone coming off a boat straight from a cold winter climate and closed houses this was utter magic. Here was the architecture of air."¹⁹

5. CONCLUSION

With these two pioneering commissions completed it seemed that Minnette's career trajectory was moving steadily upwards. She must have been confident in the growth of her practice to invite Plesner to Sri Lanka to join her. However securing new work was a challenge. As Plesner writes,

Minnette had convictions, but as a leader she lacked two qualities. The first was technical understanding and the second was the charm you need to enthuse and inspire others with your vision and smoothing over your own gaps and imperfec-

tions.²⁰

After a year of working with her and not receiving a salary for many months, Plesner moved to Colombo, eventually joining Geoffrey Bawa at his firm of Edwards Reid and Begg. The nine years Plesner spent working with Bawa were immensely fruitful. Despite designing a number of significant buildings, Minnette's contribution to Sri Lanka's 20th century built heritage has been overshadowed by the work of Bawa. Although de Silva's career spanned forty years, her output was sporadic and she took extended breaks from her practice. By living in Kandy she removed herself from fully engaging in the architectural discourse in Sri Lanka. As Bawa's biographer David Robson says "But she [Minnette] was a woman in a provincial backwater and nobody was listening."²¹ However it is important to note that Minnette de Silva's polemical writing and her deep understanding of indigenous crafts and vernacular architecture was the springboard that Plesner and Bawa used to develop their ideas to create an architectural language that was modern in spirit while being culturally rooted in Sri Lankan building traditions.

REFERENCES

- ANJALENDRA, C., & WANASUNDERA, Rajiv, "Trends and Transitions: a review of styles and influences on the built form in Sri Lanka (1940–990)", New Delhi, *Architecture + Design*, VII, No. 2, March–April 1990, 26–33.
- DE SILVA, Minnette, "A House at Kandy, Ceylon", Bombay, *MARG*, 6, No. 3, June 1953, 4–11.
- DE SILVA, Minnette, "Twenty-Five Years of Experiments in Modern Regional Architecture in Sri Lanka", Colombo, *Journal of the Ceylon Institute of Architects*, 1965–66.
- DE SILVA, Minnette, *The Life and Work of an Asian Woman Architect*, Kandy, GEDSANDS Trust, 1998.
- PIERIS, Anoma, *Architecture and Nationalism in Sri Lanka: the trouser under the cloth*, London, Routledge, 2012.
- PLESNER, Ulrik, *In Situ: an architectural memoir from Sri Lanka*, Copenhagen, Aristo, 2012.
- ROBSON, David, *Geoffrey Bawa: The Complete Works*, London, Thames & Hudson, 2002.
- ROBSON, David, "Two Pioneers of Modernism in Ceylon", accessed on May 31, 2020, <https://thinkmatter.in/2015/03/04/andrew-boyd-and-minnette-de-silva-two-pioneers-of-modernism-in-ceylon/>.

NOTES

- 1 Ceylon is the colonial name for the county and was changed to Sri Lanka in 1972. The name Ceylon is used in the paper when referring to the period prior to independence (1948).
- 2 Otto Koenigsberger would later become the head of the Department of Tropical Studies at the Architectural Association (AA) in London.
- 3 Minnette De Silva, *The Life and Work of an Asian Woman Architect*, 82.
- 4 Minnette was credited as a contributing editor on the *MARG* masthead and became the magazine's representative in London while she was studying at the AA.
- 5 Pamela Buxton, *Guess who came to dinner?*, accessed on May 31, 2020, <https://www.ribaj.com/culture/exhibition-congres-international-d-architecture-moderne-bridgewater-somerset>.
- 6 De Silva, *The Life and Work of an Asian Woman Architect*, 116.
- 7 De Silva, Minnette, "A House at Kandy, Ceylon", *Marg*, Vol. 6, No. 3, June 1953, 4–11.
- 8 De Silva, *The Life and Work of an Asian Woman Architect*, 125.
- 9 Ibid., 130.
- 10 Ibid., 119.
- 11 Ibid., 125.
- 12 Ibid., 133.
- 13 Ibid.

- 14 Ibid., 182.
- 15 Ibid., 180.
- 16 Ibid., 181.
- 17 David Robson, "Two Pioneers of Modernism in Ceylon".
- 18 De Silva, *The Life and Work of an Asian Woman Architect*, 180.
- 19 Ulrik Plesner, *In Situ: an architectural memoir from Sri Lanka*, 58.
- 20 Plesner, *In Situ*, 66.
- 21 David Robson, "Two Pioneers of Modernism in Ceylon".

Session 8-e

LOCAL MODERNITY IN THE MIDDLE EAST

George Kunihiro

Professor of Architecture at Kokushikan University

Modern Movement began a century ago in Europe and in the United States as a reaction to the accelerated process of modernization with numerous scientific discoveries and engineering innovations. In the beginning, events in the form of the world exposition, curated exhibitions, various publications, and the gathering of the architects, lead by the key players of the Modern Movement, disseminated the ideologies, and displayed architectural case studies to the public. In the thirty years which followed, gradually but with impact, the Modern Movement became visible throughout the world.

It was after the end of the World War II, which interrupted all significant building activities throughout the world, that a significant redrawing of the World Map and the global power structure occurred. The balance of power has shifted to the American Continent as the United States whose territories were undamaged from the War, took control of the global leadership from the European Allies. The United Nation Headquarter was established in New York, a significant move from the failed Euro-centric League of Nations, whose headquarter was in Geneva, Switzerland.

Rebuilding the economic and the physical environment in Europe began slowly after the World War II, while the economic boom in the U.S. was accelerated by the demand for housing for the young men and women returning from the war, fueled by the outbreak of the Korean War. Colonialist nation, like the Great Britain, France, the Netherlands, Spain, and Italy, allowed independence of the former colonies due to the weakened state of their national and military powers.

In the world of architecture, Walter Gropius and Mies van der Rohe and many of their former Bauhaus colleagues moved to the U.S. and established an academic circle to teach the next generation of students who came from various region of the world.

Le Corbusier and Siegfried Gideon resurrected the CIAM after the War, but the movement was taken over by the young architects of the Team 10 and abruptly terminated.

In such context, the Modern Movement began to settle into various local cultures through a form of mutation. The degree to which such changes are visible depended on the authors of the work completed in each locality.

In Japan, the disciples of Le Corbusier, Wright, and the students of the Bauhaus, brought back the Modern Movement and began to build with local program and the materials, their unique regional architecture. In Central and South America, the C.I.A.M. members actively practiced and built their projects according to the doctrine of the Modern Movement which resulted in activating harmonious cross-culture of the Modernist and indigenous architecture. Similarly, some African countries were able to import Modern Movement because the society was advanced enough to accept the values and the ideals of the Movement.

Soon after, the rest of the world followed, and the Movement evolved into a global movement. However, the magnitude and the velocity in which the Modern Movement was adopted and developed varied depending on region and culture. In this session, we will examine several case studies illustrating the ways in which the Modern Movement was introduced to a particular society and was accepted and assimilated into the mainstream architectural culture.

The selected papers focus on the activities in the Post World-War II era when the global economic and political condition began to align with the ideology of the Modern Movement which made many projects to be realized throughout the world. During this period, withdrawal of the colonial powers and the subsequent series of declaration of national independence throughout the world, affected many regions of the Third World. In this session, the case studies of Iraq, Kuwait, and Lebanon will illustrate the di-

rect intervention by the Western architects, on one hand, and the productive activities of the local architect who adopted the language and the ideologies of the Modern Movement.

Chronologically, Baghdad received a heavy number of interventions by the prominent architects of the Modern Movement. Although the buildings were not completed until the deaths of the architects, nevertheless, the direction of the Iraqi architecture was set by the works of these architects. Specific cases of such influence from the Western architects are presented in the research of the Iraqi case studies. This paper traces the influence of the works of Le Corbusier and Walter Gropius whose works were built in Baghdad. The author examines the works of the contemporary Iraqi architects, focusing on the details and elevations. Here the cultural expression of the Iraqi culture is integrated into the materiality and the universal language of the Modern Movement.

Another paper presents a research on the Portuguese intervention in the form of philanthropical foundation and its efforts to construct a sports stadium and an art center in Bagdad from the 1950s through the 1970s. Portuguese architects designed these projects with local architects and engineers executing the construction. Transfer of knowledge through the experience generated an opportunity for the Iraqi architects to localize the universal architecture of the Modern Movement.

The two selected papers feature Lebanon. First paper describes the work of Oscar Niemeyer in Tripoli which has been abandoned for decades and has become endangered Modern Heritage. Second paper features a research finding on Sami Abdul Baki, a local architect who designed many of the Modernist buildings in Lebanon and Kuwait. Although Niemeyer project is a direct importing of a design onto a local context, the Baki's works are homegrown with many prominent buildings built in the language of the Modern Movement. Both papers touch upon the political background of the project and the era.

Study of Global and Local Modernities is an intriguing subject. In the early 20th Century when the economic imbalance between the Western World and the Third World were clearly visible, the dominance of the Western powers upon the Third World became visible through Modernist architecture built in the Third World. Period following the initial introduction of the architecture of the Modern Movement, the local architects when into a phase of learning mode to experiment and to question the relationship to their indigenous architecture culture.

Today, in the global environment of internet technology accelerating the process to its own set of universality, remind us that the Modern Movement once pursued similar goal. From the papers presented in Session 8, we are at a point in time when the global world must respect the "Local Modernity" while realizing the value of the "Global Modernity".



WHERE LOCAL MODERNITIES MEET: THE CALOUSTE GULBENKIAN FOUNDATION IN IRAQ, 1957–1973

Ricardo Costa Agarez

Instituto Universitário de Lisboa (ISCTE-IUL), Centro de Estudos sobre a Mudança Socioeconómica e o Território; Av. das Forças Armadas, 1649-026 Lisboa, Portugal; ricardo.agarez@iscte-iul.pt

ABSTRACT.

The Gulbenkian Hall on Tayeran Square in Baghdad — one of the few venues there where works of Iraqi modern art can be seen today — was designed and built between 1957 and 1962 by the Calouste Gulbenkian Foundation, aimed at supporting the city's budding modern arts scene with its first purpose-built gallery. Importantly, it was also intended as a demonstration of the foundation's seriousness of purposes in strengthening the cultural, educational, scientific and public health-related infrastructure of Iraq — a purpose to which the institution, established in Lisbon in 1956, had decided to channel part of its oil revenues, largely originated in the country. In the tight-rope exercise of combining its own financial viability with its philanthropism, the Foundation thereby helped establishing the material and intellectual backbone of modern-day Iraq, through very diverse means.

This exercise included approving around 250 'construction grants' in Iraq, 600 scholarships for graduate and post-graduate training, home and abroad, and material support ranging from library collections to television equipment. The operation peaked with al-Shaab Stadium in Baghdad (1957–1966), meant as a contribution for the advancement of Iraqi physical education. Focusing on the sports complex and arts centre initiatives as epitomes of post-colonial, soft-power diplomacy processes and products, this paper examines how the archive of a philanthropy in Portugal can shed light on the unseen history of ostensibly distant objects that, despite circumstances over the past three decades, have entered Iraqi collective memory as beacons of normality, while enquiring the ways by which seemingly unconnected cultures of modern built-environment production come into contact, yielding new, hybrid outputs.

1. INTRODUCTION

The Gulbenkian Hall in Baghdad is now a virtual reliquary of modern Iraqi art. Its walls are lined with reproductions of original works that have either disappeared in the recent troubled past or are stored away for safety. It offers an overview of artistic activity over the last century and suggests how keeping this facility matters: a marker of normality in the city's daily life.

This gallery, designed as the Modern Arts Centre and completed in 1962, and the sports complex known as the People's Stadium, of 1966, were built by the Calouste Gulbenkian Foundation in Baghdad as part of a quid-pro-quo strategy to compensate Iraq for the proceeds from oil exploration, an activity in which Calouste Gulbenkian was a pioneer. The development of a modern cultural, educational, scientific and welfare infrastructure in Iraq was a priority for this philanthropy, supporting the construction and equipment of facilities, formation of national elites and artistic production.

To mark the completion of the Stadium, in 1966 the Foundation organised the Gulbenkian Cultural Week in Baghdad, using the occasion to exhibit newly acquired Portuguese and international artworks (the genesis of the Foundation's Modern Collection), to promote local artistic creation (buying works that now form its rare section of Iraqi art), and to finance the training of young Iraqi artists in Lisbon.

In the exhibition *Art and Architecture between Lisbon and Baghdad*, curated by Patricia Rosas and myself at the Gulbenkian museum in 2018, the Cultural Week of 1966 was

the starting point to reflect on the Foundation's operations in Iraq, and their implications both for a modernising Middle East country and for an institution seeking affirmation in the region. The promotion of artistic, technical and architectural cultures in Baghdad was, then, seen and shown through little-known artworks and unpublished documents from the Gulbenkian Collections in Lisbon. In what regards the built environment, a special focus was placed on the sports complex and the arts centre.¹

2. SPORTS AND PHYSICAL EDUCATION

The Al-Shaab Stadium ("the People's Stadium") in Baghdad was the *pièce de résistance* of the Calouste Gulbenkian Foundation's strategy to further the cultural, educational, welfare and scientific development of Iraq, benefiting from earlier experiences such as increased support for local initiatives since 1957, and the 1962 completion of the Modern Arts Centre in particular. With a brief of significant scale and complexity, this was also the most important work undertaken by the Foundation outside Portugal in the 1960s — comparable only to the construction of the Foundation Headquarters and Museum in Lisbon.²

Because of its visibility and novelty, the complex was the central element of the public relations efforts that accompanied the Gulbenkian philanthropy operations in the country. The structure, a direct intervention by the Foundation which survived several changes of regime and government, was consistently presented as instrumental in developing a new national identity: physical activity and sport



Fig. 1. Francisco Keil do Amaral & Carlos Ventura Ramos with SPO, al-Shaab Stadium, Baghdad, Iraq, 1958–1966, backside of the covered stands. © Gulbenkian Archives, anon., 1966.

would play a fundamental role in the everyday life of the new Iraqi — and republican — citizenry.

2.1. Strategic Definition of the Project (1958–1959)

The construction of an “imposing building for a Sports Stadium”, designed according to the latest techniques and financed by the Foundation in honour of King Faisal II, had been suggested by Azeredo Perdigão to Prime Minister Nuri Pasha in March 1958, only four months before the revolution that would depose the king. The project survived not only a regime change (and the so-called Ramadan Revolution, which in February 1963 replaced the government of Qasim with that of Ahmed al-Bakr of the Ba’ath Party), but also strategic readjustments by leaders seeking to satisfy the national interest through the management of oil revenues.

Initially, the Foundation was only to be a source of finance: either for the construction of a large stadium designed by Le Corbusier; or for three stadiums in Iraq’s major cities; or finally for a single stadium in Baghdad designed by Portuguese architects.³ By the end of 1959, however, the Foundation had also taken on responsibility for the overall planning and management of construction and its turnkey delivery to the Iraqi State. In order to deploy the initial grant of £1,050,000 provided under the Foundation’s remit in the area of Education, its Projects and Works Department (SPO) launched a complex and meticulous study of local conditions.

2.2. Developing the Keil-Ramos Project (1960–1961)

The functional programme for the flagship project of the Gulbenkian operations in Iraq was demanding and complex: a 35,000-seat stadium for football, athletics, parades and gymnastics; an adjoining football training pitch; an Olympic-sized swimming pool for competition and recreation with seating for 1,000 spectators; a smaller 2,500-seat stadium for volleyball, basketball, boxing and wrestling and three supplementary training fields.

The architects involved were Francisco Keil do Amaral, a consultant for the Foundation’s Headquarters and Museum scheme in Lisbon⁴, and Carlos Ventura Ramos, architect alongside Jorge Viana of the Restelo Stadium in 1952–1956. Structural engineering and other specialities were the responsibility of Alderico Santos Machado, Mário Gomes Páscoa and Carlos Barros Vidal, with consultancy by Ihsan Sherzad (the SPO’s local technical representative) and coordination by João Vaz Raposo.

The sports complex project took full advantage of the possibilities of carefully calibrated exposed reinforced concrete structures, designed with the support of the Foundation’s Centre for Scientific Calculus, a contribution which enabled not only notable efficiency and economy in construction, but also their remarkably slender, almost delicate, architectural forms.

2.3. Construction and Delivery (1963–1966)

The initiative was presented by Iraqis and Portuguese alike as part of a strategy to construct a new national identity in Republican Iraq — where physical activity and sport would play a fundamental role — and placed under the remit of the director-general of Physical Education by the Iraqi government. The process comprised intense reciprocal working visits and constant negotiations to address day-to-day problems: the normal development of a project made more demanding through distance. Its every step was followed locally by engineer-architect Sherzad and from Lisbon by SPO staff engineers Guimarães Lobato (director) and Vaz Raposo. Visible from 1963, construction was also scrutinised on a daily basis by the local population and government officials, seduced perhaps by its striking visual language and structural boldness.

The architectural “play of volumes” employed formal vocabulary characteristic of post-war international modernism, in particular that of Keil do Amaral, who employed vaulted shell-like roofs in the swimming pool facilities in Baghdad and other coeval works; the administration floor *louvres* directly quoted Le Corbusier and the modern canon. Above all, the design recurred to simple gestures and a clear sculptural intent, defining volumes by section — an effect maximised by the size and repetition of a few reinforced concrete profiles (Fig. 1).

This sports complex acquired a somewhat iconic quality, emphasised with singular, self-standing sculptural objects, both evidently functional (the swimming pool’s diving tower) and more enigmatic (the memorial tower commending the complex to Iraq). Keil and Ramos avoided technical challenges by keeping finishes to a minimum; finally, they were rewarded with the quality of the exposed concrete, of considerably high standard.

The inauguration in 1966 meant, in itself, a logistical test for the Foundation. Organising the Gulbenkian Cultural Week in Baghdad was an opportunity to mark the occasion with a clear demonstration of the central place given by the Foundation to fostering artistic creation within the framework of its actions. Above all, however, it was a unique chance for the Gulbenkian operations in Iraq to gain the public visibility that lacked in 1962, when opening the Modern Arts Centre: the long-awaited football match — where the presence of a top Portuguese team played on the growing popularity of the sport in Iraq — was followed with enthusiasm by a crowd of twice the stadium’s nominal capacity.

3. THE ARTS

The idea of supporting the construction of a modern arts centre committed to the “civilising potential” of contemporary artistic production in Baghdad, was perfectly in keeping with the Foundation’s objectives of financing educational, cultural, welfare and scientific projects in Iraq. The

Modern Arts Centre was the calling-card project for its operations in Iraq: a technically simple and pragmatic project that responded to an unquestionable need with clear cultural aims. A direct intervention — and not the provision of a grant, as would become the norm from then on — would quickly demonstrate the institution’s capacity for serious accomplishment. It would also serve as a rehearsal for the other work built directly by the Foundation, the considerably more ambitious Al-Shaab sports complex.

3.1. First Steps of the Project (1957–1959)

In 1957, the Iraqi Artists Society requested support for the construction of a modern art centre with a permanent exhibition hall in Baghdad, an infrastructure they deemed indispensable for the development of a cohesive “artistic movement” in Iraq. Through the Foundation’s Middle East Affairs Department, the initiative was ranked among its earliest “priority projects”, securing its involvement.

Architect Rifat Chadirji, involved in the architectural renovation of Iraq and an influential government official, suggested the Baghdad City Council should carry the initiative. In January 1959, he presented the functional brief and suggested that a Portuguese architect be invited to prepare a proposal. The Foundation decided to develop the project directly and to invite local figures to Lisbon, thereby forging ties between the two countries. It also ensured that the municipality provided a “large and central” site for the building and took responsibility for hosting artistic events there.

3.2. From Draft to Execution Design (1960)

The Modern Arts Centre (MAC), deserving a grant of £60,000 from the Foundation’s Board of Trustees in April 1959, was designed between August 1959 (preliminary scheme) and December 1960 (execution documents). Architect Jorge Sotto-Mayor de Almeida and engineers João Vaz Raposo, Alderico Santos Machado, Mário Gomes Páscoa, Carlos Barros Vidal, Sabah Hamdi and António Lopes de Sousa, from Portugal, worked in close collaboration with engineers Hassan Rifaat Mahmoud, director of the technical division of Baghdad City Council, and Abdullah Ihsan Kamil, professor at the Faculty of Engineering and a city councillor.

The design included two exhibition halls (for temporary shows on the ground floor, with the possibility of extension to the public gardens; and permanent on the upper floor, a more secluded position), a library and slides archive (for educational purposes), offices and storage.

Visits by Iraqi politicians and officials to Lisbon, traineeships of Iraqi technicians in Portugal and technical missions of the SPO to Baghdad, were evidence of a sustained exchange between the Foundation and local actors in this (westernised) developmental effort. Engineer-architect Ihsan Sherzad, a technical consultant to the Foundation, and Sabah Hamdi, a resident engineer, were put in charge of the completion of both the stadium and the arts centre, with



Fig. 2. Jorge Sotto-Mayor de Almeida (SPO), Modern Arts Centre, Baghdad, Iraq, 1957–1962, interior view of the main gallery. © Gulbenkian Archives, anon., n.d. [1966].

near-daily correspondence exchange on project guidelines and adjustments to construction, materials, procedures and structures. Aware of the opportunities that its operations might open up in the Middle East for Portuguese building materials, the MAC designers specified the use of marble, cork and tile, also responding to requests from their Iraqi counterparts.

3.3. Construction, Completion and Use (1961–1966)

The MAC project gained urgency in the context of political and social instability in Iraq and was sustained under the pragmatism of the SPO, who simplified construction to streamline completion. The MAC was instrumental in domestic and international politics, from the ceremonial laying of the foundation stone by Prime Minister Qasim, on 14 July 1961, the third anniversary of the republican revolution,

to the opening of the building, one year later.

Using the structural frame as a composition device, the MAC employs simple and expressive formal mechanisms that also provided thermal control: claustra-block façades, thin concrete louvres and intricate skylights in exhibition halls (Fig. 2). The eminent simplicity of the proposal did not, however, leave out stereotypical features of Middle Eastern architecture: most notably, polygonal geometries in horizontal support bars, claustra blocks and honeycomb-pattern roof slabs.

From 1962 on, the MAC hosted numerous exhibitions: modern Swedish and Spanish art, Middle Eastern artists, Iraqi architecture and photography, among many other subjects. In 1973, the Foundation's fifteen-year long effort to keep the oil running in the Gulbenkian concessions through the support of arts and architecture ended, with overnight

nationalization by the Iraqi government. In 2016, the so-called Gulbenkian Hall had survived the waves of looting and destruction that followed the fall of Saddam Hussein's regime and the ensuing troubled years: because of security concerns, the ground-floor exhibition room housed a display of copies — not originals — of Iraqi art of the twentieth century. While normal life in Baghdad remained difficult to ensure, the building had been maintained as a beacon of normality, allowing for the Iraqi public to have some understanding of the country's arts scene in the past century.

The Modern Arts Centre in Baghdad and the al-Shaab Stadium were devised as emphatic demonstrations of the Gulbenkian Foundation's seriousness of purpose in strengthening the cultural, educational, scientific and public health-related infrastructure of Iraq while maintaining its own interests: to ensure that the oil concessions that fed it remained operative. The public symbolism of these two direct initiatives, and of all the other works subsidised in the trust's pragmatic operation, was mostly successful — at least, until 1973.

Beyond that, however, lies the meaning of this 15-year experiment in periphery-to-periphery development aid for the architectural and technical cultures in Portugal and Iraq. In Portugal, the Gulbenkian was pushing for such cultures to be modernised, strategically matching its financial might with the substantial design, technological and managerial knowledge that its Projects and Works Department made available. Extending such push to Iraq — where this knowledge exchange was complexified by the vital economic importance of the whole operation — became a meaningful exercise in post-colonial diplomacy, in which buildings, finishes, construction details and artworks were all called to play their part.

NOTES

- 1 On this topic, see also my short text for the exhibition catalogue: Ricardo Agarez, "Arte Moderna e Desporto 'para o Povo' na Ação da Fundação Calouste Gulbenkian no Iraque", Carla Paulino, & Ana Campino (eds.), *Arte e Arquitetura Entre Lisboa e Bagdade: A Fundação Calouste Gulbenkian no Iraque, 1957–1973*, Lisboa, Fundação Calouste Gulbenkian, 2018, 18–32. For a discussion of the arts' facet of this operation, see Patrícia Rosas, "Origem e Circunstâncias — A Formação do Núcleo de Arte Moderna Iraquiana da Coleção Moderna da Fundação Calouste Gulbenkian", *idem*, 8–17.
- 2 On the work of the foundation's Projects and Works Department (SPO) in delivering the philanthropy's bricks-and-mortar initiatives, see my recent article "Philanthropy, Diplomacy and Built Environment Expertise at the Calouste Gulbenkian Foundation in the 1960s and 1970s", *The Journal of Architecture*, 24:7, 2019, 950–981.
- 3 The process of replacing Le Corbusier's project with one by Portuguese designers is thoroughly discussed by Nuno Grande in his article "The Baghdad Affair: How diplomacy supplanted one of the last major projects by Le Corbusier", *Le Corbusier, 50 Years Later*, conference proceedings, 2015, online publication (<http://dx.doi.org/10.4995/LC2015.2015.645>). The same author included the sports complex of Baghdad in the exhibition *Les universalistes*, which he curated for the Calouste Gulbenkian Foundation and was first presented at the Cité de l'Architecture & du Patrimoine (Paris, 2016).
- 4 On the design and construction process of the Headquarters and Museum scheme in Lisbon, see e.g. Ana Tostões & Central Services of the Calouste Gulbenkian Foundation (ed.), *Calouste Gulbenkian Foundation: The Buildings*, Lisbon, Calouste Gulbenkian Foundation, 2012.

NATION BUILDING NARRATIVES FROM LEBANON AND KUWAIT

Roula El-Khoury

Lebanese American University; Chouran Beirut Lebanon; roula.elkhoury@lau.edu.lb

ABSTRACT.

The golden age between the 1950s and '60s in Lebanon witnessed successful collaborations between talented Lebanese and foreign architects. This period was characterized by a maturity in the modern architectural development that was described as an "assimilation" of the modern ideals in the local construction.¹ Around the same period, Kuwait represented an attractive experimental ground for testing new ideas, designs and construction techniques. This period was closely associated with Western architects' contributions. Their new projects completely disregarded the traditional urban fabric and proposed new spatial layouts and forms that were deemed capable of projecting the image of a modern nation and society.²

The history of modern architectural development both in Lebanon and in Kuwait have been dictated with these grand narratives disregarding the lived experiences and professional works of those who are not part of the dominant culture or main plot. This paper will examine the case of the architect Sami Abdul Baki who was commissioned key architectural projects in both countries during their most significant period of nation building and architectural development. The aim of this research is first, to reconstruct one portion of the narrative of cultural exchange between the two countries that was not properly covered by the dominant narratives and second, to investigate the intersection between urban narratives and the process or phenomenon of nation building.

1. 2 NATION BUILDING NARRATIVES

Lebanon is a country with a disputed history and contradictory narratives. However, there seems to be a general consensus that after its independence in 1943, Lebanon adopted a Liberal economy and instituted a relatively democratic political regime which attracted private enterprises, intellectuals and artists from around the region and the world fostering cross cultural exchange and making Beirut a regional centre. While the country was observing this prosperous period, political elites and intellectuals have expressed a strong desire for modernity. Talented Lebanese architects who have pursued their architectural studies abroad, returned to their homeland and established numerous collaborations with foreign architects. This period is widely acknowledged for its maturity in terms of modern architectural development that was described as an "assimilation" of the modern ideals in the local construction.³

During this period, Kuwait was witnessing a restructuring of the state in order to overcome several challenges to the sovereignty of the country. Sheikh Abdullah Al-Salem opted then for modern reforms and capitalized on the revenues earned from the discovered oil as a mean to build a new capital city that represents his aspiration for an independent and modern state. This process was driven by the 1952 Development Program with an ambitious social, economic and political agenda for the entire country.⁴ The implementation of the DP heavily relied on the management of the British experts who imported their design and planning principles to a place they barely knew.⁵ The adoption of the DP resulted in an unprecedented urban renewal and an expansion of the country's infrastructure creating numerous social and economic opportunities for the Kuwaitis and ensured the hegemony of the state over a heterogeneous society.⁶ A new architecture that is radically different from the traditional

vernacular construction emerged and soon became emblematic of the project for building the nation and the backdrop of the most dominant narrative in the history of Kuwait.

2. THE CASE OF SAMI ABDUL BAKI

The loose urban planning and architectural regulations in Beirut and the implementation of the Land Acquisition Program in Kuwait permitted extensive freedom of expression and experimentation during the '50s. Modern architectural production represented the architects' cultural backgrounds, talents, and freedom in interpreting contemporary trends and experimenting with new materials and technologies. Authors of these projects are not all famous architects. Sami Abdul Baki, a Lebanese Druze architect/engineer who graduated from the American University of Beirut in 1947, was able to seize important architectural opportunities in some of the most significant places in Beirut and Kuwait.

2.1. Politics, Ideology and Belief

Sami Abdul Baki grew up in a wealthy and well-educated family, who strongly believed in an independent Lebanon within a unified Arab State. His father was an active member of the National Duty League, whose members explicitly fought against the mandate of the British and the French. In 1947, Sami Abdul Baki graduated from AUB while Arab Nationalism and the rise of a Pan Arab state were highly promoted in the country. In his final year thesis, he clearly expressed his concern with regards to the new architectural language imported from the West at the expense of "continuing past construction techniques and architectural forms". His research also expressed his interest in new materials and technologies which have released the construction from the burden of thick masonry walls and enhanced the



Fig. 1. Collage by the author of 3 projects by Sami Abdul Baki.

relation between inside and outside. In the concluding chapter, he describes his design of the *New Palace of Baal in Ain Baal* as a mixture between world tendencies and a “reluctance to abandon traditions of planning and architectural style”.⁷ It is thus important to situate Abdul Baki’s thesis in the context of the architectural discourse development in Beirut at the time to better understand his position.

Since the declaration of greater Lebanon, the new state has been seeking a new identity to represent the modern nation that is independent from the Ottoman empire. There seemed to be a consensus that modern architecture is a good and acceptable representation of this national aspiration. While some have argued that in the ‘50s a balanced co-existence between modern and traditional construction was achieved through the oversimplification of details and exposed structure also described as a process of ‘assimilation’,⁸ others considered modern architecture to stand as a reminder of the French colonial period that preceded the independence and symptomatic of Lebanon’s dependency on and attachment to the West. It is very probably that Sami Abdul Baki’s political affiliation and ideological beliefs affected his position, making him more likely to side with those who were willing to develop an Arab national identity and incorporate regional styles in their projects.

2.2. Trends and Influences

Sami Abdul Baki’s professional practice mostly flourished in the ‘50s when he was active both in Lebanon and in Kuwait. His journey started in Lebanon where he was commissioned several projects in some of the most significant places of the city. While these projects are not comparable in terms of construction techniques, craftsmanship and character they stand out because of their inspiration from other architect’s works and close reproduction of iconic architectural forms.

One of Sami Abdul Baki’s earliest commissions is a vacation house for businessman Chaffic Qassem (Fig. 1, Middle). The project is located on a beautiful plot by the sea and along the main coastal road. It is referred to as the Umbrella by the residents of the area, in reference to its pure concrete

geometric shapes, and is believed to be a replica of an Italian villa that the client has visited during his trips to Europe. In fact, the project was completed in 1953, one year after architect Ferdinand Dagher completed a Chalet for Dr. Raja Saab on the southern coast of Beirut. The similarity between the two projects in terms of location, program as well as architectural language is remarkable! It is important to note that the project designed by Dagher was considered to be an icon of modern architecture at the time and represented the new desired lifestyle of the country’s elite.

Another project designed by Sami Abdul Baki during his early years of practice, was a centre for the Druze community in Beirut (Fig. 1, Right) on an elevated site overlooking a large portion of the city. The project was initiated by one of the most inspiring figures of the Druze community who sought to unify its different factions and build its institutions. In the absence of any reference or design guideline for a Druze place of worship or prayer, Sami Abdul Baki could express his interpretation freely. While the interior organization of spaces and the circulation inside the building did not reflect any clear strategy or quality, a great deal of attention was given to the design of the two facades facing the main roads. The revival of the classical order was clearly expressed through the repetition of modernized classical elements and their perfect symmetry which was not reflected in the layout of the plan. The monumental facades casted an overwhelming presence on top of the hill and communicated with a language of pride and control with its surrounding. Other projects built around the same time in Lebanon such as the National Museum, the UNESCO palace and the Jaffet Library, and abroad such as the Palais de Tokyo and the Palais de Chaillot in Paris, have also used a similar language. Whether the revival of the classical order was inspired by these projects representing a nationalist culture or simply a common architectural trend at the time, it is certain that the design of the Druze community centre did not seek any origin or influence from the mountains or the traditions of the Druze community!

Similarly, the proposal for the martyr’s square memorial (Fig. 1, Left) designed in 1953 by Sami Abdul Baki, exhibited

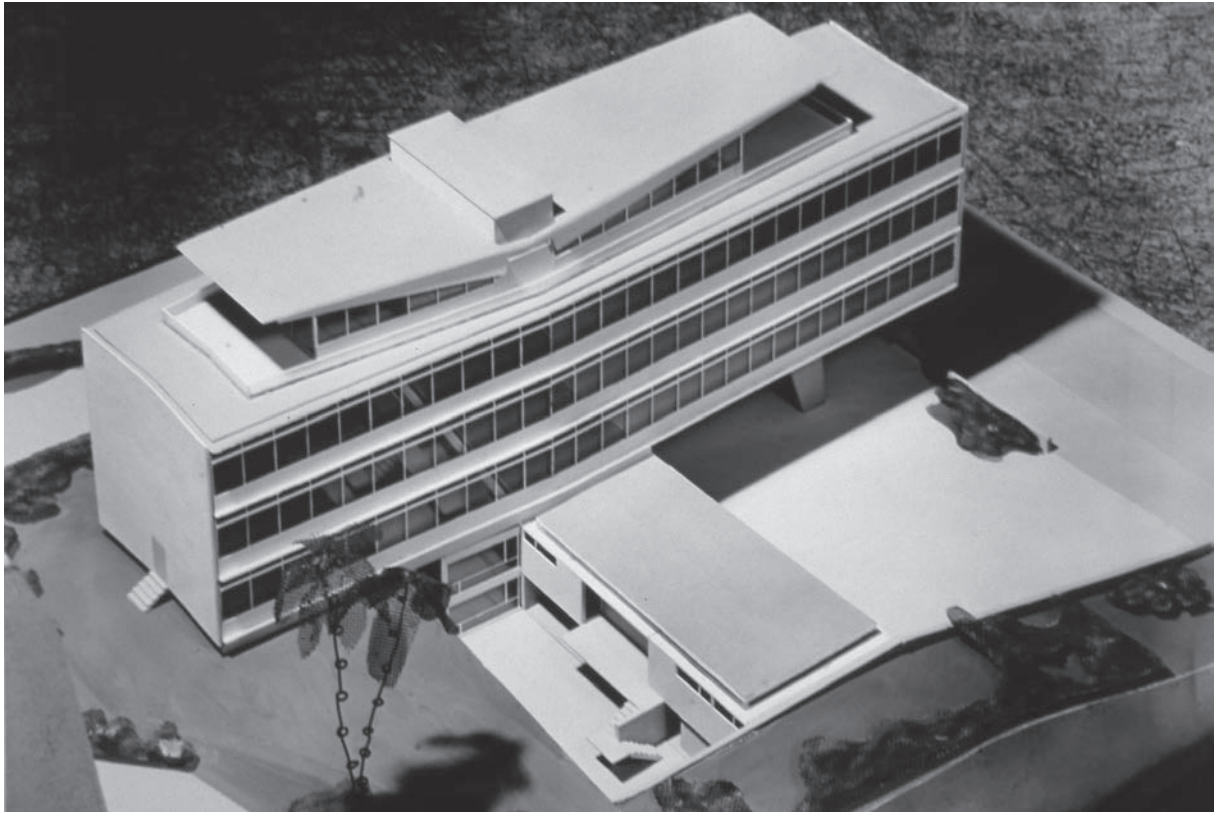


Fig. 2. Model of the Embassy of the Federal Republic of Germany in Rio de Janeiro designed by Ernst Von Dorp and built in 1956. © Arab Center for Architecture.

similar tendencies and was inspired by other iconic projects namely the Arch of the Empire designed by Ludovico Quaroni and the Missouri Gateway designed by Saarinen. The project won the first prize of a competition and was never executed partly because of its over-ambitious design and the difficulty of its execution but also because it did not really meet the expectation of the public. In fact, both the revival of classical style and the new modern forms in the representation of their national identity, did not appeal to the Arab nationalists nor to the other group that was supposedly more tolerant towards the West.

Projects in Lebanon during the '50s often looked at the future expressing technical or spatial properties and were very conscious of their modernity. This modernity was to provide all aspect of a modern social life in addition to guaranteeing the best image for the nation-state. Unfortunately, it is repeatedly interpreted in its aesthetic dimension and opposition to the traditional. While some architects were convinced that they were breaking new grounds with exploration and that their search would promote a new lifestyle and lead to a social improvement and eventually spread the ideals of social justice, they very often created otherness rather than a homogeneous core.⁹

2.3. Personal Relations and Business

After his graduation from AUB, Sami Abdul Baki pursued his studies in Germany. While most of his colleagues have opted to go to France or the United States for their advanced studies, he thought that Germany was a more 'natural' ground for him. In an interview with George Arbid, Sami Abdul Baki said that it was not his first time in Germany and that he held strong ties there.¹⁰ One of his relatives mentioned that his father who was active during the quest for the independence of the country in the middle of the '30s also had a network of connections in Germany. A correspondence between him and Hitler was also mentioned but no record of or more details about it was provided. During his stay in Germany, Sami Abdul Baki claims that he has partnered with the famous German Architect Ernst Von Dorp, based in Bonn, and delivered several projects with him of which the Embassy of the Federal Republic of Germany in Rio de Janeiro (Fig. 2) and other residential and institutional projects in Bonn.

In the meantime, Kuwait was witnessing an unprecedented urban renewal led by British experts. This period coincided with the *Nakaba* and the subsequent rise of Arab Nationalism. Shaikh Fahd Al-Salem appointed the brother of Sami Abdel Baki, Fouad as an inspector general at the



Fig. 3. The Municipality Building in Kuwait designed by Sami Abdul Baki. © Arab Center for Architecture.

public works department and shifted the development politics of the country in favour of Kuwaiti contractors and Arab experts.¹¹ In this context, Sami Abdul Baki was able to capture important commissions for governmental building in Kuwait namely the municipality complex and the Ministry of Information and Guidance.

The municipality complex was the tallest structure in Kuwait when it was delivered in 1959 (Fig. 3). Although it housed the seat of the National Assembly and became Kuwait's national symbol, the project was mostly recognized for its state-of-the-art construction technologies characterized by its reinforced concrete structure, underground parking, the latest mechanical engineering systems and curtain wall façade covered with a densely articulated pattern.

The ministry of Information and Guidance delivered in collaboration with Ernst Von Dorp, was also characterized by its adoption of the international style. It was characterized by a volumetric mass floating on pilotis, repetitive and modular sun breakers on its façade and a canopy on the rooftop that departs from the main geometry of the building. Both projects were featured on the cover of Arab newspaper and magazines as a symbol of the Arab pride and development. Despite the highly symbolic significance of these projects they mostly reflected an international ap-

proach to architecture.

There is a general consensus among theorists that the process of modernization cannot be dissociated from the West¹² and that there is very often an explicit link between modernity and nation building.¹³ The case of Kuwait is an excellent example of this 'catching-up' process through which the symbols of the Nation adopts forms and material from the West that are deemed capable of projecting the image of a modern nation and society.¹⁴ However, a nuanced reading of the circumstances of the 2 projects commissioned to Abdul Baki could lead to a slightly different conclusion. This paper argues that the blunt adoption of modern forms and principles is highly symptomatic of a deeper identity crisis between the different factions of the Kuwaiti elites. It is important to mention that Sami Abdul Baki was not commissioned any new project in Kuwait after the sudden death of Shaikh Fahd in 1959.

3. RESULTS AND CONCLUSION

Sami Abdul Baki produced a range of eclectic architectural projects that occupied significant places in the city both in Lebanon and Kuwait during the peak of modern architectural development. These projects presented contrast-

ing architectural languages, and sometimes contradictory ideological discourses.¹⁵ They were highly influenced by trending forms, techniques and expressions and were often associated with other architect's works. This paper asserts that modern architectural development in Lebanon and in Kuwait is dictated by dominant or single narratives attributing it to the process of nation building. Through the case of Sami Abdul Baki, this paper argues that despite the dominance of these grand narratives, an account of parallel micro-narratives does exist and can contribute to a better understanding of the complex context of these countries.

While many have argued that modern architecture was adopted as an ideological tool for the promotion of political, social and economic changes, modern architecture was also accepted without any prejudice, as an alternative to the past and representing a pure desire for innovation, novelty and an avant-garde culture. In some other cases, modern architecture was simply rejected because of its affiliation to the West and the premises it promoted. The survey of Abdul Baki's work present a good example of the disparate and sometimes conflicting narratives that described the development of modern architecture in Lebanon and Kuwait. These narratives not only describe the works of the architect but are able to better describe the local circumstances, the interaction between the different stakeholders and the influences and trends that were circulating in a specific context. Narratives as thus are considered to be an efficient interpretative and investigative tool in understanding urban interventions and architectural manifestations.

Finally, by framing Sami Abdul Baki's work with the different narratives that co-existed at the time, this paper argues that these stories in some cases preceded the work of the architects and influenced it but in other case they might have emerged later as a reflection to it and to other architect's work. More research shall be conducted on the use of narratives in the analysis of the architecture and urban planning disciplines and more case studies should be undertaken in a context such as Lebanon and Kuwait in order to better reconstruct the circumstances that led to the development of modern architecture in the Middle East.

NOTES

- 1 G. Arbid, *Fundamentalists and Other Arab Modernisms, Architecture from the Arab World 1914–2014*, 14th International Architecture Exhibition, Beirut, ACA, Manama, Bahrain Ministry of Culture, 2014.
- 2 A. Al-Ragam, "Critical nostalgia: Kuwait urban modernity and Alison and Peter Smithson's Kuwait Urban Study and Mat-Building", *The journal of architecture*, 2015.
- 3 G. Arbid, *Fundamentalists and Other Arab Modernisms, Architecture from the Arab World 1914–2014*, 14th International Architecture Exhibition, Beirut, ACA, Manama, Bahrain Ministry of Culture, 2014.
- 4 A. Al-Ragam, "Critical nostalgia: Kuwait urban modernity and Alison and Peter Smithson's Kuwait Urban Study and Mat-Building", *The journal of architecture*, 2015.
- 5 A. Alnajdi, *Shaikh Abdullah Al Salem Al Sabah 1985–1965*, Doctoral thesis at Exeter University, 2014.
- 6 A. Al-Ragam, "Critical nostalgia: Kuwait urban modernity and Alison and Peter Smithson's Kuwait Urban Study and Mat-Building", *The journal of architecture*, 2015.

- 7 S. Abdul Baki, *The new palace of Baal in Ain Baal*, Thesis project, AUB, American University of Beirut, 1947.
- 8 G. Arbid, *Fundamentalists and Other Arab Modernisms, Architecture from the Arab World 1914–2014*, 14th International Architecture Exhibition, Beirut, ACA, Manama, Bahrain Ministry of Culture, 2014.
- 9 J. P. Mitchell, *Ambivalent Europeans: Ritual, Memory and the Public Sphere in Malta*, London and New York, 2002.
- 10 S. Abdul Baki, *Personal interview with Georges Arbid*, Beirut, ACA, 1997.
- 11 A. Alnajdi, *Shaikh Abdullah Al Salem Al Sabah 1985–1965*, Doctoral thesis at Exeter University, 2014.
- 12 P. D. Gaoukar, *On Alternative Modernities*, Duke University Press, Durham, 2001.
- 13 P. Osborne, *Philosophy in Cultural Theory*, London, 2001, 59–61. 51 l.
- 14 A. Al-Ragam, "Critical nostalgia: Kuwait urban modernity and Alison and Peter Smithson's Kuwait Urban Study and Mat-Building", *The journal of architecture*, 2015.
- 15 R. El-Khoury, & S. Mazzetto, "Influences and aspirations in the production of national projects in Lebanon and Kuwait: Selected iconic projects by Sami Abdul Baki", *Archnet – IJAR*, 2020.

ROLE OF GLOBAL MODERNITY ON REGIONAL IRAQI MODERN ARCHITECTURE

Ghada Al-Slik¹ and Inaam Al-Bazzaz²

1 University of Baghdad, College of Engineering, Department of Architecture;
ghada.alslik@coeng.uobaghdad.edu.iq, ghadamrs@gmail.com

2 University of Baghdad, College of Engineering, Department of Architecture;
Inaam.Bazzaz@coeng.uobaghdad.edu.iq, inaam.bazzaz@yahoo.com

1. INTRODUCTION

The impact of global modernity started to influence Iraqi cities since the 1930s. Yet, in the 1950s the government invited through the development board of Iraq the masters of modern architecture then to build in Iraq. After 1958, foreign architects were not given tasks, instead the government turned to the Iraqi architects for the governmental buildings. Their works in the 1960s and 1970s were described by critics as the approach to create a contemporary Iraqi architecture, mainly with regional characteristics. The argument of this paper is that what rose after the 50s was a regionalized modernity greatly influenced by the presence of the masters of international modernity with their projects and thoughts in the previous era. That will be traced through the projects and the discourse of architecture then.

2. BEGINNINGS OF GLOBAL INFLUENCE ON ARCHITECTURE IN IRAQ

After WW1 the modern state of Iraq was established in 1921. Once more, Baghdad became the new capital of a young kingdom under British mandate. However, the city itself began a new journey towards building a state with a new physical and cultural infrastructure, new buildings were built to meet the administrative and service requirements of the city by British architects who were officers in the British military campaign that came from India. This included James M. Wilson who designed the Al-Bayt University. The civilian airport of was designed by Harold Mason, while J. B. Cooper designed the royal cemetery.¹ Those British architects had the position of GA (Government Architect) until Ahmad Mukhtar Ibrahim, the first Iraqi architect the designer of the Olympic Club in Al-Adhamiyyah (Fig. 1A-a).

New architectural styles began to influence the city scene that existed for centuries. The traditional home began to change and adapt to the European classical style and some features from the art deco school of architecture. Early pioneers of Iraqi architecture began to make contributions within the new creative environment that had traditional, classical, and modern elements.² Early signs of change in the urban fabric began to emerge when Al-Rashheed Street was opened to vehicle traffic for the first time in Baghdad in 1908. The British completed the street and called it the new road before it took on the name of Caliph Al-Rashheed to become the new lifeline of commercial activity in the city. Buildings that were built along the street took on a spe-

cial architectural style that distinguishes it from other streets in the city (Fig. 1A-b).

One of the most prominent urban changes that took place in Baghdad was the emergence of new suburbs outside the historic center or the walled heart of the city. New areas emerged. The traditional urban fabric was maintained with the addition of the "Garden City" suburbs along the lines of Western modern urban planning.³ The new areas presented a new feature that was not present in the traditional areas in the heart of the city.

3. THE IRAQI MODERNITY

By the 1950s the urban picture of Baghdad was turned upside down. New streets that cut through the traditional fabric increased and the suburbs expanded, prompting efforts to come up with basic urban planning for the city or parts of it. However, the influence of modernism thinking on the society has been the great.

All facets of life in Baghdad moved toward modernism and artistic groups were established and many galleries full of the works of Iraqi artists, such as Jawad Selim, Fa'iq Hasan, and Hafiz Al-Droubi opened its doors to exhibit works of art in expressionist, abstract, and cubism styles. Young Iraqi poets, such as Badr Shakir Al-Sayyab, Nazik Al-Malaikah, engaged in a new experiment that took the traditional forms of Arab poetry to new horizons, likewise, traditional Arabic music also went through modern transformations and similar attempts in cinema and television were made. Art societies were established and art galleries were built. Progress somehow was linked to the Western model or modern thinking, and the number of science colleges and institutes and their graduates greatly increased. A special council that was named the Development Council was created to build large factories, oil refineries, electric power stations, Baghdad's landscape became pierced by high rise buildings that changed its traditional look and with the introduction of new materials and methods of construction the horizontal line of the city changed and became filled with multi-story buildings and concrete structures with modern finishing materials that replaced the traditional forms and features.⁴

4. WORK OF INTERNATIONAL ARCHITECTS IN IRAQ

In this period the most well-known architects in the world were invited to design buildings in Baghdad, including

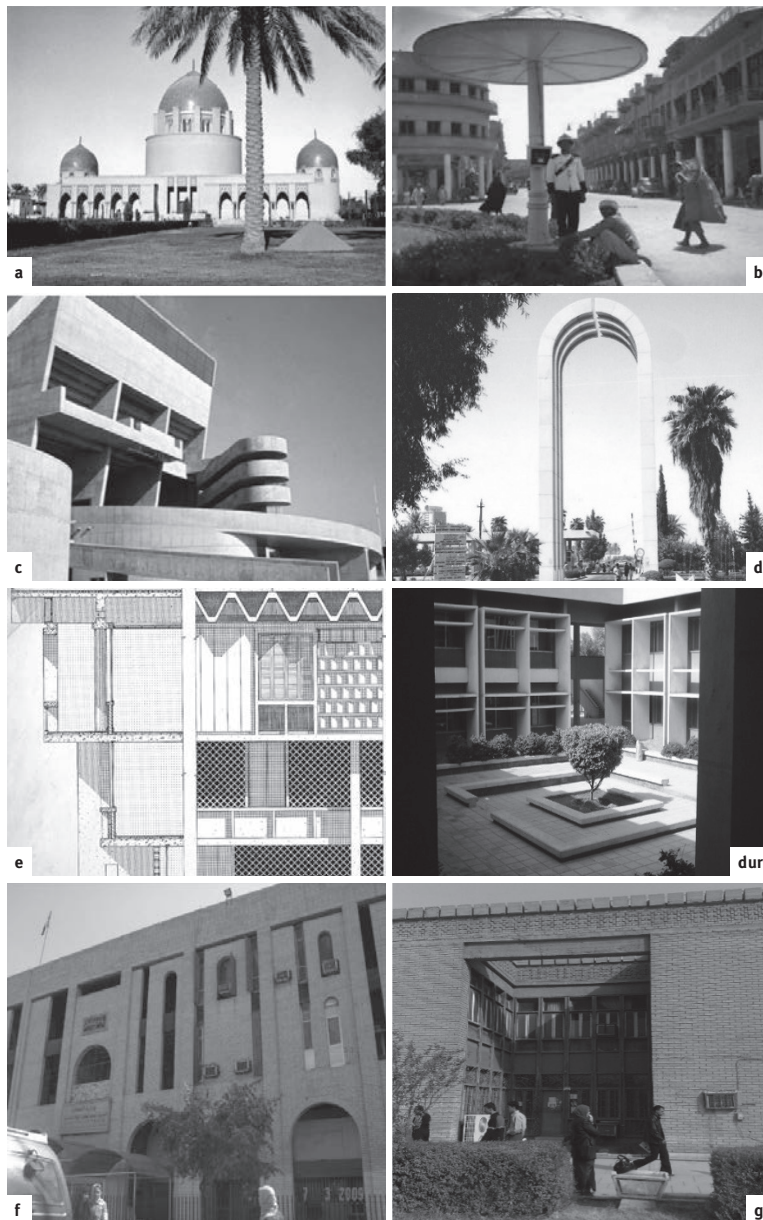


Fig. 1A. Influences of global modernity. a- Royal Cemetery, Cooper, Baghdad 1934. © Al Slik archive. b- Rasheed Street, Baghdad, 1944. © Al Slik archive. c- Gymnasium, Le Corbusier, Baghdad. © Al Slik photos archive. d- Gate of the University of Baghdad, and a typical courtyard, Gropius, 1957. © Al Slik. e- Elevation of the American Embassy in Baghdad, Sert, 1955. City of Mirage 2008 Exhibition book. f- Building of Commerce Rifa Chaderji. © Al Slik. g- College of Education, by Mohammed Makia, Baghdad. © Al Slik.

Frank Lloyd Wright who designed the opera house of Baghdad 1957 (but unfortunately it was not built), Le Corbusier who designed an Olympic campus 1957, (it was not built in that time, because of the change of site, the design was revised by Le Corbusier Foundation in the 70s and the main gymnasium was built in 1979 / Fig. 1A-c).

Gropius, who designed the University of Baghdad in a site which he chose by himself, designed the whole campus in 1957–1958. In the campus design (which was not known before in Iraqi architecture) he separated the scientific heart from the dormitories and services with a ring road adjacent to water canal. Both the scientific part and the dormitories’

design was based on the use of the courtyard type. The use of courtyards in the dormitories was different giving more privacy by splitting the levels and using smaller windows. In addition to these systems, Gropius designed a tower in the middle of the scientific area as the main administration of the university, and a land mark of the university. The main gate was an abstracted semi-circular arch with an opening in the middle symbolizing the non-limited nature of science and open mind. Main gate and the main office building were built in 1963, but later in early 80s, and with the increase in the number of students which made the original capacity of the design not appropriate, (Fig. 1A-d). Gio Ponti was asked

to design the building of the development board which was established to conduct a plan for a construction wave in all fields in the 50s, after designing it, the building became the ministry of planning and continued to be till now, Jose Louis Sert, was asked by the American Embassy in Baghdad to design a complex for the embassy, ambassador house, few flats for the employees, and service buildings. He used modern screening systems to decrease the effect of the sun waves and heat, and elaborated them with louvers in the Facades⁵ (Fig. 1A-e).

5. MAIN INFLUENCES OF GLOBAL MODERNITY ON IRAQI ARCHITECTURE:

5.1. Expressiveness and Abstraction of Traditional Types and Features

First buildings designed by Iraqi architects who studied architecture abroad, were simple typical plane buildings, not related to their contexts, and that was due to their background. But along with the designs and visits of those great architects in Baghdad came new ideas and discussions in meetings and seminars in the city that was in the height of its cultural activity. So, in this atmosphere, there arose the discourse of how contemporary Iraqi architecture should be?⁶ This cultural and intellectual discourse in art and architecture resulted in the establishment of the first Iraq school of architecture, which the department of architecture, college of engineering, University of Baghdad in 1959. Academic and professional sectors were influenced by the designs of the masters and also by the ideas which Iraqi architects discussed with them, concerning the special environment and the character of the cities and their history. After the establishment of the republic of Iraq in 1958, the tendency of the government was not to ask foreign architects, and ask Iraqis instead. Here came the chance to the young ambitious Iraq architects then to start their own approach.

In the 1960s Iraqi architects began to present new ideas and designs for an Iraqi architecture that intersected with modern times and achieved a balance between the space and the natural and social environments. The new designs presented modern uses of local materials, the main functional and (mass/space) element was the courtyard, it was elaborated in the campus of Mustansiriya University (as we will see), but also it was used in office building with the mass around it, this clear in the design building of the Mayoralty of Baghdad by Hisham Munir and Nasir Al Asadi, Water administration building by Mahmood Al Ali, Foreign affair ministry by Saeed Ali Madhloom, College of Education By Mohamed Makyia, College of Pharmacy By Hisham Munir. Those buildings were designed between the '60s and '70s but some of them were not built till the '80s⁷ (Fig. 1A-g).

As for the form, Iraqi architects like Rifa Chaderji, Mohamed Makyia, Qahtan Awni, Nasir Al Asadi worked on ways to abstract the historic and traditional arches, creating compositions in elevations out of the simplified features,

like turning the arch into triangle, In this was they could achieve expressiveness, but we can see the influence of Sert and Gropius, in courtyard elaboration, elevations expressions, and the Le Corbusier abstraction, in addition to keeping the modern functional plan, (Fig. 1A-f / Fig. 1B-h / Fig. 1B-i).

5.2. Campus Design and Zoning

As said above Walter Gropius, introduced the first modern campus planning and design in Iraq, in his ideal project "the University of Baghdad" (1958–1960). In this project, Gropius established a new physical plant and a new philosophy of education, by making use of and profiting from the experience of major western universities, and by considering also the conditions, the traditions and the prospects for development of Iraq.

The buildings of the "Al-Mustansiriya University" complex in Baghdad (1963–66), represent what might have been the most important event in the process of giving birth to a new Iraqi architecture, influenced by modernity. The complex is considered the first modern campus planning, designed by an Iraqi architect (Qahtan Awni).⁸

The architecture of Al-Mustansiriya University derived its importance and uniqueness by being a complex of buildings, and through the mechanisms of "intertextuality", the architect was eager to summon the scheme of the old Al-Mustansiriyyah School (1227–1233) of Baghdad, the plan of which was based on a large open courtyard surrounded by a classroom building mass. The architect, influenced by modernity, had no intention to "clone" the design solution for that yard, but rather proceeded to divide it from the middle, with a deliberate displacement, creating a major "street", that represented the backbone of the university plan, and from it branched the "arms" that reached the various departments of the university. The architect achieved by that street, a unique formative treatment and a clear separation between the educational section devoted to classrooms and laboratories, and other supporting buildings such as the library, the administrative building, the student center, the auditorium, and recreation facilities.

This aspect allowed the architect to give each building type its own design language and expression, without forgetting the specific architectural character imposed by the idea of a single complex. The separated buildings were still connected with each other, and linked to the main street. This treatment of segregation while avoiding fragmentation, emphasized the dialectic "functional" aspect of international campus design (Fig. 1B-j).

5.3. Modern Environmental Treatments in Elevations

As said above the Iraqi modern architects were influenced by "functional" approach to solve their vast design problems. Contrary to the prevailing, one-sided meaning of this term, their interpretation of "functional" was two-fold, namely to establish first the requirements derived from lo-

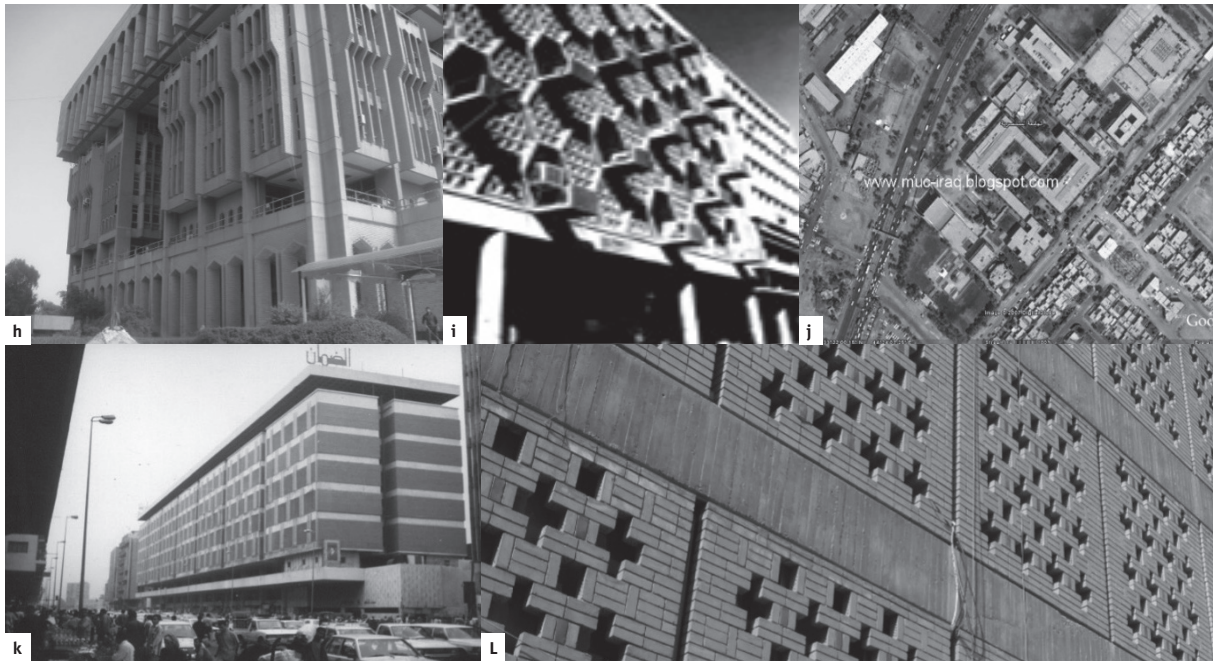


Fig. 1B. Influences of Global Modernity on Iraqi Architecture. h- Mayoralty of Baghdad, Nasir Al-Asadi and Hisham Munir. © Al Slik. i- Khan Al-Basra, Abdulla Ih-san. © Al Slik archive. j- University of Mustansiriya by Awni. © City of Mirage exhibition 2008 catalogue. k- Social Insurance Building, Hisham. © Al Slik. l- Univer-sity of Mustansiriya by Qahtan Awni. © Al Slik.

cal conditions of climate, land formation, Hisham Munir introduced a new language in the "facades" of his buildings: with repetitive three-dimensional sculptural components⁹ the system of baffles and "eyebrows", protecting the exterior walls against exposure to the sun and excessive heat, was elaborated into a design factor that gave rhythm and depth to the elevations, thereby established its architectural character. Likewise, the vault-like, double volume aisles, originally chosen for the provision of air flow and the enhancement of environmental conditions, became simultaneously a prominent aesthetic feature in his designs. Thus, the identity and aesthetic function has been kept up throughout (Fig. 1B-k).

Another example of elevations treatment, is the provision of the brick screens in Qahtan Awni's (Al-Mustansiri-yah University), with the marvelous geometric patterns that took into account the dimensions of the bricks used (Fig. 1B-l).

5.4. Urban Planning of Suburbs of Iraqi Cities, and Urban Design of the Sectors

The first and main observed influence in urban design in the 1950's in Iraq is the new grid-iron-planning (which came in contradiction to the traditional fabric). This grid-iron city planning was spreading all over the world in the middle of the 20th Century. In Iraq, few suburbs were planned by the British in the 1920s and '30s in garden city planning. The gov-

ernment in the 1956 invited Constantinou Doxiadis to make master plans for the main Iraqi cities; among them was the city of Baghdad.¹⁰ The Master plan submitted was based on linear expansion along both sides of Tigris River, shaping a rectangle with dimensions of 18 x 31 sq. km. The plan adopted the grid-iron-planning model that reflects the vision of Doxiadis' in all his work. The master plan was divided into 5 main districts, with natural or artificial boundaries such as rivers, main streets and highways. Each district, which can accommodate up to 500,000 inhabitants divided into 10 housing units, each for 50,000 inhabitants with independent centers to provide social services and infrastructure. The Doxiadis' Master Plan proposed the construction of 3 canals to be constructed parallel to Tigris River to create better climatic conditions for the remote parts of the city. One of the canals was implemented in sixties and called now Army Canal.

Doxiadis Master Plan suggested the creation of large peripheral districts, such as New-Baghdad, Madinat Al-Thawra (Sader City), Al-Maamoon, Zayuna and Western Baghdad Housing Project (Fig. 2a).

Rectilinear logic of grid-iron planning model with cul-de-sac, or loop type streets that reflected the modernization theory. These projects incorporated local tradition of people in planning the communities.

Doxiadis had submitted the Master Plan in 1959; since then, the Master Plan has been the basis for much of the



Fig. 2. Influences of Global Modernity on Iraqi Urban Planning

a- Master Plan of Baghdad, Doxiadis 1958. © city of mirage catalogue b- Southwest Baghdad Housing by Doxiadis. © city of mirage catalogue c- Al Sadr (Althawra) city by Doxiadis. © pictures from Comprehensive plan of Baghdad 1973.

subsequent speculative development by all pursuing organizations, (Fig. 2b).

In the Western Baghdad Housing Project District 10, Baghdad, Iraq, a Low-income housing project which consists of 1,154 single-family housing units, the site was divided into blocks, each with two rows of square or rectangular plots, with car access divided to 3 perpendicular sub cul-de-sac access, and linear parallel pedestrian network. The Comprehensive Development Plan, which was submitted in 1973. This Plan was based on same principles initiated by Doxiadis.

6. FINAL WORD

The Iraqi architects who started the approach of what is called contemporary Iraqi architecture in the '60s and '70s, were followed by the second generation and third generation, in a continuous attempt to follow the up-to-date thoughts of architecture, yet not to lose the local and national identity. In the 80s the approach went more into symbolism, and younger architects were more influenced by new movements, which led gradually to weakening the approach which the pioneers have started which itself. But modern functionalism and expressive abstraction is still the prevailing way of architectural design in Iraq in spite of different thoughts and the hard situations which the country has gone through.

REFERENCES

- AL LOUSI, Maath, *Thoromos, The story of a Street in Baghdad*, Adeeb Books, Amman, 2018.
 AL SLIK, Ghada, *City of Stories*, Ministry of Culture, Iraqi, Iraqi Publishers Union, 2nd edition, 2013.
 AL SULTANI, Khalid, *Architectural Modernity in Baghdad, Formative years*, Al Adeeb Books, Amman, 2014.
 AL SULTANI, Khalid, *Architectural Visions*, Arabic institution for studies and publishing, Beirut, 2000.
 AL MADFAAI, Hisham, *Towards A New Iraq, 70 Years of Building and Constructing*, Al Adeeb Books, Amman, 2017.
 AZARA, Pedro, & MARTINEZ, Laura (eds.), *City Of Mirage, From Wright to Ven-*

- turi*, Department De Composicio Arquitectonica, Barcelona, 2008.
 CHADERJI, Rifa, *Ukhader and Crystal Palace, The Emergence of Dialectic Theory of Architecture*, Rais house, London, 1991.
Encyclopedia of Iraqi Architecture part 4, AL CHALABI, Mohamed (ed.), House of Scientific Books, Baghdad, 2019.
Encyclopedia of Iraqi Architecture part 1, AL CHALABI, Mohamed (ed.), Al Sama Press, Baghdad, 2016.
Encyclopedia of Iraqi Architecture part 2, AL CHALABI, Mohamed (ed.), Al Kafeel House, Baghdad, 2018.
 PIERI, Caecilia, *La Construction d'une Capitale Moderene (1914-1960)*, Press de l'ifpo, Byrouth, Damas, 2015.
 Doxiadis, *Back to Future: Doxiadis Plan for Baghdad*.

NOTES

- 1 Khalid Al Sultani, *Architectural Modernity in Baghdad, Formative years*, Al Adeeb Books, Amman, 2014, 51-55.
- 2 Caecilia Pieri, *La Construction d'une Capitale Moderene (1914-1960)*, Press de l'ifpo, Byrouth, Damas, 2015, 167-198.
- 3 Ghada Al Slik, *City of Stories*, Ministry of Culture, Iraqi, Iraqi Publishers Union, 2nd edition, 2013, 168.
- 4 Khalid Al Sultani, *Architectural Visions*, Arabic institution for studies and publishing, Beirut, 2000, 337.
- 5 Pedro Azara & Laura Martinez (eds.), *City Of Mirage, From Wright to Venturi*, Department De Composicio Arquitectonica, Barcelona, 2008, 126-128.
- 6 Rifa Chaderji, *Ukhader and Crystal Palace, The Emergence of Dialectic Theory of Architecture*, Rais house, London, 1991, 64.
- 7 *Encyclopedia of Iraqi Architecture part 2*, Mohamed Al Chalabi (ed.), Al Kafeel House, Baghdad, 2018.
- 8 Khalid Al Sultani, *Architectural Visions*, Arabic institution for studies and publishing, Beirut, 2000, 420.
- 9 *Encyclopedia of Iraqi Architecture part 2*, Mohamed Al Chalabi (ed.), Al Kafeel House, Baghdad, 2018, 167.
- 10 Hisham Al Madfaai, *Towards A New Iraq, 70 Years of Building and Constructing*, Al Adeeb Books, Amman, 2017, 121-122.

LOCAL MODERNISM IN DANGER UNTIL THIS DAY. THE CASE OF THE LEBANESE PAVILION IN THE INTERNATIONAL PERMANENT FAIR OF LEBANON IN TRIPOLI BY OSCAR NIEMEYER

Joe Zaatar

Politecnico di Milano; Piazza Leonardo da Vinci n. 26 20133 Milan Italy; joe.zaatar@hotmail.com

ABSTRACT.

The paper's aim is to present the architecture of a Modernist building belonging to a monumental complex from the 1960s, designed by Oscar Niemeyer, and built in Tripoli, Lebanon, by local progressive engineers. Several authors published papers concerning this International Permanent Fairground complex, yet a specific understanding of some of its iconic buildings is missing from the literature. The Lebanese Pavilion building is part of my PhD project, which I started in 2019 in the school of Preservation of Architectural Heritage at Politecnico di Milano (www.dottorato.polimi.it). In this building, the form-evolution of Modernist pioneer Oscar Niemeyer reaches out to local architecture and its most diffused visible element, transposing it from tradition to his own Modernist style, through aesthetic and technology.

1. INTRODUCTION

In 1962, when Lebanon was known as Switzerland of the Middle East for being an attractive touristic destination, the idea of a new International Permanent Fair of Lebanon in Tripoli was starting to emerge. The Lebanese government wanted to select an author for the Tripoli fair. The position was awarded to the famous Brazilian modernist architect Oscar Niemeyer.

The elliptical plot size of 755.346 square meters in which 64.000 are built-up-area while the rest is for green and reflecting pools was not at all a common project to the Middle East. Tripoli, the millennial city was projected to become also a modern Mediterranean city.

In 1975, the civil war started in Lebanon and all secondary works were halted. In 1976, the Syrian army took possession of the Fairground, they were the first to use for decades the almost completed buildings until the 1990s.

After that period, many attempts to revitalize the fair were proposed throughout the years. They were mostly ill-advised projects that would not touch the existing buildings but invade the green areas from which they will benefit a great view to the deterioration of Niemeyer's Architecture.

A project meant to bring different Lebanese communities with foreigners together under trade, hospitality, entertainment, and many more attractions, became during the war a shelter for warlords. A utopian idea suffused by modern values, transformed by military leaders into dystopian, has left different buildings standing vacant today, with war scars, time scars, fenced all around, threatened by many twisted ideas and left to the Mediterranean environment and atmospheric agents, is in need of attention.

Today after 58 years, as we stand in front of this Tripolitan monumental (in parts) in-operational horizon, victim of pre-war, war and post-war wrong decisions, could we do something to save it?

2. FORM-EVOLUTION

In Tripoli, Lebanon (Western Asia, Middle East facing the Mediterranean Sea), one of the International Permanent Fairground buildings is unique in Oscar Niemeyer's architecture. Several publications can be read on the Fair, yet a specific understanding of some of its iconic buildings is missing from the literature. The complex, designed and built from the early 1960s until the mid-1970s, has a number of distinctive buildings. The Lebanese Pavilion (Fig. 1), in particular, brings a unique style for the local Modernism through form-evolution and new techniques of construction making use of reinforced concrete.

We have seen Oscar Niemeyer in the past replicating the same forms of buildings in different places with various functions, slightly modified in terms of their size, their openings or their organization. This is most probably, because he did not want to design, like his Modernist colleagues, a Functionalist architecture: "[...] when a form creates beauty it has a function; the most important one in architecture."¹ Niemeyer favoured *Venustas* over *Utilitas*. It is the reason why his buildings had a certain unseen liberty and creativity, when compared to other architects of the same period.

Additionally, in different projects around the world, he invented new forms to common elements of architecture, whether universal or local ones. For his project *Palacio Da Alverada* in Brasilia (1958–1961) he drew the progression of a global element; the Column through three different ages: Greek, Modern, Modern Free-Formism² (Fig. 2). He invented a new form for an age-less element like the column, and gave it a sculptural presence, the fruit of his imagination; he thus came up with an architecture of extreme plasticity combined with exceptional technical skills. His invention, which looks more like a buttress, stands at the same level as the historical heritage, for its form (and function).

The Lebanese Pavilion in the International Permanent



Fig. 1. Oscar Niemeyer, Lebanese pavilion in 2019, Tripoli, Lebanon. © Joe Zaatar.

Fair of Lebanon in Tripoli is one of these rare inventions, where Oscar Niemeyer grabs a key element from local Lebanese architecture and projects it into his Modernist vision.

Since the second half of the nineteenth century until the end of World War II (between the late Ottoman Empire and the French mandate periods in Lebanon), the dwellings of the upper-class of Beirut, Tripoli, Zahle and other cities were changing. This part of the society, continuously in contact with the Western world for trade, started adopting new elements and materials in their buildings coming from occidental culture. The exchange gave birth to a new architecture called today the Triple Arch House.

The Triple Arch House origins come from the central hall Venetian Palazzo for the main façade, the tiles from Marseilles for the new pitched roof, and the balconies/terraces from the European noble floors, all three parts of Western culture.

In his book, *The Dwelling in Lebanon* (Beirut, 2000), Jacques Liger-Belair mentions Hilde Zaloscer's article (Cairo, 1954) on Renaissance Venetian palaces characterized by the triple centre windows for which corresponded at the same

period, the Levant Liwan marked by a single arch. In the early Venetian Renaissance, the triple centre windows were to bring more natural light and air to the interior through a vast hall. References mention that for each triple arch corresponded a hall for visitors called Salon, around which rooms were allocated.

In the Cinquecento, a particular type of hospitality building with triple centre windows appears in the floating city. Later on, around the 1860s, the new wealthy merchants of the Levant coast from Tripoli to Sidon have probably been in contact with this particular architecture in Venice to exchange their luxurious commodity of silk. From the canals level, these exporters would unload goods to be piled up in storage rooms, and load their boats with merchandise to reach back the ships in front of the island. They could also stay in the common vast hall or the private rooms on the upper floor. Following some evidences³, these typical places of Venice were called Fondaco, a terminology that comes from "funduq" which means hotel in Arabic. Very few examples of these public buildings are left; throughout the years, some were transformed into private palaces while others

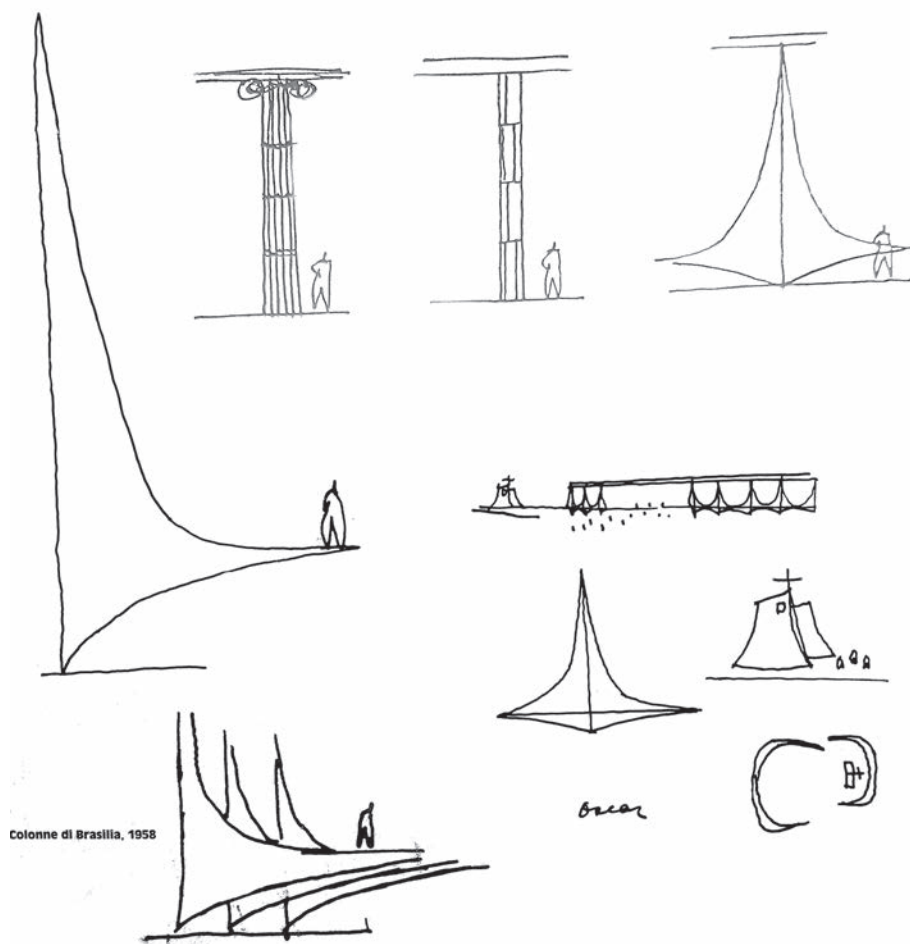


Fig. 2. Oscar Niemeyer, evolution of columns, Brasília, Brazil, 1950s. © Jean Petit, Niemeyer architetto e poeta, Forces vives, Fidia edizione d'arte, Lugano-Milano, 1995, 37.

were burned or demolished. Today, in Venice, at least one example can attest to this past, the Fondaco degli Arabi (in English hotel of the Arabs). It still stands in front of the canal with the triple arched window and projecting balcony at the first floor. When it became a private residence it took the name of Palazzo Mastelli del Cammello. This type of mansion was specific for each community; every foreign visitor would stay, by law, with his fellow citizens. The rich merchants of the Lebanese coast saw and experienced a new mode of living every time they would reach Venice. In particular, I believe that the Venetian triple centre windows of the Fondaco are partly behind the Lebanese Triple Arch House origins.

Since the 16th century, Venice had several wars against the Ottoman Empire but they remained trade partners. When the Empire started to decline around the 1820s, the commercial exchange between the East and the West remained ongoing, notably with the Venetians merchants. In the East, there was a growing feeling favouring the introduction of western influence in the Levantine tradition

among the wealthy families. This situation gave them the possibility to improve their lifestyle. Like their counterparts in Venice, they could afford a Triple Arch House for their new or existing dwellings, reorganizing and reshaping their daily lives. The adaptation of Venetian triple centre windows in Lebanon gave birth to many variants with different forms and shapes. A clear preference in this part of the region was to pointed arches coming out from the Islamic world, centuries ago, for aesthetic and structural reasons. Oscar Niemeyer's first visit to Lebanon was along the three coastal cities of Beirut, Zouk and Tripoli where he saw the widespread Triple Arch Houses. Having reviewed the classical order and evolution before inventing a new Modernist column for Brasília, he could not resist repeating the same approach for the pointed arches. Oscar Niemeyer saw the pointed arches as a typical local element to enhance and evolve, and was pleased to place it within architecture of the Fair. The reuse of this recognizable Lebanese element would support the Nation-State ideal that was behind such a project.

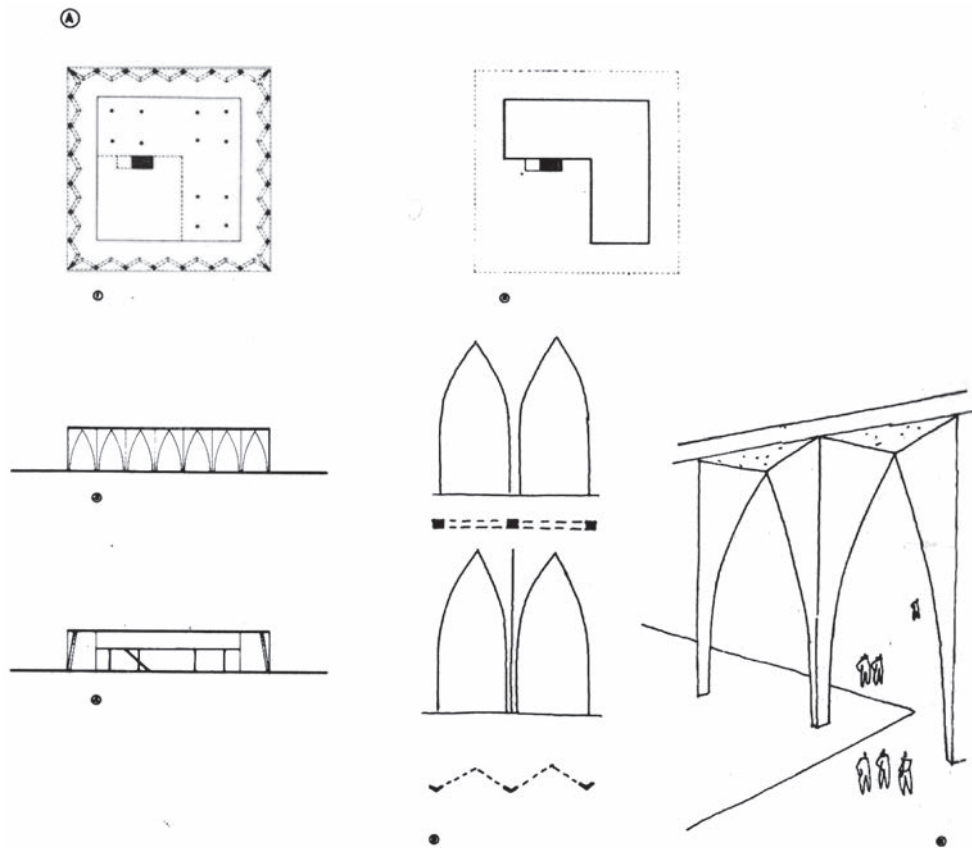


Fig. 3. Oscar Niemeyer, Lebanese pavilion sketches and drawings from the Presidential portfolio presentation in 1963. © Joe Zaatar.

3. THE NOBLE MESSAGES

In 1961, after the inauguration of the newly built Brasilia, Oscar Niemeyer received an assignment abroad in Lebanon. The dream of improving society through new architecture was still thriving in his mind. The vision of the President of the Lebanese Republic Fouad Chehab to develop the decentralized cities of his country was essential for the creation of a fair Nation-State. Both men convinced by the Fairground project, wanted to bring modernity to Northern Lebanon, to resolve social problems, inequalities and reduce the widening income gap between different cities and regions in Lebanon. Tripoli, the millennial city, was projected to become a modern city that can compete with any other one.

The difference between this fair and all other previous ones around the world, is that this one

*[...] pays attention to the fundamental principles of unity and harmony demanded by any comprehensive architectural project [...] The Lebanon International Fair will be the first to be based on criteria of unity and plastic equilibrium.*⁴

Oscar Niemeyer designs his buildings in his own typical

style, the one he calls freer kind of modernity, if we want to compare his curves to the squares that characterized Le Corbusier most designs. The peculiarity of his work is above all a research that attributes to the buildings a new perception, going beyond the limits of the constructive logic of the time. His modern intervention with new clean lines renders his spaces an essential architecture, stripped of ornaments but with lines infused with technology. In the International Permanent Fair, he created icons where a pyramid, a sphere, an arch, a disc, a bow, a square and other forms are special volumes by their size, thickness, perception, location and technique of construction. He manages to give a new meaning to beauty by making reinforced concrete a noble material; it is no longer a support product that should be covered, instead, it proudly assumes the dual role of structure and coating at the same time.

As he did in the late '30s in Brazil with Lucio Costa, Oscar Niemeyer was preoccupied for this particular building in merging innovation to traditional architecture. The Lebanese Pavilion message and image behind this conception had to show Lebanon's heritage par excellence in a Modern expression. The success behind this form-evolution would answer significantly to the President expectations, address



Fig. 4. Oscar Niemeyer, Lebanese pavilion column conditions in 2019. © Joe Zaatar.

to all Lebanese communities an important patriotic message, and trace a road on how architectural tradition can be projected to the future. In Tripoli, the second biggest city in Lebanon, he merged for the Lebanese Pavilion the portico concept of the Itamarati palace of Brasilia to the local pointed arches. The modification of this universal element (the portico in Brasilia, the portico in Tripoli, and then the portico in Segrate) into something local reduced the contrast between the Fair and its context.

4. THE THEORY

Each arcade is around 35 meters long standing on eight thin columns. As if the concept was not elaborate and modern enough, he drew a vertical line in the middle of two arches and then stretched the top of it to the exterior, curving smoothly the surface (Fig. 3). The result also transformed the squared columns in plan into rhombus ones. From the inside, the apex of the arches meets the flat roof with only

eight centimetres of reinforced concrete. From the outside, the façade and the portion corresponding to the roof are one curved skin, inviting the visitors to pass over the bridge. Large overflow outlets protrude from the top of the facades, two on each side, to evacuate immediately any rain flow to the reflecting pool and avoid major weight on the structure.

To build this perfect square with a slim roof without any supporting internal columns in 1964 required the skills of special experts. The engineers who could take up the challenge were the consultant Dr. Nazih Taleb (PhD engineer in cylindrical shell from Princeton University USA and founder member of Dar Al-Handassah Consulting Engineers) and the contractor Mr. Emil Khlát (civil engineer from American University of Beirut) with his future partner Mr. Milad Moawad. Back then, the Lebanese Government represented by the C.E.G.P.⁵ assigned the consultant to undertake the complete detailed design and tender documents of this avant-garde building, from the preliminary drawings and study model of Oscar Niemeyer, and allocated the contractors to excel in the

realization. Both missions were accomplished.

When Dr. Taleb had to speak during an interview about the structural design of the Lebanese Pavilion, he brought up the notion of Timoshenko.⁶ The theory of plates and shells gave him the possibility to reduce to a thin body the surface of the roof of this architecture. Applying this concept provided him a slim roof with slender columns and seven spans for each side of this perfectly squared building. The Lebanese Pavilion mathematical formula is closer to the Dome's Experimental Theatre than any other building in the Fair, since they share the same notion, large span with reduced thickness. Until today, I have not found documentation to explain further how this particular structure was designed. A study is underway to interpret the built structure.

Today, 57 years later, the Lebanese Pavilion is still under threat, just like the rest of the buildings in the Fairground, by distorted ideas that come from speculative minds, the coastal weather conditions, the lack of maintenance and lately the local economic downturn. Besides vandalism and looting during the civil war (marble, mirrors, tiles, wood panels, sanitary, steel partitions, wooden doors, electrical boards, copper cables, water pumps, etc...), the concrete and iron rods of different structural parts suffer from progressive deterioration (Fig. 4).

5. CAN WE SAVE MODERNISM IN LEBANON?

To conclude, no intervention from inside or outside Lebanon until now has been able to save this unique Modernist complex. Some Lebanese interventions to revive the *raison d'être* of the complex were made in the past, holding some promises at the time, but quickly faded. For instance, the launching of the Fair by the late Prime Minister Rafic Hariri during 1994 and 1995 under the direction of Tripolitan former Minister Mustafa Derneika was a promising project. The issued decree numbered 86/1995 granted the exclusivity to the Fair to host all national exhibitions and the team on board had the potential to involve foreign and local investors to make out of the Fair a living organism for the reason it was created initially. Still, it ended few months later with the same Hariri inaugurating surprisingly at Solidere, in downtown Beirut, the Biel Fairground, putting an end to this optimistic revitalization. Another past episode is the deformation of the abandoned Collective Habitat building into a commercial hotel. Besides violating the original architecture of Oscar Niemeyer (without his approval), the hotel ended up bankrupt around 2017. Recently, a consistent European fund promoted the revival of the Tripolitan carpentry industry in crisis. The project consisted also in placing it in the most neglected building within the premises of the Fair, the Reception building. After renovation, the intervention seemed like a good practice to replicate in other buildings of the Fair. Besides understanding how the intervention was done, the concern is that at the end of 2020, the European Commission did probably stop funding this project and the

unprecedented Lebanese economic crisis will likely put an end to this mission and leave the building abandoned again. Not even the Conservation Management Plan, under study by UNESCO and financed by the Getty foundation since 2018 would safeguard the complex. The actual Institutions and Governments are not interested in or prepared for such a worthy effort. The problem relates to the "Unmodern" Lebanese Governments that followed President Fouad Chehab's mandate. Until now, they have had other priorities. In October 2019, a popular revolution exploded in many piazzas and places all over Lebanon. The Thawra (means revolution in Arabic) reached in mass many streets and squares to claim the resignation of all politicians and occupied abandoned places to debate the crisis. The pandemic Covid-19 situation have almost suppressed the revolution. Would the post-Covid-19 and the idea of progress that was behind the Fair attract them to give a new meaning for that exceptional place?

REFERENCES

- ARBID, George J., *Practicing modernism in Beirut. Architecture in Lebanon 1946–1970*, DDes thesis at Harvard University, 2002.
DAVIE, Michael F., *La maison Beyrouthine aux trois arcs, une architecture bourgeoise du Levant*, A.L.B.A. Beyrouth and URB.A.M.A. Tours, 2003.
FORTY, Adrian, *A vocabulary of Modern Architecture*, Thames & Hudson, 2013, 18–28.
JACQUES, Liger-Belair, *The dwelling in Lebanon*, Geuthner publisher, 2000, 151–155.
JIDEJIAN, Nina, *Tripoli à travers les âges*, Aleph, 2006.
JOREIGE, Lamia, & EL-DAHDAH, Fares, *Suspended Spaces # 3. Inachever la modernité, Conversation. Paris, Beaux-Arts de Paris éditions*, 2014, 96–105.
NIEMEYER, Oscar, *Feira Internacional e Permanente do Libano em Tripoli*, Revista Modulo, Rio de Janeiro, V.7 N.30, 1962, 01–33.
RAJAB, Mousbah, *Les grands projets de Tripoli. Systèmes de décisions et besoins de réappropriation. conquérir la ville réappropriation urbaine : acteurs, mécanismes, enjeux*, ALBA Liban, 2009, 93–114.
SALIBI, Kamal, *A house of many mansions. The history of Lebanon reconsidered*, New York, I.B. TAURIS & Co. Ltd London, 2017.
ZAATAR, Joe, *Il Niemeyer dimenticato*, Milan, IOArchitetto, N°12, 2007, 14.

NOTES

- 1 Oscar Niemeyer, *La forma nell'architettura*, Italy, Arnoldo Mondadori Editore, 1968.
- 2 David Underwood, *Oscar Niemeyer and Brazilian Free-form Modernism*, NY USA, George Braziller Inc., 1994.
- 3 Ennio Concina, *Fondaci. Architettura, arte e mercatura tra Levante, Venezia e Ale-magna*, 1997.
- 4 Oscar Niemeyer, *Revista Modulo*, Rio de Janeiro, V. 7 N. 30, 1962.
- 5 Abbreviation for Conseil Executif des Grands Projets translation in English Executive Council for Construction Projects.
- 6 Interview conducted and registered by the author on Friday 20 December 2019 in Dr. Nazih Taleb's office in Beirut.

Session 8-f

DISCERNING GLOBAL-LOCAL MODERNIZATION PROCESS: MODERNITY, PEDAGOGY, AND IDEOLOGY

Johannes Widodo

National University of Singapore, Department of Architecture

Modernity, education, and design ideology are always intertwined, trans-boundaries on both local and global levels. This session has four presenters, looking into the plurality of relationships between global and local modernities through cases in Japan, China, Thailand, and Albania.

The first presenter, Yu Kishi, a Research Fellow of the Institute of Asian Cultural Studies, International Christian University in Tokyo, is on "Buildings that Embody Memory: Early Architecture on the ICU Campus." It looks at the embodiment of ideas of democracy and internationalism in the modern architectural design in post-war Japan. The transformation of the building complex from an instrument of war – an aeronautic research center of the largest military airplane manufacturer – into a university campus that promotes peace and democracy may offer an interesting learning point.

The second presenter, Gang Feng from Tianjin University, China, is about "Integration of modernism and regionalism in Modern University in China". The paper discusses the juxtaposition and coexistence of Chinese and Western cultures and architectural styles that produce interesting works of Modernism in China and Taiwan in the 50s-60s. The paper explores the integration of Modernism and Regionalism, the relationship of modern technological concept, efficiency, and regional tradition in the building typology and campus morphology.

The third paper, "A Study on Thailand's standardization: Vocational Schools Colleges," by Waeovichian Abhichartvorapan, an independent scholar living in Tokyo, examines the issue of the application and implications of standardization of educational building typology. It may open a stimulating discussion on the universality concept in Modernism that also promotes diversity and flexibility.

The last presenter is Federica Pompejano from the Insti-

tute of Cultural Anthropology and Art Studies - Academy of Albanian Studies, in Tirana, Albania. She will present her paper on "Materializing modernity in rural Socialist Albania".



BUILDINGS THAT EMBODY MEMORY: EARLY ARCHITECTURE ON THE ICU CAMPUS

Yu Kishi

Research Fellow, Institute of Asian Cultural Studies, International Christian University; 3-10-2, Osawa, Mitaka, Tokyo Japan; yu.kishi1980@gmail.com

ABSTRACT.

The International Christian University (ICU) is a private university established in 1949, at Mitaka, Tokyo. The campus site was originally an aeronautic research center set up by the Nakajima Aircraft Company, one of Japan's largest manufacturers of military airplanes. After the war, ICU purchased its site with donations from numerous companies, associations, and individuals, both Christian and non-Christian, living in Japan and overseas. Once an instrument of war, the campus was transformed into a university devoted to the higher education for the advancement of world peace, internationalism, and democracy. William Merrell Vories (1880–1964) served as the architectural advisor of building design and campus planning from 1949 to 1958. He had a long history of planning Christian university campuses and school buildings in Japan. However, for him, the planning of ICU presented a special challenge: how to express the ideals of postwar democracy and internationalism in architectural design. The ICU University Archives contains many documents illustrating his struggle. Due to a brain hemorrhage, Vories was forced to retire in 1958. The renovation of the University Hall and the Diffendorfer Memorial Hall (DMH) are among his last works. These are two buildings that embody the spirit and memory of the new university's ideals and mission. They not only embody the founding spirit of the university, but the memory of eager young men and women who spent their student years in these buildings for more than 70 years.

1. INTRODUCTION

The International Christian University (ICU) is a private university established in the Western suburbs of Tokyo in 1949. Soon after WWII ended, Christian groups on both sides of the Pacific initiated a project to create a new "union Christian university" in Japan. In the United States, on January 6, 1946, John A. MacLean, pastor of Ginter Park Presbyterian Church, "expressed sorrow over Hiroshima and Nagasaki and suggested that Christians make gifts for rebuilding, as a tangible expression of the desire for reconciliation."¹ In Japan, on September 22, 1945, a group of Christian scholars met at Tokyo Women's College seeking to realize the long-cherished dream of a "union Christian university." These two parallel movements were on June 15, 1949, in a meeting at Gotemba, at the foot of Mt. Fuji. ICU welcomed its first students in 1953. The ideals and mission of the new institution were to educate people who contribute to world peace, based on internationalism and democracy, and with reflection on the tragedy of war (Fig. 1).

The campus site had been selected at Mitaka, 17 miles west of Tokyo. It was large, approximately 365 acres (1.5 million square meters). The site was originally an aeronautic research center set up by the Nakajima Aircraft Company, one of Japan's largest manufacturers of military airplanes. The construction of the main building of the Mitaka Research Center, now known as University Hall, was begun ominously on December 8, 1941, the very day of Pearl Harbor. In this building, plans for a transcontinental bomber, the Fugaku, and other weapons were conceived. At the end of the war, several facilities remained intact, including the research center, a hanger, workshops, and Taizanso, the pri-

vate house and gardens of the founder of Nakajima Aircraft, Nakajima Chikuhei.

ICU purchased its site with donations from numerous companies, associations, and individuals, both Christian and non-Christian, living in Japan and overseas. The ICU campus became a place that, once an instrument of war, was transformed into a university devoted to higher education for the advancement of world peace, internationalism, and democracy.

Who would become the architect of this project? ICU had two candidates: Antonin Raymond (1888–1976) and William Merrell Vories (1880–1964). Both had long careers in Japan. Raymond wanted to clear out all and "build a new thing that is all in harmony." Vories, on the other hand, perhaps thinking of cost, explained that "[w]e will take the central building and doll it up and then we will build our other buildings around it." The choice initially went to Vories. The ICU Board of Trustees felt that "[t]here would be no justification for doing that [clear out all]," and Vories was "so enthusiastic about the campus and about the possibility of blending this big building into the whole architectural scheme."² Vories and his company served as the architectural advisor of building design and campus planning on ICU from 1949 to 1958. For him, it was a project that capped his long architectural career in Japan. Charles Germany, a young missionary posted to Japan in 1947, reported that moment:

*A wave of emotion surged through our group as this white-haired man, most of whose life lies behind him, stood before use with tears in his eyes and said, 'I believe that forty years of building experience in Japan was God preparing me for the work of erecting this great university.'*³

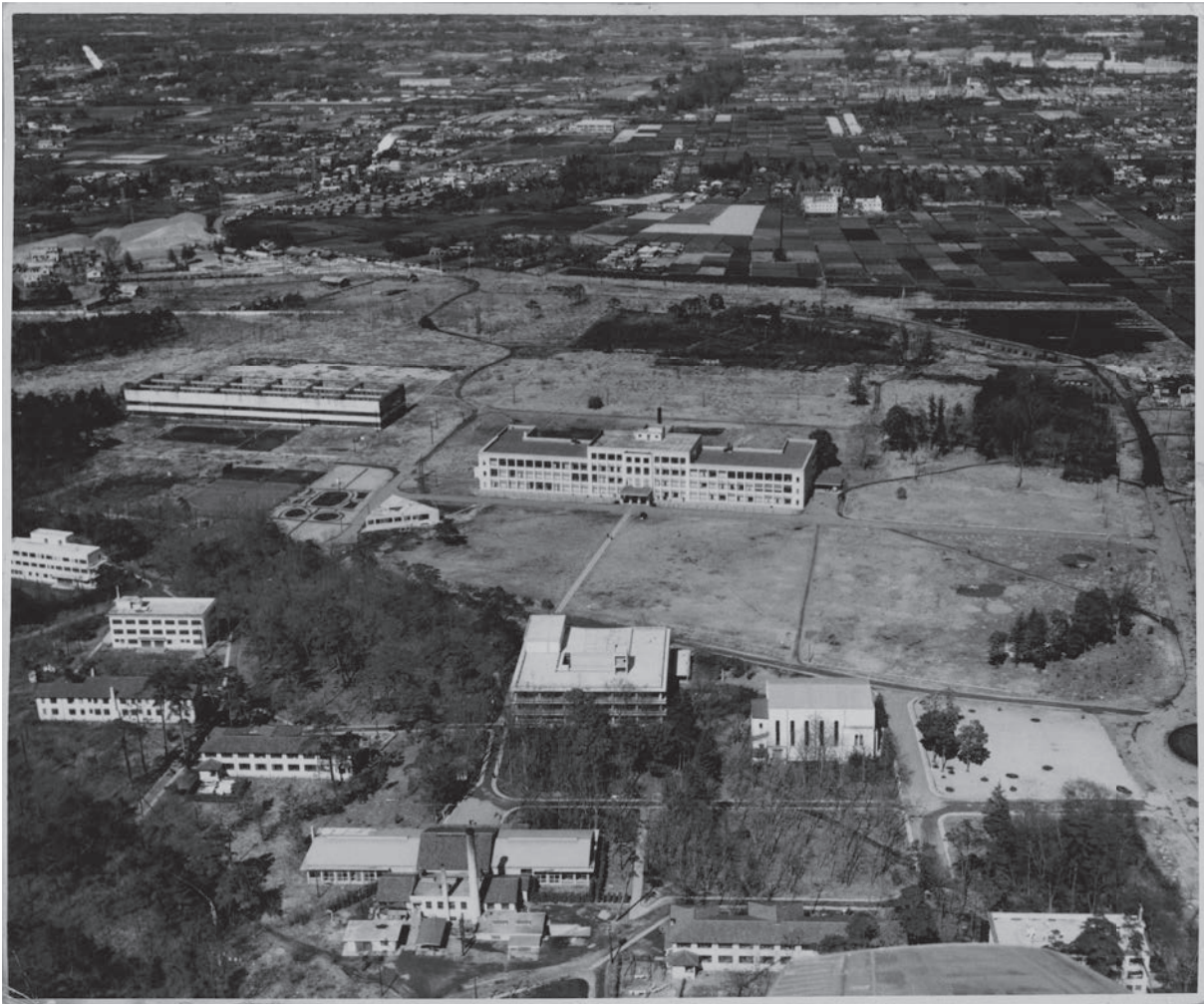


Fig. 1. ICU Campus in the late1950s. © ICU University Archives.

Due to a brain hemorrhage, Vories was forced to retire in 1958. The renovation of University Hall and the Diffendorfer Memorial Hall were among his last works.

The architecture of ICU has attracted little interest in previous research. Charles W. Iglehart wrote a book on the first 10 years of ICU, and Kiyoko Takeda produced a history of ICU in commemoration of its 50th anniversary, but both paid scant attention to campus planning and individual buildings.⁴ The architectural historian Masaaki Yamagata published an impressive study of W. M. Vories in 2018, however his focus was primarily on his prewar career.⁵ Only recently have books begun to focus on Vories and his connection with ICU.⁶

In this discussion, I examine W.M. Vories and his architectural contribution to the early days of ICU. It consists of three parts: 1) W. M. Vories and the Modern Movement; 2) the renovation of university hall; and 3) the construction of Dif-

fendorfer Memorial Hall. My attempt is to show the early architecture of ICU as an example of the development and localization of the Modern Movement in postwar Japan, and to argue on behalf of the preservation and utilization of these early post-war constructions.

2. WILLIAM MERRELL VORIES AND THE MODERN MOVEMENT

W. M. Vories had a long history of planning Christian university campuses and school buildings in Japan. He was born in 1880, in Leavenworth, Kansas, USA. After graduating from Colorado College in 1904, he came to Japan in 1905 as an English-language teacher at Omi Hachiman, Shiga prefecture, in central Japan. It was his intention to engage in Christian Missionary work. In 1907, his first architectural work was completed in Omi Hachiman. In the following

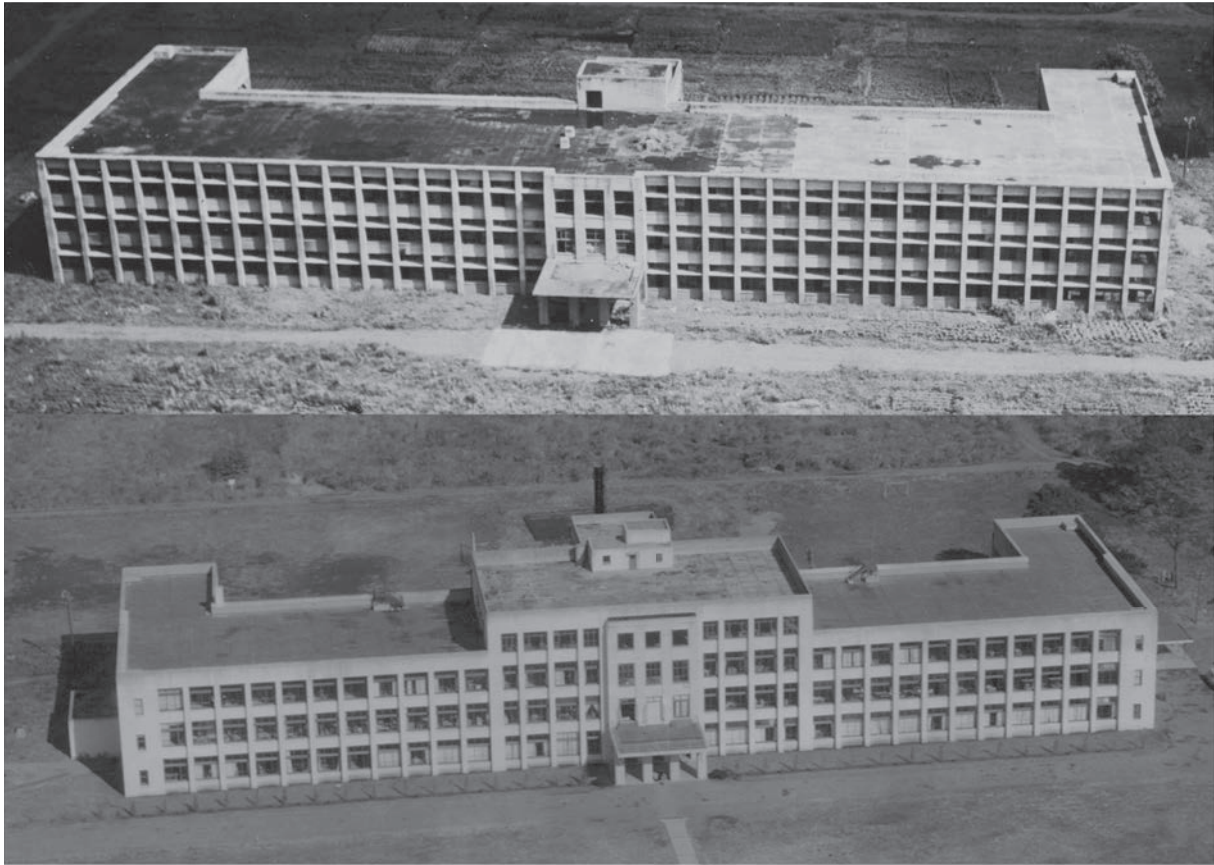


Fig. 2. The University Hall in 1949 (above) and in 1953 (below). © ICU University Archives.

year, he was fired from his teaching job because more than half of his students were attending his Bible class. From 1908, he established his architectural firm and over the years designed more than 1000 facilities including residences, Christian schools, churches, department stores, and office buildings in Japan, Korea, China, and Taiwan. Vories was also a successful businessman, managing his company that sold health care products (mentholatum). Here is the motto of his architectural firm:

*We lay claim to no startling inventions in style: but we have tried during thirty years to maintain one consistency — a definite effort to secure for our clients the maximum of housing — for whatever purpose, from the simplest dwelling to the most complicated institution, — for the minimum expenditure.*⁷

Vories always attempted to put his client's interests first. The following should be pointed out: Just as Vories engaged in missionary work as a school-teacher and not as a pastor, he managed his architectural firm not as a professional architect. He lived and worked in Omi Hachiman, a small city in

central Japan. In other words, Vories was so-called "amateur," although supported by many well-trained employees. He was not a participant in the architectural "avant-garde" of the early 20th century.

However, for him, the planning of ICU presented a special challenge: how to express the ideals of postwar democracy and internationalism in architectural design. The ICU University Archives contains many documents illustrating this struggle, especially in the design of University Hall and the Diffendorfer Memorial Hall.

3. TWO BUILDINGS: THE RENOVATION OF THE UNIVERSITY HALL AND THE DESIGN AND CONSTRUCTION OF DIFFENDORFER MEMORIAL HALL (DMH).

The University Hall and the Diffendorfer Memorial Hall (completed in 1958), are two buildings that embody the spirit and memory of the postwar university's ideals and mission. They not only embody the founding spirit of the university, but also the memory of eager young men and women who spent their student years in these buildings for more than



Fig. 3 The corridor of a hall (left). The terrazzo floor and the sanitary base boards (right). © Yu Kishi.

60 years.

3.1. The University Hall Renovated

The University Hall is E-shaped and constructed with reinforced concrete (Fig. 2). From the founding of the university, this building has been the central hall of learning for all students. Built in during the war years, it was nonetheless of “first-class steel and concrete, with one hundred and four rooms, three stories high and strong enough to support two more.” And although in 1949 it showed a conspicuous “lack of care after the war” it proved to the early university planners “to be almost made-to-order for ICU’s early needs.”⁸

A fourth floor was added to the original structure in 1953. By adding a fourth floor to the building, removing all louvers and strengthening the edges, a strong façade gave the exterior of the building, changing it “from factory to school.”⁹ In the inside, the floor and wainscot of the corridor, a common use area, was finished with terrazzo and made of sanitary base boards (Fig. 3).

From the first classes held at ICU, this was the primary building for classrooms and lecture hall in which most classes and seminars were held. Since 1953, all students and alumni have shared their experience in University Hall as central to their college life. It not only physically represents the university’s ideals and mission but also embodies the memories of students, faculty, and staff, past and present.

3.2. The Diffendorfer Memorial Hall

The Diffendorfer Memorial Hall, named in honor of one of the American founders of the university, is also a modernist concrete structure consisting of three stories and basement. It is the university’s student activity center, housing an auditorium, student club rooms and the religious center. It has a square shaped plan with a traditional Japanese small rock garden (Fig. 4). Some students have spent on a

large part of their college life in this building.

According to Iglehart, ICU’s student-union building “would be the first such university building in Japan.”¹⁰ In viewing the correspondences between Vories and Diffendorfer, it seemed that Vories did not well understand the building concept at first. In the correspondence of October 10, 1949, for example, Diffendorfer pointed out the Church House should be connected the Church and must be modern.

*You did not include the Church House along with the Church. This was our original plan and Dr. Troyer and I both feel very keenly about it. In any plans you may make of the whole scheme, we would like to have the Church and Church House stand connected just as they would be in any community. The Church’s activities, both Sundays and week-days for students, both boys and girls, etc., will all center in that Church House, and we do not want it unrelated from the Church.*¹¹

In response to his words, Vories suggested a plan to put some rooms in the basement of the chapel, which would enable a savings in cost. Almost two weeks later, he wrote Vories to describe the concept of his Church House.

As to the list of estimates, I note that you have in it a Museum. This was not contemplated in our first buildings. A much more important and necessary unit is the Church House. You have given us plans and location for the sanctuary but not for the Church House which I take for granted should be back and beyond the Church but attached to it. We regard this Church House as most important. [...]
As to the Church House, we would not mind having some rooms under the sanctuary, but we do not want them to substitute for the Church House. We want a building added to the sanctuary of two or three floors which will take care of the religious activities of the Church, including the children, boys

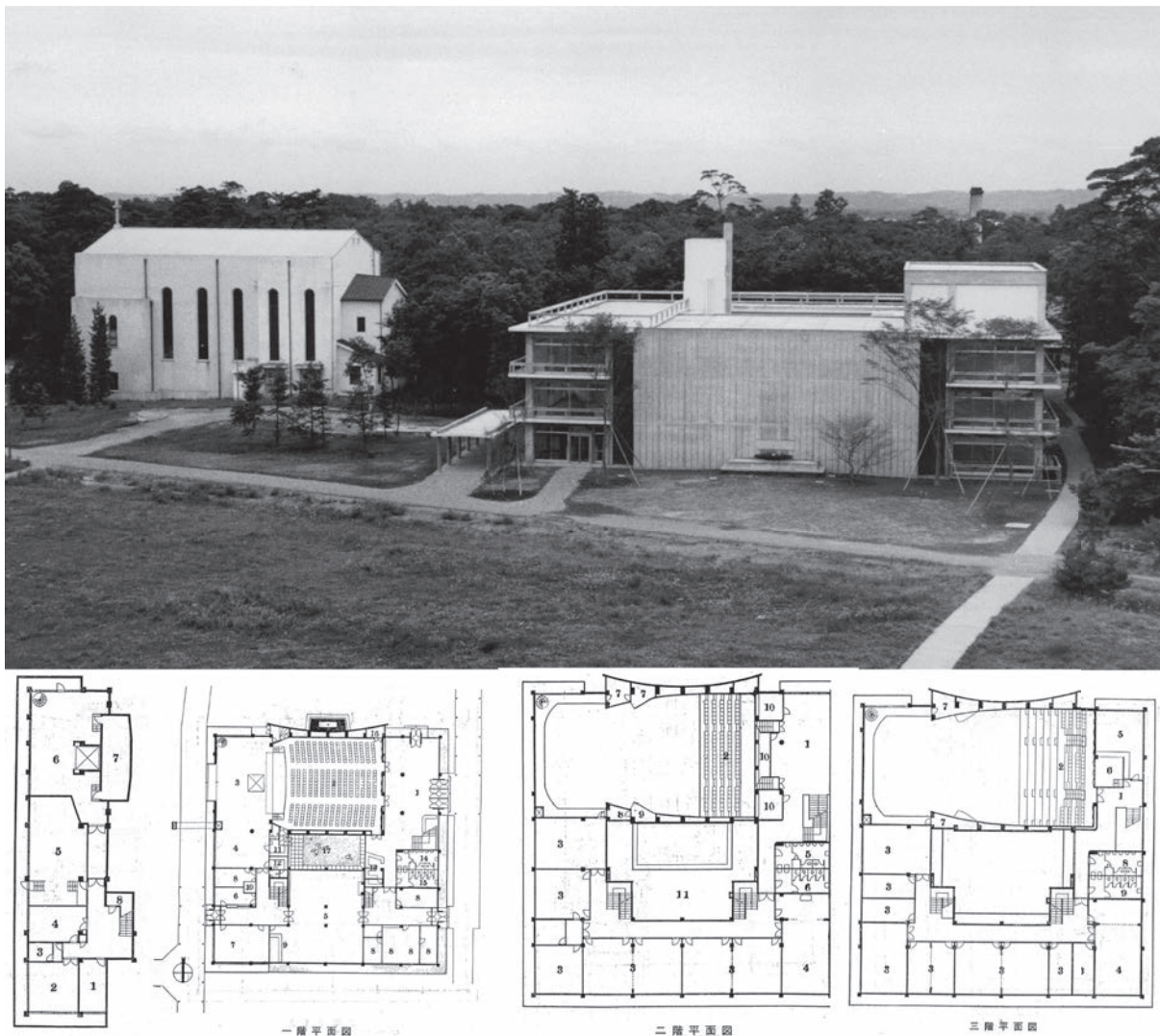


Fig. 4. The DMH and its plan. © ICU University Archives.

and girls, and students, as well as adults. We would like to have this built just as a church house would be built in connection with any modern church in a city. We quite realize that this will add considerably to the expense but the Foundation here is not interested in merely having a sanctuary to represent the ideal of a church in a university community. One of our purposes of emphasizing the Church as over against a chapel is just at this point. We would like to demonstrate what a first-class modern city church should be so that all the students as they pass through the university will get a glimpse of the possibilities of a great Church.¹²

Diffendorfer wrote in his letter one year later, "the idea of a Church House which would serve also as the Student Union and be the center of the social activities of the students."¹³

After Diffendorfer passed away on January 31, 1951, as a memorial project, the student union building was initiated under the name of the Diffendorfer Memorial Hall.

In 1958, six years after ICU opened, the DMH was completed. In the course of construction, some students joined the project alongside faculty members, and of course Vories with his staff. They worked together to finish this unique building.¹⁴

4. CONCLUSION

In 2014, ICU officially announced its "Campus Grand Design" for the next 60 years. In this plan, the University Hall and the DMH were to be replaced with new facilities, citing unsatisfactory seismic resistance requirements. Some facul-

ty members, students and alumni of ICU claimed that these two building embody the history of the university and that ICU authorities, including members of the Board of Trustees, should rethink the plan in such a way as to preserve and utilize these two distinctive postwar modernist constructions. In 2016, DOCOMOMO Japan selected the DMH as a

*Building of the Modern Movement in Japan. The reasons for its selection included: 1) the aesthetics of modernism are recognizable in its overall structure; 2) it exemplifies how modernist architecture was spreading widely within the architectural community in postwar Japan; 3) the documentation of the building process has been carefully preserved in the university archives; and 4) the building was redesigned repeatedly in response to student requests, symbolizing the university's philosophy to value dialogue between students and faculty.*¹⁵

These two buildings, the University Hall and the Diffendorfer Memorial Hall, are much loved buildings and representatives of the university's mission to create a new "peaceful Japan" for a new world without war. In 2019, the Board of Trustees announced that ICU would refurbish and continue to use these two buildings, declaring them to be the embodiment of all stakeholders of the university. For most Japanese people, the modern movement in architecture in the 20th century was simply one of many imported ideas and technologies that had entered Japan since the late 19th century. However, after embracing defeat, as exemplified by these two buildings on the ICU campus, the modern movement in architecture became an expression of democracy in postwar Japan.

REFERENCES

- IGLEHART, Charles W., *International Christian University*, Tokyo, International Christian University, 1964.
 KABASHIMA, Eiichirō, *Aru tochi no monogatari [The story of a certain land]*, Tokyo, Hokuju Shuppan, 2019.
 TAKAZAWA, Norie, & YAMAZAKI, Taisuke (eds.), *Kenchikuka vōrizu no yume [The Architect Vories, Its Dream]*, Tokyo, Bensei Shuppan, 2019.
 TAKEDA, Kiyoko, *Mirai wo kirihiraku daigaku [A Story of New University in Postwar Japan]*, Tokyo, International Christian University, 2000.
 TAKEDA (CHO), Kiyoko, *Higher Education for Tomorrow*, Tokyo, International Christian University, 2003.
 YAMAGATA, Masaaki, *Uiriamu mereru vōrizu no kenchiku [The Architecture of William Merrell Vories]*, Tokyo, Sōgensha, 2018.

NOTES

- 1 Charles W. Iglehart, *International Christian University*, Tokyo, International Christian University, 1964, 17.
- 2 Proceedings of JICUF, July 26, 1949, 2–4. (ICU University Archives, JICUF-A-5-11).
- 3 Charles Germany, "A University Is Born," *World Outlook*, Nashville, Division of Education and Cultivation, Board of Missions and Church Extension, The Methodist Church Executive Offices, November 1949, 8.
- 4 Iglehart, op. cit., Kiyoko Takeda, *Mirai wo kirihiraku daigaku*, Tokyo, International Christian University, 2000.
- 5 Masaaki Yamagata, *Uiriamu mereru vōrizu no kenchiku*, Tokyo, Sōgensha, 2018.
- 6 Eiichirō Kabashima, *Aru tochi no monogatari*, Tokyo, Hokuju Shuppan, 2019, Takazawa Norie & Yamazaki Taisuke (eds.), *Kenchikuka vōrizu no yume*, Tokyo, Bensei

Shuppan, 2019.

- 7 "Introduction", *W. M. Vories and Company Architects Ichiryusha Their Works 1908–1983*, Omihachiman, Ichiryusha, 1983, 9.
- 8 Iglehart, op. cit., 64.
- 9 Merrell Vories Hitotsuyanagi, "What We Are Planning for The International Christian University," *The International Christian University News*, Tokyo, International Christian University, 1949, 2.
- 10 Iglehart, ibid., 113.
- 11 The letter from Diffendorfer to Vories, October 10, 1949.
- 12 The letter from Diffendorfer to Vories, October 26, 1949.
- 13 The letter from Diffendorfer to Hackett, copy to Vories, October 26, 1950.
- 14 For details, see Yamazaki Taisuke, "Nihon de saisho no gakusei kaikan" [Japan's First Student Union Building], Takazawa & Yamazaki (eds.), op. cit.
- 15 ICU, "DOCOMOMO Japan Selection Plate Presentation Ceremony and Campus Tour Held," accessed on January 31, 2020, https://www.icu.ac.jp/en/news/171128_1.html.

THE INTEGRATION OF MODERNISM AND REGIONALISM IN CAMPUS DESIGN OF CHINESE UNIVERSITIES IN THE 1940S–1950S: FROM HUA TUNG UNIVERSITY TO TUNGHAI UNIVERSITY

Gang Feng¹ and Bo Lv²

¹ Tianjin University; No. 92 Weijin Road, Nankai District, Tianjin, China; fenggangarch@tju.edu.cn

² Tianjin University; No. 92 Weijin Road, Nankai District, Tianjin, China; 675299829@qq.com

ABSTRACT.

From the late 19th century when the system of modern western higher education was imported to China, to the early 1950s when an overall rearrangement of colleges and departments was made in China mainland area, the construction of Chinese university campuses reached its first peak. In this historical period with fierce conflict and coexistence of Chinese and Western cultures, the tangle between modernization and tradition has always been an important issue in the Chinese university campuses design. The campus projects of Hua Tung University in Shanghai in the late 1940s and Tunghai University in Taiwan in the early 1950s, mainly designed by Gropius and I. M. Pei respectively, were two rare works in which the architects tried to manifest Chinese tradition through modernist principles instead of copying and hybridizing the historical styles of Chinese traditional buildings. This paper combs the historical background and morphological characteristics of the two campuses, then reviews and analyses the thought of the architects about the inner spirit of Chinese traditional architecture and the methods of how they deduce that spirit in a modernist manner to achieve the integration of modernism and regionalism in these two campus projects.

The campus projects of Hua Tung University in Shanghai in the late 1940s and Tunghai University in Taiwan in the early 1950s, though the former failed to be implemented, were two of the earliest works in which the architects tried to manifest the inner spirit of Chinese traditional architecture under the principles of modernism in Chinese university campuses history. The two projects, both of which had vast lands for construction on the outskirts, were both sponsored by the United Board for Christian Colleges in China and local related missionary societies. And probably because of the closed teacher-student relationships as well as partnerships between the project architects, Gropius-led The Architects Collaborative (TAC) at Hua Tung University and I. M. Pei-led "Pei-Chang-Chen" team at Tunghai University, these two Chinese university campuses shared some common ideas in terms of the integration of modernism and regionalism.

1. BACKGROUNDS AND CAMPUSES LAYOUT OF HUA TUNG AND TUNGHAI UNIVERSITY

In 1946, three Christian universities Hangchow, Soochow and St. John's signed an agreement of a joint project for a new university named Hua Tung proposed by the United Board. The new university campus was determined to be built at the former site of Hongqiao airport in the western suburbs of Shanghai and Walter Gropius, who was the chairman of the Department of Architecture in Harvard Graduate School of Design (GSD) and a member of TAC at the time, was commissioned to be the project architect. Gropius' student I. M. Pei, who lately graduated with his Master's from GSD and was appointed to teach there, was invited by Gropius to collaborate on Hua Tung university project

as a TAC associate. The planning design of the campus was complete in 1948 (Figs. 1 & 2). The site was flat and covered an area of about 150hm². An artificial lake sit in the centre, surrounded by four main building groups from four directions: the education and administration groups in the south and the three living groups for the students, teachers and staff of the three predecessor universities in the east, west and north respectively. The student centre was at the southwest of the lakeside area near the administration and academic exchange centre buildings. Each of the three living groups had their own church in view of the different missionary societies of the three predecessors. Apart from small sports grounds among each living groups, there was also a big athlete field in the southwest of the campus.

Due to the change of political situations in China, the joint project of Hua Tung University failed at last and the design of the campus never realized. After all the Chinese Christian Universities were closed under the Rearrangement of Colleges and Departments in the early 1950s, the United Board and the Presbyterian Church in Taiwan planned to establish a new university, named Tunghai, in Taiwan island to continue their educational business in China. The new campus was slated to build on an east plateau of the Dadu Mountain in the western suburbs of Taichung. In 1954, the United Board commissioned I. M. Pei, who had worked in the previous project of Hua Tung University with Gropius before, to be the project architect of Tunghai university campus. Pei was already working in Webb & Knapp at the time and, probably recommended by Gropius, he invited Chen Chi-kwan and Chang Chao-kang from TAC to collaborate with him on this project. The site was a highest low-east slope, and covered a wedge-like area of about 140hm². The architects widened the old field paths of the site

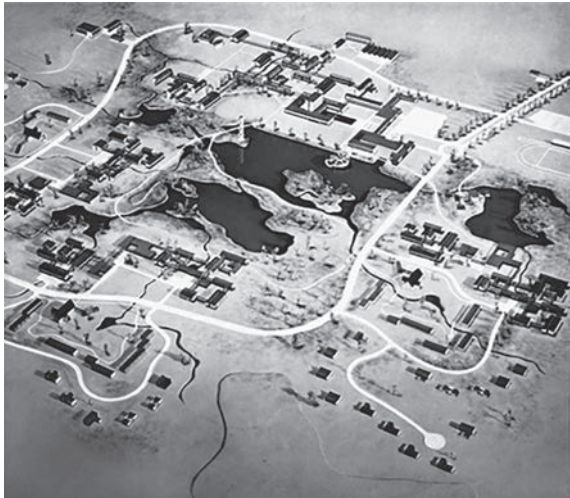


Fig. 1. TAC, Hua Tung University campus planning, Shanghai, China, 1948–1949, campus model made by Louis McMillen. © The Walter Gropius archive, volume four, photographed by Claude Stoller, 1948.

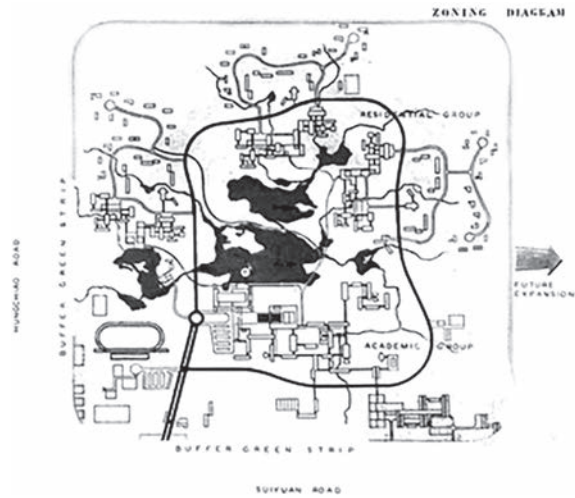


Fig. 2. TAC, Hua Tung University campus planning, Shanghai, China, 1948–1949. © L'Architecture d'aujourd'hui, February 1950.

as the main roads to divide the campus into four main parts: the athlete field and boys dormitories in the north; the dormitories and houses for teachers and staff in the east; the girls dormitories in the southeast; the education and administration buildings in the southwest. The church and the student centre were at the centre of the four parts (Figs. 3 & 4). Until the 1970s, the United Board gradually stopped their funding and gave up the policy as keeping the university “a small college”, the campus pattern remained basically as the architects had planned in 1950s.

2. INTEGRATION OF MODERNISM AND CHINESE TRADITIONAL ARCHITECTURE ENVIRONMENTAL VIEW

At the time when Gropius was commissioned to design the Hua Tung university campus, he went to his Chinese students I. M. Pei and Dahong Wang in GSD to discuss the inner spirits and characteristics of Chinese traditional architecture. Pei had been to the Lion Grove Garden, one of the Classical Gardens of Suzhou and owned by his granduncle Pei Run Sheng in those days, for many times during the summer vacations in his youth. That experience seemed to impose a lasting effect on Pei about his understanding and thinking on the core spirit of Chinese traditional architecture. In 1946, when Pei was working on his graduate thesis at GSD, a museum for Chinese Art in Shanghai, he tried to manifest the regional characteristics and traditions of China by designing many Classical-Chinese-garden-like spaces embedded in the exhibition halls of the museum so that the visitors would pass through the modernized artificial spaces and the natural garden-like spaces at intervals as they

watched the various exhibits. This design thesis won him a positive appraisal from Gropius: “It clearly illustrates that an able designer can very well hold on to basic traditional features.....without sacrificing a progressive conception of design”.¹ It was very likely that after the discussion between Gropius, Pei and Wang at the beginning of the Hua Tung university campus project, the architects had regarded the organic, balanced and interpenetrated relationships between buildings and natural environments lying in the Chinese traditional architecture as one of the main characteristics and spirits to best reflect the regionalism of China.

In the Hua Tung university campus planning design, the landscape, including the artificial lake and its branches, islands, trees and rocks, were all designed to imitate from nature. The primary and secondary roads winded slightly to suit the nature-simulated landscape better. Each educational building group or student dormitory groups had a network of open corridors which overlapped and interweaved with the meandering streams coming from the artificial lake at the campus centre. Box-like buildings with suitable space scale, usually two or three story high and having an open ground floor, attached themselves on one or both sides of the corridors. These buildings were arranged in pin-wheel-like exocentric patterns, creating free flowing spaces in the non-axial and semi-open courtyards. Rather than “outright imitation of the old style”, the architects used modernist principles and techniques to reproduce the integrated spatial relationships between buildings and natural environment that lied in the Chinese traditional architecture, aiming to “express the ancient philosophy of the Chinese people and their love of nature”.¹

The desire of using modernism designing principles

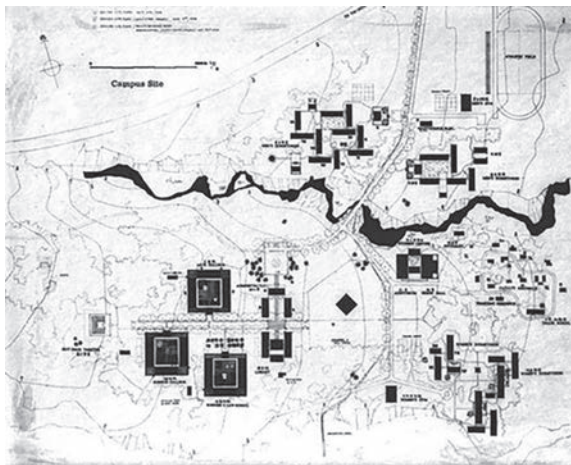


Fig. 3. I. M. Pei, Tunghai University campus planning, Taichung, China, 1954, the teachers and staff dormitory groups on the east part of the campus had extended to a larger area after 1955. © Special Issue of the First Anniversary of the Founding of Tunghai University, 1956.

meanwhile manifesting regional characteristics and traditions of China continued in the Tunghai University campus project a few years later. By keeping the building spaces and surroundings open and human-scale, the planning design of Tunghai campus on the whole also created the close correlations among buildings, nature and people that lied in Chinese traditional architecture. And instead of imitating from nature in landscape, a common technique directly from any classical Chinese garden, the architects in the Tunghai University campus project enriched the techniques to reflect the local geographical context better and seemed to become more open-minded as drawing on experience from American or Japanese traditions. The boys and girls dormitory building groups shared a similar arrangement with that of Hua Tung project, but were developed to have more various spaces on the vertical dimension according to the sloped sites. The dormitory rooms were all placed only on the unilateral side of the open corridors for better ventilation considering the hot climate there in summer. The planning of the education and administration building groups made full use of the west-to-east-descending major slope of the site, designing a green avenue which integrated both the ideas from the “mall” in many American traditional campuses and the ramp way of a temple in Nikō Kokuritsu Kōen in Japan. Three college building groups, each forming an open quadrangle on an independent raised platform, lied irregularly along both sides of the avenue. Strolling on the way from the entrance square of the education and administration areas into the courtyard of each college building groups, the spaces alongside the main route were cut apart by screen walls in the open ground floor, border trees on the arts and sciences avenue, raised platforms of each college quadrangle, and open corridors with gate pavilions connecting the

principle room and its two-wings of each college, creating “separation does not separate and division does not divide”, further enhancing the depth of scenes. Most of the trees of the campus landscape plants were from local areas, including acacia richiis between the college groups and the administration-library groups, and banyans alongside the arts-sciences avenue where the architects originally planned to use platanus.

3. INTEGRATION OF MODERNISM AND CHINESE TRADITIONAL TECTONICS ARCHITECTURE

Many aspects of the design principle between the Chinese traditional architecture and the modernist architecture, such as the ideas of prefabrication, standardization, modular system and architectural tectonics, are essentially identical. Just as Liang Sicheng, the famous Chinese architect specializing in the study of Chinese traditional architecture, had pointed out in the 1930s that:

*The most prominent features of buildings of International Style are their forms based on scientific and rational structure.....new building material technologies in modern times such as steel structure or steel reinforced concrete structure are more durable substitutes to masonry-timber structure. However, the structure principles of these new technologies are identical with the one of our traditional buildings who are mainly timber-structured.....the design principles of Chinese traditional architecture based on timber-structure are still valuable and will be applied to the new material building technologies and be revitalized in Chinese buildings in the future.*²

Pei, Chen and Chang were all younger generations of Chinese or Chinese-American architects that once studied in America after Liang and had been educated under the system of modernist architecture more than Liang had. It was certainly not difficult for them to realize the identical aspects between the design principles of Chinese traditional architecture and the modernist architecture. A good example was the Summerhouse in Kanotha which Pei had designed for his family in 1952, finished between the Hua Tung and Tunghai university campus projects. The house was in highly similar in appearance with Mies' Farnsworth House completed in 1950 but totally differed from it in the structure. Inspired by the structure of Chinese traditional temples, Pei designed a structure in which two layers of overhanging wooden beams were orthogonally stacked to support the floor and roof in this summerhouse, creating an architectural tectonics that integrated modern industrial materials with Chinese traditional construction technology. The lap joint of the overhanging beams made people recall the tou-kung of the Chinese traditional temples and palaces.

The architects' efforts to integrate the architectural tectonics between Chinese traditional buildings and modernist



Fig. 4. I. M. Pei, Tunghai University campus planning, Taichung, China, 1954. © The 50 Years History of Tunghai University Campus, drawn by Chen Chi-kwan, 1954.

buildings can be found also in the cases of Hua Tung and Tunghai University campuses. In the Hua Tung University campus project, the Gropius-led architects partly used materials from Chinese traditional buildings, such as the Chinese round tiles on the shed roofs at classroom and dormitory buildings, as part of their design strategy to reflect the regionalism of China. But the main architectural language, such as the pilotis at the open first ground floor, the horizontal-windowed facades, the white box-like architectural shapes, remained to be from the International Style. But when it came to the project of Tunghai campus, Pei, Chen and Chang chose a different strategy. They had inherited the Chinese traditional spatial system, which followed a “bay-block-courtyard” generative mechanism and based on the timber frame structure, but translated its architectural tectonics language with new materials and technologies in accordance with modern industrialized building system. Most of the buildings in campus had grey-tiled gable roofs, light steel reinforced concrete skeletons, white plastering spandrels, red brick end walls and open corridors or terraces, making up unified facades with each other. The project architects attached so great importance to the tectonics language that they rejected many of the construction drawings done by the early resident architects Lin shu min and Paul P. Wiant, such as using granitic plaster on columns and walls, for being hypocritical, and redesigned them to better fit the spirit of tectonics. For instance, at the No.16 boys dormitory, designed and supervised by Chang Chao-kang personally, bearing skeletons and envelop enclosure were clearly separated. The texture of the reinforced concrete construction was exposed. The section of the RC beam had a slot at the upper outside corner where joggle jointing with the brick wall, resulting to a better-slenderness-ratio skeleton on the facade, and meanwhile distinguishing the floor from the beam on their different roles in load-bearing at the part of the open corridor and the balcony.³

4. CONCLUDING REMARKS

The Hua Tung and Tunghai University campuses pro-

jects are the earliest two cases in Chinese university campuses history that tried to manifest Chinese tradition under modernism principles. As firm modernists, the main architects of the two campuses, represented by Gropius and Pei respectively, refused to imitate the historical styles from Chinese traditional buildings like many other western or Chinese architects had previously done in Chinese campus designs during the past decades. The architects of Hua Tung and Tunghai projects made efforts to dig the inner spirits of Chinese traditional architecture, especially on the aspects of architecture environmental view and architectural tectonics, and tried to revitalize them by integrating them with modernism architecture principles. Despite the fact that Hua Tung University campus failed to realize in the end and that Tunghai University campus had once been criticized for being less innovative and being non-Chinese, non-Western and non-Japanese, the contributions made by the architects in these two university campuses projects are still enlightening.

REFERENCES

- HOU, Li, & SHEN, Yun, "Another Sino-West Hybridity: Walter Gropius and the Planning of Hua Tung United Christian University in Shanghai[J]", Shanghai, *Urban Planning Forum*, 2016 (4), 112–119.
- KÖGEL, Eduard, "Modern Vernacular — Walter Gropius and Chinese Architecture", Shanghai, *Time+Architecture*, 2019 (3), 50–54.
- YOU, Mingguo *Buildings, Spaces, Trees — Discussions on Landscape Design of Tunghai University Campus of Chen Chi-kwan*, The Department of Architecture of Tunghai University, *The Mind of Architecture — Chen Chi-kwan and the Buildings of Tunghai University Campus*, Taipei, Garden City Press, 2003.
- LIANG, Sicheng, *Works of Liang Sicheng* (Volume 2), Beijing, China Architecture & Building Press, 1984.
- JODIDIO, Philip, & ADAMS STRONG, Janet, *I. M. Pei: Complete Works*, New York City, Rizzoli New York, 2008.
- GUO, Wenliang, *Deweaving: The Process of Tunghai University Campus Planning and Architecture Design in the Early Years of 1953–1956*, HU, Heng, *Studies of Architecture & Culture* (Volume 6), Shanghai, Tongji University Press, 2014.

NOTES

- 1 Eduard Kögel, "Modern Vernacular — Walter Gropius and Chinese Architecture", Shanghai, *Time+Architecture*, 2019 (3), 51.
- 2 Sicheng Liang, *Works of Liang Sicheng* (Volume 2), Beijing, China Architecture & Building Press, 1984, 8–9.
- 3 Wenliang Guo, *Deweaving: "The Process of Tunghai University Campus Planning and Architecture Design in the Early Years of 1953–1956"*, Heng Hu, *Studies of Architecture & Culture* (Volume 6), Shanghai, Tongji University Press, 2014, 104.

A STUDY ON THAILAND'S STANDARDISATION: VOCATIONAL SCHOOLS AND COLLEGES

Waeovichian Abhichartvorapan

Independent scholar; Tokyo; waeovichian@gmail.com

ABSTRACT.

This paper aims to analyse an application of standardisation that applied in the improvement of Vocational Education Project. The Project was undertaken between 1965 and 1970 at 20 provinces across Thailand. It consisted of 25 schools and colleges of 2 types of programme: Trade & Industry and Agriculture. Architectural works were designed by Junzo Sakakura Architects & Engineers. Almost for half a century, buildings have served the needs of educational purpose. Some are demolished; however, most of them effectively perform their functions. It is noteworthy to examine how standardisation was applied and analyse the fruits of it. Standardisation was applied in 2 main aspects, layout and building design. Layout design consists of campus planning and building typologies. Building design is comprised of standard sizes of the buildings and standard units. Although the universality is reflected in layout planning and building typologies, the aspects of standard sizes of buildings and standard units show the flexibility. In other words, applying the concept of standard sizes promotes diversity of building choices, while standard units can offer flexible options to combine functions to create buildings with specific uses to fit at particular school or college. It can be said that standardisation employed in Thailand presents not only “universality” but also “diversity” and “flexibility”.

1. INTRODUCTION

1.1. Historical Background of the Project

Many cities were devastated by the impact of WWII on their economy, infrastructure and human resources. This led to the establishment of an international loan organization so-called the World Bank in 1947. Soon after this establishment, Thailand became a member in 1949 and was able to receive the first loans in the following year to improve the railway system. Subsequently, several loans during the 1950s were granted to basic infrastructure construction projects for example roads, railways, ports, and irrigation projects.¹ Under the suggestions of the Bank on economic development, Thai government set up the national economic development planning organization.² The first national plan was implemented between 1961 and 1966 to focus on economy, industry, trade and education development. Education in particular had a purpose to support the economic growth by producing labours into manufacturing industries.³ In 1964, the government's attention paid to an improvement of educational aspect.

As a result, many public secondary schools and universities were built in Bangkok city and other provinces as educational centres of the regions. Therefore, the government requested financial support from the Bank in 1964 to modernize vocational training for industry and agriculture. The total construction areas were 176,000m² with the total construction cost at 11,783,000 USD at 25 schools and colleges in 20 provinces.^{4, 5} The construction was scheduled to be completed within 3 years which made this Project an intensive architectural construction project in Thailand at that time.

1.2. Selection of Architectural firm

In terms of architectural design, the World Bank required the Department to select a non-Thai architectural

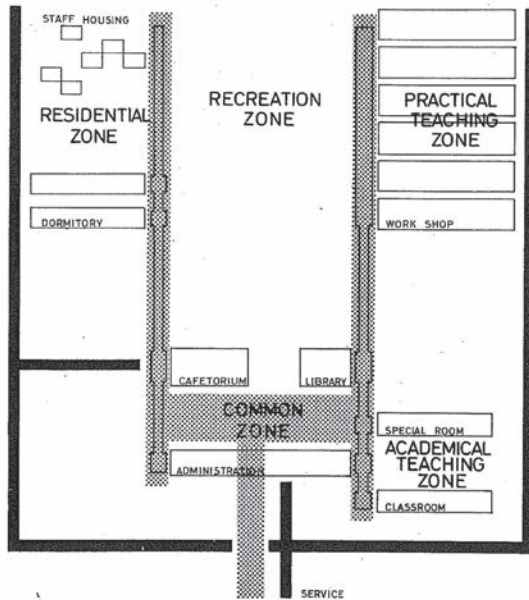
firm from county members of the International Bank for Reconstruction and Development (IBRD) by asking them to submit design proposals. After going through the selection process, a Japanese company, Junzo Sakakura Architects & Engineers, led by an influential Japanese architect, Junzo Sakakura (1901–1969), received an invitation to design the Project in 1965. Sakakura agreed to design the Project and sent a design team of architects⁶ and engineers to survey building conditions at existing schools and new sites including learning about characters of architecture in Thailand in order to produce a preliminary design.

1.3. Design Proposal

The main goal of the improvement of school facilities in this project was to define “an ideal way of school” where architecture and surroundings should support academic activities, and human relationship.⁷ The construction had a tight schedule of 3 years to complete and had to be constructed various sites at the same time. As a result, the design team initially proposed a concept of standardisation of steel prefabrication to use as a main structural system. A plan was to produce steel frames in Japan then transport to and assemble in Thailand. However, after the survey of construction conditions in Thailand such as availability of steel, construction technology and workers' skills, the design team realized that it is difficult to make the use of prefabrication feasible. This might be because steel was produced in low numbers, expensive and available only in Bangkok. While concrete was more common and available throughout the country. Moreover, most workers were familiar to character of concrete and could use it effectively when comparing to steel. The design team surveyed not only construction aspect, but also learned about local climates of the country.

Consequently, a design proposal was “to make architecture which is suitable for Thai environment, for Thai people,

SYSTEM OF LAYOUT : T . I . S



SYSTEM OF LAYOUT : A . S

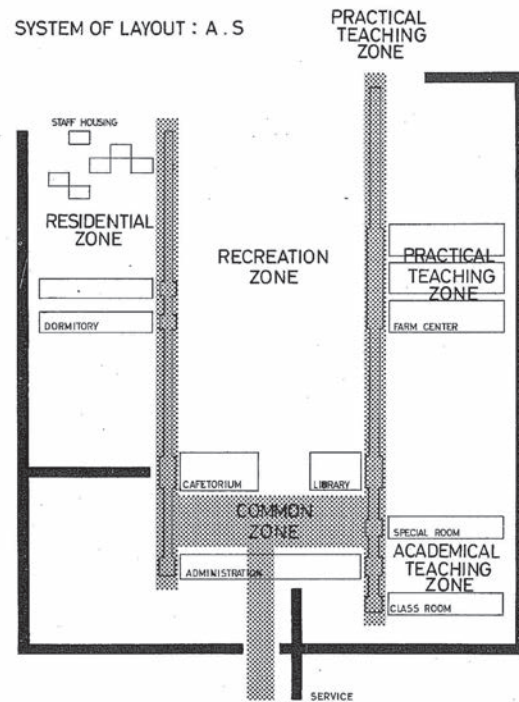


Fig. 1. Junzo Sakakura Architects & Engineers, 1970, Linear planning system standardised for schools and colleges of Trade & Industry and Agriculture programs.
© Tsutomu Abe's collection.

made by Thai people with Thai technology and materials produced in Thailand.⁸ This proposal was incorporated into the main goal to develop design concept. It was to maintain the concept of standardisation but using locally produced construction materials in this case it is concrete, and also taking an aspect of Tropical climate conditions into account. By doing this, such architecture can take root in Thailand, can be used for long time, and would be loved by Thai people. Besides, those buildings were schools, so students learning there would also be able to have pride in it.

2. APPLICATION OF STANDARDISATION

The concept of standardisation was applied to schools and colleges of both vocational programs: Trade & Industry and Agriculture. It is physically reflected in 2 main aspects, layout and building design so as to establish an ideal state of schools for Thailand.

2.1. Standardisation in Layout Design

2.1.1. CAMPUS PLANNING

Schools and colleges of Trade & Industry and Agriculture programmes were designed base on linear planning system (Fig. 1). The Campus area is divided into 5 zones, namely common, academic, recreation, residential and practical teaching zones. Each zone is connected by linear walk-

ways covered with roofs and circulation of cars is separate. Within the same zone, buildings which their activities related to each other are grouped together. One of the benefits of this planning system is providing safety for students when changing class from one building to another. In addition, space for outdoor activities or the future use can be obtained from the distance between buildings and buildings or zones and zones.

2.1.2. BUILDING TYPOLOGIES

According to 5 zones of campus planning, buildings are categorised into 8 typologies, namely, Cafetorium, Library, Administration, Classroom building, Special room building, Dormitory, Workshops and Farm buildings. Among 8 typologies, 6 of them are designed as standardised functions at schools and colleges of Trade & Industry and Agriculture programs. However, there are 2 building typologies: Workshops and Farm buildings specially built for Trade & Industry and Agriculture, respectively. This can reflect an attempt of the architects that Workshops and Farm buildings are designed to satisfy the needs of different educational programmes.

2.2. Standardisation in Building Design

2.2.1. STANDARD SIZES OF THE BUILDINGS

Owing to differences in number of students and types

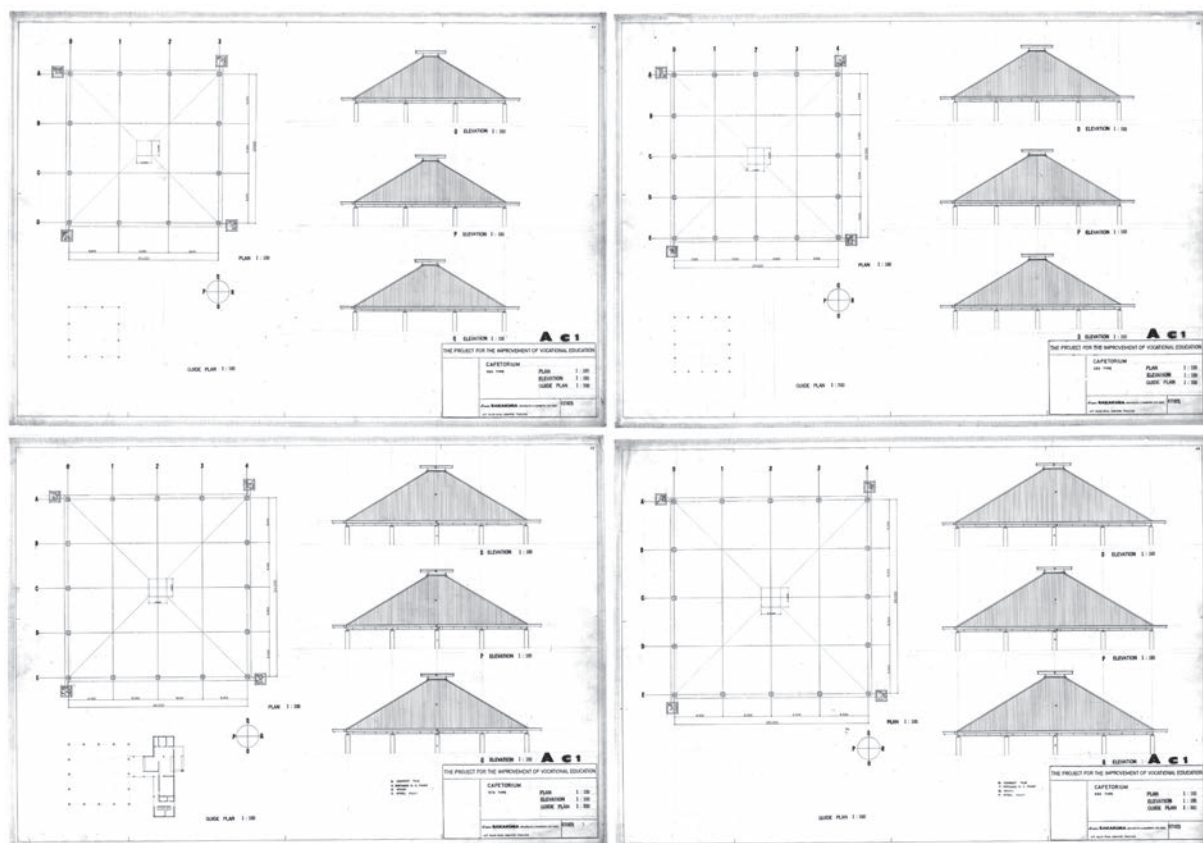


Fig. 2. Junzo Sakakura Architects & Engineers, 1967, Drawings of 4 different sizes of Cafetorium. © The National Archives of Modern Architecture, Agency for Cultural Affairs, Japan.

of institutes in each place, the needs for different building sizes might vary. Two building typologies were designed to have a variety of different sizes. There are Cafetorium and Library.

2.2.1.1. CAFETORIUM

Cafetorium is multifunctional building to hold various school and college activities as a central place on campus. As a result, the building area was calculated to accommodate all students at that institute. This building is comprised of 4 different types, namely, 360 Type, 450 Type, 570 Type and 660 Type (Fig. 2). Type indicates the total number of students. Therefore, each institute can have an appropriate building size to fit their number of students.

2.2.1.2. LIBRARY

Library consists of 2 types: 200m² and 280m². The former is for building at schools, while the latter is for colleges. In other words, a small-sized library is designed to provide at schools, and a large-sized one for colleges. Accordingly, types of institutes were taken to classify sizes of library.

2.2.2. STANDARD UNITS

Standard unit was introduced as a system of modular units in this Project, particularly in reinforced concrete rigid frame buildings. The units can be combined to create a multi-story building. There are 2 sizes of standard units applied to 4 types of the buildings, namely Administration, Classroom building, Special room building, and Dormitory. The standard unit of 4.00m x 10.00m is a fundamental structural unit of the first 3 buildings typologies. For the last typology, the standard unit is 4.00m x 7.50m.

2.2.2.1. STANDARD UNIT OF 4.00M X 10.00M

Standalone Administration is a two-storey building. It consists of 18 standard units which equally divided into each floor. For Classroom building, it is formed by several classroom units. One classroom unit contains 2 standard units to have seating capacity for 30 students. So, floor areas of Classroom building vary; it depends on how many classroom units it has. In terms of Special room building, there are 19 units and 17 units for using at Trade & Industry and at Agriculture schools and colleges, respectively. As Administration, Classroom building and Special room building have

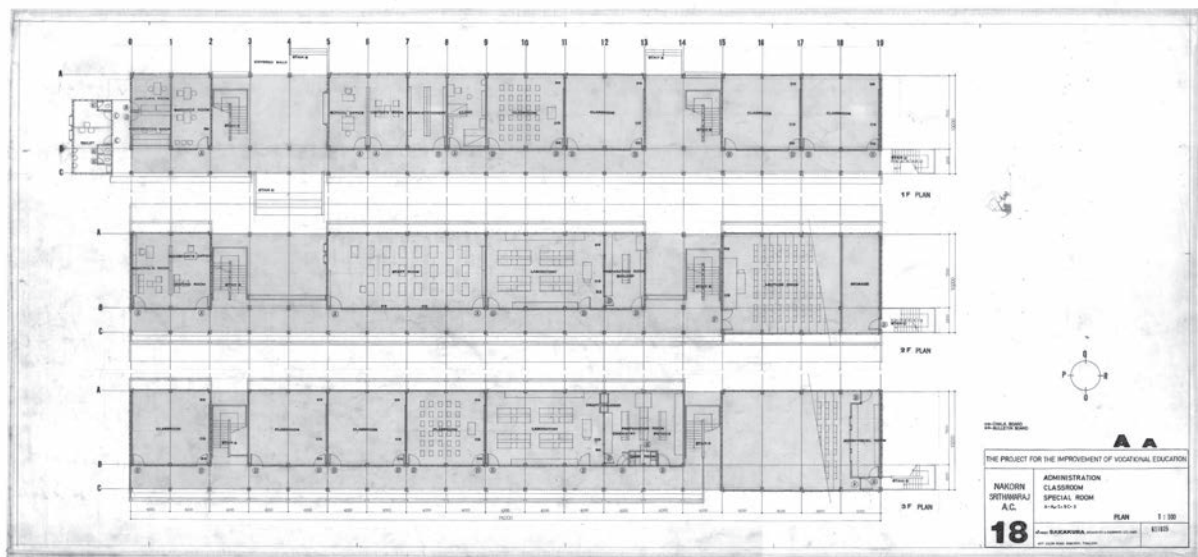


Fig. 3. Junzo Sakakura Architects & Engineers, 1967, modified by the author, Drawings of Administration, Classroom and Special room building, Blue = Administration, orange = Classroom and green = Special room building. © The National Archives of Modern Architecture, Agency for Cultural Affairs, Japan.

	Unit combinations	No. of Floor	Area (m ²)
Trade & Industry	Administration	2	660
	Special room+5 Classrooms	2	1,332
	Administration+ Special room	2	1,432
	Special room+10 Classrooms	2	1,702
	Administration+ Special room+10 Classrooms	3	2,364
Agriculture	Administration	2	660
	8 Classrooms	2	770
	Administration+ Special room	2	1,352
	Special room+8 Classrooms	2	1,462
	Special room+12 Classrooms	2	1,782
	Administration+ Special room+8 Classrooms	3	2,064

Table 1. Diversity and variety of unit combinations.
© Waeovichian Abhichartvorapan

the same standard units. The combinations of these 3 building types are possible (Fig. 3). Consequently, there are diverse options of combining units so as to create a wide variety of buildings with different functions and different sizes (Table 1).⁹ So as that area and function requirement can be individually designed to fit each institute because it varies from place to place.

2.2.2.2. STANDARD UNIT OF 4.00M X 7.50M

The dormitory is an accommodation for students of schools and colleges at both Trade & Industry and Agriculture programmes. A bedroom is comprised of 4 standard units to accommodate 24 students. This building type has 3 different sizes: 96 Type, 120 Type and 156 Type. The number presents the number of students residing in the building. Dormitory 96 Type, 120 Type and 156 Type are composed of 4, 5 and 6.5 bedrooms, respectively. In other words, sizes of can

be flexibly adjustable by adding or reducing the bedroom unit.

3. DESIGN RESPONSE TO TROPICAL CLIMATE

Thailand is located in tropical climate zone where the average temperature of each region is relatively high, due to the impact of seasonal monsoons. In the design process, the Japanese architects researched climatic conditions and solar angles to achieve thermal comfort through passive design elements. Firstly, positions of buildings are responsive to solar orientation and prevailing wind. Narrow sides of the buildings are positioned on the east-west axis to minimize solar gain. Secondly, long cantilevered eaves can protect low sun angles to shade into the buildings (Fig. 4). These features also define distinctive characteristic to buildings in this Project. Finally, roof insulation system was installed particularly on flat slab roof buildings such as Administration, Classroom, Special room, Dormitory and Library. The system comprises of large corrugate asbestos sheets sit on precast concrete bars. It makes ventilated space between the sheets and the roof to reduce heat transmission into the buildings. The use of passive design elements illustrates that local conditions; in this case, tropical climate condition, were taken into account.

4. CONCLUSION

Thailand's Vocational Education Project developed by Sakakura Associates, architects & engineers can present how local conditions such as construction technology, climate, and

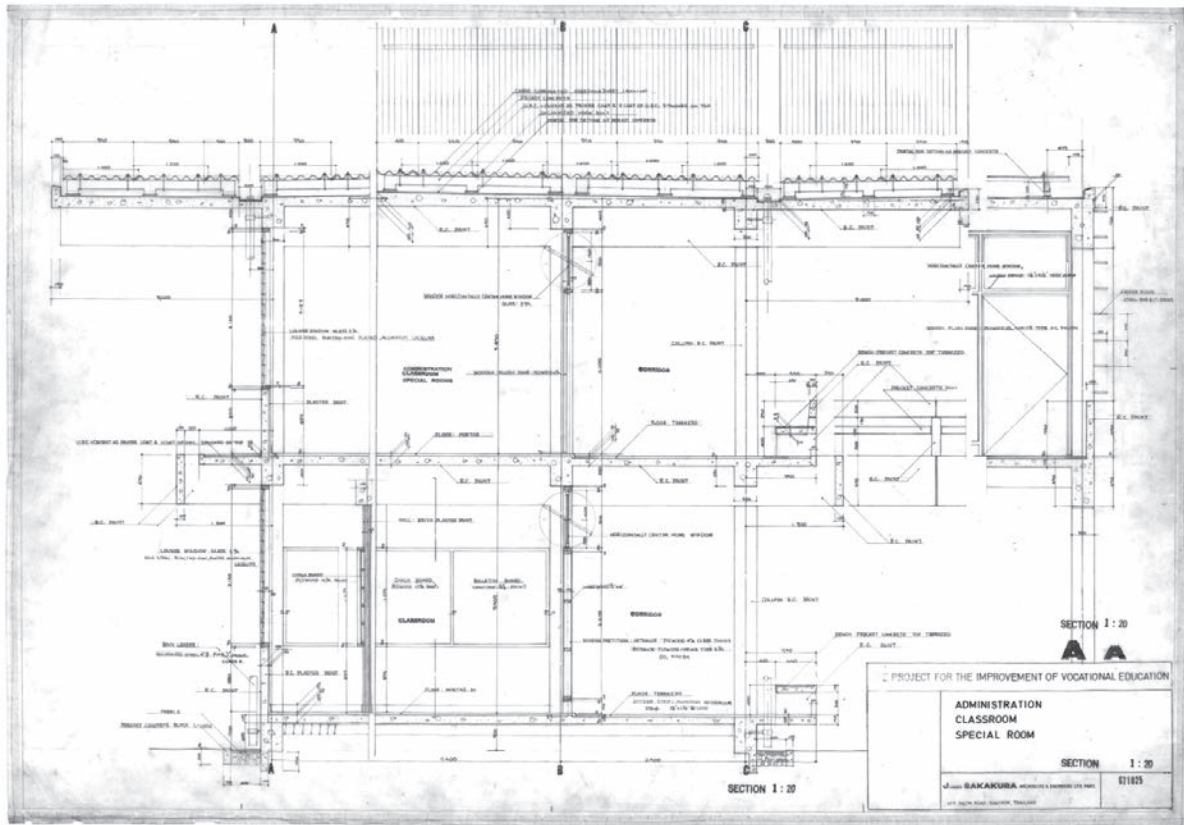


Fig. 4. Junzo Sakakura Architects & Engineers, 1967, Details of long cantilevered eaves and roof insulation system at Administration, Classroom and Special room building. © The National Archives of Modern Architecture, Agency for Cultural Affairs, Japan.

the individual needs of each institute were taken into account. This is reflected in the design proposal to apply the concept of standardisation in relation to tropical climate conditions. Standardisation was applied in 2 main aspects, layout and building design at schools and colleges of both Trade & Industry and Agriculture programmes. Layout design consists of campus planning and building typologies. Building design is comprised of standard sizes of the buildings and standard units. Generally, the use of standardisation aims to create standard and universality. However, the application of standardisation in the Vocational Education Project can create universality of forms to the architecture and allow diversity of building sizes and flexibility of room functions.

REFERENCES

- ABE, Tsutomu, "Vocational schools facilities planning by Ministry of Education, Thailand: Responding to diversity through standardization", *Kenchiku Bunka* 26, No. 294, 1971, 151–166.
- Junzo Sakakura Architects & Engineers Limited Partnership, *Report of the loan project for the improvement of Vocational Education in Thailand*, 1970, 11.
- MUROFUSHI, Jiro, "Vocational schools facilities planning by Ministry of Education", *Kenchiku* 4, No. 127, 1971, 39–78.
- SEITA, Yasuo, "The campus planning of 25 vocational schools", *Shinkenchiku* 46, No. 4, 1971, 182–194.

- TOH, Tadahiro, "The outline of 25 schools planning", *Shinkenchiku* 46, No. 4, 1971, 159–162.
- World Bank, *Thailand — Vocational Education Project (English). Technical operations projects series ; No. TO 478*, Washington, DC, World Bank, 1966, accessed on January 10, 2020, Available at <http://documents.worldbank.org/curated/en/747681468303568816/pdf/multiplatform.pdf>.

NOTES

- "History of the World Bank", accessed on January 10, 2020, <https://www.worldbank.org/en/about/archives/history>.
- "70 Years in Thailand: From Traditional Development to Innovative Knowledge Partners", accessed on January 10, 2020, <https://www.worldbank.org/en/news/feature/2019/05/07/70-years-in-thailand--from-traditional-development-to-innovative-knowledge-partners>.
- "The First National Development Plan", accessed on January 10, 2020, https://www.nesdb.go.th/ewt_dl_link.php?nid=5806.
- The 25 vocational schools and colleges can be categorised into 2 types of program. First, Trade & Industry program is composed of 14 Schools and 1 Teacher Training College. Second, Agriculture program consists of 5 Schools, 4 Colleges and 1 Teacher Training College.
- Tadahiro Toh, "The outline of 25 schools planning", *Shinkenchiku* 46, No.4, 1971, 159.
- Members of Japanese architect team were Tadahiro Toh, Yasuo Seita, Tsutomu Abe, Yoshinobu Yoshida & Jiro Murofushi.
- Junzo Sakakura Architects & Engineers Limited Partnership, *Report of the loan project for the improvement of Vocational Education in Thailand*, 1970, 11.
- Tsutomu Abe, Interview by the author, October 10, 2018.
- Unit combinations were set as a series of code to identify what kinds of functions contained in the building.

MATERIALIZING MODERNITY IN RURAL SOCIALIST ALBANIA

Federica Pompejano

Instituti i Antropologjisë Kulturore dhe Studimit të Artit (IAKSA), Akademia e Studimeve Albanologjike (ASA);

federica.pompejano@asa.edu.al

ABSTRACT.

During the 20th-century, Socialist Albania planned, adopted, and implemented large scale development and agricultural plans to modernize its rural areas. Those plans provided an experimental opportunity for new landscape and architectural ideas converging on the vision imposed by the regime. With the establishment of dedicated central-state institutions, aimed at designing and implementing the modern rural architecture and urban planning, Socialist Albania attempted the urbanisation of the countryside. A process that, while affirming an evolutionary continuity with the *'rational essence of tradition'*, tried to integrate it into the necessary development of the new socialist rurality. This article aims at investigating how the communist ideology materialised modernity in the Albanian rural architectural and territorial planning. To what extent traditional local architectural values have been reflected in the standardisation of the modern rural housing, for a classless society, characteristic of the Socialist planning during the land collectivisation process? Despite the socialist ideals inspired by scientific, technological, and cultural progress pushed towards a new urbanised rurality, *de facto*, the tension between tradition, nationalism and socialism shaped a new hybrid and modest rural architecture that sought to temper the characteristics of local genius loci in the universal qualities of socialist modernism. As part of the EU funded project *"Materializing Modernity — Socialist and Post-socialist Rural Legacy in Contemporary Albania"*, this contribution intends to provide a preliminary state of the art as baseline upon which develop further studies to discuss the Albanian example in the framework of European studies on modernist rural architecture and landscape.

1. INTRODUCTION

Socialist era represents for Albania an important historiographic period that, extending from the end to the WWII to the early 1990s, deeply impacted its territory and society. As Mëhilli pointed out, economically behind and with no working class, Albania looked at the Soviet model and tried to literally "forge a working class out of illiterate peasants".¹ Representing a turning point in Albanian modern history, socialist ideology and Soviet methods importantly affected a wide period in the overall palimpsest of 20th-century Albania architecture and urbanism. In fact, among the first generation of Albanian architects, there were also some that started the studies in western countries and then continued or re-started the studies in the URSS and, until the end of the diplomatic relationship with Moscow, professionals and experts regularly came in the country. Moreover, credits for constructions sector helped in the industrialisation and modernisation paths through the drafting of new socialist rural and urban masterplans, the implementation of land reclamation works, the building of residential complexes, societal and cultural edifices, and the establishment of productive fabrics. Despite the end of the relationships with the Soviet Union (1960–1961) and with China (1976–1978), Albania persisted in implementing Stalinism and closed into a harsh self-reliant system. The latter approach was reflected into the slogan by our own efforts [*me forcat tonë*], and with respect to architecture and urban planning, it was practically translated into the 1968's voluntary construction works initiatives carried out by organised brigades, and into major efforts put into the architectural standardisation process to supply the low technological construction level. All this as-

sociated with an increasingly indoctrination which, also in the field of architecture, aimed at the purge of any external influence while continuing the efforts in bridging the distances and differences between the urban centres and the countryside. This contribution aims at generally framing Albanian socialist modernity in the planning architectural field, introducing the discourse around the new socialist architecture by especially considering as representative the case concerning housing architecture in rural contexts. In fact, only around the 2000s socialist architecture and urban-countryside development in Albania has started to be considered as object of systematic scientific, even if fragmented, studies.²

How the communist ideology materialised modernity in the Albanian rural architectural and territorial planning? To what extent traditional local architectural values have been reflected in the standardisation of the modern rural housing, for a classless society, characteristic of the Socialist planning during the land collectivisation process? With the awareness that such a vast topic cannot be exhausted in this brief article, I attempt to introduce part of the research studies that I am currently carrying out in the context of the EU funded project *"Materializing Modernity — Socialist and Post-socialist Rural Legacy in Contemporary Albania"*.

2. SOCIALIST MODERNITY STARTS WITH THE AGRARIAN REFORM

In 1945, immediately after the Liberation occurred in the end of 1944, the first process aimed at modernising the country and implemented by the communist regime, consisted in a radical land reform. Such initiative foresaw the confisca-



Fig. 1. Rural house in Rëmbec, Korça, 1951. © Andromaqi Gjergji, *Etnografia Shqiptare*, 2, 1963, 94; Rural houses in: Nartë village, Vlorë, 2019–2020. © F. Pompejano, 2019 and 2020; Nivicë village, Sarandë, 2020. © N. Bardhoshi, 2020.

tion of the land ownership from large landlords and the distribution of the lands to peasantry families.³ During the implementation of the 1945's Agrarian Reform, which paved the way towards the establishment of agricultural production and livestock cooperatives and state-farms and the land collectivization process, a special commission composed mainly of engineers and an agronomist was appointed by the Albanian Ministry of Agriculture and Forestry to the study of rural housing typologies to be adopted in the planning of new inhabited rural villages, that would have followed the conclusion of the agrarian reform.⁴ The development of new rural inhabited centres composed of specific urban spaces and standardized architectural units was among the major aims of the building programme of socialism and communism during the dictatorship. Thus, simultaneously with the final acts of the land reform implementation and the proceeding of the land collectivisation process⁵, in 1947 specific directives for the establishment of the [*katundeve të rijë*], were issued by the Directorate of the Agrarian Reform of the Ministry of Agriculture and Forests, following a meeting with representatives from other different Ministries.⁶ According to these early directives, each different ministry was competent in studying and defining the requirements and the construction types needed in the new rural settlements to guarantee better living conditions to the peasantry. Generally, the place for the foundation of the

new rural villages had to be chosen based on favourable conditions for the development of an inhabited centres, thus preferring slightly hilly, dry, and protected land from floods. The development area also had to be such as to be able to provide each family with a plot of land of about 800–1500m². Following the directives of the Ministry of Agriculture and Forests which in addition to providing for the survey of the terrain was also responsible for the study of the most suitable housing types for peasant families, the responsibility for the masterplans' design and related regulatory document for the new rural villages was appointed to the Ministry of Public Works. For each new rural settlement, the number of resident families, the number, and types of buildings, as well as the number of rooms composing each building had to be established specifying which among the new settlements could be object of future developments and enlargements. Moreover, independently from the cooperative development, each new rural village had to be equipped with an oven, a cobbler's and a tailor's shop, a public toilet, and a plot for the possible future construction of a small hotel. With respect to the very first new rural housing, they were simple, single family one-storey dwellings, made of bricks, adobe, or stone and had to be furnished with a room with a chimney and a toilet *allaturka*.⁷ The simplicity of the plan composition and rooms' arrangement, the volumes, and elevations, but especially the construction techniques, demonstrated



Fig. 2. The construction of the refectory of the elementary school in the village of Ballaban, Përmet, by means of voluntary labour initiative of the alumni and teachers. © inside cover, *Bujqësia Socialiste*, 9, 1968.

how, since the very beginning, they strongly related to, and relied on, the local traditional building experience while trying to respond to the needs of the new rural socio-economic-cultural life (Fig. 1).

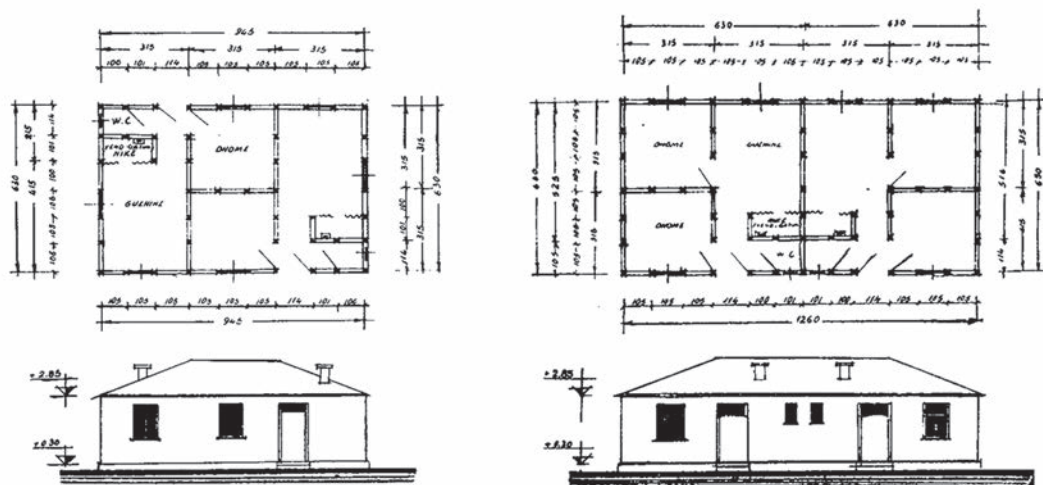
In the attempt to improve the living conditions of the peasantry, the Albanian architects had to materialise the communist ideology while responding to the fast pace of demographic growth, another consequent effect of the modernisation processes and policies of the countryside.⁸ Thus, in addition to the abovementioned one- or two-storey dwellings, small two- up to four-storey apartments blocks were introduced in the countryside landscape, especially in state-farm settlements, standing as a symbol of the reduction of differentials between town and countryside. By the 1955, Albania declared its society as an agrarian industrial society and at that time around 26110 dwellings were already built⁹, tracing the way to the creation of the new urbanised rurality. Furthermore, since introduction of the five-years plans the country was turned into a giant construction site and the urban and rural housing issues was addressed also through the introduction of the voluntary labour initiative (Fig. 2), not only as consequence of the late 1960s cultural-technological revolution, but also as regime's instrument to severely penalise the lives of people considered enemies of the state.

3. THE 'RATIONAL ESSENCE OF TRADITION' AND THE AESTHETIC PROBLEM

On May 6, 1971, in the dynamic implementation of socialism in Albania and twenty-seven years after the Liberation, the First National Meeting of the Albanian Architects was held in Tirana, organized by the Albanian Writers and Artists Association. Among the participants that took part in the debate there were representatives of the Party Central Committee's Politburo and the most representative architects, engineers, and urban planners of the Albanian context of that time. Before then, architecture was a matter of the political internal closed debate among the Ministries and the Party representatives. In the opening speech, the Ministry of Construction, the engineer Shinasi Dragoti, clearly stated which was the main responsibility of the new socialist architectural works in Albania:

*[they] must be characterized by the art and modern construction techniques applied with skill and dignity in adaptation to the real conditions of the country that is building socialism. They must preserve from generation to generation the stamp of the efforts and sweat of our people, who build socialism [...].*¹⁰

However, despite the glorious opening made by Dragoti,



Sokrat Mosko in its report highlighted a series of problems and concerns related to the inconsistencies of urban and countryside masterplans, the monotony of architectural volumes, the widespread tendency towards the elaboration of too schematic and arid architectural forms and compositions, the missing of a '*sense of measure and scale*' and the indifference towards the importance of aesthetics, the problems related to the standardisation process and the tendency to replicate buildings everywhere on the territory despite different local conditions.

We are dealing with a serious inconsistency of our architecture with regard to this problem related to residential constructions that primarily arises from the great shortcomings at the professional level of our architects, in the great workload that they have to bear [...], in the most suitable conditions that [still] should be created and in the most correct enhancement of architectural creativity, in the knowledge and appropriate use of standardization, as well as in some concepts and attitudes towards the problems of aesthetics in architecture.¹¹

the project design process and regulations. In this sense, the architects had to look at the inherited buildings where form, function and aesthetic were balanced and organically reflected in the building's fabric. According to him, in the traditional buildings of the past, architectural elements were both functional and beautiful, and consequently, aesthetic issues were conceived not as an addition, but as a necessity. In this sense, the new Albanian socialist architecture had to attempt to represent the developments of the new classless society, reflecting the communist ideology and the economic and technical improvements of the country, but still in continuity with its rich tradition.

The socialist ideals inspired by scientific, technological, and cultural progress pushed Albania towards a new urbanized rurality constantly in tension between tradition, nationalism, and socialism. Thus, the Albanian architects shaped a new modest housing architecture that sought to

temper the characteristics of local genius loci in the universal qualities of socialist modernism.

4. CONCLUSION

In this paper I have attempted at providing for an overall excursus on the Albanian planned socialist rurality in terms of architectural efforts in the rural housing sector. Indeed, this contribution cannot be considered exhaustive, but rather as a preamble to the further research questions I will address in my current MSCA-IF research project.

To sum up, three main phases might be identified: 1) early post-war rural housing constructions characterised by one- two-storey single houses built in bricks, adobe or stones in the reclaimed lands or in pre-existing villages; 2) the development and implementation of the so-called standardised projects [*projekt tip*], with the introduction of up to three- or four-storey apartments blocks or low-rise flats in the countryside built in bricks with cast-in-place concrete slab floors 3) the voluntary construction housing initiative developed since the late 1960s' cultural revolution.

As also stated by Hall, in the formulation of the new architectural and urban planning four objectives seemed to appear important: the reduction of socio-economic differentials within society and geographical regions in terms of rural/agricultural and industrial/urban; the granting of people's living standards and facilities in line with the socialist ideals; the reclamation and the enhancement of agricultural land and agricultural production; the study and the promotion of Albanian traditions and customs as well as the preservation of traditional architecture and archaeological finds.¹³ Of course, considering the socialist ideals, the emphasised roles of the latter were also ideologically explained as educational for the masses and representative of the glory of the past national culture and popular tradition.

Consequently, from this preliminary analysis emerges a clear tendency manifested by the Albanian architects, to deal with three main characteristics or values especially acknowledged to the inherited traditional architecture: the function, the construction/structure, and the aesthetic. Nevertheless, in responding to the impellent transformation of the country, those architectural values had to cope and dialogue with the introduction of mechanisation and standardisation processes, new building techniques and imported technologies, and socialist ideals for the building of a classless society, but also with increasing economic shortages and poor-quality building materials.

Interesting aspects affecting the overall Albanian architectural production relates to the fact that communism was experimented in and implemented by the most backward European society in the post-war period that, despite the socialist modernisation efforts, at the dawn of the regime's collapse still had the lowest level of urbanisation in Europe. Moreover, to corroborate the Albanian case within the main palimpsest of European modernisation processes imple-

mented in the field of architecture and urban planning, further studies should be carried out, considering the peculiarity of the Albanian communist architectural experience which, after the Sino-Albanian split in 1978, developed in a harsh self-reliant dictatorship context, trying to transmute and merge values from the past and socialist values into tangible architectural fact.

ACKNOWLEDGEMENTS

This article builds upon preliminary considerations stemming from the scientific research project that has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 896925. This contribution reflects only the author's view, and the EU Commission is not responsible for any use that may be made of the information it contains.

NOTES

- 1 E. Mëhilli, *From Stalin to Mao. Albania and the Socialist World*, 2017, Ithaca, Cornell University Press, 6
- 2 See among others, A. Stiller, *Albania — Decades of Architecture in Political Context, Catalogue of the exhibition, October 10th- November 22nd*, Wien, Mury Salzmann Verlag, 2019; D. Veizaj, et al., "Form follows ideology. The communist Albania — An almost unknown story", *Proceedings of the European Association for Urban History (EAUH) 14th International Conference, August 29th-September 1st*, Rome, 2018; R. Kodra, "Architectural monumentalism in transitional Albania", *Studia Ethnologica Croatica*, 29 (1), 2017, 193–223; O. Lelaj, *Nën shenjë e modernitetit*, Tirana, Pika pa sipërfaqe, 2015; O. Ndreçka, & F. Nepravishta, "The Impact of Socialist Realism in the Albanian Architecture in 1945–1990", *Architecture and Urban Planning*, 9, 2014, 27–32; D. Miço, "When 'Words Fall on Deaf Ears' — An Outline of Albania's Socialist Architecture", A. M. Zahariade, *Printed in Red. Architectural Writings during Communism*, Bucharest, "Ion Mincu" University of Architecture and Urbanism, 2013.
- 3 A. Cungi & J. F. M. Swinnen, "Albania's radical agrarian reform", *Economic Development and Cultural Change*, 47 (3), 1999, 606.
- 4 Establishment of a commission for the housing types for villages that are expected to be founded following the application of agrarian reform, 8 October 1945, AQSH, F. 499, v. 1945, dos. 37, fl. 1
- 5 In 1946, the land collectivization began on the plain areas and was extended to hilly and mountainous areas by the mid-1950s. At the same time, early in the 1950s, the firsts agricultural production cooperatives and state-farms were also established. The result of the collectivization process was the nationalization of all land in 1976.
- 6 Minute of the meeting of the commission for the drafting of regulatory plans for new villages, 9 August 1947, AQSH, F. 498, v. 1947, dos. 41, fl. 4.
- 7 Ibidem, fl. 6.
- 8 During the 1951–1955 period of early industrialization, the country's urban population increased by 52% and between 1970 and 1978 the high rural population growth rates represented the 72% of the national total increase. See: Derek R. Hall & Andrew H. Dawson, *Albania, Planning in Eastern Europe*, Croom Helm Series in Geography and Environment, London, Routledge, 1987, 45; Derek R. Hall, "Housing policy in Albania", J. A. A. Sillince, *Housing Policies in Eastern Europe and the Soviet Union*, London, Taylor & Francis, 1990, (Kindle edition).
- 9 Ibidem, 36.
- 10 Takimi Kombëtar i Arkitektëve, *Nëndori — Revistë e përmuajshme letrare-artistike shoqërore-politike*, 6 (18), 1971, 3.
- 11 S. Mosko, "Për një nivel më të lartë në krijimtarinë tonë urbanistike dhe arkitektonike", raport, *Nëndori — Revistë e përmuajshme letrare-artistike shoqërore-politike*, 6 (18), 1971, 18–19.
- 12 F. Alimehmeti, "Mbi disa veçori të banesës fshatare të zones fushore-kodrinore të Tiranës në vitet e para pas çlirimit", *Monumentet*, 1(31), Tirana, Instituti i Monumenteve të Kulturës, 1986, 116.
- 13 See Hall 1990, (Kindle edition).

Session 8-g

BEYOND THE DICHOTOMY OF GLOBAL AND LOCAL

Masaaki Iwamoto

Assistant Professor at Faculty of Design, Kyushu University

In the 1920s, even before Henry Russell Hitchcock and Philip Johnson defined the International Style at their exhibition at MoMA NY, the discourse of Regionalism had already emerged in Southwest US. From the 1930s to the 1950s, when the International Style spread from Europe to South America, Asia, and Africa, architects around the world immediately started to pursue so-called regional architecture. Internationalism and Regionalism were a pair of movements that progressed side by side. A perspective to view both sides equally is, therefore, essential to understanding the Modern Movement as a whole.

This session will present four critical studies of Global/Local Modernities. They are the challenges to give a new perspective on the relationship between the global and the local modernity, without falling into a conventional dichotomy.

"Erskine's Svappavaara: from modern Arctic town to global village" by Andrea Luciani of Luleå University of Technology and Ann Maudsley of ArkDes is a detailed historical study of Ralph Erskine's project for a cold climate. Erskine envisioned an ecological arctic town in Svappavaara, Sweden. The research reveals that the project was abandoned halfway, and what emerges here are the limits and failures of Global modernity. However, Luciani and Maudsley see the cultural value of the Svappavaara project in the tensions and contradictions of modern and contemporary society in itself.

"Orientalism, Standardization, Global Modernity: Ernst Neufert, Heino Engel, and 'the Japanese House'" by Nader Vossoughian of New York Institute of Technology brings to light how German architects, in promoting their standard of "octameter", consumed the Japanese carpenters' modular system ("shaku") in Orientalist Manner. The unique study

clearly reveals that Orientalism is latent in the global modernity of standardization.

"Destiny of the Modern movements in the postwar Southeast Asia - Relation between Modern nation and Modern architecture" by Shoichi Ota of Kyoto Institute of Technology includes various case studies in Indonesia, Cambodia, Malaysia, Thailand, Philippines, Myanmar, and Vietnam. By comparing and examining the postwar architecture in Southeast Asian countries, the distance from the Western powers emerges as a key to understand the post-colonial political landscape of the built environments. It is an ambitious study that reveals how the global trend of the Modern Movement, in the global political context of the Cold War, has created differences and commonalities in each ASEAN country.

"Local Modernism and Universal Aesthetics," by Susanne Bauer of the University of Westminster and Eliana Sousa Santos of the University of Coimbra, deals with the ongoing conflict between Global and Local modernities. By comparing the work of Álvaro Siza, Fumihiko Maki, Francis Kéré, and Peter Zumthor, architects from different regions and with very different artistic styles, the research goes beyond the conventional dichotomy of local modernism versus International Style.



ERSKINE'S SVAPPAVAARA: FROM MODERN ARCTIC TOWN TO GLOBAL VILLAGE

Andrea Luciani¹ and Ann Maudsley²

1 Department of Civil, Environmental and Natural Resources Engineering, Luleå University of Technology; Sweden; andrea.luciani@ltu.se

2 Senior Lecturer; Department of Strategic Sustainable Development, Blekinge Institute of Technology; SE-371 79 Karlskrona, Sweden; ann.maudsley@bth.se

ABSTRACT.

Svappavaara is a small Swedish mining town located above the Arctic Circle. Here, in the 1960s, Ralph Erskine had the opportunity to apply a scheme for a model Arctic town that he presented at CIAM '59.

The concept for adapting modern housing, and commercial and community uses, to the harsh subarctic climate, envisaged a south facing town, to maximise exposure to the sun. A sequence of wall buildings on the northern outskirts of the town shielded northern winds.

The only parts of Erskine's ambitious plan that he designed and that materialised were the 197 metres long wall building known as Ormen Långe (the Long Snake) and some smaller single-family houses.

Focusing on the history of the apartment block, Ormen Långe, this paper will show the tensions and struggles between a modern architectural utopia and a local peripheral context.

The shrinking population, together with a low appreciation and problematic maintenance, led to premature obsolescence of the building and half of it being demolished in 2010.

Since then, new users have appeared on the scene. Following the refugee crisis, a number of immigrants from all over the world moved to and are now living in Svappavaara, including Ormen Långe.

Even in its current mutilated condition, Ormen Långe is still a precious surviving element of Erskine's legacy in the northernmost part of Sweden.

1. INTRODUCTION

The village of Svappavaara is located in Sweden, north of the Arctic Circle. It is part of Kiruna Municipality, the northernmost and largest municipality in Sweden. This remote and sparsely populated area is characterised by rich natural resources and, since the mid-19th century, the mining industry has driven the economic development of the region, attracting people and investments from southern Sweden and abroad. The nearby towns of Kiruna and Malmberget host the world's two largest underground iron ore mines and the state-owned mining company LKAB, which operates the sites, mines around 80 percent of all iron ore in the European Union.¹

Mining activities started in Svappavaara in the 17th century with a small copper mine however, the remoteness of the site and its harsh climatic conditions made the activity hardly profitable and unsuccessful. Around 200 years later, mining operations in Svappavaara restarted with successful explorations and the decision by LKAB to open an iron ore mine there. The new mine, considered at the time to be the most modern and advanced in the world, opened in 1964, along with a newly built railway connecting it to Kiruna.²

With the establishment of the mine, the population of the village — characterised by one and two storey timber houses of varying age and quality — more than doubled between 1961 and 1964, from around 400 to 1,000 residents.³

To address Svappavaara's growth Kiruna Municipality and LKAB arranged a limited competition between invited architects in 1961 to prepare a plan for the town's expansion.⁴ The entry proposed by Ralph Erskine, "Ansikte mot söder" (Facing the South) received the final commission.

This paper will discuss the tensions and struggles between the difficult and incomplete implementation of Erskine's modern architectural utopia and the local peripheral context of Svappavaara.

2. RALPH ERSKINE AND SVAPPAVAARA: AN ARCTIC ARCHITECT FOR AN IDEAL ARCTIC TOWN

Throughout his long career spanning from the late 1930s until his death in 2005, Ralph Erskine (born 1914), built a reputation as an "Arctic Architect"⁵ specifically "of Modernism".⁶ Erskine, a newly graduated architect with an education in urban planning, left his homeland England, in the late 1930s, to "escape from English conservatism",⁷ moving to Sweden "to study Modernism in bloom"⁸ and begin working. He remained based in Sweden for the rest of his life, though worked on projects internationally, particularly in Sweden and England, but also in the 'North'. Early examples of his work (in collaboration with others) in northern Sweden include Avasjö Chapel (1947) and a ski hotel (1948) in Borgafjäll, Luleå shopping centre (1954) and apartments in Kiruna (1955).



Fig. 1. Ralph Erskine, Architect and Lars Harald Westman, Illustrator, *An Ecological Arctic Town*, 1958, Gouache and Pencil on Print. © ArkDes Collections ARKM. 1986-17-0362, unknown photographer, unknown year of the photograph.

By the mid-1950s Erskine's interests in the 'North', began to develop into planning and design recommendations for whole towns and urban quarters. Some of these were for imagined settlements, presented in a range of mediums from texts to plans and illustrations. *An Ecological Arctic Town* (1958 / Fig. 1), *Sub-Arctic town* (an ideal project for a community in a sub-Arctic climate, 1961), and *Arctic city summer and winter views*, are just some of visually striking representations of Erskine's ideal towns, north of the Arctic Circle. Erskine also gained international attention for his ideas around this time, through publications and presentations such as *Building in the Arctic* (1960); *The Sub-Arctic Habitat* (1961, the CIAM'59 in Otterlo publication); *Grammar in the North* (1963) and *Architecture and Town Planning in the North* (1968), and the conference seminar on northern settlement — problems and trends in Hanover N.H. — Dartmouth College (1969).⁹

Erskine's work also advanced from theoretical ideas into practical town planning schemes, some of which were built or partially completed. Notable examples of these projects include a proposal for central buildings in Kiruna (with

Peer-Ove Skånes, 1955, unbuilt), *Ortdrivaren* housing area with shops, offices and a church, again in Kiruna (with Peer-Ove Skånes, 1961), the interventions in Svappavaara, (with Aage Rosenvold and Peer-Ove Skånes, 1961, partially realised) and a new town in Resolute Bay, Canada (with Peer-Ove Skånes, Boris Culjat and Ian Elmes, 1973, partially realised). Later projects Erskine was involved in include schemes for Umeå, such as for a conference centre, hotel and sporting facilities (1980s, unbuilt) and a proposal for a multipurpose house and cultural centre in Luleå (1989–90, unbuilt). While these schemes are in different locations Erskine remarked that "[e]xperience in community planning in such remote and northerly climates is by no means superfluous knowledge...as climatic extremes, have basically the same theoretical solution".¹⁰

"Facing the South", and the urban plans that developed from this initial scheme for Svappavaara, throughout the 1960s, closely resembled Erskine's theoretical principles for model communities in the Arctic and subarctic. These namely focused on activating social interaction and adapting to extreme climatic conditions; long dark and cold winters and

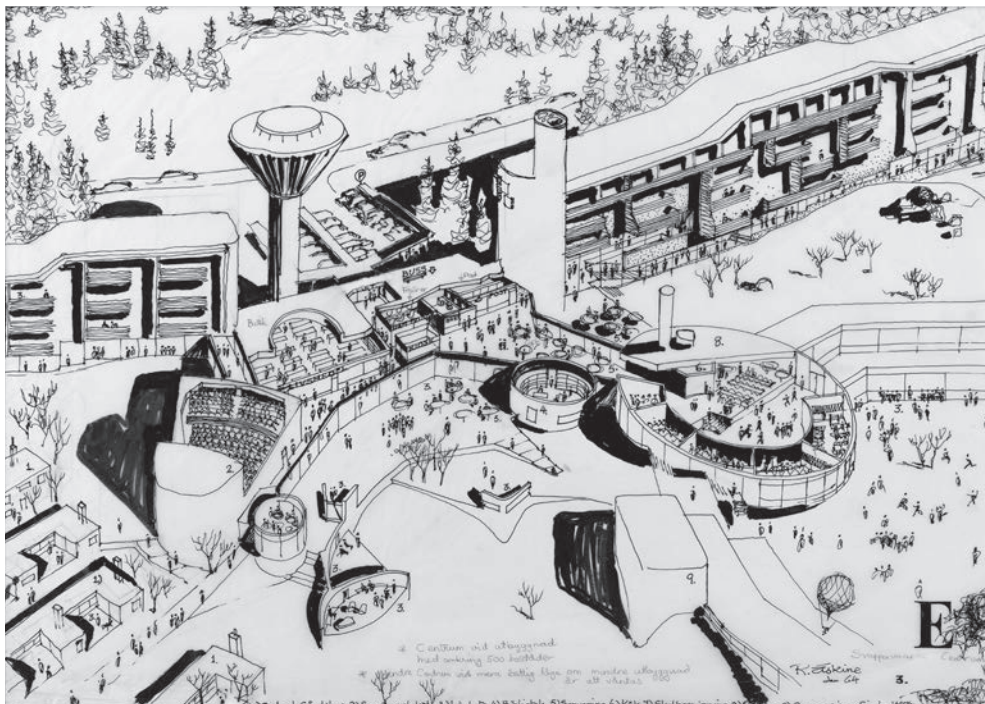


Fig. 2. Ralph Erskine, Svappavaara Centrum (Centre), Svappavaara, Sweden, 1964. © ArkDes Collections ARKM. 1986-17-0923-03, unknown photographer, unknown year of the photograph.



Fig. 3. Ralph Erskine, Architect, Ormen Långe, Svappavaara, Sweden, 1964-65, Silver Gelatin Print. © ArkDes Collections, ARKM. 1986-122-1184-02, Richard Einzig, Photographer, ca. 1965.

the midnight sun during summer. As reflected in its title, "Facing the South", showed Svappavaara as a dense bowl, sloping south, maximising solar access.¹¹ A continuous perimeter of wall buildings with housing, surrounding the town, was designed to protect it from northern winds and the midnight sun. Their ground floors were designed as internal streets; protected and naturally lit galleries running along the length of the buildings. A network of corridors, inner roads and sheltered paths connected community facilities, such as a school, a library, shops and a bus station (Fig. 2). Semi-detached terraced housing was also to be located within the confines of the walled perimeter buildings.

3. ARCHITECTURE FOR A COLD CLIMATE: ORMEN LÅNGE

Despite Erskine's ambitions, his plans for the expansion of Svappavaara, which were "a typical example of his growing idealism in the early 60s"¹², were only partially realised. Some private terrace housing/villas were constructed, and remain today. Other housing that materialised is the 197 metres long apartment building, Ormen Långe (the Long Snake / Fig. 3), the most evident remaining sign of those ambitions. Planned as part of the walled perimeter for the town, it was the only realised building of its typology. It was built as rented housing for LKAB workers and is today owned by Kiruna Bostäder, a housing subsidiary of Kiruna Municipality.

Erskine implemented many of the technical solutions he developed for adapting modern housing to the harsh



Fig. 4. Ralph Erskine, Architect, Ormen Långe, Svappavaara, Sweden, 1964–65, Svappavaara interior with children playing in a corridor. © ArkDes Collections ARKM. 1986-122-1194, unknown photographer, unknown year of the photograph.

cold climate. The building has smaller windows towards the north, while extended ribbon windows and balconies to the south are meant to catch the horizontal light and allow for the enjoyment of the sun as much as possible. The butterfly roof was specifically designed to retain dry snow as a thermal insulating layer, a solution inspired by nature and indigenous buildings. Snow and ice were prevented from falling to the ground while internal heated downpipes would not be blocked by ice. The roof's wooden coated eaves are also shaped to reduce wind.¹³

The ground floor hosts an internal street, connecting all the stairwells, which was meant for binding together different social uses (hobby rooms, laundries, day-care centres) and for facilitating “friendly meetings”¹⁴ in a well-lit and comfortable environment (Fig. 4). In the three storeys above this there are large apartments of up to four rooms while on the fifth and top level a north facing corridor connects smaller single room units.

The constructional characteristics are also notable: the prefabricated construction includes the use of both light concrete panels and plaster for the yellow painted façades. The eaves cladding and the front and side protection of the balconies are made of pine wood. The timber framed win-

dows are double or triple glazed for better thermal insulation.

4. A TROUBLED HISTORY

The complicated and problematic development of his urban plan and the slower than expected growth of Svappavaara, soon exposed Erskine's work to criticism. Already in 1964, the building was described as an “abnormal colossus”¹⁵ in local newspapers. The workers interviewed by Sara Lidman in her inquiry book “Gruva” (Mine) on the dramatic situation of Swedish miners, complained about the high rents, remoteness and lack of attractiveness of Svappavaara. They refer to Ormen Långe as “godless yellow corporate housing” and “a barrack, and even expensive”.¹⁶

In 1969 the Great Miners' Strike started in Svappavaara and soon extended all over the country. Miners demanded better working and living conditions but the situation did not improve. By the 1970s, the internal street Erskine had planned within Ormen Långe for “several services functions” and as “a sunlit meeting place” was instead “gravely mismanaged; no colour, no plants, no seats — only locked doors and bare concrete”.¹⁷ No connection was made to the

only services constructed, a shop, and a school that was ultimately designed by a different, local, architect.¹⁸ In 1977, it was reported that “in reality the ideal community turned out as a normal suburb lacking any sort of cultural facilities”.¹⁹

Several reasons can be attributed as to why Erskine's plans may never have been fully materialised. Workers in Svappavaara could commute from Vittangi or Kiruna, which had better facilities. Furthermore, LKAB had a reduced need for workers and was no longer interested in completing the project. Nor was Kiruna Municipality²⁰, who did not have the resources for any social responsibility. With around only 1000 inhabitants, the town was too small to attract commercial interest.²¹ Erskine was and should have been aware of some of these issues²², and that his plan would never be completed especially since the risk of this was highlighted in the competition conclusion statement.²³

In 1973, after he complained that his development plan for Svappavaara was mishandled and never completed the way he wanted, an open letter in a journal invited him to meet the inhabitants of Svappavaara and explain his views. As far as we know, the meeting never happened.²⁴

To make things even worse, a crisis hit LKAB's business from 1975, leading to the decision to end mining activities in Svappavaara in 1982, which in turn caused a shrinkage of population. Ormen Långe became a symbol of the decline as underuse and problematic maintenance led to premature obsolescence. Since the late 1990s, the eastern half of the building had been left empty and unheated, and in 2010 it was demolished.²⁵ Today just 46 of the original 88 apartments remain.

This happened despite the building beginning to gain official recognition by authorities for its cultural value: both Ormen Långe and the single-family villas were included in the 1995 inventory of Svappavaara's built cultural environment²⁶ and a cultural value assessment including a proposal for the protection of the building was made in 2000.²⁷ Today, Ormen Långe is described as “apartment house with high architectural values” in the official designation of Svappavaara as a site of national cultural interest.²⁸

The cultural value of the building will become even higher with the ongoing urban transformation in Kiruna. Due to subsidence caused by mining activities, part of the city is being demolished and partially relocated. When the neighbourhood Ortdrivaren and the apartment building ironically known as Idioten are demolished, Ormen Långe, and the single-family houses of Svappavaara will remain the only surviving Swedish examples of the application of Erskine's schemes for modern Arctic towns.

A further driver of change for Svappavaara and Ormen Långe, is the appearance of new users from all over the world. Following the 2015 refugee crisis, many immigrants and asylum seekers have been distributed all over Sweden. The low-rent apartments in Ormen Långe were attractive for these new actors, especially the single-room units on the

top floor. The Swedish Migration Agency even rented part of the building for a while to host asylum seekers.

5. DISCUSSION AND CONCLUSIONS

The critical situation Svappavaara and Ormen Långe are facing today, opens up the possibility to discuss and contextualise the legacy of Ralph Erskine, usually regarded as an architect deeply engaged with social issues and community involvement. As shown by Andersen²⁹, Erskine's theoretical thoughts evolved from a rather technocratic approach in his early Arctic projects to a more critical thinking that anticipated current discourse on social and environmental sustainability in architecture.

Other scholars have discussed the controversial outcomes of Erskine's projects in the ‘North’. Writing on Resolute Bay in Canada, Marcus³⁰ has shown the problematic impact of this project on the Inuit community living locally, despite an attempt to involve them in the design process. McGowan has highlighted an underlying colonialist attitude in the way Erskine's visions and schemes described and approached the Arctic region.³¹

The solutions developed by Erskine in Ormen Långe look like an adaptation of typical International Style materials and technical solutions rather than being inspired by the local context, nature, and indigenous construction traditions.

Looking at Erskine's vision for Svappavaara today, one may ask if the troubles he went through with his proposals are related more to the lack of commitment by LKAB and Kiruna Municipality or to his over-optimistic and utopian vision. As a matter of fact, the current problematic conditions of his surviving work testify the controversial dependency of the town on global economic cycles of resource extraction. It would be unrealistic to expect that Erskine's architecture and plans would be able to address or solve the disruptive consequences of these global processes at the local level.

Svappavaara and Ormen Långe represent the architectural materialisation of a modernist utopia in a local peripheral context, with its limits and failures. They also embody several tensions and contradictions of our contemporary society: the impacts of globalised processes on local contexts, the struggles of peripheral and sparsely populated areas, and the changes occurring in small communities due to migration. In our opinion, here specifically lies the cultural value of Svappavaara and Ormen Långe as modern heritage.

NOTES

- 1 Anonymous, *This is LKAB*, Luleå, LKAB, 2019.
- 2 Vv.Aa., *The book of LKAB*, Solna, LKAB 2015, 175.
- 3 Norrbottens Museum, "Ormen Långe, Svappavaara", accessed on January 24, 2020, <http://norbottensmuseum.se/kulturmiljoe/bebyggelse/kulturhistoriskt-intressanta-byggnader/kiruna-kommun/ormen-laenge-svappavaara.aspx>.
- 4 Mats Egelius, *Ralph Erskine, Architect*, J. Franks (trans.), Stockholm, Architect, Byggeförl. in conjunction with the Swedish Museum of Architecture [Arkitekturmuseet], 1990.
- 5 Diana Rowntree, "Arctic Architect", *The Guardian*, 8 April 1964, 9; Mats Egelius, "Ralph Erskine: The Human Architect", *Architectural Design*, 1977, 47, 11–12, 750–852; Mats Egelius, *Ralph Erskine, Arkitekt*, Stockholm Byggeförl. in conjunction with the Swedish Museum of Architecture [Arkitekturmuseet], 1988.
- 6 Jérémie Michael McGowan, "Ralph Erskine (Skiing) Architect", *Nordlit: Tidskrift i Litteratur Og Kultur*, 2008, 2, 1, 241–252, <https://septentrio.uit.no/index.php/nordlit/issue/view/135/showToc>.
- 7 Ralph Erskine, "The Sub-Arctic Habitat, Discussion", *CIAM '59 in Otterlo: Arbeitsgruppe Für Die Gestaltung Soziologischer Und Visueller Zusammenhänge*, edited by Oscar Newman, Stuttgart, Karl Krämer Verlag, 1961, 160–168, 161.
- 8 Mats Egelius, *Ralph Erskine, Architect*, translated by J. Franks, Stockholm, Architect, Byggeförl. in conjunction with the Swedish Museum of Architecture [Arkitekturmuseet], 1990, 8.
- 9 Ralph Erskine, *Development in Kiruna, North Sweden*, n.d., from the ArkDes collections; *Housing Estate at Kiruna, Sweden*, n.d., from the ArkDes collections; "Building in the Arctic", *Architectural Design*, May 1960, 216–217; "The Sub-Arctic Habitat, Discussion", *CIAM '59 in Otterlo: Arbeitsgruppe Für Die Gestaltung Soziologischer Und Visueller Zusammenhänge*, edited by Oscar Newman, Stuttgart, Karl Krämer Verlag, 1961, 160–168, 161; "Grammar for the North", *Perspective*, 1963, from the ArkDes collections; "Architecture and Town Planning in the North", *The Polar Record*, 1968, 14, 89, 165–171.
- 10 Betty Burnett, *Extract from ms. written by B. Burnett for 'Sweden Now'*, May 1975, from the ArkDes collections.
- 11 Author unknown, "Kiruna i veckan. Svappavaara igen", *Norrbottens Review*, 24 May 1969, from the ArkDes collections.
- 12 Mats Egelius, "Ralph Erskine: The Humane Architect", *Architectural Design*, 1977, 47, 11–12, 750–852.
- 13 Peter Collymore, *The Architecture of Ralph Erskine*, London, Academy Editions, 1994, 22–31.
- 14 Mats Egelius, *Ralph Erskine, Architect*, translated by J. Franks, Stockholm, Architect, Byggeförl. in conjunction with the Swedish Museum of Architecture [Arkitekturmuseet], 1990.
- 15 Author unknown, "Norrbottens längsta hus ska byggas i Svappavaara", *Norrländska Socialdemokraten Boden*, 21 February 1964, from the ArkDes collections; Author unknown "Rekordlångt bygg får kritik i norr", *S.T.*, 29 May 1964, from the ArkDes collections.
- 16 Sara Lidman, Odd Uhrbom (photographer) *Gruva*, Stockholm, Aldusserien, 1969, 60, 154.
- 17 Mats Egelius, "Ralph Erskine: The Humane Architect", *Architectural Design*, 1977, 47, 11–12, 750–852.
- 18 Gunilla Wettergren and Jan Strömdahl, "Lönsamhetskrav, cynism, romantik", *Arkitektidningen S.A.R.*, 1970, 16–17, from the ArkDes collections; Mats Egelius, "Ralph Erskine: The Humane Architect", *Architectural Design*, 1977, 47, 11–12, 750–852.
- 19 Mats Egelius, "Ralph Erskine: The Humane Architect", *Architectural Design*, 1977, 47, 11–12, 750–852.
- 20 Author unknown, *Neighbourhood unit for Svappavaara mining district, Kiruna, Northern Sweden*, n.d., from the ArkDes collections; Åsa Wall, "Rapport om boende i bolags-Norrländ", *Svenska Dagbladet*, 20 May 1973, from the ArkDes collections; Mats Egelius, "Ralph Erskine: The Humane Architect", *Architectural Design*, 1977, 47, 11–12, 750–852.
- 21 Mats Egelius, "Ralph Erskine: The Humane Architect", *Architectural Design*, 1977, 47, 11–12, 750–852.
- 22 Ralph Erskine, "Att Bo", Stockholm, 1963, from the ArkDes collections.
- 23 Mats Egelius, "Ralph Erskine: The Humane Architect", *Architectural Design*, 1977, 47, 11–12, 750–852.
- 24 Author unknown, *Brev till Ralph Erskine: Kom upp till Svappavaara, Norrländska Socialdemokraten*, 9 March 1973.
- 25 NSD, "Nu rivs (halva) Ormen långe", accessed on January 27, 2020, <https://www.nsd.se/nyheter/nu-rivs-halva-ormen-lange-5540056.aspx#commentform-5540056>
- 26 Kertin Nelje, Curt Persson, & Torsten Sidmalm, *Svappavaara. En Inventering av bebyggelse och kulturmiljöer*, Luleå, Norrbottens Museum, 1995. Norrbottens Museum Arkiv, fold. Svappavaara, Vol. FOBC: 4.
- 27 Agneta Engström, *Bedömning av kulturhistoriskt värde och förslag till skyddsföreskrifter Ormen långe, kv Bergsmannen 1, Svappavaara, Kiruna stad, Jukkasjärvi socken*, Norrbottens museum, 2000. Norrbottens museum dnr 2000/0677. Länsstyrelsen i Norrbotten dnr 221-11374-99.
- 28 Riksantikvarieämbetet, *Områden av riksintresse för kulturmiljövården i Norrbottens län (BD)*, 1997 (2010, 2019), accessed on January 27, 2020, https://www.raa.se/app/uploads/2020/01/BD_riksintressen.pdf.
- 29 Michael Asgaard Andersen, "The movement of thought in Erskine's writings", *Architecture Research Quarterly*, 18, 3, 245–255.
- 30 Alan Marcus, "Place With No Dawn: A town's evolution and Erskine's Arctic utopia", R. Windsor-Liscombe (ed.), *Architecture and the Canadian fabric* Toronto, 2011, UBC Press, 283–310.
- 31 Jérémie Michael McGowan, "Ralph Erskine, Colonist? Notes toward an Alternative History of Arctic Architecture", A. Müller (ed.) *Arctic Perspective Cahier No. 1: Architecture*, Ostfildern, 2010, Hatje Cantz Verlag.

ORIENTALISM, STANDARDIZATION, GLOBAL MODERNITY: ERNST NEUFERT, HEINO ENGEL, AND “THE JAPANESE HOUSE”

Nader Vossoughian

Associate Professor, New York Institute of Technology; 875 East 21 Street, Brooklyn, NY 11210 USA; nvossoug@nyit.edu

ABSTRACT.

It is well established today that German historians and researchers have not been immune to the lure of Orientalist discourses. This is despite Edward Said's famous assertion that Orientalism was primarily an Anglo-French project. According to Todd Kontje (2004), German Orientalists theorized the East as “both a site of modern colonization and ancient culture, Europe's closest and oldest Other, but also its spiritual mother.” Similarly, Sheldon Pollock (1993) has observed that it lent legitimacy to the Nazis' quest for *Lebensraum*. Both scholars see intimate links between the production of knowledge and the exercise of power in nineteenth and early twentieth-century Germany. They argue that the nation's limited participation in colonial enterprises did not preclude it from developing an orientalist tradition of its own. Orientalism, I argue here, manifested itself in writings by modern architects and engineers and not just philosophers, linguists, and artists. As I hope to show, it figured especially prominently in discussions about architectural standardization. Standards are among the principle means through which institutions and governments negotiate knowledge-power relations. They also remain one of the central vehicles through which writers Orientalize — and hence dehumanize — the Other. Here, I use the example of a standard sheet known as DIN 4172 to explore the relationship between Orientalism, standardization, and global modernity. In particular, I examine how two architects, Ernst Neufert and Heino Engel, instrumentalized Japanese architectural traditions in order to advance the cause of German nationalism and economic imperialism during and after World War II.

It is well established today that German historians and researchers have not been immune to the lure of Orientalist discourses and ideas. This is despite Edward Said's famous assertion that Orientalism was primarily an Anglo-French project. According to Todd Kontje (2004), German Orientalists theorized the East as “both a site of modern colonization and ancient culture, Europe's closest and oldest Other, but also its spiritual mother.”¹ Similarly, Sheldon Pollock (1993) has observed that it lent legitimacy to the Nazis' quest for *Lebensraum*.² Both scholars see intimate links between the production of knowledge and the exercise of power in nineteenth and early twentieth-century Germany. They argue that the nation's limited participation in colonial enterprises did not preclude it from developing an orientalist tradition of its own. Orientalism, I argue here, manifested itself in writings by modern architects and engineers and not just philosophers, linguists, and artists. As I hope to show, it figured especially prominently in discussions about architectural standardization. Standards are among the principle means through which institutions and governments negotiate knowledge-power relations. They also remain one of the central vehicles through which writers Orientalize — and hence dehumanize — the Other. Here, I use the example of a standard sheet known as DIN 4172 to explore the relationship between Orientalism and standardization. In particular, I examine how two architects, Ernst Neufert and Heino Engel, instrumentalized Japanese architectural traditions in order to advance the cause of German nationalism and economic imperialism during and after World War II.

To explore the thesis above, a description of DIN 4172 is in order. As I have pointed out elsewhere (2016), DIN 4172 is a standard that the West German government used to regulate the dimensional coordination of prefabricated building

components, everything from apartment door sizes and ceiling heights to brick sizes, kitchen area dimensions, door sizes, and window sizes, during the 1950s and '60s.³ It never gained substantial traction internationally. However, its promoters hoped that it would be adopted by builders around the world. Hitler's architect Albert Speer was one of DIN 4172's earliest backers, especially in its early phases. He felt that officials should use it to regulate the pricing of goods, manage quality, suppress labor costs, stimulate industrial growth, and assure a higher degree of compatibility between individual building components. He saw standardization as a useful instrument of militarization, one that would further the goals of Hitler's Four-Year Plan. He also saw it as a tool of social control: according to him, standards could govern how workers behave and how products were manufactured. DIN 4172 reflected the growing power that administrative elites, *Verwaltungsingenieure*, wielded in Germany during the course of the twentieth century. It streamlined lines of communication with private sector partners. It grew out of Prussian Germany's long-standing bureaucratic traditions. It was designed to stimulate industrialization and mechanization within the building industry, thereby serving the goals of efficiency. It promised to give to give German manufacturers an outlet their mass-produced goods.

The main premise behind DIN 4172 was the notion that grids ought to be used to regulate the design and construction of buildings. Each square module within the grid should furthermore measure one-eighth of one meter or one “octameter.” By using such a grid, it was felt that architects and builders would make fewer errors, which was important given it was conceived during a time of war. It could also ease the task of training and replacing workers, which

had to be born in mind given the Nazis' heavy reliance on slave labor. It was believed that DIN 4172 would improve lines of communication between workers on the construction site, who, during World War II, spoke a variety of different languages. It would allow building foremen to execute drawings without constantly referring back to floor plans, thereby saving time. It eased the task of carrying out quick mental calculations as well: this is because it proposed dividing the standard meter into eighths rather than tenths. Eight is a number that you can halve even three times.

During the 1940s, during a time when it was heavily debated in professional journals and standards committee meetings, critics often asserted that DIN 4172 was driven by economic imperatives alone, that it hampered artistic freedom, destroyed individuality, and lacked flexibility. Orientalism (among other discourses) was used to deflect such criticism, and I will explain why by way of a few short excerpts from the writings of Ernst Neufert and Heino Engel. Biographically speaking, Neufert was the author of the *Bauentwurfslehre*, arguably the most influential standards handbook in the world today. A Bauhaus student and former protégé to Walter Gropius, he him for Albert Speer for a period of roughly eight years. Speer placed Neufert in charge of standardizing and typifying a variety of industrial and residential building types, from camp barracks to bunkers, from social housing structures to factory buildings. Engel, meanwhile, worked for Neufert after World War II. He studied with him at the University of Darmstadt. Little more is known.

Neufert offered his most vocal defense of the octameter — a module that gained institution recognition through a standard known as DIN 4172 — in the *Bauordnungslehre*, which appeared in 1943. The book's main goal was to document the many benefits that Neufert's theory of dimensional coordination afforded the German building industry. The most important chapters for our purposes concern those that compare and contrast modular systems of construction in Germany and Japan. It is precisely upon these pages I would linger for a moment here, because they exemplify some of the ways in which architects appropriated Orientalist discourses in order to advance their theories of standardization during World War II. We must remember here that Germany and Japan looked upon one another as Allies for all of World War II. Although official Nazi doctrine described all Asians as racially inferior, the two countries enjoyed close cultural and economic ties since the start of the Meiji period in 1868. Japan industrialized manufacturing along German lines. As in Germany, corporate cartels tended to exert an outsized role in economic affairs. In the *Bauordnungslehre*, Neufert describes the Japanese as the "Prussians' of the East"⁴, as though they had no independent identity of their own. He explains that their contemporary systems of standardization are inadequate to the needs of Europeans, who, he says, are much taller and wider. He emphasizes that his own octameter (and its industrial variants) find a counter-

part in the modules that Japanese carpenters once house used in building dwellings for shogun warriors:

*This module measuring 8 Shaku = 2.424 meters or rather ½ Shaku = 1.212 meters is so close to the English-American module of 1.22 meter, and our own Shelter Module of 1.25 meters, as well as our Industrial Building Module of 2.5 meters, that we can even speak of a practical agreement [between the two systems].*⁵

This passage suggests that the octameter did not emerge *ex nihilo*, that it was not a response to economic necessity alone. Here, we are given to believe that the Japanese Shaku is to be seen as a prehistorical ancestor to the octameter — an Orientalist trope if ever there were one. In Hegelian fashion, the octameter is described (however indirectly) as a universal force that subsumes all other systems of standardization. 125 millimeters, 1/8th of one meter, is presented as the magical number that number swallows all other numbers.

The Nazis lost World War II, and Speer was never able to realize his goal of coordinating the prefabrication of building components around the world. The German conquest of *Lebensraum* went up in flames, Hitler committed suicide, and Germany was forced to subordinate itself, economically but also politically, to the will of the Allies. Knowledge of Nazi atrocities grew, albeit gradually, stirring deep-seated feelings of shame and regret. Finally, Neufert had to rethink his plan of achieving global domination anew. In the end, he never abandoned trying to internationalize his Octametric System — or DIN 4172 for that matter. Still, he left its future to a younger generation. One architect who took up his globalizing cause was Heino Engel. I turn my attention now to his book *Measure and Construction of the Japanese House* (1964) because it makes evident the powerful connection between power and knowledge discourses in twentieth-century architectural history. Although it was written long after the conclusion of the war, its arguments maintain the strongly Orientalist flavor of the *Bauordnungslehre*.

Engel worked:

*studied architecture at Darmstadt Technical University in Germany following World War II. In 1952, then 27 and already chief architect in the office of Ernst Neufert, he left the country to gain new experience and perspective abroad.*⁶

Engel spent three years living and studying in Japan. He was probably instrumental in bringing Neufert to lecture at the University of Kyoto in 1955. His *Measure and Construction of the Japanese House*, taken mostly from *The Japanese House* (1964), offers a detailed account of constructional systems and standardized residential architecture in pre-industrial Japan. There are a number of ways in which it instrumentalizes and Orientalizes Japanese architectural history. I list a few of them here.

As with many orientalist histories, it treats its subject as

a monolith. “The Japanese House” is depicted as something that stands outside time, disconnected from historical particulars. As a group, the Japanese are portrayed in a manner that directly recalls Nazi-era racial theories. They are described as types rather than individuals, and their physiognomies are caricatured and generalized in ways that bear little to no relationship to embodied persons. Engel’s language is essentializing and objectifying in the extreme: “the dominant Japanese physical type is Mongoloid”, he writes. “In relation to the total figure height, the head is large and the limbs are short; also, the face clearly manifests the Mongolian type.”⁷ The drawings of men and women that he includes at the beginning of his book represent a rather obvious reference to the ideal man appearing in the Neufert. Moreover, these figures are presented in stereotypically “Japanese” poses — the woman mimicking the seated position of a female server during a Japanese tea ceremony; the male, sitting cross-legged, as though in a state of Zen-like inward contemplation. The illustrations contained in the book lack graphic contextualization — they resemble entries in trade catalogs rather than actual historical precedents. For all its attention to detail, the author appears more interested in emphasizing the contemporaneity of his subject than he is in its historicity. Along these lines, it bears noting that many of the measurements of “traditional” Japanese homes are in fact multiples of octametric units. In a 1960 issue of *Bauwelt*, Engel went so far as to state that a primary theoretical concern of his own was to reimagine the history of modular construction along octametric lines. (He emphasizes here that the Japanese architect and standards specialist Kyoshi Ikebe reached the same fundamental conclusion.) He viewed Japanese architecture as but an extension of German systems of standardization.

*...through Ernst Neufert's lectures, which he presented at the invitation of the University of Kyoto in April 1955, interest turned to the foundations of standardization in Germany, and the author [Heino Engel] was asked... to offer a comparative reflection on various systems of dimensional coordination in modern architecture. In this essay, the author tried to establish links between various national and international systems of standardization. A few connections between the old Japanese systems of dimensional coordination were made established with the Octametric System and the possibility was therefore created, to transfer the advantages of the tradition of standardization to a new octametric one.*⁸

Engel’s remarks here have a strongly colonial feel. What is even more striking is the extent to which his account of Japanese architecture remains influential in architecture schools today. I view it as a byproduct of an Orientalizing impulse, one in which non-Western and, especially, Japanese precedents were used to universalize German understandings of standardization and modular coordination. It establishes in quite powerful terms a link between standardiza-

tion and Orientalism that we are only beginning to understand today.

NOTES

- 1 Todd Kontje, *German Orientalisms* (Ann Arbor: University of Michigan Press, 2004), 65f.
- 2 S. Pollock, “Deep Orientalism? Notes on Sanskrit and Power Beyond the Raj”, *Orientalism and the Postcolonial Predicament: Perspectives on South Asia*, Philadelphia, University of Pennsylvania Press, 1993, 76–133.
- 3 Nader Vossoughian, “From A4 Paper to the Octametric Brick: Ernst Neufert and the Geopolitics of Standardisation in Nazi Germany.” *Journal of Architecture* 20:4, August 2015, 675–698.
- 4 Ernst Neufert, *Bauordnungslehre*, Preface by Albert Speer, Amsterdam, Reich & Volk Verlag, 1943, 75.
- 5 *Bauordnungslehre*, 82.
- 6 Heino Engel, *Measure and Construction of the Japanese House*, Tuttle: North Clarendon, VT, 1985, rear cover.
- 7 *Measure and Construction of the Japanese House*, 19–20.
- 8 Heino Engel, “Das Oktameter System in Japan”, *Bauwelt* 11, March 14, 1960, 290.

DESTINY OF THE MODERN MOVEMENTS IN POSTWAR SOUTHEAST ASIA — RELATION BETWEEN MODERN NATION AND MODERN ARCHITECTURE

Shoichi Ota

Kyoto Institute of Technology; Matsugasaki-Hashigami-cho, Sakyo-ku, Kyoto, Japan; shoichi@kit.ac.jp

ABSTRACT.

In the aftermath of WWII and following struggles, many countries in Southeast Asia had got their independence. In the 1950s, architects of the pioneer generation in these countries embodied the newly-born nations. Modernism then flourished in these countries. Such as Friedrich Silaban in Indonesia, Vann Moly vann in Cambodia, etc., national architects started their carrier at the same time. At this moment, Asian nations were able to dream about a brilliant tomorrow. Nevertheless, several years after, dark and thick clouds began to cover their activities. Silaban's project remained uncompleted, or iconographic architectural trend by People's party in Thailand was ceased due to the Coup d'Etat caused by military personnel. Curiously enough, each and every architectural modern movement in these countries was confronted with such difficulties almost at the same time in 1950s to '60s. What then happened there? This paper will try to explore reason(s) of the events regarding the historical context of the period. Once Asian modernists drew bright and innocent futures, idealistic functionalism would include some fragility all because of its modernity. Namely, it is a crisis that one sort of modernism would be absorbed to another greater modern — a modern called "nation state". Independent Asian countries all aimed to be a nation state, which based on self-determination of entity with its people, land, or common language. However, all these elements of nation state are merely inventions of Modern Europe. As the notion of architecture was delivered there in the same way, co-operation of modern nation and modern architecture occurred. Through the analysis on the relation between the two sorts of modernity, this paper will examine an inevitable destiny of modern architectural movements in the postwar Southeast Asia.

1. INTRODUCTION

Recent research works on modern architecture in Southeast Asia have been remarkably developed internationally or domestically in each country. Thanks to these efforts, architectural works of outstanding characters or prominent architects are identified in the context of modern architectural history in each country's modern era. What is modern is different from country to country, such as it resulted from colonial period, or initiated by the import of modern movement from foreign region. In the genealogy of architectural design, assorted timeline of transition of architectural styles, from Neo-Classicism to Art Deco or International style, can more or less be traced in every country. These chronological mappings of the styles in the modern era are almost the same as it would be found worldwide, however, their visages are various. Developing process of modernism in these countries was reflected the countries' domestic conditions. Nevertheless, the gap between architectural styles, whether it is the beginning of the modern or the end of the modern, can be observed almost at the same time. Why this phenomenon happened? This paper will try to explore its reason, focusing on the relation between politics and design.

In the following part of this paper, modernism in architecture are in the first place related to the form, such as geometric, non-decorative and simple, or universal space realized in the modern movement architecture, but also its spirit toward morphology should be questioned. On the other hand, modernism in politics will be found its sincere attitude to nation-building, on the contrary to development dictatorship with concession-leading or military-dictation gov-

ernance.

2. COOPERATIVE OF ARCHITECTURE AND POLITICS IN THE NAME OF MODERNISM

2.1. The Hero and the Architect — The Case of Indonesia

After the end of WWII, among newly independent countries modernist design flourished especially in the urban scene of their capital cities. The forerunner of this movement in the region is Indonesia. Responding the defeat of Japan and through succeeding struggle against returned colonialist Dutch, Indonesia accomplished its independence. The first president Sukarno intended to display the capital city Jakarta with freshly designed monuments as his political stage. This task was commissioned to Frederik Silaban¹, future national architect trained in Holland and his works includes Masjid Istiqlal or National Mosque (Fig. 1), the then biggest one in the region, or Bank of Indonesia, both of which were designed in modernist ways. The silhouettes of these monuments surely gave quite refreshing impressions demarked from conventional colonial architecture. Silaban had successfully got the opportunity to design the three national monuments, by all his own effort winning the design competition, but the third one, the National Monument, was not based on his design.² As widely known, Sukarno himself was a certificated architect, graduated from Bandung Technological School, and he interrupted the Silaban's one. Here the capital city turned into his canvas and Silaban had the role to realize the president's vision. It could be said that Sukarno made efficient use of architecture to appeal his presence. Despite his beautiful presentation, he came to be accused of corruption. Some buildings in



Fig. 1. Fredrik Silaban, Masjid Istiqlal. © Shoichi Ota.

his preferred design, such as Hotel Indonesia or Sarina department store, were regarded the embodiments of his wasteful habitat and appropriated economy.

At that time, Sukarno took his Guided Democracy approaching to USSR and China, consequently nicknamed as Red Sukarno. The result was the outbreak of the 9.30 incident, followed by his resignation and extermination of communist party. The next president Suharto stood as anti-communist and pro-American to accept abundant aids from the West bloc.³ His attitude to the capital city was contrasted to the first president.⁴ His gaze went into the suburban area, where housing complexes were to be developed. In this manner Suharto intended to establish developmental dictatorship, while indifferent design for mass housing or conventional ethnic style for institutional buildings spread out over the country. In either case, modernism had gone from this nation.

2.2. Royal initiative and Architect — The case of Cambodia

In Cambodia where independence gained in 1953, its capital city was decorated with Modernist architecture. Here the top of the state was HRH Sihanouk and his creator

was Van Molyvann⁵, a young architect graduated from Ecole des Beaux-Arts in Paris. He became principal architect in the government and advocated New Khmer Architecture movement aiming to unify the traditional and the modern. His design gave a vivid contrast against French colonial cityscape. Sihanouk himself was famous for his affection to arts, making films or lyric dramas. Collaboration of the two was realized at National Theater, designed by Van Molyvann, who created here the stage for the leader.

Sihanouk directory governed the state, even ceded the throne to his father to establish his supporting structure, Sangkum Reastr Niyum or popular socialist community. Here the architect joined this structure to design Sangkum exhibition centers. Sihanouk's political attitude accepting communism was targeted by Super Power. In March 1970, while Sihanouk traveled abroad, coup d'état broke out and Lon Nol's pro-American regime gained power.⁶ Van Molyvann, who co-worked with Sihanouk not only in architectural works but also in his cabinet, could not secure himself to evacuate from the country.

2.3. Political Stability and Architecture — The Case of Malaysia

In Malayan Federation, which got out of British colonial

rule, the capital city Kuala Lumpur showed new look with modernist architecture. Different from the two cases above mentioned, this movement was realized by several architects associated in the Public Works Department.⁷ As the political leader, the first prime minister Tunku Abdul Raman backboned this movement. In 1957 national independence was declared by Tunku with his impressive posing of raising right fist at the Merdeka Stadium, which realized by a PWD architect Stanley E. Jewks with thin concrete shell and four corner pylons. The structure embodied new nation's modernity, and Tunku later called the stadium "the shrine of our Independence".⁸ His government understood the use of architecture proceeding to erect national monuments. The next work, indoor stadium, was realized by the same combination of Tunku and Jewks to accommodate sports events. For Tunku, who himself was a sportsman, unifying the nation by sports was envisioned, and for the architect, his intention was to create Acropolis at the center of the capital city.

Another monumental building, the Parliament House basically hired modernist design but to show different tendency to capture traditional motif of triangle roof shape, while architect W. Ivor Shipley gave it an explanation only in functional aspect. This attitude to representation of Malayan tradition was reflected at the National Museum in apparent shape. Tunku himself accompanied the architect to see indigenous architecture in several areas of the nation. This resulted in the big gable roof of visible traditional form, which showcased governmental priority of Malayan ethnic toward Chinese or Indian. The ethnic issue was originated in British colonial rule, resulted in crucial state of ethnic assaults. Due to serious confusion Tunku was dismissed and the age of Modernism was ceased. Thereafter in this nation, architecture tended to wear visible symbolism of Malay or Islam.

3. GAP BETWEEN ARCHITECTURE AND POLITICS IN EACH MODERNISM

3.1. When Modernism Arose — The Case of Thailand

Thailand has never received colonial rule so that it did not experience struggle for independence after WWII but had its own turning point in the political history. Coincidentally Thai modern architecture also changed its direction.

Since the Constitutional Revolution in 1932, Thailand was ruled by People's party regime. At that time Art Deco style was dominant in architectural design. As the nature of this style, remaining taste of historicism could be found there.

In 1957, a coup occurred by military personnel and military regime was initiated. This shift in political scene affected to architectural design, as the new regime was pro-American and brought American style. In comparison to People's party, which was in power before 1957 and had concern to display the cityscape⁹, such as Ratchadamnoen Avenue, the

military regime seemed indifferent to architectural representation. A good example was the Parliament house.¹⁰ Its design followed modernist style without any political appeal. Likewise, modernist architecture was spread here as non-political one and suitable to modern lifestyle of new citizen.

3.2. Complicity of Architecture and Politics — The Case of Philippine

The Philippines was once colonized by USA and as soon as the end of WWII, in 1946, independence was given. The postwar rehabilitation plan required quick and efficient arrangement of construction so that functionalism of architecture was smoothly introduced to the country. The government also promoted modernist architecture as a symbol of postwar rehabilitation to send a mission of architects and engineers to USA or Latin America with their initial task to design the capitol complex.¹¹ On their return, novel design projects such as Liberal arts building of the Philippine University, influenced by Oscar Niemeyer, or the city planning of the new capital city Quezon were presented¹², however, these ambitious programs were postponed due to government's insufficient budget. It was the time to await to welcome a powerful leader for realizing bigger scale projects.

Ferdinando Marcos took the regime for considerably longer period to be regarded today as a typical case of developmental dictatorship, on the other hand he also focused on cultural policy to make use of traditional culture for the national integration. Leandro Locsin conducted large-scale works at that time. During the trip to USA, inspired by the works of Paul Rudolph or Eero Saarinen, his design dramatically hired geometric forms to be called as the "Poet of Space".¹³ His masterpiece of the Cultural Center of the Philippines is quite impressive with the then first lady Imelda Marcos smiling in front in her portrait, which eloquently displays the mood of the time. The architect could realize it on these backups.

3.3. Balanced Modernism — The Case of Myanmar

Until recently, Myanmar was governed by military regime, also its pathway till then turned and twisted. Opposite to Japanese military regime in the WWII, General Aung San, the Founding Father of the nation, had an inclination of anti-Imperialism and anti-Capitalism of left-wing socialists. Following his sudden death, U Nu achieved the independence.

He became the first prime minister, directing the nation taking the balance in-between, successfully enough it could receive the gift from both sides. From USA, higher educational institutes were established in Rangoon, such as the Medical College (Fig. 2) and Technical School, both of which were designed by British architect Raglan Squire. Modernist design of clear geometric form intimidated to dismiss colonial architecture. For the national religion of Buddhism Tripitaka Library was designed by American architect Benjamin



Fig. 2. Raglan Squire, Medical Collage. © Shoichi Ota.

Polk. On the other hand, from USSR, After Khrushchev's visit his presents were given and among them were Inya Lake Hotel and Rangoon Institute of Technology.¹⁴ Displaying Communist architecture and Capitalist architecture at the same time was a spectacle in the present time, yet the politics owing to this could not be stable for longer period. The political parties could not appropriately control the domestic issues such as measures for Communist or ethnic issues, consequently drawing political confusion, which trigger the coup by the Military force. Modernism was then gone. As for Burmese architect, the reconstruction of Rangoon railway station was an example then, still in eclectic methodology. Modernist taste in architectural expression might be found at the Martyrs' Mausoleum¹⁵ in the later years.

4. ON THE FRONTLINE OF HOT WAR — WHERE MODERNISM OF EACH SIDE ENCOUNTERED — IN THE CASE OF NORTH AND SOUTH VIETNAM

If the confrontation between the East and the West brought architectural transition, Vietnam should be on the frontline. Actually, the trends of both sides surely merged here.

In the North Vietnam, as early as its independence USSR's advisories arrived there to leave a commemorative

edifice. The Polytechnic Collage of Hanoi fostered Functionalist architecture of light and novel RC structure with straight-lined forms.¹⁶ In this country where architectural education, including indigenous people, was conducted at the local institution, a sort of modernist design was detected before WWII, in 1930s to '40s. As it was also in the metropole, it wore Historicism taste and succession from Art Deco. In this context, Modernism from USSR showed an upright departure from the past.

On the other hand, in South Vietnam, USA's aid donated a series of large-scale institutions. Cho Lai Hospital or Science Library are among them in Functionalism architecture. The National architect of the country was Ngo Viet Thu, who received the Roman Prize at Ecole des Beaux-Arts in Paris, commissioned to design the Presidential Palace (Fig. 3). This was a bit taste of historicism composition with symmetric structure.

In either way, modernism was introduced in the both countries, however, this trend could not observe in the unified nation. The South turned to be a lost world, while the North, despite the enhanced mood of the Unification, suffered from serious economic crisis, checking out the architecture away from innovative mind. Even the economic situation was equally hard, the architects in the Anti-France period could realize rustic modernism with the least availa-



Fig. 3. Ngô Viết Thụ, the Presidential Palace. © Shoichi Ota.

ble materials and methods under the political guidance of Ho Chi Minh.¹⁷ Again, regarding the nation after the Unification, the architects in the course of this ultimate goal would devote themselves to a single objective. Here the modernism in architecture would be captured into greater entity, the modernism in the nation.

5. CONCLUSION — WHEN MODERNISM FLOURISHED

Regarding the domestic situation of each country, the birth of modernism in architectural design in each country was almost coincided. Nevertheless, its background varied in wide range.

In Indonesia and Cambodia, the national architect tagged with the national leader created novel visage of the newly born nation. In Malaysia, architects belonging to PWD erected the stage for the independence. However, these wishful works were all forced to be ceased in the middle of the way. Equally in these nations observed is the withdrawal of the nation's leader. Sukarno and Sihanouk both are famous as art-lover whilst Tunku would also comprehend the use of modernism. The national projects patronized by politics was accordingly affected by their patrons. Either in Indonesia or in Cambodia, the outbreak of coups

caused abandonment of cooperation with communist. Instead, the next regime was always an anti-communist and pro-American. Whether Suharto or Lon Nol, they were neither highbrow nor comprehensive to architectural design but power-oriented ones of military personnel backboned by USA.

Also in Thailand, intervention of USA was decisive to its politics and architecture. The time of National modernism can be found prior to the coup. Architectural design of this time was remnant of historicism, which was curiously or naturally coincided with the modest political scene between the Constitutional Revolution and the Coup d'état. Rather in the time of the military regime, geometrical and non-decorative form of modernist design can be found. Thai modernism would be characterized as the divergence between intentional modernism and shaped modernism.

American way of diplomacy would differ against British rule.¹⁸ Surely enough, Britain, the former suzerain of Malaya, had affinity to USA. Malaysia, the successive form of the Malayan Federation, also suffered from political change, but in this case caused by racial problem. Britain severely oppressed the Malayan communist party, the then biggest one in the region, after WWII so that communism was almost ceased here. On the contrary, the racial problem, which was

a legacy of British colonial rule along with RIBA's certification, became fatal to Malaysia, concluding to nation's division. In the meantime, Malaysia could learn latest mode of the time, which would flourish after its independence and succeeded to its torn-off land of Singapore. In this sense Singapore is born-to-be modern.

As a former British colony, Burma showed a contrast. It gained independence with remaining pro-communist party, and the national leader would keep balance between East and West blocs. Due to this difficult navigation, the politic system soon collapsed to give way to military regime. What then was USA doing? To the British ruling area, USA had a different attitude, without one-sided intervention.

If so, how was Philippine, once colonized by USA? It had learned much, for enough duration from USA, and breaded its modernism. Even in its independent period, the country introduced modernist design. The time before the presence of Locsin would be a run way till then.

Despite of comprehensive condition of each country, this preliminary story can be made based on the distance from USA. In these countries, because of its closer position to the politics, architectural modernism would be either flourished or pinched off. In Southeast Asian countries, although modernism in architectural design showed the similar expression, its background behind the scene widely differed. In the Post-WWII era, several year's difference of the emergence of this style would result to the difference of its meanings, namely its modernism in its spirit. Naturally there's some differences between the modernist architecture presented as a symbol of the departure from its ancient regime and the one merely synchronized with the international trends.

Setting a linkage between politics and architectural design would only be possible in the limited sphere of Southeast Asia in Cold War period. At that time leaders and architects were seated side by side at progressive cultural salon, whose atmosphere stimulated ethnic consciousness or architectural expression. Also, this region was the geographical space which included frontline between East bloc and West bloc. And its peak time could be found in late '50s to '60s, the period the Cold War was accelerated. That was the time when the relation with the international Super Power would crucially affect to their political scene, so that some countries were suffered from political changes and others were endorsed in their regime, consequently urban scape in Southeast Asia reflected its political situation.

The analysis in this paper is uncompleted as it does not show the exit. In the aftermath, what happened in '80s? When the time of independence became a distant incident, architectural trend came into Postmodern movement. Before that, what is modernism in architecture or in politics? Even in this paper provisionally defined, this quest should be raised continuously.

REFERENCES

- KUSNO, Abidin, *Behind the Postcolonial*, Routledge, 2000.
 SOPANDI, Setiadi, *Friedrich Silaban*, Avianti Armand, 2017.
 Reyum Institute of Arts and Culture, *Cultures of Independence: An Introduction to Cambodian Fine Arts and Culture in the 1950's and 1960's*, Art Media Resources Ltd, 2002.
 a+u 17:12 (No. 567), Vann Molyvann 1926–2017, a+u publishing, 2017.
 CHEE KIEN, Lai, *Building Merdeka: Independence Architecture in Kuala Lumpur, 1957–1966*, Petronas, 2007.
 WONG, Ka F. *Visions of a Nation: Public Monuments in Twentieth-Century Thailand*, White Lotus, 2006.
 NOOBANJONG, Koompong, *The Aesthetics of Power: Architecture, Modernity, and Identity from Siam to Thailand*, White Lotus, 2013.
 LICO, Gerard, *Arkitekturang Filipino: A History of Architecture and Urbanism in the Philippines*, University of the Philippines Press, 2010.
 CHANG, Jiat-Hwee, *Southeast Asia's Modern Architecture: Questions of Translocation, Epistemology and Power*, National University of Singapore Press, 2018.

NOTES

- About Silaban's works and, Setiadi Sopandi, "Modern Indonesian Architecture: a Cultural Discourse", *Modern Southeast Asia* docomomo journal No. 57, 2017, 20–29.
- Ibid.
- Isao Yamazaki, "Indonesia Mikan no Minzokukakumei (Indonesia's Uncompleted National revolution)", *Lecture on the history of Southeast Asia Vol. 8*, Iwanami Publishing, 2002, 85–116 (山崎功「インドネシア未完の民族革命—独立宣言からスカルノ末期まで」『岩波講座東南アジア史』第8巻、岩波書店、2002年、85–116頁)。
- Kenichiro Arai, *Shuto wo tsukuru (Making a capital city)*, Tokai Univ. press, 2012 (新井健一郎「首都をつくる」、東海大学出版会、2012年)。
- Reyum (2002), Masaaki Iwamoto, "Vann Molyvann in Paris: or, How a Mediator between the Modern and Tradition was Born", *a+u*, No. 567, 20–27.
- Iwasaki Ikuo, *Nyumon Tounanazia Kingendaishi (Introduction to Modern and Contemporary history of Southeast Asia)*, Iwanami Publishing, 2017 (岩崎育夫「入門東南アジア近現代史」、講談社現代新書、2017年)。
- Kien (2007).
- Ibid.
- Noobanjong (2013).
- Ibid.
- Lico (2010), Gerard Lico, "Rising from the Ashes: post-war Philippines Architecture", *Modern Southeast Asia*, docomomo journal No. 57, 2017, 46–55.
- Ibid.
- Ibid.
- Su Su, Swe Swe Aye, & Win Shwin, et al., "Modern Movement in Myanmar", *Modern Southeast Asia* - docomomo journal No. 57, 2017, 38–45.
- Ibid.
- Đoàn Kiến trúc sư Việt nam (c.1960) *Kiến trúc*, Đoàn Kiến trúc sư Việt nam.
- "Thư của Hồ Chủ tịch gửi Hội nghị Kiến trúc sư", *Kiến trúc*, Số 2, 1998, Hội Kiến trúc sư Việt nam, 23.
- Hidehiko Kinouchi, "Reisen taisei to Tounanazia (Cold War and Southeast Asia)", *Lecture on the history of Southeast Asia Vol. 8*, Iwanami Publishing, 2002, 227–258 (木之内秀彦「冷戦体制と東南アジア」『岩波講座東南アジア史』第8巻、岩波書店、2002年、227–258頁)。

LOCAL MODERNISM AND UNIVERSAL AESTHETICS

Susanne Bauer¹ and Eliana Sousa Santos²

¹ University of Westminster, School of Architecture and Cities; 35 Marylebone Road, London NW1 5LS, UK;
s.bauer@westminster.ac.uk; susanne.bauer@aalumni.org

² CES, Centre for Social Studies, University of Coimbra; Colégio de S. Jerónimo Apartado 3087, 3000-995 Coimbra, Portugal; esousasantos@ces.uc.pt

ABSTRACT.

Universal aesthetics are often attached to a narrative about modern architecture that in turn opens up the question of Local Modernism versus an 'International Style'. With exponential globalisation, we witness an effect of a universal aesthetic that can be exchanged throughout different countries and continents and calls for a re-evaluation of collective form.

Throughout history, vernacular building styles, elements and aesthetics that can often be classified as local, have emerged in different countries as cultural identity of a determined region. Furthermore, in recent years, several architectural practices explore the advantages of local techniques and materials, blend them with global modern aesthetics and import them into different cultural contexts. The aesthetic of a global architecture is thereby recreated using artisan and handmade products, yet the cultural value of the region is often irrevocably lost in the process of blending different traditions. On the one hand, architects who are recognized for having been long established as eminently local are expanding their practices to other countries. Such as Peter Zumthor's project in Los Angeles or Álvaro Siza's most recent projects in China, Taiwan, and the United States. On the other hand, Fumihiko Maki's strong links between Eastern and Western building traditions and materials throughout his career were followed by his 1960s theoretical investigations into collective form and Francis Kéré's social engagement in architecture brought him back to his native Burkina Faso blending traditional materials with a Western aesthetic. The question of how to classify these architects' works might therefore be instrumental to create a new perspective over the shifting boundaries of regional and global modernism and the appropriation of local tradition and universal aesthetics. We wish to further argue how the universal aesthetics shape our perception of global versus local modernism.

1. INTRODUCTION

This paper will try to tackle the issue of a Local Modernism in the setting of Global Aesthetics from four different viewpoints. In the first instance, Siza is taken as a reference point for Frampton in his afterthoughts to his famous essay of Critical Regionalism, of an architecture that is not exclusively local but rather aids as an example of modern architecture. In the case of Maki, his Hillside project is derived out of his idea of Group Form, in which he tries to approach the mega-structure not as the project that is ultimately regarded as solving problems of the metropolis. Francis Kéré's emphasis on social engagement is justified by using local materials and involving the community. Although aesthetics is not his first priority, his architecture is carefully designed and adapted to a universal aesthetic.

2. ÁLVARO SIZA AND CRITICAL REGIONALISM

In the essay "Prospects for a Critical Regionalism" (1983) Kenneth Frampton lists a series of architects who were then working as "resistant practices of peripheries" in an ever more centralized and globalised world. In the text, Frampton refers to the practice of Álvaro Siza as the ultimate example of what he considers to be "the capacity of regional culture to recreate a rooted tradition while appropriating foreign influences".¹ This practice presented a hybrid between local culture and international influence and includ-

ed a "response to the urban fabric and marinescapes of the Porto region"² but also used "Aalto's collage approach to building form [...] mediated by normative typologies drawn from the work of the Italian Neo-rationalists".³

In the text, Frampton mentioned the fact that Siza did not at the time have many built works concluded, that most of them were altered by the occupants, and cites a long passage by Siza where he describes poetically the metamorphosis that occurred after the building's occupation: "Pieces are kept here and there, inside ourselves, perhaps fathered by someone, leaving marks on space and people, melting into a process of total transformation".⁴

Regarding the inevitable modification of buildings, Frampton refers to Siza's "hyper-sensitivity toward the fluid and yet specific nature of reality"⁵, and it was that very fluid nature of reality and context that steadily changed since the late 1970s which allowed for Siza's architectural practice to operate beyond its peripheral condition, adopting a position rather as a representation of an abstract notion of periphery, mostly related with geographically as well as culturally marginal nature of Portugal in relation to the centres. If in the 1970, Siza's practice was aligned with the *arrière-garde* position proposed by Frampton, in which architecture is sustained as a "critical practice"⁶, since then the geographical and social contexts within which Siza's practice operated in the last decades changed steadfastly.

As with other prestigious architectural practices operating in the global world, Siza's practice expanded its territory

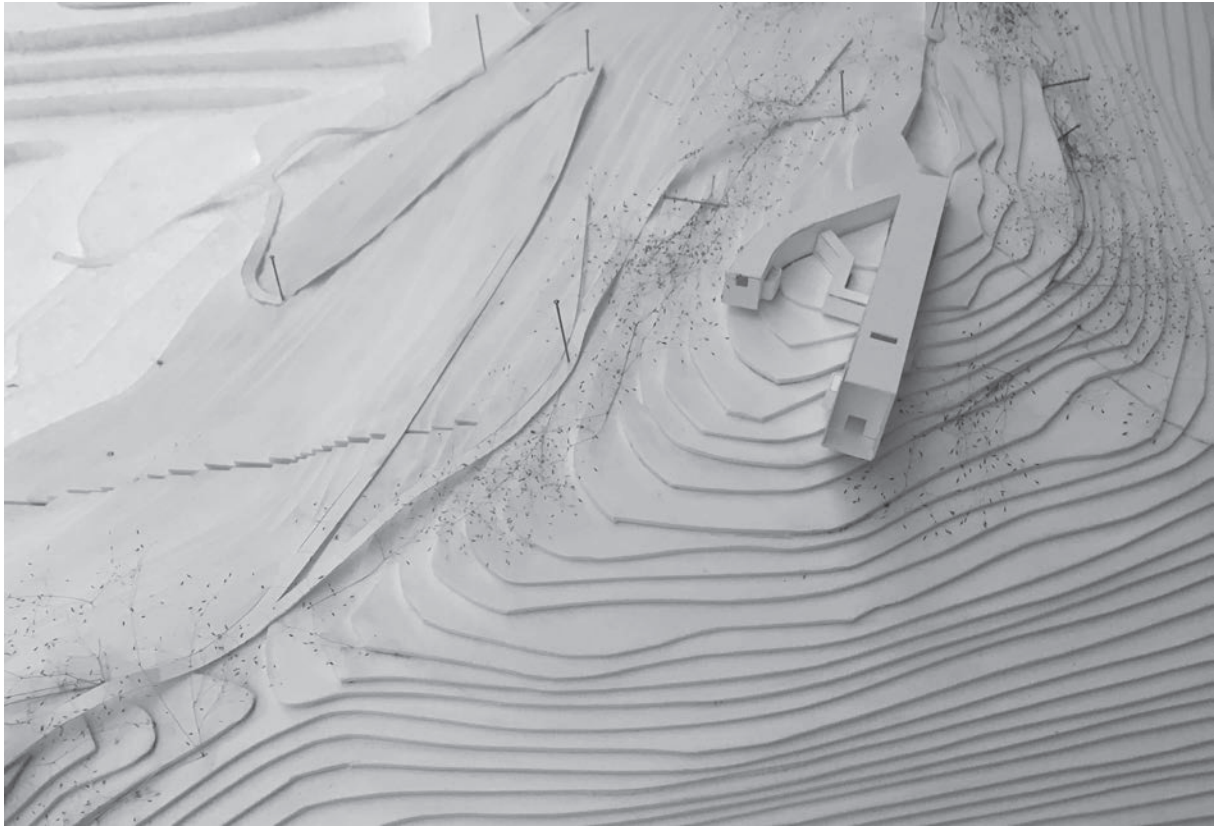


Fig. 1. & 2. Álvaro Siza and Carlos Castanheira, Models for Art Pavilion Saya Park, Gyongsangbuk-do, Daegu, South Korea. Photo: © Eliana Sousa Santos.

of operations to other European countries in the 1980s and 1990s, to South America in the 2000s, to Asia in the 2010s and more recently to North America (Fig. 1).

An example of this adapting nature of Siza's practice is the project for the Saya Park Art Pavilion in South Korea that was converted from a previous proposal of a Museum

for Two Picassos — a project commissioned as an exhibit within the context of the Madrid European Cultural Capital in 1993. In this specific case, the work of Siza became self-referencing, and even though the project is presented in the short press releases as buildings that “exactly adapt to the place dialoguing with natural light and panoramic views”⁷, it



Fig. 3. Fumihiko Maki, Hillside Terrace, Daikanyama, Tokyo, Japan. Photo: © Eliana Sousa Santos.

works mainly as a sculptural work (Fig. 2).

3. FUMIHIKO MAKI AND GROUP FORM

As one of the early proponents of the Metabolist Manifesto, Fumihiko Maki developed a long career that encompasses different types of buildings. Nevertheless, Maki's practice was informed by his early scholarship that allowed him to travel the world and find connections between different architectural cultures. Maki studied and worked in the United States in the 1950s. In 1958, he was awarded a Graham Foundation grant which allowed him to travel and study traditional building patterns. As he later described this experience:

I visited Hydra, in Greece, where I was stunned by the kind of harmony created by certain principles in the formation of the town (...) I tried to discover some theoretical foundations as to how such formations could be created in present urban situations.⁸

It was this scholarship that allowed him to further develop some of the early ideas of the Metabolist manifesto into the notion of megastructure and to create the notion of group

form.

As Maki defines, group form is a "system of generative elements in space" which "are reciprocal, that is, one cannot be conceived of without the other," furthermore "there is no hierarchy, or even singularity of form in this system" and its configurations work within "humans association and collectivity — gathering, or dispersal, or stopping." And Maki associates group-form with traditional housing conglomerates and that "any form so conceived reflects the source of its place and shape, as readily as do the pueblo villages of the Southwestern United States."⁹

Maki's practice explored the idea of group-form in the housing development Hillside Terrace in Daikanyama, Tokyo, a project extended over a long period of time, since 1967 to 1998, and that consequently transformed with the changing context of the city and the society. According to Maki, "Hillside Terrace reflects how [his] approach to architecture evolved as [he] learnt from earlier experiences as changes took place in Tokyo's scenes and lifestyles"¹⁰ (Fig. 3).

4. FRANCIS KÉRÉ AND SOCIAL ARCHITECTURE

Hardly any architect is so attached to the concept of social engagement as Diébédo Francis Kéré. He has claimed his



Fig. 4. Francis Kéré, Opera Village Africa. Photo: © Erik-Jan Ouwerkerk.

position in architecture routed in his profound responsibility to give back to society by not only using local products but furthermore by engaging the community in the building process and therefore putting his training directly at the service of the local community. Born in 1965 in the small village of Gando in the West African country of Burkina Faso, he trained as an architect in Germany where he is now based. While still studying, he returned to his native Gando to build his first project, a Primary School, so local children would be able to gain an education and not be sent away from their families. As Gando did not have electricity he invented a technique whereby the mud bricks are pressed and dried and not burned. The bricks are created out of a mixture of clay, sand and a small percentage of cement, to ensure its durability during the rainy season in Burkina Faso. Throughout his projects, Kéré uses traditional building materials such as mud bricks, straw roofs, eucalyptus wood, laterite stone, local rock and metals not only as a cheap source but also to educate the community into new ways of building (Fig. 4).

Through collaboration with the performance artist Christoph Schlingensief, he took part in the Opera Village project in Laongo. The controversial project sought to create a centre for cultural exchange for artists from different na-

tions in one of the poorest countries on earth. Schlingensief likened the Opera Village to the idea of the 'social sculpture', a concept first introduced by the artist Joseph Beuys as the potential for art to transform society. The artwork itself thereby expands to include human activity which in turn can shape or change an environment and affect the people inside that environment.

Kéré's philosophy to create local identity by using local materials aids this shared view on the concept of social engagement. By working with the communities and training the locals the skills of building, Kéré claims that the social concept is further substantiated by offering alternate ways of providing for their families in the future. "This decision to put his education directly at the service of the family can be seen as a special sign of solidarity and the assumption of personal responsibility from a European perspective."¹¹ Although Kéré claims to be predominantly concerned with the social aspect of building, his architecture "...is carefully designed, responds to cultural nuance, adds aesthetic value, and facilitates new or better communication within a community", which Lepkik claims "is by necessity rarely a priority for [projects of social engagement]."¹² In doing so, Kéré's westernized vision of a global aesthetic is embedded into the concept of social architecture and transported into his

projects in Burkina Faso.

5. PETER ZUMTHOR AND LOCALITY

Peter Zumthor has been known for his meticulous approach to architecture. His careful selection of form, materials, light, space and location is evident through his projects such as the Thermal Bath in Vals (1996), his Art Museum in Bregenz (1997) or his museum "Topography of Terror" (2010). Besides his emphasis on the materials, often locally sourced, his careful consideration of the context has often been discussed. As he also stated in *Thinking Architecture*:

When I concentrate on a specific site or place for which I am going to design a building, when I try to plumb its depths, its form, its history, and its sensuous qualities, images of other places start to invade this process of precise observation... Sometimes they come to me unhidden, these images of places that are frequently at first glance inappropriate or alien, images of places of many different origins¹³

or even in his later theoretical work *Atmospheres*:

Reading a place, becoming involved with it, working out the purpose, meaning and goal of a brief, drafting, planning and designing a piece of architecture is therefore a convoluted process that does not follow a straightforward, linear path.¹⁴

Yet, one of his more recent projects, the Los Angeles County Museum of Art (LACMA), has gained much criticism from locals as well as many architectural critics even before its construction. The existing museum, in much need of renovation and extension underwent multiple proposals before Peter Zumthor's involvement in 2009. The new plans for the museum now envision a downsized version of the museum, far away from its original concept or the need to expand the space. Further criticism was gained through the money spent on such a new museum that does neither seem to have the space for its existing collection nor the ability to expand. This lack of constraint of expenditure is also in contrast with Zumthor's otherwise simplistic approach to architectural forms and materials. Zumthor's vision of the best architecture seems to be lost in the case of the LACMA:

The magic of the real: that to me is the 'alchemy' of transforming real substances into human sensations, of creating that special moment when matter, the substance and form of architectural space, can truly be emotionally appropriated or assimilated.¹⁵

Zumthor's otherwise careful selection of locality is thereby undermined and replaced by the tasks itself: To create a mega-volume combining the four existing buildings into one element.

6. CONCLUSION

In this paper the topic of Local Modernism versus a Universal Aesthetic is discussed through four different examples. Each one is set in a different location, at different times by a different architect and is dealing with different local and global issues. Siza's projects in South Korea, Maki's Hillside Terrace in Daikanyama, Tokyo, Francis Kéré's Opera Village in Laongo, Burkina Faso and Zumthor's Los Angeles County Museum of Art (LACMA) in the US demonstrate the problematic of a universal aesthetic versus the aim of local aesthetics and highlight the multitude of different problems raised within this concept.

REFERENCES

- BAUER, S., "The Opera Village Africa: Christoph Schlingensiefel and his Social Sculpture", KARIM, F. (ed.), *Routledge Companion to Architecture and Social Engagement*, New York and London, Routledge, Taylor, and Francis, 2018.
- DURISCH, T., (ed.), *Peter Zumthor 2008–2013, Buildings and Projects, Volume 5*, Zurich, Scheidegger & Spiess, 2014.
- FRAMPTON, K., "Prospects for a Critical Regionalism", *Perspecta*, 20, 1983a, 147–162, doi:10.2307/1567071.
- FRAMPTON, K., "Towards a Critical Regionalism: Six Points for an Architecture of Resistance", FOSTER, H. (Ed.), *The Anti-aesthetic: Essays on Postmodern Culture*, New York, The New Press, 1983, 16–30.
- LEPIK, A., *Francis Kéré: Radically Simple*, Berlin, Hatje Cantz, 2016.
- LEPIK, A., *Small Scale Big Change: New Architecture of Social Engagement*, New York, The Museum of Modern Art, 2010.
- MAKI, F., & GOLDBERG, J., "Linkage in Collective Form" *Ekistics*, 14(82), 1962, 100–104, accessed on January 24, 2020, www.jstor.org/stable/43615995.
- MAKI, F., "My urban design of fifty years", *Ekistics*, 73(436/441), 2006, 26–38, accessed on January 24, 2020, www.jstor.org/stable/43623717.
- PELUSO, S., Art, nature and religion: three concrete buildings by Álvaro Siza in South Korea. *Domusweb*, 2018, November 13, accessed on January 27, 2020 from <https://www.domusweb.it/en/architecture/2018/11/13/art-natureand-religion-three-concrete-buildings-by-lvaro-siza-in-south-korea.html>.
- ZUMTHOR, P., *Atmospheres: Architectural Environments, Surrounding Objects*, Basel, Birkhäuser, 2018.
- ZUMTHOR, P., *Thinking Architecture*, Basel, Birkhäuser, 2010.
- YOSHIDA, N. (ed.), *Architecture and Urbanism: Peter Zumthor*, Tokyo, a+u Publishing Co., Ltd, 1998.

NOTES

- 1 K. Frampton, "Prospects for a Critical Regionalism", *Perspecta*, 20, 1983, 147–162., doi:10.2307/1567071, 148.
- 2 Ibid., p.151.
- 3 Ibid., p.149.
- 4 Ibid., p.150.
- 5 Ibid.
- 6 K. Frampton, "Towards a Critical Regionalism: Six Points for an Architecture of Resistance", H. Foster (ed.), *The Anti-aesthetic: Essays on Postmodern Culture*, New York, The New Press, 1983, 16–30.
- 7 S. Peluso, "Art, nature and religion: three concrete buildings by Álvaro Siza in South Korea". *Domusweb*, 2018, November 13, accessed on January 27, 2020, <https://www.domusweb.it/en/architecture/2018/11/13/art-natureand-religion-three-concrete-buildings-by-lvaro-siza-in-south-korea.html>.
- 8 F. Maki, "My urban design of fifty years", *Ekistics*, 73 (436/441), 2006, 26–38., accessed on January 24, 2020, www.jstor.org/stable/43623717, 26.
- 9 F. Maki & J. Goldberg, "Linkage in Collective Form", *Ekistics*, 14(82), 1962, 100–104, accessed on January 24, 2020, from www.jstor.org/stable/43615995, 100.
- 10 F. Maki, "My urban design of fifty years", 32.
- 11 A. Lepik, *Francis Kéré: Radically Simple*, Berlin, Hatje Cantz, 2016, 14.
- 12 A. Lepik, *Small Scale Big Change: New Architecture of Social Engagement*, New York, The Museum of Modern Art, 2010, 12.
- 13 P. Zumthor, *Thinking Architecture*, Basel, Birkhäuser, 2010, 41.
- 14 P. Zumthor, *Atmospheres: Architectural Environments, Surrounding Objects*, Basel, Birkhäuser, 2018, 7.
- 15 P. Zumthor, *Thinking Architecture*, 85.

Session 8-h

LOCAL CONTEXT — THE LANDING OF MODERNISM

Shoichi Ota

Lecturer at the Faculty of Architecture, Kindai University

How modernist architecture spread worldwide? Even as it was named as “International Style,” the white cube of functionalism architecture had not been accepted autonomously. If modernist architecture disguised itself as monumental icons or doctrine of esthetics, it could not be admitted to the same range of the built-form in the world-wide sphere as observed today.

Behind the scene, there has existed some manners to let Modernism land. They are ongoing processes experiencing concepts, notions, or social institutions before accepting white cube as built form. In this session, such topics to introduce how the Modernism was received in any local contexts are to be presented.

“Local Interpretations of Modern Housing in Post-Republican Period,” by Gizem Güler, Gülnur Ballice, and Eda Paykoç, focus on collective housing in Izmir, Turkey. First, referring to Izmir's nature as familiar to inter-cultural exchange, the authors point out that the city had suitable character to accommodate western-origin spatial concept. Next, as for collective housing as a building type, they say the built form of layered housings itself was foreign thing affected by western influence. Then, their stage is set to Izmir in the 1950s to 70s, when the idea of high-rise collective housing had been accepted and it represented as shaped-up form along with its modernized planning to show transparent style. Here the authors conducted an on-site survey, and present the results with the original drawing of the housing structures. They also introduce the arrangement of the interior of the houses, which shows how the inhabitants made use of this novel housing style.

“The Schools as Socio-Spatial Modern Architecture in Kuwait” by Zainab Murtadhawi targets school buildings in Kuwait. As a newly-independent country in postwar time, educational institutions were set up under the cooperation of UN and UNESCO, in the course of its nation-building. The

initial plan was introduced in brand-new and costly form, only to be rejected by the reason that it required large-scale and nation-wide supply of schools. Alternatively, proto-type designing approach for mass-production was officially adopted. Such an idea of product-oriented design would be regarded as a modernist manner, and the architectural plan submitted by Swiss architect was also in modernists taste with rational composition. In this attitude to arrange the plan in productive and supplying approach, a modernist spirit can be admitted.

“Modernity and Modernism in West African School Architecture,” by Kuukuwa Manful, takes the example from West Africa, also an educational institution. It shed light from different angles to identify the nature of modernism. Here, the author targets a school's architecture in Ghana, designed by renowned British architects, Maxwell Fry and Jane Drew, who are well-known modernists to develop tropical architecture. The main topic here, however, is not an architectural style. Destinations of modernism are often referred to as Tabula-Rasa, which the author accused here. It is also well-known that Fry and Drew learned much from African native architecture. Consequently, the modernists architecture should be regarded to be born from the African context as well. The author refers to local initiative in the church association, which commissioned the design works to Fry and Drew, to quests how architecture was realized, examining the social background of the time.

The three essays of this session shed light to crucial viewpoints in terms of the world-wide spread of Modernism in architecture. Modernism is not only the reference of its form. Social conditions before the form will create an air of Modernism. That might be generated from colonial rule, nation building, or new life style. Accordingly, through the order of society chasing the modern, architecture will be invited. Such viewpoints will clearly come to the sight through

the examination on everyday's modernism in architecture
hired in this session.



LOCAL INTERPRETATIONS OF MODERN HOUSING IN POST-REPUBLICAN PERIOD IN İZMİR-TURKEY

Gülnur Ballice¹, Gizem Güler² and Eda Paykoç Özçelik³

¹ Yaşar University, Selçuk Yaşar Campus; University Street, No:37-39, Bornova, İzmir, Turkey;
gulnur.ballice@yasar.edu.tr

² Yaşar University, Selçuk Yaşar Campus; University Street, No:37-39, Bornova, İzmir, Turkey;
gizem.guler@yasar.edu.tr

³ Yaşar University, Selçuk Yaşar Campus; University Street, No:37-39, Bornova, İzmir, Turkey;
eda.paykocozcelik@yasar.edu.tr

ABSTRACT.

The modernisation process in Turkey which had started with the proclamation of the Republic in 1923 has also influenced architecture and then has led to the emergence of modern design. International architectural languages began to be sprawled much faster in cities like İzmir where different cultures have been living together for centuries. The city plan, prepared for the completely burned areas in the fire in 1924, shaped today's İzmir urban pattern as the first example of the modernist/positivist approach of the period.

Due to the development of planning laws, different morphologies have emerged periodically in the city's housing architecture. The modernist apartment buildings of the city, which were built especially in Alsancak, Güzelyalı, and Karşıyaka after the 1950s, were diversified in other districts of the city in the following years. This architectural language tried to integrate mutually different international architectural language on behalf of local modernism in the city.

This paper aims to present these local modernism efforts in terms of the multi-story apartment buildings of İzmir. The purpose of this paper is to emphasize the importance of apartment blocks which have had an important role in the identity of the city by revealing the architects and buildings of that period. These buildings which both reflect international architectural languages and local modernisms are investigated in terms of their architectural style, plan layout, facade characteristics, material selection, and interior elements. Relationships and syntheses between international modernism and local culture will be searched through analysing pioneering apartment blocks constructed between 1950 and 1980 in the city.

1. INTRODUCTION

Throughout history, technological, social, economic and socio-cultural developments have been parallel to architectural movements. For comprehending the modern housing architecture in Turkey, the emergence of modernism in the world and its' reflections to Turkey should be analysed comprehensively.

The impacts of modernisation on society have been searched by sociologist Anthony Giddens¹ and he categorized them as follows: discontinuity, decontextualization and reflexivity.² All these characteristics must be seen as tendencies which led to emergence of forms of time, space and existence different from those of the past.

One of the most distinctive features of the modernisation period is that the new houses, residences and settlements following the turning points are universal in nature and overshadow the local features. The reason of this can be explained with the fact that housing and settlement forms reflect economic codes and political developments rather than cultural codes and lifestyle in this period. The increase in the efficiency and speed of international interaction has pushed the cultural field to the secondary designated position against the economic and political field.

All these features — speed, extent and force of universal

interaction, effects of economic and political developments on housing and settlements, universal solutions, deactivation of cultural codes against economy and politics- are the indicators of the basic characteristics of the modernisation and all they reproduced in the residential units.

The characteristics of modernisation should also be the convenient tools to understand the transformation of the housing and settlement patterns. The first seeds of modernisation in Turkey were planted in the beginning of the 19th century.² The period of approximately 200 years from this date to today is not homogeneous in terms of the spreading areas and forms of modernisation.

In this paper, intersecting features of modern architecture and local residential culture will be searched through analysing architectural and interior characteristics of Pıtrak (1974) and Gökçeoğlu (1966) apartments constructed in mid-century post-republican period in İzmir.

2. INTERNATIONAL MODERNISM CONCERNING HOUSING ARCHITECTURE

In this part, Modernism in architecture is analysed with regarding the development of housing architecture. Domestic spaces have a vital role in the forming of modern consciousness as they convey inherent meanings beyond their

		LOCAL (Turkey)	INTERNATIONAL (Europe and USA)
1920–1945 (Turkey: radical modernisation period)	1920s	1923: Establishment of the Turkish Republic → acceleration of multi-story residential buildings¹⁴ - Series of radical reforms (by adopting occidental models)¹¹ 1920–1946: Industrialisation through a single-party state - The First National Style: New Architecture [Yeni Mimari]¹² 1920s Viennese modern	19th century to 1920: industrial capitalism 1920–1946: the period between the two World Wars 1927: Weissenhofsiedlung Exposition, Stuttgart — a showcase of modernist housing
	1930–1940s	- The urban apartment building: standard residential type^{15 16} - Three-four stories high cubic architectural style (cubic or rectangular forms, reinforced concrete, gray edelputz plastered facades, planar surfaces, rounded corners, horizontal band windows and balconies with linear elements)¹⁶ - Process of changes: external, economic, political and social factors¹⁷ - A Modernisation programme of the new state for housing → mass housing projects, lodgement houses, cooperatives, public housing, and rental houses - adopted from the West¹⁷ - The Late 1930s: regionalism and nationalism 1944: Construction of Civil Servants Law → public housing construction model for public employees (Saraçoğlu Neighbourhood, Ankara by Paul Bonatz 1946)	During the 1930s after the war: Global spread of communal living idea in multi-story apartments with European roots¹¹
1945–1980 (Turkey: populist modernisation period)	1945s	1945–1980: Industrialisation based on import substitution together with a populist and multi-party-political life started - Universal modernisation and industrialization - Adaptation of modernism from Europe and the US	1945–1980: Bipolar economic and institutional integration with the exportation of capital, industry, and technology - After WWII: the reinterpretation of Modern Architecture as “International Style”¹¹
	1950–1960s	- The 1950s: Close ties with the West with <i>Marshall Plan</i> and membership to NATO - Rising population - Mass housing blocks and small-scale apartment buildings¹⁴ - Apartments: a symbol of Western mode of living <i>International Housing Exhibition</i> 1952 - Foreign/domestic publications¹⁸ - Multi-unit single buildings with concrete slab structures, rectangle masses, transparent walls, and austere facades - Importance of facade elaboration and new façade treatments codified with Modernist aesthetic.^{11 19} 1965: <i>Condominium Ownership Law</i> enacted → each flat defined as an independent unit / rapid transition from individual units to multi-unit apartment blocks / Increase in the height of the apartments and real estate prices²⁰ - Reflection of modernity in the housing interiors: black iron and glass doors, handrails, black and white marble planks, pink marble accents, statues and decorative wall surfaces¹¹	- Function as important as mid-century designs - Modern Movement in the U.S. was an American reflection of the International and Bauhaus movements 1952: <i>Unite d' Habitation</i>, Le Corbusier → the first communal living project with the idea of “vertical garden city.”
	1970–1980s	Communication technologies developed; liberal monetary policies and exports became prevalent²	1980 to the present: Multi-polar period specified with globalisation, disorganisation, and communication

Table 1. Local and International Breaking Points in Modern Architecture.

physical components such as contemporary beliefs, social norms, and shared values.

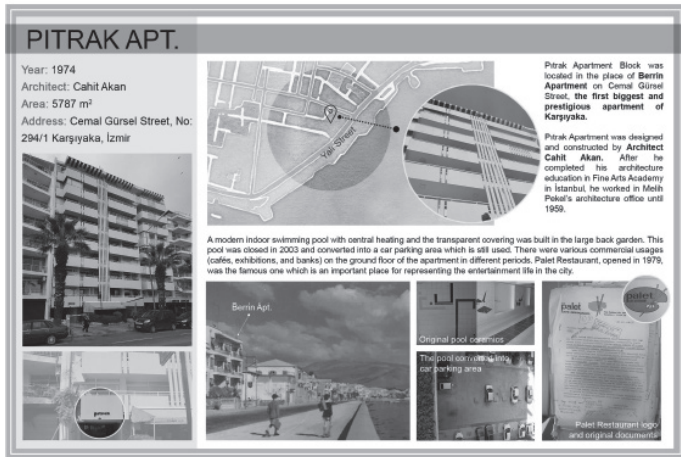
Dissemination of the Modern Movement to other geographies has strong ties with CIAM (*Congres Internationaux d'Architecture Moderne*, 1928–1959).³ The *Modern Architecture: International Exhibition* in 1932 is one of the well-known “one-movement” exhibitions of 20th-century architecture that took place at MoMA, and launched the architecture between 1922 and 1932 as “International Style.”⁴ The meaning of “modern architecture” was promoted with MoMA exhibitions of “Modern Architecture” and the book *International Style: Architecture Since 1922*.⁵ After 1932, this architecture was reproduced by MoMA curators, named “modern architecture”, was now characterized by flat roofs, prismatic volumes and undecorated white walls. Moreover, in the book by Hitchcock and Johnson and the catalogue of curators, “universality” represented the dominant concept.⁶

Corbusier⁷ mentions modern interior and furniture design as a reflection of civilization and modernity. Domestic space has an important place in this progressive discourse of the Modern Movement.

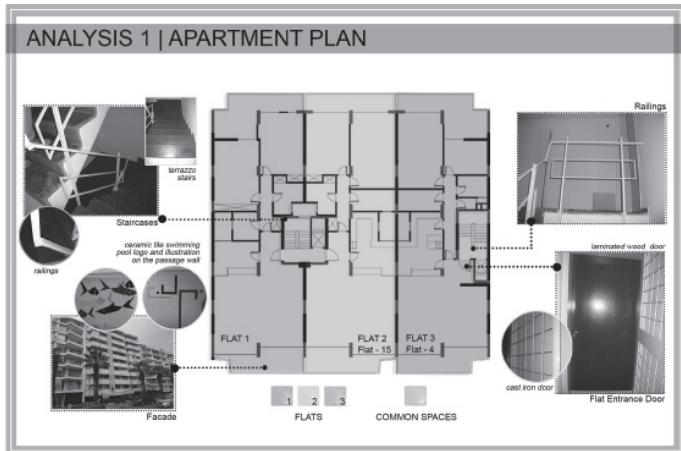
3. APARTMENT AS AN OBJECT OF NATIONAL MODERNISM IN TURKEY

Bozdoğan⁸ states that modernism is a European centred scientific doctrine that affects several different regimes and countries. She also adds that modernism with its futuristic ideology also is influential in Turkey's architecture. To understand different forms of modernisation, universal and local dynamics must be overlapped historically in terms of economic/political/social effects (Table 1).

The presence of apartment buildings was a socio-political and economic phenomenon in the modern architectural



history of Turkey. Apartment buildings include social, cultural, and economic associations while providing a change for urban dwellers.



The emergence of multi-story apartment buildings as a new housing type in Turkey dates back to the end of the nineteenth century. They were constructed in İstanbul especially for upper-middle-class non-Muslims.⁹ Until 1923, single-family and two-three story houses were common housing types of the Muslim Turkish population.¹⁰

The interior of the modern apartments constructed in the early Republican period reflected the change in family structure and authentic lifestyles with their new designs suitable for nuclear family.¹¹ Contemporary Western modes of living promoted by Republican ideology considerably affected the plan layout of the apartments. Accordingly, rooms of the flats were separated as dining, sleeping, sitting, and studying.¹² Besides, the hall of the traditional house was transformed into a corridor and a maid's room.¹³

When the modernism in İzmir housing was considered, Anadolu Apartment Block (1905) in İzmir can be put forward as an early example of multi-story apartment buildings. Its massive structure reflects a European way of living while balconies and façade were elaborated with Ottoman style elements like pointed and subjugated arches.²¹

At the end of the Independence War, İzmir faced a great fire in 1922. İzmir's urban pattern, formed in many centuries, suddenly turned into ashes. On the other hand, the fire created an opportunity for the "creation of a modern city" of the new Republic. The urban population remarkably increased in the first half of the 1950s. In 1952, a new urban plan for İzmir was prepared. With this plan, new buildings were built with 5-stories. By 1965, with the influence of the Condominium Ownership Act, the number of apartment blocks was increased rapidly in İzmir as other cities of Turkey. Modernist apartment buildings in İzmir were constructed in Karşıyaka, Alsancak, Hatay, Göztepe, Bornova, and Buca.

The housing need for the increasing population was tried to be solved by the increase in density and height of the residential units. Architects such as Fahri Nişli, Ziya Nebioğlu, Armağan Çağlayan (civil engineer), Faruk San, Melih Pekel, Akif Kınay, Rıza Aşkan, Emin Balin, Emin Canpolat, Orhan Akbaş, Harbi Hotan and Alp Türksoy are among the architects who designed buildings in İzmir in this period. These architects made a lot of contributions to form the modern architecture in İzmir. By modern architecture principles which are prismatic compositions, flat roofs, symmetrical facade installations, continuous sill lines, horizontal windows, and circular corner solutions were observed in the designs of these apartments.²² The cubic furniture of the residential interiors was in the Western style by promoting modern life.¹¹ Built-in furniture alternatives were started to be used including storage units, closets, glass or wooden wall panels, shelves in niches, and hidden light fixtures on suspended ceilings.²³ Interior finishes varied according to the

social status. Walls covered with oil-based paints and slightly wallpapers; floors of the entrance and wet areas were mosaic and marble while imported parquet and plastic materials were used for the floors of the living and sleeping areas.

4. ANALYSIS OF THE SELECTED APARTMENT BUILDINGS

Pıtrak and Gökçeoğlu Apartment Buildings (Figs. 1 & 5), which contribute to the housing culture of İzmir and reflect the 20th-century modern architecture style, were selected as the case studies. These two examples represent their own periods with architectural and interior characteristics such as reinforced concrete systems, original design approaches, transparent facade layouts (Figs. 4 & 8), plan schemes (Figs. 2 & 6), materials, architectural details, spatial organizations and interior architectural details (Figs. 3 & 7). Entrance gates, lobbies, staircases, railings, flat entrance doors, and brand-new materials of this period reflect the original characteristics of these buildings. The detailed analysis of Pıtrak and Gökçeoğlu apartment buildings allows to understand the architectural approaches of this period, and it was planned to lead the way in documenting the history of the modern housing heritage.

Pıtrak Apartment is one of the pioneering examples of the İzmir apartment typology with its facade integrity (horizontal-vertical relation), simplicity, and vertical-horizontal balance in its balconies with concrete parapets and steel railings. It has 9 floors and 24 flats. There are two different entrances and commercial spaces on the ground level. The building has attached on two sides while the front and back facades are open. It has a symmetrical facade which was often seen on the coastline in İzmir after the 1970s. The rooms, kitchen, and bathroom are located on both sides of the corridor while the living room is placed on the front facade entirely. The original ground materials have been conserved in the analysed two flats. Flat 4 and 15 (Fig. 2) have built-in furniture elements in each room.

Gökçeoğlu Apartment reflects the simplicity of modern architecture. Wall-window-balcony integration and solid-void balance were ensured on the facade and dynamism were created with the angled balcony form. The building has 7 floors including the ground. A corridor plan scheme was applied similar to Pıtrak Apartment. Interior elements, lighting, and furniture of Flat 4 (Fig. 7) reflect “a modern apartment life” of the period. The original ground materials and original built-in furniture in the entrances, kitchens, bedrooms, and living rooms have been conserved in this flat.

5. EVALUATION AND CONCLUDING REMARKS

Apartment block examples from Karşıyaka, between the years of 1950 and 1980, reflects housing, design, and consumption trends of the period in terms of modernisation of the Turkish society. There was a strong modernist style in-

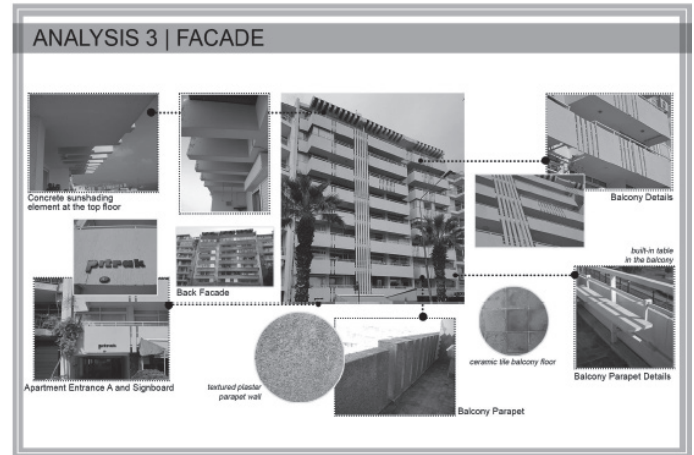


Fig. 4 Analysis of Pıtrak Apartment Building; facade treatment and balconies (© Author's archive).



Fig. 5 Analysis of Gökçeoğlu Apartment Building; historical background and identity (© Author's archive).

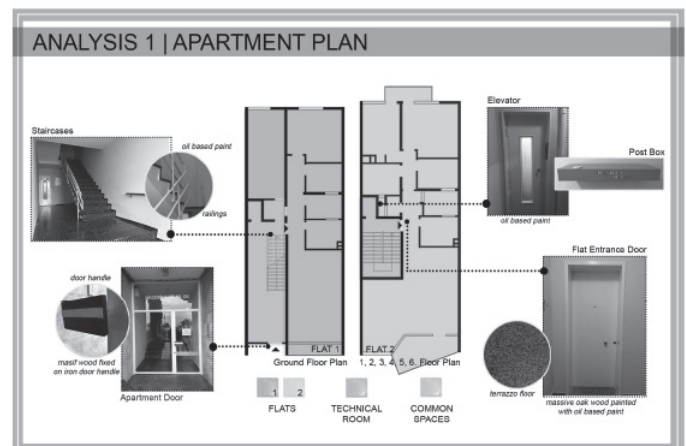


Fig. 6 Analysis of Gökçeoğlu Apartment Building; plan layout and materials (© Author's archive).

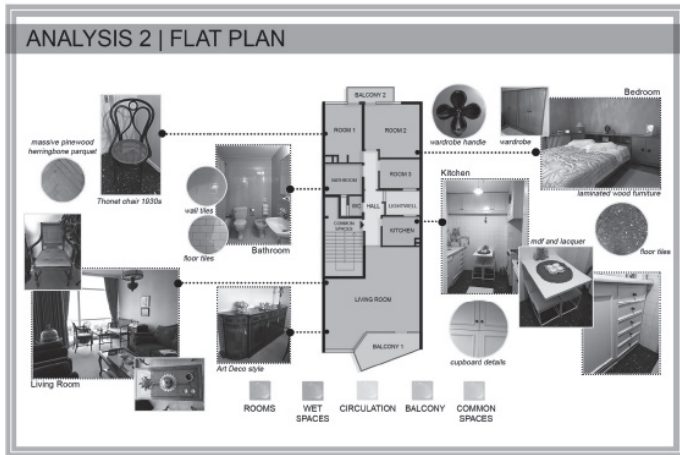


Fig. 7 Analysis of Gökçeoğlu Apartment Building; organization of the rooms, interior elements, Flats 4 (© Author's archive).

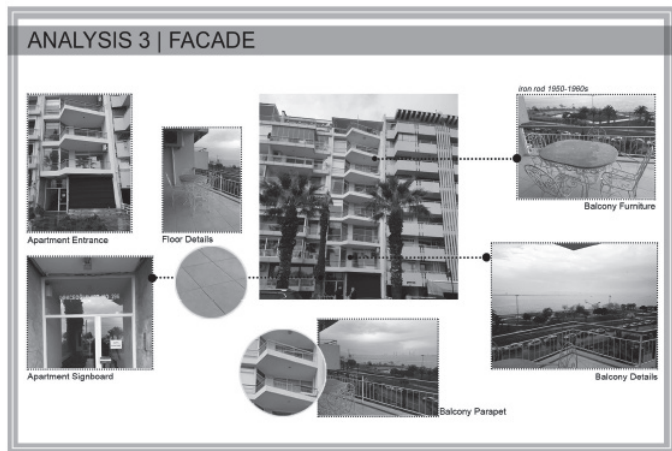


Fig. 8 Analysis of Gökçeoğlu Apartment Building; facade treatment and balconies (© Author's archive).

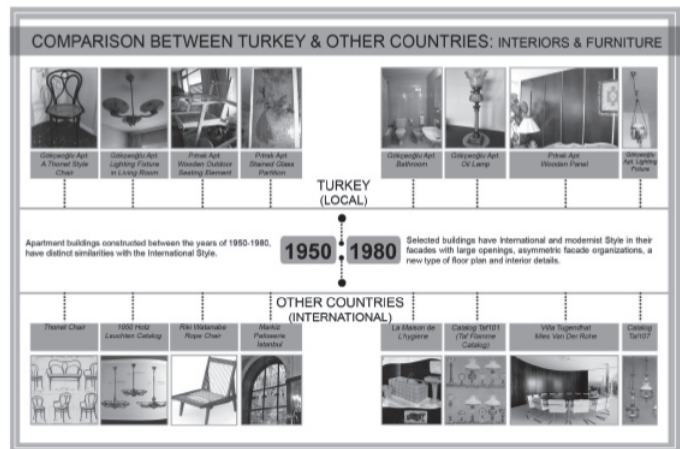


Fig. 9 Comparison between Turkey & other countries: Interiors & Furniture (© Author's archive).

fluence on the design of the apartment blocks which implied hygiene, promote higher living standards, and create socio-cultural priority.¹¹ These influences were seen mainly on architectural elements and/or interior design components. On the other hand, they also have traditional references for the 19th-century design trends and eclectic styles especially in the designs of movable furniture. This traditional and international combination can be seen in residence interiors while the architectural style of the apartment blocks has a significant modernist language (Fig. 9). Horizontal reinforced concrete balcony parapets, use of roof terrace, and vertical reinforced concrete strips are reflections of International Style characteristics.

The local architects of the city have rationalist and functionalist design styles in terms of plan layout, façade design, and interior design. They succeeded to combine limited local materials and techniques with the pure and simple modernist style in the architecture and interior scale. This modernist approach was seen in the entrance gates of the apartment blocks, spacious lobbies, and staircases with custom-designed iron railings. Additionally, the residence interiors were designed with this modernist approach by architects such as built-in furniture, kitchens, and bathrooms.

Local architects tried to represent an international modernist language by including traditional elements, materials, and production techniques in the mid-century housing production. For the interior elements, it can be said that there were five to twenty years of tardiness between the original designs and their imitations. This may be related to the poor economic and political conditions of the corresponding era.

Faruk San and Cahit Akan are among the leading local architects who contributed to Karşıyaka's housing architecture. They also contributed to the urban identity by designing qualified housing units in a variety of ways. Analysis of the case buildings also provided information on national and international trends that were applied by the mentioned architects.

In conclusion, these features and conditions make these modern housing units unique in today's conditions. Inevitably, demolishing them will cause negative effects on Turkish design history. Occupants of modern housing stock are living witnesses of Karşıyaka's and İzmir's social, economic, and cultural lives. Similar documentation will undoubtedly raise awareness about them, and this is inevitably important. This study is expected to construct a framework for further studies in terms of documenting a history of architecture, interior, and furniture design.

ACKNOWLEDGEMENTS

We would like to thank Yaşar University for funding scientific research project (BAPo83), of which this study is a part. We also would like to thank Prof. Dr.Havva Meltem GÜREL and Assoc.Prof.(PhD)Zeynep TUNA ULTAV for encouraging us in the realization of the project; Res.Assist.İrem Deniz AKÇAM for her digital visualization support; Beste GÖNÜLTAŞ TEKİN, Emrecan ESENALP, Fulya BALLI, Assist.Prof.(PhD)İpek EK, Renin ON for their initial consultancy for the project; Elif DEDE, Işın SU DİKMEN and Bengi ŞENTÜRK for their help in data collection and interview coding.

NOTES

- 1 Anthony Giddens, *Modernity and Self Identity: Self and Society in the Late Modern Age*. Cambridge: Polity Press, 1991.
- 2 İhsan Bilgin, "Housing and Settlement in Anatolia in the Process of Modernization", Yıldız Sey (ed.), *Housing and Settlement in Anatolia — A Historical Perspective*, İstanbul: History Foundation Publications, 1996, 472–490.
- 3 For CIAM Congress see Eric Mumford, *The CIAM Discourse on Urbanism, 1928–1960*, Cambridge, Mass., MIT Press, 2000.
- 4 See Baharak Tabibi, [Exhibitions as the Medium of Architectural Reproduction. "Modern Architecture: International Exhibition"], MA diss., Department of Architecture of Middle East Technical University, 2005.
- 5 Raffaella Russo Spena, Museum Exhibitions as Mass Media spreading Architectural Ideas from Europe to the USA in the 20th Century. *Histories of Post-war Architecture*, 2 (4), 2020, 261–277.
- 6 Ibid.
- 7 Le Corbusier, *Towards a New Architecture*, New York, Dover, 1986.
- 8 Sibel Bozdoğan, "The Predicament of Modernism in Turkish Architectural Culture: An Overview" Sibel Bozdoğan & Reşat Kasaba (eds.), *Rethinking Modernity and the National Identity in Turkey*, Seattle & London: University of Washington Press, 1996.
- 9 For further information about these apartments see Münevver Eminoğlu (ed.), *1870 Beyoğlu 2000*, İstanbul, Yapı Kredi Yayınları, 2000, 200; Atilla Yücel, "Typology of Urban Housing in 19th Century İstanbul", Yıldız Sey (ed.), *Housing and Settlement in Anatolia — A Historical Perspective*, The Economic and Social History Foundation Publications, 1996, 298–312.
- 10 Uğur Tanyeli, "Modernism of a Peripheral Metropolis İstanbul: 1930–2005", Afife Batur (ed.), *Architectural Guide to İstanbul: Modern and Contemporary*, İstanbul, Ofset Yayınevi, 2006.
- 11 Havva Meltem Gürel, "Domestic Space, Modernity, and Identity: The Apartment in mid-20th Century Turkey", *Unpublished PhD Dissertation*, Urbana, Illinois: University of Illinois at Urbana-Champaign, 2007.
- 12 Afife Batur, "1925–1950 Döneminde Türkiye Mimarlığı" [Turkish Architecture in the Period of 1925–1950], *75 Yılda Değişen Kent ve Mimarlık [Developments in City and Architecture in 75 Years]*, İstanbul, Tarih Vakfı Yayınları, 1998.
- 13 Yasemin İnce Güney, "Appropriated A la Franga: An Examination of Turkish Modernization through the Lenses of Domestic Culture", *Unpublished PhD Dissertation*, University of Michigan, 2005.
- 14 Yıldız Sey, "To House the New Citizens: Housing Policies and Mass Housing", Renata Holod & Ahmed Evin (eds.), *Modern Turkish Architecture*, Philadelphia, 1984, 68–93.
- 15 Sibel Bozdoğan, *Modernism and Nation Building: Turkish Architectural Culture in the Early Republic*, Seattle: University of Washington Press, 2001.
- 16 İnci Aslanoglu, *Erken Cumhuriyet Dönemi Mimarlığı, 1923–1938 [Early Republican Architecture, 1923–1938]*, Ankara, ODTÜ Mimarlık Fakültesi Yayınları, 2001.
- 17 Erik-Jan Zürcher, *Turkey a Modern History*. London: Bloomsbury Publishing, 2017.
- 18 "Beynelmillel Mesken Mimarisi" [International Housing Exhibition], *Arkitekt*, No. 253–254, September–October 1952, 201–204.
- 19 For the façade treatments of 1950s: Fuar Apartmanı: *Arkitekt* 30, No. 302, 1961, 6.
- 20 Gülnur Ballice, *İzmir'de 20.yı Konut Mimarısındaki Değişim ve Dönüşümlerin Genelde ve İzmir Kordon Alanı Örneğinde Değerlendirilmesi [Evaluation of the Changes and Transformations of the Architecture of Housing in İzmir within the 20th Century with General Emphasis on Urban Scale and in the Case of Waterfront Area]*, *Unpublished PhD Dissertation*, İzmir, Dokuz Eylül University, 2006.
- 21 Deniz Güner (ed.), *İzmir Architectural Guide 2005*, İzmir Chamber of Architects, İzmir, 2005, 153.
- 22 Mete Coşkunoglu, "1950'ler İzmir Mimarlığında Apartman Olgusu ve Melih Pekel [Apartment Buildings in İzmir Architecture in 1950s and Melih Pekel]." *Ege Mimarlık*, 71, 2009, 28–32.
- 23 Şebnem Uzunarslan, "Erken Cumhuriyet Dönemi Konutlarında Mekân ve Mobilya" [Space and Furniture in the Early Republican Period Residences], *Unpublished PhD Dissertation*, İstanbul: Mimar Sinan University, 2002.

MODERNIST SCHOOL BUILDINGS IN KUWAIT

Zainab Murtadhawi

Sheffield School of Architecture, The University of Sheffield; Arts Tower, S10 2TN Sheffield, United Kingdom; Z.Murtadhawi@sheffield.ac.uk / Kuwait Institute for Scientific Research (KISR); P.O Box No 24885, Safat 13109, Kuwait; zmurtadhawi@kISR.edu.kw or zmurtadhawi@yahoo.com

ABSTRACT.

School buildings represent one of the pioneer architectural models of the 20th century that were developed from the 1950s to 1980s and massively produced in each neighbourhood of the city. They were part of its urban and local fabrication creating public and social spaces. Due to the population growth and the high demand for education, a massive number of school buildings were built in a short period as several replicated built schools. They were representing “one singular design using pre-manufactured elements” known as a prototype or standard model. Each school level had a standard model that was designed to put in practice the new policy of educational pedagogy, and to create a modern learning environment include classrooms and other facilities. This paper demonstrates a development analysis for the social and spatial organisation of the public schools in Kuwait and how social, political and economic influences schools’ design over decades. It is exploring the historical development of modern schools, in Kuwait particularly, from the 1950s to the 1990s, emphasising on the Swiss architect Alfred Roth and his contribution to achieve a satisfying provision design during the 1970s till the 1990s. Through archival research method used, this study focuses on the two alternative designs produced by Roth for each school level. In conclusion, the paper demonstrates a historical narrative for school design development during the modernism era in terms to understand the current learning space and environment. This led to highlight Roth’s design as exceptional typology of his approach for an international architectural style.

1. INTRODUCTION

For many countries, educational building programme grants top priority in developing their realms. In 1946, the United Nation for Educational, Scientific, and Cultural Organisation (UNESCO) was founded to promote international collaboration through educational, scientific, and cultural reforms.¹ As a result, education became one of the main aspects of developing nations and linking national cultures. UNESCO highlighted the free primary education as compulsory and universal for all State members.² Following recommendations of UNESCO, different pedagogical and didactical aspects of education were promoted. In which influenced the production of architectural spaces. Educational buildings turned into school projects, and their design became more standardised with function and indoor comfort requirements.³ The building expression explored its functional programme for the schools, integrating multi-purpose classrooms, and workshop spaces representing a new typology design in the architecture of the twentieth century.⁴ These schools were designed for new cities or suburbs and were built in modern urban areas acting as a social and physical landmark for the community.⁵ Educational architecture has, therefore, become a significant influence in changing societies of the twentieth century and are essential to consider, architecturally, from a historical perspective.

Through archival research method, this study explores the history and process of designing modern educational architecture by several overseas architects in Kuwait, particularly the Swiss architect Alfred Roth. The paper aims to highlight the value of educational spaces and their impact on the creating modern social lifestyle and community de-

velopment.

2. EARLY SCHOOL DESIGNS

In Kuwait’s architectural modernisation underwent a period of rapid movement since 1937, relying heavily on external consultancies and design implementation by overseas practitioners. The government has paid particular attention to free public education for its citizens and has consistently developed the education system and invested in school buildings and their facilities.⁶

In 1951, the Land Acquisition policy of Kuwait’s government identified plots for educational buildings (Ibid). At Al-Shuwaikh district, a large and first secondary school complex for 1400 boys, was designed by Emile Bustani’s⁷ Contracting and Trading Company (C.A.T.),⁸ including classrooms, workshops, laboratories, stadium, and staff accommodations.⁹ The central school complex was built with beautiful finishes and proper services but dismissed students’ accessibility to school. Following year, the first masterplan for Kuwait City was designed by British planners Miniprio, Spencely and McFarlane, where emphasised several schools with their size and distribution among different neighbourhoods in Kuwait.¹⁰ By then, new schools were designed by the Scottish architects Tripe and Wakeham. They were built within two to three years, to provide more educational spaces using Western standardised forms and types in their structure, services, materials, classrooms and facilities (Squaire 1957).¹¹

The Kuwait Council of Education consulted a curriculum for a new educational system in 1955, divided into kindergarten, primary, intermediate, and secondary levels.¹² The

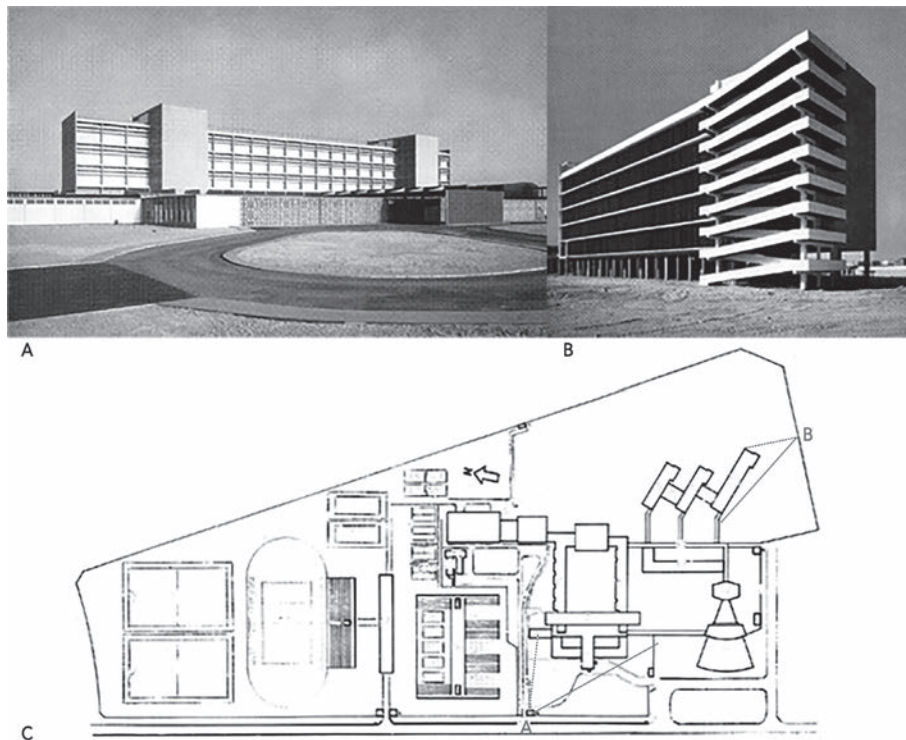


Fig. 1. Rambald von Steinbuchi, Girls Secondary School, Al-Khaldiya, Kuwait © Stenbuchi 1970.

prompt change in the education system was reflected negatively on the existing educational spaces. With the end of the British protectorate in 1961, Kuwait had joined UNESCO and therefore, followed the mission to provide a compulsory and free public education for all its citizens.¹³ Which resulted in an impulsive increase in student's population that demanded more than one hundred school buildings across the country. Despite the conflict in the school construction programme, the government continued the development progress, attempting to reach high standard schools in the region. In 1964, another sizeable secondary school complex was built in Al-Khaldiya district for 1000 girls by the German architect Rambald Von Steinbuchi.¹⁴ The school building was constructed on a one-kilometre-long plot to include special classrooms, sport's zone, swimming pools, gym, and auditorium (Fig. 1).¹⁵ He designed the school considering the building orientation and climate condition of Kuwait, aiming to prevent the heat and sandstorms in summer.¹⁶ Steinbuchi carefully studied the effect of climate on buildings and used imported materials, which lead to a very costly project. The building operated as girls' secondary school for two years before it transfers its use to the use of high education system as Kuwait University in 1966.¹⁷

As part of this development programme, UNESCO assigned Donald G. Barron to evaluate the design of schools and their problems in Kuwait in 1966.¹⁸ In his report, the schools have been criticised for being over-elaborative, out

of scale, failed to provide pleasant quality atmosphere, extravagant use of concrete, inadequate facilities, unsuitable design for climate conditions in most schools, moreover, it has been highlighted for being too expensive.¹⁹ He recommended setting a team of expert architects and educationalists to convert education programme with effective educational architecture.²⁰ Therefore, UNESCO appointed the Swiss international modern architect and academic Alfred Roth to study the school requirements and set guidance for school designs that follows space standards to achieve a comfortable environment and high-quality construction considering the cost rate.²¹ He provided two alternative designs that became Kuwait's school prototype standard for decades. Prototyping enabled the low-cost construction of a large number of schools immediately required: developed in 1969, most had been constructed between the 1970s–1990s and many still exist with only minor modifications to external finishes, courtyard provision, and with additional mechanical ventilation systems.

3. ROTH'S CONTRIBUTION

Alfred Roth was a Swiss architect, academic and a member of CIAM who became the spokesman of the Modern Movement. He worked with Le Corbusier in 1927 and later collaborated with Marcel Breuer and Alvar Alto.²² Alfred became known for his admired books, "The New Architecture"

in 1939 and “The New Schools” in 1950. His contribution to modern school design considered the dimensioning scale, student’s number in classrooms, and space use.²³ Roth’s provision was extended beyond the school boundary, expressing the collaborative relationships between school spaces and society. As a modern international architect, Roth became the head of the school building commission for the International United Architects (UIA²⁴).²⁵ Which together prepared guidance for school designs in several countries. In that way, Roth was assigned to study the school design buildings in Kuwait.

In 1965, Roth was invited by Kuwait’s Ministry of Public Works (MPW) to assess the educational and architectural design of several schools. He visited several schools that he criticised to be poor in consideration of the local climate and physical conditions. His report highlighted three main issues that resulted in poor design quality: open layout unprotected from sandstorms, inappropriate size of classrooms, and large size windows with insufficient shading. Concluding his assessment with basic design recommendations that lead to a new type of school buildings, including a closed courtyard with vegetation and water element, two-story block units with classrooms opening towards the courtyard, considering shading elements on windows and closed corridors between classes (gta Archives/ETH Zurich).

The MPW accepted Roth’s report and his recommendations on new school design and assigned him to provide a prototype “Model Design” for each level of the education system that includes kindergarten, primary, intermediate and secondary. He initiated his design based on five years-plan statistical analysis of Kuwait’s student. The first alternative design by Roth for all school levels was approved and built during 1967–1970. The projects consist of one kindergarten located in Al-Mansouria, one primary school in Al-Sabahia, one Intermediate School in Abdullah Al-Salem, and one girl’s secondary school in Al-Rumaithiya. [In which the primary and intermediate were not constructed for unknown] The second alternative design was initiated to the recommendations made by MPW’s and MoE’s seminars, underlining some modifications to the logical spatial and the structural expression. In which, Roth promoted prefabricated structural elements to the prototyped schools that were built afterwards. All projects were construction with the collaboration of local firms: the Kuwait Engineering Office (KEO) and the Industrial and Real Estate Company, as well international constructing companies: Freyssinet Paris, Steiger Partner AG, and Henauer (Ibid).

4. PROTOTYPE SCHOOL DESIGNS

4.1. A Kindergarten in Al-Mansouria

As the policy of MoE emphasises the gender segregation, only kindergartens were designed for gender-mixed (aged four to six), the rest were separated. Roth proposed a prototyped kindergarten, as shown in Fig. 2[A], with a total

area of 8,856m² on a plot area of 10,950m². The design concept presents four block units centred by an open courtyard. Each unit had a group of three classrooms, a teacher room, and a garden area overlapped by a sleeping room.²⁶ All remaining facilities such as music room, administration, library, assembly hall, and entrance gate were connected by a wide and covered corridor. He used a modular system scheme for space dimensioning with units of 0.55m, 1.10m, 2.20m, 3.30m, and so on. The classrooms were 8.20m by 8.20m with a standard height of 3.85m and the main window using shaded structure. Teachers’ room was 8.4m by 8.2m unit with a height of 3.30m. The open courtyard was designed to be a place for daily flag saluting and playing during break-time, surrounded by covered corridors. The building structure was made of reinforced concrete, and sand-lime bricks placed on the outdoor facades.²⁷

4.2. A Primary School in Al-Sabahia

Unlike kindergarten, primary schools had to be segregated by gender aged six to ten years. However, Roth proposed one design for both genders but with minor changes, including activity rooms such as a needle room for girls and a hobby room for boys. The layout concept, as shown in Fig. 2[B], indicates two open courtyards surrounded by two-story levels of classrooms and facilities linked to the main entrance through a covered corridor. The right courtyard is the “garden courtyard” with 26m by 44m, enclosed by the two wings of 10 classrooms on each floor (20 classrooms total). The laboratory, the library, and the activity rooms are located in between. The left courtyard is the “general courtyard” with 27m by 44m, in which the administration, the assembly hall, and the gymnastic hall are allocated. Similar to the kindergarten, Roth used same structural module system to classify the dimension unit. The classrooms and teacher’s room are 8.50m lengths, 8.50m width, and 3.85m in height, having shaded windows open towards the courtyard. A new type of rooms has been added to the school programme: a prayer room that is placed at the end of the main corridor and oriented towards Mekka, and a scout room which is attached to the stage section with all facilities. The total built-up area for the school is 27,000m², constructed with reinforced concrete and sand-lime bricks used on the outer facades.²⁸

4.3. An Intermediate School in Abdullah Al-Salem

The school programme requirements for both intermediate and primary levels were similar; therefore, Roth proposed the same model design for the intermediate level with minor adjustments. Since the children age in the intermediate level range between ten and fourteen, the size of both courtyards and playground areas had to increase (Fig. 2[C]). The needle room in the primary school was replaced with a domestic science room for girls in the intermediate level. Similarly, for boys, the hobby room was replaced with workshops. Finalising the model design with a total area of 29,600m².²⁹

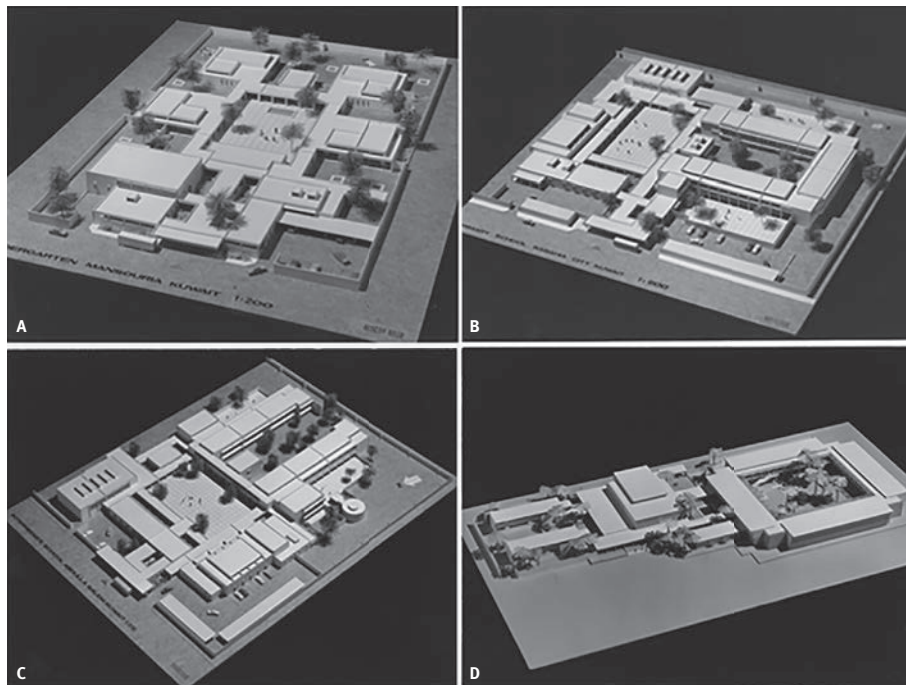


Fig. 2. Alfred Roth, [A] Kindergarten, Al-Mansouria, 1972, a prototype kindergarten model- scale 1:200. [B] Primary School, Al-Sabahia City, unknown date, a prototype primary school model- scale 1:200. [C] Intermediate School, Abdullah Salem, unknown date, a prototype intermediate school model- scale 1:200. [D] Secondary School, Al-Rumaithiya, 1971, a prototype secondary school model- scale 1:200. © gta Archives/ETH Zurich, Alfred Roth.

4.4. A Secondary School in Al-Rumaithiya

In contradiction to the concept of “Central Culture”, as described by Steinbuchel,³⁰ which was applied to the previous secondary schools, this model design was the first to present a new typology reflecting the new pedagogical program. The model, as shown in Fig. 2[D], comprised a square courtyard surrounded by four wings and extended with further administration and facility rooms. All activity rooms were placed on the ground floor of the four wings, including two auditoriums, two for drawing and crafts, three laboratories, a music room, a library, a broadcasting room, and domestic room for girls and workshop for boys. On the first floor, all classrooms were placed facing the courtyard. The courtyard is 45m by 45m surrounded by covered corridors. The assembly hall and gymnastic hall were designed as two flexible rooms that can be separated or combined to hold multi activities include dining, lectures, theatre, music performance, and other social events. All teachers’ room and administration facilities are on one story units facing the courtyard entrance. The far distance on the left, Roth had designed two flat wings for oversees teachers, with a garden courtyard in between (in later stages, flat wings were removed from the programme). There are 24 flats with two beds each, for a total of 48 teachers. Similar to other school models, all structural elements used reinforced concrete. The total area for this model secondary school was 40,000m² (gta Archives/ETH Zurich).

School models were constructed successfully using less plot area considering a comfortable environment with a

profitable expense. These model designs were repeated frequently in a different district to cover the demand of school buildings. Afterwards and due to the population growth, the government demanded more than 100 schools in a short period. Roth had to revise the model designs and adjust them using prefabricated structure to reduce both construction time and cost.

5. PREFABRICATED SCHOOL DESIGNS

The concept of the second alternative design, provided by Roth for the prototype schools, came as a response to the MPW and MoE’s recommendations that emphasised to reduce construction cost for over 100 schools that was required to be built in short period achieving the standard quality. Roth had proposed minor modifications to the previous prototype schools to adequate a unify structural system using prestressed prefabricated element for all four school levels. The area programme and number of classrooms kept as the previous alternative. The proposed layout design was planned to arrange all facilities around the central courtyard with two storeys (Figs. 3[A] & [B]). The size of the courtyard was flexible due to the number of students and the special rooms used. The entrance access was easily arranged according to the near-by street.³¹

The prefabricated concrete elements were developed and designed by Steiger Partner AG, the structural engineer R. Henauer and Roth’s Office. Two-units were delivered as shown in Figs. 3[C] & [D]. The design of each unit aimed to

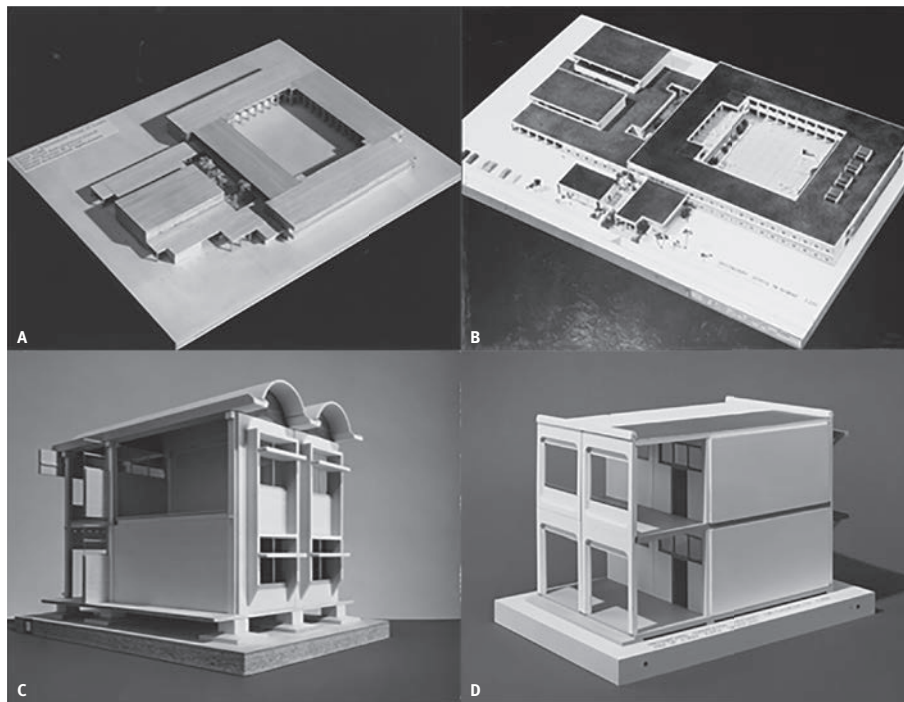


Fig. 3. Alfred Roth, [A] Intermediate School, Kuwait, 1977, a prototype prefabricated intermediate model-scale 1:400. [B] Secondary School, Kuwait, 1979, a prototype prefabricated secondary model-scale 1:200. [C] & [D] Prefabricated structural units for Kuwait's schools, 1975, constructed model scale 1:50. © gta Archives/ETH Zurich, Alfred Roth.

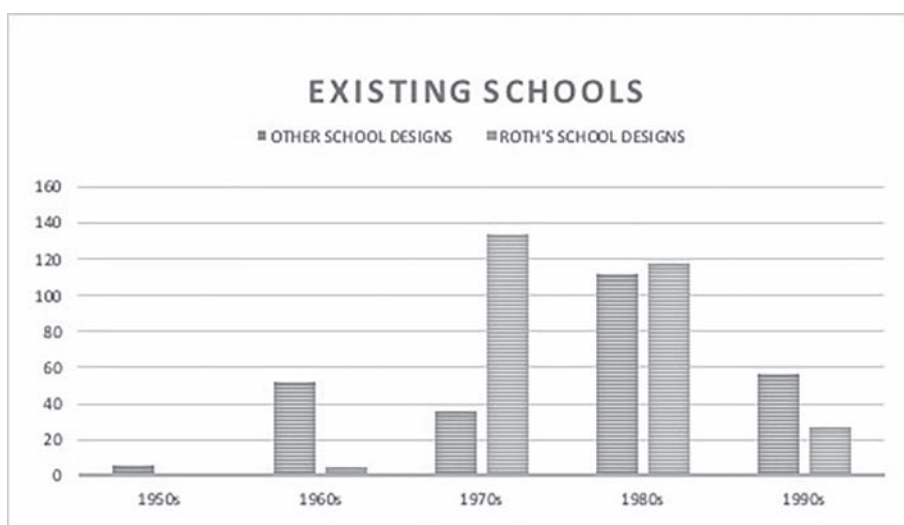


Fig. 4. Number of public-school buildings constructed in Kuwait during 1950s-1990s. © Zainab Murtadhawi, data from MoE 2018.

reduce the number of prefabricated elements include foundation blocks, pillars, floor slabs, vaults, roof channels, roof slabs, external and internal wall slabs, and sill slabs. Windows and doors were thought with standardised aluminium and metal frames.³²

6. DISCUSSION

The urgent call by the government of Kuwait to construct hundreds of school buildings was challenging for

many architects, technical experts, and contractors to achieve a satisfactory level for the educational spaces. After a serious design attempts, Roth's proposals were the most satisfying and widespread school projects in the country. The number of schools had increased precipitously in the 1980s to reach more than 200 schools in all districts (Fig. 4). In comparison to the concept of the "cultural centre" schools, the prototype school buildings were more sizable, accessible, functional, and comfortable for children. Roth's provision design was expanded because of his knowledge about the

actual circumstances, students' population and growth, the standard dimensions, pedagogy requirements, climate conditions, social aspects, and proper expenses.

The prototype design worked in conveying a vision of society specific to time and place, in contradiction of the new school's approach of modernism. Roth had pointed that the prompt urban development and modernisation in the Arab countries will affect the society due to the neglect of the local human, social, cultural habits, and climate conditions in their modernised architectural designs. Therefore, his approach to design schools in Kuwait was to deliver a new typology of educational buildings that represents the oriental courtyard-house, with one large central court surrounded by classrooms with large windows opened inwards, and outdoor exterior that was primary closed. Roth's contribution was an innovative approach that became a reference standard for most Gulf countries.

7. CONCLUSION

The rapid development in the modernisation era mainly had adverse effects due to the insufficient preliminary study of the project, neglect of the practical, cultural, and social aspects. However, the prototype schools designed by the Swiss architect Alfred Roth exposed a satisfying approach to education development and architecture. His approach to providing a new typology design prevented the economic expenses and enhanced the lifestyle of every child of the last century. Although the value of modern schools is remarkable on the historical perspective, questioning their value remains crucial. In which, further study to evaluate the development of these educational spaces and their change is essential, their current physical conditions, the capability to adopt future pedagogy, and their environmental performance use.

ACKNOWLEDGEMENTS

This paper and the research behind it would not have been possible without the exceptional support of my supervisor, Jo Lintonbon. I thank her insight and expertise that greatly assisted the research. Also, I wish to acknowledge the generous financial support from the Kuwait Foundation for the Advancement of Sciences (KFAS) to present this paper at the conference under the Research Capacity Building/Scientific Missions program.

REFERENCES

- AL-RAYYIS, Sabah, *Tarikh Al-Handasah Fi Al-Kuwait*, Kuwait, Manshurat Dar Al-Salasel, 2017.
- BAKER, Lindsay, *a History of School Design and Its Indoor Environmental Standards, 1900 to Today*, Washington DC, National Clearinghouse for Educational Facilities, 2012.
- BARRON, Donald, "Kuwait: The Design of Schools, and Related Problems", *UNESCO Report*, Paris, UNESCO Headquarter, 1967, 1–15.
- C.A.T. Group, "Our History", accessed on January 27, 2020, <https://www.cat-group.net/our-history>.
- FABBRI, Roberto, Sara Saragoça & Ricardo Camacho, *Essays, Arguments & Interviews on Modern Architecture Kuwait*, Kuwait, Niggli, 2017.
- GTA Archives / ETH Zurich, Alfred Roth.
- PEREZ, Bryan H., *Shifting School Design to the 21st Century: Challenges with*

- Alternative Learning Environments*, unpublished Master of Science, University of Nebraska, 2017.
- RAAFAT, Mohammed, "Kuwait Educational Guidance and Examination System", *UNESCO Report*, Paris, UNESCO Headquarter, 1966, 1–18.
- ROTH, Alfred, *The New School*, California, Praeger, 1958.
- SHARP, Dennis, "Obituaries: Alfred Roth, one of the original modernists", *Architects' Journal*, London, 1999, 20.
- SQAIRE, Raglan and Partners, "Educational Buildings in Kuwait; Architects: Tripe & Wakeham", *Architectural Design*, London, John Wiley & Sons, 1957, 94–95.
- STEINBÜCHEL, Rambald von, "Escuela Secundaria Femeninar En Kuvrait", *Informes de la Construcción*, Spain, Consejo Superior de Investigaciones Científicas, 1970, 142–179.
- UNESCO, "International Union Of Architects", accessed on January 27, 2020, <https://en.unesco.org/partnerships/non-governmental-organizations/international-union-architects>.
- UNESCO, "UNESCO In Brief", accessed on January 25, 2020, <https://en.unesco.org/about-us/introducing-unesco>.

NOTES

- UNESCO, "International Union Of Architects", accessed on January 27, 2020, <https://en.unesco.org/partnerships/non-governmental-organizations/international-union-architects>.
- Ibid.
- Lindsay Baker, *a History of School Design and Its Indoor Environmental Standards, 1900 to Today*, Washington DC, National Clearinghouse for Educational Facilities, 2012.
- Bryan H. Perez, *Shifting School Design to the 21st Century: Challenges with Alternative Learning Environments*, unpublished Master of Science, University of Nebraska, 2017.
- Ibid.
- Roberto Fabbri, Sara Saragoça, & Ricardo Camacho, *Essays, Arguments & Interviews on Modern Architecture Kuwait*, Kuwait, Niggli, 2017.
- Bustani is a Lebanese civil engineer graduated from Massachusetts Institute of Technology, USA. He established the C.A.T. group that played a significant and proud role in the history of 20th Century contracting in the Middle East.
- C.A.T. Group, "Our History", accessed on January 27, 2020, <https://www.catgroup.net/our-history>.
- Fabbri, Saragoça, & Camacho, 2017.
- Ibid.
- Raglan Squire and Partners, "Educational Buildings in Kuwait; Architects: Tripe & Wakeham", *Architectural Design*, London, John Wiley & Sons, 1957, 94–95.
- Mohammed Raafat, "Kuwait Educational Guidance and Examination System", *UNESCO Report*, Paris, UNESCO Headquarter, 1966, 1–18.
- Ibid.
- Rambald von Steinbüchel, "Escuela Secundaria Femeninar En Kuvrait", *Informes de la Construcción*, Spain, Consejo Superior de Investigaciones Científicas, 1970, 142–179.
- Ibid.
- Ibid.
- Sabah Al-Rayyis, *Tarikh Al-Handasah Fi Al-Kuwait*, Kuwait, Manshurat Dar Al-Salasel, 2017.
- Donald Barron, "Kuwait: The Design of Schools, and Related Problems", *UNESCO Report*, Paris, UNESCO Headquarter, 1967, 1–15.
- Ibid.
- Ibid.
- Fabbri, Saragoça, & Camacho, 2017.
- Dennis Sharp, "Obituaries: Alfred Roth, one of the original modernists", *Architects' Journal*, London, 1999, 20.
- Alfred Roth, *The New School*, California, Praeger, 1958.
- UIA is a professional architectural platform recognised by UNESCO.
- UNESCO, "International Union Of Architects", accessed on January 27, 2020, <https://en.unesco.org/partnerships/non-governmental-organizations/international-union-architects>.
- The sleeping room has been removed on construction phase as requested by the Ministry of Education (MoE).
- UNESCO, "International Union Of Architects".
- Ibid.
- Ibid.
- Steinbüchel, 1970.
- Ibid.
- Ibid.

THE MODERN ARCHITECTURE OF STATE EDUCATION: TROPICAL MODERNIST DISCOURSES OF WEST AFRICAN SCHOOL DESIGN (1945–1965).

Kuukuwa Manful

SOAS, University of London, Department of Politics and International Studies; 10 Thornhaugh St, Bloomsbury, London WC1H 0XG; kuukuwa_manful@soas.ac.uk

ABSTRACT.

This study explores discourses and records of Tropical Modernism in West Africa. I suggest that Tropical Modernist building projects were likely to have been influenced in usually unacknowledged ways by the African intended users of the buildings and their communities. I analyse records of interactions between modernist architects and the architectures and peoples of colonised regions through a study of school buildings designed and constructed in West Africa in the late colonial to early independence period (1945–1965). I explore what I term as *silences* (that which is not included, or is downplayed) in the historical records, together with archival research and historical document analysis to make a conceptual contribution to the study of Tropical Modernism in Africa.

1. INTRODUCTION

Tropical Modernist architects working in West Africa in the mid 20th century, much like Western Modernists, typically characterised their work as a “rational... rejection of tradition”¹ devoid of regional architectural precedent. These narratives of newness often presented Europeans as originators of architecture in a tabula rasa setting.

In this paper, I question this through a study of the work of two of the most prolific Tropical Modernists practicing in West Africa at the time: Jane Drew and Maxwell Fry. I suggest that ideas and outputs of Tropical Modernism were as much a reflection of prevailing racial hierarchies as they were specific and studied responses to climate, and context, resulting in architecture that reflected the architects’ positionalities and colonial authorities’ civilising mission. As a result, the architecture was likely influenced more than was ever overtly acknowledged by African people and African architectural precedents, given what these Tropical Modernist architects knew about African architecture.

To explore this, I examine *silences* (that which is not included, or is downplayed) in colonial historical records, and what this can tell us about the history of Tropical Modernism in Africa. I illustrate some ways in which Tropical Modernist building was influenced in usually downplayed or unacknowledged ways by Africans, who were formally excluded but nevertheless found ways to assert themselves in the design and construction processes.

Empirically, I combine an analysis of historical literature produced by Africans (memoirs and church histories) about the places, peoples and Christian Missions associated with the various educational institutions, with an archival examination of architectural records, letters, notes and self-authored memoirs of Drew and Fry. I use these to explore aspects of inclusion, exclusion, appropriation and rejection, that are associated with Tropical Modernism in West Africa. While the nature of historical silence means that evidence for African influences is often indirect or suggestive, this

brief exploration illustrates a breadth and depth of potential influences that warrant fuller study. While this short paper can only scratch the surface of this, it adds a new dimension to previous work on the untold influence of African architects on Tropical Modernism² and highlights themes I explore as part of my broader study of the architecture of education in West Africa.

The paper comprises two sections. The first examines Drew’s and Fry’s personal papers to explore how racial and sociocultural factors influenced their Tropical Modernist practice in West Africa. The second (re)constructs a history of the first school that they designed in West Africa: the Amedzofe Training College in Ghana. Through this case study, I highlight interactions among European and African stakeholders, and explore silences in the official records to question how their motivations, intentions, desires and philosophies might have clashed and merged to produce what became Tropical Modernist school buildings.

2. TABULA RASA? TROPICAL MODERNIST DISCOURSES OF PRACTISE IN WEST AFRICA

Western architects in Africa who practised Tropical Modernism — the variant of Modernism that responded to local (tropical) contexts — typically presented themselves as originators of architecture working in a tabula rasa setting devoid of historical and contemporary architectural reference.³ Even when there was overt inclusion of African cultural references — typically in the form of decorative motifs⁴ — their understanding of these cultures was coloured by the racial and sociocultural assumptions of the time.

As pioneers of Tropical Modernism in West Africa and India, Drew and Fry exemplified these attitudes. Married in 1942, they travelled throughout much of British-colonised West Africa, writing about their experiences and collaborating on buildings in present-day Ghana and Nigeria, many of which stand today and are still held up as exemplars of Tropical Modernist architecture. While Fry has been given



Fig. 1. Dormitory Block, Amedzofe Training College designed by Jane Drew and Maxwell Fry, Image source: © Kuukuwa Manful.

ample credit for their work, it is only recently that Drew has begun to receive any kind of equivalent recognition.⁵ The West African part of the couples' practice started in 1944 when Fry was appointed Town Planning Advisor to the Resident Minister with Drew as Chief of Staff (Jackson and Holland 2014). From the mid-1940s, the two were commissioned by the Colonial Education office to design schools across West Africa.

Drew and Fry thought that their practice in West Africa and India freed them from constraints of politics that inhibited architects back in the United Kingdom. Fry, for instance, while demonstrating a keen awareness of the effects of clients, culture, politics and elite tastes on architecture in Britain, writes that his and Drew's practise in West Africa was unaffected by what he viewed as negative aspects of practicing in Europe. These were embodied by what he describes in his unpublished memoir as "an irresponsible plutocracy set beside a state of competing anarchy badly served by a commercialised and self-congratulatory media".⁶ He states:

*Our work in West Africa and again in Chandigarh was sufficiently withdrawn from this hubbub to be exceptional. For in both cases we dealt with clients whose intentions were clear to both them and us. And who valued architecture as a social and cultural instrument.*⁷

In this extract, Fry expresses sentiments that at first may appear contradictory, but closer reading suggests that this

freedom was only possible because in the colonial context he was, perhaps for the first time, part of the dominant sociopolitical order. The commissioning "clients" in West Africa were typically colonial governments and missionaries who were inclined to dominate and erase indigenous cultures, and this conveniently aligned with Fry's Modernist ethos of rejecting tradition.⁸ While Modernism was "reviled by the British" public⁹ who had some influence over planning decisions, architects and their colonial clients could take the West African public's opinions on Modernist architecture less seriously as colonised subjects lacked the recognised voice that British citizens would have. Fry (and Drew) possessed power and privilege in the West African colonies that they did not have at home, which allowed them to be more experimental.

This power and privilege not only allowed Drew and Fry to be more experimental in their architecture than they would have been in Britain, but also enabled them to act as if Africa were a blank slate for their experimentation. In a set of preparatory notes for a lecture Drew gave in 1988 about their practice, she claimed that they "invented town design and building design in West Africa".¹⁰ She further claimed that "there was no model for African building".¹¹

This view is especially peculiar in Drew's case. Her writings reveal both an unusual perceptiveness (for the time) of cultural and contextual factors, as well as an inability or unwillingness to recognize the ways in which these meant she was not working in a tabula rasa. For example, her percep-

tiveness is illustrated in one passage in which she writes about “invent(ing) a suitable architecture for “the first university in Nigeria” that “follow(ed) the “pattern... of English Universities”.¹²

*... our task as architects was to design this university in Africa and as part of its culture so that the Africans would recognise it as theirs and also feel that it was in no way inferior to these universities in England and Scotland where rich Africans had previously sent their sons.*¹³

She was also known to arrange at least one viewing of a project proposal by local chiefs and authorities in the Gold Coast which both she and Fry record in their West Africa papers.

However, this perceptiveness was matched by what seems an occasional erasure. For example, she asserted that “there was no model for African building other than the Public Works Buildings which were British colonial and were not designed with the specific West African conditions in mind”.¹⁴ While her insight about the environmental unsuitability of British colonial buildings shows a keen awareness of some aspects of context, the assertion that “there was no model for African building” overlooked the existence of African building traditions that she and Fry had both seen and written about in their letters and memoirs. For instance, of Kano in Nigeria, Fry raves in his unpublished memoir about “the completeness of (the) city”, the “realisation of urban harmony with its detailed richness of wall decoration, “its arab (sic) doors” and “glowing shade in open store fronts”. He even contrasts this favourably with his descriptions of “the careless and haphazard chaos of European occupation” in the city.¹⁵

That Drew and Fry can still speak of “invent(ing)”¹⁶ architecture anew on a blank canvas after having seen and praised these buildings in Kano suggests that their view of Africa as *tabula rasa* must be understood more a wilful erasure from a context of power than a matter of ignorance. Even as they sought to create a new architecture to match the context, Drew and Fry were enmeshed in the racial worldviews and attitudes of their time which led colonial officials and missionaries to ignore, overlook or obscure evidence of cultural achievement in Africa. This occasionally led to contradictions and confusion: for example, Drew referred to Africans as “primitive”, but struggled to reconcile this with evidence she encountered of “high intelligence” in African artists and even a “more visual awareness than most developed nations”.¹⁷

Despite their assertions, Tropical Modernist architects did not “invent town design and building design in West Africa”,¹⁸ nor were they driven solely by rationality and free of the unscientific racial assumptions of their time. But sitting at the top of colonial sociopolitical hierarchies did mean that they could represent the situation this way to themselves and others, and ignore evidence to the contrary. This

raises the question: what else did this power and privilege enable them to omit about the influences on their work, and the role of Africans in it?

To explore this question, the next section (re)constructs a history of the founding and building of the first educational institution designed by Drew and Fry in West Africa — The Amedzofe Training College (ATC / Fig. 1) in Ghana — to interrogate what silences in the historical record might conceal in the history of specific Tropical Modernist building projects.

3. A CASE STUDY OF AMEDZOFE TRAINING COLLEGE

The ATC was founded in 1946 by the Ewe Presbyterian (EP) Church¹⁹, though there had been various Training Schools and Elementary Schools run by missionaries in Amedzofe for decades. It was initially set up as a two-year teacher training college with a first intake of thirty male students until 1950 when twenty female students were admitted.²⁰ The campus is located on a high peak in Amedzofe in the Volta Region of what is now Ghana, and is laid out amidst various hills and depressions, with some of the buildings straddling the edge of rocky outposts.

The ATC was Drew and Fry's first school project as a team, and Drew first introduces the Amedzofe project in her memoirs by speaking of an “old couple of missionaries (who) had started a school there” and asked them to take on the project.²¹ The first interaction with any Africans around the project is noted by Drew, who recounts that while they were

*... pacing the land, a tribal delegation came to the house beating drums, speaking Ewe which was translated as the ‘tribe had heard of our intention and wished to help, they would make roads and if we preferred another site they would make it accessible’.*²²

While this brief mention of an interaction suggests that the local chiefs and people were committed to the school building project, in Fry's account of the project, the Africans had very little to no involvement. Drew makes few other references to African involvement during building or design save the “thieving” locals and the labour contributed by the community (Drew, n.d., 81). The clients they do repeatedly refer to are the missionaries and Thomas Barton, the then Director of Education who Fry describes as a “champion for architecture and the good life”.²³ The only time any “local people” enter the record as “clients” is when they are grouped with “the soil, the rocks and the climate” in a rather flowery passage by Fry where he declares “the country” to be his client.²⁴

But this minimal extent of African involvement seems implausible, particularly in this case. More than other Christian missions in the colonies, Africans were influential in the direction of the EP Mission's activities as a result of a series of events stemming from the World Wars and Brit-

ish-German hostilities. As Tay recounts, the EP Mission, including what was known as the Amedzofe Training School, was originally under the German Bremen Mission until the First World War when the British colonial government deported all Germans in the Gold Coast and Togoland.²⁵ Responsibility for the all the churches and missions including those in Amedzofe fell primarily to the African, mostly Ewe, pastors and catechists. There was a lone missionary from the Bremen Mission left in place, owing to the fact that he was Swiss, not German. However, this missionary, Burgi, retired in 1921, leaving all of it to the Africans who elected their own moderator and ran the mission solely until 1923 when The United Free Church of Scotland aided by the British colonial government took over.

Even after the Scottish takeover, however, there was a high level of African leadership in the church, and “Ewe converts started to connect Christianity with education and the commercial benefits such as securing employment in European firms and the colonial administration that came with it” and thus actively sought to send their children to schools, and to help missionaries establish schools in their communities.²⁶ Since 1922, all the Moderators of the church have been African, and the Synod Committees have been majority African, making it one of the oldest African-governed churches in Africa.

Given this prevalence and influence of African leaders in the EP church, it seems implausible that the African church leadership were not involved in the decision to construct new school facilities, or in the design and building of these facilities. Yet any such involvement is absent from Drew and Fry’s recounting of the project. While these gaps in their records and the paucity of written records by their African contemporaries make it impossible to say conclusively, at a minimum these silences in the record suggest a minimising of the contributions of Africans. This would be consistent with the sociopolitical and racial biases of the time, as expressed by both architects in their writings and as reflected in their presentation of Africa as a tabula rasa devoid of architectural referents.

Unfortunately, this silence can only hint at what influences might have existed and what active roles Africans might have played in the design and construction of the Amedzofe Training College, so the silences in the historical record prevent us from making conclusive statements. But if these realities of building in late colonial Africa imply that Africans must have played significant — and largely unacknowledged — roles, then we must ask what other ways might African voices, desires and agency have driven the design and construction of the Amedzofe Training College, or indeed other of Drew and Fry’s projects?

4. CONCLUSION

Some of the claims to newness that Tropical Modernists made about designing in West Africa had much to do with

ideas about race and the colonial project. Though education was used by colonial authorities as tools of control, many Africans were enthusiastic for the benefits that education gave them (such as access to jobs in the colonial system) and thus actively contributed to constructing schools. Yet their contributions to their education and the buildings in which it happened have been overlooked, and largely erased in colonial architectural records.

Exploring and unpacking silences in historical records of Tropical Modernism could give new insights into the histories and trajectories of the style and its architectural products, African influences on colonial architectural projects, as well the various ways in which colonised peoples navigated processes of coercion and disenfranchisement. Furthermore, it could help us better understand contemporary issues around use, disuse, preservation and abandonment of Tropical Modernist buildings in West Africa. By consulting sources including those recorded or passed down by Africans, we are able to reconstruct a very different, if still incomplete, picture of Africans’ role in Tropical Modernist architecture. While this essay has only scratched the surface of this project, it holds the potential to change the way we view the evolution of Tropical Modernist architecture.

REFERENCES

- BENEBA, “Brief History About E.P. College of Education, Amedzofe”, Ameco Connect (blog), 11 May 2019, accessed on 6 February 2020, <https://amecoconnect.blogspot.com/2019/05/brief-history-about-ep-college-of.html>.
 DREW, Jane, “Jane Drew’s Lecture Notes”, Manuscript London, F&D/4/7. The RIBA Collections, London, ca 1988.
 ———, “Jane Drew’s Note on Hospital Design, Universities, Town Planning and Chandigarh”, Manuscript, London, F&D/4/5. The RIBA Collections, London, 1988.
 ———, “JD’s Autobiography”, Manuscript London, F&D/29/1, The RIBA Collections, London, n.d.
 FRY, Maxwell, “Text Titled India”, Manuscript, London, F&D/4/2, The RIBA Collections, London, 1983.
 ———, “EMF Memoirs. Part III. West African Planning”, Manuscript, London, F&D/19/2, The RIBA Collections, London, 1985.
 JACKSON, Iain, “Tropical Modernism: Fry and Drew’s African Experiment | Essay | Architectural Review”, Online Architecture Magazine, *The Architectural Review*, 4 July 2014, <https://www.architectural-review.com/essays/tropical-modernism-fry-and-drews-african-experiment/8665223.article>.
 JACKSON, Iain, & HOLLAND, Jessica, “The Architecture of Edwin Maxwell Fry and Jane Drew: Twentieth Century Architecture”, *Pioneer Modernism and the Tropics*, 1 edition, Burlington, VT, Routledge, 2014.
 LISCOMBE, Rhodri Windsor, “Modernism in Late Imperial British West Africa: The Work of Maxwell Fry and Jane Drew, 1946–56”, *Journal of the Society of Architectural Historians* 65 (2), 2006, 188–215, <https://doi.org/10.2307/25068264>.
 MANFUL, Kuukuwa, “Building Identity: Ghanaian Architects and Tropical Modernism”, Oxford, University of Oxford, 2015.
 SUDJIC, Deyan, “Modernism: The Idea That Just Won’t Go Away | Art and Design”, *The Observer*, 29 January 2006, a, <https://www.theguardian.com/artanddesign/2006/jan/29/architecture.modernism>.
 TAY, David C. K., *Mawuli School: The Early Years*, FriesenPress, 2017.

NOTES

- 1 Rhodri Windsor Liscombe, “Modernism in Late Imperial British West Africa: The Work of Maxwell Fry and Jane Drew, 1946–56”, *Journal of the Society of Architectural Historians* 65 (2), 2006, 188–215, <https://doi.org/10.2307/25068264>.
- 2 Kuukuwa Manful, “Building Identity: Ghanaian Architects and Tropical Modernism”, Oxford, University of Oxford, 2015.
- 3 Iain Jackson, “Tropical Modernism: Fry and Drew’s African Experiment | Essay | Architectural Review”, Online Architecture Magazine, *The Architectural Review*,

- 4 July 2014, <https://www.architectural-review.com/essays/tropical-modernism-fry-and-drews-african-experiment/8665223.article>; Iain Jackson & Jessica Holland, "The Architecture of Edwin Maxwell Fry and Jane Drew: Twentieth Century Architecture", *Pioneer Modernism and the Tropics*, 1 edition, Burlington, VT, Routledge, 2014.
- 4 Jackson & Holland, 2014; Kuukuwa Manful, "Building Identity: Ghanaian Architects and Tropical Modernism", Oxford, University of Oxford, 2015.
- 5 Jackson & Holland, 2014.
- 6 Maxwell Fry, "Text Titled India", Manuscript, London, F&D/4/2, The RIBA Collections, London, 1983, 29.
- 7 Ibid., 29.
- 8 Jackson and Holland, 2014.
- 9 Deyan Sudjic, "Modernism: The Idea That Just Won't Go Away | Art and Design", The Observer, 29 January 2006, accessed 15 February 2020, <https://www.theguardian.com/artanddesign/2006/jan/29/architecture.modernism>.
- 10 Jane Drew, "Jane Drew's Note on Hospital Design, Universities, Town Planning and Chandigarh", Manuscript, London, F&D/4/5, The RIBA Collections, London, 1988.
- 11 Ibid.
- 12 Ibid.
- 13 Ibid.
- 14 Ibid.
- 15 Maxwell Fry, "EMF Memoirs. Part III. West African Planning", Manuscript, London, F&D/19/2, The RIBA Collections, London, 1985, 159.
- 16 Drew, 1988.
- 17 Jane Drew, "Jane Drew's Lecture Notes", Manuscript London. F&D/4/7. The RIBA Collections, London, ca 1988.
- 18 Drew, 1988.
- 19 BENEBA, "Brief History About E.P. College of Education, Amedzofe", Ameco Connect (blog), 11 May 2019, accessed on 6 February 2020, <https://amecoconnect.blogspot.com/2019/05/brief-history-about-ep-college-of.html>.
- 20 Ibid.
- 21 Jane Drew, "JD's Autobiography", Manuscript London, F&D/29/1, The RIBA Collections, London, n.d., 80.
- 22 Ibid., 81.
- 23 Fry, 1985, 182.
- 24 Ibid., 182.
- 25 David C. K. Tay, *Mawuli School: The Early Years*, Friesen Press, 2017.
- 26 Ibid.

Session 8-i

WILL GLOBAL/ LOCAL MODERNITIES CREATE A TRULY COSMOPOLITAN BUILT ENVIRONMENT?

Sumiko Ebara

Associate Professor, Chiba University

The Docomomo International Conference has 11 sessions for global/local modernities, which is one of the biggest categories in the conference. This number is reasonable because the modern movement itself is a global one that has taken root in many places. Perhaps this number is still not enough to show how the architecture of the modern movement, born in Europe, spread around the world. However, even a glance at the four papers in this session will give you a sense of the breadth of this topic. The four papers in this session cover case studies from Brazil, Chile, Shanghai and Singapore. Now, I would like to comment about the papers in chronological order.

First, João's Delgado and Ana Tostões's paper focuses on the Hongqiao Sanatorium built in Shanghai, China. The architect Xi Fuquan (1902–1983) spent the 1920s in Darmstadt and Berlin, where he saw and learned about the architecture of the modern movement. As well as Xi was influenced by famous architects such as Bruno Taut, J. P. P. Oud, and Alvar Aalto, the Hongqiao Sanatorium also references the architecture of the sanatorium by Döcker and Duiker. The sanatorium is a typical modern institution that considers hygiene in a rational and functional way. To achieve this, it is reasonable to adopt modern designs and materials. In this building, the Chinese character is only slightly evident in the decorative elements. However, the Chinese architecture was originally standardised and modular architecture. In the Taoist view, acceptance of change is natural. It can be seen that Chinese society accepted the modern movement naturally. This paper concluded, 'Chinese modern architecture is not only able to maintain its own distinguished identity based on cultural distinctions and traditions but also explore and provide meaningful contributions to what would be a truly cosmopolitan modern world'.

Next, Maria Cristina Wolff de Carvalho's paper highlighted the Armand Alvares Penteado Foundation, built in

São Paulo, Brazil. The building designer Antoni Dygat, who had worked in Poland in the 1930s, was also educated at the Ecole des Beaux-Arts in France, where he studied the architecture of Auguste Perret before moving to Brazil in 1947. From the outset, the design of the Armand Alvares Penteado Foundation was to be supervised by Perret, but due to Dygat's ill-health and his death, Perret took over the work. Not only did its classical beauty arouse suspicion among art and architecture critics, but the rawness of the reinforced concrete was unacceptable to Brazilians. However, it is noteworthy that recent reappraisals have led to a better understanding of the building.

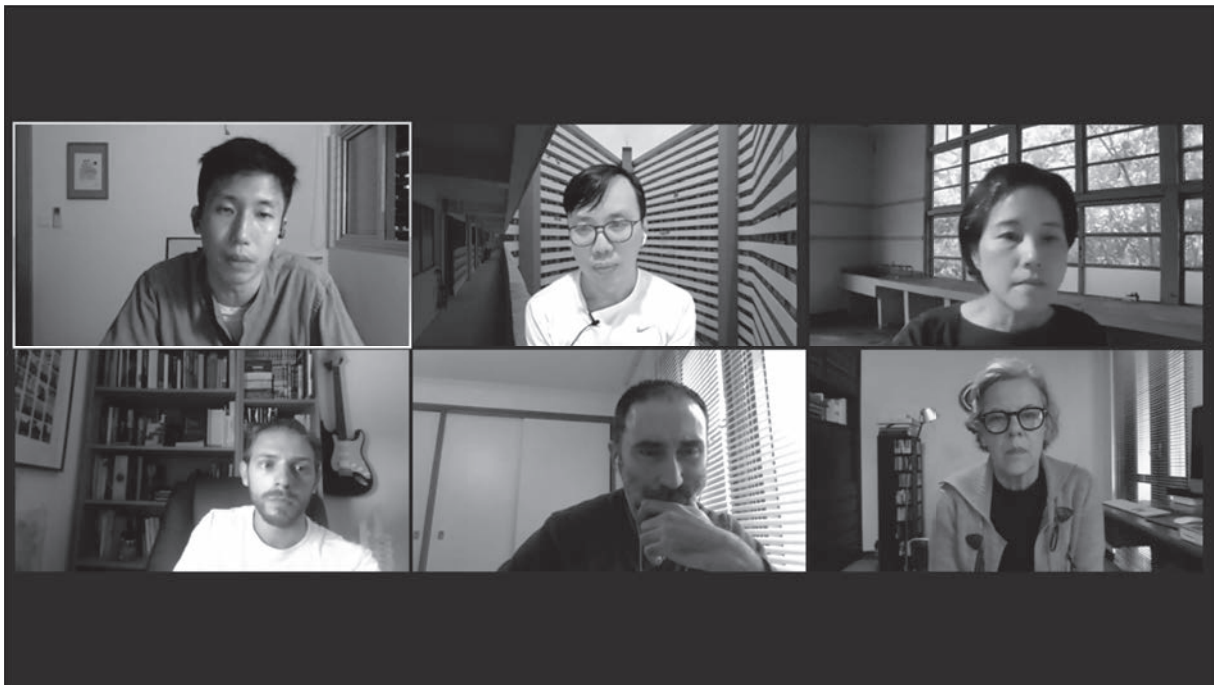
On the other hand, projects that do not involve well-known architects are less likely to be well appreciated. Cerro Sombrero in Chile, which Boris Cvitanic Díaz's paper describes, is a town built for the oil industry from 1956 to 1960. It consists of five sectors: civic centre, industrial sector, and residential areas for employees, labours and drivers. The design was not only in accordance with the principles of the Athenian Charter, but also was reminiscent of 19th century North American suburbs. Architecture projects of the complex were executed by private architecture offices in Santiago and architects from the state company Empresa Nacional del Petróleo (ENAP). Cerro Sombrero is certainly a collective project. However, as this paper states, Cerro Sombrero prompts us to think about the adequacy of modern architecture beyond formal resources and principles towards an idea of modernity that can be well materialised in dissimilar objects, resources and strategies.

Finally, Jiat-Hwee Chang and Justin Zhuang's paper discusses heroic modernism and everyday modernism in Singapore. Since the establishment of Singapore in 1959, this city-state has been constantly developing on a limited amount of land. In addition to celebrated exemplary buildings, large number of houses, markets, etc. have been sup-

plied under prototypes created by government bureaucrats such as the Housing Development Board (HDB), Public Works Department (PWD) and Jurong Town Corporation (JTC). In Singapore, not only heroic modernism architecture such as Pearl Bank Apartment, but also ordinary public housing and public buildings have often undergone extensive state-subsidised retrofitting or demolition and redevelopment in the name of 'upgrading'. On the other hand, buildings such as warehouses are being converted to shops or cinemas to church halls. These modifications emerged through everyday practices. As the authors insist, through

physical modifications and maintenance, over changing programmes, social lives, and with social adaptations and cultural appropriations, modernist buildings have become Singapore's vernacular.

On the periphery of the modern movement, not only exceptional or 'heroic' but also typical or 'everyday' modern architecture and architects deserve more attention, interest and research. As the modern movement took root in different parts of the world, it absorbed the techniques and ideas of each region, and perhaps it will create a truly cosmopolitan built environment.



SÃO PAULO'S ARMANDO ALVARES PENTEADO FOUNDATION: ITS ROOTS, RECEPTION AND FUTURE

Maria Cristina Wolff de Carvalho¹ and Francisco Barros²

¹ Fundação Armando Alvares Penteado; Av. Higienópolis 360, ap 132, São Paulo, SP, Brazil; mcris.wolff@gmail.com

² Fundação Armando Alvares Penteado; R. Joao Moura, 1182, ap 22, São Paulo, SP, Brazil; chicobarros@uol.com.br

ABSTRACT.

The main building of the Armando Álvares Penteado Foundation, which we will refer to as FAAP, houses the Museum and School of Art in São Paulo. In addition to serving as a symbol of the institution, the building is also particularly noteworthy within the context of modern architecture in Brazil for bearing the signature of Auguste Perret. This architectural project, first conceived by the institution's founder, Armando Álvares Penteado, was initially taken on by Perret's disciple, the Franco-Polish architect Antoni Dygat, a recent immigrant to Brazil, who, unfortunately, would die two years after having been commissioned to do the work. During that same period, Perret — at Dygat's own suggestion — was hired as a consultant on the project and ultimately took over the contract through its completion. These circumstances have resulted in the almost complete suppression of Dygat's name in the narrative concerning the project's development, an oversight that is in dire need of revision. What's more, the sixty years in which the building has dominated the landscape of the Pacaembu neighborhood and the artistic and cultural life of São Paulo have been marked since the very beginning by noticeably unsound decisions that have derided the work's architectural merits. In this presentation, we will establish the building's architectural roots and principles, and assess the biases behind its reception.

The main building of the Armando Alvares Penteado Foundation, which we will refer to as FAAP, houses the Museum and School of Art in São Paulo. In addition to serving as a symbol of the institution, the building is also particularly noteworthy within the context of modern architecture in Brazil for bearing the signature of Auguste Perret. This architectural project, first conceived by the institution's founder, Armando Alvares Penteado, was initially taken on by Perret's disciple, the Franco-Polish architect Antoni Dygat, a recent immigrant to Brazil, who, unfortunately, would die two years after having been commissioned to do the work. During that same period, Perret — at Dygat's own suggestion — was hired as a consultant on the project and ultimately took over the contract through its completion. These circumstances have resulted in the almost complete suppression of Dygat's name in the narrative concerning the project's development, an oversight that is in dire need of revision. What's more, the sixty years in which the building has dominated the landscape of the Pacaembu neighborhood and the artistic and cultural life of São Paulo have been marked since the very beginning by noticeably unsound decisions that have derided the work's architectural merits. In this presentation, we will establish the building's architectural roots and principles, and assess the biases behind its reception.

The history of the FAAP building began in 1938, when Armando Alvares Penteado (1884–1947) recorded in his will a desire to build "... a School of Fine Arts, comprising Painting, Sculpture, Architecture and Design, which would also contain a gallery for the exhibition of original paintings."¹ When he died in 1947, his widow, Annie Alvares Penteado, saw to it that the conditions of his will were fulfilled, thereby creating the institution that would bear his name.

Armando was one son of Count Antonio Alvares Penteado, who died in 1912. The family was distinguished not only by a noble name, tradition and fortune, but by the count's unswervingly innovative nature. He was open to new ideas and achievements in the social, scientific, educational and artistic fields, an attitude that he instilled in his children.² Armando spent much of his life between São Paulo and Paris. It was in France that he married his wife, Annie, who shared his passion for the fine arts, collecting, and art education with a sense of determination and commitment.

The design for the museum and school was initially drafted by Armando himself, who had studied in the Engineering and Architecture Department at the Polytechnic School of São Paulo, and who had his own design studio. These initial plans launched the process that would be brought to fruition by Annie shortly after his death.

Penteado contacted French-Polish architect Antoni Leopold Wincenty Dygat (Écouen, 1886–São Paulo, 1949) to develop the project. Dygat had an impressive portfolio of works completed in pre-World War II Poland, which pivoted freely between modern academic approaches and a Bauhaus-oriented abstract functionalism. Jadwiga Roguska, in a 2009 article titled "Modernism in the Architecture of State and Municipal Institutions in Warsaw of the 1920s and 1930s"³ offers an overview of the modern trends reflected in the official architecture of the Polish capital during that period and discusses two buildings designed by Dygat housing institutions of national importance: the Polish National Security Printing Works (1925–26), and the Military Geographic Institute (1933–35). Significantly, Roguska notes that in the latter project, Dygat "...distinguished himself through his textured effects on the stone cladding and his French (Perretian) inspirations."⁴

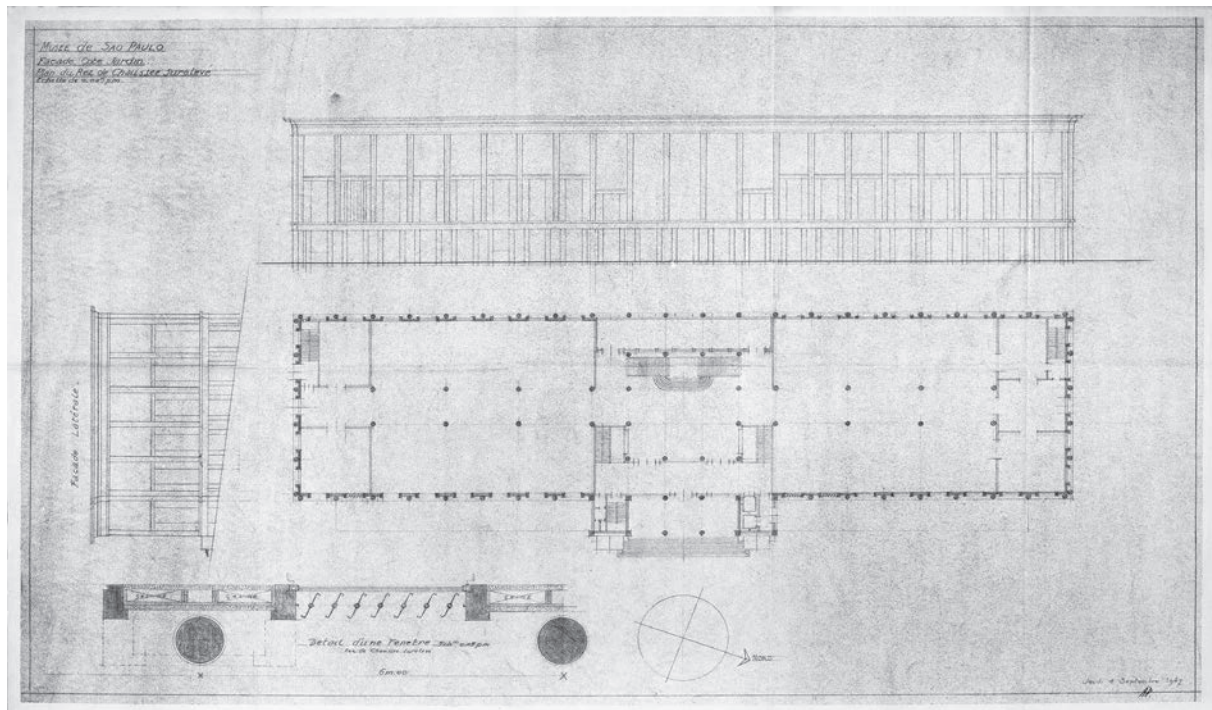


Fig. 2. Auguste Perret, “Musée de São Paulo, Façade Cote Jardin, Plan du Rez de Chaussée surélevée”, São Paulo, Brazil, 1947. © Arquivo FAAP.

prepared a report in the form of an outline “in four drawings that will say more than a single long narrative,” also sending his essay mentioned above, “Le Musée Moderne.” In his evaluation of Dygat’s work, Perret confirms that “his way of dealing with the late Mr. Penteadó’s initial idea” was correct.⁹ So, Perret clearly supported Dygat.

A comparison of Dygat’s plans and Perret’s shows that the building’s geometry and its positioning on the ground as proposed by Dygat was preserved by Perret. In his plan, there is a refinement and ordering of the whole plan a lightness that is acquired through the proportions, both of the central hall and of the external openings. The Claustura in masonry and the columns interconnect and infuse the building with Perret’s developed vocabulary (Fig. 2).

In her correspondence with Perret after her husband’s death, Annie Penteadó expresses her approval of the direction he had indicated and that Dygat would certainly support his intentions. Following that, writing to Perret, Dygat once again expresses his reverence for his mentor, confirming that Perretian principles would guide the project and that he hoped he could count on him for advice as the work progressed. Dygat writes that he is proud to note that Perret has accepted his way of approaching the concept of the late Mr. Penteadó. He says he is deeply grateful for the drawings that show the proportions of the beams of the museum’s vast portico and, above all, the proportions of the central part in relation to the whole.

Seventeen months after that exchange of letters, a technical report concerning the construction of the building was sent by Perret to Annie Penteadó on March 11, 1949.¹⁰ The date is important because during 1948 there were no letters. Our conclusion is that Dygat was removed or asked to be removed from the project during 1948. We are not certain. What we do know is that Dygat started the project, provided a Perretian design for the building and suggested the collaboration with Perret.

Perret’s 1949 report, however, does not include any mention of Dygat and so reveals that at that time Perret was already in charge of the project. Dygat died in São Paulo in July 1949, which leads us to assume that his absence from any involvement following his letter to Perret dated October 1947 may have been caused by some impediment linked to his health.

In his technical report, Perret outlines the project’s architectural elements and principles that can be summarized as follows:

- 1- Modernity and tradition: a foundation in history and in the Classical standards of proportion, symmetry, and architectural order, reinterpreted in light of the construction and structural possibilities of reinforced concrete.
- 2- A horizontal design, with a monumental central component — the great hall — and two symmetrical wings — just as Dygat suggested;



Fig. 3. Auguste Perret, FAAP main building under construction, São Paulo, Brazil, c. 1955. © Arquivo FAAP.

- 3- Reinforced concrete structure that both highlights and is detached from the non-structural walls, the building's "skeleton" and an "ornament" itself.
- 4- Use of concrete, in all its forms. The "bouchardage" process to be used for the concrete finish of all apparent surfaces, giving them a characteristic granular texture.
- 5- Openings located between the structural spans;
- 6- Use of Claustra blocks — hollow blocks providing separation between exterior and interior, which could be either concrete or ceramic material;
- 7- Stained-glass incorporated into the Claustra apertures, denoting the integration of the various arts with designs that explore chromatic differences through light;
- 8- Use of the "Perretian order:" smooth or fluted column shafts with stylized plant-motif capitals;
- 9- Presence of reinforced concrete stairs, with plastic and structural innovations;
- 10- Conference hall with its main access from the opposite side of the large hall, on a lower level, thus taking advantage of the natural slope of the terrain.
- 11- Incorporation of the building into the urban context of Pacaembu, taking into account the organic arrange-

ment of the streets, the rugged topography, and the surrounding landscapes and vistas — this too reflects Dygat's design.

By May 1949, Annie tells Perret that the project was approved by the Foundation's board. She says that "all members unanimously recognized his work as that of a great master," and showed "vivid admiration for the changes presented in the floor scheme." She goes on to say that, although still in the initial phases, "the project is moving forward quickly" and that in a short time she hopes to see his structure realized.¹¹

Surprisingly, approximately nine months later, in a letter to Perret, Annie expresses her great disappointment with the "project's unpopularity" (Fig. 3):

*And so, every day, we struggle with new difficulties. If it were not for the memory of my husband and the impression that this will enrich the intellectual heritage of the country, and if I had not been able to count on your invaluable assistance, I believe that I would have already abandoned the project, because the people here have not yet reached the level of maturity to understand it.*¹²



Fig. 4. Auguste Perret, FAAP main building's Great Hall under construction, with stairs, columns and, in the foreground, a model of a Perretian capital. São Paulo, SP, Brazil, 1955. © Arquivo FAAP.

Let us turn now to the building's reception.

The rejection Annie felt may have stemmed from a clash of artistic currents, which in turn were linked to political and intellectual approaches championed by opposing groups in Brazil, each fiercely seeking to defend the primacy of their own worldview and understanding of art. In São Paulo in the early 1950s, the evolution of the International Architecture Exhibitions (EIA), the International Architecture Biennials, and, in parallel, the establishment of museums, particularly the São Paulo Museum of Art (MASP) and the Museum of Modern Art (MAM), represented one side of this cultural clash¹³ a mainstream supporting a broad Corbusian modernism, and an emerging Brutalism linked with socialist ideologies. During this time, the FAAP project was almost entirely ignored by the mainstream, as were the names of Dygat, Perret and Annie Penteado. The architecture of the FAAP building aroused suspicion because of its Classically inspired aesthetics, its links with European architecture history and its avoidance of Modernist standards, which were being widely and enthusiastically championed in Brazil. Furthermore, the FAAP building was associated

with the nearby Pacaembu stadium, a municipal structure built by the Ramos de Azevedo firm dating from the late 1930s, which exhibits Classical-Modernist principles. In this context, the biased reception of the FAAP building seems due to ignorance about the building's principles, but also to deliberate exclusion.

The building was also subject to alteration. For example, during the long period of its construction, until its inauguration in 1961, FAAP's exposed reinforced concrete structure with its gray finish were covered over. Those decisions, which contradicted the recommendations for the project's guiding principles, can be explained by the apprehension that the FAAP management might have had regarding the public's reaction to the rawness of the building materials. Although the building was in line with the dominant currents of modernity prior to the explosion of "São Paulo Brutalism," the most influential art and architecture critics at that time in Brazil seemed to have disdained such boldness.

We want to stress how concrete was key to Perret and this museum although misunderstood in Brazil. The Perret Frères firm played a fundamental role in the introduction of reinforced concrete in architecture. They continuously

sought to promote the use of reinforced concrete in architecture, a material still considered experimental in the early twentieth century and viewed with great reservation when applied to architecture. Until then, its use was limited to large structures in civil construction, such as bridges, viaducts and industrial complexes. Through the firm's use of concrete, it contributed to the evolution of the visual poetics of the built environment throughout the century.

With recent revisions of the narrative of the history of architecture, the works of Auguste Perret have been gradually reappraised. He is now celebrated with exhibitions and publications, and his works are the subject of conservation programs. The evolving reception of Perret's architecture is, we believe, part of a more inclusive and comprehensive understanding of the driving ideas of modernity. The historical narrative has become more complex. In turn, the FAAP building, despite its initial reception, is being newly admired. The 2018 exhibition *Opening archives: the architect Auguste Perret and his design for FAAP's art museum* at FAAP, which we curated, and the building's inclusion in the São Paulo's annual "Heritage Journey," with guided visits to historical landmarks, are some initiatives that sensitize the public. Nevertheless, a deeper exploration of the building's reception, and also FAAP's reaction to its initial reception, can still be studied (Fig. 4).

NOTES

- 1 Will Armando Alvares Penteado, FAAP Archives.
- 2 Pompeu de Toledo, Roberto, *A Capital da Vertigem: uma história de São Paulo de 1900 a 1954*. São Paulo, Objetiva, 2015, 104–105.
- 3 Jadwiga Roguska, "Modernism in the Architecture of State and Municipal Institutions in Warsaw of the 1920s and 1930s," *Architecture, Civil Engineering, Environment Acee-Journal*, Warsaw, No. 4/2009, The Silesian University of Technology, 2009, 31–40.
- 4 Idem, 35–36.
- 5 Some of the letters mentioned are in the MAB- FAAP archives. They were displayed in the exhibition *Abrindo Arquivos*, curated by the authors. Others are from the Perret archives at the Cité de l'architecture et du Patrimoine.
- 6 Auguste Perret, "Le Musée Moderne", Paris, Mousseion N.9, 1929, 225–235.
- 7 Auguste Perret, "L'Architecture" conference at the Institut d'art et d'archéologie, Paris University, May 31, 1933, trans. Molly Stevens, *Revue d'art et d'esthétique*, I–II, juin 1935, Paris.
- 8 Correspondence from Paul Tournon to Auguste Perret, 09/8/1947. Fonds Perret. SIAF/Cité de l'architecture et du patrimoine/ Archives d'architecture du XXe siècle/ Auguste Perret/UFSE/SAIF/2018.
- 9 Correspondence from Auguste Perret to Antoni Dygat, 06/9/1947 and to Annie Penteado, 05/9/1947. Fonds Perret. SIAF/Cité de l'architecture et du patrimoine/ Archives d'architecture du XXe siècle/Auguste Perret/UFSE/SAIF/2018.
- 10 Descriptive report on the construction of the museum and school undertaken by Auguste Perret sent to Annie Penteado, 11/03/1949. Fonds Perret. SIAF/Cité de l'architecture et du patrimoine/Archives d'architecture du XXe siècle/Auguste Perret/UFSE/SAIF/ 2018.
- 11 Correspondence from Annie Penteado to Auguste Perret, May 1949. Fonds Perret. SIAF/Cité de l'architecture et du patrimoine/Archives d'architecture du XXe siècle/ Auguste Perret/UFSE/SAIF/2018.
- 12 Letter Annie Penteado to Auguste Perret dated January 16, 1950, apud Institut Français d'Architecture. *Les Frères Perret: L'œuvre complète*. Text by Jevier, Simon. Paris: NORMA, 2000, 312–313.
- 13 An important study of these clashes is Helio Herbst: *Pelos salões das Bienais, a arquitetura ausente dos manuais*. São Paulo, Anablume, 2011.

AMERICA'S EXTREME SOUTH MODERNITY: CERRO SOMBRERO'S REDEFINITION¹

Boris Cvitanic Díaz

Universidad de Magallanes; Avenida Bulnes 01855 Punta Arenas, Chile; boris.cvitanic@umag.cl

ABSTRACT.

The discovery of oil in the south of Chile (1945) kickstarted a process of industrialization and modernization of the country, which required the construction of infrastructure for its development. According to this, on the Main Island of Tierra Del Fuego, the State planned and built small settlements, as well as a populated centre, created *ex nihilo*, formed of housing and facilities, as a centre for productive and logistics operations, designed by Chilean architects, named as "Cerro Sombrero" (1956–1960). Its design, planning and architecture showed new resources not present until then in the austral territory, which have been linked to emblematic modern architecture proposals in South America. However, this interpretation has omitted planning and design aspects of the settlement that did not strictly adhere to the parameters of the modern movement, but are closer to expressions related to North American suburbs of the 19th century.

The present work starts from the basis that omissions and misinterpretations of references have converged in Cerro Sombrero's recognition as a part of modern architecture in the extreme south of America, while crossing elements from the doctrine of the Modern Movement with foreign aspects of it. Its relevance lies in the opportunity provided for the understanding of the emergence and adequacy of modern architecture in the south of Chile. Accordingly, it can be established that Cerro Sombrero constitutes, beyond a model of modern architecture in Chile, a synthesis of different referents that represents a specific kind of modern architecture in the extreme south of the continent.

1. INTRODUCTION

The discovery of oil deposits in 1945 on the main island of the Tierra del Fuego archipelago, in the extreme south of Chile, set off a process of industrialization and modernization that involved the whole country and required the construction of infrastructure to allow for the production process of the oil industry, from extraction to consumption throughout the country's main cities.

On "Tierra del Fuego", a territory deprived of major populated urban centres, this effort was conditioned by the need for accommodation of the workforce within productive areas or their vicinity. Thus, the State planned and built small settlements such as Cerro Manantiales (1953–1978), Clarencia (1951–2011), and Percy (1957–2011), in addition to an *ex nihilo* populated centre, comprised of housing and facilities, as a residential and logistical centre for productive operations, named "Cerro Sombrero", designed by Chilean architects to become the capital of oil in Chile.² Planned and built between 1955 and 1960, belonged to a network of settlements, completed by the foundation of Cullen mining camp in 1960 (Fig. 1).³ In the design of Cerro Sombrero, new planning and architectural resources not present at the moment in the Austral territory were applied, which have been related to emblematic proposals of modern architecture of the second half of the 20th century in South America, such as Pampulha complex by Oscar Niemeyer, given the formal similarities of some service buildings of the town, such as the chapel, cinema, and gymnasium-swimming pool. These connections have unfolded into a process of appropriation from the local Council, playing onto the local iconography of the Municipal Government, based on the modern architecture of the main service buildings.

However, the built interpretation as well as the following appropriation process, have omitted aspects of planning and design of the settlement, which did not strictly abide to parameters of the Modern Movement. Instead, they were closer to expressions more characteristic of the 19th century North American suburbs,⁴ or adjustments between both. In this situation, different models of single-family housing are inscribed, even some public buildings such as the school and the hospital.

In this context, in the present paper, the starting point is that in the recognition of Cerro Sombrero as a part of modern architecture expressions in the extreme south of the South American Continent, omissions and interpretations of its design have converged, which have crossed doctrine elements of the Modern Movement with foreign aspects of it.

The relevance of this work relies on the opportunity provided by Cerro Sombrero as a case study that allows comprehending the appearance and adaptation suffered by modern architecture, related to the oil industry in the south of Chile.

2. THE SETTLEMENT

The need for a centre that gathers administrative functions and residential needs, from the vast productive territories in the north of Tierra del Fuego, moved the State towards planning and executing the construction of a settlement on a relatively central point of its productive activities.

In 1955, in the middle of a territory without urban centres, the National Petroleum Company (Empresa Nacional del Petróleo, ENAP) developed a proposal for a populated centre with a capacity for seven hundred inhabitants.⁵ It

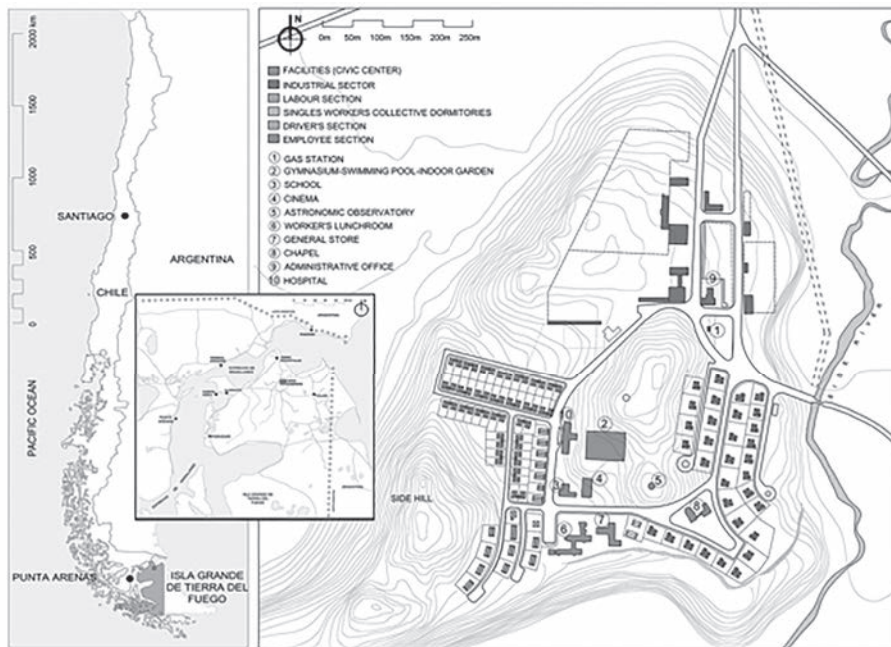


Fig. 1. Cerro Sombrero, Tierra del Fuego, Chile, 1956, Location and Preliminary plan. © Drawing Boris Cvitanic from ENAP documents.

considered the urban planning on a plateau of a small hill next to Side river, in a layout that comprised ample blocks with isolated service buildings, surrounded by lawns, with traditional blocks plotted for isolated residences coupled with gardens. What could be interpreted in the planimetric layout as two sectors, one residential and another for labour, articulated by facilities and administrative offices, in practice, by effect of the hill's topography, constituted five sectors:⁶ employee section, with thirty-one residences, in two models: civic centre, with services as cinema, school, gymnasium-swimming pool-indoor garden, general store, clinic, worker's lunchroom, astronomical observatory and chapel; driver's section with 21 semi-detached residences; labour section, with fifty semi-detached residences and seven singles collective dormitories; and the industrial sector, consisting of workshops, warehouses, materials yards, machine shop, an office building and gas station.

Architecture projects of the complex were executed by private architecture offices in Santiago, as well as architects from the state company ENAP, in Punta Arenas, capital of the "Región de Magallanes y Antártica Chilena". In the former, we find project architects Ignacio Tagle, Juan Echeñique, and José Cruz (for the gymnasium-swimming pool-indoor garden, Fig. 2); Monckeberg, Echevarría, and Briones; Jorge Searle; Bolton, Larrain, Prieto (worker's lunchroom, general store, and cinema). In the latter, as part of the public company in Santiago, architects Julio Ríos Boettiger (for the chapel, Fig. 2), Víctor Arancibia M. (for worker, and employee housing, Fig. 3), and Flor Vera Larraguibel (for the school and clinic). Finally, in Punta Arenas, Luis Willems

Hird took part (with the design of the gas station and landscaping).

3. INTERPRETATION AND REFERENCES

The town of Cerro Sombrero has been considered one of the main evidence of the Modern Movement in the extreme south of Chile, which has contributed to its declaration of National Monument in two categories: "Zona Típica o Pintoresca" (Typical or Picturesque Area) for the settlement, and "Monumento Histórico" (Historical Monument) for the buildings of the civic centre (gymnasium-swimming pool-indoor garden, cinema, general store, clinic, school, and chapel) and the gas station (Chilean Ministry of Education, MINEDUC, 2014). Historic⁷ and architectural essays about the settlement have settled the interpretation about the modern condition of the architecture and planning of the design of the complex. For this matter, Domínguez (2011) attributes the "modern principles"⁸ of the settlement to planning and segregated use of the soil, by associating to the principles of the Athens Charter, to the landscape design and urban furnishing, besides the architecture and materials used in the construction of collective facilities buildings. While Garcés *et al.* (2013) have insisted in the modernity of Cerro Sombrero, rooted in their "Industrial and residential program" and pointing a reference to its buildings by their "open layout and the clear-cut and unadorned buildings".⁹

Nonetheless, both interpretations have settled on what was established by Hecht (2002), who based his explanation, first, in the planning and construction of the settlement

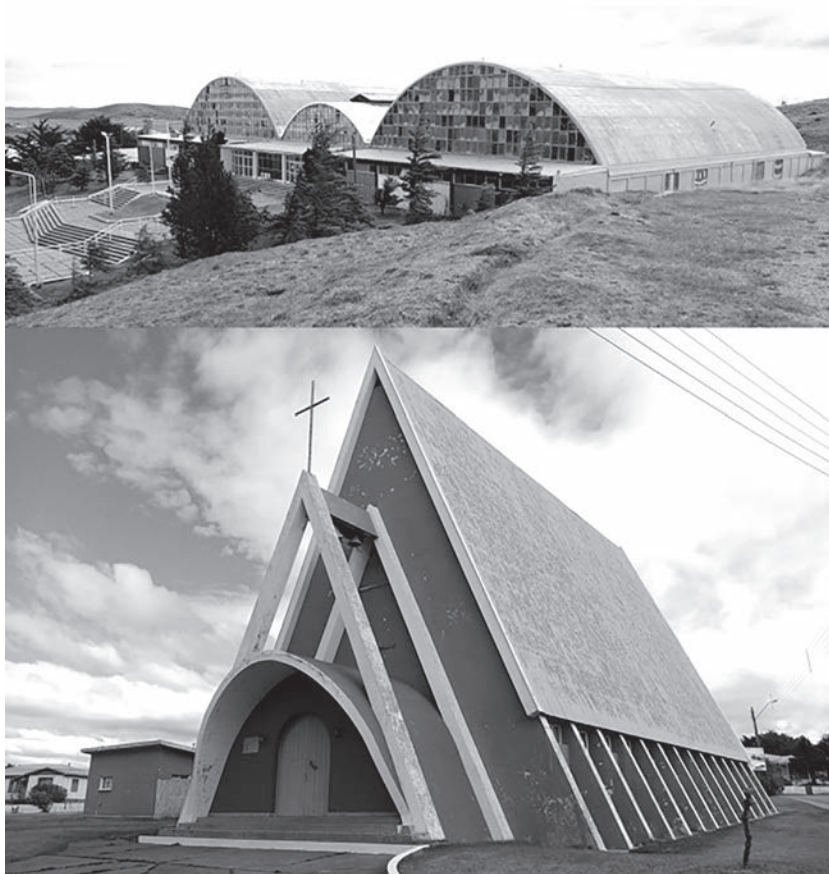


Fig. 2. Gymnasium-swimming pool-indoor garden (up) and Chapel (down), Cerro Sombrero, Tierra del Fuego, Chile. © Boris Cvitanic (2021).

“under modern architecture’s commonly accepted idea for the project of foundation of a whole city — *ex novo*”.¹⁰ Secondly, stated the comparison on certain formal similarities of the exterior of facilities buildings of the settlement with emblematic projects from modern South American architects, such as Oscar Niemeyer, with 1942–1944 Pampulha complex in Belo Horizonte; Carlos Villanueva, with the Library of the Faculty of Engineering at Ciudad Universitaria in 1960; and Alfonso Reidy with the school and gymnasium at Pedregulho or Armando Gonzaga Theater in 1950, at Marechal Hermes.

This way the main interpretations that have granted the settlement at Cerro Sombrero features and characteristics which describe modern architecture, are set around the base of the layout and planning from scratch, by sectoring of functions established over dwelling, work, recreation and transport, by the application of techniques and materials associated with modern architecture such as steel and reinforced concrete, besides formal and volumetric similarities with emblematic projects of modern architecture in South America.

4. THE MISSING LINK

While interpretations note the pertinence of the project of Cerro Sombrero towards modern architecture, it should be mentioned that they were made over part of the complex. These have omitted aspects and elements that do not adjust completely to such interpretations.

For this matter, beyond sectoring that established areas for work, recreation, and dwelling, considerations on planning as well as architectural, allow determining similarities with the image of North American suburbs from the 19th century. These, characterized by a growth model formed of isolated single-family units, regulated by zoning plans, are distributed according to road infrastructure, differentiated from urban collectors to *cul de sacs*, with neighbouring fields disconnected from one another, at the same time determining connections to other zones and the territory.¹¹ It is worth mentioning that this typological model, was introduced in Chile at the beginning of the 1940s from the United States of America, mainly in developments along the coast



Fig. 3. Worker's house (up) and employee house (down), Cerro Sombrero, Tierra del Fuego, Chile. © Boris Cvitanic (2021).

of the centre of the country, such as the beach resort Rocas de Santo Domingo (1941), first and major real estate project in the country, conceived as an island from its surroundings, which considered an urban structure of radial concentric avenues surrounding a hill.¹²

5. THE OMISSIONS

The architecture of the settlement was not finished with the facilities nor landscaping or furnishing projects of the array. While these have been used primarily to explain the layout and planning, direct mentions and interpretations have been set aside on housing and some facilities such as the clinic and the school.

The complex considered one hundred and two single-family residences and seven collective dormitories. These projects, which occupied a large part of the settlement complex, were distributed in three zones according to contracts categories: an area for employees, another for workers, and one for drivers.

Designs, carried during 1955, built prior to facilities, were developed by ENAP architect Víctor Arancibia M. For employee housing, two similar models were developed for an isolated single-family, three (246m²) or two bedrooms (192m²) home, distributed around the main floor and a basement. These were projected in reinforced concrete for the basement, and wood for the main floor. On the other hand, housing for workers, single-family units, with a design similar to employees' houses without ornaments and built entirely in masonry, considered a surface of 97.8m² each, were arranged semi-detached and settled in two orthogonal blocks, which resulted in a layout characteristic of cities with a grid plan. With respect to driver's housing, with surfaces of 104m² and 98m², they were projected as semi-detached, linearly aligned and established on blocks in rows, with a visible façade and a backing. To complete the housing dimension of the settlement, seven worker's dormitories were pre-fabricated and installed across the clinic.

Finally, the project of Cerro Sombrero was completed through the execution of designs developed by ENAP in San-

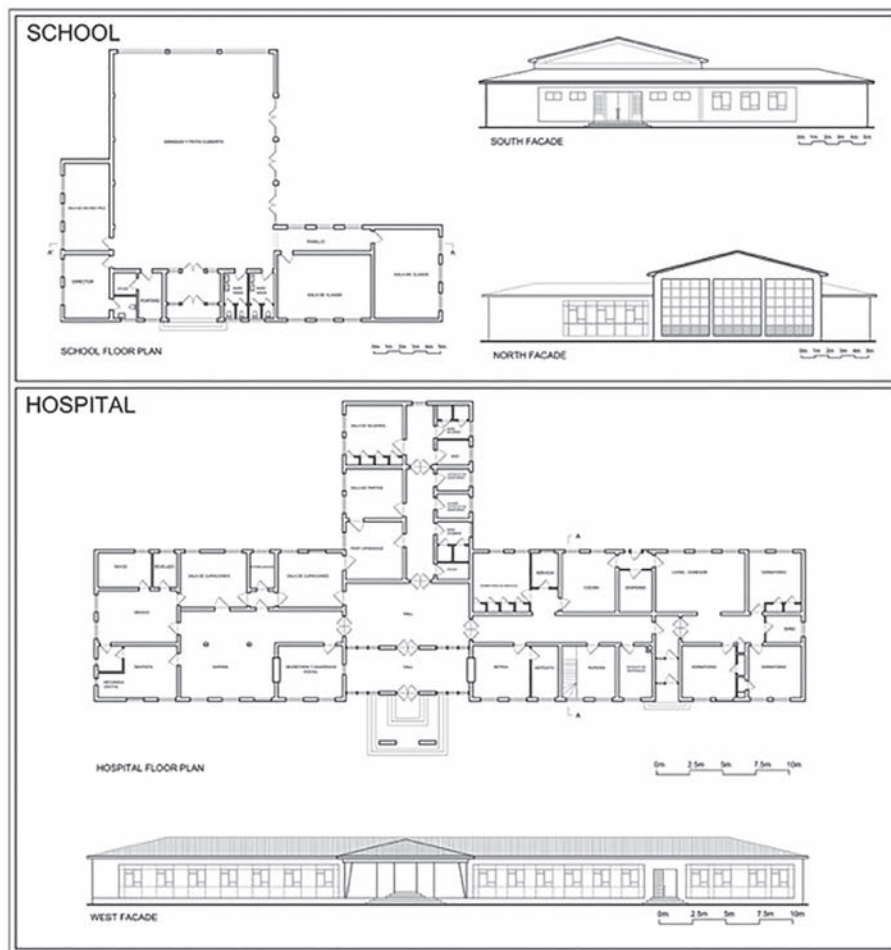


Fig. 4. Flor Vera Larraguibel, Hospital and School Projects, Cerro Sombrero, Chile, 1956. © Drawing Carolina Marquez from ENAP documents.

tiago, under the lead of Flor Vera Larraguibel. These were executed alongside the design of the main buildings, and were characterized by being subject to diverse expansions since their construction in 1956. In both cases, these were projected with great spatial compartmentalization due to their functional requirements, which developed while respecting schemes of initial layouts: in "T" shape for the hospital, and "L" shape for the school, with a masonry structure and wooden gabled roof (Fig. 4).

6. SUMMARY

Modern architecture did not develop as the only referent of the second half of the 20th century architecture in South America, it shared time and space, many times simultaneously within a project, or as repertoire from a single architect, with expressions of eclectic type.¹³ In this sense, planning, architecture and design of Cerro Sombrero could hardly be explained as a consequence of an exclusive influence.

In terms of the complex, not only modern architecture

influences can be recognized, or from North American suburbs, but also other intermediate proposals. Therefore, the settlement complex of Cerro Sombrero condenses several methods of building the urban structure, based on the modern ideal of large blocks with isolated buildings, on irregular blocks, in a way of suburbs, with isolated housing aligned to topography, where terrain has a single public facade (employees sector); on orthogonal blocks, in a grid layout, where semi-detached housing are placed (workers sector); and, finally, a stretch of semi-detached housing linearly distributed along a street (drivers sector).

In relation to the architecture of the complex itself, in a similar way, a gradient of proposals exists, in terms of the architectural program as well as of the design of different units: from ornamented single-family housing (employees) up to prefabricated wooden dormitories for single workers, considering also the lunchroom building with clear repeated volumes with inverted roofs, which also hosted two collective housing blocks for employees and drivers. In respect to facilities, there should be considered the projects of the

school, of irregular volume and with gabled roof with eaves; the chapel and gymnasium-swimming pool, with volumes that define their inner space; the general store, with converging slopes, and the cinema building with its volume and hidden gabled roof.

Specifically, within the design of housing there is evidence of distance toward facilities projects when considering formal, technical and programmatic answers not entirely related to modern architecture. In effect, from the mode of implantation of the employees' housings as isolated units in extension, with individual plots fenced by each dwelling, up to the use of ornaments on cladding, and the inclusion of mouldings and historic details, provide evidence of an origin far from modern architecture and the speeches of "house as a machine to live in", in which lengthy developments of collective housing are found (Montaner, 2015), emphasized by compartmentalization of spaces and inclusion of bedrooms for service personnel, in references comparable to models of North American suburbs of the 19th century.¹⁴

7. CONCLUSION

The project and subsequent construction of the settlement of Cerro Sombrero, mid 20th century, demonstrate nowadays a meeting point of different and varied referents. It has not been possible to document the establishment of the referents' influence in the projects of Cerro Sombrero. Nevertheless, in the same way as, over a base of formal likenesses, a relation has been established between the settlement's project and south American modern architecture, a plausible relation could also be established to other projects within the country, such as urban suburb developments in Chile during the decades of 1940 and 1950.

The synchrony of solutions simultaneously implemented by different architects and architect studios along four years (1955–1959), and developed during construction (1956–1960), installs the design of the settlement of Cerro Sombrero as a collective project, and as such into a fusion which, beyond being established as an architectural model, subject to a canon or catalogue, must be considered as a modern specific architecture and identity-related in the extreme south of Chile. In this regard, the condensation of referents was not a characteristic by itself or exclusive of modern architecture in the extreme south of the American continent, however, it determined a particular expression which interpretation, appropriation, and recognition have been installed and institutionalized. Accordingly, the settlement of Cerro Sombrero constitutes an example of a synthesis of diverging plastic resources and methods, apparently antagonistic, to the building of a city. This example invites to think on the adequacy of modern architecture beyond formal resources and principles, towards an idea of modernity that can be well materialized in dissimilar objects, resources and strategies.

REFERENCES

- CVITANIC, B., & MATUS, D., "Los campamentos petroleros de la Isla Grande de Tierra del Fuego, Chile", *Arquitectura y sociedad petrolera en el fin del mundo. Campamentos enapinos en Tierra del Fuego*, Chile, Santiago, Consejo de las Culturas y las Artes, 2018, 16–75.
- DOMINGUEZ, Pamela, *Arquitectura Moderna en Tierra del Fuego*, Santiago, Consejo de las Culturas y las Artes, 2011.
- GARCÉS, E., KROEGER, F., MARTINIC, M., & COOPER, M., *Tierra del Fuego: Historia, Arquitectura, Territorio*, Santiago, Ediciones ARQ, 2013.
- HECHT, R., "Trazado, paisaje y territorio: Cerro Sombrero y la arquitectura del petróleo en Magallanes", Santiago, *Revista ARQ*, Facultad de Arquitectura Universidad Católica de Chile, 2002, 64–67.
- MARTINIC, M., *Historia del Petróleo en Magallanes*, Punta Arenas, La Prensa Austral, 2005.
- MAWROMATIS, C., "Movilidad en los suburbios dispersos y el Nuevo Urbanismo en los Estados Unidos de América: ¿importación irreflexiva desde Chile?", Santiago, *Revista de Urbanismo*, Facultad de Arquitectura Universidad de Chile, 2002.
- MINISTERIO DE EDUCACIÓN, *Decreto 421 Declara Monumento Nacional en la categoría de Zona Típica o Pintoresca al "Campamento Cerro Sombrero" y Monumento Nacional en la categoría de Monumento Histórico al "Equipamiento de Cerro Sombrero: Centro Cívico y Surtidor de Gasolina de Cerro Sombrero"*, ubicados en la Comuna de Primavera, Provincia de Tierra del Fuego, Región de Magallanes y de la Antártica Chilena, 2014.
- MONTANER, J., *La arquitectura de la vivienda colectiva. Políticas y proyectos en la ciudad contemporánea*, Barcelona, Editorial Reverté, 2015.
- MUNIZAGA, G., *Macroarquitectura: Tipologías y Estrategias de Desarrollo Urbano*, Santiago, Textos Universitarios, Facultad de Arquitectura, Ediciones Universidad Católica de Chile, 1998.
- PEREZ, F., *Arquitectura en el Chile del Siglo XX. Modernización y Vanguardia. 1930–1950*, Santiago, Ediciones ARQ, 2017.

NOTES

- This paper is part of the Fondecyt 1200469 Project, "The oil industry in Chile: territory, city and architecture. Construction of an industrial heritage of national dimension", of which the author is the responsible researcher. We are grateful to Fondecyt for the financing granted.
- Eugenio Garcés, Franz Kroeger, Mateo Martinic & Marcelo Cooper, *Tierra del Fuego: Historia, Arquitectura, Territorio*, Santiago, Ediciones ARQ, 2013, 132.
- Boris Cvitanic & Daniel Matus, "Los campamentos petroleros de la Isla Grande de Tierra del Fuego, Chile", *Arquitectura y sociedad petrolera en el fin del mundo. Campamentos enapinos en Tierra del Fuego*, Chile, Santiago, Consejo de las Culturas y las Artes, 2018, 64.
- Constantino Mawromatis, "Movilidad en los suburbios dispersos y el Nuevo Urbanismo en los Estados Unidos de América: ¿importación irreflexiva desde Chile?", Santiago, *Revista de Urbanismo*, Facultad de Arquitectura Universidad de Chile, 2002.
- Eugenio Garcés, Franz Kroeger, Mateo Martinic, & Marcelo Cooper, *Tierra del Fuego: Historia, Arquitectura, Territorio*, Santiago, Ediciones ARQ, 2013, 133.
- Romy Hecht, "Trazado, paisaje y territorio: Cerro Sombrero y la arquitectura del petróleo en Magallanes", Santiago, *Revista ARQ*, Facultad de Arquitectura Universidad Católica de Chile, 2002, 66.
- Mateo Martinic, *Historia del Petróleo en Magallanes*. Punta Arenas, La Prensa Austral, 2005.
- Pamela Domínguez, *Arquitectura Moderna en Tierra del Fuego*. Santiago, Consejo de las Culturas y las Artes, 2011, 37.
- Eugenio Garcés, Franz Kroeger, Mateo Martinic & Marcelo Cooper, *Tierra del Fuego: Historia, Arquitectura, Territorio*, Santiago, Ediciones ARQ, 2013, 133.
- Romy Hecht, "Trazado, paisaje y territorio: Cerro Sombrero y la arquitectura del petróleo en Magallanes", Santiago, *Revista ARQ*, Facultad de Arquitectura Universidad Católica de Chile, 2002, 67.
- Constantino Mawromatis, "Movilidad en los suburbios dispersos y el Nuevo Urbanismo en los Estados Unidos de América: ¿importación irreflexiva desde Chile?", Santiago, *Revista de Urbanismo*, Facultad de Arquitectura Universidad de Chile, 2002, 19.
- Gustavo Munizaga, *Macroarquitectura: Tipologías y Estrategias de Desarrollo Urbano*, Santiago, Textos Universitarios, Facultad de Arquitectura, Ediciones Universidad Católica de Chile, 1998, 208.
- Fernando Pérez, *Arquitectura en el Chile del Siglo XX. Modernización y Vanguardia. 1930–1950*, Santiago, Ediciones ARQ, 2017, 49.
- Constantino Mawromatis, "Movilidad en los suburbios dispersos y el Nuevo Urbanismo en los Estados Unidos de América: ¿importación irreflexiva desde Chile?", Santiago, *Revista de Urbanismo*, Facultad de Arquitectura Universidad de Chile, 2002, 3.

EVERYDAY MODERNISM: BUILT ENVIRONMENT AND SOCIETY IN SINGAPORE, 1930s TO 1980s

Jiat Hwee Chang¹ and Justin Zhuang²

¹ National University of Singapore; jiathwee@nus.edu.sg

² National University of Singapore; justin@inplainwords.sg

ABSTRACT.

Everyday Modernism is the first comprehensive documentation of Singapore's modern built environment. Through a lens of social, cultural and architectural histories, the book uncovers the many untold stories of the Southeast Asian city-state's modernization, from the rise of heroic skyscrapers, such as the OCBC Centre, to the spread of utilitarian typologies like the multi-storey car park. It investigates how modernism, through both form and function, radically transformed Singapore into a modernist city-state and its inhabitants into modern citizens. The most intensive period of such change happened in the 1960s and 1970s under the rise of a developmental state seeking to safeguard its new-found independence. However, the book also looks beyond, from between the 1930s to the 1980s, to cover a wider range of histories, building types and also architectural styles, expanding from the International Style and Brutalism and into Art Deco and even a touch of Postmodernism.

The book's 36 essays are richly illustrated with hundreds of archival images and illustrations, as well as contemporary photos by architectural photographer Darren Soh. It covers the beginnings of a modern Singapore, including its first condominium, columbarium, flatted factory, pedestrian overhead bridge, amongst others. But the book is also interested in endings, investigating how modern buildings have changed over time, and been adapted for new uses or even threatened with redevelopment today. By examining the evolution of the once exceptional into the typical and how abstract spaces become lived places, the book reviews how modernism has become part of everyday life in Singapore.

1. INTRODUCTION

Like over 80 percent of Singapore's resident population, the three of us live in public housing flats. And like everyone who grew up in the city-state during the 1970s and 1980s, we were surrounded by, and our lives were enacted in, the modernist environment. Singapore's quotidian and taken-for-granted modernist environment that surrounds us and structures our everyday lives — or what we call “everyday modernism” — is the subject of this book. Everyday modernism is not just about the built environment. It is also deeply entangled with our social, political, economic, and cultural processes of modernization and conditions of modernities. Everyday modernism shapes and is shaped by our social practices, political ideologies, economic calculations, and collective memories. As a concept, it is both specific and general. While “everyday modernism” arose from a study of the built environment in the context of Singapore, it is also a broad reworking and reframing of existing architectural and urban theories.

2. TRANSCENDING THE DICHOTOMY

The word “everyday” appears straightforward and self-evident, but its use in the field of architecture has always been a part of what architectural historian Dell Upton describes as a “dichotomous and hierarchical thinking about the landscape.”¹ Everyday architecture has been seen in opposition to Architecture with a capital “A”, referring to the non-pedigreed vernacular structures by anonymous build-

ers in contrast to the formal architectural structures by professional architects. Even when architects, designers, and planners began to appreciate, rather than dismiss, everyday architecture, they simply inverted the hierarchy while leaving the dichotomy intact. Postmodern architects Robert Venturi and Denise Scott Brown, for example, hailed the pop aesthetics of Main Street and Las Vegas while criticising High Modernism. Other urban studies scholars followed the trail blazed by urban theorist Margaret Crawford in drawing from French theorists Henri Lefebvre and Michel de Certeau to celebrate the lived spaces and grounded practices of everyday urbanism against the abstract spaces planned and imposed by experts, bureaucrats and capitalists.

Such hierarchical dichotomy also exists in the discussions of Singapore's built environment. Although mainly made up of modernist buildings constructed after the city-state attained self-governance from the British in 1959, the discussion of its modernism tends to be bifurcated. On the one hand, scholars, writers, photographers, and the architecture fraternity have singled out and celebrated exemplary buildings such as National Theatre (1963) by Alfred Wong Partnership, Singapore Conference Hall and Trade Union House (1965) by Malayan Architects Co-partnership, People's Park Complex (1973) and Golden Mile Complex (1973) by Design Partnership, Jurong Town Hall (1974) by Architects Team 3, and Pearl Bank Apartments (1976) by Archurban Architects Planners.² Following the tendency of traditional architectural historiography to attribute the creative forces behind any architectural masterpieces primarily, if not solely, to the designers, these works are typically celebrated by



Fig. 1. A 1976 advertisement for Pearl Bank Apartments touting it as the tallest in Southeast Asia. © Building Materials & Equipment, April 1976.

acclaiming their architects. They consist of pioneering locals who helmed private practices, notably Lim Chong Keat, Alfred Wong, William S. W. Lim, Tay Kheng Soon and Tan Cheng Siong.³ We call their post-independence buildings “heroic modernism” to evoke the formal inventiveness, bold visions as well as the can-do spirit of the architects that designed them (Fig. 1).⁴

On the other hand, Singapore’s built environment also consists of ordinary modern buildings — such as public housing, markets, hawker centres, swimming pools, public parks, schools, community libraries, community centres, and factories — that are often taken for granted and seldom acclaimed. Perhaps, it reflects how architectural discourse privileges the extraordinary over the ordinary. The ubiquity of this built environment has created a familiarity that makes it unworthy of scholarly attention. Moreover, the general neglect may be due to the absence of conventional design authorship. Unlike heroic modernism, this built envi-

ronment was planned, designed, and built to a great extent not by architects in private practice but by those working for government agencies such as the HDB, Public Works Department (PWD), and Jurong Town Corporation (JTC). These bureaucratic organisations as well as ethos of subsuming the individual under the collective mean that such built works tend not to be attributed to any specific architect.

The dichotomous and hierarchical thinking about modernism, however, does not hold up to scrutiny. For instance, the divide between architects working in private practice and those in state agencies is not rigid and impermeable. Both have collaborated to design public housing and public buildings over the decades under various circumstances, some of which are outlined in this book. Many prestigious public or state-owned buildings were also commissioned through competitions opened to architects in private practice in order to solicit the best designs. Exemplary examples of heroic modernism also frequently shaped its ordinary



Fig. 2. **Urban renewal in progress: newly completed tall buildings midst low-rise colonial vernacular buildings.** © Kouo Shang-Wei Collection, National Library Board, Singapore.

brethren, as seen in the string of Brutalist buildings along Jurong Town Hall Road that came after the completion of Jurong Town Hall.

3. MODERNISM AND OBSOLESCENCE

In a city like Singapore where the built environment is constantly undergoing transformation due to a combination of real estate forces, socio-political ideologies and cultural constructions, both heroic and ordinary modernism are also bounded together by their precarity to perceived obsolescence and being demolished. The transient nature of heroic modernism in Singapore came into sharp focus in recent years when a number of its exemplars were deemed as devaluing real estate by their owners and put up for collective sale. In February 2018, Pearl Bank Apartments was sold and is, at the time of writing, in the final stages of demolition before being redeveloped into another condominium, barely four decades after its completion. The incongruence between the symbolic values of these buildings as icons of Singapore's modernization and nation-building, and their depreciating real estate value has stirred passionate debates in the media.

Ordinary modernist buildings have also suffered similarly transient existences. Public housing and public buildings have often undergone extensive state-subsidised retro-

fitting or demolition and redevelopment in the name of "upgrading". The underlying reasons driving such activities are manifold. At times, upgrading has been a way for the state to distribute gains from economic growth among the population and for the ruling party to further its legitimacy — particularly in the case of public housing. It has also been carried out in response to demographic shifts and rationalised as a way to optimise land use in a land-scarce nation.

4. URBANISATION IN A DEVELOPMENTAL STATE

The rapid obsolescence of modernist buildings in Singapore is an inextricable part of what geographer Rodolphe de Koninck described as the city-state's "permanent territorial revolution," in which the "permanent overhaul of the environment... seems to be a way of life, or rather a way of managing a country."⁵ He was referring to the continuous urbanisation processes that have taken place since Singapore gained self-government in 1959. They have radically altered the construction of nature, the organisation of the population, and how their everyday lives are enacted according to the economic priorities and socio-political objectives of the state. The very processes that now threaten the existence of many modernist buildings, are what gave rise to everyday modernism in the past. In the realm of the built environment, the two key processes were the urban renewal (Fig. 2)

in the city centre and the building of satellite towns (Fig. 3) and industrial estates in the outlying areas from the 1960s to the 1980s. Many heroic modernist buildings in Singapore can be traced to the Government Sales of Sites Programme first launched in 1967 to offer private developers parcels of land in the city centre to create new development. These sites came about from the state acquiring land previously occupied by shophouses and other old buildings, and relocating the original residents and tenants to the public housing estates it had begun constructing in the outlying areas.

The fundamental connections between what went on in the city centre and the outlying areas are graphically captured in the Concept Plan first published in 1971. It showed the two major components — a ring of high-density residential areas around the central water catchment and an east-west corridor of different developments on the south of the island — intersecting at the city centre. The plan was a modification of the Ring Plan first proposed in 1963 by the team of United Nations (UN) experts, Charles Abram, Susumu Kobe and Otto Koenigsberger. The trio regarded the whole island as an integrated planning entity, which was unlike the colonial government's 1958 masterplan that divided the main island of Singapore into central, urban and rural planning districts. The latter was regarded as fundamentally static and thus unable to cope with the rapid socio-economic changes of post-independence Singapore. The UN experts recommended the use of "action programmes to be guided by an overall guiding concept" to assist and inform the rapid social, economic and urban changes then taking place in Singapore and other newly-independent post-colonial cities.⁶

The successful implementation of the Concept Plan's ambitious large-scale urban renewal and public housing programmes (Fig. 4) has been attributed to various factors. Key among them was what has been described by political analysts as the developmental state of Singapore. It had two features that were central to the effective implementation of its interventionist plans: a powerful state apparatus and strong public institutions. The state was able to draw on the draconian power of the 1966 Land Acquisition Act to acquire land for urban renewal and the building of affordable public housing in an efficient manner and at a minimal cost. It could also depend on its agencies such as the JTC, HDB, PWD, URA, and JTC to carry out its programmes. These interventions were also the *raison d'être* of the developmental state to promote industrialisation and social developments that were essential for economic growth. Seen in this light, the construction of industrial estates, factories, and housing by JTC helped to attract foreign direct investments in industrialisation; the provision of public housing by HDB could be understood as a form of wage subsidy that contributed to the lowering of labour cost; the building of schools by PWD assisted in equipping the population with the relevant knowledge and skills to serve the industries; and the sale of sites by URA created more spaces for financial and corpo-



Fig. 3. Aerial view of Toa Payoh New Town, one of the early public housing estates built in the outlying areas, 1972. © HDB Annual Report 1972, © Housing and Development Board.

rate services required to support Singapore's industrialisation.

Besides shaping its politics and economy, the interventionist policies of the developmental state also created a social compact of "growth with equity". Although many features of the conventional welfare state could not, and still cannot, be found in Singapore, it was seen as a socialist democratic state from the 1960s to the 1980s. The developmental state provided social welfare through its heavily subsidized and affordable housing, education and healthcare.⁷

5. LIVED MODERNISM

As with many modernist planning and architectural schemes, the Concept Plan and public housing in Singapore could be seen as outcomes of what political scientist James Scott famously conceptualized as the "high modernist" ideology of the state that are prone to fail.⁸ Indeed, the urban planning and architecture of Singapore from the 1960s and 1970s shared many of the high modernist plans criticized by



Fig. 4. A spread in the August 1979 issue of *Our Home* showing the new types of public housing in Singapore. © Our Home, Housing and Development Board.

Scott: formal order that was equated with functional order, monofunctional zoning and narrow criteria of efficiency, and a root-and-branch approach to urban planning. Preoccupied with economic growth and modernization and then working with limited resources and capital, the post-independence developmental state of Singapore prioritized efficiency, low-cost, and functionality in its criteria for design and planning. State agencies also produced designs that were premised on various rationales of optimization and forms of standardization. Thus, the built environment in Singapore was a result of the state, agencies and experts simplifying and reducing the complex social and natural world.

Such modernism did not fail in Singapore, however, as preordained by Scott. There are many reasons for the purported failure of modernism, depending on the framework of analysis. Nevertheless, it has often been attributed to the differences and dissonances between two conceptions of space. On the one hand, there is the abstract space of modernism imposed by state, capital, and the experts they appoint. On the other hand, there is the lived spaces emerging through everyday practices. However, as architect Hannah le Roux, among others, has pointed out, such a view does not take into consideration the temporal dimensions — how buildings are not static but evolving entities, constantly being used and reused, designed and modified.⁹ These forms of occupation mutually transform physical spaces and human practices. In fact, one could argue, as le Roux had, that the minimal and abstract forms of modernist buildings are supportive of changes as they have endless potentialities for

different kinds of social lives. She described this understanding of modernism that challenged the abstract-lived spatial bifurcation as “porous modernism”. Although her observations and arguments stemmed from the African contexts, we argue that a form of this “porous modernism” exists in Singapore, and is evident in the vibrant afterlives of various modernist buildings we look at.

Through physical modifications and maintenance, over changing programmes and social lives, and with social adaptations and cultural appropriations, modernist buildings have become Singapore’s vernacular. Our notion of everyday modernism is an attempt to also encapsulate the lived, vernacular and popular dimensions of modernism, beyond the more familiar associations with the developmental state.

6. BROADENING MODERNISM

The scope of modernism in this book goes beyond architects and style. It emphasizes modernist types so as to foreground the connections to the aforementioned social, economic, cultural, and political processes of modernization. More importantly, the stories regarding the social lives of modernism can be better told. Most of the types discussed emerge out of Singapore’s transformation from a shophouse city to a high-rise, high-density city. They entail mostly tall structures made possible by relatively new constructional and environmental technologies in conjunction with new planning parameters and norms.

By type, we are referring to the use and morphology of a

building, often combining both senses of the word together. For example, a number of essays explore the podium tower as a new type, a product of urban renewal. These essays also look at how such buildings housed different types of uses, combining, for example, residential with shopping or offices with shopping. We also look at novel building forms for old uses, such as the multi-storey carpark and the hawker centre. But the fit between form and use is sometimes not as tight as imagined, and the use of buildings could change. Several such conversions are examined, such as the godown becoming a furniture showroom and cinemas being repurposed as churches. Our focus on types also hints at the standardized types that were produced by state agencies for housing, schools, and factories, such that a single design could be replicated many times to speed up the process of design and construction. Some of these standardized types exist in the sub- or supra-building scales, and are more infrastructure than buildings. Among those featured are pedestrian overhead bridges, public transport interchanges, and expressways.

While the book is loosely organized according to building types, they are expressed using six key verbs — live, play, work, connect, travel, and pray — that encapsulate their manifold meanings without being paralyzed by them. By focusing on uses and activities, our intention is not to treat the buildings as mute artefacts or mere aesthetic objects but as physical and spatial structures that have social lives and afterlives. The built environment is important insofar that their biographies allow us to tell socio-cultural histories and reveal more about the society that they exist within, in this case Singapore. Each category offers both building types that are typical (widely replicated) and the exceptional (exemplary examples), and also discusses how some of the buildings have been transformed and adapted to other uses and for other users.

The book's 36 lushly illustrated essays cover a broad spectrum of buildings and types that cut across Singapore's colonial and post-independence periods. Among other things, the book excavates and foregrounds previously unknown histories of the city-state's modernism. It uncovers both the pioneering examples and the exemplary precursors to today's ubiquitous architectural and planning concepts and typologies. The book also reveals the lesser-known aspects of familiar and even iconic buildings, and links them to similar buildings and ideas both locally and internationally. Nonetheless, this book is not intended as *the* comprehensive history of modernism in Singapore. In fact, we left out several well-known examples that have been extensively documented elsewhere to make room for lesser-known ones. It is certainly not the last word on modernism in Singapore. We hope it would stimulate further interest and research into modernism in Singapore, leading to more publications.

ACKNOWLEDGEMENTS

The research for this paper is supported by a Ministry of Education Academic Research Fund (Tier 1) for "Agents of Modernity: Pioneer Builders, Architecture and Independence in Singapore, 1890s–1970s," WBS no. R-295–000–127–112.

NOTES

- 1 Dell Upton, "Architecture in Everyday Life," *New Literary History* 33, No. 4, 2002, 708.
- 2 For example, Weng Hin Ho, Dinesh Naidu, & Kar Lin Tan, *Our Modern Past: A Visual Survey of Singapore Architecture, 1920s–1970s*, Singapore, Singapore Heritage Society and SIA Press, 2015.
- 3 Many of these architects have written about their design thinking and processes behind these buildings, making their design authorship explicit. For example, Alfred Hong Kwok Wong, *Recollections of Life in an Accidental Nation*, Singapore, Select Books, 2016; Robert Powell & Kheng Soon Tay, *Line, Edge & Shade: The Search for a Design Language in Tropical Asia*, Singapore, Page One Pub., 1997; Chong Keat Lim, "The International Context for Southeast Asian Architecture," Robert Powell (ed.), *Architecture and Identity: Proceedings of the Regional Seminar*, Singapore, Aga Khan Award for Architecture, Concept Media, 1983.
- 4 Our use of "heroic" draws from a book on the iconic Brutalist structures in Boston. Mark Pasnik, Michael Kubo, & Chris Grimley, *Heroic: Concrete Architecture and the New Boston*, New York, The Monacelli Press, 2015.
- 5 Rodolphe De Koninck, Marc Girard, & Thanh Hai Pham, *Singapore's Permanent Territorial Revolution: 50 Years in 50 Maps*, Singapore, NUS Press, 2017, 2.
- 6 Abrams, Kobe & Koenigsberger, "Growth and Urban Renewal in Singapore", 12–13.
- 7 C. V. Devan Nair (ed.), *Socialism That Works ... the Singapore Way*, Singapore, Federal Publications, 1976.
- 8 James C. Scott, *Seeing like a State: How Certain Schemes to Improve the Human Condition Have Failed*, New Haven, Yale University Press, 1998.
- 9 Hannah le Roux, "Lived Modernism: When Architecture Transforms", Ph.D. thesis, Leuven, Katholieke Universiteit Leuven, 2014.

HONGQIAO SANATORIUM: MODERN MOVEMENT DIASPORA & SINGULAR MODERNITY

João Delgado¹ and Ana Tostões²

1 Master's Student — Técnico-University of Lisbon; Av. Rovisco Pais, 1, 1049-001, Lisboa, Portugal;

joao.pedro.delgado@tecnico.ulisboa.pt

2 Chair of Docomomo International, Full Professor Técnico-University of Lisbon; Av. Rovisco Pais, 1, 1049-001, Lisboa, Portugal; ana.tostoes@tecnico.ulisboa.pt (Master thesis supervisor)

ABSTRACT.

This paper analyses the Modern Movement Diaspora, and its struggle in dealing with a kind of universal conception of modernity, through the study of the 1934 Hongqiao Sanatorium in semi-colonial Shanghai, China. Regarding modernity as a process of rationalization in opposition to style and national identity, the paper traces the inherent problems in such a destruction of local culture when applied in a colonial setting.

Furthermore, the paper states that these are inherent questions to modernity's Western conceptualization and its role in the construction of the *Other*. When applied within a colonial context, the *Other* is envisioned as the old and primitive and the West as the new and developed. Such construction was assimilated by the colonized, who modelled their own modernity following the image of the West as a form of national liberation. The will to standardize left little space for keeping their own local traditions.

In order to overcome this paradox, the paper examines parallels and alternatives within the Chinese tradition that might serve as different outlooks and sources for a modern architecture while also maintaining a Chinese identity.

1. A SANATORIUM IN CHINA

1.1. Universal Rationalization

The belief in reason as a universal value, and the unbridled optimism in humanity's infinite progress based on it, is the *lingua franca* of Western modernity.¹ The Modern Movement's strongest characteristic will rely on this to use objective reason and the power of industrialization to progress and universalize architecture. Implicit in the Movement's social mission is a belief in the power of architecture to achieve a better future for everyone in the world.

The more objectivist direction of the Movement will then try to construct an architecture based on rational and universal values. The abstraction and standardization of architecture into building elements and typologies — seen in Le Corbusier's (1887–1965) *Five Points* or *Maison Dom-ino* — will allow mass-production while also finding ways to accurately measure objective improvements in design, as in the case of the *Neue Sachlichkeit*, such as comfort, health, cleanliness and hygiene.²

Since the designs would be the result of rational processes, one could claim to have achieved a universal architecture based on universal reason.

To achieve this, the Movement will reject ornament, tending towards an aesthetic of universal abstraction that isn't related to any style or national identity. Reinforced concrete will then be the perfect building material to achieve these aims — new, objective, scientific, and abstract, in other words, a truly universal material.³

In this purview, the experiments and developments within the architecture of sanatoriums is going to share the same goals as the Modern Movement itself and be crucial in

its development.⁴ The engine of modernity is not going to be a heroic, shiny, and functional machine, as Beatriz Colomina (*1952) put it, but a fragile body to be protected in a soothing cocoon.

1.2. The Chinese Modern Movement

The first generation of Chinese architects that had the chance to go to universities abroad were supported by the Boxer Indemnity Fund. In 1923, Xi Fuquan (1902–1983), otherwise known as Fozhien Godfrey Ede (奚福泉), studied and travelled in Germany in the seminal years of the 1920s. He frequented the Technische Universität Darmstadt, from 1923–1926, and obtained his masters in Technische Hochschule Charlottenburg, now Technische Universität Berlin in 1927–1929.⁵

Xi's architecture, then, will follow closely the developments of the Modern Movement with the influence of Bruno Taut (1880–1938) and other members of *Der Ring* (1926–1933) being very apparent in his designs.⁶

The Shanghai Hongqiao Convalescent Hospital of 1934, the 'Hongqiao Sanatorium', due to its program, follows closely the Modern Movement. Shanghai had a strong impediment for disease and epidemics, much like other metropolitan areas at the time. The contrast between East and West when it comes to cleanliness was very apparent to everyone who visited, with Bertrand Russell (1872–1970) having described that "in the European town one finds safety, spaciousness and hygiene; in the Chinese town, romance, overcrowding and disease".⁷ This apparent contrast made it so that, in matters of cleanliness and health, China had to follow the West's patent material progress.

In architecture that material progress was found in the

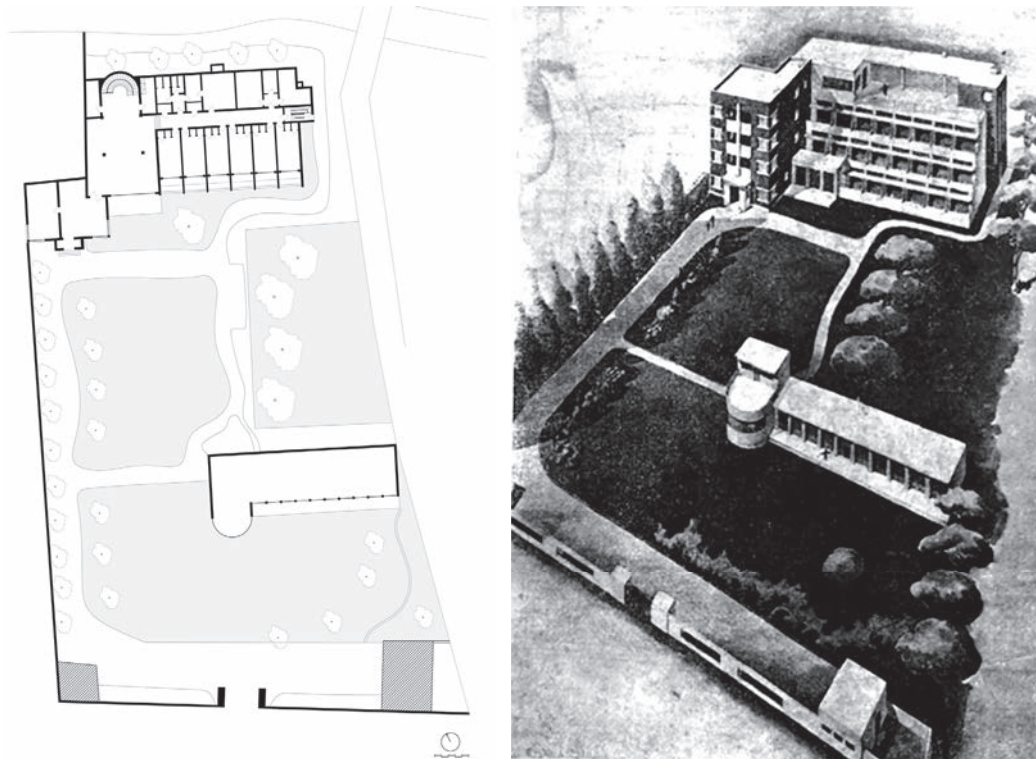


Fig. 1. (left) Xi Fuquan, Hongqiao Sanatorium, Shanghai, China, 1934, Site Plan. © João Delgado, based on site and floor plans on Liu Kan, 2019: 154–161. (right) Xi Fuquan, Hongqiao Sanatorium, Shanghai, China, 1934, Perspective View. © https://www.thepaper.cn/newsDetail_forward_6240784.

avant-garde architecture of the Modern Movement, especially in its more rational and functionalist approach. Hongqiao Sanatorium segregates its building according to function in order to not disturb its patients. Different volumes compose its asymmetrical layout: two single-storey volumes on its perimeter wall; a two-storey annex at the entrance; and three distinct conglomerates that can be said to be the *main building* of four stories. This main building was composed by one vertical volume for circulation, another which comprised the main entrance and spaces for what can be guessed is staff rooms and doctor's offices, and another for the patient's bedrooms, and treatment rooms (Fig. 1).⁸

This last one follows closely the developments established in Richard Döcker's (1894–1968) 1927 book, *Terrassentyp*, and in his 1928 Waiblingen Sanatorium. The sanatorium will follow Döcker's typology of recessed terraces on a sloped layout. This way, every patient can have its own terrace and achieve maximum sun exposure, while also having a translucent canopy to ensure the patients privacy while allowing sunlight to pass through. This façade is then turned south while the more technical rooms such as X-ray, operating and treatments rooms faced north.⁹ Like Döcker the building also uses its terraced typology to create a communal living open terrace in the roof.

The rationalization goes further, closer to Alvar Aalto's

(1898–1976) experiments at Paimio. Constructed in concrete framing, achieving a formal abstraction that soothes the nerves, the sanatorium uses pure white walls for a neutral environment, rubber flooring for soundproofing¹⁰, a curved ceiling-wall header connection to soothe the edges in the room, and a partitioning wall in each balcony to better isolate its patients. One can claim then, that the building was built on a rational basis and is truly a case of form follows function.

The formal connections with the Modern Movement can still be observed in other areas (Fig. 2). The entrance volume on the main building uses colour in the same manner as Bruno Taut in his housing estates in Berlin. By juxtaposing different colours, between the balconies and the entrance building and between the buildings themselves, Xi creates rhythm, depth and vibrancy in what would otherwise be a rather compact and monotonous building. The two-storey annex in the entrance of the sanatorium, with its use of curved glass shapes coupled with horizontal volumes, can also be said to resemble J.J.P. Oud's (1890–1963) designs at Hoek van Holland and Johannes Duiker (1890–1935) 1927 Zonnestraal Sanatorium, though in a much more restrained manner.

The sanatorium is then closely in line with the developments occurring in the 1920s and '30s in German and Dutch



Fig. 2. Xi Fuquan, Hongqiao Sanatorium, Shanghai, China, 1934, Main building south Façade and Cross-section. © João Delgado, based on Yaohua Shi 2006: 52.

modern architecture, and a perfect study on the Diaspora of the Modern Movement embodying its spirit in its qualities as a sanatorium — as a rational architecture designed to better the health and comfort of its users, as Beatriz Colomina puts it “a health machine — a factory for the manufacturing of healthy bodies”.¹¹

In this sense, it looks at the formulations of the Modern Movement as the future for architecture in China, of an architecture that supports itself in universal rational values to better the quality of the spaces which it serves and finds a freeing liberation in its cosmopolitan modernity. The building strikes no resemblance to Xi's own Chinese identity, instead it insists on a notion of a shared global architecture. That is except for a few minute details which find striking importance, since the building only shows its Chinese heritage in a department that the Modern Movement sought to eradicate — in its window lattices, its ornament.

2. THE MODERN MOVEMENT DIASPORA

2.1. Modernity and Imperialism

The use of Chinese ornament indicates a recoil from the Modern Movement's universal formulations and a will to express national identity. A loss of cultural identity, and hence ornament, as Adolf Loos (1870–1933) noted, is not as readily accepted in peripheral nations.

Within the imperial context in which China and the West were, the creation of the *Other* was crucial. Modernity will play a role in constructing this primitive *Other* in relation to the modern *West*, where a modern belief in a linear progressive Darwinian time, and hence *development*, was used as a justification for the superiority of the West. Modernity's *tabula rasa* desire to eradicate the old in order to build the new¹² is here, then, taken as a literal subjugation and eradication of the *old Other* by the *new West*.

This referential system where the West was the *signifier of the modern* was internalized by the colonized, whom saw in the colonizer's way a path for their own modernity.¹³ In China, this paradox of westernization as a way to liberate oneself from Western incursion¹⁴, will crystallize in the

modern project of the May Fourth Movement, whom adopted western modernity as a project of national liberation, separating the colonial West from the modern one, masked by a utopian cosmopolitanism.¹⁵

2.2. The Limits of the Modern Movement

While systematically denying a membership in its pantheon to the non-white non-West¹⁶, the Modern Movement, in a cosmopolitan endeavour, will realize a single homogeneous global conception of modern architecture. The Movement's global pretensions, supported on a basis of universal reason, will remarkably have little sources or architects from outside the West.

The Hongqiao Sanatorium can be said then, to also be an internalization on part of the colonized of a single western conception of modernity, of a *Westernization* through the use of objectivity and universal reason. The sanatorium adoption of the Modern Movement as the only way to achieve its functional goals, paying little attention to the rich Chinese tradition, is a product of a perspective where the *modern*, the *new* and *functional* were conflated with the West. By ignoring Chinese tradition, Xi is placing it in the realm of the *old*, the *under-developed*, and hence, the *disposable*, that which is supposed to be eradicated. The Movement will, in this sense, take a *destructive* approach and be an agent of colonialism, in which the notion of *tabula rasa*, here takes a much more disturbing iteration, that of the colonial *terra nullius*.¹⁷ Both assume blank spaces (and eradicate old structures) in which to construct a *new world*.

The sanatorium's seemingly small opposition to this destructive nature of the Movement is then noteworthy (Fig. 3).

Ornament, style and identity have always been intimately tied as was noted in Gottfried Semper's (1803–1879) theory of building *dressing* — *bekleidung* — and the role that weaving and knots played towards the creation of a particular cultural identity and *style*. Processes of rationalization, modern Western culture's opposition to a unified style, sought to eradicate it and tended towards universalized standards.



Fig. 3. (A) Xi Fuquan, Hongqiao Sanatorium, Shanghai, China, 1934, Entrance Doors Ornament. © Shirley Surya. (B) Xi Fuquan, Hongqiao Sanatorium, Shanghai, China, 1934, Gate Ornament. © Liu Kan, 2019: 154–161. (C) Xi Fuquan, Hongqiao Sanatorium, Shanghai, China, 1934, Window Detail in Circulation Volume. © João Delgado, based on perspective from https://www.thepaper.cn/newsDetail_forward_6240784. (D) Songshi Wuyuan, Tongli, Suzhou, China. Window Ornament Detail. © João Delgado

But in Chinese tradition, one that has a highly standardized and modular architecture as well¹⁸, ornament never stood in opposition against it. In fact, Chinese culture itself is able to encompass processes of standardization and permanent change¹⁹, much like modernity, while maintaining its identity and not tending towards universal abstraction. Through the affirmation of a Chinese identity precisely through its ornamentation then, the Hongqiao Sanatorium offers a glimpse of a different formulation of the Modern Movement based on a different culture and tradition. Though the building still adheres for the most part to the western formulations of modernity, it does open questions regarding Modern Movement's alternatives and formulations of modern architecture in spaces beyond the West.

3. GOING BEYOND THE MODERN MOVEMENT

3.1. Modernity and Daoism

Western modernity, and consequently the Modern Movement as well, shares a paradox characterized by Ana Tostões (1959–) as “something that wants to hold on but that is now in permanent transformation”²⁰ and noted by Georg Simmel (1858–1918) as a turn towards objectivity amidst modernity's chaotic environment. Modernity's *desire for development*²¹ creates an environment where everything is in permanent change but also where man is permanently trying to control it.

Coming from the ravages of World War I, Bertrand Russell (1872–1970) saw in China, under the figure of Laozi, an alternative towards the *machinist outlook* of the West. Daoism was, for him, a philosophy of acceptance and empathic understanding which he termed as the ‘antithesis of Nietzsche’.²² In the *Tao Te Ching*, a notion arises that is very close to the concept of modernity itself — that of *impermanence*. In Daoist doctrine, the *Tao* (or the *Way*) isn't a static objective entity but rather an ever flowing and changing one, describing a reality that seems very close to Karl Marx's (1818–1883) description of an environment where ‘*all that is solid melts into air*’.

The paradox found in western modernity does not exist

in Daoism. Implicit in the concept of *wuwei* — *actionless action* or *effortlessness* — is a philosophy of accepting the dynamic change of the world. In fact, it is precisely in *change*, in its potential, that the *Tao* sees things as being alive and organically growing. The dogmatic dialectical synthesis between oppositions found in the Modern Movement and in Siegfried Gideon's (1888–1968) work, will contrast with Laozi's embrace of a harmonious relationship between oppositions, the Yin Yang.

3.2. Chinese Space and Alternative Modernities

Daoism will then find appreciation in the intangible relationship between objects, focusing on constant change. A reality where everything is connected and in constant flow, where meaning is found not on the things themselves but on their immaterial relationship — on *space*, which is precisely what, in its infinite potential for growth, makes things *alive*. The *Tao's* eleventh passage is remarkably modern in its understanding of space:

*We hammer wood for a house,
but it is the inner space
that makes it livable*²³

Through all the similarities with modernity, Daoist space and doctrine differs in its embrace of the relationship between oppositions and strays away from dogmatic absolute positions. Traditional Chinese architecture tends towards processes of rationalization and standardization while also demarking a defined identity through its rich ornamentation; its many gardens are separated by a rigid orthogonal grid composed of thick walls while also allowing for a fluid and rich variety of arrangements and interpenetrating spaces inside it; it is an architecture of very strong and monumental elements, such as its masonry podiums and big roofs, but also made of perishable modular materials in its timber-frame; in this note, it is an architecture in commune and completely open to nature with its modular partitions while arising deep feelings of shelter and interiority with its deep eaves and big roofs; most of all, it is an ar-

chitecture that doesn't find its beauty in light or shadow, but in the careful mediation of the two.

Jun'ichirō Tanizaki's (1886–1965) lays bare the contrast between East and West in a succinct manner, whereas the westerner's 'quest for a brighter light never ceases' sparing 'no pains to eradicate even the minutest shadow.'²⁴; the beauty of Japanese house (in this case comparable to the Chinese equivalent) 'depends on a variation of shadows heavy shadows against light shadows — it has nothing else'.

4. TOWARDS A WORLD OF DIFFERENT IDENTITIES

In Tanizaki's thought we can find not only a deep sorrow for an aesthetic and tradition that is not only ignored but being erased, while also getting a glimpse into a different kind of modernity with diverse sensibilities - in other words, a modernity with a distinct identity from that of the West.

The Hongqiao Sanatorium, a product of the semi-colonial condition within China, copied the modern West while ignoring this rich tradition, which was to be found only on its details. Within this small difference, it shows a resistance against the erasure of culture and national identity, distinguishing it as a Chinese building.

By looking at Chinese tradition one can distinguish plenty of concepts that are surprisingly similar to the modern world while also having radically different perspectives and responses to them. In this paradigm, then, Chinese modern architecture is not only able to maintain its own distinguished identity based on cultural distinctions and traditions but also explore and provide meaningful contributions to what would be a truly cosmopolitan modern world.

NOTES

- 1 Hwa Yol Jung, "Enlightenment and the Question of the Other: A Postmodern Audition", *Human Studies*, 25, 2002, 297–306.
- 2 Ana Tostões, *A Idade Maior: Cultura e Tecnologia na Arquitetura Moderna Portuguesa*, Porto, FAUP Publicações, 2015, 89 [translated by the paper's author].
- 3 Ibid., 63.
- 4 Beatriz Colomina, *X-Ray Architecture*, Lars Muller Publishers, 2019.
- 5 Liu Kan, Li LUN, & Tammy Sau Lyn Chau, "The Transculturation in Architecture between Berlin and Shanghai: The Case of Architect Xi Fuquan (1902–1983)" Bettina Bauerfeind & Josefine Fokdal (eds.), *Bridging Urbanities: Reflections on Urban Design in Shanghai and Berlin*, Berlin: LIT, 2011, 43–53.
- 6 Peter Rowe, & Seng Kuan, *Architectural Encounters with Essence and Form in Modern China*, Cambridge, MIT Press, 2002, 61.
- 7 Bertrand Russell, *The Problem of China*, London, George Allen & Unwin Ltd., 1922, 74–75.
- 8 Yaohua Shi, "Reconstructing Modernism: The Shifting Narratives of Chinese Modernist Architecture", *Modern Chinese Literature and Culture*, Vol. 18, No. 1, Special Issue on Modernisms' China, Spring 2006, 30–84, 51.
- 9 Ibid., 51.
- 10 Liu Kan, Li Lun, & Tammy Sau Lyn Chau, 2011, 43–53.
- 11 Beatriz Colomina, 2019, 91.
- 12 Marshall Berman, *All That Is Solid Melts Into Air: The Experience of Modernity*, New York, the Penguin Group, 1982, 48.
- 13 Arif Dirlik, "Architectures of Global Modernity, Colonialism, and Places", *Modern Chinese Literature and Culture*, Vol. 17, No. 01, Special Issue on Chinese Culture in Inter-Asia, Spring 2005, 33–61, 44.
- 14 Ana Tostões (ed.), *Arquitetura Moderna em África: Angola e Moçambique*, Casal de Cambra, Caleidoscópio, 2013, 67 [translated by the paper's author].
- 15 Shu-mei Shi, *The Lure of the Modern: Writing Modernism in Semicolonial China, 1917–1937*, Berkeley, University of California Press, 2001, 14.

- 16 Shu-mei Shi, 2001, 02.
- 17 Arif Dirlik, 2005, 33–61, 50.
- 18 Nancy Shatzman Steinhardt, *Chinese Architecture: A History*, New Jersey, Princeton University Press, 2019, 01.
- 19 David Wang, *A Philosophy of Chinese Architecture: Past, Present, Future*, New York, Routledge, 2017, 52.
- 20 Ana Tostões, 2015, 32.
- 21 Marshall Berman, 1982, 39.
- 22 Bertrand Russell, 1922, 84.
- 23 Laozi, *Tao Te Ching: Lao Tzu*, Translated by Stephen Mitchell, London, Frances Lincoln Ltd., 2013 (original text from 350–250 b.c.) Chapter 11.
- 24 Junichirō Tanizaki, *In Praise of Shadows*, Translated by Thomas Harper & Edward Seidensticker, London, Vintage Classics, 2001, 48 [original text 1933].

Session 8-j

MODERN WAYS: MODERNISM IN THE SERVICE OF GOVERNMENT AND CAPITAL

Scott Robertson

Director of a small architecture practice in Sydney, Australia, President of Docomomo Australia

The construction of new capital cities or towns special to a regime has been used, and continues to be used, by governments to represent the ideals of the people or the regime as a legitimising force in the creation, or representation, of a state. Modern examples such as Ankara, Canberra and Brasília which sought to provide a unifying symbol that was independent of the past centres of power in the country are examples of the first half of the twentieth-century. A more recent example, established by the military regime in Myanmar, is the new enormous capital city, Nay Pyi Taw, located near the country's geographic centre and far from the colonial capital of Rangoon. Its location and size seek to legitimise and safeguard the autocratic government and to diminish the importance of the individual through the gargantuan scale of the city plan and streets.

In terms of architecture, some regimes have embraced Modernism as an expression of the regime or as a matter of necessity, such as the Italian Fascist regime innovating to substitute materials and products due to international sanctions following the invasion of Ethiopia, whilst others have dictated a more conservative approach, such as the short-lived diktat by the Trump Administration requiring all US government-funded public buildings to be built in a neo-Classical style.

Modernism, in the hands of architects with a social or political conscience, became a tool to assist in the integration of different classes or strata of people in a society or organisation and these buildings are now under threat for political reasons by governments with opposing agendas to those governments that built the buildings or because of changing security situations following the rise of Terrorism as a global phenomenon. Building can no longer be open and welcoming but must be resilient and secure.

In the commercial world, architecture has been used to provide a brand identity to a variety of institutions such as

banks that constructed large, solid buildings portraying an image of trust and safety. At the other commercial extreme, the rise of fast-food chains is an example of brand identity portraying an image of reliability and consistency (perhaps even uniformity) of the products sold in the chain. A hamburger or chicken meal sold in Seattle is the same in Sydney or Paris and the building's architecture, or imposed signage and logo branding, must equally be the same, regardless of the physical or cultural context.

The papers in this session discuss Italian Modernity in the context of the urban fabric of a Fascist town, the image of a modern Turkey in its new capital city, the corporate motorway refreshment rooms of post-war Italy, and the conflict between a bucolic countryside and the increasing suburbanisation of Tokyo.



EVALUATION OF MODERN TURKISH PUBLIC BUILDING ARCHITECTURE: THE CASE OF ANKARA, A YOUNG CAPITAL CITY

Nilgün Rengin Sazak

Brandenburg University of Technology; Konrad-Wachsmann-Allee8, Building 2D – Room 115 03046, Cottbus, Germany; sazaknil@b-tu.de

ABSTRACT.

Ankara was a small, neglected central Anatolian town until it was given the title of the capital city of the Republic of Turkey. At the declaration of the Republic of Turkey, Ankara was considered as the best representation of the new ideology and the initiatives of transforming a small central Anatolian town to a modern, 20th century city were launched. During this process, the government preferred working with modernist architects from German-speaking countries.

Since architects and urban planners from German-speaking countries had a remarkable effect on Ankara's modernization in the 1930s, Turkish architects who were following their European counterparts created the concept of "Turkish modernism". Starting from the mid-1930s, the characteristics of modernism can be observed in the housing, public buildings and interiors of Ankara which were designed and built by Turkish architects. This paper aims to analyze the synthesis of Turkish architecture and modernism by using two notable public buildings from Ankara which present different stages of Turkish modernism: Türk Tarih Kurumu (Turkish Historical Society, 1951), architects: Turgut Cansever(1921–2009) and Ertur Yener and Türk Dil Kurumu(1934–2020 / Turkish Language Society, 1974), architect: Cengiz Bektaş. Through their architecture the role of those buildings on the urban image of the city image will be examined.

1. ARCHITECTURAL MOVEMENTS OF 20TH CENTURY IN TURKEY AND THEIR EFFECTS ON ANKARA

Ankara is one of the main cities in which the history of architecture in the 20th century in Turkey can be observed. In his book "Mimariden Konuşmak — Bilinmek İstenmeyen 20. Yüzyıl Türk Mimarlığı — Eleştirel Bakış" ("Discussing Architecture — 20th Century Turkish Architecture from the Unknown to Known — A Critical View") Vanlı identifies the city as "a living museum of architecture."¹ In order to understand the significance of Ankara, the historical background of the city should be examined. After the collapse of the Ottoman Empire, "İstanbul, the capital city for centuries, was set aside; instead Ankara was declared the new capital."² As Tekeli points out, "the development of Ankara as a modern city, which was identified with the success of the Republican regime, presented the architectural profession with a major challenge."³ Modernism was based on technology and functionality; thus, it was the most convenient design philosophy for the positivism of the new republic.⁴ The Republicans supported modernist architectural forms rather than the traditional forms. This transition and decisions about the architecture in Turkey caused the dominance of architects from German speaking countries in the Second National Architecture period. The most remarkable architects of this "Ankara-Vienna Cubism" period were Theodor Post, Ernst Egli, Clemens Holzmeister, Bruno Taut, Martin Elsaesser and Hermann Jansen.⁵ In the second half of this period, the design ideas of modernism weakened and the influences of German classicism occurred. In this period, the architectural solutions were devoted to creating new forms, which revived the essence of Turkish culture and the forms of traditional Turkish civic architecture. The architects who

contribute most to this new style were Sedad Hakkı Eldem, Emin Onat and Paul Bonatz.⁶

A large part of the skyline of Ankara was created by the buildings of the Second National Architecture period. The next period, which can be identified either as "the International Style" or "Pluralism in Modernism", strengthened the modernist image of Ankara even more. Turkish architects who were either students of German-speaking architects in Turkey or graduates of universities in Europe were trying to find architectural solutions within the principles of modernism. In the 1950s, Turkish rationalist modernism in architecture started to grow and it was still having an effect in the 1960s.⁷ There were different approaches by Turkish architects towards regionalist or historical interpretations of modernism. Several architects were influential with their various solutions and interpretations between 1950 and 1980 and Turgut Cansever and Cengiz Bektaş were two of the most significant architects of this period. In order to understand their contributions to Ankara; their life stories, architectural styles and buildings will be examined in the next section.

2. TURGUT CANSEVER AND THE TURKISH HISTORY SOCIETY BUILDING

Turgut Cansever's presence in Turkish architecture is interpreted as a synthesis of contemporary and Islamic architecture. He is considered as an architect who could apply traditional Turkish architecture to contemporary architecture in a most rational and appropriate way.⁸ His unique architecture and philosophy derived from his background. Cansever, who was one of the architects that helped build the Turkish Historical Society building, was born into a



Fig. 1. Turgut Cansever, the Turkish History Society building, Ankara. © 2020, Nilgün Rengin Sazak.

highly educated, high-class Istanbul family. It can be said that his traditional design approach was a result of his emotional bond with the Ottoman Empire and its capital İstanbul.⁹

Cansever was an academic, thinker and architect, who had a wide range of focuses and goals in terms of design. He focused on the changes in Ottoman and Seljuk architectural forms in his doctoral studies in 1949. In his studies in 1960, he also worked on the evolution of modernist architecture. There are various main components that shaped his design philosophy; such as, growing up in Bursa, which was a former capital of the Ottoman Empire, being in communication with the latest generation of Ottoman intellectuals, undertaking academic research into modernists such as Le Corbusier and Mies van der Rohe, focusing on the contrast between Islamic philosophy and Western philosophy, being in communication with Western architects and being raised in a traditional, Ottoman family.¹⁰ As a result, as Gönül Evyapan states, he became an architect who harmonized mainstream architectural principles with traditional aspects within the context of space and time and he finally achieved his goal of "[the] synthesis of regional and global architecture".¹¹ Gönül Evyapan explains this issue:

By correlating permanent architectural values to the traditional in terms of time and space, Cansever achieved to reach a regional/universal synthesis of architecture and his works, which question the problems, have a didactical and moral as-

*pect.*¹²

Cansever was always concerned about finding ways to adapt the Turkish cultural background, which is different from the Western background, to the contemporary world. Since Islam has been one of the main elements of Turkish culture for almost a thousand years, his solution to that issue was based upon Islamic architecture.¹³ According to Yücel, the semantics of his architecture, which is related to historicity and evolve from "the unity of forces and the commandments of being (which) determine existence and its continuity"¹⁴, have a metaphysical significance. Even though these statements clarify the Islamic and Ottoman parts of Cansever's architecture, there are different periods of his architectural works and design attitude. In the first years of his career, he started as a rationalist and he followed the design principles of Le Corbusier and modernist architecture. However, he started to look for a more "traditional approach" in the 1960s.¹⁵ His architectural forms and periods can be summed up as: 1) the period between 1951–1959: combination of the Modernist and traditional elements, 2) the period between 1964–1976: transition period, 3) the period between 1980–1983: tendency to use traditional forms, and 4) the period between 1985–2001: being in search of re-systematization.¹⁶

Amongst his various projects, there are buildings that combine both traditional Ottoman/Seljuk forms (vaults, bay windows, eaves, domes) and modernist approaches (brutal-



Fig. 2. The atrium and interiors with "kafeses", Ankara. © 2020, Nilgün Rengin Sazak.

ism, regionalism, use of concrete). Some of his primary works are: Karatepe Open Air Museum, Anadolu Club, The American Scientific Research Centre and Ahmet Ertegun House. Undoubtedly, his most significant work is the Aga Khan award-winning building, Turkish Historical Society (1951–1967 / Fig. 1).

When Cansever designed the building, he aimed to consider human elements, historical conditions and local materials. As it is located in a garden, this three-story building has its own small environment. The garden organizes the building's relationship to its surroundings. The building has func-

tions including a center for historical research, offices, meeting places, meeting rooms and a library.¹⁷

The most remarkable characteristic of this building is the spatial organization. All of the interiors are organized around a three-storey covered atrium.¹⁸ This atrium and different functions bring to the building the sense of "unity of spaces" and the main idea behind this organization is to protect the building from the exterior events such as sun, heat and noise.¹⁹ The unity of spaces, which are connected around the main atrium, has attributes from Ottoman architecture called the "medrese courtyard" or "an Ottoman mosque". The spatial organization allows each component of the building to exist equally as a whole.

Yet another traditional form that is used is "kafes", which can be translated as "cage" (Fig. 2). The use of "kafes" and brutality of stone create an elegant contrast.¹⁷ Surrounding buildings, especially Bruno Taut's Faculty of Language, Geography and History, which was built with reddish Ankara stone in huge cantilevered upper walls and painted raw concrete in its lower structural elements were taken into consideration when choosing the materials.²⁰ Even though Cansever interpreted the traditional elements in this building, it cannot be denied that the Turkish History Society building was designed in a Modernist architectural style.²¹

3. CENGİZ BEKTAŞ AND THE TURKISH LANGUAGE SOCIETY BUILDING

Cengiz Bektaş had a wide range of interests besides his notable contributions to Turkish architecture and he can be described as "a versatile man".²² He introduced himself as "a poet" before calling himself an architect. He was the author of many books including literary works and was a passionate researcher of Anatolian history, art and architecture. He was the creator of simple yet impressive Modernist buildings. His search for traditional houses and folk art in Anatolia came from his sense of social responsibility.²³

His attitude about the architecture was probably shaped during his studies at the department of Architecture at Munich Technical University and his working experience with Fred Angerer and Alexander von Branca. The functionalist, rationalist and socially responsible architecture of Germany in the post-war period influenced Bektaş's design philosophy. Throughout his career, he consistently followed the principles of "modern rationalism". The essence of his architecture and research is mostly centred on the concepts of "the heritage of Anatolia" and "being an Anatolian". As an architect who researched and analyzed traditional Turkish houses for many years, he claimed that "the lands we are living on have something special".²⁴ However, he didn't limit the history of Anatolia to only Seljuks or Ottomans. According to him, Anatolian history is based on the belief that it is a continuous process which starts in prehistoric times and continues to the present.²⁵ Bektaş also drew attention to the



Fig. 3. The location of Turkish Language Society Building, (left: the old building). © 2020, Nilgün Rengin Sazak.

similarities between the principles of modernist architecture and folk architecture in Anatolia. He stated that “discourses of Anatolian folk architecture and modernism have something in common: form follows function.”²⁶ Even though he admired the solutions of traditional architecture, he interpreted these principles in a modern way rather than imitating the traditional forms in his buildings.²⁷ Bektaş summed up his design principles clearly: 1) compatibility with life, environment and nature, 2) being conscious of the cultural background, 3) designing from interior to exterior, 4) consistency between interiors and exteriors, and 5) working with local materials and methods. Some of his most important works are: the Agricultural Products Office (Ankara), the Central Bank (Denizli), the Babadağlılar Bazaar (Denizli) and the House of Dr. Umezu (Tokyo). His most appreciated work is the Turkish Language Society building in Ankara.

The Turkish Language Society building is located at the southern half of the main boulevard of the city center, Atatürk Boulevard, which was designed by Hermann Jansen in the early 1930s. This boulevard is like an exhibition of the architectural history of Ankara from beginning to end and it includes many public buildings, embassies, trade centers and banks. Bektaş was aware of the difficulties of designing a building along this axis. He explained these difficulties, “As you know, it is not easy to build this building on the Boulevard. One side of this boulevard consists of embassies and the other side faces west” (Fig. 3).²⁸

The architectural elements that he used in this building,

such as the angular position of its corner columns and the difference in the vertical line of its windows, helps the building fit into its surroundings.²⁹

The two main significant elements of this building are its monumental façade and its interior design which revolves around the atrium. In the workplaces, each floor overlaps the one below about 15 centimeters. This solution creates natural ventilation for interiors and is reminiscent of the bay windows of the old traditional Ankara houses. The atrium and the workplaces which were planned around it symbolize the unity of the purpose of the Turkish Language Society.³⁰ Bektaş also claimed the staircase as “a plastic arts piece”, like a sculpture.³¹ The use of minimalist materials such as concrete, glass, wood and marble also emphasizes the monumental impact of the building (Fig. 4).

4. CONCLUSION

Turgut Cansever and Cengiz Bektaş intended to reach modernism through “the traditions” but they interpreted traditions and regionalism with different methods. Bektaş’s actual focus is to embrace the history of Anatolia as a whole and to create buildings which can be sustained for the future. Therefore, he analyzes the forms and the principles of the traditional Turkish housing and he implements the essence of traditional architecture in “a modernist and rationalist way,” rather than using these elements directly or imitating them. On the other hand, Cansever also brings the



Fig. 4. The detail about relation between staircase and windows. © 2020 Nilgün Rengin Sazak.

traditional yet more Islamic oriented style to Modernist architecture and he clearly makes a synthesis of "Ottoman/Seljuk architecture and Western forms". Even though he occasionally questions "modernism and modernity in architecture", he cannot avoid finding architectural solutions in modernist elements and principles.

The Turkish Historical Society building is a result of Cansever's attitude about using the architectural forms for expressing his discourse. He used "unity of spaces" as a philosophical basis for the design and he combined the elements from Ottoman architecture with modernist elements.

The spatial organization of the building which attributes to "medreses" corresponds to the characteristics and purpose of the Society. The materials on the facades and the adaptation of the building on the land bring coherence to this building with respect to the surrounding buildings. Cansever used Ankara stone, which was the preferred material in the early modernist buildings of Sıhhiye, to harmonize this building with its environment. The organization of the plan and the flat, Brutalist surfaces of the building create an isolated, inner space; however, despite that sense of isolation, the building makes a connection with its environment through its garden. The Turkish Historical Society building stands out amongst the early modernist buildings with its authentic, local modernism and it also blends into the characteristics of the region.

In the Turkish Language Society building, Bektaş's rationalist and purist philosophy can be observed. This rational building, which is located on Atatürk Boulevard, complements the importance of its location and the surrounding buildings. The difficulty of designing this building derives from two main reasons: representation of an essential institution such as the Turkish Language Society and building it on a limited space on the main boulevard of Ankara. But with the help of its well-settled vertical facade, the balance between concrete and glass and also the plasticity of its staircase, this building accomplishes its purpose. The facade of the building faces the boulevard with its slightly angled flat surface; however, it is still not isolated from the Boulevard. Considering all these factors, the Turkish Language Society building becomes one of the symbolic components of Atatürk Boulevard with its modest, monumental presence.

To conclude, both Bektaş and Cansever try to find solutions to the issue of "adapting modernism to a non-Western context". Their outcomes might be different but they both make an essential contribution to the literature of Turkish Modernism. They each not only produced one of the best examples of interpretations of Modernism, but they also managed to improve the urban design of the young capital city of Ankara.

REFERENCES

- ASLANOĞLU, İnci, "1928–1950 Arası Türkiye’de Mimarlık Gelişmeleri" *Cumhuriyetin Mimarlık Mirası*, TMMOB Mimarlar Odası, 35–44, Ankara, TMMOB Mimarlar Odası, 2011.
- BEKTAŞ, Cengiz, "Cengiz Bektaş ile Mimarlıkta Kuramsal Sorunlar ve Katılım Üzerine Söyleşi", *ODTÜ Mimarlık Fakültesi Dergisi*, 1981, 129–142.
- BEKTAŞ, Cengiz, "İnsanların Mutluluğu", *Cengiz Bektaş*, 62–13, İstanbul, Boyut Yayın Grubu, 2001.
- BEKTAŞ, Cengiz, *Mimarlığımızın Cumhuriyeti*, İzmir, Mimarlar Odası İzmir Şubesi, 2000.
- BEKTAŞ, Cengiz, *Proje Uygulama Mimarlık Çalışmalar*, Ankara, Maya Matbaacılık, 1979.
- CANSEVER, Turgut, *Thoughts and Architecture*, Ankara, Turkish Historical Society Press, 1981.
- DOSTOĞLU, Neslihan, "Bursa Örnekleri Üzerinden Cumhuriyet Mirasının Değerlendirilmesi", *Cumhuriyetin Mimarlık Mirası*, TMMOB Mimarlar Odası, Ankara, TMMOB Mimarlar Odası, 2011, 233–242.
- DÜZENLİ, Halil İbrahim, *İdrak ve İnşa*, İstanbul, KLASİK Yayınları, 2009.
- GÜZER, C. Abdi, "Dört Kişiydiler Bir de O", *Cengiz Bektaş* içinde, Boyut Yayın Grubu, İstanbul, Boyut Yayın Grubu, 2001, 56–60.

YAYINCILIK, Boyut, "Cengiz Bektaş: Mimarlık ve Ussal Şiir" *Cengiz Bektaş*, Boyut Yayın Grubu, İstanbul, Boyut Yayın Grubu, 2001, 28–35.

ÖZBAY, Hasan, "Bir Mimar Cengiz Bektaş", *Mimarlık Dergisi*, 1 November 1986, accessed on February 7, 2020 <http://dergi.mo.org.tr/dergiler/4/542/9108.pdf> (February 7, 2020).

TANYELİ, Uğur, "Cengiz Bektaş ile Söyleşi", *Cengiz Bektaş*, Boyut Yayın Grubu, İstanbul, Boyut Yayın Grubu, 2001, 8–26.

TANYELİ, Uğur, "Cengiz Bektaş ve Yeni — Atatürkçü Düşünce", *Cengiz Bektaş*, Boyut Yayın Grubu, İstanbul, Boyut Yayın Grubu, 2001, 38–47.

TEKELİ, İlhan, "The Social Context of the Development of Architecture in Turkey", *Modern Turkish Architecture* içinde, yazar Renata Holod, Ahmet Evlin ve Suha Özkan, Ankara, the Chamber of Architects Turkey, 2005, 15–36.

VANLI, Şevki, *Mimariden Konuşmak — Bilinmek İstenmeyen 20. Yüzyıl Türk Mimarlığı Eleştirel Bakış*, Ankara, Şevki Vanlı Mimarlık Vakfı, 2006.

YÜCEL, Atilla, "Pluralism Takes Command: The Turkish Architectural Scene Today", *Modern Turkish Architecture* içinde, yazar Renata Holod, Ahmet Evlin ve Suha Özkan, Ankara, the Chamber of Architects Turkey, 2005, 149–152.

NOTES

1. Şevki Vanlı, *Mimariden Konuşmak — Bilinmek İstenmeyen 20. Yüzyıl Türk Mimarlığı Eleştirel Bakış*, Ankara, Şevki Vanlı Mimarlık Vakfı, 2006, 137.
2. İlhan Tekeli, "The Social Context of the Development of Architecture in Turkey", *Modern Turkish Architecture*, Ankara, the Chamber of Architects Turkey, 2005, 16.
3. Ibid.
4. Ibid., 20–21.
5. Ibid.
6. İnci Aslanoglu, "1928–1950 Arası Türkiye’de Mimarlık Gelişmeleri", *Cumhuriyetin Mimarlık Mirası*, TMMOB Mimarlar Odası, Ankara, TMMOB Mimarlar Odası, 2011, 41, 35–44.
7. Vanlı, op. cit., 213.
8. Halil İbrahim Düzenli, *İdrak ve İnşa*, İstanbul, KLASİK Yayınları, 2009, 111.
9. Vanlı, op. cit., 298.
10. Düzenli, op. cit., 133–134.
11. Düzenli, op. cit., 111.
12. Ibid.
13. Ibid., 114.
14. Atilla Yücel, "Pluralism Takes Command: The Turkish Architectural Scene Today", *Modern Turkish Architecture* içinde, Ankara, the Chamber of Architects Turkey, 2005, 130.
15. Düzenli, op. cit., 298.
16. Düzenli, op. cit., 136.
17. Turgut Cansever, *Thoughts and Architecture*, Ankara, Turkish Historical Society Press, 1981, 38–43.
18. Yücel, op. cit., 146–147.
19. Cansever, op. cit., 38.
20. Cansever, op. cit., 43.
21. Vanlı, op. cit., 299.
22. Doğan Kuban, Cengiz Bektaş, "Mimarlık ve Ussal Şiir", *Cengiz Bektaş*, Boyut Yayın Grubu, İstanbul, Boyut Yayın Grubu, 2001, 29.
23. Uğur Tanyeli, "Cengiz Bektaş ile Söyleşi", *Cengiz Bektaş*, Boyut Yayın Grubu, İstanbul, Boyut Yayın Grubu, 2001, 28, 8–26.
24. Cengiz Bektaş, "Cengiz Bektaş ile Mimarlıkta Kuramsal Sorunlar ve Katılım Üzerine Söyleşi", *ODTÜ Mimarlık Fakültesi Dergisi*, 1981, 134.
25. Uğur Tanyeli, "Cengiz Bektaş ve Yeni — Atatürkçü Düşünce", *Cengiz Bektaş*, Boyut Yayın Grubu, İstanbul, Boyut Yayın Grubu, 2001, 44–45.
26. Cengiz Bektaş, *Mimarlığımızın Cumhuriyeti*, İzmir, Mimarlar Odası İzmir Şubesi, 2000, 18.
27. C. Abdi Güzer, & Dört Kişiydiler Bir de O., *Cengiz Bektaş*, Boyut Yayın Grubu, 56–60, İstanbul, Boyut Yayın Grubu, 2001, 56–57.
28. Cengiz Bektaş, *Proje Uygulama Mimarlık Çalışmaları*, Ankara, Maya Matbaacılık, 1979, 58.
29. Yücel, op. cit., 143.
30. Cengiz Bektaş, "İnsanların Mutluluğu", *Cengiz Bektaş* içinde, yazar Boyut Yayın Grubu, 62–139, İstanbul, Boyut Yayın Grubu, 2001, 82.
31. Özbay Hasan & Bir Mimar Cengiz Bektaş, *Mimarlık Dergisi*, 1 November 1986, February 7, 2020, <http://dergi.mo.org.tr/dergiler/4/542/9108.pdf>, 89.

THE GLOBAL INHERITANCE OF FORLÌ AS PARADIGM OF ITALIAN MODERNITY

Giulia Favaretto

University of Bologna, Department of Architecture; Italy; giulia.favaretto2@unibo.it

ABSTRACT.

In the years between the two World Wars, Italy hosted a building process which recorded an unprecedented architectural production if considered in relation to the time frame of its realisation. Within this framework, Fascism promoted giving shape to Italian modernity which embraced the ferments of the Modern Movement, though advocating a specific reference to the country.

Forlì — the provincial capital of the land where Benito Mussolini was born — represents a paradigm of the architectural activism which implemented the construction of Italian modernity. As catalytic *locus* of Mussolini's attention, Forlì underwent a major renovation during the Fascist period that radically transformed the face of the city which had to interface not only with the local culture and tradition, but also with the Italian autarchic phenomenon. This event had a profound effect on the way of building. However, it was precisely the consequent prolific search for new materials, as well as available resources in the territory and innovative techniques, that led to the construction of highly experimental and significant buildings.

This paper presents the above-mentioned issues and clarifies them by making reference to three emblematic works of architecture — the Casa del Balilla, the Industrial Technical Institute and the Aeronautical College — built along the Forlì railway station avenue, the majestic access route to the so-called “city of the Duce”. By referring to the global inheritance of Forlì, the purpose is to underline how a local modernity, highly iconic but extremely variegated, constitutes a collective heritage to be transmitted to the future.

1. GLOBALITY AND SPECIFICITY OF ITALIAN MODERNITY

The years between the two World Wars represent the cradle of the Modern Movement which generated new forms of artistic and architectural expression and a renovated figurative culture that contributed to building the 20th century modernity.

In those years, the Italian context was marked by the presence of the Fascist regime which strongly aimed for both the obtainment of consensus and the education of masses, including through architecture. For political propaganda reasons, Italy thus hosted a building process which recorded an unprecedented architectural production if considered in relation to the time frame of its realisation. In fact, during the Fascist period, the Italian totalitarian regime built more constructions than any other government had ever done in the same period of time.¹

Within this framework, Fascism promoted giving shape to Italian modernity which embraced the ferments of the Modern Movement, though advocating a specific reference to the country. Precisely in this regard, the Fascist-era buildings became bearers of a two-fold ambition: on the one side, they were supposed to embrace modernity as the emblem of a figurative and ideological revolution; on the other side, they had to represent a powerful tie with the State by recalling classical tradition which was capable of enhancing the feeling of national belonging.

In this scenario, connoted by the realisation of buildings with international references whilst also rooted in the local culture in order to identify the Fascist regime, the architectural outcome of those years was a fluctuation which gave shape to an extremely heterogeneous Italian modernity. Anchored to tradition to a greater or lesser extent, albeit pre-

senting an innovative constructive essence, it highlighted the co-existence of “Traditionalism and Modernism” which proved to be “inextricably tied by a continuous interplay of exchanges and comparisons”.² Within this panorama, Benito Mussolini intentionally chose not to adopt an unambiguous position in the architectural field: strategically, this behaviour allowed him to support the most advantageous trend according to the context.³

Nevertheless, in the period between the two World Wars, the Italian background was marked by one further factor. As a matter of fact, in 1935 Italian troops invaded Ethiopia with consequences that significantly affected the national way of building. Indeed, the consequent sanctions imposed on Italy by the League of Nations forced the identification of alternative solutions to the importation of raw materials. Although as far back as the 1920s the Fascist regime addressed the construction sector towards the predilection for national materials, both traditional and industrially-produced ones,⁴ it was when Italy officially entered into an autarchic regime that the general tendency to self-sufficiency became a sheer necessity. This was announced in 1936, the year of the proclamation of the Empire which was subsequent to the end of the Italian-Ethiopian war.

Architecture of Italian modernity is therefore proof of its globality as well as its specificity. The language of these buildings, the employment of autarchic materials and the application of experimental techniques provide documentary evidence of remarkable traces of construction history. In this perspective, they represent a local identity but, at the same time, a global inheritance.

2. FORLÌ: A CONSTRUCTION SITE IN FULL ACTIVITY

During the Fascist period, special attention was devoted



Fig. 1. From the left: Cesare Valle, Casa del Balilla, Forlì, Italy, the building at the time of its inauguration (1930s); Arnaldo Fuzzi, Industrial Technical Institute, Forlì, Italy, the building at the time of its inauguration (1940s); Cesare Valle, Aeronautical College, Forlì, Italy, the building at the time of the entire complex inauguration (1940s). © AV-Roma (Archivio Storico Cesare Valle, Rome, Italy), *Fotografie*, box 25, folder CV-FOT/039; http://resistenzamappe.it/forli/fc_architettura_fascista/ex_istituto_tecnico_industriale_alessandro_mussolini (accessed 9 October 2018); AV-Roma, *Fotografie*, box 26, folder CV-FOT/061.

to the land hosting the birthplace of the Duce. From an architectural point of view, this specific fact entailed a considerable boost in construction in those territories.

In the surroundings of Dovia — a very small village where Benito Amilcare Andrea Mussolini was born in 1883 — a ‘founding city’, called Predappio Nuova, was settled during the Fascist era.⁵ Although it is an iconic city with imposing architectures, geographically speaking it is situated in a peripheral and not central area.

A considerable amount of attention was thus dedicated also to the city of Forlì, the provincial capital of the land where Benito Mussolini was born⁶, as well as the main gateway to a land indissolubly linked to the origins of fascism, to the point that this urban centre was referred to as the ‘city of the Duce’.⁷

As catalytic *locus* of Mussolini’s attention, Forlì underwent a major renovation during the Fascist period that radically transformed the face of the city. Several imposing works of architecture were built in the urban expansion area that connected the Forlì railway station — moved here during Mussolini’s dictatorship — and the historic centre of the city; other new buildings were constructed along and within the borders of the city core; interventions carried out on architectural heritage contributed to reinforcing the renovated and powerful face of Forlì.

The reception of the Modern Movement as an instrument of political propaganda thus initiated a process of modernisation and universality which, at the same time, suggested the search for a local identity, then actually developed with multiple facets. This variety of Italian modernity, which takes into consideration national history as well as that of individual territories, is well documented in Forlì by both the newly constructed architectures and the interventions on heritage buildings.

Nevertheless, as previously anticipated, the relationship between the Modern Movement and the national ideals and needs had to interface not only with the local culture and tradition, but also with the autarchic phenomenon. In those years, the entire city of Forlì was a construction site in full

activity and this event with the related impositions had a profound effect on the way of building. However, it was precisely the consequent prolific search for new materials, as well as available resources in the territory and innovative techniques, that led to the construction of highly experimental and significant buildings which document a precise chapter of history.

Therefore, the individual works of architecture, even if making reference to the ideals of the Modern Movement, reveal a strong diversity at their core, due to their attachment to the regional culture, in both figurative and material terms.

3. THREE EMBLEMATIC ARCHITECTURES ALONG THE FORLÌ RAILWAY STATION AVENUE

The above-mentioned issues can be further clarified by making reference to three emblematic works of architecture built along the Forlì railway station avenue, the majestic access route to the so-called ‘city of the Duce’.⁸ As a matter of fact, the Casa del Balilla, the Industrial Technical Institute and the Aeronautical College (Fig. 1) clearly illustrate what has been asserted. Located along the railway station route characterised by several imposing works of public architecture — which were constructed by the will of the Fascist regime in order to demonstrate and identify an iconic power — they were realised between the 1930s and 1940s. Beyond their image, which gives evidence of the influence of Rationalism, it is their constructed essence that provides valuable information about this heritage.

The Casa del Balilla in Forlì, a work by Cesare Valle, a Roman architect-engineer, was built in the 1930s and raised in the following decade. In addition to the design drawings, it is the employed materials and techniques that prove this metamorphosis which led to an increase in the building size. Indeed, whilst the structure of the portion built between 1933 and 1935 shows the co-existence of a reinforced concrete frame with brick masonry, the 1941 raising proves that it dates back to the years of the autarchic regime. In fact, here



Fig. 2. Cesare Valle, Casa del Balilla, Forlì, Italy. From the left: the co-existence of a reinforced concrete frame with brick masonry; the glazed wall composed of hot rolled steel window profiles and double glazing. © SABAP-RA (Soprintendenza Archeologia, Belle Arti e Paesaggio per le province di Ravenna, Forlì-Cesena e Rimini), Archivio deposito, folder 1 "Fo. Forlì"; AV-Roma, Fotografie, box 25, folder CV-FOT/039.

the employment of brick perimeter walls reveals a legislative path arrived at imposing the prohibition of using reinforced concrete and iron in constructions.⁹

Not surprisingly, it is the portion constructed before the introduction of the above-mentioned prohibition that presents expansive and noteworthy glazed walls with an iron frame. Especially, the component located in the volume that housed the swimming pool featured a structure consisting of hot rolled steel window profiles and double glazing. Patented and installed by the Curti S.A. (*Società Anonima*, Anonymous Society), a company based in Bologna, this transparent surface made it possible to take advantage of the greenhouse effect in Winter and to fully open the folding glass window in Summer (Fig. 2).

The nearby Industrial Technical Institute, designed by Arnaldo Fuzzi, a qualified engineer from Forlì, presents wide glazed walls too. However, unlike the Casa del Balilla, they were realised with a timber frame. Indeed, if initially wood was supposed to be used only for the building's doors, with the coming of the autarchic regime its employment was extended to the safety arrangements, the windows and even the glazed walls. Nevertheless, the use of hot rolled steel window profiles can be observed in skylights. The local Cicognani company was concerned with the timber elements, while the S.A. Fabbri Ferrai, another company based in Forlì, was in charge of supplying the metal skylights. The transparent surfaces of these components were obtained by glass sheets, among which were the Securit safety glass of the S.A. V.I.S. (*Vetro Italiano di Sicurezza*, Italian Safety Glass) and the Termolux insulation glass of the S.A. Vetreria Italiana Balzaretto Modigliani, materials produced by factories located in the Italian region of Tuscany. Among the autarchic materials of the building, there were also — with a

Milan provenance — the Anticorodal of the S.A. L.L.L. (*Lavorazione Leghe Leggere*, Processing Light Alloys), which was employed for the stairs handrail and the screening elements of the heating unit terminals, and the Populit of the S.A.F.F.A. (*Società Anonima Finanziaria Fiammiferi ed Affini*, Matchsticks and Similar Financial Anonymous Society), which was used for the insulation slabs.

As far as the building systems are concerned, the thermal power station arouses considerable interest. The cogeneration plant — developed, under license of the Babcock & Wilcox, by the Officine Breda Elettromeccanica e Locomotive S.p.A. (*Società per Azioni*, Joint Stock Company) based in Milan — consisted of a system which, after the production of steam in boiler, connected the steam generator with the turbine and the alternator that converted thermal energy into electrical energy. The presence of a condenser and a tank, linked also to a purifier, then made it possible to close and restart the circuit. The system, monitored and managed by a control framework, allowed the provision of heating to the building and electricity to the entire urban district (Fig. 3).

Another plant system which is worth mentioning is that of the Aeronautical College, designed by Cesare Valle after his project experience regarding the local Casa del Balilla. In the college, if radiators alternated with convector heaters supplied by the A.T.I.S.A. (*Aero-Termica Italiana S.A.*, Italian Aero-Thermal S.A.) based in Milan, several grilles were used for the final screening of the ventilation system.

Lastly, the quality of the artificial lighting system's aesthetic component is accompanied by the quality of the architectural surfaces. In the Aeronautical College, several varieties of marble co-exist with plaster; dichromate mosaics and painted surfaces shape an iconographic apparatus of



Fig. 3. Arnaldo Fuzzi, Industrial Technical Institute, Forlì, Italy. From the left: glazed wall with a timber frame; Termolux insulation glass; Anticorodal; the steam generator of the thermal power station. © SABAP-RA, *Archivio deposito*, folder 1 “Fo. Forlì”; ph. Giulia Favaretto, 2018; ph. Giulia Favaretto, 2018; ph. Giulia Favaretto, 2018.



Fig. 4. Cesare Valle, Aeronautical College, Forlì, Italy. From the left: convector heater supplied by the A.T.I.S.A.; grilles for the final screening of the ventilation system, artificial lighting element, dichromate mosaic and painted surfaces; Italeum advertising page. © ph. Giulia Favaretto, 2018; AV-Roma, *Fotografie*, box 26, folder CV-FOT/061; *Costruzioni-Casabella*, 166, 1941, V.

great relevance, considerable both for its aesthetic variable and communicative power: quartzite alternates with stone-ware; the Linoleum, supplied together with the Elafono (a Linoleum underlay) by the Società del Linoleum based in Milan, was adopted in different chromatic variations. In addition to these latter industrially-produced materials, the use of other products should be noted, such as artificial stone, the Celotex insulation slabs and, last but not least, the Italeum, a material produced by the Società del Linoleum, born of the experimentation during the autarchic regime (Fig. 4).

Regrettably, some of these material components are no longer present in these buildings. It is hoped that future interventions on these works of architecture preserve the material authenticity of their unrepeatable constructed essence.

4. LOCAL MODERNITIES AND COLLECTIVE HERITAGE

The 20th century built inheritance of Forlì can be considered as a paradigm of Italian modernity: it provides physical and documentary evidence of the architectural activism which implemented the construction of Italian modernity and, in so doing, it makes explicit the existence of a highly iconic, although at the same time extremely diversified, heritage. Concerning this, the deep knowledge of every single work of architecture clarifies its uniqueness and irreducibility.

In this sense, it seems reasonable to discuss a global inheritance. On the one side, there are buildings which, with their authenticity, are evidence of the work of a generation of technicians and give material proof of their history over time; on the other side, there is the storytelling of the devel-

opment of knowledge in the field of construction, as well as the transmission of memory and the narration of stratifications of meanings. Taking all these reasons into account, it can be stated that these works of architecture represent a “world heritage of humanity”.¹⁰

Finally, when focusing on the term ‘global’, it seems appropriate to open a parenthesis on the issue of ‘globalization’ and on “what will be the shape of the world to come”.¹¹ Among its consequences, globalization shows an increasing homogenisation. With reference to the built environment, this is in contrast to the stratification of cities and existing buildings. When the attention then shifts to the intervention on architectural heritage, this dichotomy is confirmed: to homologate means not accepting the ageing of architecture; to preserve means respecting its authenticity and acknowledging the irreproducibility of its material essence.

To intervene by inserting into a process of inheritable resilience, sharing the values of global modernities, requires the consideration of the aforementioned issues. This can pose new physical conservation challenges linked to innovative and experimental building forms and construction materials.¹² However, it is precisely this motivating challenge aimed to “manage change”¹³ that makes it possible to preserve the local modernities which — as highly iconic and extremely variegated as they are, among them and inside them — constitute a collective heritage to be transmitted to the future.

REFERENCES

- ENTE PROVINCIALE PER IL TURISMO, Forlì, *Forlì città del Duce*, Milano, Araca, 1938.
- FAVARETTO, Giulia, *Modernità e Restauro. Materialità e divenire dell'architettura razionalista forlivese nello scenario del restauro del patrimonio del XX secolo*, PhD Thesis in Architecture, XXXI Cycle, Alma Mater Studiorum — University of Bologna, Supervisor prof. arch. Marco Pretelli, Co-Supervisors prof. arch. Ruggero Tropeano, prof. arch. Eugenio Vassallo, PhD Coordinator prof. arch. Annalisa Trentin, 2019.
- GENTILE, Emilio (ed.), *Modernità totalitaria. Il fascismo italiano*, Roma-Bari, Laterza, 2008.
- ICOMOS ISC20C, *Approaches for the Conservation of Twentieth-Century Architectural Heritage*, Madrid, 2014.
- LEFAIVRE, Liane, & TZONIS, Alexander, *Architecture of Regionalism in the Age of Globalization: Peaks and Valleys in the Flat World*, London and New York, Routledge, 2012.
- MUSSO, Stefano Francesco, “Conservazione, Restauro e Patrimonio mondiale dell'Umanità”, *Materiali e Strutture. Problemi di conservazione*, 7, 2015, 95–110.
- NICOLOSO, Paolo, *Mussolini architetto. Propaganda e paesaggio urbano nell'Italia fascista*, Torino, Einaudi, 2008.
- NORMANDIN, Kyle, & MACDONALD, Susan, *A Colloquium to Advance the Practice of Conserving Modern Heritage*, Los Angeles, The Getty Conservation Institute, 2013.
- PIGAFETTA, Giorgio, & ABBONDANDOLO, Ilaria, *Le teorie tradizionaliste nell'architettura contemporanea*, Roma-Bari, Laterza, 1997.
- PRATI, Luciana, & TRAMONTI, Ulisse (eds.), *La città progettata: Forlì, Predappio, Castrocaro. Urbanistica e architettura fra le due guerre*, Forlì, Comune di Forlì, 1999.

NOTES

- 1 Paolo Nicoloso, *Mussolini architetto. Propaganda e paesaggio urbano nell'Italia fascista*, Torino, Einaudi, 2008, XV–XVI.
- 2 Giorgio Pigafetta, Ilaria Abbondandolo, *Le teorie tradizionaliste nell'architettura contemporanea*, Roma-Bari, Laterza, 1997, 5, author's translation.
- 3 Paolo Nicoloso, op. cit., 151–156. On this issue, see also: Emilio Gentile (ed.), *Modernità totalitaria. Il fascismo italiano*, Roma-Bari, Laterza, 2008.
- 4 R.D.L. (*Regio Decreto-Legge*, Royal Decree-Law), 7 January 1926, No. 216, “Preferenza ai prodotti delle industrie nazionali negli acquisti da effettuarsi da parte delle Amministrazioni dello Stato, degli Enti autarchici, o sottoposti alla tutela o vigilanza dello Stato” (“Preference to the products of national industries in the purchases to be made by State Administrations, autarchic Authorities, or subordinates to the State protection or supervision”); Law 15 July 1926, No. 1379 (conversion into law of the previous decree); R.D.L., 20 March 1927, No. 527 (supplementary rules of the mentioned law).
- 5 The current Predappio corresponds to Predappio Nuova, while the current Predappio Alta corresponds to the ancient Predappio.
- 6 The province of Forlì (which later became the province of Forlì-Cesena) is located in the Italian region of Emilia-Romagna.
- 7 Ente Provinciale Per Il Turismo, Forlì, *Forlì città del Duce*, Milano, Araca, 1938, author's translation.
- 8 Ibid.
- 9 R.D.L., 7 September 1939, No. 1326, “Nuove disposizioni che vietano l'impiego del cemento armato e del ferro nelle costruzioni ed in alcuni altri usi” (“New regulations prohibiting the employment of reinforced concrete and iron in constructions and some other uses”).
- 10 Stefano Francesco Musso, “Conservazione, Restauro e Patrimonio mondiale dell'Umanità”, *Materiali e Strutture. Problemi di conservazione*, 7, 2015, 95, author's translation.
- 11 Liane Lefaivre & Alexander Tzonis, *Architecture of Regionalism in the Age of Globalization: Peaks and Valleys in the Flat World*, London and New York, Routledge, 2012, 1.
- 12 Kyle Normandin & Susan Macdonald, *A Colloquium to Advance the Practice of Conserving Modern Heritage*, Los Angeles, The Getty Conservation Institute, 2013, 3.
- 13 ICOMOS ISC20C, *Approaches for the Conservation of Twentieth-Century Architectural Heritage*, Madrid, 2014, 7.

(MEGA)STRUCTURES' RESILIENCE. ITALIAN MOTORWAY BRIDGE-RESTAURANTS BETWEEN GLOBAL/LOCAL MODERNISM

Verdiana Peron

Politecnico di Milano, Department of Architecture and Urban Studies; via Edoardo Bonardi 9, 20133 Milan (Italy); verdiana.peron@polimi.it

ABSTRACT.

Infrastructure items are distinguishing elements of 20th-Century architecture and urban planning. In this field, Italian motorway construction-sites became a stimulating workshop for architectural and engineering experimentation: between 1959 and 1972, fifteen bridge-restaurants were designed by Angelo Bianchetti, Carlo Casati, Alfonso Stocchetti, Melchiorre Bega and Pier Luigi Nervi to meet the needs of new kinds of services for new forms of mobility, as a result of the modernisation of the country. Built to be accessible from each side of the motorway in order to reduce management costs, bridge-restaurants were conceived with two lateral buildings and an overhead structure with a curtain wall or concrete façade. These interesting buildings are part of the continuously expanding concept of Modern Italian cultural heritage.

This paper aims to analyse why these buildings are resilient by making a critical comparison between the American and the Italian cases.

The research examines how such megastructures adapt themselves to the local contexts and cultures, beginning with their construction. Italian local modernism derives from structural and expressive research concerning steel and concrete megastructures but also from Italian design and advertising architecture.

Finally, the study deals with how these buildings preserve their identity, both intangible and tangible, despite the many interventions carried out to modernise service areas. These interventions are the expression of different transformative approaches connected to the local cultures.

1. INTRODUCTION

The construction of Italian motorways was a crucial factor in the creation, experimentation and development of new modern architectural typologies, like petrol stations, rest stops and motels. Although these buildings have been either consciously or unconsciously destroyed or altered, they are a relevant expression of the modernisation process of the country. Motorway architecture is part of the continuously expanding concept of Italian cultural heritage. Therefore, a more thorough knowledge of these buildings is required in order to devise policies for their preservation.

Bridge-restaurants are rest-stops conceived to be accessible from each side of the motorway with the aim of reducing management costs. The paper analyses the different reasons why these pioneering megastructures, built between 1959 and 1972, have been resilient. The study is based on the critical comparison between the American and the Italian cases in order to deal with the processes of correlation, appropriation, relationship and synthesis between modern architecture and local cultures.

2. MEGASTRUCTURES AS "TOLLWAY OASES"

With the construction of the motorway system, some confectionary and oil companies leapt at the chance to sell new services. The possibility of a motorway services chain was first envisaged in Italy by Mario Pavesi (1909–1990), one of the most enlightened confectionary industrialists. He frequently

travelled to the USA in order to find inspiration to improve his business. He was especially interested in the American highway *grill rooms*. Pavesi foresaw that the nationwide distribution of such buildings could become an important commercial sector and a channel for new foodstuffs. The first *Autogrill Pavesi*, as it was then named, was built in 1947 beside the Novara tollgate, on the Milano-Torino motorway.

Angelo Bianchetti (1911–1994) designed rest stops (1959–1978), with the criteria of functional buildings which also had to attract the drivers' attention. The architect had formerly worked with Pagano and Mies van der Rohe and had been in contact with some members of the Bauhaus. Before his engagement by Pavesi, Bianchetti had mainly worked on exhibition projects and advertising fair booths for the Triennale di Milano, international exhibitions and trade fairs. He also designed the commercial space of some large companies.¹ The earliest Bianchetti *Autogrills* were devised to be built beside the motorway (Linate 1958, Ronco Scrivia 1958, Varazze 1960) and the architectural language was the same used in the previous projects for exhibition pavilions. In 1959, for the first time in Europe, the architect designed a bridge-restaurant in Fiorenzuola d'Arda and he would design another ten by 1972 (Fig. 1). Alfonso Stocchetti (1920–2004) and Carlo Casati (1918–2004) worked on a Pavesi bridge-restaurant project as well (Serravalle Pistoiese; Dorno). Another confectionary company, Motta, had two buildings of the same typology designed by Pier Luigi Nervi (1891–1979) (Limenella) and Melchiorre Bega (1898–1976) (Cantagallo,

Limenella), who had already worked on commercial spaces for big companies like Bianchetti.

In the USA, the earliest bridge-restaurant was built for an oasis on the Will Rogers Turnpike highway, Oklahoma, in 1957; however, Bianchetti and Pavesi visited one of the five on the Illinois Tollway (Belvedere, Des Plaines, Hinsdale, Lake Forest, O'Hare), designed in 1959 for Standard Oil of Indiana (Amoco) and Fred Harvey Company by PACE Architects (1946–1968).² The firm, one of the largest in Chicago, had already collaborated with Mies van der Rohe on significant buildings.³ However, one of their most remarkable projects was actually the highway system that the firm designed for the Illinois State Toll Highway Commission in 1958. The last bridge-restaurant built in Illinois, the Chicago Southland Lincoln Oasis, was envisaged in 1967 by David Haid (1929–1993), another one-time student and employee of Mies van der Rohe.

3. "APPROPRIATION OF MOMO": LANGUAGE AND CONSTRUCTION

Cultural and economic backgrounds, as well as architectural language and construction aspects have to be examined in order to investigate the local process of appropriation of the Modern Movement (MoMo).

After World War II and the subsequent economic crisis, the myth of the 'American way of life' was admired and emulated because it represented a dream of wellness and progress. Pavesi and Bianchetti had the same 'American view': "[Italians] will soon travel under 'nearly American' conditions".⁴ The development of Italian motorways was the symbol of a national renaissance and the reflection of profound socio-economic change. During post-war reconstruction, a process of national unification was undertaken with the aim of recovering and rewriting a common identity and tradition. The highway system was one of the communication channels which was able to create a new community. The possibility of owning a car had been increasing and it signalled the achievement of a certain social status. Italian people began to perceive the road as part of their life. Because of that, confectionary companies started to build megastructures, inspired by the American ones, for motorway catering service areas. These original structures joined the collective imagination as emblems of a new, modern and better way of living.

For the sake of this new national identity, Italian architects were therefore asked to find a style for the bridge-restaurant typology. All of the Illinois Tollway Oases by PACE architects were conceived in the same way. These buildings had two lateral basements supporting a one-floor overhead structure with a glass façade. The restaurant was also sustained by pillars in the centre of the carriageway. The entrance was designed to be at the same height as the bridge, by raising the level of the parking areas. Precast concrete structures were used. The whole design is reminiscent of the



Fig. 1. Motorway bridge-restaurants in Italy. © V. Peron, 2020.

clean shapes of Miesian architecture. In contrast, in Italy each bridge-restaurant was a unique piece because the aim was to design a structure recognisable from afar. The design provided for the incorporation of some standardised components with other elements of originality. In fact, the trend for megastructures inspired great structural and architectural experimentation and was an occasion for Italian designers to express their genius. This can also be observed in the greater boldness of the Italian bridge-restaurants in comparison to the American ones. The Italian structures were conceived to have either a system with concrete portals and stiffening cores, steel slabs and external curtain walls, or an entirely concrete system with box girders. This experimentation was also an expression of the historical transition from traditional building construction to modern, mechanised and precast systems which were a particular aspect of Italian engineering in the second half of the 20th Century.⁵ As an example, for the construction of the bridge-restaurant in Limenella, Pier Luigi Nervi worked on the design of concrete ribbed slabs, deep walls and variable section pillars. In Montepulciano, a pioneering Cor-ten

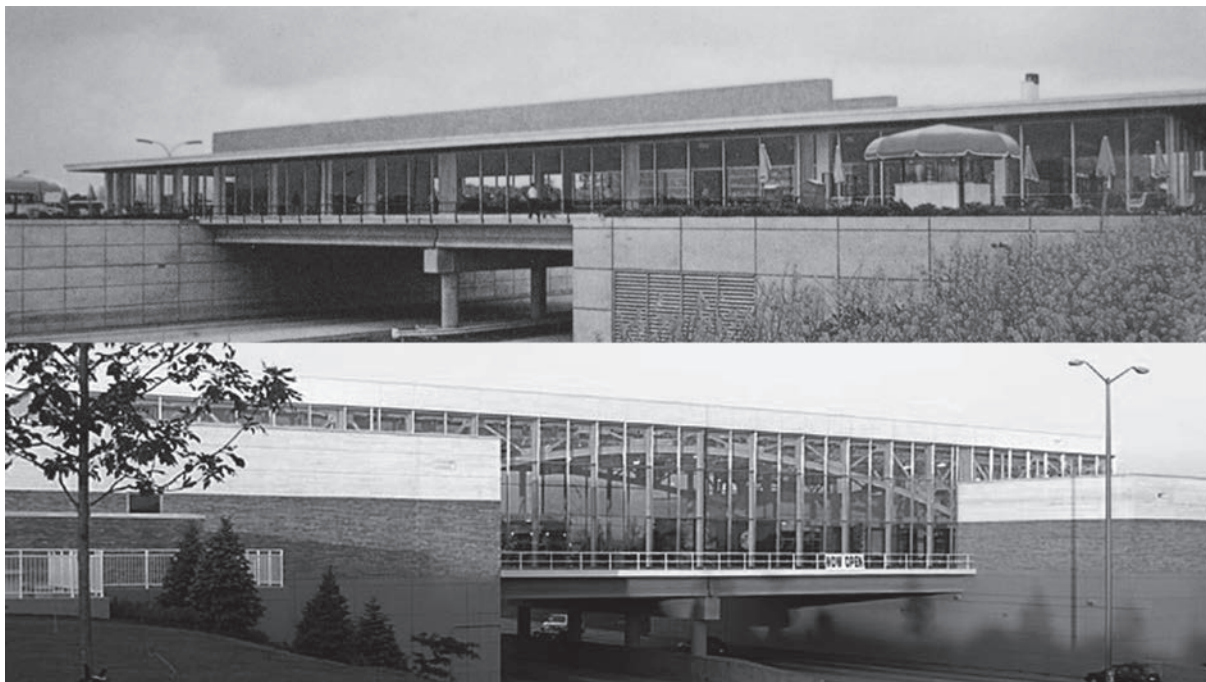


Fig. 2. O'Hare Oasis in Schiller Park, Illinois, in the 1960s (above) and in the 2000s (below). © Ron Bean.

asymmetric structure was used by Angelo Bianchetti.

The idea of originality, which became more important than that of standardisation, was also pursued to facilitate the recognition of each building and instil a desire to return. More use was made of the image of the Italian bridge-restaurants for advertising purposes than American ones, which were designed principally with construction costs in mind. This arose from the necessity for the confectionary industries to maximise sales and from Italian architects' experience in retail design. These megastructures could be deemed the final result of their experimentation in advertising architecture. In fact, they were futuristic and unrelated to the surrounding rural environment. Their position on top of the motorway created unusual points of view and a new visual relationship between road and landscape. In marketing communication, these buildings were an attractive proposition. These features made the bridge-restaurants themselves the most important advertising elements of the services which were sold inside.

4. "VULNERABILITY OF MOMO": DESTRUCTION AND PERMANENCE

At the beginning of the 1970s the construction of bridge-restaurants came to an end in Italy, due to the high costs of building and management. Actually, this typology spread throughout the world, for instance to the Asian Highway Route 2 in Malaysia. Construct-

ed at the end of the 20th Century, these buildings also represent a synthesis between Modern architecture and local culture: differently from the Italian cases, they provide, for example, prayer rooms.

In Italy, during the last few decades, bridge-restaurants have gradually become mere crossing points because of the low-quality of the services offered. In fact, refurbishment projects are ongoing to modernise these service areas.

Different approaches have been adopted because of the different local cultures. Lifestyles, territory and economy have changed. There has even been a transformation in the way of travelling and eating. The research presents different case-studies with the purpose of identifying the main topics in the recurrent kinds of interventions and assessing the elements of resilience of these structures.

4.1. Demolitions

In 1975 in Illinois, the oases were taken over by the Howard Johnson Company, which remodelled the interior space and added distinctive orange roofs. The buildings were extensively modified again in 1984, when fast food chains succeeded Howard Johnson restaurants. From 2003 to 2005, an extensive renovation program by Cordogan Clark & Associates was completed (Fig. 2). All the bridge-restaurants were destroyed and replaced with new buildings. Lateral basements were raised and higher bridge-structures with full-glass façades were built in order to increase the visibility of, and from, the road. In 2014, Des Plaines Oasis was demol-



Fig. 3. *Autogrill* by Carlo Casati in Dorno, Italy, in the 1960s (above) and in 2020 (below). © Carlo Casati archive collection, Politecnico di Milano, Campus Life Area, Library services and archives, Milan; V. Peron, 2020.

ished again in order to make way for the widening of the toll road.⁶ For the same reason, in 2019 O'Hare Oasis was destroyed.⁷ In Italy, two bridge-restaurants were demolished (Rezzato, and Nocera Inferiore), while the megastructures in Novara and Cantagallo were re-built after a fire. The former was reconstructed like it was before, the latter with a new design.

4.2. Volumetric Additions

In the case of the Italian bridge-restaurants, the earlier lateral buildings have been extended or completely replaced with larger ones because of the increasing need for both utility spaces, including those for plant, dumpsters and storage, and customers' services, such as shops, bars and fast-food restaurants. For the same reasons, outdoor terraces have often been enclosed with a new shell. Furthermore, facilities for accessibility have been placed in front of the main entrances and more staircases and elevators have been added for the increase in the flow of customers and for fire safety. These structures have been placed both inside the pre-existing buildings, through partial demolition, and outside. *Autogrill* in Dorno could be taken as an example of this transformative approach (Fig. 3).

Such interventions have been carried out with no aim to preserve the pre-existing buildings and have caused the loss of most of the original materials and elements. Moreover, these new facilities have often been added to, over time, without an overall plan and by incorporating the pre-exist-

ing structures. For this reason, they make the perception of the image of the earlier buildings harder. Even the new industrialised landscape, as well as the presence of increasing signage, overpasses or eye-catching buildings on the side of the highway, makes the view of the bridge-restaurants from the road ever more difficult.

4.3. Finishes Modification

Finishes, such as window frames, painting, paving, solar shading, claddings, false ceilings and furniture have been frequently changed because of their obsolescence and decay. However, the corporate image of the new operators in motorway services has also been playing a role in the modification of *Autogrills*. Indeed, standardised finishes and furniture help the driver in identifying a specific brand. Another aspect to take into account is related to the changes in the spatial configuration due to modernisation and new needs. Such interventions cause the replacement of the glass panels of the façade with opaque elements and sometimes make the perception of the open central restaurant space harder. However, plant system improvements and energy efficiency requirements are the foremost reasons for modification. They have led to the extensive replacement of the glass elements of the façades and the introduction of false ceilings. As for volumetric additions, the modification of the finishes has caused considerable loss of the original materials and elements and has altered the overall image of the bridge-restaurants.



Fig. 4. *Autogrill* by Angelo Bianchetti in Novara, Italy, in the 1960s (above) and in 2020, after the refurbishment by Massimo Iosa Ghini (below). © arch. J. J. Bianchetti Archive, Milan; V. Peron, 2020.

In 2017 the bridge-restaurant in Novara was refurbished with this approach by Massimo Iosa Ghini (Fig. 4). Passive sustainable design and energy improvements have compromised the entire building shell. Silver fir laminated veneer lumber was used in order to display the energy-saving, economic and ecological intent of the project. Moreover, the use of vegetation on the façade evokes a “back-to-nature” design as a sort of denial of the automobile culture served by this structure, whereas the former project referred to the space age and to a technological future of great optimism. Nowadays the sector of motorway services is more competitive than before and travellers’ wishes and demands have changed. Customers are now attracted by marketing propositions linked to well-being, rest and sustainability. Therefore, catering companies aim to ensure the comfort of the travellers by providing “stillness, relaxation and good food”.⁸

5. CAN MEGASTRUCTURES’ RESILIENCE STILL BE INHERITED?

The proposed study aims to understand the reasons why bridge-restaurants have been resilient and concerns the meaning of their inheritable identity.

Although in Illinois the oases were all demolished be-

tween 2003 and 2005 mainly for renovation purposes, the bridge-restaurant typology survived, so much so that it was re-proposed in the design of the new buildings. Therein lies the resilience of the American bridge-restaurant typology. Nevertheless, these interventions caused the total loss of the original structures and materials. In the last few years, Des Plaines and O’Hare oases have been demolished again because the need to widen the roadways has taken precedence over that to preserve the overhead structures.

Moreover, the typology is resilient due to the fact that it spread throughout the world but was adapted to local cultures, like in the Italian cases. These buildings preserve their intangible identity because the motorway catering companies still consider them a place for marketing and architectural innovation, as can be observed in the recent refurbishment projects. These megastructures are again the expression of a new consumer society in search of new customer experiences and their intended use hasn’t changed. Despite the transformations due to commercial needs and requirements of changed standards, Italian bridge-restaurants generally keep the perception of their open central space safe. This particular feature is still necessary in the renovation projects.

Finally, in the Italian cases the resilience lies in the contrast between structure and shell: although surfaces have been changed, structures are still preserved. Structures can be thus considered the main element of the tangible identity because their presence enables the persistence of the character of bridge-restaurants, while the shell is unfortunately continuously adapted to the new demands.

It can be clearly seen that Italian bridge-restaurants have a historical and architectural value. In order to discuss how to inherit the Italian infrastructure landscape, it is important to share common values and strategies for the conservation of such buildings. Policies for their preservation are needed because of the impending changes due to regulatory and marketing requirements. Otherwise, bridge-restaurants run the risk of being lost in time. In fact, the general ignorance regarding these megastructures has caused a lack of recognition of their cultural significance. The resulting absence of preservation issues has led to interventions which have endangered these buildings or even destroyed them. The next renovation projects may cause the loss of further original building material and elements. Furthermore, catering companies need standardisation and uniformity of the finishes in order to strengthen their corporate image, while the Italian bridge-restaurants were designed to have elements of originality. The new shell of the megastructure in Novara could be thus re-proposed for the other bridge-restaurants, by betraying their *status* of unique pieces.

How can we both preserve and interpret in a new way the resilience of the bridge-restaurants for the society of tomorrow?

Strategies must be developed in order to recognise and

preserve these megastructures as unique pieces which are part of an 'interconnected' infrastructure heritage: this approach would secure both their identity and the needs of the future.

REFERENCES

- ALOI, Giampiero, *Ristoranti*, Hoepli, Milan, 1972, 73–77; 82–100.
- BIANCHETTI, Angelo, "Le oasi dell'autostrada", *Quattroruote*, Domus, Milan, January 1, 1960, 90–98.
- BIANCHETTI, Angelo, & PEA, Cesare, "Architettura pubblicitaria", *Costruzioni* 159/160, Domus, Milan, 1941, 96–97.
- CASATI, Carlo, *Sognare in pietra*, Alinea, Florence, 1991, 159–171.
- CASATI, Carlo, *Architettura sulle autostrade, edifici per mostre, chiese, ville, case nel verde: nuovi simboli e vecchie eredità vissute nell'oggi*, Hoepli, Milan, 1980, 38–58.
- CORDOGAN CLARK & ASSOCIATES, "Tollway Oasis", accessed on January 15, 2020, http://www.cordoganclark.com/commercial/projects_commercial_illinois_toll_pavilions.html.
- GONIZZI, Giancarlo (ed.), *L'Italia dei Pavesini: cinquant'anni di pubblicità e comunicazione Pavesi*, Silvana, Cisinello Balsamo, 1997.
- GRECO, Laura, *Architetture autostradali in Italia: Progetto e costruzione negli edifici per l'assistenza ai viaggiatori*, Gangemi, Rome, 2010.
- ROMANO, Giuseppe, *Novara: la prima area di ristoro autostradale. Storia, abitudini, architetture della sosta in viaggio dal grill Pavesi a Chef Express*, FrancoAngeli, Milan, 2017.
- SCRIVANO, Paolo, *Building transatlantic Italy: architectural dialogues with postwar America*, Ashgate, Farnham, 2013.

NOTES

- 1 Angelo Bianchetti & Cesare Pea, *Negozi moderni: architettura ed arredamento*, Gorlich, Milan, Vol. 1 1947, Vol. 2 1949.
- 2 Angelo Bianchetti, "Le oasi dell'autostrada", *Quattroruote*, Domus, Milan, January 1, 1960, 92.
- 3 As an example, PACE Architects worked on Promontory Apartments, 860–880 North Lake Shore Drive Apartments and IIT campus.
- 4 Angelo Bianchetti, "Le oasi dell'autostrada", *Quattroruote*, Domus, Milan, January 1, 1960, 90.
- 5 Sergio Poretti, "La costruzione", *Storia dell'architettura italiana. Il secondo Novecento*, Vol. IX, Electa, Milan, 1997, 268–293.
- 6 Nbcchicago, "Demolition of Des Plaines Oasis Underway", accessed on January 15, 2020, https://www.nbcchicago.com/news/local/demolition-of-des-plaines-oasis-begins_chicago/2074428/.
- 7 Nbcchicago, "O'Hare Oasis Demolition Begins Ahead of \$4B Tri-State Project", accessed on January 15, 2020, https://www.nbcchicago.com/news/local/ohare-oasis-demolition-tri-state-tollway_chicago/5520/.
- 8 Chef Express Ponte di Novara, "Sul ponte sale Chef Express: il futuro è presente", accessed on April 09, 2020, <https://pontenovara.chefexpress.it/la-storia-del-ponte/>.

STUDY ON MODERNISM PHILOSOPHY IN THE SUBURBS OF TOKYO

Yuta Genda

The University of Tokyo / An incorporated administrative agency, Room #101, Alto Ponte Kichijoji 2, Kichijojikitamachi 5-10-11, Musashino-Shi, Tokyo, 180-0001, JAPAN; youyouyougen@gmail.com

ABSTRACT.

This paper focuses on the “philosophy” underlying both the formation and conservation of modernism in Japan, such as modern cities and modern architecture. By focusing on the conservation and inheritance of the underlying philosophy, we refer to the possibility of mutual complementation in the conservation and inheritance of modern cities and modern architecture. For the case studies, we have one educational institution, “Seikei Gakuen”, which was intended to be an ideal school town in the suburbs, and one modern work of architecture, “the Tetsuma Akaboshi House,” designed by Antonin Raymond near there. We examine the formation and development of the philosophy behind them. In conclusion, the philosophy of modernism in areas related to Seikei Gakuen was incorporated into urban facilities at first. Next, the quiet environment created by them was emphasized. Then, if there was concern that the environment would be hindered by social transformation, Seikei Gakuen protected the environment and inherited it to some extent. On the other hand, the architectural philosophy in the area did not appear compared to other school towns. The Tetsuma Akaboshi House, near there, has maintained its architectural philosophy. When changing owners, the house’s owner chose a new owner who would share the same underlying philosophy behind the house. Since being owned by the Sisters of Notre Dame de Namur, the buildings and garden have been routinely preserved as part of the order’s religious activities. It is essential that a place is inherited by owners/occupiers who understand the philosophy behind the creation of the place. After 2019, neighbourhood, including the subdivisions, who inherit the original philosophy, acted for its conservation. It will connect the philosophy of the school town and modern architecture and lead to conservation and inheritance.

1. INTRODUCTION

1.1. Background / Purpose

Most of the spaces formed in modern times are “living heritage”, and, as such, they pose a danger that the indigenous culture will disappear. Therefore, evaluating it for successful conservation is an ongoing issue. Modernist archi-

tecture tends to be evaluated separately from the local culture because the internationality peculiar to the architecture is isolated from the regionality of the indigenous culture and because individuals often own it. However, as the revised Law for the Protection of Cultural Properties has begun to emphasize its position as a regional resource, it is essential to discuss it within its regional context. At the same time, it is presumed that the possibility of a continuance of conservation will increase if those values are complementary to each other.

This paper focuses on the “philosophy” developmental process in the formation and conservation of modernism, such as modern cities and modern architecture in Japan. Then, we refer to the relationship between modern cities and modern architecture in conservation and inheritance.

1.2. Target Setting/Outline

This paper focuses on garden cities, especially school towns, one of the modernisms in Japanese cities. In Japan, the garden city philosophy was introduced through the book “Den-en Toshi (Garden City)”¹ published by Hakubunkan in 1907 and was mainly used by electric railway companies for regional development along the railway lines. On the other hand, as will be described later, the Taisho New Education Movement’s educational institutions were also aware of the garden city philosophy. For this reason, the subject of this study is the school town centred on one educational institution, “Seikei Gakuen”, which was relocated in the early days of the movement (Fig. 1). The Tetsuma Akaboshi House (Fig. 2), designed by Antonin Raymond, a work of modernist architecture built on the south side of Seikei

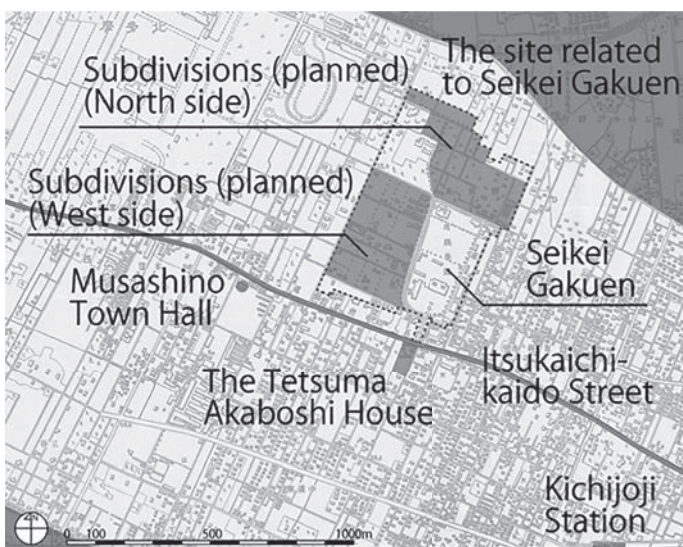


Fig. 1. The area around Seikei Gakuen (around 1945 / Created by the author based on Sensai fukkou ki Toukyou 1 manbun no 1 tikei zu syuusei kichijouji shouwa 22 nen, Kashiwa shobo, 1983)



Fig. 2 The Tetsuma Akaboshi House (South side / 2020 / © Yuta Genda).

Gakuen, will also be examined.

1.3. Positioning and Method of Research

Past research on development methods of school towns^{2,3}, cultural values of school towns⁴, conservation activities of modern suburban residential areas⁵, approaches to the conservation of areas surrounding schools^{6,7}, and the educational philosophy of developers⁸ is relevant. In addition, there is the formation of the modern Musashino City⁹, the design concepts of Mr. and Mrs. Raymond¹⁰, and the inheritance of modernist housing.¹¹ This research is novel in that it focuses on the relationship between educational institutions and school towns regarding the philosophy of modernism and makes proposals that lead to evaluation. At the same time, we will also research modernist architecture through material surveys, documentary material surveys, and field surveys.

2. OVERVIEW OF THE TAISHO NEW EDUCATION MOVEMENT

2.1. Overview of School Towns Originating from Garden City

The development of school towns in Japan occurred with the formation of modern suburban residential areas. School towns were developed mainly in Tokyo under the influence of the revised High School Ordinance / University

Ordinance in 1918 and the Great Kanto Earthquake in 1923. The number of higher education institute campuses and educational research institutes established in Tokyo before WWII was 84.³

The school towns can be mainly classified into three types. The first is the Taisho New Educational Movement Group, which is discussed in this paper. The group formed school towns to realize the philosophy of the Taisho New Educational Movement; Seikei Gakuen (Kichijoji), Seijo Gakuen (Seijo), Tamagawa Gakuen (Tamagawa Gakuen) and Jiyu Gakuen (Minamisawa) are examples. The second is the residential area development group such as railway companies and real estate companies that formed school towns as part of the process of regional development; mainly Hitotsubashi University (Kunitachi) and Keio University (Hiyoshidai). The third is the group that tried to form communities and school towns at different times. The school town philosophy was set up to extend the school culture to the area centred on the schools that had already been established; mainly the University of Tokyo (Hongo), Waseda University (Waseda), Tokyo Institute of Technology (Ookayama).

2.2. Construction of School Towns Related to the Taisho New Education Movement

The Taisho New Educational Movement aimed to create a more accessible and lively educational experience from uniform education, which was also developed in Japan in

response to the flow of Western educational movements that started at the end of the 19th century. The movement was influenced by the New Education Fellowships of the World (established in 1921), and Japanese educators also participated in the movement. The movement's philosophy has an affinity with the garden city, and the construction and management of the school towns were carried out with the garden city philosophy in mind. Among the movements, we will focus on Seikei Gakuen, which was the earliest to establish a school town in the suburbs.

3. BEFORE THE END OF WWII: REALIZATION OF THE GARDEN CITY PHILOSOPHY BY FOUNDER

3.1. Development History

In the Taisho era, a suburban recreational villa was located in the Musashino area.¹² Kichijoji was a villa in the area.¹³ Koyata Iwasaki, the Mitsubishi zaibatsu's 4th general manager, owned the Iwasaki farm and Tetsuma Akaboshi, a businessman who had a close relationship with Koyata Iwasaki, also owned the country house there.¹⁴ Moreover, Musashino Village in the Musashino area, where Kichijoji is located, was a strip-shaped land division in the early modern period.⁹ After that, this rural transitional area was being transformed into a suburban residential area along the Japan National Railways Chuo Line.

On the Musashino Plateau, the 1923 Great Kanto Earthquake's effect was small. Suburban residential development thrived by improved conveniences such as the extension of the railway line¹⁵, and residential numbers increased gradually.

3.2. Development of School Town (around 1924)

In 1924, Seikei Gakuen, a private educational institution including high school, junior high school, primary school etc., moved from Ikebukuro to Kichijoji.

Seikei Gakuen founder Haruji Nakamura had noted an ideal regional residential creation adjacent to the country-based factory of Cadbury in Bournville, the UK¹⁶, established in 1908 and which was one of the UK's Garden City initiatives flowing from the Garden City Movement in the second half of the 19th century. Bournville could also be found in the book "Den-en Toshi."¹

Nakamura passed away in 1924, and the degree of realization of the ideal is not mentioned. However, the subdivisions had been formed for the institution and the student families. They were different from the existing neighbourhood townscape. It had east-west direction roads, large-scale sites of about 500 square tsubos (1650m²), and tree-lined avenues developed by a Mitsubishi-based company. Zelkova was also planted in the vicinity of Seikei Gakuen from the beginning. Around 1926, the Tokyo Metropolitan Government decided to provide zelkova seedlings mainly to temples, shrines, and schools to return the Kanto Plain, which was becoming more treeless year by year, to the mag-

nificent old Musashino area.¹⁷ The formation of tree-lined trees was in line with the cultural policy of the time.

3.3. Before the end of WWII (1924–1945)

3.3.1. SCHOOL TOWN

Despite construction difficulties following the Manchurian Incident in 1931¹⁸, the construction of new apartment buildings increased significantly in the munitions factory area in the direction of Kichijoji.¹⁸ Seikei Gakuen expanded the school building and built dormitories inside and outside the school site. However, it seems that the sale of the subdivisions had not progressed. Around this time, the trees had been planted formed in rows, and the roads on the school site were changed or abolished to secure a good learning environment that began to be hindered by the munitions city.¹⁹

3.3.2. THE TETSUMA AKABOSHI HOUSE

The Tetsuma Akaboshi House designed by Antonin Raymond and established in 1934. In 1944, the Japanese Army requisitioned it, and the Tetsuma Akaboshi family evacuated to Oiso. It seems that there were no significant changes in land or buildings until the end of WWII.

4. POST WWII TO 1970S: IMPACT OF POST WWII REFORM AND SUCCESSION OF THE GARDEN CITY PHILOSOPHY

4.1. After the End of WWII (1945–1950s)

4.1.1. SCHOOL TOWN

In 1949, Seikei University, which was one of Seikei Gakuen's schools, was established. It created the auditing student system in the same year.²⁰ Parts of the north subdivisions were forcibly transferred by the Second Land Reform Act in 1947 and was gradually repurchased from 1956.²⁰ It seems that their subdivisions were not finally sold. In the west subdivisions, the houses were still sparse then. Several homes that the Occupation forces had requisitioned were returned in the 1950s.

4.1.2. THE TETSUMA AKABOSHI HOUSE

After WWII, the Tetsuma Akaboshi House was also requisitioned by the Occupation forces. It was an international style that allowed Westerners to live in a modern style and affected by the property tax in 1946 and the wealth tax in 1951. So, it escaped remodelling, and the major lands and buildings were inherited in an integrated manner. After the requisition was cancelled, relatives inherited it. However, troubles occurred due to the difference between the owner and the resident. In 1955, relatives decided to sell it to the Sisters of Notre Dame de Namur which matched their philosophies and wishes. At that time, some expenses were borne by relatives, and the order also received a donation from the United States of America.

4.2. High Economic Miracle Period (1950s–1970s)

4.2.1. SCHOOL TOWN

On the Seikei Gakuen site, their facilities were expanded by the comprehensive school plan in 1959.²⁰ Citizen's course of Seikei University was opened from 1962 to 1968²⁰ as a community contribution.

On the other hand, in the west subdivisions area, many large-scale subdivisions were divided, the number of detached houses and company housing increased, and plunge roads were created there. They may be due to the property tax and the wealth tax. The Musashino city planning road was continued to construct. Besides, vacant land and agricultural land have decreased. In Musashino City, the residents' associations or neighbourhood associations revived in many local governments in Japan did not resurrect.

4.2.2. THE TETSUMA AKABOSHI HOUSE

In 1955, the Sisters of Notre Dame de Namur owned the Tetsuma Akaboshi House. In 1956, the order opened their Tokyo Monastery there. The order of who was the owner was a religious corporation. The residents daily cleaned the buildings and used the garden as religious acts, etc. So, after that, finally, they prevented land division and building sales in general housing due to the effects of inheritance, high economic growth, and population growth.

5. AFTER THE 1980S: TRANSFORMATION AND RENEWAL OF THE GARDEN CITY PHILOSOPHY

5.1. School Town

On the Seikei Gakuen site, they have expanded and renovated their buildings due to the school's diversification.²⁰ Seikei Gakuen also expanded the staff housing outside the site.

In the area of the west subdivisions, green spaces and parks have been started to set up. Other companies' employee dormitories were demolished, and detached houses were built. Therefore, the change of inhabitants was decreasing. Musashino city planning road proceeded, but it did not open yet. There were only two north-south roads in the area. Since 1998, citizen groups started to act in the park set up in the area. In 2010, the Hama Family Residence Western-style Building was registered as a registered tangible cultural property.

5.2. The Tetsuma Akaboshi House

In about 2018, the Sisters of Notre Dame de Namur considered selling the Tetsuma Akaboshi House. They established a sale policy to protect the land and buildings because of the background at the time of its purchase and its connection with the neighbourhood. In 2019, conservation activities based on that neighbourhood connection were started. As a result, on February 13, 2020, a basic agreement was signed between Musashino City and the order regarding Musashino City's acquisition of the land and buildings of

the Tokyo Monastery.²¹ A conservation building survey was conducted, which led to public status reports and evaluations such as being selected for the **docomomo** Japan buildings list in 2019. In this way, the house can be said to be a secondary cultural property of the formation of the Seikei Gakuen school town, and the conservation activities of the house have become a sprout for neighboring residents to recognize the philosophy of the area.

6. CONCLUSION

The philosophy of modernism in the subdivisions related to Seikei Gakuen was incorporated into urban facilities such as large-scale sites, east-west roads, and rows of trees centring on the subdivisions. After that, the quiet environment created by them was emphasized. If there was concern that the environment would be hindered by social transformation, Seikei Gakuen itself protected the environment and inherited it to some extent. On the other hand, compared to other school towns, the architectural philosophy did not appear very much.

The architectural philosophy was inherited by the Tetsuma Akaboshi House, located on the south side of Seikei Gakuen. When changing owners, they chose an owner who could share part of the same residence philosophy. After becoming owned by the Sisters of Notre Dame de Namur, they routinely preserved buildings and gardens as part of their religious activities. After 2019, neighbourhood, including the subdivisions, acted for the Tetsuma Akaboshi House conservation.

As a result, it has become clear that it is essential that a property is inherited by owners/occupiers who understand the philosophy surrounding the creation of the building. In the subdivisions that the architectural philosophy has not been formed, it is possible to reconstruct the overall modernist philosophy that contributes to the local culture by sharing and complementing the philosophy of the inherited buildings, such as the Tetsuma Akaboshi House, throughout the region. It is possible that the neighbourhood of the area, including the subdivisions, who inherit the original philosophy, will connect the philosophy of the school town and modern architecture and lead to conservation and inheritance.

In the future, the research challenge is to form a method for reconstructing such a modernist philosophy.

NOTES

- 1 Volunteers from the Local Bureau of the Ministry of Home Affairs (ed.), *Den-en toshi to nihon jin, Kodansha, 1980* (in Japanese).
- 2 Kazutaka Obata, Toshio Otsuki, & Atsuko Yasutake, "A Study on Transformation of Houses and Sites Caused by Long-Term Dwelling in a Detached Housing Estates : Through case studies in Seijo residential area, Setagaya ward, Tokyo", *From Journal of Architecture and Planning (Transactions of AII)*, Tokyo, The Architectural Institute of Japan, 2005, Vol. 70, No. 593, 9–16 (in Japanese).
- 3 Junne Kikata, "A Study on the Campus Formations and Location in Tokyo Area, Before the End of the Pacific War", *From Journal of the City Planning Institute of Japan*, Tokyo, the City Planning Institute of Japan, 2000, Vol. 35, 139–144 (in Japanese).

- 4 Masaki Yamamoto, "Formation of Suburban Residential Areas through Modern Urban Thought: Focusing on Kuniyoshi Obara (Other Treatises)", *From The Annual Report of Urban and Regional Economic Studies*, Tochigi, Nasu University, 2005, Vol. 5, 184–195 (in Japanese).
- 5 Hitomi Kato, "A Research about the process of change and the local rule in Suburban Housing Projects before W.W. II", *From Journal of the City Planning Institute of Japan*, Tokyo, the City Planning Institute of Japan, 2002, Vol. 37, 655–660 (in Japanese).
- 6 Tomohide Yazawa, Haruhiko Goto, & Chang-ho Lee, "A Study on the Subject for Expansion of University Facilities to University Neighborhoods and the Planning of the University Town : In the case of university facilities of Waseda university in the neighborhoods of Nishi Waseda campus", *From Journal of Architecture and Planning (Transactions of AIJ)*, Tokyo, The Architectural Institute of Japan, 2003, Vol. 68, No. 574, 91–97 (in Japanese).
- 7 Chang-ho Lee, "University-Led Town Regeneration: A Closer Look at University of Pennsylvania", *From Journal of Architecture and Planning (Transactions of AIJ)*, Tokyo, The Architectural Institute of Japan, 2006, Vol. 71, No. 603, 131–138 (in Japanese).
- 8 Akira Nakano, "Japanese New School and New Education Movement", *From Proceedings of the Annual Conference of Japanese Educational Research Association*, Tokyo, Japanese Educational Research Association, 1999, Vol. 58, 21–24 (in Japanese).
- 9 Miki Yamazaki, & Hirohisa Ito, "A Study on Formative Process of Strip-Shaped Allotment of Land around Kichijoji Station", *From Journal of the City Planning Institute of Japan*, Tokyo, the City Planning Institute of Japan, 2018, Vol. 53, No. 3, 267–273 (in Japanese).
- 10 Toshihiko Suzuki, Kohei Iida, Koichi Kitazawa, Yuki Sugihara, & Sadamu Saito, "Total design by Antonin and Noemi Raymond", *From Journal of the Housing Research Foundation "Jusoken"*, Tokyo, the Housing Research Foundation, 2017, Vol. 43, 115–126 (in Japanese).
- 11 Masakuni Tamura, Manabu Shinbori, Shintaro Yamanaka, Tsuyoshi Seike, Yoshiyuki Yamana, & Shinya Sato, "Studies about programs and systems of inheritance of heritage housings", *From Journal of the Housing Research Foundation "Jusoken"*, Tokyo, the Housing Research Foundation, 2013, Vol. 39, 133–142 (in Japanese).
- 12 Akira Soshiroda, Takasuke Watanabe, & Hiroyuki Yasujima, "A Study on the Development and Types of Villas in Japan (1860–1940)", *From Journal of Architecture, Planning and Environmental Engineering (Transactions of AIJ)*, Tokyo, The Architectural Institute of Japan, 1992, Vol. 436, 79–86 (in Japanese).
- 13 Kenji Fukaya, *Enoden jikkiromeetoru no kiseki: hitobito wa naze hikitsukerareru noka*, Toyo Keizai Inc., 2015 (in Japanese).
- 14 Kei Yonahara, *Akaboshi tetsuma kieta fugou*, Chuokoron-shinsha, Inc., 2019 (in Japanese).
- 15 Atsushi Katagi, etc. ed., *Kindai nihon no kougai juutakuchi*, Kajima Publishing, 2000 (in Japanese).
- 16 Haruji Nakamura, "Fuyu no yoru gatari (5)", *From Haha*, Vol. 7, January, 77–79, 1920 (in Japanese).
- 17 Asahi Shimbun, November 3, 1926, Morning Edition, 7 (in Japanese).
- 18 Asahi Shimbun, September 29, 1938, Morning Edition, 10 (in Japanese).
- 19 *Seikei Koutougakkou kouchi kakuchou ninka shinsei* (Collection of Tokyo Metropolitan Archives), 1940 (in Japanese).
- 20 Seikei Gakuen, *Seikei gakuen hyakunen shi*, Seikei Gakuen, 2015 (in Japanese).
- 21 "Kyu akaboshi tetsuma tei hozon e, musashino shi ga kizou uke sikichi ha kouen ni, reimondo sekkei no shouwa shoki kenchiku / toukyou," accessed on February 14, 2020, <https://mainichi.jp/articles/20200214/ddl/k13/040/014000c> (in Japanese).

Session 8-k

PROCESSES OF REPLICA AND APPROPRIATION

Andrea Canziani

Ministry of Culture, Department of Archaeology Fine Arts and Landscape

The present session, dedicated to Global / Local Modernities, asks to confront us with the way the modern architecture was spreading differently, according to region and cultures. Modern architecture, mainly established in Europe and United States, became widespread throughout the world through a process which advocated the rationality and universality of an impending modern society. Nevertheless, on the arrival of Modernism, the specific traditions and cultures of non-Western countries often tried to integrate mutually different architectural values.

Modernisation has involved ever since sameness and difference: sameness, in technology and capitalist economy around the world, transcending national borders; difference, in what various cultures assert for their uniqueness within the framework of progress. Therefore, scholars of cultural heritage, history and preservation face architectural culture as dynamic and always emerging or being created through various interactions.

Our authors try to deal with these processes of correlation, appropriation, relationship and synthesis between modern architecture and local cultures and traditions. They do it through two study case and a more general reflection on the role of the photographic images in the diffusion of modernism.

Daizaburo Yoneyama reflects on the cultural heritage of the Nikko Youth Hostel (NYH). Founded in 1959, the NYH was one of the first youth hostels in Japan. The NYH was designed by architect Yoshinobu Ashihara, who studied in Harvard and is largely recognised as leading the modernist architectural movement in Japan. The NYH was designed in harmony with Nikko's beautiful nature, influenced by Ashihara's mentor, Marcel Breuer.

The paper examines how the NYH played an active role in the transformation of the city of Nikko throughout the 20th-century when the youth hostel movement emerged on

a global scale. It considers how foreign tourists re-evaluated Nikko's early modern local religious culture in the 20th century, the NYH's role in fostering 20th-century modernity in Japan, and the NYH's influence on the development of youth hostel architecture in Japan.

Yasuhiro Mandai tell us the story of Junzo Sakakura, who joined Le Corbusier's studio in 1932, then temporarily returned to Japan in 1936, and came back to France for the construction of the Pavillon du Japon at the Paris International Exposition. The Pavillon du Japon (Nippon Kan) won the Grand Prix and, in fact, marked the starting point for Japanese architecture to gain international recognition.

Sakakura himself understood his Pavillon du Japon as an example of a new Japanese architecture with reference to Katsura Rikyu – a building that, in his opinion, constituted “an outstanding example of Japanese architecture because of the totality of its composition, not because of its single components”. Stressing the importance of architecture as an organism, he believed that the Pavillon du Japon was a building that expressed the “architectural spirit” of Japan.

The Kamakura Museum of Modern Art, which was built as the first modern art museum in Japan in 1951 after World War II and which was based on Le Corbusier's prototype of the museum of unlimited growth, contrasted a modern appearance with the traditional space of the Tsurugaoka Hachimangu Shrine. It can be said that a typical “Japanese space” of coexistence with nature was successfully realized here.

Mandai shows the essence of Japanese space beyond the international aesthetics of the modern movement through these two architectures that Sakakura realized before and after World War II, but above all he offer to our reflection two key questions: Why was the Pavillon du Japon, which did not adopt “ethnic forms of the past,” praised by

foreign critics as being imbued with the “Japanese spirit”? Why did the Museum of Modern Art, Kamakura, which did similarly not adopt the “ethnic forms of the past,” gain recognition as the starting point for post-war modernism architecture in Japan?

Francesco Casalbordino suggestion moves from visual culture studies to analyze the constant increase of architectural images that is part of a very contemporary change in society. The worldwide diffusion of pictures contributed to the dissemination of ideas of progress and new living spac-

es, but it fostered also uniformation of languages. The iconic pictures of 20th-century architectural masterpieces managed to construct a real collective imaginary, which acted both on the intentions of the designers and on the wishes of the inhabitants.

Focusing on three examples of modernist architectures and analyzing them with an approach taken from the studies of visual culture, the essay suggests that the transcultural narratives of architectural images overcome local boundaries, becoming global.



JAPANIFICATION OF LE CORBUSIER'S PROTOTYPE "THE MUSEUM OF UNLIMITED GROWTH" BY JUNZO SAKAKURA

— THROUGH THE ANALYSIS OF THE PAVILLON DU JAPON AT THE 1937 PARIS INTERNATIONAL EXPOSITION AND THE MUSEUM OF MODERN ART, KAMAKURA (1951)

Yasuhiro Mandai

Professional advisor for architecture and culture, Nomura Real Estate Development Co.Ltd; 4 Tamagawagakuen, Machida, Tokyo 194-0041; yas.mandai.1133@jcom.zaq.ne.jp

ABSTRACT.

Junzo Sakakura joined Le Corbusier's studio in 1932, temporarily returned to Japan in 1936, but came back to France for the construction of the Pavillon du Japon at the Paris International Exposition. As it is well known, his Pavillon du Japon (Nippon Kan) won the Grand Prix and, in fact, marked the starting point for Japanese architecture to gain international recognition.

Sakakura himself understood his Pavillon du Japon as "an example of a new Japanese architecture" with reference to Katsura Rikyu — a building that, in his opinion, constituted "an outstanding example of Japanese architecture because of the totality of its composition, not because of its single components". Stressing the importance of "architecture as an organism", he believed that the Pavillon du Japon was a building that expressed the "architectural spirit" of Japan. as its soul

The Kamakura Museum of Modern Art, which was built as the first modern art museum in Japan in 1951 after World War II and which was based on Le Corbusier's prototype of the museum of unlimited growth, contrasted a modern appearance with the traditional space of the Tsurugaoka Hachimangu Shrine. It can be said that a typical "Japanese space" of coexistence with nature was successfully realized here.

The purpose of this study is to show the essence of "Japanese space" beyond the international aesthetics of the modern movement through these two architectures that Sakakura realized before and after World War II.

1. INTRODUCTION

1.1. Background and Purpose of the Study

As symbolized by the show "Modern Architecture: International Exhibition" held in 1932 at the Museum of Modern Art (MoMA) in New York, the architectural spaces of different countries and regions have since been able to transcend national borders and be understood. The works that won the Grand Prix d'Architecture at the Paris International Exposition 1937 were able to genuinely convey the spirit of architecture through a common architectural language. A representative example is the Japan Pavilion (Nippon Kan) by Junzo Sakakura.

Sakakura joined Le Corbusier's studio the year before the MoMA exhibition, temporarily returned to Japan in 1936 but came back to France for the construction of the Pavillon du Japon at the Paris International Exposition. It is well known that this structure won the Grand Prix. In fact, it marked the starting point for Japanese architects to gain international recognition.

Sakakura himself positioned The Pavillon du Japon as "an example of a new Japanese architecture."¹ Sakakura cited the Katsura-Rikyu Villa. He said that it is "an outstanding example of Japanese architecture because of its composition, not because of its single components. He argued for the importance of "architecture as an organism". He also said that The Pavillon du Japon is an architecture that has such "Japanese architectural spirit" as its soul.

On the other hand, the Museum of Modern Art, Kamakura, which was built in 1951 after World War II as the first modern art museum in Japan and which was based on Le Corbusier's prototype of the museum of unlimited growth, contrasted a modern appearance with the traditional space of the Tsurugaoka hachimangu shrine. It can be said that a "Japanese space of coexistence with nature" has been successfully realized here.

The purpose of this study is to show the essentials of "Japanese space" beyond the international aesthetics of the modern movement, through two architectural works realized by Sakakura before and after the Second World War. Why was the Pavillon du Japon, which did not adopt "ethnic forms of the past," praised by foreign critics as being imbued with the "Japanese spirit"? Why did the Museum of Modern Art, Kamakura, which did similarly not adopt the "ethnic forms of the past," gain recognition as the starting point for post-war modernism architecture in Japan?

2. PAVILLON DU JAPON AT THE 1937 PARIS INTERNATIONAL EXPOSITION

2.1. Evaluation of the Pavillon du Japon in 1937

Upon its erection, many international critics pointed out the pavilions harmonious blend of tradition and modernity. For example, architectural historian *H. R. Hitchcock Jr.* noted that the Pavillon du Japon attempted to harmonize the ethnic forms of the past with forms reminiscent of the

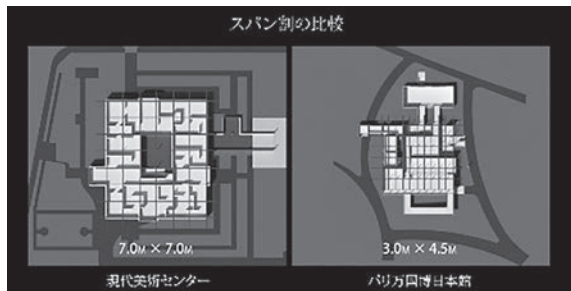


Fig. 1. Difference between Le Corbusier's and Sakakura's structure design.
© maeda corporation.

early international style. The result, he stated, was quite good.² Siegfried Giedion said that of the many pavilions, the Pavillon du Japon is probably the most beautiful. According to him, its harmonious interplay with the garden makes this structure, though Western in style, a clear expression of the "Japanese spirit".³

2.2. The 1937 Paris International Exposition and "the museum of unlimited growth" as a Prototype

Much like the Museum in Kamakura that shall be dealt with later, the Pavillon du Japon can be placed in the lineage of Le Corbusier's *museum of unlimited growth*. In the 1930s, Le Corbusier's exploration of this architectural prototype coincided with Sakakura's time at the atelier in the Rue de Sevres; beginning with the Mundaneum in 1929, the prototype was realized in three pavilions at the 1937 Paris International Exposition: Sakakura's Pavillon du Japon, the Spanish Pavilion by Jose Louis Sert, and the Pavillon des Temps Nouveaux by Le Corbusier. The same prototype was later realized in post-war Japan in the Museum of Modern Art, Kamakura, and the National Museum of Western Art, Ueno.

2.3. Analyses of "Japanese architectural spirit" of the Pavillon du Japon

In *Miroir du Monde*⁴, the following five elements were listed as specific elements that demonstrate the fusion of past and present.

2.3.1. CLARITY OF THE PLAN

What clearly differentiates this pavilion from those of other countries is the way the axis lines were determined. The pavilions alignment was supposed to be oriented towards the Eiffel Tower and not, like other countries' pavilions, based on street layouts. In other words, the building was planned with an awareness of the surrounding landscape that can be seen from this building.

Another feature of the Pavillon du Japon is that the floors at different levels are connected by a slope-way instead of stairs to create a sense of circulation. The curved slope-way reflected a given curve in the buildings site space which shows that Sakakura elegantly adjusted his structure

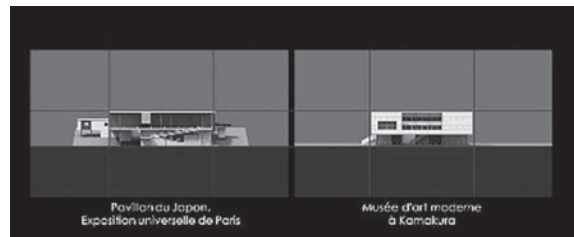


Fig. 2. Width and height of the Pavillon du Japon and the Museum of Modern Art, Kamakura are the same. © maeda corporation.

to the given environment.

2.3.2. CLARITY OF THE SKELETON

The pillar arrangement and dimensions of the pavilion are very distinctive. While the pillar arrangement in Corbusier's "museum of unlimited growth" showcases equal width and depth, Sakakura experimented with irregular spaces by using a 3.0m x 4.5m pattern. The dimension of 3.0m is quite narrow for a steel structure which proves that the pillar layout is treated as an aesthetic expression rather than structural rationality. The size of the thin columns is 140mm x 140mm.

Incidentally, two years before the completion of the Pavillon du Japon, the pillar arrangement of the Sextant House that Sakakura worked on in Le Corbusier's atelier was 2.6m x 3.5m. The Sextant House was a wooden structure, which allows us to conclude that the pavilion adopted a pillar layout usually to be found in structures of this material. This is a major difference to Corbusier's structure design (Fig. 1).

2.3.3. TRANSPARENCY OF THE ELEVATION

Being put on comparable scales, one can see that the width and height of the Pavillon du Japon and the Museum of Modern Art, Kamakura are the same (Fig. 2). Both are placed on "stilts" without modifying the natural terrain.

2.3.4. SIMPLENESS OF MATERIAL

The exterior design is devoid of ornamentation, and the wooden lattice, railings, and semi-outdoor cafe terrace express the close relationship between inside and outside.

2.3.5. DIALOGUE BETWEEN THE ARCHITECTURE AND GARDENS

Pre-existing trees were left without cutting them. Visitors can go down the slope around the trees and experience their way through the pavilion in a similar way like a Japanese circular garden.

2.4. Text "Characteristics of the Pavillon du Japon" by Sakakura

In the design description, Sakakura himself cited the



Fig. 3. Museum of Modern Art, Kamakura, pilotis and the drywall materials divided by horse joints were already considered in the project "Ferme Radieuse".⁸

following four points as the characteristics of the Pavillon du Japon.

1. Clarity of the plan configuration
2. Clarity of the skeleton
3. Respect for the natural beauty of architectural components (structural materials)
4. Harmony between architecture and nature (environment) surrounding the architecture.⁵

It has already been mentioned that these characteristics were perceived by critics as intended by Sakakura.

2.5. Debut of Modern Architecture Designed by a Japanese Architect

In 1940, *La Nouvelle Architecture*, a collection of architectural works edited by Alfred Roth published in Switzerland⁶, introduced Sakakura's Pavillon du Japon as the only work of a Japanese architect. Fumihiko Maki testified that this book and a collection of Le Corbusier's works were the "holy grail" among students of the University of Tokyo in post-war Japan and that everyone studied it extensively. He said that he either borrowed the book from the library or from Tange's laboratory at that time. "I always grasped the essence of postwar modernist architecture from this work" he stated, and added: "It is not wrong to say that the debut of modern architecture in Japan began with Junzo Sakakura's Pavillon du Japon at the 1937 Paris International Exposition".⁷

2.6. A New Era of Japonisme: Japanese Architecture and ESPRIT NOUVEAU

In 1941, Sakakura held an exhibition entitled "Selection, Tradition, Creation" together with Charlotte Perriand, one of Le Corbusier's Parisian collaborators. In the catalogue, he explained the title of the exhibition: "To make use of true tradition does not mean to faithfully imitate it. It is to create

anew according to the eternal laws of tradition". In the exhibition space, he lined up two photographs, one of a corbusian villa in the suburbs of Paris, as well as one of Katsura-Rikyu, and wrote: "Katsura-Rikyu shows the great simplicity of the spirit of Japanese tradition".⁸

3. THE MUSEUM OF MODERN ART, KAMAKURA

3.1. "Museum of unlimited growth" in Steel Construction

In the 1930s, Le Corbusier's prototype for the Museum of Infinite Growth was conceived in two structural forms: reinforced concrete and steel frame as well as the possibility of dry construction and steel frame construction were being explored in response to the industrialization of architecture, including the proposal for the Contemporary Art Center in 1931. Against this background, in 1934, Sakakura was in charge of the "Ferme Radieuse" at Le Corbusier's studio. In this plan, the methods seen in the Museum of Modern Art, Kamakura, such as the living space supported by steel pillars on the pilotis and drywall materials divided by horse joints, were already considered (Fig. 3).

In "La Ville Radieuse" (Chapter 7, "reorganization of rural habitat")⁹, Le Corbusier referred to this project and wrote that the farm is not an "architectural folly" that ends up destroying nature, but "a kind of geometric plant that is intimately connected to the landscape, like a tree or a hill, and yet reveals our presence, like a piece of furniture or a machine". It is thought that Sakakura regarded the nature-based sanctuary of the shrine in the same way as the farm landscape in the "Shining Farmland Project".

Incidentally, among all "museums of unlimited growth" that have been realized, excluding temporary buildings, only the Museum of Modern Art, Kamakura, is a permanent steel-framed structure.

3.2. Analysis of the “Japanese architectural spirit” in the Museum of Modern Art, Kamakura

3.2.1. RELATIONSHIPS OF ARCHITECTURAL SPACES

EXTENDING FROM THE INSIDE TO THE OUTSIDE

The center of the “O” shaped plan is an open court (Fig. 4), the upper floor is a closed space for painting, the lower floor is an unenclosed space for sculpture, and the stairs connecting the upper and lower floors are a semi-external space.

Similar to the prototype shown in Le Corbusier’s Mundaneum, the spatial experience is realized by first going up and then migrating down.

3.2.2. UNENCLOSED COURTYARD

The courtyard of the pilotis is composed of Oya stone walls and openings that create a fluid space. The difference between the structure and the Pavillon du Japon at the Paris Expo lies in the continuous arrangement of triangular section truss beams that make up the second floor and roof. The idea is that the planar trusses convert the stress caused by gravity into axial force, and in the event of an earthquake, the triangular section trusses of L-shaped steel also ensure the horizontal rigidity of the entire building. In addition, the earthquake-resistant braces are concealed in thinly sliced Oya stone walls, thus expressing the pure composition of the walls and openings.

3.2.3. BASED ON THE FUNCTIONS OF A MODERN ART MUSEUM, BUT WITH AN AWARENESS OF ITS HISTORICAL SANCTUARY

The upper floor is a closed space for painting, extending over the pond, and the lower floor is an unenclosed space for sculpture. The cross-sectional plan is such that the pond and the architecture penetrate each other. The steel pillars that meet the pond are flanked by stones that resemble the foundation stones of a wooden building. At the semi-exterior terrace, the last in the sequence, the wind blows and the ripples of the pond are reflected. The borders between the pond and the precincts becomes infinitely ambiguous.

3.2.4. A NEW KIND OF HARMONY

The axis of the building differs by five degrees from the layout of the Tsurugaoka Hachimangu Shrine, and the axis is aligned with the pond and the surrounding streets. The white walls on stilts and the false reflection in the pond, i.e., the interplay between a new architecture and a historical setting, create a new kind of harmony.

3.3. Text of “Architectural Spirit” by Sakakura

Twelve years after the completion of the Museum of Modern Art, Kamakura, Junzo Sakakura stated:

The Museum of Modern Art, Kanagawa Prefecture (Kamakura), built in 1951, and the Pavillon du Japon at the Paris International Exposition have something in common as an expression of my architectural spirit. They show how modern

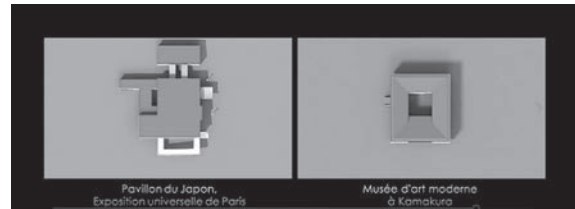


Fig. 4. Center of the “O” shaped plan at kamakura(right) is an external space. © maeda corporation.

architecture in our hands should be like.

He went on to say: “Both were given the perfect environment to express my intention to confront (rather than harmonize) with the richness of nature”.

He also stated that “a space in which one can stand inside and feel a harmonious connection with nature outside” must be clearly distinguished from “an external space in which one can violate the functions of the inside and enter without thinking,” and described it as “the feeling of sitting inside the old Shoin of Katsura-Rikyu while opening the shoji to the pond space outside”.¹⁰

3.4. Opinions of foreign art critics on The Museum of Modern Art, Kamakura

In 1958, the French art critic Michel Ragon listed five museums as “the best” among the recently built ones in his book “Aesthetics of Contemporary Architecture”.¹¹ Among them was the Museum of Modern Art, Kamakura, Japan, designed by Junzo Sakakura, along with F. L. Wright’s Guggenheim Museum. Ragon wrote that “the Museum of Modern Art, Kamakura, built on piloti along a pond full of lotus flowers, presents a truly magnificent view”. This is the only Japanese work in the list, and here again, Sakakura’s intentions have been correctly perceived by foreign art critics.

4. CONSIDERATION AND CONCLUSION

The debate on international style versus Japanese traditional expression became preeminent in Japan soon after the end of WWII. A prominent example for this is the famous publication “Katsura: Tradition and Creation in Japanese Architecture” by Walter Gropius and Kenzo Tange, published in 1960¹², which was an extension of the ideas of the Pavillon du Japon at the 1937 Paris International Exposition and is considered to have been influential. On the other hand, compared to the exhibition “Selection, Tradition, Creation” that I mentioned earlier, the word “Selection” is absent.

What means “Selection” in this regard? Here, I would like to refer to a passage from the chapter “Des yeux qui ne voient pas...” in Le Corbusier’s “Vers une architecture” from 1923.¹³ According to Le Corbusier, *selection* is a means to achieve a *standard*; A *standard* will help to achieve *harmony* and

beauty; Harmony and beauty, finally, lead to the emergence of a new style.

It can be said that Sakakura showed us how to realize a “Esprit Nouveau” in Japanese architecture through a selected composition that does not rely on past national forms. And he opened up the possibility of an international understanding of ethnic-specific culture that is different from historicism.

The Pavillon du Japon at the 1937 Paris International Exposition was an attempt to select elements of traditional Japanese architecture, thus setting new standards and finally creating a new style of architecture based on an “Esprit Nouveau”.

And in Japan, the work that realized this approach was the Kanagawa Prefectural (Kamakura) Museum of Modern Art.

Today, it has earned the reputation of being the starting point of post-war modernism architecture in Japan.

Designated as an Important Cultural Property last year, it continues to pass on its value and highly original interpretation of “Japanese space” to future generations.

REFERENCES

- (drawings) Archives nationales, Paris (F12 12557).
 (drawings) Fondation Le Corbusier (FLC 8443, 8444, 8437, 28681, 28619a, 28617a)
 (drawings) National Archives of Modern Architecture, Japan (KM2532, 2533)
 CATALOGUE GENERAL OFFICIEL, *EXPOSITION INTERNATIONALE DES ARTS ET DES TECHNIQUES DANS LA VIE MODERNE PARIS 1937*, 1937.
 FAVIER, Jean, *L'Architecture Exposition Internationale PARIS-1937*, Editions ALEXIS SINJON, 1937.
 BADOVICI, Jean, *ARCHITECTURE DE FETES ARTS ET TECHNIQUES PARIS 1937*, EDITIONS ALBERT MORANCE, 1937.
 SAKAKURA, Yuri, *Ookina-Koe: The Life of Junzo Sakakura Architect*, KAJIMA INSTITUTE PUBLISHING, 1975.
Modern Architecture — June issue — 1939, Nihon Kosaku Bunka Renmei, 1939.
 ROTH, Alfred, *La Nouvelle Architecture: a collection of architectural works*, Girsberger, Zurich, 1940.
 FRAMPTON, Kenneth, *Modern Architecture: A Critical History*, Thames & Hudson, 1980.

NOTES

- 1 Junzo Sakakura, *About the Pavillon du Japon at the Paris International Exposition*, *Modern Architecture*-June issue, 1939, 10–11.
- 2 H. R. Hitchcock Jr (ARCHITECTURAL FORUM 1937_9), *Criticism of the Japanese Pavilion-Abstracts from Foreign Journals*, *Modern Architecture*-June issue, 1939, 12.
- 3 Siegfried Giedion (*DIE WELT WOCHEN*), *Criticism of the Japanese Pavilion-Abstracts from Foreign Journals*, *Modern Architecture*-June issue, 1939, 12.
- 4 *Miroir du Monde 1937-6-18*, *Criticism of the Japanese Pavilion-Abstracts from Foreign Journals*, *Modern Architecture*-June issue, 1939, 12.
- 5 Junzo Sakakura, *About the Pavillon du Japon at the Paris International Exposition*, *Modern Architecture*-June issue, 1939, 1011.
- 6 Alfred Roth, *La Nouvelle Architecture-a collection of architectural works*, 1940.
- 7 Fumihiko Maki, *Lived Space-Architecture of the The Museum of Modern Art, Kamakura 1951–2016-*, Kenchiku-siryo-Kenkyu-sya, 2015.
- 8 Junzo Sakakura and Charlotte Perriand, Exhibition colleague “Selection, Tradition, Creation”, Ogawa-shoten, 1941, 1–2.
- 9 Le Corbusier, *La Ville Radieuse*, chapter 7, reorganization of rural habitat, 1935.
- 10 Junzo Sakakura, *The pursuit of industrialization and spaces that flow in and out*, *Architectural Culture*, June issue, 1936, 71.
- 11 Michel Ragon, *Aesthetics of Contemporary Architecture-chapter 13 Public Buildings*, 1958.
- 12 Walter Gropius & Kenzo Tange, *Katsura: Tradition and Selecting in Japanese Architecture*, 1960.
- 13 Le Corbusier, *Vers une architecture*, *Votre*, 1923, 109.

TRANSCULTURAL NARRATIVES FROM MODERNISM TO GLOBAL ARCHITECTURE

Francesco Casalbordino

PhD Candidate, Department of Architecture, University of Naples "Federico II"; via Toledo 402, 80134 Naples, Italy; francesco.casalbordino@unina.it

ABSTRACT.

Pictures can easily represent life situations, both real and artificially recreated while technical drawings hardly describe the way man dwells. The constant increase of architectural images can be considered as part of the general change in society defined by W.J.T. Mitchell as "pictorial turn". The worldwide diffusion of pictures contributes to the democratization of progress and a standard of living spaces, but it encourages a homogenization of buildings and a loss of places too. If we overcome the dialectic between global and local, we can observe how these images construct narratives that gather in each place the world as a whole creating a collective imaginary capable of transforming specific places starting from global instances. Focusing on three pictures of modernist architectures and analyzing them with an approach taken from the studies of visual culture, this essay explores the ability of architectural images to encourage the birth of transcultural narratives that can overcome local boundaries creating a worldwide collective imaginary.

1. THE WORLD AS THE NEW CONTEXT OF THE PROJECT

The complex phenomenon of globalization, which started in the late 20th century, has contributed to define a global culture. If "culture is always born and develops [...] locally, in a proximity and a context"¹, global culture undermines this property by affirming itself in an area extending to the whole world developing from two attractors — global and local, which constitute a dichotomy that can be questioned. Already in 1989, Ulf Hannerz had theorized the emergence of a "global ecumene", proposing a dynamic model of relationships between global flows and local realities and, today, Bruno Latour proposes a new attractor: the *Terrestrial*. The French philosopher supports the idea that globalization "should mean that points of view multiply, that there is a very large number of varieties, that a greater number of beings, cultures, phenomena, organisms and populations are considered".² So, the globe is fragmented

*since the contraction of space and time makes evident the great and irreducible plurality of actors, lifestyles, interests, orientations that populate the global scene. Human beings, no longer isolated, regain an existence in the world through the aggregation with other individuals.*³

It is possible, also in architecture, to achieve this new creative condition that starts from the awareness of the planet as the new context for the project, with all its differences but also with all its mutual aspirations and issues. Reconsidering the word "ecology", a 19th-century neologism derived from the Greek term *oikos* meaning "house", we need to understand how we shape this planet to make it inhabitable.

Modern Movement paved the way through this ecumenic road; not by chance, in 1926 Hannes Meyer, future director of the Bauhaus, affirmed "Wir werden Weltbürger", meaning "we will be citizens of the world". Architecture has

been trying to fulfil this expectation and, as Peter Sloterdijk said, "20th century has made dwelling explicit".⁴ Internationalization, one of the main features of the Modernist project, succeeded in transforming architecture acting in two different ways: on one hand, it promoted a modern way of dwelling spaces, on the other hand, it tried to create a common language — the International Style — representing this new way of living along with the achievements and progresses made in the fields of industry, techniques and materials. This vision of a global standard of progress is surely yet to be accomplished in many aspects of human life, but the work done over the last century succeeded in creating a new worldwide collective imaginary about what defines modern architecture and what modern dwelling means.

This essay presents the first results of a research still in progress, which aims to understand how through the diffusion of architectural images and in particular the iconic photographs of 20th-century architecture, modernism managed to construct this collective imaginary, which acts both on the intentions of the designers and on the wishes of the inhabitants. An imaginary that is able to take root in different places while maintaining its universal recognizability.

2. THE ROLE OF PICTURES IN ARCHITECTURE

The approach used is that of visual culture studies, among the others we will focus in particular on the idea of a "pictorial turn" proposed by W.J.T. Mitchell in the 1990s. With this approach, we can investigate how the photographs are "designed" as synthetic totalities to represent the modern culture of living, so that we can better orient ourselves in the tide of architectural images that distinguish the globalized contemporary age. In fact, today an almost uninterrupted network of inhabited places seems to represent world the most and efforts have always been made to capture parts of this net by many means. Moreover, with the creation of af-

fordable devices, everyone can capture images of places, trying to freeze the global atmosphere of major urban agglomeration around the world. This mass collection of images is part of the phenomenon that is reshaping the way people look at and imagine the planet.

*Image by image, as if brick by brick, we assemble our own multilayered sense of the built environment through many photographers' lenses [...]. We could not envision the world, remember it, and know it as we do without their pictures of places.*⁵

According to Mitchell, the pictorial turn represents "a culture totally dominated by images [...] become a real technical possibility on a global scale".⁶ We are coming to the awareness that the human subject is a "being made up of both language and image".⁷ So, the pictorial turn is

*a post-linguistic and post-semiotic rediscovery of the image as a complex interaction between visibility, apparatus, institutions, discourse, body and figuration. In short, it is the awareness of the fact that [...] the visual experience, or visual literacy, may not be completely interpretable on the model of textuality.*⁸

For contemporary designers, it is becoming more and more difficult to escape this iconological dialogue. This turn has become evident during the 1980s, when

*a new generation of architects such as Herzog & de Meuron, Lebbeus Woods, Steven Holl, Zaha Hadid, Peter Zumthor, Hans Kollhof and Ben van Berkel [...] proceeded to astound the world with projects that inscribe themselves into the cityscape like icons.*⁹

Since then, the diffusion of pictures has increased with the use of digital representation, going beyond architectural photography and supporting the globalization of architectural practice. The use of renderings and 3D digital modeling allows architects to detach from the need of building something to spread their ideas. Many practices around the world are turning their efforts to produce virtual visual representations of their projects. For example, in BIG's latest volume — *Formgiving* — more than half of the projects are represented only by renderings and digital images, but the same also happens for the dissemination of the works of others practices around the world.

Today images are instrumentally used to convey a vision about a specific aspect of the relationship between humans and space, but they had already assumed an essential role for the architectural practice at the beginning of the last century when photography started to be considered more than just a way to document and reflect the reality of the built environment. There is no doubt that, since its invention, photography has been the principal way not only to

document but also to imagine a transformation of the built environment.

Many practitioners entered the field of architectural photography while it was establishing itself as a mean "with revealing character, arguing for distinctiveness and defining presence".¹⁰ This event coincided with the rise of modernism that "reflecting social concerns and utopian aspirations and introducing a lighter material into architecture — would [have] usher[ed] in an optimism and a new aesthetic into architectural imaging".¹¹ Architectural photography works in many different ways:

*like still-life photography, it deals in metaphors. Like landscape photography, it strikes a balance between the everyday and the sublime. Like advertising and fashion photography, architectural photography glamorizes and sell. And like art [...] architectural photography can just as easily trigger questions as answer them.*¹²

3. TRAVELING MYTHS

Pictures play a central role in architecture because "visual language is capable of disseminating knowledge more effectively than almost any other vehicle of communication".¹³ Pictures can be spread through communication media, whether professional or not, making possible the dissemination of a universal architectural language and a common way of dwelling. An exemplar case is how

*numerous popular and specialty magazines, such as Life, Collier's, Fortune, Town & Country, Harper's Bazar, Arts & Architecture, and Architectural Forum, [...] exposed minimalist design to a vast audience*¹⁴

creating a genuine American collective imaginary about modern life and living spaces. However, no image can be limited by national boundaries, they "have legs, that is, they seem to have a surprising ability to open new paths and produce extraordinary new effects".¹⁵ One of the effects of the worldwide circulation of pictures is the democratization of progress and a global standard of living spaces, along with the possibility for architectural practices of operating in different contexts.

On the other hand, though, this system of images, communication and consumption constitutes an inevitable factor of homogenization that imports external models into a place going beyond its specificities. This is a scenario that has to be considered which characterizes a part of the architecture produced over the last century. The consequences of these practices can be read from a different point of view described by the term "transcultural" that goes beyond the perspective of homogenization, trying to reconcile binary local/global issues. Transculturality is based on

spatial mobility and the circulation of flows [...]. It focuses on



Fig. 1. Balthazar Korab, architects Ludwig Mies van der Rohe, John B. Parkin and Associates, Bregman+Hamann Architects, Toronto-Dominion Centre, Toronto, Canada, 1960s. © image elaboration by Maria Masi.

*the processes by which forms emerge in local contexts within exchange circuits. Contact, interaction and entanglement make transculturality a relationally constituted field.*¹⁶

In the 20th century, an unprecedented intensification of the exchange between different cultural flows begun. It took place in a world connected by technological innovations in the field of communications. In the cross-cultural dialogue, the encounter of flows highlights the differences between the parties, which are negotiated “through selective appropriation, mediation, translation, re-historicization and the reinterpretation of signs — or a succession or coexistence of some of these”.¹⁷ The concept that can summarize these processes is that of myth. The narratives created by travelling pictures lie on mythical concepts that, “because of their revelatory power that goes beyond rational explanation, and their exemplarity, are always a ‘globalizing expression’ of a culture”.¹⁸ In the words of Roland Barthes, “myth is a word chosen by history”¹⁹, a sign detached from a specific context to come back to the generalized world.

The growing corpus of images and the myths they represent constitutes a new reference context for the project contributing to the complexity of the architectural practice. As Jacques Herzog states, “the world is full of meaning and also full of images [...]. We just have to deal with it”.²⁰ We will focus on the photographic apparatus of these narrations, analyzing three modernist cases to develop a lens through which looking at images to find a way for the design that goes beyond the mere visual appearance.

4. VISUALISING A MYTH

The transformation of architecture into pure image and the shift of design toward a visual aesthetic hide a research that concern the project of complex spaces and how to use them. Modernism succeeded in communicating ‘activated’ spaces able to make the everyday visible within the extraordinary context of modernist buildings. The role of architectural pictures in spreading modernist ideas about space is often taken aside to focus on the architecture as a text, try-

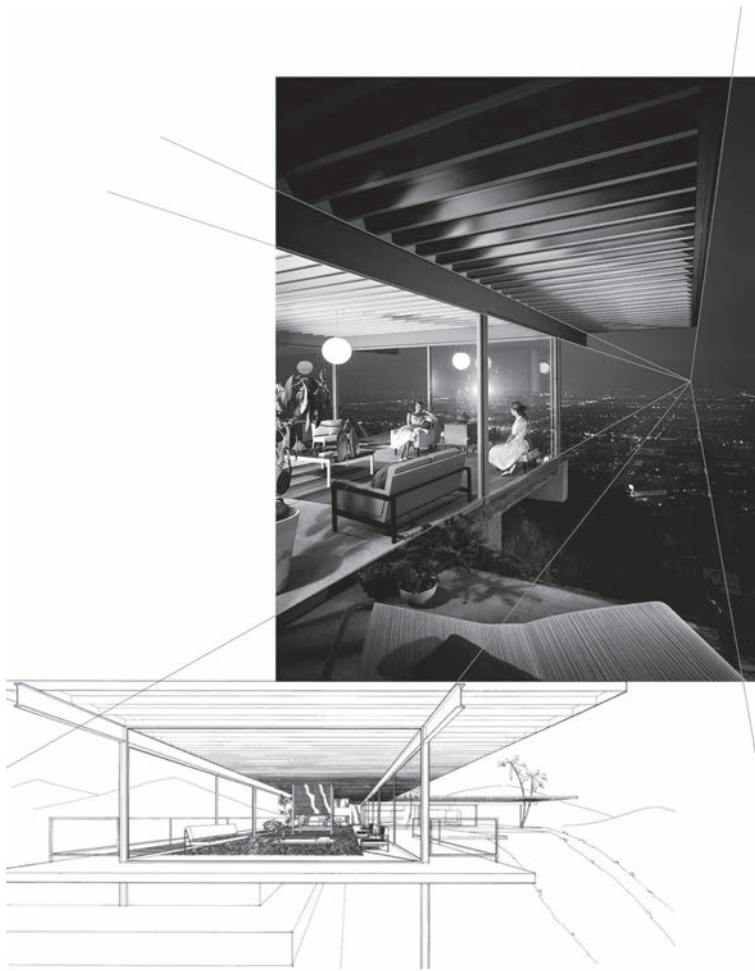


Fig. 2. Julius Shulman, arch. Pierre Koenig, Case Study House No. 22, Los Angeles, U.S.A., 1960.
© image elaboration by Maria Masi.

ing to catch style and character. This approach can be questioned today thanks to the idea of the pictorial turn presented by Mitchell. If buildings and their features are often the main subjects of the portraits, sometimes photography goes far beyond the mere representation of an autonomous object and architecture is considered as the art of building places where human beings can dwell. In this case, the object of the narration is the particular situation portrayed hosted in the frame of space with specific characteristics.

The whole attractive visual image becomes a way through which extraordinary places can enter in the eyes of the viewers to root in the collective imaginary as a myth of a global modern way of living, regardless of the place. A process that allowed

*Modern architecture to finally present itself as an anti-style, ready to represent the essence of a new era of progress and development, and eager to materialize its impending footprint on the planet.*²¹

This is what “the influential work of mid-century photographers like Stoller, Korab, Schulman, and Gottscho”²² did by transforming

*our vision and concept of architecture by capturing and celebrating the spirit of modernism. [...] These photographers turned documentary images of architecture into art.*²³

We will focus on this feature of architectural photography, that is the ability of representing architecture as an active background in which human life takes place. This essay focuses in particular on three photographs of iconic architectures belonging to the local context of American modernism, which is assumed as the origin of many myths which are then decontextualized and relocated in other places in the world. One picture by Balthazar Korab, portraying an urban place representing the relationship between architecture and the city, and two photographs, taken by Julius Shulman, that refer to a particular experience that took place in California from the 1950s called the ‘Case Study

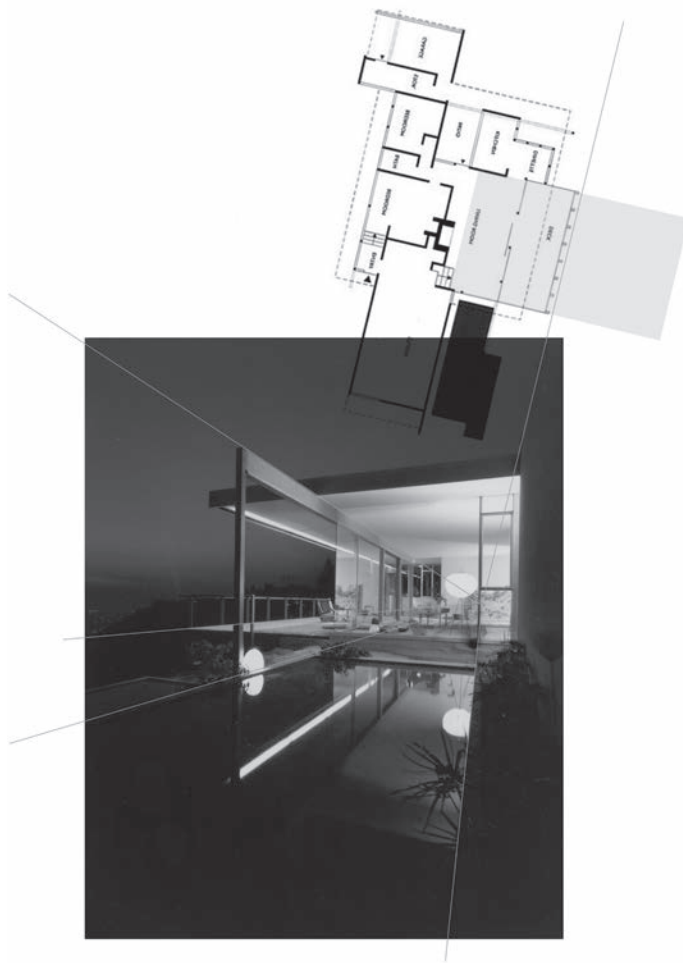


Fig. 3. Julius Shulman, arch. Richard Neutra, Chuey House, Los Angeles, U.S.A., 1956. © image elaboration by Maria Masi.

House Program'. Such program promoted the building of many houses that consistently represented the new American way of life which offered itself as modern and universal.

It is possible to understand which myths are conveyed by these images considering three main aspects: firstly, the composition of the photographic image; secondly, the way light is used to make explicit the presence of man and, finally, the type of life that takes place in all the images.

4.1. Three American Architectures, Three Narratives

In Korab's photograph of Mies van der Rohe's Toronto Dominion Center (Fig. 1), the framing is based on a central point of view that organizes the elements of the composition as layers that overlap with the observer. He is within the life that takes place in the city but excluded from the one happening in the main subjects of the image — the skyscrapers and the lower building in the foreground. Indeed, the camera is placed right in the middle of the expressway that separates the complex from the hectic urban life. The rest of the picture is in a state of quiet, stability and im-

mersed in a fog. Such ambience places the action in a specific time and traces another separation between the motion of the road and the calmness of buildings. The protagonist of the scene is the light: without it, we would never know that life is taking place inside these megaliths; there is a presence that finds steadiness in the motion of the city. This opposition between mobility and stability best describes the modern condition of urban life. Such dualism pervades the picture making it the kind of image in which a narrative mythologizing life in the city is rooted.

In Shulman's representation of Pierre Koenig's Case Study House No. 22 (Fig. 2), the main character is the city. Only a corner of the house is there to frame life happening far below. The composition of the image decenters the point of view. The directions of city roads define the vanishing point. The observer is immersed in the scene and, finding himself caught in the space, his eyes can pass through the elements of the picture emphasizing the use of glass and other modern materials and techniques in the composition of architecture. In this case, lights act in two ways: they give

a shape to the city retracing its form and, like a spotlight, the globe inside the house ignites the scene taking place in it. Under the great roof two women are enjoying a relaxing moment, thus in opposition with the floor of the house that is boldly suspended over the city and the repetitive reflection of the light in the glass still communicate a sense of motion. The situation presents itself vividly to the eyes of the observer. This capacity of “passing through”, of rethinking the relationship between inside and outside, between intimate and public life, is the theme that builds the narration underneath this image: the roof, the globe of light reflecting in the glass, even the lines of perspective communicate this main feature of modern life.

In the last photograph by Shulman (Fig. 3), Richard Neutra's Chuey House, the presence of the inhabitant is communicated by its absence by objects and the personalization of space. The composition is similar to that of the picture portraying Koenig's house. Here, the vanishing point is not towards the infinity of the city but lies in the safety of the house. The photograph brings the observer from the outside within an interior space. This time the house does not share the scene with any other characters: the composition, the light, the concentration of all the elements in the vanishing point create a dense figure that is fully understandable only when looking more carefully. In this dense point several objects lie, no human figure populates the scene. Objects have been apparently positioned casually and then lit by a lamp that someone forgot on. The position and the nature of the objects inside and outside the house (pillows on the floor, low coffee tables and the armchair) communicate an informal way of inhabiting the space and how this flexible architecture is allowing it. The situation defined by the objects includes both elements inside the house and the armchair outside which is positioned towards the inside as if the man who used it was there to dialogue with those who sitting inside of the architecture. Interaction between human and space takes place in this picture which is translated once again in a compenetrating of the interior and the exterior space.

Those three pictures are just an example of the narrations that modernism has brought over the last century. They create worldwide transcultural myths thanks to the process of decontextualization explained above. The descriptions of these photographs are deliberately shallow because a mythical concept is always based on a “confused knowledge, formed by uncertain, indefinite associations”.²⁴ In this uncertainty, we recognize the ability of a mythical concept based on pictures to spread all over the world and build a worldwide collective imaginary.

This study, conducted on three pictures of architectures belonging to the same cultural context, can be extended to others representing architectures located in different places and cultural backgrounds. In this case, we could verify the hypothesis according to which it is possible to find these same myths of modernity also in architectures of other

places, which become witnesses of this continuous transcultural dialogue based on the universal language of the image; a transcultural exchange that certainly began with modernism, but that today has reached unprecedented levels and clearly distinguishes contemporary architecture.

REFERENCES

- BARTHES, Roland, *Miti d'oggi*. Torino, Einaudi, 2016.
 HEIFERMAN, Marvin, LICHTENSTEIN, Therese & SULTAN, Terrie, *Image Building: how photography transforms architecture*, Munich, Prestel, 2018.
 KRAVAGNA, Christian, “Understanding Transculturalism.” *Transcultural Modernism*, edited by Model House Research Group, 23–33, Berlin, Sternberg Press, 2013.
 LATOUR, Bruno, *Tracciare la rotta. Come orientarsi in politica*, Milano, Raffaello Cortina Editore, 2018.
 MITCHELL, W.J.T., *Pictorial Turn. Saggi di cultura visuale*, Milano, Raffaello Cortina Editore, 2017.
 NORBERG-SCHULZ, Christian, *Architettura: presenza, linguaggio e luogo*, Milano, Skira, 1996.
 NORBERG-SCHULZ, Christian, *Genius Loci. Paesaggio Ambiente Architettura*, Milano, Electa, 1979.
 RUBY, Ilka, RUBY, Andreas, & URSPRUNG, Philip, *Images: a picture book of architecture*, München, Prestel, 2004.
 SLOTERDIJK, Peter, *Sfere III. Schiume*, Milano, Raffaello Cortina Editore, 2015.
 VASSALLO, Jesús, *Epics in the Everyday: photography, architecture and the problem of realism*, Zürich, Park Books, 2020.

NOTES

- 1 François Jullien, *L'identità culturale non esiste*, Torino, Einaudi, 2018, 46.
- 2 Bruno Latour, *Tracciare la rotta*, Milano, Raffaello Cortina Editore, 2018, 21.
- 3 Peter Sloterdijk, *Sfere III. Schiume*, Milano, Raffaello Cortina Editore, 2015.
- 4 Sloterdijk, *Sfere III*, 473.
- 5 Therese Lichtenstein, “Architecture after Photography”, *Image Building: how photography transforms architecture*, Marvin Heiferman, Therese Lichtenstein, & Terrie Sultan (eds.), Munich, Prestel, 2018, 138.
- 6 W.J.T. Mitchell, *Pictorial Turn. Saggi di cultura visuale*, Milano, Raffaello Cortina Editore, 2017, 83.
- 7 Mitchell, *Pictorial Turn*, 95.
- 8 Mitchell, *Pictorial Turn*, 84.
- 9 Philip Ursprung, “Built Images: performing the city”, *Images: a picture book of architecture*, Ilka Ruby, Andreas Ruby, & Philip Ursprung (eds.), München, Prestel, 2004, 9.
- 10 Marvin Heiferman, “What goes up: Architectural Photography and Visual Culture”, *Image Building: how photography transforms architecture*, Marvin Heiferman, Therese Lichtenstein, & Terrie Sultan (eds.), Munich, Prestel, 2018, 24.
- 11 Heiferman, “What goes up”, 22.
- 12 Heiferman, “What goes up”, 24.
- 13 Gyorgy Kepes, *Il linguaggio della visione*, Bari, Edizioni Dedalo, 1971, 133.
- 14 Therese Lichtenstein, “Architecture after Photography”, 83.
- 15 Mitchell, *Pictorial Turn*, 110.
- 16 Christian Kravagna, “Understanding Transculturalism”, *Transcultural Modernism*, ed. Model House Research Group, Berlin, Sternberg Press, 2013, 25.
- 17 Kravagna, “Understanding Transculturalism”, 25.
- 18 Laura Lieto, “Cross-border mythologies: the problem with traveling planning ideas”, *Planning Theory*, Vol. 14 (2), 2015, 116.
- 19 Roland Barthes, *Miti d'oggi*, Torino, Einaudi, 2016, 192.
- 20 Patrick Herzog in Philip Ursprung, *Pictures of Architecture – Architecture of Pictures: A Conversation Between Jacques Herzog and Jeff Wall*, München, Ambra Verlag, 2004, 21.
- 21 Jesús Vassallo, *Epics in the Everyday: photography, architecture and the problem of realism*, Zurich, Park Books, 2020, 21.
- 22 Lichtenstein, “Architecture after Photography”, 83.
- 23 Lichtenstein, “Architecture after Photography”, 83.
- 24 Barthes, *Miti d'oggi*, 201.

THE NIKKO YOUTH HOSTEL, INTERNATIONAL TOURISM, AND NIKKO'S CULTURAL HERITAGE

Daizaburo Yoneyama

Tokyo University of Science; 2641 Yamazaki, Noda, Chiba 278-8510, Japan; komezabu@gmail.com

ABSTRACT.

This paper reflects on the cultural heritage of the Nikko Youth Hostel (NYH). Founded in 1959, the NYH was one of the first youth hostels in Japan. In the early modern period, the city of Nikko was known as a place of mountain worship and the location of the mausoleum of Shogun Tokugawa Ieyasu. The importance of these sites was downplayed during the Meiji Restoration. Today, Nikko — with its Lake Chuzenji summer resort and a variety of nationally and internationally recognised cultural heritage sites — is widely known as a tourist destination. This paper examines how the NYH played an active role in this transformation throughout the 20th century when the youth hostel movement emerged on a global scale. It considers how foreign tourists re-evaluated Nikko's early modern local religious culture in the 20th century, the NYH's role in fostering 20th-century modernity in Japan, and the NYH's influence on the course of youth hostel architecture in Japan.

1. INTRODUCTION

Modernisation involves sameness and difference — sameness, in that it sees culture and technology shared around the world, and difference in that various cultures assert their uniqueness within the framework of modernity. Therefore, scholars of cultural heritage should regard culture as dynamic and always emerging or being created through various interactions. For example, Yoshitake Doi¹ (2020) points out that the cathedral Notre Dame de Paris

was constructed in the late 12th century but its present cultural heritage value has been determined by French cultural values which emerged and were reformed throughout the development of French nationalism, the French Revolution, and various works of literature and architecture. Doi states that the cathedral's value as a piece of French cultural heritage comes not only from it being an early modern Catholic church but also from the perception of the cathedral as the common property of the French people throughout the modern period. If we take our cue from Doi and define cul-



Fig. 1. Yomei-mon, Nikko Toshogu Shrine. © Daizaburo Yoneyama.



Fig. 2. The Nikko Youth Hostel. © Daizaburo Yoneyama.

tural heritage as something that is the common property of the public, then the relationship between tourism and cultural heritage needs to be reconsidered because this implies that what *tourists* find valuable about a site or region — or the tourist cultures that are created in anticipation of tourists' presence — may contribute just as much to cities, sites, and buildings' cultural heritage as their historical meaning.

This paper explores this idea in the case of Nikko, Japan. Nikko has been known as a place of mountain worship since ancient times. In the early modern period, the Tokugawa shogunate built a mausoleum for Shogun Tokugawa Ieyasu — the Nikko Toshogu Shrine (Fig. 1) — in Nikko, making the city a sacred place in Tokugawa-era Japan. The shogunate lost influence and favour during the Meiji Restoration of 1868, with its concerted efforts to modernise Japanese culture and distance itself from the old regime. On the one hand, scholars and experts were hesitant to discuss the value of the Nikko Toshogu Shrine as an important piece of architecture or a work of art against the background of the Meiji Restoration.² On the other hand, foreign tourists who came to Japan genuinely appreciated its scenery and architecture without knowing much about the site's political and historical significance. This paper suggests that tourist culture, formed from foreign tourists' impressions of sites, rather than the sites' native historical meaning or context, can influence their cultural heritage value. Specifically, it argues that the background of Japanese modernisation against

which foreign tourists first visited Nikko meant that they did not perceive the political or historical conflict between the Tokugawa shogunate (the old regime) and the Meiji government and that they, therefore, established a tourist culture which saw Nikko's architecture, which was both symbolic of the old regime and reviled by the new regime, become a protected and valued piece of Japan's cultural heritage.

This paper also examines the role of the Nikko Youth Hostel (NYH) (Fig. 2), which was established in 1959, for the international tourist culture there. Nikko was an international tourist destination before World War II. The area around Lake Chuzenji (Fig. 3) was converted into a summer resort for European diplomats in the 1920s. Of the embassies which lined the lake's shores, the Italian Embassy Villa, designed by Antonin Raymond in 1928, has been designated as a national cultural asset as it has become a model of art and a symbol of the international summer resort.³ Due to the war, many diplomats returned to their countries and many villas were lost. However, with the decision in 1959 to hold the 1964 Summer Olympics in Tokyo, the number of foreign visitors to Japan increased, and international tourism flourished, with many day-trippers visiting Nikko.⁴ The NYH was designed by architect Yoshinobu Ashihara, who is largely recognised as leading the modernist architectural movement in Japan. The NYH was designed in harmony with Nikko's beautiful nature, influenced by the designs of Ashihara's mentor, Marcel Breuer, who opened his architectural design

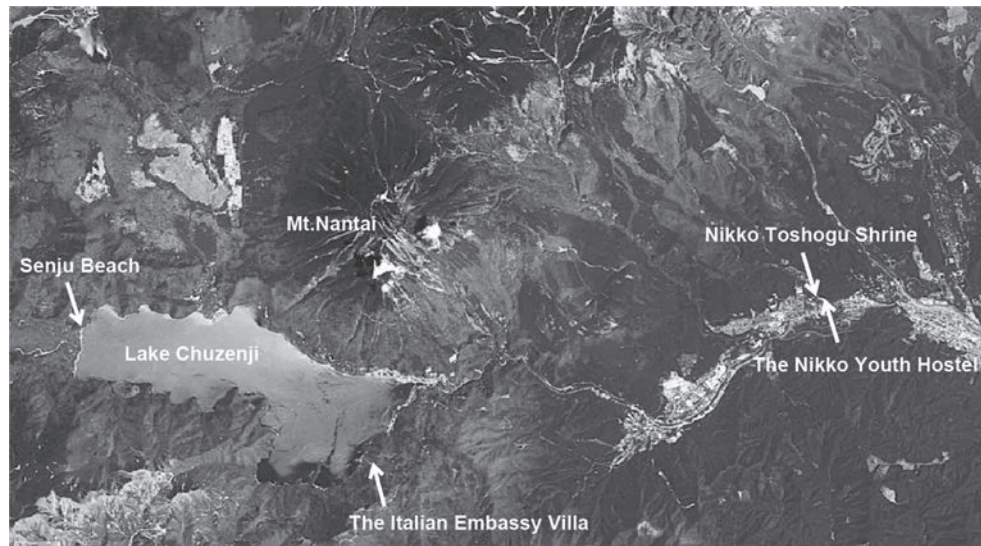


Fig. 3. Aerial photo of Nikko in 2007. © Geospatial Information Authority of Japan.

office in New York and is known for creating the representative forms of modernist architecture. This paper argues that American culture was transplanted to Nikko through the construction and use of the NYH, and suggests that it thus contributed to the emergence of a heavily Americanised modernist movement in Japan in the 1950s and 1960s.

This paper explores international tourist culture's influence on Nikko and the NYH's position as an icon of the modernist movement in post-war Japan in the following three stages. First, it describes how Nikko's architectural value became a marker of its cultural heritage during the Meiji Restoration. Next, it describes the cultural significance of the NYH — specifically, how Nikko's architecture in the pre-war period was strongly influenced by European and American architecture after World War II. Finally, it examines Nikko's value as a piece of Japan's cultural heritage and reflects on the relationship between the NYH, international tourist culture, and cultural heritage in the Japanese context.

2. NINETEENTH-CENTURY INTERNATIONAL TOURIST CULTURE AND THE EMERGENCE OF CULTURAL HERITAGE VALUES

2.1. The Expansion of International Tourist Culture in Nikko

Before the advent of railways, the journey between Tokyo (Japan's capital city) and Nikko took three days. This meant that few foreigners visited Nikko in the early modern period when Nikko prospered as a sacred site of Shinto and Buddhist worship. During the Meiji Restoration, the tendency to promote Shintoism devastated the area⁵, and diplomats and other foreigners came to discover Nikko's architecture and natural beauty. Furthermore, Nikko's beauty became public knowledge. Japanese primary education praised Nikko Toshogu Shrine as a 'magnificent building'.⁶

In 1885, a railway line opened between Omiya and Utsunomiya. Five years later, another line opened between Utsunomiya and Nikko. These railways enabled day trips from Tokyo to Nikko. As a result, Nikko began to attract a remarkable number of foreign tourists as they tended to avoid secularised cities⁷, leading to the development of accommodation facilities, including luxury villas, for foreign tourists visiting Nikko. The Japanese public held contrary attitudes on the value of the Nikko Toshogu Shrine. On the one hand, Tenshin Okakura's 1890 lecture 'The History of Japanese Art' criticised the shrine's gaudiness; on the other hand, the shrine was still held up as an example of Japanese and natural beauty in public education.⁸

A distinct international tourist culture began to take shape in Nikko after 1907. The following year, the Nikko Toshogu Shrine was designated as an old national treasure. After Nikko's electric railway opened in 1910, it became standard practice for wealthy foreigners to live at Lake Chuzenji throughout the summer. According to the opinion of the prefectural assembly of 1906, Nikko was recognised not only as the beauty of Nikko but also as the beauty of the Orient, but the state only protected some of the buildings and the whole landscape was neglected and devastated.⁹ The presence of tourists reformed the state's conception of the land itself; in 1911, a petition circulated aiming to turn all of Nikko and the area around Lake Chuzenji into a national park.¹⁰

2.2. Changes in Perceptions of Nikko as an International Tourist Destination

Next, we will examine the role of a famous guidebook for foreign tourists on Nikko's recognition as an international tourist destination. The book 'A Handbook for travellers in Central and Northern Japan' was written by Ernest Satow, a

British diplomat and published in London in 1881 and revised in nine editions up until 1913. Satow described the characteristics of the Yomei-mon, the gate built to deify Shogun Tokugawa Ieyasu, which is covered with very colourful carvings and ink paintings. In contrast, Satow describes the Shogun Iemitsu's mausoleum, the staircase leading up to it, with the colourful natural surroundings as "This vignette is the gem of the place, and would alone be worth the trouble of a journey hither".¹¹ Here, the author focuses on not just describing the buildings themselves, but on how the buildings are in harmony with nature and the surrounding landscape. Furthermore, in the fifth edition of the 'Handbook' (1899), the buildings are described as positively "gorgeous".

Different editions of the 'Handbook' have perceived Lake Chuzenji and the surrounding amenities differently. For instance, the second edition of the 'Handbook' (1884) recommends Chuzenji as a summer resort, indicating that its fame had increased. In its third edition (1891), the author praised the combined charm of "the beauties of art and nature". In the 5th edition (1899), the author romantically described the charm of the azalea and wisteria flowers in spring, and the footpaths along the Senju beach. Although Mt. Nantai had been off-limits to women since ancient times, the ninth edition of the 'Handbook' (1913) stated that "ladies can go up [to Mt. Nantai], provided they do not pass through the main gate". This indicates that the religious restrictions on tourists' activities were relaxed over time.

Foreign tourists rediscovered the charm of Nikko's architectural complexes, which had been devastated by the Meiji Restoration, and its integration with nature. With the development of international tourist culture, Nikko's attractions diversified, and the sacred sites around Lake Chuzenji were also turned into tourist attractions.

2.3. Fostering International Tourist culture and Developing Systems of Cultural Property

The architecture of Nikko was criticised by scholars such as Okakura Tenshin.¹² As international tourism developed, there was a movement to protect the landscape and the architecture of Nikko, and in 1911 a petition was made to make Nikko a national park.¹³ This is due to the fact that even in places such as Nikko that have been sacred since ancient times, foreigners have rediscovered their charm as an integral part of nature, which has diversified the appeal of Nikko and broadened its recognition as a tourist destination.

Nikko was made a park by the National Park Law of 1931. It was one of Japan's first designated parks. Tsuyoshi Tamura, well-regarded as the father of national parks in Japan, states in his book 'Kokuritsu Koen Kowa (Lecture on National Park)' that this petition and a similar one to establish Meiji Memorial Park led the national government to consider creating a national park system. Nikko is therefore a pioneering example of the protection of cultural heritage in Japan, and this impulse to protect such heritage has been nurtured by the Japanese culture of international tourism.

3. POST-WAR INTERNATIONAL TOURIST CULTURE AND MODERNISM IN NIKKO

3.1. Why was the Nikko Youth Hostel Born?

Before the war, the shores of Lake Chuzenji were home to luxurious villas which formed a base for wealthy foreigners. Some of these homes ended up becoming embassies and places of diplomacy. For instance, Ernest Satow's private villa, built in 1896, became the property of the British Embassy from 1900. In 1909, the French Embassy bought the villa from Aoki Shuzo, a Japanese diplomat and built the Belgian and Italian embassies' villas on the property in 1928. The Italian Embassy Villa was designed by Antonin Raymond. The building, with its cedar bark exterior and its blend of Japanese and Western styles, realises Raymond's design philosophy of "harmony between the inside and outside of the building and the surrounding environment".¹⁴ In short, Nikko had a strong sense of status for some of the upper classes, based on European culture.

The number of visitors to Nikko National Park rose sharply following World War II, from around 1 million visitors in 1940 to 4.15 million in 1957.¹⁵ The 1959 decision to hold the 1964 Summer Olympic Games in Tokyo increased the number of foreign tourists in Japan, and international tourism in Nikko became more popular as the city attracted many day-trippers.

The youth hostel movement was based on the *Wandervogel* movement, a youth movement that arose in Germany during the rapid modernisation of the late 19th and early 20th centuries. They were a reaction against the vulgarity and frivolity of bourgeois life, and the young participants were reacting against the blind inheritance of tradition by their parents, and seeking a return to the purity of nature.¹⁶ In 1932 the International Federation of Youth Hostels was founded in Amsterdam, in 1951 the Japan Youth Hostel Association was founded, and in 1954 it became a member of the International Federation of Youth Hostels. In 1958 the government subsidised the construction of eight youth hostels, including the NYH.¹⁷

Why was the NYH one of the first youth hostels to be built in Japan? The evidence suggests that this was due to the pre-war development of an international tourist culture in Nikko, and the pioneering introduction of the idea of a national park in Nikko.

The world's first national park was Yellowstone National Park, which was created in the USA in 1872. National parks have been established in many countries since then, but they all share the same democratic idea that parks should be for the benefit of all the people, rather than being the property of royalty, aristocracy, and the privileged.¹⁸ There is an affinity between the youth hostel movement and the national park system in Japan in the democratic character of the system, which seeks in the purity of nature the independence of a people forced to live in the midst of rapid social change.

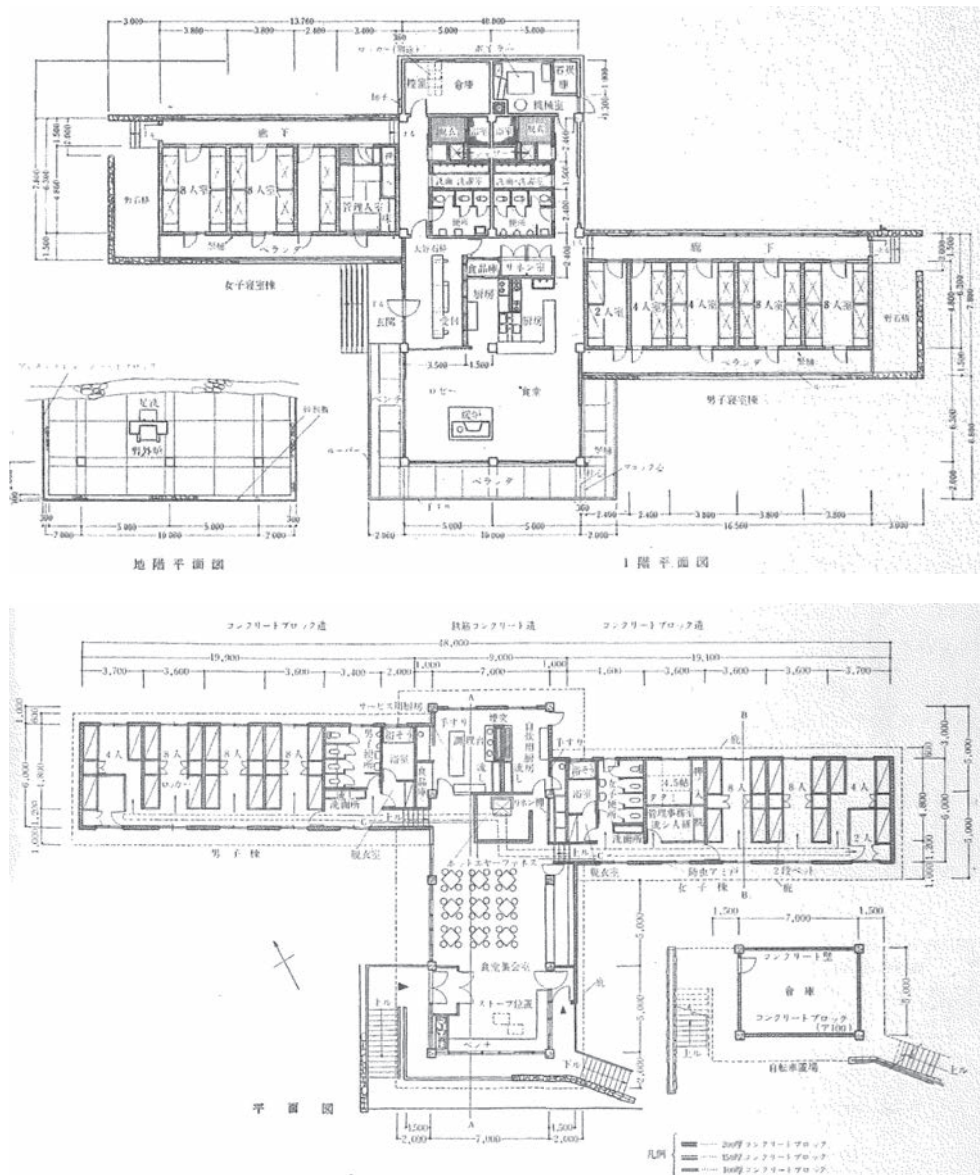


Fig. 4. Plan of the Nikko Youth Hostel and the Haruna Kogen Youth Hostel.
© Shokokusha, 1960.

Nikko was one of the first places in Japan to adopt the national park system as part of the pre-war international tourist culture. With the introduction of the American and democratic concept of national parks, the meaning of national property was fostered. The pre-war international tourist culture may have provided the cultural ground for the post-war youth hostel movement, which had a strong affinity with the national park system. We can consider that this is how the NYH was born.

3.2. Nikko Youth Hostel as a Prototype of Japanese Youth Hostel Architecture

The NYH's designer, Yoshinobu Ashihara, studied under

Marcel Breuer after receiving his master's degree from Harvard University in 1953. In 1956, he opened the Ashihara Architectural Design Institute and taught at the University of Tokyo, and other institutions later. He is best known as the designer of the Komazawa Olympic Park General Sports Ground Gymnasium, which was used in the 1964 Olympics. The plan of the NYH emphasises horizontal lines and uses techniques such as placing a cantilever in the south lobby of the common area and employing movable horizontal wooden louvers on the cobbled veranda on the south side of the bedrooms, which can also be seen in Breuer's houses.

In the 'Design of Nikko Youth Hostel' written by Yoshinobu Ashihara, Architectural Institute, the hostel is described

as “the first project of its kind in Japan, at a time when the Japanese youth hostel movement was not yet well established. This was a great responsibility for the youth hostel movement in Japan and we wanted Nikko to be a prototype.”¹⁹ How the NYH became a prototype can be seen by comparing it with the Haruna Kogen Youth Hostel designed in 1960 (Fig. 4). The public and administrative areas are at the heart of the hostel, with separate private areas for men and women on either side. This is in line with youth hostel planning, which is based on the separation of men and women in private spaces. The NYH became the prototype for youth hostel architecture in Japan, and the construction of youth hostels throughout the country contributed to the modernisation of Japan based on American culture.

4. CONCLUSION: THE VALUE OF NIKKO'S CULTURAL HERITAGE AND THE ROLE PLAYED BY NIKKO YOUTH HOSTEL

This paper has suggested that foreigners' diverse perceptions of Nikko's attractiveness as a tourist destination, the city's architectural and natural beauty, and the (ongoing) popularity of Nikko's sacred sites may be one of the reasons why Nikko is protected and valued as a cultural heritage site. Even though Nikko was one of the first places in Japan to intentionally protect both buildings and landscapes, it has been designated a World Heritage Site because of its religious architecture. This paper hopes to generate discussion about how we should evaluate the cultural heritage of sites like Nikko holistically and consider the role of places like the Chuzenji lakeside and phenomena like international tourism when identifying important cultural sites.

In short, Nikko city and Lake Chuzenji were the sites of a (mainly European) international tourist culture from the Meiji Restoration to World War II. After the war, the introduction of the American and democratic concept of national parks has fostered a momentum for the protection of Nikko's nature and architecture as an integral part of the national common property. The NYH was a prototype of Japanese youth hostel architecture and has helped to spread American culture throughout Japan. I hope that my research will help to position NYH as an icon of the modernist movement, as an architecture that bridged the pre-war European culture of international tourism to the post-war American culture of modernisation.

NOTES

- 1 Yoshitake Doi, *The Sacred in Architecture: Region and Modern Architecture as a History of Ideas*, University of Tokyo Press, 2020, 1–3.
- 2 Syoji Uchida, *Toshogu no Kindai Toshi to shite no Yomeimon (Modernity of Toshogu: Yomeimon as a city)*, Perikansha, 2009, 41–42.
- 3 Tochigi Prefecture, *Kokusai Hishochi Chuzenji Kohan no Kiroku (International Summer Resort — Chuzenji Lakeside Records)*, Tochigi Prefecture, 2016, 39.
- 4 Junichi Teshima, *Kankochi Nikko sono Seibi Jyujitsu no Rekisi (Nikko, A tourist destination: The history of its development)*, Zuisosha, 2016, 231.
- 5 Syoji Uchida, 2009, *Ibid.*, 39–41.
- 6 Syoji Uchida, 2009, *Ibid.*, 60.

- 7 Motoko Nose, “A study on the process of tourist destination development in Nikko and Hakone: focusing on the differences in tourism resources, transport environment and use of early foreign visitors”, *Toyo University Graduate School Bulletin*, 45, 31–56, 2008.
- 8 Syoji Uchida, 2009, *Ibid.*, 69–84.
- 9 Junichi Teshima, *Nikko no Hukeichi Keikaku to sono Hensen (Nikko's Landscape Planning and its Transition)*, Zuisosha, 2006, 55.
- 10 Junichi Teshima, 2006, *Ibid.*, 54.
- 11 Ernest Mason Satow & Lieutenant A. G. S. Hawes, *A Handbook for Travellers in Central & Northern Japan*, John Murray, 1884, 450.
- 12 Syoji Uchida, 2009, *Ibid.*, 69.
- 13 Junichi Teshima, 2006, *Ibid.*, 54.
- 14 Tochigi Prefecture, 2016, *Ibid.*, 39.
- 15 Junichi Teshima, 2006, *Ibid.*, 55.
- 16 Ohchi Nakamura, “The Changes of world Youth Hostel movement”, *Aichi Institute of Technology Bulletin*, 5, 33–42, 1970.
- 17 Architectural Institute of Japan, *Youth Hostel*, Shokokusha, 1960, 42.
- 18 Motoko Oyadomari, *Sekai no Kokutitsu Koen no Seiryusu Katei ni tsuite (How the world's national parks were formed)*, Shinirin-Kagaku, 53, 2008, 9–13.
- 19 Architectural Institute of Japan, 1960, *Ibid.*, 100.

9

METABOLISM
RECONSIDERED

Session 9-a

METABOLISM FROM THE PERSPECTIVE OF HUMANISM AND CONTEXTUALISM

Kengo Hayashi

Associate Professor, the IIS, the University of Tokyo

How Metabolism should be rightly evaluated from the perspectives of humanism and contextualism? At the World Design Conference held in Tokyo in 1960, the Metabolists suggested an urban model with an ecological motif in which buildings could flexibly respond to social changes and won the architects' empathetic endorsement around the world. On the other hand, their work has often been criticized for going beyond the human scale and being detached from the local environment and culture. In this session, we would like to reconsider such criticism for Metabolism.

This session consists of three papers: two that explore works of Japanese Metabolists and one that examines European architecture related to Metabolism.

Casey MACK's paper, *Transformation and the Motomachi Apartments* looks into how the Motomachi Apartments designed between 1968 and 1978 by Masato Otaka, one of the leading Japanese Metabolists, relates to the local environment and history of Hiroshima. This architectural project aimed to resettle residents of the A-Bom slum formed after World War II in the Motomachi area, north of Hiroshima Peace Memorial Park designed by Kenzo Tange. Motomachi Apartment was to replace the slum with high-rise apartments with enriched public space. Although the project is sometimes perceived as destructive slum clearance, this paper clarifies that its design considers the negative memory of the atomic bombing of Hiroshima and never neglected the history and environment of this area.

George Thomas Kapelos' paper, *Proto-Metabolism - Japan and Toronto's 1958 City Hall Competition*, compares the works of 28 Japanese architects who took part in Toronto's 1958 City Hall competition. The competition in which more than 500 participants from 42 countries included Kenzo Tange and the Japanese Metabolists of his generation, older and younger. This paper compares and contrasts their works proposed under the same conditions to reveal the unique-

ness and similarities of the Metabolists. The archival materials of this competition, which have rarely been examined, place the Metabolists in a relative position among Japanese architects at that time and allow us to understand the trends in the city hall design in the architectural world of the 1950s.

Ana Tostões' paper, *The Metabolist impact on healthcare buildings: Uniklinikum, the university hospital of Aachen, Germany*, points out that Uniklinikum, a huge hospital building in Germany, has an affinity with the Metabolist theory, especially Fumihiko Maki's theory of collective form. In fact, the hospital designed by Weber, Brand & Partner in 1968, was constructed progressively over 17 years, just like the Metabolist theory. In addition, this paper argues that the hospital designed with its ecological motifs was not only able to respond to social changes and technological developments in medical equipment but also to create a human-scale and pleasurable space for patients, doctors, and other users. Thus, this hospital exemplifies that Metabolist theory can achieve growing architecture and cities as humanist architecture.

The Metabolist theory proposed to respond to social changes through gradual architectural changes rather than scrap-and-build. This theory is an influential concept in an age where global environmental problems are becoming more severe, and sustainable consumption and production are required. However, unless buildings based on Metabolism are connected to the local history and culture and not loved by the citizens, they cannot be sustainable. Although not all of the Metabolist architecture has met these conditions so far, we can learn from history that it is not impossible to achieve.



THE METABOLIST IMPACT ON HEALTHCARE BUILDINGS. *UNIKLINIKUM*, THE UNIVERSITY HOSPITAL OF AACHEN, GERMANY

Ana Tostões

Chair of docomomo International; Full Professor Técnico-University of Lisbon; Av. Rovisco Pais, 1, 1049-001 Lisboa, Portugal; ana.tostoes@tecnico.ulisboa.pt

ABSTRACT.

Modern medicine requires buildings that are both high-tech but human in scale. Hospitals are among the most complex buildings in terms of design and construction, as they have to handle a multiplicity of intensive servicing needs. The aim of this paper considers the extent to which the biological metaphor of Metabolism was used to incorporate flexibility into these facilities. Using the *Uniklinikum* of the Aachen Medicine Faculty (1968–1988) as a case study, this paper argues that the rigor of its design formed the basis of its success, not just as a hospital or machine for dispensing healthcare, but also as a teaching and research facility, and a place conducive to an optimistic outlook. By standing the test of time, this megastructure is proof that a technologically and spatially innovative health facility can be effective in fighting illness, even in a pandemic. It is argued here that the architectural concept of the *Uniklinikum* incorporated ideas developed by the Metabolist movement, whose megastructures and cells derived from Maki's theory of "collective form". The Metabolists' faith in the key role of organic architecture in transforming the social structure of the city and society can be found in the implicit biological metaphor of the *Uniklinikum* megastructure. It was evident in its human scale, comfortable environment, and friendly atmosphere and, therefore, represented a radical new paradigm for the design of healthcare facilities.

1. THE UNIKLINIKUM AACHEN AND THE UNIVERSAL SPREAD OF METABOLIST IDEAS

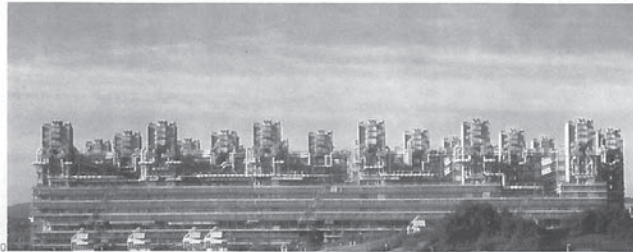
The Metabolism Manifesto was a theoretical proposal for an architecture and urbanism capable of growing and changing.¹ Published in 1960, during the World Design Conference (WoDeCo) held in Tokyo in 1960,² its great revolutionary idea was that, rather than being immutable machines, architecture and cities should be organic, and grow through metabolic processes of change and renewal.³

One of these was the *Uniklinikum Aachen* (UKA) — more exactly *Universitätsklinikum Aachen* — the university hospital of the city of Aachen in Germany. It formed part of the *Rheinisch-Westfälische Technische Hochschule Aachen* (RWTH), which included not just the hospital, but the whole medical faculty (Fig. 1). Conceived as a building complex by the architects Weber, Brand & Partner⁴ in 1968, it became a classified historical monument in 2008, as the "most important testimony of high-tech architecture in Germany". I contend that its designers were also influenced by the Japanese Metabolism movement and its seeking to produce an architecture inspired by living organisms. Envisaged as a continuously adaptable infrastructure, it was conceived as an architectural system of interchangeable and growing cells, embodying the evolutionary characteristics of a natural system. The concept of flexibility, based on a modular structure, was crucial to ensuring the building had a "biological" lifetime, and pervaded the UKA, not just as a hospital, but also as a machine for teaching and research. Furthermore, beyond its functional capability, and despite its huge scale, the hospital still managed to provide spaces with a human scale, a comfortable environment, and a sometimes playful atmosphere, while retaining spatial adaptability to respond

to the constantly evolving scientific and technological requirements of modern health facilities.

With its 130,000m², the UKA megastructure had the remarkable appearance of a "collective form", a concept Fumihiko Maki's (1928–) first expressed in 1964.⁵ Arguably, the connection between technology and human life derived from the debate that followed the WoDeCo, the search for a "total Image for the 20th century" pursued by designers, architects and planners around the world, and from opinions and intellectual ideas about the future of the city, particularly in the wake of technological and scientific advances in industry. At this time, various progressive architects formed the Metabolism group and put forward new ideas for dealing with the increasing complexity of cities. They discussed the ideal city, and promoted a kind of experimental architecture based on ideas of life-style and communities for a new era. The group's biological name⁶ suggested that buildings and cities should be designed to emulate the organic propagation of a natural organism's material substance, adapting to its environment through a succession of rapid changes in its form. As Fumihiko Maki argued, searching for new formal concepts in contemporary cities was warranted by the magnitude of recent changes triggered by the unprecedentedly rapid and extensive transformations in the physical structure of society, the speed of communication, and by technological progress and its impact on regional cultures: "we must see our society as a dynamic field of interrelated forces, a dynamic equilibrium (...) which will change in character as time passes."⁷ Redefining collectivity implied that elements and linkages should be designed with their context in mind. The discussions of CIAM in the post-war period, under the scope of Team 10, led to a heightened social and public ambition to develop strategic tools for making the physical

10, whole mighty megastructure crowned by its towers seen from the north with air-inlet pavilions in foreground.



key

- A, air intakes
- B, upper levels have wards in outer wings and examination and treatment towards centre
- C, circulation and waiting
- D, dentistry
- E, examination and research level
- F, theoretical medicine
- G, lecture rooms
- H, escalators to maximize circulation from main circulation level
- J, main circulation level expressed as open gallery to outside
- K, small cafeteria
- L, central library
- M, examination and treatment
- N, 2 bed wards
- O, rooftop court between wards opening views to countryside
- P, gynaecology and maternity
- R, regeneration
- S, main entry under glass canopy
- T, ambulance entry below main entry
- U, physiotherapy swimming pool
- V, radiotherapy bunker (sited in front)
- W, student entry below glass canopy
- X, x-rays

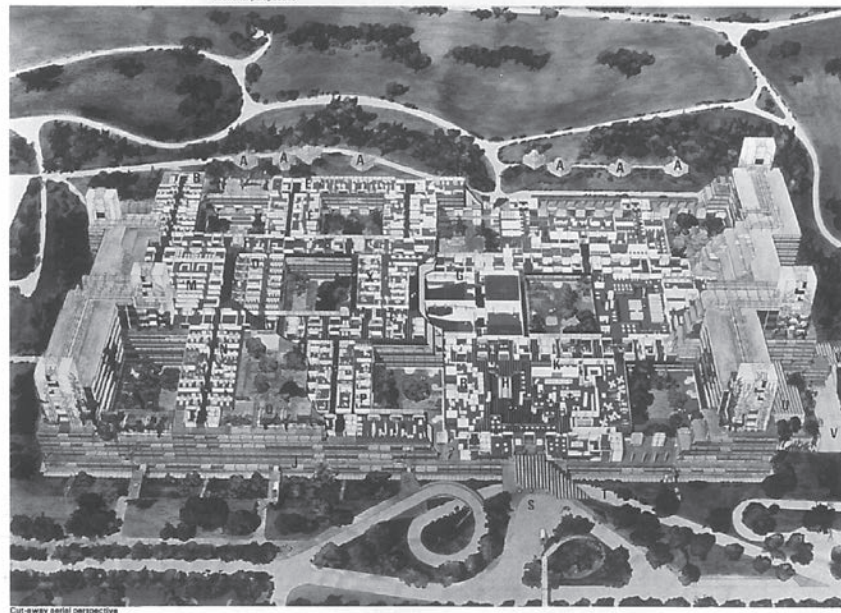
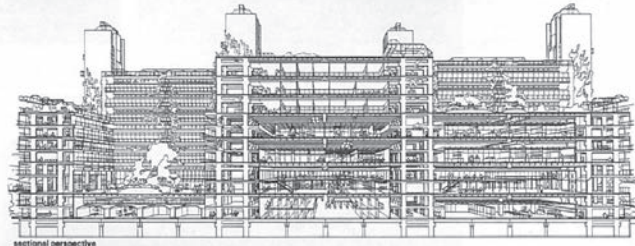


Fig. 1. Weber, Brand & Partner, *Uniklinikum Aachen*, Aachen, Germany, 1968–1985, exterior view, section and aerial view with services location. © *The Architectural Review*, Vol. CLXXX, No. 1076, October 1986.

environment. Unlike the more rigid structure of Team 10, the Metabolists believed that their movement's form should also be organic and its members free, while retaining the group's philosophical cohesion.

2. THE MIGHTIEST HOSPITAL MEGASTRUCTURE LIKE A CITY IN MICROCOSM

When it opened to the public, the *Uniklinikum Aachen* was considered one of the mightiest megastructures yet built.⁸ Nowadays, it stands as a monument to the 1960s' faith in technology and humanity, a physical realization of the ideals that once fired those mega-structural dreams and drawings (Fig. 2).

The hospital complex is composed of two complementary volumes⁹: a two-storey service or "servant" component building (95m long by 131m wide) containing all the facilities (kitchen, laundry, pharmacy, archive, and storage) and the megastructure clinic building (256m long by 134 m wide), with 13 stories (ten above and three below ground), with a total floor area of 130,000m². An extraordinarily wide tunnel (80m long by 30m wide), with an automated goods transport system — like something out of science fiction — connects the two buildings.¹⁰ Below the technical level, of the uppermost basement floor, there is a 1.5m-high air-intake floor, to distribute outside air to the 24 air-conditioning units, one per vertical circulation tower (Fig. 3). In fact, the 24 precast, 54m-tall towers dominate the complex, distributed in four rows with



Fig. 2. Weber, Brand & Partner, *Uniklinikum Aachen*, Aachen, Germany, 1968–1985, exterior view. © Ana Tostões, 2019.



Fig. 3. Weber, Brand & Partner, *Uniklinikum Aachen*, Aachen, Germany, 1968–1985, circulation tower. © Ana Tostões, 2019.

six towers each, they not only house vertical circulations, but also ductwork in a kind of open-air service riser,¹¹ embracing with an attitude of unprecedented radicalism, some of the most creative ideals of brutalism and metabolism.

The structural approach was to employ a system of field and core zones on a basic 1.20m x 1.20m grid. In addition to the services, the elevators and fire stairs were also incorporated in the towers. According to Björn Schötten, the slip-formed, in-situ concrete cores provided structural stiffening for the entire system.¹² Deep courtyards organize the rational geometry, providing natural light to the interior and accommodating green landscaped courts that, together with the interior colour scheme (dominated by green and yellow, with orange and red for metal cladding, and silver for open components such as concrete columns), help brighten the interior experience (Fig. 4). A profusion of high-quality metal details — in railings, partitioning, light fittings, and ducts — along with the strong colours “draw attention away from the massive concrete structure and give a lively, almost fussy, busyness.”¹³

This agreeable environment was further ensured through the use of sound-absorbing surfaces, carefully designed to reduce noises that could disturb the hospital's peaceful atmosphere. In fact, the painstaking attention paid to enhancing the sensory experience was all the more remarkable when one realizes it was for a healthcare facility.

The overall external appearance of the complex resembled a massive fortress, transported into the future by means of colourful exposed ductwork and service runs in red, yellow and bare steel, along Brutalist lines that recalled Metabolist principles.¹⁴ According to Björn Schötten

the open-plan structure and the high degree of prefabrication of its components also brought many advantages. The building could be adapted to new requirements more easily than



Fig. 4. Weber, Brand & Partner, *Uniklinikum Aachen*, Aachen, Germany, 1968–1985, main entrance hall. © Ana Tostões, 2019.

usual. The technical floors allowed maintenance and modifications to be undertaken without disturbing clinical operations.¹⁵

Service runs and pipework were easily accessible and room layouts could be changed without affecting the main fabric of the building.

The building is a complex web of circulatory systems, both an organism and a machine. As mentioned by Peter Buchanan “because it is host to so many functions, users and encounters, it also achieves the mega structural ideal of being a city in microcosm, miniaturised and compacted and so greatly intensified.”¹⁶ Besides the ductwork to ensure the most demanding standards of ventilation and hygiene, there are separate plumbing circuits for water with different levels of purity and temperature, for laboratory and lavatory waste, and the different gases used in anaesthesia and intensive care, as well as cables for telecommunications, computer networks, and electricity at various voltages. According to Peter Buchanan “often, constant rearrangement or partitioning and equipment must be accommodated because of changing methods of treatment and high rate of obsolescence in one of the most rapidly evolving of all fields.”¹⁷ In addition to the inpatient wards and all the diagnostic and treatment facilities, there are lecture auditoriums, laboratories, a library for students and researchers, as well as cafeterias (Fig. 5) and other social facilities. One of the main virtues of the complex is its high level of operating efficiency. Having all these facilities under the same roof, “circulation routes for people are as carefully manipulated and shaped as service runs, not (...) just for efficiency but so

that the building is also a machine for stimulating social and educational encounter.”¹⁸

3. THE EMERGENCE OF A NEW HOSPITAL TYPOLOGY

In Weber, Brand & Partner’s lemma, regarding the university hospital project, superlatives abound when it come to the UKA project: they conceived the UKA as a “maximum care hospital.”¹⁹ On completion in 1985, after almost 14 years of construction, it had 1,585 beds; production costs totalled around 1.07 billion euros (excluding medical technology); and during the university semester, up to 13,000 people circulated in the building.²⁰

According to the architects, the concept was characterized by a strict separation of the technical building structure and the useable areas: wide-span reinforced concrete ceilings were hung from the 24 towers placed in displaced double rows, as “every use must be able to be met at any point of the structure with its own conditions”. The interior partitions could easily be dismantled, and other room layouts set up, which was not only an advantage for the necessary reconfiguration of areas, but also for regular changes such as the constant moving of devices weighing several tons, e.g., magnetic resonance tomography equipment.²¹

Since its construction, some necessary renovation and conversion work has been carried out. In 2010, major interventions in the two western ward areas were undertaken to designs by Wörner + Partner. The glass facades were completely removed and replaced with new aluminium-framed cladding with openable windows and elements for permanent ventilation, which unfortunately proved unsuccessful,



Fig. 5. Weber, Brand & Partner, *Uniklinikum Aachen*, Aachen, Germany, 1968–1985, staff restaurant. © Ana Tostões, 2019.

so air conditioning had to be subsequently re-installed in the patient rooms.²² External thermally insulated aluminium lamellas were incorporated into the facade. Closed blind panels were fitted in parts of the facade, significantly reducing energy use arising from heat losses in the winter and solar gain in the summer. These blank panels were located in the patient rooms where pass-through cabinets had formerly stood. A new inner courtyard created valuable additional areas of facade for natural lighting and ventilation. The existing internal access system remained unchanged throughout the renovation work and the new design concept was based on the building's existing material and colour scheme.²³

4. THE WORLD OF SCIENCE MEETS THE PATRIMONY OF THE AVANT-GARDE

Nowadays, with almost 6,600 rooms, the *Uniklinikum Aachen* is one of the largest hospitals in Germany. Every year around 48,000 inpatients are treated in its 33 specialist clinics. Its enormous size was a consequence of the decision to combine all the medical sub-disciplines as well as research and teaching in one building. This centralization allowed an economical use of all resources and enabled medical students to receive a patient-oriented education. Planned and built over 18 years (1968–1985) the immense construction project was managed by using what is known as a synchronous process, i.e., simultaneously designing and building. Its *Baukastensystem* [modular system] was heavily criticized for resembling a “refinery” when it was inaugurated, but it has permitted the building to undergo major interventions

and thereby accompany the evolution of medicine and enable healthcare to adapt to the changing times.²⁴

Exposing its building technology elements both inside and out, this huge building represented a symbol of modern technology, much like the Pompidou Centre (1971–1977) in Paris, and its significance for architectural history is further heightened by the fact that the clinic's designs predate the Pompidou Centre, which was the most famous high-tech building of the time. Based on Metabolist concepts, it aimed to address not only constructional concerns, but also the requirements of its users by means of the latest technical developments. In a demonstrative way, permanent elements, but also services, such as pipework, were made conspicuously visible to the viewer. More commonly used in the industrial sector, high-tech architecture was here used for a hospital, which was unique in the world. However, there is something in the hospital that recalls the Metabolist concepts of the 1960s. The building avoided the stylized and expensive refinements of British high-tech, and was thus closer to the expressionism of Brutalism and the concepts of Metabolism. Its architects were not driven by the utopian visions that inspired *Archigram*, but rather by a social sense of mission. As they stated, the building was to be appreciated “on an everyday, bread-and-butter level, not as a rarified *objet d'art*, but rather in the manner of a practical tool; not High-Tech but Real-Tech; not Sunday architecture but workaday architecture with boiler suit appeal.”²⁵ The aim was not just to be functional, but also to achieve a joyous environment, even in a hospital.

As Bruno Zevi argued, in this amazing healthcare facili-

ty “the world of science meets the patrimony of *avant-garde*.”²⁶ I believe that Bruno Zevi would have agreed on the important contribution made to it by Metabolism: because “there is no monotony, no oppressiveness, no meagreness of form in this fabulous and stupefying mechanism.”²⁷ According to him “the word ‘masterpiece’ is already being used to described it. The names of Alvar Aalto, Le Corbusier and Denys Lasdun are brought up.”²⁸ The remark is incisive, but one could add Kenzo Tange or other Japanese Metabolist architects to the list. For Bruno Zevi, these references were more relevant than a comparison with Renzo Piano and Richard Rogers’ Pompidou Centre, “because here [in the *Uniklinikum*] a personalised orchestration of space is dominant, something quite absent in the famous French example.”²⁹

Indeed, the mega structural ideal according to Manfredo Tafuri “summons up an entirely uncommon scale of design.”³⁰ Ken Tadashi Oshima notes that, while the *Archigram* group were proposing utopian megastructures, what made Kenzo Tange’s work particularly powerful was the fact that it was a positive protagonist for physical and social change.³¹

Megastructures, artificial ground, capsules, infrastructure, and built environment are some of the principal keywords informing architectural projects based on Metabolism. The UKA can be regarded as inheriting a Metabolist vision of a complex built in accordance with artificial ground and futuristic connections with the *avant-garde*, envisioning: prefabricated systems of construction, or robotic transportation devices, and understood as designing by using a small-scale module multiplied on a colossal scale — a megastructure. Aggregated together, this architecture becomes a city, and cities become society in a visible form, giving shape to the way that we live. Thus, architecture and cities are the largest-scale embodiment of visions of our way of life, and the largest form of art.

Today’s research into fundamental technologies for infrastructure, such as smart grids to efficiently supply energy, resilient communications networks, and new transportation systems, should consider what was achieved in the *Uniklinikum Aachen*. The image of giant cities based on a faith in science and technology can be considered symbolic of Modernism’s optimism and its linear vision of history’s *architecturalized* cities, or in other words, megastructures.

REFERENCES

- BUCHANAN, Peter, “Medical Megastructure — Medical Faculty, Technical University of Aachen, West Germany”, *The Architectural Review*, Vol. CLXXX, N. 1076, October 1986, 94–101.
- KASISKE, Michael, “Universitätsklinikum. Farbstudien”, *Bauwelt*, No. 26–27, July 2010, 12–19.
- KUNZ, Jürgen, TRÖGER, Paul, WEBER, Wolfgang, “Technical University of Aachen, New Medical Faculty Building”, *a+u*, N. 8603, 1986, 49–63.
- NEUE HEIMAT, “Im Dienste der Untersuchung, Forschung und Pflege: Medizinische Fakultät der Technischen Hochschule Aachen”, *Neue Heimat Monatshefte*, N. 9, 1972, 1–10.
- SCHÖTTEN, Björn (ed.), *Alles im grünen Bereich – Das Gebäude des Universitätsklinikums Aachen*, Aachen/Berlin, Geymüller Verlag für Architektur, 2020.
- SCHÖTTEN, Björn, “The Health-Factory or 50 Years of the Future. Visiting the Aachen University Hospital and Faculty building,” Ana Tostões, Daniela Arnaut, Paulo Providência (eds.), *Cure & Care. Architecture and Health*, Lisboa,

IST-ID, 2020.

Mori Art Museum, *Metabolism, the city of the future. Dreams and Visions of Reconstruction in Postwar and Present-Day Japan*, Tokyo, Mori Art Museum/Shinkenchiku-sha Co., 2011 [exhibition catalogue].

Mori Art Museum, *Japan in Architecture. Genealogies of its transformation*, Tokyo, Echelle-1/Mori Art Museum, 2018 [exhibition catalogue].

NOTES

- Zhongjie Lin, *Kenzo Tange and the Metabolist Movement. Urban Utopias of Modern Japan*, London, Routledge, 2010.
- Metabolists are representatives of the Japanese architectural style of Metabolism. Architects, designers, and urban planners met at the CIAM in 1959 and jointly planned their appearance at the WoDeCo in Tokyo in May 1960. The conference had 227 guests, 84 of whom were international, including the architects Louis Kahn, Ralph Erskine, B. V. Doshi, Jean Prouvé, Paul Rudolph and Peter and Alison Smithson. Japanese participants included Kunio Maekawa, Yoshinobu Ashihara and Kazuo Shinohara.
- Mori Art Museum, *Metabolism, the city of the future. Dreams and Visions of Reconstruction in Postwar and Present-Day Japan*, Tokyo, Mori Art Museum/Shinkenchiku-sha Co., 2011 [exhibition catalogue].
- The architect office Weber, Brand & Partner was founded by Peter Brand and Wolfgang Weber, at the beginning of the 1960s, initially together with their teacher Prof. Benno Schachner.
- Fumihiko Maki, “Investigations in Collective Form”, *The School of Architecture*, N. 2 — A Special Publication, St. Louis, Washington University, June 1964; Ana Tostões, “High Density and the Investigations in Collective Form”, *docomomo Journal*, N. 50 — “High Density”, Lisboa, docomomo International, 2014, 2–4.
- The name Metabolism is the translation identified by the group.
- Fumihiko Maki, op. cit.
- Peter Buchanan, “Medical Megastructure — Medical Faculty, Technical University of Aachen, West Germany”, *The Architectural Review*, Vol. CLXXX, No. 1076, October 1986, 94–101.
- Björn Schöten, “The Health-Factory or 50 Years of the Future. Visiting the Aachen University Hospital and Faculty building,” Ana Tostões, Daniela Arnaut, Paulo Providência (eds.), *Cure & Care. Architecture and Health*, Lisboa, IST-ID, 2020.
- “In addition to the entrance floor (level 0), the clinic building is composed as follows: floors -2 (emergency room, operating area, and gynaecology), +1 (administration), +3 and +5 (polyclinics) and floors +7 to +9 (wards) for patient care. Floors -3, -1, as well as +2, +4 and +6 are mainly services and technical floors, not accessible to the public. Some of the external facades have staff offices with reduced ceiling heights, so that the technical floors are not visible everywhere”, in Idem.
- See Louis Kahn, servant and served space theory based in the design of the Richardson Medical Center, Philadelphia.
- See Björn Schöten op. cit. For details of the static implementation see also Kuno Boll & Rolf Bauerochse, “Structural design of the main building of the RWTH Aachen medical faculty with special consideration of the ‘large span’”, *Beton und Stahlbetonbau*, No. 6, 1976, 149–156.
- Peter Buchanan, op. cit.
- As mentioned by Björn Schöten, “in April 1976, the entire ventilation system had to be redesigned. Triggered by an accident at the Hamburg Eppendorf Clinic in May 1971, which was caused by bacterial contamination of the air conditioning system, the DIN 1946 standard was revised in June 1974, leading to an increase in cross sections of ventilation ducts in air conditioning systems. Since the stair towers had not been designed for these new cross-sections, the ductwork then had to be partly installed outside the building envelope. This, together with the pipes needed for the additional heat recovery systems planned after the oil crisis of 1973, led to the building’s distinctive appearance.” Björn Schöten, op. cit.
- Idem.
- Peter Buchanan, op. cit.
- Idem.
- Idem.
- Free translation from Michael Kasiske, “Universitätsklinikum. Farbstudien”, *Bauwelt*, No. 26=27, July 2010, 12–19.
- Idem.
- Idem.
- Björn Schöten, op. cit.
- Free translation from Michael Kasiske, op. cit.
- Idem.
- Architects’ statement in Peter Buchanan, op. cit.
- Bruno Zevi, *L’Espresso*, July 1984.
- Idem.
- Idem.
- Idem.
- Manfredo Tafuri, & Francesco Dal Co, *Architettura Contemporanea*, Milano, Electa, 1976.
- Ken Tadashi Oshima, “Architecture of Japan”, Mori Art Museum, *Japan in Architecture. Genealogies of its transformation*, Tokyo, Echelle-1/Mori Art Museum, 2018 [exhibition catalogue].

TRANSFORMATION AND THE MOTOMACHI APARTMENTS

Casey Mack

Director, Popular Architecture; 98 4th Street, Suite 216, Brooklyn, NY 11231 USA; cmack@populararchitecture.com

ABSTRACT.

This paper will investigate the Motomachi Apartments in Hiroshima, designed by the Metabolist Masato Otaka. A masterpiece of Otaka's career, Motomachi offers a revised view on the Metabolist movement. Spanning from 1968 to 1978, the Motomachi commission had challenges typical and distinct within postwar mass housing, tasking Otaka with both making a place to live a better life and creating a memorial to the unprecedented horror of the city's atomic bombing in 1945. Drawing on the author's research and interviews, the paper will interpret the housing as meeting its challenges through engaging transformation both symbolically and operationally. Through these engagements, the project questions the usual impression of Metabolism's technical shortcomings and refutes the common Western criticism that the movement's work doesn't address history or specifics of site.

1. INTRODUCTION

An area in Hiroshima close to the point of the American atom bomb's detonation on August 6, 1945 was until the 1970s home to around 3,000 people living in shacks. Known as the "A-Bomb Slum," this remnant of the "era of self-construction" that immediately followed the war's end was home to many *hibakusha*, the "explosion-suffering people" as survivors of the bomb are known.¹

Hiroshima struggled for reconstruction funds after the war, with the national government wary of recognizing the city's particular experience. The fear was that doing so would lead to financial claims from any destroyed city. Only after Hiroshima launched the idea of transforming itself into an "International City of Peace" did it gain support for lasting reconstruction work — achieved through a narrative wherein the atom bomb became a vehicle of peace, a view promoted by the American occupiers.² This thinking was partly based on a desire to bolster the city's tourism, turning itself into a kind of pilgrimage site.³ In 1949, Kenzo Tange won the competition for the master plan of the Hiroshima Peace Memorial Park, with his design establishing a grand north-south axis passing near ground zero of the blast in the city's centre. The plan inaugurated the design of Hiroshima's new identity.

Starting at the south at the Peace Memorial Museum, designed by Tange as a modern interpretation of an ancient granary, now to store relics and displays on the bombing, the axis acts as a sightline towards the north. It passes through the arch of the Cenotaph for the Atomic Bomb Victims, also designed by Tange, on to the preserved ruin of the "A-Bomb Dome," the Hiroshima Prefectural Industrial Promotion Hall that stands almost directly under where the bomb exploded. In 1950, Tange planned the axis to head further north, forming a spine for a new public park in the Motomachi district, between the grounds of Hiroshima Castle to the east and the Ota River to the west.

Hiroshima was experiencing at the time a desperate housing shortage like other Japanese cities. The Motomachi district was public property, and the government was able

to quickly build temporary housing in the area between 1946 and 1948. Illegal shacks soon grew between these barracks and the bank of the river, forming the A-Bomb Slum, which around 1970 reached a peak size of over 1,000 buildings.⁴ After the slum emerged, it became clear that evicting its residents for Tange's park was untenable. Finally, in 1968, an approximately 32-hectare area was selected for comprehensive redevelopment that would include the park and new housing for the slum residents and others, with the housing commission given to Masato Otaka, a member of the Metabolist movement that debuted in Tokyo in 1960.

The commission resulted in the Motomachi and Chojuen Apartments (Fig. 1). The Motomachi section of apartments, larger than the Chojuen section and the main focus of this paper, was completed in 1978. At the time, it was the tallest housing development ever built in Japan. Ranging from eight to twenty stories, clusters of towers use Metabolism's concept of "group form" to contain 2,945 apartments framing a central area with schools, a shopping centre, a hospital, a public bath, and playgrounds — features so often lacking in Japan's housing of the era.

All of this was delivered through Otaka's PAU methodology that guided his office from its beginning. An acronym for Prefabrication, Art and Architecture, and Urbanism, PAU manifested Otaka's desire to interrelate designing, making, and living through a reinvigorated modularity. Masaya Fujimoto, a longtime member of Otaka's office and one of the project architects for Motomachi and Chojuen, notes that PAU was always a "symbol for creating a new environment" as much as a practical approach.⁵ Yet the Hiroshima project was indeed an intense engagement with factory production resulting in a city within the city.

The inventor Buckminster Fuller coined the name "livin-gry" for the new postwar housing he hoped would be made by American factories that had been making weaponry.⁶ He saw such housing as universal, able to be deployed anywhere like the military aircraft made just before. Metabolism is commonly seen as universalist too, with a taste for additive structures indifferent to location, seen for example in unbuilt Metabolist designs by Kiyonori Kikutake and



Fig. 1. Masato Otaka, Motomachi Apartments, Hiroshima, Japan, 1988. © Hiroshima Municipal Archives.

Kisho Kurokawa. As the historian Cherie Wendelken writes, voicing an opinion of other Western critics, "Metabolist projects do not seem to acknowledge any siting in a local or national landscape, nor do they address any historical context."⁷

But Motomachi's siting is highly specific. It addresses context in a rebuke to the notion of *tabula rasa* in a city that had in fact been mostly erased. As we will see, what could be called Otaka's livingry creates a memorial to an unprecedented horror and makes a place to live a better life. These two achievements don't go easily together. They are combined through what can be interpreted as a theme of transformation that also requires transforming familiar perceptions of Metabolism, in a design that is one of the most successful realizations of the movement's goal of designing for different life cycles. Despite this, it is one of the group's most ignored projects, barely known at all.⁸

2. TECHNOLOGY TRANSFER

Otaka was project architect on Kunio Maekawa's landmark Harumi Apartments, completed in Tokyo in 1958, and for Hiroshima he returned to Harumi's "transitional" planning.⁹ This structural approach enabled adaptations in apartments as Japan transitioned from a situation of austerity to one of greater affluence. Describing the concept's reuse in Hiroshima, Fujimoto wrote in 1973 that "we conceived of [...] a main, permanent frame that will not alter with passing

time, and a subframe consisting of the housing units that can be altered to suit the changing needs and living patterns of the dwellers."¹⁰ Similar to Harumi, the main frame in Hiroshima takes all vertical and horizontal loads, and forms large voids two apartments in width and two in height. These voids are infilled by the subframe of apartments, which are either 2DK units on the level of single-loaded corridors, or 3K units above served off the corridors by stairs.

Unlike Harumi, Motomachi's main frame is steel. According to Fujimoto, its fabrication was a result of technology from the Kure Naval Arsenal. Located in the city of Kure in Hiroshima Prefecture, the shipyard was famous for the *Yamato*, the lead battleship of the Imperial Japanese Navy launched in 1940. The prowess of the Kure builders was such that, after the war, their steelwork methods were shared with various steel companies to boost their capabilities.¹¹

In the late 1960s, the Kure area still had many expert welders who provided the sophisticated factory production that was the P of PAU. For example, the box-columns defining the 9.9 by 9.9-metre planning module used throughout the design needed to support towers of varying height. The resulting variation in loading required different strengths of steel plate with different thicknesses. Potential complications from this were avoided through a naval technique of placing the different thickness to the inside of the hollow columns to create a uniform outside dimension, with automatic welding machines specially built to fuse the plates together.¹²

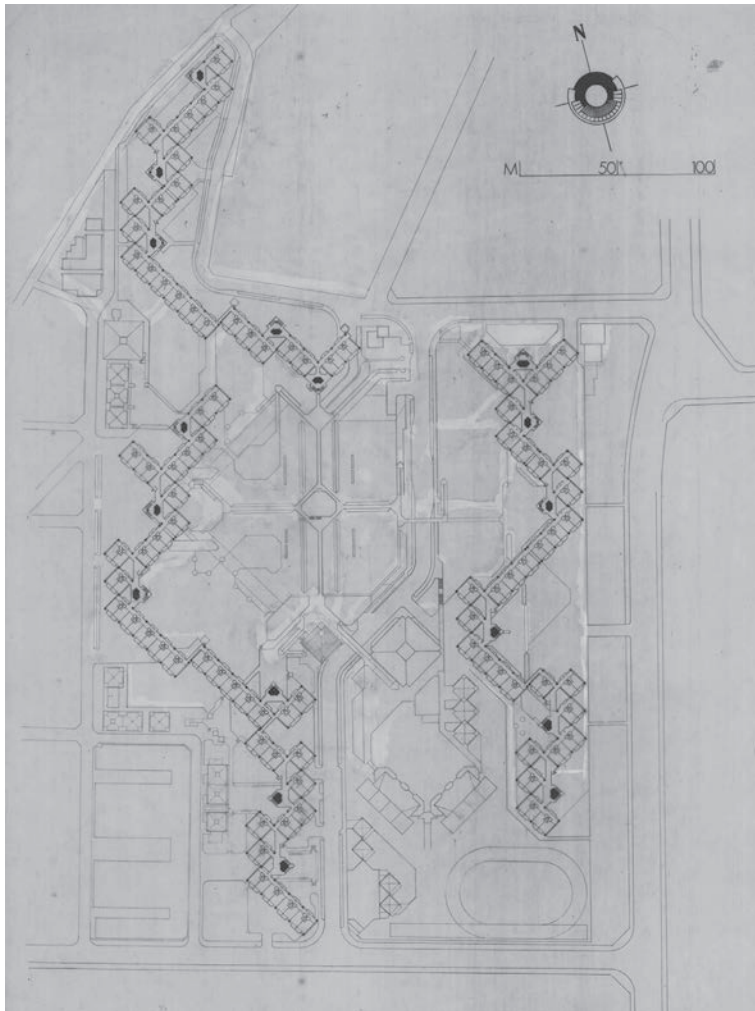


Fig. 2. Masato Otaka, Motomachi Apartments plan, Hiroshima, Japan, circa 1970. © National Archive of Modern Architecture.

Due to this transfer of technique, the *Yamato*, a pinnacle of imperial Japanese industry, can be seen as bookended by Motomachi, a project repurposing Kure's methods to mark the demise of that imperialism.

3. MASSING AS MEMORY

While its apartment designs were initially repetitious, Motomachi's overall massing is varied and responsive. This quality is made possible by the square plan modules, whose small size relative to the giant site allowed aggregations that appear three dimensionally as bundles of slender towers or stretches of slab, lower in height near the castle and to the south, and rising to the north and west, following the bend in the river. The massing's stepped, layered planes make a "flying geese" formation, a type of organization made iconic by the 17th century Katsura Imperial Villa in Kyoto, a native exemplar of the additive group form approach.

In 1965, the historian Teiji Itoh identified a new relationship to traditional architecture, one free of the superficial historical stylings seen at times in Japanese architecture in the 1950s. New work expressing this relationship connected traditional and modern planning through the creation of spatial order across the scales of architecture and city, achieved, as Itoh writes, by "setting symbolic grids with specific patterns" that "generate [...] space by implementing [...] components on them." He called the method "symbolic planning."¹³

Motomachi seems a demonstration of the idea. With the slender modular towers being Otaka's components, he places them on a planning grid rotated forty-five degrees from Tange's north-south axis (Fig. 2). The rotation and stepping allow the tower modules to pack into the site in a way that gives each apartment either a southeast or southwest exposure, providing good sun and shade. This is not a regularity expected by a site plan that at first glance looks chaotic. To



Fig. 3. Masato Otaka, Motomachi and Chojuen Apartments site plan, Hiroshima, Japan, circa 1970. © National Archive of Modern Architecture.

best use his two orientations, Otaka returned to Harumi's apartment layouts, with southerly facing plan areas having the main living space and services toward the north.

Flying-geese organization's multiple exposures of stepping rooms was traditionally a way to improve daylighting and ventilation. Perhaps with it in mind, Otaka and fellow Metabolist Fumihiko Maki write in their famous essay "Collective Form" that the geometry of a group-form element is "meaningless" unless derived from "environmental needs."¹⁴ Otaka's grouped towers are indeed environmental through their orientation, but they also show a memorial intention that connects to environment in terms of memory. For by facing all of the apartments in a southerly direction, they all face into the heart of the city — thereby overlooking the core of Hiroshima's destruction and also its rebirth as a city of peace.

This particular memorial interpretation may be only a byproduct of pragmatic solar planning and not Otaka's intent. However, prior to Otaka's design, the memorial use of view direction was already established by Tange's sightline aimed toward the A-Bomb Dome. Further, it is critical to note that the sightline axis runs through the dome and ends in the central space framed by Otaka's housing, making the

rising form of Motomachi the northern anchor to the low Peace Museum anchoring the south. Together with the dome, they create a memorial ensemble. While the museum houses artifacts of the dead, Motomachi houses the living. Seen in this way, juxtaposed with the museum and dome, Otaka's project is remarkably a symbol of life and a place to live (Fig. 3).

4. TRANSITION

Fujimoto writes that the project "is not an apartment building; it is a multilevel street, which must be designed so as to produce a mass resulting from ordered public spaces."¹⁵ The architect Paul Adam Staniland has documented this order, showing how Motomachi's plan is broken into zones formed by groupings of the tower modules, with each of these zones being a residents' association. With seventeen in total, these associations take responsibility for cleaning, informal policing, and tending to the section of roof garden capping each neighbourhood, with these gardens linked together as promenades looking over the city.¹⁶ There is a direct relation between group form and the form of groups. As of 2010 or so, some of the long-time residents worry that co-

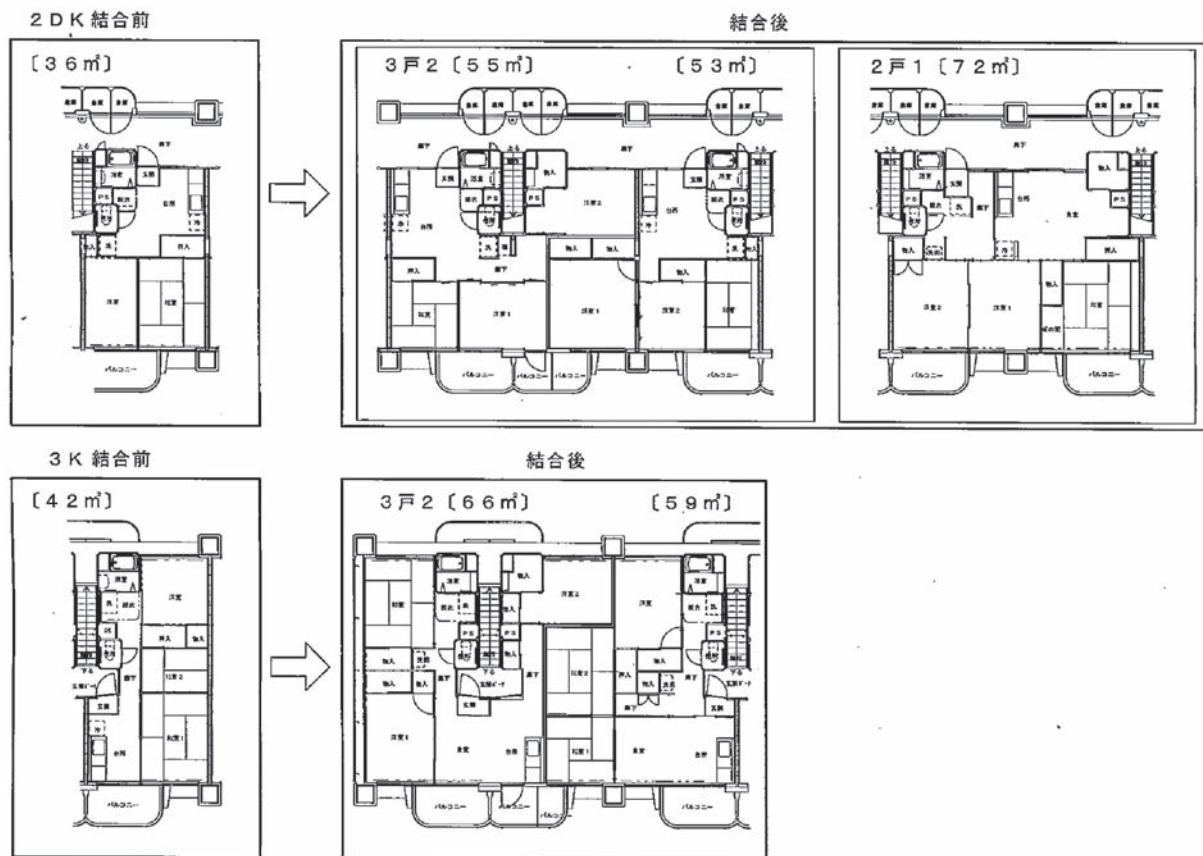


Fig. 4. Motomachi Apartments, renovation diagram of planned enlargements, circa 2000. © Hiroshima Housing Authority.

hesion of the neighbourhoods is weakening. The apartments are apparently popular with Chinese students, and alliances and customs are changing.¹⁷

Another challenge at the project, as throughout Japan, is the aging of the population. As of 2017, almost 28 percent of the country was over 65, and by 2060 it's projected to be almost 40 percent.¹⁸ The elderly population at Motomachi as of 2010 was almost one out of two people.¹⁹ This demographic has difficulty with the stairs used for accessing half of the units. Competition for corridor-level apartments is strong, and elderly residents now need a note from their physician to have priority for these units.²⁰

Fuller believed livingry should be on a rental basis to better facilitate systematic renovation with updated technology.²¹ In a similarly comprehensive fashion, a vast renovation of Motomachi was initiated in 2000 by the Hiroshima Housing Authority (HHA), the project's owner and operator.²² The city's younger residents have seen the housing as outdated, and the HHA hopes to make the project appealing to new generations and better help the elderly. With completion aimed for 2020, the renovation is planned to be in service until close to 2050. The work has ranged from asbestos

removal, to the updating of bathrooms and kitchens, to the infill being altered to make bigger units — just as Otaka planned — with original 36 and 42m² units now combined to range from 53 to 72 (Fig. 4). While the square module of main frame originally bound two units, demising walls now slip past the large box-columns into adjoining modules, making units grow through interlocking.

The HHA has found these changes less easy to make than might be imagined. Socially, enlarging units required negotiating relocation with the existing residents to allow the work to be performed.²³ Technically, in earlier phases of the original construction, precast bathrooms were installed and then fixed in place by the concrete floor slabs that were poured on site, making these units difficult to change. Fujimoto notes that this sequence was improved in subsequent phases, rationalized so that precast parts came in after floors were poured, simplifying installation and easing changes, thereby improving what must be called the design's metabolism.²⁴

Otaka's PAU approach in Hiroshima produced a flexible system for engaging the space of the site that also has supported flexibility in time in the space of apartments. The de-

sign's adoptions, however imperfectly and modestly, indicate the value of Metabolism's life-cycle planning, a value hopefully to be substantiated by the quality of life new generations can find at Motomachi. Located in a city that cannot be disassociated from destruction and rebirth, transformation constitutes Otaka's design as both symbol and ongoing operation.

NOTES

- 1 Yuki Tanaka, "Photographer Fukushima Kikujiro — Confronting Images of Atomic Bomb Survivors", *The Asia-Pacific Journal* Vol. 9, issue 43, No. 4, October 24, 2011, accessed on July 7, 2021, <http://japanfocus.org/-Yuki-TANAKA/3623>; "Era of self-construction", Noboru Kawazoe, *Contemporary Japanese Architecture*, Tokyo, The Japan Foundation, 1973, 38.
- 2 Ran Zwigenberg, *Hiroshima: The Origins of Global Memory Culture*, Cambridge, Cambridge University Press, 2014, 3; Robert Jay Lifton, *Death in Life: Survivors of Hiroshima* [1968], Chapel Hill, NC: The University of North Carolina Press, 1991, 271.
- 3 Zwigenberg, *Hiroshima*, 42.
- 4 Yoshifumi Fukushima, "Redevelopment of the Motomachi district," [1995], accessed on July 7, 2021, <http://www.hiroshimapeacemedia.jp/?p=27437>.
- 5 Masaya Fujimoto, "Architect Otaka Masato's Messages for the Next Generation of Youths," *PAU: Uniting Architecture and Society — The Approach of OTAKA Masato*, Tokyo: National Archives of Modern Architecture, 2016, 4.
- 6 Richard Buckminster Fuller, *Ideas and Integrity: A Spontaneous Autobiographical Disclosure* [1963], New York, NY: Collier, 1974, 196.
- 7 Cherie Wendelken, "Putting Metabolism Back in Place: The Making of a Radically Decontextualized Architecture in Japan," *Anxious Modernisms*, eds. Sarah Williams Goldhagen & Réjean Legault, Cambridge, MA: The MIT Press, 2001, 280.
- 8 For example, "Motomachi and Chojuen make no appearance" in Zhonjie Lin's *Kenzo Tange and the Metabolist Movement*, 2010, nor in Rem Koolhaas and Hans Ulrich Obrist's *Project Japan*, 2011.
- 9 The author discusses the idea of a "transitional typology" in housing in his forthcoming book, *Digesting Metabolism: Artificial Land in Japan 1954–2002*, Berlin: Hatje Cantz, 2021.
- 10 Fujimoto, *Two Apartment Settlements*, 40.
- 11 Masaya Fujimoto, in conversation with the author, April 23, 2010.
- 12 Fujimoto, April 23, 2010.
- 13 Teiji Itoh, "Daini Dentōron no Taidō" ["Signs of a Second Dispute over Tradition"], *Kenchiku Bunka*, Vol. 20, No. 22, April, 1965, 81, translation by Riyo Namigata.
- 14 Fumihiko Maki & Masato Otaka, "Collective Form — Three Paradigms," *Investigations in Collective Form* [1964], St. Louis: School of Architecture, Washington University in St. Louis, 2004, 14.
- 15 Fujimoto, *Two Apartment Settlements*, 40.
- 16 Paul Adam Staniland, "What Does it Mean to Build a Street in the Sky in Japan?", B. Arch diss., University of Glasgow, 2007, 10.
- 17 Staniland, "Street," 64–65. As of 2013, no official demographic information was available from the HHA on the development's residents, as communicated by Sachiko Komatsu (International Relations Division, Citizens Affairs Bureau, The City of Hiroshima) in an email exchange with the author, April 22, 2013.
- 18 "Statistical Handbook of Japan 2018", accessed July 20, 2019, <http://www.stat.go.jp/english/data/handbook/pdf/2018all.pdf#page=23>.
- 19 Staniland, "Street in the Sky," 65.
- 20 Sachiko Komatsu, in conversation with the author, April 8, 2010.
- 21 Fuller, *Ideas*, 299.
- 22 A more limited renovation was already underway at Chojuen, started in 1992. It was completed in 2013.
- 23 Aya Ishigaki & Yoshinobu Hirano, "Motomachi Koso Jutaku Danchi Ni Okeru Juko Kaizen Jigyo Ni Kansuru Kenkyu" ["A Study on Renovation Project in Hiroshima Motomachi High-rise Housing"], *Nihon Kenchiku Gakkai Chugoku Shibu Kenkyu Hokoku Shu*, No. 35, Tokyo: Nihon Kenchiku Gakkai Chugoku, 2012, 645–648, translation by Tomoyo Nakamura.
- 24 Fujimoto, *Two Apartment Settlements*, 39.

PROTO-METABOLISM — JAPAN AND TORONTO'S 1958 CITY HALL COMPETITION

George Thomas Kapelos

Professor, Department of Architectural Science, Ryerson University; 350 Victoria Street, Toronto Ontario Canada M5B 2K3; gkapelos@ryerson.ca

ABSTRACT.

In Toronto's 1958 competition for its city hall and civic square, over 500 architects entered, representing 42 countries. Much larger than the 1956 Sydney opera house competition, Toronto's competition is often overlooked and undervalued. Most of the competition entries were distinctly "modern". The competition was influenced by early post-war activities of the CIAM and number of architects deeply involved with CIAM were competition jurors. Twenty-eight Japanese architects submitted entries to the competition. After the USA, Canada and Great Britain, these represented the largest number of submissions from any other country. Japanese entrants included early Japanese modernists, many young architects who went on to become significant practitioners in Japan and abroad, as well as architects who subsequently were identified with the Metabolist movement. Examined through their age cohorts, these schemes provide evidence of the nascent ideas of Metabolism and the array of Japanese modernist discourse at the time. Japanese entries into Toronto's competition provide an opportunity to reconsider the roots of Metabolism, its divergent proponents and the forms of Japanese modernism at work in 1958, as we reassess the impact of Metabolism in today's world.

1. INTRODUCTION

In 1957 Toronto sent out a call to architects around the world. It asked them to submit designs for a city hall and civic square that would represent the city's future and speak to the power of democratic architecture.¹ Over 500 architects responded. Of these, the Japanese were the largest national group submitting from outside the English-speaking world. Overwhelmingly, their schemes were modern. A review of Japanese designs presents a remarkable view of how Japanese architects were embracing "the modern" in 1958. This paper examines entrants, their schemes and the architectural ideas that Japan was presenting.

2. CONTEXT FOR THIS PAPER

In September 1958, Finnish architect Viljo Revell (1910–1964) won Toronto's competition. Jurors praised his scheme for its dynamic and emotive qualities.² When their city hall opened in 1965, Torontonians embraced it enthusiastically, symbolic of their modern city, an embrace that continues to this day (Fig. 1).

For all entrants, submissions were microfilmed, models and drawings returned, and records deposited in Toronto's library. These "also-rans" were all but forgotten.

On the fiftieth anniversary of the opening of city hall in 2015, I curated an exhibition on the competition. From the competition brief it was clear that organizers were deeply committed to the modern *zeitgeist*.³ Reviewing competition submissions, I was intrigued to see that most schemes were "modern". With architects from 42 countries entering, Toronto's competition presented a cross-section of what modernity meant across the globe at that time. But what was this "modernity"? To answer this, I examined each forgotten

scheme and the maker behind it. This is part of that investigation.

In 1958, twenty-eight Japanese architects submitted entries. Kenzo Tange, originator of the Metabolist movement, was among them (Table 1). Across all generations, schemes are modern. What could the cross-section of the Japanese architect-entrants tell me about approaches to modernism as Metabolism was taking shape in 1958? Here are their approaches.

3. METHOD FOR EXAMINING ENTRANTS AND THEIR SCHEMES

My investigation required researching information on entrants and then assessing their designs against the competition's aspirations. Toronto's competition brief called for a city hall that would include administrative offices, public areas and a library. The council chamber was to be the focus. A civic square was required. It was to be open to all, allowing for a free-flow of people, and symbolically representing an unfettered connection between them and their government. The site, a rectangular block of 280 x 140m. (3.9ha), was across from Toronto's late-19C city hall. Appropriately, the new city hall was to speak to the continuity of democratic traditions but in a contemporary manner.⁴ The jurors — all modernists and heavily engaged in debates of the CIAM — signaled to entrants that modern schemes were sought.⁵

To begin, I examined submissions by Metabolists centered on Tange and his circle. Moving outside this group, I faced a quandary. How to assess the other architect-entrants? In my research, I've noted a link between an architect's design ambitions and the stage of their career. Mature architects often turned to tried-and-true approaches; younger architects were more adventurous. Therefore, after



Fig. 1. Viljo Revell, Toronto City Hall and Civic Square, Toronto Canada, 1958. © Steven Evans, 2015.

Tange and his circle, I chose to examine the remaining Japanese-architect-entrants in age cohorts. Using 1913 (Tange's date of birth) as a benchmark, I divided entrants into three groups: those in Tange's circle, those born earlier than Tange, and those in later generations. Knowing each entrant's age serves as an indicator of the where they were in their career in 1958. The categorization permits a quick sorting of entrants and allows for a cross-generational exploration of modernity's forms, especially modern ideas in Japan in 1958. Submissions are discussed accordingly. Note: Due to publication limitations, only a small number of entries are pictured here. However, images of all competition entries can be found on the Toronto Public Library website.⁶

4. ENTRANTS, AN ARRAY OF JAPANESE MODERNITY

4.1. The Metabolists

Japan's Metabolists center on Tange and those closely allied with him, Taneo Oki, Noriaki (Kisho) Kurokawa as well as Fumihiko Maki, who submitted from the USA where he was teaching.

Schemes by Tange and the Metabolists display formal similarities. Programmatic functions are separated with offices being placed in tall, square towers, and public areas sit-

Entry #	name	born-died	age in 1958
1	Taneo Oki	1925–2005	33
32	S. (Seiichiro?) Nakazawa	1896–1986	62
43	Hideo Kosaka	1912–2000	46
48	Fumitaka Nishizawa	1915–1986	43
49	Fumihiko Maki	1928–	30
63	Kyusuke Ozaki	1896–1966	62
70	Y. Ohsuga	?–?	?
73	Nagatoshi Tsuchihashi	1901–1959	57
85	Denji Nakamura	1880?–1968	78?
97	Shizuko Yoshikawa	1934–2019	24
98	Noriaki (Kisho) Kurokawa	1934–2007	24
107	K. (Koshi?) Kawashima	1925–2009	33
119	Yosiaki Nosu	1912–?	46
155	Shinji Aratani	?–?	?
174	Nobuo Hozumi	1927–	31
186	Shigeo Hirata	1906?–1987	52?
226	Masao Shiina	1928–	30
234	Takayoshi Yoda	1902–1991	56
277	Kunio Maekawa	1905–1986	53
293	F. (Fukunaga?) Mitsuya	?–?	?
302	Shigeo Sato	1912–2003	46
303	K. Tanimoto	?–?	?
321	Kyosuke Mori	1925–1992	33
338	Junzo Sakakura	1901–1969	57
346	Dr. Gonkuro M. Kume	1895–1965	63
350	Ken Ichiura	1904–1981	54
382	Kenzo Tange	1913–2005	45
480	Bunzo Yamaguchi (Y. Ichimura)	1902–1978 (?–?)	56 ?

Table 1. Japanese entrants, Toronto City Hall competition, 1958

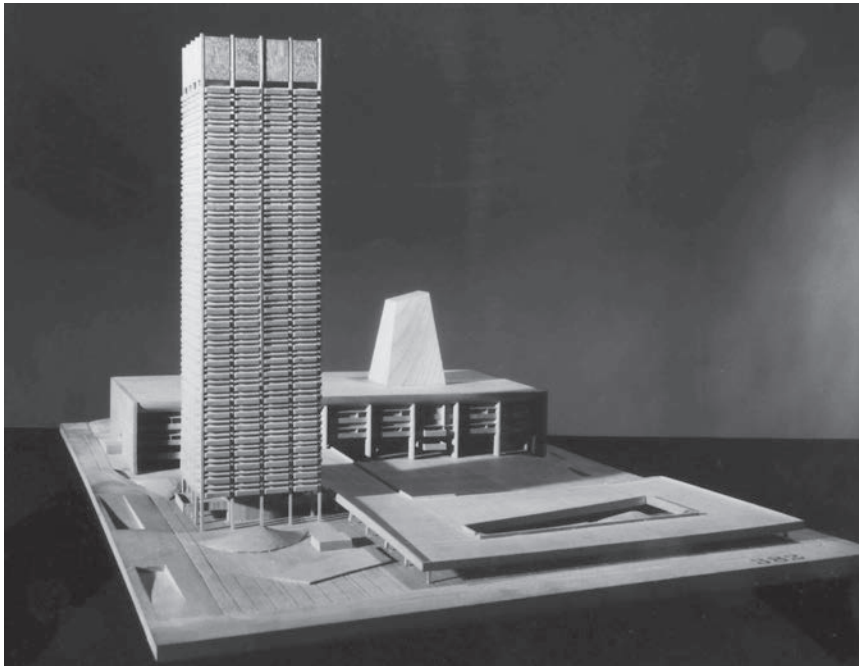


Fig. 2. Kenzo Tange, competition entry 382, model, 1958
© Toronto Public Library, Bonner Fonds.



Fig. 3. Taneo Oki, competition entry 1, model, 1958 © Toronto Public Library, Bonner Fonds.

uated in low pavilions either connected to the tower or free-standing. Inventiveness is displayed by the symbolic treatment council chambers, located within low pavilion buildings. In Tange's scheme, it's marked by a pyramidal tower with an angled cut in the roof line (Fig. 2). Oki distinguishes the chamber by an angled and folded roof, (Fig. 3) while Kurokawa expresses it by a distinctive hipped roof (Fig. 4).

Metabolist towers show strong horizontality by exposing floor plate edges. Kurokawa's scheme is the exception, showing a façade treatment patterned by an alternating rhythm of tightly framed concrete openings arranged as an over scale horizontal running block. All Metabolists chose to interrupt tower masses by placing mechanical floors at intermediate levels.

Maki's city hall is distinctive. It consists of a series of storey-high concrete Vierendeel trusses, assembled to create an inverted pyramid. The floor and roof construction of the trusses form the roof and floor construction of the adjacent storey. The council chamber sits as a round pavilion raised in the space within the center of the inverted pyramidal structure. The civic space is a continuous level plane extending from the plaza into the center of the building. The repetitive and megastructure nature of the proposal is suggestive of nascent Metabolist ideas.

All schemes propose distinct public spaces that flow into building interiors without grade separation. Tange and Oki embrace the civic space by either surrounding it or flanking it along the path of entry. The Metabolists delivered exquisite wooden models that were admired by the jurors for their craft, beauty and fine execution.



Fig. 4. Noriaki (Kisho) Kurokawa, competition entry 98, model, 1958 © Toronto Public Library, Bonner Fonds.

4.2. Entrants from Tange's generation

The inventive schemes originating from Tange and his circle are not the only modern visions proposed by Japanese architects. Other architects from Tange's generation submitted schemes ranging from conservative to highly adventurous, and showing a remarkable variety and range of expressiveness. I examine submissions by Yosiaki Nosu, Fumitake Nishizawa, Shigeo Sato, Shigeo Hirata and Hideo Kosaka. Their schemes can be categorized within two morphological types, the tower-podium-pavilion and the object-building.

Among the architects pursuing tower forms, Nosu elevated the city hall, designing a square, ponderous tower sitting on a monumental plinth. "Burning stands" mark the corners. In Sato's scheme, the tower is dominated by tapered vertical elements that appear to hold the building in place, giving city hall a robust machine aesthetic. Nishizawa proposed a freestanding tower with public areas below grade. A finely detailed ground plane, marked by diagonal paving and containing boscs of trees, suggests his idea of a city hall set within a manicured garden.

Alternatively, two schemes present the city hall as a freestanding object. Hirata proposed a mid-rise quadrangle raised on pilotis. The council chamber is marked by a projecting bay on the principal façade. Kosaka's scheme is most exuberant; an elliptical courtyard building is raised on pilotis. A low rectangular building, pinched in plan at its middle, slips beneath this form. The council chamber is marked by a concrete shell roof of swooping catenary arches.

4.3. Submissions by Entrants from a Generation Older than Tange's

Equally, a cohort of architects belonging to an earlier generation of Japanese modernists also showed considerable interest in the competition. Prominent among these are Tange's predecessors, Junzo Sakakura and Kunio Maekawa, as well as Nagoyashi Tsuchihaschi, Denji Nakamura, Takayoshi Yoda, Gonkuro Kume, Ken Ichiura, Bunzo Yamaguchi⁷ and Kyusuke Ozaki.

Sakakura and Maekawa are the most ambitious among this group. They take a nuanced approach toward the council chamber's visibility. Maekawa denotes the council chamber by an almost flat hipped roof, while Sakakura creates a void in the pavilion roof to signal its location below. Maekawa's tower breaks the square plan pattern by proposing two sheared tower elements with cantilevered floors supported by tree-like columns, suggestive of the organic structural approach found in the Metabolists' schemes. Both Sakakura and Maekawa treat the civic square as a distinct entity and city hall forecourt. Maekawa uses geometry to distinguish between hard and soft surfaces; circular planters create informal planted areas.

Schemes from others of this generation are less inventive and reflect a reluctance to fully explore more than conventional modern approaches. In some cases, it is difficult to determine whether the scheme was authored by the entrant or was completed by a younger member in their architectural office, entering on behalf of the firm to meet competition requirements.⁸ Conventional modernist tower-and-podium approaches are evident in Nakamura, Ichiu-

ra and Yamaguchi schemes. These are formally similar, showing a slab tower rising from a low-rise podium containing the council chamber placed on the site's principal axis.

In contrast, Yoda presents a low, double quadrangle with extending wings and a tower. The council chamber is almost hidden, placed on the upper floor at the south-east corner of the complex and marked by a clerestory lifted above the building roofline. Yoda's city hall is conceived in a stripped, neo-classical "modern" style and is among the most restrained of the Japanese submissions.

Kume's submission is more assertively modern.⁹ We are presented with a square tower raised on pilotis connected to an adjacent low pavilion, containing public areas. The council chamber, a square pavilion wrapped in folded panels, sits prominently above the podium. Civic spaces step up from the plaza to interior public areas separating indoor and outdoor areas.

Of the designs by architects born before Tange, in addition to that of Maekawa, the scheme by Tsuchihashi exhibits Metabolist tendencies and is also among the more precocious proposals. A hexagonal tower rises 42 storeys from a low podium building. As in Maekawa's scheme, floors are cantilevered from the core and levels interrupted by mechanical zones. The council chamber sits in a separate rectangular pavilion located to the south-west of the tower and marked by a spectacular double catenary concrete-shell roof. The shearing of the site plan allows for public spaces to be located on the prominent corner of the site in front of both the council chamber and the tower building entry. Tsuchihashi is said to have been working in Corbusier's atelier during the period 1928—1930 when Maekawa was also there.¹⁰

In this cohort, Ozaki is an outlier. He proposed a city hall organized in three parts: a tall square tower, a low rectangular pavilion and a pair of small pavilions containing the council chamber and library, covered with gracefully curved roofs. The curved and orthogonal forms create a dynamic interplay on the block. The site is divided by a broad, gridded public space extending its length, while the zones for built form are arranged with flowing curves. The juxtaposition of orthogonal and organic contributes to the dynamism of the formal composition. The high tower, low pavilion and stepped elements with curving roofs create an elegant ensemble.

4.4. Entrants from the Generation Younger than Tange

The competition attracted a number of young architects who were closely following global trends. They include Kyo-suke Mori, Masao Shiina, Shizuko Yoshikawa and Nobuo Hozumi.

Mori's scheme shows a high tower asymmetrically set on a low podium base. The council chamber sits on the podium; its pointed roof canopy extends onto the civic space, organized as an outdoor garden landscape, and bisected by a path extending from the site's southern boundary to the

building entry. The entire public space is surrounded by a covered walkway that extends along the block perimeter.

Shiina proposed an eight-storey boxy courtyard building, lifted above grade and encircled by a two-level arcade. The object nature of the box is reinforced by four columns at its corners and a diagonal-patterned metal structural screen sheathing it. The council chamber is located in the middle of the open courtyard. The plan is dynamic; podium buildings are organized at the corners to allow for entry on four sides.

Yoshikawa presents a monumental classically-inspired building, with a tall tower rising from the middle of a podium and capped with a high gable roof, housing a roof-top council chamber within a room of gigantic scale. The site continues the neo-classical motif with a circular forecourt bisected by a grand walkway leading to the building entrance. Yoshikawa is the only female architect who entered from Japan. This was typical as females represented less than 2% of all entrants.

Hozumi similarly presents a formal scheme, also with neo-classical overtones. His proposition comprises a low quadrangle, open to the sky, with the council chamber located in a square box in the center of the quad. The city hall is set apart from the public space by a moat. Bridges connect it to the public areas.

4.5. The Unknown Entrants

Information on remaining six architects is incomplete. These are S. (Seiichiro?) Nakazawa, Y. Ohsuga, K. (Koshi?) Kawashima, Shinji Aratani, F. (Fukunaga?) Mitsuya and K. Tanimoto. Further information is required in order to situate these architects within the larger context of Japanese architecture in 1958. Their schemes represent typical tower-podium-pavilion or object-building schemes.

5. CONCLUSIONS: NASCENT METABOLISM

This paper presents submissions from Japanese architects to Toronto's 1958 competition. Their designs display an array of approaches across a range of ages, typical of all 500+ competition entries. However, unlike submissions from other countries that included a small number of schemes with historicist styles, Japanese architects all present distinctly modern schemes at a time when Metabolism was being conceived.

The categorization of entries by architects' age cohort, moving outward from Tange and the Metabolist circle, provides a starting point. The resulting overview provides evidence of the range of commitment across all generations to the modern idea. The enthusiasm shown by Japanese architects reflects their desire to enter the international architectural arena.

The competition's call for a new form of architecture — the combination of architecture and urban public space — is reflected in the schemes of those entrants with ties to Metabolism, particularly the architects closely associated

with Tange. Some of the schemes address the potential of the megastructure, while others present explorations of organic, biological growth.

This investigation is provisional, and based on material available through English-language sources. More work needs to be done, both to fill in gaps and to confirm assumptions. It is possible that materials from the competition may be housed in Japanese archives. Details of activities in Japan leading up to the 1958 competition deadline still need to be explored, promising to yield a greater understanding of the modernist ideas tested by architect-entrants as they worked to develop their schemes.

Nonetheless, Japan's engagement with modernism was widespread and Toronto's competition entries provide ample evidence of modern interpretations and Metabolist beginnings.

NOTES

- 1 For a full account of the history of Toronto's new city see Christopher Armstrong, *Civic Symbol: Creating Toronto's New City Hall 1952–1966*, Toronto, University of Toronto Press, 2015.
- 2 Eric Arthur, "Editorial", *JRAIC* 38, No. 08, 1961, 35.
- 3 George Thomas Kapelos, *Competing Modernism: Toronto's New City Hall and Square*, Halifax, Dalhousie Architectural Press, 2015.
- 4 Toronto, *Conditions of Competition / The Toronto city Hall and Square*, September 1957.
- 5 The competition jury included Sir William Holford (1907–1975) London, England; Charles Edward, "Ned" Pratt (1911–1996), Vancouver; Ernesto Nathan Rogers (1909–1969) Milan, Italy; Eero Saarinen (1910–1961), Michigan USA; Gordon Stephenson (1908–1997), Toronto. All had played active roles in the CIAM.
- 6 Photographs of models of submissions to Toronto's competition can be found at the Toronto Public Library website, accessed on June 28, 2021, [https://www.torontopubliclibrary.ca/search.jsp?sessionId=evSGSxLPzBoWt66LYUYU4orz.tlapp-p-1a?Ntt=City+Hall+and+Square+Competition+\(1958%3A+Toronto%2C+Ont.\)&Ntk=Subject_Search_Interface](https://www.torontopubliclibrary.ca/search.jsp?sessionId=evSGSxLPzBoWt66LYUYU4orz.tlapp-p-1a?Ntt=City+Hall+and+Square+Competition+(1958%3A+Toronto%2C+Ont.)&Ntk=Subject_Search_Interface).
- 7 Yamaguchi listed "Y. Ichimura" as a submission co-author. This person is unknown.
- 8 Entrants had to be registered in their own country to be eligible. Many unlicensed architects submitted under an established firm's name.
- 9 Only drawings exist of this submission.
- 10 Jonathan M. Reynolds, *Maekawa Kunio and the Emergence of Japanese Modernist Architecture*, Berkeley, University of California Press, 2001, 58.

Session 9-b

HOW CAN OUR WORLD BE RENEWED?

Takayuki Suzuki

Professor, Wuhan University

Future has been a dream or obsession for modern architecture and modern society. Architects needed to show a new vision for architecture and urbanism. People believed our world would be always renewed.

As young people grows up, a city would become bigger and taller, believed a society, especially until mid of twentieth century. Actually, economics had kept becoming more active, population had kept becoming larger and a city had been growing up. Financial instruments such as stock market or insurance which gave wealth for modern age were investments for the future. Also planning and building became to involve a meaning of investing. Architectural drawings were blueprints for the future in modern movement.

Metabolism that emerged after mid of twentieth century was also projects for the future. The idea inspired biology gave a chance for architecture and urbanism to grow up and renew itself like physiology of young people. On the other hand, modern society in real gradually began to stop to physically grow up in this age. Metabolists sought the possibility of renewing more than growing up. Exchangeability became more important than expandability for society and the urbanism, they said.

Nothing can tell the genuine idea of exchangeability more than Nakagin Capsule Tower designed by Kisho Kurokawa. This masterpiece also ask us what is eternity. Generally, architecture can be eternal if the substance and material are kept forever. We can't imagine that ancient Greek shrine exchanging all marbles with new materials. However, Nakagin Capsule Tower can keep to be itself even if all capsules are exchanged with new capsules. The aesthetic might be from Ise shrine in Japanese tradition.

It means that exchangeability can show us also new ideas for sustainability or new version of conservation that Kenji Watanabe discussed in his paper. With this point of view, renewal can have the same meaning as conservation

even if it expands or shrinks. For resilience of environment, architecture is now asked more flexibility today. Nakagin Capsule Tower will give us more idea for the real sustainable urbanism and that is why we should conserve it.

As Nakagin Capsule Tower did, some Metabolist architecture showed us the very symbolic future. And sometimes we saw the cyberpunk imagery on the symbolic architecture. Sky Building N.3 designed by Yoji Watanabe is exactly architecture that invokes the cyberpunk future, which Josephine Buzzzone focused on the paper.

Sky Building N.3 has stronger shape than Nakagin Capsule Tower, we might say. On the other hand, the architect Yoji Watanabe didn't seem to have a strong idea for the exchangeability. We can say it is similar attitude to expressionist. And I believe we should never deny the intensity of expression in architecture because it can remind us of the future that we need to imagine.

Metabolism was a movement that happened in Japan. It could have general influence to the global architectural scene but be originated in Japanese aesthetic, society and technology. And some foreign architects who studied in Japan have tried to realize the idea in his/her country. The Sewoon Sangga designed by Kim Swoo Geun is a representative example of the exported Metabolism, which Dario Pedrabissi discussed on the paper.

Platforms in the Sewoon Sangga was emphasized as a new infrastructure in the mega city, Seoul, meanwhile Nakagin Capsule Tower was designed with two parts, hidden infrastructure and emphasized capsules. The platforms gave a very strong axis for the chaos of Seoul like a structure coming from the future. Dario Pedrabissi pictured us the contrast that still remains between the chaotic old area and the futuristic structure. Kim Swoo Geun might have thought that the intensity of the platform would make and keep the landscape of an eternal city even if any chaotic

buildings exist or be exchanged around it.

As I have written, planning and building are kinds of investing for future. Also demolishing of old architecture is economic activity in most of cases. Therefore, when we want to conserve some architecture, we need to discuss not only about the significance in the history of architecture but also the effect in the economic scheme. Kenshiro Miyake discussed How REIT, Real Estate Investment Trust can be applied for protecting cultural property. This paper inspires us not only about technical method of conservation but also the essence of architectural act. If this research connect to another architectural idea, such as "Metabolic Conservation" that Kenji Watanabe presents in his paper for example, we might be able to build up very strong logic not only for Me-

tabolist architecture but all great modern architecture.

In many developed country, especially in Japan, we can't expect a big economic growth like the period of rapid economic growth. Global environmental crisis tells us not to expand artificial environment more. We need to find alternative way other than growing and expanding. On the other hand, modern movement taught us that our world can be changed and that the future will be different from now. We live not only for today but tomorrow. In this situation, exchangeability must be the important idea. And intensity of shape and space must be important not to forget the future. Metabolist architecture has both of them. We can learn a lot and more from Metabolism now.



THE POSSIBILITY OF GOVERNMENT “CULTURAL PROPERTY REIT” FOR THE UTILIZATION OF HISTORICAL BUILDINGS

Kenshiro Miyake

The University of Tokyo; Bw-701, Bw Building, Institute of Industrial Science, The University of Tokyo, Komaba 4-6-1, Meguro-ku, Tokyo 153-8505; k3miyake@iis.u-tokyo.ac.jp

ABSTRACT.

Aging historical buildings and rebuilding based on economic rationality is a major issue in Japan as well. This year, the former Miyakonojo Civic Hall by Kiyonori Kikutake, famous for its “Metabolism” architecture, was unfortunately demolished.

A new system that does not rely solely on public funds is needed to ensure the proper inheritance of historic buildings. This paper proposes a new mechanism for the sustainable preservation and utilization of historic buildings through the establishment of a government REIT.

1. THE CURRENT UTILIZATION OF HISTORICAL BUILDINGS IN JAPAN

The preservation and demolition of historical buildings are both of great public interest. Efforts to preserve and continue to utilization buildings that reflect their history and culture will be favorably received. On the contrary, it will be somewhat sad to see them lost.

In recent years, there has been an increasing number of discussions in Japan about the preservation and utilization of historical buildings, as well as their demolition and rebuilding. With the growing interest in the SDGs and other social activities, the case of preservation is attracting more and more attention in Japan. The days of describing our country as “Scrap and Build” in Japanese English, as in the past, are changing.

On the other hand, the number of deregistrations of cultural properties due to dismantling, etc. has risen to 202 cases so far, and it is needless to say that there are many obstacles to their preservation and utilization.

As I have been involved in several cases, it is often an unavoidable situation when historical buildings are not well preserved and utilized and demolition or rebuilding is chosen. As many experts and studies have shown in the past, the utilization of historical buildings is still not a booming market in our country, and with the exception of non-profit organizations with abundant financial resources, owners are less likely to benefit from the current system of preservation and utilization than from rebuilding.

For example, the survey in 2006 by the Ministry of Land, Infrastructure, Transport and Tourism pointed out that a “negative spiral structure” has emerged around the protection of cultural properties due to the burden of repair costs, lack of personnel, and financial difficulties (Fig. 1).

In addition, the 2008 project “Proposal for Securing the Finances for the Preservation of Historical buildings”² points out the following systemic issues in Japan regarding the preservation and utilization of historical buildings.

1. Ensuring building safety in earthquake-prone countries (e.g. anti-vibration measures).
2. Maintenance costs associated with the continued utilization of aging buildings.
3. Disadvantage of not being able to achieve the volume (high use) given to the site.

Even if owners of historical buildings, both public and private, are fully aware of their historic value, it is not easy to make an effective breakthrough to shareholders’ and residents’ requests for reconstruction under the system under these circumstances.

There are many examples of purchases by the local government where they are located for preservation, and acquisition and turning them into public facilities is a major scheme in preservation and utilization.

However, local governments also have to contribute to maintenance costs in a time of severe financial difficulties. Furthermore, as the number of historical buildings continues to grow over time, so do the costs of maintaining and managing them. Although spending on cultural property protection, a government-supported measure, has remained flat in recent years, its share of total social and educational spending has been on the rise throughout (Fig. 2).

When we think about the future of historical buildings, we can’t separate the perspective of cost from the future of historical buildings. The historical value that cannot be measured by LCCs alone should obviously not be ignored, but as a public facility that relies on public spending, the function of the facility and the services provided to citizen must also be carefully discussed.

2. OPERATIONAL PATTERN AND UTILIZATION SCHEME FOR HISTORICAL BUILDINGS

In Japan, there are many owners of historical buildings, including individuals, general foundations, associations, public interest foundations, public interest societies, non-profit organizations, religious organizations, educational institutions, and even corporations.

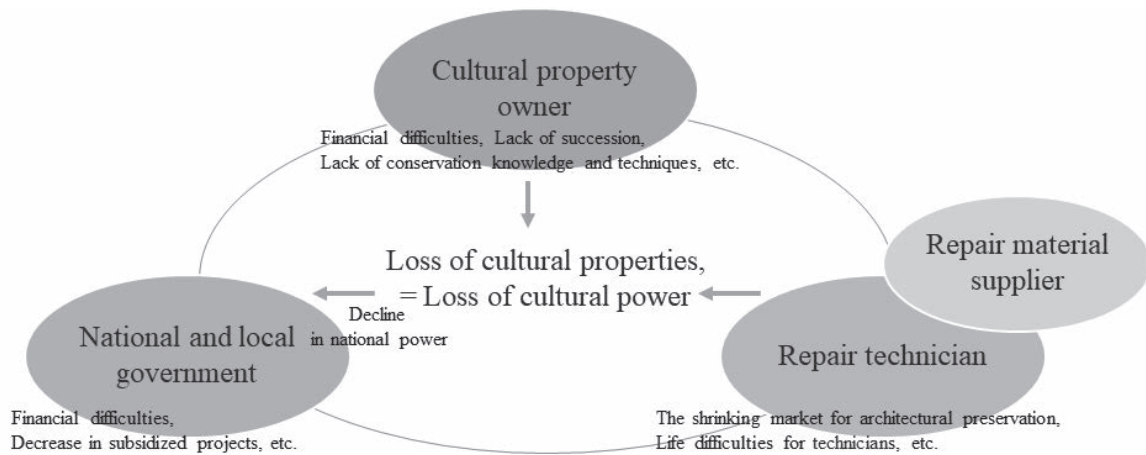


Fig. 1. The negative spiral on cultural property protection.¹

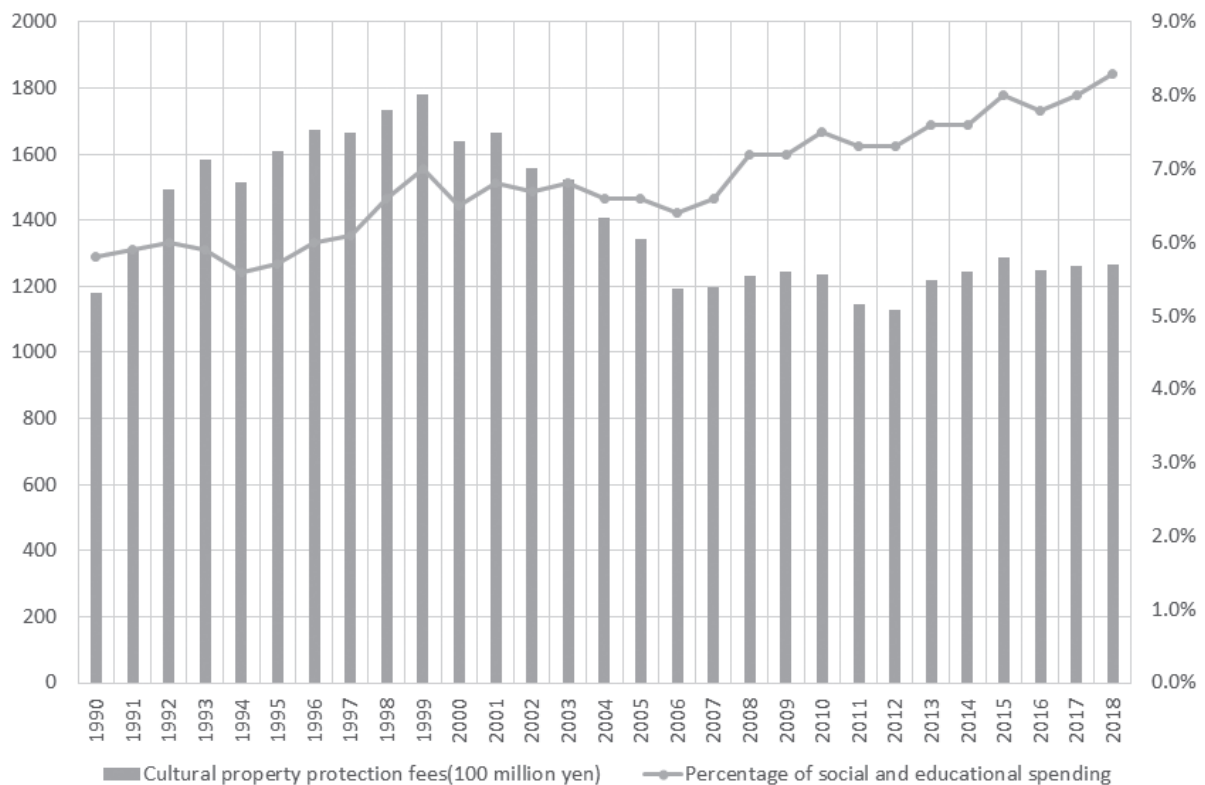


Fig. 2. Changes in cultural property protection spending.³

Each has its own history, but the form of ownership depends in part on the function, such as "old government buildings managed by the local government," "old houses managed by public interest foundations," "temples and shrines where religious organizations operate," and "founding offices where private companies conduct their business activities".

Is there an appropriate form of management for histor-

ical buildings then? Depending on the corporation's status, it may be eligible for exemptions from corporate tax and property tax, but this is contingent on the company engaging in non-profit activities. It seems to me that these special exceptions are effective for those who use historical buildings as a base for public access and research activities to preserve history and culture.

On the other hand, major repairs require hundreds of

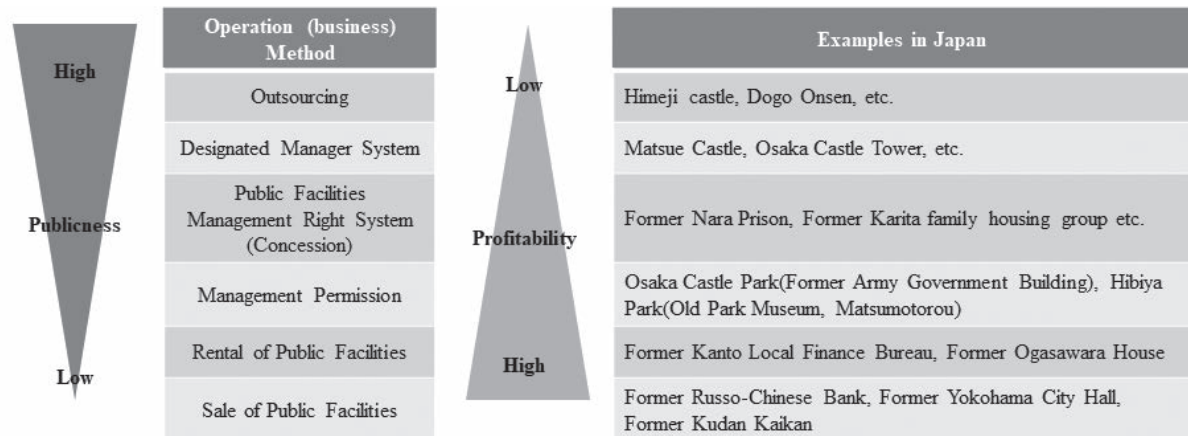


Fig. 3. Methods and Examples of Historic Building Utilization.

millions of dollars in costs, which must be generated by income-generating projects and accumulated or financed over the long term, but organizations operating in the public interest have difficulty in accumulating or borrowing money, so they must receive donations and government support. Lack of donations and lack of support and understanding from the government leads to the demolition of historic buildings.

In principle, the owners of cultural properties bear the cost of maintaining them, and the subsidy system is only part of the cost. The preservation and utilization of historical buildings is a highly public interest initiative, but the inconsistency of generating the initial investment needed to do so by a non-profit entity is itself inconsistent.

In order to overcome the above challenges, there are high expectations for PPP (Public Private Partnership) in the utilization of historical buildings. This is a new way of finding added value by allowing private companies to conduct business in the public domain owned by local governments and other entities. For example, a facility that was previously owned by a local government and used for individual tasks (cleaning, security, etc.) is now leased to the private sector for a new purpose.

As shown in Fig. 3, PPP schemes for publicly owned real estate can be broadly categorized into Outsourcing, Designated Manager Systems, Management Right System (Concession), Management Permission, Rent, and Sale, and examples of the use of each method can be seen. These methods have been at odds with the public nature of the project and the profitability of the project, but in recent years, Concessions and Park-PFI have been used as new schemes to achieve these goals simultaneously.

As a result of the diversification of these methods, a variety of projects have been planned in each area, and the market has expanded in terms of the utilization of historical buildings, with the participation of various types of busi-

nesses, such as bridal businesses, travel agencies, and planning companies, in addition to the lodging and restaurant businesses that were common in the past.

As diverse examples emerge across the country, we are in a situation where it is possible to find ways to maximize the preservation of valuable buildings. However, in the case of demolition as mentioned above, even after the historical value and business potential of the building has been confirmed to some extent, both the public and private sectors are not able to make the initial investment for renovation.

3. THE POSSIBILITY OF GOVERNMENT "CULTURAL PROPERTY REIT"

In proposing a method of financing through the securitization of historical buildings, I would like to give an overview of asset securitization.

Asset securitization refers to

the process by which a person who holds assets such as monetary claims, real rights, and patent rights establishes another entity (Special Purpose Entity) for the purpose of holding specific assets, transfers those assets to it, and raises funds with the future cash flows generated by those assets.

What is important here is not the value of the asset itself, but rather to raise funds from investors who expect the "future cash flow" that the asset will generate.

For this purpose, asset securitization is the issuance of securities and other highly liquid investment instruments by a SPE to raise funds; when the target asset is real estate, it is called real estate securitization. In other words, real estate securitization is a mechanism for distributing the profits from managing the real estate to investors such as investors and lenders through this SPE.

In Japan, the system was established in response to the

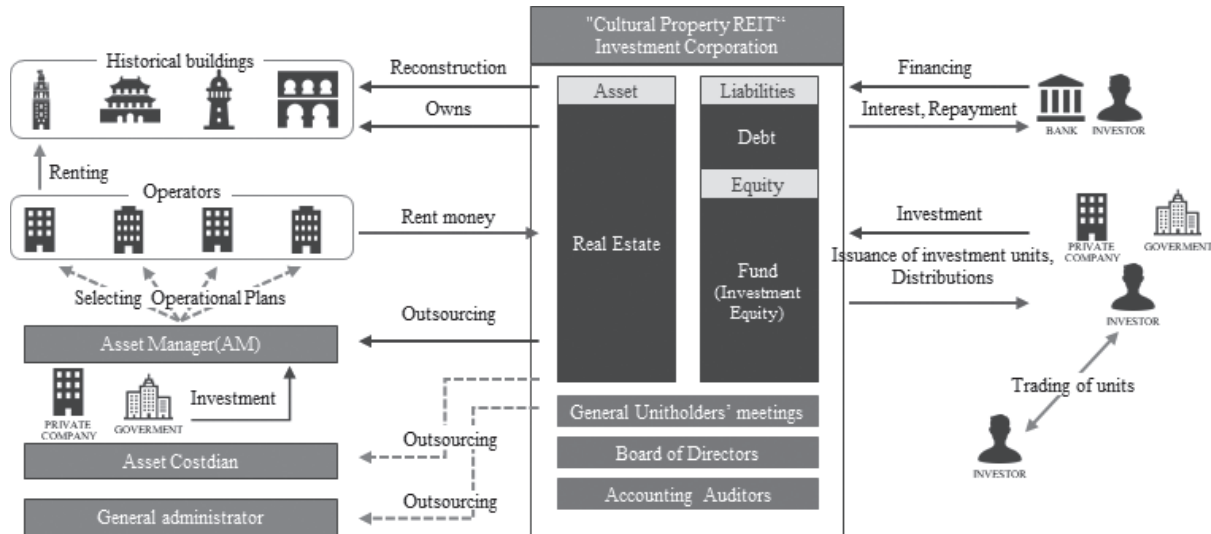


Fig. 4. Image of the Government Cultural Property REIT.

decline in willingness to invest in and finance the real estate business due to the decline in real estate prices and the large number of non-performing loans backed by real estate since 1990, combined with the diversification of financial products that were developing at the time.

Real estate securitization products have been diversified to include bonds, loans (CMBS, RMBS), and equity or similar securities in the form of equity and capitalization of certain real estate businesses. In particular, Real Estate Investment Trust (REIT) is a structure in which funds collected from multiple investors by issuing securities are turned into an investment trust, which then invests in real estate and returns the investment income to investors.

The investment targets of REIT, which derive their income mainly from rents, used to be office buildings, hotels, commercial facilities, and residences, but in the U.S., where this system was established, diversification has increased in recent years, with some REIT targeting forests, telecommunications towers, and data centers.

In Japan, investment securities issued by real estate investment corporations are called J-REIT, and the market was established on the Tokyo Stock Exchange in 2001. The market capitalization of J-REIT grew to 17 trillion yen in January 2020 (the market capitalization of domestic stocks listed on the TSE in that month was about 657 trillion yen).

Most recently, the market has been sluggish due to the impact of the covid-19 expansion, but REIT, which target stable income in the form of rents generated by real estate itself, which is tied to social activities rather than the credit-worthiness of the owners, have been established as a market that attracts investors in Japan.

As mentioned above, the biggest challenge for the protection of historical buildings is the initial investment in

their preservation and utilization. The old way of doing things through public, non-profit corporations and organizations is becoming obsolete in response to the increasing sophistication of business practices in the real estate market.

The Government REIT envisioned in this paper are so-called public-private funds that are jointly owned by the government and the private sector, and the following scheme is envisioned.

1. First, establish a real estate investment corporation (Cultural Property REIT) for the purpose of preserving and utilizing historical buildings, and an asset management company (AM) that will manage the assets of the REIT through a public-private partnership.
2. The AM will solicit and select a wide range of historical buildings and their operating plans from the private sector to be eligible for the REIT.
3. The company will be listed on the J-REIT, raise funds through the issuance of investment units and corporate bonds and loans, use the funds to acquire selected historical buildings, and invest in their renovation to enhance their value.
4. Proceeds from the rental income and other income from each operator shall be distributed to each investor.

The scheme has two features. Firstly, the scheme involves raising funds for acquisition and renovation not only from public funds, but also from private companies and investors from around the world to contribute to the costs of preservation and utilization under the Japanese cultural property brand.

Secondly, because the assets owned by the government REIT is managed by the private sector on a lease basis, the risks involved in managing them are lower than if they were

managed by themselves (Fig. 4).

The commodification of cultural properties into investment products may seem outlandish, but in Japan, they are simply not recognized as objects for securitization.

On the other hand, REIT consisting of public health care and infrastructure are also well-established in our country, while Malaysia has created an airport REIT in 2019 to securitize government-owned state-owned assets. The Philippines has also indicated a policy of considering the conversion of airports and public transport terminals into REIT in line with the deregulation of REIT, and I believe that the conversion of state-owned property into REIT, which is an extension of the expansion of PPP methods in Japan, is not far off in the future.

However, the proposition that needs to be considered as an investment product is the value of the investment, i.e., the profitability of the business of utilizing historical buildings. To achieve this, the first priority is to build a good example of a stable rent from the operator, even if the government bears the initial investment. In order to do so, it may be necessary to review the unwritten rules on admission fees that have been in place in Japan until now.

As stated in the scheme diagram, the investment corporation is “an empty box” for holding real estate and other assets, and under the Investment Trust Act, it cannot engage in any activity other than the management of assets.

The operations and administration of real estate management, administration, and the issuance of units and bonds are each highly specialized and therefore need to be outsourced to an outside entity. AMs are particularly important as they are responsible for the management and control of assets, and there is a need to ensure that the government is involved and that the companies they fund are selected fairly.

There are many other issues that could be considered, such as the criteria for selecting historical buildings for the portfolio, acquisition as a state-owned asset, legal verification of management, and ensuring competitiveness with other J-REIT as an investment product.

I will continue to search for ways to keep up with the times for the future of historical buildings.

NOTES

- 1 Ministry of Land, Infrastructure, Transport and Tourism, *A survey to improve the overall attractiveness of historical cities with a focus on Kyoto, The 2006 National Land Policy Emergence Study*, Tokyo, 2006.
- 2 Osamu Goto, Commercial Property Research Institute, Inc., *Before I lose my memory of the city*, Tokyo, Hakuyo-sha, 2008.
- 3 Ministry of Education, Culture, Sports, Science and Technology, *Local Education Expenditure Survey*, 2019.

LEARNING FROM METABOLISM: TOWARD METABOLIC CONSERVATION

Kenji Watanabe

Tokai University; 4-1-1 Kitakaname, Hiratsuka, Kanagawa, 259-1292 Japan; chezkenji@nifty.com

ABSTRACT.

In Japan during the 1960s, rapid economic growth began alongside preparations for the Olympics. At this time, Kenzo Tange and his academic research team at the University of Tokyo announced the “1960 Tokyo Plan,” which used scientific surveys and analysis to lay out a roadmap for the future of Tokyo. It was a strong message that denied political and economic post-war turmoil in Japan. Tange also designed the Yoyogi Gymnasium as well as other marvelous buildings, such as the St. Mary Catholic Cathedral in 1964, which utilized new technological innovations in engineering.

Recently, several modern buildings have already been demolished or face precarious situations. However, the biological concepts of Metabolism Movement can allow such buildings to change and adapt, much like a living creature.

This paper focuses on Metabolism architecture in Japan. In particular, the paper examines the Nakagin Capsule Tower Building (1972) designed by Kisho Kurokawa (1934–2007), which is an unsuccessful yet promising example of the conservation of modern architecture and an attempt to reposition Metabolism architecture within the history of modern architecture as an architectural movement integrating past and future, nature and architecture. This paper also illuminates the problems facing the conservation of modern architecture in general, and suggests a new direction for conservation and preservation processes based on the concept of “Metabolic Conservation.”

1. INTRODUCTION

Since 2010, many modern post-war buildings have been demolished in Japan as a consequence of preparations for the 2020 Tokyo Olympic Games. However, this scene is nearly identical to that of the previous 1964 Tokyo Olympics. The only difference between these two times periods is the standpoint of what to be destroyed: historic, early modern architecture or international modern architecture. That is to say, international modern architecture as destroyer has ironically turned into what of being destroyed.

During the 1960s, rapid economic growth began alongside preparations for the Olympics. Kenzo Tange and his academic research team at the University of Tokyo announced the “1960 Tokyo Plan,” which used scientific surveys and analysis to lay out a roadmap for Tokyo's future. The plan sent a strong message that denied political and economic post-war turmoil in Japan. Tange also designed the Yoyogi Gymnasium as well as other marvelous buildings, such as the St. Mary Catholic Cathedral built in 1964, which utilized new technological developments in engineering.

Fortunately, the Yoyogi Gymnasium was not destroyed in preparation for the Olympics; on the contrary, it has been renovated to pay tribute to the legacy of Olympics and 20th-century architecture, with the expectation of being registered as a World Heritage.

Conversely, there are several modern buildings which have already been demolished or face a perilous situation. Because as natural order, their biological concepts of Metabolism must allow their change and reduction like life of creature.

Due to the dangerous situation of Metabolism architecture's demolition, the Yamanashi Cultural Center in Kofu City of Yamanashi Prefecture, which was designed by Tange and constructed in 1966, was renovated into a seismically

isolated structure in 2017, 50 years after its initial construction. Because the client understood the architect's original concept, the renovations will help maintain the building for a long time as living heritage. A successful of conservation of a building must incorporate the concept of metabolism into the process of conservation itself.¹ This paper focuses on Metabolism architecture and, in particular, the Nakagin Capsule Tower Building (1972 / Fig. 1) designed by Kisho Kurokawa (1934–2007), which is understood as an unsuccessful yet promising example of the conservation of modern architecture. By doing so, this paper attempts to reposition Metabolism architecture within the history of modern architecture as an architectural movement which integrates past and future, nature and architecture. Moreover, this paper highlights problems facing the conservation of modern architecture, reorienting existing conservation and preservation processes and methods toward a new understanding of conservation based on “Metabolic Conservation.”

2. WORLD DESIGN CONFERENCE AND TOKYO PLAN 1960 AS LIGHT

The Metabolism Movement was the first international movement in Japan by the architects and was led by approximately 30 architects at the time. Their official declaration of formation was announced during the World Design Conference in 1960 in Tokyo. Their declaration and works were published bilingually in both Japanese and English, which enthused the architects.

The declaration began as follows:

‘Metabolism’ is the name of a group, in which each proposes future designs of our coming world through his concrete designs and illustrations. We regard human society as a vital process—a continuous development from atom to nebula. The

reason why we use such a biological word, the metabolism, is that we believe, design and technology should be a denotation of human vitality. We are not going to accept the metabolism as a natural historical process but we are trying to encourage active metabolic development of our society through our proposals.²

At the same time, their mentor and professor, Kenzo Tange, publicly announced the “Tokyo Plan 1960.” After designing public buildings in regional areas such as Hiroshima and Takamatsu in the 1950s, Tange himself expanded his point of view to include urban spaces, and he expressed his thoughts in the urban context.

On the other hand, before the Tokyo Olympics in 1964, development in the center of Tokyo consisted mainly of infrastructure projects, such as the construction of the Metropolitan Highway. Consequently, the shape of the metropolis had transformed dramatically and no longer resembled the historical townscape.

Tange was appointed as one of the master architects who planned and designed the Yoyogi Gymnasium, which was to become the center of the Olympic Park. The gymnasium featured a dynamic use of space and inventive structures, while also recalling Japanese traditional aesthetic shapes such as *kabuto* (warrior’s helmet).

The younger generation of architects active in the metabolism movement who were influenced by Tange’s urban design had never built real buildings besides small works such as houses. They had merely drawn blueprints of ideal cities and architectural utopias inspired by the life system revealed by the discovery of the double helix structure of the DNA molecule in 1953. They also sought to develop their own individual architectural design concepts by drawing positive inspiration from Japanese traditional thought.³

3. DESTRUCTION OF MODERN ARCHITECTURE AS SHADOW

Due to the efforts of Japanese modernist architects such as Kunio Mayekawa, Junzo Sakakura, and others who learned the philosophy and technology of modern architecture and urban design in Europe and the United States prior to World War II, Japanese modern architecture had successfully caught up to the West during the era of high economic growth in the 1960s.

At the same time, two important buildings were demolished between 1967 and 1968. One was the Mitsubishi Building No. 1 (MB1, 1894), which was designed by English architect Josiah Conder. Conder was a professor of architecture at the former University of Tokyo in the late 1870s. The other building was the Imperial Hotel (1923), which was designed by American architect Frank Lloyd Wright, who visited Japan as an architect and Ukiyoe collector.

MB1 had a short life span of 74 years and the Imperial Hotel had an even shorter life span of 45 years. Ironically, a



Fig. 1. Attachment of Capsules. © Shinkenchiku-sha.

new building built after the original MB1 was also demolished by its owner, Mitsubishi Estate, in 2009. Subsequently, the new building, which had a similar facade to the original MB1, was rebuilt as an art museum. Behind the new low-rise museum, a high-rise building was built with increasing the volumes which come from a reduced floor area ratio of the new museum according to the regulation of exchanging the volumes surrounding district.

Meanwhile, the Imperial Hotel was relocated to the Meiji Mura (which was opened as an open-air museum in 1965) in 1967 amidst a movement to preserve the two buildings. The relocation of the entrance of the Imperial Hotel was eventually completed in 1974, six years after demolition.



Fig. 2. Nakagin Capsule Tower Building 2020. © Kenji Watanabe.

In the 1960s, amidst the emergence of the Metabolism Movement, historic buildings representative of pre- and post-war modern architecture were selected for preservation as a result of efforts to protect important cultural properties and traditional districts. Such an environment in the 1960s triggered movements to conserve buildings.

In addition, the destruction of the urban environments by rapid economic growth and modern construction became a target of criticism. As a result, there was revaluation for the environment with a long history, i.e., townscapes, and private houses. For example, several photo books of folk houses and traditional architecture were published by famous architectural photographer Yukio Futagawa and magazines such as *Japan Architect*.⁴

Similarly, design surveys were conducted by several university researchers and students focusing on old villages and townscapes. These surveys were widely published, mainly in the magazine *Kenchiku Bunka* (Architectural Culture) magazine. Among them, the first design survey was conducted by the University of Oregon to research Saiwa-

icho in Kanazawa shortly before it was demolished. The survey recorded documentation and drawings in detail, focusing on the living conditions in the district.⁵

In the 1960s, Japanese cities were exposed to a wave of extensive development ahead of the Tokyo Olympics in 1964 and the World Exposition in Osaka in 1970. Simultaneously, a consciousness concerning preservation increased during this period, and as a result, historic architecture came into focus.

This paper argues that in this gap the Metabolism Movement emerged as a new architectural movement led by the younger generation of architects. Their movement was, perhaps, sympathetic to the questions of structuralism within the philosophical context of the 1960s in that it applied life systems to fill the gap between space and time (history), past and future. This is demonstrated by the fact that Kisho Kurokawa designed several experimental buildings in Yamagata, published several books on his theory of the metabolism movement, and wrote an article in the magazine *Shinkenchiku* in October 1967. In this special issue he wrote an article on the demolishing of the Imperial Hotel titled "Development and Conservation."⁶ This will be described later.

4. THE NAKAGIN CAPSULE TOWER BUILDING BY KUROKAWA

Twelve years after the declaration of the Metabolism Movement at the 1960 World Design Conference, the Nakagin Capsule Tower Building (NCTB) was suddenly built in 1972 on the western edge of Tokyo Ginza facing the former Shiodome railway yard and the Metropolitan Highway. This building set in motion the construction of many more capsule hotels since. Recently, such capsule hotels have been further developed by young architects as buildings with a high quality of design and function. Perhaps, many foreign tourists, would intentionally love to stay during Tokyo Olympic in this year.

Another capsule building called the "Sony Tower Building" in Osaka was designed by Kurokawa in 1976, just four years after the NCTB. However, it was demolished in 2006, only 30 years after it was built.

After the completion of the NCTB, Kurokawa stated that Metabolism is the appearance of the process of the material systems of human society (environmental and urban structures) changing toward thermodynamic equilibrium. Kurokawa identified the periods of change in a human's life as being from 20 to 25 years old (independent point), 50 to 60 years old (reproductive dysfunction point), and from 75 to 85 years old (life stop point). Kurokawa stated that the period from 20 to 30 years old is the metabolic rhythm of the basic living space (Fig. 2).

These rhythms must be taken into account for the useful life of each part of the urban structure (the useful life of the material as well as the social life of the space). Kurokawa

also insisted that it is appropriate to consider the rhythm of half a century to a century (from 50 to 100 years) as another important period.

The framework of the urban structure may be considered to metabolize this rhythm. Moreover, the tools and equipment we use (household tools, automobiles) are subject to a life rhythm of one to five years.⁷ In accordance with this concept, 140 capsules attached to the two main structures of the NCTB were expected to be replaced in 25 to 30 years; however, 48 years after its completion, the capsules still remain unchanged.

Kurokawa himself regretfully criticized this situation. Just before his death in 2007, he stated:

*If you replace the capsule every 25 years, the building could be recycled for up to 200 years. I designed the building to be an example of sustainable architecture, and it was the first of its kind in the world... I designed the building to have its capsules replaced every 25 years, so it's ridiculous that 25 years have gone by and nothing has been done.*⁸

In 2007, the management company Nakagin Corporation (currently the Nakagin Group) announced its intention to demolish the building as soon as possible due to the asbestos in the fire-resistant coating; however, because of ownership rights, the building still hasn't been demolished.

According to owner Tatsuyuki Maeda, among the 140 capsules, 20 are occupied as residences, 40 are used as offices, 40 are maintained as second homes, and around 40 are unused.

In 2014, Mr. Maeda formed the "Nakagin Capsule Tower Building Preservation and Regeneration Project," and information has been distributed on Facebook, Twitter, Instagram, and on its website. In 2015, a book of "Nakagin Capsule Tower Building as Ginza's White Ark" was published using cloud-funding to convey the actual use of capsules rather than introduce its architecture. The royalties were used to fund the activities of the project.

In addition, Maeda, as president of the capsule bank, provides information about the property to those who want to purchase or borrow capsules. In October 2018, 80 people applied to buy capsules, despite their being only 20 units. In addition, the company operates monthly capsules, which can be rented on a monthly basis and cost 120,000 yen per month including utilities. MUJI collaborated on the interior design for the first capsule.

Currently, the Nakagin Group has sold land to the fund, and the buying and selling of capsules has been virtually banned. The fund also purchased a first-floor store, a second-floor office, and 16 units of capsules owned by the Nakagin Group, which secured the fund one-third of total voting rights (60% as of June 2019).

Chris Russell, a staff writer at the *Japan Times*, reported on NCTB in an article in the *Japan Times on Sunday* (2019 Nov.10 Vol.59 No.45), where he described the situation of the

NCTB as follows:

*The foreign company also supports the replacement of the capsules, which, including additional renovation work, a construction company has estimated could cost at least ¥2 billion, excluding the price of land. A more detailed estimate of the total cost, which will be used to formulate a bid, is currently being drawn up.*⁹

6. CONCLUSION: TOWARD A METABOLIC CONSERVATION

Kurokawa, who was the center of the metabolism movement, published an article titled "Development and Conservation" in the *Japan Architect* in October 1967.

Attempting to theorize his own concept of conservation as a metabolic system, he wrote:

"A metabolic system must be developed that promotes the destruction and growth necessary for humans, while at the same time actively suppressing unnecessary destruction and growth."¹⁰

Kurokawa insisted on replacing the super-blocks which typified the redevelopment of both large American cities and the capital of Brazil, Brasilia, which were like a Western-style surgical operation. These methods were like replacing damaged lungs with artificial ones, or replacing an old heart with an artificial one.

In contrast, he insisted on regenerating (or repairing the resilience of) the body by stimulating it rather than surgically removing the organs from the body. Such a method is used in Chinese medicine in acupuncture, moxibustion, and massage. We should apply these methods to urban redevelopment.

Rather than surgically rebuilding an entire space, there is a way to regenerate the space by inserting a new efficient equipment network while preserving the existing living space. Using such a method, Kurokawa attempted to regenerate the area by inserting a new sidewalk network at right angles to the current alley or street as part of the Nishijin redevelopment project in Kyoto in 1962 (Figs. 3 & 4). He called this approach "*kampo* (Chinese medicine) therapy."¹¹

Kurokawa proposed his Nishijin Project, which incorporated such methods as the "Point-Stimulation System," at the Team 10 Royaumont meeting in France in 1962, five years before his article was published.¹² The method was as follows:

1. It is a method which inserts new structures and equipment into cities, while preserving the potential of existing cities and the activities of citizens, and then provides more stimulation.
2. It is a way of stimulating a variety of private projects, leading to a new structure through small-scale, fine-grained public investment.
3. It is effective at introducing resilience and openness in highly stagnated areas.¹³

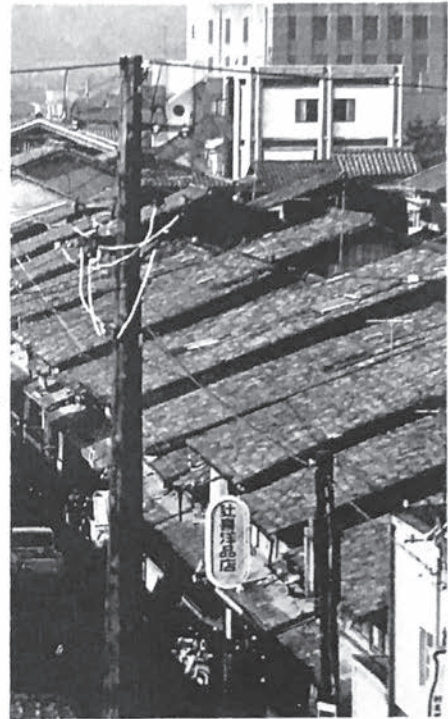
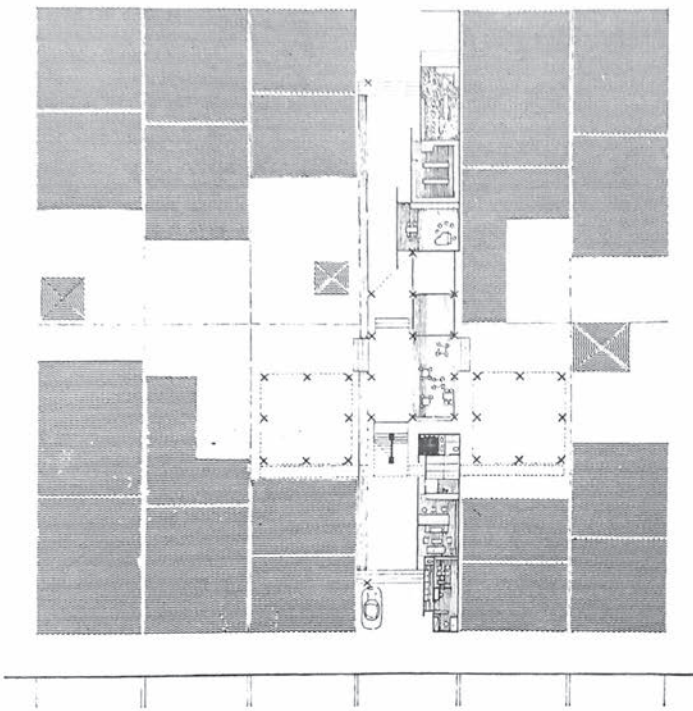


Fig. 3. Site Plan and Townscape of Nishijin Redevelopment Project by Kurokawa. © SHOKOKUSHA publishing.



Fig. 4. Façade through the Gate by Kurokawa. © SHOKOKUSHA publishing.

This method, however, intentionally leaves uncertainties about how to generate public action and private business investment.

This attitude of Kurokawa is exactly the same as the methods of “conservative surgery” endorsed by Patrick Geddes, a Scottish biologist and city planner. He performed this “surgery” in cities in Scotland and then in India beginning in the early 20th century.

The perspective of urban environments and architecture as ecology as expressed in “Cities in Evolution” was combined with Geddes’ method of “Conservative Surgery” by the members of Team 10. Team 10 is composed of English architects Alison and Peter Smithson who hosted the Team 10 Royaumont Conference in 1962. This is because the Smithsons themselves had also quoted their new idea for urban and architectural reformation from Geddesian’s diagram “Valley Section” and the idea of integration of multi-disciplinary fields presented by English town planner Jacqueline Tyrwhitt who called Geddes her mentor.¹⁴

Finally, the Metabolism Movement — which abruptly emerged in Japan in 1960 — was a product of the times and likely sprang from the gap between the “development” occurring in preparation for the 1964 Tokyo Olympics and the “Conservation” movement which resisted the demolition of the Imperial Hotel and other historical urban landscapes.

The existence of Metabolism architecture and the urban

design movement as a product of the times should be reevaluated not according to their peculiarity of organic form but the process of “Metabolic Conservation,” which includes such methods as “Conservative Surgery” by Geddes and “*kampo* therapy” by Kurokawa, which were gradually applied into the urban environment as “Living Heritage,” not actions of premature destructive.

NOTES

- 1 Kenji Watanabe, *The Yamanashi Communication Center as Modern Living Heritage from the Communication of Information to the Communication of Conservation: A Case Study of the adaptable Re-use of Metabolist Architecture*, DOCOMOMO 15th International Conference Proceedings 2018, 418–424.
- 2 Noboru Kawazoe, Kiyonori Kikutake, Masato Otaka, Fumihiko Maki, & Kisyo Kurokawa, *METABOLISM/1961*, Bijyutsu Shuppansha, Tokyo, 1960, extracted from Rem Koolhaas Hans Ulrich Obrist, Editors Kayoko Ota with James Westcott AMO, *Project Japan Metabolism Talks*, Taschen 2011, 207.
- 3 Rem Koolhaas, & H. U. Obrist, 2011, i.e. 118–119, 226–233.
- 4 Yukio Futagawa, *MINKA1955*, GA, 2017.
- 5 *Special Issue: Design Survey by the University of Oregon*, Kokusai-Kenchiku, Nov. 1966.
- 6 Kisho Kurokawa, *Development and Conservation*, Shinkenchiku Oct. 1967, 125–28.
- 7 Kurokawa, 1967, 126 (translated in English by author).
- 8 *The Japan Times on Sunday*, Nov. 2019, 3.
- 9 *ibid.*, 2.
- 10 Kurokawa, 1967, 125 (translated in English by author).
- 11 Kurokawa, 1967, 125.
- 12 Alison Smithson edited, *Team 10 Meetings 1953–1984* New York, Rizzoli, 1991, 70–74.
- 13 Kurokawa, 1967, 126.
- 14 Annie Pedret, *Team 10: an archival history 6 Representation, Ideology, and Poser*, Routledge London 2013, 213–223.

RE-READING METABOLISM THROUGH THE REUSE PROJECTS OF ITS LEGACY

Josephine Buzzone

PhD in Architecture, History and Project at Polytechnic of Turin, Italy; buzzonej@gmail.com

ABSTRACT.

The Nakagin Capsule Tower (Fig. 1) designed by Kisho Kurokawa and the Sky Building N. 3 (Fig. 2) by Yoji Watanabe are two important Metabolism heritage, built in the Seventies and survived till today to the Tokyo's urban growth.

Over the past decade these meta-architectures, also selected by **docomomo** Japan in 2000s, have been interested by preservation and reuse projects — formal and informal — that have highlighted the today's strengths and criticalities of the Metabolist spirit of their original projects.

On one hand, the preservation of the Nakagin Capsule Tower, known all over the world, is still argument of an intense debate even though the building is considered the unrivalled emblem of the Metabolism. On the other hand, the less known Sky Building N. 3, re-open in 2011 as Gunkan Higashi Shinjuku, was subjected to an interesting adaptable reuse project that has averted its demolition and, in a way, has embraced the metabolists' ideals which, instead, the architect Watanabe has always denied.

Their preservation and reuse projects involved the re-reading of Metabolism that, in spite of the contemporaneity of the historical, architectural and technological values that the two buildings share, have been manifested with different ways and results. Therefore, the paper is focused on the comparison between the Nakagin Capsule Tower and the Sky Building N. 3 in order to present the various phenomena and factors that affected their “metabolic cycle” today. Through the analysis of the reuse projects of the two case studies, the aim of the paper is to reflect on which lessons and values we could still draw from the preservation processes of the Metabolism legacy to inspire and improve the theories and the practices of the contemporary re-movements.



Fig. 1. Kurokawa, Kisho, Nakagin Capsule Tower, Tokyo, Japan, 2017. © Lukas Schlatter.

1. INTRODUCTION

The Nakagin Capsule Tower by Kisho Kurokawa (1934–2007) and the Sky Building N. 3 by Yoji Watanabe (1923–1983) are two important Metabolism heritage of the Seventies, that risks or has risked being absorbed by the Tokyo's urban development.

The buildings were designed when the Japanese architecture and urban planning were committed to keep pace with the rapid and disordered expansion of the megalopolis as a result of the economic miracle. To “bring order” within the city and the contemporary society, Kurokawa and Watanabe interpreted the theme of the capsule architecture in different ways by using the building technologies of that time in an innovative manner. Although theories and practices of the two architects have been influenced by personal experience and by different background paths, the Nakagin Capsule Tower and the Sky Building N. 3 are representatives, for the architectural, historical and cultural values that the two buildings shared, of this recent past. Nearly fifty years after their construction, they have not been interested by any official preservation actions by the safe guarding organisations. If today we have the opportunity to admire this heritage, this is thanks to private initiatives that in a certain sense have allowed their metabolic cycle to continue.

The worldwide known Nakagin Capsule Tower, the first entirely capsule building, which has inspired architects from all around the world for its iconic compositional scheme, is located in the exclusive Ginza district. Today it fights for its survival in a clash that sees real estate interests on one side and a group of tenants, scholars and architecture enthusiasts on the other. Their will to hand down this



Fig. 2. Watanabe, Yoji, Gunkan Higashi Shinjuku, Tokyo, Japan, April 2012. © Carlo Fumarola.

important architectural heritage to the future generations led to the formation of the *Nakagin Capsule Tower Preservation and Restoration Projects*. The Sky Building N. 3 is instead a singular-looking structure, similar to a warship, still nestled in the Higashi Shinjuku district. It is one of the Watanabe's finest works that best represents the peculiar architectural research and personality of the architect. After a period of general abandonment, the building has survived to the demolition thanks to a reuse and renewal project that enhanced the compositional qualities of the original design.

The paper is focused on the comparison between the Nakagin Capsule Tower and the Sky Building N. 3 and their reuse projects. Through the analysis of these two case studies, the aim is to reflect which lessons and values we could still draw from the preservation processes of the Metabolism legacy to inspire and improve the theories and the practices of the contemporary re-movements. This paper is based on archives research, interviews, direct observation and study of the buildings.

2. FROM THE CAPSULE ARCHITECTURE TO THE PROJECTS

2.1. Nakagin Capsule Tower

The concept of the capsule arose from studies started in 1959, using the words 'unit space' and 'cell'. [...] I took an iconoclastic position in order to penetrate the existing order, break down

*architecture into units for individuals and then seek to establish a new order.*¹

Kurokawa's first theories and experiments on the concept of capsule architecture coincide with the development of the Metabolist theories. After he completed his studies in architecture, at the age of twenty-six, he took part in the preparations for the World Design Conference (WoDeCo) 1960 at Tokyo, becoming one of the founders and the most radical members of the Metabolism. The suggestions and notions advanced by the Metabolism group in the 1960s still exert a strong global influence on the way of conceiving architecture and urban planning today. The members borrowed the word "metabolism" from the biological sciences:

*We regard human society as a vital process, a continuous development from atom to nebula. The reason why we use the biological word metabolism is that we believe design and technology should denote human vitality. We do not believe that metabolism indicates only acceptance of a natural, historical process, but we are trying to encourage the active metabolic development of our society through our proposals.*²

From their projects for the manifesto *Metabolism 1960: Proposals for a New Urbanism* presented at the conference, strong attention emerges towards the relationships between man, nature and technology. An interest that, at an



Fig. 3. Kurokawa, Kisho, Nakagin Capsule Tower, Tokyo, Japan, 2011, the photos are part of the artist's project 1972. © Noritaka Minami.

architectural and urban level, the Metabolists have translated — albeit in utopian forms — in the concepts of fixed systems and interchangeable parts, variation and diversity between the parts and the whole, and of cities as a living organism.

Looking at Kurokawa's architectural and cultural legacies, he has developed an *architectural philosophy* that allowed him to be recognised as one of the most influential architects and thinkers among his contemporaries. He has cultivated the Metabolism ideals along with the concepts of Metamorphosis and Symbiosis — the three *life principles* — till the end of his life. Promoting the combination of opposite elements to create new architectural values, he conjugated these three fundamentals in the forms of capsule architecture, megastructures, *in-between* space and filter zone.

Regarding the capsule architecture concept, Kurokawa's first actual proposals, for their functional organisation (each capsule had different function, kitchen, bath nursery, etc.) and their collective nature, can be considered an experimental phase of this technology. Beside the suggestions of the essay *Space City* — Kurokawa's contribution for the Metabolist manifest — other examples are Prefabricated House (1962), the Takara Beautillion and the Capsule House in the roof of the Theme Pavilion for the Expo Osaka '70. The complete functions and man *encapsulation* takes place in the Nakagin Capsule Tower, built according to the Metabolism's ideals and the *Capsule Declaration*.³ Conceived as a non-conventional residence and offices space, the Capsule Tower is a symbol of that Japan's new architectural and social scale that emerged between the Sixties and Seventies. It consists of a cluster of 144 minimal housing units for 144 individuals and a plug-in system of high-tension bolts that allows to hook the capsules to two interconnected towers — of 11 and 13 storeys — as if they are *plugs of an electrical outlet*.⁴ The

capsules' structure, inspired by the naval containers, and the panels in steel were assembled in factories and then transported and attached to the two towers in steel-frame and reinforced concrete. The wise study of these materials and construction technologies made it possible to complete the Nakagin quickly. The exterior aspect, deliberately undefined, suggests the ease and the dynamism with which, in Kurokawa's urban dream, the buildings would have been able to grow and transform according to the needs of the city. Each capsule was conceived as a minimal and alternative living space for the individual. It was modulated in tatami for a surface of 2 x 5 metres, with a bathroom block that occupied one third of the unit, a large *marumado* — Japanese traditional round window — and a furnishing structure that satisfied the majority of daily needs. With its compact structure and the original interiors (Fig. 3) — designed in collaboration with the designer Nobuo Abe — over time it has inspired new types of housing, overnight stay and entertainment on a global level.

According to the principle of Metabolic cycle each *cell* of the Capsule Tower would have been replaced after a 25-35 years. However, no capsule has been replaced over time. The building, in fact, has been hit by the effects of the economic slowdown caused by the oil crisis of 1973 and by the speculative bubble burst of the Nineties. Further, a general disinterest towards the Capsule Tower has worsened with the adjoining development of the Shiodome glass giants that has eclipsed the Nakagin in the following years.

2.2. Sky Building N. 3

*I suspect critics call me strange, weird and insane because the external career of my architecture and my own daily actions depart from what is considered ordinary common sense. From the viewpoint of the appellation mad, dread is projected on things I have created.*⁵

As these few lines suggest, Yoji Watanabe has been one of the less understood architects by his contemporaries. Although his works and researches show that he was endowed with a strong imagination and conceptualisation, his temperament prevented him the possibility of succeeding and to fully realise the work that would have shown all his talent. Watanabe's singular architectural theories and practices can be traced back to his personal and formative experiences in the field of civil engineering and architecture. After obtaining the diploma in applied arts, he never attended architecture university as a student but his extraordinary skills allowed him to gain a place within Waseda University, where there has been a significant collaboration with the architect Takamasa Yoshizaka, from whom he received — not directly — Le Corbusier's influences. He had an *aspiration for the dramatic* that has been conditioned by the environment and the circumstances under which he was formed. The cold climates of the coastal city Jōetsu where he grew up, the participation in the war in the South Pacific and his training as reserve official, have deeply influenced his works. As Watanabe stated, he was “uninterested in architecture that lacks uncomplicated creativity and the temper to battle with the spaces of nature and the universe”. His “architectural philosophy is reflected in the wish that buildings, even after they have been destroyed, will leave an impression of creative spirit and significance on the mind.”⁶ Like Kisho Kurokawa, for its singular forms and conceptualisations, Watanabe's architecture transcended the traditional meaning of this term. In his works, he often recalled warships, spirals and dragons, combining these concepts with three major elements that we can clearly identify in his architecture: massive forms, verticality and movement. Suggestive examples are the still existing buildings of the Zendoji Temple of Shunan-zan (1961), the Dragon Fort (1967) and the Diagonal House (1976) also the proposals for the Centre du Plateau Beaubourg — Centre du Pompidou — (1971) deserves a mention and the The Peak project (1983).

The Sky Building N. 3 represents Watanabe's most successful experiment with the capsule architecture. In the design process, he borrowed the principles of prefabrication and industrialisation of architecture from the Modern Movement and combined them with his imagination. Although the vigorous and industrial aspect of the building — conferred by the materials steel and concrete that he privileged — Watanabe conceived its system starting from a natural matrix: “the basic idea developed from the branches of a tree (willow) where all the parts have equal access to natural lighting”.⁷ The Sky Building is composed by almost 115 capsule, arranged along a concrete frame of 14-storey. The plan scheme and the materials allow the building to take advantage of all the surface of the site. The alternation of two type of prefabricated panels — a long one and a short one — suggests the movement effect that gives to the building the aspect of a warship. As in Diagonal House — and like in Takamasa Yoshizaka's Villa Coucou (1957) — the reinforced

and sturdy aspect it is given by the windows configuration and steel casing of the capsules. Even though at the exterior each cell is clearly distinguished, in the interior, two or three capsules formed one residential unit, for a total of four housings for floor. Exceptions were the 13th and 14th storeys where four capsule instead composed a single residence, and the first two floors that consisted of a concrete block. In fact, unlike the Metabolist architects that had reduce the scale to the individual, Watanabe had as reference point the family. Like Kurokawa, Watanabe preserved a certain connection to the Japanese tradition. In fact, from the original drawings, it can be observed that the architect combined within the building two life styles: the capsules located on the East side presented a tatami flooring, while those on the West side had one of ordinary type. Finally, a deck of a ship, that seems to *sail* the Shinjuku district, takes form on the 15th floor, in the terrace, where Watanabe overlapped his experience in the civil engineering and architecture fields. Like the Nakagin Capsule Tower, the Sky Building N. 3 has known an abandonment period between the 1990s and 2000s that has compromised its state of conservation.

3. THE REUSE PROJECTS

3.1. The Nakagin Capsule Tower Preservation and Renovation Projects

While the architectural and historic value of the Nakagin Capsule Tower has been recognised around the world over years, also the possibility of demolishing it has become increasingly insistent in the last two decades. The main reason is that the building, with its particular capsules system, does not exploit the buildable potential of the site in which it is located. Considering the huge land cost in the Ginza district, it would be more profitable to construct another building that allows to use all the site's surface-area-to-volume ratio. Kurokawa himself fought against this logic also proposing the *Nakagin Capsule Tower Renovation Plan*, that, according to the Metabolism ideals, involved replacing the current capsules with larger units. Unfortunately, at that time the plan did not meet the approval of enough tenants and no overall maintenance and renewal has interested the building since its construction. As result the facilities are obsolete and some units have been gradually abandoned. The financial crisis in 2008 stopped any activities of demolition while, with Kurokawa's disappearance in 2007, it seemed that the Nakagin had lost his main savior.

In the last decade, in defence of this unique heritage stands a group of tenants that, with the support of scholars and architecture enthusiasts, has given rise to the *Nakagin Capsule Tower Preservation and Renovation Projects*. The main aim of the project is to sensitise the current and future tenants to the value of this heritage to reach the necessary percentage (80%) and so to prevent its demolition and proceed with the capsules replacement. To achieve this aim, the group has created the Capsule Bank system that allows to



Fig. 4. Watanabe, Yoji, Gunkan Higashi Shinjuku, Tokyo, Japan, 2017, oliverlins.com. © Oliver Lins.

connect owners that want to sell them with people who want to buy a unit. The effective commitment undertaken with the project is also contributing to extend the knowledge of the Nakagin and the architect Kisho Kurokawa, as well as the Metabolism Movement, to those who do not live there. In fact, beside the personal involvement in the maintenance and refurbishment of their own capsules, they launched a series of cultural and entertainment activities like the publication of the Nakagin Capsule Tower photographic book⁸ and the tours guide within the building. The profits from these initiatives are used to fund the preservation and restoration project. As expected and according to Mr Tatsuyuki Maeda — the reference person of the project and the representative of the tenants' council — realising the Metabolic cycle and so the architect's will to replace the capsules has very high costs.

Unfortunately, in 2018 the acquisition of the land, basement and 16 capsules by the new owner company made the matter worse and it is counteracting the efforts of the project. Nevertheless, the preservation and renovation project tried to point up to pursue a metabolism that, instead of replacing capsules, it can be said it consisted in replacing people. This cycle, which begun some years ago with the replacement of some tenants, has recently been interrupted with the sale by the management association of the remaining capsules to the landowner.

The path is still uncertain, however, the increasing interest and participation to the preservation and restoration project has proved that the Nakagin Capsule Tower has consolidated — despite not officially at a legislative level — its remarkable cultural and historic value.

3.2. The Gunkan Higashi Shinjuku

Even if the long abandonment in 2000s, brought the Sky Building N. 3 to become a drifting ship, its "brutal" aspect did

not defeat it but rather it has attracted curious and architectural enthusiasts from over the world. However, no action of protection and repairs were taken until 2010, when, thanks to a fortunate change of property, the building has been interested by a reuse project that allowed the total recovery of the structure. Re-open as Gunkan Higashi Shinjuku, literally "Warship at East of Shinjuku", today this legacy of the Seventies is a complex of offices, SOHO (small office home office) and social apartments as well as space and floors dedicated to entertainment and culture activities. All in lease since it is excluded the sale.

At a compositional level, the first two floors have almost maintained their original asset. The basement still has the black flooring with the wavy white pattern while the spaces around it, now, are set to host exhibitions, events and more. The 2nd floor preserves the previous appearance in exposed concrete and its atelier function, instead, to create the space offices, in the 3th, 4th and 5th storey, some vertical elements, in correspondence of the central corridor, have been removed. The capsules between the 6th and the 14th floor have been arranged as single unit: from 6th to 8th for the SOHO and from 10th to 14th for the social apartments. Finally, the 9th floor has been transformed in a wide dining and living space, at the service of apartment complex. A seismic retrofit system has been applied to adapt the building to the current standards, while the interventions in the interiors and exterior have been oriented to the energy saving. For example, to assure an excellent heat resistance, thermal and acoustic insulation, an anti-rust effect and to avoid the propagation of fire, it has been applied, in the interior, the stone wool and, in the capsules exterior, an aqua green paint (Fig. 4).⁹

The possibility to establish new functions within the Gunkan, thanks to the dynamicity of its capsule system, had a main role in the salvation of the building. The Sky Build-

ings N. 3 has been valorised not obscuring its essence but encouraging its warship spirit, demonstrating the validity of the original project conceived by Yoji Watanabe. Although he has always denied any affinities with the group, it could be said that, since the renewal project, the building has *metabolised* the lifestyle of the today society and the value of individuality and diversity declared by the Metabolism.

4. CONCLUSION

The events that interested the Nakagin Capsule Tower and the Sky Building N. 3, provide an insight into the criticalities and the strengthens of their original project. As already mentioned, the Nakagin's particular capsule system does not enable to maximise the lot's surface-area-to-volume ratio, while the Sky Building N. 3 is still suitable to exploit the cubature of the narrow area.

From the comparison between the two buildings emerges the question about the conservation decision-making process for the modern heritage and so on the actual possibility to preserve the integrity and authenticity of this legacy. If on one hand the use of one capsule as a single unit has embraced the Metabolism concept, demonstrating adaptability and flexibility for new functions, on the other hand and in a certain way it betrayed the Watanabe's original project. The debate about the Nakagin's future it is also being discussed in these terms and so in the matter to substitute the capsules or not.

While in the Seventies, for their non conventional system, they represented a break of the house traditional meaning, today these two legacies caught up the contemporary society's needs. If the Sky Building N. 3 has obtained the possibility to prove the potential of its architectural virtue, unfortunately, with the Nakagin Capsule Tower we could lose the unique occasion to crystalise that Metabolism ideals emblematic of "future past that it has not yet been forgotten".¹⁰

REFERENCES

Architectural Institute of Japan, *The architecture of Yoji Watanabe*, The architecture of Yoji Watanabe Publishing Committee, Shinkenchiku-sha, 1985.
 KUROKAWA, Kisho, *Each One a Hero. The Philosophy of Symbiosis*, Tokyo, Kodansha Amer Inc, 1997.
 KUROKAWA, Kisho, *Metabolism in Architecture*, Londra Studio Vista, 1977.
 WATANABE, Yoji, "Sky Building NO. 3", *Japan Architect*, Japan, Shinkenchiku-sha, June 1970, 112–116.

NOTES

- 1 Kisho Kurokawa, *Metabolism in Architecture*, London, Studio Vista, 1977, 75.
- 2 *Metabolism 1960 — Proposals for a New Urbanism*, Tokyo, Bijutsu Shuppansha, 1960, quoted in *Metabolism in Architecture*, op. cit., 27.
- 3 An article appeared in the form of a declaration with eight articles for *Space Design* magazine in March 1969.
- 4 Patrick Nuttgens, *Storia dell'architettura*, Mondadori Bruno, 2002, 293.
- 5 Yoji Watanabe, "The Dread of creating", *The architecture of Yoji Watanabe*, The architecture of Yoji Watanabe Publishing Committee, cured by Shinkenchiku-sha Co., Ltd., 1985, 139.
- 6 Yoji Watanabe, "The Dread of creating", op. cit., 139.

- 7 Yoji Watanabe, "Sky Building NO. 3", *Japan Architect*, Japan, Shinkenchiku-sha, June 1970, 115.
- 8 *Nakagin Capsule Tower*, Nakagin Capsule Tower Preservation and Restoration Project, 2015.
- 9 Some of the works were done by the Tanizawa Construction, accessed on June 6 2020, tanizawa-const.co.jp.
- 10 Buzzone Josephine, *Tokyo e l'eredità del Metabolismo. Storia e trasformazione di due edifici degli anni Settanta*, Master Thesis, 2018, 89.

BESIDE MEGASTRUCTURES IN SEOUL. THE ECOLOGY OF THE SURROUNDINGS

Dario Pedrabissi

University of Portsmouth; Eldon Building, Winston Churchill Avenue, Portsmouth, PO1 2DJ, United Kingdom;
dario.pedrabissi@port.ac.uk

ABSTRACT.

Megastructure and artificial land projects dominated the progressive concept of architecture and urbanism around the world. From the late 1950s to the early 1970s young architects developed radical visions of utopian cities and architectural apparatuses. These ideas have influenced the transformation of Seoul into a modern city, resulting in a complex urban programme where megaprojects are juxtaposed with existing informal areas capable of preserving the traditional milieu. The clash between these two urban settings can be found in many parts of Seoul. This paper will focus on the Euljiro area, in the very heart of the city where the Sewoon Sangga building and its surrounding area are located. The complex consists of eight blocks and forms a unique manufacturing environment. These blocks contain an organic settlement of small buildings organised on the original pattern of the ancient city in sharp contrast with the megastructure building. This paper focuses on the tension between these two opposed urban artefacts, retracing the main original idea behind the megastructure and the artificial ground concept and the unexpected symbiosis between the Sewoon complex and the organic area surrounding it.

1. MEGASTRUCTURES AND ARTIFICIAL GROUND: A FUTURISTIC VISION

Megastructure projects dominated the progressive concept of architecture and urbanism around the world from the late 1950s to the early 1970s.¹ Among the most innovative and imaginative contributions to the development of the utopian concept of megastructures and artificial land we can mention the work of the Japanese Metabolists, the radical visions of the Archigram group in London, the Superstudio and Archizoom in Florence, the work of Yona Friedman in Paris, of Constant Nieuwenhuijs in Amsterdam, and of Hans Hollein in Vienna.

The main idea behind megastructure projects was to encapsulate the city in a single form, using the artificial land concept as a tool to mediate with the existing ground. In his *Investigation in Collective Form* of 1964, Fumihiko Maki defines the megastructure as a

*large frame in which all the functions of a city or part of a city are housed. It has been made possible by present-day technology. In a sense, it is a man-made feature of the landscape. It is like the great hill on which the Italian town was built....*²

As Koolhaas and Hans Ulrich Obrist state in *Project Japan*,

*Metabolism develops a deeply ambivalent attitude towards Japan's ground, which is usually too densely populated, expensive, mountainous, flood-prone, beautiful, or seismically unstable to build on. So, the Metabolists conceive 'artificial ground' structures that hover over the ground on platforms or pilotis, still in close relation with the topography even in its attempts at defiance, and occasionally lunging upwards, desperate for liberation.*³

Japanese Metabolism developed the idea of artificial ground initiated by Le Corbusier's Fort l'Empereur project in his Algiers plan of 1931. The idea was then brought to Japan in 1954 by his protégé Takamasa Yoshizaka. In the same period, a few Japanese architects further expanded the concept of artificial ground applying it to projects of different scales. Key examples of the evolution of the artificial ground concept include the Sky House built by Kikutake in 1958, the Wall City and the Agricultural City, two large visionary projects elevated from the ground Kurokawa speculated on in 1959, and the well-known Plan for Tokyo developed in 1960 by Kenzo Tange with the Tange Lab, a project elevated from the ground that aimed to transform the 922 square kilometres of Tokyo bay's empty sea into a new part of the city.⁴

South Korea also developed its massive modern transformation during the second half of the twentieth century, being largely influenced by these visionary projects. In the first years after the Korean War (1950–53), South Korea struggled to deal with a massive country-to-city migration, but the economic output increased dramatically and starting from the 1960s, the country has developed into an industrialised economy. Especially under the dictatorship of Park Chung-hee (1963–79), South Korea turned into a developmental regime whose aim was to build new modern infrastructures and large housing projects. Seoul was the centre of a process in which iconic projects were planned to reinforce the progressive image of the regime. It is worth noting that the utopic projects proposed by prominent architects as Kim Swoo Geun, were accepted and integrated into the national projects, negotiating visionary ideas with practical urban problems.



Fig. 1. Left: Sewoon Sangga, Seoul, 1968. Source: © National Archives of Korea. Right: Sewoon Sangga in the background with the small buildings in the surroundings. Source: the author.

2. UTOPIAN PROJECTS IN SEOUL

To promote the construction of key utopian projects for the transformation of Seoul, the government established the Korea Engineering Consultants Corporation (KECC) in 1965. Representative architects gathered in this institutional body at the end of the 1960s to speculate on bold, large-scale and state-backed projects.⁵ Kim Swoo Geun, the most renowned Korean architect of the time, merged his office with the KECC for three years (1966–69) and designed two major utopian projects in Seoul. He planned the Yeouido Master Plan along the Han River and built one of the most iconic megastructure projects in Seoul, the Sewoon Sangga complex, in the very heart of the city. These two paradigmatic projects — the first drastically altered from his original proposal, while the second built according to his plan — incorporated the concept of artificial ground, seen as an opportunity to create a new urban order.

Before focusing on the Sewoon Complex, it is worth examining the Yeouido masterplan, which will help us to understand the importance of a larger scale megastructure and artificial land concept that aimed to involve the urban and regional area in a unique system.

2.1. The Yeouido Masterplan: The Centre of a New Urban Model

The Yeouido plan was part of a larger scheme that involved a new urban strategy for a significant portion of the river waterfront. It was seen as an opportunity to create a new model to be replicated in the expanded city southward, and toward Incheon on the west. The plan was essentially

an urban laboratory for the creation of the modern city.

The Han River Development plan of 1967 had the ambitious aim to organise the transportation arteries along the river while implementing new building constructions. Yeouido, a large island on the river Han, close to the left side of the riverbanks, has been used as an airfield since 1916. According to the plan, the island was to be transformed into a new centre, dislocating major governmental facilities including the national assembly, the city hall, the supreme court, foreign embassies, a business district with skyscrapers and modern residential areas. The island, so, was to become the centre of a new urban model for Seoul.

The city of Seoul appointed architect Kim Swoo Geun for the design of the Yeouido masterplan which was started in 1968. He proposed an advanced project that incorporated aspects referable to the international progressive concepts of architecture and urbanism. In particular, the influence of Kenzo Tange's "A Plan for Tokyo" (1960) is visible in the five concentric rings of the central axis, as well as in the multidimensional use of space and the linear city plan. Kim's original project incorporated several innovative aspects: an elevated pedestrian deck in the central axis would have ensured the harmonious coexistence of cars and pedestrians. Other features such as a road network based on different speeds and functions, and abundant green areas and parks stressed the central utopian vision of modernist architecture and the functional use of land. In 1971, however, a different team took over and the original project was heavily modified.⁶ The multidimensional use of space, so evident in the elevated pedestrian deck, was scraped away in the new project, as well as the integrated use of land and the catego-



Fig. 2. Pictures of the dynamic surrounding area in the proximity of Sewoon Sangga. Source: the author.

ried separation of roads.

2.2. Sewoon Sangga: Artificial Ground for a New Urban Order

Sewoon Sangga is the most famous megastructure project constructed in Seoul, which embodies all the main characteristics of the modernist utopia. It spans from Jongmyo, in the north, to Namsan in the south, and covers four blocks creating a one-kilometre-long megastructure. It consists of eight buildings built on artificial ground and interconnected by an elevated pedestrian deck level on the third floor. The complex initially contained commercial facilities up to the fourth floor and residential units on the upper stories. Although Sewoon Sangga was immediately acclaimed for its innovative hybrid composition of functions, it lost its fame shortly afterwards, in favour of the newly built neighbourhoods on the southern side of the Han River that flourished from the 1970s.

The construction of the Sewoon complex was supposed

to initiate a new modern development in the whole area and give way to the demolition of the existing small buildings in the surroundings (Fig. 1). This process did not happen because the Sewoon complex lost its attraction after the new modern development shifted to the south side of the river Han. This event allowed the area surrounding the Sewoon complex to maintain its nature as a micro industrial complex and actually influenced and transformed the programme of the megastructure.

3. THE ECOLOGY OF SEWOON SANGGA AND ITS SURROUNDING AREA

Nowadays, the Sewoon Complex, with its surrounding eight large urban blocks, forms a manufacturing hub with a diverse programme that comprises electrical and electronic products, metal workshops and printing firms, and where an exceptional community of highly skilled workers operates (Fig. 2). This unique, almost medieval productive centre



Fig. 3. Pictures of the surrounding area in the proximity of Sewoon Sangga. The pictures show buildings from different eras: 1970s (left) and 1930s (right). Source: the author.

is located in the very heart of the city, amidst expensive office buildings and is situated just south of the Changgyeonggung Palace. The whole area is now under tremendous pressure because, especially after the Cheonggyecheon river renovation, this productive ecosystem has become prime real estate. The several large urban projects which have been proposed over the last years always involved the destruction of the existing buildings and the relocation of the local craftspeople, thus prefiguring a tremendous loss in Seoul's diverse urban programme.

3.1. The Failed Renewal Plans

The story of the different renewal plans for Sewoon Sangga is quite significant. The building's original intention was to boost the development of the surrounding area. However, in the 1970s, the main urban expansion shifted to the south side of the river, while the northern area lost momentum. In that period, the businesses that were present in the surroundings had the opportunity to use the interior spaces of the megastructure as they were offered at a lower price. Starting from the year 2000, then, Sewoon Sangga regained the investors' interest. As a consequence of this, a series of renewal plans were studied but failed to be implemented.

In 2006 the Seoul Metropolitan Government (SMG) promulgated the Sewoon Renewal Promotion Area and the Sewoon complex was listed for demolition in order to transform its ground into a linear park connecting the Jongmyo Shrine, north of the city, with the Namsan mountain to the south. This project promoted a complete tabula rasa of the

surrounding area and the construction of tall office buildings. This strategy changed in March 2014 when the revised Sewoon Renewal Promotion Plan prescribed that the Sewoon Sangga building must be kept although the surrounding area remained subjected to further development with 730% of allowed Floor Area Ratio (FAR).⁷

Nevertheless, the failed restoration projects of Sewoon Sangga have paradoxically saved the surrounding areas, which, so far, have not been gentrified by the new projects. On the contrary, if the green corridor had been implemented, all the surrounding area would have disappeared. Thus, the green project, which was used to sell the idea of a more sustainable city, would actually have had a more destructive effect on the social and cultural fabric of the city than the megastructure building itself.⁸

3.2. The Productive City

The architectural and urban system created by the megastructure and its surrounding area embodies a rich and unique socio-economic ecology. As we have seen, any large-scale urban regeneration project proposed in the recent past would have destroyed this ecosystem. The ever-changing surrounding area, with its medley composition of the urban programme, has created instead a resilient synergy and has finally conquered the Sewoon complex, imposing its programme and creating a small-scale productive system in the very heart of Seoul.

Nowadays, the residential units on the upper level of Sewoon Sangga have been mainly transformed into office spaces that accommodate small businesses. The new crea-

tive occupation of Sewoon Sangga has contributed to strengthening the synergy with the surrounding area. Start-up companies, design firms, and global networks such as the Fab Lab Seoul have created a unique environment perfectly integrated with the productive hub that surrounds the building. Here, an extensive network of small-scale factories and shops provide a fast and resilient productive cluster that spans from electrical and electronic shops, to metal factories and printing factories.

The whole neighbourhood is a highly dynamic environment that is extremely rare to witness in a modern megacity dominated by business districts. Walking along these narrow alleys, the visitor will be immersed into another dimension (Fig. 3). The metal workshops can manufacture any products to support nearby businesses. Since the workshops are generally small, the workers often use the street as an extension of their production line. Thus, metal shaping, welding, folding, riveting and hammering become activities that take place in the public space. The whole neighbourhood is pervaded by vibrant logistic, crafting and purchasing activities, and social interactions are intensified. Other manufacturing areas include the electronic district in the northern part where artists, makers, and technicians can find almost everything they need. A new wave of young makers has set up their start-up companies here. This younger generation brings new vital lymph to the ecology of a complex where the young can learn from the older generations and at the same time support the work of the more experienced craftsmen with the new possibilities offered by the application of modern technologies.

This rich urban programme is a fantastic opportunity for the city of Seoul that should maintain and reinforce the ecology of the area that combines a business district, a commercial area, historic landmarks, and a small productive centre in the very heart of the city. In this context, the Sewoon complex has become an exceptional reality that is able to integrate people from different social strata. The resulting public space, characterised by an amalgamation of different functions and qualities, is distinctive to the city of Seoul.

4. FINAL REMARKS

The core idea at the basis of megastructures was that of encapsulating the city in a single frame. Megastructures have mainly been a speculative form of thinking to conceive a new urban order capable of solving the chaos of the old city, a hybrid between infrastructure and architecture.

Seoul's Sewoon Complex is the typical product of this modernist avant-garde. Kim Swoo Geun conceived this project reflecting on the Metabolist concept of a megastructure that could accommodate further changes. However, the structure turned out to be a very rigid composition of volumes that paradoxically were transformed and reinterpreted throughout the years. The ever-changing surrounding

area, with its medley composition of the urban programme, has instead conquered the Sewoon Complex, imposing its programme and creating a productive system in the very heart of Seoul.

The whole area is a vibrant ecosystem that should be preserved and enhanced by the city of Seoul. The current policy, on the contrary, allows the construction of high buildings and the transformation of large sections of the surrounding area, creating a further clash with the existing urban fabric. The very peculiar ecology of the area surrounding this megastructure is an example of cohabitation of the large and the small, the temporary and the permanent, the formal and the informal. Thus, the SMG should seize the opportunity to preserve and enhance an existing system that is capable of delivering a unique urban programme and a vibrant public space in the very heart of the city.

ACKNOWLEDGEMENTS

This work was supported in part by a grant from the Faculty of Creative and Cultural Industries, School of Architecture, University of Portsmouth, United Kingdom.

NOTES

- 1 M. Tafuri, & F. D. Co., *Modern Architecture*, Modern Architecture, Electa/Rizzoli, 1987.
- 2 Reyner Banham, *Megastructure: Urban Futures of the Recent Past*, London, Thames and Hudson, 1976.
- 3 Rem Koolhaas, et al., *Project Japan: Metabolism Talks...*, Taschen Cologne, 2011, 340.
- 4 Rem Koolhaas, et al., *Project Japan: Metabolism Talks...*, Taschen Cologne, 2011, 284–86.
- 5 Junghyun Park, et al. (eds.), *Spectres of the State Avant-Garde*, Mapo-gu: Propaganda Press, 2018.
- 6 Hyunjung Cho, "The Yeouido Plan: Between Utopian Aspiration and Bureocratic Planning," *Spectre of the State Avant-Garde*, Park Junghyun, et al. (eds.), Propaganda Press, 2018, 141.
- 7 Joonwoo Kim & Bruno De Meulder, "A Modernist Utopia Taken Over by the Ordinary. The Consecutive Lives of the Seun Complex in Seoul, South Korea," *Éditions de La Faculté d'Architecture La Cambre Horta de l' Université Libre de Bruxelles* 1, No. 4, 2017, 85–102.
- 8 Sungwoo Kim, "The Ecosystem of Industries in Downtown Seoul and the Implication of Large-Scale Projects," *Seun Sangga Kū Isang: Taekyumo Kyehoek Nōmō [Beyond Seun Sangga: 16 Ideas to Go Beyond Big Plans]*, Vitnarae Kang & Hyeri Park (eds.), Seoul, SPACE Books, 2015, 29.

Session 9-c

LEARNINGS FROM BEFORE AND AFTER METABOLISM

Kengo Hayashi

Associate Professor, the IIS, the University of Tokyo

Metabolism is probably the best-known urban theory proposed by Japanese architects in the post-war period. However, the theory has been understood only based on the Metablists' arguments and has not been sufficiently debated from other perspectives. For example, we have not examined it within the context of other urban theories proposed by Japanese architects during the same period. As a result, the originality and differences of the Metabolist theory have not been clarified compared to those urban theories. In addition, even though many Metabolist buildings have already survived for around 50 years, we do not have enough studies on their values and problems created after the construction. Therefore, this session will discuss these issues from two different periods: before and after Metabolism.

Yusuke TSUNEMATSU's paper, *Idealism and Realism: Oka Ryuichi's "Multi-story City Concept,"* reveals the growing skyscraper concept proposed by Japanese architect Oka Ryuichi in 1951 before the advent of Metabolism in 1960. Oka's proposal, which has been overlooked so far, appears to have similarities with the growing cities depicted by the Metabolist. However, this paper points out that the difference in economic conditions in Japan in the early and late 1950s makes Oka's proposal different from that of the Metabolist. In the early 1950s, the rapid economic growth had not taken off yet, and the capital in both the public and private sectors was scarce. This economic condition led to a bottom-up approach through the gradual construction to realize skyscrapers by private companies according to their economic growth. By analyzing the characteristics of Oka's proposal, in contrast, Tsunematsu's paper reformulates the manifestation of Metabolism, which a top-down approach with audacious public investment was detrimental.

Yuya TOMISAKA's paper, *Daikanyama Hillside Terrace as Cultural Landscape: Architectural and Cultural Linkage Deployed in the City,* shows that the Daikanyama Hillside

Terrace, which Fumihiko Maki had been designing for more than 30 years from 1969, can be evaluated as a living heritage that forms the cultural landscape of Daikanyama. The Daikanyama Hillside Terrace is an architectural project that embodies the concept of the collective form proposed by Maki. This paper argues that the collective form of this project is not a mere collection of buildings but an overall landscape that encompasses the Old Asakura House, Yamate Street, and other historical elements around Daikanyama Hillside Terrace. Furthermore, the paper reveals that the Daikanyama Hillside Terrace has nurtured a new community of residents producing various cultural activities. This case study let us know that the Metabolist theory can contribute to the creation of communities and cultural landscapes as well as the flexibility of buildings.

As Tsunematsu implies, most of the Metabolist urban and architectural designs are bureaucratic and less democratic. Their designs basically consist of two elements: the central core and individual cells. Individual cells can be built and torn down individually, thereby responding to changes in the urban population. However, if the central core is not flexible enough to be expanded and rebuilt, individual cells cannot respond to the changes smoothly because the core supports the cells. The central core was usually built and managed by the government or developers. Although they are responsible for expanding and maintaining the central core, they have rarely been improved due to budget shortages, physical constraints on expansion, and conflicts among the owners of the individual spaces. For example, the Nakagin Capsule Tower, a famous Metabolist architecture designed by Kisho Kurokawa, is on the verge of demolition for the same reasons. These experiences probably suggest that we consider other core types, such as a decentralized core that allows for community-based management.

On the other hand, Daikanyama Hillside Terrace led to a

growing community that enhanced the attractiveness of the urban landscape of Daikanyama. While the Metabolists imagined growing cities and architecture, perhaps they did not think much about the community growing in the architecture they designed. However, the case of the Hillside Terrace reminds us that the community is critical for the sus-

tainability of buildings.

From the perspectives before and after Metabolism, this session will shed light on various issues related to contemporary urban planning where the strength of bottom-up grassroots approaches is emphasized.



IDEALISM AND REALISM: OKA RYUICHI'S "MULTISTORY CITY CONCEPT"

Yusuke Tsunematsu

Doctoral student at the University of Tokyo; Faculty of Engineering Bldg.1 316, 7-3-1 Hongo, Bunkyo-ku, Tokyo;
tune128@gmail.com

ABSTRACT.

Since the publication of the Metabolism manifesto in 1960, Japanese architects have been renowned for producing unique theories and designs of urban planning. Conversely, their contribution to the creation of new urban concepts before this period — during the late 1940s to the early 1950s — have been largely overlooked by existing scholarship.

This paper discusses a remarkable proposal in this period — the “Multistory City Concept” — presented by Oka Ryuichi (1902–1988). As early as in 1951, Oka proposed a city of skyscrapers that could grow vertically, before the Metabolism movement. By analyzing his concept, this paper examines the meaning of “growth” in a city in the historical context just before the Metabolism movement. Oka’s concept was influenced by the unique economic conditions around 1950, when a boom in private construction projects began despite the scarcity of their development funds. Therefore, he invented the original building structure that allowed small enterprises to extend upper floors gradually by making a series of investments, which led to his urban strategy of growth. Thus, the social context behind his proposal differed greatly from that of the Metabolists, whose work reflected Japan’s strong economic growth.

Oka’s concept, therefore, can be interpreted as a product of both the positive expectation of private developments expanding and the realistic understanding of their limited funds; that is, an amalgam of idealism and realism. Based on this ambivalent attitude, Oka presented the democratic concept of growth in urban developments by small enterprises.

1. INTRODUCTION

1.1. Urban designs before the Metabolism

Since the publication of the Metabolism manifesto in 1960, Japanese architects have proposed unique theories and designs of urban planning, which have had major impacts around the world.

Before the Metabolism movement, Japanese architects until the mid-1940s followed the international movements of urban planning, such as Le Corbusier and the International Town Planning Conference Amsterdam.¹ Subsequently, Japanese architects “lost interest in creating new urban forms and ideals” until the late 1950s, according to Nakajima.² Previous studies on this topic ignore the attempts by Japanese architects to design new urban concepts between the late 1940s and the early 1950s.

1.2. Oka Ryuichi’s “Multistory City Concept”

This paper specifically discusses a remarkable endeavour in this period — the “Multistory City Concept” — a plan proposed by Oka Ryuichi (1902–1988).³ Oka’s concept, presenting a unique vision of a skyscraper city that could grow vertically, as early as in 1951, can be evaluated as greatly pioneering. While he has been acclaimed as the inventor of the base isolation structure in Japan⁴, his contributions to the field of urban planning are less widely known.

In presenting a vertically growing city, Oka’s concept employs the same approach as the subsequently-presented Metabolists’ concepts, for example, the “Tower-shaped Community” by Kikutake Kiyonori.⁵ While architectural concepts of the Metabolists primarily comprise permanent megastructures and replaceable units that can grow, in Oka’s concept, the primary structure itself can grow vertically by

extending upper floors, both of which show the different strategies of “growth.” To understand Oka’s concept of growth, its social context in the transition period from post-war recovery to rapid economic growth must be considered, not connecting it hastily to that of Tange Kenzo or the Metabolists afterward. This paper analyzes how a Japanese architect proposed a vertically growing city before the Metabolists and examines the meaning of the urban concept of growth in the historical context just before the period of rapid economic growth.

1.3. Research Method

To understand how Oka could present such a pioneering urban concept, this paper carefully reads two of his articles on the Multistory City Concept in Japanese architectural journals.

In 1951, Oka published the first article on his Multistory City Concept, presenting the ideal plan for a high-rise city and demonstrating its efficacy from urbanization, building structure, and fundraising perspectives.⁶ The following year, Oka published the second article on his idea, applying this plan to an area in Tokyo and sketching out its gradual construction process.⁷

By analyzing these two articles and considering the social context circa 1950, this paper examines Oka’s motivation to propose the concept and the technical approach employed for it. This study specifically focuses on two remarkable pillars of his concept: the earthquake-resistant skyscraper and the vertically growing city.

Additionally, to investigate Oka’s thought development on urban planning, this paper refers to other publications from 1928 to 1958, including articles, papers and a book published by his architectural office. Finally, by comparing the

Multistory City Concept with other urban concepts presented in preceding or subsequent eras, this paper discusses its historical significance.

2. URBANISM AND THE STRUCTURE OF SKYSCRAPERS

Oka's proposal included a unique structural model of the earthquake-resistant skyscraper (Fig. 1). Given that the official investigation for skyscraper construction began in Japan in the mid-1950s⁸, his proposal was pioneering. The question is why Oka advocated skyscraper construction in the post-war recovery period, when the construction of medium-rise buildings barely became common again, and how he could provide such a unique proposal despite the lack of fundamental research on structural engineering at that time. This chapter examines Oka's motivation for and structural approach to skyscraper constructions in his concept.

2.1. The Solution to Overpopulation Problems

First, this chapter investigates what motivated Oka to propose skyscraper construction in 1951, when the height-restriction law prohibited the construction of high-rise buildings exceeding 31m. In the first paragraph in his article in 1951, Oka argued that the contemporary overpopulation in cities was an inevitable trend and stated that expanding urban areas caused a long-distance commuting problem.⁹ To address this problem, he presented a mathematical method for determining the optimal size and form of a city, as a function of the speed at which people can travel horizontally and vertically (Fig. 2).

Horizontally, Oka determined the boundary of a city by calculating people's movements and planned a "green belt" and "garden towns" around a city. This planning technique was commonly applied for reducing urban sprawl by wartime urban planners, influenced by the manifesto by the International Town Planning Conference Amsterdam.¹⁰ Vertically, Oka determined the height of the tallest building in the ideal city as 120m, based on a similar calculation.¹¹ Thus, he attempted to provide large-scale spaces in the urban core, understanding that this exceeded the maximum building height allowed by law.¹² This approach is evident in Tange Kenzo's strategic plan, in which he presented a high-rise city that addressed and accommodated the migration of

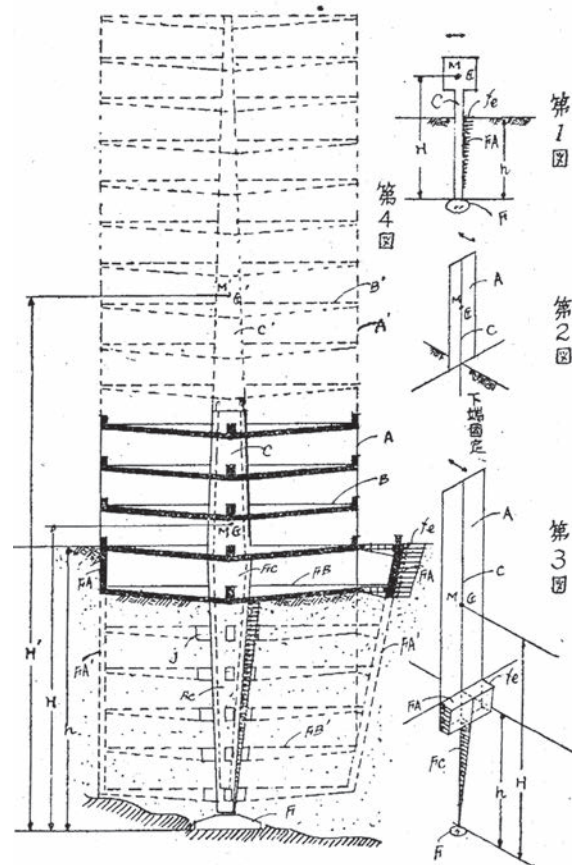


Fig. 1. Section of the earthquake-resistant skyscraper, 1951. © AIJ

the population into urban centres through transportation solutions.¹³

In sum, Oka considered population concentration in cities as an inevitable trend. His proposal attempted to accommodate population growth in cities by directing growth vertically through the construction of high-rises, and preventing sprawl through the design of green belts.

2.2. Earthquake-Resistant Skyscraper Structure

Second, this chapter investigates how Oka began to ad-

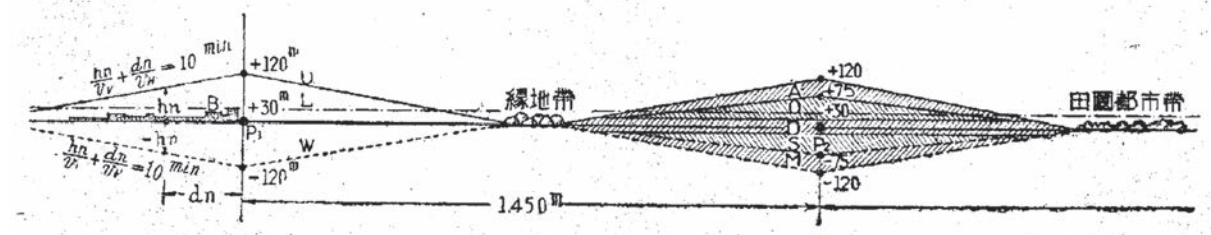


Fig. 2. Cross section of the ideal high-rise city, 1951. © AIJ

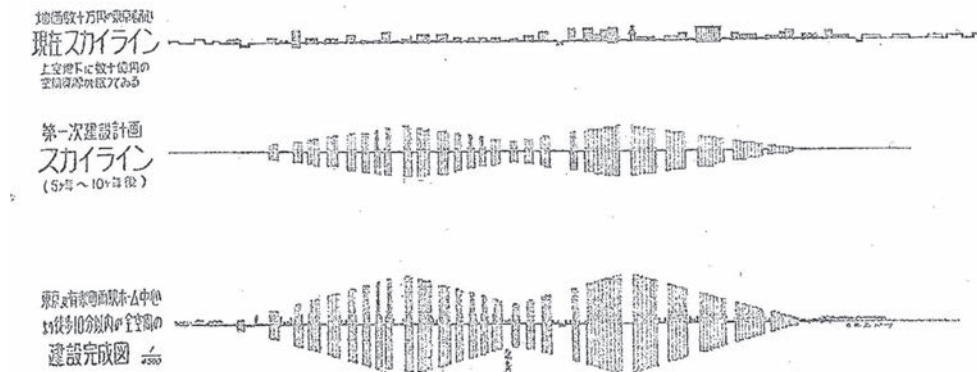


Fig. 3. Existing skyline, mid-term skyline and final skyline of the ideal high-rise city, 1952. © AIJ

dress the technical challenges of earthquake-resistant skyscraper construction in 1951, despite the lack of fundamental research on the subject.

Oka applied the structural model of the traditional shrine gate “torii” to the skyscraper foundation. This was a unique approach to earthquake-resistance, compared to the skyscraper prototype with a shear-wall core in the center¹⁴, which Tange Kenzo and Muto Kiyoshi presented in Tokyo Metropolitan Government Building in 1957.

In a paper in 1932, Oka had already referenced the foundations of torii with a section diagram.¹⁵ In this way, he described how the foundation, composed of a stone base with a wooden column on it, absorbs the friction energy generated when the column slides on the base during an earthquake.

Subsequently, Oka, through his Multistory City Concept, presented the skyscraper foundation composed of a massive base with a deep underground structure on it (Fig. 1). Inserting a section diagram of the torii foundation again¹⁶, Oka explained that he applied it to the skyscraper model¹⁷, which indicates that he planned the earthquake-resistant skyscraper with a friction energy absorber, similar to the torii. The results of Oka’s pre-war research on the foundation structure formed the theoretical basis of his unique earthquake-resistant skyscraper in 1951 when fundamental research studies on it had not yet been established.

2.3. Influence of the Modern Movement

Besides the foundation structure, Oka proposed a unique main structure composed of massive columns and daring cantilever beams projecting from them (Fig. 1). This skyscraper structure was presumed to be inspired by the Johnson Wax Research Tower (Frank Lloyd Wright, 1950), which shows a similar section with a column and cantilevers. This building was introduced by a Japanese architectural journal the year before Oka proposed his concept¹⁸, and was also featured in a book published by his architectural office in 1958.¹⁹ As a structural engineer, Oka concen-

trated specifically on demonstrating technical solutions in his concept; however, he also followed the latest Modern Movement trends.

3. VERTICALLY GROWING CITY

In addition to skyscraper construction, in his Multistory City Concept, Oka proposed a unique vision of a vertically growing city, which anticipated the Metabolists’ concept of the city that grows and renews itself. Oka’s concept of “growth,” however, was a product of the severe economic conditions around 1950, which is clearly distinguished from the Metabolists’ concept during the period of strong economic growth.

During a period when resources were scarce, Oka assumed private enterprises as major actors in urban development and proposed technical solutions for them to construct high-rise buildings and raise funds for it. This chapter examines three points to understand the meaning of Oka’s concept of “growth”: 1) his understanding of the economic situation around 1950, 2) his motivation to assume private enterprises as major developers, and 3) his method of construction and fundraising for private enterprises.

3.1. Oka’s Understanding of the Economic Situation

Regarding the economic situation surrounding construction, in 1951, Oka noted that it is difficult to construct the ideal high-rise city all at once in “the poor country Japan”²⁰, reflecting his awareness of the severe economic conditions at that time. Conversely, noticing the contemporary trends in Japanese cities in 1951, Oka pointed out that he could see “the signs that cities were developing and densifying”²¹, reflecting his optimistic prospect for future urban development.

Oka presented a mid-term plan of the ideal high-rise city five to ten years after the beginning of construction, in addition to the plan showing completion (Fig. 3). Regarding the mid-term plan, he explained that “I made the plan so

that private enterprises could start construction immediately, using currently available funds for construction.²² He was aware that, given the economic conditions around 1950, private development funds were insufficient to construct a high-rise city all at once, despite the emerging trend for these dense cities.

3.2. Private Enterprises as Urban Developers

Although Oka recognized the limited development funds available to private enterprises, in his Multistory City Concept, he assumed them to be major stakeholders in constructing a high-rise city. He advocated “taking advantage of the voluntary economic activities of private citizens” in his article.²³

At that time, the master plan for post-war reconstruction in Tokyo was downscaled significantly.²⁴ Conversely, increasing private investments in real estate caused a boom in building construction;²⁵ that is, private construction projects increased rapidly in the absence of urban planning led by the public sector.²⁶

This study presumes that, during this boom in private construction in the early 1950s, Oka recognized private enterprises — not national and local governments — as major urban developers in constructing a high-rise city. Thus, his approach to urban planning was completely different from the controlled approach of wartime urban planners and Tange Kenzo’s approach in “A Plan for Tokyo, 1960,” counting on large-scale public investments.²⁷

3.3. Construction and Fundraising that Allows Gradual Extension

To promote urban developments by private enterprises, Oka proposed a technical method of construction and fundraising that allows gradual extension of high-rise buildings, which he called the “Growing Building Method.”²⁸ His proposal for the Growing Building Method was that in constructing a high-rise building, a private enterprise saves construction costs largely by applying the cost-effective structure he invented (Fig. 4).²⁹ Further, it spends the remaining funds on the structural reinforcement of the foundation and columns of the building, to ensure structural integrity in the event of upper floor extensions in the future (Fig. 1).³⁰

At the time of Oka’s proposal, government control of the use of steel and cement was lifted; thus, the construction of reinforced concrete buildings became common again.³¹ This relaxation of government control of steel and cement, however, caused prices to soar from 1950 to 1951.³² These soaring material prices presumably motivated Oka to present the cost-effective structure in 1951, for attracting private development funds.

In addition to proposing the construction method, Oka presented a unique fundraising method, in which a private enterprise can generate profit in advance of complete build-out by selling the ownership of the upper floors to be ex-

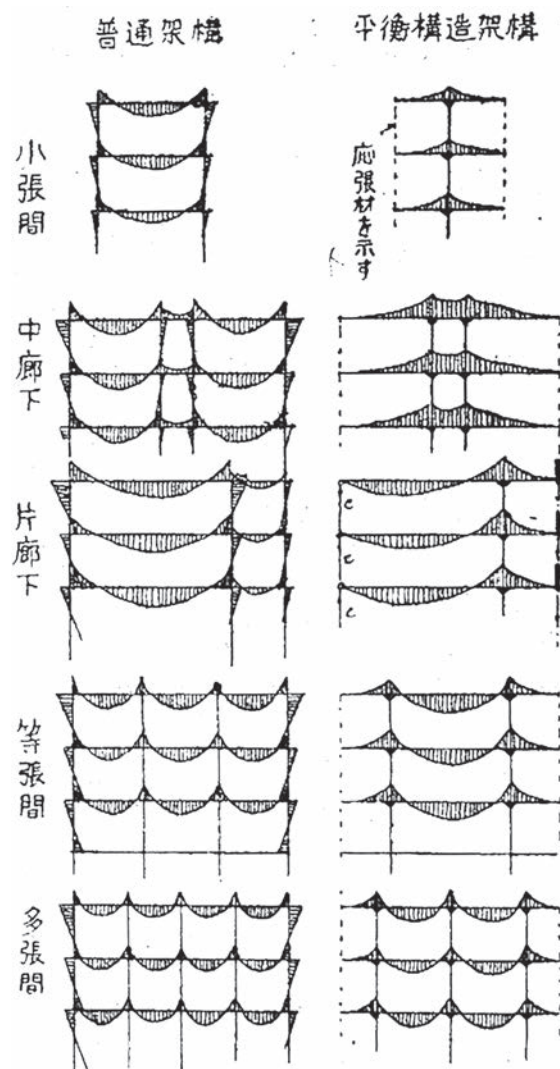


Fig. 4. Bending moment distribution of conventional and proposed structures, 1951. © AIJ

tended.³³ Thus, private enterprises can begin constructing the lower floors of high-rise buildings with limited funds, and extend the upper floors gradually by making a series of investments when the necessary funds are obtained.

Oka recognized both the potential and limitation of private development funds; thus, he proposed the gradual construction method of constructing lower floors for the time being and extending upper floors in the future. This positive and realistic recognition underlies his urban concept of growth.

4. CONCLUSION

4.1. The Multistory City Concept in the Historical Context

Based on the detailed examination in the previous two

chapters, this paper clarified Oka's motivation for and technical approach to two remarkable ideas: the earthquake-resistant skyscraper and the vertically growing city. Last, this chapter discusses the significance of his Multistory City Concept in the historical context of urban concepts in Japan, focusing on these two ideas.

First, the unique foundation structure of Oka's earthquake-resistant skyscraper was theoretically based on his pre-war research results, and its design of daring cantilevers was influenced by the Modern Movement, both of which produced Oka's alternative prototype of a skyscraper in structure and design. Second, his approach to urban planning shows the transitional characters between wartime and rapid economic growth. Oka applied the planning technique employed during the war, for example green belts, to his concept. Conversely, he took a completely different approach from wartime urban planning, in that he accepted population concentration in cities as an inevitable trend. In this sense, he had a similar urban strategy to Tange Kenzo, in presenting a high-rise city to accommodate overpopulation with high interest in urban transportation.

4.2. The Democratic Concept of Growth for Small Enterprises.

The uniqueness of Oka's urban strategy lies in his recognition of private enterprise — not national and local governments — as major urban developers. In the early 1950s, when private construction projects increased rapidly in the absence of public urban development, Oka recognized the "voluntary economic activities of private citizens" as the driving force of urban development. The urban concepts of Tange Kenzo and the Metabolists, characterized by bold megas-structures, conversely, cannot be implemented without large-scale public investments; that is, they were indifferent to private enterprises as urban developers.

Oka specifically assumed "small enterprises" as major developers, which shows the economic situation at the time. Since the 1960s, major developers have occupied a dominant share of the real estate market in Tokyo, and have become major developers of a high-rise city, instead of small enterprises.³⁴ In this sense, Oka's high expectation for small enterprises was unique to the situation before the expansion of major developers. In expecting much of small enterprises, Oka was also aware that their development funds were insufficient to construct a high-rise city all at once. Thus, he presented the technical method of construction and fund-raising that allows a gradual extension, which formed the basis of his urban strategy of "growth."

In conclusion, Oka's concept can be interpreted as a product of both the positive expectation of private developments expanding and the realistic understanding of their limited funds; that is, an amalgam of idealism and realism. Based on this ambivalent attitude, Oka presented the democratic concept of growth in urban developments, not by the public sector or major developers, but by small enterprises.

REFERENCES

- ISHIDA, Yorifusa, *The Historical Development of Japanese Modern and Contemporary City Planning: 1868–2003*, Tokyo, Jichitai Kenkyu-sha, 2004.
YATSUKA, Hajime, *Metabolism Nexus*, Tokyo, Ohmsha, 2011.
TOYOKAWA, Saikaku, *Architectural Theories and Practices by Kenzo Tange Laboratory: Mainstream of Postwar Japanese Architecture and Urban History*, Tokyo, Ohmsha, 2012.
NAKAJIMA, Naoto, *Thoughts and Places on Urbanism: Notes on Japanese Planning History*, Tokyo, University of Tokyo Press, 2018.

NOTES

- 1 Yorifusa Ishida, *The Historical Development of Japanese Modern and Contemporary City Planning: 1868–2003*, Tokyo, Jichitai Kenkyu-sha, 2004, 145–169; Naoto Nakajima, *Thoughts and Places on Urbanism: Notes on Japanese Planning History*, Tokyo, University of Tokyo Press, 2018, 31–33.
- 2 Ibid., 33.
- 3 Ryuichi Oka, "Multistory City Construction by Balanced Structure: Construction Method for a Vertical Growing Building," Tokyo, Transactions of AIJ, 1951.
- 4 Japan Structural Designers Club, *Research on Structural Design Material of Japanese Modern Architecture: Report in 2019*, Tokyo, Japan Structural Designers Club, 2019.
- 5 Kiyonori Kikutake, "Tower-shaped Community," Tokyo, *The International Review of Architecture*, 1959.
- 6 Ryuichi Oka, 1951, op. cit.
- 7 Ryuichi Oka, "Multistory City Concept," Tokyo, *Research Reports of AIJ*, 1952.
- 8 Hajime Yatsuka, *Metabolism Nexus*, Tokyo, Ohmsha, 2011, 130.
- 9 Ryuichi Oka, 1951, op. cit., 62.
- 10 Yorifusa Ishida, op. cit., 145–169.
- 11 Ryuichi Oka, 1951, op. cit., 62.
- 12 Ibid., 62.
- 13 Saikaku Toyokawa, *Architectural Theories and Practices by Kenzo Tange Laboratory: Mainstream of Postwar Japanese Architecture and Urban History*, Tokyo, Ohmsha, 2012, 88–89.
- 14 Saikaku Toyokawa, op. cit., 93.
- 15 Ryuichi Oka, "On the Reliability of Rigid and Flexible Construction," Tokyo, *Journal of Architecture and Building Science*, 1932, 22.
- 16 Ryuichi Oka, 1951, op. cit., 67.
- 17 Ryuichi Oka, "Proposal of New Building Structure," Tokyo, *Journal of Architecture and Building Science*, 1953, 68.
- 18 Frank Lloyd Wright, "Tree-shaped Chemical Institute," Tokyo, *The International Review of Architecture*, 1950.
- 19 Oka Architectural Office, *Balanced Structure*, Tokyo, Oka Architectural Office, 1958, 6.
- 20 Ryuichi Oka, 1951, op. cit., 62.
- 21 Ibid., 63.
- 22 Ryuichi Oka, 1952, op. cit., 255.
- 23 Ryuichi Oka, 1951, op. cit., 63.
- 24 Yorifusa Ishida, op. cit., 189–191.
- 25 Isamu Uchiyama, "Cause and Actual Situation of the Boom in Building Construction," Tokyo, *Journal of Architecture and Building Science*, 1953, 39.
- 26 Yorifusa Ishida, op. cit., 189–191.
- 27 Saikaku Toyokawa, op. cit., 104.
- 28 Ryuichi Oka, 1951, op. cit., 64=68.
- 29 Ibid., 63.
- 30 Ibid., 64.
- 31 Isamu Uchiyama, op. cit., 39.
- 32 Yongdo Kim, "Violent Fluctuations of Steel Prices and its Competitive Structure in Late Post-war Recovery Period," Tokyo, MMRC Discussion Paper, 2006, 3=4; Jaehyang Han & Haruhito Takeda, "Cement Industry in Post-war Recovery Period," Tokyo, MMRC Discussion Paper, 2005, 11.
- 33 Ryuichi Oka, 1951, op. cit., 64.
- 34 Satoru Tanokura, "Present State and Problem of Urban Redevelopment," *Urban Problem: State and Prospect*, Tokyo, New Japan Press, 1969, 129–134.

DAIKANYAMA HILLSIDE TERRACE AS CULTURAL LANDSCAPE — ARCHITECTURAL AND CULTURAL LINKAGE DEPLOYED IN THE CITY —

Yuya Tomisaka¹, Yuusuke Ohno² and Kaori Hasegawa³

¹ Tokyo University of Science; 2641 Yamazaki, Noda, Chiba 278-8510, Japan; y.tomisaka1033@gmail.com

² Tokyo University of Science; 2641 Yamazaki, Noda, Chiba 278-8510, Japan; ohno.yuusuke@gmail.com

³ Lecturer at the Department of Architecture, Faculty of Fine Arts, Tokyo University of the Arts; 12-8 Uenokōen, Taito, Tokyo 110-8714, Japan; hasegawa.kaori@fa.geidai.ac.jp

ABSTRACT.

This paper focuses on the culture and landscape formed by “Daikanyama Hillside Terrace” as a critique of monumental architectural works, including Metabolism architecture, and discusses its preservation and utilization as a living heritage of modern and contemporary architecture. After the collapse of CIAM, the Metabolism group, which led the discussion on the relationship between architecture and the city in Japan, attempted to respond to the renewal of the city with the image of an ecosystem. Fumihiko Maki and Associates proposed “group form” as opposed to the monumental approach that had become the mainstream of Metabolism. The “Daikanyama Hillside Terrace project”, started by Fumihiko Maki in 1969, embodies the image of “group form.” This plan, which was carried out from 1969 to 30 years, gradually formed the cityscape of Daikanyama and formed a community culture. In that respect, the Hillside Terrace can be evaluated as a living heritage that preserves its value while being used. However, the evaluation method for conserving the city as a living heritage has not been decided. The “linkage”, which is a nodule between the spaces on the Hillside Terrace, provides a good environment as part of the cityscape. In addition, the cultural activities carried out in various parts of the building group form the local culture of Daikanyama. In this way, we need to understand that the Hillside Terrace, which is evaluated as a cultural heritage, is composed not only of its buildings, but also of the formation of a landscape sequential with the former Asakura Residence and the former Yamate-dori street and the community culture that arose there as a whole. This paper clarifies the formation of culture and landscape corresponding to urban renewal by following the transition of Hillside Terrace and the cultural activities that have been carried out simultaneously, and to position Hillside Terrace as one answer to the renewal of architecture that TEAM X and Metabolism have aimed for. We propose a new way of looking at living heritage by using a cultural landscape evaluation method that looks at the landscape formed by architectural groups as a whole.

1. INTRODUCTION

The renowned architectural movement known as Metabolism was introduced in Japan around 1960. Approximately 60 years since its implementation, however, many Metabolic buildings have either been destroyed or are on the verge of destruction. At the height of its popularity, Metabolism was highly acclaimed throughout the world as one of the most notable developments in city architecture since the establishment of the Congrès International d'Architecture Moderne (CIAM), particularly because the underlying concept addressed urban challenges by implementing images and styles based on biological ecosystems. Designed by Kiyonori Kikutake and completed in 1966, the Miyakonojo Civic Hall is a famous example of a Metabolic building that was eventually demolished. It is still regarded as a representative example of Metabolic philosophy due to its modifiable design, which could be updated over time by removing interchangeable building components from permanent sections of the foundation. However, this was not done before the hall was demolished in 2019, mainly due to its age. Another representative example is the Nakagin Capsule Tower, which is composed of a core surrounded by interchangeable units. Similar to the Miyakonojo Civic Hall, the tower has never been updated, and is now in danger of being

demolished due to its age. In general, Metabolic buildings are demolished without renewal despite the fact that they are considered important architectural works. This is largely because the structures were designed strictly based on form and are not supported by the public.

Fumihiko Maki is often introduced as a leading Metabolist. However, his 1964 work titled “Investigations in Collective Form”¹ proposed a style that largely contrasted with the mega-structural architecture advocated for by Metabolists and other modernists. For example, his Daikanyama Hillside Terrace embodies a “group form” that now symbolises criticism toward monumental architectural works. Since 1969, Hillside Terrace has undergone six phases of expansion (not including Hillside West). Here, the “group form” does not consist of interchangeable units, as is the case with other Metabolic buildings; rather, it is a collection of different buildings and elements, similar to a village, all of which can be renewed as if they are components of a larger city ecosystem. Hillside Terrace is a good example of how living heritage can be updated to reflect the requirements of each era. In fact, cultural activities that occurred during expansions at Hillside Terrace have actually become familiar components that have shaped the general image projected throughout the famous Daikanyama neighbourhood in Tokyo. In this regard, architectural design can create land-



Fig. 1. The Scene along the Former Yamate Street in 1967. © Asakura Real Estate. Fumihiko Maki, Kengo Asakura, “Comyunithi ga Umare, Toshi ga Sodatsu — Hillside Terrace no 50 ne —”, Tokyo, *Shin-kenchiku*, 2020, 37.

scapes and urban culture, thus endowing the city with value. This creates a new way to evaluate architectural heritage.

To evaluate this issue, I propose use of the cultural landscape concept, which was originally developed to evaluate a landscape as cultural heritage. This includes elements of natural heritage (e.g., rural landscapes).² Many evaluations of 20th-century architecture now include integrity, with the time axis of a given building seen as “living heritage”. Here, the goal is to preserve buildings while they are still in use, which entails a set of evaluation criteria. As mentioned, Hillside Terrace as a good example of living heritage, in which case the cultural landscape perspective constitutes an important way to evaluate architectural elements that form the urban landscape.

The remainder of this paper is organised as follows. Regarding Maki’s contributions to Daikanyama, chapter 2 discusses city space, including the type of space manifested through the “linkage” implemented at the former Asakura Residence and, with a focus on specific buildings from each period in the development of Hillside Terrace. Next, chapter 3 chronologically discusses notable activities that occurred within the public spaces at Hillside Terrace. Based on these events, chapter 4 concludes with an examination of how the architectural spaces and cultural activities formed throughout the construction of Hillside Terrace have jointly resulted in the current landscape. In sum, the cultural landscape concept constitutes a valuable approach for evaluating Hillside Terrace and the Daikanyama neighbourhood in general, particularly as a landscape composed of architectural groups and local culture. This highlights how 20th-century architectural works serve as living heritage, and have even shaped urban culture as we know it.

2. URBAN PUBLIC SPACES PROVIDED BY ARCHITECTURAL GROUPS: ARCHITECTURAL LINKAGE

2.1. Fumihiko Maki and Hillside Terrace: Group Form

When Hillside Terrace was commission in the 1960s, Fumihiko Maki had just returned from the United States, where he attended Harvard University. While there, Maki

studied urbanism under J. Sert, who had seen the limits of urban development through architecture at CIAM and had set up new discussion forums such as TEAM X. As Maki had also studied architecture with Kenzo Tange in Japan, he developed a strong interest in urbanism, which influenced him to participate in TEAM X discussions. Notably, he was critical of both the mainstream notion of urban development held by CIAM and the Metabolic idea that monumental buildings would symbolise urban responses to change. Maki respectively referred to these ideals as the “compositional form” and “megaform”. By contrast, his proposal of the “group form” based on assumption that elements with common attributes should be assembled to create an orderly and natural transformation of the whole. Hillside Terrace ultimately became a representative example of this group form, in which “linkage” forms the order. More specifically, the linkage functions to integrate “the many layers of activity in the city and the forms of reality produced as a result”.³ This was presented as an intangible concept in Hillside Terrace, which made it unlike other Metabolic works. The next section outlines the relevant architectural transition and uses the present figure to infer what was created via the physical linkage, which Maki designed with future visions in mind.

2.2. The 30-Year Formation of Urban Space at Hillside Terrace

Farmland and mansions were existing along the old Yamate Street in Daikanyama around 1960. The Daikanyama Collective Dwelling Plan — in other words, the overall image for the Hillside Terrace project — was established in this area in 1967. At that time, the location was also the site of the Dojun-kai Apartments, reinforced concrete Seiko-so, and former Asakura Residence (Fig. 1). Under this plan, Maki and his associates proposed an architectural concept that had an external space between each building, one for people and cars to enter from the street, one to provide a green space, and one to enable gatherings (Fig. 2). Further, the linkages would organically change over the course of phased development, thereby creating higher quality spaces over time. In architectural groups in which external spaces are developed

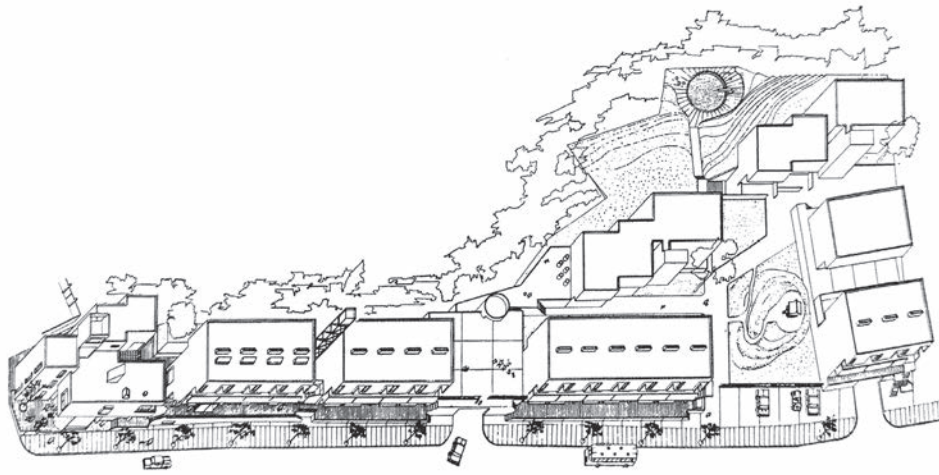


Fig. 2. Overall Conceptual Plan at the start of the project in 1967 (*Daikanyama Syugo Jukyo Keikaku*, Maki and Associates.) © Asakura Real Estate. Hillside Terrace 50th Anniversary Executive Committee, *HILLSIDE TERRACE 1969–2019*, Gendai Kikaku-shitu, 2019, 138.

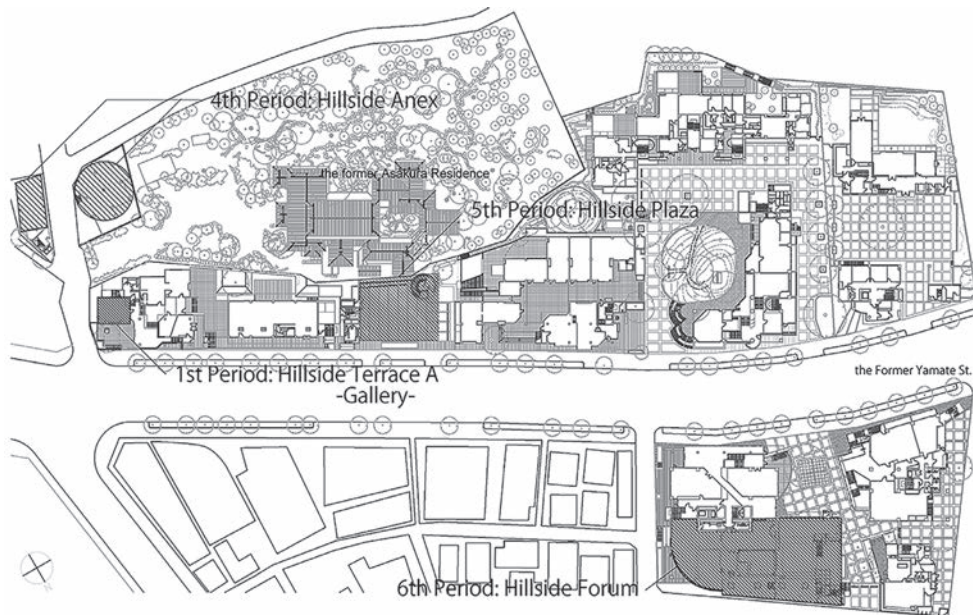


Fig. 3. The Current General Plan of Hillside Terrace and its Cultural Activity Space, 2021. © Asakura Real Estate.

as linkages, the sequences between periods also create diversity. Maki described this group order as “relational irrelevance”⁴, which he developed through a juxtaposition of “pattern”. In fact, the buildings constructed during each period created a master pattern for the city at that time, including Hillside Terrace. Here, a chronological juxtaposition would imbue a sense of diversity among architectural groups. These diverse linkages are not solely contained at Hillside Terrace, but also harmonise with newly constructed buildings and those found along former Yamate Street, thus forming a distinct group. In turn, these architecturally structured linkages created public spaces for activities within the city. At Hillside Terrace, Maki thereby created a public space that served as soil for cultural activity.

3. CULTURAL ACTIVITIES IN ARCHITECTURAL GROUPS AND HOW THEY SPREAD THROUGH THE CITY: CULTURAL LINKAGE

3.1. Cultural Activities Programmes at Hillside Terrace

The Asakuras were also heavily involved in the design process for Hillside Terrace. They had been working hard on urban infrastructural development since Torajiro Asakura became the chairman of Shibuya Town Council during the early Showa era. Working with Maki, they wanted the section along former Yamate Street to not only serve as a housing complex, but also work as a space for cultural programmes. As such, they designed spaces that would gradually incorporate art and culture over six development



Fig. 4. Aerial Photo of Daikanyama in 2020 and Traces of Cultural Activities of its Residents. © Geospatial Information Authority of Japan.

periods. During each phase, tenant spaces were located next to the residential and public spaces (Fig. 3).

Asakura Real Estate arranged exhibitions and music concerts in the galleries and multipurpose spaces. Several changes occurred within the main locations; designed in 1969, the first phase of the gallery was initially operated by Craft Asakura and "SD Review". By 1984, it had become Hillside Gallery, which housed exhibitions and presentations. Later designed in 1987, Hillside Plaza has since hosted a variety of music concerts and lectures. This was followed by Hillside Forum, which has hosted numerous art exhibitions since 1992.⁵ Because the gallery in the first building housed an exhibition arranged by the internal organisation known as Atelier Hillside, the initial purpose was likely to promote Hillside Terrace to the cultural community. However, local residents eventually became more involved due to the construction of Buildings C, D, and E. The exhibitions held in Hillside Gallery eventually spread throughout Hillside Terrace as a whole, thus securing the engagement of city residents. It was probably around this time that thoughts on cultural activities shifted toward citywide promotion, thereby establishing a cultural linkage throughout the city. This is also evident when looking at the external public spaces created through the construction of buildings F, G, and H, which were ultimately designated for cultural activities. In turn, this established an overlap between cultural and architectural linkages. Most of these cultural activities involve art programmes, which attract individuals who do not care about Hillside Terrace. This further links urban culture with architecture.

3.2. Cultural Activities Conducted by Resident Communities in Urban Spaces

As discussed above, the "linkage of cultural activities" works as a mechanism that connects Hillside Terrace to the city as a whole. While this is a major design element within the Hillside Terrace itself, redevelopments have also become more active around Daikanyama in general. The first issue was the relocation of Daikanyama Station in 1986. Here, a neighbourhood that had become so close to their daily lives led Asakura Real Estate and Daikanyama residents to recognise the importance of their local community. Two subsequent events were centred around Hillside Terrace at the same time Dojun-kai Apartments were demolished, including the 30th anniversary of Hillside Terrace and birth of the Daikanyama Address. This made issues of city architecture not only important for the invested architects, but also for local citizens. Further, the fact that both the Asakura family and Maki himself were at the forefront of these events, and that various lectures and events were held at Hillside Terrace around the same time, emphasised Hillside Terrace as the core of urban culture throughout Daikanyama. Since then, urban community events have been held in various parts of the city, with Hillside Terrace used a stage or event centre (Fig. 4).

There are two other notable areas in which Hillside Terrace has shaped urban culture in Daikanyama. One is the art event known as Daikanyama Installation, which was established in 1999. First introduced as an art event on the grounds of Hillside Terrace, Daikanyama Installation quick-

ly became known as a citywide cultural activity. The recurrent event also gives residents an opportunity to participate in cultural activities while highlighting the linkages implemented within Hillside Terrace as larger representations of physical linkages to the city itself. The second notable event is Sarugaku-matsuri, which was led by local residents who used existing architectural linkages to attract a unique community. This served as a basis for spreading Daikanyama culture throughout the city. More specifically, the organisers formed a landscape by holding a festival celebrating local culture in order to increase awareness about city problems and architectural issues. As such, these residents spontaneously formed new cultural linkages and landscapes by using established architectural linkages.

4. CONCLUSION: CULTURAL LANDSCAPE OF THE URBAN LANDSCAPE FORMED BY HILLSIDE TERRACE

Looking at Hillside Terrace, the linkage formation process can be divided into three stages according to the following timeline. Stage one begins with early project development in 1967 and continues through the construction of the sixth phase, including buildings F, G, and H in 1992; here, architectural linkages with public spaces were gradually formed through each phase of construction, according to Maki's designs. Next, stage two covers the start of Hillside Gallery in 1984 and ends with the construction of the sixth phase (F, G, and H buildings in 1992); that is, the opening of Hillside Forum, which Maki and Asakura Real Estate emphasised as both a cultural base and area for the promotion of cultural activities. As the architectural linkage was formed at the same time, the involved actors and scale of their involvement changed over time. As such, local cultural activities transmitted their way into the larger city, thus working as a cultural linkage between Hillside Terrace and Daikanyama. Finally, the third stage begins with the demolition of Dojunkai Apartments in 1996 and persists through the construction of the Daikanyama Address in 2000 and into the present. As city culture became popular with residents through these two points, they began to use the space to spread their own cultural elements throughout the city. This resulted in the formation of a unique local community in Daikanyama, with Hillside Terrace serving as its core. Ultimately, this created a landscape of urban culture. In this arrangement, the architectural space is designed first, thus providing a venue for cultural activities and programmes. Next, local residents form their own unique communities, which permeate the city as a whole. Through the developments that occurred over these three stages, Hillside Terrace can be seen as an example of how architectural designs form urban landscapes, which then create cultural landscapes in conjunction with local interests.

In order to consider Hillside Terrace as an architectural form that resulted in the creation of a landscape, it is first necessary to understand that the seeds of culture were

planted, watered, and gradually nurtured into maturity, in which case both the local residents and city have also developed between the start of the project and present time. These issues must be evaluated apart from the aesthetics of the completed work, which are otherwise prioritised in the evaluation criteria used for architecture. While Metabolic architecture is considered an attempt to deviate from traditional criteria by including a time axis, a clear form was still one of the main outcomes. As a result, the cycle of time ended inside the architecture itself, and became detached from society. On the other hand, Hillside Terrace proposed an irreversible yet natural change in time, which provided the soil needed to establish an urban ecosystem. The culture and landscape that have matured in the flow of time should thus be evaluated as components of a living architectural heritage rather than a monumental architectural heritage. I therefore believe that the cultural landscape approach is an effective way to evaluate the urban landscape, including Hillside Terrace, which has formed architectural groups and cultures through linkages, thus constituting a unique cultural heritage. It is also important to consider the role of city architecture as urban heritage in the context of 20th-century construction, which is typically evaluated based on individual structures.

REFERENCES

- Hillside Terrace 50th Anniversary Executive Committee, *HILLSIDE TERRACE 1969–2019*, Gendai Kikaku-shitu, 2019.
- MAKI, Fumihiko, *Investigations in Collective Form*, Washington University School of Architecture, 1964.
- MAKI, Fumihiko, & Atelier Hillside, *Hillside Terrace Hakusyo*, Sumai no Tosyokan Syuppan-kyoku, 1995.
- MAKI, Fumihiko, *Kioku no Keisyo*, Chikuma Syobo, 1992.
- MAKI, Fumihiko, *Aabanizumu no Ima*, Kajima Syuppan-kai, 2020.
- MAKI, Fumihiko, *Miegakure Suru Toshi*, Kajima Syuppan-kai, 1980.
- MAKI, Fumihiko, *Hillside Terrace + West no Sekai*, Kajima Syuppan-kai, 2006.
- MAEDA, Rei, *Hillside Terrace Monogatari Asakura-ke to Daikanyama no Machidukuri*, Gendai Kikaku-shitu, 2002.
- YATSUKA, Hajime, & YOSHIMATSU, Hideki, *Metabolism 1960-nendai Nihon no Avangyarudo*, Chikuma Syobo, 1992.
- MAKI, Fumihiko, "Notes on Collective Form", Tokyo, *ja — The Japan Architect 1994 winter*, 1994, 247–297.

NOTES

- 1 Fumihiko Maki, *Investigations in Collective Form*, St. Louis, Washington University, 1964.
- 2 "Operational Guidelines for the Implementation of the World Heritage Convention (WHC.19/01 — 10 July 2019)", accessed in March 2021, <http://whc.unesco.org/en/guidelines/>.
- 3 Fumihiko Maki, "Notes on Collective Form", Tokyo, *ja — The Japan Architect 1994 winter*, 1994, 269.
- 4 Fumihiko Maki & Atelier Hillside, *Hillside Terrace Hakusyo*, Sumai no Tosyokan Syuppan-kyoku, 1995, 15–21.
- 5 Hillside Terrace 50th Anniversary Executive Committee, *HILLSIDE TERRACE 1969–2019*, Gendai Kikaku-shitu, 2019, 142–151/280–326.

10

DESIGNING DAILY LIFE

Session 10-a

DESIGNING MODERN DAILY LIFE IN POST WWII: EXPECTATIONS, CHALLENGES AND CONFLICTS. THE EXAMPLE OF JAPAN, TAIWAN AND COLOMBIA

Bárbara Coutinho

Guest Assistant Professor (UL-Instituto Superior Técnico) and Diretor of MUDE

Session 10 focus on the development of modern daily life in post WWII in East Asia and South America with four papers that analyse how this development took place in Colombia, Japan and Taiwan, particularly between 1940s and 1960s.

Ingrid Quintana Guerrero analyses the action of architect Jorge Arango, a leading supporter of the modern movement in Colombia, with an influential position at the Colombian Society of Architects and the Public Buildings Office. Guerrero explores the role of Arctecto Factory and Proa Magazine, both founded by him, in the pedagogy and dissemination of modern living in Colombian during the 1950s, analysing how the opening of stores or showrooms and the publishing of advertisements were crucial to propagate modern furnishing and interiors. The life and work of Arango show clearness the influence of the European Modernism in South America development throughout the US reading and perspective.

Pao-Ning Yin examines how the Garden City idea and north-America model of suburban housing complex have influenced the development of suburban collective housing communities in Taiwan, exploring the theory and the architectural practice of Xiu Zelan, one of the most important architects in the country after WWII. The paper shows the several services designed by her team for the “New Garden City Village” plan, in Xindian District, in order to improve the daily life and foster a friendly community experience. Particularly interest is the analyses of how the female perspective of Xiu Zelan is translated in the city plan and the dwelling organisation, both conceived as a respond to the workingwomen needs and the changing family structure.

Maiko Nagamine and Izumi Kuroishi sign two papers about Japan, bringing light into the complex context lived in the post WWII and, in consequence, to the conditions and reasons of “Japanese design” affirmation. Maiko Nagamine

analyses the activities led by the International Design Committee to contribute for the modernisation of Japan by promoting the participation of Japanese authors in international exhibitions; organising international meetings to expand definitions of design discourse and practice; and improving actions that intend to educate inhabitants, industries, professionals and scholars on good design in order to promote the consumer of new and modern goods for the daily life. Izumi Kuroishi underlines the complex introduction of foreign architecture and design in Japan, exploring the resilience attitude to the modern industrial design and housing. To do it, analyses the activity of National Research Institute of Industrial Arts with the aim of modernise traditional local crafts, developing industrial housing and interior design. Examining how the ideas of housing standardisation and industrialisation were applied in Japan in the post-war, this paper stresses the confront raised with the Japan cultural identity and the traditional habits.

In addition to increase a better understanding of each country, the four papers examine the international models and influences, the institutionalisation of design process, the pedagogy of modern living and the role of professionals, official committees, firms, associations, manufacturers, stores and magazines for the promotion of a modern daily life. This was having in mind modern ideology in the mid-twentieth century — spread worldwide — advocated a complete and transforming aesthetic experience, reinventing every single aspect of the man-made environment, from objects to cities. The reality of these three case studies mirrors the post WWII context, in which many countries reformulated design policy to respond the new consumer needs, seeing modernism as a promoter of national progress and modernisation. Each in its own way, these papers document how the concept of modern domesticity has spread, as well as the growing awareness of the relevance of the different

fields of design to the creation of modern dwelling and spaces.

Therefore, the influence of western modern movement, disseminated as an international style in a worldwide scale, is a subject to be debated, giving a special attention to its link with the spread of a American way of life. Propagated through the Marshall Plan, advertisement and media, the American way of life was also popularised in exhibitions and competitions that created the desire of being modern and have promoted new daily necessity products. This bring into evidence the importance of understanding how the concepts of progress, modernisation, industrialisation, westernisation and Americanisation were received and understood, assimilated or rejected, interpreted and discussed. Insofar as they were crucial in each country as main forces for the adoption of the economic development model of capitalism, is particularly relevant the debate of its consequences until nowadays. A related topic referred by the four papers is the influence each country had in European and US culture, especially through interior and product design from the 1940s onwards, which caused a shift in the modern movement itself.

Equally relevant to debate is Good Design, crucial con-

cept of the 1950s referred by all the authors. If the German concept of Gute Form places purist aesthetics alongside an ethical stance, translating into high quality, durable and functional products, the American expression Good Design places particular value on appealing appearance and innovation in order to satisfy a growing market and help consolidate the consumer society. MoMA set the pace for innovation with competitions such as the International competition for the low-cost furniture design (1948) and exhibitions as Bauhaus (1938) or Good design: an exhibition of home furnishings (1950). Knowing this, it is important to understand how each country has understood and implemented it, in order to assess affinities and differences. It is also worth evaluating how modern ideology and vernacular tradition were understood in interrelationship, as the four documents delve into how the desire to develop locally a modern daily life happened in tension with the lifestyle of the inhabitants of each place, debating to this end the awareness of the modernity, functionality and sustainability inherent in the local cultural traditions. Thus, having Japan, Taiwan and Colombia as case studies this session explore the expectations, challenges and conflicts of the process of designing modern daily life in post WWII.



THE GOOD DESIGN MOVEMENT BY THE JDC IN THE 1950s

Maiko NAGAMINE

Nagamine Architecture Office; 2-26 3F, Daimon-cho, Omiya-ku, Saitama-shi, 330-0846 Japan;
m-nagamine@mvj.biglobe.ne.jp

ABSTRACT.

In the years following Japan's surrender in 1945, Japanese designers had few opportunities to engage on the world stage, owing to strict controls on the departures of Japanese nationals.

Around the same time, civil servant and interior designer Isamu Kenmochi famously formed the International Design Committee (now the Japan Design Committee) along with architect Kenzo Tange and designer Sori Yanagi, in order to promote good design. This study classifies the activities led by the Japan Design Committee into three categories.

The first activity involved participation in international exhibitions; the Milan Triennial X in 1954, H55 in Sweden in 1955, and the 1957 São Paulo Art Biennial.

The second activity concerned daily necessity products. During the 1950s, the products exported from Japan frequently came under criticism for aping overseas designs. Kenmochi and others called for a good design movement both with good taste and good quality.

The third activity concerned the importance of the design philosophy. Japanese designers had few occasions to debate about their design techniques on the international stage. In 1960, the International Design Committee held the World Design Conference in Tokyo to discuss with polemicists from around the world. At the conference, Kenmochi reviewed the progress and issues regarding 1950s Japanese design, voicing his concern at how everyday goods and living environments had tended to become inhuman in design. Tange, on the other hand, discussed the future of society and design, along with expressing a strong interest in atomic energy and biology.

1. INTRODUCTION

There is a very human meaning to hosting international art exhibitions and conferences for all countries to participate in.¹ They help our society recognize the universality of culture and enhance its content. In the years following Japan's surrender in 1945, Japanese designers had few opportunities to engage on the world stage, owing to strict controls on the departures of Japanese nationals. Against this backdrop, Tokyo's National Museum of Modern Art staged a Bauhaus exhibition in 1954 that created an opportunity for the Japanese to learn European and American design trends, thereby heightening Japanese interest in design.

On the other hand, Isamu Kenmochi organized the International Design Committee (currently the Japan Design Committee) with Kenzo Tange and Sori Yanagi et al. to discuss what design should be about in Japan, and worked vigorously in the following three areas: (1) Supporting exhibitions by Japanese artists at international art exhibitions, (2) Encouraging Good Design, and (3) Organizing an international conference based on the question of "what is design?"

Looking back at these three activities, this study will examine how the Japan Design Committee was involved in the good design movement in post-war Japan.

2. INTERNATIONAL ART EXHIBITIONS: HELSINKI, MILAN, SAO PAULO

2.1. Milan Triennale and International Design Committee

The National Institute of Industrial Arts was a national research institute that aimed to achieve both foreign currency acquisition and export trade promotion by exporting

"Good Quality" products.² They invited Bruno Taut and Charlotte Perriand for guidance to improve products in Japan. One of the Japanese staff members who worked with Taut and Perriand was Isamu Kenmochi, a bureaucrat committed to improving the design standards of Japan. After he retired, he opened his own design office and begun working with the renowned architect Kenzo Tange to create excellent interior designs.

In 1953, the Triennale di Milano sent a letter to the Japanese Ministry of Foreign Affairs inviting Japan to participate in the 10th Triennale Exhibition. Kenmochi, along with design critics Katsumi and Tange, argued that Japanese designers should be dispatched to Milan, however due to a lack of budget, Japan's participation at Milan was not realized. Kiyoshi Seike, Yusaku Kamekura, Taro Okamoto, Takamasa Yoshizaka and Sori Yanagi were gathered together regarding this matter, later forming the members of the International Design Committee.

In 1956, Japan was invited to the 11th Triennale. And this time, thanks to the efforts of the International Design Committee, Japanese representatives were dispatched to Milan with financial support from the Takashimaya department store. At the end of March 1957, the Japan Section, designed for the Milan Triennale, was first displayed in Japan. After the domestic exhibit, all the elements were shipped and re-installed at the Triennale venue. The Japan Section displayed ceramics by Sori Yanagi and ceramic murals by Taro Okamoto.³ Finnish designer Kay Frank commented on the exhibition that, while there are two distinct characteristics to Japanese works — the simplicity of Katsura Imperial Villa and the powerful grotesque expressions of Kabuki — it was somewhat disappointing for those who looked forward

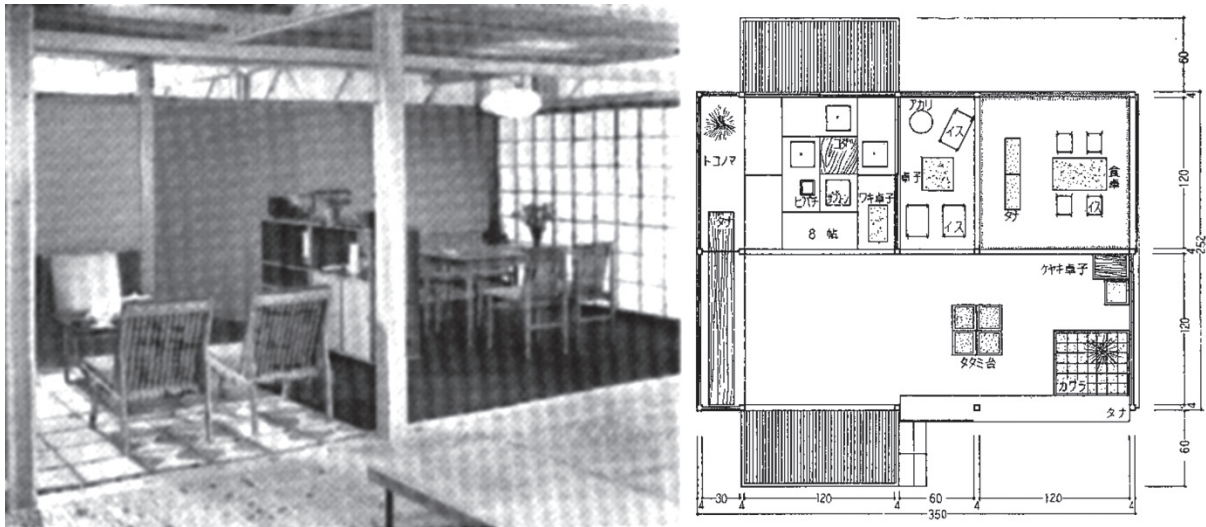


Fig. 1. The inside of the Japanese model room (left) and its plan (right) at H55. © *Craft News* Vol.23-12, 1955.7.

to the astringency and advanced technology of Japanese ceramics that this exhibition strongly emphasized the latter.⁴

2.2. H55

The H55 Exposition internationale des Arts appliques de l'habitation et de l'aménagement interieure, Helsingborg Expo 1955, was held from June to August 1955 in Helsingborg, Sweden. A request to participate in this international exhibition was sent to the Japanese Ministry of Foreign Affairs in January 1955. Participation was initially jeopardized by the Ministry of Foreign Affairs' budget shortage, but special budgetary measures were taken and a small-scale model room was exhibited.

In Japan at the time, there was a mixture of traditional and modern dwelling styles that emphasized tatami mats without chairs combined with western dwelling styles that used chairs (Fig. 1). In H55, the model room was made to achieve a unified harmony between the traditional tatami room and the westernized room with chairs. The designer for this model room was Isamu Kenmochi, and Kenzo Tange advised as a consultant. Kenmochi was also chief of the selection of interior furnishings, while the International Design Committee advised as a consultant.⁵

This Japanese model room was highly appraised in local newspapers. At this exhibition, many famous European designers of the time also exhibited their works, such as Finn Juhl and Arne Jacobsen from Denmark and Alvar Aalto from Finland.⁶

2.3. São Paulo Biennale

When Gropius travelled to Japan in 1954, he visited the Hiroshima Peace Memorial Center and Tange's residence, and based on these visits, he applauded Tange's skills as an

architect. After returning, Gropius wrote a letter to Tange that he would recommend Tange as one of the judges in the architectural category at the São Paulo Biennale.

Even looking throughout the various design disciplines outside of architecture, no Japanese designer had ever been appointed as a judge for an international exhibition in the 1950s. At the 1957 Sao Paulo Biennale, Marcel Breuer, Philip Johnson and Tange were the judges for the architectural section. This set the stage for expectations in Tange to play a global role, and he became the central figure leading the activities of the International Design Committee.

In the art exhibition hall at the São Paulo Biennale, the Japanese section was set up and decorated with many hanging scrolls and woodblock prints. While Tange recognized the value of these traditional arts, he pointed out that the artistry of the calligraphy and woodblock prints were too caught up in the past, and the formation of the self was not included in the production process. He expressed his disappointment in how the Japanese section seemed so out of place in this exhibition, where everyone except Japan was working on the challenge of how to overcome modernity and competing internationally. He also wrote that the review with Breuer and Johnson occurred pleasantly, through valuable discussions.⁷

This kind of interaction between architects at the individual level led to the opportunity to create Japanese architecture that responded to the global society of the late 20th century.

3. GOOD DESIGN MOVEMENT

3.1. The Good Design movement in Europe and America

The Good Design Show, a joint venture between the



Fig. 2. Judging Good Design.
© Artistic New Tide, 1957.12/1957.12.

審査會風景

MOMA in New York and Merchandise Mart in Chicago, was held in 1950.⁸ From Japan, Kenmochi visited the “Good Design Show” in 1952 and 1953 and analyzed the booming US consumer society. According to Kenmochi, although quality and cost were also important aspects of a product, “eye appeal” was of paramount importance for all products exhibited at the Good Design Show.⁹ In other words, the Good Design Show was divided into two aspects: Good Taste and Good Quality, the former being strongly involved in “eye appeal” and the latter being related to function, structure and price. Considering Good Taste and Good Quality as distribution issues, both were important for producers, designers, retailers, and consumers, and the Good Design Show was a place of education for retailers.

Kenmochi also praised the fact that the designer's creativity was fully demonstrated in products exported from the Scandinavian countries. This was because after World War II, Sweden and Norway had been focusing on exporting household goods to the United States in an effort to earn foreign currency.¹⁰

3.2. Acceptance and development of Good Design in Japan

After the war, Japan was encouraged to export daily necessities in order to earn foreign currency, but some of its products were criticized from overseas as imitation goods. Therefore, the JPO Design Promotion Council began its selection of Good Design products in 1956, and in 1957 the G Mark was enacted.¹¹ This was the beginning of the Good Design Award in Japan that continues to this day.

Kenmochi, on the other hand, argued for the creation of a place where civilians and bureaucrats with design insights could exchange opinions about Japanese design on equal footing. It was especially important that products selected by private experts be displayed at actual stores so that con-

sumers could access them. Members of the International Design Committee discussed with Ginza Matsuya, Japan's leading department store, and in 1955 a good design corner was set up inside Matsuya. At that time, members of the International Design Committee selected about 400 daily necessities (Fig. 2). Among them, the most popular items were white ceramic coffee cups, stainless steel spoons, and glass salad bowls, while buyers were mostly intellectuals in their 20s and 30s. These products were often used as wedding gifts for newly married families.¹²

4. WORLD DESIGN CONFERENCE

4.1. Isamu Kenmochi: Participation in the Aspen International Design Conference and Invitation of International Designers to Japan

Kenmochi attended the Third International Design Conference held in Aspen, Colorado, USA in 1953 at the suggestion of Isamu Noguchi. The conference focused on the topic of the “cross fertilization of ideas for design”. Designers, businessmen and art instructors (art commentators, critics, and philosophers) discussed both the aesthetic and practical issues surrounding design in industrial production. In the conference report, Kenmochi strongly criticized Japanese intellectuals for viewing design only as an accessory to culture and focusing instead on pure art. He insisted on holding an international design conference in Japan.¹³

In June 1956, Tange wrote a letter to Herbert Bayer that he wanted to hold the Aspen International Design Conference in Japan in 1958, and his request was realized.¹⁴

In May 1960, the World Design Conference was held in Tokyo, attended by 84 frontline players from 26 countries around the world. Three major seminar sessions were held on the themes of individuality, practicality, and possibility.



Fig. 3. World Design Conference in Tokyo. © Michiko UCHIDA archive.

Each major theme included a panel discussion on the following sub-themes: individuality/ regionality/ globality, environment/ production/ communication and society/ technology/ philosophy (Fig. 3).¹⁵

4.2. Keynote speech by Isamu Kenmochi:

When two different cultures come together

In his keynote speech at the panel discussion on “Worldliness”, Kenmochi criticized the fact that systems and forms from Japanese everyday life were being misconstrued in the West, and what seemed only bad taste to Japanese designers were gaining popularity as a certain fashionable Japanese style in the West and was being imported back to Japan.

He pointed out that when two different cultures come together to transform a developing country into a modern nation, there are generally three options: simply imitating modernistic expressions, repeating past lifestyles, or losing both. To avoid falling into these categories, Kenmochi emphasized the necessity to aim for designs rooted in both the local personality and the global world.

He noted that the more industrial technology develops, the more the living environment becomes stereotyped and

commercialized, losing its regionality to become inhuman and boring. Modern daily necessities cannot break away from man-made materials or mass production systems. Environmental design, in other words interior and products design, must respect humanity and individuality, all the more so because these articles are in direct contact with people and their everyday lives.

His speech summed up the history of Japanese design after the war and confronted issues such as encouraging exports of daily necessities, criticizing imitation goods, and balancing mass production with regional characteristics.¹⁶

4.3. Keynote speech by Kenzo Tange:

Technology and human beings

In the panel discussion on “Philosophy”, Tange mentions the impact of nuclear power and computers on the late 20th century. Especially for nuclear power, he pointed out two differing aspects: the fatalistic aspect that the fear of nuclear energy will deepen the gap between humans and technology, and the optimistic aspect of technology as a human servant and an extension of the human hand. Tange emphasized that only designers, including architects, could

stand between technology and humanity, and that our imagination and creativity could bridge the gap between the two. Tange furthermore expresses the characteristics of modern society using three concepts based on contrasts.

The first is the contrast between the human scale and the super human scale. In modern cities, huge infrastructure such as highways had been constructed along with the development of mobility. He notes the lack of harmony and unification in this process, both functionally and visually, and calls for the need of a new order.

The second is the contrast between eternity and changeability. In modern times, the shapes and colors of automobiles and household goods can change every year, but huge infrastructure such as highways must be maintained every hundred years. Here Tange argues that the unification of variability and invariability is also important.

The third is identity and anonymity. Home appliances on the market were increasingly becoming commodities year by year, and consumers were likewise becoming increasingly anonymous. In contrast, the desire to show one's identity and gain social recognition was an issue intrinsic to modern people. This could be related to the rise of the advertising field, however, he analyzes that advertising itself has become anonymous.¹⁷

Based on these three contrasts, Tange identifies life science as a discipline that inspires designers. Young architects who called themselves the Metabolist group in Japan, led by Takashi Asada who was a close associate of Tange, had stated that their scope covered everything from the atom to the great nebula. In response, Tange emphasizes the importance of considering the relationship between order and freedom with reference to the biological sciences, given the coming of the age of nuclear energy and computers.

5. CONCLUSION

The activities of the International Design Committee in the 1950s can be classified into three important categories: (1) disseminating cutting-edge Japanese designs to overseas markets through international exhibitions, (2) improving the design standards of daily necessities in Japan by organizing and educating on Good Design, and (3) discussing philosophies that encompass the whole of cutting-edge / daily designs at international conferences.

Regarding the first category involving international exhibitions, the International Design Committee led by Kenmochi and Tange was organized in response to Japan's invitation to the Milan Triennale. And at H55, a model room combining a tatami space (with no chairs) with spaces for chairs was exhibited under the supervision of the International Design Committee.

As for the background to the second category, one of the greatest reasons why the design standards of daily necessities became an international issue was due to the criticism that Japanese daily necessities exported to foreign coun-

tries imitated overseas designs. It was because of such criticism that Kenmochi and others pointed out the importance of the Good Design movement, in which private experts selected products that balanced Good Taste and Good Quality and even put thought into sales channels. As a result, the Good Design corner was set up in Ginza Matsuya.

In terms of the third category, or the importance of international conferences, Japanese designers were weak when it came to debating about their design techniques and examining what they had created. At the World Design Conference, Kenmochi reviewed the development and problems of Japanese design in the 1950s, voicing his concern at how everyday goods and living environments tended to become inhuman in design. Tange, on the other hand, looked at the world after 1960 and discussed the future of society and design, showing a strong interest in nuclear energy and biology.

ACKNOWLEDGEMENTS

I would like to thank Associate Professor Saikaku TOYOKAWA at Chiba University for providing valuable resources and informative discussions in compiling this dissertation.

REFERENCES

Waro KISHI, Kenya Hara, & Saikaku Toyokawa, *Tange Kenzo ga mita Tange Kenzo [TANGE BY TANGE 1949-1959]*, Tokyo, TOTO, 176-179.

NOTES

- Masamitsu UTSUMI, "Kaigaiten he no hihan [A Review of Japan's Exhibitions Abroad]", *Kogei Nyuusu [Craft News]*, Vol. 24-8, 1956.09, 42.
- Masaru KATSUMI, "Zadankai: Seihin no hinshitsu to dezaian [A Table Talk: Product Quality and Design]", *Kogei Nyuusu [Craft News]*, Vol. 22-1, 1954.01, 2.
- Junzo SAKAKURA, "Dai11kai Milan Triennale heno nihon sanko [Japan's Participation in the 11th Milan Triennale]", Tokyo, Bijyutsu shuppann sya, *International Architecture*, Vol. 25, 1958.02, 61.
- Kay FRANK, "Comment on Japan Section in Milano Triennale 1957", *International Architecture*, Vol. 25, Tokyo, Bijyutsu shuppann sya, 1958.02, 59.
- Shigetaka SAITO, "Sweden ni shinsyutsu shita nihon no dezaian [Japan at the International Exhibition Helsingborg, Sweden]", *Kogei Nyuusu [Craft News]*, Vol. 23-7, 1955.07, 40-42.
- Shigetaka SAITO, "H55", *Kogei Nyuusu [Craft News]*, Vol. 23-12, 1955.12, 19.
- Kenzo TANGE, "Sao Paulo biennale ten no syoten [The Focus of the Sao Paulo Biennale]", Tokyo, Geijyutsu Shincho [Art Shincho], 1957.12, 57-63.
- Isamu KENMOCHI, "Good Design ten no insho [Some Impressions of the Good Design Show]", *Kogei Nyuusu [Craft News]*, Vol. 22-1, 1954.01, 10-15.
- "Good Design undo no igi [Significance of the Good Design Movement]", *Kogei Nyuusu [Craft News]*, Vol. 22-1, 1954.01, 1.
- "Zadankai: Seihin no hinshitsu to dezaian [A Table Talk: Product Quality and Design]", *Kogei Nyuusu [Craft News]*, Vol. 22-1, 1954.01, 5.
- "1957nenn no design kai mondai gensyo [Design Industry Happenings of 1957]", *Kogei Nyuusu [Craft News]*, Vol. 25-11, 1957.12, 24.
- "Good Design ha doushite erabarunoka [Why Good Design is Selected]", *Artistic New Tide*, 1957.12, 114.
- Isamu KENMOCHI, "Aspen no design kaigi no seikaku to sono seishin (1) [The Aim and Character of the Aspen Conference (1)]", *Kogei Nyuusu [Craft News]*, Vol. 21-10, 1953.10, 10.
- Kazuto TANABE, "Sekai dezaian kaigi no keika ni tuite [About the Progress of the World Design Conference]", Tokyo, *Kenchiku zasshi [Journal of the Architecture Institute of Japan]*, 1960.10, 548.
- Kenzo TANGE, "Wareware no seiki: sono zentaizo kitaru beki syakai ni designer ha nani wo kiyo suruka [Our Century: Its Overall Image and What Designers Can Contribute to the Human Environment of the Coming Age]", *The Minutes of the World Design Conference*, Minutes Editing Committee, Tokyo, Bijyutsu shuppann sya, 1961, 270.
- Isamu KENMOCHI, "Panel Discussion: Te-ma Sekaisei [Panel Discussion Theme: World]", Minutes Editing Committee, *The Minutes of the World Design Conference*,

Tokyo, Bijyutsu shuppann sya, 1961, 88.

- 17 Kenzo TANGE, "Technology and Human", *The Minutes of the World Design Conference*, ed. Minutes Editing Committee, Tokyo, Bijyutsu shuppann sya, 1961, 270.

CULTURAL RESILIENCE IN THE MODERN JAPANESE INDUSTRIAL DESIGN AND HOUSING

Izumi Kuroishi

Aoyama Gakuin University; 4-18-7, Kyodo, Setagaya-ku, Tokyo, Japan; izumi-k@scs.aoyama.ac.jp

ABSTRACT.

Until the beginning of the 20th century, Japanese houses basically remained in traditional tatami style, and ideas and professional systems of architecture, interior and industrial design had not been established. The National Research Institute of Industrial Arts (NRIIA), which aimed to industrialize and modernize traditional local crafts from 1928, introduced Western design ideas to produce furniture, and established the areas of industrial and interior design. Although NRIIA was never recognized as an architectural institution, it contributed to establishing the idea of standardization in Japanese industries during and after the war. In the NRIIA's projects of the war and post-war recovery housing, close collaborations between architects such as Junzo Sakakura and Kiyoshi Ikebe, and industrial designers were temporarily realized to create its model interior space.

For the primal objectives of NRIIA, both architects and designers tried to unify Japanese traditional and international modern culture in this process. After the war, they were gradually divided into a position of inheriting the modernist philosophy with emphasizing the humane quality of space, and a position emphasizing the establishment of design systems and accepting American post-war culture to popularize housing design. They both conceived ideas of housing industrialization comprehensively, by referring to the issues of cultural identity, quality of life, and the meaning of technology. However, due to the necessity of urgent housing recovery, these diversified visions were forgotten. This study examines the process of collaboration and division between industrial and architectural designers, and how their collaboration resiliently transcended to Japanese industrial housing developed in the post-war period.

1. INTRODUCTION

In the middle of the 20th century, along with war-time pressures, there were transnational exchanges between Japan, Europe and US, which crossed the borders between the areas of architectural, interior, and industrial designs, and caused a fundamental shift in its ideas of lifestyle, housing design, production system, and the cultural meaning of architecture in Japan. Japanese architecture has basically followed the western models in its modernization. However, the post-war reactions to the early modernist architectural ideas in Japan was different from those in Europe and US, where the ideas of modernist movement, such as the industrialization and minimization of housing presented in the CIAM 1929 congress, rapidly lost their symbolical values. To the contrary, those ideas remained valid long in Japan, and the market of the prefabricated housing has kept growing until today. This study recognizes this gap, exemplifies a characteristic of Japanese housing industrialization in the early 20th century, resulted from its cultural resilience in the introduction of the European modernist and American ideas of architectural modernization by sustaining its traditional ideas of craftsmanship.

The National Research Institute of Industrial Arts (NRIIA) was founded by the Ministry of Industry and Commerce in 1928, and worked as an incubation place for Japanese industrial design and technology until the 1960s. It actively introduced foreign ideas and designs, applied and tested them to modernize Japanese manufacturers, educated leading designers and engineers, created new materials and design methods, and contributed to the industrialization of Japanese housing around the World War II. With such com-

prehensive and active approach, NRIIA tried to realize unique modernization of design, and Japanese architects, such as Junzo Sakakura and Kiyoshi Ikebe, experimented and developed designs of industrialized housing with a support from NRIIA, which later contributed to the development of the post-war industrial housing systems.

As Adger W. N. explains the idea of social resilience as the ability of a group of people to cope with and adapt to stresses such as social, political, or economic change to sustain their identity, it is possible to assume that NRIIA, Japanese designers and architects had sustained their cultural identity in introducing foreign designs to adjust to the changing social needs, and created their own ideas of post-war Japanese housing. Particularly, the idea of standardization introduced by Taut to NRIIA remained and developed as the symbolical concept of modernization in Japan until the post-war period. Therefore, in the following section, after explaining the general background of Japanese housing around the war, this study will examine the process of the development of the ideas of standardization and industrial furniture and housing by NRIIA, and how they transmitted and transformed in the ideas and designs by Junzo Sakakura and Kiyoshi Ikebe. This paper will describe how these architects conceived, realized and developed their ideas of industrial housing with what kind of historical and socio-political factors, how conceived the relationship between architecture and furniture, and how they represented the characteristics of Japanese post-war industrialized housing.

2. JAPANESE HOUSING IN THE EARLY 20TH CENTURY

During the war period, people's housing condition was

recognized as a part of national security, and the housing for labourers was planned on the ideas of prototype by Housing Bureau (Eidan); and after the war, the Public Housing Office (Kodan) filled this role to create national types of housings. Along with the shortage of construction materials, regulations on the size of houses were reduced to the minimum limit, and simplified the functions of spaces and eliminated symbolic and religious elements as ambiguous factors.

After the WWII, the US forces demanded that huge financial burdens be imposed on the construction of large-scale occupation army camps and settlements, as well as the reconstruction of Korea, in order to confiscate the materials. This made it more difficult to cope with the estimated housing shortage of more than 4.2 million homes for people returning from abroad, soldiers and people in other parts of the country, whose housings were destroyed by massive air raids. This was partly due to the fact that, in contrast to the German policy and the Marshall plan support for the recovery in Germany, which emphasized the supply of housing for establishing social stability, the US forces and Japanese government did not attach importance to it (Koshizawa 2005). Thus, the public Housing Bureau and architects kept focusing to the efficiency of production and to the minimizing its size, which drove the spread of the factory production of houses based on Taylor system and the mechanical concept of housing performance.

3. NATIONAL RESEARCH INSTITUTE OF INDUSTRIAL ARTS (NRIIA)

The National Research Institute of Industrial Arts contributed to the industrial standardization in Japan from the war-time by developing and experimenting its production technologies, materials, and designs. It was founded In Showa 3 (1928) by the Ministry of Industry and Commerce for the purpose of mechanization of local handicrafts and other manufacturing technologies to export overseas. NRIIA invited distinguished foreign designers and engineers to educate Japanese engineers and craftsman to catch up the international designs and production systems to export their products abroad. It was also a central training and research institution for industrial designers until the post-war period.

From 1933 to 1934, Bruno Taut was invited to NRIIA, directly conveyed the philosophy and design of modern European architecture and furniture (the idea of standardization and functional planning) to Japanese designers, and gave important suggestions to designers such as Katsuhei Toyoguchi and Isamu Kenmochi, who later lead Japanese industrial and furniture designs in the post-war period. NRIIA recognized the ideas and methods of the industrial standardization and mass production as key concepts enabling them to unify Japanese traditional carpenter and craftsman technology with the modern mechanical technology, which became the foundation of their post-war factory furniture

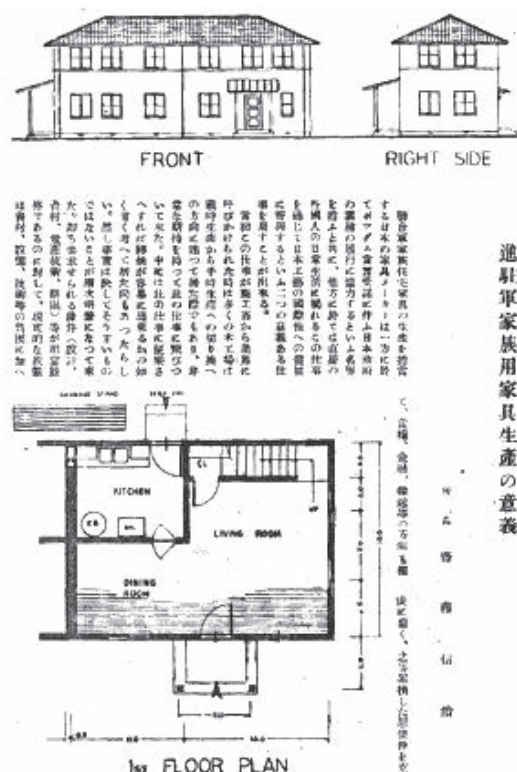


Fig. 1. An article of NRIIA newspaper explaining how making furnitures and housing of the Occupation Army's Dependent Housing was an opportunity for Japanese designers and manufacturers in learning new design and recovering from the war damage. *Kogei News*, February 1946.

and architectural prefabrication system. From December 1940, it was involved in the planning of the National Housing, and collaborated with the housing bureau in the housing and lifestyle improvement project for the people in the Tohoku region. At the end of the war, in the face of material shortages, it worked on manufacturing technologies for substitutes, adhesives, plywood, paint, etc., which also became the basics of the post-war industrialization of housing.

In 1946, the designers of NRIIA were ordered to produce the furniture for the 20000 Occupation Force's dependent family housing collaborating with the Design Branch of GHQ in 3 months. A collection of the designs and details of prefabricated housing designs, furnitures, tools, and household objects of Dependent Housing published in 1948 by NRIIA as a reference for Japanese designers, architects and builders. The Design Branch directly influenced the Japanese design of public recovery housing, helped to form the model of single-family, small-size detached and collective housing, and their interiors, and helped Japanese designers to understand the practical method of designing functional and comfortable industrialized housing and furniture for common people (Fig. 1).



Fig. 3. The second floor of Kano house had a spacious atmosphere for its floor size. *Kenichikuka Sakakura Junzo: Modanizumu wo sumu*, catalogue of the Panasonic Denko Museum exhibition, 2009, 60. © Sakakura Associates.

Tomohiko Komada, Yoichiro Tomita, Kiyoshi Ikebe, and Yutaka Murata conducted research to make Jean Prouvé's humanistic and innovative technological works in wood by utilizing Japanese carpenter's skills.⁴ In 1942, he established the Institute for Construction of National Land and War, and in 1944, he completed the construction of the housing.

However, the war assembling housing design of Sakakura shows that the philosophy behind prefabricated buildings in Prouvé could not root in Japanese architectural society. In 1950, Sakakura designed the Kano residence with a minimum size floor of 60m² (Fig. 3). It has a mezzanine and an atrium. But, the economic problem of using large components in times of material shortage and the unfamiliarity of the atrium for Japanese customers prevented its success in the popular market. In 1953, Sakakura kept designing a standard maisonette type public housing following the idea of Le Corbusier's Unité d'Habitation. Japanese architect Fujiki explains

while Sakakura is looking for a design, Japanese Housing Bureau focused on improving the efficiency of mass production.

As a result, they broke off relations.⁵

Japanese institution could not evaluate the spatial quality of Sakakura's design in their urgency of making minimum functional housing as many as possible.

Since Perriand came to Japan, Sakakura also focused on the furniture design and emphasized the traditional elements of the legless chair with a bamboo basket type cushion.⁶ He explained his idea of interior as follows:

Because furniture is a part of the building, creating new interior spaces, and new living spaces. At least we're constantly looking for furniture that can take advantage of these new spaces.⁷

Sakakura's way of designing customized furniture for each building is a resistance to the homogeneous design of prototype housing interior, but is exemplifying the contradiction of the idea of standardization of architecture, which Le Corbusier and Jean Prouvé tried to realize as a symbol of the new way of making architecture as an art and the Japanese



Fig. 4. Kiyoshi Ikebe's first "minimum size housing (Saisho-gen jutaku)" built in 1950 in the mezzanine style, *Kiyoshi Ikebe Rediscovered*, Shokokusha, 1997, 28. © Shokokusha.

practical ideas of post-war mass housing and furniture.

5. DEVELOPMENT OF KIYOSHI IKEBE'S HOUSING DESIGN SYSTEMS

Kiyoshi Ikebe, who collaborated with Sakakura in his designing of the wartime houses, extended his ideas of prefabricated housing and furniture in a different direction from Sakakura. He joined to an artist group Shinseisaku Kyokai, which is consisted with designers and artists from various fields to create a new relationship between the art and society. It was originally formed by 9 painters in 1936, joined by 7 sculptors, and by 7 architects in 1949, such as Kiyoshi Ikebe, Kenzo Tange, Junzo Yoshimura, and Kunio Maekawa, who later became the leaders of the post-war Japanese architecture. In 1950, Kobe Exposition was organized by a collaboration between Shinseisaku Kyokai and NRIIA, and exhibited everything from everyday utensils to appliances and transportation mechanics, from the information of industrial design to the sales and use. The exhibition was based on the progressed technologies in the United States, and emphasized their modern artistry and cultural unique-

ness. Ikebe then presented geometrically shaped furniture and unit furniture that made use of modules he had designed. In Shinseisaku exhibitions and meetings, architects collaborated with interior designers such as Isamu Kenmochi, Katsuo Matsumura, and Riki Watanabe, who studied and worked at NRIIA. The collaborations with designers, young architects created a new approach toward the relationship between architecture and furniture.

In 1950, Ikebe designed his first minimum size housing in the mezzanine style as Sakakura (Fig. 4). However, when he talked about his understanding of Jean Prouvé, Ikebe said,

*I initially worked on prefabrication and the idea of module to realize factory mass production of housing...After the war, I immediately re-examined my study of prefabrication during the war, which obviously had many limitations derived from standardization...Even though I learned a lot about the relationship between human life and architecture, it is too complicated to design mezzanine type in the study of module system.*⁸

Compared with Sakakura, who concerned the humane

value of architecture, Ikebe gave up the idea of mezzanine, which made the minimum space as comfortable as possible for the resident. He put more emphasis on establishing ideas of module system. He tackled the designing of small-size housing throughout his life and regarded it as a major architectural theme to respond to the social need in the post-war Japan. In contrast to Sakakura's adherence to the structure of the Jean Prouvé's A-beam, Ikebe tried to understand Prouvé's practical architectural concepts to seek his own new system unifying traditional craftsmanship with new technology.

In his later research of the small-size housing, Ikebe developed the communication system based on the module system which integrates the logic of human physiology, ecology, function of space, structural logic, and environmental logic, and work through the process from planning to construction. Ikebe's idea was not to apply the forms and spaces created by the rationality of the structures of Jean Prouvé and Le Corbusier to human life, but to solve the more cultural and practical problems of housing that the Japanese people faced after the war, such as the problem of housing shortage, applying different Western values to their lifestyle, of carpenters' production based on traditional systems and dimensions, of growing demand for mechanical appliances in their everyday space after the war.

To solve these practical everyday problems, Ikebe collaborated in publishing *Modern Living* referring to the American lifestyle journal *Art and Architecture* to pass on practical information about housing construction, new trend designs of interiors to readers. He encouraged his housings' clients to consciously learn how to create and maintain their whole living space. He also worked with companies to develop the prefabricated housing technology and the formation of an inexpensive, small-size housing market for young architects. In other words, he sought to establish architectural production system as a new problem-solving method that would improve people's living environment, not as an individual architect's work of art.

6. CONCLUSION

When we re-examine the development of the ideas of interior, industrial design and small-size housing in Japan in the early 20th century from an international perspectives; the introduction of foreign architecture and design was not a smooth evolutionary development but a process of trial and error in ideological learning, technical imitating, and re-appropriating the ideas with shifting concepts of technology, architecture, industrial and interior design, and cultural identity in living space, which were affected by social, political, and economic factors in each period.

This paper explained how NRIIA had played important roles in introducing and making the ideas of housing standardization and industrialization positive in the post-war Japanese architecture. Through NRIIA's projects, the ideas of

standardization and industrialization could have various meanings by becoming clues to the fusion of the ideas of modernism, the traditional craftsmanship of local manufactures, and the practicality of American design. Based on that understanding, post-war Japanese architects perceived the idea of standardization and industrialization as pioneering new architectural principles while maintaining their cultural identity. Even though, there was a controversial gap between Sakakura and Ikebe in their post-war housing design, in terms of the quality of space and the efficiency of construction, by replacing this gap with the problem of planning and module system, Ikebe promoted the refinement of the industrial housing. In the discussion of the cultural significance of post-war Japanese architecture, instead of emphasizing their size and technology, we should reconsider the socio-historical and resilient process of this conceptual shift in that period.

NOTES

- 1 She designed a chair made with local material in Yamagata prefecture, organized an exhibition titled Selection, Tradition and Creation in Tokyo and Osaka in 1941.
- 2 The digitized data of the drawings brought by Perriand to Sakakura is kept at the National Archive of Architectural Materials. Shuichi Kitamura kindly allowed the author to look at them.
- 3 Daiki Isobe, Daisuke Tanigawa, & Yoshiyuki Yamana, "On the survey a study on an investigation of Yotuya Kanoutei by Junzo Sakakura.: comparison and consideration of War assembling architecture to watch from a plan and constitution member", proceeding of the conference of Japanese Architectural Academy, 2009, Vol. 7, No. 20, 629–630.
- 4 Akiko Shoji, "The Beginning of Industrial Arts", *Dreaming of Modern Living: The Industrial Arts Institute's Activities*, Musashino Art University Museum, 2017, 122–136.
- 5 Tadayoshi Fujiki, "Kumitate kenchiku kara saishogen jutaku made", *Okina Koe*, Tokyo, Kajima shuppan, 2009, 88–91.
- 6 Collaborating with Miho Architectural Crafts, the chair won a competition at MOMA.
- 7 Junzo Sakakura, "Jutaku wo kataru", *Shinkenichiku*, No. 5, 1966.
- 8 Kiyoshi Ikebe, "Seikatsu no module wo tsukamidasu", *Kiyoshi Ikebe Rediscovery*, Tokyo, Shokokusha, 1997, 34–35.

'GOOD DESIGN' AS A PEDAGOGY OF MODERN LIVING IN COLOMBIA

Ingrid Quintana-Guerrero

Assistant Professor — Universidad de Los Andes; Cra. 1 Este # 18 A — 7o Bogotá, Colombia. Bloque C Oficina 623; i.quintana20@uniandes.edu.co

ABSTRACT.

In 1947, Colombian architect Jorge Arango returned to his country after a short fellowship at the Harvard University GSD, chaired by Walter Gropius. Arango opened an architectural office, with the interior design of his apartment in Bogotá as the first project. The influence of the industrial and interdisciplinary approach in the GSD curriculum convinced him of the relevance that furniture design had on the creation of modern housing.

Arango's internship and his study trip in the USA were partially granted by MoMA in New York, where one of the major Bauhaus exhibitions was presented in 1938. In 1950, another MoMA's project related to daily-life design established the guidelines for western household furniture: the "Good Design" exhibition. Evoking the spirit of both exhibitions, Arango summoned woodcrafters in Colombia interested in developing mass-production lines for the emergent middle class. The foundation of Arctecto factory, in 1952, was the result of this call.

This paper explores the role of Arctecto and some Colombian architectural firms during the 1950s in the pedagogy of modern living. The opening of stores and showrooms was crucial to illustrate how furniture design contributed to the *cosmopolitisation* of Bogotá's inhabitants, as well as the use of these pieces in spaces created by other local architects (for whom some of these had also studied with Gropius). Their projects, published in specialised magazines and advertisements, fostered a dialogue between a new plastic language and the local architecture.

1. INTRODUCTION

In 1937, when Gropius became chair of the Department of Architecture at Harvard (GSD), young architects worldwide were attracted to study there as he promoted profound pedagogic changes. Gropius' vision of architectural education as an interdisciplinary subject was the main goal of the curriculum leading to creative industrial production. He first formulated this vision as founder and director of the Bauhaus. The adaptations of the original curriculum to the American context (and its subsequent frustrations) aimed to shape designers to be able to face different real construction problems simultaneously. The exercises developed at Gropius' and Marcel Breuer's studios related to economical housing, modulation and collaborative processes. These features also appeared at the master's degree in Urbanism attended by several Latin Americans, including some Colombian graduates.² For example, Álvaro Ortega³ (who became an instructor between 1957 and 1958, collaborating at José Luis Sert's studio), Gabriel Solano, (who graduated in 1945), Eduardo Mejía-Tapias⁴ (1946); and Santiago Ricaurte (c.a. 1951).

Another Colombian who had a shorter experience at GSD, in 1943 (supported by MoMA in New York) was Jorge Arango-Sanín, a young architect from Catholic University in Chile.⁵ Arango decided to contact Gropius to attend some master's courses. During his short period at GSD, Arango visited the Gropius and Breuer houses in Lincoln (MA), where both architects held private art collections including design objects from the Bauhaus. In 1944, Arango was granted by the National Housing Agency in Washington to travel across North America to study public housing. During this trip, he visited László Moholy-Nagy (in Chicago), Eero Saari-

nen and Frank Lloyd Wright. Moholy-Nagy was a former teacher at Bauhaus and Saarinen and Wright were interested at that time in interweaving the intimate spaces they conceived and the furniture they created for daily-life use.⁶ Arango also visited the Tennessee Valley Authority (TVA) agency in Knoxville, where technical research on new industrial systems and materials was in progress. TVA also focused on developing and improving transportation, infrastructure and even pre-fabricated housing, as stated in Arango's report published in the first issue of the magazine *Proa* in August 1946. This was Colombia's main architectural publication, founded by Arango and Carlos Martínez. Arango's views and editorial contribution at *Proa* launched his work as an architect in Bogotá, after nine years abroad.

2. ARCTECTO: A PIONEER OF INDUSTRIAL FURNITURE

Arango and his wife⁷ moved to Bogotá in 1946 and rented an apartment in a modern building in the city centre, where Arango opened his first office in the basement. In an attempt at furnishing both places, he searched for local brands like Camacho Roldán, which had a mass-production line but followed old-fashioned styles. Arango decided to order the fabrication of his own designs to wood workshops (Fig. 1). Thanks to this initiative, Arango's apartment⁸ became popular among colleagues and students, and he was invited to teach a design studio at Universidad Nacional. Both would be early strategies for a pedagogy of modern living in Colombia.

Encouraged by these events and identifying a commercial gap, Arango tried to launch a contemporary furniture factory. Lacking funding for this entrepreneurship, he called

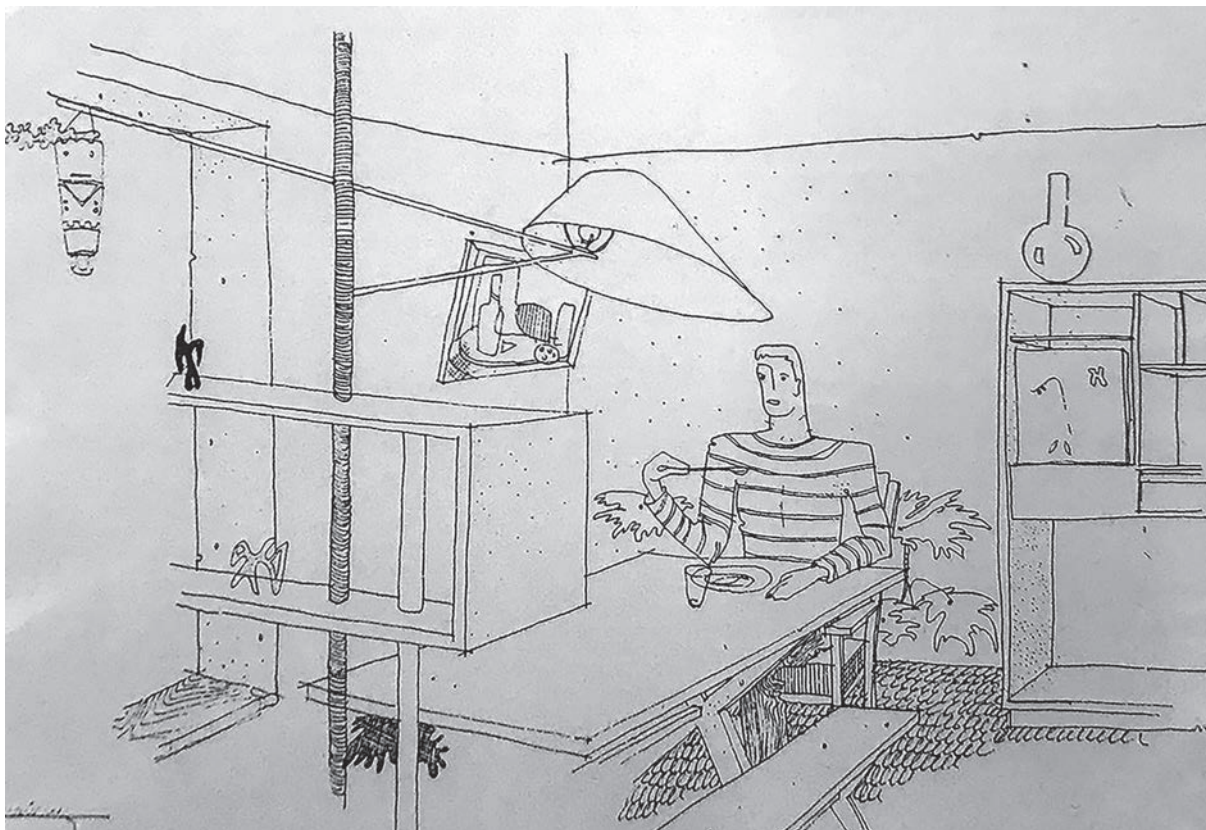


Fig. 1. Arangos' apartment, Bogotá, 1946. © GSD Frances Loeb Library, Special Collections "Jorge Arango Papers", box 2 (draftsman Fernando Martínez).

woodcrafters to find partners to produce modern furniture under new industrial processes. Only Ernesto Vivas, a businessman from Bucaramanga who was dabbling in the wood industry, expressed his interest and offered his new small workshop. Arango spent the profits of his first architectural commission in Colombia to found Prefacto (later changing its name to Artecto). In 1957 Vivas founded Ervico, an exclusive modern furniture distributor.

Similar arrangements occurred in Mexico with the foundation of Grabe & Van Beuren by two *bauhäusler*s who migrated to Latin America in 1938. This was the first mass-production furniture factory in Mexico, opening their store *Domus* in 1939. It is likely that Arango was familiar with *Domus*'s proposals (peasant furniture made from pine and ixtle fibres), as they won the *Organic Design for Home Furniture* competition (Latin American category), organised by MoMA in 1940 when he was an intern at MoMA. In section B of the competition ("Other Furniture for Living Room"), the winners were Eero Saarinen and Charles Eames, who presented a modulated system with exchangeable plywood pieces, allowing users to create a different kind of furniture. Arango's interest in Saarinen and Eames designs may have started at MoMA, before visiting them.

The two relevant MoMA exhibitions whose material was probably familiar to Arango, were the Bauhaus exhibition curated by Gropius and Hebert Bayer (1938), and "Wartime Housing", released a few months before Arango's arrival (1942). The first was structured following the different workshops of the Bauhaus, including carpentry (taught by Breuer) and metals. The second exhibition was promoted by the National Housing Agency (which supported Arango's American trip). "Wartime Housing" was dedicated to the urgent need for cheap housing for factory workers, illustrated by TVA prototypes and modern houses by Eero Saarinen.⁹

In its first review at *Proa* 64 (1962), Artecto was described as a pioneer of modern design in Colombia, to the point that its name became a synonym of functional furniture. However, other designers commissioned by sophisticated clients in Bogotá, such as the Russian Anatole Kaskoff, already had assimilated a modern language to their creations. Werner Biermann (another expatriate and, according to *Proa*, also a *bauhäusler*¹⁰) founded the Artesano workshops and created a plywood line named *Mini Max* (also reviewed in *Proa* 64¹¹), which incorporated research on ergonomics and prevention of wood hygroscopicity by using still wires and metallic grids. *Mini Max* was a work in progress. In contrast, Artecto



Fig. 2. Arango and O&S, Country Club extension, Bogotá, 1952. © GSD Frances Loeb Library, Special Collections "Jorge Arango Papers", photo box 1 (unknown photographer).

introduced mass-production lines of "contemporary furniture", following Bauhaus design patterns aiming at low-cost commercialisation.

As major Artecto contributions to the local industry, *Proa* mentioned the use of national fabrics with colours contrasting with the wooden structural elements and harmonised with the architecture that embraced these creations. Other innovations included new materials (e.g., foam, rubber and metal) and functional devices such as integrated handles. The review shows very similar designs to Eames and Saarinen's modulated system, arranged over carpets inspired by Albers's graphic compositions.

Artecto opened several showrooms in Bogotá and Medellín. Unfortunately, no picture of them is so far available; however, it is possible to have an idea of their stores' layout in a review on Ervico's building in the north of Bogotá, by the local architect Manrique Martín and sons. According to this review (published in *Proa* 186, March 1967), the store was the extension of a two-floor building built by Arango in 1952. It was a four-level concrete structure. Its free-plan layout allowed different kinds of ambiances. Its facades, with marble cladding, contrasted with the glassed showcases at the

downtown shop at the former Valderr's Department Store (by Henry C. Hudgins, 1947), whose openness towards the street was an example for passers-by of what a modern house should look like.¹²

3. ARCHITECTURAL FIRMS IN BOGOTÁ AND THE PROMOTION OF LIVING SPACE

Despite Arango's studies on affordable housing, his administrative duties as the president of the Colombian Society of Architects (1946–1947) and the director of the Public Buildings Agency (1948) prevented him from having a long career as a practitioner. Paradoxically, Arango's architectural works, in partnership with the engineer Fernando Murtra¹³, responded to other programs. Regardless of their private character, these works reveal Arango's interest in spreading his conception of modern domesticity, through the interaction between furniture and architecture. For example, the Fleishmann Factory complex in Palmira (1950) included the design of the Manager's residence. Arango selected indoor pictures to illustrate the vaulted living room and its furniture by Artecto, whereas the published images regarding the

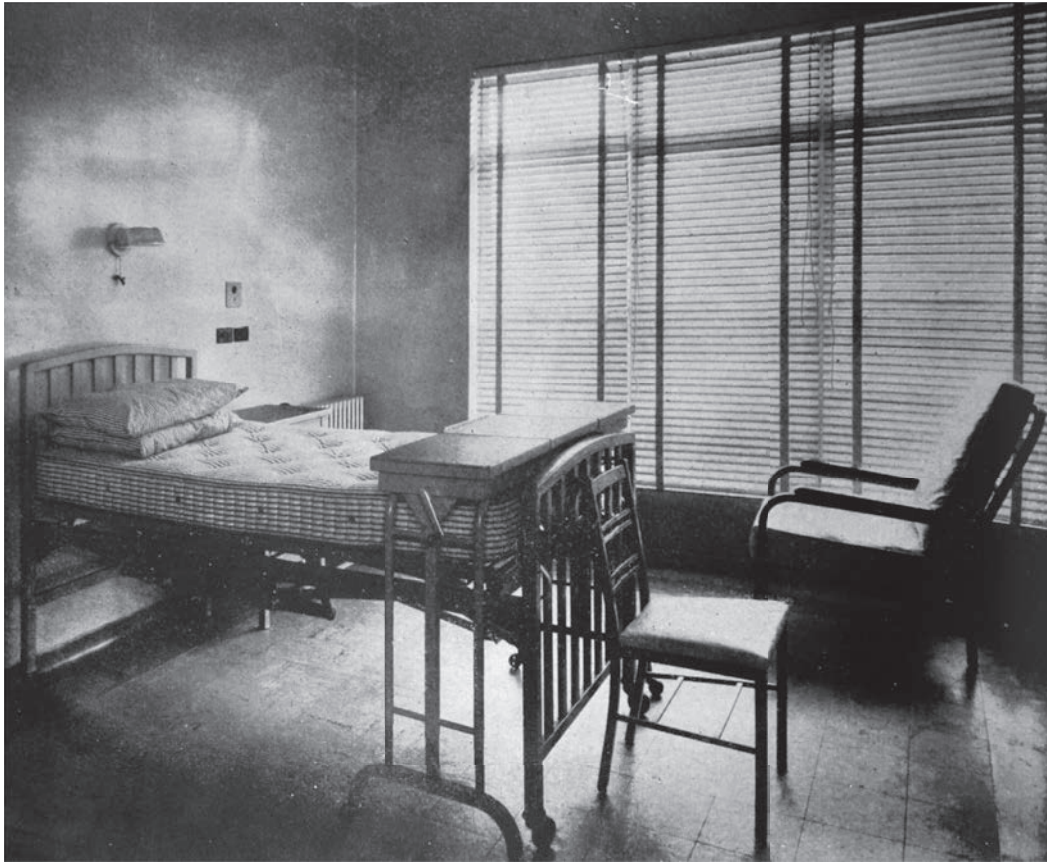


Fig. 3. CSG, San Carlos Hospital, Bogotá, 1948. © Revista Proa (Lorenzo Fonseca; unknown photographer).

main building were exterior views. The open facade of the one-story house appeared on the cover of *Proa* 65 (1962), promoting the fluidity of inner spaces and the contours of the objects.

Another relevant project by Arango was the extension of the Country Club in Bogotá (1952), in partnership with the firm created by Harvard alumni Álvaro Ortega and Gabriel Solano (O&S). According to Arango:

to eliminate the danger of rooms being possessed by specific groups [we] eliminated them [...] It was a continuous space of changing characteristics, at different levels with different heights, in which the furnishing was arranged in separate groups making it possible for spaces to be independent, but not exclusive (Fig. 2).

The Country Club was a high-class facility for Bogotá's elite (Arango came from a wealthy family, and this was probably the source of his privileged network). But the furniture in the pictures advertised in *Proa* 25 and 52 (reproduced in 1952 in international magazines such as *L'Architecture d'Aujourd'hui* and *Life Magazine*) was not luxurious at all. Artecto

dining and living rooms furniture was the same as that used in some rental buildings by O&S and published by *Proa* 49. Both magazines and rental properties were more accessible to the emerging middle class than any other kind of works by Arango.

The Country Club's swimming pool¹⁴ was included by Henry Russell Hitchcock in the exhibition "Latin American Architecture since 1945", inaugurated in 1955 at MoMA, along with several projects by O&S and Cuéllar Serrano Gómez (CSG). Their global diffusion was assured by the impact of the exhibition's catalogue. This event also reactivated Arango's relationship with MoMA, where other big home-furnishing exhibitions were recently organised. For example, in 1950, Edgar Kaufmann Jr. launched a prize for low-cost furniture, whose exhibition was hosted by this museum. In addition to Eames's and Breuer's awarded chairs, the selection contained the tubular chair with plastic straps designed by Mexican painter Xavier Guerrero and Cuban designer Clara Porset. She studied with *bauhäuslers* Josef and Anni Albers at Black Mountain College and collaborated with Van Beuren. She also designed furniture for two emblematic social projects: The Scholar City Camilo Cienfuegos



Fig. 4. Arango, Ye Little Wood House, Miami, 1961. © GSD Frances Loeb Library, Special Collections "Jorge Arango Papers", photo box 1 (unknown photographer).

(Sierra Maestra, Cuba, 1960), and the Urban Complex Presidente Alemán (CUPA) in México City (1949). Additionally, Porset worked with prominent Mexican architects during the 1950s and 1960, such as Juan Sordo-Madaleño, Mario Pani and Luis Barragán, on the interior design of theatres, hotels and houses.

Similar collaborations occurred between Arango and emblematic architectural firms in Colombia. This was the case of CSG, specialised in rental buildings for middle-class workers like the ones published in *Proa* 35 and 38, as well as residences for José Gómez-Pinzón and Gabriel Serrano (*Proa* 26), both partners of the firm. CSG also specialised in large-scale hospital projects such as the San Carlos Hospital (Bogotá, 1948), which featured Artecto's wooden beds, chairs and tables, designed to *humanise* the healing processes of patients (*Proa* 16–17 / Fig. 3).

4. ARANGO INC.: AN AMERICAN EPILOGUE

In 1957, Arango moved back to the USA and opened his own architectural office in Coconut Grove (FL), which mainly received commissions for luxurious houses in Miami Dade. Among them, Ye Little Wood (1961) and May (1962) residences were published at *Proa* 160 and 177, as well as in several decoration magazines and American journals (e.g., *The Miami Herald*, *Home Miami* and *Ocean Drive*). In Arango's

late projects, furniture involved architectural endeavours. For example, Osorio highlights the "interior-open" dual condition of the Ye Little Wood's spaces, only segregated by furniture (Fig. 4). The living room area, in the corner, was also limited not by walls but by fixed furniture and by a lintel. In the loggia, the recessed bench is arranged for contemplating the sequence of spaces, a concave space starting at the dining room and finishing at the backyard.

May's residence archive still holds coloured plans¹⁵ signed with *Arango Inc.* These show details of the kitchen, bar and bedroom furniture according to the Artecto style. *Arango Inc.* corresponds to the name of his "good design store", as he referred to it, at Dadeland Mall in Miami (1959, in partnership with his second wife, Penelope). The shop specialised in selling high-quality design products unavailable in the Americas mostly imported from Finland. For Arango, *good design* was a synonym for modern living.¹⁶ This concept remained from his contact not only with MoMA's exhibition and his meetings with relevant figures in the contemporary American scene of design. Therefore, refined taste, functionality and low-cost production were part of Arango's research from its very beginning.

5. FINAL CONSIDERATIONS

After an overview of Arango's trajectory, it is clear that

pedagogy on *good design* was aimed for an emerging middle class in Colombia, as well as for a local elite (probably with similar expectations of his clients in Florida). The main *Arctecto* / *Ervico* strategies were to invoke Breuer, Eames and Saarinen's attractive design language to carefully locate its stores and to circulate images of furniture used in Arango's and other architectural firms' projects. *Proa*, the magazine founded by Arango, was for obvious reasons the primary vehicle for disseminating these images, with both reviews and advertisement.

It is not clear whether Arango's studies on affordable housing were useful for his commercial purposes (e.g., industrial processes applied to furniture production) since his projects were addressed to wealthier audiences (in opposition to the Bauhaus social ideals). During his influential positions at the Colombian Society of Architects and the Public Buildings Office, opportunities to apply his knowledge into social housing production may have been missed. Contrasting with the CUPA experience (where design processes were supported by the Mexican government); in Colombia, there is no evidence of interior design explorations to improve low-class living conditions in public projects developed under Arango's leadership (e.g., the reconstruction of the city of Tumaco in 1948). Other Colombian alumni from GSD would pursue the same kind of commissions that Arango did during his short career as a practitioner, using *Arctecto*'s creations, such as rental buildings, family houses and institutional facilities. O&S went beyond, into the production of massive social housing, commissioned by the Instituto de Crédito Territorial. They recalled Gropius' teachings at Muzú neighbourhood (1949), but interior design issues seemed to have been delegated to the dwellers of these houses.

Finally, other GSD alumni, such as Santiago Ricaurte who founded the architectural firm Ricarte Carrizosa Prieto, had a more extensive social housing production, including developments financed by the Banco Central Hipotecario in 1957 (e.g., the Polo Club Neighborhood, and Quinta Mutis). Finding evidence of possible partnerships with *Arctecto* or other furniture companies to provide affordable domestic equipment for these projects is still a research gap which needs to be addressed by scholars.

REFERENCES

- ALOFISIN, Anthony, *The Struggle for Modernism*, New York/Cambridge, W.W. Norton and Company, 2002.
- NIÑO MURCIA, Carlos, *Notas de Clase 3. Arquitectos 24*, Bogotá, Universidad Nacional de Colombia, 2006, 230.
- PEÑA, César, *Proyecto Libre. Entre la Historia y el Diseño*, Bogotá, Universidad de Los Andes, 2009, 164.
- BOTTI, Giaime, "Geographies for Another History: Mapping the International Education of Architects from Colombia (1930–1970)", *Architectural Histories* 5 (1), 2017, 1–35.
- KLAUS, Herdeg, *The Decorated Diagram: Harvard Architecture and the Failure of the Bauhaus Legacy*, Cambridge, The MIT Press, 1983, 130–135.
- ARANGO, Jorge, *Villa Sofia*, London, Athena Press, 2003, 100, 171, 172, 252.
- OSORIO VALENCIA, Juan José, "Espacios Intermedios. La Arquitectura de Jorge Arango Sanín." Universidad Nacional de Colombia, 2010, 96.

GÓMEZ, Luz Mariela, *Tres ideas de lo moderno en la concepción del hogar*, Bogotá, Universidad Nacional, 2008, 125.

NOTES

- 1 Breuer also came from the Bauhaus and taught at GSD until 1946.
- 2 A sample of these academic projects can be found at Frances Loeb Library / Special collection "Harvard GSD, Students Affairs. Subseries CA: Architectural student problems."
- 3 According to Peña, after his return from the USA, Ortega suggested Josef Albers's name became a teacher at Universidad de Los Andes (founded in 1948). For teaching the new School of Architecture's basic course. Eventually, Ortega himself was in charge of it.
- 4 According to Niño Murcia, Eduardo Mejía-Tapias promoted the academic structure for the new Faculty of Architecture at Universidad Nacional de Colombia, in, based on Bauhaus curriculum.
- 5 Arango was an intern of Lincoln Kristein at MoMA, in 1943. After applying without success for a scholarship at Harvard, Arango got financial support for a short stay in Cambridge, from the Institute of International Education in New York. (Frances Loeb Library / Special collection "Jorge Arango papers". Box 6, binder of correspondence).
- 6 Arango's testimonies are confirmed by correspondence from 1944, in Frances Loeb Library / Special collection "Jorge Arango papers" (box 6, binder of correspondence).
- 7 Arango's first wife was Elizabeth Crocker, Breuer's sister-in-law.
- 8 In Arango's papers, this project is dated 1948. The draws were done by Colombian-Spanish architect Fernando Martínez-Sanabria, whose architecture also explores the potential of furniture in creating domestic spaces.
- 9 Eero Saarinen's parents, Eliel and Loja, had a significant influence during their teaching at Cranbrook Academy of Arts, considered as the American counterpart of Bauhaus.
- 10 This statement was denied by Magdalena Droste, former curator at Bauhaus Archiv Berlin, who said there is no registers of Biermann's presence at Bauhaus (in an e-mail with César Peña, February 2020).
- 11 Other companies raiding in furniture industry reviewed by *Proa* 64 were Fabrex, Industrias Metálicas de Palmira, Intarco and Camacho Roldán, which already had adopted a modern pattern for its designs.
- 12 *Arctecto* advertisement in *Proa* 16–17 (1948) indicates Edificio Valdír as the company's headquarters. It is curious that another previous advertisement (in *Proa* 64, 1962) displays Valdír as an interior design project by Biermann & Cía.
- 13 In parallel, Arango was an advisor of the Purchasing Commission in the USA of the Colombian Ministry of Public Works, starting in 1949 (Frances Loeb Library / Special collection "Jorge Arango". Box 6, binder of correspondence, letter from Ministry Ignacio Andrade on April 23, 1949).
- 14 Hitchcock travelled to Bogotá with curatorial purposes in January 1955. The mail exchanges reveal the curator was also considering the inclusion of the Fleishmann project at the exhibition (Frances Loeb Library / Special collection "Jorge Arango", box 6, binder of correspondence).
- 15 Frances Loeb Library/Special collection "Jorge Arango papers" (roll case No. 2).
- 16 Despite their common origins in Bauhaus' fundamentals, Arango's idea of good design is apparently founded on the American development of an industry for massive consumption rather than a German idea of "good form" presented by HfG's director Max Bill the traveling exhibition *Die Gute Form* in 1949, the year before MoMA's *Good Design*. In his archive, we have not found any reference to the Ulm School of Design; conversely, Arango's opinion piece for *The Miami Herald* (June 1, 1986) criticizes the European reception of product design and denounces its failure: "The [Bauhaus] designs were to be practical, and easily produced by machines, so that everyone could have them, but the mass was not interested. [...] Only those articles that did not exist before and did not carry 'social prestige' such as electronic equipment or jet airplanes, were saved from the mass's appetite and today are fine examples of good contemporary design".

THE BIRTH OF THE FIRST MODERN SUBURBAN RESIDENTIAL COMMUNITY, THE “NEW GARDEN CITY VILLAGE” IN TAIWAN: A CASE STUDY ON THE ARCHITECTURAL PRACTICE OF ARCHITECT XIU, ZELAN

Pao-Ning Yin

Graduate School of Arts Management and Cultural Policy, National Taiwan University of Arts; 59, Sec. 1, Daguan Rd., Banqiao Dist., New Taipei City 22058, Taiwan; ning@ntua.edu.tw

ABSTRACT.

Architect Xiu Zelan (1925–2016) is one of the first-generation architects who accepted modern architecture education in Mainland China and mainly had her profession practice in Taiwan. Based on her belief in modern architecture practice and to introduce a better way of life through the modern building and planning concept, Xiu and her husband organised a company to plan, develop and design a housing community in Taiwan around the late 1960s. It is the first case of the collective housing community in Taiwan, which learned from the idea of the “Garden City” and the model of suburban housing complex in United States. It was named of “Garden City” in Chinese characters. According to Xiu’s idea, the community situated in a hill with great natural environment. She planned different types of buildings complex for different household types. In the beginning, she intended to build the community as an ideal model of modern housing. The community configured with a church, a supermarket, restaurants, community centre, swimming pool, a children playground, a small zoo, and so forth. She also mentioned that, she hoped a good-designed community might become a good support for married women, which might be helpful for the housework. Above all, the community last for over 50 years, the residents still quite enjoyed the good living quality of the neighbourhood, and people might agree here is one of the contributions from the Architect Xiu. The article would like to introduce the Garden City community as a legacy of modern collective housing community in Taiwan.

1. INTRODUCTION

Architect Xiu Zelan was one of the most important architects in Taiwan after World War II. The “New Garden City Village” in Xindian, Taipei County, which was designed and constructed by her team is the first suburban collecting housing community in Taiwan. Her ground-breaking case triggered lots of followers which changed the housing landscape substantially. To understand the architectural practice of Architect Xiu, especially design and construction of the residential community of the “New Garden City Village”, it needs to be placed in the historical context of Taiwan’s post-war modernisation development first.

1.1. The Post-war KMT Government and the US Aid Period

After World War II, Taiwan entered the period of the Kuomintang government. Due to the outbreak of the Korean War, Taiwan returned to the United States’ defence front. US aid entered back to Taiwan after 1954. Various advisory teams such as the U.S. military advisory group also entered Taiwan. These aid systems include assisting in the introduction of resources, setting up universities, such as Tunghai University in Taichung, and also introduced American technical systems in urban planning, civil engineering and construction technology in Taiwan. For example, the US Army Dormitory Group (1950s) built in Yangmingshan, and the Minsheng Community (1960s) in Taipei, new towns and the garden cities concept were introduced and practiced then. They are all from the 1950s on, which were influenced by the American trend of thought, and reflected of urban planning and construction ideas of collective residential communities.

1.2. The Social and Housing Landscape of Taiwan from the Post-war Period to the 1970s

The aforementioned residential community cases supported by US economic aid and professional consulting from the United States, allowing Taiwan to closely follow the United States in the development of post-war urban and residential modernisation. That is to say, most people still live in a traditional way, without any kind of collective housing type of residence or community design concepts at all before the American residential styles were introduced by the U.S. military advisory group then. However, these were only limited cases supported by government budget. Facing the slow pace of post-war economic recovery, the private housing market and the energy of the construction industry in Taiwan as a whole are still quite insufficient. Nevertheless, the modernisation process of Taiwan society has become a complete “Americanisation” model.

On the one hand, Taiwan’s development trajectory after 1950 is dedicated to regaining its standing from the decline of the war. With the strong support of the United States, the entire society pursues economic development through the process of Americanised modernisation. But in terms of ideology, it is the goal of striving for the whole people to “rejuvenate Chinese culture, counterattack the Mainland China, and unify China.” In this way, Taiwan’s modernisation has always been tied to nationalist ideology. In other words, the pursuit of a better and modern society is to prepare for the reunification of China. Taiwan is regarded as a base for “counter-attacks and recovery.” Taiwan is built better for the reunification of the Republic of China in the future. This ideology dominated the society at the time, also includes archi-



Fig. 1. Chungshan Great Hall. © Wei-Te Wong, 2016.

itecture professionals.

So as to the situation of social life, due to the generally low income of the people, and the development of industry and commerce, rural populations have gradually moved to the capital, Taipei city. In addition, after the 1950s, about 1.2 million people moved from mainland China to Taiwan, which had a huge impact on a society with a population of about six million. For example, from 1955, the government started the public housing policy. At that time, the estimated demand for housing was about 130,000 houses per year by 1972. But only about 30,000 private households were built each year, and the government only built 6,000 households each year. In other words, the housing stock in urban areas is not enough. A large number of squatter settlements gathered on urban land. In order to meet the labour demand for the development of industry and commerce, many women entered the workplace, which not only the gender division of labour, but also traditional family structures and social life changed. All of these, including the lack of housing, gave rise to the need to improve the quality and quantity of collective housing at that time.

1.3. Summary: a Feminist Viewpoint on Housing Design beyond the Time

In the historical context mentioned above, several points can be summarised. First, the New Garden City residential community that Architect Xiu and her team committed to develop is based on the aims to improve the overall quality of living in Taiwan with the modern architectural education and professionalism they have received. Secondly, architect Xiu organised a developer corporate by herself, which helped to expand the developer and construction in-

dustry and market in Taiwan, meanwhile, to make sure all her design idea could be fully realised. That is, it was a developing energy from the private sector instead of the public investment. Thirdly, it is observed that more and more women are entering the workplace. Xiu emphasises that the modern residential environment should fully consider the family care needs of working women, and extend many details of residential planning based on the current perspective of feminist architectural theory. Her vision is forward-looking.

2. THE PROFESSIONAL PRACTICE OF ARCHITECT XIU

Xiu Zelan was born in Yuanling county, Hunan Province, 1925. She was graduated from the Department of Architecture of Central University in Nanjing. She started her career at Taiwan Railways Administration in 1947. In 1956, she started her Architects firm with her husband. It happened to be the period of Post-war revival and restoration in Taiwan, of which many public constructions desperately needed professionals to engage in. In other words, she was deeply involved in the historical moments of modernisation in the late 1960s.

Chungshan Great Hall, founded in 1965 under the request of President Chiang Kai-shek to commemorate the centenary of Dr. Sun Yat-sen's birth, is her masterpiece (Fig. 1). Until the end of 2005, this was the site of National Assembly meetings and that is why the picture of the building is placed on the reverse of the 100 New Taiwan Dollar bill. It was also on the first 20 of do_co, mo.mo_Taiwan's list, because of its significance on both architectural and historic value.

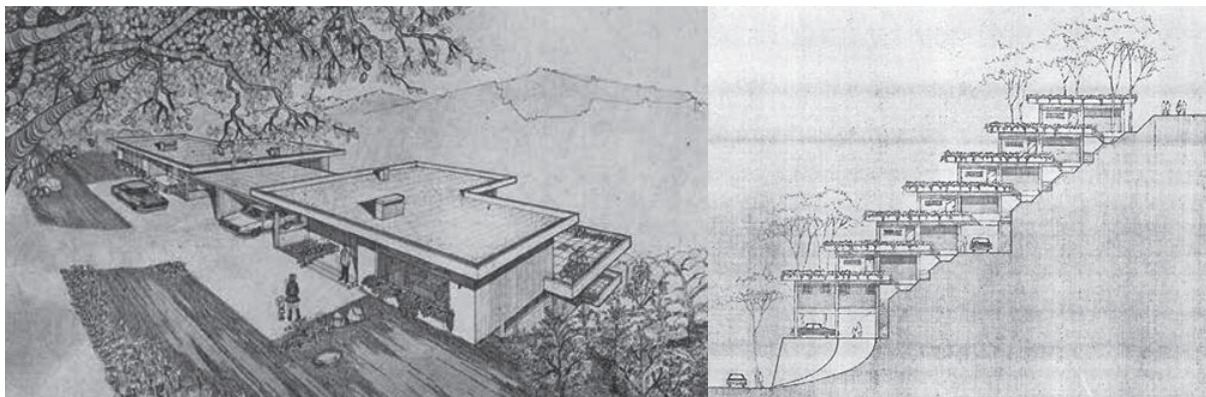


Fig. 2. A perspective and section of households built along the mountain terrain, and each one has its own terrace garden. © Xiu, 1968.

Since the Chungshan Great Hall was seen as an icon which conveyed the authority of the KMT Government, although the public regarded the building as one of the representatives of the modernisation of traditional Chinese architecture, however, there is another view that the building is only a conservative and retro ideological and aesthetic manifestation under the authority of Chiang Kai-shek, and does not have any progressive value of modernism at all. This makes Xiu quite controversial historical evaluation to some people in politic terms. However, her social prestige at that time reached its peak. In 1967, she and her husband, went abroad for a short visit for one month, hope to bring new ideas back to Taiwan. Beginning in 1968, the first ever suburban community “New Garden City Village” project began. When the New Garden City Village community was completed in 1970s, it was the first case in Taiwan, which built on a hillside, and also the first case modelled from US suburban residential community. It echoed the trend of Taipei’s continued expansion into satellite towns due to the rapid urbanization and excessive population concentration then.

Xiu said that the planning concept of the “New Garden City Village” learned from the American suburban houses.¹ And the name is a compliment to the planning concept of “Garden Cities”. However, judging from the actual case content of the “New Garden City Village”, the overall community planning concept is far beyond this. Especially from the perspective of gender design, it is an issue of little concern. Therefore, this article will cut into this aspect, and discuss it from the perspective of community master plan and feminism viewpoints on the housing units and the gender division of labour.

3. THE PLANNING CONCEPTS ABOUT THE “NEW GARDEN CITY VILLAGE”

In order to implement the overall vision of the residential community, the architect set up the Xincheng Company

to execute the whole project. Besides, she asked investors not to interfere with the design concept to avoid affecting the integrity of the overall plan and the original ideal. Finally, they bought 55 hectares of hillside land. The final development covers an area of about 40 hectares. I would like to elaborate the planning concepts of this community from four aspects.

3.1. Taking Nature as the Top Priority and Making Good Use of Topography

According to Architect Xiu in an interview, the most important concept in the overall planning is to respect the nature. In addition to the purchase of all the aforementioned land in batches, they attached great importance to soil and water conservation facilities, the setting of pebble drainage ditches, and extensive planting of grass and trees, not to change the natural topography, etc. It might be a good application of the ideas of eco-feminisms, which never exploit the land.²

In Xiu Zelan’s idea, as the name suggests, she hoped people to live in forest and gardens. It’s a paradise away from the busy city, while enjoy the convenience of the city at the same time. Therefore, the whole area divided into 6 sub-area, named in 6 villages, and each village was planned into different types of housing according to its different landscape characteristics. There were total of 1,250 households, including single-, double-, and multi-story villas and elevator apartment buildings on the 4th, 7th, and 12th and 16th floors. In addition to clear family composition and space planning for each type, the focus is on enabling each household to have its own garden and outdoor nature landscape (Fig. 2).

3.2. Consider Both Community Planning and the Well-organized Daily Life Management

In the original ideas of Garden Cities proposed by Ebenezer Howard³, the focus is on the organic connection of paid labour, job opportunities, and living space. However, in Xiu’s conception, the functions provided by the New Garden City



Fig. 3. The outlook and inside of the Church in the New Garden City Village. © Yin, 2011.

Village are quite diverse and perfect to meet the needs of comprehensive daily life.

In addition to the residential space of individual households, community parks, swimming pools, tennis courts, basketball courts and other basic leisure sports facilities, the public facilities planned in the community area include: supermarkets, theatres, substations, telecommunications and post offices, waterworks, tourist hotels, public swimming pools, nurseries and kindergartens, national middle schools and elementary schools, general hospitals, churches, transportation service stations, parking lots, etc. Among them, electricity, post and telecommunications, schools, and other facilities must be intervened by government departments. The Mayor of Taipei County agreed to setup primary and elementary school there. Automatic telephones in the community are scheduled to be installed at 800 households. The substation project is funded by Xincheng Company and then taken over by Taipower. The rest, such as tap water, swimming pools, supermarkets, transportation facilities, kindergartens, hospitals, churches, etc., are all invested and operated by Xincheng Company. That is to say, the Xincheng Company took over all the public infrastructures responsibilities from the government to build a new housing model to cope with the rapid urbanization in Taiwan with highly concern on people daily life needs.

It is worth noting, however, that the community is not just providing these hardware facilities. At the beginning of the establishment of the community, Xincheng Company has planned to set up amusement parks, swimming pools, supermarkets, tourist hotels, transportation companies, etc. The income of these business units is used for community

management, so community residents do not need to pay any community management Fee. The services provided by the community management centre are quite diverse, including ordering flowers, shopping for vegetables, calling a car, weather forecasting, ordering tickets, house cleaning, temporary child care and so on.

Besides, although the church (Fig. 3) in Xincheng Community is not large in size, it has a prominent shape and is very representative. It can be called one of the Brutalism masterpieces in modern architecture in Taiwan.⁴

3.3. Emphasise the Introduction of Modern Science and Technology in Planning Thinking

Xiu believed that modern life would rely heavily on cars. Her overall plan for the community is to set cars as the main mode of transport. Road area is considered in terms of two-way traffic. Moreover, community transportation vehicles are also provided as a tool for commuting to and from urban areas. In the suburbs of Taipei, where mass transportation was not yet developed, it was very helpful for commuting to and from work places.

In addition, the collective housing in Taiwan was not equipped with system kitchenware, let alone electric appliances such as dishwashers, dish dryers, bone crushers and food waste processors. However, Xiu suggested that modern homes must be able to have these advanced technology products, which have become the basic equipment for each household in the New Garden City Village. Meanwhile, with no doubt, to support the daily life in the village meant to support the heavy housework for married and paid female workers in each household substantially.

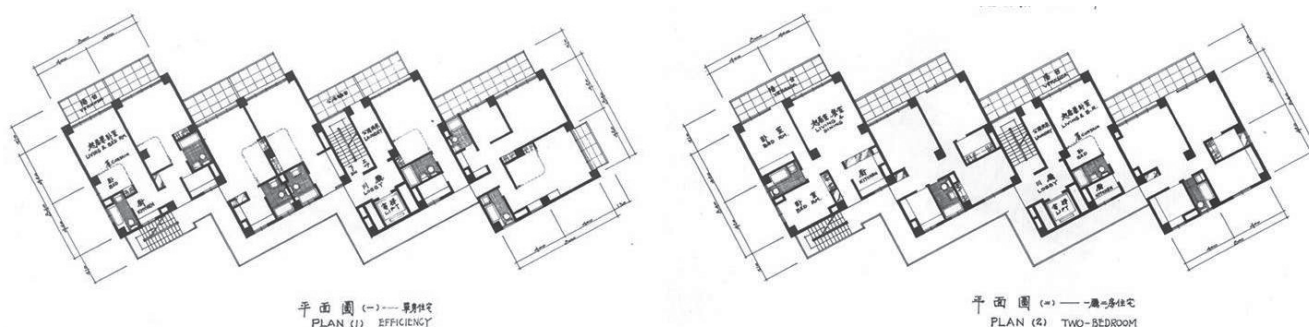


Fig. 4. the plan of house with single-bed room in the left, yet could be combined into a household with two-bed room as the right plan. © Xiu, 1968.

3.4. Resident-friendly Thinking: to Support Everyone's Needs

One of the most important characteristics on gender planning thoughts is to highly respect the differences between each subjectivity. Architect Xiu designed more than 12 types of units for different kinds of households in the Village. However, she kept the flexibility for the change of some type of units. For example, the plan of house with single-bed room, yet could be combined into a household with two-bed room depends on the needs of residents (Fig. 4).

Xiu Zelan argued that after entering the industrial and commercial society, although a large number of women have entered the workplace, the entire society was not supportive at all. Mainly because of the burden of family care. In traditional Chinese people thinking, to feed the family is Mother's nature duty. It became one of the gender constraints for married women to get paid work due to the patriarchy family ideology. Therefore, for helping to relieve the social stress on married women, in the planning of New Garden City Village, Xiu set up and operated a community supermarket to provide pre-processed ingredients to facilitate women's cooking at home, set up a restaurant to facilitate family dining or entertaining guests, and introduce well designed laundry centre, or set up a nursery, etc., are all to substantially reduce the burdens on the home caregiver, mainly the married women. These ideas of services based on the belief to support every one's daily life and their needs, namely, especially for paid female workers. Nevertheless, it did not challenge the gender division of labour at all.

As another example, there is also some building specific for retired elders to live in, providing meal preparation functions in the central kitchen, so that elders can choose to share meals with other people, and also provide services such as community care. This is what Taiwan hopes to do at present, but she did it already 50 years ago.

4. CONCLUSIONS

Xiu Zelan once mentioned in an interview: "The current living environment in Taiwan is to build matchbox-style

houses, which are the same, unchanged, not only lacking in art, but also not enough space for activities. Her plans are: Create a new pattern and use it as an example to improve the living environment in Taiwan."⁵ From these short sentences, in the ideal of Xiu, creating a high-quality residential community means to improve Taiwan's living environment standard, which was also the significance of modernisation. In her opinion, as an educated professional, it was her responsibility to accomplish the mission of national modernisation. With the conviction of achieving the ideal, fifty years have passed, the Shangri-La, co-created by Xiu Zelan and her team, has still supported the beautiful daily life of residents in the New Garden City Village community.

REFERENCES

- HOWARD, Ebenezer, *Garden Cities of Tomorrow*, Swan Sonnenschein & Co., Ltd., 1902.
- PLUMWOOD, Val, *Feminism and the Mastery of Nature*, London, Routledge, 2003.
- WANG, & HSU, *Rustic & Poetic — An Emerging Generation of Architecture in Postwar Taiwan*, Taipei, ECUS Publishing, 2008.
- YIN, Pao-Ning, *The Obsession of Modernism: Architect Xiu and Her Times*, Taipei, Art and Collection Group, 2019.

NOTES

- 1 Pao-Ning Yin, *The Obsession of Modernism: Architect Xiu and Her Times*, Taipei, Art and Collection Group, 2019, 41–77.
- 2 Val Plumwood, *Feminism and the Mastery of Nature*, London, Routledge, 2003.
- 3 Ebenezer Howard, *Garden Cities of Tomorrow*, Swan Sonnenschein & Co., Ltd., 1902.
- 4 Wang, & Hsu, *Rustic & Poetic — An Emerging Generation of Architecture in Postwar Taiwan*, Taipei, ECUS Publishing, 2008, 140–145.
- 5 Yin, 2019, 41–77.

Session 10-b

LEARNING FROM THE MODERN INTERIOR DESIGNS AND LIFESTYLES

Izumi Kuroishi

Professor, Aoyama Gakuin University

In the modernizing society, the market and production systems of the people's living space and objects, and even of the material and parts of buildings, have expanded internationally and been strategically constructed according to the political and capital interests. The idea of Modern Movement is based on this social transformation and actually permeated into people's daily life and living sphere through the interior space and objects; furniture, utensils, and appliances etc., which were often designed not by architects but by interior designers, craftsmen and industrial designers. Thus, the discussion about idea of Modern architecture should be not only about the building itself but also about the way of the people lived in and used it, and about how and why its space and belongings were made, lived and transformed. Particularly, when we talk about the way to design daily life in the modern architecture, socio-cultural and political issues in the transitions and alterations of the lifestyle based on the people's physical and psychological senses and habits, their social relationship and consumption behaviors become the main issues. The historical and symbolical meaning of the form and placement of furniture and objects, the aesthetic values and tactile senses attached with the surface and forms of the space and objects will be examined to clarify how the designing lifestyle in architecture is consisted with comprehensive and dynamic process of making, and how they affected on people's way of understanding and situating their identities in the society.

The three papers in this session: Marta Silveira Peixoto and Carlos Eduardo Comas's "Furniture Parlante: Bo Bardi, Rodrigues, Chair Typologies and Cultural Stereotypes," Kostas Tsiambaos's "The couch and the transformation of the modern Interior," and AnnMarie Brennan's Standards and Systems: Olivetti Synthesis 45 Office Furniture," explores above diverse aspects of the historical changes of the idea of designing architectural interior space in the Modern Move-

ment.

Marta and Carlos's text conducts a comparative study between the chairs designed by Lina Bo Bardi and by Sergio Rodrigues in terms of these designers' understandings of the Brazilian cultural stereotypes relating to the ideas of simplicity and comfort. It explores the complexities and contradictions involved in their use as design and marketing arguments, which are often different from the actual usage and physical conditions.

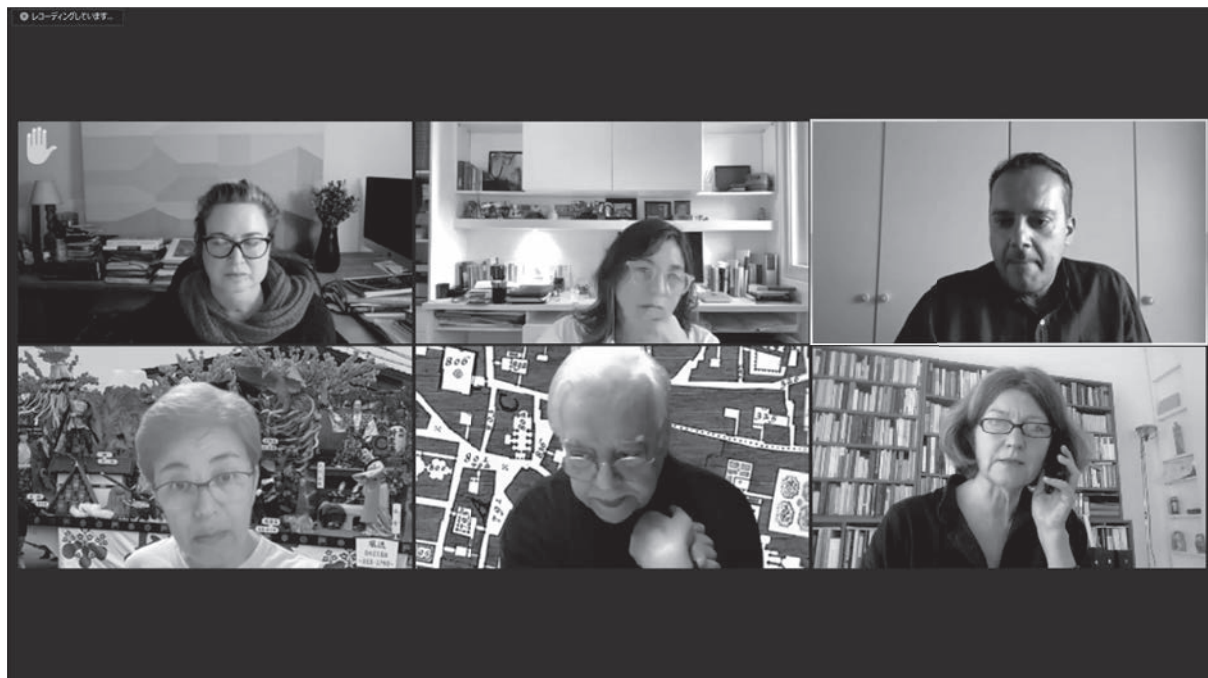
Kostas's text examines the role of couch in modernizing Greek interior. Focusing on the variations of the couch in the Greek architecture of the 20th century, she describes how the couch was an invention that forever altered the ideas of dwelling and domesticity reflecting new mentalities and sensibilities on gender and space. Then, she discusses about how the couch signify diverse issues and meanings in the surrounding space and how new domestic free-time emerges around it.

AnnMarie's text examines a series of furniture designed by an architect and designer Ettore Sottsass for the Olivetti Company that would accommodate the shifting nature of work from the factory to the office. He created a system in which office chairs, desks, filing cabinets and other furniture were envisioned as a series of interchangeable, modular parts that fit into a grid-based system. She also discusses about how Sottsass's furniture design was related to his design of computer and how his collaborative working style created a new paradigm of design expanding from object to architecture and surrounding environment.

These three very international collections of paper suggest the wide-spread impact of the Modern Movement design ideas, their characteristic expansions and dynamic dialogues with traditional and local designs in many countries. Even though each of them has specific target subject and theoretical interest, they all clearly exemplify the designers'

inquiries and aspirations for the future way of life in the Modern society. Their rich historical and detailed narratives of furniture and interior space clarify how the fundamental modern architectural themes, such as comfort, simplicity, gender, domesticity, worker's physical positioning and intellectual imaginations are both closely related to the critical

socio-cultural issues and to the humanistic sensibilities in the modernizing society. We will welcome both case-specific and theoretical inquiries and discussions about the idea of "designing daily-life" from the points discovered in these works as well as from more general interests in the ideas of interior, domestic space, home and housing.



FURNITURE PARLANTE: BO BARDI, RODRIGUES, CHAIR TYPOLOGIES AND CULTURAL STEREOTYPES

Marta Peixoto¹ and Carlos Eduardo Comas²

¹ UFRGS; Rua Mostardeiro 12, apto.82; marta@martapeixoto.com.br

² UFRGS; Rua Comendador Rheigantz 43; ccomas@uol.com.br

ABSTRACT.

Orthogonal geometry and thick slabs of glued hardwood pieces distinguish the chairs for the theatre of SESC Pompéia, in São Paulo, the wealthiest city in Brazil. Elementary geometry and solid wood characterize the Girafa chair and the Frei Egydio bench both designed for two buildings in Salvador, capital of the state of Bahia in North-east Brazil, the country's most impoverished region. Those pieces designed by Lina Bo Bardi have no padding, and their production was semi-artisanal. She justified the obvious discomfort as resistance against the consumer society and associated it to the simplicity and ingenuity of the North-eastern inhabitant. This character was the human type best personifying the country in Lina's opinion. She contested the stereotyping of Brazilians as pleasure-seeking jolly good fellows, represented by the Mole armchair by Sergio Rodrigues. Semi-artisanal and expensive Mole comprises a rounded, robust hardwood frame, adjustable leather support straps, and a floppy, luxurious over-sized leather cushion. It is a fat, ultra-comfort version of the BKF chair created by the Spaniard Antonio Bonet and the Argentineans Juan Kurchan and Ferrari Hardoy. However, Mole and BKF are less comfortable than they look regarding sitting in for an extended period. Critic Joseph Rykwert used the chair as a case study against naive functionalism and the denial of symbolism and formal precedents. The above-mentioned comparative analysis is the starting point for a discussion of cultural stereotypes and the complexities and contradictions involved in their use as design and marketing arguments.

1. BO BARDI 1980s

Orthogonal geometry and thick slabs of glued laminated hardwood distinguish the fixed seating¹ created for the theater of SESC Pompéia (1976–1982), a Cultural and Leisure Center in São Paulo, the industrial megalopolis of South-east Brazil, the country's most prosperous region (Fig. 1). Elementary geometry and light-toned solid tauari wood distinguish the seats created for two buildings in Salvador, capital of Bahia, in North-east Brazil, the country's most impoverished region. The Girafa chair equipped a restaurant at Casa do Benin Cultural Center (1987–1988), and the Frei Egydio (*frei* means friar in Portuguese) folding chair (Fig. 2) equipped the Gregório de Matos Theater (1987–1988). The Italian architect naturalized Brazilian in 1951 and São Paulo resident Lina Bo Bardi designed those pieces with Brazilian architects Marcelo Ferraz, Marcelo Suzuki, and André Vainer.² Girafa can be described as a three-legged stool with benefits where one of its legs extends to support the narrow backrest. Alvar Aalto's Stool 60 for Artek (1933) was the initial reference according to Ferraz, but the Brazilian chair features conventional straight T-legs instead of the bent L-legs devised by the Finnish architect. An X-sided folding chair with backrest, Frei Egydio updates the late 15th century Italian *sedia tenaglia* by reducing to three wide pieces the number of slats that swivel open or flatten for ease of transport and storage. Although not particularly easy to move, both the Girafa and Frei Egydio are stackable.

No padding softens those seats. Despite that, Bo Bardi did not present the hard, sturdy surfaces as a rational response to the likely amount of wear and tear on the furniture of public buildings, which they are. She justified the

SESC chairs as an act of resistance against the consumer society, one which looked at the example of the Greek amphitheater's stone seating. Comfort, she said, is a bourgeois construct.³ She was also vocal about emulating the simplicity, ingenuity, and economy of means that show in North-eastern Brazil handicrafts. Girafa and Frei Egydio are still manufactured by Marcenaria Baraúna, the furniture factory created in 1986 by architects Ferraz, Suzuki and Francisco Fanucci. Part of the permanent collection of MoMA, these chairs are sold in two stores in São Paulo and another in Paris. Today they grace the living rooms of a restricted group of connoisseurs as objects for show rather than use. Their prices are high for most Brazilians: Girafa costs half the current minimum monthly salary in the country.

2. RODRIGUES 1960s

By contrast, comfort is of the essence in the Mole armchair (1957) created by Carioca (Rio de Janeiro-born) architect Sergio Rodrigues formerly as a "spread-out" sofa for the photographer Otto Stupakoff.⁴ Inspiration for Mole (which means soft in Portuguese) came from the Indian hammock; to be more precise, from the idea of merging an Indian hammock and a British club chair (which derived from the French *fauteuil comfortable*). Mole comprises a rounded, robust hardwood frame with four vertical legs (originally Brazilian rosewood or jacaranda), as well as adjustable leather support straps and one single over-stuffed, and over-sized leather cushion that folds to form backrest, seat and armrests. It is technically traditional, but its informality suggests relaxation, even indolence, while leather and hardwood spell luxury (Fig. 3).

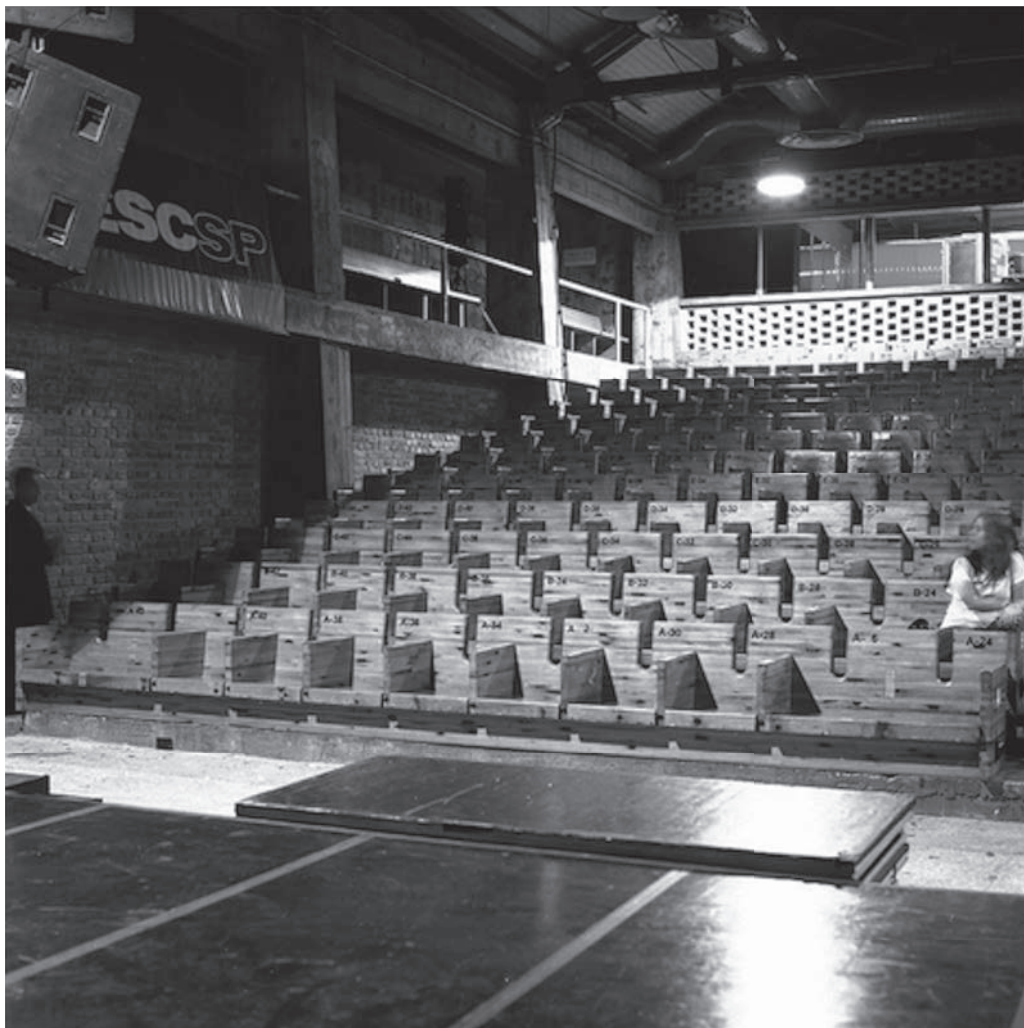


Fig. 1. Lina Bo Bardi, 1976–82. SESC Pompéia Theater, São Paulo, accessed on 28 January 2020, <https://www.archdaily.com.br/br/01-153205/classicos-da-arquitetura-sesc-pompeia-slash-lina-bo-bardi/52797b43e8e44e865400006c-classicos-da-arquitetura-sesc-pompeia-slash-lina-bo-bardi-foto>. © Pedro Kok.



Fig. 2. Lina Bo Bardi, 1987. Frei Egydio bench and Girafa chair, accessed on 28 January 2020, <https://www.arcoweb.com.br/noticias/design/cadeiras-girafa-e-frei-egidio-sao-incorporadas-na-colecao-do-moma>. © MoMA.



Fig. 3. Sergio Rodrigues, 1957. Mole armchair, accessed on 28 January 2020, <https://www.metmuseum.org/art/collection/search/772912>. © TheMet.



Fig. 4. Antonio Bonet Juan Kurchan and Jorge Ferrari Hardoy, 1938. BKF chair, accessed on 28 January 2020 <https://www.moma.org/collection/works/4393>. ©MoMA.

Rodrigues had opened in 1956 a furniture store called Oca (the name of the typical Brazilian indigenous dwelling), and Mole sat in its window without much local interest until winning the first prize in the International Furniture Competition held in Cantù, Italy (1961), with a few minor modifications. After that, it was produced by ISA Bergamo for the European market under the nickname Sheriff yet hailed at home as an icon of Brazilianness. Later (1963), it got a slightly smaller sister, the Moleca armchair, technically more sophisticated. It is foldable in order to reduce shipping costs, but can be easily reassembled at home, using a wedge fitting system.

Production stopped in 1970, but the global design market rediscovered them after 2000. They have been reissued in certified hardwoods, and remain both expensive and relatively scarce, available in just one store in São Paulo (the same one that sells Girafa and Frei Egydio) and another one in Milan. The vintage Brazilian rosewood pieces turned into objects of desire, and they may fetch prices as high as US\$ 10,000,00 in auctions — a rip-off compared to the prices of same period French or Italian furniture. It is important to note that, since 2018, Mole is part of the permanent collection of the Metropolitan Museum in New York.

3. THE BKF CONNECTION

A 1955 photograph shows 20-year-old Stupakoff, the one who had ordered a chair from Sergio Rodrigues, in front of his first studio, sitting on a BKF (1938).⁵ Mole can be seen as a fat, ultra-comfort version of that chair created by the Spaniard Antonio Bonet and the Argentineans Juan Kurchan

and Jorge Ferrari Hardoy (Fig. 4). Its authors were members of the Austral Group and criticized what they called functional architecture for its “aesthetic prejudices and puerile intransigence,” among other things.⁶

Designed for their studio in Buenos Aires, BKF was conceived as simple, cheap and lightweight, a modern hammock: a sling of leather or canvas bag is dropped over a seemingly continuous wrought iron bent and twisted like four giant hairpins. BKF was born as an adaptation of Tripolina, which was the Italian version of a camping folding chair designed by the English Joseph Fenby and patented in the United States (1881). BKF soon became a modern international icon, also known as Butterfly, Sling or Wing Chair, considering formal resemblances; Safari, African Campaign or Italian Officer's Chair, considering typological kinship; and Hardoy Chair, considering design team leadership.

Both slim BKF and cushiony Mole stand for modernism as a liberation of the body from bourgeois constraints. They appeared as elements of the liberated, open dwellings, full of light and air, that supported a liberated life.⁷ Both are less comfortable than they look regarding sitting in for an extended period, in different degrees. As MoMA architecture curator Barry Bergdoll observed, BKF was easy to move, to clean, and comfortable “until you try to stand up.”⁸ In the article “The sitting position; a question of method” published latter but based on lectures given in 1958, Joseph Rykwert credited the success of BKF to its womb-like shape and the feeling of protection that this shape represented.⁹ He could not see anyone buying it based on rational grounds and used the BKF chair as a case study against naive functionalists. He criticized their belief in a world in which the arbitrariness of aesthetic choices would disappear, because computers fed with technical and anthropomorphic data would be able to design any object, and would do so using the new materials produced by industry without making any connection with the forms of the past, deemed unable by definition to meet contemporary demands. Ergonomically, BKF was inferior to Tripolina, and neither could compare in this aspect with the 18th century chairs made by cabinet-makers such as Thomas Chippendale, George Hepplewhite and Thomas Sheraton. The forms of the past embodied much relevant practical information that should not be wasted. Paradoxically, naive functionalism could lead to inadvertent hypertrophied symbolism, i.e., giving so much weight to the meaning of forms that all other aspects, even major ones, such as ergonomics, were reduced to very little.

4. TEMPO LIBERO

Rykwert was aware that comfort is a complex concept and that there are multiple sitting positions in correspondence with diverse purposes. A throne is an uncomfortable chair because it implies conveying authority and alertness. There is an operational as well as a communicational aspect in the functionality of artifacts, as Umberto Eco argued.¹⁰

Plush upholstery neither conveys nor induce intellectual activity but is very suitable for unwinding after work. Eco and Vittorio Gregotti were the curators of the Introductory Halls at the XIII Milan Triennial dedicated to Leisure (*Tempo Libero*, 1964). The Brazilian Section by Lucio Costa, a Rio de Janeiro resident, featured hammocks suspended from the ceiling, guitars on the floor, and on a banner overhead where is written *riposatevi* (which means relaxing in Italian). Photos of Brasilia hung on the walls along with photos of people from the North-east, such as fishermen, the fellow countrymen of the workers that built the newly inaugurated capital. Leisure and work are two faces of the same coin, Lucio Costa thought and proceeded to show that those Brazilians capable of accomplishing the most arduous tasks did without gadgets for rest and recreation. He did not accept the condemnation of mostly Southern developing countries to exoticism, and a pale imitation of the Almighty First World of the North.

Rykwert was not against symbolism. On the contrary, he warned designers that it is better to be aware that they could not escape symbolism and reliance on formal precedents. Costa surely agreed with that. The materiality of Mole implies a particular genealogy. On the one hand, jacaranda was the wood of choice for Brazilian colonial furniture; leather and buckles brought to mind the cattle culture in the North-east and the South of Brazil. On the other hand, it combines primitiveness and high bohemian excess with the modern emphasis on distinguishing frame from supported elements, even if its massiveness can be seen as a reaction against the skinny look that characterised so far modern furniture, BKF and Brazilian designs by Joaquim Tenreiro and Lina Bo Bardi included. Mole sided on that account with a remarkable exception, the Grand Confort line by Le Corbusier, Pierre Jeanneret and Charlotte Perriand (1928), who made no bones about their willingness to emulate Victorian armchairs and sofas such as those produced by Maple and Co. Mole's immediate predecessor was Charles and Ray Eames 670 Lounge Chair and 671 Ottoman (1956), released for the high-end-market as an elegant update of the eighteenth-century *Duchesse brisée*, the French combination of wing chair and footstool. They are made of molded plywood shells covered with leather cushions at the front, and a veneer of Brazilian rosewood at the back. Even without the technology available to the Eameses, Mole surpassed them in the suggestion of relaxation.

5. PLACES AND THEIR SPIRITS

Notwithstanding his cosmopolitanism, Rodrigues was Brazilian, besides being Carioca from Ipanema, and chairs are situated artifacts. They cannot be wholly separated from their native homelands, and the cultural stereotypes associated with those places. Stereotypes are widely held but fixed and oversimplified images or ideas of a particular type of person or thing. They hold a grain of truth even if missing its

complexity. Rodrigues was taking advantage of the stereotyping of Brazilians in general and Cariocas, in particular, as pleasure-seeking, resourceful jolly good fellows, an image that had won the world through characters like Walt Disney's Zé Carioca (a parrot created by Disney on a trip to Rio de Janeiro in 1942). The nickname Sheriff, given by Italian manufacturers, was a dissonant note in that narrative: it implied a different location, time and atmosphere. Far West hints were smart, given the use of leather and buckles, and cleverly opposed to the imperial technology of the Eames Lounge Chair. That was how they avoided relating the armchair to ideas such as laziness, frivolity, and fastness, since stereotypes may convey positive as well as negative appraisals.

Lucio Costa showed another regional Brazilian stereotype at the Milan Triennial: the brave North-eastern native, ungainly and clumsy, an ordinary man who was a survivor. His forebears were national heroes portrayed by the writer Euclides da Cunha in the novel "Os sertões," from 1902, a Brazilian classic translated into English as "Rebellion in the Backlands." Nevertheless, Costa was also reminding visitors that Brasilia had been designed by himself and other Carioca architects and was no mean feat. He selected popular hammocks for his installation in Milan for both typological relevance and stereotypic content. Lina Bo Bardi agreed with Lucio Costa regarding to the North-easterns. For her, hardened people from the backlands were better personifications of the country than coastal *bon vivants*. Furthermore, she implied their work ethic and Paulistas' (the São Paulo-born) was similar and in contrast to nonchalant Cariocas. Rodrigues and Bo Bardi availed themselves of cultural stereotyping to add another layer of interest to their chairs.

6. THE RECOGNITION GAME

However, if the public did not know who the designers were or what firms were producing those chairs, the underpinning of their Brazilianness would disappear, and place-related symbolism would lose sharpness. Indeed, renaming Mole as Sheriff already confused matters by suggesting its design had Anglo-American connections. The BKF chair history is even more enlightening in this regard. The first exemplars of BKF to come to the United States went to Fallingwater — Edgar Kaufmann Jr.'s home in Pennsylvania designed by Frank Lloyd Wright — and to MoMA, where Kauffman worked. He predicted that the lightweight lounge chair would become popular, especially in California. Artek-Pascoe produced the chair for a while (1941–1948). Knoll Associates acquired U.S. production rights in the late 1940s and unsuccessfully pursued legal action against unauthorized copies, which continue to be produced to this day. Although the authors were not concerned about creating a chair that looked Argentinean, BKF was first described in the United States as an easy chair "for the siesta sitting" as if lounging was related only to lazy Latinity. Around 1958, the chair had

become anonymous and rather placeless, ubiquitous because it was too cheap and unfashionable among the cognoscenti, a victim of its success. Fifty years later, it enjoyed a comeback, along with midcentury modern architecture. Nowadays, buyers can buy it upscale in leather and steel (Knoll will resume its production shortly in different customizable versions according to the client's wishes).

The conscious semantic concerns of these examples reinforce Rykwert's point about symbolism as an unavoidable factor in chair design and use. At the same time, their explicit transformation of typological precedents corroborates Rykwert's point about the reliance of chair design on accumulated disciplinary references, including the anthropometric data embodied into notable precedents. Otherwise, they confirm what very different areas such as economics, sociology, and anthropology have registered: that consumers buy goods not only for their practical uses but also for the social and cultural meanings associated with them. This symbolic value can be translated into economic value, allowing for premium prices. Distinct origins contribute to that, and serial production did not change the situation. Since at least the 1950s, authored modern furniture fabricated by prestigious enterprises and sold in stylish stores has been a mark of distinction for the cultivated and well-to-do, irrespective of the segment for which the pieces were originally intended. Premium prices validate a social distinction that feeds on compelling multimedia narratives, in which distinguished individual or collective authorship is a crucial element. These narratives cling to the pieces themselves, like cast shadows. For better or worse, the customer no longer buys a chair in its autonomous tangible materiality. He also buys biographies, technical reports, authorial statements, critical reviews both favorable and unfavorable, photos, ads, movies, videos, web pages, and so on, not all of them one hundred percent reliable. He buys a chair and its circumstances, evaluations, interpretations. Mercifully, he can sometimes forget about it all and just have a seat.

NOTES

- 1 There are other pieces of loose furniture in SESC Pompéia that are part of the same formal family, as the library chairs.
- 2 Marcelo Ferraz and Marcelo Suzuki in Bahia; Marcelo Ferraz and André Vainer in São Paulo.
- 3 Marcelo Ferraz (org.), *Lina Bo Bardi*, São Paulo, IPMLBB, 1993, 226.
- 4 Legend says that Stupakoff could not afford it.
- 5 *O porto seguro de Otto*, accessed on January 14, 2020, <https://blogdoims.com.br/o-porto-seguro-de-otto/?highlight=mostra>.
- 6 Grupo Austral, "Voluntad y Acción. Austral 1", Nuestra Arquitectura, Buenos Aires, Hylton Scott, Junio 1939, 53.
- 7 Siegfried Giedion's 1929 manifesto, *Befreites wohnen. Licht, luft, offnung* proposes ideas for a liberated dwelling.
- 8 "The Story Behind the Iconic Butterfly Chair", accessed on January 14, 2020, <https://www.architecturaldigest.com/story/story-behind-iconic-butterfly-chair-design>.
- 9 Joseph Rykwert, "The sitting position: a question of method", *The necessity of artifice: ideas in architecture*, New York, Rizzoli, 1982, 23–32.
- 10 Umberto Eco, *La struttura assente. La ricerca semiotica ed il metodo strutturale*, Milano, Bompiani, 1968.

THE COUCH AND THE TRANSFORMATION OF THE MODERN INTERIOR

Kostas Tsiambaos

National Technical University of Athens, School of Architecture; 42 Patission street, 10682 Athens, Greece;
ktsiambaos@arch.ntua.gr

ABSTRACT.

Found in different variations already since the 17th century, the couch subsequently evolved as the iconic modern furniture of the 20th century. At the same time, the evolution of the couch was closely connected to the evolution of the domestic interior. Through my presentation, I will explore the contribution of the couch as an object in the evolution of the modern interior along three, intertwined lines: a. the couch and its design, b. the couch and its uses and c. the couch and the transformation of domestic space. Focusing on the variations of the couch in the Greek architecture of the 20th century, I will describe how the couch was an invention that forever altered the ideas of dwelling and domesticity reflecting new mentalities and sensibilities on gender and space. I will refer both to the interiors designed by renowned modern Greek architects as well as the furniture as used in the apartments of modern middle class mass housing in Greece. Furthermore, I will highlight those instances in which the couch 'speaks' to us, as architects and designers, about issues of private vs. public, local vs. the global, tradition and modernity, meaning and symbolism, culture and taste, family and roles, shared living and self-reflecting. Finally, I will trace the transformation of the space surrounding the couch, and the emerging of new domestic leisure environments and technologies of the domestic free-time.

A chair is not only for sitting, but also for sitting according to the mentality of your time.

Panayotis Michelis¹

Despite the formal and functional affinities of the modern couch with the ancient Greek *anaklintron*, it was only in early modern times that the couch begun to approach its modern identity, form, and function. The French *canapé* (from the ancient Greek *konopion*) had been developed in France since 1686 while the first couches appeared in England in the late 17th century under the name "double Windsor chairs without a division".²

The evolution of the couch in Europe had come as a response to new needs and mentalities related to the modern meanings and performances of seating. John Crowley, as well as other researchers of the history of furniture, has argued that it was during the 17th century that the word comfort, a word that until then indicated a sense of mental relief, was associated with postural position for the first time.³ The development of the couch was also due to the introduction of a seating practice that was coming from the East, and in particular from the Ottoman Empire. As Thomas Webster and William Parkes were explaining in their *Encyclopedia of Domestic Economy*: "Ottomans [meaning the traditional Turkish low seats] or divans are found extremely agreeable and convenient, and help to break the formality of the more important furniture."⁴

However, the evolution of the couch to its current form was also something related to the history of architecture, as it was directly connected to the evolution of the space in which it was set. While the typical formal public reception and recreation area was the room called the parlour, the living room — indicating an adjacent informal, living and domestic workplace — was the room being used more frequently in the late 19th century.⁵ Gradually, a more relaxed

area appeared in the parlour designated as the "corner of the sofa".⁶ Eventually, and as the need for comfort prevailed, the parlour, which was traditionally seen as the room expressing the 'character' of the owners of the house, was completely replaced by the living room which emerged as the new core of the house, a room that could bring out the 'personality' of its owners.⁷

The couch appeared in Greece at the end of the 18th century as *kanapes* (after the transliteration of the French word) when hundreds of European couches were imported in the most cosmopolitan and extroverted areas of Greece. From the islands of the eastern Aegean (Chios, Lesbos, Rhodes), and the Cyclades (Mykonos, Syros), to Crete, Hydra, and the Ionian islands (Corfu, Zakynthos) mass produced couches, that were usually reinterpretations of the French originals of the 17th and 18th centuries, appeared in the wealthier residences of ship-owners and entrepreneurs.⁸ Although there was a significant local production of couches in islands such as Hydra (Fig. 1), Skyros and Crete during the 19th century, these original types of Greek couches did never cross the country's borders as products exported to foreign markets.

During the last decades of the 19th century the couch became an essential piece of equipment for every mansion in Greece. These new pieces of furniture, and symbols of the modern domesticity at the same time, were often discussed in women's magazines as many respected furniture makers in Athens, Piraeus, Patras, and other cities, started producing modern furnishings advertising their creative contribution to the introduction of new habits, seating practices, and urban lifestyles.

The new "aesthetic of the machine" of the first decades of the 20th century, initially characterizing the design of the more mechanically advanced rooms of the house such as the kitchen and the bathroom, soon influenced the design

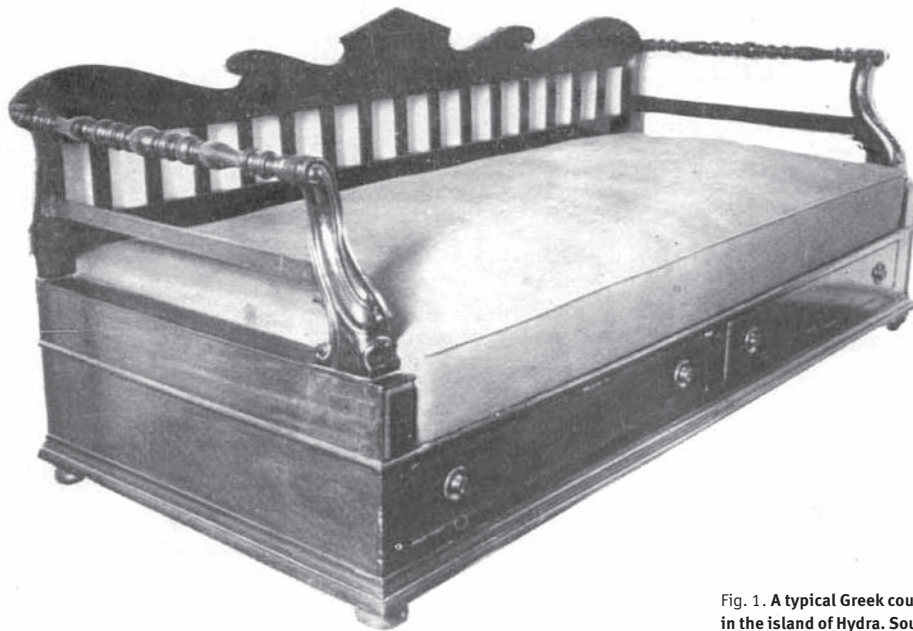


Fig. 1. A typical Greek couch of the 19th century manufactured in the island of Hydra. Source: *Architektoniki*, issue 11, 1958.

of living rooms and bedrooms as well with the abstract, minimal chairs, armchairs and couches of the 1920s and the 1930s becoming emblems of the new cosmopolitan bourgeois society. Of course, other, more traditional couch types, did not cease to exist. In practice, popular items such as the metal 'bauhaus' couch by Tsoutsos workshop and the multi-functional, modular couch by Michas workshop, or even custom equipment, such as the office desk, bookcase, and analytic couch designed for the notable psychiatrist Angelos Katakouzenos by the young architect, and graduate of l'École Spéciale, Stamos Papadakis in 1932, co-existed with historicist 'French', 'Italian' and 'English' furniture, sometimes produced by the same workshops.⁹ Eventually, it was the taste of the client that was determining the style of furniture, and not the style of the building itself or the will of its designer. The unpublished photographs of the classic 'French' interior of the vanguard modern Koutsinas residence, designed by the young architect Nikos Mitsakis in the late 1930s, are characteristic.

At the same time, the quest of architects like Aristotelis Zachos, and intellectuals like Angeliki Chatzimichali, for an 'authentic', Greek furniture resulted in products such as the revivalist luxurious 'folk-Byzantine' wooden sofa-chest. Such furniture pieces were parts of a broader *gesamtkunstwerk* in which byzantine and vernacular motifs, fabrics, and everyday objects were reinterpreted following the compositional principles of a *jugendstil* ornament. Similarly, established workshops introduced their own series of revivalist home equipment, such as the studio of the manufacturer Kozombolis and their modern 'ancient Greek' couch; an elegant wooden frame with references to the archetypal

anaklintron.¹⁰

Soon, the seek for a Greek cultural identity known as "Greekness" was expanded as an ideology also reflected in furniture and product design, and supported institutionally by the State through the national Exhibitions of 1933 and 1938 in a need to strengthen the local and national furniture industries.¹¹ Most of the well-known Greek furniture makers of the first decades of the 20th century embraced mass industrial production in order to produce fast, cheap, and in large quantities not only modern, but also historicist, ancient, Byzantine, and neo-vernacular furniture.

The need for an industrial production that would satisfy both the tastes of a growing bourgeoisie but also cover the needs of the new Greek middle class has soon led to the establishment of Technical Schools which would educate furniture makers, among other technical professions. The most renowned of these Schools, who were following international standards, was Sivitanideios which is still in operation; other Schools, no longer operating, were Vallianios, Papastrateios, Elliniki Viotechniki Etaireia (Greek Crafts Company), and Diplareios.¹²

After WWII, many modern Greek architects who, influenced by architects such as Oscar Niemeyer and Richard Neutra, were after a local design identity, saw in the reinterpretation of the typical vernacular *divani* a new type of couch that could be very well integrated in most modern residences and apartments. At a time when the national GDP was growing and new domestic models and technologies of free time — like the high fidelity music reproduction systems and the television — were 'intruding' every modern dwelling,¹³ the traditional divan reappeared as an item com-



Fig. 2. The reinterpretation of the vernacular divan in Paraschis residence designed by architect Nikos Valsamakis (1961–1963). Photographer: Dimitris Kalapodas. Source: *Architecture in Greece*, issue 26, 1992.

municating the values of tradition and the context of place. Even in upper-class residences of the 1950s and 1960s the couch-divan, often a simple mattress covered with a rough, weaved cotton fabric and a few pillows scattered on it, would be proudly photographed in the avantgarde homes designed by Aris Konstantinidis, Nikos Valsamakis (Fig. 2), Konstantinos Dekavallas, Dimitris and Souzana Antonakakis, and many others. This neo-traditional item was often in dialogue with other neo-traditional items (woven chairs, woolen rugs, ceramics, etc.) but also next to 'Scandinavian' coffee tables and reproductions of Mies's lounge chairs or Eames' stools, emphasizing the eclectic diversity of post-war modernism.

The revival of these traditional forms and techniques was not something unplanned though; since the 1950s, and as tourism evolved as one of the main pillars of Greece's economic growth, the development of local handicrafts had been a strategic decision for both State institutions and in-

ternational development organizations.¹⁴ Correspondingly, the *Modern Home* Exhibitions of 1957, 1961, and 1962, promoted, among other things, a new the national Greek design 'spirit' — to quote the art critic and Professor of Art History at the National Technical University of Athens Angelos Prokopiou¹⁵ — while simultaneously educating the general public in a modern way of living in which tradition had, as paradoxical as it may sound, the primary role.

Nevertheless, the effort to establish a sustainable production of furniture in Greece, following modern design principles, materials and techniques continued. In the early 1960s, more radical designers and architects, such as Takis Zenetos (Fig. 3) — with his custom futuristic couch, designed for his own office, or his visionary seat designed for an entirely "electronic" future — were seeking innovation and originality without being driven by a desire to return to their vernacular roots. Furthermore, the combined efforts



Fig. 3. The custom, futuristic couch designed by architect Takis Zenetos for his own apartment. Source: *Takis Ch. Zenetos 1926–1977*, Athens, Architecture in Greece Press, 1978, 35.

of new teams, initiatives, and collaborations of designers and manufacturers, such as the extrovert *Athens Design Center*, resulted in the creation of a few vanguard items, although their production was only limited to small quantities and ceased after a few years.¹⁶

Considering the couch in its domestic environment, we cannot but focus on the spatial transformations that took place from the late 1950s to the early 1990s, and that were reflected in the plans of middle-class mass housing in Greece.¹⁷ One of these structural transformations had to do with the loosening of once strict boundaries and dipoles like front and back, open and closed, clean and messy etc. One would realize, f.e., that in contrast to the typical apartment of the 1950s and the 1960s, the apartment of the 1980s and 1990s no longer had 'front' and 'back'¹⁸ areas. The kitchen was no longer placed at the 'back' of the house¹⁹ but moved forward, and gradually opened towards the living room in order to engage more in the everyday social activity.²⁰ Similarly, a second, smaller W.C. "for the guests" was often placed closer to the entrance of the apartment, something unthinkable in the past when the W.C. was at the edge, if not separate, of the house.

In this context, the couch was now in a room that was no longer called *saloni* (from the French word *salon*), but *ka-thistiko* (seating room); a room where no longer *xenoi* (strangers) but friends and relatives were invited.²¹ In this upgraded and open living room, the TV and hi-fi system, with its dedicated furniture, became the new centre of inter-

est with the couch and armchairs across it, and in direct visual contact.²² The function of eating, was no longer restricted to the dining room or the kitchen, but extended to the living room. It was now taking place on the couch, and serviced by a coffee table which was now larger and lower in order to serve the new function of eating.

The couch was also lowered, deepened and softened in order to become more comfortable and multivalent. Being more "pop" and lively, with postmodern designs and colours, the furniture of the 1980s, like those produced by *Neoset*, acquired a distinctive style and humour. At the same time neo-classical or neo-traditional couches, like the *Aegean* couch designed and produced by *Neo Katoikein*, appeared on the market for anyone preferring an alternative lifestyle.²³

Over the course of the 1990s and the 2000s, minimalism was the new trend and pictures of white, 'empty' spaces with carefully set neo-modern furniture and status objects, such as the houses designed by ISV architects, became the new standard, and established a new distinctive social status. As a response to this model of living a few designers proposed a design language that was equally minimal and advanced, but more culturally alleged, and with multiple references to the artisanal and industrial heritage of 19th century Greece. The *DEI* series of couches, designed by architect, industrial designer and Lecturer at NTUA Giorgos Chaidopoulos were, maybe, the best representatives of this philosophy (Fig. 4).



Fig. 4. The DEI series couch, designed by Giorgos Chaidopoulos in the 1990s. Source: *Neo Katoikein* leaflet of products. Designer: Giorgos Chaidopoulos, year 1999. © Giorgos Chaidopoulos.

Since the 1990s it became clear that the identity of the contemporary couch was related to its ability to allow many functions that would not have been acceptable in the past. It is nowadays a given that the couch is characterized by its multifaceted performance: social interaction and family discussion, evening entertainment and last-minute homework, children's play, and intimate companionship.

Last, but not least, the couch has become the self-reflective furniture *par excellence*. It is the furniture on which one will sit when one wants to think, to remember, to decide, or just to be lost into one's thoughts. As in a psychoanalysis without a therapist, the couch allows one to escape from everyday life for a moment, in order to get back into it re-articulated; like an all-embracing hug in which everyone takes refuge in order to be individually reconstituted.

REFERENCES

- CIERAAD, Irene (ed.), *At Home: An Anthropology of Domestic Space*, Syracuse, NY, Syracuse University Press, 1999.
- CROWLEY, John E., *The Invention of Comfort, Sensibilities and Design in Early Modern Britain and Early America*, Baltimore, MD, John Hopkins University Press, 2003.
- FORTY, Adrian, *Objects of Desire: Design and Society 1750–1980*, London, Thames and Hudson, 1986.
- KENT, Susan, *Domestic Architecture and the Use of Space: An Inter-Disciplinary Study*, Cambridge, Cambridge University Press, 1990.
- MALDONADO, Tomas, "The Idea of Comfort", *Design Issues*, Vol. 8, No. 1, 1991, 35–43.

- MICHELIS, Panayotis, "Βιομηχανική αισθητική και αφηρημένη τέχνη" [Industrial aesthetics and abstract art], *Zygos*, issues 38 and 39, 1959.
- PARMENIDIS, G. & ROUPA, E. Ch., *Το αστικό έπιπλο στην Ελλάδα 1830–1940: Ένας αιώνας συγκρότησης κανόνων σχεδιασμού* [The Greek bourgeois furniture: a century of articulating design principles], Athens, NTUA Press, 2003.
- RECHAVI, Talya B., "A room for living: Private and public aspects in the experience of the living room", *Journal of Environmental Psychology*, issue 29, 2009, 133–143.
- ROSNER, Victoria, *Modernism and the Architecture of Private Life*, New York, NY, Columbia University Press, 2005.
- YAGOU, Artemis, "Metamorphoses of Formalism: National Identity as a Recurrent Theme of Design in Greece", *Journal of Design History*, Vol. 20, No. 2, 2007, 145–159.
- ÇEVİK, Gülen, "American Style or Turkish Chair: The Triumph of Bodily Comfort", *Journal of Design History*, Vol. 23 No. 4, 2010, 369.
- SPARKE, Penny, *The Modern Interior*, London, Reaktion, 2008, 35–36.
- YAGOU, Artemis, "First Steps: Early Design Education and Professionalization in Greece", *Journal of Design History*, Vol. 23, No. 2, 2010, 151–152.
- YAGOU, Artemis, "Unwanted Innovation, The Athens Design Centre (1961–1963)", *Journal of Design History*, Vol. 18, No. 3, 2005, 270.
- SHAPIRO, Danielle, *John Vassos: Industrial Design for Modern Life*, Minneapolis, University of Minnesota Press, 2016, 132.
- TSIAMBAOS, Kostas, "Μετασχηματισμοί του δημόσιου και ιδιωτικού χώρου στην Ελλάδα της δεκαετίας του '80" [Transformations of the public and private space in the Greece of the 1980s], *GR80s / Η Ελλάδα του 80 στην Τεχνόπολη*, [GR80s, 1980s Greece at Technopolis], Athens, 2017, 44–47.
- GOFFMAN, Erving, *The Presentation of Self in Everyday Life*, Harmondsworth, Penguin, 1959.
- KIOURTI, Myrto, *House design: redefining everyday beliefs and practices* (unpublished doctoral dissertation), Athens, NTUA, 2012.
- CORRIGAN, Peter, *The Sociology of Consumption*, London, Sage, 1997, 109.
- SPIGEL, Lynn, *Make Room for TV: Television and the Family Ideal in Postwar America*, Chicago, University of Chicago Press, 1992.

NOTES

- 1 Panayotis Michelis, "Industrial aesthetics and abstract art", *Zygos*, issues 38 & 39, 1959.
- 2 Initially the Greek κωνώπιον, or *conopeum* as it was transliterated in Roman, was the light veil fixed around the bed as a protection from the mosquitoes (tentorium ad arcendo culices).
- 3 John E Crowley, *The Invention of Comfort, Sensibilities and Design in Early Modern Britain and Early America*, Baltimore, John Hopkins University Press, 2003.
- 4 Gülen Çevik, "American Style or Turkish Chair: The Triumph of Bodily Comfort", *Journal of Design History*, Vol. 23 No. 4, 2010, 369.
- 5 Tayla B. Rechavi, "A room for living: Private and public aspects in the experience of the living room", *Journal of Environmental Psychology* 29, 2009, 134.
- 6 Tomas Maldonado, "The Idea of Comfort", *Design Issues*, Vol. 8, No, 1991, 41.
- 7 Penny Sparke, *The Modern Interior*, London, Reaktion, 2008, 35–36.
- 8 Giorgos Parmenidis & Efrosini Ch. Roupa, *Το αστικό έπιπλο στην Ελλάδα 1830–1940: Ένας αιώνας συγκρότησης κανόνων σχεδιασμού* [The Greek bourgeois furniture: a century of articulating design principles], Athens, NTUA Press, 2003.
- 9 Parmenidis, & Roupa, op. cit., 502–503.
- 10 Ibid., 568.
- 11 Artemis Yagou, "Metamorphoses of Formalism: National Identity as a Recurrent Theme of Design in Greece", *Journal of Design History*, Vol. 20, No. 2, 2007, 146–147.
- 12 Artemis Yagou, "First Steps: Early Design Education and Professionalization in Greece", *Journal of Design History*, Vol. 23, No. 2, 2010, 151–152.
- 13 Already since 1940 the Greek-American industrial designer John Vassos had developed the concept of the "media-centered living room" seeing a great potential for its expansion on the middle-class house. See Danielle Shapiro, *John Vassos: Industrial Design for Modern Life*, Minneapolis, University of Minnesota Press, 2016, 132.
- 14 According to Artemis Yagou: "The ICA's support for developing countries focused on local handicrafts and small industries, and explored various means of increasing the commercial potential of their products. This venture involved the selection of US design organizations to which specific countries were assigned. Greece (together with Jordan and Lebanon), was assigned to Walter Dorwin Teague Associates." Artemis Yagou, "Unwanted Innovation, The Athens Design Centre (1961–1963)", *Journal of Design History*, Vol. 18, No. 3, 2005, 270.
- 15 Ibid., 276.
- 16 On the history of Athens Design Center see Yagou, op. cit., 271–272.
- 17 My remarks on the evolution of the apartment are based on the archive of drawings of apartment buildings of NTUA's Laboratory for the History & Theory of Architecture. See also: Kostas Tsiambaos, "Μετασχηματισμοί του δημόσιου και ιδιωτικού χώρου στην Ελλάδα της δεκαετίας του '80" [Transformations of the public and private space in the Greece of the 1980s], *GR80s / Η Ελλάδα του 80 στην Τεχνόπολη*, [GR80s, 1980s Greece at Technopolis], Athens, 2017, 44–47.
- 18 According to Erving Goffman the traditional house is characterized by its 'front' and 'back' rooms while the modern house has "communal spaces" and "personal spaces". See: Erving Goffman, *The Presentation of Self in Everyday Life*, Harmondsworth, Penguin, 1959.
- 19 Myrto Kiourti, *House design: redefining everyday beliefs and practices* (unpublished doctoral dissertation), Athens, NTUA, 2012.
- 20 According to Corrigan: "There is clearly a collapse of boundaries between the kitchen and other areas [...] the kitchen is not somewhere obscured from view, but the most open and important room in the house. In particular, the cook is not isolated from social activity." Peter Corrigan, *The Sociology of Consumption*, London, Sage, 1997, 109.
- 21 Kiourti, op. cit.
- 22 Lynn Spigel, *Make Room for TV: Television and the Family Ideal in Postwar America*, Chicago, University of Chicago Press, 1992.
- 23 Not a coincidence that the vanguard Greek furniture company *Neo Katoikein* created a range of products under the theme *Aigaion* (Aegean). See: Yagou 2007, op. cit., 152.

STANDARDS AND SYSTEMS: OLIVETTI SYNTHESIS 45 OFFICE FURNITURE

AnnMarie Brennan

University of Melbourne; Melbourne School of Design, Parkville, VIC 3010; brea@unimelb.edu.au

ABSTRACT.

In 1968, the architect and designer Ettore Sottsass was charged with designing a new series of furniture for the Olivetti Company that would accommodate the shifting nature of work from the factory to the office. He did not design a collection of traditional, individual pieces of furniture, but created a system in which office chairs, desks, filing cabinets and other furniture were envisioned as a series of interchangeable, modular parts that fit into a grid-based system. The furniture could also be sold as individual pieces or as a landscape to fit out an entire office space floor.

In designing the Synthesis 45 series, Sottsass drew upon his experience designing Italy's first mainframe computer, the Olivetti Elea 9003. The final result was a modular-based system designed to be like a type of game or kit of interchangeable parts: flexible within a set of parameters, easily assembled, delivered, and then re-assembled and re-configured within a configuration in a client's laboratory or office basement. This paper presents the history of Sottsass and his collaborators in creating the Olivetti Synthesis 45.

1. INTRODUCTION

In 1968, the Olivetti Company decided to develop a flexible office system and commissioned the Italian designer Ettore Sottsass to design it. At the time, Sottsass was the Design Chief of the Olivetti Electronics Division, and therefore was familiar with the companies range of office machines and possessed the ability to envision the future form of work. Previously Olivetti sold the Spazio series designed by the Italian architects BBPR in 1962, however this furniture was only a few coordinating pieces such as desks and filing cabinets for small offices spaces of 5 to 6 people. As a manufacturer of office machines, the Olivetti Company was aware of the shifting nature and place of work. Previously the majority of work, manual labour, took place in the factory, however by the early 1960s, work was to be defined as immaterial labour and located in an office. Yet there did not exist within the Olivetti catalogue of products a type of systemic framework which could organise this new space of worker and the office machines that accompanied them.

Sottsass brought together a team of designers to conduct a five-year study into office furniture which included: Albert Leclerc as the general coordinator, Perry King as the designer of the leg supports for the electronic equipment, the office planning specialist Bruno Scagliola, Masanori Umeda as the seating designer, and Jane Young, who was responsible for the coordination of the scheme of the unique colour scheme as well as the design of the marketing manuals and other materials.

The series of office furniture would be called Synthesis, named after the company's first line of the successful horizontal filing cabinets designed by the engineer Aldo Magnelli.¹ These metal filing cabinets were so successful that the Olivetti company established a separate factory and industrial community in Massa, Italy designed by the architects Piero Bottoni and Mario Pucci in 1942.

Sottsass's first step of the project was to conduct research on the history of office work, its conceptual ideas,

along with other important environmental information such as acoustics and lighting. The design research culminated in a publication graphically designed by Sottsass titled, *Uffici: from the traditional office to the open-plan office*.

2. STANDARDS

The concept of establishing 'standards' was an early part of Sottsass's design formation at Olivetti, as evidenced in his article published in the April 1949 issue of *Comunità* titled "Il significato dello standard."² Twenty years after its publication, Sottsass applied the same objective of instituting a set of standards for the framework of the Synthesis 45 furniture system.

The challenge of project was, according to Sottsass,

*to see if it is possible to find standard elements reproducible and combinable in all senses, physically and linearly ... to find concepts or shapes or dimensions or elementary grids that can at any times and in all directions, produce organisms in aspects and not programmed.*³

In response to this problem, Sottsass and his team created a modular set of elements based on a pre-determined three-dimensional grid (Fig. 1). This would serve as a standard module of measurements where the design and dimensioning of specific furniture components, along with the relative multiples, would adhere to a rigid spatial grid with a 45-centimeter module, (and thereby providing the series its name-sake), along with the volumetric measurements of the office machines.

In an Olivetti promotional film, Sottsass explains the factors determining the design scheme of the Synthesis 45 series, describing how the dimensions of various items were determined by the findings of a five-year statistical study into the dimensions of the body, the science of ergonomics, and the man/machine relationship. This included studies into the optimal seat height at 45 centimetres and a desk

surface height at 66 centimetres.⁴ In addition, the study collected data on the measurements from other types of office furniture from leading manufacturers around the world. The method of analysis was a type of photographic time-motion study of a typical office worker, with views from above and at elevation against a reference grid. The time-motion photography would record measurements of the office worker's movements, the space required for seating, and the ideal distance between workstations.⁵ The body was not simply measured but rather the team was most interested in studying how the body of the office worker interacted with the machines, furniture and office equipment through its daily and repetitive movements and positions, "as if an actor on a stage."⁶

Sottsass and the team, drawing upon the design research, concluded that the traditional office planning patterns were breaking down, and that the central requirement in an era of electronic machines was to design a system which allowed for "permanent mobility and flexibility;" a system which would accommodate everything from the traditional *Bürolandschaft* to a single module.⁷

With the idea of optimal flexibility in mind, the logic of the Synthesis 45 series was created according to a hierarchy of design and organizational principals. Large components consisting of bent metal are to be very minimal, simple and technically basic and therefore easily interchangeable and inexpensive. Other additional extras such shelves, drawers, and screens, manufactured in moulded plastic, were seen as details and accents added for character and identity. The coat hanger, chairs, and small table accessories were pieces of furniture and afforded the addition of playful and highly ironic coloured accent pieces.⁸

3. SYSTEMS

As a product to be sold within an Italian market that was not geared to systems of furniture, Sottsass noted that the "furniture system could work only if it was capable of transforming itself into a non-system," meaning that the Synthesis 45 had to be flexible enough for Italian customers to buy a single desk as well as function for other corporate clients as a comprehensive framework system that organised the work of human and machine.⁹

3.1. Modular design — Elea 9003

The underlying inspiration for the organisation of the Synthesis 45 series was found in Sottsass's previous design studies into a universal support for the Elea 9003 mainframe computer. In addition to the technological transformation that was taking place during post-war era throughout the world, this change was clearly reflected in the technological changes occurring at Olivetti, which entailed a shift in the manufacturing of mechanical to the electronic office machines.

These technological changes involved a transformation

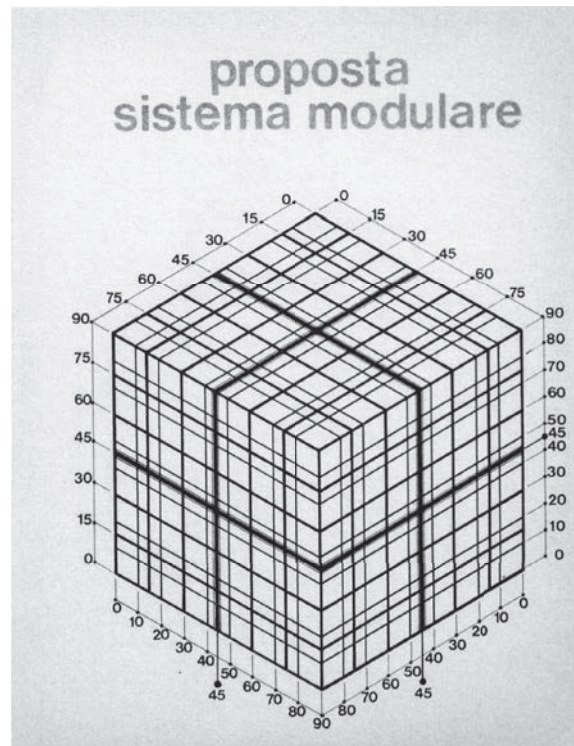


Fig. 1. Olivetti Design Research Office, Page from a proposed modular system manual, Milan, Italy, 1968. © CSAC/ Parma/ © Studio Ettore Sottsass.

in the physical organisation of the work environment from one based on a rigid placement of individual workstations to an environment of networked systems and connected machines.¹⁰ Sottsass's design strategy for the Elea 9003 was similar to that of his IBM contemporary Eliot Noyes and his System/360, which consisted of two elements: the wall and the module. The Elea 9003, however, had an overhead busway for the storage of wires and cords instead of a wall.

3.2. Multiplicity and Colour

Other means of integrating symbolic identity in the Elea was applied to the Synthesis 45 series with the strategic use of color in the electronic data processing system. The mainframe computer was controlled through a color-coded console containing a vertical panel with numerous lights and symbols and a sloping keyboard. For the Synthesis 45, colour became a novel design element and marketing tool, as the office environment during the 1960s was usually not imagined as a site where the colour of furnishings was a consideration.

This colour coding system of components was the most unique aspect of the 45 series and Olivetti based their marketing campaign and advertising on it. According to Sottsass, the idea was to give different colours to different groups of furniture in order to "obtain a global environment of colour

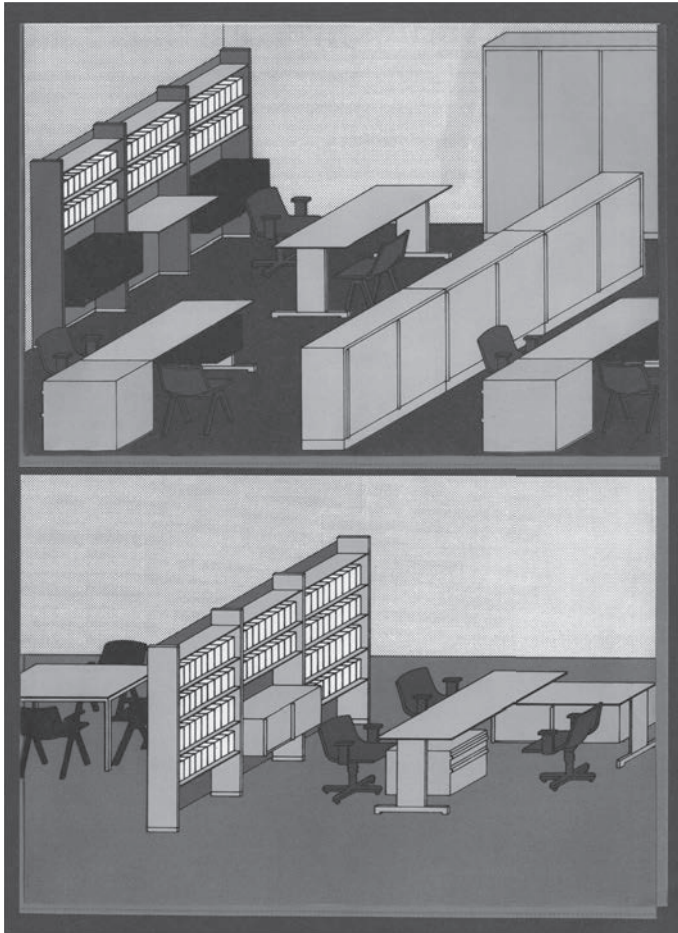


Fig. 2. **Ettore Sottsass Studio**, Illustrations of the Synthesis 45 System, 1972. © CSAC/Parma/ © Studio Ettore Sottsass.

that varies according to the groups of furniture, and so that the colour acquires an ergonomic meaning whenever possible.¹¹

The colour scheme was envisioned as a dynamic system defined by Sottsass as 'multiplication:' which indicated that the multiple and repeated colour of objects in a space determined the colour of the office environment itself (Fig. 2).¹² For example, pieces of furniture with a specific function were assigned a colour, and the space would take on the colour and reflect the functions depending on the arrangement of the workstations, yet the space could constantly change and be updated according the type, number, and arrangement of coloured furniture components.

The rationale behind the colour scheme was that the work surfaces of desks and tables would be a neutral light grey laminate and performed as a visual field background for the composition of more vibrant coloured furnishings. Filing cabinets were coloured pale blue in order to reduce their visual bulk and larger elements such as full height



Fig. 3. **Ettore Sottsass Studio**, Adjustable typist chair from the Olivetti Synthesis 45 system, 1973. © Ettore Sottsass and Barbara Radice, courtesy Studio Ettore Sottsass.

storage units were brown or brick coloured — taking on a more architectonic role in forming the workspace. The yellow secretary chair, given the same colour as Mario Bellini's Divisumma 18 electronic calculator, performed as one of the few Pop pieces in the scheme (Fig. 3).

The promotional and marketing material for Synthesis 45 was designed by Sottsass' team, which included a kit for Olivetti salespeople containing detailed information on the multiple components of the system and a colour palette of the materials.

A major contributor to the Synthesis colour scheme was the British designer Jane Young, who, working in Sottsass' studio, designed two silkscreen books to be used as promotional material as well as a 1971 second volume, *L'arte di colorare l'ufficio: le combinazioni Olivetti Synthesis*. The work served as both a planning and promotional device which included a folder with a series of transparent plastic sheets that were silkscreened with a series of images illustrating potential combinations of the system against other

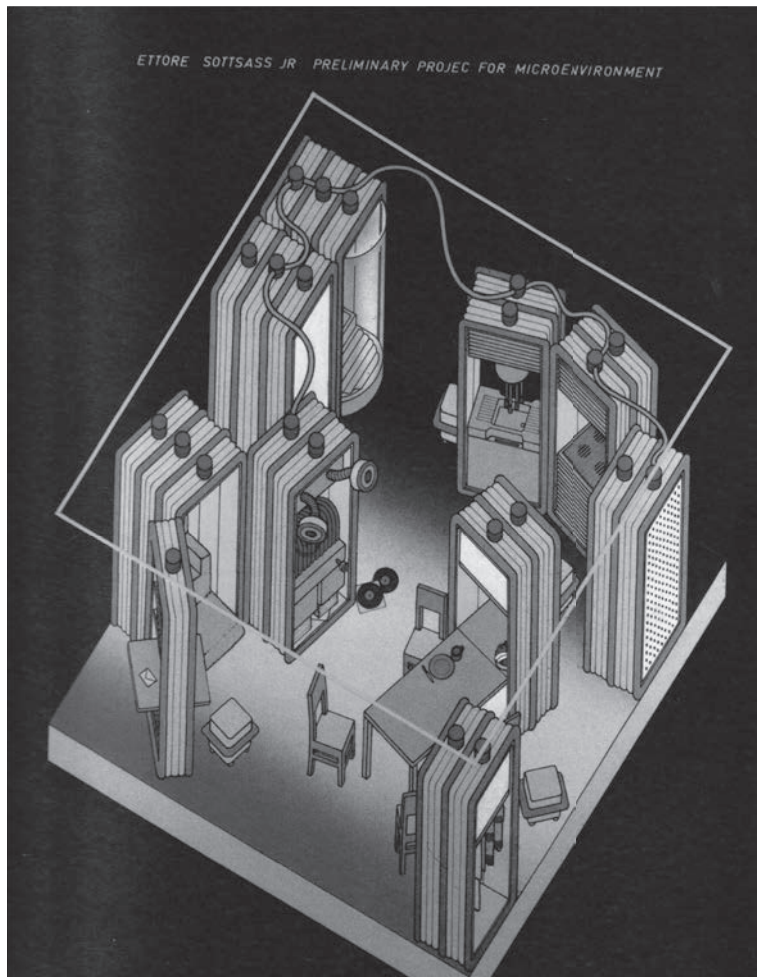


Fig. 4. Ettore Sottsass and Tiger Tateishi, Preliminary Project for Microenvironment, Collage Ink, gouache, acrylic and tape, c. 1971, Elements for Landscape home for Kartell presented at the 1972 MOMA exhibition, *Italy: the New Domestic Landscape* in New York. © 2020, Ettore Sottsass.

design components such as the colour of the carpet.

4. ENVIRONMENTS

4.1. Bürolandschaft — Office Landscape

The design of office furniture as a system was not a new concept. In 1958, the German group Quickborner developed the idea of the office as a free landscape or *Bürolandschaft*. This approach was significant in the re-thinking of the traditional office workspace, which usually consisted of individual private offices lined along a corridor and an open plan configuration with uniform rows of desks. The Quickborner approach “freely arranged work stations to coincide with the communications networks of the office.”¹³ Departments and smaller gathering spaces were delineated by free standing partitions and planters.

In 1964, Robert L. Propst designed for the Herman Miller furniture company a new system called the Action Office. It replaced traditional furniture with a co-ordinated office sys-

tem of components which could be assembled into individual workstations within an undefined space known as the open plan workspaces or office landscape. Sottsass and his team, looking at the past 100 years of development of office spaces, understood how these changes in workspace paralleled the development of technology in industry. While working on the design of the Olivetti Elea 9003 mainframe computer, Sottsass noted that “one seems inevitably to also design the work environment.”¹⁴ The *Bürolandschaft* and Action office model revisited the macro-environment of the office, however Sottsass realised that the micro-environment of the human/machine relationship was still an important issue which needed to be addressed.

4.2. Counter-Environments

The Synthesis 45 series, Italy's first office furniture system, would finally launch in 1973. At that time *Design* magazine deemed the system, “without exaggeration” as

one of the most complete systems of office furniture now on the market ... [with] a consistent vocabulary of office furniture, self-effacing almost to the point of being nondescript in design, but witty in some of its details and refined and disciplined in its use of colour.¹⁵

Here the author hints, by using the term “nondescript,” that Sottsass’s approach to the Synthesis 45 series was derived from other projects he was working on separately from his commission at Olivetti under the guise of the Italian Radical Design movement. The author continues, “Sottsass has been working toward a passive theory of design — akin to Joe Colombo’s anti-design — where the finished object achieves a kind of ‘weightlessness’ which transports it above theory and fashion.”¹⁶ The rallying cry of the Italian Radical designers at this time was the idea of Counterdesign: a movement in which designers, as a way to counter the rationalism of a failed Modernism, created objects which challenged preconceptions and subverted traditional ways of seeing and consuming designed objects. In his presentation of the Synthesis 45 furniture system to Olivetti executives, Sottsass described his design approach, claiming:

*[W]e have tried to cancel as much as possible the presence of this furniture (which represent the most soundless, static and dead part of a work environment) reducing it to a fundamentally architectural role. In other words, we have tried to neutralize, rather than excite or underline, the formal character of these looming volumes, simplifying the orders of structure as much as possible and bringing them back to vertical rhythms of the architectural environment.*¹⁷

This approach to the Synthesis 45 series, which appears to shed the fetishization of commercialized, designed objects, was a design aspiration imparted in another project that Sottsass was working on dedicated to the domestic realm during the same time. Simply called ‘Preliminary Project for Microenvironment,’ the project was exhibited as part of MoMA’s *Italy the New Domestic Landscape* exhibition of 1972 (Fig. 4). Categorised under the heading of “Design as postulation,” Sottsass’s project, sponsored by ANIC-Lanerossi, Kartell, Boffi, and Ideal-Standard, was a speculative prototype for modular domestic living in which the user would be able to ‘plug-in’ or ‘plug-out’ while enjoying a nomadic, countercultural lifestyle. Like the Synthesis 45 series, the Microenvironment was based on a system of modular components. However rather than metal, the mobile modules were constructed of a series of grey plastic containers fitted out with domestic appliances and storage space. There was a cross-contamination of design ideals between the MoMA domestic Microenvironment for the radical nomad and the Synthesis 45 office worker. Indeed, the Japanese artist Tiger Tateishi, who worked in Sottsass’s office from 1971–1974, illustrated drawings for both the MoMA Microenvironment project as well as images for the Synthesis system. And like the

Synthesis project, the Microenvironment was premised on the idea that success in designing these items was about making furniture where the user felt “so detached, so disinterested, and is uninvolved that it is of absolutely no importance to us. That is, the form is — at least in intention — designed so that after a time it fades away and disappears.”¹⁸

5. CONCLUSION

While it is clear that the impetus for the Synthesis 45 furniture was to accommodate a growing market which needed to furnish the shift in the location of the labour force; from one which mostly inhabited the factory, to accommodate the growing number of white-collar workers who were, by the 1960s, transitioning to a form of work which took place in an office space. What is not apparent is that the main designer of this furniture system, Sottsass, and the company that manufactured it, were crucial factors in bringing about this moment, where the mode of production changed from material to immaterial labour through the growing use of the computer.¹⁹ Moreover, the modular form of that first Italian mainframe computer system the Elea 9003, was also, for Sottsass, the model in which the labour to be performed on these computers was based upon.

REFERENCES

- BEST, Alastair, “Of Machines and Men”, *Design Magazine*, Vol. 289, 1973, 48.
- DI CASTRO, Federica, *Sottsass Scrapbook: designs and notes by Ettore Sottsass Jr.*, Milan, Casabella, 1976, 111–112.
- MORTEO, Enrico, et. al., *Sottsass Olivetti Synthesis Sistema 45*, Rome/Ivrea, Comunità Editrice, 2016.
- OLIVETTI, *Uffici: from the traditional office to the open-plan office*, Ivrea, Direzione Relazioni Culturali Disegno Pubblicità Olivetti, 1972.
- SOTTASS, Ettore, “Il significato dello standard”, *Comunità* 2, April 1949, 42–45.
- SOTTASS, Ettore, *L’arte di colorare l’ufficio. Le moltiplicazioni*, I Vol., Ivrea, Olivetti direzione relazioni culturali disegno industriale pubblicità, 1971.
- SOTTASS, Ettore, *Design neutron e sistemi*, 1973, unpublished.
- THOMÉ, Philippe, *Sottsass* (First Edition), London, Phaidon, 2014.
- ZANELLA, Francesca (ed.), *Ettore Sottsass, Catalogo ragionato dell’archivio 1922–1978 CSAC/ University di Parma*, Parma, Silvana Editoriale, 2018, 256–257.
- ZANELLA, Francesca, “Man-Machine,” *Domus* 2019, 27.

NOTES

- 1 Marco Meneguzzo, “The office as encyclopaedia”, *Sottsass Olivetti Synthesis Sistema 45*, Ivrea, Edizioni di Comunità, 2016, 122.
- 2 Ettore Sottsass, “Il significato dello standard”, *Comunità* 2, April 1949, 42–45.
- 3 Enrico Morteo, “Office architecture”, *Olivetti: una bella società*, Torino, Umberto Allemandi & C., 2008, 162.
- 4 YouTube, “Olivetti Synthesis series 45/80. Archivio Nazionale Cinema d’Impresa,” accessed on August 16, 2019, <https://www.youtube.com/watch?v=NpR7F7kpnUk>.
- 5 Meneguzzo, 122.
- 6 Francesca Zanella, “Man-Machine,” *Domus*, 2019, 27.
- 7 Alastair Best, “Of Machines and Men”, *Design Magazine*, Vol. 289, 1973, 48.
- 8 Morteo, 160.
- 9 Enrico Morteo, “From the conceptual work to the concept of work”, *Sottsass Olivetti Synthesis Sistema 45*, Ivrea, Edizioni di Comunità, 2016, 118.
- 10 Francesca Zanella (ed.), *Ettore Sottsass, Catalogo ragionato dell’archivio 1922–1978 CSAC/ University di Parma*, Parma, Silvana Editoriale, 2018, 256.
- 11 Morteo, 118.
- 12 Ettore Sottsass, “Presentation text for the System 45, 18 Sept 1970”, *Sottsass Olivetti Synthesis Sistema 45*, Ivrea, Edizioni di Comunità, 2016, 112.
- 13 “Landscaping: An Environmental System”, *Uffici: from traditional office to the*

open-plan office, Ivrea: Direzione Relazioni Culturali Disegno Industriale Pubblicità, 1972, 3.

14 Philippe Thomé, *Sottsass* (First Edition), London, Phaidon, 2014, 259.

15 Best, 48.

16 Ibid.

17 Sottsass, "Presentation text for the System 45, 18 Sept 1970", 112.

18 Ettore Sottsass, "Design of Furniture, 1972", *Sottsass Scrapbook: designs and notes by Ettore Sottsass Jr.*, Milan, Casabella, 1976, 11.

19 AnnMarie Brennan, "Olivetti: a work of art in the age of immaterial labour," *Journal of Design History*, Vol. 28, No. 3, 2015, 235–253; AnnMarie Brennan, "The Work of Design and the Design of Work: Olivetti and the political economy of its early computers," *Computer Architectures: Constructing the Common Past*, T. Vardoulis & O. Touloumi (eds.), Routledge, 2019, 35–57.

BIOGRAPHIES

Waeovichian Abhichartvorapan

Independent scholar, Tokyo,
waeovichian@gmail.com



Waeovichian graduated bachelor and master degree from Faculty of Architecture and Planning Thammasat University, Thailand. She experienced working at construction company and real-estate business. She received the 2nd master degree of Archaeology (Conservation of Historic Buildings), University of York, UK in 2013 before she had continued her PhD study on conservation of Thailand's modern architecture at Tokai University, Japan from 2014–17. Currently, she has worked part-time at an architectural office in Tokyo, Japan and has continued conducting research on history of modern architecture and also involving in academic activities in Thailand and Japan.

Toru Ajisaka

Research on Preservation and regeneration of architecture, Architecture and architects of the modern movement, Architectural planning and Kagoshima villages called FUMOTO, The Japan Institute of Architects, Registered Architect.



2013-Present: Professor, Department of Architecture, Kagoshima University
1983: Mitsubishi Jisyo Sekkei Inc.
1983: Master of Engineering (Waseda University)

Ghada Al-Slik

University of Baghdad, College of Engineering,
Department of Architecture,
ghada.alslik@coeng.uobaghdad.edu.iq
ghadamrs@gmail.com



Professor, (previous head of) Department of Architecture, College of Engineering, University of Baghdad, with research and supervision of thesis on the topics of theory and conservation of architecture. Author of the book (City of Stories). Founder of Docomomo Iraq 2016, Chair of Iraq Docomomo International. Member of the Higher Committee of the Basic Design of Baghdad City, Mayoralty of Baghdad and consultant 2008–2018. Excellence Award, (Tamayous) Iraqi women architects, 2013. Founder Member of the Makyia foundation for the development of Baghdad, 2015. Editorial member of The Iraqi Journal of Architecture, since 2000, Journal of Iraqi Engineers Society, and other academic and professional committees.

Sangeeta Bagga Mehta

Principal of Chandigarh College of Architecture,
Chandigarh; sangeetabagga@gmail.com



Sangeeta Bagga is principal of the Chandigarh College of Architecture and an urban designer with the PhD. in Modern Heritage. A recipient of the Show and Tell Programme at CCA, Montreal Canada for the Pierre Jeanneret archive, she engaged in revisiting the archival works of master architect within and outside Chandigarh. She is Expert Member of the International Scientific Committee on 20th Century Heritage. Spearheading her role as Nodal Officer, UNESCO World Heritage Nomination of the Capitol Complex, Chandigarh, She has curated numerous Heritage walks and prepared the state of conservation report on the Capitol Complex UNESCO, World Heritage Site.

Gülnur Ballice

Yaşar University, Selçuk Yaşar Campus, University Street; No:37-39, Bornova, İzmir, Turkey; gulnur.ballice@yasar.edu.tr



Assoc.Prof.(PhD)Gülnur BALLİCE: Dr. Gülnur BALLİCE obtained her undergraduate, master's and PhD degrees from the Department of Architecture at Dokuz Eylül University, Middle East Technical University and Dokuz Eylül University, respectively. She has been working at Yaşar University Faculty of Architecture since 2005. Her main research topics are urban transformation/renewal, urban identity, the history and theory of modern architecture/interior architecture/design and housing and culture.

Francisco Barros

Fundação Armando Álvares Penteado;
R. Joao Moura, 1182, ap 22, São Paulo, SP,
Brazil; chicobarros@uol.com.br



Francisco Carlos Barros is a scholar, professor and architect living in São Paulo, Brazil. He obtained his Master's degree in Architecture and Urban Planning from the Universidade Estadual de Campinas with the dissertation *Auguste Perret e o projeto do Museu de Belas-Artes de São Paulo*. Since 1996, he has been teaching at the Fundação Armando Álvares Penteado (FAAP). In 2018, he co-curated the exhibition *Abrindo Arquivos: o arquiteto Auguste Perret e o projeto para o museu da FAAP*, MAB-FAAP.

Susanne Bauer

¹ University of Westminster, School of Architecture and Cities; 35 Marylebone Road, London NW1 5LS, UK; s.bauer@westminster.ac.uk; susanne.bauer@aalumni.org



Susanne Bauer (University of Westminster) has a Diploma from the University of Applied Sciences Augsburg (2002), a Master of Arts in Histories and Theories from the Architectural Association (2003) and a PhD from The London Consortium, University of London (2014). She was a Visiting Scholar at Columbia GSAPP in New York (2013), a Visiting Scholar at the CCA in Montréal (2016) and a Post-Doctoral Scholar at the Federal University of Uberlândia in Brazil (2015–16). She has practiced and taught architecture in the UK for numerous years.

Inaam Al-Bazzaz

University of Baghdad, College of Engineering, Department of Architecture, Inaam.Bazzaz@coeng.uobaghdad.edu.iq
inaam.bazzaz@yahoo.com



Assistant Professor at Department of Architecture, Engineering College, University of Baghdad. Thirty-Five years' experience in architectural design for governmental and private sectors. Twenty-Three years academic experience teaching under and post graduate students. Appointed as Editorial Board Member of Engineering Magazine from 2017–2019. Board Member of a Docomomo-Iraq. Appointed as a Board Member of a Forum of departments and schools of architecture in Arab universities. Accomplished about 20 researches in the field of urban design and theory of architecture. Won the Iraqi advisor of the Year 2017 of Tamayouz Award for supervision, support and encouragement to the winning project of Iraqi students' award.

AnnMarie Brennan

University of Melbourne; Melbourne School of Design, Parkville, VIC 3010; brea@unimelb.edu.au



Dr AnnMarie Brennan teaches architectural history, theory, and design subjects and supervises Ph.D. candidates at the University of Melbourne. Her main research interest is the design of technical objects and to analyse their spatial, architectural and environmental implications. This includes the history and theory of 20th and 21st-century design and architecture, media studies, knowledge transfer, the political economy of design, machine culture, systems theory, and the history of computing in design. Some publications include *Cold War Hothouses: Inventing Postwar Culture from Cockpit to Playboy* (Princeton Architectural Press) and the Yale School of Architecture journal *Perspecta 32: Resurfacing Modernism* (MIT Press).

Josephine Buzzone

buzzonej@gmail.com



Josephine Buzzone is a PhD student in Architecture. History and Project at Polytechnic of Turin (Italy), where she earned a Master's degree in Architecture for Heritage Preservation and Enhancement. Her research is focused on the history of the modern and postmodern Japanese architecture, as well as its heritage-making processes.

Andrea Canziani

Ministry of Culture, Department of Archaeology Fine Arts and Landscape; via Balbi 10, 16126 Genoa (Italy); andrea.canziani@beniculturali.it



Architect, Ph.D., Pg.D. in Restoration of Monuments, Co-chair of Docomomo International Specialist Committee on Education + Training (ISC/E+T). He works for the Italian Ministry of Culture, where is responsible for Education Office in the Department of Archaeology Fine Arts and Landscape in Genova. He teaches Architectural Preservation at Politecnico di Milano. He has been former Secretary General of Docomomo Italy. His research activities are focused on the conservation history and theory of the 20th-century heritage and its relationship with contemporary art.

Helena Čapková

College of Global Liberal Arts, Ritsumeikan University, 2-150 Iwakura-cho, Ibaraki, Osaka 567-8570 Japan, helena.capkova@gmail.com



Helena Čapková (*1981) is a Tokyo/Kyoto-based curator, researcher, and art history professor at Ritsumeikan University, Kyoto. She studied transnational visual culture and Japanese studies in Prague and London. Since 2010, she has published and lectured extensively about the specific nature of Japanese modernism and avant-garde, which she considers an inherent part of art history, traditionally perceived as Western. Recently, together with the architect K. Kitazawa, she edited a bilingual, Czech-Japanese publication — Antonín Raymond in Japan (1948–1976) — published in October 2019.

Marcos José Carrilho

Adjunct-professor at Universidade Presbiteriana Mackenzie; Avenida Higienópolis, 360 ap.132 – 01238-000 – São Paulo-SP Brasil; marcos.carrilho@gmail.com



Born in 1953 in Curitiba, Brazil, Marcos José Carrilho has devoted his career to the study of Brazilian cultural heritage. He graduated in Architecture at Federal University of Paraná in 1977. In 1986, he started working at the Instituto do Patrimônio Histórico e Artístico Nacional — IPHAN. After receiving a Master's in History of Architecture from the University of São Paulo in 1994, he was a visiting scholar at the Graduate School of Architecture, Planning and Preservation at Columbia University in New York. In 2004, he was awarded a PhD in History of Architecture from the University of São Paulo.

Francesco Casalbordino

PhD Candidate, Department of Architecture, University of Naples "Federico II"; via Toledo 402, 80134 Naples, Italy; francesco.casalbordino@unina.it



Francesco Casalbordino, PhD candidate at Department of Architecture of University of Naples "Federico II". The research conducted within the PhD program is focused on the ways in which globalization and global culture affect architecture, especially in the so-called global cities. Buenos Aires is recognized as a case study as a place where global and local instances come to a creative synthesis of a new way of imagining the city, its form and its architecture.

Francesca Castanò

Università di Campania Luigi Vanvitelli, Department of Architecture and Industrial Design, Abbazia di San Lorenzo ad Septimum, 81031 Aversa (Caserta), francesca.castano@unicampania.it



Francesca Castanò (Naples June 28, 1970) is Architect, PhD and Associate Professor of History of Architecture at the Department of Architecture and industrial design of the University of Campania Luigi Vanvitelli, since year 2015. Previously she graduated cum laude in Architecture at the University of Naples Federico II on 24.07.1995, with her thesis she won the Prize for Undergraduates 1995 awarded by the CNR, for the sector "Technological Innovation and Territorial Development". Its specific topics are contemporary architecture and industrial heritage. Her last monograph is *Angelo Mangiarotti e la fabbrica Siag. La storia di una costruzione infinita* (Siracusa, Lettera Ventidue 2017).

Jiat Hwee Chang

National University of Singapore, jiathwee@nus.edu.sg



Jiat-Hwee Chang (PhD, Berkeley) is Associate Professor of Architecture at the National University of Singapore. He is the author of *A Genealogy of Tropical Architecture* (2016, winner of International Planning History Society's book prize 2018), and co-editor of various books and special journal issues. He has just completed a manuscript with Justin Zhuang and Darren Soh (photographer) for a book tentatively titled *Everyday Modernism*. Supported by fellowships from the Clark Art Institute and the Rachel Carson Center for Environment and Society, Jiat-Hwee is currently working on a book on the socio-cultural histories and technopolitics of air-conditioning in urban Asia.

Nicholas Clarke

Delft University of Technology, Heritage & Architecture/AE+T/Faculty of Architecture P.O. Box 5043, 2600 GA Delft — the Netherlands, n.j.clarke@tudelft.nl



Nicholas Clarke is an architect and lecturer at the Delft University of Technology. He obtained his professional degree from the University of Pretoria, South Africa in 1999 and continued his studies at Cambridge University, followed by a PhD from the Delft University of Technology. He has practiced as architect in South Africa and served as full-time lecturer at the University of Pretoria. He has co-authored and co-edited a number of award-winning publications on architectural heritage and conservation, focusing on shared heritage, resilience and sustainable development. Nicholas is also active in World Heritage, with a focus on management processes.

Carlos Eduardo Comas

UFRGS; Rua Comendador Rheigantz 43; ccomas@uol.com.br



Carlos Eduardo Comas studied architecture in Porto Alegre, Philadelphia and Paris. He has written and lectured extensively on Modern Brazilian Architecture and Urbanism, along with curating exhibitions on Brazilian and Latin American Modern Architecture. A former chair of DCOMOMO Brazil, he is Full Professor at Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil, and edits its Graduate Program in Architecture journal, ARQTEXT-O.

Ricardo Costa Agarez

Instituto Universitário de Lisboa (ISCTE-IUL),
Centro de Estudos sobre a Mudança Socioeconómica e o Território, Av. das Forças Armadas,
1649-026 Lisboa, Portugal;
ricardo.agarez@iscte-iul.pt



Ricardo Costa Agarez, Senior Researcher at Iscte - University Institute of Lisbon, architect and architectural historian, currently PI of the ERC Starting Grant project "ReARQ.IB - Built Environment Knowledge for Resilient, Sustainable Communities: Understanding Everyday Modern Architecture and Urban Design in the Iberian Peninsula (1939-1985)" and co-editor-in-chief of *ABE Journal*. PhD dissertation (Bartlett School of Architecture, UCL, 2013 RIBA President's Award for Research) published 2016. Giles Worsley Fellow of the British School at Rome (British Academy) 2014; FWO Pegasus Marie Curie Postdoctoral Fellow, Ghent University 2015; postdoctoral researcher at KU Leuven (Belgium), 2016-2017; Assistant Professor Évora University (Portugal), 2017-2021.

Bárbara Coutinho

Guest Assistant Professor (UL-Instituto Superior Técnico) and Diretor of MUDE – Museu do Design e da Moda, Rua da Madalena, 132 – 3º, 110-323 - Lisboa, Portugal.
barbaracoutinho71@gmail.com



Bárbara Coutinho is a PhD degree in architecture, Master degree in Contemporary Art History and Post-graduate degree in Art History Education. Founding director of MUDE — Museu do Design e da Moda in Lisbon, she has been director and programmer the museum since 2006. Guest Assistant Professor at Instituto Superior Técnico — University of Lisbon. Her work is divided between research, teaching, curatorship and writing. Having as main interest's museology, curatorial work, exhibition space, architecture and design, Coutinho has been curating several exhibitions, particularly on design. Member of the Docomomo International and of the Biental Iberoamericana de Diseño advisory board.

Boris Cvitanic Díaz

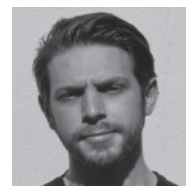
Universidad de Magallanes; Avenida Bulnes
01855 Punta Arenas, Chile;
boris.cvitanic@umag.cl



Architect (University of Concepción, Chile, 2002), Master in Theory and History of Architecture (2013), and Doctor in Architectural Projects (2010) from the Polytechnic University of Catalonia (Spain). Academic at University of Magallanes's Department of Architecture. Associate Researcher of the Conicyt Anillos Soc1403 project (2014–2017). Leads the Fondecyt Regular project N°1200469 (2020–2023) *Oil industry in Chile: territory, city and architecture. Construction of a national dimension industrial heritage*. Author of articles and book chapters related to the heritage and history of architecture in the Magallanes Region, including the book *Architecture, modernity and project in Magallanes: Miguel García Fernández's work* (2020).

João Delgado

Master's Student — Técnico-University of Lisbon; Av. Rovisco Pais, 1, 1049-001, Lisboa, Portugal;
joao.pedro.delgado@tecnico.ulisboa.pt



Architecture graduate and Master's student at Técnico — University of Lisbon. After studying for a year at Shanghai Tongji University, he's currently writing his Master Thesis supervised by Professor Ana Tostões on Chinese Architectural Modernity in Shanghai. His major research topic has dealt with exploring issues dealing with Multiple Modernities, dealing with Global and Local approaches, and the Diaspora of the Modern Movement in Asia.

Sumiko Ebara

Chiba University; 1-33 Yayoicho Inage-ku, Chiba-shi, Chiba, Japan, 263-8522;
ebara@chiba-u.jp



Sumiko Ebara graduated from the Faculty of Architecture at The University of Tokyo, worked at Tadanaga Miyamoto Architect & Associates from 1997 to 2000, and has a Master's degree in Conservation Studies from the University of York. Her doctoral thesis at The University of Tokyo was on the conservation of ruins and war-damaged buildings in the 20th century. She is the author of *Genbaku-Dome, from a commercial museum to the Hiroshima Peace Memorial* published by Yoshikawa Kobunkan in 2016. She is currently an Associate Professor of Chiba University. She was a committee member of DOCOMOMO Japan until March 2021.

Roula El-Khoury

Lebanese American University, Chouran Beirut Lebanon, roula.elkhoury@lau.edu.lb



Roula El Khoury Fayad is an Assistant Professor of Architecture and the Associate Chair of the Department of Architecture and Interior Design at the Lebanese American University. She received her Master's in Urban Planning from the GSD at Harvard University and a bachelor's in architecture with a Minor in Political Sciences from the American University of Beirut. Her research interests include 'Material Manifestation of Global Influences in the Middle-East', 'Representation of Capital in the City', and the 'Representation of Alternative Public Spaces in the City'.

Giulia Favaretto

University of Bologna, Department of Architecture; Italy; giulia.favaretto2@unibo.it

Giulia Favaretto graduated with highest honours in Architecture, discussing a thesis in Architectural Restoration at the University of Bologna. She holds a PhD in Architecture and she is an Adjunct Professor and Research Fellow at the Department of Architecture at the University of Bologna. Her main research activities are focused on the restoration of the 20th century heritage, on the conservation of the autarchic materials, on the rationalist architecture in Forlì and on the relationship between modernity and restoration. She attended national and international conferences, among which the 14th and 15th International DOCOMOMO Conferences. She is a member of SIRA, the Italian Society of Architectural Restoration, and of DOCOMOMO Italia.



Gang Feng

Tianjin University, No.92 Weijin Road, Nankai District, Tianjin, China, fenggangarch@tju.edu.cn 675299829@qq.com

Feng Gang is an associate professor of School of Architecture in Tianjin University. For the last ten years, his teaching, writing and research have focused primarily upon modern architectural history of campus, campus planning and educational buildings design, and dynamic building facades design. He has published 12 papers to the Core Journals and 2 scholarly monographs in the related areas. He has also been the principal investigator of 2 projects of National Natural Science Foundation: Research on Design Theory of Campus Planning in Modern China (2012–2014); Research on Design Theory of Campus Planning in Ancient China (2014–2018).



Bénédicte Gandini

Conservation architect, Fondation Le Corbusier; 8 square du Docteur Blanche, 75016 Paris; benedicte.gandini@fondationlecorbusier.fr

Bénédicte Gandini has an architect degree from the Politecnico of Milan, in Theory of the restoration, Preservation of the historic - architectural heritage. She holds a Master 2 degree in History of art from La Sorbonne University, in 2004. Since 2005, as conservation architect at the Fondation Le Corbusier, she is in charge of the conservation of Le Corbusier's works and the coordoning of the nomination of Le Corbusier's architectural work on the WHL. She is currently in charge of the Secretariat of the International Standing Conference. Since 2012, she is member of the International Scientific Committee on 20th century heritage, Icomos International.



Yuta Genda

The University of Tokyo / An incorporated administrative agency, Room #101, Alto Ponte Kichijoji 2, Kichijojikitamachi 5-10-11, Musashino-Shi, Tokyo, 180-0001, Japan; youyouyougen@gmail.com

Yuta GENDA received the Master degree in Environmental Engineering from Kyoto University in 2006 and the Master degree in Urban Engineering from the University of Tokyo in 2017. Since 2018, he is a Ph.D. student at the Department of Urban Engineering, the Graduate School of Engineering, the University of Tokyo. The Specialty is urban history, architectural history, and cultural exchange. From 2006 to 2012, he worked for a spatial design company and planned several museums. Since 2012 he has been working in an incorporated administrative agency and launched some projects such as the ASEAN's modern architecture preservation project.



Juan Antonio González Pérez

Universidad de Las Palmas de Gran Canaria ULPGC, Campus de Tafira, Las Palmas de Gran Canaria, Spain. juanantonio.gonzalez@ulpgc.es

Juan Antonio González Pérez graduated from the School of Architecture, University of Las Palmas de Gran Canaria, Canary Islands, where he has taught Architectural Design since 1993 and where he received his doctoral degree in 2015 for his thesis entitled *The Construction of a Space for Tourism in the Canary Islands*. He has also lectured at the BTU Cottbus, London Metropolitan University, Cooper Union and Harvard University. Juan Antonio is the Founding Director of GPY Arquitectos. His work, which has been shown at the Venice Biennale and the Museum of Modern Art in New York, has received numerous high-profile awards.



Gizem Güler

Yaşar University, Selçuk Yaşar Campus, University Street; No:37-39, Bornova, İzmir, Turkey; gizem.guler@yasar.edu.tr

Res. Assist. Gizem GÜLER: Research Assistant Gizem GÜLER has received her bachelor's degree in Yaşar University, Department of Interior Architecture and Environmental Design. After completing her undergraduate studies, she began her master's degree at Yaşar University. Her main research areas and interests involve interior design, modern housing culture, cultural / social sustainability, modern architecture / interior architecture theory, and current topics in design. She has been working as a research assistant at Yaşar University, Faculty of Architecture.



Graham Hart

Docomomo US Hawaii, University of Hawaii, and Kokomo Studio, 425 Ena Rd 802B Honolulu, HI, USA 96815, ghart@hawaii.edu



Graham Hart is cofounder of Kokomo Studio and lecturer at the University of Hawai'i School of Architecture. He served as the 2019–20 Docomomo US Hawai'i President, and the 2019 National Symposium Chair. Graham graduated from UH in 2015 with his Doctorate of Architecture. His dissertation, *Tropical Modern Residential Architecture: Elements, Vocabulary and Language*, catalogued and dissected modernism from around the tropics.

Brendan Hart

School of Architecture and Planning, University of the Witwatersrand, Johannesburg; Brendan.Hart@wits.ac.za



Brendan Hart is a lecturer in the history of architecture and urbanism at the School of Architecture and Planning at the University of the Witwatersrand, Johannesburg. Brendan is a founding partner, with Yasmin Mayat, of the award-winning Mayat Hart Architects. The diverse work of the practice focuses on the creating and understanding of architectural and spatial interventions rooted in both the context, historical narratives and the complex realities of heritage and identity in contemporary South Africa. Brendan has a Master's Degree in the Conservation of the Built Environment from the University of Cape Town and professional Architectural degrees from the University of the Witwatersrand.

Kaori Hasegawa

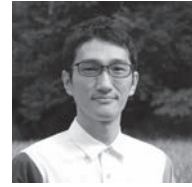
Lecturer at the Department of Architecture, Faculty of Fine Arts, Tokyo University of the Arts, 12-8 Uenokōen, Taito, Tokyo 110-8714, Japan, hasegawa.kaori@fa.geidai.ac.jp



Kaori Hasegawa is a lecturer at the Department of Architecture, Faculty of Fine Arts, Tokyo University of the Arts. She graduated from the University of Tokyo and received her PhD. She worked as a researcher at the National Archives of Modern Architecture, Ministry for Cultural Affairs, Japan, in 2013–2015, as an assistant researcher at Tokyo University of the Arts in 2016–2018 and as assistant professor at Tokyo University of Science in 2019–2021. She published *Modern Emperor System and Tokyo: An Urban and Architecture History Through Ceremonial Space*, University of Tokyo Press, Tokyo, 2020.

Kengo Hayashi

Associate Professor, the IIS, the University of Tokyo; 4-6-1, Komaba, Meguro-ku, 153-8505, Tokyo, Japan; kengo884@iis.u-tokyo.ac.jp



Kengo Hayashi is currently an associate professor at the Institute of Industrial Science, the University of Tokyo, Japan. He earned his MA and PhD in Urban and Architectural History from the University of Tokyo. He was formerly a sub-leader of the research project "Megacities and the Global Environment" at the Research Institute for Humanity and Nature. His research interests include urbanization in Southeast Asia, especially Indonesia. He has conducted a research on the transformation of residential landscapes in Jakarta Metropolitan region in the post-independence era. At the same time, he has been working on the development of a City Sustainability Index (CSI), which evaluates and compares the performance of different cities in terms of global sustainability.

Masaaki Iwamoto

Faculty of Design, Kyushu University, 4-9-1 Shiobaru, Minami Ku, Fukuoka City, Fukuoka Prefecture, Japan, iwamoto@design.kyushu-u.ac.jp



Dr. Masaaki Iwamoto, Assistant Professor at Faculty of Design, Kyushu University, is a practicing architect and researcher of post-war architecture in Southeast Asia and Japan. He studied architecture at the University of Tokyo and at Institute of Lightweight Structures and Conceptual Design (ILEK), Stuttgart University. After having practice at Kazuhiko Namba's studio in Tokyo, he joined Vo Trong Nghia Architects in 2011 as partner/director of Ho Chi Minh City office. In 2015, He moved his base in Japan and co-established his own firm, ICADA. Since 2016, he is an Assistant Professor at Faculty of Design, Kyushu University, Japan.

George Thomas Kapelos

Professor, Department of Architectural Science, Ryerson University; 350 Victoria Street, Toronto Ontario Canada M5B 2K3; gkapelos@ryerson.ca



George Thomas Kapelos is professor of architecture at Ryerson University. A graduate of Princeton (*magna cum laude*), the Harvard GSD and Yale University with degrees in architecture and urbanism, he has written extensively about modern architecture in the Americas. He is actively involved in architectural education, advocacy and public engagement. He is a member of the Board of Governors of the Ontario Heritage Trust and past President of the Society for the Study of Architecture in Canada.

Yu Kishi

Research Fellow, Institute of Asian Cultural Studies, International Christian University, 3-10-2, Osawa, Mitaka, Tokyo Japan, yu.kishi1980@gmail.com



Yu KISHI is Research Fellow of Institute of Asian Cultural Studies, ICU. He was born and grew up in Sendai, Miyagi prefecture, Japan. He received his Ph.D from ICU in 2014. His dissertation focused on historical narratives of Modern Japanese Architecture in 1930–1950s. He is also interested in the engagement of place, architecture and memory.

Richard Klein

Architect, Professor. Chair of Docomomo France; 1 place du Trocadéro, 75116, France; klein@lille.archi.fr



Richard Klein is architect, doctor of art history, Professor at the Faculty of Architecture and Landscape at the University of Lille, researcher at the Lacth. He is the author of numerous articles and several books dealing with the history of modern and contemporary architectures: Rob Mallet-Stevens, Le Corbusier or Roland Simounet, new architectural programs of the 20th century (houses of culture, architectures of the years of economic growth). Richard Klein is Chair of docomomo France, member of the scientific committee of the 16th International Docomomo Conference Tokyo Japan 2020 and member of the advisory board of docomomo international.

Marieke Kuipers

Delft University of Technology, Heritage & Architecture/AE+T/Faculty of Architecture P.O. Box 5043, 2600 GA Delft — the Netherlands, m.c.kuipers@tudelft.nl



Marieke Kuipers is emeritus Professor of Cultural Heritage at Delft University of Technology and retired as Senior Specialist in Recent Built Heritage at the Dutch Agency for Cultural Heritage in the Netherlands; project leader of Shared Heritage projects in South Africa and Russia; former secretary/co-editor of DOCOMOMO's ISC on Registers; member of ICO-MOS 20C ISC. Fields of interest: identity, cultural resilience and revitalisation of built heritage; modern World Heritage nominations. Amongst her many publications: *Designing from Heritage, strategies for conservation and conversion* (2017, co-authored with Wessel de Jonge).

George T. Kunihiro

FAIA, FJIA, Session Chair, Member of the Scientific Committee: Kokushikan University, School of Science and Engineering, 4-28-1 Setagaya, Setagaya-ku, Tokyo, Japan 154-8515; george.kunihiro@gmail.com



A noted Japanese-American architect/educator. He is a Professor of Architecture at Kokushikan University, a Visiting Professor at Tsinghua University and Meiji University. George received A.B. from the University of California/Berkeley, M. Arch from Harvard University GSD and completed the Doctorate Program in University of Tokyo. Among many leadership positions he has held, George served as a President of the Architectural Regional Council Asia (ARCASIA), and on the National Board and the Strategic Council of the American Institute of Architects (AIA). George is a recipient of the Presidential Medals from the AIA, in recognition of significant contribution to the field of architecture.

Izumi Kuroishi

Aoyama Gakuin University; 4-18-7, Kyodo, Setagaya-ku, Tokyo, Japan; izumi-k@sccs.aoyama.ac.jp



Professor of School of Cultural and Creative Study, Aoyama Gakuin University, 1st class architect.

Recent publications; "Archaic Water: role of a legend in sustaining water heritages of Sanbonkihara, Japan", *Adaptive Strategies for Water Heritage*, Springer(2019), "Social Resilience in Disaster Recovery Planning for Fishing Port Cities", *Journal of Urban History*(2019), "Object talks," *Confabulations: Storytelling in Architecture*, Routledge(2016), "Urban Survey and Planning in the 20th century Japan: Wajiro Kon's "Modernology" and its descendants," *Journal of Urban History*, SAGE, (2016) *Constructing the Colonized Land: Entwined Perspectives of East Asia around WWII*, Izumi Kuroishi edited and authored, Ashgate (2014)

Andrea Luciani

Department of Civil, Environmental and Natural Resources Engineering, Luleå University of Technology; Sweden; andrea.luciani@ltu.se



Msc in Architecture and PhD in Preservation of Architectural Heritage at Politecnico di Milano. Andrea's research focuses on the sustainable management of built heritage and historic environments.

His research ranges from the analysis of the indoor climate in historic buildings and museums, to energy retrofitting strategies of built heritage, to the conservation of modern architecture.

Since he moved to Luleå University of Technology in northern Sweden in 2017, he has broadened his interests to the impacts of resource extraction activities on local historic mining towns and built environments. In 2020 he has been a research fellow at ArkDes.

Bo Lv

Tianjin University; No. 92 Weijin Road, Nankai District, Tianjin, China; 675299829@qq.com



Lv Bo is currently doing a Ph.D in Architecture in Tianjin University. He received his B.Arch from Beijing Jiaotong University in 2013 and M.Arch from Tianjin University in 2017. His research has focused on primarily upon university campus in modern China and he has published 4 papers to the Core Journals as the second author and co-authored a monograph with his supervisor Feng Gang during the period of his graduate study.

Kuukuwa Manful

SOAS, University of London, Department of Politics and International Studies; 10 Thornhaugh St, Bloomsbury, London WC1H 0XG; kuukuwa_manful@soas.ac.uk



Kuukuwa Manful is a PhD candidate at SOAS, University of London, exploring citizenship and modernity in light of nation-building through a study of the architecture of secondary schools in Ghana and Senegal. She holds Master's and BSc Architecture degrees from the Kwame Nkrumah University of Science and Technology (KNUST), and an MSc in African Studies from the University of Oxford. Her previous research has explored the positioning of Ghanaian architects in the global modernist movement. She curates an architecture collective — adansisem — which documents and showcases stories of Ghanaian architecture.

Casey Mack

Director, Popular Architecture; 98 4th Street, Suite 216, Brooklyn, NY 11231 USA; cmack@populararchitecture.com



Casey Mack is an architect and the founder of Popular Architecture in Brooklyn, New York, an office combining simplicity and innovation in design work across multiple scales. Mack graduated with a B.A. in Art History from Vassar College and an M.Arch from Columbia, afterwards working with the Office for Metropolitan Architecture and teaching urban design at the New York Institute of Technology and housing at Parsons. His work has been published in *OASE*, *Harvard Design Magazine*, *The Avery Review*, and *Inflection*. He is currently writing the book *Digesting Metabolism: Artificial Land in Japan 1954–2202* (Hatje Cantz, 2021).

Makiko Masudome

Assistant Professor, Department of Architecture and Architectural Engineering, Kagoshima University.
Research on architectural design methodology and architectural morphology.



2013-Present: Kagoshima University
2010 - 2013: MANA Architects Office (Principal architect)
2009: First-class architect
2001 - 2009: Yuji Nakahara Architects Office
2001: Master of Engineering (Kagoshima University)

Yasuhiro Mandai

Professional advisor for architecture and culture, Nomura Real Estate Development Co.Ltd; 4 Tamagawagakuen, Machida, Tokyo 194-0041; yas.mandai.1133@jcom.zaq.ne.jp



1964, born in Yokohama /1987, Bachelor in Housing and Environmental design at Faculty of Industrial Arts of Kyoto Institute of Technology /1987–2019, architect at Sakakura Associates architects & engineers /2019–, Professional advisor for architecture and culture, Nomura Real Estate Development Co.Ltd /2006–, adjunct lecturer at Tokyo University of Science /2014–2017, member of SAKAKURA Junzo Fonds working group, National Archives of Modern Architecture, Japan.

Ann Maudsley

Senior Lecturer; Department of Strategic Sustainable Development, Blekinge Institute of Technology; SE-371 79 Karlskrona, Sweden; ann.maudsley@bth.se



PhD in Architecture and Planning, from the University of Melbourne, Australia. Ann's research focuses on how nuanced attributes of urban form react to change, realising their potential and limitations, which can be addressed in future urban planning and development. Since moving to Sweden in 2016, Ann's interests have broadened to exploring the envisioned and materialised outcomes of imagined plans and designs of Arctic settlements. In her research Ann analyses the challenges and opportunities for combining imagined visions for resilient and sustainable settlements, with tangible and ever-evolving competing factors.

Silvia Micheli

The University of Queensland, School of Architecture, Zelman Cowen Building (51), The University of Queensland, Queensland 4072 Australia, s.micheli@uq.edu.au



Dr Silvia Micheli (BArch, Milan Polytechnic; PhD, IUAV, Venice, Italy), architect and architectural historian, is a Senior Lecturer in the School of Architecture, University of Queensland, Brisbane, Australia. Micheli's research investigates global architecture and cross-cultural exchanges in the twentieth and twenty-first century. Her studies on Finnish modern architecture are published internationally. She co-edited the book *Aalto Beyond Finland* (Rakennustieto, 2018) and authored the essay "Alvar Aalto and Italy" for the exhibition catalogue *Alvar Aalto: Second Nature* (Vitra Design Museum, 2014). Micheli has collaborated with international cultural institutions, including the Alvar Aalto Foundation, Centre Pompidou and Seoul Biennale of Architecture and Urbanism.

Jennifer Mitchelhill

University of Melbourne, Parkville 3052, Australia, jjmitchelhill@gmail.com



Jennifer Mitchelhill (PhD) teaches Architectural History and Conservation at the University of Melbourne. Her areas of expertise include Traditional, Twentieth Century and Contemporary Japanese, Chinese and Korean architecture; Modernism; the Adaptive Reuse of Heritage; and Sustainable Architecture. Jennifer received a PhD in Architectural History from the University of Melbourne in 2014. Her PhD investigated the influence of traditional Japanese design on mid-twentieth century houses in the West. Her books include *Samurai Castles*, Tuttle Peripus, Hong Kong, (2018) and *Castles of the Samurai: Power and Beauty*, Kodansha Tokyo, (2003; 2013)

Kenshiro Miyake

The University of Tokyo;
Bw-701, Bw Building, Institute of Industrial Science, The University of Tokyo, Komaba 4-6-1, Meguro-ku, Tokyo 153-8505;
k3miyake@iis.u-tokyo.ac.jp



Apr 2013–Mar 2015 Graduate School of Engineering, The University of Tokyo, Master of Architecture
Apr 2015–May 2020 Mizuho Research Institute Ltd.
Apr 2015–current Graduate School of Engineering, The University of Tokyo, Ph.D. degree

Zainab Murtadhawi

Sheffield School of Architecture, The University of Sheffield, Arts Tower; S10 2TN Sheffield, United Kingdom;
Z.Murtadhawi@sheffield.ac.uk
Kuwait Institute for Scientific Research (KISR);
P.O Box No 24885, Safat 13109, Kuwait;
zmurtadhawi@kisir.edu.kw
zmurtadhawi@yahoo.com



Zainab Murtadhawi is a PhD Candidate in Architecture at The University of Sheffield, researching twentieth-century public school's design provision and construction programme in Kuwait. Zainab was awarded her PhD scholarship by the Kuwait Institute of Scientific Research (KISR). She holds a Bachelor of Architecture from Kuwait University and a Master of Science in Sustainable Building Conservation from Cardiff University in the UK. Also, she has worked as a research associate at the Energy and Building Research Centre (EBRC) in KISR, Kuwait.

Maiko Nagamine

Nagamine Architecture Office; 2-26 3F, Daimon-cho, Omiya-ku, Saitama-shi, 330-0846 Japan; m-nagamine@mvj.biglobe.ne.jp



Maiko Nagamine was an assistant professor at National Institute of Technology, Oyama College from 2013 to 2020. She is currently in Nagamine Architecture Office as an architect, concerned some housing projects and designed the lighting product in her career. She completed the master's program at Japan Women's University in 1999.

Yuusuke Ohno

Tokyo University of Science; 2641 Yamazaki, Noda, Chiba 278-8510, Japan;
ohno.yuusuke@gmail.com



Yuusuke Ohno is a student in History of Architecture at the Department of Architecture, Graduate School of Science and Technology, Tokyo University of Science. He graduated from Tokyo University of Science and received his B.S. His research focuses on the Daikanyama city formed by post-modernist architecture and the ideas at its core.

Shoichi Ota

Kyoto Institute of Technology; Matsugasaki-Hashigami-cho, Sakyo-ku, Kyoto, Japan; shoichi@kit.ac.jp



Shoichi Ota is currently working at Kyoto Institute of Technology as associate professor. Graduated from University of Tokyo and got Ph.D. with the research on architecture and urban planning in French Indochina. Once stayed in Hanoi University of Civil engineering (1998–2000), or Yale University (2009–2010), his concern is mostly focused on modern architectural history in Asia. His publication includes: *Architectural drawings in Quin Dynasty preserved at Institute of Oriental Culture, University of Tokyo* (Center for Research Information on Asian Studies, University of Tokyo, 2004), or *Hanoi in Architecture* (Hakuyo-sha, 2006).

Eda Paykoç Özçelik

Yaşar University, Selçuk Yaşar Campus, University Street; No:37-39, Bornova, İzmir, Turkey; eda.paykocozcelik@yasar.edu.tr



Assist.Prof.(PhD) Eda PAYKOÇ ÖZÇELİK: Dr. Eda PAYKOÇ ÖZÇELİK received her bachelor's degree and master's degree from the Department of Interior Architecture and Environmental Design, Bilkent University, Ankara, Turkey in 2010 and in 2013. Afterwards, she completed her PhD in the Department of Architecture in İzmir Institute of Technology, İzmir, Turkey. She has been working as assistant professor at Yaşar University, Faculty of Architecture since 2020. Her research areas include environmental psychology, human ecology, design for all, urban identity, social and cultural sustainability.

Dario Pedrabissi

University of Portsmouth; Eldon Building, Winston Churchill Avenue, Portsmouth, PO1 2DJ, United Kingdom; dario.pedrabissi@port.ac.uk



Dario Pedrabissi is a practising architect, researcher and educator, working in the fields of architecture, interiors, and public spaces. He received his MSc in architecture from T.U. Delft, the Netherlands, and a BSc in architecture from the University of Florence in Italy. He is currently Senior Lecturer at the Portsmouth School of Architecture, U.K. and worked in South Korea, the Netherlands and Italy both in the design and construction sector. In 2014, he founded Pedrabissi Studio a design practice which operates to expand the disciplinary boundary of architecture into the fields of visual arts, material exploration and historical research: <http://www.pedrabissi.eu/>.

Marta Peixoto

UFRGS; Rua Mostardeiro 12, apto.82; marta@martapeixoto.com.br



Marta Peixoto is an Architect (1985) with Ph.D. in Architecture (2006); is full Professor at Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil, where coordinates the Graduate Program in Architecture and teaches Design and Theory of Architecture. Has organized books and written articles; is part of the Interior Design Committee of Docomomo International and participates in several national and international Architecture conferences, mainly concerning Modern Architecture (all Docomomo International Conferences since Helsinki (2012); MomoWo Symposium (2018); Reuse Modern Building (2018), and Docomomo Chile (2018). Her research focuses on modern design, interior design, and reuse.

Verdiana Peron

Politecnico di Milano, Department of Architecture and Urban Studies; via Edoardo Bonardi 9, 20133 Milan (Italy); verdiana.peron@polimi.it



Verdiana Peron graduated with honours in Architecture for the "Old and the New" (Master Degree, 2017) at Iuav University of Venice. Her Master's thesis was mentioned at the 2nd SIRA (Italian Society of Architectural Restoration) Young 2018 Award and ARCo Young 2017 Prize. PgD in Architectural and Landscape Heritage at Iuav University of Venice (2020), she is currently a PhD student in Preservation of the Architectural Heritage at Politecnico di Milano and she collaborates in the teaching of the University courses. Her research interests are focused on conservation of 20th-century heritage, in particular on megastructures built with innovative patents.

Elena Poma

Università della Svizzera italiana, Accademia di architettura; Largo Bernasconi 2, 6850, Mendrisio, Cantone Ticino, Switzerland; elena.poma@usi.ch



Elena Poma studied Architecture at USI-Accademia di architettura (Switzerland) and completed her professional traineeship in Helsinki. After completing her Master degree in 2017, she started working as teaching assistant for the area of Construction and Technology at USI-Accademia di architettura. In 2018 she obtained a 2nd level Master degree in "Energy Management of Buildings and Infrastructures" from Politecnico di Milano (Italy) with full marks. Since 2019 she is a doctoral student in Architecture at USI-Accademia di architettura, where she is involved in teaching assistance, research activities and in the management of the "Library of Technology and Materials".

Federica Pompejano

Instituti i Antropologjisë Kulturore dhe Studimit të Artit (IAKSA), Akademia e Studimeve Albanologjike (ASA),
federica.pompejano@asa.edu.al



Federica Pompejano is a European PhD, cum laude, in Preservation of the Architectural Heritage (Politecnico di Milano, 2018). From 2018 to 2020, she has been a postdoctoral fellow at the Department of Architecture and Design, University of Genoa (Italy). Currently, she holds a Marie SkłodowskaCurie Actions Individual Fellowship at the Institute of Cultural Anthropology and Art Studies (Academy of Albanian Studies), in Tirana (Albania), where she is implementing the EU funded project "Materializing Modernity socialist Rural Legacy in Contemporary Socialist and Post-socialist Rural Legacy in Contemporary Albania - MaMo" (GA No. 896925).

José Manuel Pozo

School of Architecture. University of Navarra. Pamplona, Spain; Av/ Pio XII, 30, esc. Izda, 2ºC. 31008 Pamplona. Spain;
jmpozo@unav.es



Born in Segovia (Spain), 1957; Architect by University of Navarra, 1981; Architecture PhD at the same University, 1988. Deputy Director of School of architecture from 1994 to 2000; Director of the Doctorate Program in History of Contemporary Architecture until 2014. Director of the Master in Architectural Design (2000–2017). In 1995 he founded T6 Ediciones S. L., which has published more than a hundred books on History of Architecture. Coordinator of Pamplona's International Congresses of the History of 20th Century Architecture; from the first (1998) to eleventh (2018). Director of Biennial of Latin American Architecture (BAL); which six editions have been held until 2019. The next will be on 2021 September. Patron of the Architecture & Society Foundation (Spain).

Ingrid Quintana-Guerrero

Assistant Professor — Universidad de Los Andes; Cra. 1 Este # 18 A — 70 Bogotá, Colombia. Bloque C Oficina 623;
i.quintanazo@uniandes.edu.co



Ingrid Quintana. Assistant Professor at University of Los Andes and member of the research team *Formas de la Producción en Arquitectura*. PhD in Architecture and Urbanism (USP). Masters' degrees in Architectural History (Université Paris 1) and Criticism of the Contemporary Culture (Université Paris 8). She was awarded the Scott Opler Fellowship (SAH, 2018), Prix de La Recherche Patiente (Fondation Le Corbusier, 2016) and Prêmio Destaque USP (2017). Author of *Children of Rue de Sèvres: Latin American collaborators of Le Corbusier in Paris* (International Honor distinction at Bienal Iberoamericana de Quito, 2018).

Scott Robertson

Director, Robertson & Hindmarsh Pty Ltd, Architects; 26 Station Street, Naremburn, NSW 2065, Australia; rharch@ozemail.com.au



Scott Robertson is an architect in Sydney, Australia, and is the founding and current President of Docomomo Australia. He has a Masters Degree in Building Conservation, and was awarded a PhD for his thesis concerning traditional Javanese architecture. He is the author of chapters in books and journal articles including in the Encyclopedia of Australian Architecture, 2011, in SOS Brutalism: A Global Survey, 2015, and author of three entries on individual buildings and co-author of thematic essay on "Work and War", in Australia Modern, 2019.

Marja Sarvimaki

Bond University, Abedian School of Architecture, Gold Coast, Queensland 4229 Australia, msarvimaki@bond.edu.au



Dr Marja Sarvimaki (Architect SAFA, PhD, MArch, Helsinki University of Technology, Finland) is an Associate Professor at the Abedian School of Architecture, Bond University, Australia. Besides her studies in Finland, she has pursued studies on Japanese architecture at the Tokyo National University of Arts and conducted her post-doctoral research on Korean architecture at the Korea University. Her work includes numerous publications, conference papers, articles, and presentations on East Asian cultures. Her current research focuses on regionalist architecture and mid-century modernism in the Asia-Pacific region. Related to that, she is the convener of the recently established Docomomo_AU Gold Coast group.

Nilgün Rengin Sazak

Brandenburg University of Technology; Konrad-Wachsmann-Allee 8, Building 2D – Room 115, 03046, Cottbus, Germany; sazaknil@b-tu.de



She studied Bachelor and Master's Studies of Interior Architecture and Environmental Design at Hacettepe University (2008-2016). She is a Ph.D. student in the Heritage Studies program and the DFG Research Training Group 1913 at the Brandenburg University of Technology. Her publications are "The Continuity of Cultural and Architectural Identity in Urban Context: A Sample Analysis from Riga, Latvia", "The Architectural Value, Society and Cultural Sustainability: Analysis of an Art Nouveau Example from a Cultural Capital City Riga of Latvia". Her research focuses are the changing significance of modernist heritage, heritage protection issues, industrial heritage, adaptive reuse projects.

Eliana Sousa Santos

CES, Centre for Social Studies, University of Coimbra; Colégio de S. Jerónimo Apartado 3087, 3000-995 Coimbra, Portugal; esousasantos@ces.uc.pt



Eliana Sousa Santos (Phd, University of London) is an architect, a researcher and an assistant professor of architecture. She was awarded the Fernando Távora Prize 2016/17. She was the curator of the exhibition *The Shape of Plain* (Gulbenkian Museum Lisbon 2016/17). She was a visiting postdoctoral research fellow at Yale University in 2013/14, and is currently a researcher at CES, University of Coimbra and invited assistant professor at ISCTE-IUL.

Takayuki Suzuki

Professor, Wuhan University, Hubei, CHINA; suzuki@whu.edu.cn taki3000@gmail.com



Architect, Novelist. Guest Professor, Hokkaido University of Science, JAPAN. Lecturer, School of Literature, Hosei University, JAPAN. Dean, oDOMOS, on-line DOCOMOMO school 2021. Former instructor, The University of Saint Joseph, Macau, Kyoto Seika University, Japan, SCI-Arc, USA and more. Doctorate, the University of Tokyo. Bachelor, Kyoto University. Written works; *Fictive Space* (theory, Ronsosha Publishing, 2017), *Perfect World* (novel, Ronsosha Publishing, 2013), *Mirai-no-Chikei* (novel, Kodansha Publishing, 1992) and more. Architectural Works; *Kyoto Seika University Main Building* (Japan Architect, 2009), *Novelist's House* (SD Review, 2006), *Exces* (Axis, 1998) and more. Website: <http://www.design-networks.com>

Hiroshi Tashiro

Kagoshima Univ. doctoral program, Isogo Morigaoka 1-11-20, Kanagawa, Yokohama, Japan, anno-tempeste@anno-spero.org



Presiding Architects Office. Research and restauro some historical wooden architecture. Kagoshima University Doctoral Program. The Japan Institute of Architects, Registered Architect. Architectural Institute of Japan Kanto Branch History Design Specialist. 1994: First-class architect (No. 240287) 1989: Completed master's program at Tokyo Metropolitan University. He is the co-author of "Tokyo Architecture Walk 24" published in 2004 and "The Story of the Revival of a Cultural Property Chapel" published in 2010.

Yuya Tomisaka

Tokyo University of Science; 2641 Yamazaki, Noda, Chiba 278-8510, Japan; y.tomisaka1033@gmail.com



Yuya Tomisaka is a student in History of Architecture at the Department of Architecture, Graduate School of Science and Technology, Tokyo University of Science. He graduated from Tokyo University of Science and received his B.S. His research focuses on urban landscape created with modern architecture at its core.

Ana Tostões

Chair of docomomo International; Full Professor Técnico-University of Lisbon; Av. Rovisco Pais, 1, 1049-001 Lisboa, Portugal; ana.tostoes@tecnico.ulisboa.pt



(b. Portugal, 1959). PhD, architect, architectural critic and historian, Chair of docomomo International and editor of docomomo Journal. Full Professor at Técnico — University of Lisbon, where she is the Architecture Scientific Board Director, the PhD coordinator and the architecture research line of the Center for Innovation in Territory, Urbanism and Architecture (CiTUA). Her research field is the theory and history of architecture and construction of the 20th century, focusing on worldwide cultural transfers. She was awarded with the title of Commander of the Order of Infante Dom Henrique (2006), with the Gulbenkian Prize (2014) and with the BIAU Prize (2016).

Kostas Tsiambaos

National Technical University of Athens, School of Architecture; 42 Patission street, 10682 Athens, Greece; ktsiambaos@arch.ntua.gr



Kostas Tsiambaos is Assistant Professor in History & Theory of Architecture at the School of Architecture of the National Technical University in Athens (NTUA). He is Chair of do.co.mo.mo. Greece. He studied in Athens (NTUA) and New York (GSAPP Columbia University). His research has been published in international journals (*The Journal of Architecture*, *ARQ*, *Architectural Histories*, *APENA JAR*) and collective volumes. His recent books include *From Doxiadis' Theory to Pikionis' Work* (London & New York: Routledge, 2018) and *Ambivalent Modernity* (Thessaloniki: Epikentro, 2017 — in Greek). In the 2019–2020 fall semester he was a Stanley J. Seeger Visiting Fellow at Princeton University.

Tsunematsu Yusuke

Doctoral student at the University of Tokyo; Faculty of Engineering Bldg.1 316, 7-3-1 Hongo, Bunkyo-ku, Tokyo; tune128@gmail.com



Mr. Yusuke Tsunematsu received his Master's degrees in architecture from the University of Tokyo in 2019. He is now a Doctoral student at the university. His principal research interest is the history of Japanese modern architecture. He has won numerous awards, including the first prize in diploma design at the University of Tokyo (2016), and the excellence award in the master's thesis at the University of Tokyo (2019). He is also interested in the renovation of historic monuments. He has worked as an intern in Wessel de Jonge Architecten. He published *A Guide to Japanese Renovation Architecture* (2019).

Rajiv Wanasundera

Lord Aeck Sargent, 1175 Peachtree St, Suite 2400, Atlanta GA 30361, rwanasundera@lordaecksargent.com



Rajiv Wanasundera is an architect and planner. He is an associate at Lord Aeck Sargent, an architecture firm headquartered in Atlanta, Georgia. As a visiting lecturer Rajiv has taught design studios at the Georgia Institute of Technology. Rajiv's primary research interest is contemporary Sri Lankan architecture and his work has been published in *Architecture + Design* and the *Journal of the Sri Lanka Institute of Architects*. He was a contributor to *Habitat: Vernacular Architecture for a Changing Planet*, published by Thames & Hudson in 2017. He is currently working on a documentary film on Sri Lankan modernism with filmmaker Jesse Freeman.

Ruth Verde Zein

Architect, PhD Professor Mackenzie Presbyterian University, São Paulo, Brazil; Rua João de Souza Dias 719 #121 04618-003 São Paulo SP Brazil; rvzein@gmail.com



Architect, PhD in Theory, History and Critique, Professor of Modern and Contemporary Architecture and Design in Graduated and Post-Graduated Studios at Mackenzie Presbyterian University, São Paulo, since 1997. Member of DOCOMOMO Brazil and International since 1998, former coordinator of Docomomo Brasil/São Paulo's chapter. Has more than a hundred articles and a dozen books published on Brazilian and Latin American architecture.

Kenji Watanabe

Tokai University; 4-1-1 Kitakaname, Hiratsuka, Kanagawa, 259-1292 Japan; chezenji@nifty.com



Kenji Watanabe Professor of Tokai University, born in 1961 Fukuoka, graduated from Nihon University Graduate School Master course in 1987, worked for Ashihara Architects and Associates from 1987 to 1993 as licensed architect, studied and researched at Architectural Association Graduate School History and Theory Course under R. Landau and N. Bullock from 1993 to 1998, and obtained PhD from the University of Tokyo, worked at Muraji Takeo Architectural Laboratory from 2000 to 2004, started teaching history and theory of modern architecture and conservation at the Tokai University from 2005, member of DOCOMOMO Japan from 1998 (Chair from 2019).

Nader Vossoughian

Associate Professor, New York Institute of Technology; 875 East 21 Street, Brooklyn, NY 11210 USA; nvossoug@nyit.edu



Nader Vossoughian, Ph.D. is a historian and theorist of architecture who teaches at the New York Institute of Technology and, occasionally, Columbia University. He lives in Brooklyn, New York.

Johannes Widodo

National University of Singapore, Department of Architecture, 4 Architecture Drive, Singapore 117566; jwidodo@nus.edu.sg



Dr Johannes WIDODO is the director of the Graduate Programs in Architectural Conservation and TTCL Centre for Asian Architectural and Urban Heritage in Melaka (Malaysia) of the National University of Singapore. He is an Associate Member of Singapore Institute of Architects, founder of modern Asian Architecture Network, Executive Committee of the Asian Academy for Heritage Management, jury for UNESCO Asia Pacific Awards for Cultural Heritage Conservation, member of ICOMOS International Scientific Committee, founder and director of ICOMOS National Committee of Singapore and Indonesia, founder of DoCoMoMo Macau and Singapore, and a board member of SEACHA (South-East Asian Cultural Heritage Alliance).

Maria Cristina Wolff de Carvalho

Fundação Armando Alvares Penteado;
Av. Higienópolis 360, ap 132, São Paulo, SP,
Brazil; mcris.wolff@gmail.com

Maria Cristina Wolff de Carvalho is an independent scholar, teacher, writer and architectural historian living and working in São Paulo, Brazil. She was awarded a Ph.D. in Architecture and Urban Planning from the Universidade de São Paulo in 1996. In 2011–2012, she was a Paul Mellow Senior Fellow at CASVA, National Gallery of Art. In 2018 she was Visiting Scholar at the Yale Center for British Art. She has authored several books including *Ramos de Azevedo*, published in 2000. In 2018, she co-curated the exhibition *Abrindo Arquivos: o arquiteto Auguste Perret e o projeto para o museu da FAAP*, MAB-FAAP.



Flaka Xërxa Beqiri

Faculty of Architecture, University of Prishtina
"Hasan Prishtina", Bregu i Diellit, p.n., 10000
Prishtina, Kosovo, flaka.xerxa@uni-pr.edu

Dr. Flaka Xërxa Beqiri is an architect and teaching assistant at the University of Prishtina, Faculty of Architecture. She holds a PhD on Modern Architecture of Kosovo (Faculty of Architecture, University of Ljubljana 2019). She has studied in Kosovo (Bachelor Studies, University of Prishtina), Slovenia (Master Studies, University of Maribor) and USA (Professional Certificate Program, San Jose State University). She has a professional background in architecture and cultural heritage, with focus on modern architecture. Her thesis examined the construction of modern architecture of Kosovo, from 1970–80. She has initiated and leads the initiative "A-MOD-ERNE", a professional and community based initiative for promotion and protection of modern architecture in Kosovo and is also a member of DOCOMOMO Kosovo.



Yoshiyuki Yamana

Tokyo University of Science; 2641 Yamazaki,
Noda, Chiba 278-8510, Japan;
atelieryamana@outlook.jp

Professor, Dean of Department of Architecture, Faculty of Science and Technology, Tokyo University of Science / French-registered Architect (DPLG), Doctorate in Art History / Advisory Board member, docomomo International / Executive committee member of docomomo international / Vice-Chairman, docomomo Japan
1966, born in Tokyo / 1990, Tokyo University of Science Graduated / 1990–1994, Koyama Atelier (Tokyo) / 1994–2002, Paris, Ecole Nationale Supérieure d'Architecture de Paris-Belleville Architecte diplômé, Atelier Henri CIRIANI, Université Paris 1 Panthéon-Sorbonne, maîtres de conférences (Ecole nationale supérieure d'architecture de Nantes) / 2002–Tokyo University of Science



Pao-Ning Yin

Graduate School of Arts Management and
Cultural Policy, National Taiwan University of
Arts; 59, Sec. 1, Daguan Rd., Banqiao Dist.,
New Taipei City 22058, Taiwan;
ning@ntua.edu.tw

Pao-Ning Yin is professor and the Director of Graduate School of Arts Management and Cultural Policy, National Taiwan University of Arts, Taiwan. She received a PhD in Graduate Institute of Building and Planning, National Taiwan University. Her areas of research include cultural studies, urban studies, the architectural history / theories and gender studies. Now she is working on subjects on cultural-led urban regeneration issues of Taipei city, which covered the revitalization projects on historic street and signature architectures in the making of urban landscape. Her monography "The Obsession of Modernism: Architect Xiu and Her Times" (2019) was just published.



Daizaburo Yoneyama

Tokyo University of Science; 2641 Yamazaki,
Noda, Chiba 278-8510, Japan;
komezabu@gmail.com

Daizaburo Yoneyama is a doctoral student in the Department of Architecture at the Tokyo University of Science's Graduate School of Science and Technology. He graduated from the Tokyo University of Science with a Master's degree. His research focuses on the relationship between the establishment of cultural heritage and tourist culture in modern period.



LU Yong Yi

Professor, College of Architecture and Urban
Planning, Tongji University, 1239 Siping Road,
Shanghai, P. R. China, 200092,
luyongyi@tongji.edu.cn

LU Yongyi has been teaching history and theory of western architecture in the College of Architecture and Urban Planning, Tongji University. Her research focuses on history of Chinese early modern architecture. She edited and wrote the *History of Modern Architecture*, the *Perspectives on Architectural Theories* and articles related to her research. She is an editorial board member of several architectural journals such as *Architect* (China), *Architecture Heritage* (China) and *RIBA's Journal of Architecture* (regional editor). She is also a committee member of Docomomo China.



Joe Zaatar

Politecnico di Milano, Piazza Leonardo da Vinci n. 26 20133 Milan Italy,
joe.zaatar@hotmail.com



Joe Zaatar graduated with a master's degree in architecture from Politecnico di Milano and is currently a second year PhD candidate in the School of Preservation of the Architectural Heritage in the same University. He has 16 years of experience in design and construction of projects in Italy and Lebanon. He is also the recipient of the best thesis award in sustainable architecture (Italy, 2007) and the winner of the Green Good Design Award (Chicago 2009). His recent part-time University teaching experience sparked his interest in pursuing a career in academia, and in particular, researching the Modernist heritage.

Justin Zhuang

National University of Singapore,
justin@inplainwords.sg



Justin Zhuang is a writer and researcher who sees the world through design. He covers design and urban life in Singapore for various magazines around the world. Over the years, Zhuang has also authored and edited various design publications, including *Independence: The History of Graphic Design in Singapore since the 1960s* (2012), *Eating Together: The Design of Sharing Food in a Connected World* (2016) and *By Design: Singapore*, (2019), a compilation on unexpected local creativity. In 2011, he founded the Singapore Graphic Archives (<http://graphic.sg>) to collect and document graphic design from the Southeast Asian city-state.



Técnico – University of Lisbon
Av. Rovisco Pais 1
1049-001 Lisboa, Portugal
(+351) 218418101/02/03

<https://www.docomomo.com>
docomomo@tecnico.ulisboa.pt
<https://www.docomomo.com/shop>
<https://www.docomomo.com/join/membership>

do.co.mo.mo_

E Echelle-1



9784904700778

ISBN978-4-904700-77-8