international working party for
documentation and conservation
of buildings, sites and neighbourhoods of the
modern movement

Conference Proceedings

VISION AND REALITY

*Social Aspects of Architecture
and Urban Planning in
the Modern Movement*

Fifth International DOCOMOMO
Conference

Stockholm, Sweden
September 16-18, 1998

International working party for
documentation and conservation
of buildings, sites and neighborhoods of the
modern movement

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VISION AND REALITY
*Social Aspects of Architecture
and Urban Planning
in the Modern Movement*

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DOCOMOMO Sweden

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Front cover illustration: The Woodland Cemetery in Stockholm, by Gunnar Asplund and Sigurd Lewerentz. One of the few projects from the Modern Movement selected in the UNESCO World Heritage List. Photo: Swedish Museum of Architecture.

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Preface

The Fifth International Docomomo Conference took place at the Swedish Museum of Architecture in Stockholm, Sweden. The museum inspired the Swedish working party of Docomomo to candidate for this conference on the subject of exploring the roots and more specifically social aspects of the modern movement in architecture and urban planning. That turned out to be a good investment. The conference gathered a large number of participants with papers and contributions of good qualities. It has been a great pleasure for The Swedish Museum of Architecture to host Docomomo.

Jöran Lindvall,
Director of the Swedish Museum
of Architecture

Conference and Proceedings

The Swedish working party in co-operation with the other Nordic Countries presented their candidacy to the Fifth International DOCOMOMO Conference in the spring of 1995. The proposal was accepted by the Executive Committee, who welcomed the opportunity for the dispersal of the international meetings geographically, embracing now the North of Europe.

The theme of the Conference has been discussed and finally defined after the Fourth Conference in Bratislava in 1996 and during a meeting with the Executive Committee in January 1997. The focus was put on the social aspects of the architecture and planning of the Modern Movement. This is due to the need for a deeper understanding of the subject and especially the relevance that social ideals had in the development of the Nordic Modern Movement.

One of the goals in the program of the Conference has been to give a platform to discuss the Modern Movement in different political contexts. In the Call for Papers it was asked to explore the gap between the expectation and realisation of social ambition in different cultural, economic and political climates and the role assumed for modern architecture and planning. It was also announced that proposals which offered a thesis and an analysis would have been given priority over uncritical, descriptive presentations.

The final ambition was to add something still new and unexplored to the history of the Modern Movement.

The theme raised great interest in all parts of the world, confirmed by the fact that nearly 200 abstracts from 37 countries were submitted to the Conference. The Final Program was at last composed by the Scientific Committee during a meeting in November 1997 including 64 papers representing contributions from 29 countries.

A selection of 25 case studies, renovation projects, presentation of buildings or historical analysis, have been shown in a poster exhibition.

The Conference was attended by 270 participants from 40 countries representing different disciplines, from the academic environment as well as from private practices. The venue was the new Museum of Architecture and Modern Art Museum in Stockholm, designed by the Spanish architect Rafael Moneo.

The Conference was concluded with the DOCOMOMO Council Meeting and the announcement of the sixth International Conference which will be held in Brasilia.

The Final Party, inspired by Manhattan's architects performing the skyline of New York in 1930, started with a masquerade, where participants performed with their favourite MoMo building in disguise.

A Post Conference Tour was organised in Stockholm, besides a boat trip to the City Hall, and others pre- and post-post- conference tours have been organised in the other Nordic Countries.

The success of the Conference confirmed once again the real interest all over the world for understanding and preserving building, sites and neighbourhoods of the Modern Movement, which is the ambition of DOCOMOMO.

A main factor that made the Conference a pleasant experience for most participants has been the usual, friendly, informal atmosphere inspired by the DOCOMOMO founders, Hubert-Jan Henket and Wessel de Jonge, as well as by all DOCOMOMO members.

The Book of Proceedings is aimed at documenting the whole Conference and contains all the papers with the same sequence as they were presented and with illustrations submitted by the authors. The interest of this book is due to many interesting contributions with the common effort to define the role of the social ideals in the development of the Modern Movement, but seen from different perspectives and in different contexts. We hope that the result of this Fifth Conference will be the inspiration to keep on working on the issues, and the problems, of DOCOMOMO.

Marina Botta,
Coordinator of the Conference

When in 1994, at the 3rd international Docomomo conference in Barcelona, I suggested that Sweden should be the host of the 5th conference, I was very proud of the interest this raised. I had joined the first conference in Eindhoven in 1990, when Docomomo was founded, and from the very start I became its eager introducer and ambassador in Sweden. This went well together with my professional work as a specialist on Swedish Modern Movement Architecture, and made it possible for me to broaden my perspective. The Swedish Docomomo group, which we formed the same year, consists of persons also dealing with this subject in their dayly work. When planning for the 5th conference in Stockholm the goal was to cooperate with the other Nordic Countries to stress the fact that Modern Movement represents a very important moment of the architectural and planning history of our countries, even if with some differences. Therefore we decided to present the different ideologies and the different character of the Modern Movement in the five Nordic countries (S, DK, N, Fin, Ice) in a special "Nordic session" of the Main theme. The idea was also to give our participants the opportunity to visit not only Sweden but also the other Nordic Countries. Thanks to our fellow coordinators in these countries, Iceland included, this was made possible, and was highly appreciated. The cooperation between the Nordic Docomomo groups also resulted in a book – *Modern Movement Scandinavia*, which was presented at the conference.

Members of the Swedish Docomomo group have organized the Stockholm post conference tour and also helped with practical arrangements for the conference.

Jöran Lindvall, director of the Swedish museum of Architecture, has been our generous host. He has had the main responsibility for the conference together with Marina Botta and myself. Marina Botta has been the indispensable centre of the organization, and without her ambitious work there had been no conference at all!

Eva Rudberg,
Coordinator of the Swedish
Docomomo Group

Introduction

Changing Visions, Many Realities and Future Challenges

The humane scale and carefully designed spaces of the new Swedish Museum of Architecture and the Stockholm Museum of Modern Art – both designed by Rafael Moneo – formed a relaxed and welcome setting for DOCOMOMOs biannual burst of intellectual energy. Since Bratislava it has now become efficient habit for the International Specialist Committees to gather and meet the day prior to the official start of the Conference. In the meantime the 250 delegates from 39 countries trickled in, some of them already in that special MoMo mood thanks to the pre-conference tours in Denmark and Norway.

Opening

At the Opening Session on Wednesday Marita Ulvskog, the Swedish Minister of Culture, reminded us of the socially important role of the Modern Movement in creating a fair society for all. She stressed that economic aspects should not override quality and aesthetic values if the social and cultural heritage is at stake. Sverker Sörlin pointed to the ever-present paradox between the conservation of an object and its authentic and dynamic role as a utility. Why, he wondered, did the Modern Movement become problematic: it became obsessed with quantity and with a meaningless hunt for novelty.

Werner Oechslin warned that the Modern Movement reduced requirements as well as solutions to a few parameters, avoiding complexity as a necessary condition in buildings and in cities.

In his paper 'The Social Concepts of Modernism and Their Application in Different Political Systems', Winfried Nerdinger showed, through a history of 20th Century housing models, that modernism ended up being democratic and autocratic at one and the same time.

Many Realities and Changing Visions

The Conference again illustrated the importance of meeting colleagues, to have direct contact with different intellectual realities in other cultures. It is important to realise that the Nordic Countries are as exotic to our Latin American friends, as their continent is to our members in the Old World. The range of papers gave an impressive panorama of different visions.

Changing views produced provocative one-liners such as the observation that 'the United States has no social traditions', by Diane Ghirardo, the last keynote speaker in the opening session. Ghirardo's interpretation is just one illustration of the need to reconsider the inconsistent and static vision in current historiography, that supports the predominance of pre-war European modern architecture as the core of the Modern Movement world wide rather than to acknowledge the coexistence of many realities. Also our present reality is changing under the current social and cultural developments. If we can learn from the present how to read the past the challenge for the next Conference in Brasilia will be to take the city's present situation as a starting point when assessing its qualities, and from there go back into the past of its creation. Such an approach will also compel us to confront a vision on Brasilia as a heritage site with its everyday social reality as a Third World metropolis.

The agenda of the Modern Movement has always been based on a careful balance between utility and poetry. Hilde Heynen argued that also the visions on modernity in architecture were dynamic. She examined how the initial phase of modern architecture was tied to avant-garde developments and movements devoted to bring art and life closer together. Re-examining the theory and publications of Siegfried Giedion she identified a major shift from the social and cultural commitment of the pre-war avant-garde to the rational pragmatism of the post-war generation. Maristella Casciato explored how the concept of "modern" could be reconsidered in order to allow architecture to establish its autonomy vis-à-vis other disciplines. She discussed three definitions of "modern" – modernisation, modernity and modernism – and called into question our confidence in the Modern Movement. In the 20th Century, architects have responded to the diverse forces – from objective to dogmatic – driving the Modern Movement with a high degree of responsibility.

Later on during the Conference we were made aware that the impact of the Second World War and the involvement of modern architecture in the cause of reconstruction emerged as the most decisive common factor determining realities, superseding earlier avant-garde visions. As for social housing, be it in New York or Glasgow, we were reminded of how relentless the numerical logic of an institutionalised delivery system could transmute the loftiest humanitarian ideals into brutalising tracts of urban wasteland. It was stimulating to learn from the introductions of Ola Wedebrunn, Eva Rudberg, Birgitte Sauge, Pétur Ármansson and Maya Kairamo, that this controversy between utility and poetry was less rigorous in the Scandinavian countries. The large scale housing projects in Brazil seem to borrow from similar humane inspiration.

Because these mid-century social developments are much more relevant for the current professional situation then the pre-war 'Siedlungen', it is important for us to concentrate more on these then was the case at this Conference. This also brings me back to the practical issues we have to deal with when caring for the inheritance of the Modern Movement: the phenomenon of short-lived mass-housing heritage. We are beginning to get more grip on a theoretical background for conservation practice, particularly in the case of re-examining long-standing principles.

In the new Conservation Session, France Vanlaethem questioned the validity of the authenticity of the original idea, when interpreted by a later generation with a different value judgement. She wondered if it isn't more appropriate to approach an object purely as 'das Ding an sich'.

The Current Architectural Situation

In the virtual world we are living in today, of flashy images and short-lived individual gain, we could find valuable inspiration in the Modern Movement way of questioning and developing ideas for

contemporary social environments. This time the Conference' debate couldn't provide us with clear conclusions from past realities, giving us tools for future social visions.

A generation of post-MoMo architects is becoming more and more manifest as collectors and processors of images. To my mind this calls for a revaluation of context in the broadest sense, in other words a greater knowledge and understanding of the architectural meaning of proper commissioning, of design and construction processes, and user evaluation. At our future Conferences we, as DOCOMOMO, should face the challenge to arrive at an architectural and urban design approach that is again more responsive to the very real an legitimate social and ecological needs of today.

Debate

The ever greater number of participants at our Conferences is evidence of our vitality and of the interest of people from almost every part of the world. At the same time the format of such large meetings with many parallel sessions makes it hard to deepen one's comprehension of its contents, as can be done at smaller professional gatherings. Indeed we have grown immensely since our First Conference, in Eindhoven in 1990, and step by step DOCOMOMO is learning how to deal with complicated themes. However, this development calls for a structured debate to analyse the points that surface in fragments, and to allow the participants to synthesise this wide spectrum of visions and realities. Then, the Conference' conclusions will provide the conceptual starting points for future occasions.

The sessions and debates on the social impact of the Modern Movement in Stockholm might not have produced the answers yet, but have been seminal in providing food for thought for the next Conference. The brief discussion on the Eritrean city of Asmara for instance confronts us with political realities that are unmistakably part of our history and therefore of our future. Instead of avoiding these issues we have to find a MoMo-typical logic in such social realities. It

is clear that we cannot ignore the political implications of the modern capitals like Asmara, Chandigarh, Canberra, Novosibirsk and Brasília. Standing on the threshold of a New Millennium this calls for a visionary approach, at our next Conference 'The Modern City Facing the Future'.

Suggestions

The above is a synthesis of a few of the many stimulating contributions that helped us to arrive at a better understanding of both visions and realities. This was greatly assisted by the immaculate technical infrastructure of the two museums and its operating staff.

Despite the successful program some suggestions for future improvements remain. The decision not to include case studies this time, has resulted in a shortage of practical input in the development of theory. A more structured debate is required, which might be advanced by stronger directives for the individual sessions.

In the future the chairpersons of the various sessions should participate more effectively in the pre-selection of papers. Proposals which offer a thesis, antithesis and analysis – in other words which can be expected to contribute to debate – will be given priority over uncritical show-and-tell presentations. The Scientific Committee will coordinate more closely with the chairpeople to ensure a greater coherence between specialist Parallel Sessions and the Main Theme. Also, chairpersons will be asked to guide and assist the less gifted and inexperienced speakers before presentation of their paper.

The Friday Afternoon and Evening

As usual the Friday afternoon was devoted to the ritual of the DOCOMOMO Council Meeting. A report is included as an appendix at the end of these Proceedings. After an exhausting but effective meeting, we were invited by the Brazilian Working party to enjoy a colourful video as a prelude to the Sixth International Conference in Brasília, in 2000 AD.

One of the highlights of the Conference was surely the fancy dress party, which was a kaleidoscope of MoMo contraptions in the most exotic way.

Concrete shoes, steel sculptural frames, shower curtains, cardboard, textiles and lights were used to represent anything from Lubetkin's Penguin Pool via Sydney's Opera House to Melnikov's House in Moscow. The extremely professional and objective jury consisting of Ralph Erskine, Maristella Casciato and Marina Botta decided to give the prizes for the most functional costume-dance interaction to John Allen and Allen Powers for their hilarious Penguin Pool and to Bengt Lindroos for his representation of the Stockholm Television Tower, the awards for the best conformity between costume and building to Klara Kubickova (Emil Belus' watertower) and Wessel de Jonge (Jan Duiker's Zonnestraal pavilion). Other prizes went to Allen Cunningham for the best performance and to the staff of the Swedish Museum of Architecture for the best fold-up invention.

We all agreed that this party has been a splendid conclusion of a great conference. The Swedish attention to care and detail, the pleasant environment of the two museums and the efforts of the Organising Committee all guaranteed its success. From lectern to kitchen, it has been a treat.

On Saturday, the Post-Conference excursion through Stockholm brought us among others to the splendidly restored Sveaplan School and further to one of my absolutely favourite sites of 20th Century architecture, the Woodlands Cemetery by Gunnar Asplund and Sigurd Lewerentz. After an interesting day most delegates left for their Post-Post-Conference tours to Iceland or Finland.

Eva Rudberg, Jöran Lindvall, Marina Botta and your organising team, thank you for your hospitality, thank you for everything. With this mental boost we can surely face our future challenges in an optimistic way.

Thanks to John Allan, Maristella Casciato, Wessel de Jonge, Hugo Segawa, Arie Sivan and Nic Tummers for their valuable comments.

Hubert-Jan Henket, Chairman

Opening Session

Marita Ulvskog

Hubert-Jan Henket

Hubert-Jan Henket

Marita Ulvskog
Swedish Minister of Culture

Opening of the Fifth International DOCOMOMO Conference: Vision and Reality – Social aspects of Architecture and Urban Planning in the modern movement

Modernism is an architectural idiom, but was also an ambitious attempt to solve contemporary problems. Modernism, as I see it, was a broadly ideological urban planning and social restructuring programme. The social and democratic aspects were central. The modernists wanted to solve the major social problems of their time. They wanted to create a future that provided a new way of organization society. They wanted to put right social injustices, overcrowding and the housing shortage. Providing good homes for everyone was an important democratic issue.

The theme of the DOCOMOMO conference, Social Aspects of Architecture and Urban Planning in the Modern Movement, shows that these fundamental issues are still highly relevant today.

Modernism can in many ways be said to be an anti-historical phenomenon, which began as a clear response to earlier developments. In this way, history provided an important foundation for the criticism on which the modernist programme was built.

Today we are more aware of democratic society's need for historical continuity in its growth. We know that also our cultural heritage has important democratic functions in today's urban planning.

Now, as the twentieth century is drawing to a close, we see, just as in its opening decades, some relatively new social problems that need to be confronted. These include the development of our major cities, environmental issues, and the need to guide society towards greater ecological sustainability. Sound administration of our cultural heritage and gradual renewal over which the citizen is able to exercise a strong influence are also important parts of today's programme for the future. Democracy as a driving force in our vision of modern society is of course as relevant today as it was earlier in the century.

I should like to briefly outline some recent measures proposed by the Government in order to focus attention on modernism's cultural heritage:

We in Sweden have concentrated in recent years on pushing forward architecture and design. The Government has presented an action plan and Parliament has adopted goals for the promotion of good architecture and design. The Bill, which has been given the name *Framtidsformer* (Forms for the Future), takes up, among other things, the importance of realising and strengthening the culture-historical and aesthetic value of existing sites. Our modern cultural heritage naturally has an important place in this objective. What is needed is both awareness of the value and qualities the built environment has, and a willingness to pursue the preservation issue.

The Bill includes a summary of the objectives set by the Government for continued efforts in the field of architecture and design. Some of these are:

- quality and aesthetic values must not be subordinated to short-sighted financial considerations;
- the historical and aesthetic value of existing environments must be safeguarded and strengthened.

The Bill also underlines the importance of international cooperation. Another goal is that Swedish architecture and design must develop in fruitful international cooperation.

Seeing our own development in the light of the work being done in other countries gives us invaluable insights. Open dialogue and discussion is an integral part of how we shape the future. I believe that the DOCOMOMO conference will contribute to an interesting exchange of experiences in the field of architectural policy.

In order to strengthen the work of preserving modernism's cultural heritage and improving our knowledge of modern buildings, the Government has proposed a three-year programme for Sweden's three main metropolitan regions. (The Urban Policy Bill)

The cultural field can contribute in many different ways to good urban development. One of the most important tasks for the cultural heritage sector is the intensification of work in city areas that contain our post-war cultural heritage. The background to the proposal is that changes in urban environments are often of such scope and complexity that culture-historical values are neglected. Furthermore, a large number of the buildings in the cities were built post-war, and knowledge and appreciation of these is far too rudimentary.

It is also the case that the high level of investment in urban building poses an obstacle to the work of properly safeguarding the existing qualities of the city. It sometimes makes more difficult the long-term work of strengthening the qualities of the built-up area. More effort is needed in order to correct this imbalance in with respect to changes in the built environment, and at the same time make it possible to safeguard quality in the metropolitan regions' built-up areas.

In my opinion, this new drive is very much in line with DOCOMOMO's aims.

The Government has also proposed that metropolitan architectural qualities and the design of public places should be highlighted in a special campaign in the year 2001. The Swedish Museum of Architecture has an important coordinating role to play in the work, and will be allocated extra financial resources for the task in coming years.

Modernism's cultural heritage has very strong links with the industrial society. Many of the invaluable sites that DOCOMOMO and others have recognised have their origins in industrialism. Industrialism was behind the whole of social development in the 1900s and, if we are not to loose this

cultural heritage, in a time when change is so rapid, the Government has decided that the cultural heritage sector needs to shift its focus to the preservation of industrialism, both the physical environment and people's memories of that time. A great amount of work needs to be done here, by museums, records offices and the cultural heritage sector, to document and preserve the history of the industrial society. In my opinion this is another important step in Sweden's work to acknowledge modernism's cultural heritage.

Concerning the development of the built environment and the social ambitions of modernism, I know that Sweden's development raised quite a lot of international interest. It is, therefore, particularly exciting that Sweden is now able to host DOCOMOMO's fifth conference on just that theme: Social Aspects of Architecture and Urban Planning in the Modern Movement.

I believe that DOCOMOMO has a most important role to play in the work of developing our picture of modernism. Bringing together experts in the field in this way to exchange knowledge and experience is highly positive.

And with these words I am delighted to declare DOCOMOMO's fifth international conference open.

Hubert-Jan Henket

Chairman of DOCOMOMO
International

Welcome speech

Madame Minister of Culture of Sweden Marita Ulvskog, Roland Silva President of ICOMOS, Jöran Lindvall Director of the Swedish Museum of Architecture, and dear DOCOMOMO friends, welcome to the Fifth International DOCOMOMO Conference in this brand new and beautiful Museum of Modern Art and Stockholm Museum of Architecture designed by Rafael Moneo. Welcome to you all.

Many things have happened since we left each other after the very delightful Conference in Bratislava and Sliac two years ago, splendidly organised by DOCOMOMO Slovakia. Last December all of you who attended this Conference received the Proceedings, thanks to the efforts of Klara Kubickova, by no means an easy task given the political and economic climate in her country. Klara on behalf of us all, thank you very much. You did a great job.

Another important event was the DOCOMOMO Advisory Report for the World Heritage List which we submitted to ICOMOS in December of last year, but apparently was left unnoticed by the Executive Committee of that organisation, until half an hour ago when we handed another copy of our report to Mr. Silva who had not seen it before. This is disappointing because hundreds of DOCOMOMO people worldwide have spent their time on collecting the data and producing the fiches during the last four years, which formed the basis for the recommendations by the ISC on Registers.

This Committee spent an enormous amount of its spare time on this Report. I like to thank you for all the work you did and particularly the ISC/R. I would like to ask Mr. Silva to let us know the reaction of ICOMOS to our Report, for

which we have asked several times in the last nine months.

It might be interesting to note that at the Conference 'Architecture for the 21st Century' in Valencia, Spain last July, for which I was invited by UNESCO to present the results of our World Heritage Report, it was received very favourably. I like to take this opportunity to stress once more that our recommendations for the 20th Century only involve the heritage of the Modern Movement. There are no similar organisations like DOCOMOMO caring for the other movements in 20th Century architecture. It seems to me the responsibility of UNESCO, ICOMOS, the Union of International Architects, and so on to take this matter seriously and stimulate their members to do something about this. In this context it seems rather strange that the UIA has recently started a Committee duplicating the aims of DOCOMOMO, whereas the need is elsewhere. Perhaps communication and fine-tuning is needed. As I have said at many occasions before, DOCOMOMO is very pleased to share their experiences and help other organisations concentrating on any 20th Century architectural heritage other than the Modern Movement.

Quite a few DOCOMOMO publications have appeared in the last two years. Of course there were the Journals edited as always by Wessel de Jonge, the Proceedings of the Curtain Wall Seminar and of the Concrete Seminar, and last but not least the book Modern Movement Heritage edited by Allen Cunningham and published by SPON in London.

I like to welcome three new DOCOMOMO regions. First there is DOCOMOMO British Colombia which will be recognised as a DOCOMOMO Working Party at the Council Meeting on Friday. Then there is a DOCOMOMO delegation from Japan and from China for the first time at our conference, welcome to you both. I sincerely hope the Council will be able to recognise you as an established DOCOMOMO Working Party as soon as possible.

Another important occasion was the move of the International Secretariat from the Eindhoven University to the Delft University of Technology. This move was due to the fact that I have accepted a chair in architecture at Delft last June after fourteen years in Eindhoven. I like to thank the Eindhoven Faculty of Architecture on behalf of all in DOCOMOMO for the financial help they gave us

for starting DOCOMOMO ten years ago and for supporting the International Secretariat ever since.

I also like to thank the Faculty of Architecture in Delft for their generous offer to support us in the future. Our agreement means that we can run the DOCOMOMO International Secretariat until the end of 2002. This also means that Wessel de Jonge and I will be available for the Executive Committee until our Conference in 2002. But than it is really time for a change, by that time we have been your Chairman and Secretary for fourteen years. So may I please ask you to come forward before our Conference in Brasilia in 2000 to be able to hand over our positions in 2002. You only need enthusiasm, stamina and a generous financier, that's all. But don't forget in 2002, Wessel and I really stop.

Apart from all this news there also was a very sad occasion. In April of this year our great friend Christopher Dean died in London. It was Christopher to whom I mentioned the peculiar word DOCOMOMO first in 1988 when we were starting something to keep the heritage and the ideas of the Modern Movement alive. His immediate reaction was, typically Christopher: "great, brilliant, absolutely brilliant". Ever since he has been extremely important in the development of DOCOMOMO. Together with John Allan and James Dunnett, he has been instrumental in the formulation of our Constitution. He co-ordinated DOCOMOMO UK for ten years. He started the DOCOMOMO UK Newsletter, an example followed by many countries. He was a flamboyant participant at our Conference and a dear friend of many of us present here today. In Chris we lost a true humanist and an idealist who knew for sure that the Modern Movement will eventually create a better world for all.

And that leads me automatically on the theme of this Conference. After four Conferences we finally arrive at the topic which was one of the main incentives for us to start DOCOMOMO in the first place: 'The Social Aspects of the Modern Movement'.

Surely discussing the social relevance of the Modern Movement is important today. Let me just mention a few realities. In twenty years time the world population will have boomed to eight billion. A huge migration is happening all over the world rivalling the one 1500 years ago. Two-thirds of the population in the developing world will live in ci-

ties. Will these cities be centres of employment, innovation, creativity and joy or will they be just hell for all. In the developed world we have to find a new equilibrium between the dynamics and blessings of the market economy and social justice, ecological sustainability and emotional needs.

The social, technological and aesthetic innovations of the pioneers of the Modern Movement had both positive and negative effects with which we will be confronted at this Conference. Integrated totalitarian and communitarian experiments of our predecessors and instead offer fragmentation and chaos theories of Post Modernity.

Indeed we have learned from the experiences in the recent past that we cannot simply create society and decide the future but surely we can manipulate the future in the right direction.

Democracy, a fair and emancipated society for all, is worth fighting for.

If we can't accept the totalitarian goals of our predecessors, let us keep their optimism and idealistic approach towards a better future. There must be a way between the strictly communitarian route of the past and the strictly fragmented and individualistic route of today. Let's keep on searching.

And to that I would like to drink. Shane O'Toole may I invite you, as the initiator of this tradition at our First Conference in Eindhoven, to open this bottle of champagne to celebrate that we are still together in DOCOMOMO as a large network of friends and to remind us that we must remain critical about any old and new ideas during our debates in the next few days. Let us drink to a very enjoyable and successful Conference.

Thank you for your attention.

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Main theme: Keynote lectures

Sverker Sörlin

Werner Oechslin

Winfried Nerdinger

Diane Ghirardo

Sverker Sörlin
Winfried Nerdinger
Diane Ghirardo

Sverker Sörlin

University of Umeå, Sweden

The Modern Vision and Its Critics

Well before the modern movement as we usually conceive it, in 1874, Friedrich Nietzsche published his book on the benefit and disadvantage of history, *Vom Nutzen und Nachteil der Historie für das Leben*. According to Nietzsche there was a fundamental conflict between memory and life. A human being who did not possess the ability to forget the past ran a risk of losing both his power of action and his capacity for joy and satisfaction.

What is characteristic of our best and happiest moments, Nietzsche said, is the feeling of being totally disrupted from the past, to experience reality "unhistorically". That is indeed an extremely modernist statement: we are at best when we do away with history altogether.

But on the other hand: without history we would no longer be humans, but just unreflected cattle that are grazing in the field. We can not eliminate history, Nietzsche emphasized. What needs to be done is to make it serve the purpose of "life" and "life ability". To elevate ourselves, act, be brave.

So far Nietzsche. Maybe it is not commonplace to invoke words of the controversial German philosopher in an address to architects and conservationists. Yet I think his words are highly appropriate.

It seems as if the role of history in our time, and in the urban space of our time, has gradually ceased to be one of "life" and "life ability". Instead history has become detached, a composition, an ornamental added value in urban design and development. Designers of urban projects since the 1970's have called upon history but at the same time suppressed the linkages between the past, the present and the future.

The forms of urban design that have emerged in these projects are all too familiar. Trendy 19th century neighbourhoods, made into cosy shopping districts. Harbour front developments, with restored warehouses and neatly arranged bicycle paths among glass- and wrought iron arcades. Theme parks, with cliché environments. Secluded neighbourhoods for the well to do with replicas of past communities.

Virtually every country, however poor or however ridden of the nightmares and contradictions of real history, have adopted at least some of this. A extreme example I myself experienced recently was the harbour front development in Cape Town, South Africa, a déja vu, arranged for tourists and shopping, and, understandably, one hundred percent isolated from the real life and life abilities of the millions of people in the city and the region.

Avoided Modernism

Characteristic of the kind of spatial restructuring we have seen for the last quarter century is how it has consciously avoided modernism. Instead it is a retrospective, nostalgic version of an early industrial aesthetic and scale that has guided architects, planners and designers, and that has apparently also been confirmed by the economic interests that have happily invested in these projects.

In the explicit ambition to "invent" places and create liveability and jack up real estate value there has been a packaging of space and a commodification of history, a history that has appeared in allusions and quotations and reconfigurations, rather than in any concerted effort to use history as a tool for collective understanding and as a fabric with which to organize the city, and its citizens, into a meaningful whole, travelling in common through time.

In an ironic way this development has been prompted by a most unlikely mix of social forces. Urban renewal capitalists, without which none of this would have happened of course, have in practice had support from more and more self conscious minorities and special groups, be they ethnic, sexual, gendered or ideological, that have rightly demanded recognition in the urban space, but who have at the same time propelled distinctions and separateness. Ideological support has come from a postmodern outlook that has hailed the

fragment and denied the possibility of achieving any coherent vision of the city as a common, public space.

An example may illustrate this latter day criticism of modernism, and in Sweden particularly functionalism, that has come not least from the left. In one of his autobiographical volumes, *Childhood* (1982), author Jan Myrdal, son of the economist Gunnar Myrdal and his wife social reformer and diplomat Alva Myrdal, tells an episode

We're around 1930, Jan is just three years of age. He is up early, is alone. Through the large window a bleak light falls in over the shadows of the empty floor. He knows he can run and glide across the floor but he knows he must not. On the cold floor are some chairs. They are cold, too. And he recalls that he had been reproached by his mother once when he had peed on one of them.

The chairs were drawn by Sven Markelius, one of the foremost Swedish functionalist architects. Functionalism, Jan Myrdal wanted to say, was against life.

Eclecticism without Meaning

This episode may seem odd, but it says something both of the variety of modernism that became sort of an official Swedish aesthetic doctrine and an instrument of social planning, and, which is my point here, it says something of the kind of criticism that modernism has drawn in later years.

Maybe that criticism also helps explain the surprisingly quick defeat of modernism. Instead came eclecticism, which would probably have been quite harmless, if the eclectic play with ornament had not also turned into the symbol of the lack of social responsibility.

It is not a far fetched assumption that these eclecticisms will in the near future stand out – at the deserted waterfronts and Saturday morning coffee shop areas – as the monuments of an era when growth and prosperity still grew, OK, but when the whole idea of social justice was emptied from public space and only survived in scholarly journals about civil society in Central Europe and citizenship in northern Italy. These remnants of the last quarter of the last century of this millennium will to posterity seem as much a symbol of failure as the monuments of modernism have done, in the eyes of their critics, during precisely the same period.

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 1. Arthur Lundkvist. Photo Karl Henreid, Kungl. Biblioteket, archives.

Fig. 2. Ludvig Nordström. Photo in Kungl. Biblioteket, archives.

Fig. 3. Sten Selander. Photo in Kungl. Biblioteket, archives.

Fig. 4. Gunnar and Alva Myrdal. Photo: Ursula Assmus, Kungl. Biblioteket, archives.

The history we are getting in contemporary urban space is the one for which Walter Benjamin had his diagnosis ready, when he said that all history writing is a story of bourgeois values; that history represents the posthumous reconstruction of fragmented events according to a completely fabricated story line. Benjamin's approach to this actually unavoidable condition was that nothing should be hidden, that the very confrontation of different styles, epochs and scales was the sign of an urban space that thrived and survived.

Such an approach has been rarely used. Even urban preservationists, absorbed by good intent, have fallen into the trap of overstating the historical and abdicated from the challenge to make the work of preserving into a part of the work to create community.

Part of the problem is probably the growth of city size. Nineteenth cenntury cities could prescribe order and harmony for each section and enclosure of the city. These cities did not care much for justice, but the city fabric was still possible to grasp. Modernism wanted to do away with all that, eradicate injustice and its symbols of history. One of modernism's most articulated spokesmen in Sweden, author-journalist Ludvig Nordström, who had an ardent passion for architecture and questions of hygiene, expressed his wish – modeled on Le Corbusier's – that the entire Old Town of Stockholm should be torn down to the ground to give room for modern housing.

Luckily, his plea was not adhered to, but what has come instead in many Western, and particularly American, cities are the artfully designed enclosures that one by one meet the highest possible aesthetic standards and rearticulates a bygone memory, but as an assemblage can not represent the city's totality. The matrix of the late modern city has disaggregated, it has become something that Stephen Tyler has called the "ultimate thought picture of Western desire".

An Ongoing Controversy

What has this got to do with my theme, "the modern vision and its critics"? A good deal. It is common to refer to modernism as a movement that occupied a certain time period and whose ideals and visions already in the 1960's were overtaken by new ideas. It is also common to juxtapose that version of modernism with modernism's critics of different kinds, critics that in the light of what happened to modernism have later been upgraded to the status of precursors of the postmodern age, or to an insightful avantgarde of the inevitable dialectics of the enlightenment, that Horkeimer and Adorno emblematized, and that have been part of the critical imagination for the last half century.

Not that this juxtaposition is in any sense wrong, on the contrary (I shall myself use it below). But what is perhaps more intriguing is to see the tensions differently. As not just a phenomenon of the past, which is now, with the demise of modernism, something that we look back upon quite unsentimentally, but rather as an ongoing controversy over urban space.

With such an approach we are able to suggest that the kind of critique of late 20th century urban design and restructuring, that I have just expressed some glimpses of, is in fact part of an ongoing discussion about the position of modernism in today's and tomorrow's cities and landscapes. To me this seems also to be of some relevance to DOCOMOMO's mission.

Let me once again refer to Nietzsche. He made his famous tripartite distinction between an antiquarian writing of history, one of reverence to the past, a critical historiography, where the historian judges and rules over the past, and, finally, a monumentalist historiography. The antiquarian established the past as a past, which needed preservation in order to survive. The critical and the monumentalist perspectives sought in the past not only understanding and meaning, but also inspiration to great deeds. History, in Nietzsche's thought, should not be allowed to take command over "life" and "life ability". Again, we should not let ourselves be put off by the organistic ring that these words have. They were part of Nietzsche's language.

I find Nietzsche's distinctions pertinent to our discussion of modernism. It is one thing to say that documentation and antiquarian concerns is what is left of modernism. It is a quite different thing altogether to argue that modernism has left a heritage that has been suppressed by late 20th century design and planning, and that the time is here for a renewal and for establishing real links with our time and the recent past.

In essence this is the distinction between the museum and the living urban organism. Modernism can easily be made into a designated, museological aspect of the urban past, a collection of landmark architectural achievements that are gradually appropriated by guide books and turned into essentials of any city walk, or drive. However, it can also be taken out from the preservationist ethos, and become absorbed in an organically growing city fabric.

Swedish Modernism

Why is it that modernism has been so problematic? What we should not forget is that the term "modern" was for a long time connected with negative associations. Not until the 19th century do we find more positive statements. "Gunpowder and printing tended to modernize the world", Thackeray wrote, approvingly.

This was a view that was adopted by industrialists, but also by the working class movement and social democracy. The critics observed that socialists and industrialists seemed to be on the same side. Planners such as Patrick Geddes, the remarkable Scot, expressed their concern. In Sweden August Strindberg, always a sensible membrane, attacked socialist party leader Hjalmar Branting and his "industrial-collectivist-capitalist-society".

The enthousiasm that modernism evoked was evident. Gunnar Myrdal published in 1932 an article in the radical Stockholm journal *Spektrum* where he argued that traditional ideologies belonged to the past. The new ideology he called "profylactic social welfare policy". It was universalist and transgressed class boundaries. It was best handled by experts.

This new social ideology carries within itself strongly radical, even revolutionary potentials. It is intellectualist and coldly rationalist, while the old, that still reigns, was utterly sentimental. – – – It is to a large degree freed of liberalist brakes on the ideas. – – – ...it is 'matter of fact'. Its romanticism is that of the engineer.

And, he argued, the rationality of science is on the side of the functionalists.

It was certainly not only social democrats who entertained this belief in reason and progress. But it could get rooted there. Its aim was to change the unjust, the crippled and dirty society, that had closed the opportunities to a good and decent life to the majority.

On the other hand we also had the critics. But rather than viewing this as a

clash between persons or political parties we should be open to the ambiguities and to the changes over time. Not only parties and political ideologies had mixed emotions towards modernism, individuals were ambivalent too and changed their minds.

Selander – Anti-Modernist

I would like to draw attention to one person on the Swedish scene that may serve as an example of the ambiguities of modernism. His name was Sten Selander, poet, critic, scientist – he was a biologist and conservationist who late in life received a PhD in botany from Uppsala University – and for some time a member of the Swedish Academy. Selander is now not generally very well known, despite the fact that there has been a couple of recent studies on him. But in his time, especially the 1930's and 1940's, he was widely read and respected.

Sten Selander had a special importance to the Stockholm exhibition in the summer of 1930, a powerful manifestation of the modernist trends that occurred in Swedish society: he had been invited to write the festival cantate, performed by a men's choire from a roof. Selander had won his merits for this honourable mission with his poetry in the late 1920's that described the city as a symphony, as the life form of pluralism and polyphony beyond good and evil, as the song of the collective and the arena of the individual. "I am just one among the thousands/who build the city anew each day/while the hours high as hammer's beat/from the chruch towers ring over the houses", he wrote in *The City and Other Poems* (*Staden och andra dikter*, 1926).

The same idea prevailed in more outspoken modernists. More pointedly was the expression from Artur Lundkvist, author and also later member of the Academy: "Can not the relation value of the asphalt street and the lifting crane be as great as that of a hill full of windflowers?"

The city was "great poetry, that is only waiting for its author", Selander wrote in a programmatic article in the winter of 1930. The organizers of the exhibition that commissioned him at the same time knew that they were getting a writer who also confessed to a lyrical traditionalism and would not bring any socialist catchwords to the solemn event. Nor needed they fear that a sensualist

such as Artur Lundkvist would sing the praise of carnal pleasures in front of the white facades.

Selander was a sign of his time, but he was not, it soon was clear, any orthodox functionalist. Quite soon he got his doubts and when Sven Markelius, Uno Åhrén and other modernists sent out their manifesto, entitled *accept!* in 1931, he took an active stance against. He collected his modernist and anti-modernist writings in a volume, *"Modern"* (1931), where he, characteristically, had put the word between quotation marks.

Selander also raged against technology and the machine civilisation. The technological culture breeds a meaningless hunt for novelty and is pathologically obsessed with quantity – to sell more and more commodities to satisfy imagined needs, underpinned by the grotesque symbolic language of the day, advertising, more primitive according to Selander than cave art. "Every billboard and advertisement is proof of the unnecessity of the advertised". Everything was focused on empty, pointless distractions and libidinous gestures: sport, car trips, dance, sexuality, stock market speculation, popular music – "ever increased mass, ever increased velocity, ever new records"; "humans tear each other to pieces in their struggle for women and money", we get "massacred bodies and suffocated souls".

Inspiration to this fundamental denial came from philosophers such as Ortega y Gasset and, above all, from the american social scientist Stuart Chase, disciple of Norwegian-American sociologist Thorstein Veblen, with his theory of the leisure class, a class that both Chase and Selander regarded with the aristocrat's contempt.

It was not just a matter of emotionally disregarding and denying everything new. This line of anti-modernism also had more subtle dimensions. A concept Selander had picked up from Stuart Chase was "technological fragility". A system society was vulnerable, if only one technical component failed the entire system would fall apart. Advertising and the absurd competition between the producers was ultimately caused by over production, the unsurmaountable masses of commodities that factories produced and that nobody should by, and the struggle in the world markets that sooner or later would result in war. If not – if not – a regress could take place, a return to a national small scale and home-based industry.

Another factor was unemployment. The same factory north of Sundsvall in the north of Sweden that modernist Ludvig Nordström had praised for its potent powers and wonderful smoke plumes, the same factory was visited in the early 1930's by Selander, who was depressed at the sight of the clean, silent and empty building, a frightening pagan cathedral, the ultimate evidence of the systamtic attempt of the machineculture to eradicate every trace of human presence.

Yet another observation concerned waste. In a key that echoed later debates spurred by the Club of Rome report on *The Limits to Growth* (1972), Selander wrote that minerals, forests, and oil would be gone, probably "within a generation". Like critics of civilisation usually do he referred to agriculture as the supreme economy. On the land people always get something back, on the land we live from the net interest of nature's capital and increase the output through cultivation. Industrial technology just exploits.

Ideas like these cirkulated in the intellectual debate at the time. From Olaf Stapledon's dystopia *Last and First Men* Selander got his idea that the struggle of diminishing natural resources would end in global war. Remarkably often Selander talks about how the human race would annihilate itself within a couple of days with new destructive technology such as bacterial weapons.

Behind this pessimism was a philosophy of history. Civilisation had inevitably to undermine the conditions of its own existence and enter a period of barbaric decay. Barbarism would then prevail for "some hundred thousand years" before a new cultural structure could again be erected. And so on, in eternal cyclical repetition.

It is particularly interesting that this gloomy message could come from a person who had only shortly before had an altogether different intepretation of civilisation. Just like Nordström and many social democrats and liberals Selander had discussed how technology brought solidarity and community in the workplace, and how the city was a possible life form. During the 1930's Selander walks full circle back to opposite.

Nordström, on the contrary, had praised factories and the manifestations of modernity. He hated sunsets and false beauty. This is a typical statement:

Grey! That is the modern colour, above all. And there are two things in the modern world, we now living have

grown up with, that more densely than anything else epitomize our mentality: railway bridges and warships, and these two things are consequently the most beautiful that a modern eye can see.

Selander is the opposite. He walks further and further into solemn worship of nature, he becomes president of the Swedish Association for the Conservation of Nature in 1936 and tries actively to stop the *nemesis naturalis*, nature's revenge, that he is convinced will haunt us – if not humanity departs from the road of mischief. When Nordström, and later the group of accept! talked of the "A-Europe" of cities, Selander followed them for some time, until he realized that it was in the rural, retarded "B-Europe" that the eternal values were to be found.

Different Outlooks

It was as nature writer, botanist and essayist that Selander would reach full maturity as an author, and his everlasting contribution to Swedish literature is a volume on environmental and landscape history, *Sweden's Living Landscape* (1955). Selander was a representative of a conservative humanism, that did not have any luck in party politics but was one of the fundamental attitudes to modernity. Other poets, on totally different positions on the political spectrum, shared these values. Harry Martinson, Nobel laureate 1974, had in his writings during the 1930's been almost alien to technology. Nature writers articulated similar concerns, as did films and popular culture. People were forced to leave the countryside for the cities, but in their souls a little prickle of longing for the old was left. Alongside of all this was formed a conservative agrarian opinion that tried to stop or at least alter the ongoing social change.

This being said, however, we should recall that this was not the only possible outlook. There were radicals, such as Lundkvist and Nordström that were ardent spokesmen of modernism. But even more interesting is the fact that critics of modernity could also argue that a time should come when technological

development had reached even higher. Harry Martinson sometimes expressed his hope that the machines of the future would be totally different, "simple and silent, soundless servants who do not attract much attention but makes life better for everyone". Strindberg hade in his day praised the flying moped. Martinson hailed the bicycle, and the helicopter: "I still believe it will wear and tear on the world far less than the automobile. It is the bicycle of the air. It will make it possible for the individual to become airminded in an individal, personal way".

These visions have not lost their importance. In recent years they have become relevant again in the discussion about post-industrial society. Beyond the dirty industrialism an electronic, digital, silent epoch may await us where the big values are produced in silence and cleanliness. Future's landscape of production can come closer to the ideal recreational landscape.

The pastoral need not be nostalgic – it can be directed towards the future. As Harry Martinson wrote in 1939: "We will live freer in the future than now, more mobile, more reasonably". Today we can even talk realistically of environmental modernism.

Nietzsche told us that history should serve the purpose of "life" and "life ability", that it should connect to *now* and *tomorrow*. It seems to me that these are words to recall when we reflect on the documentation and conservation of the modern movement. Urban space at the dawn of a new century calls for a reestablished authenticity. We do not need more museological objects to increase the distance to the past. We probably need a new movement that brings coherence back to the city, that has an active, passionate and responsible view of the past as an integrated part of our common future.

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"Visions': an Empty Expression or a Designed Future? For a return to the Tasks and Goals of Architecture

The world unmistakably and endlessly calls out for 'visions'. However, the title 'vision and reality' seems to evoke – more than anything else – the contrast, the gap, between 'vision' and reality, dream and reality. The frequency with which the term 'vision' is used in politics and in public is to be explained less by any routine in dealing with conceptions of the future than by a lack of opportunities to do so. One is compelled to assume that any awkwardness in this regard enters into a strange alliance with a (generally vague) hope. Often enough, this is due to an expectation fuelled by a general desire for progress, and has very little to do with a 'planning process' conducted with the greatest possible degree of accuracy.

This, at the latest, is where architecture comes in. It has always claimed to be especially competent in anticipating concrete decisions and solutions in its plans. Architecture has never been satisfied with just any kind of 'future', but has demanded a precise method for providing an anticipatory description of the future result: No matter whether it follows the ancient Greek concept of 'ideas ('ideai'), with which Vitruvius summarised the forms of presentation of architecture in ground plan, elevation and perspective drawing, or whether it chooses the modern concept of a 'project' under which the same or varying means of presentation have been subsumed up to the present. In either case,

it is this competence which gives architecture a justification for claiming for itself the status of a 'universalist', in the sense of functioning as a 'planful', forward-looking instance that takes all factors into account, despite challenges from all sides. Should there be any dispute about this, then the reasons must be found.

For the present, we can argue the standpoint – as outlined above – that the calculated anticipation of architectural solutions does indeed constitute the specific competence of architecture. Although this is a well-known fact, it has, surprisingly enough, rarely been investigated in the light of this specific criterion. For this reason, we shall take a look at a few instances from history. In 1615, Vincenzo Scamozzi summarised the anticipatory abilities of the architect under the concept 'praecognitio' – literally: advanced knowledge or anticipatory knowledge – in his L'Idea della Architettura universale[1]. There, he gave a summary – following Vitruvius' view of architecture as being an all-embracing science ("scientia pluribus disciplinis et variis eruditionibus ornata") – in very general terms, of all the knowledge required to practise architecture. However, he also knew – in the best philosophical tradition – how to distinguish between general knowledge that constituted 'art' and experiences related to specific phenomena. And although one could read this into Vitruvius' works, more precise epistemological determinations were still needed. They came about with the goal of limiting a 'vision' to that which really could be planned, and not exposing it to the dangers of arbitrariness and of vague – and frequently – disappointed hopes. This in no way means restricting a vision to quantified prognoses set down in figures. Rather, it is a question of trying to make a cautious distinction: between 'reasonably' generalisable insights, which can be postulated for a future, on the one hand, and overly concrete conceptions, on the other, to which it would be rather absurd to tie a particular future.

With these kinds of distinctions, it is reasonable, for example, to assume that people will still be 'living together' in socially regulated relations tomorrow, and that there also exists a 'general need to do so, especially in built-up areas, in the city, and that there will therefore be a demand for architectural planning. One may also assume, with similar ex-

pectations, that there will continue to be a demand for 'living space'. However, making a forecast of this nature cannot mean wanting to restrictively lay down or exclude this or that particular solution. Furthermore, such an approach would be the very opposite of what human beings need to freely develop their (intellectual) abilities. Scamozzi bases his concept of 'praecognitio' on a sentence from Aristotele's Metaphysics: "ars est universalium cognitio, experientia vero singularium". In this formulation, he gives primacy to 'art' and the 'speculative' – following Leonbattista Alberti's dictum, according to which architecture is basically an intellectual, speculative activity with a decidedly 'teleological' character. On the nature of such speculative thinking in relationship to individual phenomenon, and writing in the best tradition of the aforementioned Aristotelian principle, Nicolai Harmann stated: "Such thought strives for unity, a totality and an overview; however, the expedient approach gives us comprehensible, uniform aspects with playful ease, where the phenomena would otherwise dissolve in a confusing diversity, and where causal thinking would only be able to grasp the individual threads of existing connections."[2]

The predictability that Scamozzi tries to capture with his concept of "praecognitio" thus follows a definite line between the general and the particular. One could show that architecture was well prepared for dealing with this problem from the Humanistic period on. The Modern Age has frequently overlooked this fact, although it is precisely this orientation towards the future which it has inscribed in large letters on its banner.[3] Yet the tradition of the aforementioned positions could have provided enough opportunities for replacing mere 'sloganeering' by a well-founded view of the possibility of 'visions': not diffusely and vaguely, but by accurately sounding out anything that could be predicted about the future.

August von Cieszkowski was not exactly immodest, for example, when he reproached Hegel with not having "succeeded in developing the concept of the organic and ideal totality of history that would include its speculative classification and perfected architectonics". (Incidentally, like J. H. Lambert and Kant before him, he used the term "architectonics" as a synonym for "systematic".) The system of history would

not be completed without the "recognisability of the future". This leads Cieszkowski to enquire after the various conditions and modalities for determining the future. In his view, human beings do this blindly and unintentionally by acting on their emotions. They become "seers" and "prophets". In the path from the will to the deed, Cieszkowski sees the "objective" realisation of a subjectively conscious teleology". Thought, in contrast, (a "reflected, thought-out, theoretical, conscious, necessary" determination) leads to the philosophy of history and generally grasps "the generality of thought, the laws, the essential". At this point, Cieszkowski quotes the Apostle Paul: "This is where the half-measures cease – we no longer perceive puzzles, we see clearly."[4]

But how can we be naïve after all that has been pre-conceived in this manner with regard to 'visions' and the future? Indeed, what has our century – which is now coming to an end – achieved in this respect? The architectural Modernists propagated, demanded and inflated almost everything that appeared by way of concepts and considerations in the above-mentioned explanations. With an eye on past German culture, the Deutsche Werkbund, which was founded in 1907, presented itself being forward-looking, as being consciously 'teleological'. Its declared aim was to 'instil spirit'. The Werkbund invented the 'will to art'. The 'totality' was introduced in opposition to the fragmentation and specialisation of the (naturally-scientific) 19th century. These ideas survived after 1918, too, for Le Corbusier and Gropius, where laws have a very new ring to them, including that of the international standing and objectivity they strove for. And nothing illustrates the teleological ground-tone better than the – euphoric – statements of the time about what had already been achieved. This is evident, for example, when Gropius, in the second edition of his book "Internationale Architektur" (1925, 1927), deduces from the existing images and their successful dissemination that there is a "clearly defined reality".

One ought to call to mind the related illusions to which the Modernists clung. For the present, it will suffice to note what Nicolai pointed out in general with respect to 'teleology', and more specifically concerning the confusion of finality with causality, i.e. "that the first approximation reveals finality to be the inversion of causality". "Dependence of

the earlier on the later" is the new order of succession. In its avant-garde exaggeration, such assumptions frequently became the credo of modern architecture too. In the end, the New is in and for itself; an absence of preconditions, an obsession with originality and the call for a 'tabula rasa' replace a comprehensive historico-philosophical image extended to include the dimension of the future. Whereas history had previously meant change and development, the temporal dimension per se, it was now under attack for being nothing other than the past and, therefore, as something to be overcome. Where people had previously considered it quite obvious that the novel qualities of the New could only be perceived in comparison with that which already existed, the New alone was now sufficient. "Distruggere il passato"; and, complementary to this: "Esaltare ogni forma di originalità anche se temeraria, anche se violentissima"! These were the praises of the future announced to the world as "conclusioni", as "conclusions", by the Futurist painters on 11 February 1910. These conclusions became generally accepted and have been indulged and nurtured by the Zeitgeist all the way up to our present 'medial age'. Originality at any price – whenever bone chooses. Almost everything has been thoughtlessly extolled as New ever since. Outside this commonplace category it has hardly ever possessed any validity. Hardly anybody cares about the general, the valid and laws. And in the process, time not only vanishes backwards (in lost history), but also forwards. The New is that which just happens to be present at the moment, that which is immediately displaced by the next "New" and the fashionable.

Does anyone care about the old virtues – or about the 'time competence' of architecture? 'Planning' sounds outmoded, the future Futuristic, and time can no longer be grasped – and this is just how fleeting and hurried the medial gurus want things to be. The reaction to this 'loss of time' is meanwhile being compensated for by new constructions – including the demand for evidence of sustainability, which is stereotypically imposed on all costly programmes. And quite rightly! But have people forgotten just how important this very aspect has been to architecture during its long history? Or that is it precisely here that architecture must demonstrate its specific competence? If one ignores some of

the short-lived '-isms', which, for several decades now, have even been designed to have short lives – from 'instant' to 'ad hoc' and 'virtual' architecture – one cannot overlook the fact that architecture occupies the time dimension through physical necessity alone, and that it is destined to survive.

It is necessary to return to these themes. And on closer inspection two things become apparent: the unbroken tradition of what is indeed a 'sustainable' approach to architecture and the theme (which has been consciously taken up for the first time) of a materially pre-conceived architecture. Some architects have long since seen their particular responsibility in remaining aware that their buildings cannot be simply abandoned and replaced the next season, like a suit that has gone out of fashion. They are no longer afraid, as in the past, of acting in accordance with the old conception of the eternal value of architecture. People are again taking notice of the "weight", of the physical-material integration of architecture, which an entire school of philosophers considered to be the most durable quality of architecture. This makes it easier for us to understand that the architect does far more than realise accidental products, he creates 'sustainable' structures. And this is where the responsibility begins. And the latter also includes responsibility towards time, which is tantamount to the demand that, in view of the cost and the consequences, the architect must not leave things to chance, but must be looking ahead and planning! 'Praecognitio' as a special ability and virtue of the architect.

What considerations must be made here? The following: that which is 'universally valid' in a reflected attitude to the future must be determined in terms of its contents too. From which preconditions can one proceed? At the beginning of the fourth volume of his De Re Aedificatoria, in the section on public buildings, Alberti states that one of the preconditions of architecture is that it must serve human beings: "aedificia hominum esse causa constituta in promptu est". No more and no less! That architecture has arisen for human beings is asserted as a fact not to be questioned, and as a prerequisite of architecture. What is open to debate is the way in which this can and should be done on the basis of the Vitruvius' model showing the varying degrees of urgency of human needs (from "firmitas" to "utili-

tas" to "venustas", which Alberti replaces by "necessitas", "opportunitas" and "voluptas"). The various public and private purposes can be rendered more precise, and new genres of buildings invented or sanctioned accordingly – as is the case with Francesco Milizia, who distinguishes between buildings for 'public safety', 'public use' and 'reasons of state' ("di ragion pubblica") etc. This could all be safely integrated into an economic system too. In his "Précis de Leçons d'Architecture données à l'Ecole Polytechnique" (1802), J. N. L. Durand sees the two variations of achieving as much as possible with a given sum of money or solving a task as economically as possible. However, it is important to note that Durand is not describing the goal of architecture, but the means at its disposal. For the goal here also remains: "L'utilité publique et particulière, le bonheur et la conservation des individus et de la société". The goals are – more than ever before – identical with the goals of the state and society. Victor Considérant also presented this viewpoint in his "Considérations sociales sur l'Architectonique" (1834). The

vision of the future in architecture is contained in the question of the "destinées humaines". And they harmonise, in turn, with the "loi d'unité universelle". "Les Destinées sont les resultats présens, passés et futurs des plans établis par Dieu, conformément aux lois mathématiques", he tells us, quoting Charles Fourier. This sounds very deterministic. However, one ought to recall that this tendency to follow laws returned at the very beginning of the Modern Movement. For Le Corbusier, harmony was attained "en accord avec les lois de l'univers", by the "loi d'économie" and by "calcul" – for which the engineer stands. To this he added the task of the architect who himself creates an intellectual order from the order of forms ("par l'ordonnance des formes"). Risk and responsibility, liberty and constraint are united here: assigning the duties of the architect, his propensity to "praecognitio".

"Construire est ordinairement un acte de confiance dans l'avenir". This optimism was expressed by the authors who drafted a cultural history of architecture, in 1937, entitled: "les Maisons des

Hommes, de la hutte au gratte-ciel". "Des trésors d'intelligence et d'ingéniosité ont été ainsi dépensés pour concevoir et bâir la maison!" One only need recall this cultural tradition of architecture and decide to follow this path. As the chairman said at the beginning of the congress held under the title "Vision and Reality": "It's in our hands"!

Notes

1 Cf. W. Oechslin, Premesse a una nuova lettura dell'Idea della Architettura Universale di Scamozzi, Introduzione alla riproduzione anastatica, Testi e fonti per la Storia dell'Architettura, II, Vicenza, Centro Internazionale di studi dei Architettura Andrea Palladio, 1997, p. xi ff.: esp. p. xxviii ff.
2 Cf. N. Hartmann, Teleologisches Denken, Berlin, 1951, p. 3
3 Cf. W. Oechslin, Politisches, allzu Politisches... 'Nietzschelinge', der 'Wille zur Kunst' und der Deutsche Werkbund vor 1914, in: id., Moderne entwerfen. Architektur und Kulturgeschichte, Cologne, 1999, p. 117 ff.
4 Cf A. von Cieszkowski, Prolegomena zur Historiosophie, Berlin, 1938, pp. 3,9 and 15 f.

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The Social Concepts of Modernism and their Application in Different States

Probably the most significant demonstration of modern construction between the wars took place in 1927 at the *Weissenhof* in Stuttgart.

Mies van der Rohe had invited 16 representatives of modern building from 6 countries to set up new building forms for the new man of the new age. When the students from Bauhaus Dessau arrived in Stuttgart at the *Weissenhof* they admired just like all the other architects most of all both of Le Corbusier's buildings whereas they derided the two following houses of their director Walter Gropius as barrack blocks. Gropius was terribly indignant at their criticism and explained that Le Corbusier had only built unsocial luxury buildings whereas his two houses, that were to demonstrate prefabrication and dry building methods, led the way into a socially orientated future.

To an extent he was right, because Le Corbusier's houses were by far the most expensive ones at the *Weissenhof*. Social ideas were hardly important to him anyhow. Le Corbusier's houses surely were the most "modern" ones as far as the radical realisation of some formal and constructive principles were concerned, but as regards content he didn't associate any social concepts with them, for he meant to create new building ideas for the upper middle class.

Gropius, however, tried to decrease the construction costs with his new way of building and so create more and cheaper flats for the masses. He didn't quite succeed though because his buildings, just like almost all the other con-

structions of the avant-garde-architects were always much too expensive and could only be afforded by the middle class. But at any rate Gropius had a social concept in mind (similar to Bruno Taut, Ernst May or Otto Haesler): he wanted to build houses like cars on the assembly line à la Ford and by that solve all the housing problems of the working class. Gropius even wanted te become a "Wohnford", i.e. to produce cheap houses for all just as Ford produced cheap cars for all.

When Gropius emigrated to the USA the situation paradoxically changed. His new clients were East Coast millionaires and most of the buildings that he designed until the beginning of the war were luxury villas. Now not only his students in Harvard revolted against his unsocial architecture, but also Martin Wagner, his former comrade-in-arms for a new social architecture in Berlin, accused him of having betrayed all social ideals.

Vincent Scully reduced these correlations together with his criticism of the Modernism to the formula: Even back in Europe modern architecture had only partly shown social contents, but by crossing the Atlantic these social elements had got lost alltogether. With the arrival in America there was only the modern form left (Scully: "A Future For Our Past").

This shows the problematic nature of my lecture's subject because it includes more questions than can easily be answered in such a short time: What are social concepts, what is Modernism, and is there a connection between the two at all and if yes, how is a modern form to transport social contents, etc. etc.

These traps should be kept in mind from the very beginning before we are confused completely in the wrong terms and relations. As formal modern buildings were developed both with passionately shown social pretension and as pure luxury houses, and as Modernism is present in all political systems from communist to democratic to fascist I have limited the subject to house building because social concepts are most tangible here.

The improvement of the utterly inhumane housing situation of the working class has been a social matter of concern since the middle of the 19th century and has constantly been discussed in all countries affected by industrialism.

The manifold architectonic concepts to solve hygienic as well as social pro-

blems from the familistères and phalanstères to the cité ouvrière in Mulhouse to the garden cities needn't be discussed here as they don't have much in common with modern architecture yet.

Social concepts of Modernism and of modern architecture of the 20th century, like egalitarian housing, basic sanitary standard for all, living with light, air and sun, etc. have in fact developed from these discussions.

In 1889 the first congress on housing for workers took place in London, in the same year a law was passed in Belgium on the same matter and until the 1. World War similar laws followed in most industrial countries to improve the housing situation of the lower class.

Law on Housing of the Working Classes (Great Britain 1890), Loi habitation à bon marché (France 1894), legge per le case populare (Italy 1902), and similar laws in Holland 1901 and Sweden 1911.

However, no specific form of architecture can be assigned to any of these laws and their social concepts. Social housing conducted by housing associations mostly followed a conventional architectural frame. Nevertheless some housing concepts like row houses ("Kartoffelrækkerne, Copenhagen 1873ff.) or the open block (Berlin) were developed which later are taken up by modern architects.

Due to the structure of power and society the principle of non-intervention was applied in all industrial states until 1914 and the state only reluctantly intervened on the private property and housing market. Therefore the type of building activity that could be described as social housing, i.e. state-subsidized housing, was comparatively insignificant in comparison with the total volume of building (between 0.5 and 4 % before 1914).

The deciding change came like many times before in history with the war. In 1914 the belligerent powers froze the rents in the course of an immediately established state control of housing in return for army service.

Because homes were rarely built during the war this intensified the serious housing shortage and led to an increasing demand for homes for soldiers who went to war for their country. In 1918 Lloyd George started his election campaign with the motto "homes fit for heroes", and already in 1919 the new liberal British government passed a housing act.

In 1918, the last year of war, a housing act was passed in Germany to subsidize homes for soldiers returning home from war. In Belgium a low cost housing act was passed in 1919, and in Holland they started an extensive state-subsidized housing programme in 1918, that in 1919 covered already 80 % and in 1920 87 % of all the newly built homes.

Holland and especially Amsterdam and Rotterdam, where Michel de Klerk and J.J.P. Oud worked, became the Mecca of all the socially committed architects shortly after the war. But as early as in 1921 the Dutch social housing programme was cut back on political reasons and from then on sank rapidly over the years.

In France they passed the "Loi Loucheur" in 1920 which was supposed to provide 200.000 habitation bon marché per year, a figure, however, that could never be achieved. Only with a new French government a short-term social housing programme was established with the "Loi Loucheur" from 1928 (from 1919–1939 only 13 % of the new houses were state-subsidized in France). Thus the consequences of the war brought the new laws for social concepts in the housing programme into action.

This new intervening position of the politics was followed by a newly structured loan and mortgage allowance which again led to the foundation of countless housing cooperatives and paved the way for a new form of social housing for the masses.

This shows that first there had to be a legal establishment of the social concept which is then followed by modern architecture.

Remarkable is that apart from the social concept of an egalitarian and hygienic housing programme at the beginning of the twenties a sociological concept came to the fore with a residential building programme that strengthened the solidarity of the workers.

This is mainly achieved by housing blocks where the workers join together and at the same time fence themselves off against the outside. These blocks usually develop in communities with a socialist or social-liberal government, e.g. in Amsterdam (Eigen Hard), Rotterdam (Spangen 1921ff., by Michiel Brinkman and Oud) or in Kopenhagen (Hornbackhus 1924, by Kai Fisker), and especially in Vienna, where the social-democratic council raised taxes from the house owners which are then used to carry out the most extensive housing programme in an European city of the twenties.

Almost 90 % of all residential homes in Vienna between 1919 and 1933 are completely financed by the state. Until 1933 70.000 housing units are built, all of them superblock housing estates, mostly designed like self-contained fortresses (Karl-Marx-Hof). The concept of these solid constructions is then continued by some housing associations in other communities, eg St. Andrew's Gardens in Liverpool, or the housing blocks ("Arbeiterhöfe") in some industrial towns in south Germany.

The social concept of an egalitarian dwelling with equal flats and sanitary standard for everyone has been realised there, the architectural form being at best moderately modern, though. The concept of equality and solidarity is more important than formal means of identification (like flat roof and white dress).

Typically, perhaps the most famous housing estates with such a symbolically social design were erected by two politically and socially committed architects: Maurice Braillard in Geneva and Bruno Taut in Berlin-Britz.

Braillard's *maison ronde*, with a semicircular groundplan and a socially organized outer area, was a symbol for a new community. In the end, Braillard wanted to restructure the whole of Geneva into a "democratic city" together with the social democrat Léon Nicole, who was in the city council of Geneva with him.

The housing estate in the shape of a horseshoe in Berlin-Britz (*Hufeisensiedlung*) by Bruno Taut and the future social-democratic city councillor Martin Wagner is even more heavily symbolic.

The estate fences itself off with a closed red wall, the "Red Front", against the bourgeoise properties opposite, with only one main entrance to allow a glance at a new world. With one single big white arch all homes are linked together, as a symbol of the cooperative future. As a result the picture of this housing scheme was used by the social democrats of Berlin in their election campaigns.

However, residential areas of this kind with a social concept are – with the exception of Vienna – rather seldom and usually only realised by local councils rather than by the state. The USSR is the only exception here, where architects design completely new forms of living and housing for a new communist society with community houses which, however, are seldom brought into action.

The social concept of an egalitarian and hygienic housing programme for the masses was then in the second half of the twenties combined with aspects of the building and construction industry.

The reduction of the flats in size was supposedly "compensated hygienically by enlarging the windows" (Gropius), and the original egalitarian concept of stringing together equal housing units to a row of houses in linear blocks allowed rational economic construction along the track of the crane.

This combination of social, hygienic and economic concepts was on the one hand decisive for carrying through "Zeilenbauweise" (linear blocks), but on the other hand the stress on rationalisation led to free applicability of modern forms in almost every political system.

The white and flat-roofed row houses in linear blocks become a trademark of modern architecture, and at the beginning social concepts are surely combined with them, e.g. in housing estates in Frankfurt, Berlin or Karlsruhe. This concept which was tried and tested in German democratic communities – realised by raising taxes from house owners – spreads to a series of other democratic countries in the 30s (Czechoslovakia, Hungary, England, Switzerland, Scandinavia: cf. Hjorthagen in Stockholm), but is also copied in fascist Italy (cf. Olivetti-Housing in Ivrea).

That brings us to a deciding problem: the social concepts of social democratic workers' housing blocks or of communist community houses were quite strongly connected with an ideology. However, linear blocks as an abstract or economic housing concept could be adopted by every political ideology with totally different social concepts. Thus the modernists total vision of a better future could be adapted to totalitarian visions, if it was based only on economic concepts.

Sun-orientated rows of houses with equal types of flats and sanitary standard are used in the 30s for conservative or social democratic communities, for communist new towns or for residential areas in fascist Italy.

In fascist Italy some enthusiastic fascist architects of the *razionalismo*, who were at the same time members of CIAM (Terragni, Pollini, Vietti), tried to realise the concept of the *case populare*, the state-subsidized homes. In Milan for

example, where Pagano fought for a social housing programme with the magazine Casabella, the *quartiere fabio filzi* was erected from 1936–38 with 32 rows of houses in a series production.

Although throughout the country modern rows of houses in linear blocks were erected with standardized hygienic homes, these were no egalitarian residential areas but were graded according to the social classes. Exactly distinguished by the income of their inhabitants they ranged from modern luxury residences in the centre to cheap dwellings in the outskirts of towns or cities with flats where the principle of *casa minimum* ("Wohnung für das Existenzminimum") was perverted into *casa minima spesa* (i.e. the cheapest housing).

The same is true for urbanistic concepts: Le Corbusier's *ville radieuse* was originally designed as a town concept in a democratic state, but then he himself offered the model to Mussolini in 1937 to build a fascist centre in the occupied Abbessinia, and the Italian admirers of Le Corbusier, Albini and Gardella, designed – according to his theories – in 1938 a "Milano verde", a new town for the Italian fascism. On the other hand, Le Corbusier's communist student René Braem from Belgium, copied the ville radieuse town model to create the ideal communist community town. So once again we see that the same modern form or concept can be adapted to every political system with completely different social concepts. Some elements of modernism like rationalization could be adopted even by Nationalsocialism.

National socialist Germany did not support mass building programmes at first, partly because the preferred single houses were connected with their blood-and-soil-ideology, partly because the state finances were exclusively concentrated on arms production.

After the first "Blitzsiege" Hitler dictated in November 1940 an enactment on "social housing" (the german term "Sozialer Wohnungsbau" was coined by Hitler!): after the so-called "Endsieg", the ultimate victory, 600.000 homes per year were planned in an enormous building programme. The generous lay-out of the flats was designed with conservative forms of building, but because of such a vast number of flats the methods of rationalisation, standardization and prefabricated building developed in the 20s were taken up again and intensified.

In the middle of the war German architects developed perfectly standardized flats, rows of houses were to be erected along the tracks of cranes again, and Ernst Neufert, the specialist for standardization in the office of Albert Speer even designed a building machine that should produce houses like from an assembly line. In fact this would have been the realisation of Walter Gropius' dream of a building production à la Ford.

So the modern concept of rationalisation is systematically continued in Nationalsocialism but the social concept of Modernism of an egalitarian housing scheme for the masses is perverted into big flats for the future "Herrenmensch", the member of the master race in Europe. So, just to look at modern forms and social concepts is not enough, one has to see them in the whole political context.

Thus the war accelerated rationalisation and standardisation, but also by destroying European towns and cities gave way to modern reconstruction. After 1945 a general convergence of social concepts and modern building forms is evident. The state-subsidized social housing scheme is determining for building activities in all western European countries and at the same time a modern use of forms is generally achieved. This development will not be regarded any further, because a look at the use of social concepts in post-war housing programmes could only show subtle differences of state support in different western countries.

However, if you look at the way how the social concept of Modernism was spread throughout Europe after the war with mostly uniform and banal modern forms one may doubt that there is necessarily a connection between the two.

Bruno Taut, the most famous German architect for social architecture in the 20th century, explained already in 1929:

"The most important criterion for an architect is not the question what a house should look like but to make sure that people feel comfortable in it." One should write this sentence at the entrance of every architecture office.

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Contradictions & Achievements of the Modern Movement in the United States: 1932-1950

When Henry Russell Hitchcock and Philip Johnson wrote the catalog, *The International Style,* for an exhibition of modern architecture at the Museum of Modern Art in 1932, they presented architecture as the embodiment of style, uncoupled from any other issues.[1] In their catalog and the exhibition itself, very little architecture built in the United States could, in their view, be counted as modern. In fact, only seven projects in the US were included: Richard Neutra's Lovell House (1927), with its flat roof, slender steel frame and free plan – passed muster – but Neutra was only nominally a US architect at the time; he was an Austrian immigrant to the US. Hitchcock and Johnson ignored the work of Irving Gill, to whose La Jolla Women's Club (1914) and Dodge House (1916) both Neutra was indebted. The work of few architects trained in the US seemed acceptable to them. Raymond Hood's New York *Daily News* skyscraper was one of only two skyscrapers included in the exhibit, because of its white piers shooting straight up to a flat roof (even if they felt compelled to define it as "less pure" because of the presence of ornament). The PSFS building in Philadelphia by George Howe and William Lescaze (1931) made the list, although the authors criticized the relation of base to tower.

Although they illustrated the Standard Oil Gasoline Stations by Clauss and Daub and a tiny private study and library in New York by Mies van der Rohe, the work of Frank Lloyd Wright was not, and without explanation: no doubt Wright's palette of materials, such as that from his most recent work in Los Angeles, for example the Barnsdall House – that is, his preference for wood, stone, various types of cement block – simply made his work unacceptable. The buildings that were shaping the New York city skyline – the Chrysler building, by William van Alen, for example – were excluded from *The International Style,* as were the skyscrapers of Chicago, not to mention the factories of Albert Kahn: all of which are now considered major exemplars of the Modern Movement.

I refer to this catalog and exhibition because of its significance for the introduction of the Modern Movement in the United States; precisely for its lacunae, it was oddly predictive of what would follow in the United States, that is, the fate of the modern movement. To be sure, there were so many positions, political and otherwise, within fledgling European modernism that it was difficult to sort them all into a brief, coherent statement that also linked up with the buildings that the architects had actually produced. But Hitchcock and Johnson never tried: they outlined the features of the new architecture succinctly: an emphasis on volume, not mass (what we hear described today as 'space', that handily neutral container), regularity, not symmetry; proportions and sleek technical perfection rather than ornament; a preference for elegant materials that included especially those of the machine age.

Only indirectly did they address social issues; their attention focused on formal, aesthetic matters. On the formal aspects, the differences between buildings such as Peter Behrens' AEG Turbine Factory (1909) and Walter Gropius and Adolf Meyer's Fagus Factory (1911) are typical of the transition to what Hitchcock & Johnson considered a pure modern movement: the former combined elements of the classical temple with a modern industrial aesthetic for an industrial giant, while the latter abandoned the masonry corners and vaulted interiors of the AEG as well as all references to classical architecture in favor of a post and beam construction system with flat roof and on at least one elevation, open, glazed corners. The architects who considered themselves modernists subscribed to a wide range of ideas about architecture, including at times political considerations, such as Giuseppe Terragni's attempt to define an architecture for Mussolini's fascist Italy, or Ernst May's program for housing in Frankfurt, but in the most general terms, and for the purposes of this talk, the principles I have outlined constitute the unifying features of European modernism. Although it varied in the interpretations of architects from different parts of Europe – Russian constructivists such as El Lissitzky, Dutch architects such as J.J.P. Oud, Johannes Duiker, the De Stijl group, Gerrit Rietveld, Swiss architects such as Hannes Meyer and Emil Roth, Italians such as Giuseppe Terragni and Luigi Moretti – the Rationalist Movement, with its sleek, unadorned and apparently white surfaces became the aesthetic commonly associated with European modernism from 1910 forward.[2]

What Johnson and Hitchcock thought they saw in the European exemplars they chose was not ideas having to do with social and political considerations, but a "style" that they believed was destined to become – indeed, already had – "international." They therefore chose to illustrate only buildings that conformed to the principles of this new style – belying the subtitle of their catalog, "Architecture Since 1922," indeed, their text was far from representative. It hardly bears repeating that they got it all wrong: instead of studying the past, or even the present, Hitchcock and Johnson became futurists, believing that they could anticipate the directions that architecture would take – and about which they were all wrong. Indeed, their focus on style did constitute a political position, as I have argued elsewhere.[3] This much is probably obvious, but more significant are the questions: exactly *what* did they get wrong, and *why?*

Oddly enough, it may be easier to address the second question first: they got it wrong because they looked exclusively at style, they ignored the economic formations and social arrangements that were then undergoing transformation, and in particular, they ignored what these changes meant for architecture and for architects. With their patrician views of architecture as art, architects as the geniuses who would give shape to the built environment and thence to the world, neither man was able to escape his class or education.[4] What they failed to recognize was the power of economic arrangements then coalescing that fueled the construction of the built environment, and how buildings such as skyscrapers,

for example, especially as developed in the post war period, represented a far more *real* international architecture, the one that would come to dominate the skylines of cities from New York to Bombay, Singapore to Dallas, Kuala Lampur to Houston. Commercial sky-scrapers before World War II drew their forms not just from the inventiveness of architects, but from zoning laws, the cost of building, and the prospects of rental income.[5] The tower office buil-ding, particularly during the post-World War II period in the US, rapidly beca-me emblematic of what it meant to be modern itself: these buildings, the pro-ducts of developers, corporate bodies and politicians, and over which archi-tects have very little control, coopted the vision of what it meant to be mo-dern, and certainly bore little if any re-lation to the sleek little houses of Eu-ropean modernists. The factories that Hitchcock and Johnson ignored, such as Albert Kahn's Ford Factory of 1922, became the prototypes for most factory construction, and indeed, for suburban low-rise office buildings.

A second issue which they comple-tely ignored was housing – not for the rich, which they covered amply, but for others. While they published several housing projects, including several apart-ment blocks at the Weissenhof Seidlung in Stuttgart of 1927, they did not grasp what this type of housing meant in Euro-pe. The tradition of subsidized housing, already well-established in many Euro-pean countries, was completely foreign to their American audience. With the Depression in full swing and a real fear of insurrection or revolution throughout the 1930s, the United States government pursued several strategies for providing low-cost housing to low-income citizens, including rural resettlement communities for subsistence homesteads, urban low-cost housing under the auspices of the Public Works Agency, and others.[6] Ne-ver more than a drop in the bucket of the actual housing need, all of these pro-grams suffered from sets of attitudes and economic arrangements that impeded any significant accomplishments. Hous-ing such as that of J.J. P. Oud in the Netherlands, compact apartments in den-se housing estates, responded to speci-fic historical traditions in building and in social and political arrangements, none of which had parallels in the Uni-ted States, at least outside of New York.

One typical housing project from the late 1930s, a specific example of the

Modern Movement as it was translated into buildings and spatial practices in the United States, in one city, Houston, Texas, illustrates how the shaping of an American city in the years from 1939 forward according to the tenets of a "modern" International Style confirmed in built form the city's legacy of racism, classism, and segregation. Houston is situated in south east Texas, about 50 miles from the Gulf of Mexico. The city itself covers 596 square miles, with a city population of 1.8 million and in fact lies in three counties (Harris, Fort Bend, Montgomery) – leading to coordination problems of no mean size on issues of common concern – and the greater Houston area measures 8778 square miles.[7]

For the the city's built environment, the influx of wealth from oil through most of the twentieth century and steady growth until 16 years ago, led to the rapid expansion to 8778 square miles of an area known as the 'Houston met-roplex'. Houston's growth took two forms: horizontal, as in the seemingly endless sequence of new suburbs that were developed after 1950, and verti-cal, as in a skyscraper center. But such expansion, even if it appears mindless, never really is, operating as it does ac-cording to clear principles and to clear public policies. As World War II drew to a close, US politicians anxiously spe-culated about the prospect of a post-war depression, of the sort that follo-wed World War I – and which was succeeded by a spending binge of mo-numental proportions during the 1920s and a depression of equally monumen-tal proportions during the 1930s. They developed a series of programs they hoped would stave off a depression, everything from the GI bill (low-interest loans and grants to allow returning ser-vicemen to enroll in higher education), to VA loans, low interest house loans for veterans, and finally to FHA (Fe-deral Housing Administration) guaran-teed loans to others also to buy homes – only single family homes, mind you – and enormous spending in the form of the Federal Highway bill on freeways throughout the country. According to terms set up by government administra-tors, the Housing program was success-ful; between 1940–50, home ownership rose from 43.6 to 55 percent of all fa-milies; then to 61.9 % by 1960, and to a peak of 65.6 in 1980. In 1990 this per-centage dipped to 64.2 %, and 63.9 % by 1993, as housing prices soared.

But the entire process was seriously racist and classist: the tax deduction for housing interest benefitted the wealthiest, and indeed, in 1991, of 59.8 million homeowners, 90 % were white, 8 % African American, and 4 % Hispanic.[8]

In part as a result of these and other carefully targeted expenditures, the end of World War II initiated a long period of economic growth, with pent up de-mand that predated WWII but was cer-tainly exacerbated by the absence of even small luxuries during the war. In-stead of a recession there was a boom; wartime industries shifted to consumer products, and single family houses now became accessible to a wide swath of the populace, precisely because of tho-se low-cost mortgages backed by the US government, which in turn led to the phenomenal growth of suburbs. Subur-ban office parks benefitted over the long term from the availability of a relatively skilled but relatively inexpensive labor pool, especially women and young peo-ple of both sexes. Suburbs became ci-ties, siphoned off the property tax base of older cities, and shopping centers and office parks, both located far from old urban cores, sealed their fates, ero-ding their property and sales tax bases even further, and slowly strangling them; downtowns in the 1950s and 1960s slid alarmingly and apparently inexorably further and further into decay.[9] City lea-ders, along with developers, chased down ideas to reverse the decline and to reinvigorate urban cores. Most of the downtown developments from the 1950s to the 1990s were driven by the needs of downtown real estate interests, who responded to the fact that suburban development was drawing business and taxes from city centers. Their response was to clear downtown land, offer in-centives to developers to build and to businesses to relocate or remain there, and to generate projects for festival mar-ketplaces, convention centers, sports facilities, museums and other large pro-jects – all of which also required new hotels, restaurants, parking, urban shop-ping centers, etc – that were to draw people away from the suburbs and into the city, at least for a day, to spend their money. Ultimately, city leaders rea-lized that they would have to encoura-ge downtown living if cities were to become fully healthy again.

To accomplish this, Houston, like many other cities, established massive "enhancements" for developers to build in the downtown area, and for busines-

ses of all types to locate there. Part of the incentive for developers was the ability to maximize the rentable or saleable space of a site by building up, by building skyscrapers. In the first phase of the boom, skyscrapers essentially based on those principles popped up between the late 1950s and 1970s. Although the tallest building in Houston in the 1950s was 24 stories, by 1960 this limit had easily been topped by complexes such as Houston Center, which constitutes a 'city within the city,' created in 1970 with the secret purchase of 33 blocks of downtown; it spans 75 acres and like the rest of downtown Houston, its skyscrapers are linked by covered overhead passageways and underground tunnels, all policed and controlled as private space.[10]

Most of this story is familiar, in one form or another, and most of this sounds rather straightforward, almost clinical in the clarity of its symptoms and the apparent simplicity of the cure. But of course, it is not: in order to make land available for sucessful commercial developments, it had to be emptied of whatever was already there, which usually meant smaller and older office buildings as well as low-cost housing stock, usually old and ill maintained, and the low-income people who lived there. This brings us back to the story of Houston: as I recounted it earlier, I made no mention of race or class, but responses to those two issues have been determinant for the shape of the city. When the Allen Brothers platted the city in 1836, race was only an issue insofar as black Americans were expected to be slaves. When Texas was admitted to the Union, it was as a slave state. Following the civil war, however, and the end of slavery, free black families moved to Texas to live and work, including to Houston.

Not allowed to rent or buy in the city, which consisted of what is today's downtown, they settled to the west, along the southern banks of Buffalo Bayou, in a small community that came to be known as Freedmantown. The new residents built a diverse group of Southern urban vernacular houses, including 'shotgun' houses, wood frame with wood siding, known as shotgun because of the plan – a single hallway that ran from the front door to the back, with rooms that opened to one or both sides. As the rest of the city grew, this area, now known as the Fourth Ward in Houston's ward system, became the feeder quarter for other black neighborhoods.[11] Newly arrived blacks from elsewhere often settled here first, paying the cheapest rents until they could assemble enough money to move up the ladder to the Fifth Ward, with a higher standard of housing stock, schools and so forth. It has therefore been a low-income area almost from the beginning. But the black families who left often maintained their connection with the Fourth Ward because parents or other relatives often still lived there, and they returned to the ward's many vibrant churches on Sundays for services long after they had moved on to other wards.

As the city grew, what had been a marginal area quite separate from downtown gradually became a small enclave within the rest of the city. In the early 1920s, a parkway was built along Buffalo Bayou to connect the new civic center being planned in the downtown with a new, model garden suburb being planned further to the west, beyond Freedmantown, River Oaks. When the roadway was built and the banks of Buffalo Bayou turned into parkland, Freedmantown suddenly came into visual prominence. And what was visible was not palatable to Houston's ruling elite. Between 1908–1917, the San Felipe district of Fourth ward was the city's red light district, an area known as "the Reservation," which was the city's center for legalized prostitution.[12] In the post-war era of temperance and prohibition, such areas became embarrassments (New Orleans' prostitution district, Storeyville, was leveled at around the same time), so legalized prostitution was terminated at the Reservation as well. But the black community remained, in their small houses, visible to downtown workers and River Oaks residents. One could reasonably and acurately characterize the succeeding seventy plus years as a series of sustained efforts to eliminate the Freedmantown district of the Fourth Ward.

During the Depression, by contrast with the post-WW II period, consumption fell massively, so Americans were treated to the spectacle of starvation in the midst of plenty – ie, discarding masses of agricultural products in order to keep the prices up, even while people were starving, or, in the words of a subsequent historian, the US government dealt with the problem of want in the midst of plenty by doing away with the plenty. It is clear to subsequent historians that the Depression constituted a mas-sive crisis of capitalism that only wartime mobilization ended. The Depression hit Houston severely, and the black community with particular force. Many homeowners in the district were forced to trade their homes to neighborhood grocers (usually Italian) in exchange for food; they then became renters. When the federal government passed the National Housing Act in 1937 and created the US Housing Authority (USHA), the first site designated for the twin objectives of slum clearance and new low-cost housing was the San Felipe district of the Fourth Ward, the oldest and poorest part of Freedmantown, and the one closest to the new civic center bordering Buffalo Bayou: 37 acres of real estate already mostly in the hands of white owners. The government purchased the first tracts of land from willing owners, and condemned and then appropriated the remaining land through eminent domain procedures. Projected as a whites-only project, San Felipe Courts was planned to be the first white enclave in the African American district.[13]

The Modern Movement figured prominently in the first phase of this effort. Designed and built between 1939 and 1944, the thousand units of San Felipe Courts were designed according to principles of modern movement architecture and planning: non-combustible, well-ventilated superblocks with lots of green space, playgrounds, separate circulation for pedestrian and automobile traffic, community center and administration offices for the Housing Authority of the City of Houston (HACH). Twelve three-story buildings are laid out in a *Zeilenbau* configuration – parallel rows of slender slabs, the long sides facing north and south so that all units open through the entire width of the block for maximum ventilation, and framing long garden courts; on either side are the clusters of two story blocks, also configured in Zeilenbau fashion, with two corridors of open space separating the two sections and used for playgrounds. Traffic and parking is on alternate courts from a ring road surrounding the entire project.[14]

Designed by a consortium of twelve Houston architectural firms, the housing is of reinforced concrete frame construction, with exterior curtain walls of brick and interior walls of plastered tile and partition walls of plaster on metal lath. Slender concrete canopies cantilever out from second floor beams to provide sun

and rain protection above doors and windows, and together with the fenestration pattern, accentuate the horizontality of the units. The windows are steel casement and doors are solid-core wood, and all came originally with wooden screen doors. The architecture and planning of San Felipe Courts recall three Dutch projects of the 1920s – J. B. van Loghem's housing at Betondorp in Amsterdam (1923) J. J. P. Oud's Hoek van Holland workers housing (1926) and the Kiefhoek estate in Rotterdam (1929), the latter of which was extensively published in the US architectural press in the early 1930s. The industrial severity of Kastner and Stonorov's Mackley houses in Philadelphia and the Williamsburg Houses in Brooklyn by William Lescaze (1938) is entirely missing from San Felipe Courts. In addition to the overall design, the buildings at San Felipe Courts were widely acclaimed for the detailing and the solid construction both when they were built and later.

When war broke out, the first phase of San Felipe Courts was nearly complete, so the project was designated Defense Housing to accommodate workers who had transferred to Houston to work in various defense industries. Just like the original project, the housing was not destined for the former residents, the black community, but for whites only – public housing of all types in the US continued to be segregated until 1964. While the buildings of San Felipe Courts were under construction, a significant group of buildings was being erected along Allen Parkway, including Jefferson Davis Hospital (12 stories, 1937), the first suburban department store in Houston, the Sears Roebuck store at Montrose & Allen Parkway, a high school and several publishing companies. San Felipe courts was designed to eliminate a "slum" neighborhood and help tie River Oaks and the other buildings along the Bayou to the city's civic center, then under construction. Notably, middle and upper class development has been largely westward moving during this century; San Felipe Courts was then an early attempt to breach the solid black ownership of the area.

Even though Fourth Ward residents bitterly opposed the removal of black residents to make way for a whites-only project, the project sailed on nonetheless. Only with the passage of the Civil Rights Act in 1964 were black families allowed to move in – and even then, HACH only nominally integrated the

project until the early 1970s, when forced to do so by HUD (successor to the USHA).[15] As black families moved in, white families quickly moved out and others refused to move in. Only when the project was largely black, in the mid-1970s, did proposals for demolishing it begin: HACH director Robert Moore wrote to HUD in 1977 proposing that it be demolished: "[Allen Parkway Village's land values] have escalated beyond a cost where housing is the *highest and best use* [my italics]." I mentioned earlier that the little shotgun houses of Freedmantown were an eyesore to civic leaders, hence they built San Felipe Courts. It is important to note that downtown workers in the city's skyscrapers who arrived at work via Allen Parkway disliked the public housing project no less than their predecessors had disliked Freedmantown. But by 1980 it had become clear that not only did APV residents occupy land that would be more profitable for commercial development, as Moore noted, but that there was a second, unstated concern: a community of low-income blacks would undermine efforts to lease out commercial space, rent or sell residential space, or even to attract customers for offices or stores that might be built in the area.

But equally as significant as the pressure to remove black families from near the downtown core was a second issue: the appropriateness of such a project in the context of Houston at all. Even for the poorest Houstonians, small single family houses, or at most duplexes, represented the standard housing tradition; a housing type such as that of San Felipe Courts was clearly a foreign import. Not only did it ignore local housing traditions, it even completely disrupted the grid pattern, inserting this superblock into a part of the city that already had narrower street widths and smaller scale than the rest of the city. Ultimately, the very architecture made it more vulnerable to efforts to destroy it on the grounds that it was an eyesore.

What followed were nearly twenty years of secret meetings and negotiations with developers; artificially devalued land prices; a failure to do any maintenance work on APV; an initial infusion of Vietnamese into APV to dilute the Black presence, and thereby, HACH hoped, reduce opposition to tearing it down; refusal to fill vacant units, but rather to board up vacant units facing Allen Parkway as part of a campaign to give passersby on Allen Park-

way the impression of a slum, then to declare it "blighted" and finally to destroy it.[16] There were even insinuations that it was a crucible of crime; but even though some New Deal era public housing projects have had major problems with drugs and crime, that was never the case for APV: until the day it was torn down, it had lower crime rates than the rest of the city. The story of Allen Parkway Village is an appalling story of racism, greed, the collusion of developers, architects and politicians; of looting public funds, criminal activities and criminal conflict of interest – but most important, intense personal pain for APV residents forced to move. In June 1996, 700 of the 1000 APV units were demolished – not because of structural problems, but because of racism disguised as "urban renewal," just as it had been in the 1930s, 1950s, and 1960s. The remaining families were moved far out of the city, some to one of the projects where Freedmantown residents had been moved in 1940 to make way for San Felipe Courts: in both cases, mass low-cost housing was to be built out of the way of new development, at cheap prices, and poor people, especially minority poor, were to be moved away and out of sight of middle and upper income groups.

We return, then, to Hitchcock and Johnson and their characterization of the Modern Movement in the U.S. The style, the formal features, of this European architecture were appealingly modern to them, and they presented it as such. The architectural profession adopted it as they offered it: a set of formal arrangements that constituted a so-called avant-garde but which represented the interests of a particular class (the class of which the overwhelming majority of architects were also members) regardless of whether it related at all to housing traditions – and therefore expectations – in this country. If US architects ignored the social and political aspects of this new architecture, what they did adopt from the European modern movement, then, were two principles: the principle of *existenz minimum*, or the bare minimum needed in a housing unit to afford a resident the possibility to live decently, and the notion of crowding tenants into dense blocks or highrises, and the rejection of ornament – not only because of the new aesthetic ideal, but because avoiding ornament on public housing was less expensive. Therefore architects enthusiastically par-

ticipated in the slum clearance and urban renewal projects, adding the prestige of their profession to the deck stacked against the poor. They thereby gained many opportunities to design new buildings in the modern style, and with all of the consequences attendant on that: a systematic lack of concern for neighborhoods, for streets, for social arrangements, for housing traditions. Inserting housing projects such as San Felipe Courts into American cities completely ignored the fact that the origins of such housing in Europe depended on a broad consensus on one fundamental issue: that every citizen merited a decent residence, and that it was society's responsibility to see that they received it – a consensus thoroughly absent in the United States. Swept up in the fervor of creating a new world according to formal arrangements imported from Europe, they failed to consider the impact of this vision on others, on those destined to live it. The Modern Movement vision lasted until well into the 1970s, when changed economic and therefore political circumstances led to different sets of formal criteria being adopted.

As the residents of APV recognized nearly two decades ago, as APV went so went the rest of Freedmantown, or the Fourth Ward. And indeed, once demolition was actually completed, into the succeeding vacuum stepped another generation of developers eager to move yet another group of low-income blacks from their homes, many of whom are elderly and have lived in their rented houses for over fifty years – a lifetime. The twin points – the so-called 'blight' of the existing area, and the issue of the "highest and best use" of the land – underlie the current project underway by a semi-non-profit enterprise called "Houston Renaissance."[17] The focus on style masks a concern about class and race, and serves as a convenient pretext for "revitalization." Although the project is complicated (HUD requires the replacement of low-cost housing if any federal funds are used to demolish and redevelop an area, which has sent the organizers of Houston Renaissance scrambling for ways of evading this requirement), the master plan by Stull and Lee, a Boston architectural firm, envisions mostly market rate condominiums and town houses, with a steadily decreasing number of low-cost, or subsidized units. The federal government (via HUD) is providing 3.4 million dollars to help pay

for demolition and low-cost units and the city is contributing another 8 million in infrastructural work. This 'development package' for Houston Renaissance by the city for infrastructure reminds one of the history of infrastructure in the district: because the residents were black, and usually poor, when the rest of the city received paved streets, lighting, sewers and so forth, the residents of Freedmantown were left out of the equation; in fact they did the work themselves, including paving the streets, and the city has only rarely, and reluctantly, maintained the area's infrastructure. Not that city officials object in principle to the Southern urban vernacular house such as the shotgun house; row houses in the Third Ward have been refurbished as a 'neighborhood museum complex,' as the city's press releases style it, emptied of black Americans as residents and turned over for exhibition space to black artists. In other words, as long as they can be consumed, or filled with consumable items, as museums, the houses are acceptable, but not when they are occupied by black families.[18]

Fourth ward and San Felipe Courts are painful examples of the spatialization of class-ism and racism in a typical US city, and of the lack of interest of architects and planners in these fundamental questions. In all of their guises – as designers, planners, members of historic preservation groups, as members of the AIA – they have persistently acquiesced to this pattern, contributing to it by their repeated conceptualization of architecture as style. Architecture is the tool of the powerful in the US, and architecture school too often a sophisticated process of socialization into this structure of class, race and power.

Notes

1 Henry-Russell Hitchcock and Philip Johnson, The International Style: Architecture since 1922 (reprinted New York: Norton 1966).
2 The best English language survey of the modern movement remains Kenneth Frampton, Modern Architecture: A Critical History (London and New York: 1981); for Italian Rationalism, see Richard Etlin, Modernism in Italian Architecture (Cambridge, MA: MIT Press 1991); for the Dutch housing, see Maristella Casciato, Franco Panzini and Sergio Polano, Olanda 1870–1940, Citta, Casa, Architettura (Milano: Electa 1980).
3 D. Ghirardo, "Architecture of Deceit," Perspecta 21 (1984), pp. 110–115;

see also my Architecture After Modernism (London: Thames and Hudson 1996).
4 Inherited wealth, family background and educational formation made both men members of the eastern patrician class. Johnson received his architecture degree from Harvard; a moderately critical biography of Johnson is by Franz Schulze, Philip Johnson: life and work (New York: A. A. Knopf 1994).
5 Two recent excellent histories of skyscrapers in the United States are George H. Douglas, Skyscrapers: a social history of the very tall building in America (Jefferson NC: McFarland and Co., 1996), and Sarah B. Landau, Rise of the New York Skyscraper 1865–1913 (New Haven: Yale University Press 1996).
6 For a bibliography on public housing in the United States, see Mary A. Vance, Low Income Housing in the United States (Monticello, Ill: Vance Bibliographies 1988).
7 Detailed statistics for Houston are available on the city's web site, www.ci.houston.tx.us
8 Statistics cited in Jacqueline Leavitt, "Reassessing Priorities: 60 years of US Public Housing," Cite 33 (1995), pp. 16–18.
9 Jonathan Barnett, The Elusive City: Five Centuries of Design, Ambition and Miscalculation (New York: Harper and Row 1986) describes the process of urban sprawl and downtown decay. See also his The Fractured Metropolis (New York: IconEds, Harper Collins 1995).
10 The city itself tells the story of the creation of Houston Center on the web site listed above. For a more analytical and critical account of Texas-style building during the 1980s, see Joel Barna, The See-Through Years. Creation and Destruction in Texas Architecture and Real Estate 1981–1991 (Houston: Rice University Press 1992).
11 The best short history of Allen Parkway Village is in the nomination papers prepared by Stephen Fox to list Allen Parkway Village on the National Register of Historic Places in December, 1987. The application was successful, even if it did not halt the destruction. I am grateful to Stephen Fox for making these documents available to me, and for providing me with continuing updates on Allen Parkway Village's fate. Stephen published a brief account of the threat to Allen Parkway Village in the Docomomo Journal 13 (1995), p. 8.
12 Stephen Fox, Nomination Form, National Register of Historic Places, December 1987, Item 8, page 4.
13 See the article about Allen Parkway Village, "War Needs – Community Facilities: Project Center Building," Architectural Record 91 (May 1942), 52–53.
14 For a more detailed description, see the Nomination Form, National Register of Historic Places, December 1987, Item 7, pp. 1–3.
15 Since the early 1980s, a number of articles have been published recounting

the various phases of the efforts first to integrate, and then to demolish Allen Parkway Village. Among these are Dana Cuff, "Beyond the Last Resort: The Case of Public Housing in Houston," *Places, a Quarterly Journal of Environmental Design*, 2, n. 4 (1984), 28–43; Diane Ghirardo, "A Taste of Money: Architecture and Criticism in Houston," *Harvard Architecture Review* IV (1985), 89–97; a group of articles in *Cite: The Architecture and Design Review of Houston* 33 (1995) which addressed public housing in the city as well as Allen Parkway Village; Brian Wallstin, "The Great Land Grab," *Houston Press*, January 30-February 5, 1997, pp. 14–23.

16 Diane Ghirardo, "Wielding the HACHet at Allen Parkway Village," *Cite* (1985).

17 Houston Renaissance distributed a "fact sheet" in February 1998 about its plans for the Fourth Ward; Brian Wallstin consistently investigated and exposed the inner workings of the shady political dealings in articles published in the *Houston Press*, including "Renaissance Play?" May 1–7, 1997, p. 8; "Hello, Columbus," November 13–19, 1997, pp. 8–11; "No Shame," February 12–18, 1998, pp. 6–8.

18 For this Third Ward display community, see the city of Houston web site noted above.

Main theme: Nordic Session

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Modernism as a Vehicle for Social Change in the Nordic Welfare-states

The new architecture of the period between the two great wars was named differently in the various countries: In Germany it was called Neues Bauen and die neue Sachlichkeit, in USA the people who introduced it talked about the international Style, in Scandinavia the modern architecture was baptized Functionalism. But this term covers only the late twenties and the thirties. If one wants to include the pioneers and the forerunners The Modern Movement is a broader and better name. A problem is, that in extending the definition of modernism it is made less precise and here I want to use the term functionalism, that refers to the white architecture with flat roofs and horizontal window bands. But the ideology of functionalism, as the word indicates, includes emphasizing the use and expectations of a better world realized with the help of modern technology and rational planning.

A modern architecture which corresponded to the needs of a modern society was developed in Germany, France and the Netherlands. In some countries the formal vocabulary was most important, in others the social aspects were at the forefront.

The new thoughts came to the Nordic countries as an import. It is the way in which this import was absorbed and used in the transformation of the local societies which is interesting.

It was a time of great unemployment and a severe housing shortage. Two of the countries became independent in the beginning of this century and had a need to create a national identity. Everywhere the societies moved the economical base from agriculture to industry, the results being urbanization. The main goals of the governments became social welfare and health. In the beginning of the thirties one started to talk about the Nordic welfare-states, modernism supported the ongoing necessary revolution.

Already in 1916, the Swedish art historian Gregor Paulsson wrote a book 'Den nya arkitekturen' (The new architecture). Paulsson was advocating a sociological aesthetic and fighting for an everyday art. He was later responsible for the Stockholm exposition in 1930. The book was illustrated with pictures of American grain silos, the Behrens factory in Berlin and also Tessenow's terrace houses in Hellerau. Neo-classicism was at that time the only accepted style and the simple architecture of Tessenow was admired both in Sweden and in Denmark.

In the late twenties neo-classicism was overtaken by modernism but the change happened gradually. Studying projects from the late twenties the change can be followed, from neo-classicism over conglomerates of styles to pure functionalism: flat roofs, horizontal window bands, steel windows, lots of glass and white, plastered facades of concrete or materials looking like concrete. One example is the concert hall in Helsingborg, where the architect Sven Markelius changed his design over the years from 1925 to 1932. Another example is the apartment building Vodroffsvej 2 in Copenhagen designed by C.F. Møller and Kay Fisker. A sketch dated 1928 shows a neo-classical facade with small window-panes and pitched roof. After a visit to Germany where the architects became fascinated by the horizontal elements of the new architecture the project was revised, the roof became flat, the windows were gathered in bands and the facades were divided in yellow and red bands of masonry. But the floor plans were kept as they were.

A third example is the competition for the artists' house in Oslo in 1928. The architects Blakstad and Munthe-Kaas delivered two projects, a neo-classical one and a modern, uncertain about the jury's conception of architecture, if it had changed.

The exhibition in Stockholm in 1930 marked the victory of functionalism. It became a turning point combining the elegant architecture of Gunnar Asplund with social engagement. The history writing has been influenced by the success of the exposition giving a picture of a revolution taking place where in reality it was a process of evolution. The new ideas filtered into the Nordic countries and were absorbed by various speed and profoundness. Several progressive architects made critical comments to what they saw as a new formalism.

Nordic architects met the new architecture at the exhibition of decorative arts in Paris in 1925 and in the shape of the L'esprit nouveau-pavillon of Le Corbusier. It was a shock which changed their minds. But the main influence came from Germany. Traditionally, there was a close cultural connection between Germany, Sweden, Finland and Denmark. The housing-schemes of the Weimar-republic became a model because of the size and rationality of the planning. Organizations similar to the German Werkbund were established.

The first modernistic building in Scandinavia, the Danish-Norwegian architect Edvard Heiberg's own house in Copenhagen from 1924, was a new version of Georg Muche's testhouse in Weimar built the year before. The Dutch architecture had an influence, too, especially in Norway. A delegation of Norwegian architects went to the Netherlands in 1928, visiting buildings of Berlage, Dudok, Duiker and Jan Wils. Rietvelds Schröder-house was not on their route and any Stijl influence is not to be seen in the Nordic countries.

There was no Nordic delegates when CIAM, Congres Internationaux d'Architecture Moderne, was founded in La Sarraz in June 1928. Lars Backer from Norway became a member the same year. Sven Markelius entered 1929 and he recommended Poul Henningsen from Denmark and Alvar Aalto from Finland. At the meeting in Frankfurt in 1929 with the theme 'Bauen für das Existenzminimum' Edvard Heiberg who later was teaching at Bauhaus as an assistant for Hannes Meyer joined the other Nordic delegates. Active in CIAM around 1930 were in addition Charles J. Schou from Denmark, F.S. Platou from Norway and Uno Åhrén from Sweden.

These architects became pioneers on the home front but not without scepticism towards the formalism of Le Corbusier and the Bauhaus.

Lars Backer designed the restaurant Skansen in 1927 in Oslo as the first functionalistic building in Norway. When

publishing Skansen he wrote a short statement about what was happening in the field of architecture: "To build is not anymore architecture in the old-fashioned way, defined by rules and style and classified by art historians. You will have good architecture if the building is rational and appropriate for its use. To build has ceased being an art. The profession has, everywhere where it is alive and has power to influence society, absorbed the working methods of technology. Serving modern society in solving its social problems it has made itself indispensable. To build has stopped being an activity of abundance. It makes no difference if an architect designs some luxury villas and a bank-facade and at the same time all normal buildings which leave their mark on our country and our cities are withheld from the profession, the reason being that we have not moved with the times. Our time has no need for pastiche details, but for practical homes, bright working spaces, show-windows and illuminated advertising. The new architecture is as international as modern technology, as the materials we use and machines we operate. But there is still room for national identity based on climate, needs and individuality."[1]

Another part of the modernistic message was described by the Swedish CIAM-member Uno Åhrén in a review of the famous building exhibition in Berlin 1931: "Overall in the world an understanding of the need for social and economical planning is beginning to take form, in the small scale and in the big one. Five year plans and ten year plans are coming up everywhere, and where is such planning more needed than in the building sector? To do town planning and to erect buildings is to make the most durable products with invested capital tied up for a very long time."[2]

For Uno Åhrén economy, technique, functional and social needs were more important than architectural form. For that reason he critized the house for workers by Le Corbusier at the Weissenhof-exhibition in 1927. The same critical attitude to machine aesthetics was expressed by the Danish architect Poul Henningsen when he attacked Le Corbusier for making the flats for workers uneconomical. "The fight for applied art, including architecture, is in the whole world, as far as I can see, about form. Modern artists in all countries are fighting for a change of the form of objects

which surround us and buildings we occupy. New forms which are completely different from the old ones dating from the time before the technical and social revolution."[3]

Poul Henningsen was against introducing a new style instead of the old one. If there is no balance between people's needs and what society offers the artists are obliged to concentrate on the objects fit for use. As seen, the Nordic missionaries were rather sceptical when they considered the balance between form and content of the modernistic architecture. Often there was a disparity between the outer form and the demand for usefulness and social responsibility. Much later (1961) the English art historian Reyner Banham showed how a true accept of the industrial potentiality would have changed the modern architecture much more fundamentally. The forms of modernistic architecture were foremost symbolic and not inevitable answers to technological questions.

But perhaps the symbolic forms were the most important features of the modernistic buildings. The new architecture created an image of a future "where the cathedrals were white." Society was in a great need of the intrinsic optimism of a pure, simple architecture.

The modernistic message was adopted in two versions when it was absorbed in the Nordic countries. Some architects joined political, radical groups as 'Mot Dag' and 'Plan' in Norway, 'Monde' and 'Kritisk Revy' in Denmark and 'Clarté' in Sweden. These groups were foremost fighting against housing shortage and for governmental planning. Another important part of their work was a struggle to emancipate people from old moral norms and traditional values. Cubism, jazz and communism were seen to belong together.

When the social-democratic parties gained governmental power in the beginning of the thirties the work of the radical groups was to some degree used in the reform work. In Sweden the government used the modernistic ideas as ideology and tried through education and enlightment to teach the population a rational way of living.

In Denmark the parties in power never tried to close the gap between the progressive élite and the workers. When the prime minister in 1934 as a gift received a functionalistic villa, his furnishing was contrary to the spirit of the architecture.

The new nation Finland used the modernistic architecture as a marketing tool abroad, portraying a society where nature and culture were in harmony. The international position of Alvar Aalto was a great help and his pavilions at the world expositions in Paris in 1937 and New York in 1939 became monuments in the history of modern architecture. They showed how the second generations of modern architects modified the international style into a regional version, a Nordic organic modernism.

In the course of the thirties town-planning legislation was introduced in all the Nordic countries and housing politics became a political issue of great importance. But social housing was not a product of modernism. Even before 1930 municipalities and building societies had erected housing blocks for people with low income. The rational thinking of the modernists influenced planning, lay-outs and standard. The architectural schools started to teach housing design.

Members of the profession, not being politically involved, saw the new architecture in Europe as a new style with interesting forms. They recognized the potential in the disengagement from the rigidness of neo-classicism, setting free the arrangement of rooms and walls and making use of new materials as concrete and steel more efficiently. The department stores of Mendelsohn showed how skeleton constructions could deliver flexibility in the use of buildings and freedom in the design of facades. Many architects only used some of the formal elements of modernism, the horizontal window bands, steel windows and rounded bays.

In Iceland the introduction of an architecture based on concrete as the main building material was a gift for a nation which needed a substitute for timber.

The site plans of the housing settlements changed gradually. In the twenties the block was the favourite lay-out. The next step was to open the block in the corner but the ultimate solution in the thirties was to design parallel buildings with rooms orientated towards west and east. Living rooms with balconies turned towards the sun.

In the course of the thirties the formal elements of the modernistic vocabulary moved from the big cities out in the provinces. In this process the radical new forms were even more reduced and only such things as corner windows and flat roofs survived.

In the pretentious architecture, tradition and modernity melted together, the result in the end of the thirties being a regional modernism. The political development in Germany and Italy killed the optimism of the modernistic thinking. The German inspiration was dead.

When the modern architecture came to the northern part of Europe the societies were undergoing radical change. There was among architects a need for social engagement and rational methods in handling problems of a traditional trade, not ready for industrial production. First after the Second World War a trade dominated by craftmanship was turned into a partly mechanized industry. When the building trade in the thirties could not deliver what was needed the architects had to play a game, pretending to design modern buildings and symbolizing modernity. Behind the white facades the technology was old-fashioned. On drawings were cars, airplanes and Zeppelines but the link between buildings and machines was a postulate, a dream about the "day we shal inherit the earth."[4]

In 1961 the English art historian Reyner Banham published a book Theory and Design in the First Machine Age. His argument was that we were living in a new machine age and the development forced us to look at the first machine age from another viewpoint. The book was the first attempt to make a critical analysis of background and ideas of the modern movement and its relation to modern tehcnology. Reyner Banham used designs by Buckminster Fuller to prove that the link between technology and modern architecture was arbitrary. In the twenties it was perhaps possible to assert a connection between machines of that time and buildings but the second machine age had proved that there was no organic interrelation between technology and the forms it was given.

The criticism of Reyner Banham was typical for the sixties where architects and society were dreaming about the wonderland of technology. The critic was correct but the conclusions wrong.

Now, in the nineties we have to acknowledge the deficiency between technology and form. There is of course a connection but the architect cannot in an organic way derive forms from conditions given by technology. A building is not a consumer product, its value goes up over time and its form is ruled by regulations and legislation. The outer building shell is made up by three layers, the loadbearing, the insulation and the protecting. Electronics has replaced mechanics as an analogy and separated form from content.

But, this understanding of the new conditions for design has made us open for appreciations of the symbolic meaning of modernistic architecture both as historical products and as models. The white colours and simple forms told a story about hope and optimism on behalf of mankind's abilities to survive, using technology to master social problems.

Not many buildings were given pure forms correspondant to the message of emancipation from old-fashioned norms and traditional values. The ironic fact is that the beauty of the white buildings was due to the classical architectural education where study of proportions was decisive. Functionalism was a rupture but it intrinsically carried traditional, professional skills into a new era.

In the twenties and thirties progressive magazines and books published pictures of people who had dropped the bonds of old morality and social norms and were engaged in all kinds of sport, dance or strolling in nature. This worship of health and sanitation, sun and nature made the buildings connected to these functions most suited for the modernistic architecture: summer restaurants as Skansen (Lars Backer 1927), Ekeberg (Lars Backer 1928) and Dronningen (H. Bjercke and G. Eliassen 1932), all in Oslo, outdoor swimming grounds as Ingierstrand outside Oslo (E. Moestue and O. Lind Schistad 1934), sport facilities as K.B.-hallen in Copenhagen (Hans Hansen 1939), the olympic stadion in Helsinki (Yrjö Lindegren and Toivo Jänti 1938) and whole area at Bellevue north of Copenhagen (Arne Jacobsen 1933–38) schools as 'skolen ved sundet' in Copenhagen (Kaj Gottlib 1937) and the school for girls in Stockholm (N. Ahrbom and H. Zimdahl 1937). The sanatorium in Paimio from 1933 designed by Alvar Aalto is of course the principal work of the period.

The most important description of Nordic modernism is a publication by the Nordic architectural magazines from 1980.

Notes

1 cit. Byggekunst 1927, s. 129.
2 cit. Eva Rudberg: Uno Åhrén 1981, s. 53.
3 Poul Henningsen: Tradition og modernisme, Kritisk Revy 1927, hæfte 3, s. 30–46.
4 Motto from a Swedish architectural competition in 1932.

Eva Rudberg

Docomomo Sweden, Swedish museum of Architecture

"One Day We shall Inherit the Earth" – Swedish Functionalism as a Vision and in Reality

The vision of achieving – with the assistance of technology – a more just and better society with freedom for the individual was a strong driving-force for Swedish Functionalism. The housing shortage and cramped living conditions of the period gave birth to the vision of 'good' housing that was for everyone and within everyone's financial reach, and the 'good' home or dwelling also became the picture of the 'good' society. During the inter-war and post-war periods architects played an important role as those who gave a physical form to "Folkhemmet" ("People's home") – the Swedish welfare state. The concept was a brilliant metaphor which combined modern democracy with the picture of the traditional home. Socialism's motto, "One day we shall inherit the earth", was used as the motto for the Swedish Cooperative Wholesale Society's architects' department's proposal in an architectural competition concerning inexpensive dwellings in 1931, but in a pragmatic and down-to-earth sense. "The future belongs to those who work with their hands and their minds" was one of the mottos at the "Standard 1934" exhibition in Stockholm which advocated a more rational form of building with the help of technology. In the functionalists' manifesto "acceptera" – "accept", from 1931, the battle-cry was "accept the reality of the present, for only in this way have we any possibility of mastering it in order to change it and create

culture which is a useful tool for life". The Swedish functionalists' visions were strongly linked to reality – which was their strength but also their limitation.

But the threads which link together the vision of a new society with the new architecture go further back in time. One thread goes to "Svenska Slöjdföreningen" – "the Swedish Society for Crafts and Design" – the Swedish equivalent of "Deutscher Werkbund", which played a major role in the introduction of the new architecture into Sweden. It was primarily Gregor Paulsson, the director of the Society between 1920 and 1934 who spoke on behalf of the new architecture. His book, which in fact had the title – "Den nya arkitekturen" – "The New Architecture" – presented the new lines of architectural thought, illustrated by German examples, for his Swedish readers as early as 1916. The social engagement was clearly expressed within the Society for Crafts and Design. It had been reorganized in 1915 with a clear orientation on 'the attractive article for everyday use', that is to say industrially produced everyday goods designed by artists and architects. Machine-produced 'art' goods were thereby given greater space within the Society alongside of arts and crafts and handicrafts, and also in this aspect Paulsson had been a driving-force. As a confirmation of its new orientation the Society had taken the initiative for the 1917 "Hemutställningen" – "Home Exhibition", an exhibition with furniture and household goods intended for a broad public. Two years later came the publication "Vackrare vardagsvara" – "More Attractive Everyday Goods", written by Gregor Paulsson.

In spite of the high ambitions and the positive criticism which the 1917 exhibition received the 'more attractive everyday goods' did not, however, reach the working classes. Here the problem was of a much more urgent and important nature – the need for good dwellings. As a Swedish daily paper commented on the situation:

"It is not sufficient to create access to well designed and inexpensive objects for the home. Give us suitable dwellings to arrange them in!"[1].

The Housing Question

The housing question was in fact one of the major social problems in Sweden at that time, and had been so for many years. The late urbanization of the country, which was linked to the fact that industrialism did not really begin to gather speed until the 1870s and 1880s, had led to the speedy, speculative construction of tenement housing buildings in the cities for the working class. One room and a kitchen became the average size for workers' dwellings and remained so during the 1920s and 1930s. Cramped living conditions were therefore very prevalent – more previlent than in most parts of the rest of Europe, and the sanitation standard was very low. Society's efforts in connection with the housing question were extremely limited up until the First World War. Until then a number of philanthropic movements based on English models had been engaged and the state had taken a certain degree of initiative. During the First World War the housing problem became acute, state loans for housing construction became available, emergency dwellings were built and a small number of municipal housing companies were formed. Once the war years' crisis was over things returned in general to the old situation, that is to say a housing market which was steered and governed by profitability.

The high level of rents contributed to the cramped living conditions. Standardization was an objective of the period which it was hoped could help to achieve lower building construction costs, and a committee for the standardisation of building materials and joinery units was appointed in 1919. It also became engaged in the planning of kitchens and in their furnishings and equipment, and kitchen furnishings became part of what they wanted to standardize. Osvald Almqvist had the main responsibility for the kitchen studies, the results of which could be seen, among other places, at the recurring "Bygge- och Bo" – "Buildings and Dwellings" exhibitions that were held in Stockholm during the 1920s.

With the support of the Stockholm municipality's social land policy from 1907 many workers succeded in building their own home, from the 1920s also with a prefabricated housing system.

"Sweden – the Middle Way", was the name of a book which the American Marquis Childs wrote in 1937. The 'middle way' in question was the middle way between socialism and capitalism, a combination which awoke both admiration and distrust. The growing cooperative movement was an important part of this Swedish 'middle way'

during the inter-war and post-war periods, and among its most important sections were those which were involved in building: "Kooperativa Förbundet" – KF, the Swedish Cooperative Wholesale Society, "Fackföreningarnas byggnadsproduktion" The Building Trade Unions' Production and the Tenants' Savings and Building Society, HSB. Their activities were important alternatives to those of the private companies. KF, had been founded as early as 1899 and soon began to build its own factories, shops and housing. In 1924 KF established its own architects' department under the leadership of Eskil Sundahl, one of the Swedish architects who was later to embrace the Modern Movement. The architects' department, which attracted to it many skilful, radical architects, had as its goal "to express the function of every building in a clear and natural manner – to give the cooperative spirit a rational expression"[2]. The Building Trade Unions' Production built many buildings for KF. HSB was founded in 1923 and became a tenant-owners' housing movement which built dwellings for its members throughout Sweden. HSB was led by Sven Wallander, a prominent architect, who had also studied new developments in housing planning and design in Vienna. HSB consistently strove to improve the hygiene standards in their housing and became one of the most important counter-balances to the privately owned housing companies. The movement was directed at workers and office workers, but those people in the worst economic situation were still unable to afford the deposit which was required for a dwelling.

The Modern Movement reaches Sweden

Swedish architects came into real contact with the architecture of the Modern Movement through Le Corbusier's L'Esprit Nouveau Pavilion at the 1925 Paris Exhibition. The work of the Swedish architects themselves was very appreciatively received for the simplified and elegant classicism which, under the name of 'Swedish Grace', characterized Swedish architecture and interior design in the 1920s. Uno Åhrén, one of the Swedish participants at the Paris Exhibition and later one of the most outspoken Swedish functionalists, wrote an enthusiastic article in which Le Corbusier's pavilion is presented as the incarnation of liberty in comparison with the Exhi-

bition's other, decorated and visually overloaded interiors:

"Here there is free space to move in, to speak seriously or to joke in, everything is at one's pleasure, free walls to hang paintings on, and free floor areas to group furniture on according to individual wishes ....".[3]

Relevantly enough, Modern Movement in Sweden was given the designation of 'Functionalism' since there was such a strong emphasis in Sweden on function studies, rationalization and standardization. Perhaps there was – in our puritanic, lutheran heritage, and in our pragmatism, which the 1900th century, Swedish author Jonas Love Almqvist called "the Meaning of the Swedish poverty" – a fertile soil i Sweden for exactly the objektive and ascetic parts of the Modern Movement. Furthermore, social ambitions formed the basis in Swedish Functionalism. And in addition the long, dark, Scandinavian winters produce an architecture which emphasizes light as being extra attractive. However, as has been said previously, these efforts were not a new phenomenon which suddenly appeared together with the arrival of Functionalism – but the new architectural direction, with its simple rectilinear form-language, social message and open, light rooms was understood as being the *combined answer* to these questions and to the problems in connection with construction, housing and architecture.

The 1930 Stockholm Exhibition

The first Modern Movement works by Swedish architects were built during the latter part of the 1920s. These were Osvald Almqvist's hydro-electrical plants in Hammarforsen and Krångforsen 1925–1928, KF's architects' department's grain silo and mill building at Kvarnholmen near Stockholm in 1927–1928, the Tiden publishing house's office building in 1928 and Sven Markelius' housing block in 1929 – all in Stockholm. Functionalism's real breakthrough took place in 1930 with the Stockholm Exhibition, brilliantly designed by Gunnar Asplund.

The initiative for this exhibition of machine-made art products, arts and crafts and handicrafts had been taken by the Swedish Society for Crafts and Design under the direction of Gregor Paulsson, and it was a wholly Swedish exhibition with only Swedish products.

The 'more attractive everyday goods' had been given a functionalistic form. The Exhibition's buildings were wholly in the spirit of Functionalism with a simplified, geometrical form-language, horizontal lines and large areas of glass. Colourful flags heightened the airy, light feeling of the exhibition. The halls and pavilions were bedded in greenery by the water. It was just this interplay between nature and architecture which, together with the full townplanning concept with main street, market place, restaurants etc., was the most impressive aspect of Asplund's exhibition design. The nature-architecture theme was in general to leave its mark on much of the housing that was to be built and would be seen as a quality which was particularly characteristic of Swedish – and Nordic – architecture.

There was a special housing section at the Stockholm Exhibition where the vision was the creation of 'good', well planned dwellings for everyone. The plans of the dwellings, both flats and detached, single-family houses, were characterized by function and dimensional studies – but the size of the dwellings was determined by which income group they were intended for. One model and source of inspiration was Ernst May's "Wohnung für das Existensminimum". In spite of the Swedish architects' exertions they did not, however, succeed in creating sufficiently good dwellings for people with low incomes. The criticism was primarily directed at the cramped, windowless kitchen alcoves which were the architects' way of saving floor-area for economic reasons.

The housing problem was obviously not primarily an architectural and dwelling-planning question, but a political one – and it was with this insight that many of the Swedish functionalist architects continued their engagement in the housing question.

The Stockholm Exhibition met with both great enthusiasm and harsh criticism. The controversial question was the form-language, which was considered to be both un-Swedish and impoverished. But the Swedish functionalists defended their standpoint in the policy manifesto "acceptera" – "accept", which was published shortly after the exhibition had ended. And here, as was explained in the quotation at the beginning of this article, reality was the vision.

Foreign architects also contributed with visions. Le Corbusier's drastic proposal in a competition 1932–1933 con-

cerning the transformation of Stockholm entailed that major parts of the older part of the city should be demolished and replaced by huge, sparsely placed multi-storey housing blocks. Fortunately, however, the vision stayed on paper.

Political Measures

The Social Democratic Party was elected to power in Sweden in 1932. There was high unemployment and the party won its election victory with a programme where the main points were unemployment and the housing shortage. In 1934 husband and wife Gunnar and Alva Myrdal wrote the book "Kris i befolkningsfrågan" – "Crisis in the Population Question" – which saw the disturbing fall in the birth-rate in Sweden as a consequence of the shortage of work and the shortage of good housing. Their proposal was that society should invest financially in housing construction which would end both of the shortages and create employment in several areas, since building construction gave work also in other sectors such as the stone industry and the forest and timber industry etc. These and other lines of thought inspired by M. Keynes were to set their stamp on the "Swedish model's", that is to say the welfare state's strong steering and support of society.

The new social democratic prime minister, Per Albin Hansson, chose to move to a new Modern Movement terrace housing area, built 1932 by architect Paul Hedqvist; the prime minister's way of expressing a trust for the new, architectural movement.

In 1933 the Social Democratic party appointed a special, social housing commission to survey the housing situation and to present proposals for suitable measures. A number of Functionalism's architects were in the commission as experts. The state measures which were applied during the 1930s were directed at the low-income families with at least three children and at an improvement of housing in the rural parts of the country. Many architects engaged themselves in the planning and design of good, well planned dwellings for large families, and from having been called 'low-ranking' work the task of designing buildings of this type became an important task for architects, and one which frequently produced good plan-solutions. The work within the enquiry led during the 1940s to a strong, social housing policy with comprehen-sive state support for housing construction and high demands on the planning and design of the dwellings. The architects played an important role in the formulation of the quality standards which the dwellings must fulfil. But the women's organizations were also important, and the strongly women-dominated "Hemmens forskningsinstitut" – the Home Research Institute – which was formed in 1944, had a considerable influence on housing planning. This was also the case regarding the studies of how people used their dwellings, which led to a reappraisal of certain solutions. All in all the result was a modest, genuine, 'everyday architecture' with thoroughly studied, well functioning dwellings with good outdoor environments with a reasonable level of exploitation. From the 1960s these standards also included dwellings for elderly and disable people. During the 1960s also major investments were made in industrialized building which occasionally resulted in barren outdoor environments.

During the post-war period a considerable amount of the housing construction in Sweden was carried out by municipally owned non profit-making housing companies. Society's investment in housing resulted in the Sweden of today – from having had among the world's most cramped housing conditions during the inter-war period – today has one of the highest housing standards in the world. At the same time, however, the state and local authority steering of housing production led to the majority of the new dwellings being built in multi-family housing and not single-family housing – something of a paradox in view of Sweden's large land area and its low number of population.

Housing Experiments

The Swedish Cooperative Wholesale Society's architects' department's winning architectural competition proposal with the motto "One day we shall inherit the earth" – was built at Kvarnholmen outside of Stockholm 1927–1934. At that time very few terrace houses had been built in Sweden, but here at Kvarnholmen it was seen as a possibility to realize the dream of a dwelling with a garden at reasonable costs. The Kvarnholmen project, which, apart from workers' housing, contains KF's factory and mill buildings for flour and grain products is a modern version of a Swedish "brukssamhälle" or rural, industrial community. These communities which manufactured iron and iron products were created during the 17th and 18th centuries and were a form of model communities which were often planned and designed by the foremost architects of the time. The church and the manor, the representatives of spiritual and earthly power, formed the main axis, and between them were grouped the workers' houses and the forge. At Kvarnholmen this vision of the model community was given a modern interpretation where the patriarchal order was replaced by democracy. Houses and factory buildings were the architectural expression. There was no church, but instead there were assembly buildings and shops, and the managing director's house was discreetly located in a somewhat peripheral position. The Kvarnholmen project was only one of KF's architects' department's many important architectural contributions with a functionalistic approach and clear social goals.

A social experiment which sparked off an impassioned discussion was the Collective house. The initiative came from architect Sven Markelius, one of Swedish Functionalism's foreground figures, and the Social Democratic and peace politician Alva Myrdal, who at that time was a child pedagogue and engaged in "Yrkeskvinnornas Klubb" – the Working Women's Club. The idea was to unload employed women of the responsibility of household work and looking after children. When the idea was presented in 1932 the intention was that a number of large buildings for several thousand tenants should be built in Stockholm. Apart from flats, the building should also contain restaurants, children's sections, a library and club-rooms etc. Employed staff would look after the children during the daytime when the parents were at work. The cooking, clothes-washing etc. and cleaning of the flats should also be taken care of by the staff. No-one, however, was prepared to invest in this radical proposal. A smaller Collective house designed by Markelius, and with 55 flats, a restaurant and a day-nursery, was however built in Stockholm in 1935. The nursery was for some time a place for pedagogical experiments, aiming at 'the new, free human'. A few Collective houses were built during the 1930s, some specially intended for single women, such as the Smaragden block and the Elfvingegården building in Stockholm, both designed by architects

Fig. 1.

Fig. 2.

Fig. 3.
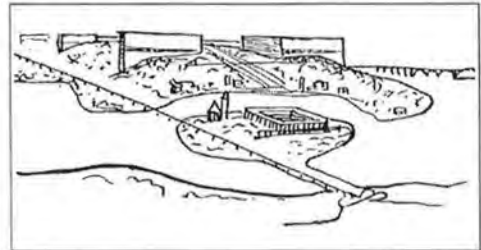
Fig. 4.

Fig. 5.

Fig. 6.

Fig. 1. "One day we shall inherit the earth", Cooperative wholesale society's (KF) architect office's proposal for a low cost housing competition in Stockholm 1932.

Fig. 2. Reality: Build-it-yourself prefabricated housing system, supported by the Stockholm municipality, here in Enskede, 1930s.

Fig. 3. Prime minister Per Albin Hansson at his terrace house in Ålsten, Stockholm, 1930s.

Fig. 4. Le Corbusier's vision for renewing the inner city of Stockholm in a competition 1932–33. Not realized.

Fig. 5. The 1930 Stockholm Exhibition, a vision for 'the new human being'.

Fig. 6. Kvarnholmen outside Stockholm, KF's terrace housing area for their workers, 1927–34.

Sven Backström and Leif Reinius. Olle Enkvist, a socially engaged building contractor, continued to build collective-housing buildings during the following decades. Today the collective activities – primarily in the form of restaurants – have been discontinued in the majority of these buildings, although with the exception of Markelius' Collective house, which has also been restored to its original form and appearance. The idea lives on, however, and a large number of Collective houses have been built today, where the service functions have been replaced by the joint work contribution of the people who live there.

The New Townplanning

The visions of the post-war period had a broader perspective. The number of people moving into the towns and cities had greatly increased and new problems had appeared. In the expansion of the bigger cities, suburbs with neighbourhood units and community centres were created, partly inspired by the work of the English planners. The planning of Årsta centre, included the thought of the democratic welfare state in the architects' vision:

"We have understood the main objective of the project as being to create a place for the establishment of personal contacts between individuals and groups, and one which also stimulates discussions and personal contacts. This should at the same time stimulate the interest of the individual members of society and the strivings of the democratic society".[4]

Tore and Erik Ahlsén, the architects for the centre, succeeded in uniting and convincing the clients to provide the centre with a library, a theatre, a cinema and meeting rooms of different sizes in addition to shops and housing. Other planners had a less visionary approach to the project and maintained that their intention was not to create a new type of person, and that the functional and architectural motivations for the neighbourhood planning was quite sufficient in itself.

"We will be completely satisfied if we succeed in building in such a way that people will like to live and work there".[5]

The "Work-Housing-Centre" community, the satellite town outside of the big city, with workplaces, housing and a centre, was a vision created in the 1950s as a reaction to the dormitory town, that is to say the suburb with only housing. At Vällingby the vision was transformed into reality under the direction of Sven Markelius as the head of the Stockholm Town Planning Administration. It became a living and architecturally well designed project which functioned well in many respects. At the same time, however, very few of the people who lived there also worked in Vällingby – and the hopes of the model community were not realized in this respect.

The Swedish functionalists' pragmatic anchoring in reality and everyday life led to a modest form of architecture which is usually far removed from glamour and monumentality. Just this realism and respect for the needs of the users has often led to good results, but the vision of the functionalists – and many others – that with the help of technology to achieve a better, freer, more just society in Sweden, showed that it had a reverse side. Technology and rationality frequently became goals in themselves instead of methods to achieve a goal, and this led to large-scaleness and simplification where small-scaleness and simplicity could have created long-term solutions. Perhaps they underestimated the reality that they found themselves in and the forces that steered it.

(Translation: William Pardon)

Notes

1   Main editorial in the "Svenska Dagbladet" daily newspaper 17/12 1917.
2   Brunnström, Lisa: "Den rationella fabriken" – ("the Rational Factory"), 1990, page 189.
3   Åhrén, Uno: "Brytningar" – ("Breaking Points") – in the Journal of the Swedish Society for Crafts and Design, 1925.
4   The Magazine "Byggmästaren", 1954, page 276.
5   Sidenbladh, Göran: The "Dagens Nyheter" daily newspaper 4/9 1951.

Fig. 8.

Centralhem hindrar skilsmässa?

Fig. 7.

Fig. 7. Sven Markelius' vision for a Collective house 1932. Not built, but a smaller version was built in 1935. Headline: Will Central Home (i.e. Collective house) prevent divorce?

Fig. 8. Axel Dahlberg, director of the Stockholm Building office, as "The sower"; the criticism of the 1930s town planning by Nils Melander 1939.

Birgitte Sauge
Docomomo Norway, Norwegian
Museum of Architecture.

Norway

Several houndred people attended the presentation of ingeneer Olav Selvaag's experimental house in 1948: a small two family house, built in standing timber, with saddle-back roof and horisontal panelling. Traditional in it's design, but innovative in it's economical plan and material usage. The Selvaag house was thus typical for the building activity in Norway in the 1950s. The every day situation was national feelings and shortage of materials, and the new suburban areas were built in materials and architectural language in correspondance to the traditional, Norwegian architecture in a mixture of four-stories buildings in masonry and two-stories houses in wood. In order to realize the dream about every one his own house, bold design experiments had to make room for practical and economical solutions. In this way the modernistic utopia was left to a down to earth and pragmatic attitude. To day the Selvaag house is listed, and still giving room to two households. Compared to the present standards of living, the experimental house seems unbelievebly small and simple. But in former Norway the situation was different. After years of crowdedness and partly social poverty, this small standardized house finally fullfilled the Norwegian's dream about his own house.

The Selvaag house is only one example of many modern standardized houses which was designed in connection to the reconstruction of Norway after the second world war. In spite of lack of recources and rationing, the optimism was great, signified by social democratic visions about a modern welfare state, and work and houses for every one. The architects played a crucial role in the design of the modern

Norway, but before we summarize the post war architecture, we will make a glance back on the first phase of Norwegian modernism.

Early Modernism

The background of modern architecture can also in Norway be traced back to the end of the 19th century, by the use of technical innovations, new materials and construction methods in industrial buildings, warehouses, office buildings, shops etc., realized for different private commissioners. Concerning the social aspect of modernism, it can first be seen in the «Egne Hjem»[1] areas. Often these residencial areas were erected in connection to industry, planned by an architect, and partly built by the inhabitants them selves. Some of the first examples on «Egne Hjem» are the two family houses in Arctanderbyen (1910) and the semi detached houses for the workers of Freia (1912). Both areas are situated in Oslo and planned by the architects Morgenstierne og Eide. Also the Rivertz-blocks in Oslo, the first example on lamellar houses in Norway erected according to the plans of Kristen Rivertz (1912), reflect new attitudes towards standards of living.

Influences from Germany and England also resulted in the foundation of «Norsk forening for boligreformer» in 1913, but the social aspect of architecture first became a dominating feature ten years later. During the 1920s the architects designed several buildings for public authorities, reflecting the contemporary ideas on public welfare and standards of living: buildings related to public education, health and culture in connection to residences. Of significant importance in this connection was Head of social housing department and later Head of planning department in Oslo, Harald Hals. During his career he realized several residential areas of high quality. The garden city at Ulleval (ca. 1924), planned by Harald Hals and designed by Morgenstierne og Eide, is best known. But also the area Torshov is highly appriciated to day (1919–1931). Torshov has a more urban character, related to the planning ideals of Scandinavian classisism: large blocks in a grid. Both Ulleval Hageby and Torshov contains a variation of buildings with appartments in different sizes surrounding a small centre. The buildings on Torshov also made an example for many other areas in the period, the so

called «Oslo-plan» had it's starting point in the appartments on Torshov.

Next to the municipal housing projects, private cooperative societies were responsibel for most of the social housing during the next years. Oslo Bolig og Sparelag (OBOS) was founded in 1929, and their first building was realized at Etterstad in 1931, according to the plans of Jacob Chr. Kielland, a major architect in the cooperative movement. In 1935 the municipality of Oslo started a «life long» cooperation with OBOS: Oslo was obligated to find suitable properties for OBOS's new housing projects. There by OBOS became the most important tool in Oslo's politics, concerning social housing.

Like in other European countries, Norway was in a bad economical state in the 1930s. Both private and municipal building activity was low. Also in Norway the architects made great efforts to record the actual standards of living, and pedagogical exhibits and courses about social housing and other issues were arranged. One of the architects who took part in this work was Knut Knutsen. Of special importance was the «Oslo-undersøkelsen», made by Oslo Bys Vel during the war, and authored by the architect Odd Brochmann. The Oslo request documented the low standards of living in Oslo, and recommended flats with minimum three rooms and kitchen with dining area for families with children. The Oslo request made the grounds for the great realization of social housing after the war.

Still, single buildings were erected, and both in office buildings, cinemas and out door spas the modernistic dream about the good life was expressed.[2] Some of the best examples on modernistic buildings from this period (in Norway named functionalism), architectonicly speaking, are private one family houses. These houses were designed for a small, exclusive well off elite. Just a few areas of social housing were built in the 30s, in spite that social housing was considered the most important task for the architects. Several architects attended the first CIAM-conferences. The Norwegian architects also had contacts with German architects and town planners. The most radical architects founded in 1932 the «Sosialistiske Arkitekters Gruppe». The group published the journal PLAN, but did not realize any of their designs. Still, Norwegian architects are prowd to point out that one of the first modernistic building in the

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Fig. 1.

Fig. 2.

Fig. 1. Interior of Sentrum Kino, Samfunnshuset, Oslo. Ove Bang, 1940. Photo: Teigen, Norsk Arkitekturmuseum.

Fig. 2. Single family house Ditlef-Simonsen, Oslo. Ove Bang, 1937. Photo: Teigen, Norsk Arkitekturmuseum.

Nordic countries, Restaurant Skansen, was erected in Oslo. The first design was made by Lars Backer in 1925, and the building was completed in 1927. Regretably Skansen restaurant was demolished in 1970, due to the antiquerian's concern for it's neighbour Akershus Castle. Backer was one of the fore runners of modernistic architecture in Norway[3], but he died only 30 years old in 1930. Still, he realized several interesting buildings in Oslo which can be seen to day.

Another major building in the history of Norwegian modernistic architecture is «Kunstnernes Hus» in Oslo, completed in 1930 by Blakstad & Munthe-Kaas. The design started as a competition entry in 1928, and the final building shows influence both from Scandinavian classisism and modernism. This blend was a characteristic for Norwegian architecture in the years around 1930. The practice of Blakstad & Munthe-Kaas which is still running, very early picked up changing international conventions, and was leading during several decades. Their first mutual project was the town hall of Haugesund, a neo classical land mark developed from a competition entry from 1922. During the 1930s, their architectural ideas related to modernism, and they designed several interesting buildings, among them the listed acoustic interior of Klingenberg cinema dated from 1938.

Ove Bang was another of the personalities among the architects practising in the 1930s.[4] Both his villas and the public buildings are influenced by international modernism. Perhaps because of his radical political views, Bang was commissioned to design the head quarter for the Labour Movement in Oslo; «Samfunnshuset». «Samfunnshuset», dating from 1940, is a multi functional building containing a cinema, auditorium, meeting rooms, offices and shops. Both the cinema and the auditoriums are more or less authentic to day. Sadly, Ove Bang's career also ended much too early, he died during the war only 47 years old.

The last architect I will point out in this context is Arne Korsmo.[5] He finished his education at The Norwegian University of Technology (NTH) in 1926, and thus represents the young generation architects in the decade. During the 1930s, Korsmo designed several villas in Oslo for well off citicens. From the beginning of the 30s is Villa Damman, designed in cooperation with Sverre Aas-

land. The villa is one of all together 14 residences, both one family houses and two family houses situated in Havna Allé in Oslo, all planned by Aasland and Korsmo during the years 1930-34. The street is the most homogenous and interesting group of modernistic residences in Oslo, characterised by a mixture of experimental technology and design and the traditional. The other most interesting villa by Arne Korsmo, is Villa Stenersen in Oslo, dated from 1939. This one family house with an art gallery was designed for the stock broker and art collector Rolf Stenersen. The house is characterized by a visibel skeleton constrution combined with an open plan, and advanced technical solutions in the skylight of the gallery and in the glass brick facade.

As well as in other European countries, several fares and exhibitions were arranged during the 1930s. The lay out and design of these exhibits was a welcomed task for the architects in a decade with building activity at a minimum. The most popular exhibit was «Vi Kan-utstillingen»[6] arranged in 1938. The lay out of «Vi Kan» can be seen as an apropos to the Stockholm exhibition in 1930, situated along the harbour like a promenade through a street of small pavilions along Oslos seaside. The design of the exhibit was done by Arne Korsmo in cooperation with Knut Knutsen og Andreas Nygård. Still Korsmo has got the credit for the exhibit's modernistic design, especially expressed in the entrance described by Korsmo as «Kniven som skjærer gjennom kaos».[7]

Modernism takes a Brake

Norwegian historians devide this century in two: before and after the Second World War. Also the history of Norwegian modernistic architecture was devided by the out brake of the war. Except from the activity of the new nazi authorities, no building was going on during the five years Norway was occupied. Besides, Norway was struck by great damages at the end of the war. All towns along the coast from Måløy at the west cape to Kirkenes in the north were burned down (+ a couple of towns situated in the inland) and all these towns had to be rebuilt from the ground. These enormous damages became one of the most important premisses for the design of post war Norway.

The planning of the reconstruction of the towns damaged by fire, started

already during the war: «Brente Steders Regulering» was founded in 1940, directed by professor in town planning Sverre Pedersen. The planning was organized as small, local architect offices in every town, and head quarters in Trondheim and Oslo. In 1942 a Norwegian Department of Reconstruction was founded in London, in order to coordinate the plans. Due to professor Pedersen, the over all idea of the reconstruction was classisistic town planning, but also adjustment to the local character and landscape was stressed in the new plans. When the peace finally came in the spring 1945, the planning was more or less finished, and the actual building could start. During the first couple of years reconstruction of 27 towns took place.

All though these reconstructed towns do not reflect modernistic architectural ideas, I will show you one typical example, just to give you an idea of a typical post war Norwegian town. Kristiansund is a small city at the north-west coast, based on fishing, fishing industry and stock fish export. Untill the war, Kristiansund was a self grown city, situated on three islands with the center focused towards the sea. When the planning of the new city started, this situation was maintained, but the new plan also tried to create communications between the city center and the main shore. The new town plan suggested public buildings and storehouses organized in a grid. The streets were running from the quaies up hill, with a 24 meters wide main axis leading from the pir to the church. Another important street was leading from the quay to a public square surrounded by post og telegraph buildings. Also the town hall with it's «campanile», was situated at an important part of the city, by the fishing market at the main quay. The warehouses were built in three stories in masonry, with gables facing the streets. The residencial areas were planned in the upper parts of the city, as semi detached houses.

Living in the Greenery

When the building activity startet again in the end of the 1940s, the architects were thursting for work. Social housing quickly became a central political task in the new Norway, and the radical architects who had close relations to the Labour party, got many commissions in connection to the planning of the new

suburbs. In order to realize the goals about creating «good housing for every one», «Den Norske Stats Husbank» was founded. The intention was to make every family in need capable of financing his own house, either as an independent owner or as a member of a private, cooperative society. The principle about self owners has always been strong in the Norwegian mentality, and to day, 60 % of all Norwegian households own their own house, and 20 % is owned by cooperative societies. The other characteristic of Norwegian housing is the great amount of one family houses. All in all 60 % of to day's residencial buildings are free standing one family houses situated in gardens.

The post war modernism

The homes of 22 000 households were damaged during the war. A total of 66 000 new family residences were built during the next four years, mostly situated in new satelite towns in the outscirts of the existing cities. Because of the nationalistic era after the war, these areas do not represent high lights in the history of modern movement. Though, these new parts of the cities represent modern solutions concerning both town planning and the lay out of each single appartment, the over all design is traditional. Besides, more and better examples on this type of architecture can be seen in other Nordic countries, and especially here in Stockholm. Thus we will not concentrate on these areas. In stead, we will end this short overview of Norwegian modernistic architecture with Knut Knutsen and Arne Korsmo. As already mentioned, they were two of the

leading figures before the out brake of the war. After the war, they both managed to look further than the nationalistic and traditional, and their work from the 1950s og 60s there by brought Norwegian modernistic architecture new qualities.

Knut Knutsen was a leading figure in the «nordic» direction of Norwegian post war modernism. Knutsen developed his personal ideology concerning care of nature and natural resources both in architectonic works and in writings. His philosophy can best be seen in his own summerhouse in Portør from 1948. In simple wooden materials he designed a house which completly adjust to the nature at the spot. The tradition of Knutsen are often named «The Knutsen school», and during the 1960s and 70s quite a lot of buildings were designed in the spirit of Knutsen.

Norwegian modernistic post war architecture also had an international branch, dominated by «PAGON; Progressive Architects Group Oslo Norway», the Norwegian CIAM group founded in 1950.[8] Arne Korsmo was the head figure in PAGON, and the core of the group was made up of former students of Korsmo: Sverre Fehn, Geir Grung, Håkon Mjelva and Odd Østbye. Also Christian Norberg-Schulz, Robert Esdaile, P.A.M. Melbye and the Dane Jørn Utzon[9] attended the group. The members of PAGON made several radical town planning projects, all of them based on a total demolishing of the traditional urban structure replaced by freestanding buildings raised on pilots in a park. All projects were too utopic in order to be realized, and the ideas of PAGON can be seen to day in

some public buildings and several private residences.

Poetic modernism[10]

The best representative of PAGON to day, and the most important inspiration for the young architects, is Sverre Fehn.[11] This short over view with there fore end with one of his most interesting works «Hedmarksmuseet» on Domkirkeodden in Hamar, from the 1960s. At «Hedmarksmuseet» Fehn has created a sensitive meeting between past and present by leading the public above the archeological excavations on concrete ramps, covered by a barn looking building in wood, concrete and glass. At the same time Fehn has united the natural qualities of the situation and the eternal of architecture. His buildings are thereby seen as Norwegian, and at the same time they have qualities of international standard.

Notes

1 «Our own home».
2 All the buildings mentioned here, are among the Norwegian entries to the International World Heritage List.
3 Backer presented his modernistic ideas for his collegues in *Byggekunst* 1925, 173-
4 See special issue of *Byggekunst* 1995/4.
5 See Christian Norberg-Schulz: The functionalist Arne Korsmo. Oslo, 1986.
6 «We Can».
7 «The knife which cuts through caos.»
8 The manifesto of PAGON was published in *Byggekunst* 1952/6, authored by Christian Norberg-Schulz.
9 Utzon was aquainted with Korsmo in Stockholm during the war.
10 Norberg-Schulz's charachterization of Fehn's architecture.
11 See Christian Norberg-Schulz and Gennaro Postiglione: Sverre Fehn, collected works. Oslo, 1997.

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Vision and Reality – Denmark

Vision

Often long trips on bikes during short summer holidays led to wide beaches. The meeting of land and water has always been of great importance to the Danes, as harbour, hunting ground and fishing hamlet and, of course, for recreation.

In the new world people became independent of time and place and, in other words, freed themselves from the ties connected to the past. As to Rousseau´s child of nature, the vision of modern people´s lives meant freedom without limits. This freedom included life on the beach. Everybody was equal, and so with a sun hat and a beach ball they had a glorious future before them.

The dream about seaside life was widespread and among the many layouts of beaches (at Dragør, Charlottenlund, Hornbæk) the beach at Bellevue (Klampenborg – about 10 km. north of Copenhagen, 1932) is the most characteristic and well-preserved example of Danish Modernism.

With beach, cubicles, jetty with connections to Copenhagen and Sweden, a beach hotel, restaurant, houses and theatre Arne Jacobsen had formed a synthesis of seaside life, entertainment and residence. From Copenhagen to Bellevue a concrete, four-track road of three kilometres, the life line of the capital city to the recreation on the coast of the Sound, was made. One of the most beautiful roadside filling stations was built, and a tower of 100 metres – almost reaching the sky – with a revolving restaurant on top was planned.

The beach was the common playground for everyone, a summer paradise, and although the Danish summer was short, it was expected once a year.

In a more Utopian project in 1929, Arne Jacobsen and Flemming Lassen had a vision about a future house, which was built for the "Building and Housing Exbihibion" (Bygge- og Boligudstilling at Forum). The house had a circular plan and appeared as a futuristic movement with garage for boat and car and with a helipad on the roof. There was also a receiver on the roof which was to transmit energy to the house. It was not possible – either technically or socially – to realise that part of the vision, however, the house had a visionary, futuristic architecture in more than one dimension.

Single-family houses could not solve substantial, social problems but, at best, they formed a social microcosm and "a personal manifesto" about a life concurrent with the new age with little anchoring to the real world.

However, the single-family was one of the clearest expressions of those days´ avant-garde. As early as 1924 Edvard Heiberg was inspired by the Bauhaus architect Georg Muche´s pilot house from 1923 and he built his own house in Lyngby north of Copenhagen.

Several houses by, among others, Arne Jacobsen, Vilhelm Lauritzen and Kay Fischer tell us about experiments with new techniques and materials.

The vision was, however, far from reality. All the same, modern life was considered from aesthetic, technical and social viewpoints. The architect Steen Eiler Rasmussen described how clothes since the beginning of this century have become more functional and how young people have become more equal and so the relation between the sexes and the social classes has become easier. "When we see a picture of young graduates people from the 1890s, we think that they look like grandparents, solemn and stiff with full beard, starched shirt fronts and collars, dark and uncomfortable clothes ...

Compared them with the graduates of today who are pure children in check shirts and shorts. In the summertime we see them biking in the open, untroubled, unworried about their dignity, with a zest for life, for experiences with all senses."[1]

The woman was supposed to be working as the man, and child-minding and cooking were to be dealt with in common. In new houses the kitchen was fitted up as a workshop, and they had dreams about new houses with a common house and a family hotel with flats without a kitchen where the commune or special employees were responsible for the common work.

Already in the beginning of the century the first commune house was built in Denmark[2], but actually the first real commune house is the one in Høje Søborg, designed by Povl Ernst Hoff and Bennet Windinge in 1951. It complied with the new feminine role and at an exbition in Forum (1950) concerning commune houses it was declared that the needs of all women were met. "Dear women! We know that a shed can be the setting of happiness and harmony. But a good house, high or low, forms a better frame for the family, especially if the needs of the housewife and the working wife are to be met according to their conditions."[3]

The new families had fewer children and with a changed family pattern, it was necessary with child-minding in the community[4] so that single children would not be spoilt by their families.

In that period many new, publicly maintained schools were built, and often they became cultural centres with a library, sports ground, youth centre etc. The new school was less authoritarian, often with a large main hall. The school was a place of work which had to have a high standard of hygiene and a good indoor climate with light, fresh air and a lot of space.

One of the most outstanding schools was The School at the Sound, designed by Kaj Gottlob (1937) with class rooms around a big, oval, central room in four storeys. The floor was a lino with intarsia in strong colours on which there was a stylized map of the city, and in the ceiling a big arrow with a connection to the roof showing the actual wind direction – so even the decoration was part of the school pedagogy.

A sound soul in a sound body was a motive, too, concurrent with the vision of that time, and after school the sport activities were to start. Therefore many new stadiums were built, e.g. The Copenhagen Ball Club (Frederiksberg) designed by Henning Hansen and Gladsaxe stadium (north of Copenhagen) by Vilhelm Lauritzen.

Perhaps the recreation of the day was finished with radio or movie, new, international media, giving a social connection across all borders; Josephine Baker, Greta Garbo and Errol Flynn could be in Hollywood and in Denmark at the same time. And with the new, elegant airport, designed by Vilhelm

Lauritzen, a gate had been opened to the whole world.

Reality

Even if man came to the beaches of the summer paradise, perhaps, everyday life was characterized by hardships.

As a humanist and a technician the architect therefore played an important role as he was to solve technical, social and aesthetic problems.

In 1913 Adolf Loos visited Copenhagen and at a lecture he critisized the architecture for pleasing its builder and architect.[5] The architecture failed to have contact with the community.

The conditions in the cities were bad. Many people lived together in small flats, often less than two square metres per person without a bathroom and with an outside lavatory. It was not enough with philanthropy in order to reduce the housing shortage.

Examples of early social house building are the building of the Danish Medical Association from the middle of the 19th century. Even if the ancient ramparts of Copenhagen had been demolished in 1852, and the city expanded with blocks (outside the ramparts), the rooms were often small and dark. However, people with an allotment garden in the outskirts had a brighter life. Sometimes these were also used as housing, illegally – without any comfort. It was necessary to call for a housing policy in order to improve the building of houses and to establish town plan development, and so co-operative council housing associations. As a visionary idyl and something new: strip buildings were erected which had light, fresh air, and a garden for everyone.

The architects Th. Henningsen and Ivar Bentsen were the fathers of several strip buildings and other buildings as e.g. "The City of Study" (Studiebyen). The models are to be seen in the English garden cities, interpreted by among others Heinrich Tessenow's "Hellerau" in Dresden. But this idyl was not enough to meet the heavy demands for good housing.

Aesthetics

The architects Edvard Heiberg and Poul Henningsen were spokesmen of a new architecture, fitting the lives of modern people, and it was based on the multi-storey building. They thought that the past had few relations to the new real-

ity, and at the same time it was a warning against a superficial view on Modernism. With cubism the new reality had got a pictorial expression. It was represented in Denmark by among others Jais Nielsen and Vilhelm Lundstrøm. Poul Henningsen spoke in favour of closing down the Academy and wished an art school, teaching "on such a general basis as the modern artists possibly could teach"[6]. He thought that new architecture had to start in the reality and not in superficial aesthetics. He wrote also, "The modern materials and constructions are to ease our way to a better construction of society"[7].

In 1935 Edvard Heiberg published "Two-room Flat Now"[8], a manifesto, which was propaganda for an unsentimental, functional architecture, inspired by e.g. German and Russian housing building. Heiberg dissociated himself from Modernism, representing a reduced and superficial vison as Arne Jacobsen's Bellavista, and also from the idyllic strip buildings and single-family houses. People should instead live in multi-storey buildings with common facilities and be placed as tower blocks in green space. In this way the greatest possible number of people would have light, fresh air, and a social sense of community which otherwise Heiberg thought would be lost in the single-family house or the strip building.

Already in 1917 Poul Henningsen wrote about that time's striving for elementary and pure, architectural forms, only being constituted by function, material, and the urge to a common, cultural purge, as "the main point must be the human monument. If you read modern, aesthetic comments in Germany, it occurs to you that many consider the reinforced concrete, the mirror glass, the steel to be absolutely revolutionary in solving problems. But very seldom you meet authors attaching great importance to the fact that the cities are overpopulated and that people have difficulties in achieving tolerable conditions of life. This ought to be more important."[9]

To Poul Henningsen material, technique and aesthetics were the means to achieve a new social reality.

Heiberg had found ideals in the new buildings in e.g. the big, social housing sectors, planned by Ernst May in Frankfurt am Main, where new technology formed the basis of the new, social vision.

Inspired by these examples the first big, modern multi-storey building "Blidah"

(1933) was built in a park by the architects A. Skjøt-Pedersen, Edvard Heiberg, and Karl Larsen, later also by Ivar Bentsen, Acton Bjørn, and J.W. Berg.

Even if Poul Henningsen and Edvard Heiberg dissociated themselves from the past, projects by architects as Kay Fisker, C.F. Møller, but also by Arne Jacobsen witness that tradition had an importance. Perhaps this new tradition formed a "social security" on an aesthetic level. With a re-interpretation of known forms and materials the architects had got a new basis which was called the functional tradition[10].

Aarhus University (1932) by Kay Fisker, C.F. Møller, and Povl Stegman is standing like a "Stadtkrone"[11] of brick crystals in a park, presumably the main work of the functional tradition. However, buildings as "Vestersøhus" (Copenhagen) by Kay Fisker or the big, social house building in Bispeparken (Copenhagen) with more than 800 flats must be understood as being part of the same movement.

Technique

The technique was considered to be the basis of new relations. The office building "Fem-øren at Vesterport" (Copenhagen) was erected as a rational steel framework with pneumatic dispatch, lifts, and occupied by well-organized firms – even radical voices regarded the liberal professions' taking advantage of the new architecture as exemplary. In "Functionalism and Society" Arne Sørensen said that this new office building (Vesterbrogade 8) ought to be the modern housing of the Folketing, the Danish Parliament[12].

Both working places and public institutions were organized more and more to meet new technical and social premises. The slaughter houses of the Meat Market at Vesterbro (Copenhagen), a part of a village in City, is white, modern architecture where the signs are integrated parts of the whole. Of more representative character: several city/town halls with architecture of high quality, especially inspired by the addition to the City Hall of Gothenburg, designed by E.G. Asplund. The new City Hall of Århus (1938–42) was designed by Arne Jacobsen and Erik Møller, an informal and elegant building, providing the setting for life in a modern office building.

The new technique also had a great importance for the house building, and the architects Frits Schlegel and Mogens

Lassen developed the placing. In 1932 Schlegel erected a single-family house as a prototype for the Centre of Concrete (Bernstorffsvej 17, Gentofte, Copenhagen), and Mogens Lassen built several single-family houses in concrete at Sølystvej (Klampenborg, north of Copenhagen). The technique of placing was developed in such a way that it was possible to erect multi-storey buildings. Thus the block of (Gentofte, Copenhagen, 1937) are taking advantage of new technique.

Hereby the development of technique and materials was the basis of a new, rational building technology, and after the war there was still a housing shortage. With industrialized building parts of a town could easily be erected including housing and service facilities. In 1945 at Bellahøj (Copenhagen) the first tower blocks and at the same time the first Danish concrete pre-cast constructions on a bigger scale were built, designed by Mogens Irming and Tage Nielsen and inspired by Le Corbusier's plan Voisin and the tower block quarter Drancy (Paris, 1934–36). Bellahøj consists of tower blocks with 10–12 floors, four-storey houses, and single-family houses.

In 1950 Steen Eiler Rasmussen together with the landscape architect C.Th. Sørensen designed the plan for another big housing sector, Tingbjerg (Copenhagen). It had almost the quality of a satellite town with shops, school, multi-storey buildings and a single tower block.

The five blocks of flats (16 floors) at Høje Gladsaxe (Copenhagen, 1963–68), designed by Povl Ernst Hoff and Bennet Windinge, are the culmination of the industrialized, housing building. The tower blocks appear as big slices in a characteristic landscape. There are 2000 flats all together, and in lower additions all possible services can be found. In this new housing sector all needs for *physically measurable needs* are met – modern people have left the *sensuous misery*.

The new vision of man made an impact on building of houses, places of work, theatres, sport facilities and public buildings (city halls, schools, libraries etc.). It even reached the public on the beaches! So aesthetic, technical and social premises were the basis of both vision and reality.

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Notes

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2 Forchhammersvej 4–6, Frederiksberg, Copenhagen. Existed from 1903–1910.
3 From the catalogue of the exhibition "Woman and Home" (Kvinde og Hjem), Forum, 1950.
4 Sørensen, Arne, Funktionalisme og samfund, København, 1933, s. 105–109.
5 The magazine "The Architect", 1912–13, p. 280.
6 "Klingen", 2, 1919.
7 "Kritisk Revy", 1926.
8 Heiberg, Edvard, "2 Vær. straks", København, 1935.
9 Poul Henningsen, "Kritisk Revy", 1927.
10 Kay Fisker interpreted functional tradition, article "The Functional Tradition" in "Architectural Review", January 1950.
11 The concept "Stadtkrone" refers to Bruno Tauts' Expressionistic visions of a city and also to crystallized architecture, jfr. P.V. Jensen's "Klint's project for a national monument, 1907, and the Grundtvig's Church, Copenhagen, 1920–40.
12 Arne Sørensen, "We should have had the Vesterport, Copenhagen, as our House of Parliament instead of the baroque castle Christiansborg – a modern, Democratic society deserved that", in "Funktionalisme og Samfund, København, 1933, p.148.

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Finnish Modernism: Future Ideas and Hard Realities

Finnish historical destinies have differed from those of the other Nordic countries, and so Finnish Modernism, with its ideologies and utopias, has followed its own paths. Finnish architects' connections to Sweden have always been close, but the conditions of the political situation in Finland did not produce a Swedish-style welfare state.

The Turbulent 20th Century

In connection with the social changes resulting from the Russian socialist revolution, Finland declared independence from Russia in December 1917. The following social power struggle in Finland led to a three-month long civil war at the beginning of 1918, the consequence of which was a right-wing politics that continued almost uninterrupted until the end of the Second World War. The nationalistic ideals were strongly agrarian, even though industrialisation, based mainly on wood processing, was increasingly being developed.

The war period started in Finland with the outbreak of the so-called Winter War with Russia on 30th September 1939. The period of reconstruction started already in 1940, with the repair of the damage from that war. Building continued during the so-called Continuation War (1941–1945), and there was a regulated economy in force up until 1954 in order to overcome the consequences of the war period. Following a few years of leftist political power, there was a change of political direction to a centrist-social democratic government. The so-called Paasikivi-Kekkonen foreign policy political doctrine guided the development of the country, both at a material and cultural level.

The building of a welfare society started in earnest during the presidency of Urho Kekkonen, from 1956 onwards. The process of Finland moving from an agrarian economy into an industrial one was fast, and this was strongly reflected in building. In the 1940s three-quarters of the population lived in rural areas, by 1955 there was an equal number of agricultural and industrial workers, and during the 1960s the number of agricultural workers reduced from one-third to one-sixth of the working population. The changes were given stimulus by recurring unemployment, migration of the population to the cities and the desertion of the more remote rural areas. The large comprehensive incomes policy agreement in 1968 defined the rules of the development of wages for the work force for almost two decades, until the economy fell into a deep depression at the end of the 1980s. Adapting to the post-industrial social structure, the decrease of productive work at the expense of the service-sector, and the rise of automation has meant the dismantling of the mechanisms that guaranteed the social securities of the welfare society, mass unemployment, a harshening of political attitudes, and a political trend towards the right. The modern and optimistic utopia of development and growth is being forgotten. The global economy starts to shape the economic life of the country and nationally independent solutions in political, economic and cultural areas are fitted into directives within the uniting Europe.

Towards a New Architecture

As industry was concentrated into the bigger cities at the beginning of the century, the housing question became an issue in the architecture debates in Finland. The Housing Reform Society (Asuntoreformiyhdistys) was founded during the 1910s. The first general housing congress was held on March 1st 1915. Waldemar Wilenius's influential book *Housing and Tenancy Conditions in Helsinki* (Bostads- och Hyresförhållanden i Helsingfors) was published at about the same time. While reviewing Gregor Paulson's book *The New Architecture* (Den nya arkitekturen), Sigurd Frosterus wrote in a radical way about the morality of architects. He argued that instead of directing their skills towards solving the difficult housing problem for those of limited means, architects sell their skills to the capitalists, and busy themselves with styles and decorations. He wrote: *"Capitalism will buy up nearly all available talent."* (Arkitekten, 1916: IX).

The housing problem was taken into account in town planning, but building houses was a private business, while some housing projects resulted from commissions from industrial corporations. The Kone ja Silta (nowadays Wärtsilä) company's workers' apartments in Vallila in Helsinki (built between 1916–19 and 1927–1929), was for a long time the only example of urban building which aimed for a good living environment. Also worth mentioning is the Puu-Käpylä housing district in Helsinki (1920–1925), built according to the town plan of Brunila and Meurman and the architectural design of Välikangas, which was built from wooden elements. One other scheme worth mentioning is the houses on Mäkelänkatu in Helsinki by Gunnar Taucher.

After gaining independence, the new Finnish republic sort its own identity. The ideals of modern architecture at the end of the 1920s seemed to offer a solution for how the new society could cut off the traditions of Russian power. The new modern architecture was excellently suited for expressing the character of a technically advanced, developing, new nation, that looked optimistically into the future. The language of the new architecture was adopted for state buildings. There was a need for buildings for new types of institutions, including hospitals, particularly tuberculosis sanatoriums (so-called 'folk sanatoriums'), primary and secondary schools, office buildings and post-offices. The functionalist ideas suited perfectly for such uses. Somewhat odd, however, was the combination of development and conservatism in the building programmes of the Finnish military. In the middle of the 1930s several strictly modernist barrack areas, such as those within the Immola air base, were built by the only building office of the Ministry of Defence, where planners such as Aulis Blomstedt, Elsi Borg, Olavi Sortta, Martta Martikainen and Ragnar Ypyä worked.

Modernist architecture was adopted widely throughout Finland at the end of 1920s and during the 1930s. Alvar Aalto and Erik Bryggman were among the first architects propagating the new ideas. Aalto's Muurame Church (1926–

29) and Jyväskylä Civil Guards' House (1926–29) were early examples of what was to come, while Aalto's Turun Sanomat building (1930) and Paimio Sanatorium (1929–33), as well as Bryggman's housing company Atrium (1927) and adjoining Hotel Hospitz (1926–29), were already pure functionalist architecture. The Turku Fair (1929) and the Stockholm Exhibition (1930) presented these new ideas to the public. Functionalism then spread throughout the whole country, especially through the influence of Erkki Huttunen, who was head of the building planning in the SOK cooperative retail society.

The Functional Solution to the Housing Problem

The financing of the housing, health issues, town planning and the improvement of the position of tenants were discussed in the housing debates of the Housing Reform Society and the Finnish Architects' Association. The actual building of houses, however, was mainly left to private companies during the depression of the 1920s. The reality of working-class housing was communal kitchens, one-room flats with tiled register stoves and kitchen ranges, and a subtenant system. In 1930 in Helsinki over 5000 people lived in rooms with over 6 persons. The ideas of social equality that came from Sweden (for instance, Nordiska Arkitektsmöten, Gunnar Asplund, Sven Markelius, Sigurd Leverentz and Uno Åhren), housing solutions found in Germany (for instance, Tessenow and the Bauhaus), Le Corbusier and the Architettura Minore (admired during trips to Italy), prepared the ground for the modernist solution to the housing shortage. The importance of finding a solution to the housing problem was kept alive by Alvar Aalto, Erik Bryggman, P.E. Blomstedt, Hilding Ekelund, Aarne Ervi, Erkki Huttunen, Viljo Revell and Väinö Vähäkallio. The housing issue was also kept alive by the cooperative retail society movement. The building department of the socialist Cooperative Union was founded in 1923, and among others Georg Jägerroos and Väiniö Vähäkallio (who was a good friend of the leading social-democratic politician Väiniö Tanner) were active within it.

New technical innovations, central heating, the standardisation of doors and windows, as well as kitchens, and the development of cheap industrial building materials (eg. Nokia rubber mats) and prefabricated structures, such as the so-called Enso House, where Enso cardboard was used in the external surface of the building, made their appearance in housing design in the beginning of the 1920s.

It was not until the 1930s that it became more common for houses to be built according to the ideals of the modern society. In the socialist Cooperative Union building department Jägerroos made a plan in 1934 for a plot that the Elanto Cooperative had acquired already in 1916, in order to build workers' housing. In the modernist plan there was in addition to the housing itself also meeting, reading and recreational rooms, a sauna, children's bathing-pool, and a central kitchen. But the project were not carried out until the 1940s, and then without the communal facilities. The Helsinki housing cooperative Haka was founded in 1938 in order to build social housing, in cooperation with the municipalities. The founders were the Cooperative Union, the Elanto Cooperative, the Kansa Insurance Company, the OTK Cooperative Union, and the Housing Mortgage Bank (Asuntohypoteekkipankki). The idea was that their activities would spread throughout the whole country.

In 1936 Alvar Aalto received a commission from the Ahlström company to design the factory community of Sunila, including its housing and social services. The commission also included the design of the main cellulose factory. In the Sunila design, Aalto fitted together the ideas of the new modern era into a virginal landscape, freely following the varied topography of the site. The building programme was carried out between 1936–39, and after the war Aalto designed more housing on the area, within the framework of the initial general plan. Sunila was a superb Finnish example of the modernist utopia. Aalto also designed for the Tampella company in Inkeroinen, and for the Ahlström company again in Kauttua. He investigated how to combine the tradition of, for instance, tarred wood within modern multi-level solutions built on to a sloping site, and developed detached houses types known as the AA system.

Finland was to due to host the 1940 Olympics. Apart from the sports buildings representing white shining Functionalism, there was also the Olympic village in Käypylä, which was started on the basis of designs by Hilding Eke-

lund and Matti Välikangas. Also, Aalto, Englund and Jägerroos participated in the design of the general plan. Haka was involved in carrying out the building construction. Because of the war, however, the 1940 Olympics was postponed, and the Olympic village was only completed after the war. The first inhabitants in this residential area of 3-storey white-rendered houses set freely in the landscape were displaced evacuees from Karelia. The Olympics eventually took place in Helsinki in 1952.

Finland survived the war as an independent country, but had to build its future in a way that differed from previous circumstances. The areas of Karelia and Petsamo were lost to the Soviet Union during the war. Furthermore, one-third of the country's energy production, 125,000 houses (one-tenth of the country's overall housing stock) and a large part of the capacity of the industrial production was lost. Lapland was in ruins, burnt by the retreating German forces. Almost 400,000 evacuees had to be housed and the war damages of 300 million dollars had to be paid, two-thirds of which as products of the metal industry. Finland managed to rebuild without help from the Marshal Plan, and also managed to remain outside the political blocks that divided up Europe.

The building of a modern industrial society based on European models that had been developed before the war was discontinued because of the war. In the postwar situation the social task of building was emphasised, whereas before the war the rational and functional building forms were dominant. Finland was still an agrarian country and the emergency settlement of the evacuated population involved mainly directing them into agriculture and housing them in scattered settlements outside built-up areas. Between 1945 and 1956 about 100,000 new smallholdings and 75,000 houses were built based on a land acquisition act. The need for more extensive regional planning was put forward on the initiative of the Population and Family Welfare Federation (Väestöliitto) and the Finnish Architects' Association.

A reconstruction bureau was founded within the Finnish Architects' Association in 1942 (from 1947 onwards called the Standardisation Office), which produced model drawings and developed prefabricated, economical structural models, mainly made from wood, and making the best use of scarce buil-

ding materials. The cubic, detached house type, with a saddle-roof and built around one chimney, was good as a house model for both the rural and the suburban ex-servicemen communities. This house model is still in use today in remote areas, although it is now disappearing. The central building bureau for the rural areas, the Population and Family Welfare Federation, and the National Board of Education (kouluhallitus) also produced building and design models, and created standards, and design-guides for the design of schools and town halls.

The main emphasis in the rebuilding period was on the production of industrial plants, particularly in establishing the new metal industry, power plants and production plants for agriculture. Housing was built only at the end of the work day, with one's own hands and with neighbourly help. Model plans and wooden elements from element factories were of assistance even though many, for instance in Lapland, built their own houses in the traditional way, namely from logs. There was wood, but almost everything else, including nails, cement and bricks, was in scarce supply. In 1946 85 % of the buildings being built were made from wood. Also surrogate materials were developed. Lapland was rebuilt between 1946 and 1948. The displaced population and ex-servicemen were all housed by the end of the 1940s, but the repair of the bomb damage in the cities went on for many years afterwards. By the middle of the 1950s new building in the cities exceeded that in the rural areas.

The rebuilding period was characterised by shortages, saving, rationing and surrogates, but there was also optimism, tenaciousness and creativity. In architecture it was necessary to return to tradition and increase the use of, for instance, wood, such that even the floors in multistorey buildings were again made from wood.

There were also new ideas within district planning; for instance, the rebuilding plan for Rovaniemi, the regional plan for Kokemäenjoki and the first stage of Tapiola Garden City. The schools, town halls, and churches (for instance Salla Church), of the rebuilding period are permanent achievements of architecture. New ways of doing things were developed and a path was cleared for the industrialised and increasingly urban, dynamic society. The building heritage of the rebuilding period had been pro-

duced under conditions of scarcity that nowadays can be difficult to understand and appreciate. Many of the achievements of this period are now disappearing or they are repaired beyond recognition. For instance, Rovaniemi has already been rebuilt.

Towards a Prosperous Finland

The housing losses caused by the war were replaced by the 1950s, when the building of a prosperous Finland began. Heikki von Herzen's *Home or barracks for our children?*, from 1946, and the foundation of the Housing Corporation (Asuntosäätiö) in 1951, were the starting points of a new era which led to the building of the Tapiola Garden City. The best architectural forces were employed in its planning: Otto I. Meurman as town planner, and buildings designed by Aarne Ervi, Aulis Blomstedt, Viljo Revell and Kaija and Heikki Sirén. Meurman's planning doctrines, and Lewis Mumford's book *Culture of Cities*, (which was translated into Finnish in 1949) created the theoretical basis for the scheme. Industrialised building techniques were tried out in Tapiola; the influences for this came from the USA via Aalto's and Revell's trips there during the 1950s. At the forefront of the development of industrial building was the design done in the socialist Cooperative Union housing department, and Haka, which no longer had a social stamp on it, but had became a building company among others, and its range of activities stretched throughout the country. Comprehensive industrialised building production was achieved by the 1960s.

The so-called State Housing Board (Arava) Act was enacted in the beginning of 1949 in order to arrange state financing for housing production. The Finnish housing policy was based on private ownership of houses. Rented accommodation produced by the state or non-profit foundations were secondary in housing production. The maximum size of the state-subsidised flats was 100m², and at first no limits were set on those taking a loan. During the first year of borrowing, Helsinki Haka received over 10 % of the loans issue. In population centres, two-thirds of the housing was state-subsidised during the period 1949–55. State-subsidised housing design was directed with strict norms; for instance, the maximum width of a living

room was 3,6 metres, the amount of fixed furniture was set in relation to the size of the flat, and a one-room flat wasn't allowed to have a balcony, which naturally influenced the architecture of the buildings. In the design drawings for the state-subsidised housing applications, the standardised flats had to be shown furnished. Instead of having no balcony, the so-called French-balcony was used. For instance, the Mäntytorni towerblock in Tapiola and several of Revell's towerblocks had no balconies because they consisted only of small flats. The larger flats intended for families with children were preferably placed on the ground floor, whereas single people were seen as being more suited for the urban towers. High-quality examples from that period include Maunula, Etelä-Haaga and Roihuvuori in Helsinki, and the Viitasaari area in Jyväskylä, with its buildings designed by Jorma Järvi and Aalto.

The Building Boom Decades, 1960–1970

The first fully prefabricated housing area was Pihlajamäki in Helsinki. It was designed by Lauri Silvennoinen, who said of the scheme: *"Let us draw up the buildings upon the rocky slopes and let us have the building cranes crawl along the concrete slabs of the buildings without touching nature."* A new era had begun. Pihlajamäki was the first suburban housing built with views in mind, the first example in Finland of the Corbusian vision of the future. These same design principles were then followed elsewhere in Finland. For instance, in the first new town development project in Lahti the plan emphasised that the buildings would be placed in the terrain such that they would rise above the high tree tops. Similar designs were proposed by Revell, Ervi, Blomstedt and Tavio already in the 1950s for the Tapiola Garden City, but the time was not ripe then for such radical changes of the landscape. The compact town, the crane tracks, and industrialised efficiency were visible in the designs as a grid-plan ideology. The Suvikumpu housing area in Tapiola by Reima and Raili Pietilä (1962–69) was a humanist antithesis to Silvennoinen's techno-rational proclamations. Another of the best examples was the humane Kortepohja district in Jyväskylä (1968–69) by Bengt Lundsten. It captured the scale of the traditional wooden town, while the wood is clear-

ly present as a material, too. The major part of the mass building of the 1960s and 1970s was prefabricated element production, with grey or pebble-washed concrete; tile, brick or plastered surfaces disappeared from production almost completely.

The consequences of the energy crisis in 1973 were seen in the increase of insulation thicknesses and the decrease in window areas. Also, residential buildings were installed with machine ventilation because they could include heat retainers. However, the seeds for fungus defective building was sewn through sealing and saving. All building was by now becoming industrialised and the business of larger property-developer builders. The municipalities drew up plans for housing areas on land owned by the developers. The social structure started to disintegrate and those responsible for comprehensive building transferred the power of decision-making to the building companies. The field of building production was centralised; for instance, all large builders were, in one way or another, linked to Haka's activities, which by 1984 was one of the biggest building companies in Finland, even also extending its activities abroad.

The production of housing as a social activity had long since become a

business on the largest scale, within which banks and insurance companies had been tightly interconnected. The so-called target-saving system tied everybody who needed a flat tightly on the bank's leash. The tenant farmers had been freed and the leaseholder farmers were allowed to buy their land plots during the 1920s. Finland was industrialised and the people had moved into cities and had become tied to their housing loans. The popular image of how things were going was, that Finland was prospering and would end up owning Europe by the end of the 1980s. The sharp depression scraped the dreams, and a crude dismantling of the welfare society began. The Swedish newspaper Dagens Nyheter on 23rd February 1998 published a story of how 60,000 flats owned by the state are going to be pulled down because there are no inhabitants to live in them.

The functionalist tradition lives on in Finland, even though world trends have brought new yet mainly superficial features into architects' work in the course of technical and social developments. The architect's ideological and design coordinating position disappeared ages ago, the world of building has become tougher, schedules have become shorter, fusions of building companies have

transferred power to foreign investors, and national control has changed into Brussels-directives. The social aspect of building, that emphasises social justice can scarcely be heard. On the other hand, the imperative of sustainable development, which at least in Finland has been integrated into the building law, which is presently under renewal, would require a deepening of the functionalist world of ideas, and the rebirth of regenerative powers.

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Social Aspects and Modern Architecture in Iceland

Iceland, despite its geographical isolation, has always had strong cultural and political links with Scandinavia. Settled by Norwegian Vikings in the 9th century, it formed a union with Norway in 1262 and later became a part of the Danish Kingdom. Until the 1900's, the economy of Iceland was based on primitive agriculture and fishing. From the time of settlement and until the 1700's, Iceland was a rural society with no tradition of urban culture. Small trading towns developed along the coast in the late 18th century. Mechanisation of the fishing fleet caused the rapid growth of Reykjavik and other towns in the first decades of the 20th century. During that period, fishing and related industry replaced primitive agriculture as the basis of the national economy. Iceland became an independent republic in 1944.

Prior to the 20th century, architecture in Iceland was constrained by the lack of materials for permanent construction. Nearly all buildings were made of organic materials such as grass and wood. The introduction of concrete around 1900 was of great significance. For the first time, an economical method was found to make long-lasting fireproof buildings out of local materials. Concrete became the most common method of construction in Reykjavik after the centre of the city was destroyed in fire in 1915. The first generation of concrete houses followed the patterns of traditional stone and wood architecture. With modernism in architecture, greater attention was paid to the structural and spatial possibilities of reinforced concrete, taking an already established local building craft a step further. The widespread use of concrete in all types of buildings in Iceland during the twen-

ties helped to prepare the ground for the modern architecture of the thirties.

The beginning of the modern period in Icelandic architecture is usually associated with the year 1930 and the construction of the first building which clearly expressed the new, modern aesthetics. It was a private house at Gardastraeti in Reykjavik, designed in 1929 by Sigurdur Gudmundsson. Art historic comparison reveals that modernism in visual arts was evident in architecture ten or fifteen years before it came apparent in Icelandic painting and sculpture.[1] This early manifestation of modern architecture can be seen in several houses of well-to-do families in Reykjavik, designed in the office of architect Sigurdur Gudmundsson between 1929 and 1931. The first modern villas were an important step forward in both the technical and the aesthetic senses. However, they can hardly be regarded as clear examples of social reform in early modern architecture.

In Iceland, the social vision of the modern movement did not go hand-in-hand with the new aesthetic. In the mid 1930's, the ideology of modern architecture gradually became apparent. It became a continuation of earlier social efforts in the field of housing and town planning initiated by a professor in medicine, Gudmundur Hannesson, who wrote the first Icelandic book on town planning in 1916.[2] Hannesson was educated in Denmark, where the medical profession had been instrumental in bringing about reforms in urban planning and housing. Their achievements inspired Hannesson in his efforts to improve the standard of town planning and housing in Iceland. At that time, there was no tradition of town planning. Massive migration from rural areas had created a severe shortage of housing in Reykjavik and the standard of most dwellings was poor. The situation motivated Hannesson and the first professional architects to campaign for new solutions. The new garden towns in England and Germany became an important precedent for their planning reforms in Iceland.

New and progressive town planning legislation was passed in Iceland in 1921, based on Hannesson's theories.[3] Plans were drafted for all larger towns, emphasising social and humanitarian concerns akin to those of the modern movement. Residential areas were to be separated from industry and business. Apartment buildings were not to by tal-

ler than two to three stories, with easy access to a private garden. Great emphasis was put on providing sunlight and air into all apartments. Housing rows and detached houses were placed on lots according to sun-directions, so that maximum open space was left for a garden at the sunny side of the building. A new principle of street layout was generated which was used in residential districts in Reykjavik from the 1920's until the early 1950's.

The first large-scale state supported housing estate for low-income families at Hringbraut in Reykjavik was designed and built in stages between 1930 and 1935, after the approval of a new housing policy.[4] As a political vision and a vehicle of social change, the project was a great achievement at its time. All units had bathrooms, toilets, electrical stoves and living rooms facing the sun. The urban planning principle was in line with the models from Hannesson's book, a two-storey perimeter block with gardens and playgrounds in the middle. The architectural character of the building was traditional, simple and understated.

In a second phase of the Hringbraut housing project, carried out between 1936 and 1937, the social ambition of a new housing policy merged with the architectural vision of the modern movement. The commission was given to a young architect, Gunnlaugur Halldorsson, who was a leading proponent of the modern movement in Iceland. His solution for the Hringbraut housing scheme was in part inspired by housing projects in Frankfurt and Holland, which emphasised the idea of "Existenzminimum". The planning concept broke away from the rigidity of the perimeter block structure, placing detached, parallel rows of housing in an open field with a playground in the middle and all private gardens and entrances facing south. The end row is staggered in order to increase the amount of sunlight in the units. The project is one of the first examples of a coherent modernistic approach to town planning and architecture in Iceland.

The most progressive developments in housing during the modern period in Icelandic architecture can be found in projects initiated by co-operative building unions. A bill was passed in 1932 which gave them the right to a state guarantee on loans. In 1934, the first co-operative union built a group of 33 detached houses in the west end of Reykjavik.[5] The design of the houses was

a clear expression of modernism, with flat roofs and corner windows. Another early example of co-operative housing in Reykjavik was known as "Felagsgardur". The union organised an architectural competition in 1935 and most of the houses were built according to a winning design by Gunnlaugur Halldorsson. They can be regarded as one of the best examples of pre-war modernism in Iceland. The units in the co-operative building union housing were owned and inhabited mainly by middle-class families with regular income.

During the Second World War, Iceland was isolated from Scandinavia and mainland Europe. From 1940 onwards, British and American troops were stationed in Iceland. Their activities brought prosperity to the local economy as well as strong cultural influence from Britain and the USA. The housing shortage in Reykjavik was more severe than ever. After experiments with temporary housing, city authorities took the initiative to build free-standing apartment buildings according to a design by architect Einar Sveinsson. They were the earliest examples of a type which became a common housing solution in Reykjavik after the war.[6]

The modern movement housing reform efforts were not confined to urban areas. During the 1930's, functional and economic housing solutions were developed for the farming areas of rural Iceland. A loan fund was established during the 1920's to enable small farmers to improve the standard of their buildings. A new concept for a modern farmhouse was developed, based on a careful analysis of the functional requirements of a small farm. Several building types were designed and used as standard drawings for farms all around Iceland.[7]

Soon after the completion of the first modern houses, the new architecture went through a process of adaptation to suit local conditions and construction practice better. Characteristic details of early modernism such as flat roofs, roof terraces and metal window frames gave way to more conventional solutions. An important part of this adaptation was the use of local minerals, such as obsidian, spar, granite gravel and later seashells, as weather-protective coating on exterior concrete walls. The use of mineral coating on concrete walls became one of the hallmarks of Icelandic pre-war modernism. In Iceland, the cubist

architecture of Bauhaus became "the black boxes of the thirties".

In the late thirties and early forties, new districts were built in Reykjavik where nearly all houses followed the pattern of localised functionalism. Interesting in this regard is the widespread and common acceptance of the new architecture as the general, stylistic norm. The influence of the modern movement was not only confined to the work of leading architects. Builders and technicians, who at that time designed a great deal of the housing stock, were quick to adopt certain aspects of the new architecture. What strikes the eye is not so much the outstanding architectural quality of individual buildings but rather the degree of uniformity achieved in whole districts, where each house was designed by a different author. Once adapted to local conditions and practice, the modernistic approach became the accepted method of housing design. In a place with little or no tradition in architecture, functionalism became the tradition.

The influence of the modern movement on public architecture during the 1930's was less marked than in the private sector. Most government commissions such as schools, hospitals and administrative buildings were assigned to the State Architect of Iceland, Gudjon Samuelsson, who remained faithful to classicism throughout his career, although stylistic influence from modernism is evident in his later works. Influential politicians of the time, who favoured national romantic tendencies in art and architecture, took measures to protect the strong position of the State Architect's office, which was a remnant of the past. It was only during the 1940's that the leading architects of the modern movement received their first commissions for larger public buildings, where they had the opportunity to realise fully developed modern solutions in all aspects.

Important in this regard were two projects by architect Gunnlaugur Halldorsson. In the planning of Reykjalundur Tuberculosis Sanatorium (1944–45), full advantage was taken of the location out in the open landscape, creating an informal, functional layout of buildings oriented towards sun and view. Surrounding the main building of the sanatorium were groups of workshops and individual houses for patients and staff,

all designed in the same practical and understated modernistic manner.

In the Agricultural Bank in Reykjavik (1945–48), Halldorsson used a concrete column structure to create a free plan and a non-load-bearing glass facade. A new and democratic concept for a modern banking hall which was bright and open and encouraged the man in the street to enter. The building was a modern design in every detail, such as furnishings and lighting fixtures, and progressive artists were brought in to do wall paintings and decorations.

In comparison with the other Nordic countries, the early modern movement in Iceland did not produce individual masterpieces on a par with the achievements of Aalto, Asplund, Jacobsen or Korsmo. Nor was the link between social aspirations and architectural ideology as clearly stated as was the case in Sweden. What makes it interesting in a foreign perspective is how the movement was received and adopted by a small, isolated culture at a critical moment in its history, when long-sought independence was within reach and the society was undergoing the most radical transformation in its history, by taking a giant step from medieval agriculture to modern technology. The modern architecture of the time became one of the most important symbols of the new Iceland, of its material progress and a new cultural identity.

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Main Theme: Primary Session

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DOCOMOMO Italy*

Confronting the "Modern" in Architecture: The Limits, The Limit

By the title of this essay I wish to suggest that dealing with the complexity of the concept of "modern" means reconsidering radically the very position of architecture vis-à-vis other disciplines, and establishing its autonomy. Once the question of what is inside and outside the boundaries of the concept, and of what is relevant to architecture, have been assessed, the very definition of "modern" will be recast.[1]

In rethinking architectural history and theory, in order to allow architecture to acquire the tools to perform a probing self-criticism – a new approach that Theodor Adorno has openly argued with[2] – one needs to consider the three different dynamic dimensions of the "modern": modernisation, modernity and modernism.[3] Before 1989, when DOCOMOMO International initiated its campaign, none of them had been thoroughly examined, other than a few provocative, but in retrospect marginal contributions.[4] DOCOMOMO's optimistic creed began to pervade the professional world of architecture and the academic realm of architectural scholarly research alike, generating a mixture of excitement and curiosity. In a very intriguing way and by means of an acronym[5], at times enigmatic and cacophonous, the international working party DOCOMOMO asserted the existence of a fourth category – the "modern movement" or MOMO –, which was assumed as a priori, independently related to modernisation, modernity or modernism, or purposely intended as super partes, endowed with the inherent quality of summarising all three. This stance recalls what most of the books written about modern architecture in the second quarter of the century have offered to the contemporary "history hunger" architects. Their authors were selling a product, one named "modern movement": "most of them believed that the product had already been produced", and few consequently "implied – sotto voce – that the style had arrived, and that it was good".[6]

Likewise, pushing the ambiguity of MOMO almost beyond its limit, I myself have often been unexpectedly seduced by a different interpretation of MOMO as "modern monument". Recalling the attitude towards the architecture of past centuries introduced by Riegl[7] and reinterpreted by his followers[8], the "conservation" – the CO in the acronym – ultimately has to do with "monuments". Therefore, by keeping the door open to ambiguity, DOCOMOMO's agenda would not reveal its contamination with a more traditional ground.

Further in this book, some of the essays dealing with theories of conservation focus on the controversial meaning of the adjective "modern" as an attribute of the concept of "monument" within the twentieth-century architectural discourse.[9] This remains a crucial issue for both practitioners and historians of architecture. All arguments about conservation policy and restoration practice applied to the so-called "young monuments" – where "young" means "modern" – agree that modern buildings are part of history, and more conspicuously that we learn from previous experience. More generally, the high degree of awareness of the present status of architecture is inversely proportional to the awareness of the practitioners involved with preserving the recent past. Let alone the fact that the exchange of experiences, which according to Hubert-Jan Henket (chairman of the international working party from its beginning) should have been the priority goal among DOCOMOMO International's many, has gradually decreased from the Eindhoven to the Bratislava conference. Among the many other consequences, this lack of a theoretical and technological approach to restoration issues applied to twentieth-century buildings is producing a kind of "black hole" which attracts studies in design methodology, experiments in technology, and some good examples of a more critical approach reducing all to an amorphous melting pot.[10]

But architecture isn't merely what is built: on a deeper level, it is the "product" of a way of thinking. This essay will focus on the thinking, because through it I may be able to reconsider the processes that lead to that production.

As the third millennium approaches, we are all in a fin-de-siècle mood, and it is no coincidence that we are now willing to open our minds to critical thought. The final decade of this century seems to have been marked by a moment of reflection. To borrow a phrase from Neil Leach, we can acknowledge that "whereas the twentieth century began on a note of optimism with visions of a futuristic utopia, it ends on a note of reflection. Whereas it opened with slogans such as 'Towards a New Architecture' [or with formulas such as "function x economics"] it closes with a 'rethinking' of architecture".[11] The close scrutiny of the past which is underway and the fact that attention is currently directed not forwards but backwards, lead us to regard culture as going through a crisis – a legitimacy crisis, as is often said. This is particularly evident in architecture. And it is even more true if one considers the legacy of modernism. "One of the themes that have dominated recent discussion is admittedly the collapse of confidence in the modern movement. Here modernism has been called into question".[12]

It would go beyond my task to open a discussion on contemporary buildings, that is to say on the "soulless container-architecture", though Habermas, the apostle of "postmodernity", has proposed a reading of this phenomenon which, I argue, can offer valid tools to perform that self-criticism referred to as a rejuvenating turn-of-the-century practice. Habermas speaks of two broad strains that appear as polar opposites, equally opposed to modernism.[13] On the one hand, there are the champions of historical revivalism: in this approach, neo-historicism and postmodernism find themselves on the same side of the barricade. On the other hand, there are the advocates of the modern movement, who seek to rework and reinvigorate its tenets, and who would support a critical continuation of modernism.

In his seminal work Postmodern Culture, Hal Foster has described this curious turn-of-the-century alliance, which perceives modernism as watershed, as a "postmodernism of reaction" and a "postmodernism of resistance".[14] "The former, Foster noticed, repudiates modernism, taking refuge in the forms of the past. The latter shows a profound

commitment to the project of modernism". Oblivious to the constraints of the international-style versions of modernism, it seeks to reformulate its process of adaptation through a critical re-evaluation.

By the same token, as modern architecture has been ageing within these opposing categories, architects are becoming more rigorous in their own self-criticism. Philosophers have led this theoretical debate to penetrating interpretations, which occasionally offer a direct critique of specific architectural works. I am deeply convinced that the developments produced in Western critical thought by such movements as phenomenology, structuralism, or postmodernism have subjected architecture to changes whose results will be explored in domains traditionally perceived as lying outside its boundaries.[15] "Spatial images are the dreams of society": with these words, Kracauer lucidly evoked a constitutive experience of modernity and the fact that architectural form can be seen as the product of deeper concerns.[16] In other words, ageing, insofar as it is a loss of naïveté, might help us regain the lost paradise, where the new conditions will engender new responses by the modern *blasé* individual of Simmel's metropolis, or the *flâneur* of Benjamin's arcades.[17]

Within DOCOMOMO, the modern approach has been the subject of multiple interpretations, though any overstepping of its limits has been accurately avoided and the potential impoverishment of the modern movement has never been examined. The "modern", as a concept and as a practice, will appear in a new light if one reads the different perspectives which arise from re-establishing boundaries and challenging the limit. "To go after architecture: not in order to attack, destroy or deroute it... Rather to think it in fact... to apprehend it in a thought which goes beyond the theorem – and becomes a work in its turn." This strategy follows the path of Derrida's own project.[18]

I will elucidate these ideas by investigating the three dimensions of the modern which I have indicated at the very beginning. All three – modernisation, modernity and modernism – defy easy definition, though the first one is well defined historically and can be chronologically identified to some degree.

The term "modernisation" defines to the processes of scientific and technological advance which cause the world to manifest itself differently than it had previously. More specifically, with regard to architecture and engineering, modernisation refers to the growing impact of the machine, or the "machine age" eagerly praised by Banham in 1960.[19] But in discussing modernisation as a tool to construct a genealogy of modern buildings, Giedion's contribution in *Bauen in Frankreich* (1928) was truly pioneering[20], and Benjamin's considerations in "The Work of Art in the Age of Mechanical Reproduction" (1936) were equally pertinent.[21] In developing European societies at the turn of the twentieth century, the new was ousting the old to the point that no historical precedents can be recorded.

"Modernity", the second of the three dimensions, has no direct chronological relationship with the previous one. To some historians, modernity began with Descartes and can be identified with the Enlightenment; for others, it dates back to Baudelaire and Flaubert, and the suppression of the 1848 revolutions. Yet, for others – and I would include myself – modernity is essentially a twentieth-century condition. In this sense, it refers to the social and cultural circumstances of the objective changes which occurred as a consequence of modernisation. Modernity was the character of life under changed circumstances. It was a form of experience, an awareness of change and of adaptation to change. But it was also a form of effect on the person. It was both a social/public and an inner/private experience. For instance, the subtlety embodied by the dyad Jeanneret-Le Corbusier actually envisioned that attitude towards a new mental flexibility in experiencing the wholeness of the world.

Almost a decade has passed since Hilde Heynen, speaking at the First DOCOMOMO International Conference in Eindhoven in 1990, introduced Berman's book *All That Is Solid Melts Into Air* to refer to the transforming experience of modernity.[22] Berman's message is still among the most coherent, though clearly underpinned by a Marxist understanding of aesthetics as driven by social and political forces. Beyond this traditional interpretation, current views have introduced the notion of its cultural role, which serves as a necessary control of the utopianism of much modernist culture.

"Modernism" is the aesthetic practice of modernity. That is, the condition of modernity exists in a shifting, symbiotic relationship with modernism. In one word, modernism is the "representation" of the experience of the new. "In representing the fragmentary nature of modern human existence, – wrote cultural historians – its emotional life and transitoriness, modernism's search for progress and new forms produces in some a response of alienation, and in others the opposite – an almost hysterical exhilaration. Marinetti's reaction to symbolist decadence expresses this compelling vision of the modern, but in emphatic manner. In the years immediately before the First World War, the drive captured by Marinetti in the prophetic term 'Futurism' spread across Europe. His focus on dynamism was felt as common experience, as the mark of the modern".[23]

Even though my point of departure rested upon arguments which reconcile "fittingness" with the search for "morality", I want to underline that my reference to the Futurist stance echoes the issue of transitoriness introduced by Hilde Heynen in her brilliant paper of 1990, in which she discussed the work of Sant'Elia as representing a paradigmatic experience within modernism. She then noted, and I agree with her, that by limiting itself to an ideological orthodoxy, the modern movement had engendered a useless formula, an unnecessary obstacle to the implementation of modernism within the adventure of modernity.

Before concluding, I wish to examine briefly the question of how architecture could be understood in this perspective, without neglecting the materiality on which architecture is founded.

The final debate at the Eindhoven Conference broke with the dogmatic equation "modern equals objective", thus opening the possibility for a conscious adaptation of modern ideas to meet various manifestations of architectural culture. The matter under discussion was the need to reject *Neue Sachlichkeit*, the most powerful expression of European architecture of the 1920's, with its emphasis on "the thing", its definite "down-to-earth" connotation, and its search for the *sachlich*, "zero-degree" exterior. The reasons which made that formula so successful during the central decades of the first half of the century have been competently discussed by historians of architecture (among others, Rosemarie Bletter's essay on Adolf Behne's *Der moderne Zweckbau* [24]). However, it is worth stressing that it is not possible to establish any relationship

between *Sachlichkeit* – which in that period meant something like "the thing-liness of the thing" – and the use that is made in German philosophical and poetical thinking of the term "thing", *Sache*. Within this intellectual domain, the notion acquires a status of essentia-lity, of abstraction. In fact, given its ex-istential status, the process of reification would have been extremely challenging and full of unexpected consequences for architecture in terms of space and form. In distancing himself from those techno-cratic architects who believed in tech-no-scientific modernisation, Loos – the champion of "atectonic architecture" – would ironically write: "Modern materi-als are always those which are most economical. It is a common error no-wadays to believe that only concrete and iron are modern". [25]

However, although I am personally convinced that the theoretical framework used in Eindhoven did nothing to deal with a false methodological approach, once the sin was washed, a shared sen-se of relief unquestionably set in. This resulted in facing two ways at once, at times producing a vacuum, at times in-ducing euphoria. So far, the procedure followed by successive conference or-ganisers has been consistent because it has offered unlimited freedom of expres-sion. Modern architecture has been de-scribed as a kaleidoscopic array of formal and cultural expressions: up, down, right and left, cubic and curva-ceous, Mediterranean and Nordic, pre-and post-war, populist, capitalist, ver-nacular and expressionist. Such attitu-de has run the whole gamut from theo-ries to ideologies. Even if it is conceded that architecture is not a discipline *per se*, the situation we are now facing chal-lenges theoretical, formal, and linguis-tic means of description.

Thus, the goal of this paper was to open a new path within the nomadic discourse of modern thinking in relation to architectural means of expression. We have learned how architecture in this century reflects the quintessential values which accompanied and crea-ted modern civilisation. What is the lega-cy? We must attempt to reconsider the seminal influences upon modernism and write its history in view of the evolutio-nary forces of the twentieth century. With-in this narrative, architecture differs pro-foundly from subjective ideas which time renders obsolete, and we must attempt to demonstrate that architectural arte-facts themselves have the power and

strength of modifiers intrinsic to the his-tory of ideas.

I will propose a final example, which is representative of this attempt. The housing design of the Amsterdam School (a topic which has been one of my ma-jor fields of research) has been inexora-bly placed outside the mainstream of modernism. An important correction to the rhetoric of earlier histories was in-troduced when scholars, in the post-war years, began a reassessment of the modern movement's orthodox canon. Dif-ferent considerations have been more recently introduced by social historians and social theorists who have used cul-tural artefacts to study social processes and to describe cultural production. I wish to mention Nancy Stieber's recent book on *Housing Design and Society in Amsterdam* [26]; her study sheds a con-vincing light on this interpretation.[27]

Stieber adopts the approach intro-duced by the French sociologist Pierre Bourdieu, who has analysed the social dynamics of cultural production and introduced the notion of a field of cul-tural production which structures the set of forces which are at work between institutions and agents operating in a certain field. For Bourdieu, the "artistic field is a field of forces, but it is also a field of struggles tending to transform or conserve this field of forces". "App-roached from this theoretical perspecti-ves, wrote Stieber, housing design in Amsterdam ceases to be viewed purely as an issue of modern aesthetics, and can instead be analysed as a product of modern social practices, that is, as a product of tensions within modernity. The inquiry shifts from explaining the generation of forms to describing the field of cultural production. At this sta-ge of the discourse, form is no longer presented as the reflection, representa-tion, or embodiment of some factor ex-ternal to aesthetics, be it *Zeitgeist*, race, class, region, regime, or means of pro-duction. Rather, form emerges as a semi-autonomous factor within a dynamic context of social relations".[28]

I have been offering you thoughts and comments which suggest that the discourse on modern architecture should adapt to the changing circumstances, taking into consideration the ever-chang-ing limits of day-to-day progress. One true limit to be reassessed is MOMO's aura; in this regard, a reconsideration is a priority. Then, the mist around MOMO will be dispelled and the boat will sail straight out towards the year

2000 and beyond. Nostalgia is no long-er needed.

Who says that architects are blind to history? Architects need to be warm-ly and openly encouraged to transgress their own limit: Have we grown so much that we can let DOCOMOMO live with-out MOMO? The field is open for reas-sessing this discipline in context.

Notes

* I would like to express my gratitude to the Scientific Committee of the Fifth In-ternational DOCOMOMO Conference for showing their confidence by inviting me to deliver the closing speech of the introductory session. I also wish to ac-knowledge the valuable encouragement and support I received from Marina Astrologo, Jan Birksted, and Simon Tur-ner.

1 Among my many experiences of that vi-tal, elusive "monster" known as "moder-nism" I owe much to William R. Everdell's book, *The First Moderns. Profiles in the Origins of Twentieth-Century Thought*, Chicago and London: The University of Chicago Press, 1997. On modern vi-sions and their intellectual profile, see the essays by Sverker Sörlin and Hilde Heynen elsewhere in this book.

2 Theodor W. Adorno, *Aesthetics and Poli-tics*, London and New York: Verso, 1980.

3 I borrowed these distinctions from rea-ding the section II "The Idea of the Mo-dern World" in the excellent anthology *Art in Theory 1900–1990. An antholo-gy of Changing Ideas*, edited by Char-les Harrison and Paul Wood, Oxford UK & Cambridge USA: Blackwell, 1992, pp. 125–213.

4 See the *Proceedings* of the previous conferences (Eindhoven 1980, Bauhaus 1992, Barcelona 1994, and Bratislava 1996) and particularly the researches contributed by Allen Cunningham, Den-nis Sharp, Hilde Heynen, and France Vanlaethem. See also the essays publis-hed in *Modern Movement Heritage*, edited by Allen Cunningham, London and New York: E & FN SPON, 1998.

5 The oral tradition about the origin of the acronym goes back to the dawn of DOCOMOMO. Coined by Hubert-Jan Henket and Wessel de Jonge, it eventu-ally received a full endorsement from Christopher Dean, an old, dear friend of the Dutchs and the driving force be-hind the modern movement stream in the UK. I wish to remember Christop-her, and the endless evening discussions at the Bauhaus Conference (1992), when he made me a full believer that the modern movement was still alive, holding full hopes for the future.

6 Thomas Schumacher directly refers to Nikolaus Pevsner and Sigfried Giedion alike and to the many others who sha-red the same theme. He suggests that only in the early 1960's Banham "made some significant corrections to the 'ha-giography' of the Modern Movement...

He was a historian rather than an apologist or polemicist parading as a historian, and this distinguishes him from Giedion, Pevsner, and most of the others of the previous generation". See Thomas L. Schumacher's insightful review of what he defines the "architectural paradise postponed", *Theory and Design in the First Machine Age* by Reyner Banham, *Harvard Design Magazine*, Fall 1998, pp. 81–82.

7　Alois Riegl, *Der moderne Denkmalkultus. Sein Wesen und seine Entstehung*, Wien and Leipzig: Verlage von W. Braumüller, 1903. See also: *Monument/Memory*, edited by Kurt W. Forster, *Opposition*, 25 (1982); Françoise Choay, *L'allégorie du patrimoine*, Paris: Editions du Seuil, 1992.

8　Reference is made to German theories on the "historical and artistic values" of the monument and their advocates after Riegl such as G. Dehio, M. Dvorák, and P. Clemen. See Sandro Scarrocchia's essay «Al tempo la sua arte, all'arte la sua libertà»: il Denkmalkultus di Riegl", published in Alois Riegl, *Il culto moderno dei monumenti. Il suo carattere e i suoi inizi*, Bologna: Nuova Alfa Editoriale, 1990, pp. 9–23.

9　See in this book Cristina Iamandi 's and France Vanlaethem's contributions. On the relationship between restoration and design practice, see also Francesco Aliberti and Sandro Scarrocchia (eds.), *Cultura della conservazione e istanze del progetto*, Firenze: Alinea, 1998.

10　I wish that the working parties or one of the specialists' committees would soon take the initiative to begin mapping case studies around the world and developing a database on restoration methods and materials. A useful initial step will be to up-date the information already recorded in the register cards, including data about restoration or renewal processes if available.

11　Neil Leach (ed.), *Rethinking Architecture. A Reader In Cultural Theory*, London and New York: Routledge, 1997, p. XIII.

12　Ibid., p. XIII.

13　Ibid., pp. XIII-XIV.

14　Hal Foster (ed.), *Postmodern Culture*, London and Concord, Mass.: Pluto Press, 1985, quoted in Leach, op.cit., p. XIV.

15　Matei Calinescu, *Five Faces of Modernity. Modernism. Avant-Garde. Decadence. Kitsch. Postmodernism*, Durham: Duke University Press, 1987.

16　Siegfried Kracauer, "On Employment Agencies: The Construction of Space", quoted in Leach, op. cit., p. XV.

17　The former reference is to Georg Simmel's essay, "Grossstädte und das Geistesleben", published in 1903; at the root of Simmel's thinking lies the idea of the "metropolis", the common denominator of modern existence and of its forms. See Massimo Cacciari, *Architecture and Nihilism: On the Philosophy of Modern Architecture*, New Haven and London: Yale University Press, 1993. The latter refers to Benjamin's *magnum opus* "Passagen-Werk" (Arcades Project), a book he did not live to finish, see Susan Buck-Morss, *The Dialectics of Seeing. Walter Benjamin and the Arcades Project*, Cambridge, Mass. and London, England: The MIT Press, 1989.

18　Jacques Derrida, "Point de Folie", quoted in Leach, op. cit., p. XVII.

19　Reyner Banham, *Theory and Design in the First Machine Age*, New York: Praeger, 1960.

20　Sigfried Giedion, *Bauen in Frankreich. Bauen in Eisen. Bauen in Eisenbeton*, Leipzig: Klinkhardt & Biermann, 1928; English translation by J. Duncan Berry, *Building in France. Building in Iron. Building in Ferro-concrete*, introduction by Sokratis Georgiadis, Santa Monica, CA: The Getty Center for the History of Art and the Humanities, 1995. Two extensive reviews have discussed the impact of this publication on the aesthetic experience of modern construction: Kenneth Frampton, "The Dialectics of Functionalism: Adolf Behne & Sigfried Giedion", *Design Book Review*, 39 (1997), pp. 18–21; Jean-Louis Cohen, review to Sokratis Georgiadis, *Sigfried Giedion, An Intellectual Biography*, and to Sigfried Giedion, *Building in France, Building in Iron, Building in Ferroconcrete*, *Journal of the Society of the Architectural Historians*, 2 (1998), pp. 209–211.

21　See the English translation of Benjamin's seminal essay published in Walter Benjamin, *Illuminations*, edited and with an introduction by Hannah Arendt, New York: Schocken Books, 1969, pp. 217–251.

22　Marshall Berman, *All That Is Solid Melts Into Air. The Experience of Modernity*, London: Verso, 1982. Hilde Heynen, "The issue of transitoriness in modern architecture", *First International Conference Proceedings*, Eindhoven: Eindhoven University of Technology, 1990, pp. 45–49.

23　Harrison and Wood, op.cit., pp. 125–129.

24　Adolf Behne, *Der moderne Zweckbau*, Munich: Drei Masken Verlag A.G., 1926; English translation by Michael Robinson, *The Modern Functional Building*, introduction by Rosemarie Haag Bletter, Santa Monica, CA: The Getty Center for the History of Art and the Humanities, 1996. See also Adolf Behne, "Art, Handicraft, Technology", *Oppositions*, 22 (1980), pp. 96–104.

25　Heinrich Kulka, *Adolf Loos*, Löcker Verlag: Vienna, 1979, p. 18.

26　Nancy Stieber, *Housing Design and Society in Amsterdam. Reconfiguring Urban Order and Identity, 1900–1920*, Chicago & London: The University of Chicago Press, 1998.

27　A methodological comparison can be drawn with the investigation into housing and urbanism of the Habsburg Empire pursued by Ákos Moravánzky's book, *Competing Visions. Aesthetic Invention and Social Imagination in Central European Architecture, 1867–1918*, The MIT Press: Cambridge, Mass. and London, England, 1998.

28　Stieber's study has brilliantly broadened the architectural field of the Amsterdam School to what Henri Lefebvre defines the "social realm of spatial production". See Stieber, op. cit., pp. 1–12.

Paul Adamson

California, USA

The Eichler Homes and the Hybridization of California Modernism

A Case Study Proposal

Joseph Eichler for whom the Eichler Homes were named was a developer, not an architect. However his devotion to social betterment, and a deep appreciation for Modern Architecture led him to select an unusually talented group of architects to design and build some 12,000 Modern houses. Their accomplishment suggests the Eichlers may be some of the most important Modern housing in The United States.

The Eichler Homes are a product of California Modernism, and California Modernism is a hybrid of European ideas and American sentiments. California has been called, America's "wild child." A place that the social historian Richard Rodriguez described as, "a world where youth is not a fruitless metaphor; where it is possible to start anew; where it is possible to escape the rivalries of the Capulets and the McCoys; where young women can disprove the adages of grandmothers."[1] Buoyed by a typically American belief in individualism, paired with a faith – common to modernist ideology – in man's ingenuity to overcome the limits of his circumstances, people have always believed that in California they could begin new lives (fig. 1).

A key part of the sociological makeup of California is defined by a restless and free-ranging spirit. A Modernist Californian culture began to emerge on a small scale during the 1920s out of a mixture of home-grown bohemianism and European Socialism. But the state was transformed during the American post-war economic boom that pre-

cipitated a flood of new residents and the flourishing of high-tech industries. An ambitious new population buoyed by the state's relative self-sufficiency developed a culture that sampled freely from foreign traditions without risk of entangling alliances. In this spirit of laissez-faire opportunism Californian culture evolved its own brand of modern architecture – a hybrid of European Orthodoxy and local vernacular, and often crossed with Japanese aesthetics. The Eichler homes are a product of this legacy which dates back as early as 1915, but which in many ways reached its apotheosis soon after World War II. During the immediate post war period there was a dire housing shortage, and many younger California architects sought inspiration from this legacy for innovative and socially relevant solutions to that crisis. Their efforts found sympathy with many in California who, perhaps more so than other Americans, continued to retain their faith in the perfectibility of society (fig. 2).

Regardless of California's unusual qualities, its culture is at heart typically American, and the development of Modernism in America was fraught with contradictions. Before Modernist Architecture could be accepted on the scale of Eichler's developments, its definition had to undergo translation. The United States was – after all – formed in large part against Europe, and European ideas have always met with suspicion among many Americans if not downright resistance. Whereas the social motives of European Modernism tended to imply formal solutions designed to benefit the collective, Americans' deeply ingrained spirit of individualism implied design strategies almost antithetical to virtually every well-known European model of modernist residential architecture and planning. Not only were Americans loath to promote the togetherness of the multi-family block, but, by and large, their ideal of housing implied a rural setting, and that vision nearly always included the single family house as the residential building type of choice. Some of the early postwar efforts by young architects to promote modernist solutions for much-needed middle class housing gained national attention. However, rather than emulating European models, their proposals tended to reflect the American ideals of individual land ownership and a pioneering spirit of self-sufficiency. The Architect Ralph Rapson, for instance, designed his "Greenbelt" house based

"on the premise that it must create its own environment – and it must look in rather than look out."[2] Further, developers of speculative housing tended to be politically conservative, and typically showed little if any interest in modern aesthetics, and they were even less inclined toward socially responsive planning.

In fact the American tradition of land development is rooted in the desire for decentralization and a yearning for closer contact with nature. This philosophy originated with the nation's founding in the 18th century. Inspired by aspects of the French Enlightenment, Thomas Jefferson, the author of the Declaration of Independence and the nation's third president, expanded the ideals of personal liberty to include the concept of private land ownership for the majority. What he proposed was what the social historian J.B. Jackson called an "agrarian utopia composed of a democratic society of small landowners."[3]

To aid in developing the vast and largely unknown American continent Jefferson proposed a comprehensive survey in 1785 that would divide the entire landscape into a continuous one-mile by one-mile grid. This parsing of the continent allowed quick settlement of even far-flung sections of the nation and formed the principal ordering system for towns and municipalities in much of the country. With such a high social value placed on rural life and on the importance of exclusive real estate, there were few opportunities for the formalizing of a shared urban culture. As the American population spread westward across the continent, Jefferson's legacy of anti-urbanism hardened into an inexorable ideal at the core of American beliefs. With the settlement of much of the country remaining relatively sparse, there was little pressure to address the needs of the collective.

During the post-war period a disproportionately greater population began to amass on the West Coast. One challenge facing post war architects and developers in California was to reconcile the need for enormous quantities of new housing in unusually high densities while accommodating the American penchant for individual space and intimacy with Nature. While architects could draw some inspiration from Europe – mostly in such general terms as economies of materials and efficient planning – they had to search closer to home for more specific models. During

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Figs. 1–5. Photos: Ernst Braun, Hon.

Fig. 6.

the 1940s the architects who would work with Joseph Eichler explored concepts and developed solutions to meet the anticipated demands for post war housing. Notably Robert Anshen of San Francisco studied and wrote about the American home building industry. And the Los Angeles-based architect, A. Quincy Jones collaborated on an award-winning low-cost cooperative development in the Santa Monica Mountains. (Their efforts and similar work by other progressive architects gained popular support through promotional programs such as the Case Study House Program sponsored by Arts & Architecture Magazine and numerous shelter magazines which preached the advantages of a technologically sophisticated and socially liberated culture).

Specific models for their efforts could be found in the works of the preceding generation of California Modernists. Among the most influential were Rudolf Schindler and Irving Gill who had had come west following apprenticeships with American masters. Schindler who was Viennese had worked for Frank Lloyd Wright, while Gill who was ten years older began his training with Louis Sullivan. Each man had his own visions for ideal residential environments, and when they focused their attentions on California they created small gemlike projects that reflected glimpses of a utopia. Irving Gill's four unit Horatio West apartments, for instance, completed in Santa Monica in 1921, cluster intimately around a lushly planted court while its corner windows seem to gaze out toward the incipient modern city. In the face of the rampant speculative development then just getting under way in Los Angeles, Gill's prototype suggests a model for a densely populated social structure woven through a verdant natural landscape — a combination of urbanity and Eden. In its more intimate way Rudolf Schindler's own Hollywood house exemplifies a progressive social attitude and a singular respect for the natural landscape. Designed to be shared between the architect's family and an engineer friend and his wife this house supported a communal living pattern while providing a surprising degree of privacy and expansive outdoor connections for each individual resident (fig. 3).

Beginning in 1950, Joseph Eichler hired both Quincy Jones and Robert Anshen to collaborate on his suburban developments in the San Francisco Bay Area. Both of these architects had lear-

ned from the earlier examples of California Modernism. And with Eichler's support they were able to spread the benefits of those lessons over a much wider context thus creating a fuller view of an ideal social order. Taking exception to the typical developer's grid layout, Eichler's architects experimented with planning that would enhance the feeling of community. These developments, graceful and intelligently planned, are remarkable because of their social cohesiveness and formal consistency, yet respect for privacy and individual property ownership is still fundamental to their structure (fig. 4).

The Eichler developments exhibited a similarity with European community models in the use of village-like amenities including shared green spaces, nursery schools, recreation centers and athletic facilities. All this was at a time when much American suburban development was heavily criticized for its cheap production methods and dreary sameness. Whereas the economic constraints of commercial speculative development required a high degree of standardization, the Eichler architecture displayed a remarkably sensitive touch. The buildings were aesthetically minimal yet they employed clarity of intention and a purity of expression that gave them a surprising degree of intimacy. Each house was a simple one-story pavilion comprising a rigorously ordered yet very forgiving context for casual, unencumbered family living.

A typical Eichler house is a relatively neutral shelter, a simple rectangle in plan based on a 4' by 4' grid and capped by a flat roof. The structure is a wood post and beam framework almost everywhere exposed to view. However, the building is rich enough in material quality to inspire the imagination: the walls are made of plywood sheets veneered with stained Philippine mahogany; the structure is clear heart redwood; and expanses of floor to ceiling glass bring the outside in. The straightforward plan — deceptively simple — lends itself equally well to either privacy or entertainment. Later models included a landscaped atrium court at the center of the house that provided a second source of light to the interiors — making the relatively small rooms feel larger. This bringing the outdoors in encouraged one's gaze to wander from intimate areas to expansive views and provided orientation and a clear sense of interconnectedness. In this way the

Eichler houses provided orderly, but fluid environments that offered occupants a variety of experiences and encouraged individual spatial interpretations. When viewed as neutral, yet hospitable environments, the Eichler homes serve well as examples of the democratic potential of modernism — modest, yet commodious and liberating in their open-ended character (fig. 6).

The Eichler homes worked well for a kind of moderated individualism. Relying on simple forms, but employing remarkably sophisticated planning — the Eichler architects created prototypical shelter for the free-ranging Californian spirit. The buildings were almost without style — a manifestation of living patterns rather than an imitation of inherited architectural language. In short the aesthetic of the houses was unbiased enough to support individual desires for personal expression and intimacy, yet specific enough in their material character to evoke a unique sense of belonging within their time and place. Eichler and his architects strove to provide settings for modern life — to meet the needs of young families with efficiency and care. In order to provide the most for the least the houses were of very lean construction: lightweight and simply founded, and spare in detail — maximizing the strength and coverage of the building materials and components. But Eichler's company was also sensitive to the physical context as well. They sensed the spirit of a new frontier and they designed their houses to suit. Their architecture was unselfconscious, and a little like the Western landscape itself, spare, unfettered and free-flowing.

Simply put the Eichler homes were easy to occupy. They were affordable — not the cheapest houses on the market, but moderately priced for middle income families. (The 1950 Eichlers were 1,140 square feet and sold for $9,500 appliances included. With the aid of Government loan guarantees administered through The Federal Housing Authority and the GI Bill families could afford to buy a house with little or no down payment.) Although without ornament the buildings had a material richness which made them feel furnished (integral construction) even before they were fully occupied. Early publicity photographs show people in near-empty rooms, pillows on the floors sufficing for chairs until there was money enough for real furnishings. Further, the slab-on-grade floors were supplied with radi-

ant heating so they were clean and comfortable for young children. An Eichler advertisement in proclaimed an advantage for adults as well, saying that if you were to lay your bathrobe on the floor, it would be "warmed for you while you sleep" (fig. 6).

The Eichler developments offer a case study in modernism that responded to the cultural concerns of Americans in general and Californians in particular. As such they represent a hybrid of Modernism, transformed to suit a regional culture yet designed to reflect more universally modern values. Modernist design in its simplest terms is aesthetically and functionally right for its time – attuned to the living patterns of the day. At the heart of the modernist agenda, from its European beginnings, has always been the belief that design should be based on values that promote social betterment. In this way the Eichlers are obvious beneficiaries of European Modernist thinking. However if we acknowledge credit to European thinking, we must also acknowledge the tempering of American sentiments towards freedom individuality. The ability of Eichler and the architects with whom he collaborated to train their critical focus on social realities enabled them to satisfy the American concerns for private ownership and individuality while avoiding the dulling effects of purely speculative development. In so doing they conquered what Frank Lloyd Wright identified in 1945 as the "New Frontier: over-coming sordid commercialism."[4]

As we re-examine the Eichler developments in terms of their uniquely American interpretation of modernist principles, we may wish to consider the prospects for similar kinds of developments in other parts of the world where the middle classes are presently expanding. Surely utopian visions are no longer desirable as they once were. However, advancing the concepts of the Modern Movement and preserving built works such as the Eichler developments is important to promoting the idea of socially responsible development, while also serving to remind us of the roles architects play in the continuing improvement of the quality of human life.

Notes

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The Birth of Modern Architecture in Japan – Internal and External Aspects in the 1920's and 1930's

In 1920, a British architect died in Tokyo after almost a half century's professional activities in Japan. He dedicated all of his architectural career for Japan as an instructor, as a practitioner. His name was Josiah Conder who came to Japan in 1877 as a first Professor of architecture at the Imperial College of Engineering. He started and planted Western architecture in Japan. His death announced the end of the first era in the history of the introduction of western style architecture in Japan.

At the same year, in 1920, so-called Japanese Bunriha-Kenchikukai, which means Japanese Secession Architectural Group was founded by five young architects, HORIGUCHI Sutemi, TAKIZAWA Mayumi, YADA Shigeru, YAMADA Mamoru, and MORITA Keiichi. They all graduated in 1920 from the Imperial University of Tokyo, which was the successor to the Imperial College of Engineering. It meant they were undoubtedly social elites, however, they insisted upon architecture as artistic expression of the human mind. Their movement was driven by German expressionism, but at the same time the social context of Japan was in a way under confidence of finishing learning from Western Culture, the so called Taisho(1912–1925) Democracy in which a general election was realized and lots of literature works were produced. The modern movement of Japan meant an avant-garde action opposed to the adoption of a Western revivalist's style and engineering of academics and insisted upon s new artistic individuality of architectural production in similar to the Western modern movement. However, conservative tendencies against artistic expression had emphasized trends including structural engineering because of the Kanto Great Earthquake in 1923.

There was, however, the second mission by Western modern architects to Japan, for instance F.L. Wright and A. Raymond. Simultaneously, there was the second mission by Japanese young architects to Western countries, for instance, HORIGUCHI Sutemi, YAMAGCHI Bunzo, TSUCHIURA Kameki, and YAMAWAKI Iwao around the early 1920's. Most of them were in their twenties and very much influenced with the Western modern movement, and promoted it thereafter introducing modern architecture to Japan with a social context. It is certain that F.L. Wright and A. Raymond contributed to young Japanese architects in the architectural theory and practice enormously. Both architects came to Japan to work at the Imperial Hotel in the early 20's ENDO Arata inherited design from Wright without any hesitation. TSUCHIURA Kameki attached to Wright as well as Raymond. Then he moved towards International Style. From the office of Raymond, YOSHIMURA Junzo emerged and developed his own style after the World War II.

Yet, at this moment, perhaps there was a great gap between vision and reality in the young architect because such a movement was not able to continue, the gap could be seen not only in social aspects but also in their mind. However, their attempt was succeeded by the new movement which implicated international perspective much more called the Japan international Architecture Group formed by MOTONO Seigo in 1927 Surprisingly, they proclaimed a manifesto in Japanese as well as German and Esperanto. As foreigner members W. Gropius B. Taut and J. Hoffmann were named. The most significant difference between this movement and the former Japanese Session Group was that they tried to fill the gap as above by addressing the Socialism (Marxism) movement at that time. Their interest in architectural production had moved from art to science, for instance, standardization, mass-production and housing problem. Yet, such a modern movement in Japan could not develop as a social movement like CIAM, even though they had contacted with the Western modernism, instead of collective activities, in-dividual architects furthered their ability without conflict between a modern aesthetic such as simplicity and honesty and Japanese traditional style in which B. Taut praised the nature of modernity in the Ise Shrine and Katsura Villa, as far as concerning design. The modern movement in Japan did not suffer from political oppression. However, even strong modernists, like MAEKAWA Kunio and TANGE Kenzo who had interpreted and realized modern architecture from Le Corbusier in Japan in the post-war Showa (1926–1969) period. They were in fact, swallowed by the nationalistic movement during the war.

1. The Break with Internationalism

Although there is some question as to precisely when change began to occur in modernist architecture, a break with internationalism was indisputably one point of contention that begot change. Postmodernist architecture, which emphasizes the expression of cultural signs, and the architecture of critical regionalism, which seeks to use indigenous materials and forms of expression, are manifestations of a greater concern in architecture for particularity as opposed to universality.

There is an awareness, not just in architecture but in many different fields, that the modern era is at an end, and that has led to a reexamination of the universality professed by modernism. The idea of universality was based on a certain premise and existed within a certain framework. It is coming to be recognized that the universality of modernism was premised on a male-centered Western society. The credibility of an idea is difficult to restore once its premise is thrown into doubt. Exposure to non-Western and feminine points of view has shaken faith in the modern concept of universality. The increased concern for the meaning possessed by cultural signs or regionalist forms of expression is closely tied to this sweeping change in cultural awareness.

This trend has been notable since the end of the 1960s and continues to be a significant factor in determining the values of architecture. Indeed the conflict between internationality and indigenity has always been a major issue for architecture in Japan.

In the ancient period Japan came under the cultural influence of China, and it would not be an exaggeration to

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/ that China was at one time the source of all cultural expression in Japan. ith the introduction of Buddhism in pan, the construction of temples in the inese style began, and the architecre of China exerted an enormous inuence even on non-Buddhist Japanese rchitecture.

The birth of cultural expression uner the influence of China established vhat became a basic pattern of Japaese culture. The Japanese were caught in a dilemma, for though they valued cultural advancement, they realized that the culture was not distinctive to Japan. They began to question their own cultural attitudes. Not content to merely adopt Chinese culture, the Japanese sought their own forms of expression. Thus began a trend toward Japanization, and since then, Japanese history has witnessed repeated waves of indigenization.

Moreover, it came to be argued that, despite their adoption of Chinese culture, the Japanese would retain their identity as long as they remained Japanese in spirit. That point of view was expressed in the slogan wakon kansai ("Japanese spirit, Chinese knowledge") of the ancient Japanese.

Consciousness of this spirit was reawakened after the Meiji Restoration, when the Japanese began to adopt aspects of modern Western civilization in earnest. In place of China, the West came to be regarded as the source of advanced culture. Cultural expression subsequently developed in Japan under Western influence. The Japanese were caught in the same dilemma as before. They were desirous of cultural advancement, but the culture they were adopting was manifestly not their own. Their slogan was now wakon yosai ("Japanese spirit, Western knowledge"). It was asserted that the Japanese would retain their national identity, despite the introduction of Western civilization and culture, if they remained spiritually Japanese. However, the emergence of such a slogan was itself an indication of an acute cultural crisis.

2. Consciousness of Cultural Tradition

Tension arising from the conflicting claims of tradition and Westernization has characterized the process of modernization not only in Japan but in other non-Western countries and countries on the Western periphery.

Among other Asian countries swept by waves of Westernization, China adopted the slogan "Chinese identity, Western functionality," while in Korea the watchword was "Eastern values, Western functionality." Like "Japanese spirit, Western knowledge, "those expressions suggest the perceived threat to national identity presented by Westernization in Asian countries. That threat turned out to be real, as many Asian countries fell under the subjugation of Western imperialist nations.

Even within the West, modernization provoked crises of cultural tradition in countries on the periphery. National Romanticism in Finland was a cultural movement that derived its impetus from such a sense of crisis. Charles Rennie Mackintosh in Scotland and Antonio Gaudi in Spain made attempts to revive their respective cultural traditions in opposition to the culture of advanced Western countries. Architects such as Eliel Saarinen, Alvar Aalto and Reima Pietila are esteemed in Finland because their works gave expression to their nation's identity. Chuta Ito, who 'discovered' Horyuji, now considered the oldest work of wood architecture in the world, and initiated its study, not only undertook research into the architectural history of the Far East especially Japan, but introduced Japanese forms into 20th-century architecture. He too may be counted among the architects who sought to express national identity during the process of modernization. In advanced European countries revivalism gave birth to an architecture associated with imperialistic nationalism, but in the peripheral countries of Europe and non-Western countries, revivalism was a matter of not so much revival as the survival of national identity. That, paradoxically, demonstrated how acute the crises of national identity were in those countries.

If one were to plot, by level of intensity, the consciousness of cultural tradition generated by crises of national identity, the result would resemble a series of concentric rings centered in the heart of Europe from which modernization spread. That is, a correlation exists between forms of cultural expression and geographical conditions Generally speaking there is a correlation between a culture and the place where that culture was nurtured. An awareness of the correlation between place and culture is an important point that must be kept in mind in examining the subject of this discussion.

However, geographical conditions do not generally determine on what cultural tradition the visual expression of national identity will be based. That is where the history of each region takes on significance.

Space and time are of course factors in the basic concept of modern architecture. Consciousness of space and time made architecture a universal presence and explain how modern architecture came into being. However, a sense of cultural crisis brought on by the universality of modern architecture gave birth to movements for cultural expression such as National Romanticism. That suggests that opposition to modern architecture has had its conceptual basis in place as opposed to space, and history as opposed to time. The concepts of place and history appear to have been fundamental in the overturning of modern architecture.

3. The Basis for Cultural Identity in Japanese Architecture

Shinto, the philosophy of Zen and the way of tea have long been considered the cultural traditions that make Japanese architecture Japanese. Even today explanations of Japanese architecture tend to be based on them. It is in some sense inevitable that non-Japanese observers try to interpret Japanese architecture on the basis of these traditions, but their usefulness in explaining contemporary Japanese architecture is questionable.

Shinto, the philosophy of Zen and the way of tea are philosophical systems from which many architectural methods and values can be derived. From Shinto and the architecture of temples and shrines one can learn, for example, ways of arranging the approach to a building, the beauty of rectilinear architectural forms, the harmony of nature and architecture, and ways of organizing groups of buildings. The best-known work of religious architecture in Japan, Ise Shrine, has provided many modern architects with hints and inspiration by its organization and its system of periodic reconstruction every 20 years about the nature of architecture and the way architecture might be endowed with a commemorative character. In the 20th century, Bruno Taut, Walter Gropius and Kenzo Tange have offered distinctive appraisals of Ise Shrine, and the presence of Ise Shrine has been quite influential in the internatio-

tural signs in their designs as the post-modernists did earlier. However, they use cultural signs in architectural design, not to shape a context, but in fragmented fashion. They do this deliberately and not because they do not have the ability to organize such signs in coherent ways. They are the children, not merely of the bubble economy, but of electronic media, especially video games.

Having grown up in an age of electronic media, when scenes can change instantaneously and information can be accessed from many different channels, they do not have the patience to appreciate stories that unfold gradually over time. They change channels as soon as the pace slackens and the plot becomes obvious. They regard architecture as a similar medium of expression. Although they may manipulate historical motifs as cultural signs as the postmodernists did what they do is to manipulate fragmented motifs. The architects of this generation have begun to do what Kurokawa has been doing, that is, to employ motifs drawn from traditional Japanese architecture. However, in their case, the motifs are not used to place the buildings in the three contexts of traditional Japanese culture – i.e. Shinto, the philosophy of Zen, and the way of tea – but merely in fragmented ways.

7. Context in the Age of Electronics

Since postmodernism, architects in varying degrees have become conscious once more of the architectural context. They ask themselves how architecture can achieve wholeness in an age of electronics when information transcends space instantaneously. They are conscious of the question of time and space on which modern architecture was based.

In the age of electronics, time and space have become the same practically the world over. We live in a time when the local time established for each place on earth can be disregarded. We might worry about the difference in time if we are calling someone by phone, but in communicating by fax or E-mail information can be sent without such anxieties. In concept time has become one for the entire world.

As with time, the space on earth in which such information travels back and forth has also become one.

As the concept of time and space seemingly become unified throughout the world we are conversely beginning to realize once more that the concept of time and space on which architecture is based is essentially different from the concept of time and space on which electronic information, that is, virtual reality, is based.

The temporal consciousness on which architecture is based, does indeed recognize such things as time differences, period differences and historical character. The spatial consciousness on which architecture is based does recognize specific places.

A temporal consciousness of historical character, when applied to architecture, yields expressions of traditional culture. A spatial consciousness of character of place, when applied to architecture, results in a repudiation of the universal space espoused by modern architecture. As has already been noted expressions of cultural tradition ultimately have become fragmented signs, and tradition has lost its original wholeness.

Today the possibility remains for architecture to express the character of place. In the history of modern architecture in Japan, the architect who was most conscious of the expression of the character of place was probably Tange at the time he was designing the Peace Memorial Park in Hiroshima. Today, Arata Isozaki and Tadao Ando are trying to create works that evoke such character of place. Since the Team Disney Building, Isozaki has clearly consi-

dered the character of place in designing projects in cities such as Kyoto, Oita and Nara. Ando too has made the relationship of building to place his most important theme. The difference between the many 'Andoesque' buildings to be found in provincial cities and buildings designed by Ando himself is not in details or textures but in the understanding of the place where the building is to stand.

However, the expression of character of place, like the expression of cultural tradition, is extremely difficult. It is apt to lapse into regionalism and climatic determinism.

On a much smaller scale, when translating the character of place into a specific space, what means does the architect use? The following remarks are admittedly intuitions but are by no means far-fetched.

Providing a round room at the bend of an architectural axis is a traditional method of architectural design. This is to be found in ancient Roman and Baroque architecture. A similar thing is happening today, as architects become conscious of real places.

A real place is by no means a geometrical space ordered according to X and Y axes. There are discrepancies between directions and roads, and distant views and monuments present other angles of vision. A real place is by no means a world ruled by rectilinear coordinates. When an architect becomes aware that a place does not conform to such coordinates, the space he conceives is apt to become conditional and take an elliptical form.

A considerable number of recent architectural works make use of the ellipse. The plaza and the assembly hall in Tokyo City Hall by Tange are elliptical. Isozaki and Ando also employ the ellipse. This phenomenon of the ellipse seems to herald the coming of an age of architecture in which the character of place is expressed.

re in Montevideo,

Montevideo 1930–1940 Modern Architecture and Urbanism as Symbol of Liberty and Prosperity

The New World has always been the place where most of the urban and architectural ideas from Europe have been put into practice.

Although the Dream of an Order from the Renaissance city ex novo had a limited application in Europe, it was only on the New World where it has fully developed in the creation of cities. It basically determined the logic of city building and the organisation of the territory in most parts of the continent. The grid and the rigid specifications made of these cities, became a sort of "variations of a type". The final result though, was a hybrid creation since the architecture that was finally built in them did not correlate with the one that had been originally planned.

In a similar way that had happened five centuries before, America became again, an experimental field for the New Architecture in the first half of this century.

The products of the rational architecture movement in Europe are well known through the work of the "masters" or the variations introduced in Chicago and New York. While between the economic conditions and the investment capacity was quite limited in the period between the two Wars in Europe, and the negative effects of the First World War were still present, on the other side of the Ocean a moment of prosperity and euphoria, was taking place. It is the case of many cities in Latin America: Buenos Aires, Rio de Janeiro, São Paulo and also Montevideo.

The Modern Uruguay

In the twenties Montevideo had 800.000 inhabitants, half of them European immigrants. A tradition of democracy and state welfare policies were developed at the time: the railways, the port, the telephone and the electric energy companies were nationalised; women were allowed to vote; unions attained important achievements in relation to ideological issues and social security. That would transform the country into a place of political asylum for foreigner people.

There in a rude contrast as you leave Brazil when you get to Uruguay. From that Eden you come to another nation where the most modern battle in the world is taking place: one comparable to the experiment in Russia, which is destined to leave the capital, exhausted. From the Garden of Eden to Utopia: this is the path, which goes from Brazil to Uruguay. The effort to forward legislation in Uruguay, the new progressive social laws, offer not only a valiant view of government but also, if I am allowed to say so, an over optimistic one.

Everything is built for the future. In Uruguay there is the belief that education is the end goal, when it is really only a means. I have visited numerous schools in Uruguay and I am amazed to see that the children new, who Bernard Shaw or Lenin is, but have no idea of the names of the Apostles.

R. Forbes, 1932 in Diary of travels

This was the vision that a foreigner had of Uruguay, and shows the state of faith on the future people had on those years.

We did not have a "heavy" historical background to deal with since most buildings were constructed in the 19th century. Moreover, we had the highest demographic growth ever registered in our history, so the conditions for the development of the modern architecture were given. The 30's decade was the period in which the physical structure of Montevideo was defined. We can therefore say, that Montevideo is a Modern City not only because of the amount of new architecture erected, but also and principally for its urban proposals that defined its structure and ruled its evolution.

In this sense Montevideo can be regarded as an example of how the ideals of liberty and prosperity had their expression in the new architecture and urbanism. This would define not only the image of the city but also the pattern of social appropriation of space for the future.

The New City

The beginning of the 20th century found a city with new needs and ambitions. The economic bonanza and the political power structure that was consolidating found a fertile field for the city reform that would assume a new functionalism and representativity.

To make this objective possible, three modalities of work were put into practice: the Master Regulating Plan, the Urban Projects, and the construction of Public Buildings.

The 1930 Regulating Plan

The proposal that best defines the state of thought is put forward by the Regulating Plan. Three years before of the publication of the Athens Charta, the regulating principles that delineate the frame of the modern city are used in this Plan: the control of territorial growth, and the democratisation of the city through the bettering of the environmental and accessibility conditions. Based on a proper diagnosis of the urban situation in Montevideo, this Plan put together by a multidisciplinary team headed by Architect Cravotto was maybe, the most drastic proposal formulated for Montevideo. Some of these proposals were:

- Appointment of areas for specialised functions and relocation of the Civic Centre.
- A new upgraded street structure complemented by a new green park system.
- A density concentration for increasing the value of the land.
- An acceptable maximum of three million inhabitants.

There are some elements in the proposal that defined it as a mature reflection on the problems of the contemporary city, and as an actual vision on trying to solve them:

- The necessary approach through a metropolitan point of view of the problems of the city.

Fig. 1.

Fig. 2.

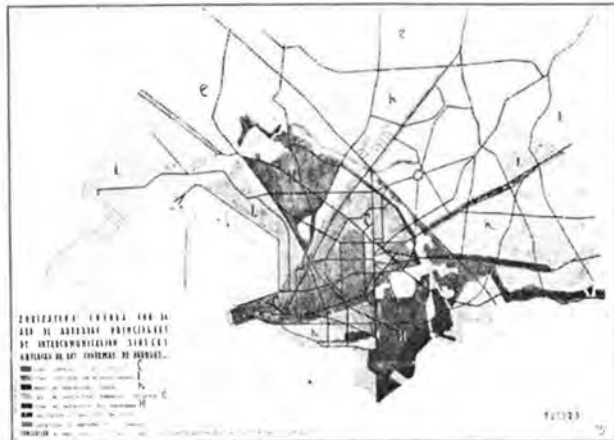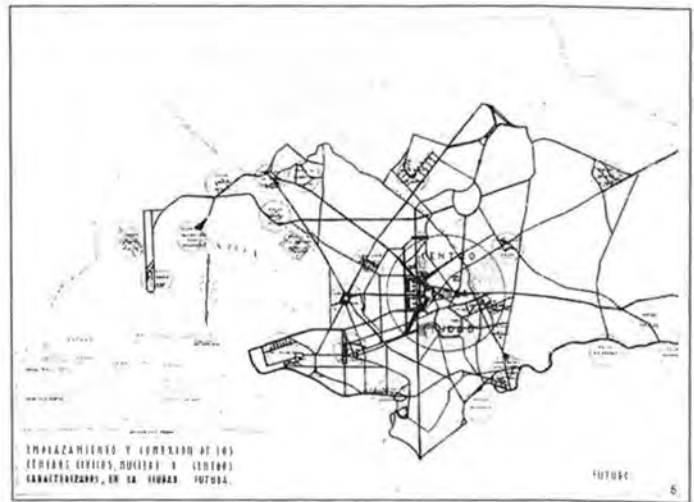Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

Fig. 1. Montevideo (Photo Gustavo Moreira).

Fig. 2. Regulating Plan 1930 New Civiccc Center.

Fig. 3. Regulating Plan 1930 Future Zooming.

Fig. 4. Medical Reserarch Building. Arch. Suraco. (Photo Silvia Montero).

Fig. 5. Yatch Club (1932) Arch. Herreán y Caspi. (Photo Silvia Montero).

Fig. 6. Clinics Hospital (1929) Arch. Suraco (Photo Ruben Otero).

- The study of the cost of the urban land as a basis of the decisions.
- The early vision of the decadence of the centre of the town and the acceptation that some of its functions should de implanted on areas of new centrality.
- The resolution of the problems of mobility and connection that, this new proposal would create to the city.

The Urban Projects

Through the integral design of different urban buildings strategically placed in the city, its image and functionalism is restructured.

In this field the development of urban projects built in the city during the second and third decades of this century, defined the urban themes that were thus solved. The design mechanisms put into practice; the references of emerging European urban theories and concrete application of it an evaluation of its role in the city were also defined.

Agraciada Avenue

The city carries out in 1928 a lengthily debated wish to give the city an Avenue that would have a double objective. On the one hand it would create a direct connection between the Palacio Legislativo and the principal street on which all the Main State buildings are situated. And on the other hand generate representative frame of a consolidated State whose formal expression would be conditioned by a series of corners, a product of the surgery carried out within the historical tissue. Within this context a new series of public and residential buildings with a heavy modern emphasis were implanted.

The New Facade Shown by the City on the River Plate

The construction of the South Promenade, a new coastal front 13km long, constituted the most important investment up to the decade of the 80's. It stated a reversion of the construction process in the city up to that moment, converting the factory suburbs and marginal habitations into a new facade between the city and the river.

The coastal edge is rectified through a highway and a lineal park, which triggered off a new way of growth for the city on the coast, which is one of its outstanding characteristics today.

The Creation of the Central Park

The Central Park was built on the city limits and already anticipated the conception of the metropolitan centrality it now has.

A central avenue drew on curved lines with secondary streets make it possible for cars to circulate through the park. The installation of sports facilities, already envisioned in the original project, as well as different hospital buildings that were immediately incorporated, gives a new concept of what a contemporary Park should be.

Today the Park has acquired the role of a central lung of the city and its landscape qualities have constituted the attraction of those high-class sectors of population settled in its outskirts.

The Construction of a Roadway System

These projects interconnect among them and the city, through new types of roads where wide paths are introduced for cars, even though they were scarce then, as well as generous sidewalks for pedestrians, accompanied by abundant forestation and gardening.

The State and Architecture

Framed within the economic splendour of the time and the transformation of the State, an important policy of new buildings is developed. The most relevant architectural works of the time developed programs of great social interest: hospitals, popular residential units, educational facilities, sport buildings. All of them were assigned by public competitions, and some of them resulting in works now considered as part of the nations heritage.

Taking some of the European avant-garde new formal codes, Uruguayan architects develop a particular and pragmatic application. Leaving aside the strict a-priori version, the necessary elements for the developing of a kind of architecture that would represent the

new democratic State and reconcile the new with the already existing, were searched for in the formal setting of the Modern Movement.

Implanted in general on consolidated areas, these new constructions keep the existing norms and practices as refers to heights, alineations and materials. Keeping to the logic of historical adding to, the new architecture continues also the logic of the process of this city construction. The final result then, owes as much to the new codes introduced by the avant-garde movement, as to the composite elements carried out historically.

In Montevideo is easy to recognise the extended presence of the architecture and urbanism of those years, which were fundamental for our architectonic culture, setting the image for the contemporary Montevideo.

The New Challenges

Today we can say that Montevideo is living a new stage through the new geopolitical conditions that locate the city as the capital of the Mercosur (South America Common Market). Its urban and territorial conditions make Montevideo a particular city in Latin America: a population that does not increase and that for the last 20 years has stayed in about 1,500,000 inhabitants. It has an infrastructure network that covers all the urban area, and ecological facilities composed by a chain of sandy beaches, public parks and natural areas surrounding the city. It has also increased the importance of the port in order to become one of the most important of the area.

The new Territorial Ordinance Plan presented by the University to the Municipality, and recently approved by the City Council, tries to find a territorial translation to the new situations and challenges the city faces. Some of the proposals take up again many of the ones already put forward in the 1930 Plan and which are still extant.

The new changes in the city have also generated a new building impulse, which we hope the new generation of architects will know how to implement adequately, and that they are at the quality level of those modern ones who built the city we now enjoy.

Arie Sivan
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The Kibbutz: MOMO and Romantic Architecture in an Agricultural Commune

The purpose of this presentation is to make an exchange of ideas through a series of questions that arrive while looking at the phenomenon of the architecture in the kibbutz.

The kibbutz is an egalitarian cooperative that has as a main purpose to settle the land of Israel. The term derives from the Hebrew word KVUTZA meaning group. This grouping is based on collective ownership of all properties, self work, equality and cooperation in the levels of production, consumption and education.

This society is an original Israeli contribution to agricultural settlements and to the materialization of the ideal of equality of rights that requires new physical programs.

The 2nd wave of immigration, the Second Allya, influenced by anarchistic and collective socialist ideals had as an ideal a small and intimate group of people working in agriculture and founded the so-called small kvutza.

The first kibbutz, Degania, was founded in 1909 by a group of workers that after a strike took upon them the administration of a farm owned by the Zionist Histadrut, a few other were founded until WWI.

The kvutza planning in this period was based on the use of European farms planning scheme, based in a central courtyard and the architectural language of the first stone buildings of Degania, by unknown builder, is such that makes impossible to imagine the Middle East. The same happens when we look at the wood stables.

Another group, kvutza, as they were called at the beginning, from the same period uses the services of a well-known architect to make the general plan.

Alex Berwald, whose design for the first building of the, Technion, Israel Institute of technology of 1912 is well known makes the Master plan for Merhavia, for the Confederation Movement. It is based on the enclosed 100X100, courtyard surrounded by stone buildings that served as the Administration, the Workers House and the Services house and with wooden farm buildings as seen in this 1913 view.

We are here unable to feel a local sense of place. Probable the only local influence has a climatic root, as we can see through the use of high ceilings and ventilation holes above the windows. By the way, one of the houses – merely a 4x3 room – was the house of Golda Meyerson, best known as Prime Minister Golda Meir, while she was living in this kibbutz.

On the Southern side a 2 stories multi-purpose building was erected that served as stables and for storage, and towards the courtyard on the upper floor as housing.

It was only after the war that the Zionist Movement, Histadrut Ha Tzionit, organized itself and a new wave of building began.

Land was bought at the Izrael Valley, and it was only in 1921 that new settlements were founded by the so-called "third wave of immigrants", the third Alyia. These came from east Europe and were members of the Hechalutz – Pioneers-movement. This third wave of immigration founded an important number of kibbutzim, influenced by the militant Marxist revolutionary ideals and the October revolution. At this moment two German architects were requested to make the design for the first post-war kibutzim: Fritz Kornberg and Richard Kauffmann.

To close the Mediterranean gap, between Europe and the Land of Israel, I would like to point out some parallels in a 12 year fruitful period. During this period more than 10.000 MoMo buildings were erected in the country, both in the cities and in the countryside. This became our architectural tradition.

While Adolf Loos writes, his 1908: "Ornament and Crime" and Frank Lloyd Wright his 1910 "Organic Architecture and Le Corbusier in 1920: "Towards a New Architecture: Guiding Principles", it is only then when Kornberg makes the Second Degania, Degania Bet, masterplan.

Richard Kauffmann, a German architect with experience in urban design, living and making urban design in Oslo, was contracted in July 1920 by the Zionist Movement, as the responsible for the Planing of the Settlement in the Land of Israel-Palestine. He begins while Erich Mendelsohn writes in 1923, "Dynamics and Function", and projects the Heftzi Bah and Beit Alfa Masterplan, as well as the Kiriat Anavim: Houses and Children Home.

When Le Corbusier and Pierre Jeanneret formulates, in 1926, the "Five Points Towards a New Architecture", Richard Kauffmann goes on and produces the Geva, Tel Iossef, Ein Harod, Kiriat Anavim, Iagur and Ramat Rachel: Masterplan. Kornberg, from his private office in Jerusalem, designs the Degania Beit House, and the same Kauffmann the Tel Iossef: Houses, that we will see later.

While, in 1927, Ludwing Mies van der Rohe writes his " On form in architecture" Kauffmann still running, makes the masterplan for Genigar, Gevat, Sharona, Beit Alfa, as well as his "Typical plan" for a kibbutz house.

After the 1928, CIAM "La Sarraz Declaration", Richard Kauffmann, designs the Degania Alef: School and in parallel to the 1930, Ludwing Mies van der Rohe: "The New era" Kauffmann produces the Mishmar HaEmeq, Sarid, and Ein Harod masterplan. While Kuzinsky, designs the Ein Harod and Tel Iossef Children Home and Infants Home. Finally, only when the 1933 CIAM: "Charter of Athens", is written, Krakauer, designs his magnificent Tel Iossef Dining Hall.

In the planning level, a clear approach was taken by the kibbutz planners. It was based on the total separation of functions: Common services area, the Housing area, and the working area, a clear MoMo approach, and the discussion remained in formal aspects.

Kauffmann, the omnipotent architect, writes in 1940 for the catalogue of the "20 Years of Histadrut – workers confederation – Building Exhibition: "Items for consideration when planning agricultural settlements are: the factor of communication, economic elements, the questions of health, questions of safety, and questions of art.

We can see his approach in his 1921 Nahalal, project for which he writes: "Nahalal was the first settlement built according to the principle of modern town-planning. In the center, on a hill, is concentrated the intensive public life", and it includes the People House, linked to an open stage for theatrical representations, the school as well as the kindergarten and the Dispensary, the grocery etc. Around these buildings are
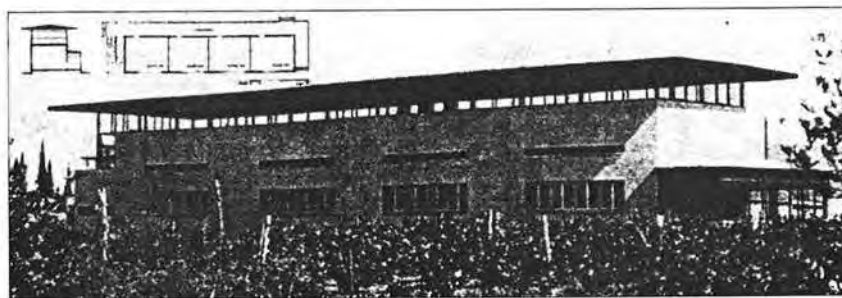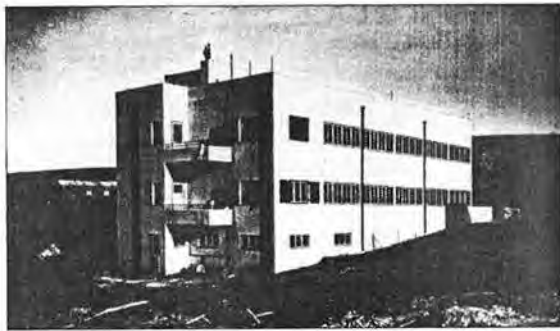
houses for the non-agricultural workers and in the outer circle the agricultural plots with the house in the narrow side. This settlement is not a kibutz but a moshav in which the family life is private, each family has its own house and they produce for themselves, the commercialization and the purchase of products are done collectively. The idea of concentrating the community buildings came from the Garden City model, but for him and his contemporaries the concentration and setting of the community buildings in the "acropolis" was a noble aim and somehow a symbol of a progressive more enlighten society.

This moshav has been included in our International Selection.

The Ein Gev plan, probably the most elaborated in that sense, is based on a orthogonal grid. There is also the clear separation between functions. A central axis with all the common services, includes the dining hall, used also as an assembly room, the laundry, and the school. The children living as a group are in another area surrounded by the parents, like protecting them.

The second level of our presentation is the one of the housing. We have to take in consideration that the economic situation was extremely bad. The evolution of the "house" in the kibbutz is first the tent, then the barrack and in the third stage the solid material "house". However we have to understand that there are here two factors: it is a completely different family, only the parents live together, and second there is a lack of money for the building it is only the Zionist movement that builds, because the immigrants lack any financial resources.

The first buildings ever built were by Kornberg in *Degania*. The architect wanted to design a building with two wings of two story apartments articulated with services. However lack of financial resources made thathe whole complex was built in two stages between 1922 and 1926.

They are two stoy, in each story there are 6 "luxurious dwellings" each of the size of about 3.40x 4.00m, without toilet, and obviously without any cooking or washing facilities as this is done collectively. The flat roof is being used for sleeping during the hot summer nights as is done in the local Arab tradition.

It is important to understand that the program was new, building for a new family for a different society.

Both buildings look different the right one being the first. In this buildings the

architects uses two kind of languages, he is both romantic, and modern. Modern because he uses a simple form and because he responds to structural components, etc. Romantic because he employees elements that remember another culture a culture that has nothing to do with the kibbutz, as the details we can see in the top of the building and in the central staircase fenestration. This building is being now, keeping the original formal components into "Zimmers".

In the second building the architect changes many of the components of the form, keeping the same basic layout, and struggling against the officials of Technical Office of the Colonization Department of the Zionist Movement, who wanted to make smaller rooms. The details are different but they exist and they are decoration and they do not serve for ventilation purposes however they are influenced by the "dream of the east".

This type of dwelling did not stay long and a process began, in this process there are the 3 main components of any design process: the client, the architects and the developer, in our case the Officials of the Colonization Department of the Zionist Movement. While the clients wanted two floor buildings the "officials" refused, and the arguments were various but the general opinion may be seen in the 1940 exhibition already mentioned.

"The two-story house is an unsuitable structure for the agricultural settlement; red tiles should be used for the roofs, which should overhang the walls all round; local building materials should be used as far as possible; sanitary arrangements should be installed in every house-unit; verandas should be built so as not to obscure the light in the rooms." The result was a brick built barrack or like the type developed by Lote Cohen, the first woman architect in the country. She designed a 6 dwelling building. A main feature of it is a veranda. The large one in the front can be used by the whole group, or by only the two families in the center of the building. The other, in the corner, is used by only two families. With this layout she achieves much more privacy. Kauffmann never accepted this building, and it was built due to the will of the tenants but this type was never repeated again.

In the year 1925 a committee of experts that included two architects, three engineers, one agricultural engineer and two doctors, was created to give recommendation on the planing, buildings types, economy, hygiene, esthetics, the

future versatility of the plan and the actual building process. The conclusion is extremely interesting however due to the lack of time I want to stress only that they stated that artistic value that was seen as basic for the education of the settlers children and that the physical planning was essential to the ideological social organization. As a result of this the importance of the communal buildings is indicated and the flat roof as a form to adapt to local traditions.

After a competition in 1926, for the design of houses that failed to produce a 1st prize solution, Kauffmann, please meet him, is requested to design a prototype to be used everywhere. Without accepting his own recommendations, probably influenced either by my neighbor design or economical reasons, the result was a concrete block, plastered barrack, packing 4 or 6, paired 12 sq.m rooms, to be able to join them as one dwelling in the future, with 2 opposite openings for ventilation each, and a small veranda without the non required kitchen and the too expensive toilets.

It is 4 years after, in 1928 when a second committee, with only one architect, Kornberg, that did not sign the recommendations that states the kibbutz house should be a one floor, red tiled house.

However climatic consciousness brought him, and others in 1927 to find extremely interesting solutions. His design for the Kineret *kvutza* is based in compact 2 stories buildings, using the roof including a shading device that was not built *but* they include features, as the stairs leading into the roof as well as a the thin strips in the rail that increase the speed of the wind improving the roof microclimate.

In the same year he also designs the first building in *Beit-Zera* in both the pergola that had to shade the roof was not built. This building included also an exterior staircase.

Arie Sharon, one of the founders of contemporary Israeli architecture, for the already mentioned 1940 exhibition, writes: "Public buildings represent a faithful mirror of the cultural, social and public life of a people at any given time and reflects the creative abilities of the period."

In the light of this statement I am willing to present some of the buildings. The needs for buildings for common services require new programs that include houses for children and babies, assembly halls, dining room, schools etc. All of this was new architectural programs.

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Modernity and Typology: Standard versus Outstanding

Over the last thirty years, form and symbol have predominated in the discussion of recent architecture and, more generally, in the media. Conversely, any reference to the founding concepts of modernism – rationalism, structural expression, functionalism and free space – has tended to be retrospective. This focus on form is inextricably linked with the need of architects to assert themselves, and their desire to be recognised both as the leading profession in the project team and as the authors of works of art. All the more marked because underpinned by monographs on the work of architects and other forms of publicity [notably photographs], this pre-eminence of architectural formalism is further reinforced by the methods conventionally employed to classify the urban topography – such as the use of stars to indicate "buildings of note" [and good restaurants] in tourist guide-books, and by the categories adopted in connection with the protection of ancient monuments. How could the heritage industry do without so useful a concept as the commonplace and the exceptional ? Which defender of the countryside would not be outraged by a building so out-of-keeping as to present a blot on the landscape ? In *Madame Bovary*, for example, Flaubert demolished the cast iron steeple on Rouen cathedral in a few words : "this species of truncated piping, oblong cage, openwork chimney, which perches so grotesquely on the cathedral as though some whimsical boilermaker had been let loose on a wild undertaking" [1]

Admiration and invective alike make implicit reference both to an average state of affairs pertaining at a given point of history, and to some generally acknowledged purpose to be served by an acceptable and suitable building. Such an architecturally correct building would tend to conform to an accepted architectural type. As the very notion of building type is as old as the idea of architecture itself and, moreover, it constitutes the substance of all historical analysis of built form [as is demonstrated by specialist studies on the architecture of antiquity], its absence from contemporary architectural criticism is worrying. Seen in this light, the ejection of the notion of building type represents a distortion of one of the principal aims of the Modern Movement.

Indeed, the concept of typology was central to the formulation of modern architectural doctrine. *Typisierung* or standardisation was the main issue on which Hermann Muthesius and Henry Van de Velde were so much at odds *in the debate at Weimar*, while the notion of creating "standard building types, as a social necessity" was formulated in 1925 by Walter Gropius. This abstract working principle did not withstand the rapid imposition of the formalist approach to modernity, as first enshrined by the "International Style" exhibition of 1932 at Museum of Modern Art. From then on, publicity led the chattering classes to perceive contemporary architecture in terms of those buildings or design features that could be identified with the architects most in the public eye – the "hot-house clique", as Tom Wolfe dubbed them in his polemical writings. From 1940, the predominence of outstanding buildings over standardised elements was reinforced by the masters themselves, whether it was Aalto or Le Corbusier, in the approach they adopted in response to exceptional commissions.

This process has tended to detract from the whole area of established building types. It is to be hoped that, at some future date, an historian may be able to explain exactly how and why the concept of typology came to be overshadowed. In the meantime, I should like merely to draw attention to the paradoxical eclipse of building type as a criterion of architectural criticism, in view of the importance accorded to the notion in other fields of current information, where different and innovative building types are widely recognised. The terms *sky-scraper, tower-block* and *slab-block* have long been in common usage – and rightly so, for the invention of new building types is among the most obvious manifestations of modernity. When associated with the definition of structural and spatial organisation, the interpretation of building types extends to universal space, in different spheres of architectural activity over a long time span. The basilica type, itself a reinterpretation of the basilica law-court model of ancient Rome, generated forms that were adopted for Christian churchs over one-and-a-half millennia, first in Europe and then round the world. Since the 1880s, major contributions to the typological history of modernism have included the sky-scraper, then the tower-block and the slab-block, the top-lit industrial building and the metal-clad big shed [as used for warehousing and out-of-town supermarkets].

Until now, the history of modernity has had little to say on the matter. Attention has tended to focus on the question of standardised components, to the detriment of the notion of building type in its own right. The flat roof, *pilotis*, or the curtain wall lend themselves to the definition of style and hence to an art-historical analysis of architecture. In consequence, such elements have tended to take precedence over the building as a whole. Just such a case is presented by the "Five points of modern architecture" analysed so emphatically by Le Corbusier. Above all, the parallel exhaltation of the architect-and-his-built-work has prevailed over everything that might be produced by the notion of building type, in the way of banality, repetition and [long] duration. By the same token, aspects that often characterise a building type have also been overlooked.

One reason a blind eye has been turned to typological architectural history might be that, when faced with the originality of outstanding buildings considered in terms of milestones in the history of architecture, the notion of building type is deemed not to lend itself to a substantive historical approach. Yet the history of modern building types is in fact rich and complex. In some cases, a distinct building type has emerged from two distinct programmes, such as tourist hotels and early sanatoria sharing a common form combining a central range with two return wings [in Switzerland, at the beginning of the century]. The atrium building type has provided the model for, successively, department stores, hotels, office buildings and, more recently, for public buildings

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[art museum in Shanghai; regional adminstrative headquarters at Toulouse]. Certain building types, such as the so-called Nightingale hospitals and stepped section sanatoria, have had a limited time span; others, based on long-term patterns of use, such as stadia [for spectator sports] or the service stations [in motorised societies], have a correspondingly long life span. Lastly, distictions may be drawn between primary building types [the slab-block, the tower-block] and secondary building types [slab blocks with internal or external access corridors; the star-plan tower-block or Gröndal star-plan; the inverted roof]. Extrapolating meaning and importance from architectural monographs poses the historian with something of a problem. Conversely, typological analysis – whether it takes the form of exhaustive surveys or cases studies – is based on a mass of established data and provides the security of a quantitative historical approach.

Faced with the question of innovation, the study of 20th century building types can evaluate the contribution made by new typologies in the campaign for freedom from old conventions, and in the reconstitution of the urban topography on the basis of new factors. The typologies of the Modern movement broke notably with the expression of pre-industrial values : the exhaltation of territorial values in relation to the rearing of stock and agriculture, by such dominant means as the affirmation of secure boundaries and controlled access. By contrast, the notion that built form should no longer be determined by the building plot was forwarded by the typologies of the Modern Movement, which also engaged in a generous critical assessment of the freedom of access.

The study of typology sets out to clarify, in the case of each building type, which aspects may be classified in terms of an abstract generic definition and which may be attributed to such circumstancial factors as the changing needs of society or technical capabilities at a given place and time. It also seeks to establish the basic characteristics of the building type and to identify any re-interpretations and variants. Over and above descriptive propositions, typological analysis can provide new information on collective values shared by a population in relation to architecture

[as opposed to built works that express individual values and hierarchies]. Hence the belief in the unity of the city, as one of the values of European culture [18th century Bath, Second Empire Paris, Fin de Siècle Vienna] underpinned the proto-modern typology characterised by the melding of neighbouring buildings into urban blocks, where the unity of volume achieved by prescriptive regulations dissimulated the boundaries of individual land-holdings while at the same time absorbing through-routes in the form of covered shopping arcades. Embellished by the continuity and homogeneity of its buildings, this monumentalised city embodied the philosophy of the Enlightenment for over 150 years. When the values of social reform and of the redistribution of wealth took the ascendancy, from the Weimar Republic to the Welfare State [and its counterparts in Western and Northern Europe], housing programmes were geared to meet radically different requirements. Hence more universal forms – standardised house types, Garden cities or *Siedlungen* – were devised in response to "social necessity", to use the phrase coined by Walter Gropius in 1925. Among those working on explicity typological research at the period were Bruno Taut [housing blocks] and Le Corbusier [Citrohan House, and the "Immeuble-villa"]. And hence the research into systems architecture in France, characterised by a so-called "continue et proliférante" typology, in the context of 1960s industrialised housing production.

The methodological difficulty resides in the fact that Modernity's manifesto buildings can be seen both as building types and as works of architecture. The interpretation of a building type may sometimes take on the character of uniqueness specific to an outstanding work of architecture. Such is the case with the Le Corbusier's Unité d'Habitation at Marseilles : it cannot be detatched from the series of theoretical studies that stretch from the Immeuble-Villa of 1922 to the Ville Radieuse of 1935, yet it is not comparable with subsequent replicas. And sometimes, whole programmes seem to sterilise typological research, such as recent museums where the instrumentalisation of space has been overtaken almost everywhere by the invention of an extraordinary space.

The history of the renewal of building types is the weak point in historiography of modern architecture. In their book on residential tower-blocks in the United Kingdom, Miles Glendinning and Stefan Muthesius demonstrate the pertinence of an historical approach to the concept of typology.[2] They show the unity of a category of objects, which lends itself to a systematic inventory, how it fits into a specific phase of social demand with a beginning and an end, and the change of direction it underwent. Their findings show how this building type began as a success and ended as a failure, in a given national context. This study could usefully be compared with findings on the same building type in other regions. In medium-size towns in Brazil, for example, the residential tower block is now highly successful in that, through co-ownership, it corresponds with the aspirations specific to an emerging middle class.

In the recent phase, several large-scale undertakings disimulate an approach that is indisputably typological, although their identity has yet to be established as such. In the case of the architecture of mass distribution, hypermarkets represent a typological invention which is hard to highlight owing to the anonymity of these undertakings. In the case of the urban context, preoccupations with ecology and self-protection have led, with the double slab-block, to the development of intermediary space in the form of a new garden court. This typology is apparent both at the Bibliothèque de France [architect: Dominique Perrault] and at the Rue de Meaux housing development [architect: Renzo Piano] in Paris.

Typological history presents a field of enquiry where much remains to be done – always provided architectural historians are still interested in finding the substance of things beyond appearances and the identity of ideas underlying beliefs and words.

(Translation Ch. Ellis)

Notes

1   Translated from: Flaubert G., *Madame Bovary*, Pléiade series, Paris, 1951, Vol.1, p.513.
2   Glendinning M. and Muthesius S., *The Tower Block*, Yale University Press, New Haven and London, 1994.

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The Modern Movement in Hong Kong

The Modern Movement I am dealing with in this paper concerns primarily architecture and the built environment. However, the concept of a movement itself implies a more macroscopic account and deserves a more comprehensive treatment. I have therefore chosen three additional aspects which together would give a more complete picture in delineating such an account for Hong Kong: industrialization, art and planning. First of all, I have to qualify my description of this movement not so much as a self-conscious, coordinated or concerted effort among these sectors. The reality in the social development of Hong Kong was very often based on the necessity of economics or the willed imposition of colonial politics. The resulting philosophy or theoretic guidance of this unique socio-economic polity, therefore, has always tended towards pragmatism. And this sense of being pragmatic and practical has shaped most of the buildings and cityscape since the turn of the 20th century.

Design and Early Industrialization in Hong Kong

Modernism, with its functionalistic ideals which coincided with this pragmatism, began in Hong Kong quite early. It was once believed that industrialization happened in Hong Kong only after WWII but more and more evidences show that this is not quite the case.[1] Hong Kong was indeed part of the Pearl River Delta production for Chinese export trade as early as the Han Dynasty, which became even more important since the 18th century. The designs for cuspidors (or spittoons), for example, were drawn in Holland and sent to Guangzhou in 1763 to be manufactured and decorated for export back to the European markets.[2] Hong Kong took up this major role of export manufacturing since the 19th century which was slowly transformed with the evolution of a local production of modern adapted designs. This spirit of adapting traditional design to new materials and markets ranged from graphic design packaging to household items and at a later stage, manufacturing of machines and motorbikes and motor tricycles. As more designers trained abroad moved to Hong Kong, more original work were produced – products often combined the ingenuity of modern materials and techniques with transformation of traditional or vernacular forms. This extensive enterprising culture fostered improvement on the production through design which led to the first ever exhibition in 1906 of industrial arts to be held in Hong Kong by the 13th Governor Sir Matthew Nathan – a precursor of the later and much popular annual industrial products exhibition organized by the Chinese Manufactures' Association founded in 1934.

Hong Kong benefited a lot from the 1932 Ottawa Agreement which allowed free trade within the British Empire, creating a vast market which at the same time also puts increasing demands and limitations on the designers themselves. Hong Kong made products thus acquired an umbrella label of "Empire made" between 1930 to 50, which ultimately proved fatal to the originality and creativity of local industries as the Empire itself declined since 1950. However, several companies emerged since by elevating the independent originality and design of their products. South China Iron Work Ltd. produced "specially designed" diesel truck and motorbikes in 1950. Haking Wong Industries ventured into the making of cameras known as "Halina" and promoted their brand as "designed and made in Hong Kong" – all components, including the lenses, were indeed produced in Hong Kong. I-Feng Enamelling Co. (HK) also produced highly unique enamel wares by its designer-director Fan Chai who was able to combine his sensitivity of the Lingnan Style of painting with the strong colour of folk art and culture which suited and indeed was demanded by the Asian and African markets. Finally it is rather telling to see the depiction of modern buildings on the graphic posters and products of the time which emphasize "design" as a selling point – the modern products must also be made in a modern building. First of these is an advertisement for a paint factory (fig. 1). The other is a logo design, a play with modern architectural interpretation of the Chinese characters xin xing (literally meaning "new form") which are the name of a decoration and furniture company (fig. 2).

Early Hong Kong Artists and Art Development

In the development of art, early Hong Kong western artists were mostly amateurs who took up painting as a hobby or leisure. An important representative from this group is Murdoch Bruce, a surveyor inspector in charge of some of the early colonial buildings, who depicted many of the city scenes in Hong Kong. The first generation of professional Chinese artists came to Hong Kong in the 20s included Deng Erya and Huang Boye who founded the first societies in art – the Hong Kong Art Club (1925) and the Guangdong Association for the Study of Chinese Paintings, Hong Kong Branch (1926). Western art began to be popularized by the founding of the Hong Kong Fine Arts Institute (1930) by Wu Meihe and Li Bing. Painters who received education in the west returned to China and began to experiment with a Chinese interpretation of the western technique. A pioneer in this was Lin Fengmian who studied in France from 1920–25 and moved from impressionistic oil and watercolour to Chinese ink. Abstract art was in vogue since the first exhibition in Hong Kong in 1939 on a solo Jewish artist Freelander. Expatriate artists like the British Julia Baron were also active throughout the 50s and 60s. Abstract art also influenced traditional Chinese painters to experiment with new form and Hong Kong artists took lead in this direction – in particular the Visual Art Society founded in the early 70s. In comparison with industrial and architectural design, Chinese painting perhaps was the most successful of all in terms of searching for a modern mode of expression within the traditional context, a problem which has since intrigued architects in China and Hong Kong who are still struggling with producing a true modern Chinese architecture today.

In terms of formalization of art education, it was the 19th Governor of HK, Sir Andrew Caldecott, who proposed to set up an academy of fine arts in HK

in 1937 which was later materialized as the first government subsidized programme in art education in the Northcote College of Education in 1940. However, development in art was interrupted during WWII. In 1955, the British Council organized the first HK Arts Festival which has been quite successful annually ever since. Art education was first simulated into the university structure through the extramural studies at the University of HK in 1956. With the City Hall rebuilt and the museum and art gallery opened in 1962, the newly established Chinese University also offered the first degree course in Fine Arts the following year. The HK Polytechnics Institute (now the HK Polytechnic University) set up the Swire School of Design in 1967. Finally, the opening of the HK Arts Centre in 1977 was a milestone for the art community after 5 decades of development.[3]

Modern Movement in City Planning and Housing

The first plan to develop Hong Kong was drawn up in 1843 by the first Land Officer who later became the Surveyor General, A.T. Gordon. This plan includes only scantily scattered buildings mostly on the northern harbour front of Hong Kong Island. The real first comprehensive planning of the city did not happen until 1947 when the Government invited Sir Patrick Abercrombie to study the need for further reclamation and development of new towns for the expanding population. Meanwhile a small planning project was tried out in the residential area of Kowloon Tong after the English Garden City concept of Ebenezer Howard. It proved successful not so much in terms of fulfilling the Garden City model – since it lacked many of the major components in the self-sustaining idea of a garden city – but in creating a unique and expensive real-estate enclave. The influence of the Bauhaus Style was quite evident in most of the avant-garde house designs in the area dated back to the 40s.

The need for planning really came from the pressure of population growth. Abercrombie's plan was made obselete soon after it was proposed by the sudden influx of refugees from mainland China in 1949. The Town Planning Board, since its formation from 1939, finally met for the first time in 1951, by then the population had grown to over 2 million. Their immediate concern was to develop new towns and housing for the ever increasing number of people. This urge was made even more acute in 1953 when a fire broke out in the squatter areas of Shek Kip Mei which swept out the whole neighbourhood and made thousands of residents homeless overnight. The government had to provide fast and efficient housing blocks for resettlement within a short time which gave rise to the first H-type design of public housing. These are seven-storey blocks of units connected by corridors around with shared toilet and kitchen facilities. Standards were really basic and minimum. But over the years, with the setting up of the Housing Authority and Housing Department, the standards of public housing design have improved gradually. Scarcity of buildable land in Hong Kong has been the reason for the Government to maintain a high land cost policy which ultimately makes housing supply a priority. Hong Kong is one of the few countries in the world that plays the role of a super-landlord, at the moment, for over 60 % of the population. Since the new government took over in 1997, their first task is to change this situation, aiming to get 70 % of the population to own their property within ten years. The success or failure of the scheme is yet to be seen. This unique social condition of Hong Kong has made housing, and in particular public housing, the major element in the shaping of the cityscape since the 50s. The scale of building is phenomenal, but the *raison d'etre* of this urbanism of housing estates is not so much based on an egalitarian ideal but rather a form of social welfare which has slowly evolved into a very unique form of urban living proven to be quite successful with the people of Hong Kong to date.[4]

Modern Movement in Architecture

A true HK architecture, one might say, was non-existent in HK before the 1960s since HK did not have an architectural school of its own until 1950 and the first batch of graduates had no opportunity to try out their ideas well after they became professionally qualified. Early projects were all entrusted to foreign trained architects. Indeed architecture as a profession was a novel introduction to China itself in the 20th century. The first generation of Chinese architects were mostly trained in the early US schools which followed the French Beaux-arts tradition. They included Liang Sicheng, Tung Jun and Yang Tingbao who returned to China and took up most of the construction and education work with their knowledge in modern design and technology. However, out of patriotism, they were more eager to adapt this knowledge to developing a new national form of design.[5] Their style, combining modern construction with traditional Chinese motifs, was termed "Chinese Renaissance" by Xu Jinzhi, an architect also trained overseas who migrated to HK with others from Shanghai in the 50s.

Most of the early public buildings in HK were done by British designers. The first colonial set up of military facilities and even residences for the chief commander and the governor, were derived by surveyors probably from architectural pattern books.[6] The first serious building designed by an established architect from England, Aston Webb, was the old Supreme Court in Neo-classical style (now the Legislative Council Building) opened in 1912. The first project symbolizing the arrival of the modern architectural era was without doubt the HK and Shanghai Bank in 1934. A local practice, Palmer and Turner Architects, who also did the first headquarters for the Bank, introduced Art Deco to HK. The building, like its predecessor and its descendent in the 1980s by Norman Foster, was a technological feat. With a height of 220 feet, it was the tallest structure then between Cairo and San Francisco, the first building in Asia to be fully air-conditioned and equipped with high speed electric lifts, and one of the first in the world to use high tensile steel throughout, preceeding even buildings in Britain itself. Art Deco became fashionable in HK since then and we could still find examples of private residences designed around 1940s to 50s in the Peak and the south side of the island. One famous Art Deco house is the lodge for the Vice-chancellor of the University of HK designed by Chau and Lee Architects in the late 1940s. The Appearance of Chinese Renaissance style coincided with the Art Deco period in HK and could be seen perhaps as the local adaptation of an international movement in employing decorative arts in modern design.

The formal introduction of modern architectural design to HK was through the setting up of the first architectural department at the University of HK and the appointment of Gordon Brown from

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Figs. 1, 2, from Matthew Turner's "Made in Hong Kongg. A History of Export Design in Hong Kong" Hong Kong: Urban Council 1998.

Fig. 3. Wah Yan College, Kowloon.

Fig. 4. lobby on the 12th floor of a public housing estate.

Fig. 5. Clinic in Shumshuipo.

England as the first professor whose own approach combined English modernism with a Scandinavian twist as evidenced in his many school designs (the two Wah Yan Colleges, for example). The use of granite and concrete, the adoption of shading fins, verandah balconies and pilotis were reminiscent of Le Corbusier's Swiss Pavilion in the University of Paris campus. Brown was also responsible for the early scheme of the new City Hall, rebuilt in the newly reclaimed land after the HK Bank and the China Bank bought over its old site in 1947. The project was later finished by Alan Fitch and R. Philips and opened in 1962. The composition of a high and low block design and the use of simple geometrical volumes were similar to the United Nations Headquarters in NY. The New City Hall was a culmination of two decades of efforts in reinstating cultural life to the HK citizens and as such symbolizes the triumph of modernism in the local architectural scene. This significance was only superseded later on by the erection of the Connaught Centre (now the Jardine House) in the 1970s – the first skyscraper in HK – and the building of the Hong Kong Arts Centre which symbolizes the coming of age of local designers in the mid-1970s.[7]

Conclusion

In terms of industrialization and design, one sees an early beginning in Hong Kong and a gradual evolution in manufacturing from prescriptive designs to independent production. The progress to modernism was sought by an integration with the vernacular and a conscious re-examination of identity. This generalization seems to apply also to the realms of art and architecture. In terms of art, the arrival of modernism not only meant a popularization of western painting and techniques but the experimentation of new modes of expression within the traditional Chinese medium of ink and brush. To this end, Hong Kong artists have achieved something which the first generation Chinese architects had not, given their common

concern and aspiration of an identity renewal through modernization. The prevail of modernism was paralleled also by an increasing institutionalization in art and education which was crucial to the propagation as well as popularization of ideas.

In terms of city planning, the vision of the modern masters such as Le Corbusier advocating a contemporary city concept in 1922 found its realization in Hong Kong not only in terms of its local climate and topography but also in terms of a unique social context which allows this sometimes otherwise claustrophobic notion to develop in height and density. The success and efficiency of these developments, one might say, is built upon the sacrifices of mostly middle- and lower-income residents who often have to live next to flyovers passing through the narrow spaces between highrises. Thus the dream of the early modernists who proposed a city of layers of traffic has been fulfilled here: the elevated pedestrian network in Central is an exceptional proof of the idea which could work only under a particular socio-economic environment such as Hong Kong.[8]

In terms of architecture, what we have witnessed within this modern period is a tendency both to localize and to internationalize. On an individual level, we may have a few exceptional pieces of architectural design very far ahead of their time that might attract international acclaim and attention. However, as a whole, the buildings here have not constituted a coherence that would warrant the recognition of the architecture as a regional entity, which was what the first generation of Chinese architects set about to achieve but somehow did not succeed. But the experiment goes on: the Lingnan College project, which won a Hong Kong Institute of Architects Certificate of Merit Award in 1996, represents recent efforts to integrate Chinese vernacular forms with modern interpretation. The danger of these endeavours, however, is the degeneration into packaging and repackaging of a similar idea which has

been a commonplace in China since the late 1980s. To conclude, if one is to attribute a vision to the architecture and planning of Hong Kong before 1980, it was a vision very much shaped by reality rather than by ideology, a complete contrast with what happened in China during this period, which is a topic I would like to address perhaps on another occasion in future.

Notes

1 Cf. Frank Leeming (University of Leeds), "The Earlier Industrialization of Hong Kong." In *Modern Asian Studies*, 9.3, Cambridge University Press, 1975: 337–342. Leeming discovered 7,500 factories listed in the early Chinese trade annals which include metal, engineering and electronic industries, spinning, weaving, knitting and etc. – a number far greater than the official report by the HK Government. This led to his conclusion that the foundation of modern industrialization was well in place and industry well-developed in Hong Kong before WWII.

2 Matthew Turner, *Made in Hong Kong. A History of Export Design in Hong Kong.* Hong Kong: Urban Council, 1988: 7.

3 Cf. *Hong Kong Artists.* Vol. 1, Hong Kong: Hong Kong Museum of Art, 1995.

4 The most popular form of housing in Hong Kong today are the large-scale tower developments over the MTR (Mass Transit Railway) or other public transportation lines with shopping mall and club facilities included. This has been a formula of success for most residential developments since the 1980s.

5 The first example of this movement is the building of Zhong Shan Ling (the Mausoleum of Dr Sun Yetsen) in Nanjing in the 1930s designed by Lu Yanzhi who studied architecture at Cornell University.

6 One of the earliest surviving western style buildings in Hong Kong is Flagstaff House, built in 1846 as residence for Major General D'Aguilar, the Chief Commander of British Forces.

7 The Hong Kong Art Centre was designed by Tao Ho, representative of a whole generation of architects educated abroad and returned to practise in Hong Kong in the late 60s and early 70s.

8 The possibility of linking the various buildings in Central is due to the fact that they all belong to the same owner Hong Kong Land Ltd.

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Portugal, the Modern Rupture the Fifties "Green Years"

Arriving late and filtered through the inevitable cultural distances that are a circumstance of a peripheral country, the Modern Movement of Portuguese architecture made a speculative appearance at the end of the forties. Wishing to stamp a mark of radicalism and morality that the sense of participating in a universal adventure demands, it took shape within the ambit of a social utopia, cities being dreamed up for the masses in a collectivist ideal. It took on the dimension of the disenchantment of a generation that was burdened with the idea that it was fulfilling an eminently social mission, conciliating democratic expression and revolutionary sentiments and thus setting up a modern opposition front to the totalitarian regime of Salazar's New State (1926–1974).

With the advent of the democracies and an opposition revived by the defeat of fascism in Europe, the end of the war brought a period of cultural agitation that made the end of the forties particularly significant for the reflexion on the modern movement in Portugal. In the hostile political context of the regime, the notion of the values of ethical and cultural awareness disseminated by the neo-realist group, which was followed by the foundation of the architects' organisations ICAT (Lisbon, 1946) and ODAM (Oporto, 1947), was crucial in the understanding of both the architecture that was going to be produced in the post-war period in Portugal and the ideological weapons used in the assertion of the profession's social dimension.

While the vigour and the plasticity of the experiments of the first modernists began to attract the interest of the government at the end of the twenties in its attempt to transmit a new image, thus giving rise to the most consequential and epidermic achievements of avant-garde taste, they soon gave way to codes that, reacting to international approaches, asserted values that were classical and supposedly national. In the post-war period, the new generation of architects born in the twenties that came to the fore brought with them the ideal of a progressive society with collective concerns of the social emancipation of the individual, being organised with the individual being deeply aware of a common struggle threatened by a recent past of acquiescence. Being based on some experiments carried out in the thirties, values now appear socially compromised, culturally aware to combat the architecture of the regime by means of an international model, the aesthetics of reinforced concrete and urban science. It was within this framework that the principles of Architecture of the Modern Movement laid down by the European avant-garde were publicly and enthusiastically formulated during the I National Congress of Architecture in 1948.

An analysis of the papers presented gives us an idea of the dominant themes, the question of the "Utopia of Architecture transforming life and society" being the most common theme raised by the 35 theses. For the younger architects, the transformation of the world with the participation and the leadership of architects now seemed possible. Democratisation was reaching the architecture that "must be within the reach of the greatest number possible". It was the emergence of a "New Humanism (...) that expressed the concern of men to solve the problems of their times and create conditions to erect the cathedrals of modern times, rejecting the past that means routine, caste privilege or class prejudices". Architects undertook to carry out "the sacred mission to build houses rationally so as to maintain the equilibrium of society, so the jubilant path proposed by the Charter of Athens is the only way to bring joy and optimism to man". The architect's new tasks seemed to know no bounds, because he was the "builder for men and the organisms that serve him; the solution to man's problems is in his hands". Architecture was seen in an eminently social role, embracing the classical domains of an architecture that could not now be limited to serving a privileged few, but the whole population (Arménio Losa, 1948), encompassing a whole world of forms from the intimacy of the bedroom to the layout of cities (Keil do Amaral, 1948).

For the hundred and fifty architects at the congress, the path ahead was clear: the mission of architecture was "the solution of man's problems, planning cities, placing everything into a harmonious and rational whole. He is the organiser of man's activities, the pedagogue, the philanthropist, the educator!".

"The peak of architectonic 'resistance'" (Nuno Portas, 1977) were the problems of the social and economic context of architectonic production that took the centre of the stage at the Congress. Architects met for the first time to discuss the meaning of their work and the conditions of their production. They quoted Le Corbusier and his Brazilian and Mexican disciples in order to pinpoint the urgency of a new urbanistic and architectonic rationality. The Charter of Athens was the phenomenon that burst forth to reaffirm the legitimacy of unfettered creativity and the need for housing and amenities policies. The desire and the will to change the world was reaffirmed. Marking the beginning of a new period of modern architecture in Portugal, the Congress's conclusions clearly stated that architecture should express itself in an international language and that modern architecture and urbanism were the solution for the "serious" housing problems. It was a time of optimism and the way seemed clear-cut. The polemic on styles had come to an end. The only way ahead was to be rational in the building of a new world.

Alvalade (1947), a council housing estate of 230 hectares estimate for 50.000 inhabitants, was the most important undertaking carried out in Lisbon that was going to benefit from the winds of change. For the first time in Portugal, the plan of Faria da Costa (1906–1971) proposed collective social housing backed up by social facilities, the outstanding of which were the primary schools as the pivot of each cell. Although the buildings were initially no higher than four storeys, it was the first time that such a council estate had been built. Traditional social housing was made up of single-family houses with a small garden, thus consolidating the New State's ideology of a return to the land and the solid values of rural life. The Alvalade traditional urban lay-

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 1. Alvalade, Estacas Quarter, Lisboa. Athouguia/Sanchez, 1949–1954 (Arquivo de Arte – Fundação Calouste Gulbenkian).

Fig. 2. Alvalade, Av Estados Unidos da América, Lisboa. Figueiredo/Segurado, 1952 (Arquivo Fotográfico Municipal de Lisboa).

Fig. 3. Alvalade, Av Estados Unidos da América, Lisboa. Cid/Laginha/Esteves (Arquivo Fotográfico Municipal de Lisboa).

Fig. 4. Av Infante Santo, Lisboa. Pessoa/Gandra/ Manta (Arquivo Fotográfico Municipal de Lisboa).

Fig. 5.

Fig. 6.

Fig. 7.

Fig. 8.

Fig. 9.

Fig. 5. Águas Livres Block, Lisboa. Teotónio Pereira / Costa Cabral, 1953.

Fig. 6. Primary School, Lisboa. Palla / Bento de almeida, 1954–56 (Arquivo de Arte – Fundação Calouste Gulbenkian).

Fig. 7. Carvalhosa Block, Porto. Losa / Barbosa, 1945–52 (Arquivo de Arte – Fundação Calouste Gulbenkian).

Fig. 8. Ameal House, Porto. Celestino de Castro, 1950 (Arquivo de Arte – Fundação Calouste Gulbenkian).

Fig. 9. Lino Gaspar House, caxias, Lisboa. João Andresen, 1954 (Estúdios Horacio Novaes).

out would be subverted while being implemented with suggestive rationalist concepts that started to apply the principles of the Charter of Athens. The Bairro das "Estacas" (the Quarter of Pillars) (1949) of Formozinho Sanchez (1922–) and Ruy Jervis d'Athouguia (1917–) was the paradigm of this new situation. The idea was a series of blocks lying perpendicular to the road axis instead of the traditional blocks envisaged in the original plan, creating an extensive platform of garden below buildings resting on pillars. Traffic lanes were separated from footpaths for the first time ever. The collective housing plan was articulated in duplex cells, the corrugated roof with a central gutter allowed a pure design of volumes with large balconies running the length of the building and partitioned by grilles in the service areas. Modern life was asserted in a conscious way: the importance of the rational and the functional, of useful green areas, of topographical values, of insolation, of programme.

The proposal of Celestino de Castro's (1920–) group for the Avenida dos EUA (1951–52) was more radical and its pragmatism and orthodoxy led the way to the first functional and formally international solution for multi-storey council housing: nine-storey, ideally-laid-out blocks of small duplex apartments, each apartment being reached by means of a gallery linked to one single entrance and lifts. The apartments, in modules of a Corbusian purity and racionality, had their sanitary installations sub-divided for the first time and an unusual minimum ceiling height of 2.40 m., plus a mezzanine of twice the height above the living-room. The most used areas faced south and the entrance gave on to the wide avenue that the public authorities wished to use for outward display. The original plan, which included basic back-up facilities such as shops and a kindergarten were rejected by the city hall, which considered them too revolutionary. With a more festive choice, Filipe Figueiredo (1913–1990) and José Segurado (1913–1990) designed the crossroads of the two most important avenues of the area in 1952: four big 13-storey blocks with a perpendicular layout that refuted the traditional design of the square envisaged in the plan. The functional plan leaned towards a typical "housing unit" solution: interior galleries, duplex flats of the minimum legal size, usable terraces. The seventh floor, designed as a separating space, was a

shopping and services area with respective support facilities. Considered too radical, it was transformed into a traditional housing plan and the central floor was eliminated. The vibrant formal expression of two separate volumes was maintained, however, in the vivid magenta colouring, the wide range of materials and textures used, the sculptural design of the balconies that jut out from the walls like hanging gardens. Definitely overcoming the traditional image set by the first buildings, Alvalade became a showpiece of modern architecture, an emblem of the "new Lisbon" that was being urbanised and finally some kind of a wellfare proposal of a better urban-life for younger families.

The perception of the largeness of these new urban blocks built under the aegis of the city hall reached its peak in Avenida Infante Santo (1955), planned by Alberto Pessoa (1919–1985), in the relationship between the "grandiose" scale of the foundations and the modular strength of large blocks placed above a green swathe that overlooks the road. Wide stairways rise to a retaining wall decorated with urbane glazed tile panels. The mechanical multiplication of the blocks, separated by hanging gardens, accentuated by the curve and the slope of the avenue, plus the plasticity of the stairways and ramps of a "promenade architecturalle" dynamic, introduced a new, radical understanding of the city and how it should be used.

The realisation of a programme inspired in a "housing unit" would, however, be fulfilled through a private commission: the "Águas Livres Block" (Teotónio Pereira and Bartolomeu Costa Cabral, 1953). This was done by means of formal solutions, the typological articulations proposed and, finally, the proposal of "city" that it provided. Seen as a set-up similar to that of a small community with common services and spaces (laundries, condominium meeting room, services, shops, facilities), it expressed "the intention to create a lifestyle more than a place to contain people (...) profoundly innovating Portuguese housing structures" (França, 1994).

In Oporto the innovative proposals were definitely made exclusively through private commissions. The updating of formal codes and, simultaneously, a change in the taste of the clients who wanted an up-to-date building took place. Due to its unprecedented formal

expression, the intelligent use of the lot, the "new" relationship established with the urban space of the street, the internal layout of the flats that takes the desire for modern life for granted and the rational proposals of a technical and constructive nature, the "Carvalhosa Block" (Arménio Losa and Cassiano Barbosa, 1945) is certainly outstanding. It was an innovative solution that took advantage of the depth of the lot by means of an interior courtyard and a narrow space on each side of the house, overlooked by windows for illumination and ventilation. The apartment was articulated in two distinct sectors: a common and service area facing the street and a private area where a solarium-terrace that was an extension of the covered living space overlooked the rear courtyard.

Despite the most significant experiments we have analysed, real opportunities for architects tended to be very limited. Certainties and strong convictions, when it was stated that "there is a modern architecture here with such a sense of triumph that nothing can destroy or disparage it ..." (ODAM, 1951), gave way to a period of disenchantment. The euphoria of inconformity and the affirmation of modern architecture would be confronted with harsh reality in which, after all, little had been achieved: "these small undertakings can hardly be seen (...) dispersed, isolated works" (Arménio Losa, 1954). Precious manifesto works that resulted both from the rare official commissions or from the desires of a bourgeoisie that had adopted a contemporary lifestyle in their home. And it was exactly in the bourgeois city of Oporto that the more independent, informed and aware professionals produced the first outstanding modern works in regards to both quality and the content of the models adopted.

Following the pioneer house for Honório de Lima, (1939, now disappeared), Viana de Lima adapted the language of Corbusier on a more reduced scale (the Aristides house, 1951) and proposed a new private lifestyle. In the Tristão da Cunha house (1953) he adopted a lexicon of clear Brazilian inspiration, with a "butterfly" roof and sculptured gargoyles and an open space interior, a clear acceptance of the new international model of a living-room. Other, younger architects like Celestino de Castro (1920) also had the chance to try out new models in the Santos Pousada house (1948) and the Ameal

house (1949). Long windows, laid-back balconies, movable sun shades, covered terrace-garden with lawns as an extension of the living space, wardrobes in the wall as in a "house-ship" and the introduction of state of the art technical innovations used in a structurally exemplary way (sandwich panels as exterior walls, radiant heating, sheets of aluminium as sun shades, light concrete beams) make this work a paradigm of modern Portuguese construction. João Andresen also revealed an acute sense of the value of the site and adopted a free plan, encouraging a close link to nature through an unlimited interior and exterior horizontality (Lino Gaspar House, Caxias, 1953).

These years of hope and utopian ideas soon gave way to a new awareness that was impregnated with doubts and concerns from the beginning. Manuel Tainha put his finger on the wound: "architecture was disconnected from its real aims, considered as an aim, an activity in itself, which subverts architectural reality, and distances it more and more from the concerns of man (...) from this present drama that tends to separate architecture into technical reality and social reality comes (...) an increase in technical skill, clever, almost puerile management of architectural materials, from its constructive aspect to plastic illusion, as a process of acquiring skills, the only possible opening provided by

our market" (Tainha, 1953). It is merely a discipline cultivated individually and so rigorously executed with explicit instruments, directly transcribed from a prophetic rationalist proposal. The *Charter of Athens*, area and block, sun, space, green: placed at the service of a hypothetical transgression that will shortly be distorted and made banal in the name of speculative capital gains of real estate. In fact, two false moves irremediably divided architects at the end of the forties: nationalist perspectives or international style (Portas, 1992). Throughout the fifties, the regime was ever-increasingly unable to impose the former and more and more permissive in allowing the latter to grow through private promoters, the big enterprises that arose with the cuts in public investments and which were in search of international recognition. Within the then-existent political situation, the problem lay in the fact that the younger generation wanted to believe in, if only for a short time, the transforming power of international programmes and expression. Despite its competent production, this was a vehicle of promotion for an "international style" that was easy to comprehend and repeat and devoid of any social reason that moulded or justified it. Another new generation, born now in the thirties, emerges able to make the critic revision of the modern vision influenced by an organicist aproach (Nordic

countries, Italy, Catalunha). A different awareness appear with lucidity fighting now for the only thing left, the author's architecture: stubbornly competent, an outcast between the critical fidelity to architecture of the Modern Movement and the fluid compromise with the nature of the real and historical time.

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Czech Residential Architecture: Its Social Aspects and Consequences after World War II

Since its foundation in 1918, Czechoslovakia has been suffering from housing shortage, which was permanently increasing. Heading architectural activities since the early 1920s, the avant-garde generation tackled this issue by designing individual and typified houses constructed in garden settlements. These houses were constructed by municipalities, housing associations and insurance agencies. The building laws of that time enabled favourable government subsidies. This tendency culminated with the New House exhibition, a modern housing exhibition held in Brno as part of the Contemporary Culture exhibition in 1928. Eight Brno-based and one Prague-based architect designed 16 row-houses or detached houses that were built by a private building company. Although the houses failed to be sold or let during the Exhibition, the settlement was of key importance for the further development of Czech architecture. In terms of its concepts, it followed the example given by the Die Wohnung exhibition held in Stuttgart in 1927 and its settlement Weissenhofsiedlung, with its scale being, however, considerably smaller. In Brno, no tenement house was presented, and it is in the exhibition catalogue that its authors stated that "in terms of multi-apartment collective houses, reforms are getting ahead at a snail's pace." Being based on typification, standardisation and prefabrication, the construction of family houses reached its largest scale in Zlín where the management of Bata's companies put through the principle of collective work and individual housing throughout the whole interwar period. The international competition for the 1935 House, in whose jury Le Corbusier had been invited, was won by Erick Svedlund, Sweden, whose design was implemented afterwards.

The 1929 economic crisis brought about a qualitative change in residential housing. In Czechoslovakia, the implications of this crisis manifested themselves somewhat later than in the most advanced capitalist countries. However, they remained at work until the late 1930s. At that time, the architectural avant-garde concentrated on tenement house as a type of residential building with small or very small flats, in other words, on the so called housing for the existence minimum. The activity in this field focused on design practice, theory, political involvement and international contacts. Between 1930 and 1931, the City of Prague, together with the Central Social Insurance Agency and the worker's association Vcela, announced three architectural competitions for apartment houses with very small flats in Prague. In a tender, which received a large number of entries, several designs appeared, which were based on the so called collective house, a "bee-house" consisting of one-room residential units or "sleeping" cabins. The prevailing part of "living" functions (board, culture, sport, children's education etc.) should have been collectivised and accommodated in special facilities, which would have been either part of the particular building or accommodated in a special one located in a greater housing neighbourhood. However, collective houses failed with the jury, and none of the houses of this type was constructed during the period of the so called First Republic (1918–1938). By rebuilding his own block of flats in Prague to a people's pension, architect Ladislav Žák was among those who made an attempt to partly realise this idea. After reconstruction, this residential building contained sleeping-room units enabling individuals to stay, and it also provided some public services. This reconstruction testified to the fact that after all this idea was not given up. The principle of the collective house was also reflected in luxurious villas built in Prague according to Žák's designs. The characteristic feature of these villas was that cabin-like individual sleeping rooms were situated on the first floor while a large hall designed as a lounge for people to meet was situated on the groundfloor.

Brought about by the economic crisis, and initiated also by the International Modern Architecture Congress (Congres internationaux d'architecture moderne – CIAM) held in Frankfurt am Main in 1929, a new concept of housing was set up. In Czechoslovakia, this new concept had a strong political meaning. In October 1929, Karel Teige, a leading theoretician of the Czechoslovak avant-garde, established the Left Front, an association of left-wing intellectuals with Marxist orientation. In less than a year, the Architectural Section of the Left Front (ASFL) was founded. The Architectural Section expressed heavy criticism of the society and formulated the requirement to provide those belonging to the weakest social strata with a minimum of living space. The Architectural Section wanted to point out that the situation is catastrophic, and to stir up public opinion by the 1931 Proletariat Housing exhibition. However, the police in Prague closed this exhibition, and in Brno, it was prohibited completely.

The Architectural Section also produced the most principal design for a collective house under the slogan L-design, which a team of architects formed by Peer Bücking, Jan Gillar, Augusta Müllerová and Josef Špalek sent to a competition organised by the Central Social Insurance Agency. The architects designed a complete residential neighbourhood in Prague-Pankrác for 5 000 inhabitants. Dominated by 15 huge residential towers, this neighbourhood was complemented by the House of Culture and Recreation, a sports centre, children's homes, a medical pavilion and a kitchen-factory, all designed as separate buildings. This housing unit embraced an area of 9,6m^2.

Karel Teige's theoretical work was behind the designs of collective houses. Karel Teige decisively influenced the orientation of Czech architecture from the early 1920s to the mid-1930s. He summarized his ideas about this subject in a comprehensive book entitled The Smallest Dwelling, which was issued in 1932. In the introduction, he stated that the smallest dwelling has become the central problem of modern architectural work, and even the slogan of today's architectural avant-garde. From the philosophical point of view, he based his views on Marx' dialectical and historical materialism, which, as a truly scien-

tific sociology, makes it possible not only to criticise life, era and society, but also their change and transformation. Therefore, the housing problem is primarily a social and political issue rather than architectural. The struggle for modern architecture is a political struggle, which will be finalised by the conversion of capitalism into socialism. This conversion will be accompanied by the collapse of the traditional bourgeois family brought about by the emancipation of the working woman whose crushing work, including the upbringing of children, will be taken over by specialised public facilities. Teige considered family, marriage and the married couple's bedroom to be anachronistic bourgeois institutions. It is just the collective house that corresponds best with the socialist collectivism, which will replace capitalist individualism. Teige´s views were supported by the constructivist architecture, which he got to know on his visit to the Sowiet Union in 1925. In the Sowiet Union, primarily Mojsej Ginzburg and the Vesnin brothers made concepts for houses-communes. They thought that they were approaching the style of living of the proletariat, which they knew from Engels´ studies entitled the *Origin of Family, Private Ownership and the State* and *Toward the Housing Issue* rather than from autopsy.

Thanks to Teige, also international experts became familiar with the efforts made by Czech left-wing architects. In 1930, the Czech group of CIAM was established. Shortly afterwards, this group took part in the 3rd Congress in Brussels and in the *Journées de l'habitation minimum* taking place as part of this congress. The members of this group prepared three theoretical contributions for this congress: *The Housing Issue in Czechoslovakia: An Analysis; Principal Comments on the Housing Issue* and *The Response to Le Corbusiere's Inquiry on the Construction of Low-, Medium- and High-Rise Residential Buildings*. At the Congress, the L-design and the design for a collective house by Josef Havlíček and Karel Honzík were on display. As a delegate to the *International Committee for the Solution to Contemporary Architectural Problems (Comité international pour la réalisation des problemes d' architecture contemporaine – CIRPAC)*, Teige delivered a lecture entitled *New architecture and the housing issue in Czechoslovakia*. On behalf of CIRPAC, he conducted a study entitled *Die Wohnungsfrage der Schichten des Exi-*

stenzminimums, which was published in the proceedings entitled *Rationelle Bebauungsweisen*. In his book entitled *The Smallest Dwelling*, Teige wrote that thanks to scientific sociological analysis of the housing problem, the Czech avant-garde got ahead of the development of western European modern architecture and took, at the international forum, the most progressive, the most left-wing position. Teige promoted his ideas also as a privatdocent at Bauhaus. Of Bauhaus' architects, he was most closely related to Hannes Mayer whose ideas of architecture were very similar to those of Teige.

Being appointed professor at the School of Architecture of the Czech Technical University in Brno in 1925, architect Jiří Kroha began to apply, at the end of the 1920s, most of his energies to analysing the housing processes from social, technical, economic, cultural and political aspects. In terms of the world outlook, Kroha´s *housing science* was based on the same sources as Teige´s theory – he believed that a new architecture could only be introduced after the social system had changed. Unlike Teige, Kroha did not focus on pursuing a strictly scientific, anti-artistic architecture, but made efforts to also promote its psychical and aesthetical effects. In terms of housing, he insisted on the complete family to be maintained since, according to him, the upbringing of children cannot be entrusted to specialists. Also Kroha visited the Sowiet Union (in 1930), considering this country to be the *historical laboratory* of modern mankind. In many publications and lectures, he addressed the political situation, architecture and the housing issue in the Sowiet Union. In the mid-1930s, he was persecuted by the state machinery for this activity.

In 1932, Kroha exhibited *the Sociological Fragment of Housing*, a cycle of several dozens of panels containing instructions and photomontages, which represented something that might be called a visual parallel to Teige´s analyses contained in his book *The Smallest Dwelling*. The reason why the author had chosen this title was that he considered sociological relations which affect the biological ones to be the most essential point of housing, with the biological relations expressing the needs and activities of inhabitants. He made efforts to give evidence that different standards of housing are associated with the standards of the individual social strata.

Each of the exhibition panels addressed one of many functions of the dwelling, and the housing of proletariat, lower middle class and upper class was compared by means of photographs, statistics, charts and slogans. On one of the introductory panels, Kroha expressed the conclusion that while the capitalist regime in Czechoslovakia makes it possible for one luxurious dwelling to meet one thousand requirements placed by one man, it cannot meet the requirement placed by 1 000 people, namely to have a suitable dwelling, despite the fact that it is a basic social requirement.

The results of scientific analyses of housing were reflected in other cycles of panels prepared by Kroha, namely the *Economic Fragment of Housing* and the *Humanistic Fragment of Housing*. In the former cycle, he made an analysis of living area from the point of view of operation and the number of persons. The title of the latter Fragment indicates that he never reduced the concept of housing only to the aspects of normalisation, typification and rationalisation, but perceived it in a more complex way, not anthropometrically, but anthropologically. As part of this Fragment, he sketched a large set of studies depicting a new socialist dwelling. Kroha´s analyses were adopted to set the criteria for architectural competitions for small-flat residential buildings announced by the City of Brno in the late 1930s. He himself was not given the pleasure of enjoying the implementation of his plans, but could enjoy the fact that they were partly reflected in the buildings designed by his avant-garde contemporaries. In Brno, Josef Polášek excelled in designing houses for the existence minimum. His designs achieved a persuasive expression in style despite his limited economic potential.

After the liberation of Czechoslovakia in 1945, Czech architects smoothly took up the pre-war efforts. In residential architecture, they would enrich former experience, and, in line with their political conviction, they would believe that the new era might remove the contradiction between modern architecture and the lagging-behind society. Under the so called Two-Year Postwar Renewal Plan, tenement houses with small and medium-sized dwellings were built, these houses developing the prewar types of houses. Also the idea of the collective house was realised, namely in Zlín and Litvínov. The Zlín collective house designed by Jiří Voženílek perfect-

Fig. 1.
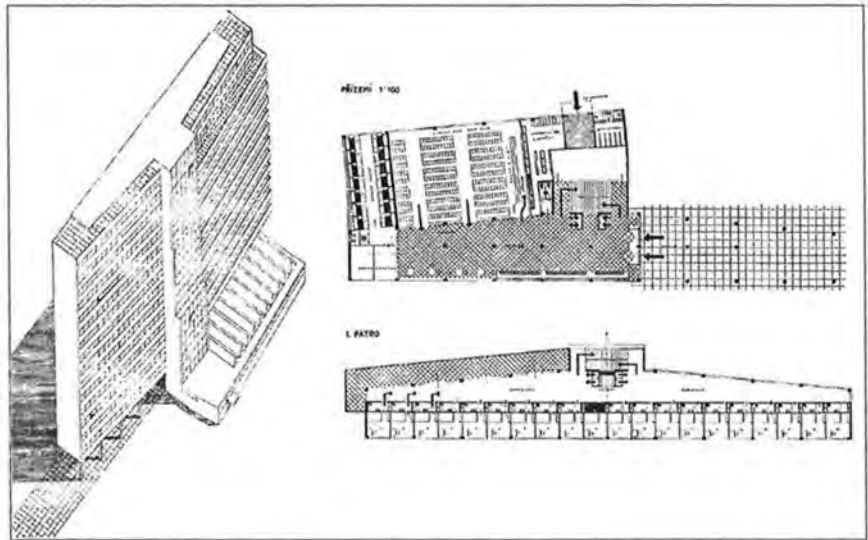
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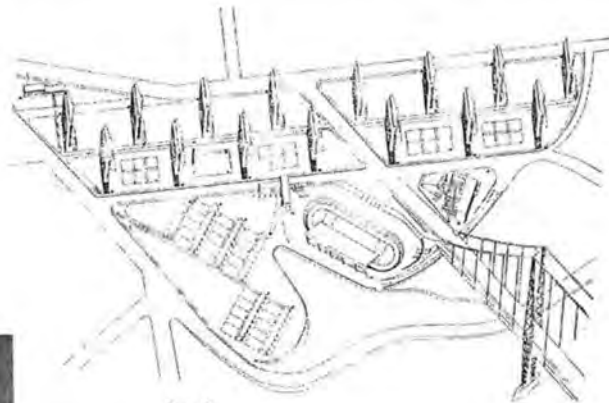
Fig. 3.

Fig. 4.

Fig. 5.

Fig. 1. Erick Svedlund: Family house from a residential housing competition in Zlín, 1935.

Fig. 2. A collective of the architectural section of the left front (Peer Bücking, Jan Gillar, Augusta Müllerová, Josef Špalek): Project of a residential collective house in Prague (motto L-Project) – axonometry and ground plans of the ground and first floors, 1930.

Fig. 3. A collective of the architectural section of the left front: project of a collectivized residential district in Prague.

Fig. 4. Josef Polášek: Colony of small apartments in Bruo-Husovice, 1930–31.

Fig. 5. Jiří Voženílek: Residential collective house in Zlín, 1945–50.

ly fitted into the architectural style of this town, but as compared to the principles of housing promoted by the firm of Bata, it had a paradoxical effect. The 12-storey house contained 76 two-room dwellings, each having an area of 39m², and 26 three-room dwellings, each having an area of 55 to 62m². All dwellings were designed to enable modifications by means of variable partition walls. A restaurant and several clubs were accommodated on the ground-floor, and a gymnasium on the terrace while the crèche and kindergarten were accommodated in a separate ground-floor wing. The high-standard dwellings and services largely exceeded the concept of *barrack-like residential bee-houses* as once promoted by Karel Teige. They did not destroy the family and did not exaggerate collectivisation. The same is true of the collective house in Litvínov implemented between 1948 and 1957 according to the winning design made by architects Václav Hlinský and Evžen Linhart, which they sent to the 1946 competition. Two high-rise residential wings of a form reminiscent of a split fork were connected by a low-rise wing accommodating services. The house contained 352 dwellings of three types, including a maisonette one. The designers won the gold medal for a 1:1-scaled model of a maisonette dwelling at the 1947 Triennial of Applied Arts in Milan. The inhabitants were offered the possibility to choose the modern achievements – for example, they could have their meals in a dining hall or buy ready-to-cook food or make their dishes in their private kitchen. Both of the Czech collective houses were built at a time at which Le Corbusier's Unité d'habitation in Marseille was constructed. The designers of the Litvínov collective house in particular were among those who admired this great Swiss architect. While the idea of a collective house found favour with the population in western Europe, and Le Corbusier himself implemented this type of house in several countries, it did not take root in the Czechoslovak residential housing – single apartments and hostels, however without a sufficient offer of public services, were built instead.

After the 1948 communist coup-d'état, architects were forced to make designs in the spirit of socialist realism based on models established by the Stalinist classicism. The repressive measures taken in the early 1950s liquidated the avant-garde generation and set its members against one another. Karel Teige became the target of unscrupulous attacks, and only his sudden death saved him from physical persecution. Only a small number of architects remained faithful to their original views. As a result, they could not find their place in the society. Unlike them, Jiří Kroha fully embraced the communist establishment, eliminated his former friends from public life and made designs in the spirit of socialist realism. Also Václav Hilský accepted this concept.

In 1954, the first Czechoslovak prefabricated residential building was built in Zlín, a town with the highest degree of industrialisation in civil engineering. Shortly afterwards, the entire Czechoslovak architecture fell into total prefabrication. The initial efforts aimed at manufacturing prefabricated parts in as many modifications as possible to fit into various sites and match the diverse character of buildings failed against production and economic pressures. This trend had an extremely adverse impact just on residential architecture: A grey mass of pre-fabricated housing estates covered the whole of Czechoslovakia within three decades. The typified, standardised and prefabricated architecture began to force out its human and aesthetical elements, fully revealing the negative facet of the avant-garde utopia.
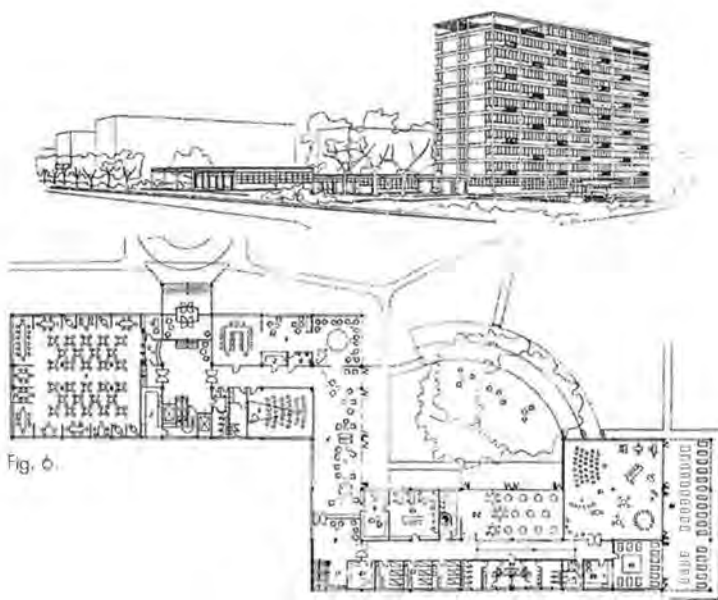
Fig. 6.

Fig. 6. Jiří Voženílek: Residential collective house in Zlín – a perspective view and a ground plan of the ground floor.
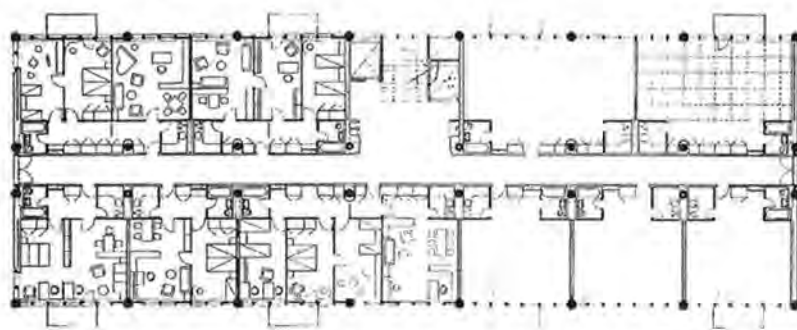
Fig. 7. Jiří Voženílek: Residential collective house in Zlín – a ground plan of a typical floor with alternative apartment layouts.

Fig. 7.

Mirthes Ivany Soares Baffi,
Walter Pires,
Lúcia Helena Gama
Collaboration: Clara C. D'Alembert,
Carla Bergamini Soares.
Prefeitura Municipal de Sao Paolo,
Brazil

Convênio Escolar: (School Covenant Commission) Modern Architecture at the Service of Public Education

In the 20's, Brazil had its economy centred in agricultural products exportation (mainly coffee) and its elite had yet rural characteristics with an old line mentality against foreign innovations.

At this time the first steps toward the industrialisation and urbanisation had begun and with it, progressive thoughts linked with movements that were happening all around the world started prospering.

The first Modern Movement manifestations in arts and literature begun with "Semana da Arte Moderna"(Modern Art Week) in 1922. The shock between those thoughts and attitude with the way of life of São Paulo and Brazil elite, that were extremely old-fashioned about arts and behaviour, was immense. But the economic, industrial and urban development would come to mobilise the history of ideas and the local knowledge character.

During the 20's and 30's the public discussions between artistic chains emerge and the first modern architecture manifestations; the foundation of São Paulo University-USP fortified the human science. The civil society was getting organised; the formation of an important intellectuality started with the increa-

se of public schools that were no longer focused exclusively on the elite; it increased the concern about better working qualification, as in technical and crafts activities, as in urban and commercial services. At circumstances the professional schools were created and the first pedagogue meetings were held, which brought us new ideas about education such as John Dewey's, who had created the New School Pedagogy.

The new education in its bases, its subjects and its methods increased on the one hand ideas of equality, social solidarity and co-operation as the bases of a democratic government and on the other hand it developed the rational research of ideas, creative work and scientific progress that guides society against the castes tyranny and prejudice slavery (from F. Azevedo in 1934).

The new school – different from the traditional pedagogy model that was based in individualism and knowledge that only comes from the books – faced education as a process where the physical, moral and intellectual formation were equivalents and had the same importance. Activities were the learning source and the school organisation ought to aim at children's moving needs.

In 1937 Brazil ran into a fascism-like dictatorial period, that finished only in 1945. The rich process of democratic order re-construction, the prolific debate about a better and amplified education, the just started approach to the world modern ideas and practices were in suspension and its defenders were at risk of being charged as communists (that was a crime at this time).

It was just after 1945, with Getúlio Vargas dictatorship ends and with the consequent re-democratisation process, that voiceless ideas could arise again, not without oppositions, and linked with very few politics. Convênio Escolar was one of those politics.

The Convênio Escolar Architectural Production

The School Covenant Commission (Convênio Escolar) was organised in 1949, first as a program to supply the scarce number of public school buildings and was based on a governmental research that identified the amount of children without school vacancy in São Paulo city.

This Commission involved the Local Government (that had the charge of projecting and building the schools) and the Regional Government (that had the

charge of teaching). The architect Hélio de Queiroz Duarte was invited to co-ordinate the planning sub-commission of Convênio Escolar.

Hélio Duarte studied architecture in Rio de Janeiro and was linked to Beaux-Arts tradition until he met Le Corbusier, in 1936, then he was projecting the Ministério da Educação e Cultura-MEC building, with Lucio Costa and his team. Le Corbusier held several conferences in this period and Hélio Duarte was deeply impressed by his thoughts; Hélio Duarte's interests toward modern architecture had begun at this time; he was also concerned with educational questions and had studied then.

Convênio Escolar first subjects evolved, with Hélio Duarte, to more complexes ones, by his believes that education is "a re-construction and re-organisation of the experience process". Those were words of Anisio Teixeira, the great educator from Bahia, who had influenced him in a decisive way and invited him to share the pioneer educational experience that was partially implanted in Bahia (The Escola Parque project).

Hélio Duarte had strongly influenced Convênio Escolar pattern for adopting modern architecture for the buildings and for researching associated with local pedagogues and teachers willing to learn which kind of school was wanted and which education was desired. From this research and from his studies and experiences resulted a more ambitious program for Convênio Escolar; there was an evolution towards urban equipment net concerning education, leisure, culture and health for children from 5 to 17 years old. This urban equipment assemblage should also be able to diffuse information to neighbourhood inhabitants, a source of educational energy, according Hélio Duarte, by offering meetings to pupils parents, adult courses and cultural spaces (the auditorium from the high schools as a place for cultural manifestations for the whole neighbourhood).

The school (1st. to 4th.grade) was the main point, in the net as Hélio Duarte and his team of young architects thought. Besides the schools, it: kindergartens, children parks (it is an assemblage of educational, cultural, leisure and health equipment's for small children), high schools, secondary schools, rural schools, open air schools, with disabled children schools, children libraries, professional schools were planned, designed and constructed.

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.
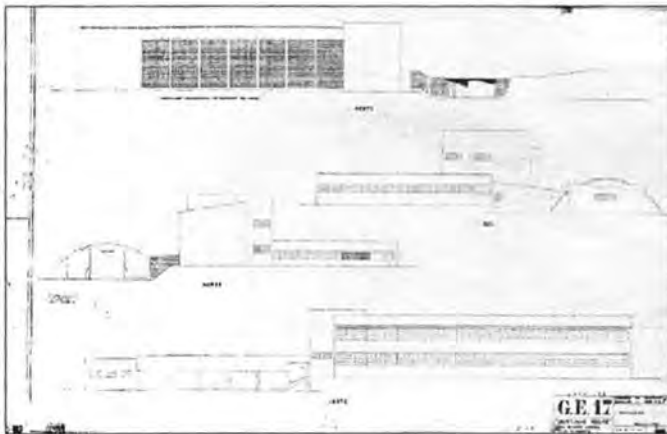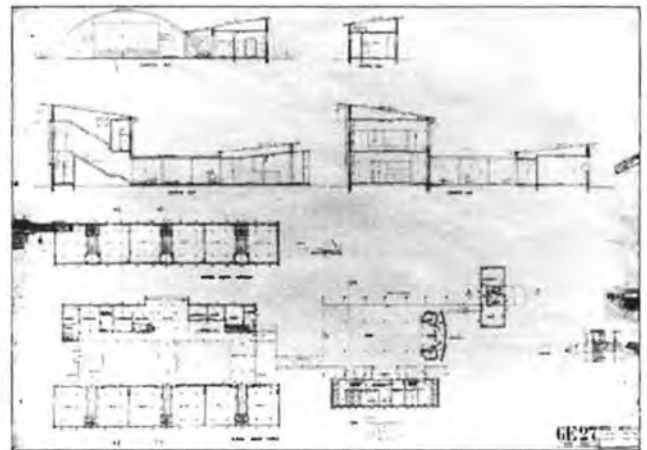
Fig. 1. Murtinho Nobre primary school is a 1950 design from architect Helio Duarte. The classrooms are concentrated in the two pavements block. The building is well settled on the natural ground surface and the recreation zone (the bow shed) is at the low level.

Fig. 2. Pedro Voss primary school is a 1950 design from architect Robert Mange.
This small scale building has it's administration zone and the museum in the same block separated by a garden from the classrooms set. The Classrooms have a separated entrance and bathroom. The access independence eliminates corridors and makes possible bilateral illumination.

Fig. 3. The distinct recreation zone bow shed.

Fig. 4. Murtinho Nobre – The facing wall from the classrooms block is detached from the building body, liberating alleys so that it don't give an impression of a cloistered space; at the same time the wall acts as a brise-soleil.

Fig. 5. Cambuci children Park – children parks were spaces destined to the use of children from five to eight years old. There was here once a lot of community equipment like dispensaries, community meeting hall, etc... Today the buildings functions have changed but the marquise that links the buildings are here until nowadays.

The construction of dispensaries was planned also: in our research we didn't find designs about it, except those that are in children parks. It seems that some were built and further put out of activity.

However some not foreseen buildings were constructed, most part of them without Hélio Duarte's agreement, as adult libraries, district theatres, a planetarium and leisure centres with public swimming pools.

The Conception of School Building

The school building that was the core of the equipment net, and had the following characteristics:

- they were not big schools, but medium or small sized ones, in order to be close to children's home;
- they occupied the minimum ground area, to leave the maximum possible of free areas. (that's why every time the plot of land didn't have big dimensions, the building had two pavements);
- the buildings were turned to public spaces, integrating with the city;
- integration between buildings and ground free areas (classrooms open through the garden, possibility of open air activities);
- they employed the ground levels – "to superpose on ground, not to oppose";
- buildings to the children, dimensioned to the children – "the modulo is the children, not only in the scale dimension, but in the children psychology dimension", as Hélio Duarte used to say;
- corridors elimination and adoption of square shaped classrooms;
- economic construction, low construction prices by adopting economic technics and construction materials, austere building details, utilisation of serial produced elements;
- ambiental and thermal comfort (bilateral illumination, good orientation concerning sun, crossed ventilation).

Building Program

Hélio Duarte was faithful to Le Corbusier's statement that architecture is order. In his deposition to the Historic Heritage Department-DPH, in 1985, some time before his death, Hélio Duarte said: "... in architecture, the program is 50 % of design or more (...) a well organised program has in its core the solution for architecture (...) I'm more interested in the social content of a program than in the design of the program. I believe that the social content is more important than the roof over the social program".

To him, the buildings should have clearly separated functions and planned in zones. In the schools, the adopted organisation was divided in:

- administration and health zone (teachers, administration, doctor, dentist and social assistant rooms);
- learning zone (classrooms with connected WC or not, studio, library, special activities rooms for drawing or hand crafts. About studio, the aim of Hélio Duarte was a tactile museum, interactive, a space of intervention where the children would, for example, be responsible by the realisation of wall drawings that could be changed from time to time. The studio ought ever be in the entrance or in a passage place.)
- recreation zone (a covered area linked at outdoors spaces, with stage, movie equipment and dressing rooms – this area is also used as refectory, so services like kitchen and nutritionist room are in the same block).

The initial aim of Convenio Escolar was, for a period of 5 years, the construction of 100 schools, 10 high schools and a not known number of children parks, kindergartens, etc.

Because problems emerged during this period as deviation of allocation and not foreseen buildings, the final number of constructed buildings was different from the initial plan. It was designed 74 schools and constructed about

68; it was also constructed 17 libraries, 3 professional schools, 70 kindergartens, 10 high schools, 3 secondary schools, 3 theatres, 2 leisure centre, 2 children parks, 2 special schools, 1 with disabled children schools, 1 rural school, 1 planetarium. Part of those buildings were standard design (11 children's libraries and kindergartens at most part).

However, those numbers are not conclusive. We need to complete our research about this subject. Our work is starting yet and we have just completed the verification of buildings of the central and south area of the city.

Conclusion

Convênio Escolar was the first big scale production of modern Architecture in Brazil, in the construction of public buildings.

Hélio Duarte shaped Convênio Escolar between 1949 and 1952 when, disappointed, he got out. The program deviation, the authorities imposition concerning different types of buildings and standardised designs, the diversion of some of Convênio Escolar allocations to São Paulo city Fourth centenary commemorative works had determinated Hélio Duarte's decision. He was also disappointed with the non accomplishment of the social objectives for the community ("School as a source of educational energy to the neighbourhood").

Despite of it, most of Hélio Duarte's architects team remained working at Local Government just after the definitive Convênio Escolar extinction in 1956. Then, those remaining architects were committed to project all types of public buildings. This architects team carried on with the architectonic principles and concepts adopted by Hélio Duarte until at least the first years of the 70's, projecting a large number of buildings.

The right thing is that Hélio Duarte and his team performance made modern architecture fixing as the public architecture of São Paulo city and marked its scenery in an unquestionable way.

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Federal University of Bahia, Brazil

The Escola Parque, the Example of an Effort Between a Pedagogic Proposal and the Architectural Project

The *Escola Parque* is actually a nickname to which answers an educational complex, planned to become a model nationwide, equally on its pedagogical features as in its physical viabilization. The only complete work achieved by this model was built in Salvador, in the state of Bahia, Brazil; which was named *Centro Escolar Carneiro Ribeiro* inaugurated in 1950, still missing a couple of units finished in 61, and that became commonly known simply as *Escola Parque.*

The theoretical pedagogical base and its main objectives were established by Anisio Teixeira (1900–1971), who took as starting points, first, the huge mass of people immersed in poverty and ignorance, which had allowed the continuity of the same ruling group in the country the last few centuries; and second, he took as reference the ideas developed by John Dewey who preconized the *New School.*

The framework of the ideas developed by Teixeira was already written by 1935. It is necessary to overview besides, that not yet 50 years before slavery had been abolished, and very deep differences grounded between the social groups in Brazil. Not only a matter of colour, but on cultural diversity and huge inequality of chances in participating in the society as a whole. Education was in the beginning of this century divided into two big groups. One group

had the education focused to supply the oligarchy in power, the rich in distinctive schools, together with a very incipient middle class that managed to dispose of a few state establishments located in good neighbourhoods. The second school group was planned to attend the poor people, hardly teaching to read and write and supplying only a primary grade, usually planned and located without any criteria. In the words of Teixeira, it was the formation of the next generation of submitted people for the current power structure.

On the other hand Teixeira had entered in contact with the work of John Dewey while preparing his master in Columbia University. Dewey built the concept of the *New School*, which considered the education an applied science, stemmed in two theoretical roots: psicology and sociology. He understood that learning was an integral activity that should combine both body and spirit and so manual and intelectual activities, respecting always the interests of the child. Within this universe were incorporated as well the ideas of Omer Buyse, whose book "American Methods of Education" was translated to Portuguese by Teixeira himself in 1927. This work together with Dewey's emphasized the importance of art education, specially through drawing. For instance, instead of giving to all children of the same class or grade one unique drawing to fill in with colour, each child would have to make up its own drawing according to a given theme. Art under this view was not considered an aesthethic objective in itself or realistic representation of the world, and to aid this conception, the modern movement was broadening vigourously the possibilities and meaning of self expression. Art should work as a path to self understanding and affirmation, it should serve to strenghen the childs identity and personality.

Teixeira proceeds to establish his own perspective of the educational problem in Brazil. He envisions an ambitious future for the country, that would participate actively as a world economic and cultural potency. To become a developed country, the democracy would be the only plausible organization, where prosperity and equality would reign, and this could only be afforded through a highly qualified educational backround. An education that should be public (free) and obligatory.

To complete the idea, Teixeira refers to the making of the *common man*, that

everyone should be, and to the complete *socialization* of individuals. Through a very logic and rational way of thinking, he establishes the family as the main cell of the ideal society, and believes that the best education should be complementary to the family, considering henceforward the school as an extension of the childs home. This imbrication reveals that in the opposite way, the living standards of the family should follow the same rigor, serving society, to which the system as a whole is committed. Children should therefor be prepared to enhance future responsablity and laboral duties, were women should take care of the house preparing meals, looking after health and giving moral orientation; while men should contribute with the productive part of the system.

To achieve a model of mass education in the proportion of such a big country with so many differences, Teixeira adopts a detailed though flexible estrategy of action, were all aspects are put into individual functional devices that are operated and applied according to the level of complexity found. He observes, and this is an early feature of his work, the distinction between rural and urban education, that due to their very particular circumstances should be treated separately, however underlying the same logic and principles. This was necessary not only because of the specific dynamics that made an economic culture transform from an almost extractivist agriculture to an industrial society, causing a strong migration towards urban settlements; but also because these established formal educations should prepare each group to their inerent professional matters. In this way the interior of the country must not be isolated from its main centres, but should as well make part of the overall educational system respecting their own identity and cultural aspects.

Still in Rio de Janeiro (during the 30's), Teixeira proposed for the urban school that the student should remain there all day long, in a double period school journey, as at home the poor children would not have anyone to look after them while their parents were away to work, and there was no such service available as nursery schools. On one part of the day the student would attend to the *classical school* where he would be *instructed*, which was called *Escola Classe* (School Class). On the second part of the day the child would take part of the *Escola Parque* (Park

School), where the children would be *educated*. In this place they would be nourished, cleaned, and given health care, and there would be offered a series of activities including sports, applied arts, dance, music, theatre. Also there would be a library, always according to the childs choice and vocation. These activities were intended to develop the individual formation and affirmation of character and at the same time the respect and work in group and in community. There should be an intense relation with the neighbourhood, and this should be provided through other functions as a meeting place for the adults and radio broadcasting station. The future adult would become then self confident, affirmative, would not neglect his origins and would be able to conceive and work for a society as a whole; he would be a *common socialized man*.

For the correct total implementation of the *Escola Classe* and the *Escola Parque*, Teixeira defends the public and autonomous education, at a municipal scale, which would allow the elaboration of an adequate curricular plan of each demanded region. Again should be reminded the continental size of Brazil, and the many contrasting conditions found all along its territory. This attitude costed Teixeira the rage of the oligarchy and of part of the Church that saw in him a menace to the stable and confortable structure of power then. Teixeira was twice exempted of public positions in his lifetime, during dictatorships from 1937 to 1945 and after 1964 in until his death, a mysterious fall in an elevator void in 1971.

Already in the 30's, while in his very early position as Secretary of Education of Rio de Janeiro (currently capital of Brazil); Teixeira describes the importance of the physical aspect of education through school buildings, while criticizing the lousy conditions found at the time. The need of a good site, form and intern distribution of building, economy and efectiveness, isolation (from noise), proper illumination and ventilation, functional equipment and even calling attention to detailing. He understands as a minimum acceptable area for a classroom to be 40m². Teixeira refers to the design of plans developed by the chief engineer architect Enéas Silva, from the Division of Buildings and Scholar Equipments of the Department of Education, who might have helped in the first sketches to organize and formalize Teixei-

ra's ideas. His participation is not clear, but might have helped in the creation of the different types of buildings that are after displayed. They were in the number of 4 for the urban *Escolas Classe*: the minimum school, the nuclear school, the medium school and the complete scholar group, and a fifth one for the *Escola Parque*. The proposed *Escolas Classe* are extremely simple and economic though efficient, square plans, moduled, so they could be reorganized, yet there were no other further specifications or requirements on construction technics. The types could vary in size and number, quantified according to the neighbourhood they would attend, and always related to the *Escola Parque*, which posesses a central role, being capable of absorving a combined number of students from the *Escolas Classe*. The work in two periods was being used in the country, but as a way of optimizing the available space, so now instead of being alternative and excludent, the two periods would be simultaneous and combined. The plans of Teixeira were to provide scholar assistance to all children in the country in short time.

After a period of absence due to the political configuration, Teixeira assumes the Secretary of Education of the State of Bahia in the mid 40's, when he decides to implement his pedagogical model. He plans all together 8 *Escolas Parque*, each with a varying number of satelite *Escolas Classe* around them (at different distances). Only one is finally built, in the neighbourhood called *Caixa D'água*, a poor area, founded by former slaves. For this work he hires an office of Rio de Janeiro to develop the architectural and engineering matters in charge of Eng. Paulo Assis Ribeiro. In Salvador the architects Diogenes Rebouças and Hélio Duarte are responsible for the plans. The exact role of each character is not completely well known. Ribeiro seems to have calculated the flux between the *Escolas Classe* and *Escola Parque*, relating it to the estimated number of needed places, so he definetely participated during the finalization of the adopted program. The school was able to absorve 4000 students using a carefully studied rotative system. Rebouças gave testimony on the problem caused by the selection and actual acquisition of the terrain, which was intended to be bigger but was not given by the State. Finally Hélio Duarte who did not stay until the end of the site work, but reproduced accurately many principles

found in the school, in the state of São Paulo, while being responsible for other educational establishments. In this way, it is hard to declare the exact authorship, but then it should be clear that this resulted in an extremely well done teamwork.

The *Escola Parque* finally built in 1947 was named *Centro Escolar Carneiro Ribeiro* and owned a terrain of 42000m², at a hill top, with exuberant plants and trees, windy with sunshine all day long; a healthy spot. Yet it was located in a central accessible place for inhabitants of that neighbourhood. The pedagogical program of Teixeira was rigorously followed, interpreted into a complex of single loose buildings, initially 4: one for applied arts (besides drawing, arts and crafts; were materials such as metal and wood were worked, aiming a future profesional position), another one destinated for dining, a sports gymnasium and an administrative sector. They were placed covering a wide square perimeter, allowing a central free space, as well as interstitial spaces between them, Built later and finished in 1960 were the library, theatre and amphitheatre. To attend and complement the *Escola Parque* were built 3 *Escolas Classe*, away from this centre.

On the overall, the most consistent impression of the work is the quantity of free space, not simply scattered, but centered and aligned, offered to children's gathering and playing, elevating this sense above the strict modelling and regulating of education. The buildings differ in aspect, but posess the same aesthetic objectives and constructive principles. They appear lightweight, sometimes transparent or even permeate. They are conceived to be economic and easily built and reproduced, though posessing sofisticated lines. The structure is the determinant shaping element, and pilars play the main role. They are conceived as a double outlines that generates a volume by multiplying in line, being lightly roofed by the continuity of thin wood structures that support fiberciment (former asbestos) tiles.

The building for applied arts, for example, is a mixture of an industrial quarter and of an hangar, it has 4000m². The single continuos structure has two aisles for workshops — one for girls and the other for boys, with different activities foreseen for each-, and a bridge in the middle for administrative support. There are no intern divisions (free plan), justified by the expected changes and

renewals of the workshops machinery. The main elements found are the structure, resembling a spine: curved tilted pilars at half height, closed at the top by criss-crossing wooden structure, providing a high ceiling; and very light closing elements (materials left bare), such as glasses (in small quantity) and combogós, that are hollowed bricks or simple bricks disposed unevenly, which allow air renewal, equilibrate humidity and give good illumination. This building bears as well intern artistic panels of Maria Celia Amado, Mario Cravo, Caribé, Carlos Magno and Jenner Augusto.

The sport gymnasium is similar to the workshop building, but is divided in two levels. The superior destinated for the mentioned activities and underneath bathrooms, and health care rooms; doctor and dentist. The vertical circulation is kept outside.

The administrative and dining buildings obey the same principle of a repeated structural section, that in this case produces on a single line two buildings, modulated and attached. There is no hierarchal difference on the formal approach. This building holds also the interface activities with the community, meeting room, radio, even a bakery. Here are used pilars in a "V" shape, with opposite smaller triangular beams linking them (forming a diamond like structure). This light and almost transparent structure holds thin lightweight roofing, similar to the former. Also closing material provide exchange with the outside through the combogós. The surface almost appears to have more openings than closed areas.

The later library by Rebouças is more opulent, but keeps the same logic. Instead of the structures profile generating a prismatic volume, it rotates at one end, forming a round building, that forms an octagon plant. It is closed by glass panels, and is circled outside with trees. The vegetation is kept as much as possible, giving emphasis to fruit trees. The child's senses are continuously stimulated by the variety of the encourage.

The architects were inspired by the program presented by Teixeira, and obviously integrated it easily into the problems arisen by the general requirement of an architectural renewal, the rapid domain of reinforced concrete technics, and the growing interest in the establishment of a formal expression committed to a particular cultural context; in order to develop an autonomous affirmative identity. This results in a blend of high quality technological optimalization, of limited resources available, while preserving a universal constructive standard. Although there is no direct theorization by the authors about this work, they leave clues on the strategy of approach. The program is followed rigidly, maintaining the same reasoning line, but adopting for its final solution broad formal possibilities.

The efficiency of this project relies on the very close imbrication of common ideas between educational purpose and architectural repertoire. This happens in two levels: first on the philosofical objectives, were manhood is centered with equal importance between all; and second, on the conceptual configuration, were both fields of understanding use the same technical backround to express themselves. This might be considered a fully developed example of modernist action, where different applied knowledges are combined fluently in one move, and probably this was the only way of being effective in order to really be able to try to change society.

Finally, regarding the interests of DOCOMOMO, this is an example of a problem envolving the reason of architectural conservation. The educational standards and values have certainly changed, but the main idea still is strongly humanistic. The physical standing of this complex will only be dignified while keeping its social mission alive.

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Cartas: www.prossiga.anisioteixeira

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"What Belongs to Architecture?" Avant-garde Ideas in the MOMO's Discourse

In its initial phase the Modern Movement had strong ties to avant-garde movements such as futurism or constructivism. It shared their opposition to tradition and to the false claims of 19th century bourgeois culture. One should wonder however how far this alliance goes and whether the basic conceptions about the new architecture do line up with avant-garde positions in art and literature.

1. The Concept of 'Avant-garde'

Taken literally, the avant-garde refers to the front part of a marching army, the scouts that first head into unknown territory. As a metaphor the word has been used from the 19th century onwards to refer to progressive political and artistic movements, which considered themselves to be ahead of their time. During the last decades the word has acquired a precise theoretical meaning, due to the work of Peter Bürger. As a result the avant-garde is by now distinguished from modernism, in that it is confined to a more limited range of ideas and movements.[1]

The avant-garde radicalizes the basic principle of modernity: the urge towards continual change and development, the rejection of the old and the longing for what is new. According to Renato Poggioli, the avant-garde is characterized by four moments: activism, antagonism, nihilism and agonism.[2] The activist moment meant adventure and dynamism, an urge to action that is not

necessarily linked to any positive goal. The antagonistic character of the avant-garde refers to its combativeness; the avant-garde is always struggling against something – against tradition, against the public or against the establishment. Activism and antagonism are often pursued in such a way that an avant-garde movement finally overtakes itself in a nihilistic quest, in an uninterrupted search for purity, ending up by dissolving into nothing. The avant-garde is indeed inclined to sacrifice itself on the altar of progress – a characteristic that Poggioli labels agonistic.

According to Peter Bürger the intense energies of the avant-garde did have a certain programmatic objective. Bürger, who intensively studied dadaism and surrealism, argues that the avant-garde was concerned to abolish the autonomy of art as an institution.[3] Its aim was to put an end to the existence of art as something separate from everyday life, of art, that is, as an autonomous domain that has no real impact on the social system. The avant-gardists aimed to achieve the 'sublation' (in the Hegelian sense of the term) of art in practical life:

"The avant-gardists proposed the sublation of art – sublation in the Hegelian sense of the term: art was not to be simply destroyed, but transferred to the praxis of life where it would be preserved, albeit in a changed form. (...) What distinguishes them (...) is the attempt to organize a new life praxis from a basis in art."[4]

The avant-garde aims for a *new* life praxis, a praxis that is based on art and that constitutes an alternative for the existing order.

2. The Modern Movement as Avant-garde?

The issues and themes around which the Modern Movement in architecture crystallized are surely related to the avant-garde logic of destruction and construction. Here too what was involved first of all was a rejection of the bourgeois culture of philistinism that used pretentious ornament and kitsch and which took the form of eclecticism. In its stead the desire for purity and authenticity was given precedence.[5] In the twenties these themes also acquired a distinct political dimension: the New Building became associated with the desire for a more socially balanced and egalitarian form of society in which the ideals of

equal rights and emancipation would be realized.[6]

The architectural vanguard nevertheless did not become as uncompromising and as radical as its counterpart in art and literature. Most architects e.g. never renounced the principle of rationality, even if it stood for a bourgeois value. As Michael Müller has pointed out, the protagonists of the new architecture were not in principle opposed to every rational ordering of things. On the contrary, they argued for a more thoroughgoing rationalization that combated the irrational remnants of the tradition.[7]

It would be a conceptual misunderstanding therefore to identify the Modern Movement as *the* architectural avant-garde of the twenties and thirties. Although the Movement's most heroic phase nearly coincided with constructivism and dadaismdadaism, and notwithstanding the fact that there existed historically well-documented relations between artists and architects, modern architecture showed in most of its manifestations a face which was clearly distinct from the radicality and destructiveness of the artistic avant-garde. It is nevertheless productive to confront the concept of the avant-garde with the ideas that were structuring the discourse of the Modern Movement. For the Movement was hardly a unified whole, but rather consisted of widely differing trends and tendencies.[8] Some of these were clearly much closer to genuine avant-garde sensibilities than others. That was for instance the case for the left-wing tendency of which Hannes Meyer was an exponent, as Michael Hays has analyzed in his book *Modernism and the posthumanist subject*.[9]

What I want to point out is that an avant-gardistic impulses which aimed at the 'sublation' of architecture has played an important role in the Movement's initial phase, even if later on it was neutralized and emasculated. The avant-garde aspiration I want to focus upon aimed at the abolishment of architecture as an institution. This intention is e.g. discernible in the early writings of Sigfried Giedion on modern architecture.

3. Avant-garde Impulses in Giedion's Work

Building in France, Building in Iron, Building in Ferroconcrete, Giedion's first book on modern architecture was published in 1928.[10] It drew a picture of the development of French architecture in

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Fig. 2.

Fig. 1.

Fig. 3.

Fig. 1. Pont Transbordeur, Marseille. (From Sigfried Giedion, Building in France, Iron, Ferroconcrete, Fig. 61).

Fig. 2. Two pages from Bauen in Frankreich, Eisen, Eisenbeton which show how Giedion links the new experiences of space, which he designates with the term Durchdringung, with the characteristics of the New Building, here illustrated by Mart Stam's project for the Amsterdam Rokin from 1926.

Fig. 3. Industrial landscape (From Sigfried Giedion, Building in France, Iron, Ferroconcrete, Fig. 4). For Giedion this landscape with its different levels of transportation prefigures the future development of cities where the interpenetration of different domains will be evident.

Fig. 4. Petroleum tank, concrete bridge, street, trestle (Marseille). A detail from the same industrial landscape. (From Sigfried Giedion, Building in France, Iron, Ferroconcrete, Fig. 3).

the 19th and 20th centuries with particular reference to the influence of new materials and construction technology. The key expression that Giedion used in this book to describe the qualities of the new architecture is *Durchdringung* (interpenetration). The almost archetypal spatial experience that gave rise to this expression was the result of the sensations aroused by 19th century girder constructions such as the Eiffel Tower or the Pont Transbordeur in Marseilles, a very specific kind of bridge where a moving platform is making the connection between the two landings (fig. 1).

Giedion treated these fascinating spatial experiences of interpenetration and intermingling in a very specific way, transforming them into a description of the new architecture that at the same time served as a guideline for future developments. He uses the term Durchdringung in different constellations. First and foremost it refers to certain spatial configurations, as for instance with Mart Stam's design for the Rokin in Amsterdam in 1926 (fig. 2). *Durchdringung* also evokes all kinds of metaphorical meanings.[11] It stands for a weakening of borders on all levels – social as well as architectural. In this manner a mutual relation is created between the new concept of space and a social reality that are both in many ways characterized by interpenetration. The new architecture was deliberately presented by Giedion as being closely bound up with social developments or even as anticipating them, the metaphorical use of the term *Durchdringung* connoting social mobility, emancipation and liberation.

The multilayeredness of the concept of Durchdringung also comes to the fore in Giedion's questioning of the idea of architecture:

"It seems doubtful whether the limited concept of 'architecture' will indeed endure.

We can hardly answer the question: What belongs to architecture? Where does it begin, where does it end?

Fields overlap <Die Gebiete durchdringen sich>: walls no longer rigidly define streets. The street has been transformed into a stream of movement. Rail lines and trains, together with the railroad station, form a single whole."[12]

Here Giedion links the question of the autonomy of architecture as a discipline with the observation that spatial realities such as streets and stations no longer represent sharply defined entities; instead our experience of them is essentially defined by patterns of movement and interpenetrating elements. His implicit suggestion is that architecture no longer has anything to do with objects: if it is to survive at all it must become part of a broader domain in which it is not so much objects as spatial relations and ratios that are of central importance.[13] Herewith Giedion formulates as a goal for architecture that it would break out of the limits imposed upon it by tradition and by its functioning as an institution.

What could be the result of such a strategy is hinted upon in a caption for some illustrations of an industrial landscape in *Building in France, Building in Iron, Building in Ferroconcrete* (fig. 3 and fig. 4). The landscape consists of a montage-like superposition of heterogeneous elements (a petrol tank, a railway bridge, a factory with smoking chimneys, a shed, electricity cables). Giedion comments:

"The various traffic levels, the juxtaposition of objects determined only by necessity offer – so to speak unconsciously and as raw material – possibilities for how our cities may later be designed openly without the constraints of preestablished levels."[14]

These illustrations along with Giedion's commentary contain for me the most telling moment in the book: the point at which there is a clear indication that architecture may well have to merge with vulgar reality and accept juxtaposition and montage as design principles which allow for this merging. In this passage one can clearly see that the idea of 'montage' – a key-concept for the avant-garde, according to Bürger[15] – is at work, even if the term as such is not used explicitly.

The idea of *Durchdringung* was also instrumental in Giedion's arguing in favor of a merging of architecture and life:

"We are being driven into an indivisible life process. We see life more and more as a moving yet indivisible whole. The boundaries of individual fields blur. (...) Fields permeate and fertilize each other as they overlap. (...) We value these fields not as hierarchically but as equally justified emanations of the highest impulse: LIFE! To grasp life as a totality, to allow no divisions, is among the most important concerns of the age."[16]

In this quotation Giedion indeed comes very close to the avant-garde idea that social life should be organized on the basis of art.

This early book thus takes up the challenge of an avant-garde position in architecture. Based on an antagonism against traditional notions and institutions in architecture, it displays an attitude that celebrates the new and is fascinated by the idea of transitoriness. Giedion even lives up here to the radicality that such ideas call for, in that he explicitly questions the nature of architecture. Most interesting in this respect is the thought that architecture might no longer limit itself to the design of representative buildings but should develop instead into to a more comprehensive discipline that is focusing upon the whole environment and that merges with social reality and with life itself.

4. Walter Benjamin's 'New Barbarism'

Walter Benjamin, who has written a few intriguing texts about architecture and modernity, picked up Giedion's avant-garde-like ideas about the social role of architecture.[17] Particularly relevant in this connection is his essay on *"Erfahrung und Armut"*, written in 1933.[18] In this text Benjamin argues that modernity calls forth a 'poverty of experience', because it does away with the continuity that is inherent in tradition and that is a prerequisite for the gaining of genuine experience. This new condition, he states, must not be seen in a negative light. It rather should be seized on as a new opportunity for humanity to make a completely fresh start. For it brings a new barbarism into being, a new barbarism that claims victory over an old culture that could not be called human any longer. This, says Benjamin, constitutes the bottomline of the work of the avant-garde. The avant-garde wages a struggle against the traditional humanistic notion that prettifies humanity by dressing it up with elements of the past. It doesn't prettify but it calls for destructive gestures, thus freeing the way for a new beginning. For Benjamin the activity of destructive characters was essential for the preparations for revolution if it was to succeed. The destructive character explodes one's familiar environment; it is averse to comfort, abandoning itself to the cold sobriety of glass and steel.[19] Glass connotes for Benjamin transparency and openness. It also is a hard material:

"It is not a coincidence that glass is so hard and smooth a material to which nothing can be fastened. It is also cold

and sober. Things that are made of glass have no 'aura'. Glass is the enemy par excellence of secrecy. It is also the enemy of property."[20]

Benjamin regards Glass as a material that literally expresses the transparency of the new society that would be founded on revolutionary lines. Elsewhere he confirms that

"To live in a glass house is a revolutionary virtue par excellence."[21]

The avant-gardistic alignment between modern architecture and politically progressive tendencies was thus clearly present in the discourse of the twenties and the early thirties. The intimate interconnection between the new architecture and an anticipated revolutionary social reality however did not dominate for very long.

5. Normalization

The most outspoken sign of the normalization to come, was perhaps the publication in 1932 of Hitchcock and Johnson's *The International Style.*[22] In introducing modern architecture to the United States, the authors presented it as the latest and most topical style. Hitchcock and Johnson took a clear anti-avant-garde stance in that they ignored all social issues. They even argued against any widening up of the notion of architecture, simply reaffirming the old distinction between 'architecture' and 'building'.

But also in Giedion's own work, one can notice how the avant-garde impulses of the twenties, and their radical implications, withered away in his subsequent development. In comparing the famous *Space, Time and Architecture* (1941) to the earlier book, it is clear that something changed. At first sight there would appear to be little more than a shift in terminology (space-time instead of *Durchdringung*). Closer analysis however shows that there is more at stake. One can indeed discern a shift in Giedion's notions about the social role of architecture. Whereas in the first book the new architecture was bound up with processes of social emancipation, in *Space, Time and Architecture* this connotation was no longer crucial. The social implications that were inherent in *Durchdringung* were not transferred to the concept of space-time. Social and political connotations had been purged along with all references to social experiments and to the revolutionizing aims of the new architecture. The

question "whether 'architecture' can have any future" was no longer raised. The emancipatory character of modern architecture and its social dimension were no longer highlighted. Explicit references to a socio-political purpose were missing. Behind two apparently parallel terms, *Durchdringung* and space-time, two different notions about the scope of architecture and its social role are thus concealed. The avant-garde aspirations which were characterizing Giedion's initial effort to describe modern architecture, disappeared and gave way to a fairly univocal program in which the need for a permanent redefinition of one's own aims no longer played a crucial role.

No wonder that a gap opened up between modern architecture and the avant-garde in the arts. After World War 2, they drifted quite apart, with movement such as Lettrism or International Situationism formulating vehement criticisms of the built production of post-war modern architecture. Take e.g. to the words issued in at Le Corbusier in Potlatch, the little magazine of the Lettrists:

"In this epoch which becomes more and more characterized by oppression, there is a certain man who is especially repugnant. He builds cells as housing units, he builds a capital for the Nepalese, he builds vertical ghettos, morgues for a time which can use them very well,..."[23]

No lining up any more. After the Second World War modern architecture was more or less officialized, institutionalized. It began to belong to the establishment, which meant that the most radical among the avant-garde movements in the arts and in literature distanced themselves from modern architecture and its representatives.

Notes

1 Jochen Schultesasse, "Foreword: Theory of Modernism versus Theory of the Avant-Garde", in Peter Bürger, *Theory of the Avant-Garde*, University of Minnesota Press, Minneapolis, 1984 (translated from *Theorie der Avant-Garde*, 1974), pp. vii-xlvii.
2 Renato Poggioli, *The Theory of the Avant-Garde*, Harvard University Press, London, 1982 (translated from *Teoria dell'arte d'avanguardia*, 1962)
3 Peter Bürger situates his interpretation of the avant-garde in the context of a historical evolution. According to him, he history of art in Western society is characterized by an increasing autonomy of art as an institution and as a system in society as a whole. The summit of

this autonomy was attained in the 19th century with aestheticism, the tendency that extolled the idea of *l'art pour l'art*. Artists no longer saw themselves as artisans in the service of the rulers or as interpreting some higher ideal, such as religion. Art was now pursued for its own sake; it was answerable only to itself. According to Bürger the avant-garde was a reaction against this notion. The corollary of the fact that art had become an autonomous institution was that it became socially isolated: by retreating into a world of its own – with its own system of values and means of distribution – it had lost any broader relevance and was no longer capable of exercizing any influence on social events. The avant-garde wanted to break out of this confinement and to escape from the institutional frame it was trapped in historically.

4 Peter Bürger, o.c., p. 49. German version: "Die Avantgardisten intendieren also eine Aufhebung der Kunst – Aufhebung im Hegelschen Sinn des Wortes: Die Kunst soll nich einfach zerstört, sondern in Lebenspraxis überführt werden, wo sie, wenngleich in verwandelter Gestalt, aufbewahrt wäre. (...) Was die (...) unterscheidet, ist der Versuch von der Kunst aus eine neue Lebenspraxis zu organisieren." (Peter Bürger, *Theorie der Avantgarde*, Suhrkamp, Frankfurt a.M., 1974, p. 67)
5 Miriam Gusevich, "Purity and Transgression: Reflection on the Architectural Avantgarde's Rejection of Kitsch", *Discourse* X.1, Fall-Winter 1987–88, pp. 90–115.
6 The terms used to refer to modern architecture are different in different language areas; these differences also have implications for the concept. The Dutch *Nieuwe Bouwen* and the German *Neues Bauen* explicitly avoid the term 'architecture' (which exists in both languages); this suggests an explicit longing for an architecture that is not limited to representative buildings but which embraces the whole domain of building and dwelling. This connotation is absent from the French expression 'architecture moderne' and from the English 'modern architecture'. In order to retain the broader concept contained in the German and Dutch expressions I prefer to use the term 'New BuildingNew Building'.
7 Michael Müller, "Architektur als Aesthetische Form oder Aesthetische Form als lebenspraktische Architektur?", in Michael Müller, *Architektur und Avantgarde. Ein vergessenes Projekt der Moderne?*, Suhrkam, Frankfurt a.M., 1984, pp. 33–92.
8 Charles Jencks, *Modern Movements in Architecture*, Pelican, Harmondsworth, 1973; Giorgio Ciucci, "The Invention of the Modern Movement", in *Oppositions*, N8 24, 1981, pp. 69–91.
9 Michael Hays, *Modernism and the posthumanist subject. The architecture of Hannes Meyer and Ludwig Hilberseimer*, MIT Press, Cambridge (Mass.), 1992.

10 Sigfried Giedion *Bauen in Frankreich, Bauen in Eisen, Bauen in Eisenbeton,* Klinkhardt & Biermann, Leipzig, 1928 (hereafter *Bauen in Frankreich*); translated by J. Duncan Berry, with an introduction by Sokratis Georgiadis, Sigfried Giedion, *Building in France, Building in Iron, Building in Ferroconcrete,* The Getty Center for the History of Art and the Humanities, Santa Monica (Cal.), 1995 (hereafter *Building in France*).

11 Compare Walter Prigge, "Durchdringung", in Volker Fischer, Rosemarie Höpfner (eds.), *Ernst May und Das Neue Frankfurt 1925–1930,* Deutsches Architektur Museum, Frankfurt a.M., 1986, pp. 65–71

12 Sigfried Giedion, *Building in France,* p. 90; German version in Sigfried Giedion, *Bauen in Frankreich,* p. 6: "Es scheint uns fraglich, ob der beschränkte Begriff "Architektur" überhaupt bestehen bleiben wird. Wir könnten kaum Auskunft über die Frage geben: Was gehört zur Architektur? Wo beginnt sie, wo endet sie? Die Gebiete durchdringen sich. Die Wände umstehen nicht mehr starr die Strasse. Die Strasse wird in einem Bewegungsstrom umgewandelt. Gleise und Zug bilden mit dem Bahnhof eine einzige Grösse ..."

13 The title of this paragraph consequentially should have been 'Architecture?', but the question mark was left out by the publisher of the book – much to Giedion's annoyance. The correspondance on this subject is commented upon by Sokratis Georgiadis in the introduction op *Building in France,* p. 49 ff.

14 Sigried Giedion, *Building in France,* p. 92; German version (*Bauen in Frankreich,* p. 8): "Die verschiedenen Niveaudifferenzen der Verkehrswege, das nur durch Notwendigkeit bestimmte Nebeneinander der Objeckte, enthält doch – gleichsam unbewusst und im Rohstoff – Möglickeiten, wie wir später unsere Städte offen und ohne Zwang starren Niveaubeibehaltung gestalten werden."

15 Bürger outlines the character of the avant-garde work of art as relying upon the principle of 'montagemontage'. In traditional aesthetics, he argues, a work of art is regarded as constituting an organic unity: the whole and the parts should be linked with each other in a self-evident relationship, based on principles of balance and harmonyharmony. The avant-garde work on the other hand is non-organic: it does have a unity, but this unity does not come about in a self-evident way. The avant-garde work contains discrepancies and dissonances, because it is constructed on the basis of a montage of fragments: elements that are separated out from a contextual totality and are combined in a new relationship. Archetypal examples of this are the Cubist paintings of Picasso and Braque or John Heartfield's photomontages. In literature one can refer to texts such as *Le Paysan de Paris* by Louis Aragon or André Breton's *Nadja.*

16 Sigfried Giedion, *Building in France,* p. 87; German version (*Bauen in Frankreich,* p. 3): "Wir werden in einen Lebensprozess getrieben, der nicht teilbar ist. Wir sehen das Leben immer mehr als ein bewegliches, aber unteilbares Ganzes. (...) Die Gebiete durchdringen sich, befruchten sich, indem sie sich durchdringen. (...) Wir werten die Gebiete gar nicht untereinander, sie sind uns gleichberechtigte Ausflüsse eines obersten Impulses: LEBEN! Das Leben als Gesamtkomplex zu erfassen, keine Trennungen zuzulassen, gehört zu den wichtigsten Bemühungen der Zeit."

17 For an extensive treatment of Walter Benjamin's interpretation of modern architecture, see Hilde Heynen, *Architecture and Modernity. A Critique,* MIT Press, London, 1998. Walter Benjamin certainly read *Bauen in Frankreich, Eisen, Eisenbeton.* In a review of 1929 he refers explicitly to this book, describing it as a "ganz ungewöhnlichen Werk". (Walter Benjamin, *Gesammelte Schriften 8,* Suhrkamp, Frankfurt a.M., 1980, p. 170). In the *Passagenwerk* (Walter Benjamin, *Das Passagenwerk,* Suhrkamp, Frankfurt a.M., 1982) there are also a large number of quotations and references to this book.

18 Walter Benjamin, "Erfahrung und Armut", in Walter Benjamin, *Illuminationen. Ausgewählte Schriften,* Suhrkamp, Frankfurt a.M., 1969, pp. 291–296.

19 Walter Benjamin, "The Destructive Character", in Walter Benjamin, *Reflections. Essays, Aphorisms, Autobiographical Writings,* Schocken Books, New York, 1978, pp. 301–303. See for an interesting comment on this essay: Irving Wohlfarth, "No-man's-land: On Walter Benjamin 'Destructive Character'", in Andrew Benjamin and Peter Osborne (Eds.), *Walter Benjamin's Philosophy. Destruction and Experience,* Routledge, London, 1994, pp. 155–182.

20 *Illuminationen,* p. 294. German text: "Glas ist nich umsonst ein so hartes und glattes Material, an dem sich nichts festsetzt. Auch ein kaltes und nüchternes. Die Dinge aus Glas haben keine 'Aura'. Das Glas ist überhaupt der Feind der Geheimnisses. Es ist auch der Feind des Besitzes."

21 W. Benjamin, "Surrealism", in W. Benjamin, *Reflections,* Schocken Books, New York, 1986, pp. 177–192, p. 180; German text: "Im Glashaus zu leben ist eine revolutionäre Tugend par excellence." (*Gesammelte Schriften II,* p. 298.)

22 Henry-Russell Hitchcock and Philip Johnson, *The International Style* (1932), Norton, London, 1966.

23 Internationale Lettriste, "Les gratte-ciel par la racine", in *Potlatch,* N8 5, 20 juillet 1954 (quoted from *Potlatch 1954–1957,* Lebovici, Paris, 1985, p. 34): "Dans cette époque de plus en plus placée, pour tous les domaines, sous la signe de la répression, il y a un homme particulièrement répugnant, nettement plus flic que moyenne. Il construit des cellules unités d'habitations, il construit une capitale pour les Népalais, il construit des ghettos à la verticale, des morgues pour un temps qui en a bien l'usage, ..."

Main theme: Social Housing

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MOMO's Second Chance – the Revaluation of Urban Housing

The most productive years of the Modern Movement in Britain – at least quantitatively speaking – were the 25 years from 1945–70 when modernism enjoyed a more supportive political, economic and social climate than ever before or since. This was MOMO's *first* chance – the period when its predisposing culture seemingly rested on a national consensus so widespread and so unanimous as to be virtually invisible.

Yet ironically, the project type on which modernism staked its primary claim and pinned its highest hopes – social housing development – became the area to attract the greatest criticism. From the late '60's / early 70's that consensus underpinning the theory and practice of 'comprehensive redevelopment' fragmented and then collapsed, and the products of this prodigious state investment became the object of unprecedented public criticism.

The extent to which the context for modern conservation in Britain is characterized not merely by indifference but active hostility, may be attributed to the perceived failure of mass housing more than any other single cause.

But this situation has begun to change. Two of Britain's largest and most controversial housing estates – Alexandra Road, London and Park Hill, Sheffield have been (or are due to be) listed. Goldfinger's high rise block Trellick Tower – once an object of derision – is becoming a 'cult' address, while his other notorious estate at Rowlett Street in London's East End is being considered for conservation funding. Right-to-buy legislation, introduced by the old Tory government has resulted in many council tenants investing directly in local authority dwellings; while in other cases whole estates are being acquired by housing associations competing with each other to offer the outgoing municipal landlord a more attractive dowry.

Although some of these new trends can be related to changes in architectural culture, the more significant underlying causes are political, demographic, economic and social. Recent research by The Joseph Rowntree Foundation, one of Britain's leading independent social research agencies, has identified a major shift in housing demand toward compact inner-urban locations for single people at affordable rents.

The Foundation has collated at least 20 research projects pointing to the benefits of rental homes for smaller households in inner-city locations.

This demand will inevitably draw into the process the considerable *existing* local authority housing stock that was stigmatised and neglected in the cycle of inner-urban decay, under-investment, migration and marginalisation indicated above.

My thesis is that the MOMO legacy of the 50's and 60's (or at least the best of it) may be given a second chance – but this time in the more favourable conditions of appropriate occupation, management and tenure, and with the benefit of all the social, spatial and technical lessons and increased performance standards that have accumulated over modernism's period of revaluation.

Why should this concern a specialist conservation organisation like DOCOMOMO and this conference in particular? Well, let me briskly summarise DOCOMOMO's current position as I see it and suggest the potential linkage.

DOCOMOMO was founded on and is motivated by the conservation ideal. Its tools are art history, its posture is evangelical, its reflexes are defensive. Its intellectual home territory is the world of culture, its definition of and approach to its portfolio is honorific, and its sensibilities are probably nostalgic – or at least elegiac. Its first decade of activity has been preoccupied with the identification and protection of key MOMO works under threat or in need of rescue.

In so doing MOMO conservationists have usually asserted cultural and artistic values over economic or commercial pressures as if these were intrinsically irreconcilable. When they have needed friends or allies they have generally looked for and found them in the remaining and now venerable period survivors, other special interest groups and the statutory authorities, notably English Heritage, who provide the legislative weapons to defend conservation territory against aggressors.

But after this first decade in which its energies have been concentrated on the more rarified icons and monuments, DOCOMOMO should in my view be moving on to the larger and more difficult challenge of addressing the less remarkable products of modernism.

I interpret this conference with its declared focus on the *social* aspects of modernism as a turning point in DOCOMOMO's preoccupations towards this larger agenda. Accordingly I suggest that in the area of comparatively 'unrare' MOMO buildings – and specifically urban housing – the coincidence of economic, social and demographic trends may strengthen the conservation cause where a conservation argument on its own is unsustainable. If my own experience over the first decade of DOCOMOMO points to any single conclusion it's that it is issues of economic and social feasibility which ultimately determine the future of a threatened modern building, rather than matters of heritage and culture – even if the latter may supply motivating and moderating conditions.

Take a couple of British examples. Marathon House is, or rather was, a typical MOMO office complex in central London designed by the British 'Miesians' Gollins Melvin Ward and completed in 1960. It is no longer an office block, it is now a block of flats. Why? Because its previous commercial value as an office building could not compete with its potential value as residential apartments. A conservation agenda would certainly have given precedence to retention of the building in its *original* use, even if there had to be modifications to conform to current operational requirements. But this would have ignored its *current* economic value. It is the latter reality which has determined the outcome.

Take a second example. Alexander Fleming House, the office complex designed by Erno Goldfinger (1963), has been a modern conservation *cause celebre* in Britain for over a decade, and at various moments within this period was threatened with either imminent demolition, or a full Post Modern makeover – the latter being regarded by some of its defenders as an even worse fate

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.
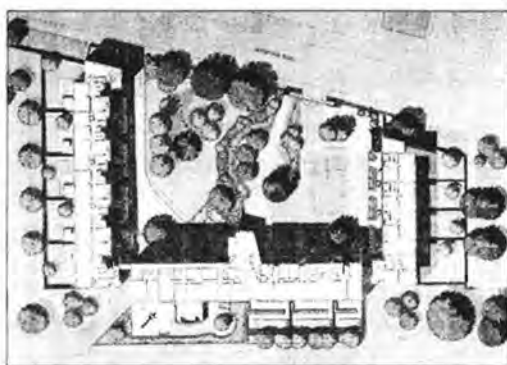
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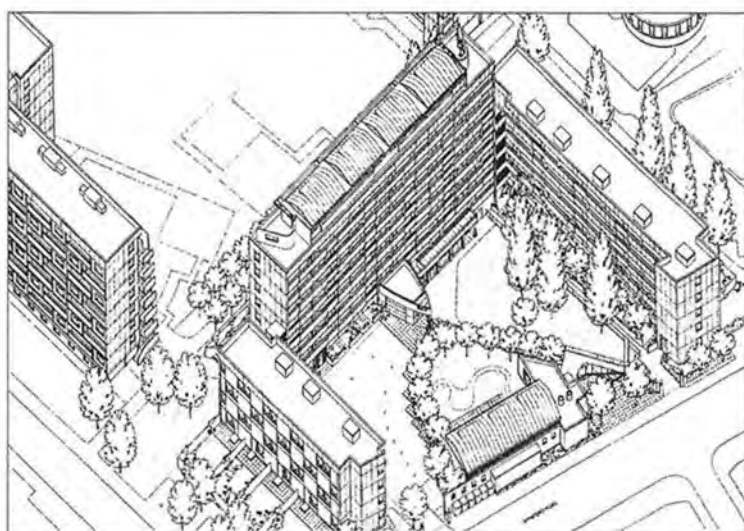
Fig. 6.

Fig. 1. Park Hill, Sheffield. Considered for listing. (Photo: John Allan).

Fig. 2. Marathon House, London. A redundant office block becomes a marketable apartment complex. (Photo: John Allan).

Fig. 3. Alexander Fleming House, London. Given a new economic future as desirable urban apartments, 1997. (Photo: John Allan).

Fig. 4. Wynford House, London, 1957. Robust social housing at an appropriate density for its central location. (Photo: John Maltby).

Fig. 5. Wynford House replanned. Now being repaired, modified and revalued. (Avanti Architects, 1998).

Fig. 6. Wynford House, view. (Avanti Architects, 1998).

than outright loss. But Alexander Fleming House has been neither demolished nor disguised. In the event the denouement has been more subtle. The building has been repaired, upgraded and converted into a major new apartment complex.

In both cases any card-carrying conservationist could criticise certain aspects of the work – the spandrel replacements, the overcoating of the concrete, the 'taming' of the Goldfinger building. But set against the fact that after a decade of uncertainty these buildings now both have a viable future, these misgivings are surely secondary. Their urban presence and essential identity have been preserved, and what is more, they again support a social reality, resuming a useful function as an element of live urban tissue. It is even conceivable that the alterations may conform with the conservation principle of reversibility.

Now it is relevant to note that both these buildings had been proposed for listing and both been rejected. And one cannot but ponder whether it was their very failure to achieve listed status that actually enabled these buildings to be recycled, in the sense that it 'liberated' their commercial potential to offer a route out of pure obsolescence.

What does this tell us about how the life of modern developments of this scale and type is actually extended? Surely that there may well be viable futures for such buildings if a wider agenda than that of 'straight' conservation is brought to bear. This is not the same as saying that conservation issues play no part. Please don't misunderstand me. This is not an argument for sloppy conservation. It is a call for conservation to be explored holistically in the wider context of urban renewal.

My proposition is that other criteria in addition to those usually adopted by conservationists will need to be deployed in the process of evaluating the huge but undifferentiated resource represented by MOMO urban housing. Such factors as urban connectivity, susceptibility to tenure mix, structural versatility, accommodation configuration, re-serviceability, unit mix, capacity for thermal upgrade, density retention, fabric renewal, infrastructure longevity, embodied energy, transport linkages, access audits, management issues, ratio of patent to latent value, space syntax, etc, etc will be the determinants of which of these existing properties offer viable refurbishment and improvement options – just as such considerations were instrumental in the 'salvation' of Marathon House and Alexander Fleming House.

In conclusion I should like to illustrate my thesis with the example of Wynford House, an inner urban apartment regeneration project currently being undertaken by Avanti Architects in London.

Wynford House is part of a large early postwar housing estate, Priory Green, designed by the Russian architect Berthold Lubetkin and his partnership Tecton for the Metropolitan Borough of Finsbury. Although the project originated in the 1930's, building of the eventual scheme did not start until 1947, being completed 10 years later in 1957.

Though popular with its original tenants the estate had long suffered from problems of neglect and management and reached the point where a major strategic decision on the part of its owners, Islington Council, could no longer be avoided.

In 1996 Islington promoted The Wynford House Challenge, an open development and design contest to settle its future. After a 3-stage competition stretching over a year in which 35 alternative sets of proposals were considered, including several for total demolition and redevelopment, the Challenge was won by Avanti Architects working with Community Housing Association.

The Avanti design is based on retention and rehabilitation of the Lubetkin buildings, with adaptation of some flats to maisonettes and the addition of four duplex penthouse units in place of redundant rooftop tank rooms. A comprehensive programme of tailored concrete remediation will be undertaken, with fully upgraded fabric and re-servicing measures to meet and exceed current energy standards. The estate landscape will be fully reconfigured to provide improved amenities and security. The new scheme will provide a total of 84 units in a mix of fully managed social and market housing.

Why has this scheme beaten off the 34 other contenders? *Not*, I have to admit because the council or the client were motivated only or even mainly by conservation ideals. *But* because – by taking a whole range of factors into account – *creative conservation* offered the best balance of mutual advantages to vendor and purchaser. In short, Wynford House will be saved by being changed, by being made relevant and responsive to today's social market requirements.

To sum up, I suggest the modern conservation movement should enlarge its cognisance of the MOMO inheritance. It should not avoid grappling with its more difficult, less glamourous aspects. It should extend its interest in its portfolio from buildings-as-vessels-of-culture to buildings-as-a-social-resource and thereby acquire more and firmer critical handholds on the neglected, submerged, part of the MOMO iceberg.

If the ambitions of conservationists go beyond that of merely fighting a damage limitation rearguard action they will have to run faster, get ahead of narrow commercial imperatives and master the full range of economic, social and technical tools available for intelligent conservation with a small 'c'. Specifically in the field of social housing they might function more as an enabling agency in devising ways of fitting the reusable elements of MOMO's heritage to an evident oncoming social demand.

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Swedish Multi-family Housing from the "Record Years" of 1961–1975 Homes Worth Care – or Built for Change?

The aim of this paper is to describe and discuss the variety of the apartment blocks from the "record years" of 1960–1975, and the very different ways of dealing with them. Ownership, location, local housing market and related factors seem to be decisive in the choices of concepts and the degree of alterations. The detailed choices of maintenance and rebuilding measures seem more related to the qualities of the built environment, the residents influence, and the ideas of owners and consultants, principally architects and engineers. Some characteristic features of the architecture of this period are generally considered to be technically poor and/or uncomfortable, and they have been frequently altered or re-designed.

From Urgent Housing Needs to Housing Surplus in Less than Ten Years

During the "record years" of 1961–1975 some 40 000 apartment blocks with about 900 000 dwellings and about 450 000 single family houses were built in Sweden in order to handle the immense lack of good housing. For decades housing problems had become more and more urgent. In 1960, a good deal of the population was still living in very small houses or apartments with one or two rooms, lacking facilities such as bathrooms and central heating. About 34 % of all households were living very densely, and about 45 % of all dwellings had no bathrooms.

Through the intense production of bigger, modern dwellings during the "record years", including the "million homes program" of 1965–1974, the shortage of housing was overcome and even turned into a surplus in many places. From 1960 to 1975 the population grew considerably from 7.5 million to 8.2 million. The number of households grew still faster; many single men and women and young families were able to get a dwelling of their own. Migration and immigration made towns and cities grow far beyond their former centers. In 1975, overcrowding as well as lack of bathrooms was diminished to about 5 % and a majority of households could enjoy dwelling space and modern equipment barely dreamt of a decade earlier.

Industrial Production of "Functional" Buildings

The new dwellings were planned and built according to ambitious social goals. An often quoted sentence in a government bill of 1967 was that "The whole population shall be offered sound, well planned, suitably equipped and big enough dwellings of good quality, at reasonable costs".

To reach this goal, it was considered necessary to standardize and industrialize construction work more than before, and to plan for big developments in new suburbs or at the outskirts of the towns. Long production series were economically favoured by state subsidies. More than 50 % of the dwellings in multifamily buildings were produced in neighbourhoods with ten or more buildings of the same sort. Especially in city suburbs neighbourhoods with a thousand or more dwellings in similar buildings were created, and repeated over big areas of fairly level ground, adapted to construction by cranes. Slab blocks and towers of eight storeys – sometimes more – were quite frequently built, but still about 50 % of the dwellings were built in "traditional" three-storey slab blocks, and almost 20 % in lower slab blocks and rental row houses.

About half of the multifamily buildings are owned by municipal housing companies, and about 30 % are tenant-owned.

The buildings were designed according to the technical and architectural ideas of this period, ideas partly based on the style of the early modern movement. Most building forms are strictly geometrical, with flat or almost flat roofs and plain, undecorated facades. Brick, plaster and concrete panels are the dominant facade materials, but more or less new materials like asbestos, glass or aluminum panels were used as well. The strict, geometrical character of the buildings is often accentuated by vertical blocks of big balconies or horizontal lines of windows or balconies. The entrances were often made like "holes in the wall", the entrance doors located one or two meters behind the facade line, to be sheltered from rain and snow.

Generally the apartments were very well planned and equipped, with fairly good materials and often lighted by plenty of daylight from the big windows. What was generally neglected or economically put in the last place, was the outdoor environment. Poor vegetation, insensitively formed footpaths, and indifferently planned playgrounds were typical of many of the new yards. Usually vast parking lots separated the buildings from the street and made the size and structure of the area hard to grasp.

Criticized Suburban Neighbourhoods with Unrented Apartments...

In a very early stage some of the new areas were questioned for social and architectural reasons, especially those suburbs characterized by large scale, rapid industrial production, anonymous architecture and uncompleted public environment and service.

In quite a few of the relatively large-scale, rental housing areas "bad spirals" of increasing management problems, vacancies, and segregation developed shortly after completion. Today, efforts have been going on for more than 20 years in order to solve the problems in the affected neighbourhoods. In many cases the buildings and the outdoor environment have been radically changed. Quite often, one can also find ambitiously improved management, as well as efforts to engage residents in decisions concerning rehabilitation and the process of long-term neighbourhood development.
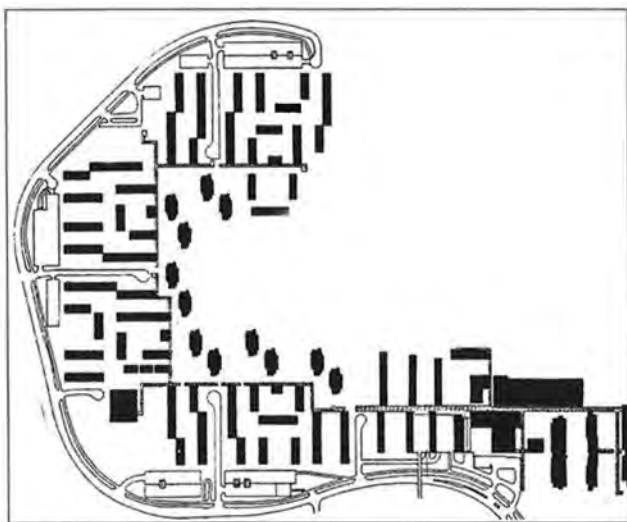
Fig. 1a.
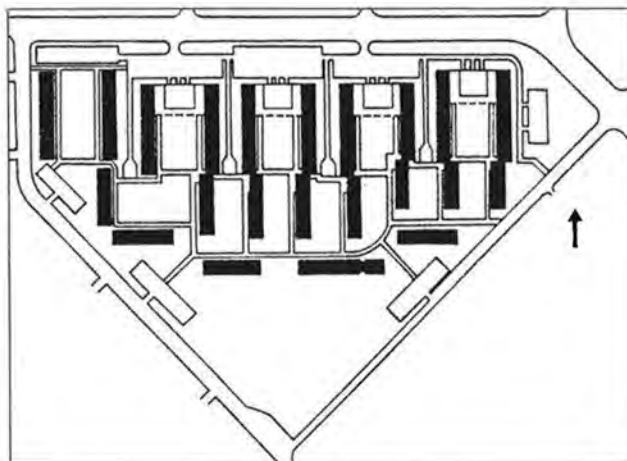
Fig. 1b.

Fig. 2a.

Fig. 2b.

Fig. 3.

Fig. 4.

Figs. 1a, 1b. Plans of two large-scale housing areas, both with characteristic fields of parking facing the access roads. A: Lövgärdet in Gothenburg (the second biggest city of Sweden), with about 1 900 dwellings built 1970–77 in 9 storey towers and 3–4 storey slab blocks. A few of the buildings have been demolished recently. B: Nygård in Köping (a small industrial town), with about 800 dwellings built 1965–1970 in 4 storey slab blocks. Many of the buildings in Nygård have been reconstructed for new puposes such as offices and special housing for elderly and handicapped.

Figs. 2a, 2b. There are many examples of expressive architecture as well as indifferent, and this seems to be quite indepentent of materials, number of storeys and size of the area. Form, colour and materials are used and mastered more or less skilfully all over the country. A: Akalla in Stockholm. B: Tensta in Stockholm.

Fig. 3. New steep and varied roofs cover the former very plain "boxes" of Vallby, Västerås, and big new balconies and painted decorations help to vary the facades.

Fig. 4. In some of the buildings of Nygård, Köping, modest facade variations are created by new, brigher colours and the residents'choises of enlarged windows and enlarged balconies, with or without glassing.

...and the "Silent Majority" of Normally Aging Neighbourhoods

While much attention is paid to the problematic areas, it is not generally noticed that a majority of the apartment blocks and neighbourhoods of the "record years" are going through a fairly "normal" life cycle of use and care, aging and maintenance. In fact, less than 10 % of the apartment blocks from this period have been the object of reconstruction. In addition, many of those measures constitute improvements of the technical systems – both "experimental" and traditional systems – not affecting the look or the use of the buildings. This kind of improvement is made in socially un-problematic buildings and neighbourhoods as well as in the problematic ones.

A Wide Scale of Concepts: Maintenance – Rebuilding – Demolition

Altogether, the buildings and neighbourhoods from the "record years" are being dealt with in in a number of different ways, from careful maintenance to radical "turn-around" redevelopment and even demolition of whole buildings or parts of buildings. Generally, the architectural and social effects of the applied "concepts" are keeping pace with the extent of the measures taken – and the costs. And generally, in the more problematic neighbourhoods more extensive measures are taken.

Maintenance and conventional daily care is the usual way of dealing with all the buildings and neighbourhoods without any special problems. In these cases keeping the estate in good shape usually means keeping it just as it was built. No extensive or un-reversible changes of colours or materials are made, and leaking roofs are just repaired or re-laid. Problematic and maintenance-demanding window frames may be covered by metal profiles, or supplemented or changed to better insulating three-glass windows, without changes of the size and colour of the glass panes. The entrance doors may be replaced, with materials and design more or less different from the original, and the staircases may be painted in more "modern" and fashionable ways. Balconies may be glassed if the residents want it, and the yards may be given better planting and adapted to the needs and wishes

of the current inhabitants. In a few extreme cases architectural character and details may be consciously preserved.

"Extra-ordinary maintenance" may include additional changes in the colours, materials and design in direct connection with technical maintenance necessary long before the normal maintenance period is ended. Facade plaster needing repair may, for instance, be given warmer and brighter colours than the original grey or greyish white or brown. Dark and insufficiently sheltered entrances may be completed with pergolas, light roofs and the like. Damaged balconies may be renewed and sometimes enlarged; bigger ones made of other materials with structures and colours different from the original ones may be installed. Glassing of all balconies may be organised by the owner. Indoors, the bathrooms and sewer systems often need extensive repair because of moisture problems, but the apartments are generally not changed, just maintained.

Environmental improvements were supported by state subsidies as early as the late 1970's, provided that the residents were involved in the processes of decision and realization. These improvements could include planting, new designs of yards – often with grass-covered hills, mixed shrubberies, pergolas and other room-creating elements – and new or improved common facilities like laundries or hobby rooms. Many of these improvements gave lasting effects. Trees and bushes planted in the late 1970's or early 1980's have grown and helped to create green and varied yards between the buildings. Others were more temporary; wooden structures, for example, needing frequent care and maintenance were damaged, neglected, and left to rot after a few years.

Improvements and rebuilding according to residents' decisions is a concept practiced in some neighbourhoods, usually in order to fight vacancies and at the same time get rid of some more or less "normal" technical problems. This concept often includes a systematic and fairly extensive renovation/rebuilding of facades, roofs, entrances, and common spaces indoors and outdoors. The facades are given variation by the residents' choices of colours, materials, balconies, bay windows and other details. In some cases the changes are moderate, in some cases rather extensive, but the original forms and structures of buildings and neighbourhoods re-

main totally visible. This concept also often includes a new, more locally based organization of the management of the neighbourhood. Very often "porters" are employed and made responsible for the tecnical mangement of a few buildings and the apartments, common spaces and yards. In some cases the residents have been engaged in gardening and keeping the yards and common spaces in good shape, and they may have a certain reduction of rent for this work.

"Turn-around" was a concept introduced in the mid-eighties. Turn-around redevelopment usually means extensive rebuilding combined with re-organization of the management aimed at giving a totally new image to the neighbourhood, and making it more attractive for middle-class households with social and economic stability. Usually the visible structures and forms of the buildings are transformed with new, big balconies, bay windows, completely new roofs, new and more fashionable facade materials. Brick is often chosen for its appearance and for its maintenance. The outdoor environment is totally re-designed. Reconstruction inside the buildings may be extensive. In the first place common spaces such as entrances, staircases and storage spaces are changed and made more attractive. The apartments could be changed as well, especially in order to eliminate some of the many two-bedroom-dwellings and creating instead larger and smaller dwellings more in demand by new customers.

The turn-around concept usually means a considerable rise of housing costs, regardless of whether it is combined with a change from rental housing to tenant-owned or not. In the 1980's households were seldom deeply involved in the decision processes in the actual neighbourhoods, and many of them were forced to move away to a cheaper, unrenovated dwelling and area.

Turn-around combined with partial demolition is a more violent form of the turn-around concept descibed above. In these cases, the building volumes are more drastically changed; whole buildings are demolished, others are partly demounted, or new storeys are built on top of them so that the building profiles are varied and the strict geometrical forms are softened. The apartments may be changed as well, but usually the standard – the degree of luxury – of the dwellings may be chosen by the resi-

dents according to what costs they are willing to accept.

Partial demolition to reduce the number of dwellings/change the type of building has, till now, been practiced in a few cases since the mid-eighties. This concept includes extensive demolition. Three-storey buildings may be reduced to one or two storeys, and at least some of the remaining dwellings may be reached separately, directly from the ground. Slab blocks may be kept as such or turned into rental or tenant-owned row houses, intended for families.

Built for Change – or Homes and Buildings Worth Care?

The great differences in the development and dealing with the neighbourhoods from the "record years" are not explained by the wide variations of sizes, construction systems, materials and architectural values of the buildings and housing areas. There are no general straight connections between characteristics such as large scale, concrete panel building, and plain outdoor environment and problems concerning management and social life. Location, local housing market, ownership, residents' influence and economic engagement, and other factors connected to those, seem to be much more important to the development of the neighbourhoods.

The concepts practiced in dealing with the needs of care and improvements are more closely connected to social problems and vacancies than to strictly technical problems. Obviously most technical problems may be dealt with, and solved, by more or less "simple" renovations. But when radical measures are considered because of complex management problems the same kind of technical problems may be taken as reasons for extensive rebuilding.

What, then, may the connections be between social and architectural impacts of different concepts? Generally, the more influence the residents have, the more careful – and the less costly – the maintenance and improvement mea-

sures will be. People living in the neighbourhoods and participating in the improvement activities usually have a much more sensitive view of the existing qualities and short-comings than the more distant partners and observers. Most of them want to stay in their homes, and they want to avoid measures which they find unnecessary and too costly. The radical "turn-around" concept, where one aim was to change the population as well as the image of the area, could be questioned especially from a social point of view. Historically and architecturally the radical rebuilding could also be questioned. The measures taken are seldom reversible; the original strict and economical architecture typical of its age is deleted in favour of an equally fashion-determined variation of forms and colours. Other concepts may include some important changes of the architecture, but they are socially more legitimate; the preferences of the residents are decisive for every step. They are also often reversible or at least less violent to the original architecture.

Concepts of normal care and maintenance raise other questions: are these buildings and areas better built and designed than others, and more worth care and preservation? This does not seem to be the general case. Some of the very extensively changed buildings and neighbourhoods had originally good architural qualities – yet those qualities were repeated in a too big scale to be appreciated. There are examples of housing areas where a few blocks are being preserved while all the others are rebuilt. In the new, vigorously variated surroundings the original architecture may stand out like a pleasing place of rest, provided that the yards are equally carefully planted and well-kept all over the place.

It may be expressed that the buildings and neighbourhoods of the "record years" were built for change – they were meant as "shells" for a modern lifestyle and were not supposed to last for more than about forty years – until the loans were paid. Obviously they did not offer a complete living environment when

finished, and in particular the local services and the immediate outdoor environment left a lot to be done. Nevertheless, they are the homes of more than one million people – and a majority of them want to stay, or at least not be forced to move away because of rebuilding and rising costs which they cannot influence. The residents certainly want improvements, but not extensive reconstruction of the buildings. Good management, good neighbours, pleasant yards, entrances and common spaces indoors, and good local service and communications are most wanted.

In many places measures of different kinds are urgently needed. It will probably be necessary to accept reducing of the number of dwellings in municipalities with decreasing populations, and the technical and aging problems have to be dealt with everywhere. The buildings of the "record years" should be treated according to the Planning and Building Law (PBL), just as older and generally more appreciated buildings. According to PBL any measures withtaken in or on a building should be made with care, so that the character and the positive qualities of the building – technical, historical, cultural, environmental and artistic – are preserved. This does not mean that any short-comings should be neglected, but it certainly means that the existing qualities in the buildings and neighbourhoods should be mapped out, and the residents' opinions taken into account, before any decisions are made concerning what should be changed, added, and preserved.

From an architectural and historical point of view it seems more and more important to map out and call attention to the positive qualities of the buildings and housing areas of the "record years". So much attention has already been paid to the problems and the short-comings, and still is. The wide-spread, oversimplified negative image of this building stock may become the most grave threat to what is needed: well-considered preservation as well as careful development of all these homes and neighbourhoods.

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Social and Political Battles over an Urban Renewal Project, Public Housing in Canada, the Case of Les Habitations Jeanne-Mance and the Dozois Plan

«Les Habitations Jeanne-Mance» was the first of wide-ranging projects, which brought Montreal to a world-class level, from the Metro through Expo 67 to the summer Olympics of 1976. It evolved political battles, attempts at social reform and the first urban strides of the Quiet Revolution, forming a symbol of the modernisation of Quebec society. The project is the end product of social changes in gestation since the end of the nineteenth century, but it is mainly the result of the power struggles and political negotiations.

«Les Habitations Jeanne-Mance» is the only urban renewal project in Montreal ever to have been promoted and subsidised by all the three levels of government, municipal, provincial and federal. The political difficulties of such collaboration soon became apparent, given the organisation and management differences of theses three distinct entities. This urban renewal project was brought about regulations adopted by the federal and provincial governments, but it was resolved and built by the municipality. It opened the road to debate and controversy, while teaching the general public to inform itself and to get involved.

In fact, «Les Habitations Jeanne-Mance» is the result of the reform and public health movements, which took root at the end of the last century. At that time, although social issues were not a priority amongst local politicians, it goes without saying that certain individuals were more involved specifically in public housing. Like most major North American cities, Montreal faced serious housing problems. The Canadian metropolis was booming, thus causing an influx of workers and their families while modifying the urban fabric. Taking note of surds done in world capitals, certain actors in the municipal theatre became conscious of problems such as over-population and the quality and quantity of housing for the working-class, most notably the lack of proper plumbing inside. The lack of regulations concerning lighting, ventilation and plumbing fixtures was endangering the health of montrealers. The public-health movement attached this state of affairs, and Montreal neighbourhoods were equipped with public baths as a result of this first quart of the century battles. Other reform groups, drawn principally from English Montreal, amongst them the «Civic Action League» lobbied the political authorities. By the turn of the century, no housing had been built. The only pre-war gains got by the reformers were the enforcement of regulations as well as the sanitary inspections of housing.

After two wars and the great Depression, and several government later, the problems of public health and housing remained extant. «Les Habitations Jeanne-Mance» saw the light of day in a post-war context that brought important changes of governments. This period of transition preceded what became known in Quebec as the Quiet Revolution. This term defines the period of political, institutional and social reforms that were brought about by the provincial Liberal government between 1960 and 1966.

Soon after the Second World War, the federal government wanted to preserve the position it had dearly acquired during the war, and to continue its program for the Welfare State at the national level. Jurisdictional changes were planned. While some provinces would agree to the federal project, Quebec opposed it in the name of provincial autonomy, forcing a partial revision.

Faced with mounting social reforms, the government intended to table legislation on housing. Its law of 1935, which proposed "an organisation for housing authorised to start-up, direct, approve and control projects and programs and their funding", remained into action. In reality this law permitted an alliance of joint loans between the federal government and the private sector in order to finance housing. Little resulted from this and in 1938 the law was modified to specifically include low-cost public housing to the responsibility of municipalities. This law was suspended during the war before there were any concrete results. However, the war only worsened the already existing housing shortage in Canada. Between 1941 and 1947 this problem was partially addressed with the Wartime Housing Program for factory workers and veterans, when nearly 30,000 units were built, with 4172 of them in Quebec province.

The urgent need for housing obliged in turn the provincial government to pass a law in 1944 which was not put into effect until 1949, delayed as it was by a new provincial government. The legislation proposed nothing new.

The beginning of the 1950's marked a return in awareness of the weakness of those holding power and reforms where an even greater pre-occupation than in the past. Good housing had become only one amongst other problems of social disparity, attempts were made at finding all-encompassing solutions, while the reforms had to work the political scene as well as face corruption. The recent history of «Les Habitations Jeanne-Mance» begins therefore in 1951. The municipal government authorised a loan of 25 millions including 1.5 million for slum clearance. September of the following year saw the regrouping of 55 different community groups and associations, citizens, labour unions and tenants worried by the lack of action, demanding low-cost housing. Among other things they pressured several layers of government to prevent the elimination of federal rent controls. On the other hand the provincial government was into hurry to table legislation. In its report the Gingras commission stated that housing was not the government problem, this even after having passed a law to the contrary. The city of Montreal promised a far-reaching project for slum-clearance. In 1952, the committee of 55 and the city executive council formed a joint taskforce chaired by the city councillor, Paul Dozois, with the mandate of producing a report on slum-clearance and the con-

struction of low-cost housing in Montre-al. This study was to target priorities in order to take advantage of the housing law of 1949. This law allowed the federal and provincial government to come to an agreement in order to put up housing.

Beginning of September saw the release of the Dozois report. This study pin-pointed 13 areas of possible development, which were in fact 13 slum areas. These potential sites were identified as being insalubrious. The most promising site was bordered by St-Laurent, Ontario, Ste-Catherine and St-Denis streets that became the test area for a first joint project. The city came to an agreement with Quebec and Central Mortgage and Housing of Canada, CMHC. When considering this site, one noted in particular its proximity to the city centre, the sorry state of the housing units and the social problems related to the neighbourhood's inadequacies. No mention was made that certain alleys there made up the red-light district where prostitution, gambling and the Mob reigned. A moral ideal for an area on a long downward slide. Not coincidentally one is reminded of the electoral battle-horse of the politicians, Drapeau amongst them, was the systematic elimination of corruption in all shapes and forms. The campaign to sway public opinion on issues of morality, centred on a public inquiry, came to a head with the publication of its report on the eve of the 1954 municipal elections. The incumbent Camilien Houde lost to Jean Drapeau, one of the instigators of the public health and morality contemporary movements.

The Dozois report also tables in 1954 caused unprecedented criticism between the various levels of government as well as between the political parties in power or about to be. The first Drapeau administration of 1954–1957 was strongly and vehemently opposed to the project. It maintained that the residential district directly east of downtown was what prevented the lather's expansion. The year 1955 was eventful concerning the accepting of the plan by all the parties concerned. After the municipal council's visit to Toronto's Regent Park, CMHC's first project, the report was approved in principle by the consulting committee, which recommended that the executive committee adopt the proposals needed to bring it to completion. A few months later the government mandated the city of Montreal to undertake

negotiations with the federal government to put the Dozois Plan in action. The following March saw the formation of the Field committee, with representatives from both Montreal and the federal government, which presented its report to the Montreal executive committee. It reduces the scope of the project to the area by cutting the size by one block south, east and west. A few days later the Field report was approved by city council, voting 77–4 in favour Mayor Drapeau wanted the project approved pending another study by city council before approving the reconstruction phase. As it was, Drapeau insured the demolition of the slums while reserving the site for another large-scale project. Nevertheless, the federal governement decided in July to participate and concluded an understanding to that effect.

However, the mayor continued to oppose the Dozois Plan and the Field report, deciding to risk all in his obstinacy. At his suggestion, the executive committee recommended in November to put to the provincial governement a request that it amend the city's charter, in order to permit the holding of municipal election over the plan. A few days later, 44 councillors addressed a request to the Premier for greater powers in order for the municipal council to immediately start the plan. In December, against all expectations, the municipal council rejected the proposal to hold elections over the project. During that same month, the provincial parliament adopted the Plan authorising the Montreal city council to create a municipal housing office, which was formed in January 1957. Mayor Drapeau refused to sign the minutes of this assembly.

All the same, in May the city became the owner of the Dozois sector. The first demolition contracts were handed out in August. All the opponents to the project offered many alternatives to develop the site. Mayor Drapeau proposed a Radio-City, offering the site to CBC, just to spite his predecessor. Numerous other proposals, variants and counter-proposals which never got off the drawing-board, nor any further then the headlines of the local dailies making hay with the debate. In order to alleviate the pressing need for inexpensive housing, the mayor then proposed a Family-City (Cité-Famille) on a site in the north end of the city, far from the site retained.

Parallel to these developments, one must not forget the great infrastructural

renewals taking place at the same time, such as new highways and the widening of certain downtown streets. The automobile also has its place in the city's modernisation. The modernism of the first Dozois plan was perceived as the best city, "La Cité Radieuse". The reference to LeCorbusier is well back up. The principal partner of the firm conceiving the master plan, then director of McGill School of architecture was educated at Architectural Association in London and working towards modernising the teaching of architecture in Montreal. The Bauhaus was one of his inspirations. The 1954 plan comprised of 16 buildings forming 3 groups. The central sector contained ten eight story buildings around a park, with the second group situated to the east comprising three buildings the same height. To the west, a third group with three twelve-story buildings. This development followed certain principles outlined in the Athens Charter: on the lot cleared of demolished slums well built well-oriented and well-lit and ventilated constructions as well as a systematic road network with the height of the buildings freeing half of the available surface for green spaces which included commons, playgrounds and parking areas.

However the Field Plan adopted in 1956 reduced greatly the size of the project, obliging a complete revision of the plans. From a unitary grouping of blocks, the new project oriented itself towards a grouping of tall buildings and row houses types of construction as well as small apartment blocks. The finished project is composed of five clusters each dominated by a tower; smaller buildings comprised of three-story buildings as well as fifty-unit two-story buildings. Whereas 1300 families were displaced, only 800 apartments unit were built.

In the same period, urban renewal specialists were very much interested by the planning and the construction of low cost housing. European influence as well as the American experiments reached out through publication in specialised journals and professional associations. In 1947, during the National convention of Urbanists, held in that year in Montreal, the federal governement was blamed for the "laissez-aller" attitude towards housing, which it considered it to be the responsibility of the provincial and municipal governments. It was also on the agenda of the 1954 convention of the Royal Architectural Institute of
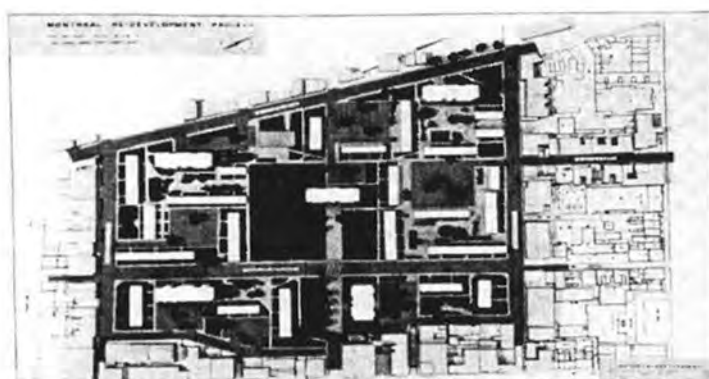
Plan d'ensemble du projet modifié, conçu par les architectes-urbanistes Rother, Bland, Trudeau.

Canada, which was published later in the year in the Journal. Later in 1957, the editorial of "Architecture, Bâtiment et Construction", held out against the Bland project while giving its approval to Mayor Drapeau's project, Radio-City. However these journals will in no way decide the outcome.

The election of a new municipal council in 1957 put an end to the opposition to the mayor's project. That the chairman of the Dozois commission held as well the post of Minister of Housing shows how «Les Habitations Jeanne-Mance» project was typical of social and political attitudes of the day in pre-Quiet Revolution Quebec. It marks an important step in development of social housing and urbanism in Canada. It is a unique example by its actual construction, by its proximity to downtown, by the great number of units built and by the variety of building types chosen, from the tower to the row house. The building methods were fairly traditional: the tall buildings were clad in brick on reinforced concrete frame while the low ones were built with wood framing and brick cladding. The «Habitations Jeanne-Mance» project is therefore modern the level of quality of the ensemble and of its pivotal place in the short history of social housing in Canada. Let not us forget that urban renewal was a rare concept in the Canada of the 1950's. South Regent Park, with its mix of blocks and row houses, completed in 1957 could be seen as a precedent to «Les Habitations Jeanne-Mance». Ian McLennan, the CMHC architect piloted both projects. Keeping in mind Bland's training in Europe, the English experiments of the London County Council of the 1940's and 1950's, where one may find references to mixed housing types.

To conclude, we may underline that the ideals in Quebec changed little from the turn of the century until the beginning of the Quiet Revolution. Nineteenth-century reformers, the workers movement and the Civic Action League certainly made Quebec society take notice of social conditions. The post-war reformers were organised differently, for instance in citizens groups, but all had the same ideals of improving and modernising Quebec society.

The lack of legislation at all government levels for the most part of the century slowed the progress of modernisation. Changes brought about in government, in political parties and power sharing between the federal and the provincial are essential elements in social housing in the country. Its history in Quebec is relatively short. The «Habitations Jeanne-Mance» experience has not been reproduced. The return to power of Mayor Jean Drapeau in 1960 was the death-knell for this type of project. By the time the next urban renewal project was launched in Little Burgundy in the sixties, the methods and models had already changed. All said and done the battle was fought on fronts other than the architectural one. The opposition of the Drapeau administration as well as federal-provincial-municipal quarrelling were the principal, factors slowing the idealistic promotion of change behind the project. The rise of nationalism in Quebec and the federal tendency to centralise power prevents our provincial and municipal representatives from the ability to elaborate policies more adequate with a changing Quebec society said to be different from other provinces.

This paper was originally delivered in French.

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Habitations à Loyers modiques. 1951 to 1967. D2450.1

Project:

Chief architect Corporation des Habitations Jeanne-Mance: Ian Mc Lennan.

Master Plan: Rother/Trudeau/Bland, architects, Montréal.

Architects: Greenspoon, Freedlander & Dunne, architects, Montréal et Jacques Mor.

Landscape architects: Rother/Trudeau/Bland, architectes, Montréal, with Bégin urbanist and Charles Daudelin, sculptor.

City of Montreal, Office municipal d'habitations OMH and CMHC.

David Whitham

DOCOMOMO Scottish National Group, Scotland

Renewal, Rejection and Restitution: 40 Years of Comprehensive Development in the Gorbals

Glasgow and the Gorbals

The Gorbals was Glasgow's earliest suburb, situated south of the mediaeval city at the lowest point at which the river Clyde could be forded, later to be the site of Glasgow Bridge. The village and adjoining lands were held from 1650 by the City council for the benefit of its citizens and two charitable institutions, Hutcheson's Hospital and the Trades Hospital, but only in 1790 was the land formally allocated between the beneficiaries, the City retaining Gorbals village and the adjoining farmland to east and west passing to the Hutcheson estate. This paper traces the history of the Gorbals and Hutcheson lands through two centuries of development and violent change.

Glasgow at the end of the eighteenth century was a boom town, enriched by shipping and by New World trade, particularly in tobacco and cotton, and the new mercantile class demanded larger and more elegant houses than were available in the congested city. The key to the city's expansion was held by Hutcheson's Hospital which also owned estates immediately to the west of the old town. Without capital to develop the land themselves, the Hutcheson trustees began to sell the land to developers, and in the 1790s proceeded to the breakup of their lands south of the river. A substantial strip to the west of

the village went to James Laurie, and land to the east to a number of purchasers, including William Dixon, a colliery owner and ironmaster. This reallocation defined the three districts whose names are perpetuated in the Gorbals story.

Laurieston

Laurieston was potentially the most prestigious area for development with a river frontage, between the old bridge and the Broomielaw Bridge of 1769, to be developed from 1802 as Carlton Place, with a planned area of broad, classical streets to the south. At first the area attracted its desired, merchant-class tenants, but investment was slow and the Blythswood estate north of the river, on high ground and closer to the city centre presented strong competition. Laurieston's fate was finally sealed by its neighbouring owner, William Dixon in an act of environmental sabotage. Dixon, having established coal mines and iron works to the south of Hutchesontown, required rail access to riverside quays and to the newly constructed Ardrossan Canal, which would pass through the southern part of Laurie's estate. Obtaining temporary recall of a legal injunction forbidding the railway, Dixon completed his embankment through Laurie's property in a weekend when the courts were not sitting. Laurie did not succeed in reversing this action which reduced the value of his land 'from one to two guineas per square yard ... [to] less than one shilling'. Nevertheless, a large part of the development was completed, in streets bearing English aristocratic names: Bedford, Cavendish, Oxford, Portland and so on, with Abbotsford Place, a broad street of great classical houses, running from north to south.

Hutchesontown

The Hutchesontown development, never as prestigious as Laurieston, actually began earlier on a regular grid pattern immediately east of the Gorbals high street. Adelphi Street had elegant buildings facing the river but Hutchesontown lacked proximity to the city as the bridge connecting its main thoroughfare to Glasgow High Street had not yet been conceived. The development of Hutchesontown, along wide streets, consisted mainly of purpose-built working-class housing, interspersed with industry, warehouses, churches and public buil-

dings extending to a great cemetery, the Southern Necropolis on its southern boundary and marked prominently at the south-west corner by Alexander Thompson's Caledonia Road Free Church.

Gorbals Village

The old village became the first subject of renewal when it was demolished in the 1870s by the Glasgow City Improvement Trust. A new focal point was created at Gorbals Cross where the principal east-west roads of Lauriston and Hutchesontown joined the old main street, now Gorbals Street. The crossing was dignified by diagonal facades to the corner blocks, in the manner of Cerda's Barcelona grid, with a central shelter and clock tower fusing Lauriston and Hutchesontown in a new Gorbals.

New Suburb to Classic Slum

The continuing industrial revolution changed the character of the area. Dixon's ironworks expanded to the southeast and two railway lines were built on long viaducts through the area to Glasgow Central and St Enoch Stations. Redevelopment by the City Improvement Trust did not involve rehousing the residents of the congested Gorbals village. They and new immigrants to the city had to find cheap accommodation, many of them in the once gracious houses abandoned by their middle-class tenants in Lauriston, which were let by the room without any conversion. Immigration from Ireland was succeeded by new groups; jews from Russia and Lithuania and later in the present century, asians from the Indian sub-continent. Gorbals became the classic area of transition. While housing became the most political issue in a highly political city the Gorbals came to epitomise Glasgow's housing pathology.

The Glasgow CDAs

In comparison with other European cities Glasgow had suffered little damage during the second world war but the need for reconstruction had been a political issue since the beginning of the century and by 1945 was a matter of consensus.

War-time reconstruction plans, produced by city engineer Robert Bruce in 1945, confidently demonstrated that the pre-war population of a million people
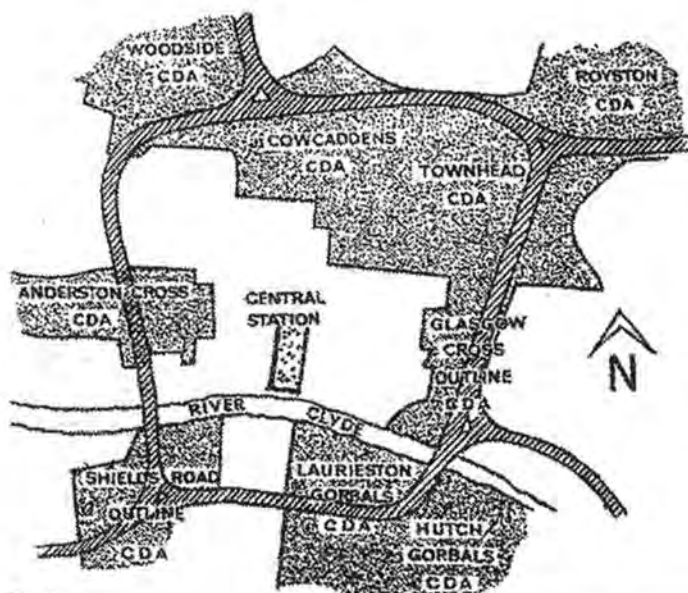
Fig. 1.

Fig. 2.

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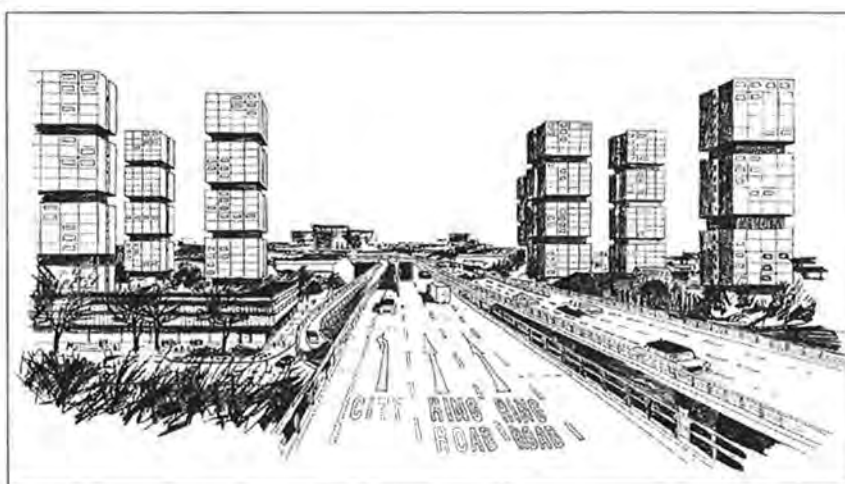
Fig. 4.

Fig. 5.

Fig. 6.

Fig. 1. Glasgow Inner Ring Road, with Comprehensive Development Areas superimposed.

Fig. 2. Hutchesontown-Gorbals Area C, Basil Spence; perspective, 1958. (Crown Copyright; Royal Commission for Ancient & Historic Monuments in Scotland)

Fig. 3. Hutchesontown-Gorbals CDA during redevelopment in 1965. The four Area B blocks are seen to the right, beside the river; Spence's Area C at centre, and the SSHA's Area D blocks in the left foreground.

Fig. 4. The ring road's unbuilt south flank passing through the Laurieston CDA; 1965 Highway Plan perspective.

Fig. 5. 'Blowdown' of Spence's Hutchesontown C on 12 September 1993.

Fig. 6. Crown Street regeneration project; 20th century tenements on tree-lined boulevards with street-centre parking: CZWG masterplan perspective.

could be housed within the city boundaries. The Bruce plan proposed two ring roads; the inner ring tightly enclosing the city centre. But the Scottish Office, representing central government, had commissioned a Clyde Valley Plan, under the direction of Patrick Abercrombie, to consider Glasgow in its regional context. The regional plan, published in 1949, recommended reducing Glasgow's population by at least 250,000, by establishing new towns and expanding existing settlements in central Scotland

The population proposals politicised the planning question. A powerful faction, driven by civic pride in the historic image of a million population, making Glasgow the 'second city' after London, opposed any reduction, while supporters of a well established housing and planning reform movement welcomed the Abercrombie plan. The resulting argument was to affect housing and planning decisions in west central Scotland for almost 30 years.

But there was no dispute about the need to clear the city's slums, the worst of which were concentrated in a tight belt surrounding the city centre. Housing, employment and communications were seen as interlinked problems and the need for radical planning was also accepted both factions.

The comprehensive development area (CDA), which enabled municipal authorities to redevelop large urban sites by large-scale compulsory acquisition and replanning, was Glasgow's chosen instrument for urban renewal. A 1960 planning review outlined 29 CDAs, covering over 1000 hectares and containing 300,000 people. The 9 central area CDAs, which contained the most decayed and congested housing areas would be planned around the inner ring road, then promoted, with its connecting radial roads, to motorway status.

Reconstruction of the Gorbals, a long-standing objective, was thus identified as the opening of a more ambitious campaign, the rebuilding of the city.

The Gorbals Plan

Glasgow's interwar slum clearance programme was concentrated first on the east end tenement areas north of the Clyde and by 1939, when interrupted by the second world war, had hardly touched the Gorbals. In its scale and

notoriety the area obviously called for radical action and the opposition party on the city council in 1937 had proposed large-scale clearance and replacement with high flats.

The city's development plan of 1951 abandoned the total reconstruction of the city centre on a formal plan extending north and south of the river but retained the Bruce proposal to rehouse a proportion of the overcrowded population in suburban communities within the city boundaries. Planning was by then incorporated in a joint architectural and planning department, and a redevelopment team was formed to which produced a succession of proposals for the Gorbals, concentrating initially on the Hutchesontown neighbourhood east of Crown Street. In 1954 plans and models were exhibited showing a mixed redevelopment incorporating 11-storey maisonette slab blocks and 16-storey point blocks of flats interspersed with 2 and 4-storey blocks of flats and maisonettes in a dense and undifferentiated layout.

Despite the urgent need to relieve desperate housing conditions in Gorbals, and in its counterparts in other towns and cities, central government, which controlled housing expenditure by local councils, since the war had seen the national priority to be increasing the number of houses in the face of numerical shortage: any house, however bad, was better than no house at all. But in 1953 the government agreed that increased resources should be devoted to slum clearance and the Hutchesontown plans were recast as a formal CDA proposal.

Ironically Hutchesontown, though old, overcrowded and with virtually no open space, did not include the Gorbals of international notoriety. Gorbals as the classic slum was the older residential area of Laurieston, west of Crown Street and the railway viaducts where the former middle-class houses around Norfolk Street and Abbotsford Place had been 'made down' into one and two-room dwellings without proper conversion. Action there was deferred because Laurieston was seen as integral with the city centre: it would be affected by the proposed inner ring road and so raised greater problems as to the form of its redevelopment.

The Hutchestown/part Gorbals CDA was eventually submitted in 1956 and approved by the Secretary of State for Scotland in February 1957. Consent

was qualified as being 'in principle only': details and individual compulsory purchase orders would require further approval. After their earlier delays conditional approval must have frustrated Glasgow's redevelopment team. The CDA submission based on their proposals was far more detailed than the official procedure demanded, to the extent of listing the exact numbers and sizes of dwellings to be provided in each building. From a population of 26,860 in 1956, 10,179 people (exactly!) would be rehoused in just under 25 hectares; a density of 410 persons per ha. Just over 50 % of the 3,500 new houses (in Scottish usage a dwelling of any size, whether a flat or a cottage, is a 'house') would be in flats of 10 or more storeys.

Rebuilding the Gorbals: the First Phase

The Hutchesontown/Gorbals redevelopment was to be phased over 20 years and it was soon accepted that such a large and undifferentiated development, to be executed by one design team, was not a realistic proposition. Two eminent Scottish architects, Robert Matthew and Basil Spence were appointed as consultants for the first five-year programme, in association with the city architectural and planning department.

Consequently the first three areas for initial development were allocated to the city's redevelopment group; area A, 1957–58, Robert Matthew, Johnson-Marshall & Partners; area B, 1958–64, and Sir Basil Spence, Glover & Ferguson; area C, 1960–66.

The redevelopment group's pilot project in area A was a modest, low-rise scheme of 96 dwellings in three and four-storey blocks intended to demonstrate the planners' belief that the target density of more than 400 persons per acre could be accomplished by mixed development with not more than 50 percent of households living in high-rise flats. The blocks were set quite closely together to support the high overall density and garden space and a children's play area, virtually the first public open space to be provided in Hutchesontown, were carefully laid out and planted. Area A, in load-bearing brickwork construction, was completed quickly: it gained a design award and the new residents must have thought their hopes for a new Gorbals well fulfilled.

Area B to the north was to demonstrate the problems of mixed develop-

ment at high densities. The partnership lead by Robert Matthew had established a reputation for meticulous research of both technical aspects of design and user needs. In area B high-rise flats were predominant; of 429 dwellings, 308 flats and maisonettes were provided in four 17-storey blocks with the remainder in interspersed low-rise development which included a nursery school, shops, a community room and a public house. The blocks were orientated north-south, at an angle to the existing street grid to maximise sunlight in the towers where living rooms faced east or west in an elaborate cross-over arrangement. In the late 1950s few high-rise developments had been attempted outside London and Hutchesontown B was a truly pioneering project. As a final detail, street lighting of the whole scheme was achieved by floodlights mounted on top of the tower blocks: an idea attributed by the designer, John L Patterson, to Hieronymus Bosch. Its towers now adorned by coloured pitched roofs, Hutchesontown B still stands.

In Sir Basil Spence's Hutchesontown C, Queen Elizabeth Square, high architecture hit the Gorbals; its foundation stone was laid by the Queen in 1961. A flagship development, it was to provide the neighbourhood's main shopping centre and other community buildings with 400 houses in two 20-storey slab blocks of unequal length and of cliff-like monumentality. In scale comparable to Le Corbusier's Unité d'habitation these expressionist buildings were more assertive and more inflexible. The blocks comprised rows of full-height towers, each containing 40 maisonettes and linked on alternate floors by large communal balconies, conceived as equivalent to the tenement back-green. The architect's imagery suggested that on washing-day the garden slabs with their billowing white linen would be 'like a great ship in full sail'. Reception was mixed: while welcomed by some for its break with traditional urban form, and receiving the customary design award, the scheme was severely criticised by the Architectural Review for its environmental aspects. Matthew's tough landscaping of Hutchestown B, designed to withstand the pressures of high-density, was pastoral in comparison with the uncompromising undercrofts of Spence's towers, among the massive pilotis, refuse chambers and pump-houses in rough-shuttered concrete. Locally generated, gusty winds buffeted pedestrians and the blocks overshadowed the otherwise popular area A.

Areas D and E: the Lauriston CDA

The initial five-year programme was followed by area D, the CDA's southern strip, developed by the Scottish Special Housing Association's architectural department from 1961.

Area D was built in five stages, varied in built form and design. The first section comprised four 24-storey tower blocks 1961–65, but the following three developments consisted of four-storey blocks of flats and maisonettes similar to the city's scheme in area A. The final stage, at the extreme south east, overlooking the river comprised three 8-storey towers designed and built by Gilbert Ash using the Tracoba large-panel, precast concrete system. The National Building Agency, a government directed organisation providing services to the building industry and its customers, was at that time promoting serial contracting by large builders; whether or not for that reason, Gilbert Ash were selected as package deal contractors for the last section of the Hutchesontown/Gorbals CDA, area E built between 1969 and 1973.

Meanwhile plans for the Lauriston/Gorbals CDA, adjoining Hutchesontown to the west, were proceeding and approved in 1965. By then the inner ring motorway had been designed, although its southern section, which would pass through Lauriston, was destined never to be completed. The CDA proposals, though not nearly so detailed as those for Hutchesontown, considered the problem of the motorway, together with that of the prominent railway viaducts which ran north-south through the area. High-density flats would adjoin road and railways, permitting reduced densities to the north-west and south, and particular attention would be paid to the transition between the two CDAs. These considerations affected the size and the design of area E which comprised two distinct elements, on the east and west sides of Crown street. To the east was a group of 7-storey deck-access blocks linked by bridges and arranged around courtyards. On the west side of Crown Street, within the Lauriston CDA, two 24-storey tower blocks adjoined the railway viaduct with one outlying deck-access block on the southern end of the site. The two 24-storey towers are still standing; the only remaining buildings in area E.

Like Gilbert Ash's pilot scheme by the river, the whole of area E was constructed in Tracoba, a French large-panel, precast concrete system for which Gilbert-Ash were licensees. It had reputedly been developed, or at any rate much used, in Algeria and unsurprisingly its many defects quickly became apparent in the Glasgow climate. The deck-access blocks suffered from the beginning from 'dampness', an expression which covered a complex of building failures. The panel system was variable in its insulation performance with cold bridges, where insulation was virtually non-existent, at the panel joints. The deck access arrangement employed similar components both as floors and roofs, which were deficient in both thermal and sound insulation between the decks and bedrooms below and junctions between decks and external walls were not watertight. It was said that the show flat, to be officially opened by the Queen on her second visit to the Gorbals in 1972, had to be decorated on the morning of the ceremony because wallpaper would not stick to the walls. Living in the flats proved a terrible ordeal: wall coverings, carpets, clothing and furniture were damaged by fungi and many residents suffered from physical illness and mental health problems. Heating costs were enormous and the blocks were never fully occupied. Eventually, after a concerted tenants' campaign, the council agreed to rehouse the remaining residents and the blocks were abandoned in 1980. Plans to refurbish the blocks for sale or to find other commercial uses failed and the deck-access blocks, comprising 759 flats and maisonettes were demolished at the end of 1987. Historically, the great mystery of Glasgow's housing was, 'why-ever did people put up with it?' It is ironic that after one and a half centuries of appalling overcrowding and decay, it should be a c20th, hi-tech 'solution' that caused the housing question to explode.

The 1980s: Depression and Rejection

In the early 1980s the Gorbals reached its lowest ebb. House-building had ceased, leaving areas of vacant ground with occasional street-corner bars and dilapidated industrial and storage buildings as yet undeveloped for their planned uses. With demolition of the

buildings surrounding Gorbals Cross the neighbourhood had lost its identity and the vacant deck-access blocks lining its principal thoroughfare depressed the environment for residents and stigmatised the area for outsiders. The population had fallen from 68,000 in 1951 to only 10,000 and newly provided shopping and social facilities were closing.

Residents' dissatisfaction with these conditions had become more articulate following the success of the Hutchie E campaign and the growth, elsewhere in Glasgow, of a community based housing association movement, at first directed towards rehabilitation of the sounder tenements, but moving into building and managing new housing.

The Council was obliged to address serious maintenance and management problems in the high-rise blocks of Queen Elizabeth Square by elevator replacement, new security measures and new roofs, but in 1990, faced with further costs of over £12 million, decided to demolish the buildings. Amid some protests they were blown down in September 1993 in a mismanaged and tragic event which marked the end of demolition of Modern housing as public spectacle.

Restitution

The early 1980s saw the inauguration of a number of agencies to promote development in Scotland at national, regional and local levels under the banner of partnership between government, central and local, private business and industry and eventually with community associations at the most local level.

A corporate working group established in Gorbals in 1986 led to the formation in January 1990 of a project to redevelop the Hutchestown E site, involving the City council, Glasgow Development Agency, the government housing agency Scottish Homes, and the Gorbals community. A project team was appointed and a competition promoted for the Crown Street redevelopment project comprising the former area E and extended north and south to include virtually all the undeveloped land in the west of Hutchesontown/Gorbals. In May 1990 the plan by CZWG Architects was selected for the area. Its main feature was the re-introduction of four-storey housing around enclosed communal gardens and wide tree-lined streets with centre parking; a traditional arrangement based on the middle-class

'new town' of Glasgow's west end, not on the tightly planned byelaw streets of the old Hutchesontown.

Similar plans for eastern and central areas, including the former site of Queen Elizabeth Square include both social housing by housing associations and housing for sale. Of nearly 3,000 new houses, about half should be completed or under construction by the millenium. Housing apart, the Gorbals is assuming its importance in the extending city centre. The only remaining institution serving the whole city is the Citizens' Theatre, now in a refurbished building but developments on the river frontage have included the College of Nautical Studies, new law courts, the Glasgow Central Mosque and the Adelphi Training and Employment Centre with a leisure centre and an Islamic Centre under construction.

Historically important buildings remaining in the area are being retained for new uses, St Francis Church and Priory as an education centre and amenity housing, the riverfront block of Carlton Place for commercial use and as a museum and Alexander Thomson's Caledonia Road church will be refurbished to dignify the southern approach to the new Gorbals.

Conclusion

The decline of prestigious housing schemes to conditions allegedly almost as degraded as those they were built to replace is a familiar one but the context is usually that of new suburbs like the Netherlands examples discussed by Rob Docter in 1996. In Gorbals the context was rebuilding a city and the failure that appears is of Modern town planning. That failure, I suggest, was inherent in the scale of the proposals. Glasgow was well advised to modify the initial plan for blanket redevelopment but their phased proposals involved irreversible decisions which could not be sustained to achieve even development of housing, commercial and social provision. With hindsight it is obvious that it could have been done better: curtailment of the inner ring motorway – and I would not say that was for the better – wrongfooted the Glasgow planners. The contradictions between planning and market economy demand a more opportunist public investment policy rather than immutable structural planning. Given courage and political commitment that need not mean weakness; see the thril-

ling developments of the last 30 years in Paris.

And I cannot accept the housing problems of the Gorbals as evidence of total failure. In Queen Elizabeth Square as elsewhere families moving from one or two-room dwellings to a norm of two or three bedrooms with separate bathrooms and kitchens with hot water experienced a revolution in their expectations. They had put up with the old Glasgow housing because they were used to it. The new architecture failed to live up to its promises. Perhaps we relied too soon on technology that could not be sustained. A 1960s study of living in high flats in Glasgow showed that success was dependent on resources both of management – maintenance is expensive – and residents; those financially self-sufficient and with outside interests managed best. Thanks to the post-war housing experience we are now serving more perceptive and demanding clients. The built form of the new Gorbals, though we may not approve of its 'style', is satisfying an informed and popular demand. Remember that housing in *la ville radieuse* was not in the tower blocks of the business centre but in low-rise maisonettes, comparable in scale to Sunnyside Gardens where Lewis Mumford penned his garden cities correspondence and with the preferred urban housing of the new Gorbals residents.

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Social Housing in New York City: The Standardization of Innova...

The critical elements which defined the planning, typology and appearance of social housing in the United States all coalesced in New York City during the 1930's. New York was the center of housing innovation in the United States. It had one of the first public housing authorities, which soon after its inception began developing the largest publicly funded projects in the country. Early publicly funded projects drew on New York's long history of reform, and were critically acclaimed for their vision of a new social environment. In the early 1930's, this housing tradition was energized by the introduction of modern planning principles resulting in a brief period of progressive housing. By the end of the decade, however, standardization of planning and design would become so rigid as to effectively eliminate experimentation and innovation in the design of public housing. This enforcement of arbitrary and inflexible standards continued for the next twenty-five years, and produced a large body of built projects which have discredited both the concept of social housing and modernism in the United States.

Housing research, reform and innovation began in New York City in the late 19th century. In the first two decades of the 20th century, there were continual efforts towards the creation of improved philanthropic housing, and the elimination and clearance of "slum" areas. Slums were generally defined as high density urban apartments with substandard ventilation, light and sanitation, such as the "Old Law" or dumbbell tenements, which had lot coverages up to 90 %. The concept of philanthropic housing came to be seen as more than just replacing substandard units with safe and satisfactory apartments equivalent to those being built by speculative builders for the Middle Class. In fact, most new speculative buildings being built on Manhattan's east and west side for higher income tenants had high densities, and the architects and builders exhibited little concern for light, ventilation or recreational spaces. The goal of philanthropic housing was not only to create a new improved standard for the apartment type, thereby influencing even speculative builders towards reform, but also to establish a new lifestyle for people of low incomes by combining sunlight, ventilation and sanitary dwellings with environmental factors such as access to open space, nature and recreation. Henry Atterbury Smith defined this approach to the design of apartments by saying, in an article on social housing written in 1926:

... let multifamily apartments express hope and the opportunity for the growth of the soul. Economical, refining, peaceful, leisure producing.[1]

Smith was one of the pioneers of modern housing research in America, and one of the few architects able to see beyond the limits imposed by the physical and political environment in New York. Smith did extensive studies into the relation between architectural form and such factors as circulation, daylight, ventilation and access to open space, with the goal of creating projects at low cost for low rent tenancy. His article " Economic Open Stair Communal Dwellings for Industrial Towns" written in 1917 illustrates one of the first projects in New York to break from the rigid framework of site planning defined by the grid pattern, which up to that point resulted in the architectural expression of apartment buildings having a perimeter street wall and interior courts. The Mesa Verde project, built in Queens in 1926 as a privately funded philanthropic project by the Open Stair Dwelling Co. shows his research as applied to the economic constraints of a fully realized project. The project is a series of six L-shaped blocks, oriented at 45° to the street to maximize light and views for each apartment. The blocks are united by bridges, which allow for circulation between roof gardens. One elevator serves the project, so access to the other blocks is either by the open stair at the center of each block, or by the elevator to the roof of the central block, then crossing the bridge to other units and walking down the stairs. Social and recreational spaces were also included as an integral aspect of the design. Smith claimed that the innovative ideas used in his projects came not from modern housing concepts being developed in Europe, but from the Native American pueblos of New Mexico, with their communal spaces, and dwelling units linked by bridges and stairs. The design concepts used by Smith would become the object of analysis and study by the New York City Housing Authority when the first publicly funded projects began to be developed in the 1930's.

Up until the 1930's, all social housing in New York in New York was privately funded. In architectural terms, this set up a number of limits which had an effect on the typology of the design. As the projects had limited funds, few could extend beyond the confines of the New York gridiron block of 200'x800', which created a strong constraint to the layout of the site plan. In order to create the necessary density to make the projects economically feasible, few projects, with the exception of those by Smith, broke from the typical perimeter block pattern.

As a result of the economic devastation wrought by the Great Depression, the Federal Government, through the Public Works Administration (PWA), initiated a program of publicly funded housing in the mid 1930's. The primary goal of the program was not to create housing, but to avert social unrest by creating jobs in the construction industry. The construction of housing was just one of many aspects of the PWA, which was also involved in a variety of public works projects, as well as funding the work of artists and writers. This large public infusion of money supported projects of a previously unknown urban scale. These early projects represent a synthesis of the New York tradition of innovation with the introduction of modernist housing principles espoused by European architects who had emigrated to America. The early PWA program was considered experimental, and the concept of creating a new social environment, including schools, community facilities, meeting rooms, playgrounds and recreational spaces was one of its essential

Social Housing in New York City: The Standardization of Innovation

Illustrations
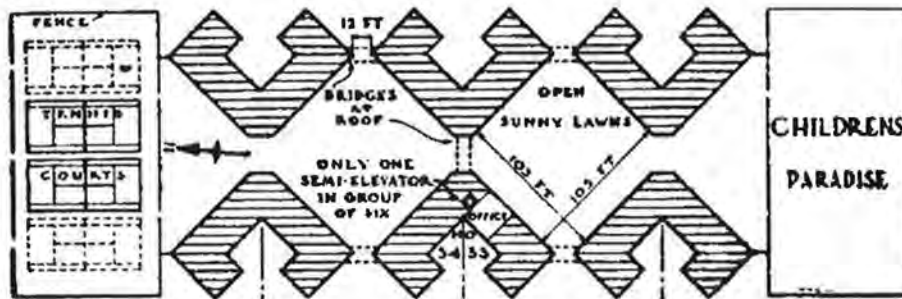
Plan, Mesa Verde. Henry Atterbury Smith

Fig. 1

Social Housing in New York City: The Standardization of Innovation
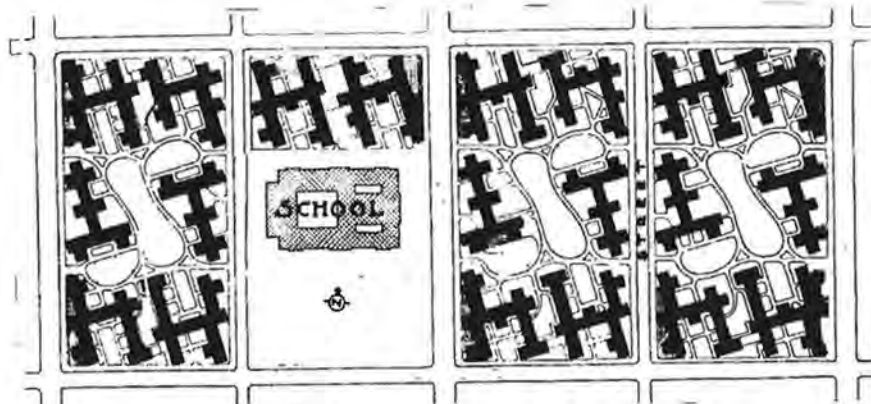
Plan, Williambsburg Houses, William Lescaze et al.

Fig. 2.

Fig. 1. Plan, Mesa Verde. Henry Atterbury Smith.

Fig. 2. Plan, Williambsburg Houses, William Lescaze et al.

Fig. 3. United States Housing Authority, Diagram of Ideal Site Alternatives, 1939.
Reprinted from Bulletin No. 11; Planning the Site.

Fig. 4. Site Plan, Queensbridge Houses, William Ballard and Henry Churchill.

Social Housing in New York City: The Standardization of Innovation
10

Examples of pooling of open space; each study provides the identical linear footage of building
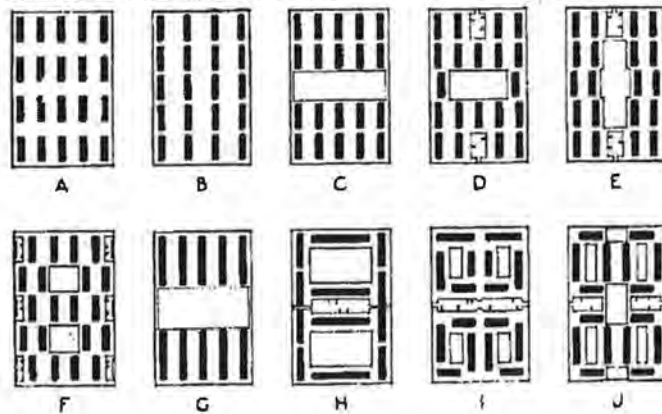
A   B   C   D   E

F   G   H   I   J

United States Housing Authority, Diagram of Ideal Site Alternatives, 1939.
Reprinted from Bulletin No. 11: Planning the Site.

Fig. 3.

Social Housing in New York City: The Standardization of Innovation
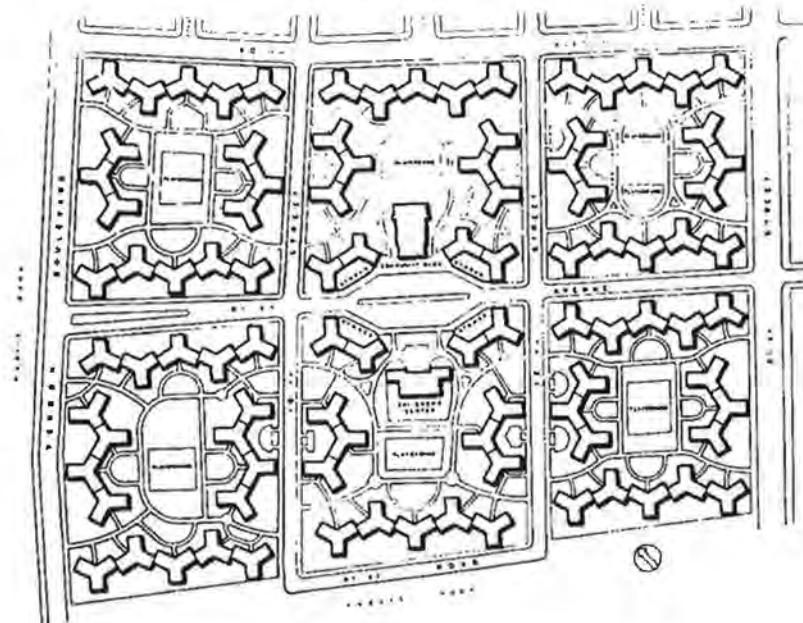
Site Plan, Queensbridge Houses, William Ballard and Henry Churchill.

Fig. 4.

objectives, As the whole idea of largely publicly funded projects was still in its infancy, design standards and guidelines were informal and allowed for innovation by the architects. Williamsburg Houses, completed in 1937, was one of three PWA projects completed in New York, and it was the city's first large scale social housing development. The lead design architect was William Lescaze, and the project encompasses a total of 1,622 apartments on 12 blocks of cleared slums, with a school designed separately by the Schools Authority at the center. The chief innovations of Williamsburg Houses were that the scale, site plan, design aesthetic and social component differed from anything hitherto built in New York. In accordance with the philosophy of the PWA program, the project's sponsors and designers strived to achieve a total social environment. Well known artists were commissioned to design murals for the communal spaces, and social workers were hired to help tenants with family and educational issues. The 26 four story apartment buildings, laid out at 15° to the street grid, are at a very low density for New York. The design aesthetic showed the influence of modern design concepts, with the exposed floor slabs, corner windows and functional expression of the plan in the elevations, but the superficial application of certain modern planning principles was much criticized in the architectural press. Lewis Mumford, a well known critic wrote that:

Orientation for sunlight works best when you have dwellings in plain rows; it looks a little silly in the Williamsburg project, where the architects have used not a straight row but a T-unit, in which, if the main axis is correct, all the buildings at right angles to it are incorrectly oriented. Still the architects were thinking about sunlight; they had learned their ABC's.[2]

Although the architectural realization of the design shows a certain arbitrariness, great enthusiasm accompanied the social aspects of the project, as well as the very idea of a superblock development. Talbot Hamlin, a well known architectural historian and advocate of modernism, wrote of Williamsburg Houses and Harlem River Houses, another PWA development:

The general effect of a visit to these projects is exhilarating and enheartening. They point the way; but they are also extraordinary achievements. In every

really important general matter of land usage – in air, in light, in a sense of green and growing things as a concomitant of living; in the creation of an atmosphere of humanity and decency, a place where children would be glad to grow up; in the development of a community that brings with it a new vision of democracy and of progress – these developments have qualities that no money can buy.[3]

In 1937 Congress swept aside the experimental and temporary quality of the PWA program by creating a permanent agency whose central mission was to sponsor publicly funded housing. The Wagner Steagall Act established the United States Housing Authority (USHA). The language of the Act defined the methods by which publicly supported housing would be developed, and also politicized the process by emphasizing elements which were contrary to the spirit of innovation and reform. The chief tenets of the new USHA were equivalency and low cost. Equivalency meant that there could be no net gain in housing units created. Any new housing project had to be accompanied by an equivalent demolition of "substandard" dwellings. This part of the Act was a concession to the private housing industry, so that there would be no increase in the overall supply of housing, and there would not be any possibility of competition between publicly and privately developed housing. The second tenet of the Act was lowest possible first cost, as compatible with lowest possible maintenance cost. The construction cost limits for new projects in large urban areas were set at $1,250/room and $5,000/unit, which was less than 1/2 the cost per unit at Williamsburg Houses. In order to ensure low cost, many modern design principles were utilized in the design guidelines and standards developed by the USHA in 1938 and 1939. These principles were integrated into the design of projects for reasons far removed from their initial rationalization – typically to ensure low cost, or perhaps to allow for adequate surveillance and the segregation and isolation of the projects from the surrounding urban fabric. The site planning regulations dictated superblock layouts with a maximum lot coverage of 35 %. The design standards, issued in a series of attractively produced and colorfully illustrated books, included diagrams for possible layouts on a variety of different shaped sites. Apartment unit plans were pro-

scribed, and had to be grouped together in X, T, L or Y shapes. Row houses could be laid out in a variety of bar patterns. The designer was encouraged to create a site plan by manipulating models using ready made wood blocks in the allowable shapes. The combination of the block shapes would inevitably result in a series of court arrangements, but completely closed courtyards were not allowed. Entrances to the apartment buildings had to be on the court side, not on the street side. The distance between buildings was dictated, dependent on the number of stories.[4] The extent of standardization would leave the architect few opportunities to respond to site conditions, or to form interesting or innovative spaces. The new standards were not uniformly well received in the architectural community. Oscar Stonorov, an early proponent of public housing, and the architect of an early acclaimed modern development, the Carl Mackley Houses in Philadelphia, wrote, in a letter to the Housing Authority:

The very purpose of housing is at stake ... I mean that a certain trivial standardization has taken hold of the interior arrangement and the exterior appearance which will definitely class these buildings once they are erected as "those buildings which the government built to house the poor people." This is a very dangerous fact when we consider that the very purpose of low cost housing is, at its present state of infancy in the United States, not only to house slum dwellers or poor people, but also to establish standards for living in an new mode of living quite different from what individual speculative activity has created.[5]

The argument could be made, given the public's ignorance and hostility to the aesthetic appearance of most modern architecture, that the USHA's requirement that housing projects be devoid of ornament, and, by inference from the design standards, stark in appearance, enforced the notion that the USHA was not providing superior housing at below market rents. Had the government created public housing which in any way resembled the still stylized Beaux Arts and Deco middle class apartments of the day, the design and realization of public housing would probably have been attacked as "un-American" since, in most people's minds, it would have been creating "quality" apartments at less than market rent.

The Queensbridge Houses, designed in 1937 and built in 1938–1939 was the largest public housing project yet built in the United States, with 3,149 apartments on 35 acres. Its design was developed simultaneously with the establishment of the USHA design standards, and it best illustrates the way in which modern architectural and social principles were co-opted in order to create a massive project at extremely low cost. The project was designed by a team led by William Ballard and Henry Churchill, who were both experienced in the field of housing research, as well as being dedicated to the aesthetic principles of modernism. The construction cost per unit at Queensbridge was $1,040, considerably less than 1/2 the cost of Williamsburg Houses. Utilizing a series of Y-shaped buildings arranged over 6 superblocks, the architects created a series of open courts for recreation. At the center of the project the architects located a community center, a nursery school and a shopping center. Queensbridge was one of the few project to include commercial spaces, which were soon eliminated from projects so as not to compete with the private sector. The shape and position of the housing blocks is reminiscent of the design concepts of the Mesa Verde, which Ballard would have been familiar with in his study of philanthropic projects. Yet the rationale for the Y-shaped units and their layout on the site negates any claim to proper orientation by their placement in varying locations regardless of orientation. Unlike the unit plans of the Mesa Verde, the guidelines established by the USHA allowed for few units with cross ventilation. Still unaware of the implications of standardization, Queensbridge was widely appreciated in the architectural press for its integration of community spaces and recreational facilities. Talbot Hamlin in "Housing is Architecture" said:

Note how important the nursery school and community building in the center of the group are in breaking the otherwise monotonous continuity of the 6 story buildings and giving accents more human in scale. Here, within the limitations of standardization and low cost, an imagination truly architectural has made what might have been a barracks into a community of homes.[6]

Lewis Mumford understood that the influence New York's innovative tradition was beginning to wane in the application of the rigid regulations and criticized the project for being:

unnecessarily barracklike and monotonous... The authorities who insisted upon this standardization evidently never learned a thing from ...Sunnyside Gardens (a 1920's philanthropic project) which isn't more than a mile from Queensbridge.[7]

By the end of the 1930's the politicization of the housing program and the enforced standards of site plan and unit layout would put an end to New York's long tradition of housing reform. By 1943, only 5 years after he applauded Williamsburg Houses for representing a new way of life, Talbot Hamlin would condemn the USHA's efforts:

The kind of implied segregation which has followed the development of certain very large and monotonous USHA developments in the past is, I believe, a danger to society and one of the reasons why there has been so much hostility on the part of many estimable people towards the whole housing movement.[8]

The new emphasis on low cost instead of livability removed any possibility of imagination or innovation in planning or design. These strident housing guidelines effected public housing design through the 1940's and 1950's all across the United States, and contributed to a wide variety of urban problems. They have had deleterious effects on the urban fabric, and have created isolated and segregated communities. Public housing has failed to create places which respond to the individual resident's needs. Modern concepts of planning and design have been widely held responsible for the failure of social housing in the United States. In fact, the rigid standardization applied by Congress and the USHA made failure inevitable, regardless of the stylistic idiom.

Notes

1 Henry Atterbury Smith, " Ancestry of the Multifamily House" p. 19.
2 Lewis Mumford, "The New Order", p. 42.
3 Talbot Hamlin, "New York Housing: Harlem River Homes and Williamsburg Houses", p. 290.
4 USHA, The Design of Public Housing: Planning The Site, 1938.
5 Richard Pommer, "The Architecture of Urban Housing", p. 242.
6 Talbot Hamlin, "Housing Is Architecture", p. 83.
7 Lewis Mumford, "Versailles for the Millions", p. 43.
8 Talbot Hamlin, "Architecture of the Future: Postwar Design", p. 52.

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ISc Session: Landscape

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Nature and Architecture: Ibirapuera Park in São Paulo

Ibirapuera Park was built in the City of São Paulo in 1953–54, the purpose being to house the Commemorative Exhibit of the IV Centenary of São Paulo.

The urban area that would be allocated to include the park was incorporated to the Municipal Estate in 1916, and during the term of office of the Mayor Pires do Rio (1920–26), the possibility of setting it apart as a great urban park had already been recognised: *"The 'Invernada dos Bombeiros' and the Ibirapuera Grange are admirably suited to the construction of a garden or park with an area equalling that of London Hyde Park or half the size of the Paris Bois de Boulogne."*[1]. A revealing statement as it indicates a plan to equate the city to other great European centres.

Twenty-five years went by, ranging from the setting apart for the park and its project. The Municipal Nursery was installed during this period – Manequinho Lopes Vivarium, linked to the name of the first person in charge of it. The principal purpose of the nursery was to supply cuttings for public planting of trees, preannouncing a city that was opening green spaces in its streets.

The city was also growing during this period and acquiring features and problems peculiar to a great expanding metropolis. The verticalization process was then intensified. In 1930, the Plan of Avenues conceived by Prestes Maia suggests a complex system of road network to help an urban growth and already announces the setting out of the park, which is considered as an articulation point between the central area and the southern region which is undergoing a process of growth. It was planned that the principal entry to the park would be located at the terminal point of Avenida Vinte e Três de Maio (in Prestes Maia's Plan of Avenues it was called Avenida Nova Anhangabaú), which connected the centre of the city to the suburbs. An obelisk built by the sculptor Galileo Emendabile would eventually be installed in the area.

In the early fifties, the area set aside for Ibirapuera Park covered a hundred fifty thousand square meters. Of an approximately triangular shape, bordered by the França Pinto street and by Indianópolis and Brasil Avenues[2], the drawn up area included the former plant nursery. Avenida Brasil is the principal articulation access of the new garden suburbs, which were settled at the beginning of the century by Companhia City, based on the principles of British urban planning. These principles were founded on the basic garden city idea, which sets out to save both the urban body as well as the rural territory: this frees the city from congestion, and the countryside from neglect. Therefore, planned as a convergence of opposites – the city in the countryside and the countryside in the city – the Jardim América and Jardim Europa suburbs, with their curved streets that are densely lined with trees, contrast with the form of establishment which dominates all other suburbs; the latter follow a checker board street plan[3]. Ibirapuera Park confirms the participation of Nature in the urban tissue in this area of the city.

This datum highlights the growing process of the city and stresses the moment when what has been built up by man overlaps Nature's elements, establishing the need of the implementation of the Park as a project. The formation of an urban society in Brazil results of a confrontation between the civilizing impulse of the building of cities, and an exuberant Nature, very often seen as adverse. Even in the past century, areas that bordered the central perimeter of São Paulo consisted of granges with many vegetable gardens and orchards. Nature was just there in the backyard. As the city grew, these areas are divided into lots, creating new suburbs, new constructions and paved roads.

The city grows in density and verticalizes itself, as a result of the industrialization process in the period. Bricks, stones and later concrete gradually overlap Nature, inverting the initial meaning of the dialogue contrivance/ architecture – nature. The latter now returns as landscape, inserted in the city's construction project.

It is also during this period that São Paulo enjoys a situation of effervescence in the cultural field; new institutions are established such as Museum of Arts of São Paulo in 1947 and Museum of Modern Art in 1948. As a result of the initiative of the latter, the first São Paulo Bienal took place, dedicated to plastic arts and architecture. In this renal a special hall renders homage to the architect Le Corbusier, whose work had a marked influence in the construction of Brazilian modern architecture, ever since his participation as a consultant in the project of the Ministry of Education and Culture in Rio de Janeiro, carried out by a team of architects led by Lúcio Costa.

The Ibirapuera Park project is conceived as a culture and leisure centre, answering the new cultural and urban profile of the city. The IV Centenary of São Paulo offers a suitable occasion for its implantation, since it would initially have to house a program of commemoration. The Municipal and State Powers join in order to render it viable and endow the city with a park like the ones existing in London, Paris and New York.

The preliminary project of Ibirapuera Park is presented in October 1952[4] Architect Oscar Niemeyer projects an architectural group of buildings including pavilions for exhibits, a museum and an auditorium, stretching along a marquise. The architects Hélio Ulhôa Cavalcanti, Zenon Lotufo, Eduardo Kneese de Melo are a part of his team, with the collaboration of Gauss Estelita and Carlos Lemos, who was head of the Niemeyer's office in São Paulo. Two persons connected to State and Municipal Departments are in charge: the Engineer Milton Carlos Ghiraldini, who is responsible for the urban planning and Otávio Augusto Teixeira Mendes, engineer-agronomist, in charge of the Department of Parks and Gardens of the State Secretary of Agriculture, who is responsible for the landscaping architecture.

The outstanding element in Niemeyer's architectural proposed plan is undoubtedly the long sinuous marquise which articulates the buildings between the architectural group. This element had already been used by this architect in the 'Casa de Bailes' (Ball Room) of Pampulha and it would subsequently be overused in Brazilian modern architecture. However, it is in the solution of the park that the marquise finds its full sig-

nificance. Defining directions it indicates a stretch that establishes relationships between the various buildings, considered as fixed points. Three of them, conceived as pavilions suited for large exhibition spaces – Palácio das Nações, Palácio dos Estados, Palácio das Indústrias (Palace of the Nations, Palace of the States, Palace of the Industries), answer the foremost need of the program to commemorate the Centenary. They all present similar solutions with structures of simple lines and marked horizontal features, suspended over stilts that acquire unusual specific patterns. The closing of the ground floor with a glass frame was restricted to the entrance areas, these also included vertical circulation paths: elevators, ramps and stairs. Thus, the three buildings left a free ground area, according to the precept divulged among Brazilian architects by Le Corbusier and which would be later adopted in Brasília on a large scale. The closing of the upper levels of the three pavilions was also made by means of large panes of glass, which afforded continuity between the interior and the exterior, making use of transparency, or by means of surfaces closed by brise-soleils, whenever strong sunlight would demand it.

The group was completed by two buildings of different characteristics. Set against the ground and made up by compact bulky bodies, the Exhibitions Palace and the Auditorium were placed face to face, composing a duet and indicating the entrance of the park. The Exhibitions Palace, designed as a concrete spherical calotte is practically closed and inside it the exhibition spaces are solved at various levels. The initially planned Auditorium in geometric and daring lines was not built; this set the group of buildings out of balance, since it hobbled the original plan[5].

The transparency in the parallelepipeds suspended over the stilts of the pavilions, the opacity of compact bulk defined within the circle of the Exhibitions Palace and the vertical triangle of the Auditorium, are geometrical solutions that mark the counterpoint to the long and sinuous design of the marquise, that narrows and stretches out its arms to reach the buildings. The marquise represents a sign of mobility. It suggests a promenade and a ramble, the path suggests to the walker, that on his way, he will meet Nature and journey towards cultural spaces. It synthesizes the central idea of the park as a space for lei-

sure and culture. Narrowly related to the street, the foremost urban sign, it here offers a closeness with greenery and natural elements.

The use made of the scenery in the park was aimed at highlighting the architectonic group. The Otávio Augusto Teixeira Mendes' project suggested an involvement of Niemeyer's architecture through an harmonious plan with wide perspectives[6], which would take into consideration the existing vegetation.

The road network system of the park is made up of streets of an organic design, with curves of wide and successively inverted radiuses, similar, as a solution, to garden suburbs, which constitute their immediate surroundings. Formed by a hierarchy system composed by main, secondary and local stretches of road, it facilitates various articulations, which converge towards groups of buildings. It can be observed that this adopted solution shows a closeness to the tradition of urban parks of the American school, whose foremost example is the New York Central Park, projected by Frederick Law Olmsted. American landscape architects held as a referential the London parks, adopting sinuous and irregular paths in direct touch with Nature.[7] In the limited area of the project grassy plateaux and low vegetation can be seen, accompanying, therefore, the tendency to the horizontal lines suggested by the architecture. The further from the architectonic core, the denser the vegetation with heterogeneous planting of tall trees, which suggests the aspect of a grove.

The planting of trees in alleys is kept at the border of the paths, according to the concept of the original project. Medium and low species are utilized, especially Tabebura avellanedae (rose ipê) and Hotocalex glaziovil (lantana/romerillo). As time went by, new species were added.

The adopted landscaping solution creates graduations in the passage from a sparser tree-planted area, where the architecture is present, to an area where the vegetation is denser, where it structures groves, dominates the space trimmed by paths, where the contact with a reconstituted Nature is direct and imperative. This organization becomes important, if we take into consideration the moment when the park was built. The architectonic group turns to an already densely occupied city, while the planting of trees as groves points to the suburbs, which were at that moment

sparsely occupied. This is as if the park were suggesting the passage from the city to the countryside, from an unpretentious vegetation in the contact with the contrivance and the urban, to a denser, stronger and more prominent vegetation, defining the outline and the limits of the park in relation to the city.

In opposition to the building group, the presence of water has a relevant landscaping role in the building up of the park and confirms the differentiation of the spaces as mentioned before. Wide ponds, obtained from the canalization of the former Sapateiro's stream, which once bathed the Ibirapuera lowlands, are located near to the Palácio das Nações and Palácio dos Estados (Palace of the Nations and Palace of the States). Their mirrorlike surfaces enable a reflexive dialogue with the buildings, and participate as elements which multiply the spaces. As the water moves away from the buildings, penetrating in the interior of the park and outlining at a distance the architectonic group, it assumes a new status, acquiring a sinuous and changeable outline to the point where it becomes a stream and separates the built up space from the groves.

Together with the Niemeyer's architectonic project, another plan by Roberto Burle Marx was presented – the gardens of Ibirapuera park; this was dismissed. The plan proposed by Burle Marx established a rich dialogue with Niemeyer's architecture, revealing syntony and affinity between the Brazilian modern architecture propositions and its surrounding scenery, both acquired in the co-development of the proposed plans: from the pioneer project for the Ministry of Education and Culture in Rio de Janeiro to the successful experience in Pampulha.

Burle Marx formation as a plastic artist and his pictorial researches in the abstraction domain are present in the architecture of its gardens. He was a scholar of Brazilian fauna and had always known how to extract plastic possibilities as to textures and colours from mineral and vegetable materials, by organizing them in a modern design.

The plan proposed by Burle Marx for the gardens was constituted by fourteen modules placed next to the buildings and punctuated the path along the marquise[8]. Two of them strayed onto the water of the artificial ponds, establishing a link between the architectonic group and the dammed water mass.

Every module was a geometric garden; in one of them a rectangle orients the composition; in the other a circle and in the others the pattern shows a unusual outline, with interwoven forms as in a puzzle. Thus the geometry of the buildings is now resumed into volumes formed by a vegetation rich in colour and textures. Some modules are reserved to rare specimens of Brazilian flora. Nature in Burle Marx is a source of knowledge. It has, therefore, a educational role. By the Exhibitions Palace the vegetation forms walls, background panes to house outdoor sculptures. Lines of palm trees punctuate the group, constituting rectangles, squares, and circles, and are the sole vertical element in the landscape.

Water participates of the composition and from this mobile material are extracted all its expressive possibilities, such as a mirror, as a chromatic surface when in contact with tanks covered by coloured tiles or as rising liquid columns, which, as they rise, rival with the stilts. The dynamic of the waters awards mutability to the group and reveals a peculiar aspect of the landscaping project, which works with living and time-changing materials.

The interconnection between the modules suggests new paths within the park, which cross the marquise or simply follow their way and rise at some moments, endowing the observer with an aerial view of the group, pictures stretched over the ground, where each stroke of the brush results from a patient work with plants.

The Burle Marx's garden provides new alternatives to the path defined by the great marquise. Also, in particular, it reinforces this path, enriched now by a contact with Nature which, once organized, endows quality to spaces, causes surprises and a bounty of discoveries and unusual aspects. The garden emphasizes and gives a significance to the marquise, to the street which is stretched out by Nature, revealing its secrets.

The dismissal of Burle Marx's landscaping architecture impoverished the proposed plan of the park. The path along the marquise became more monotonous and the dialogue between architecture and Nature turned out to be more syncopated.

The park installations were inaugurated in August 1954. The Ibirapuera Park was protected as historical site in January 1992 by CONDEPHAAT (State Counsel of Defence of Historical, Artistic, Archaeological and Tourist Estate)[9].

Notes

1 Report of João Otaviano Pádua. 'Defence of Public Domain of Municipality of São Paulo", p. 118, apud. Cássia Regina Mariano "São Paulo Metropolitan Parks: subsidies for design.", São Paulo, Master Degree Thesis, FAUUSP, 1992, p. 95.

2 The naming of the streets is the one appearing in the General Map of Ibirapuera Park – Commission of the IV Centenary, São Paulo, July 1954. Signed by the Engineer Ernesto Faria Alves, Director of Engineering Services, Located in São Paulo Historical Municipal Archives. The streets indicated today correspond to: Rua França Pinto / Avenida IV Centenário; Avenida Indianópolis / Avenida República do Líbano; Avenida Brasil / Avenida Pedro Álvares Cabral.

3 The Companhia City plans in 1912 of dividing into lots the garden suburbs; it contracts the British urbanist Barry Parker. Together with Raymond Unwin, Barry Parker was the responsible for the project Letchworth in 1903, one of the most important achievements of the Garden City. In 1902, Ebenezer Howard publishes "Garden Cities of Tomorrow".

4 "Preliminary Project of the IV Centenary Exhibit", presented by Joaquim Cardoso. São Paulo, Edições de Arte e Arquitetura, October 1952.

5 Concerning the Ibirapuera Park architectonic project see specially the magazines: Acrópole n. 185, Fev. 1954, IV Centenary Exhibit, pp. 210–218, and Brasil Arquitetura Contemporânea n. 2–3, Nov-Dec-Jan, 1953–54, pp. 49–62. The confrontation against the 1952 Preliminary Project shows the various alterations accomplished in the group, as from the initial proposed plan to the construction. About this matter, see also Módulo Magazine n. 1, year 1, March 1955, "The Mutilated Ibirapuera Group", pp. 18–31.

6 The landscaping project by Otávio Augusto Teixeira Mendes is in São Paulo Historical Municipal Archives: n. VIII. H. 18/II, 1953.

7 Engineer Otávio Teixeira Mendes attended a specialisation course of Landscape Architecture in the United States. The systematisation of Colombia Exhibit, Chicago 1985, organized by Olmsted, presents a similar solution to that adopted by Teixeira Mendes for Ibirapuera Park. Concerning this matter, see: Francesco dal Co "De los Parques a la Región", pp. 140–293, in Ciucci et alii, La Ciudad Americana, Barcelona, Gustavo Gili.

8 Claude Vincent "The Gardens of Ibirapuera Park", Brasil Arquitetura Contemporânea n.2–3, Nov-Dec-Jan 1953–53, pp. 56–59. The project by Burle Marx is in São Paulo Historical Municipal Archives. IV Centenary Records – file 14 – n. 174.

9 Facing Avenida Pedro Álvares Cabral, the articulation point of the area where the park is located, the spaces were allocated to the administrative buildings. The building reserved for the Secretary of Agriculture, projected by Niemeyer and today occupied by the Traffic Department, and the Gynasium of Sports, projected by the architect Ícaro de Castro Melo, were part of the original concept. Later on, one of the ponds was filed up in order to build the Legislative Body of the State of São Paulo (1961), projected by Adolpho Rubio Morales and Ricardo Sievers, thus confirming the administrative vocation in the area bordering the park. Just after the opening the pavilions were also been occupied by public departments, jeopardising the inicial proposed plan. In 1956 the City Hall moved to the Palácio das Nações and later the Department of Data Processing moved to the Palácio dos Estados. The only one which maintained its original purpose is the Palácio das Indústrias, where the Bienal Foundation and the Museum of Contemporary Art (MAC) are installed. In the early nineties, as the City Hall moved away from the Palácio das Nações, there is outlined a possibility of the park being utilized as a cultural space, according to its initial vocation.

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Garden Alterations – Nature and Modernity in Postwar Sweden

The country of Sweden went through a major change in the 1940ies and 50ies. The change was not only of architectural style or esthetic taste; it was about the whole society. The society at that time had a very strong political direction, and this had powerful implications in all possible sort of ways. New values were created. A new citizen was created. A new society was created. The garden, to pick one example within these fields, was erased from the surface of the Swedish ground. Horticulture, or the act of growing things, or walking on the gravel, or pruning the hedge, were disposed as valid activities or ingredients in the garden. In came a new attitude that did not even look like a garden.

During the late 1940s, no country in the world equalled Sweden's engagement with modern social ideas and their architectural equivalents. The past meant nothing and there was little to learn from it. Swedish modernity operated under the conviction that every new day was a little bit better than the one that just passed. Under the supervision of architects and planners, Sven Markelius (the director of Urban Planning in Stockholm) among them, practically the whole downtown area of Stockholm with its old houses and narrow lanes was torn down. In their place came new public open spaces, parks and high-rise towers. Out of the old bricks grew a new, modern city center. And in the middle of this new vision a public arena was located: a plaza called Sergels torg. The plaza was designed as a sunken pedestrian zone, separated from vehicular traffic, with direct access to the new metro, effectively transporting the citizen to the suburbs. The floor of Sergels torg was equipped with a striking black and white triangular pattern. On the north side of the plaza were five high-rise buildings, one of them designed by Sven Markelius himself.

Stockholm's mayor, Yngve Larsson, described the towers as five trumpetblasts, saluting the new era. Very few, if any, of the world's city centers so consequently reflects the design values of this specific time as well as downtown Stockholm.

But not only cities, plazas and buildings were re-evaluated in this modern movement. Swedish modernity definitely turned its back also on the garden. The garden, as an idea and as an artefact, belonged to the stale, dusty bourgoisie, a dead-weight of outdated culture founded on individual ownership and decoration just for the pleasure of it. New materials, a different and more efficency – oriented view of maintenance, and the striving to find new values proved to be difficult to integrate with the horticultural world.

Nature in the history of garden design is normally a counter-balance to the idea of the garden. Nature is the territory that we colonized and make into a garden, that we conquer, that we change and give new features that in turn bear witness to the human presence and human dominance. This position already was established in the christian and muslim paradise-gardens. The walled gardens of Eden protected against the threatening wilderness beyond the walls. In Swedish modernism, this archetypical idea of a garden was put on trial – and was rejected. As a matter of fact, it was even inverted. The garden was now to be found in an environment similiar to the one being outside of the walls. Sven Hermelin, one of the leading landscape personalities during the 40s, 50s and the 60s, made an observation while on an excursion in the neighboring-country of Denmark, that shows that the Swedish garden had already headed in another direction:

"Gardens in central Sweden face outwards; so much more is offered by our countryside that the task of the landscape architect becomes a matter of carefully integrating the building into the existing site conditions and arranging the transitional zone between the two. The Danes are not lucky enough to possess a countryside of this kind and their gardens thus have to compensate for this lack of aspect. Instead, their gardens face inwards, marking their boundaries with the open agricultural landscape using substantial plantings."

Sven Hermelin's statement focuses on a Swedish conception of nature that differs considerably from the Danish, and definitely from the continental. In the Swedish perception the wilderness is not a threat. Hermelin interprets the forest as a safe and desirable place for residence.

Etymologically speaking one can establish that the Swedish word for forest (skog) does not share the same linguistic origin as its equivalents in English, Italian or French, a trait which is otherwise fairly common among Swedish words. The term forest seems to have evolved from the Latin foresta which is related to foris, meaning "outside". The forest was to be found outside and was populated by outsiders: lunatics, robbers, hermits and lepers.

The forest is the shadow that civilization casts behind itself, a world of twilight. This Latin interpretation provides evidence that there exists an essential difference between the Swedish view of not only the actual term for forest, but also for the inherent importance of the word within the culture Skog, the Swedish word for forest, is a separate and distinctive Nordic word. Linguistically it has a Germanic origin and may be derived from the Icelandic word skogr. In the north; in the unvegetated, bare, icelandic lava landscape, forests were perceived as friendly, quiet and even lush; they provided variety, and furthermore, they could be harvested for firewood. The forest, in fact, as a concept stood as an equivalent of a garden since it satisfied many of the criteria by which a garden is normally defined.

Also in the famous Woodland Cemetery, south of Stockholm, the forest is used as an positive ingredient that provides consolation and even has a spiritual meaning. The Woodland Cemetery was designed by Gunnar Asplund and Sigurd Lewerewtz. The final design of the general lay-out was made during the years around 1940.

The forest as a safe place, pervades the Swedish perception of nature. This is evident for example in the production of the turn of the century painter Bruno Liljefors. Liljefors is regarded as one of Sweden's national painters. Nature was his life habitat. In nature, Liljefors found contexts of an existential kind, for example in the painting "Swallows"

from 1895, in which the black birds cut in across the tapestry of summer flowers and dancing insects. In "Winter landscape with Bull Finches" from 1891 Liljefors catches the temper of the winter landscape with its shades of grey. Through his artistic skill and through the wide spreading of his work, Liljefors communicated nature to many Swedes. Others should pick this up and make it into a protype for a new garden.

Such a piece of nature is Sven Markelius' second house, built 1945. This photograph of Markelius' villa in Kevinge had great influence on Swedish landscape architecture at the time. Here the garden in its traditional form is gone, and a new ideology of design has taken its place.

The house does not dominate the image, this home environment, as is otherwise often the case. The house rather serves as a background for the garden. A few forest trees, birches, imply that the garden has no boundary and continues behind the back of the photographer – or that there is no garden. Given its central position in the picture the little pool looks merely as stormwater collected in a rock crevice. The nude girl is turned away from us. She does not pose but naturally finds her place in this very special garden. She belongs to the first generation that will live a completely modern life. And she stands in a garden that looks more like a clearing in forest than a garden. In this new concept of a garden there is still a historic origin to be found. The picture witness about an unbroken tradition of Swedish landscape and a certain perception of nature, where humans have a place in the wild, living in a meaningful relation with nature.

The nude young girl stretches her arms towards the bright future and towards the nature that belongs to her and to the Swedish modernism's garden. The photograph had a strong propagandistic effect, maybe more so this photo of the garden than the garden itself.

This image by the photographer KW Gullers, showing the childrens pond in Fredhäll, Stockholm, was equally influential. Here we can see a peaceful environment with children playing in what could be a natural lake inlet or stream. The picture is framed by old oak and ash trees, growing freely, their branches reaching out over pasture land. If it had not been for the appartment buildings in the rear of the photo this could have been somewhere out in the countryside:

landscape and atmosphere are about the same.

But Fredhäll is located in the middle of central Stockholm and the lake inlet is a children's pond cast in concrete. The Fredhäll park was yet another representative of the new attitude in Swedish landscape design. So many parks in this style were designed by the municipal Park Department, with such a consistent quality, that they were later grouped and labelled the Stockholm School of Landscape Design.

The Stockholm School took the regional landscape around Lake Mälaren as an esthetic program, purifying, distilling and stylizing the natural assets and sometimes recreating them in places that lacked natural advantages.

The content for the new municipal parks also differed from the old ones. For the first time, parks were regarded as active and constitutional urban elements and not only as green refuges. For the first time the park was seen as an undivisible part of the social housing program, on the same list of quality demands as the flush toilet, the balcony and hot and cold running water. For the first time, the parks were planned for active use by the general public, where it was possible to walk on the grass, to bathe in the sun, to have picnic. And for the first time a person had been appointed Director of Parks in Stockholm who knew almost nothing about making gardens.

The man was Holger Blom, who served in office over three decades, from 1937 to 1971. He was trained as a building architect and had practiced with Lars Israel Wahlman in Stockholm, with Krüger & Toll in Amsterdam and with Le Corbusier in Paris. Holger Blom's contribution was twofold. The first was his park program. Blom displayed a strong, strategic mind devoted to questions of park policy.

The second was that he succeded in realizing a park system where parks were built to penetrate most areas of the inner city.

Blom's park program was simple and striking. It comprised several different levels, each developed with a different degree of detail. His park program could be condensed into a single picture, which he repeatedly used in conversation with politicians, collegues and the general public. The four main points were:
1. The park disperses the city. (The urban planning aspect)

2. The park supplies space for outdoor recreation. (The sanitary and general health aspect)
3. The park supplies space for public gatherings. (The social aspect)
4. The park preserves nature and culture. (The ecological aspect)

These last images have shown Norr Mälarstrand, a narrow, green finger 3 km long and 20 meters wide along the north shore of Lake Mälaren. The park cuts through the entire inner city, from its center at the city hall to the very outskirts of town. Today, Stockholmers generally have the belief that Norr Mälarstrand is an area of preserved nature of particular beauty, when as a matter of fact it is a thoroughly constructed environment. Before development, the land was a desolate strip of marshes dotted with accidental storage sheds and some non-organized harbour activities.

The architect for most of the parks in Stockholm during the period of the Stockholm School was the multi-talented Erik Glemme, who I mentioned earlier in connection with the Vällingby town center. Glemme worked for Holger Blom at the park department and had been the chief designer for Norr Mälarstrand, which had been built during the war years 1941 to 1943. When Stockholm hosted the IFLA-congress in 1958 Holger Blom, not without pride, could display the most progressive park policy in the world of that time.

The Swedish book with the widest distribution throughout the world is the story of Pippi Långstrump, by Astrid Lindgren. The book has been translated into more than sixty languages, and more than any other national cultural expression, Pippi has become the symbol of Swedish spirit in the world. Pippi defies propriety and authority. She liberates us from the burden of narrow-minded moralism. When Astrid Lindgren wrote the book 1945, she was not unaffected by the fundamental changes shaking the foundations of the country. And the garden was an active part of that change.

In the Pippi Långstrump book, we find a description of a garden. Tommy and Annika are playing croquet in their parents' garden. The lawn is neatly cut, and there is a flower border around the regular square garden. Tommy has his hair neatly combed and wears a sailors suit and a bowtie. Annika has on a summer dress and her index finger is coquettishly put in her mouth. In the neighbour villa a red-haired girl with
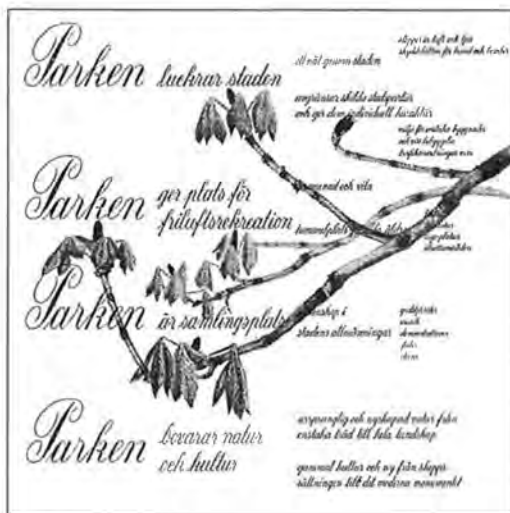
Fig. 1.

Fig. 2.

Fig. 3.
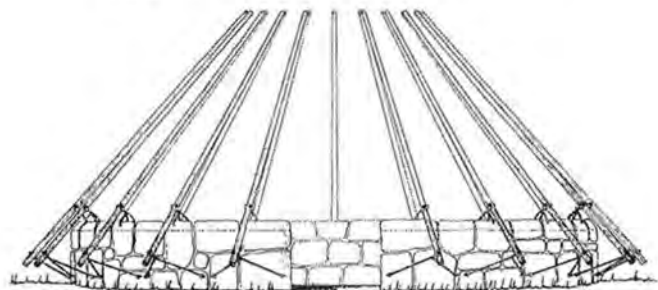
Fig. 4.
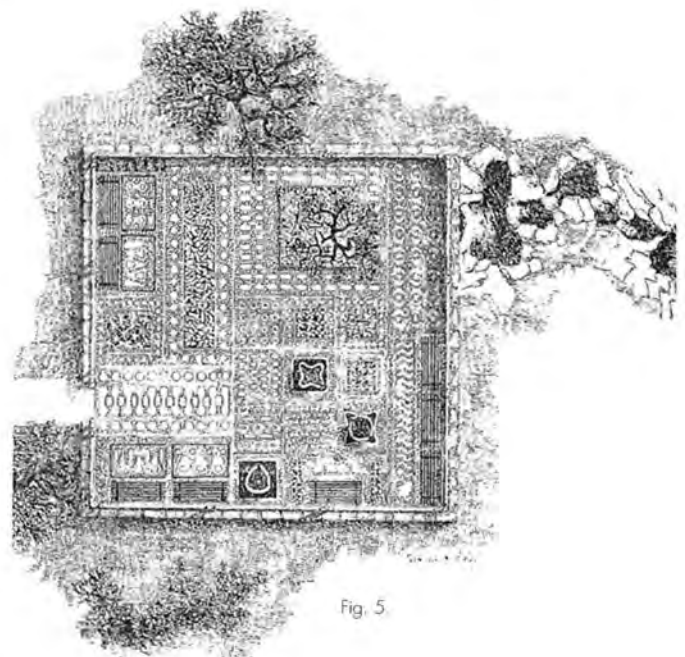
Fig. 5.

Fig. 1. Holger Bloms park program was in a popular version condensed to one single picture and distributed to all households in Stockholm.

Fig. 2. KW Gullers'photo of the childrens pond in the public park of Fredhäll, Stockholm, had a strong propagandistic effect in introducing a new concept in park design. Nordiska museet, Stockholm.

Fig. 3. Villa Markelius in Kevinge, built 1945, shows that the natural landscape as an estethic point of departure also had impact on private garden design. Arkitekturmuseet, Stockholm.

Fig. 4. Pergola with support rods for hops, located by Norr Mälarstrand's waterside promenade. A secluded little room set aside from the footpath.

Fig. 5. The Vasaparken cliff garden. Geometrical form is juxtaposed with natural landscape, this having recieved a romantic embellishment in the form of moving water.

over-sized shoes is just moving in. She eventually will change the lives of Tommy and Annika. Her lawn is not mowed, the trees grow old and crooked – and they can be climbed in. Frogs croak in her wild garden, that looks more as if it was nature than anything someone created.

The garden is a part of Swedish culture, and the garden thus reflects a view of our society. How landscape architects treat the outdoor space tell more than that, however. It also says something about our conception of nature, of our conception of society, and of our conception of our fellow human being.

Modernism threw the garden in crisis because the traditional garden had very little in common with the new values. In his book *Gardens in the Modern Landscape*, (1948) Christopher Tunnard concludes his description of the Swedish message with the following statement: "The full significance lies in the fact that it was a group effort and not the product of any one individual's ideas". In that process, the form at the garden faded into the woods and the sea, leaving in its place a landscape of humanized nature.

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Paradise Promised: Modern Houses, Gardens and Planned Communities in Post WW II Los Angeles

"The soil in which these houses are rooted is the same soil that led to the flowering of California architecture almost 50 years ago. It is a combination of abundance, free minds, love of nature, and an unspoiled countryside. Simple as such a combination seems, it has happened but seldom in the world's history. The eventual reward for its cultivation is a spontaneous architecture in tune with democratic aspirations." Harwell Hamilton Harris, 1948[1]

Introduction

Federal Housing Administration policies, private enterprise, and racial prejudice shaped the design of the majority of post World War II United States developer subdivisions. Together these forces rigidly defined the parameters of an acceptable "traditional" housing style, one that effectively blocked experimentation with many new construction technologies and materials, and was inconsistent with changing family structures. Isolated from other socio-economic groups, the new middle class tracts reinforced suburban xenophobia and prejudice. Land was divided into equal lots, in spite of topography, thus discouraging appreciation of regional geography, while a graded pad and type-five building technology remained unchanged, regardless of site.

Post-war Southern California developments and demographics in ran contrary to these trends. The influx of residents to Los Angeles during the war created a burgeoning population that required affordable housing. These families needed privacy, but also access to shared services such as nursery schools and co-operatives stores. The war claimed the lives of soldiers regardless of their color, and the tide of prejudice enforced through racial and religious segregation was viewed by many returning veterans as unacceptable. Finally, the development of the aircraft industry made lightweight steel and prefabricated parts more widely available to the building industry. Many families were willing to explore the possibility of post-war living in houses and communities of radically different design.

Using design to reconcile the goals of the individual with those of the community, a few Los Angeles architects and landscape architects responded by redefining the character of the single family house, the garden and tract developments. This paper will briefly examine the historical Southern California context of housing and the garden, and then turn to four individual post-war houses and their gardens, and finally four suburban communities. In each the house, garden and community are so perfectly integrated as to become one. Architecturally, indoor and outdoor living were integrated through walls of sliding glass, concrete slab floors flowing uninterrupted into the garden, indoor plantings, deep roof overhangs and post and beam construction. Recreation spaces, service gardens and orchards were included in even the smallest residential garden, and landscape elements were treated as a structural framework for the design of the entire community. On a more theoretical level the gardens exalted the family, providing outdoor places where family living could flourish.

Social Housing and the Garden: Historic Background

Architectural experimentation concerning the house and its garden as a platform for social reform had been popular in Southern California since at least the turn of the century. This was particularly true after World War I accelerated new family living patterns, such as the servantless home. In addition, the benign climate spawned a desire for garden living, creating a recognizable "California" architecture. For example, there was increased interest in courtyard bungalows with small individual units grouped around shared open space. This quickly became a generic building type for the region,[2] and was essential for providing a sense of community in Los Angeles, "an intensely private city, lacking in the physical presence of public instituions and...an identifiable single public center."[3]

Irving Gill, Rudolph Schindler and Richard Neutra were the most highly regarded California architects of the early twentieth century and each was interested in linking social housing issues to the garden. Irving Gill "was the first West Coast architect to give attention to company towns, barracks for laborers, and housing for unemployed".[4] His 1910 Lewis Court garden apartments were designed for low income workers. Each unit had a private garden and shared in the central community park.

Rudolph Schindler's 1921–22 house also addressed the issue of new living patterns within the context of the garden house. An experiment in two-family living, each adult had a private studio room opening to a garden room shared by each couple. Drawing on a metaphor of the cave and the tent, precast concrete slab walls faced the street, while sliding tent-like walls of canvas or glass opened to garden rooms, with fireplaces and floors of grass, intended for year-round living. So that there would be no impediment to the free flow of space, the sliding canvas wall panels could be removed, "to open directly to the outdoor living rooms, which are screened off with walls of green-gold bamboo and dark green privet hedge."[5] In this exemplary plan, Schindler treated the entire site as living space, with the edges of the lot considered the edges of the rooms.

Richard Neutra also worked in the public arena, where he continually stressed the importance of providing both private and public gardens as a necessity of healthy living. His 1941 San Pedro Channel Heights Housing, sponsored by the Federal Works Agency, was an example of sensitive siting, with community open-space, and quality housing

for low-income workers. Set on a steeply sloping site with views to the Pacific Ocean, small apartments were grouped in blocks to take advantage of vistas and terrain. A market, nursery school and community center were included in the complex. A garden center was incorporated as a place to learn gardening skills that could be applied to private gardens adjacent to individual units. It became an important focal point for cultural and social interchange for a diverse group of war workers who relocated to Los Angeles.[6]

Baldwin Hills Village in Los Angeles, designed by Robert Alexander, with Clarence Stein and others,[7] provided a clear, workable example to post-war housing developers interested in a new social agenda. Completed in 1941 it was a low-income apartment complex with private gardens, patios or terraces for each of the 627 units. Large communal parks were provided for both children and adults. In addition there was a nursery school, market and other community services available to all residents. The Village was intended from the beginning to be fully racially integrated and this represented a clear break from existing government policies of only sponsoring single-race housing.[8] Integration was important to both the developer and architects, forcing them to proceed without government backing. Only phase one was completed, but their commitment paid off with 100 % occupancy since opening day. Today it is a thriving integrated community where families of mixed economic, racial and religious backgrounds have lived together for more than 50 years. Public involvement and family privacy both flourish, in a mature garden setting.

Garrett Eckbo, Dan Kiley and James Rose, while still graduate landscape architecture students at Harvard University, dismissed axial planning and symmetry in favor of abstract elements and shapes that responded to the specifics of each site and to the demands of the new "modern" architecture. To them, landscape was both sculptural and architectural. They were adamant about throwing out both the romantic "pseudo-naturalism" associated with Olmstead, and the myth of the American wilderness. For his 1938 Masters Thesis Garrett Eckbo proposed a 10–12 acre park for a community of 23 "contemporary" homes. Here the park was used as a device to integrate individual homes and a social center into a community, through landscape.[9] He moved to California shortly after graduation to work with the Farm Administration on housing for migrant farm workers. He claimed that this experience radically changed his views of the role of landscape and the garden in the lives of individuals and families.[10]

Post-war Houses and Gardens for Southern California

Toward the end of World War II there was increased interest in gearing up for the housing boom that was expected to begin as soon as the war ended. ARTS & ARCHITECTURE magazine sponsored several competitions,[11] and the other professional and mass-market design journals consistently featured architect designed small houses, mass-produced, and experimental houses. Typically they incorporated extensive outdoor space, either as rooms or gardens, that increased the apparent size and utility of what were of necessity, very small family homes.

The Eames House of 1945, designed by Charles Eames as a home and studio for himself and his wife and design partner Ray Eames, was sited on a five acre meadow overlooking the Pacific Ocean. It shared its spectacular site with Case Study House #9, also designed by Eames, with Eero Saarinen, for John Entenza. They were designed in concert to share the meadow and views, while allowing complete privacy for each owner. The Eames complex included two prefabricated steel and glass buildings and private terraces.[12] The buildings contrasted sharply with the broad open meadow and the naturally occurring trees and shrubs. But, unlike other famous glass boxes these were not set apart from nature, either physically or symbolically. They took direction from the site and were completely integrated with it. Rather than dominate nature in order to make the architecture appear more important, Eames worked with nature as an equal partner. Pushed to the edge of the meadow, the buildings show a real reverence for the inherent character of the site. The landscape is appreciated for itself and neither romanticized nor given a formal structure as a counterpoint.

Ralph Rapson's unbuilt "Greenbelt" house of 1945 was intended as an urban infill prototype for the average suburban lot with neither views nor privacy. The house turned inward to a central glass-roofed garden that provided both. Essentially two parallel rows of living spaces, all rooms except bathrooms could engage the garden through folding walls. Sliding walls at both ends of the garden opened to the larger landscape. Rapson stated that here "the artificial barrier between man and nature is dissolved. For once, the open plan will have been achieved; for once, the complete integration of inside and outside will have been accomplished."[13] The structure, either steel or wood frame depending on the clients desire and budget, was a rational system, juxtaposed against a highly romanticized garden setting. Presentation drawings show formal rows of deciduous trees, perennials and shrubs marching into the house from the garden. Succulents were shown in model photographs. These bold shapes also entered the house in formal rows. In contrast to the rigors of the plantings, a loose system of paths connected the two wings of the house. Rapson suggested that the central garden might serve any number of functions, and assume any number of guises, depending upon the needs and the desires of the family, and the actual site. Here the boundaries between inside and outside were not just perceptually blurred, but also physically. And a larger significance is apparent – that of the co-existence of man and nature through design.

The 1958 Saul Bass house, by Buff Straub and Hensman, with landscape by Garrett Eckbo, was a rhythm of alternating atriums, gardens and rooms, generated by an existing monumental stone pine tree (Pinus pinea), since removed. Like a tic-tac-toe board of outdoor and indoor spaces, the landscape was brought into the house as rooms enclosed by walls or adjoining rooms, and the house was extended into the garden by means of the structural grid. The grid punctuated a landscape room focusing on the stone pine. The presence of the structural beams and posts in the landscape blurred the usual distinctions between enclosure and open space. By focusing architectural emphasis on the atriums and gardens, and using plants as screens, privacy was assured on this suburban tract lot. The focus was inward to the family and to active recreation. The specific plants were less important here than their function: to provide varied landscape spaces within the domain of the family home and to create a sense that the entire site, as

seen in the Schindler house, was a private world.

A. Quincy Jones' 1954 steel frame and glass house in Crestwood Hills was a particularly clear example of new attitudes to the garden within the context of experimental materials and experimental living patterns. The house was sited in a rugged native chaparral landscape near downtown Los Angeles. Jones pulled the garden into the house with 15 % of the floor space used for plantings directly into the earth.[14] Curtains were used as movable walls between rooms, providing maximum flexibility for family activities. Other walls disappeared as gardens were used to merge rooms with each other and with the greater landscape. Both inside and out, plants were pushed up to the windows to act as privacy screens. Rather than use curtains or garden walls to block views into the house, dense tropical foliage provided a veil between the family and the world without blocking views and light. Here the garden was used as a device to support an edenic view of the family, free to roam uninhibited through the home.

New communities for Southern California

As lot sizes became smaller after the war, and families were forced to live in closer proximity, the dream of a private paradise surrounding a private home seemed increasingly unattainable. Dissatisfied with developer subdivisions, several co-operative societies hired sympathetic architects and landscape architects who wanted to build communties rather than simply houses. The goal was to unite the themes of freedom and responsibility, in an integrated communal paradise made up of individual houses and gardens. Together they designed tract housing that united progressive ideas about contemporary house and garden design, community services, ecological planning, integrated neighborhoods, and new patterns of living.

In these developments it is the garden that provides the seque from the individual house to the common ground. A continuum of house – garden – landscape – neighborhood, expressed the harmony between the values and goals of the individual, and those of the community, the city and nature. These communities sparked controversy because of their insistence on integration, but also for their use of "ordinary" building ma-

terials such as concrete block and plywood panelling, use of native plants, lack of "traditional" front lawns, unconventional zoning and shared community space.

Crestwood Hills located in West Los Angeles, was developed by the Mutual Housing Association in response to the severe post-World War II housing shortage. In 1946 four musicians decided to purchase an acre of land and build their homes around a common swimming pool. Within months their modest plans grew to include 100 members incorporated as the non-profit Mutual Housing Association, for the purpose of providing quality single-family housing and community facilities for 500 member families at a reasonable cost. They hired a joint venture, master plan and design team of architects Whitney Smith and A. Quincy Jones, and engineer Edgardo Contini.[15]

MHA purchased 800 acres of spectacular undeveloped land in 1947 in a rugged section of the Santa Monica Mountains with views to both Los Angeles and the Pacific Ocean. Much of the flatland and low foothills near downtown had already been developed, leaving primarily steep, fire and mud-slide prone slopes for post-war home seekers. It was important to the clients and the design team that the character of the land, with ridges, terraces and valleys be maintained. The design team planned for three basic site conditions: hillside, gently sloping and flat. Depending on the terrain a choice of concrete block footings, piers or steel beams were used with a rigid wood frame above the floor.[16] The small houses make the most of their relationship to the mountainous site, and to their immediate small gardens. Careful siting and design make them appear and act much larger.[17] Immediate connection with gardens and views expands the horizon of even the smallest service room or child's bedroom.

Garrett Eckbo developed a plan that both articulated the topographic elements and also appeared to "equalize" the extreme 30 % slopes. Extensive grading was required, but was limited to only the most buildable ridges in order to preserve the character of the site. Less than 25 % of the site was actually proposed for home sites, resulting in small building pads and small gardens. The plan retained the chaparral and all native sycamores, live oaks, and black walnuts. It introduced naturalized trees

such as eucalyptus, olives and avocadoes to enrich the palette. Privacy between houses and gardens was provided through judicious choice of naturalized plants and extremely careful siting of houses.[18]

MHA also had a social agenda. Prospective members were asked directly whether they objected to either black or Jewish neighbors. If there was the slightest hesitation they were not recommended for membership.[19] This was in direct opposition to FHA policy which prohibited funding integrated communities for fear resale values would plummet. As a result MHA experienced tremendous hardship, necessitating many families to drop out of the experiment. Another concern was to provide full community services, including a co-operative market, nursery school, credit union, gas station and extensive recreation facilities for both children and families and to decrease reliance on cars for day-to-day domestic activities. The facilities were included in the relatively low cost of both land and houses, which more than balanced the fairly high cost of site development. For a number of reasons including FHA policies, only the nursery school, credit union and recreation facilities were completed. They are still in active use today. Although greatly reduced in scale from the original plan, Crestwood Hills remains a community with a strong sense of identity and a very low rate of turnover throughout its lifetime, attesting to its success as an environment that integrates the need for family privacy with the need for community involvement.[20]

In 1945 Robert Kahan and the Cartoonist's Union Cooperative proposed 280 houses on l00 acres of flat agricultural land in the San Fernando Valley. Untempered by ocean breezes, the valley is in essence a desert, with daily 40 degree temperature swings. Houses needed to accommodate the weather, and the landscape needed to provide shade and physical comfort.

Site designer Simon Eisner proposed to segment the site into typical 1/4 acre sites on loop streets with two long public parks woven into the plan. The firm of Ain, Johnson and Day designed the four basic house plans. Living rooms were at the rear of the lot, kitchens at the front and the bedrooms had sliding walls to allow flexibility. The landscape plan, by Eckbo, was designed at a larger scale than the individual house, proposed private gardens in the rear, a

public streetscape in the front, and recreational parks. Trees provided the design structure, or "backbone" with tall, vertical plantings of poplar, eucalyptus, cedars and pines identifying the major streets. These imposing, slow growing trees were intended to "dominate as years add growth."[21] Lower shade trees, planted at the intersection of the 70' grid lines, recalled agricultural groves, even as the land was being transformed into suburbia. The private gardens included both garden courts off the street, and decomposed granite patios and lush planted gardens to the rear.

Many of the subscribers were first time home buyers, looking for affordability and community.[22] Because the cooperative insisted on racial and religious integration, with Black, Asian, Latino, and Jewish members, FHA financing was withdrawn and the scheme remained only a dream. Many of the families joined the MHA, and others worked with Ain, Johnson and Day, and Garrett Eckbo on a series of much smaller, successful cooperative ventures including Wonderland Park, and the Avenel Co-operative, and Park Planned Homes.[23]

In 1947 Gregory Ain[24] and Garrett Eckbo commenced planning for Mar Vista Housing – a proposal for 100 houses sited on five flat city blocks in a working class Los Angeles neighborhood. However, in 1950 the FHA and banks rejected home mortgage loans because of the modern design. Only 53 houses were built, and both the developer and the designers suffered financially.[25] Nevertheless the uninterrupted popularity of Mar Vista Housing, like Crestwood Hills, speaks to the depth and breadth of the designer's innovative intentions. An example of cooperation and community, it has survived nearly five decades intact in both spirit and form.

Like the Cartoonists's Union, the program demanded comfort for the "average veteran family", and brought "the home buyer the advantages of modern planning."[26] The goals of the developer included full use of the small lots, connections between the living room and private garden, separation of circulation and gathering within the house, and strengthening the sense of an integrated community. Ain and Eckbo made three decisions that determined the shape of the project: 1) to use a single 1050 sq. ft. plan for construction and cost efficiency; 2) to provide flexibility and variety for the average family; and 3) to accommodate privacy and community on the small sites. The houses had kitchens facing the public domain, and rear living rooms facing the garden. An animated streetscape was achieved by changing the orientation of the plans. Houses were rotated, and garages were used to create living rooms on the street. Three bedrooms were separated by sliding walls, so the house could have one, two or three bedrooms. Windowless walls facing side neighbors 10' away provided acoustic and visual privacy.

What remains most remarkable about the project is the brilliant site planning that transformed ordinary city blocks into a microcosm of paradise. Because the landscape plan was fully implemented we are able to read Eckbo's intentions. Unlike Crestwood Hills and the Cartoonist's project, the site was too small to allow public parkland, and so the street itself became a shaded park. Rare in Los Angeles, consistent street tree planting provided identity for each street, and open lawns became the backdrop for the sculptural shrub and tree plantings that united, rather than divided space. The placement of the house in relation to the street created outdoor rooms without fences or property line hedges. Contrasting the broad sweep of the public park, the gardens in the rear became literal extensions of the house.

In 1961 A. Quincy Jones and Frederick Emmons designed Case Study House #24, a prototype for a scheme of 260 houses on 142 acres in the San Fernando Valley, to be developed by Eichler Homes. Highly innovative, this plan made several bold moves including: zoning variances to reduce individual lot size in order to create community greenbelts; adjusting house placement to the contours of the land; preserving the majority of existing mature trees; and providing community owned recreational facilities. None of these proposals were common practice in Southern California at the time, although Eichler Homes had successfully used them in several Northern California developments.[27]

This project would have been almost totally integrated with the landscape. Here the houses were nestled into the earth, partially below grade in a 50' x 80' slot with 7' retaining walls. The entry was at grade for auto access, with excavated earth deposited outside the retaining walls. The earth provided acoustic and visual privacy, reduced soil export, and allowed for landscape coherency. The walls enclosed 4000 sq. ft, of which 1750 sq. ft. were treated as covered living space that opened to 2250 sq. ft. of garden rooms. Similar to the Bass house there was an arrangement of atrium, room and garden, connected through floor to ceiling glass walls. All rooms opened out to gardens, each with a distinct character. Drawings show lush bedroom gardens, while the side yards are divided into more formal sun and shade courts. Here the house and site became one. By retaining the spaciousness of the more rural environment, the landscape, rather than the architecture was the dominant element of the plan. Family privacy was balanced by the amenity of public landscape spaces. A virtue was made out of the lack of privacy and views in suburbia by creating internal landscapes. At the same time the entire community was enriched by creating a continuous neighborhood parkscape.

Hopeful future residents envisioned this community as "a proper environment for the emotional and social development of our children" and as "a way of life for our families, rather than mere housing."[28] They saw the community as a promise of a way of integrating family values with the social reality of the larger community in an unusual garden setting. Sadly, the scheme was denied variances and a typical suburban development was built instead.

Conclusion

As Reuben Rainey has suggested, design is the act of giving form to values. In these proposals, the small middle-class house and garden were the basis for a new school of thought reflecting new values. These experimental family houses, gardens and communities were intended as practical paradises and private Edens. They sought to enrich family life by focusing on the home and garden as a haven, and to enrich community life through cooperative planning and services. Their new social order revolved around the concept of democracy; individuals and families agreeing to live together for the common good, and with good design as a resource for all.

In the face of tremedous obstacles, particularly from the FHA, these devlopers, subscribers, planners, architects and landscape architects were able to forge new communities that responded

to the real needs of families. These communities made the dream of green cities, affordable housing, integrated neighborhoods, family living and ecological awareness a reality, if only for a short time and on a limited basis. Postwar optimism made living in harmony with one's neighbors, other races and religions, and with nature imaginable. In the young, exuberant and placeless Los Angeles, real communities emerged. These communities offer vital lessons about how and why people come together in cities, how they can live together without sacrificing personal identity, and how the art of design can realize and reflect social and cultural aspirations.

Notes

1 Written in 1948 to accompany an exhibition of California architecture held in Melbourne, Australia. Quoted in *The second generation*, Esther McCoy, introduction by Cesar Pelli, Peregrine Smith Books, Salt Lake City, 1984, p. 36.

2 Polyzoides, Stefanos, Roger Sherwood and James Tice, *Courtyard housing in Los Angeles: a typological analysis*, University of California Press, Berkeley, 1982, p.9. Gwendolyn Wright in *Building the dream: a social history of housing in America*, Pantheon Books, New York, c1981, p. 173-174, has suggested that they were particularly popular as homes for young single women, (referred to as "girl-bachelors" or "business-girls"), and that the "large proportion of unmarried independent women was connected to this kind of housing." She explains that since bungalows were quite small, there was usually a community 'playhouse' where residents entertained guests and organized evening activities.

3 Polyzoides, Sherwood and Tice, p. 2. In addition they were extremely popular with workers in the motion picture industry, and many bungalow courts were built immediately adjacent to the Hollywood studios, such as Paramount. Both groups found this to be an inexpensive, viable living option that provided for individual privacy with a safe and comfortable community setting of people with similar interests and circumstances.

4 McCoy, Esther, *Five California architects*, Reinhold, New York, 1960, p. 83.

5 Smith, Kathryn, *R.M. Schindler house 1921-22*, Friends of the Schindler House, West Hollywood, 1987, p. 7.

6 "The housing authority of the City of Los Angeles presents a solution", *California Arts & Architecture*, May 1943, p. 50-53. The entire issue was devoted to war time housing production and proposals for post-war housing solutions.

7 Stein, Clarence, *Toward new towns for America*, introduction by Lewis Mumford, MIT Press, Cambridge, 1966, p. 188-216.

8 Jackson, Kenneth, *Crabgrass frontier: the suburbanization of the United States*, Oxford University Press, New York, 1985, p. 208-9. For a discussion of FHA policy see chapter 11 "Federal subsidy and the suburban dream: how Washington changed the American housing market", p.190-218.

9 Eckbo, Garrett, *Landscape for living*, An Architectural Record Book with Duell, Sloan & Pearce, McGRaw Hll, New York, 1950, p. 178.

10 Eckbo, Garrett, interview conducted 2 January 1992 by K Rinne, Berkeley, CA.

11 For further discussion of the program see Esther McCoy, *Case study houses 1945-1962*, second edition, Hennessey & Ingalls, Inc. Los Angeles, 1977, and the Los Angeles Museum of Contemporary Art, *Blueprints for Modern Living*, MIT Press, Cambridge, 1989.

12 A last minute decision by Eames changed the design and siting of the house from a cantilevered structure in the meadow, to two separate structures built into a natural ledge behind an existing row of mature eucalyptus trees, at the edge of the meadow. A pad was graded for the house, studio and terraces, while the rest of the site was left undisturbed. The excavated soil was moved to create a planted berm between the Eames and Entenza properties. No walls or fences mar the apparently natural scene. An eight foot retaining wall forms the western edge of the project. The buildings are simple 17-foot tall steel-frame boxes, spanned by steel open-web joists. There are thirteen structural bays; eight for the house and five for the studio, separated by a four bay terrace. This and the other terrace incorporate a variety of paving materials, including brick, wood, marble and grass in a grid reminiscent of the structure of the house.

13 McCoy, Esther, *Case study houses 1945-1962*, Second edition, Hennessey & Ingalls, Inc., Los Angeles, 1977, p. 22.

14 Sewell, Elaine K., Ken Tanaka and Katherine W. Rinne, *A. Quincy Jones: the oneness of architecture"* Process Architecture, #41, October 1983, p. 123.

15 Siegel, Ray, interview on 27 December 1991 by K Rinne & K Spitz, Los Angeles, CA. A studio musician, Mr. Seigel was one of the four original founders of

MHA. He provided a great deal of information about the early days of Crestwood Hills and the social agenda of its founders.

16 Sewell, Tanaka and Rinne, ibid, p. 108.

17 The houses were typically 1100 to 1400 square feet.

18 Eckbo, *Landscape for living*, p. 224-227. According to Eckbo and Ray Siegel, this plan was actually rejected by the MHA members for being too conservative. MHA wanted all naturalized plants excluded from the overall site plan, only to be allowed in small private gardens.

19 Siegel, interview, 27 December 1992, Los Angeles, CA.

20 Only about 120 houses were actually built.

21 Eckbo, *Landscape for living*, p. 219.

22 McCoy, *The second generation*, p. 120. Many artists and performers were members including graphic artist Saul Bass and Lena Horne.

23 For a discussion of these projects as well as other unbuilt collaborations, see McCoy, *The Second Generation*, p. 118-128.

24 Gregory Ain was perfectly attuned to the needs and desires of progressive developers interested in social housing programs. He inherited socialist values from his immigrant parents, and had lived with his family on an agricultural commune for over a year. His first meeting with Schindler led him to the architecture profession, and he worked with both Schindler and Neutra until 1935. Esther McCoy suggested that, unlike his mentors, he had an intrinsic understanding of democracy – that where a "servantless house" was espoused by Neutra and Schindler, it was Ain who first abolished the service porch in favor of built-in appliances in the kitchen.

25 Eckbo, interview, 2 January 1992 and McCoy, *The Second Generation*, p. 130.

26 "One hundred houses by Gregory Ain", *Arts + Architecture*, May 1948, p. 30-33.

27 Eichler had built thousands of tract homes and was highly regarded for his commitment to contemporary architecture and to the development of communities, rather than simply building houses for speculation.

28 "A statement prepared for the City Planning Commission Hearing by Richard H. Peairs, Ph.D., Northridge, California, in relation to the application of the Eichler houses," 8 September 1961. This was a letter to the Los Angeles City Council Committee on Zoning, from a group of individuals interested in purchasing homes in the Case Study Project. Document courtesy of Elaine K. Sewell Jones, Los Angeles.

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A Landscape "Fit for a Democracy": Joze Plecnik at Prague Castle (1920-1935)

Seeking to transform Prague Castle from a symbol of Hapsburg domination into a "castle fit for a democracy," Tomas Masaryk, president of the newly created democratic republic of Czechoslovakia, appointed Slovenian architect Joze Plecnik to serve as Castle Architect in 1920. Plecnik's search for architectural forms capable of embodying the cultural spirit of his fellow Slavs led him to transform the landscape of Prague Castle in a manner that is unique in twentieth-century architecture. Despite a conscious evocation of the nation's cultural history in his designs, Plecnik encountered considerable opposition to his work in Prague Castle that ultimately led him to resign from his post. This paper examines the political motivations underlying the interventions Plecnik made in Prague Castle between 1920 and 1935 and suggests reasons for the opposition that this work sustained during both the early democratic and succeeding communist eras in the Czech Republic.

After studying under Otto Wagner and working for Wagner on Vienna's Stadtbahn, Plecnik established his own practice. Although he completed several important commissions in the Austrian capital, Plecnik moved to Prague in 1911. Official opposition to his work may have prompted the architect to abandon Vienna and its involvement in the European critical arena in favor of Prague, where, in a more liberal political climate, critics looked favorably upon his work as a creative individual and a Slav.

From 1911 to 1921 Plecnik served as Professor of architectural composition at Prague's School of Applied Arts. During this period he received only minor architectural commissions and devoted himself primarily to teaching, using the long vacations of the academic year to further his research on Slavic art. This fruitful period of contemplation stimulated his belief in the Slav mission. Just as he encouraged his students to value their cultural roots, Plecnik made frequent visits to his native Ljubljana to probe the singular aspects of his own Slovenian heritage.

Plecnik's Slavic self-consciousness proved provident for his architectural ambitions. The murder of Archduke Franz Ferdinand in 1914 and the subsequent collapse of the Austro-Hungarian Empire led at the end of World War I to the unification of Czechs, Slovaks, Germans, Ruthenes and Magyars in the democratic republic of Czechoslovakia, with Tomás Garrigue Masaryk as president. The arbitrary nature of this political alliance led Masaryk to a self-conscious search for a new cultural identity capable of surmounting regional differences.

After a competition held in 1920 for the reorganization of the Southern Ramparts Garden in Prague castle failed to elicit any promising proposals, the organizing committee asked Plecnik to submit a design for the western portion of the site, known as the Paradise Garden. While working on this proposal, Plecnik met President Masaryk, who appointed him Castle Architect. In Plecnik, Masaryk sought an architect capable of expressing in architectural form those values that he associated with the new Czechoslovak state. In a statement of 1925 Masaryk declared his aims:

The purpose of this project is to render the castle a seat of a democratic president. The complete reconstruction of the Castle's exterior and interior must be simple but artistically regal, symbolizing the notion of the state's independence and democracy. The nation looks upon the Castle as a national seat and therefore, in order that the Castle be transformed from an edifice conceived and executed in the spirit of the monarchy to that of a democratic castle, not only the President but also his government must be mindful of the changes.

The existing architectural milieu was replete with political overtones. A feudal seat founded in 884-885 by the Premysl ruler Borivoj, Prague Castle came to embody the political, religious and cultural history of the emerging Czech state. During the fourteenth century Charles IV, German Emperor and King of Bohemia, transformed Prague into a seat of the Holy Roman Empire and began construction of the Gothic cathedral. Because the major building campaigns undertaken by Hapsburg kings Ferdinand I and Rudolf II failed to give the castle the grandeur of comparable monarchic seats in Vienna or Paris, Empress Maria Theresa engaged court architect Niccolo Pacassi to transform the medieval castle, a fortified city with its piecemeal Baroque development, into a palace (an embodiment of Austro-Hungarian domination. Despite its extensive physical embellishment, the castle became an empty symbol under the Hapsburgs, who used it infrequently and only for ceremonial purposes. Thus the complex fell into a period of decline that extended until the end of the Austro-Hungarian empire.

In pursuit of a "democratic" means of expression, Plecnik sought to counteract certain overt manifestations of Hapsburg rule. Through a relatively modest series of interventions, carried out incrementally between 1920 and 1935, he amended the castle's imperial overtones by forging new connections, internally as well as externally, with both the city and its surrounding countryside. His concern with issues of access and visibility was simultaneously physical and historic in nature. In Prague Castle Plecnik countered a set of specific historic forms, with their attendant iconography, with a new set of elements that were equally precise in form, although smaller in scale and more ambiguous in meaning. To subvert the imperial overtones of the eighteenth-century additions, he made frequent reference to the castle's prior history. His modifications to the first courtyard demonstrate his selective attitude toward that history.

The form of the entry court as a cour d'honneur emanates from Niccolo Pacassi's additions of 1763 to 1771. The space is dominated by the Matthias Gate, a ceremonial entrance that originally overlooked the castle's western moat. Plecnik proposed to close the gateway and fill its upper zone with glass, thus providing an antechamber for the presidential reception suite, which is accessed by a stair immediately south of the portal. To counteract this subversion of its historic role, he bracketed the gate with a pair of flagstaffs that

extended twenty-five meters in height and were each cut from a single tree. These rustic wooden flagstaffs with their gilded bases and tops are important indications of Plecnik's intentions. In their combination of rustic simplicity and formal sophistication, they exemplify Plecnik's aim of overcoming distinctions between "popular" and "high" cultures.

Plecnik restructured the presidential entry route by inserting a vehicular passage to the right of the Matthias Gate, while redirecting visitors through the Columned Hall to the left of the historic portal. He created this lofty volume in the manner of a peristyle court by boldly opening up three stories of the eighteenth-century structure; it originally opened directly to the first and second courts. Through its formal autonomy the hall provided a hiatus in the continuity of the Theresian complex, a threshold capable of preserving the entry court's historic appearance while simultaneously altering the processional sequence. As the gate's vitreous enclosure was never built, Plecnik's modifications to the first court only had the force he intended following Masaryk's death, when the Renaissance gateway was draped in black and the public filed directly into the Columned Hall to observe the president's body lying in state. Although the incomplete state of Plecnik's modifications to the first court led to misunderstandings concerning his intentions, the creation of thresholds out of boundaries remained an important strategy for transforming the image of Hapsburg domination into a more democratic expression.

Plecnik's transformation of the castle's third court was more radical, prompted by an archaeological survey undertaken as part of Masaryk's broader initiative to acquire a systematic understanding of the castle's early history. The courtyard's existing structures are replete with historic significance: the Bishop's Palace, its oldest extant structure and seat of the Bishops of Prague from the tenth to the twelfth centuries; St. Vitus Cathedral, begun by Matthew of Arras in 1344, with its historically dominant Golden Portal, built for Charles IV by Peter Parler of Gmünd; the Royal Palace, with ninth-century origins, enlarged under Charles IV and Vladislav Jagiello; subsequent additions of the Summer Palace of Rudolf II and presidential offices, resheathed in Pacassi's facades. A wall separating the court's two primary levels was surmounted by the St. George fountain, marking the site of an early source of water for the complex.

To enhance the spatial unity of the third court without sacrificing the integrity of its existing buildings, Plecnik devised a warped ground plane capable of linking their diverse levels. Toward this end he lowered the northern portion of the courtyard, exposing the cathedral's eleventh-century foundations, while raising the segment to the east, revealing the original ground level in a fountain he created at the entry to the Royal Palace. He left the archaeological foundations nearest the cathedral exposed to view, and created a ramp descending from the third court to the Royal Palace court, enabling the diverse historic layers to be perceived with a new simultaneity. To reinforce the resulting spatial unity, Plecnik paved the courtyard surface in a gridded pattern whose geometry both originates with the entry to the governmental offices and aligns with the St. George Fountain, which he elevated on a new base at its original site. He also used the grid to rationalize the position of the obelisk that he introduced to draw the visitor in from the western gateway.

The obelisk was a major theme in Plecnik's reorganization of Prague Castle. Masaryk initiated the idea of erecting a monument to the Czech legionaries killed in World War I for another site in the castle grounds. The architect devised its suggestive shirred profile after the solid granite shaft broke during transport to the site. Rather than an element for controlling vision, terminating an axial vista like its historic antecedents, Plecnik's obelisk deflects attention to the court's historic components.

Protruding from the corner of the third court is the threshold to a stair that Plecnik created to connect the third courtyard with the Southern Ramparts Garden. In its design and siting the stair combines references to the castle's mythic origins and early history with a novel means of access and visibility. Plecnik sited his stair near a Romanesque tower, one of three tenth-century castle approaches that originally provided access from the city. In a gesture that affirms and moral and religious foundations of Masaryk's humanistic socialism, the stair also aligns with the cathedral's southern portal, which long served as its primary entrance. This axis marks the medieval site for the coronation of Czech kings, a ceremony that evoked the mythic origins of Hradcany under the founders of the Premysl dynasty, Queen Libuse and her consort, the peasant farmer Premysl. The form of Plecnik's threshold, projecting into the third court, evokes these mythic foundations.

According to early twelfth-century sources, from a site on Vysehrad Libuse envisioned "a town the glory of which will reach to the stars" on a site where her subjects would find a man building a door sill (in Czech, *práh*) for his cottage. He was duly found on Hradcany, and the city was named *Praha* or threshold. Plecnik created four columns, representing the mythic door sill, surmounted by four bulls that allude to the labors of the farmer Premysl. Incised in gold on the exposed end of each beam the figure of Queen Libuse soars in a trance-like state, holding aloft the cloth-like copper roof.

Plecnik's strategy of forging new spatial connections to augment consciousness of the nation's history derives from his first undertaking for Prague Castle, the redesign of the Paradise Garden that lies just below the presidential offices and apartments. The first of a series of baroque gardens developed from the mid-sixteenth century along the steep southern slopes of Hradcany, the Paradise Garden originated as a walled appendage to the Summer Palace built for Archduke Ferdinand. This self-contained and private enclave took the form of a Renaissance *giardino segreto* adapted to the sloping site; it included a circular gazebo or trumpeter's tower built in 1617 for the Emperor Matthias on the exposed corner of the precinct wall. This was the first structure within the castle gardens to take advantage of the urban prospect, an important theme in Plecnik's modifications.

The vestiges of a monumental stair uncovered beneath the garden's terminal segment in 1919 prompted Plecnik's design, which incorporates a broad staircase rising from a grassy sward to a gate that he inserted in the fortification wall. On the central landing of his stair Plecnik intended to place the obelisk, its form seemingly extruded from the palace wall, which it resembles in profile. After the monolith was damaged in transport to the site Plecnik abandoned the idea of including an obelisk in this portion of the castle precinct. For the garden's opening ceremonies he marked its intended site with a black cube crowned by a wreath, a memorial to a lost memorial. Set on the edge of the stair

landing, the cube served as a temporary war memorial while simultaneously commemorating the obelisk's ill fate.

The Paradise Garden at the base of these stairs represents a radical interpretation of the traditional theme. Emulating the historical evocation of paradise in the medieval cloister garden, Plecnik created a curbed sweep of lawn dominated by a monolithic granite basin that hovers on a minimal support of two rectangular blocks. Just as the obelisk is seemingly freed from the wall, so the basin, with its protruding bottom surface, is assertively free of the ground (a geometrically pure center suspended over a reflective marble surface and set in a grassy carpet. Rather than terminate the garden sequence in the literal verticality of an obelisk, Plecnik used the basin's more suggestive form to transmute the dominant horizontal focus of the Southern Rampart Garden to a vertical orientation. The basin's exceptional size operates together with the viewing distance imposed by the lawn to discourage any complete grasp of its volume; one can see into it only from the presidential offices and reception suite above. Plecnik refrained from idealizing this representation of paradise by shifting the stone curbing that edges the grassy sward to accommodate an existing yew, the oldest tree in the Castle gardens. Rather than reinterpret the garden's historic form, he contemplated the problem anew, representing paradise as an inaccessible ideal while deforming its edges to accommodate elements of nature.

As with his modifications to the courtyard sequence, Plecnik's modifications to the Southern Ramparts Garden, lying immediately west of the Paradise Garden, concern issues of access and visibility that are both physical and historic in nature. To unify the garden sequence, Plecnik destroyed the wall that originally separated the Ramparts Garden from the Paradise Garden, leaving three baroque piers as remnants of the historic boundary. Along a projecting segment of the bastion beside the Matthias Pavilion, he excised a "blind" alley from the constructed terrain, providing visitors an opportunity to withdraw from the garden sequence, drawn to the vista afforded by this "passage" with no other destination.

Plecnik began his reorganization of the Ramparts Garden by extending a path its full length, leading from a baroque fountain that he repositioned below the Paradise Garden straight to the ramparts' eastern gate. While giving the garden a certain unity, comparable to Pacassi's eighteenth-century facades, this walkway provided the ground for the architect's numerous interventions along its length.

Plecnik's letters to his assistant Otto Rottmayer indicate his concern for the myriad views from each intervention in the garden sequence. Rejecting the picturesque focus on a sequence of static vantage points, Plecnik structured circulation through the garden to take advantage of the multiple sights available in the urban panorama. He sculpted the ground plane to provide a variety of routes, while maintaining the large trees on the site, planted according to a picturesque concept of order, to contrast his more architectural development of the terrain. To enhance visual connections with the city below, he selectively diminished the height of the rampart wall and created a series of overlooks and descents to the garden's lower levels. Few of these elements are completely new; in addition to the blind alley, Plecnik also added a loggia atop the lowered rampart wall and a Bellevue at the garden's highest point.

In his modifications to the Southern Ramparts Garden, Plecnik encountered a new challenge to the castle's intended democratic appearance. Reflecting the site's historic role of defense, the rampart walls countered the image of democratic accessibility to which Masaryk aspired; by isolating the castle visually, moreover, they emphasized the precinct's monumentality. Moreover, the walls of the Paradise garden, built during the Renaissance to ensure privacy, bore different cultural associations from the southern ramparts, erected under the Hapsburgs. In contrast to the Renaissance walls, which Plecnik shored up and preserved, he reconfigured the rampart walls by lowering their height and punctuating the linear sequence with a series of granite spheres that originated in the Royal Gardens across Stag Moat.

The series of bastions that lined the rampart walls reinforced their association with the hated period of Hapsburg suppression. Plecnik sought to overcome the bastions' defensive character by transgressing their historic boundaries and heightening visual relationships with the city. He lowered the height of the Moravian Bastion and sheathed it in brick to create a viewing platform. A pergola shielding an altar-like granite table provides a respite from the castle grounds, while a slender obelisk topped by an Ionic capital and golden orb marks the bastion's presence from afar. A pair of inscriptions harbored within the pergola accentuate the humility that Masaryk brought to the office of president: "A majority of people can be helpful to a single man, rather than an individual to the majority" and "four eyes see more than two."

To embellish an existing stair to a lower garden, Plecnik placed an evocative female head over the portal, which may be a further reference to the legendary Queen Libuse; such recourse to elusive iconography remained a hallmark of his work in Prague Castle. This Siren-like figure beckons visitors to descend below the rampart walls, where Plecnik organized the sloping terrain as a series of terraces, which he linked with diagonal ramps and planted as a vineyard to reflect the site's prior history. He gave the segment nearest the winter garden the rustic qualities of an "alpine" garden by strewing boulders about one end, reiterating the thematic dialectic of primitive and classical by which he sought to make the castle's complex history palpable.

Outside the castle bulwarks, beyond Stag Moat, Plecnik made another important contribution to the Castle grounds. On an isolated spot that afforded a magnificent view back to the castle, President Masaryk placed a simple bench beneath a linden tree, where he could seek respite from his official duties. Plecnik amplified the inherent isolation of this presidential vantage point by erecting a bastion around the tree. He elaborated the access route to enhance his patron's sense of removal from daily concerns within the castle precinct. After penetrating a wall that prohibits any outward prospect, the president would encounter a sequence of terraces that Plecnik created, rising on axis with the linden, to gradually restore the view. The architect used the tree as he did the obelisk, to deflect a dominant visual axis and engage the visitor in a myriad of vistas. The manner in which his bastion elaborates upon this simple presidential ritual exemplifies Plecnik's architectural objective: "I don't want anything great, I want things small; these I will make great." The effectiveness of his piecemeal interventions in Prague Castle derives not only from their historic grounding, but also from his ability to apply

such logic at scales ranging from the detail to that of the urban landscape.

In his efforts to revitalize Prague Castle as an historic construct, Plecnik dissolved Theresian surface continuities with great precision in order to posit a new reality. Suspending those elements that once embodied a unified concept of power, he introduced pauses, silences, intervals, suspensions. Although his strategy of providing new access to the past by opening historic sites up to reinterpretation and thereby giving them new life in the present was concordant with the most progressive reconstruction theories of the day, the risks involved in such an approach were considerable. If the resulting experience is analogous to the visual simultaneity of an archaeological plan, it also relies on historic memory, which the Communists sought to eradicate during their occupation of the Czech lands between 1968 and 1988. Both the association of Plecnik's contribution with the democratic period and the castle's heightened openness and visual accessibility countered Soviet aims.

Whereas the Soviet apparatciks viewed Plecnik's work as a threat to their totalitarian aims, many of his Czech contemporaries looked upon his contribution with equal disdain. Pavel Janák, a devoted admirer who succeeded Plecnik as Castle Architect, summed up the differences between Plecnik's approach to a democratic architecture and that of his Czech counterparts:

Down below, the struggle for a way of thinking and building, the search for a single, universally valid conception that can be imposed and defended against all other possibilities, that would be applicable everywhere, that would be beyond questioning. Up here [in Prague Castle] an artist who simply builds, as if he had not the slightest doubt as to what he was doing ... Down below they are interested only in necessity and in justification ... Here we have an art full of modesty and devotion.

Although the effectiveness of Plecnik's piecemeal interventions in Prague Castle derives in large part from his understanding of their broader urban implications, virulent opposition to his proposals for restructuring the approach from the town eventually forced Masaryk to dismiss his devoted friend and colleague. Local architects branded Plecnik a "barbarian," condemning his lack of sympathy for the city's history in his plans for restructuring the ascent to Prague Castle. Sparked by opposition to his proposals to demolish significant components of the city's historic districts, they attacked Masaryk as Plecnik's sponsor. In 1935 complaints from the Society of Friends of Old Prague prompted the Slovenian to resign from his position. The argument published in the society's newsletter conveys professional jealousy as well as ethnic prejudice:

We have so many excellent Czech architects who would lovingly and patriotically take charge of the necessary adaptations without harming the monument left to us by our ancestors. We are now allowing a foreign architect, using a foreign style, and with neither love nor sensitivity for our historical monuments, to do what the former hostile government did not do. The women of the Czech Republic beg of you: Save our Castle.

We are faced here with a paradox of conflicting interpretations. Whereas political affiliation led the communists to censure Plecnik's contributions to Prague Castle (and the resulting lack of access hindered local architects from appreciating his work), the idiosyncratic nature of his forms blinded many of his contemporaries to their political implications. While the restoration efforts undertaken by President Vaclav Havel have no doubt enhanced awareness of Plecnik's remarkable contribution to Prague Castle, comprehension of its historic relevance will continue to elude the castle's record numbers of visitors. This is because Plecnik favored the profundity of the unspoken to the clarity of the spoken. Although such repudiation of the conclusive is customarily associated with abstraction, Plecnik belied this conventional wisdom, which we inherited from our modern movement forebears, through the figurative essence of his forms. That their meaning should remain open and elusive, yet simultaneously historically grounded, constitutes the essence of his democratic approach.

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Landscape versus Modern Architecture

In 1927 two books were published in London that were important for the development of architecture in the succeeding thirty years. Le Corbusier's *Towards a New Architecture*, translated by Frederick Etchells was one. The other was *The Picturesque, studies in a point of view* by Christopher Hussey, a work in the history of ideas, representing and reconstructing a particularly English contribution to Western thought, a movement against whose decadent legacy much modernist theory was directed. I take these English dates because England is the subject of my paper, although I would like to test its hypothesis in a wider field.

For many, the advantage of Le Corbusier's programme was its clarity and simplicity, both verbally and visually. His book was the most discussed of the modernist architectural texts at the beginning of the 1930s. Modern architecture could be seen to stand in clear opposition to eclectic stylism, and instead by determined by programmatic planning, new structural techniques and new materials, reconstructed according to the neo-Platonist aesthetics of Purism. Both books appeal, in different ways, to nature as the source and arbiter of beauty, but Le Corbusier's is limited by the mechanistic assumptions of a nineteenth century world view, while Hussey, admittedly referring back further in time, explored a doctrine in which nature was understood as a more complex cognitive structure.

Le Corbusier's *Urbanisme* was published in England in 1929, again translated by Etchells whose introduction presented the text as a call for order in the place of 'the ordinary European town with its narrow winding streets and picturesque jumble.' Unlike his architectural programme, Le Corbusier's urbanism differed more in degree than in kind from the received ideas of the period, not surprisingly given Corbusier's expressed enthusiasm for the garden city. The period took for granted the need for man to control nature and to suppress its tendency to disorder, so that while nature was not unimportant to the early stages of modernism in England it was nature as far as possible deprived of cultural meaning or accumulated history and devoted to the functional purposes of health and hygiene. This was not a new or exclusive property of modernism, rather an exaggeration of a trend shared equally by pre-modernists and anti-modernists (variously of Arts and Crafts and classical persuasions) who were unwilling to enter into discussion of architectural language and indeed lacked the necessary intellectual disciplines to do so.

Linguistic theory was seldom explicitly seen as an aspect of modernism among English modernist architects, but, rather exceptionally, Wells Coates, coming to English culture as a Canadian born in Japan, was an outsider who saw a particular English problem with language and the structure of ideas in relation to architecture, a field in which he was also an outsider without conventional training. In 1930 he wrote in his address, 'Sketch Plan of a New Aesthetic' to the Twentieth Century Group, 'What is the meaning of this ugliness, banality and squalor which meets the eye as it travels up practically any street in London ... you Englishmen are naturally averse to asking these questions'. Coates's article, 'Response to Tradition' in the *Architectural Review*, 1932, deals with the difficulty of making restrictive categories such as 'functionalism' for architecture and quotes the critic I A Richards' attempt to clarify the structure of language in *The Principles of Literary Criticism* and *The Meaning of Meaning*. The conclusion of Coates's essay is to see the separate roles of art and science in architecture, science as the *identifier* and art as the *differentiator*.

This is itself was too simple a reduction, based on an idea of science as a universal explanation of material phenomena which was already intellectually obsolete. Architects were jealous of science and wanted to be associated with scientists like J. D. Bernal, but science was still viewed by them largely as technology, not as epistemology. The beginning of an alternative view can be found in 1930 William Empson published *Seven Types of Ambiguity*, a book much influenced, as Jonathan Bate has recently demonstrated, by the developments in scientific experiment and thought, especially in Cambridge where Empson, trained first in mathematics, was still a student of English. In a review of a scientific text published in 1930, Empson concluded that 'the view of space taken by modern physics will eventually alter our notion of reality'. He applied quantum theory to literature, and identified, in his seventh type of ambiguity 'an equilibrium of opposites that create deeper meaning rather than just cancelling each other out', an understanding of language which allows 'both/and' as a development from 'either/or'.

Such understanding of the double-coding of the universe was intuitively present in the German scientific tradition stemming from Goethe and transmitted through the American transcendentalist writers like Ralph Waldo Emerson. In works of art, metaphor mirrors the working of nature, making meaning by bringing unlike things together. This strand of linguistic poetics also informs the early symbolist phases of modernism in literature, but if its correlative in architecture existed, it is not something in the form that we normally recognise as modernism. Early modernist architectural theory is characterised instead by invariant solutions and a refusal to consider the context and its modifying effect.

Why should landscape be relevant to this issue of lost meaning and language in architecture? Looking first on a level of theory, landscape necessitates a consideration of nature and its operations, including the mutability of the living material in the course of time, the shifting position of the observer, and the inevitability of the context of place. Although the Institute of Landscape Architects was founded in England in 1929, there was only the beginnings of a profession of landscape architecture. Nonetheless, a sensibility to the implications of landscape was to be found in other arts, most notably in poetry and painting, which revealed that aesthetic theory in modern architecture had certain historical roots where they might least be expected, in the maligned Picturesque, and need not be constructed from entirely new beginnings.

The English landscape painter Graham Sutherland, wrote in 1936, 'It is our wont, nowadays, in attempting to

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 1. F. R. S. Yorke and Marcel Breuer Gane Show House, Bristol, 1936 (Courtesy YRM Architects).

Fig. 2. Serge Chermayeff Bentley Wood, Halland, Sussex, 1938 (courtesy Architectural Press).

Fig. 3. Serge Chermayeff Bentley Wood, Halland, Sussex, 1938 (courtesy Architectural Press).

Fig. 4. Tayler & Green Imhof House, Coombe Hill, Kingston, 1943-46 (courtesy the architects).

Fig. 5. Tayler & Green Mock Mile Terrace, Haddiscoe, Norfolk, 1950 (courtesy the architects).

discuss the nature of things, to make categories. This, however, is an imperfect method of identification, and particularly so when we attempt to discuss the nature of art; for the very qualities which we regard as being especially characteristic of a particular type of art are in fact, elusive, and may be found to be a constituent of another type of art.' Discussing the drawings of Henry Moore later in the same article, Sutherland quotes the French neo-Thomist philosopher Jacques Maritain, to suggest that Moore's art is 'recomposing its peculiar world with that poetic reality which resembles things in a far more profound and mysterious way than any direct evocation could possibly do.' As Sutherland adds, 'We find Moore discovering one thing with the help of another, and by their resemblance making the unknown known.'

The Picturesque sensibility was derived from the practice of painting landscape, at the meeting point of nature and culture. It has the character of a good artist who should never be willing to accept formulae but instead to verify all observations against experience.

I would like to claim that many modern architects in the 1930s were following the same procedure, although hardly any of them were willing to admit to anything except a materialist intent to satisfy practical needs. In an essay 'Where do we stand?', in the *Architectural Review*, 1934, Marcel Breuer wrote, 'it is quite untrue to say that the Modern Movement is contemptuous of traditional or national art. It is simply that the sympathy we feel for each other does not take the form of making us want to use either as a medium for the utterly different purposes of the present day.' The poetic problem was a genuine one, of referring to the context of place and time without tautologically reproducing it, as the 'traditionalist' architects did, but far from being excluded, this context formed the basis of meaning in English modernism in the 1930s.

That something important happened in this respect in England in the mid 1930s can be inferred from Peter Blake's remarks on the Gane Show House, Bristol, by Breuer and Yorke, of 1936, 'the little construction of stone, glass and wood represents a major step forward for Breuer and for modern architecture as a whole. For here, for the first time, he built a structure that used only natural materials and textures, in addition

to (and in contrast with) the large sheets of plate glass. The building is considered one of the major works of early modern architecture.'

Serge Chermayeff's house, Bentley Wood, Sussex, is another instance. Completed in 1938, in a setting partly designed on the basis of pre-existing trees by the landscape architect Christopher Tunnard, the house was built of timber, modern in its aesthetic but avoiding any kind of eccentricity. Its simple relationship to its frame in the landscape worked both ways, with views from the house along the terrace to a open timber screen, and back to the house with its structural frame clearly expressed. Henry Moore's Recumbent Figure 1938 was commissioned to lie at the end of the terrace, an important work from Moore's early middle period, which he described as 'the first figure in stone to be substantially opened out.' Inside the house were abstract paintings by John Piper and Ben Nicholson which derived relationships from landscape without actually describing it. Christopher Hussey reviewed the house in *Country Life* and although he may not fully have understood its implications, he found that 'a new recognition has come that "abstract" architecture – that is, architecture designed purely to illustrate an intellectual thesis and without relation to setting or national tradition – is unsatisfying.' John Summerson wrote in 1959, 'the house suppressed every vanity of 'style' and merely touched the environment into consciousness of form; it was the most aristocratic English building of the decade.'

Bentley Wood could therefore be presented as an exemplar of the fusion of opposites, of tradition and modernism, of culture and nature. In Moore's sculpture, half the mass is made of air. If Bentley Wood is the visual equivalent of Empson's Seventh Type of Ambiguity it is achieved without any of the visual discontinuity that Robert Venturi introduced thirty years later when he adopted Empson's work to architecture. Perhaps we have come to take it too much for granted. John Piper and the poet Geoffrey Grigson wrote in *Axis* magazine in the autumn of 1936 on 'England's Climate', finding in this enveloping context for landscape the key to escaping the limiting categories of time, 'There is no "past," there are no pictures painted "in the past," equally there is [no] exclusive Fair Isle of the present. There is only a human instinct, a *being*.'

Bentley Wood is an architect's own house, and comparable to the Asplund house at Stennäs and the Markelius House at Kevinge, which both went further than Chermayeff in returning to a pitched roof. Various English modernists had quietly restored first the monopitch and then the traditional equal pitched roof, and during the war, in 1943, Herbert Tayler and David Green, designers of a fine flat-roofed house in London in 1938, planned a suburban house on an idyllic site in Kingston, for Godfrey Imhof, which completes a cycle of modernism by recreating the essential form of a traditional house, although it has a more spatially adventurous plan than almost any of the white concrete houses of the 1930s.

At this point in the war, with much talk of reconstruction, the *Architectural Review* began its promotion of the Picturesque as a critique of modern architecture and planning. Hastings recognised the potential for true democracy in a system which allowed individuality to flourish, quoting George Mason's words of 1768, 'according to the manner suggested by itself, without regard to nominal distinction, or systematical arrangement.' Landscape became in his mind the means for overcoming time in the patchwork effect of different periods and materials, founded, as he put it, 'on the true rock of Sir Uvedale Price.' In their designs for rural housing in the Norfolk landscape between the 1940s and the 1960s, Tayler and Green showed how this programme could serve practical and aesthetic ends, drawing architectural strength from the immediate context of site and the broader context of regional architectural language, and also the political intention of modernism in providing a better and more civilised standard of living. These are not 'Modern' buildings in the sense recognised by CIAM, although being not far removed in spirit from the Smithsons' Sugden House of 1953 they might have had a place with Team 10. They are a suitable object for study because, like nature, they mean more than one thing at a time. Herbert Tayler himself wrote in 1950 in a review of Bruno Zevi's *Towards an Organic Architecture*, with its exclusive categories of organic and inorganic, 'I doubt whether future generations will classify things so neatly, or if they will want to. To them, the stream of our architecture may seem muddy but it will be seen, I think, as one stream.' Tayler and Green, a necessarily small

example of post-war regional modern architecture responding to landscape, represent for me the possibility of a richer meaning of modernism to be attained beyond the familiar but over-simple categories.

On a wider scale, we might look to Lewis Mumford as a thinker whose enthusiasm for a technological view of modernism was transformed by his understanding of the American transcendentalist writers a replaced by a more comprehensive view of architecture within an ecological system.

The Picturesque revival in post-war England was discredited by a younger generation, such as Reyner Banham, who recognised its anti-formal implications which have always seemed threatening to the values of architecture. Yet it may only have been one of many stages in the evolution of an alternative paradigm of modern architecture. Andrew Ballantyne's recent study of Sir Richard Payne Knight concludes by drawing parallels between Knight's freedom from categories and his understanding of the linguistic structure of the arts and the essentials of post-modern thought, in phenomenology and hermeneutics. In this area certain architects have recently begun to make the first important development in architectural theory since the war, and have, perhaps unknowingly, come close to ideas which were current fifty years ago. The association of science with architecture which was considered so important in the 1930s has the potential to resume, with the difference that now the science is suggestive of a more complicated world in which theories of language and mind are as important as experimental process and verifiable results.

Ideas developed through landscape are inimical to the more simplistic or formal definitions of modernism, but I would not wish to follow the implications of my title to suggest a fight to the death between them, nor to presume than anywhere in DOCOMOMO are such simplistic ideas of modernism to be found. If we follow instead the path of double-coding which nature reveals as the structure of ourselves and our surroundings, we may succeed in throwing a different and more revealing light on the world in which these dualisms are only mental constructs, not pictures of reality.

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Nature and History in Pikionis' Acropolis Project

Dimitris Pikionis (1887–1968), one of the foremost contemporary architects in Greece, abandoned modern architecture in the early '30s seemingly in favor of a peculiar regionalism which reached as far as the Far East while paying full service to the 'perennial' values of Greek culture. This well-publicized shift – both by himself in a contemporary declaration (1933)[1] and subsequently by dutiful disciples and critics – may well prove to be a 'trap' based on superficial and circumstantial evidence. In other words, my contention is that while Pikionis clearly rejected the more obvious externalities of a codified modernism[2] – he never again designed anything nearly as 'modern' as his elementary school on Lycabettus Hill (1933) – he seems to have retained modernism's essence.

This essence could be defined as the ex-temporal universality of archetypal forms which correspond to basic human needs, devoid of stylistic *ephemera*. The universal 'patterns' he sought, in accordance to a strong influence of neo-platonic philosophy, however, clash with the abstract or mechanistic standards promulgated by the Charter of Athens (1934). Pikionis thus raised his voice in the above mentioned article against the fundamentalists of his era, castigating both «the passing artistic slogans which, due to polemical needs and the need to 'define' an artistic movement, finally restrict it (rationalism)» and the uncritical «cultural imports», such as bow-windows on narrow streets and 'béton artificiel' (cement coating) on facades. His alternatives are Henri Rousseau, as proof of the existence of sentiment «in the heart of Paris», and the youthful generation of architects of his time in pursuit of authentic «culture» (*in French*), as proof of a disinterested passion for truth.

In view of the post-war criticism on modern orthodoxy by Team 10, Pikionis could easily pass as a precursor of such later developments in architectural thought. This obvious conclusion could be further elaborated by taking note of the two major conditions[3] for an artist as listed by Pikionis: «To relate his work with the rhythm of the landscape» and «to submit his work to the sacred requirements of life around him.» For our needs we cite his prerequisites only of the first point: «a harmonious bond of the dynamism of spaces, volumes, shapes; of the texture of the work with the dynamism of light; the rhythm of the landscape; the character of the climate.» In his mind, an architect is not to be distinguished from an artist, so he provides a handy example by mentioning Rodin who «in his last works attempted to fit his sculpture in the [natural] setting, harmonizing the tone of his work with the tone of the atmosphere.» Tone, in this context, carries a wide variety of meanings. Aside from its obvious connection to music, in strictly painterly terms it could mean either «color quality or value», the condition that «modifies a hue», «the effect in painting of light and shade together with color». Pikionis was a painter rather than an architect, therefore fully aware of such connotations. Used as a metaphor, tone is however connected to a wide range of meanings: tension, resiliency, frame of mind – even the state of a healthy living body.[4] Some of these will be used as props in discussing the Acropolis project.

Before we reach that point though we should return to the beginning of Pikionis' article, where he bitterly criticizes the present state of Attica where modern Athens is situated. The «fallen» city of Athens, he points out, is no match to the «ideal proposals and endeavors of contemporary town planning». Furthermore, a more tragic is the current state of «this land», whereby this perfect paradigm of the highest ever culture lies «pointlessly mute for its descendants». He also states that the «intellectual character» of this land is like «a supreme law [γνώμων][5] which incessantly strives for its fulfillment, over and above all other needs of architectural and planning functionalism». This striking contrast between the inherently 'mental' character of the landscape of Attica and its present forlorn state of silence will also be of help in our discussion.

The Acropolis project by Pikionis concerns the landscape design for a sequence of approaches, vehicular and pedestrian, to the Acropolis and to the neighboring Hill of the Nymphs in Athens (1951–57). This widely acclaimed project is often ranked as the peak of Greek postwar architecture. Its mythic status is testified as early as 1963 in an article by N. Kurokawa[6] and has steadily grown over the years.[7] While its local esteem (sometimes even veneration) is unquestionable, its interpretations so far vary widely and seem to be either arbitrary or restrictive. The project had a mixed reception initially. Some contemporaries of Pikionis in the 1950s expressed their perplexity while others either attacked it as a sacrilege or praised it wholeheartedly. Its elusive complexity was understandably hard to accept at the height of functionalism's reign in Greece during the 1950s; it fared no better in the 1970s or even later, aided by the highly contradictory character of Pikionis' intentions in general. Progressive critics in short were at a loss to classify him.[8] The situation did not perceptively change by the suggestion by K. Frampton in 1984 that Pikionis' project on the Acropolis conveys an unquestionably regionalist spirit.[9]

It is evident that we are dealing with an all-important project, significantly more complex than any singular 'reading' and capable of triggering new interpretations as architectural theory evolves in time. Thus it would be pointless to lock in onto a definitively explanatory model. Our intention is to avoid such a procedure. Instead we propose to use the Acropolis project as an ideal paradigm of Pikionis' intentions for the treatment of historic space, solely as expressed in a selection from his writings. Three issues become manifest in this context:

The Interplay of Nature and History

Both reconstructed 'nature' and 'history', as foundational aspects of the spirit of place, blend in the Acropolis project on the basis of ancient literary sources, contemporary paradigms[10] and on extant topographical evidence.

Pikionis was no scholar and his approach to ancient sources or to topographical tracings was at best circum-
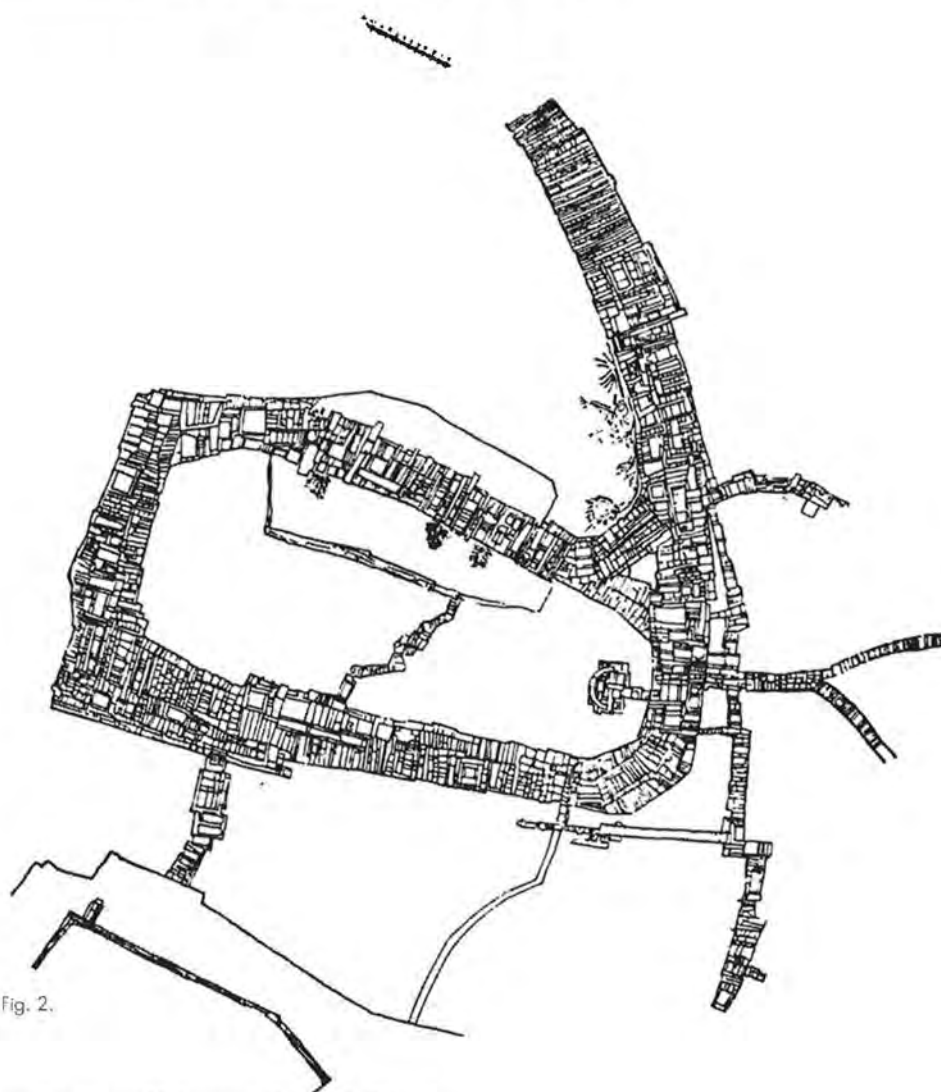
Fig. 1.

Fig. 2.

Fig. 1. Dimitris Pikionis. The Acropolis project. The view from the top of Philopappus Hill. Photo: D. Philippides.

Fig. 2. Dimitris Pikionis. The Acropolis project. Plan of the end of the approach to the Acropolis.

stantial. His was a empirical (and therefore evasive) recognition of 'character' in landscape, based on observation, which included both its historical and geographical aspects.[11] If we return to his own words cited above, an artist's main task is «to relate his work with the rhythm of the landscape». This evocation of 'rhythm', again in his words, could imply «a harmonious bond of the dynamism of spaces, volumes, shapes; of the texture of the work with the dynamism of light; the rhythm of the landscape; the character [κρᾶσις] of the climate.» *Harmony, dynamism,* and *character* are thus three keywords which rise above the tautology of *rhythm.*

These concepts certainly refer to aesthetic properties but are not nearly as sufficient to describe the 'relationship' of the artist's work with the landscape. One can perhaps safely presume that the Acropolis project is free of literal imitation or of any restorative motive. Since it uses the past in a most unorthodox and loose manner, it opposes historicism, daringly flirting with the picturesque tradition in the face of the overbearing presence of the Classical ideal.

The Didactic Context of an All-Encompassing Order

As explicitly propounded by Pikionis in a related project for the fort's interior of the city of Rethymnon in Crete (1966), the foremost aim of any intervention on a historic site is to instruct in a corrective manner [φρονιμᾷτίσει], in free translation, through the «transcendental attainment of its monumental character», by paying homage to its «spirit». Our duty in this case is to «blend our buildings with this divine space».[12] Pikionis even provides the method needed: every night he dreams of this project, so that he slowly approaches the tangible through the abstract, till finally his soul grasps, «as by a sudden flash [ἔλλαμψη] the form of the work». The procedure thus described is clearly based on the neoplatonic philosophy of Plotinus, whereby the course of knowledge (or inspiration) goes through a patient preparatory stage till the goal is suddenly reached by enlightenment.

The Acropolis project was primarily meant to be instructive, a symbolic bow towards the veneration of the site – as an act of interpretation – for the benefit of initiated visitors, as opposed to ignorant officials or civilians who constant-

ly try to erase its historical traces.[13] This mental «energy» is strictly a corrective procedure. It instructs by resisting the 'silence' of the land («pointlessly mute for its descendants») and by restoring its eternally «intellectual character». It also corrects by imposing a severe «supreme law which incessantly strives for its fulfillment». Severity in this sense coincides with exactitude, perfection – a quality present both in the nature of Attic landscape and in the culture which once bloomed there.

Nature though can instruct only by the use of a subterfuge, i.e., by human intervention which looks 'natural'. The subtly incorporated order in the Acropolis project, a result of the imposition of the «supreme law», is coated by a refined incrementalism, its purpose is to remain hidden as in nature.

The Correspondence between Nature's and Body's Scale

The 'glyptic narrative' of the Acropolis project has waylaid many critics, towards a discourse on imitation and decoration (modernity's guilt). Less attention has been given to the significance of Pythagorean principles applied by Pikionis, whereby man becomes one with nature by the projection of mathematical ratios which apply universally.[14] Pikionis, as already noted, uses the term *tone* which is connected to tension, resiliency, or frame of mind; in this last capacity, it refers to the state of a healthy living body. Thus 'art', 'nature' and 'man' form an inseparable whole.

This interconnection carries immediate implications for the notion of scale. The bodily scale is expressed in the minute details and inflections of the man-made 'skin' fitted into the nature's fold; this corresponds and is projected in the thrilling vistas allowed to a visitor who follows a series of shrewdly calculated sequence points arranged on a geographical scale. The interaction between body and nature is thus determined by the «rhythm of the landscape».

Pikionis is there, closely listening to the 'voices' of the (cultural) landscape, patiently storing a flow of experiential information, simultaneously close and distant. This may just as well be a mental exercise, a psychological preparation for the blessing of illumination, which comes suddenly, unexpectedly to the alert mind in harmony ('in tune') with the world.

Notes

1 «Concerning a congress» (in Greek), *Technika Chronika,* August 1, 1933, pp. 755–756.
2 Pikionis was never again to design anything nearly as 'modern' as his unique elementary school on Lycabettus Hill (1932), a clearly rationalist manifesto.
3 He quotes the term «ενέργεια» meaning both inspiration and action, as used by El Greco for painting.
4 All these definitions are borrowed from Webster's Dictionary.
5 The word γνώμων in Greek metaphorically means regulation, guiding principle.
6 N. Kurokawa, «Architecture of the road», originally in *Kenchiku Bunka,* Jan. 1963; first translated for *Ekistics* 96/Nov. 1963, it was then published in *Human Identity in the Urban Environment,* G. Bell and J. Tyrwhitt (eds.), Pelican, 1972. Yet L. Mumford seems to be the first briefly (in 4 lines) to have noticed Pikionis' «buildings and the remarkable landscaping» on the Acropolis in *The City in History,* [1961], Pelican, 1966, plate 10.
7 In the catalog *Dimitris Pikionis, Architect 1887–1968. A Sentimental Topography* (The Architectural Association, 1989), the presentation of this work in words (3 authors) and pictures (an essay by H. Binet) is predominant. Its more recent appearance was in the catalog *Landscapes of the Intimate,* for the Greek participation in the XIX International Exhibition of Architecture, La Triennale di Milano, 1996.
8 He was routinely considered by modernists either as an irrelevant regionalist, who had a negative influence on the course of Greek architecture, or as an seductive mystic good with words but totally helpless with construction.
9 K. Frampton, *Modern Architecture. A Critical History,* Thames and Hudson, London 1984. See also Y. Economaki-Brunner, «D. Pikionis: The landscaping of a site», *Tefchos,* 5/1991.
10 Namely, the restitution of the ancient Agora landscape by the American School of Archeology in the 1950s.
11 Pikionis has spent a number of years prior to the 1950s painting directly from nature in Attica and on Aegina island. He has also left a number of exquisite sketches symbolic of the Attic plain, which could be considered as 'preliminary' drawings for the Acropolis project.
12 «Touristic development of the Fort at Rethymnon» (in Greek), *D. Pikionis. Texts,* Cultural Institute of the National Bank, Athens 1985.
13 Awareness of the destructive forces behind the unchecked growth of Athens within Attica was manifest even before World War II. The Greek Architects' Association campaigned for the protection of «the character of place» in 1936 and even an excerpt from *The Culture of Cities* by L. Mumford was translated in support for a plea for the protection of the Attic landscape.
14 An exception is S. Kondaratos («Dimitris Pikionis in context», *Dimitris Pikionis 1887–1968. A Sentimental Topography,* 1989, p. 30).

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Rural Planning in Sicily between the Two World Wars

1. Introduction

In Italy, after World War I, an intense cultural and political debate took place, dealing with the social questions arising from widespread industrialization and urban overpupulation. Since most of these questions originated from a territorial unbalance between rural and urban areas, it appeared clear the necessity of finding new tools, methods and actions for planning the development of rural areas in such a way as to favour the permanence of rural population in the countryside and rationalize the distribution of the work force in relation to the allocation of resources.

In the South of Italy the rural population lived in conditions that were particularly critical. The building of new rural dwellings, road networks, infrastructures, service centres and villages became an important objective of the Governmental policies and actions, and was also considered as a matter of political propaganda for supporting Mussolini's idea of a new "ruralism".

This process assumed a particular importance in Sicily: it brought to the foundation of a number of rural villages between the 1928 and 1942 and also to strong actions for restructuring the land ownership system and the settlement patterns so as to "colonize" the latifundia. These developments were temporarily arrested by World War II and continued, under different political conditions and in a new social context, after the war.

In this paper the theoretical aspects of rural planning in Sicily between the two world wars are analyzed, remarking those aspects that have been particularly innovative and have constituted the basis of modern Town and Country Planning.

2. Living Conditions of Rural Populations in Sicily, from the Unification of Italy to the First World War

A few years after the Unification of Italy, in 1884, the agrarian research carried out by Jacini showed Italian agriculture to be poor, practised prevalently on inadequate lands with inappropriate means and accompanied by alarming social conditions for the population.

A large percentage of agricultural lands lay in marginal areas, in hilly and mountainous zones where agriculture was practised under technically backward conditions. A majority of plains lands, potentially more favourable for agriculture, instead consisted of swampy and unhealthy zones, where malaria was truly the scourge of the population. Plains lands were generally inhospitable and testimony of this is the fact that they were systematically avoided by the road system. Indeed, an analysis of the rural road systems of the period shows that the roads avoided the river flows, even avoiding crossing the rivers and preferred tortuous routes that twisted through the hills (*Bandini*, 1957).

In 1880 Torelli had carried out research on malaria at the national level and had drawn up a thematic map of classification of the territory based on the levels of diffusion of the disease. A wide proportion of the national territory was affected by malaria at varying levels. The south of Italy proved to be afflicted by a widespread and serious presence of the disease. Bandini noted how Torelli's maps show there to be a correlation between land ownership and the spread of malaria in the sense that the areas more seriously affected by it are those where the large-estate structure prevailed and therefore where agriculture was more backward, both in terms of its practice as well as crops and growing techniques.

The prevalence of the large estates in Sicily, considerable right up to the mid-twentieth century, was a vestige of the feudal system. Indeed, despite the fact that this was abolished in 1812, the barons still continued to obtain by economic means what they could no longer demand by political means. The abolition of feudalism was only an apparent liberation of the peasantry who *"found themselves completely proletarian when faced with a land-owning class that had full power to impose on the peasant whatever conditions they wished in exchange for the lands given for farming. Following the abolition of feudalism rather than demanding labour as before as his right of dominion, the land-owner demanded it by means of contract"* (Franchetti and Sonnino, 1877).

The existence of a large-estate land-ownership system had serious repercussions on the settlement system too and on the living conditions of the rural population. In Sicily the land-owning peasant as a figure was rare. The majority of peasants were labourers who worked on the estates without living there, or only temporarily; indeed, prevalent crops here were cereals, which require the use of only seasonal labour.

In Sicily homes spread throughout the land were rare, unlike the situation in most of Italy. Peasants lived with their families in small or large agglomerations. Urban centres, even those of greater importance and size, often have the function of being large rural towns, given that the populations living in them are almost totally agricultural. In 1911 only 11.11 % of the island's population lived spread throughout the territory, while the remainder lived grouped together in urban centres. In 1921 this percentage diminished further, falling to 10.71 %.

Living conditions of Sicilian peasants were extremely poor everywhere. In 1876 research carried out by Leopoldo Franchetti and Sidney Sonnino had shown this in all its drama: *"The housing question for the lower classes, who make their living by means of manual labour, remains one of the most serious of our age and in Sicily it is especially urgent. Indeed, this question connects those of the town-based agricultural population and those who live in country solitude, which render management of public safety so difficult and account for so much damage to both agriculture and the economic and moral interests of the peasants"* (Franchetti and Sonnino, 1877).

Since the lands cultivated were almost always distant from the inhabited

area, the peasants are therefore forced to travel some 8–10 km each day, on foot or on donkeys, in order to reach the land to be tended. In this way during the summer months the coolest hours of the day, those in which work is at its most productive, are instead used for transport. When the land lies at greater distances, the peasants are forced to remain there for the entire working week. In the summer months they sleep out in the open, despite the fact that this constitutes a serious risk, especially in the unhealthy areas where there is a high probability of contracting malaria; otherwise they make use of temporary shelters, huts or small houses consisting of one room built using rudimentary techniques and materials, often used as shelters for the animals as well and therefore lacking in the most basic hygienic requirements. In the large *masserie* or farmhouses that constitute the managerial centre of the large estates, there are often large collective dormitories, built to house seasonal workers (Taddei, 1934).

The dwellings of peasant families in the rural towns are equally poor and unhygienic: often they consist of one small single room on the ground floor, lacking in windows and housing people and animals in unsegregated, overcrowded conditions. In one room, "One sleeps, one cooks, one eats and one dies, hygiene runs away in fear(...) Neither is it possible in such restricted living quarters to have a true family and social life" (Lorenzoni, 1914).

At the end of the nineteenth century the rural population represented a significant portion, equal to some 65 %, of the active population; up to 1910, that is up to just before the First World War, this percentage remained above 60 %.

The 1915–1918 war resulted in a further worsening of the rural population's living conditions. The problems outlined in the late nineteenth-century research were joined by the new poverty resulting from the conflict, the depletion of the agricultural labour force, the problem of a great mass of ex-soldiers claiming their rights – in particular the right to own land to be farmed as promised by the government before and during the conflict in order to convince the peasants to fight. Furthermore, Sicily and Calabria found themselves once more having to face the problem of the reconstruction and the economic revival of those centres destroyed by the catastrophic earthquake of 1908, which had caused the death of over 80,000 people.

Immediately after the war the tendency towards internal migration from rural areas towards the big cities and the industrial centres, already present at the end of the nineteenth century, intensified and rendered dramatic the living problem in urban areas, where the worker and peasant population living in poor conditions was ever increasing – crowded houses lacking in the minimal hygiene necessary to guarantee respectable living conditions.

3. Town and Rural Planning between the Two World Wars

In the period between the two world wars the problem of the living conditions of rural populations acquired great political significance and for the first time it was faced not only as a social problem, but also, and above all, as a territorial problem, that is to say as a problem of how to organize physical space. The rural question, furthermore, appeared to be closely connected to the urban question: urban and rural, nothing more than two sides to the same social question, which in the housing problem, in the allocation and use of productive resources, in the modernization of the infrastructure network, finds its critical points (Mariani, 1986).

Indeed, it was in these years that the modern idea of town planning first was asserted in Italy, giving rise to intense debate, experimentation and action that found its most innovative and complete applications in the rural context. This happened in the context of political choices, often contradictory and ambiguous, made under the Fascist regime which sought to attribute priority importance to the rural question; this was also with the aim of capturing the support of the rural population who still constitute a significant portion of society and who had been let down in their expectations by previous governments.

Through the experience carried out in urban areas the idea of territorial planning based on in-depth knowledge of the phenomena expressed (state of the housing, infrastructural conditions, living conditions, allocation of production resources, distribution of land property) and which goes beyond the artificial urban/rural distinction, accepted up to then due to the inability, which had indeed been of the town-planning discipline in Italy, to suggest credible and feasible projects on a wide territorial scale. Town planning goes beyond the

limited horizon of the planning of the square and the city block, urban clearance and the improvement of blighted areas, and it is slowly reconceived as a technical instrument of integral organization of physical space which, following a coherent and rational plan, moves through all the territorial levels, through the planning and implementation of action on various scales (national, regional, local, town/rural, building), all rationally linked to one another.

Furthermore, as has been noted by some authors there is in this period the widespread conviction that, "Town planning, due to its capacity for representing itself as a technical and ideological proponent-moment at the same time, is able to recompose the thrust of industrialization and urbanisation with the drive towards new ruralism in the attempt to overcome, at least in part, the distance between town and metropolis" (Faro, 1984).

This is in regard to the ever increasing influence of public action, both in direct form and through the proposal of models for institutional intervention. Thus a sort of identification between political culture and town-planning culture is generated, found in almost all industrially advanced European countries and which in those with a more centralized or authoritarian control, as is Italy's case, finds greater ideological connotation. A regime-style political ideology, however, does not seem to be coupled with a particular current of architectural thought. In the urban environment it encourages intervention geared towards classical monumentalism, but it is also open to the more advanced suggestions of the modern movement. "Both the 'traditionalists' and the 'modernists' (rationalists) work in the name of Fascism (...) Fascism was not the triumph of urban clearance (...) But neither was it the epoch of 'rationalism', despite the fact that this found expression in the central period of the regime, to the point of leading to a diffusion that other countries with different political systems have not known to the same extent and intensity" (Mariani, 1986).

4. Holistic Improvement, Colonization of the Large Estates and Rural Planning

Planning intervention in rural areas in the period between the two wars finds its principal reference in the laws on land reclamation, in particular in the 1928 law,

also known as the "Mussolini law", and in the 1930 law, drawn up by Serpieri.

Land drainage and improvement action had already been programmed before the First World War by the left-wing government, without any substantial implementation however. Mussolini's proposed land reclamation programme intended to set in motion far-reaching and decisive action aimed at a crucial problem where previous governments had failed. The term "holistic improvement" was not used by chance. The intention here was to emphasize that as well as hydraulic improvement – the recovery of swampy, unhealthy lands for agriculture – other measures should be adopted to favour its further colonization through a rational agricultural exploitation of the land and the settlement of the peasants on the land. Equally important was the fact that the hydraulic engineering works were therefore considered as action aimed at offering the peasants and their families respectable housing and at providing the rural territory with all the necessary infrastructure for carrying out productive work (roads, electricity, drinkable water, etc.) and the social services necessary for the population (schools, post offices, medical facilities, churches, etc.).

In the context of identified, circumscribed improvement areas, the instigating subject of the intervention could be public or private; in the second case the state contributed with suitable financial support, even when the intervention regarded areas where drainage and hydraulic improvement was not required. In 1938 the improvement areas covered 9,027,000 hectares, or almost 1/3 of the entire productive surface area of the country; this was a considerable surface area especially if we consider that the lands covered by public support for improvement in 1922 were just 1,863,000. A significant portion of the surface area subject to improvement (3,888,000 hectares, equal to 43 % of the total) lay in the south and on the islands. In Sicily over one quarter of the entire regional territory was affected by the laws on improvement. Holistic improvement works that might be considered as being completed regard some 900,000 hectares, with intervention being carried out for the most part by the state. A minimal percentage (some 80,000 hectares, equal to 8.8 %) consists of private action carried out with state support, almost all falling in northern territories.

In the decade 1929–1939 over 34,000 rural buildings were constructed, but it is estimated that those erected as a result of holistic improvement plans were no more than 10,000, of which about 1/4 in the south (Bandini, 1957). In Sicily, in the first decade of application of the law on holistic improvement, private intervention proves to be almost totally absent. Apart from the construction of the town of Libertinia, carried out in 1934 and which in many respects constituted an exemplary initiative, there was no significant intervention aimed in the direction of improving peasants' living conditions and populating the countryside (Taddei, 1934). It was therefore necessary to find more effective legislative instruments.

In January 1940 the law on the Sicilian estates was passed. This law aimed decisively at colonizing those territories with a large-estate type economy, even those that lay outside the improvement zones, imposing clear obligations and rapid implementation schedules – with a financial contribution – for the creation of tenant farming units, the transformation of production regimes and the establishment of colonial families within the estates.

Furthermore, a specific organism was created, the Ente per la Colonizzazione del Latifondo Siciliano (ECLS) [Board for Colonization of the Sicilian Large Estates] whose task was to help landowners technically and financially in the job of transforming production regimes and had powers to expropriate the lands of those owners who failed to act on their obligations according to the imposed schedules.

For the colonization of the estates the sum of 1 billion lire was set aside, which today would amount to some 1,000 billion lire: a considerable quantity, especially if the financial problems of the state at that time are taken into account. Sixty per cent of that sum was destined to support private land-improvement work; the remaining 40 % instead was destined for the execution and maintenance of public works falling within already identified improvement areas, as well as for the construction of rural centres indispensable for the colonization of the large-estate areas, with all expenses falling to the state.

Application of the law on the colonization of the Sicilian large estates took place over a necessarily brief period of time because of the outbreak of the Second World War. Despite this, it was

exemplary in its intensity and its effectiveness to a surprising extent: in just two years, from 1940 to 1942, over 2,500 rural houses and eight rural centres were constructed.

5. The Rural Towns in Sicily in the Improvement Zones and the Colonization of the Large Estates

Up to 1934 seven rural villages had been built: Borgo Sferro, Borgo Ragalmici, Borgo del Littorio, Borgo Filaga, Villaggio dei Pescatori di Lentini, Villaggio S. Rita, Villaggio Libertinia. The first five were built by public bodies or consortia and originally were not used only as peasant villages; their function indeed was initially to house the workers involved in the improvement works or road works and only later were they assigned to peasant families. The other two villages were built as a result of private initiatives. Of these two the village of Libertinia is the one that carries most interest.

Libertinia was born as a result of the initiative of an enlightened politician, On. Libertini, who bought no longer productive ex-feuds and subjected them to massive improvement programmes. Given that the distance from inhabited centres had been one of the main reasons for their abandonment, the improvement programme involved the construction of a village. This initiative also involved hydraulic improvement; the creation of a small reservoir for collecting water, irrigation works, an aqueduct; the setting up of an internal road network and connection to the railway station; the realization of residential services (church, post office, etc.); the transformation of the productive regime, the rationalization of cereal production; the introduction of legume crops, of 100 hectares of arboreal crops, of livestock production, of specialist crops such as olives and vines; the construction of warehouses for cereals at the railway station. Following this intervention, in 1932 some 60 families were living at Libertinia; each of them sharecropping some 15 hectares of land and 1 hectare of vines. At that date the village had reached a level of social autonomy having essential services and some 700 inhabitants.

Apart from this case, the other initiatives are all episodic in character. Libertinia is an exception, useful as an example of what the large estates could

have become if there had been more decisive and widespread private action. Much more interesting, however, is the action undertaken following the law on the colonization of the Sicilian large estates.

Starting from the "assault on the estates", at the end of the thirties, in Sicily the implementation of holistic improvement and colonization of the estates constituted an interesting technical problem regarding the restructuring of the agricultural land, understood as productive land, and, at the same time, as social space. The main problems, from the town planning point of view, are the definition of the basic minimum productive units to which the process of splitting up the estates and the structuring of the settlement system and its connected infrastructure should be referred.

Definition of the basic minimum productive units is above all a technical-agrarian problem, with important economic implications. It is clearly raised during a conference of the technical professions – those taking part were engineers, architects, surveyors and agronomists of the Province of Catania – promoted with the aim of contributing to the formulation of technical proposals for the definition and the implementation of the law on the colonization of the large estates:

"On the large estates the monocropping system reigns and therefore the peasant farmer depends exclusively on cereal production and from this he expects compensation for his labours; but the harvests are not always successful and the life of the farmer who cannot turn to savings of any kind, nor any other resources, must move backwards so that he becomes a labourer. Therefore he who works the land can invest no love in his work; there is no desire to intensify and improve crops".
"The creation of rural houses in the first place results in a fundamental technical–agricultural problem: the introduction onto the estates of a new order of production, substituting monocropping with rational rotations and increasing arboreal crops too. The economic and social effects of such development in growing practices are very evident"
(Casale F., 1939).

Restructuring rural lands comes about through a dialectic confrontation be-

tween two different positions. The first involves the creation of rural villages that are mixed in character, both residential and service-based, in the context of a polarized settlement system for urban agglomerations; in this way rural planning leads to the creation of new centres that impede the expansion of existing ones and thicken the network of presence and penetration in rural territory.

The second position involves a more complex organization of the rural space: a settlement spread throughout the territory with hierarchical nuclei. The most complete expression of this position is that supported by Edoardo Caracciolo, architect and lecturer in the faculty of architecture at Palermo, who proposed a type of settlement derived from the experience of the Soviet de-urbanists, such as Miljutin and Lissitzky, and influenced by the idea of city-territory, on the model of Broadacre City (Faro, 1984). Caracciolo's model started from the single productive unit and covered the entire regional territory. It involves a residential and productive area whose minimum unit is a base cell made up of the colonial building and its associated farm. The colonial building consists of living quarters and a service area for the productive work. The settlement model is structured on the basis of a subdivision of the estates into a grid of some 500 m each side, so as to create farms with minimum dimensions of 25 hectares; at the top of an upper hierarchy grid, with sides of some 1.5 km are instead the "company centres", in which lived the head of the company with the job of coordinating work and where the agricultural produce was stored and processed. The company centre constitutes the linking element between primary production and the centres of industrial processing and trading.

Similarly, the residential services are also placed in agglomerations, so as to constitute true and proper service centres. Their territorial distribution was studied in relation to precise parameters (schooling index, age of the population, travelling times) so as to evaluate its catchment area. Thus two different levels of service centres were identified: the borghi [towns] and the sottoborghi [subtowns]. The towns cover a catchment area of some 5,000 hectares, each serving some 2,500 inhabitants and had to be reachable by means of an average journey of 2 km and in any case not more than 4 km; they provided the

services necessary for residence and some of the services for production: workshops, guest house, post office, police station, school, government offices, medical services, church, veterinary service, sports and recreational facilities, mill, etc.. The towns offered residence to a limited number of people whose work involved providing the services available there, up to a maximum of 20 families. The subtowns served to thicken, where necessary, the network of services offered by the town: in particular primary school and the church; these had to be reachable by means of a journey that was preferably not more than 1 km, and in any case was never more than 2 km.

The model proposed was applied partially in the eight towns created by the ECLS. Caracciolo himself was given the job of planning a service town, Borgo Gattuso, in Caltanissetta province. The towns, built in a relatively brief space of time, had a very sober approach, although each with its own specific originality, to the theme of the square and the through road, following modalities that have nothing to do with monumental rhetoric and allusions to Roman classicism to be found in similar initiatives in the urban context. Rather they maintain the memory of the region's common architecture, to which precise reference is made for the composite definition of the spaces. Similarly, and with a genuinely modern sensibility, the architects employed moved towards the definition of the living types of the rural houses, duly bearing in mind the functional aspects and dealing with the compositional features, not as a matter of style, but as a question of coherence with the designated function and the environment where the building is placed.

6. The Planning of the House and the Rural Villages, between Tradition and Modernity

The census promoted by the League of Nations regarding the conditions of rural housing was carried out in Italy in 1933 and revealed that out of 3,666,000 rural homes inspected, 19.2 % proved to be uninhabitable. The situation was particularly dramatic in the south of Italy, where the percentage of rural houses to be considered uninhabitable was 27.4 %. In urban areas the research carried out on crowding rates in housing in relation to the head of the

family's occupation, indicates that the highest levels were reached for agricultural workers and labourers. The need to provide housing for peasants, therefore, was not only a country problem, but regarded also certain urban centres and was a priority objective.

In the period between the two wars the rural house became the subject of an architectural debate, in which even the architects of the modern movement carried out an active role. There were many architectural competitions, exhibitions and journals dedicated to this theme. In 1930 in Milan there was an architectural competition on standard types for rural houses whose jury was led by Arnaldo Mussolini; in the same year in Perugia there was a national exhibition on the rural house. Many articles were published in *Casabella* between 1930 and 1935. Giuseppe Pagano, editor of *Casabella* from 1932, in 1936 promoted a big exhibition on Italian traditional rural architecture in the context of the VI Milan Triennial. Pagano's thoughts on the rural house were of fundamental importance because in the context of a cultural climate marked by "autarchy", monumental rhetoric, emphasis on national identity, he analyzed in depth the language and the types of Italian vernacular architecture, highlighting a close analogy with the planning methods and the aesthetic theories of the rationalist matrix of the modern movement. In this way Pagano reread traditional architecture, in a certain sense finding in it a legitimization of rationalist architecture and the definition of the principles from which it derives: coherence with the functional theme; the need for deep reflection on the use to which the construction will be put and the implications this has for the organization of the building; careful consideration of local climatic conditions; knowledge of the building materials and techniques used by local craftsmen; the anti-rhetoric and the simplicity of form, the rejection of all stylistic dogma; articulated volumes, asymmetrical, responding to a precise understanding of the relationship between site and derived from, more or less directly, functional choices (De Seta, 1976; Pagano and Daniel, 1936).

In Sicily interesting research on the Island's traditional rural houses was carried out by Luigi Epifanio, who in 1939 published a study on the topic. This volume set out to analyze the main types of rural Sicilian building, to draw from them an analysis of those characteristic features that can constitute a reference point for the new rural buildings to be built in the context of colonization of the Sicilian estates. Indeed, if there was the need to determine a limited number of building types as reference points, to propose as models to be followed, it is nevertheless necessary to respect regional differences and to consider a multiplicity of variables that are respectful of climatic conditions, the productive context, local living and building traditions.

"Today, given that the return to the land, and here in Sicily the measures for the division of the large estates, call for a solution to the problem of rural building, this consideration .... becomes a necessity."

"The colonial house type, as with the farm type, cannot be mutual between the north and the south, so different in terms of climate, working means, produce from the land, living customs."

"In searching for the solution of this problem, knowledge of what the man's spirit reason, in contact with the nature world that surrounds him, has known and has been able to create in the past on the island, can, despite all the deficiencies that can be found there, prove to be of considerable use" (Epifanio, 1939).

Epifanio himself was able to put into practice this reference to the vernacular building tradition in the planning of Borgo Amerigo Fazio, a service town built in Trapani Province by the ECLS. Epifanio's study, together with the contribution of other Sicilian scholars, constitutes the basis on which the ECLS defined the building types of the rural houses to be built in the colonization context. These were ten different building models of which five were on a single ground-level floor and five involved the organization of quarters on two levels. The houses proposed involved a clear distinction between the premises destined for animals and those for living quarters, avoiding direct communication. Furthermore, the hygienic and dimension standards applied ensured more comfortable and healthier living conditions – from the hygienic and social point of view – than those present up to that time.

Indeed, it is emphasized that, "The colonial house must prove to be a perfectly adaptable environment; it must be a "house" in the real sense of the word, not simply a shelter for men and a barn for animals; that is to say an element of healthy family intimacy because on the land rendered fertile by the constant and faithful work of every day, there is no desire for the greater comforts of the city, which the farmer well knows how to do without" (Ortensi, 1931/1941). The indications given by the ECLS with regard to the location of the houses are very detailed, to be constructed in an area that corresponds to the economic centre of gravity of the farm, so as to minimize the costs of transportation of the produce and journeys by the peasants.

From this point of view the theme of the rural house appears to be centred on the functional aspect, intended in a relatively new way in the context of an architectural debate often stuck in "stylistic" matters. Mazzocchi Alemanni, director of the ECLS, stated that, "Rural building is, yes, an architectural concern when we consider architecture as a primary, eternal element, inherent in the human spirit and, yes, it is undoubtedly a question of engineering, in terms of constructional technique; but above all it is a summum oeconomiae, in the widest possible sense of economy. The rural house cannot be a product of fantasy and arbitrariness, but it must be considered in its holistic functionality. This functionality varies with the environment, with land organization, with growing systems, with management methods, in relation to numerous and interdependent hygiene, technical, economic and social factors" (Ortensi, 1941).

The debate on the architectural style to be followed in planning the new rural houses finds reference, although not always consciously, in the aesthetics of rationalism (Morelli, 1939). This is true even for scholars who came from outside the architectural sector, such as for example the economist Luigi Perdisa, editor of the journal Genio Rurale, who in 1937, in a monographic issue dedicated to the rural house, wrote:

"The colonial house if rational, if healthy, if adapted to the environment, is always beautiful. It is useless to cover the house with floral decoration and to ornament columns with useless capitals. There is nature there with its trees, with the arbour that gradually covers the walls of the house, with flowers on the win-

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6a.

Fig. 6b.

Fig. 6c.

Fig. 7a.

Fig. 7b.
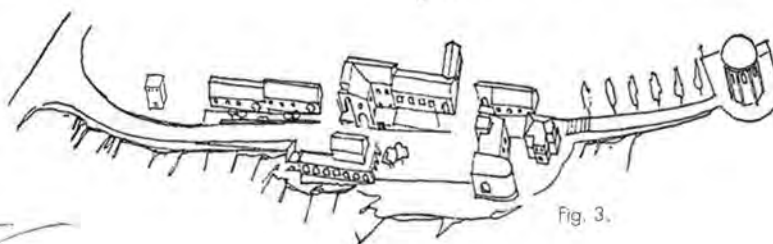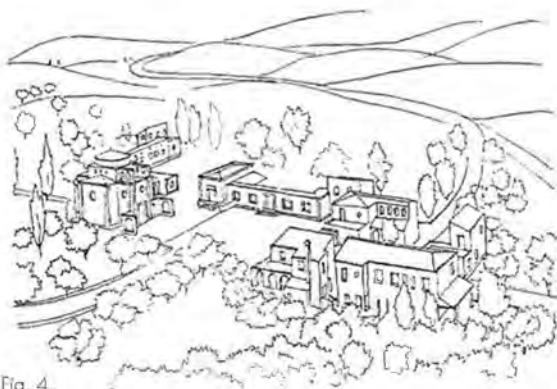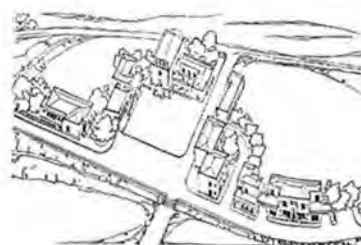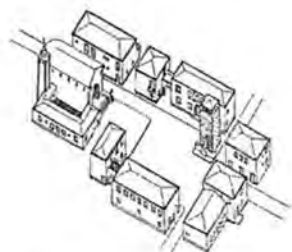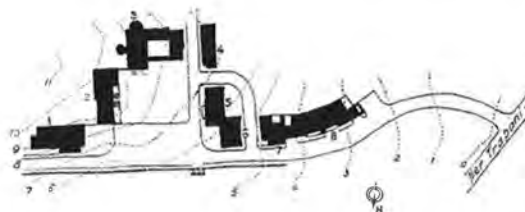
Fig. 1. In the period between the two world wars rural dwellings in Sicily were characterized by poor and unhygienic living conditions (source: Archivio Bronzetti).

Fig. 2. View of the kitchen of a rural dwelling built under the programme for the colonization of Sicilian large estates (source: Archivio Bronzetti).

Fig. 3. Aerial view of Borgo Gattuso, planned by architect Edoardo Caracciolo (source: Ortensi, 1941).

Fig. 4. Aerial view of Borgo Ferrara, planned by architect Giuseppe Spatrisano (source: Ortensi, 1941).

Fig. 5. Axonometric view and general plan of Borgo Cascino, by architect Giuseppe Marletta. Marletta was one of the founding members of MIAR, the italian movement for rationalist architecture (source: Ortensi, 1941).

Figs. 6 a,b,c. General plan, front perspective and axonometric view of Borgo Fazio, planned and designed by Luigi Epifanio (source: Ortensi, 1941).

Figs. 7 a,b. Line drawings representing two Sicilian traditional houses. The drawings are taken from a study on the vernacular architecture of Sicily, published by architect Luigi Epifanio in 1939 (source: Epifanio, 1939).
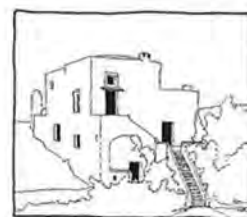
dowsills which in a short space of time will settle the new, naked, colonial construction in the already artistic painting of the countryside".

"Those architects who seek to adapt a style in the rural house, are mistaken".

"No environment shies away from all architectural styles, whether it be medieval or 'twentieth century', more than the rural environment".

"Rural architecture must be first and foremost an agricultural technique: only in this way can it adapt the new building to the technical and economic requirements of the concern and will be able to render the house healthy and welcoming for the peasants."

"Respect these conditions, limit to the minimum expenses for each useless thing, the house will be healthy, economic and rational, but rational in the true sense of the word: responding only to the needs it serves. If built with these criteria, which are wisely rural, it will never be off the mark: it will adapt marvellously to its environment, because it was created for that environment".

In various documents aimed at directing technical intervention, particular emphasis is placed on the use of traditional materials anyway held to be preferable to innovative materials characteristic of modern architecture, such as reinforced concrete. This explicit preference is dictated by several reasons: the excessive cost of materials that are not available in the immediate vicinity of the site, the result of the precarious conditions of rural roads; ideological adhesion to the principle of "autarchy"; the intention to refer the architectural language to the language of local tradition.

Thus an original synthesis arises out of the theories of the modern movement and local building tradition, almost a foretaste of what we would today call "architectural regionalism". An example of this is Borgo Cascino, an "autarchic" rural village, built in 1941 between Caltanissetta and Enna, designed by Giuseppe Marletta. Marletta was one of
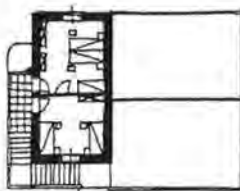
GROUND LEVEL   FIRST LEVEL

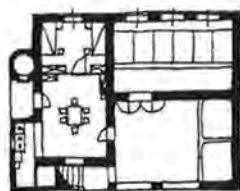Number of rooms: 4
Number of cow stalls: 6
Covered area: 147 m²
Volume 672 m³

Fig. 8.

Fig. 9b.
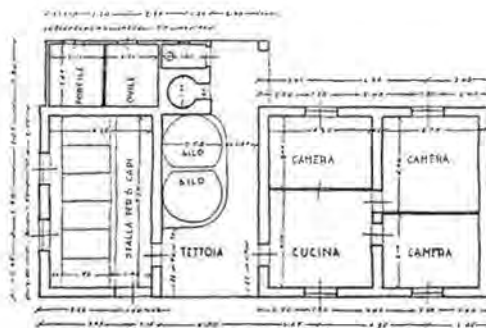
Fig. 9a.

Fig. 9c.

Fig. 8. Plans and perspective view of one of the model rural houses proposed by ECLS as a part of the programme for the colonization of Sicilian large estates. The architectural design of the house is strongly influenced by the traditional forms (source: Ortensi, 1941).

Figs. 9 a,b,c. One of the model farmhouses built by ECLS as a part of the programme for the colonization of Sicilian large estates; metric plan (a), perspective view (b), photographic view (c). The farmhouse is composed by a dwelling with three bedrooms and a kitchen/living room, small animal-houses (for dairy cows, sheep and pigs) and silos for grain storage. The connecting space between the dwelling and the animal houses is sheltered (sources: a,b Ortensi, 1941; c, Archivio Bronzetti).

the pioneers of Rationalism in Italy, having participated in the first two exhibitions of Rational Architecture organized in Rome respectively by Libera and Minnucci in 1928 and in 1931 by Bardi, in which there was an intention to demonstrate the total commitment on all the planning and design themes of rational architecture and of the modern movement. Borgo Cascino, "Built entirely in local stone is the (village) most rustic, antimonumental (...) among those built in the large estates in the Sicilian interior" (Rocca, 1988).

Conclusions

Despite the political climate of the period, characterized by a totalitarian regime and the threat of war, and despite the fact that Mussolini had made holistic improvement, the colonization of the Sicilian estates, improvements in the living conditions of the peasants and ruralism potent weapons of political propaganda, nevertheless the debate that developed around these questions maintained a high level of technical interest. It was above all a debate among professionals, in which the motivations discussed were above all technical, although used from time to time in supporting the ideology of the regime; on other occasions, instead, the architects themselves gave value to their ideas by making reference to the positions expressed by Mussolini.

The ideas of the architects of the modern movement were given considerable space, even though professional commissions were granted only to those who adhered to Fascist ideology. Through the different experiences in the national field new planning criteria were outlined. There was above all an idea of territorial and town planning that crossed all levels in a holistic manner. At the national level this came about through the planning of the location of productive activity and land use; this comes about in an integrated way moreover where urban and rural areas contribute equally towards a new balance of the territory.

The Sicilian experience is of particular interest, since intervention on the regional scale involve all the aspects that define the spatial organization of the territory: environmental rehabilitation and the modification of the morphology of the territory; the redefinition of the infrastructure network (roads, electricity, drinking water, etc.); the reorganization of the productive structure and the re-ordering of the productive uses (colonization of the estates, land improvements); the redefinition of the settlement system (new cities, rural towns, scattered houses); the definition of reference planning models for the rural buildings and the definition of precise building standards in dimensional, hygienic, functional and environmental terms.

In the national context the construction of the agricultural cities and the rural towns constituted a particularly significant experience, which proved to be important in drawing up the national town-planning law of 1942, which still today is the general reference law on the matter. The Littoria project, a city built near Rome in the context of the reclamation of the Pontine Marshes, was even presented at the IV CIAM. In the Sicilian case the construction of new rural towns constitutes action that in many respects was innovative. We can therefore agree with Mariani, when he states that in the period between the wars,

"There was the setting out of a certain criterion for territorial planning that proved to be 'original' in the Italian context, both in terms of the theoretical setup with reference to new urban types: industrial centres, artistic centres, agricultural centres, mining centres, educational-cultural centres, that is the typological subdivision of the territory, and in the fact that, in encouraging complex and organized action on vast portions of the territory, it presaged a central town-planning government that defines the sense of spatial planning in concrete terms in a way that had never come about in the past" (Mariani, 1976).

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ISC Session: Technology

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Sources of MOMO Technology – "Wie bauen?" (1927/1928) and the Dutch Results of a CIAM Inquiry "Functional Exterior Walls" (1939)

Two publications on technological questions of Modern Movement architecture border its heroic period. "Wie bauen?" reflects the experimental Werkbund-settlement "die Wohnung" in Weissenhof (Stuttgart 1927), which was one of the first major manifestations of Momo architecture as an international team effort. At the request of the Stuttgart publisher Wedekind, Heinz and Bodo Rasch documented technological aspects of the Weissenhof houses in "Wie bauen?" (How to build?). The building process was quite difficult, since a technical standard for the new type of houses had yet to be found and opposition of conservatives had delayed the Weissenhof project. However, as the building industry in those times was eager to find new market possibilities, a wide range of new – more or less tested – materials and building systems found its use in the Weissenhof project. In a fresh and pragmatic style, the authors of "Wie bauen?" present a meticulous analysis of all solutions, in a well-considered order. The authors added design proposals, which show a rational interpretation of advanced building systems.

Just before the abrupt end of the heroic period of Modern Movement – paralleled by the historic changes of the Second World War –, a CIAM inquiry on "Functional exterior walls" had been prepared, in order to gather region-spe-

cific solutions or general applicable experiences on the theme. The Dutch entry was published on September 2, 1939 (No.17/18) in a special issue of "de 8 en Opbouw", which was the review of modern architect groups in Amsterdam and Rotterdam (Reprint by Van Gennep, Amsterdam 1985). Although a preliminary report to CIAM by a co-author of the inquiry, the Polish architect Simon Syrkus, goes back to 1934, it took years before building techniques were considered important enough to get on the full agenda of CIAM. In the CIAM-inquiry built results, including eventual mistakes and actual experiences, were carefully checked and judged.

Both publications reflect the Momo period which they belong to: in "Wie bauen?" we recognise an enthusiastic speculation on Momo technical possibilities as seen from a viewpoint typical for young architects and progressive builders. On the other hand, the CIAM inquiry shows a more modest approach, aiming at long-term economic effects which were thought crucial for mass housing by involved local politicians and official scientific institutions. The results were thought especially useful for developing (new) standards for building materials and its composition in walls or roofs.

A summary of both publications will introduce conclusions involving the relation between modern building technology and the socio-economic circumstances of the period.

Wie bauen? (1927)

"Wie bauen?" was published twice in a strongly changed concept and layout. The first book, dating from 1927, with a preface by Adolf Behne, was subtitled "Bau und Einrichtung der Werkbundsiedlung am Weißenhof in Stuttgart 1927" referring directly to the Weissenhof settlement. The second book, bearing the same title undoubtedly because of the commercial success of the first (only adding to the front cover the year "1929" and "Nr.2" in red color) is subtitled more general: "Materialien und Konstruktionen für industrielle Produktion – Jahresausgabe 1928" (Materials and structures for industrial production – annual edition 1928). The puzzling 1929 – instead of 1928 – on the cover must have been the publisher's choice to have a better sell over more years. In the second issue we find an adverti-

sement of "Wie bauen?" Nr.3 (annual edition 1929) which, however, was never published. The advertisement promised a content showing the development of hand craft building towards recent industrial production, tables on optimal dimensions of building elements and achievements of American building industry.

The brothers Heinz (*1902) and Bodo (*1903) Rasch had already been active in interior design and graphic layout and published books on modern windows and chair design. They were responsible for two interiors in the Weissenhof settlement. Their viewpoint was very distinct from those modern architects who favored the Momo as a style of "whities and cubes". The experience of making chairs and interiors from new materials like ply wood, boards and steel tubes, had teached them respect for material properties and structure. Consequently, their architectural designs tend to search borders in structures including inventive proposals for huge hanging roofs, suspended high rise-buildings and shell structures. Some of these highly inventive proposals were presented in both books.

But, one would misinterpret "Wie bauen?" reducing it to a personal statement of two young enthusiastics. The brilliant aspect of the book is that it combines many fields: a structural typology according to specific materials with a critical historical introduction, a description of structures and materials used in the Weissenhof houses and finally a presentation of all new materials and products from the producer's point of view. In order to communicate the different levels in the book to the reader, the authors applied a rigid and unusual layout. Almost all of the 176 pages of the book were divided by a bold horizontal line in a top and bottom half. The top half was reserved for the main theme and the descriptions of individual houses, whereas the bottom half contained the product presentations, in small lettering showing sometimes its minor importance. The authors managed to keep the upper and lower stories more or less in line and so f.i. one can read on p. 143f about the steel-framed Gropius house cladded and insulated with several board types, and parallelly underneath about one of the boards, the Swiss patented product "Lignat-Platte", produced in Germany by the wood element firm Christoph & Unmack in Niesky, Saxonia.

STAHL? VULKANFIBRE? SPERRHOLZ? GUMMI? ZELLON? ZE

1929
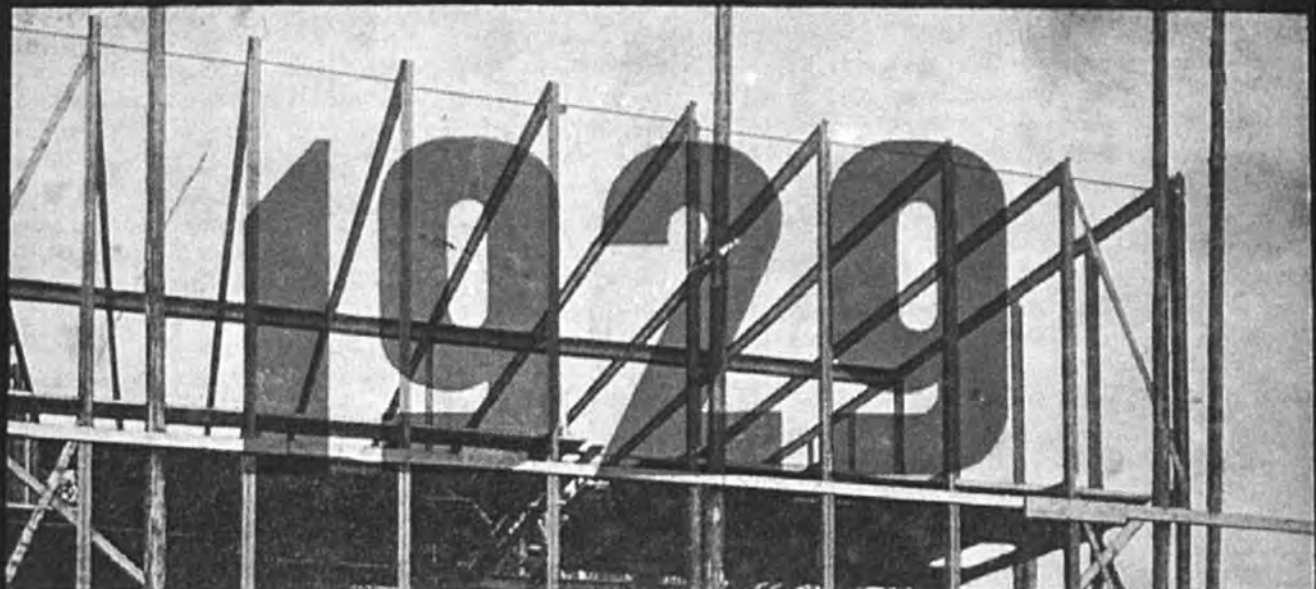
HOLZ? PAPPE? TORF? ASBESTFASER? KORK? WELLBLE

WIE BAUEN?

BETON? GLAS? EISEN? KUNSTSTEIN? EMAILLE? ALUMINI

N° 2

AKADEMISCHER VERLAG Dr. FR. WEDEKIND-CO STUTTGART

Despite this thematic variety, critics like Jürgen Joedicke observed that the authors tried to keep a systematic composition of the chapters (Exhibition catalogue: bodo rasch – ideen, projekte, bauten – werkbericht 1924–1984, zirkel 9, architekturgalerie am weißenhof in stuttgart 1984). After an introduction of the Weissenhof settlement and its architects, a photographic documentation of the building process is given, which is continued throughout the books with ample illustration material. The first book has two parts, the first on "Masonry" ("Mauerbau") and the second on "Skeletons" ("Skelettbau"). This pair of words shows the two possible tendencies in building praxis, reaching from massiv to lightweight or from closed to open structures. Within these categories Masonry or Skeletons the Rasch brothers described also structures in the past – including natural structures – and possible structures for the future.

Whereas solid masonry is conventionally interpreted by the authors, aiming on structural solutions with stone-like materials, other terms like "folded masonry" and "ribbed masonry" are strongly defined from its structural shape and less by the material used. As a consequence, corrugated roofs, floors of zigzag wooden elements or even – for their monolithic character – bathroom ceramics are included in the Masonry chapter. In the Skeletons' part one finds a development parting from half-timbered structures towards grid shells by the Junkers' firm and even hanging structures.

The Weissenhof houses by 15 international Momo architects represent examples of both solutions, masonry structures and skeletons. It's amazing how many different materials and how many structural sytems were applied. This should not be interpreted as technical sophistication. Despite its uniform and minimalist appeal, the Momo form vocabulary was not yet tested in building praxis. Short planning time – partly caused by opposition of conservatives which had delayed the Weissenhof project – and differing languages of the international team forced the architects and firms to develop individual, even improvised solutions. The Rasch brothers understoond this and when they discuss flat roofs (which were an obligatory part of the master plan by Mies van der Rohe), they give suggestions on its careful execution and they show their scepticism against interior rain pipes (which,

by some architects, were thought to enhance a minimal aspect of the house).

A good description of problems in the building process – the results of which reappear in the Rasch book – is the book by Alfred Roth: "Zwei Wohnhäuser von Le Corbusier und Pierre Jeanneret", published by Wedekind, Stuttgart 1927 (on Le Corbusier's two houses in the Weissenhof settlement; reprint by Karl Krämer Verlag Stuttgart 1977, with a new preface by Roth). The concrete floors are made on a lost formwork of reed covered wooden frames. These elements ("Schilfrohrzelle" by Firma Ludwig Bauer, Stuttgart) were spaced in order to create a floor slab with ribs underneath for static purposes. The reed elements did not only save weight, but were also useful as a rough surface for plastering of the ceilings. Although one may find favorable reasons (f.i. acoustics, humidity behavior, ecological considerations) to approve that the floors were not constructed in full concrete, the conventional materials and production method (f.i. for the reed binding and plastering) does not follow the Momo idea of progressive industrialisation of the building process.

Let us continue with a brief description of the Weissenhof houses. Astonishingly the Poelzig house has a skeleton like a conventional wooden half timbered house, including numerous diagonal bracings. The modern aspect was the cladding, which consists of 5 cm stone-wood boards ("Fonitran-Platte") on the outside and polished colored marble cement slabs (on gypsum base) on the inside. Gropius used a highly innovative steel skeleton (Z-profiles), the wall fillings consisting of various artificial materials, (products: Eternit, Celotex, Lingat) and pressed cork for insulation. In the walls of the houses by Scharoun, Rading, Max and Bruno Taut a product called "Thermos-Platte" was included to reach sufficient insulation. The product – which in our eyes may lack sufficient reliability – consisted of some six individual thin cardboard sheets which were spaced 2 cm by air. The paper sheets were held by a frame of wood. Of course, both the inside and the outside had to be cladded with more durable materials. Experiments in the Berlin Hygiene Institute by Prof. Korff-Petersen had proofed a superior heat insulation by the "Thermos-Platte" and it had been applied with good result over the years in cold-storage depots. Oud's row houses turn out to be concrete monoliths and

Stam's row houses, which were intended to be steel skeletons, are mainly masonry of light concrete blocks. Since rationalization in masonry was mostly expected of increased block dimensions, the firm of architect Albert Feifel, in Schwäbisch Gmünd, developed two new brick shapes of increased dimensions. Most interesting was an L-shaped brick ("Feifel-Winkelstein D.R.P.") that could be composed in various ways to walls of 12–38 cm. Another option was a hollow light concrete block ("Moskopf-Steine" 25/25/50 cm). In the house by Hilberseimer and Stam these blocks were used for the masonry, and similar blocks were used in the house complex by Behrens.

The steel skeleton of the apartment building by Mies was filled with light masonry. The architect wanted flexible interior plans and one option was developed by the Rasch brothers. Their interior walls were a kind of sandwich panel system (paper/cork/paper on a wooden frame). The panels could be assembled with wooden rails which were fixed with dowels in the ceylings. The modular holes in the ceilings which were not used, were decently hided by a metal clip.

A proof of the profound theoretical attitude of the Rasch brothers is that they also discuss the decay of Masonry and Skeletons at the end of the book parts.

Wie bauen? No. 2 (1928)

So far "Wie bauen?" 1927. What is the difference with "Wie bauen?" No. 2, Annual edition 1928?. The first book has unique qualities. One should praise it as a theoretical manifestation, exactly fitting in the Momo spirit of its time. On the other, hand some deficits can be observed. The composition and layout of the first book somewhat degraded the Weissenhof houses to examples of the use of new materials and building systems. And although the division in masonry and skeletons may be theoretically correct, the used words, newly defined, were not very communicative to the reader. Without giving any explanation, in the second book the Rasch brothers offered a complete new concept and layout on 269 pages and with 378 illustrations.

The creative brothers start the book with restrained layouted pages. On p. 3 we read that in 1844 Krupp steel was rejected by the Minister of War, because "the guns in use did not have any

defeats", which was commented by the authors: "this is the treatment of all new ideas". On p. 5 the first we see is a photograph of opened boxes for matches and cigarettes. No bold letters or big titles attack the reader; only a short text with two words visually set free "50 Pfennig" (being the cost of the cigarettes) and "3 Pfennig" (being the cost of 50 matches). This puzzling entry in the book prepares a clear statement. In order to reduce costs and to control quality, building industry should be progressive and industrialized, just as the producers of the perfect cheap, functional and even colorful boxes. Having experience in advertisement techniques, the Rasch brothers proceed the introduction in an increased speed, attacking with possessive texts and photographic documentation the cityscape of the time, showing spirit-empty fa(ades in neo-styles with functional and formal problems. The answer to all this is the Modern Movement and industrialization.

The composition of the second book is adapted to a more general approach of Momo technology. In the chapter "Material" building materials are introduced – of which many architects and builders did not know the strong developments – in a simple way, covering all aspects (production, tests, building physics). The second chapter "Konstruktion" again contains Masonry and Skeletons, but the subdivision is now made with more appropriate terms. Building methods and products are listed in the 100 page final chapter called "Bezugsquellen" (sources) and the addresses of the firms are added. Since some of the firms did not appear in the first book, one may find another reason why the second book was thought necessary (and the third was planned). Another specific purpose of the second book is to visualize the installation and montage of the products into the building.

A comparison of the two editions of "Wie bauen?" (1927/1928) may give the following result. The 1927 edition is simply the "original", a brilliant journalistic report on the rushing building process of the Weissenhof houses in Stuttgart. It describes what happened during building and it responds spontaneously, yet with solidarity, to the many problems which occurred. The 1928 edition is the perfect teaching book on Momo building praxis. In the eyes of the Rasch brothers probably everybody was an 'ignorant student', since the knowledge was just recently acquired. The archi-

tectural student was guided clearly throughout the complexities of building in past, present and future. For our times the second book may be more valuable in restauration praxis and as a written account of structural thinking in the late twenties. A reprint of both books, with English translation, should be published soon.

Results of a CIAM Inquiry on Functional Exterior Walls in "de 8 en Opbouw" (No. 17/18 1939)

The second publication to be discussed in this article, the 1939 CIAM inquiry on functional exterior walls appears to be strikingly different! Already three major publications had been edited by "les Congrès Internationaux d'Architecture Moderne" (C.I.A.M.): "Die Wohnung für das Existenzminimum" (Julius Hoffmann, Stuttgart 1929), "Rationelle Bebauungsweisen" (Julius Hoffmann, Stuttgart 1930), and, for the 1937 Congress, "Logis et Loisirs" (editions de L'architecture d'aujourd'hui, Paris). These publications did not in depth discuss technological problems concerning the structure or construction of buildings. Next to general architectural themes the CIAM congresses had discussed standards for surface area and heights of specific rooms in a house or minimal distances between house blocks (sun) and many sociological statistics, being technical matters mainly influencing a design concept and, to a lesser extent, the materialization of a design.

In 1939 CIAM concentrated the discussion on technology in a sense of structure and construction, more precise on functional exterior walls. The international scope of CIAM forced to find some way to compare all regions, in those times comprising 16 countries in Europe and Algeria, Argentine, Brazil, Iran, Japan, South-Africa and the USA. As in other cases an inquiry was thought to be the best way to get statistically relevant results. The inquiry questions were developed by a small international team: Helena & Symon Syrkus from Warsaw, and Carl Hubacher from Zürich. These architects had realized buildings with intelligent solutions for light exterior walls. Examples (house Dr. N. in Warsaw by H.& S. Syrkus 1932 and the "Zetthaus" in Zürich by Hubacher/Steiger/Winkler 1932–1933) had been illustrated in the publication

of the Dutch inquiry results, so to speak as an international standard.

Symon Syrkus had already been an invited speaker on exterior walls in the CIAM IV, prepared for Moscow, but held in Athens in 1933, and on a steamliner crossing the Mediterranean. This text, which the author calls a preliminary report to CIAM, was published as: "De buitenmuur – ondervindingen in de laatste jaren" in "de 8 en Opbouw" on June 23, 1934 (No. 13). The Warsaw building examples, f.i. the house Dr. N. in steel skeleton, are of some special interest, because they were built in a rough continental climate, which shows much higher differences in temperature in summer and winter than f.i. Barcelona or London. Minus 35° Celsius occurred last winter, as Syrkus explains. One solution was a wall of differentiated materials, with plaster on the inside, followed by 13 cm hollow brick and, on the outside, 10 cm light concrete elements, cladded by 25 mm thin natural stone elements. Some houses described by the architect-engineer Syrkus were built for experimental reasons, and shown on the 1935 Warsaw housing exhibition on behalf of the Syndicate of Polish steel firms. The general conclusion for Syrkus was that walls should be designed according to the principle: a watertight surface on the exterior, behind this light materials, f.i. air-chambered hollow bricks with big holes for heat-insulation, and a heat accumulation on the inside, f.i. hollow bricks with small holes. Passive use of sun energy was thought to be relevant for the design of the windows and their position. Also accoustical problems of a steel skeleton were recognised and solved by soft materials between the steel girders and stone materials.

Back to the inquiry and its Dutch results. (It is unknown whether any inquiry results of other countries have been published and it is unlikely in a more substantial way, because of the Second World War.) The 93 questions were sent together with instructions on how to draw building elements and materials in a uniform way. 13 drawings of international walls were added, with a description of thickness and material of all layers. The inquiry in Holland was carried out by a team of 5 architects of whom Van Loghem and Limperg had the editorial responsibility. Members of the Dutch team were authors on technical matters and collaborated with scientifical or official institutions. Koen Limperg

had written a book on building physics with "Naar warmer woningen" ("towards warmer houses").

The care of the answering team can be estimated from additional notes and information in the inquiry publication. The questions were answered in collaboration with various specialists, including official city or state institutions and building firms.

The inquiry was logically composed, starting with typical (conventional) wall constructions of the region and data on the climate of the region (extremes and average temperature, sun hours, humidity). In their answer the Dutch team added data on wind and rain frequency, because of its importance for the Dutch climate. There were further questions on heat insulation of buildings. The way buildings were exploited were analyzed by economical statistics comparing investment costs, heating system, frequency of renovation, rent level and fire insurance.

Another question was: Are their any experimental buildings in order to make a scientific comparison of house and wall typologies? The examples that are given are small houses by the Technical University in Norway (1919–1928; Publication of Ing. A. Bygge: "Ergebnisse von Versuchen für den Bau wärmer und billiger Wohnungen", published by Julius Springer Verlag Berlin) and German examples by the Reichsforschungsgesellschaft, which were investigated in 1931. One of the results of the inquiry is that it appeared that such experimental house complexes did not exist in Holland. In his introduction the Dutch city planner Cor van Eesteren, at that time president of CIAM, points out that more experimental houses should be built, also in Holland. On the other hand, the publication recalls building complexes like "Betondorp" on the border of Amsterdam (1923–1925), with row houses in concrete by Gratama, Greiner, Van Loghem and Roosenburg, but although the building process in "Betondorp" was experimental, these houses were not investigated continuously after they were finished.

The second half of the questions dealt with regional experiences: Which building materials originate from your country? How well do these materials – in Holland f.i. brick – behave in the building process compared to other materials (economically and technically)? Some other questions touch the cooperation between architects, official institutions and (industrial) building firms.

Very interesting are the questions concerning a specific built example. In the Dutch entry the Gooiland Hotel by Duiker/Bijvoet in Hilversum (1935–1936) is described profusely, though critical questions seem to be answered in a rather superficial way. The inquiry ends with questions dealing with technical developments for the near future and in the answer a list of 9 buildings illustrate the development with photos and wall sections. These buildings from 1922 to 1938 may be seen as representing the more conventional, decently constructed highlights of Momo (without f.i. the Schröder house by Rietveld or housing complexes by Oud). The Dutch entry does not see any special development for the near future, but in the conclusion it recalls the urgent wish for scientifical research on experimental buildings and quality standards for walls.

The publication of the Dutch inquiry results in "de 8 en Opbouw" is strategically accompanied by further articles. One is a specific proposal for building experimental twin houses by a team of "de 8 en Opbouw" and technical institutions ("Thermotechnische dienst van de Warmtestichting, Geluidstichting"). The proposal describes how the three twin buildings in brick, reinforced concrete skeleton and steel skeleton should be researched. The proposal is addressed to the Dutch government and the Organisation for Applied Technical Research (T.N.O.). Another thoroughly worked-out contribution is given by Van Loghem in an article on the "differentiated" wall ("de gedifferentieerde wand in warmtechnisch, geluidstechnisch en economisch opzicht"). Basing himself on Amsterdam city experiences he discusses 10 building systems.

Conclusion

Van Loghem explains that in the early times of Momo around 1920 technical aspects were considered less important than economical aspects. And this remark may start a few conclusions on comparing the publications "Wie bauen?" (1927 and 1928) and the 1939 CIAM publication on "functional exterior walls" in "de 8 en Opbouw".

Although both publications refer to the importance of technical aspects – like heat insulation, the problem of noise, moisture, water resistant cladding – the way to deal with these scientific terms had to grow mature in the thirties. The

research results as published by the Rasch brothers in their descriptions of specific products are mere one-dimensional data, tests under laboratory conditions, without sign that the mutual influence of heat insulation, heat accumulation and moisture on the temperature level inside the house was understood. Neither in "de 8 en Opbouw" (nor even till the sixties when global energy problems became apparent) this field seems completely controlled, but at least a concept was discussed on how to get to a "functional wall" in all its aspects. This concept was defined as a thoroughly controlled research of building systems and quality standards for materials. For Holland one may observe that the activities of "de 8 en Opbouw" for technological improvement would continue during the war, resulting f.i. in the reconstruction of the Rotterdam city center.

Another difference in building between 1927 and 1939 is the exchange of the professions involved in the Momo idea. In the beginning individuals and small groups of architects and experimental firms were highly engaged in pushing Momo. This phase is documented by its pamphletical reviews and occasional books. In its first stage important avant-garde schools and political positions were established by Momo members. In the next phase Momo establishment published books for a wider public and became influential in the official architectural schools and universities, including the non-architectural engineering disciplines, and in the official administrations which dealt with planning. As far as the building industry was concerned, the initial instable market with its high expectations was quieted down by a process of normalisation in all senses. The persons involved had an increased professionality but sometimes lacked a specific progressive spirit, typical for the early Momo years.

A melancholic note may be appropriate since by this loss of Momo spirit, as it seems, the experiment had left the child's playground and entered the institutional laboratories with their DIN standards.

Only in the European post war era new technical engineering would become urgent again in building (shell and tensile structures, prestressed concrete, plastics) which was highly influenced by developments of the fourties in both North and South America.

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Social Aspects in MOMO Industrial Architecture and Architectural Industry

Introduction

Modern Movement architects and planners were fully convinced that their work must be an efficient answer to the right of every person to have a healthy, comfortable and functional environment.

Housing and social facilities were conceived by them with regard to that aim, and so were factories and other functional buildings.

But what happened to the welfare conditions of those in charge of materialising the new ideas for a better environment?

The aim of this paper is to go through these aspects of MoMo industrial architecture and architectural industry, through the analysis of a few key-points, regarding the relation between modern building technology aspects and the socio-economic circumstances of their context.

Concerning the Socio-Economic Context

In the 20's, 30's and 40's the world was not that globalised yet. The Modern Movement, proclaimed the "International Style", is a clear example. It was spread all around, but its spreading took decades in some cases and circumstances for its development were quite different from one place to another. It is impossible, thus, to give a brief general scope of the situation about socio-economic conditions that influenced its development. Aims were shared, but circumstances varied.

When it was already a strong and undeniable stream of innovative ideas and concretions in Europe, it would ar-rive in Argentina, for instance, in the late 20's, brought by intellectuals who first took into account its aesthetic values more than a whole comprehension of its being a reflex of a new social and technical order. Some of the more remarkable early examples were the work of skilled Academic architects, ready to give an efficient answer with a MoMo aesthetics upon the demand of the client, as architect Alejandro Bustillo did for Victoria Ocampo's house. But in short, outstanding professionals such as architect Amancio Williams or engineer Antonio Vilar and many others, would comprehend the whole message and put it into practice, with an advantage with respect to other countries: building companies had by that time gathered solid skills in solving the technical aspects of using new materials through their previous experiences. They improved their knowledge in the first decades of the century, when policies to develop the urban infrastructure and public programmes were carried out in the main cities of the country. Many of those companies were of German origin, and they introduced, among others, the knowledge of the DIN regulations, Neufert and Kleinlogel handbooks, etc. Rational layouts, modular concrete frames, systematised metal carpentry, high quality materials were employed in a wide variety of programmes: dwellings, administrative buildings, factories, schools, cinemas, social facilities, etc.. The high technical standards were going to assure the quality of the results and the good conditions in which this architecture still is, except when by further man's action.

That was the particular context for the development of Modern Movement architecture in Argentina. As said before, there would be particular circumstances depending on place and time. But even though it is not possible to give a general socio-economic context, what can be asserted is that society was changing, the world was changing, and Modern Movement was going to express that change.

Keeping that consideration in mind, some remarks can be made on the common social aspects in both fields: the one of the industrial architecture and that of the architectural industry.

Concerning Industrial Architecture

The process of improving the standards of working conditions in industrial ar-chitecture had began almost simultaneously with its flourishing, because sanitary and comfort aspects played an important role in increasing the pace of production and that was early understood by industry managers. These improvements referred, however, to working conditions and social facilities in buildings or sites built to host an activity inside them, and were thought for the people who would work there.

Industrial architecture was conceived as a technical apparatus rather than a working environment for human beings, but still, improving conditions in work premises was an early concern. The factory worker was considered a cog in a wheel, which could be made more and more efficient. Healthy and satisfied workers would produce more goods and more efficiently than those in an unhealthy and uncomfortable environment, and that was in the interest of the industrial management.[1]

Industrial Revolution pioneered Modern Movement in some essential aspects such as rationalisation and innovation in techniques, functionalism in programmes, internationalism in expression and, last but not least, concern for welfare in working premises.

In the Modern Movement period, when the pace of production was going to be increased, health and satisfaction became particularly important aspects to be taken into account. Architects were conscious of the fact and worked to find better standards on lighting, ventilation, noise control, social and sanitary facilities, etc. Improving working conditions in work premises became a general trend during the years immediately after World War I, at the same time as the working pace increased and production grew.

Time may vary from one country to another, but the concern was settled, and it was going to be strengthened by the creation of the workers unions in first place, strongly claiming for their rights. Also an increasing sense of "universal right for welfare" the new democratic society started to feel would be decisive to improve working conditions in every activity, industry – and architectural industry – included.

In Argentina, Nuestra Arquitectura, (a then recently created magazine, edited since 1929 by Walter Hilton Scott, which carried out an energetic defence of international MoMo principles through the publication of the most outstanding national examples that repre-

Fig. 1.

Fig. 2.

MODO DE LEVANTAR

1. Ante todo, juzgue el peso. Pida ayuda si la precisa.

2. Asegúrese respecto a la base de apoyo.

3. Levante con sus piernas, no con su espalda.

4. Mantenga el equilibrio — no se doble bajo el esfuerzo y no mueva la carga a tirones.

Doble rodillas

Tenga esta línea casi vertical.

Tener la fuerza de toro no es suficiente — usted debe aplicar su fuerza inteligentemente. LEVANTE CON SEGURIDAD.

TARJETA DE INSTRUCCION DE SEGURIDAD Nº 55.

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 1. Industrial Architecture: Familistere at Guise, the maintenance and equipment workshop in 1921. (Copyright Archives d'Architecture Moderne, Bruxelles, Belgium, reproduced from Annick Brouman, "Jean-Baptiste Andre Godin 1817–1888: The Familistere at Guise or the Equivalents of Wealth", Bruxelles, AAM Editions, 1980).

Fig. 2. Architectural Industry: working premises in Buenos Aires, ca. 1935 (Archivo General de la Nación, Buenos Aires, Argentina).

Fig. 3. Safety instructions card, example published by Construcciones magazine, issue 62, July. 1950.

Fig. 4. Foreign propaganda poster on building security, published by Construcciones magazine, issue 62, July. 1950.

Fig. 5. The Kavanagh building, ca. 1936 (Archivo General de la Nación, Buenos aires, Argentina).

sented that tendency) dedicated its July.1944 issue to industrial architecture and welfare improvements for workers. In all the examples published, the relation between MoMo architecture and better standards was enthusiastically enhanced.

Concerning Architectural Industry

In this particular field there are some points to remark with regard to the relation between the modern technology and the construction worker.

On the one hand, the introduction of industrialised parts that were formerly crafted changed the worker's profile from craftsmen to semi-skilled labourers. Such is the case, for instance, of standardised metal windows, which not only required semi-skilled labourers but competed with timber windows reducing prices. Working conditions in the "under roof" factory were obviously better than in the "open air" building site.

On the other, the worker's profile was also going to change as a consequence of technical and formal aspects such as the lack of decoration and rationalisation of building details. That would provoke a considerable number of workers were deprived of their professional pride, formerly based on their skills to produce unique and elaborated solutions no longer required, while their wages decreased.

The modern building technology was mostly developed with the aim of improving the quality in process and results in architecture, and that was also going to indirectly better the workers environmental – and safety – standards. A sense of exemplary order, rationalisation, control and efficiency, associated to the idea of Modern Architecture, was carried out by professionals concerned with introducing new regulations in building industry as well as to make workers conscious of their role in building the new space for a healthier and better society. Specially in the 40's and 50's the efforts were going to be focused in obtaining better safety conditions.

Well-known institutions as the American Institute of Architects and the American National Security Committee produced a wide bibliography about better standards, as the American Standard Safety Code for Building Construction. This information was almost immediately translated and published by Construcciones magazine from Argentina, as an example to follow for local contractors.

It is interesting to have a look on the local Modern Movement architects points of view.

Architect Wladimiro Acosta, an outstanding MoMo Russian born architect working in Argentina, asserted in 1931 that industrialisation of architecture was not based on the organic development of architecture but in economic and financial reasons. He was convinced that "industry needed new markets and invaded architecture" and so...

"industry developed efficient and more economic techniques and man submitted to machine".[2] He also expressed that architects should not wait from industry the solution to architectural tasks because it was only a production force, and the results would be as efficient as the architect conceived them. Improvements, as Acosta clearly said, would mostly depend on the conscience and responsibility of architects. By the same time he was expressing these ideas, building workers were fighting hard in the country to obtain basic rights as the "eight hour journey", better working and security conditions and higher wages. "CGT" and "Bandera Proletaria", two worker's unions newspapers, mentioned in the issues of that time continuous strikes and discussions on those rights, that building workers would obtain partially at the beginning of 1936.

It looks at least contradictory, then, to find out that one of the most remarkable MoMo buildings in Buenos Aires, the Kavanagh building, was built in between 1933 and 1935 (in a quite short time for a building of that size) and according to the professional in charge of the management, Engineer Enrique Pujadas,[3] without delays, without problems with the workers (more

than five hundred everyday in the building site and other five hundred in auxiliary factories), without accidents, except a few insignificant with labourers rejoining the work in short and, last but not least, receiving the continuous visit of professionals and students from Buenos Aires and abroad,[4] interested in the work. The reason why everything was obviously under control at the Kavanagh building site while other construction works were seriously damaged by the strike, can be found in Engineer Pujadas reports and in what was left from an addressing to the workers, by the architects and engineers Sanchez, Lagos and De La Torre – the authors – proposing a deal with contractors and workers.[5] It is evident that the efficient management together with a high human respect for everyone succeeded in making them feel a basic part of a great team with one only aim: to build the most wonderful building in the city, for the use and joy of future generations. And so they did.

Notes

1   See Fredric Bedoire, "Large-Scale Work Places: Working conditions in factories and offices" on the book of proceedings of the IV International Conference "L'Etude et Mise en Valeur du Patrimoine. Industriel", Lyon-Grenoble, France, 1981.

2   Wladimiro Acosta, "Arquitectura Contemporanea: Relaciones entre la industria y el arte de construir", Nuestra Arquitectura Magazine, June.1931

3   Enrique Pujadas, "Criterio del Proyecto", Cuadernos de Arquitectura, Buenos Aires, Ed. Cuadernos, 1938. Issue dedicated to the Kavanagh Building

4   Engineer Pujadas wrote in his reports about the visit of students and their teachers from the School of Architecture and the School of Engineering of the University of Buenos Aires, the School of Construction of the University of La Plata, delegations of Janeiro, Brazil, engineers from Uruguay, and a long list more.

5   Just part of it could be found during the research for this paper, but Engineer Pujadas mentioned it in his reports, as being the key to a respectful and coordinated relations among all the people involved in the work.

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The Building Industry and the Modern Proposals for Economical Housing in Brazil, 1930–1964

1. The Building Industry in the Thirties: from Capitalist Business to Consolidated Industrial Complex

The analytical hypothesis that we want to explore briefly in this paper is that during the thirties Brazil witnessed the consolidation of a construction industry, resulting in the creation of a large industrial complex, which performed a fundamental role within the process of national industrialization. We may distinguish this "complex":

A) By its importance in the national economy, as the case of the cement industry, for instance, which amalgamated and catalysed a series of activities essential to the industrialization process;

B) By the diversification and economic integration which the building industry attained in the thirties;

C) And because it could dispose of technological research, as the case of concrete, and because of the industry's capacity to introduce new production techniques that came to affect labor processes, and even the social production of the city itself.

In the half of last century, building activities did not consist yet an industrial activity in Brazil. There was no labor market, no construction firms with an entrpreneurial orientation, nor even building materials at disposal to be sold in great quantities. Real estate was not yet a commodity. The land only becomes a commodity with the famous law of 1850. This situation starts to change with the constitution of the so-called "Paulista coffee complex." The formation of a real estate market in São Paulo began during the second half of last century. The political transformations embodied in the Abolition of Slavery (1888) and the Declaration of Republic (1889) consolidate the formation of a free labor market. At the same time, a real estate market gradually emerged, including urban rents. (XAVIER PEREIRA, 1990)[1].

With the move of the coffee planters to the capital of the state of São Paulo, a market of luxury residences and a construction industry oriented toward profit seeking emerged. The development of the architectural enterprise of Ramos de Azevedo (1851–1928), proprietor of the first big building company in the city and director of the local Escola Politécnica for eleven years.[2] was emblematic of turn-of-the-century São Paulo.

Ramos de Azevedo company characteristics the opportunities that the period opens for several kinds of business related to construction. There were engineering and architecture firms[3], construction companies who start to operate on a capitalist basis[4], considerable commercial activity related to the importation of building materials[5], as well as a growing local industry and commerce that searched to substitute imported building materials[6], above all the most difficult and expensive to transport. Thus, a whole complex of business activities in the field of building emerged. For analytical purposes, we can categorize these activities into three subsectors which fall into the single category of heavy construction of urban buildings. During World War I, substitution of imports in the field of building materials advances.

The twenties in São Paulo, set the moment in which these processes of industrial diversification and integration accelerate, widening the productive activities in São Paulo. Throughout this period, the role of the activities connected to urbanization are crucial[7] (RIBEIRO, 1996). Leading the consolidation of the newly emerged capitalist oriented construction complex is the cement industry.[8] This consolidation of a building industrial complex, off course, is slow and difficult, because each activity linked to construction has its own rhythm of formation, its advances and retreats, and its own specific characteristics. However, a central aspect for all of them – it is good to recall – is the dynamic of the whole as a "complex".

Database from ongoing research suggest that the consolidation of this "complex" occurred during the thirties[9] with visible unfolding in the following decades. The orthodox argument is that the presence and history of this "building industrial complex" provide a broader and indispensable reference to understand the challenges and impasses faced by modern proposals of economical housing which emerge and render concrete a whole patrimony to be protected.[10] (Fig. 1).

2. Concrete technology, high-rise, and institutionalization of professions of engineer and architect: the transformation of labor relations

The transfer of concrete technology to São Paulo initiated during the end of 19th century. The processes that led to the constitution of the so-called "Paulista coffee complex" in the second half of 19th century are contemporaneous to the diffusion of the use of concrete worldwide (GITAHY, 1994). The Brazilian building industry at the time faced great economic as well as technological challenges. The developmental process which is a pre-requisite to the development of a dynamic civil engineering profession prompted the development of Engineering and Architecture as academic fields in Brazil (VARGAS, 1988).

In the case of São Paulo, the foundation of Polytechnic School (1893), a school of German model[11], where the well known Cabinet of Strength-of-Materials (1899) was born, is emblematic of the development of professionalization within the field of civil engineering. This Cabinet was the *locus* for not only technological transfer, but also where technological research activities were oriented toward the demand for technical expertise to serve the urban development process. Among the figures linked to the Cabinet three are remarkable: Paula Souza, the founder of Polytechnic School, Wilhelm Ficher and Hippolyto Pujol Júnior, who introduced technology of concrete in São Paulo. (GITAHY, 1994 e CARAM, 1998) In the

Fig. 1.

Fig. 2.

Fig. 3.

twenties, when public debate about the need for technical support for a growing and diversifying industry arose, the attention turned to the Cabinet again. Indeed, in 1926, the Cabinet gained autonomy from the School in order to better attend the needs of the burgeoning business interestes within the construction sector, whose demand for testing prompted the creation of the Laboratory of Testing Materials.[12]

In 1934, with substantial support from both government and private sector interests, the Cabinet emerged into a new institutional form, established it's own autonomous budget process, and its changed its name to its current appelation, Institute of Technological Research of São Paulo (IPT, Instituto de Pesquisas Tecnológicas de São Paulo). Ary Torres conducted this transformation. He wrote, in 1927, the famous Dosagem Racional dos Concretos (Rational Dosage of Concrete), an adaptation of Abrams's method to Brazilian conditions. This article facilitated the use of concrete in São Paulo construction projects. The adaptation of Abrams's research is indicative of American influence on Brazilian civil construction technology at the time.[13]

The technology of concrete involved, in addition to research work at the laboratory, the knowledge of structural calculations. Paula Souza's lessons at Polytechnic School initiated this subject in São Paulo.[14] VARGAS (1996) states that yet in 1934: "I studied structural calculations of concrete at Polytechnic School still in a German book, Löse. This simple fact shows how this technology of armored concrete is introduced in São Paulo through the Germans. The tradition is clearly German."[15] Nevertheless, Brazilian calculists did not remain tied to German methods. They departed from these methods and, disposing of more constructive opportunities and more creative freedom (German norms were very rigid), calculators as eminent as an Emílio Baumgart innovated, even internationally, during the thirties and forties.[16] (VASCONCELOS, 1985) In the same direction VARGAS (1996) affirms:

"[In the thirties] concrete became a broad tendency in São Paulo mainly because of the action of somebody who was then a young engineer: Telêmaco van Langendonck. In 1934, when Laboratório de Ensaios e Materiais is transformed in Institu-

to de Pesquisas Tecnológicas, in addition to the Section of Concrete, a Section of Verification of Structures was created. This Section of Verification of Structures, under Telêmaco's direction, developed a whole technique of structural calculations [of concrete]." (Fig. 2).

In the same decade, different laboratories of testing materials organized meetings with the intention of establishing technical standards, fundamental to the industrialization of construction. These meetings led to the creation of the Brazilian Association of Technical Norms (Associação Brasileira de Normas Técnicas), in 1940.[17] Since the beginning of the century[18], academic laboratories as well as public works were already elaborating their technical specifications for building materials and processes. Such meetings, during the 1930s, aimed to unify these efforts. Normalization, somehow, provided a channel for dialogue among different activities connected to construction, – no matter each one's specific characteristics or rhythm – reinforcing the links of the "complex."

On this basis, the high rise of the city, sketched in the beginning of the century, bypasses the "adventures" of the twenties, culminating in the projects of the 1930s.[19] The table (at the end of the article) elaborated[20] from FICHER (1994) is indicative.

The acceptance of the high rise, accompanied by technical normalization, separated and delimited the professional field of architecture and of engineering. This separation, stimulated by technological development and normalization of materials and processes, tended to bifurcate the architecture and engineering professions, establishing the architect as designer and the engineer as the professional responsible for guiding the technical characteristics. The architect's activity became more "free" and, the development of concrete technology offered to the professional a more resistant and plastic material, increasing the autonomy of Architecture as a creative field. The development of na architectural profession oriented toward design, and liberated from the rigidity of the engineering profession, created new opportunities for creativity and innovation in building design. The architect could now give wings to imagination, in the construction of taller and taller skyscrapers. The Federal Government institutionalized this separation by

the Regulations for the Professions of Architect and Engineer (Regulamentação das Profissões de Arquiteto e Engenheiro) of 1933 (fig. 3).

This professional institutionalization of the architectural and engineering professions promoted the pursuit of professional standardization. Another policy then adopted was the "nationalization" of the labor force, especially in the building industry. This policy was strenghtened in the forties by therate of internal migration within Brazil, providing construction firms with Brazilian migrant labor to meet their labor needs. This solution revealed one of the basic conflicts among the social agents who supported the housing promotion in the internal dynamic of the "complex". The new methods and processes linked to the consolidation of "building industrial complex" on one hand, qualified and professionalized technicians and managers, on the other, unqualified and further depreciated much of the labor at the construction site. In the thirties, federal government answered to the unfolding of these conflicts in the organization of labor in building industry issuing regulations which limited the attributions of mestres de obras in their relationship with architects and engineers.

From these years up the ambit of the masters mestres de obras came to depend on the technical and managerial decisions of the professionals – architects and engineers – who widened their control on real state undertakings. This limitation cut former possibilities of upward mobility which the building business proportionate to mestres de obras. The pair engineer and mestres de obras came to prevail in the hierarchy of the construction site, while the field of the architect became restricted to the office of projects.

3. The building industrial complex and the modern proposals for economical housing

In the thirties, the so called Vargas Age brought political and institutional changes openning the way for a modernization of national life. The "building industrial complex" managed to be well represented in the reordering in the sphere of state, signaling the importance now confered to urban-industrial society. The experience of the construction sector dealing with a bitter process of transformation of labor relations came to in-

form the elaboration of official policies toward this question. It is necessary to keep in mind all this historical context to undestand the several implications of the emergence of the modern proposals of economical housing in Brazil.

It is interesting to follow the contradictory course that these political changes assumed in São Paulo. After all, the Revolution of 1930 was against the Paulista political elites. However, how to embrace a project of industrialization and modernization for Brazil without São Paulo? The problems debated during the thirties at São Paulo metropolis were unavoidable guidelines for the new Brazil which was being designed in that decade. Already in 1931, for instance, City Government of São Paulo and Institute of Engineering organized the First Congress of Housing which took in consideration the problem of saving labor and materials as well as the preocupation with the construction of a rational and economic house.[27]

Indeed, right after the *Paulista* defeat in 1932,[28] political "reconstruction" of the ties between Paulista elites and the Federal Government counted on the receptive environment of the "building industrial complex." The new federal government contemplated many of the proposals of these businessmen which were far from being restricted to the regional aspect. As mentioned already, the new Minister of Labor, Industry and Commerce, issued regulations for the professions of engineer and architect.[29] Public power promoted economical housing the during the following decades the Foundation for Social Housing (Fundação da Casa Popular) and the Institutes of Retirements and Pensions (*Institutos de Aposentadorias e Pensões*).

These policies openned an wider field to the house building industry. Governmental support gave legitimacy for the entrepreneurial activity of private initiative which found a new niche in the market: economical housing, in other words, hygienic, modern, and of low cost housing. The new regime assumed, therefore, a rhetoric of incorporation of workers to real state property: the dream of one's own house. (CARPINTÉRO, 1997) However, these policies actually incorporated the social *strata* better designated as pertainig to the area of difficult sociological delimitation known as "middle classes." Many of the housing projects studied had, sooner or later, this destination.[30]

The autonomy of the architecture teaching in São Paulo schools (1947 Mackenzie e 1948 FAU) is indicative of the increasing prestige of the architectural profession. The period under study turned out to be promising for contemporary architects. The developing architectural establishment remained abreast of international debtates which occuppied the Congressos Internacionais de Arquitetura, and sought to harness such discourse to perpetuate political and economic transformation within Brazil.[31] The challenge of projecting the upright center of a modern metropolis brought to the surface possibilities that transcended the field of formalism.

If the Carioca architects found new opportunities designing public buildings and government-promoted social housing, in São Paulo, the consolidation of an "building industrial complex" offered new ground for experimentation. It is possible to observe even a great versatility of contemporary professionals, circulating among public offices, academic functions and private business—the so called technical offices (*escritórios técnicos*) of engineering and architecture. Acting as businessmen, just projecting, or even occupying executive offices at big firms, public or private, engineers and architects participated in an active technical community. They found opportunity for militancy in professional bodies, for aesthetical, theoretical, or political debates, and often came to influence the "construction" of the metropolis and even of national urban life. Even today it is possible to capture this environment of propositive confidence and freedom of creation in the Modern Architecture buildings, coincident with the populist-developmentism climate lived then in the country.

In this developmentist environment, the consolidation of what we called here "building industrial complex" conferred material support to modern proposals for economical housing to be achieved. Therefore, the social and political basis on which that "complex" rose and operated set the limits and conflicts with which the social agents had to deal to implement the Modern Architecture proposals for rational construction and social housing. Finally, the supply of these buildings and their occupation by social *strata* belonging to "middle class" is the most evident result of these contradictions.

Notes

1   To understand the establishment of the building companies on an entrepreneurial basis it is necessary to pay attention to the predominantly urban aspect of this industrial branch. XAVIER PEREIRA (1990) studied the constitution of the labor market in this branch of industry related to the formation of the real estate in the period. The transformations of the labor relations are approched together with the transformations of land property and urban rent. According to the author, already in 1886, 70% of the household heads in the city of São Paulo lived in rented houses. (XAVIER PEREIRA, 1988:68).

2   Ramos de Azevedo's actuation was already studied. See, for instance, LEMOS (1993), GITAHY (1986) e GONÇALVES(1977).

3   Samuel and Christiano das Neves firm, criated in the epoch, is another example of sucessful building enterprise. (ESPÏRITO SANTO, 1988 e SAMPAIO, M.R.A.,1994).

4   Another big constructing firm, founded in 1912, by Roberto Simonsen was Companhia Construtora de Santos. About this company, seer FERREIRA LIMA, 1963, CAETANO,1994, SILVA e GITAHY, 1996.

5   It is known that the import/export sector of building materials is essential to the dynamic of the companies related to housing construction up to Wolrd War I. After that, it continues to operate,but with less importance to the mentioned branch.

6   The statistics of the time show data about this sector under the following designations:"extractive Industry" includes extraction of sand, stone, *caulim* (stone pits and brickyards multiply because tiles and bricks could not be imported as it came to happen in the end of the century); "non metallic minerals" include the cement plants and sanitary materials fabrication; and even "metal industry" includes nails,pipes,hardware, locksmith work. Under the designation "mechanic industry" an elevator factory already shows up in the twenties pointing to the highrise of the city.(RIBEIRO, 1996).

7   RIBEIRO (1996) points out that between 1900 and 1910the annual average of buildings constructed was 1000, while between 1910 and 1929 theis average rises to almost 3000.

8   Rodovalho cement initiated the substitution of imports in the field of cement in São Paulo, already in the end of XIXth century. However, only in the twenties the Canadian Companhia Brasileira de Cimento Portland Perus, achieves a sucessful and continuous production of cement. Until 1950, 8 plants were installed in Brasil, between 1951 and 1960, more than 30. The annual production in 1930 was 87160 ton and in 1964 it was 5.583008 ton. In the period 1926–1939, 94% of the cement consumption comes to be supplied by local industry. (FRANCESCONI, 1996: 27 and 33).

9 Further explanation about the consolidation of the "building industrial complex" during the thirties in GITAHY and XAVIER PEREIRA, 1997.

10 Research Project "Habitação Econômica e Arquitetura Moderna no Brasil, 1930–1964." FAU-USP/EESC-USP, supported by FAPESP. General Coordination: Maria Ruth Amaral de Sampaio. The research has rescued:1) the habitation zones of the new cities; 2) public promotion of economical housing; 3) private promotion of economical housing; 4) habitation building industry; and 5) legislation refering to social housing.

11 Paula Souza, the founder of Polytechnic School, studied at E.T.H. of Zurich. See about the subject SANTOS, 1985 and GITAHY, 1994.

12 About this Laboratory (*Laboratório de Ensaio dos Materiais*), see ARAUJO and GITAHY, 1993 and BASTOS, 1997.

13 Seer VARGAS, 1987 about the subject. About Ary Torres, see also GITAHY, 1994, BASTOS, 1997 and BOEHRINGER,1997.

14 Notes of this course were published in *Anais da Escola Politécnica*, 1911.

15 German tradition of structural calculations of concrete penetrated in Brazil not only through academic channel. VASCONCELOS (1985:17–18) has enough evidence to believe that Wayss & Freytag, perceiving the potential Brazilian market, made contacts with a German (mestre de obras) Lambert Riedlinger, who arrived in Brazil in 1911 and owned a little constructor firm(?) in Rio de Janeiro. Only by this way we could explain the activities of *Companhia Construtora em Concreto Armado*, founded in 1913, that built around 40 bridges all over Brazil during the two first decades of XXth century. In 1924, as business evolved positively, Wayss & Freytag established officially under the name *Companhia Construtora Nacional*, pointing Riedlinger technical director.

16 In 1998, VASCONCELOS affirmed in an interview: "In that epoch, Brazil had done more perfect things[respect to structural calculations of concrete] than other countries. As much that Baumgart, who was a Brazilian from Santa Catarina and who mastered German, wanted badly to know Germany. [However] he only could go to Germany (...) when he was more than thirty [years old]. He(...) was sure that he would learn a lot, [after all] his knowledge came from German books. So, he was going there excited to discuss with other calculators and learn something. When he showed [to the Germans], though, some of his ideas, already built in Brazil, he was surprised to realize that the Germans did not accept new ideas and did not approve his work. He returned disappointed, thinking that the German[calculators] were shortminded, that they were not opened to progress (...) that they only wanted to discuss what was already in their norms, and [that, for these reasons,] they were not a good example for Brazilian

[calculators]. He returned home disappointed with the Germans." The avanguarde position Brazil occupied in the field of structural calculations of concrete did not last. After World War II, Europe and United States turned their energies to multiply constructive activities. United States, which including sent a professional to study Latin American advances during the War period, continued to research, to build, and assumed the avanguarde in this field, as well as in so many others, after in the second half of XXth century.

17 About the history of ABNT, see INOUE (1997–1998).

18 See INOUE (1997–1998) and BOEHRINGER (1997–1998).

19 See also about São Paulo's high rise SOMEKH, 1994.

20 We thank Nicole Boehringer for elaboration of this table, entirely based on FICHER (1994).

21 Primeira estrutura em concreto armado.

22 Mais alto edifício em estrutura de concreto armado do mundo.

23 Um dos primeiros edifícios de apartamentos de São Paulo.

24 Primeira grande obra modernista de São Paulo.

25 Edifício mais alto da cidade.

26 Edifício mais alto do Brasil até hoje, com 175 m de altura.

27 See about the subject SAMPAIO, 1998 and CARPINTERO, 1997.

28 The participation of *Paulista* engineers in the Constitutionalist Movement of 1932 was remarkable. Polytechnic School engaged for São Paulo, IPT became ammunition factory. See BASTOS, 1997 and BOEHRINGER, 1998.

29 Federal Decree n.23569, of December 11,1933.

30 The *kitnetes* and small apartments built by private initiative were first used by clerks and holders of other *petit* jobs at commerce, industry, services which multiplied in the urban environment. In the case of the production of IAPs, even when, in the beginning, organized labor groups mostly urban (transport workers, industrial workers, bank employees, etc.) inhabited the apartments, with the action of real state market along the time, the best blocks and buildings came to the hands of "middle class." Working families or low income families only came to live in some of these apartments decades later, after their decay, as is the case, for instance of São Vito building, in São Paulo today.

31 In 1929, the CIAM realized in Frankfurt discussed the theme of minimal housing. In 1930, the congress realized in Brussels, studied the rationality of building methods and land plotting (loteamento). A critique of the low buildings and a search for economy and functionality in the proposals for blocks of apartments is present in both congresses. However, the European debates about the project of new urban environments was tied to the creation of new ways of life and to the rationalist utopy of a gre-

ater balance of social life. When the kitchen spaces were debated there was an implicit questioning of the domestic role of women, when minimal housing was mentioned, the integration of masses to the modern city was concerned. In Brazil, the debate was different: serious questions concerned to business viability of economical housing and to the role of State in the support and financing of the construction of this kind of housing.

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Year	Building	Arquitects, engineers, contractors
1900- 1910	Edifício à R. São Bento, esq. com a R. Direita (2)[1]	
1910 - 1920	Banco Ítalo-Belga (4)	
	Casa Medici (8)	
	Edifício Conde de Prates (2 blocos)	Samuel das Neves
	Edifício J. Moreira	
	Hotel Britânia (6)	Viret & Marmorat
	Hotel Center	Ramos de Azevedo
	Hotel Central (6)	
	London and Riverplate Bank (11)	Ramos de Azevedo
1920 - 1930	Bolsa de Mercadorias (11)	
	Caixa Econômica Federal (10)	Albuquerque & Longo
	Edifício Comercial n. 79 à Praça da Sé	Pujol
	Edifício Martinelli[2]	
	Edifício Sampaio Moreira (13)	Samuel e Christiano das Neves
	Hotel Esplanada (7)	
	Palacete Aleppo	
	Palacete Paraíso	
	Palacete Riachello (8)[3]	Escritório Técnico Luís Asson
	Prédio Conde de Lara (10)	Albuquerque & Longo
	Prédio Glória (10)	Albuquerque & Longo
	Saldanha Marinho (11)	Christiano das Neves, Elisário Bahiana
1930 - 1940	Banco de São Paulo (14)	Álvares de Arruda Botelho
	Diretoria de Obras Públicas (9)	Siciliano & Silva
	Edifício Alagoas (6)	Barreto & Xandi
	Edifício Esther (11)[4]	Álvaro V. Brazil e Adhemar Marinho
	Ouro para o Bem de São Paulo	Camargo & Mesquita
	Prédio Santo André	Barreto & Xandi
1940 - 1950	Banco do Brasil (21)	Baumgart
	Banco do Estado de São Paulo (37)[5]	Camargo & Mesquita
	Biblioteca Municipal (23)	Jacques Pilon
	Cine Ipiranga (19)	Artacho Jurado
	Condomínio Bretagne	Artacho Jurado
	Condomínio Piauí	Rino Levi
	Edifício Andraus (26)	Majer Botkowski
	Edifício Esplanada (29)	Lucjan Korngold
	Edifício Louveira (8)	João B. Vilanova Artigas
	Edifício Paissandú (23)	Rino Levi
	Edifício Prudência (10)	Rino Levi
	Edifício Wilton Paes de Almeida (20)	Roger Zmekhol
	Prédio Anchieta (12	Irmãos Roberto
	Prédio Três Leões (19))	Henrique Mindlin
	Sede do jornal "O Estado de São Paulo" (21)	Franz Heep
1950 - 1960	Conjunto Metropolitano (25)	Salvador Candia e Giancarlo Gasperini
	Conjunto Nacional (29)	David Liebeskind
	Edifício Barão de Iguape (33)	
	Edifício Conde de Prates (32)	Giancarlo Palanti
	Edifício Grande São Paulo (36)	
	Edifício Mercantil (36	
	Edifício Nações Unidas (19)	
	Edifício Pailicéia (23)	
	Edifício 5ª. Avenida (19)	Pedro P. M. Saraiva e Miguel Juliano
	Edifício São Carlos do Pinhal (23)	
1960 - 1970	Banco Brasileiro de Descontos (22)	
	Banco Sul Americano	Rino Levi

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Steel Construction and Building Industry in Italy in the Thirties: Utopia and Reality in Experimental Designs

Introduction

Starting from the end of the Twenties, steel construction tries its difficult entry into the civil building sector in Italy. In spite of the fragility of the production sector, a constant strategy of information accompanies all its promotional events. Conferences, competitions, exhibitions and publications are the instruments used to support the opportunities of success. Welded framed structure, application of the principles of standardization, rapidity in the construction process, flexibility in the functional layout in the internal spaces, lightness of the structural systems and the finishing elements are not just advertising *slogans*, but the carefully experimented parameters in many designs and constructions of residential and office buildings.

In several of these design experiments a subject, dear to the futuristic advertising of those years, recurs: the organization of the urban space that Futurism has chosen as the emblem of modern life, the metropolis. The model of growth to which reference is made is that of North America, identified by the high building typology, often defined in terms of mega-structure. It is one of these typologies that the engineer and architect from Bologna, Guido Fiorini, uses to carry out some singular design experiments between 1928 and 1935[1].

The Typology of the "Tensistruttura"

The invention of Fiorini, that was to be extensively publicized in the first half of the Thirties, and not only in Italy, proposed a multi-storey building typology (about 200 m high) for residences and offices, built in steel construction with floors suspended from a central core by means of inclined stays.

The use of "tensistruttura" buildings allowed the generic floor to be independent from the vertical supporting structure and permitted at the same time considerable flexibility in the organization of urban traffic. The typology, in fact, was easily integrated into a complex web of vehicle and pedestrian routes, but remaining totally independent from it. It was precisely this feature that, right from the start, had aroused the interest of Le Corbusier who would have been an attentive partner for Fiorini, in an exquisitely technical role, in the elaboration of the subsequent versions of the project. The approval of Le Corbusier for Fiorini's invention was explicit for the solution patented in 1932 (the patent was extended to France and Germany), that was adopted for the variant "b" of the Algiers plan[2].

The technical office of the "Società Nazionale delle Officine di Savigliano", based in Turin – an Italian metal structural construction company that has already been successful for some decades at international level – takes on the task of making the subsequent versions of the "tensistruttura" building concretely feasible, verifies the structure and improves the technical and executive aspects. In this design office, the initial "construction paradoxes" of Fiorini are reviewed in order to give them the aspect, structural articulation and the technical conformation of a feasible, ready-to-build project. The statics and resistance of the construction are examined, as well as the executive details, the most problematic technical points and the structural components are verified[3]. In this way, with the evident influence of Le Corbusier, the morphology of the "radiator of air and light" construction was born. A morphology that combined technical innovation with special attention to the conditions of life and work of the users, both as regards the internal and external spaces.

Encouraged by the prestigious approval of Le Corbusier and supported by the technicians of Savigliano, Fiorini will work assiduously at his "invention", offering applicative possibilities in covering systems for hangars and residential buildings. A long and careful demostrative work, sealed by the patents of a metal structure construction industry of worldwide fame, but of which no trace whatsover of construction will remain. However, the interesting part of the experience is the singularity with which the technical and constructive solution offers – in its various applications – concrete answers to the rethoric that abounded in those years in Italy concerning health, hygiene and improvement in living and working standards.

In the Savigliano technical office, Fiorini sets up a singular form of collaboration with the technicians that work there, and this will be gradually transformed into a relationship of reciprocal trust. The company that Fiorini had turned to for the executive project of the "tensistruttura" building will give this engineer and architect the responsibility for the design of the largest hangar in the world, due to be built at Milano Linate and commissioned to Savigliano by the Air Ministry way ever since 1932. This experience will give Fiorini the opportunity demonstrating that the "steel construction-tension resistant structure" can effectively be used not only for great heights but also for great spans. This typology, that uses a suspended structure with a span of 100 m as a covering system, will be also patented by Fiorini in 1934[4].

The guarantees of technical feasibility given by Savigliano during these experiences lead Fiorini to the project of terraced residential buildings with two-floor flats, structurally organized, even though on a modest number of floors, according to the "tensistruttura" principles, probably elaborated in 1932–34. It is not difficult to find ideas taken from certain typologies of Le Corbusier houses in these studies, especially the "Maison Citrohan" and the "Immeubles-Villas", even if the organization of the internal spaces proposed by Fiorini has not much in common with the spatial search of Le Corbusier. In these projects, the search for a connection between functional and dimensional analysis of the residence and the application of innovative typologies and technologies also provides an answer to the problems of the renewal of Italian building production that the subject of public housing was giving to designers and building contractors in those years[5].

In 1933 Savigliano gives Fiorini a new job: the realization of a welded steel structure multistorey residential building for INA[6]. On that occasion, Fiorini does not hesitate to abandon the thread of his studies, directed up till then towards the design of suspended and stayed steel structures, in order to support Savigliano in the campaign for publicizing an innovative technology. The project he has come up with aims at highlighting the features – and the corresponding functional implications – of welded steel constructions that Savigliano has been the first to introduce into the Italian civil building sector in those years[7].

The Support of Technological Innovation

The cultural and production context in which the contacts and the special relationship between Fiorini and the Savigliano design office are developed, gives a special nature to the design experience of Fiorini.

Savigliano, aware of its driving role in steel constructions applied to the Italian civil building sector at the beginning of the Thirties, has committed for some years to highlighting the subjects of mass production, rationalization of structural and site systems, and prefabrication of structural and finishing elements.

Fiorini, a convinced assertor of the advent of an age of "mechanical architecture" and supporter of the important role of "large-scale industry" in upholding innovative design ideas, has no difficulty in agreeing with these subjects. Furthermore, he works in complete autonomy from the company in the role of a consultant with personal contributions of design and technological experimentation. He is certainly one of the few architects connected with the futuristic group of Turin to attempt a comparison with rationalist culture. But, instead of looking for the approval of a symbolist technique, he prefers to analize carefully the performance that steel construction guarantees to the highly socially relevant subjects of the house and work. Moreover, he is especially interested in the construction feasibility of his own design projects, encouraged by the trust that Savigliano had in the possibilities of developing of steel construction.

The range of typologies in which the "tensistruttura" idea – feasible only in steel construction – could be used, from multi-storey buildings and terraced housing to covering systems for large open spaces, was a guarantee and demonstration of the versatility of steel structures. This happened precisely during the years in which the company was consolidating its prestige in welded steel structures applied to civil buildings, and was attempting to brush up its knowledge about contemporary architectural culture in this sense.

Fiorini willingly accepts the continuous suggestions for formal simplification (in other words, the rationalization of steel constructions) made by Le Corbusier on the one hand and the Savigliano design office on the other. So, for example, in the transition from the first to the second project for Linate hangar it is not difficult to notice this trend towards semplification. The supporting system – a suspended cable structure – remains unchanged, but the "machine" of the first solution is recognized as regards components and structure. The suggestions that Le Corbusier has made during the development period that has led to the subsequent versions of high "tensistruttura" buildings are also used for the layout of the lateral parts of the hangar building, also modelled on the "radiator of air and light" principle.

The Savigliano design office also sparks off in Fiorini a marked interest in technical detail and precision of construction elements that is mainly shown in the design proposals for the external shells of buildings. The grafic elaboration of the architectural project drawings is also influenced by the accuracy, expressiveness and precision of the structural executive drawings. Savigliano had inherited these characteristics from its tradition of a company established as a mechanical industry. The instruments that Savigliano design office placed at Fiorini's disposal are certainly the essence of a consummated ability that the company has consolidated in the design of steel constructions. But they are still traditional instruments compared with the innovative idea: in fact, set of templates, materials and normal structural schematization are still used. The quality leap that could have guaranteed the success of the innovative idea is absent. This is also due to the fact that the contractor world that supports such an idea, very inclined to exploit it also as an important occasion for self-affirmation, is tied to a structure and a market context with boundaries that are made even more uncertain by the autar-

kic laws. Iron and steel products were purchased in Germany and the profiles used for welded structures were still, at the beginning of the Thirties, the same profiles used for riveted constructions, while in America the first uses of welded structures fifteen years before had immediately led to the study and creation of special templates for the new type of joint.

The International Nature of the Design Experience

In spite of these limits, caused by the nationalization strategies of the construction sector in those years, a marked characteristic of internationalism in the design experiences inspired by the "tensistruttura" principle is perceptible. This principle, like the typologies derived from it, is taken – as Fiorini himself underlines several times – from American technical and scientific culture that, precisely in the Thirties, was maturing the possibilities of using suspended and stayed structures in bridges and large span coverings. The model of the skyscraper is borrowed from the American metropolis and is indicated in a special number of the Savigliano Technical Bulletin – in which its characteristics are discussed – as it is in the various articles that appeared in those years on architectural magazines, simply as *Building*.

The cultural and professional training of the designer is continuously influenced by clear references to European architectural culture. The French and Austrian modernism of Mallet-Stevens and Hoffman respectively are sources of inspiration for his work. Some early projects by Fiorini are displayed in the Salon d'Automne in Paris (1928–29). The connections with Le Corbusier – even though mainly in the form of letters – that continued practically uninterrupted for six years during the successive editions of high "tensistruttura" buildings, develop specific technical subjects, including those relating to the environmental characteristics of the living and working areas envisaged in Fiorini's projects, and especially the application of the "murs neutralisants" technology.

The Savigliano design laboratory that supports and develops the technical aspects of Fiorini's designs has already done a large amount of business abroad, maintains continuous contacts with European research and design centres right from the year of establishment
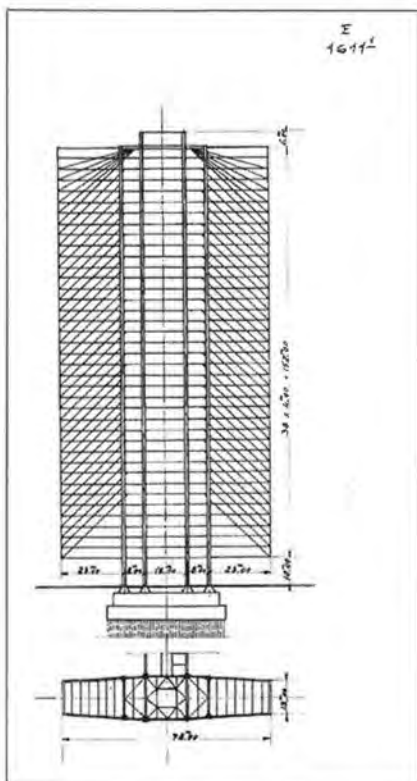
Fig. 1.
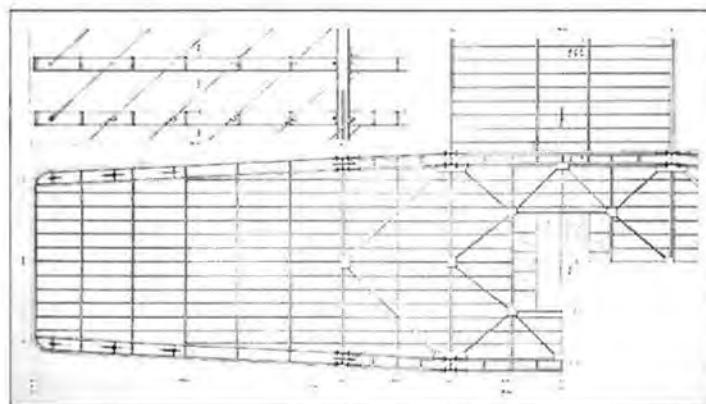
Fig. 2.

Fig. 3.
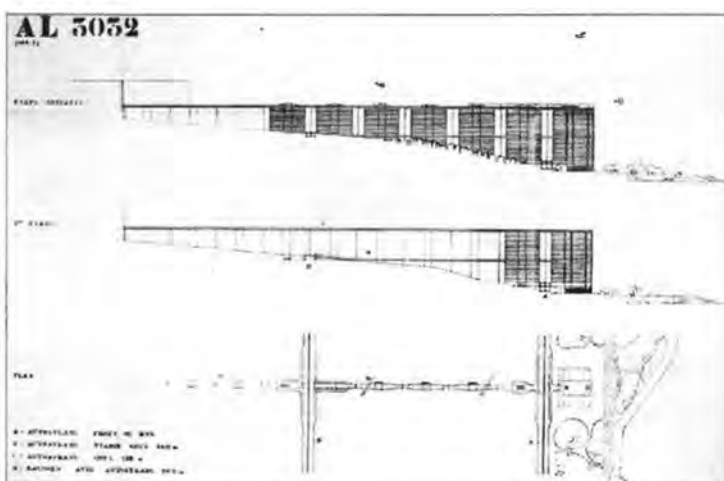
Fig. 4.

Fig. 1. Static scheme of the "radiator of air and light" structure that appeared on the cover of a special issue of the Savigliano Technical Bulletin dedicated to the "tensistruttura" project (Jan. – Apr. 1932, S.N.O.S. Archives, Turin).

Fig. 2. "Tensistruttura" skyscraper, 1931. Executive drawing of the steel structure with the indication of the routes taken by the tie-rods and the connections to the external beams (S.N.O.S. Archives, Turin).

Fig. 3. The model of the building, realized by Savigliano, was entrusted to P.M. Bardi, who displayed it in some international exhibitions in the early Thirties (P.M. Bardi, "Belvedere dell'architettura italiana oggi", ed. Quadronte, Rome 1934).

Fig. 4. The independence of the floors from the vertical bearing structure of the high "tensistruttura" building allows the traffic on the ground floor to run through 23 m wide cantilevers. This characteristic induced Le Corbusier to adopt "Fiorini" skyscrapers in the variant "b" of the Algiers plan (S.N.O.S. Archives, Turin and Le Corbusier Foundation, Paris).

Fig. 5. Hangar of Milano Linate: general axonometric projection. In Fiorini's first project for Savigliano (1933–34) the suspended covering of the large hangar was designed to allow the public to watch air shows from it (S.N.O.S. Archives, Turin).

Fig. 5

of the company. In the same years, Sa-
vigliano sets up a programme for alig-
ning its own production system to the
cycle and transformations taking place
in the economy of the international pro-
duction. In the sectors of updating and
research for a precise technical-scienti-
fic identity, the technical office also con-
tinues its policy of adapting to the most
interesting new features developed ab-
road, especially in the United States,
France and Germany.

In those years Sartoris will dedicate
his principal work to rationalism. Giu-
seppe Pagano and Edoardo Persico
work in Turin between the two World
Wars on the very same subject, both at
technical and operative level.

This reference to the Turin of those
years is no coincidence. The capital of
Piemonte is in fact becoming the ideal
pole for the convergence of internatio-
nal experiences and contributions, even
if this is limited to a small elite circle.
Already for twenty years, a singular in-
clination to compare themselves, privat-
ely or publicy, with European and Ame-
rican cultural contexts had caused some
of the protagonists of the future industri-
al development of Turin and Piemonte
to make a name for themselves in fields
that had, up till then, seemed barred to
Italian industry.

Camillo Olivetti (and Adriano after
the Second World War) are proof of
this, as are Giovanni Agnelli and the
Officine di Savigliano and Nebiolo in
the years preceding and during the First
World War. At that time, Turin had shown
itself to be very aware of the most re-
cent trends in technological progress,
taking great care to use the ideas for
the structure and organization of the
mechanical industry from American
models in order to immediately vanquish
European competition. The American
model was to become one of the most
important roots of the industrial mono-
culture fed by the "myths" of American
industrialization: the scientific organiza-
tion of work and the rationalization of
production.

The same international matrix, that
identified Lingotto as the most admira-
ble American type of European industri-
al building, was preparing other outlets
that would have indicated, also in ar-
chitecture, the urgent need for a rapid
transition from the modern movement to
international culture. The first results of
this transition were to be appreciated
in the architectural projects for residen-
ce and service structures.

Notes

1   A.M. Zorgno, "Guido Fiorini e le Offici-
ne di Savigliano", in Casabella, n°549
of Sept. 1988, pages 49–53.
2   The relationship between Fiorini and Le
Corbusier during the subsequent ver-
sions of the high "tensistruttura" buil-
ding is documented in an exchange of
letters (September 1931 – December
1932) kept in the Archives of the Le
Corbusier Foundation in Paris, and pub-
lished in the original text by M. Mimita
Lamberti in 1972 ("Le Corbusier e
l'Italia", in Annali della Scuola Normale
di Pisa, series 3, v.II). The drawings cor-
responding to the subsequent modifica-
tions made by Fiorini to his projects fol-
lowing the suggestions of Le Corbusier,
are kept in the Archives of the Società
Nazionale delle Officine di Savigliano
in Turin. Examining the exchange of lett-
ers between Fiorini and Le Corbusier
together with these drawings, it was
possible to reconstruct the design deve-
lopment that modified the project of the
"tensistruttura" buiding in four subse-
quent versions (c.f. "Fiorini-Le Corbusi-
er, 1931–35", edited by A.M. Zorgno,
Soc.Ed. Umberto Allemandi & C., Turin
1988).
3   The executive project drawings, calcu-
lations and executive details of the vari-
ous versions of the high "tensistruttura"
building developed by the technical offi-
ce of Savigliano, are kept in the compa-
ny Archives under the heading Ing.Arch.
Fiorini – Roma, Costruzioni in ferro,
Serie E, Cartella 1611.
4   The project drawings of the two versions
of hangar elaborated in 1933–35, com-
plete with stability calculations and exe-
cutive designs, are kept in the Savig-
liano Archives under the heading Mini-
stero dell'Aeronautica, Roma, aviorimes-
sa di Milano (Fiorini), Serie F, Cartella
E. 1764. C.f. also: G. Fiorini, "Progetto
di aeroporto civile", in Casabella n°79,
August 1934, pages 32–35; A. Pica,
Architettura moderna in Italia, Hoepli,
Milan 1941, pages 504–505; Rubrica
"Venti anni fa, Guido Fiorini (1932–
35)", in L'Architettura, cronache e sto-
ria, n°54, April 1960, page 844.
5   Architetto G. Fiorini, "A proposito
dell'Architettura vivente", in La Tribu-
na, rubrica Cronaca di Roma, 7th April
1933; G. Fiorini, "(Tensistruttura), Pro-
getto di casa di abitazione in serie", in
Quadrante, n°9, p.41. C.f. also A. Pica,
Architettura moderna in Italia, Hoepli,
Milan 1941, p.92 and p.503.
6   The most important national assurance
institute in Italy.
7   Arch. ing. G. Fiorini, "Progetto di grat-
tacielo a struttura metallica saldata", in
Bollettino Tecnico Savigliano, January-
February 1934, pages 662–675.

Fig. 6.

Fig. 7.

Fig. 6. During 1932–34, Fiorini worked to
demonstrate that the implicit advantages of his patents
remained unaltered in the transition from constructions
with exceptional static properties to residential
buildings with two-floors flats (Quadrante n.9, January
1934).

Fig. 7. In the project for a skyscraper with a welded
steel structure that Savigliano commissioned to Fiorini
for INA in 1933, the organization, not only structural,
of the building is evidently influenced by the model of
the American skyscraper (Bollettino Tecnico
Savigliano, Jan. – Feb. 1934).

Special Session: Conservation

Marieke Kuipers

Cristina Iamandi

France Vanlaethem

Enrique H. Madia

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Conservation

Expiring Experiments: Dynamics in Conserving Dutch Concrete Housing Complexes

After each of the two World Wars several remarkable experiments of council housing in concrete took place in the Netherlands due to the special circumstances. Best known example is the so-called Concrete Village of Amsterdam (*Betondorp* in Dutch), realised in 1920–28 as the southern part of the larger Garden Village Watergraafsmeer. Here – strongly stimulated by the first director of the municipal Housing Department, Arie Keppler – ten different systems had been tested. They were mainly of foreign origin and belonged to four main construction methods: monolith casting, assembling pre-fab elements, block building, framework. At the same time similar projects were carried out in other Dutch towns and in Belgium (e.g. *La Cité Moderne*, Brussels). Although inspired by models of rather traditional designs in England and Germany, most Dutch housing experiments were of a more modern architecture and in their turn followed abroad.[1]

Post-War Developments

In the late fourties new experiments of council housing in concrete started within the national framework of post-war reconstruction in countless towns. Then the previous fear of uniformity had given way to acceptance of standardization, thanks to the pre-war experiments, the efforts of the Modern Movement, the solid support by the National Housing Department, the increased interest of building companies and, foremost, the immense housing shortage.[2]

Nowadays the lifecycles of the concrete villages and early post-war projects come to their end. The estates are all touched by the dynamics of repair and renewal over time, but some underwent more radical changes than others. Some ensembles are now protected as listed monuments, other projects did not survive or are endagered. However different in technique and design all these experiments raise fundamental questions about their fate:

1   Would conservation be desirable at all, knowing the technical deficiencies?
2   If yes, what methods would give the best results, also taking into account the wishes of the inhabitants and the current needs of insulation, space and comfort?
3   How to manage the tensions between history, future and finances?

The various decisions reflect the variety in concepts of conservation and modernization and their social impact. They offer also a good base for a debate on 'authenticy' at different levels (idea; form, space and appearance; construction and details; materials). Here the differing results of the Amsterdam and Rotterdam concrete villages will be compared.

Amsterdam concrete village

Early Experiments

In total 900 two-storeyed tenements, 35 shops, 10 cart stores and other amenities were built with light-weight cement walls on the marshy soil of the Watergraafsmeer polder.[3] For economic reasons several concrete systems used cheap slags as additionals to the cement; colour wall paint was not allowed, just creosote. The composition of the wall material bore two risks: dampness and rusting.

Most walls had a layer of plaster or bitumen and small ventilation grids to prevent damp problems. Only the concrete blocks of the Olbertz system used by Bredero's building company had impervious wax, while the architect H.W. Valk added some odd decorations. They failed immediately. The blocks cracked and the joints of the stretcher bond leaked. One year after completion the moistured walls had been covered with planking at the expense of the ornamental profiles and the blue roof tiles.[4]

Dampness occurred also elsewhere (and was sometimes aggravated by the inhabitants, living with big families in small rooms and having closed the ventilation grids). Therefore softboard slabs were placed inside the houses of the systems Winget, Non Plus and Bron (Occident).

Tackling Technical Problems

In the mid-fifties more renovations were needed to solve the problems of moisture and corrosion. The choice of furnace slags which still contained shreds of iron proved to be fatal for the 54 gently curved houses of coarse concrete by Willem Greve.[5] The rusting walls had become so weak that they felt down after thirty years. Since this was a basic failure, complete replacement was the only option. But was it logical to choose brick-built houses around a new triangular square? In material they deviate, but in general shape they suit the concept of modern architecture in a garden village.

For renovating the remaining concrete houses the policy was to avoid too high rent increases for the low-paid tenants. So, the technical improvements hardly showed respect for the characteristic details of the original architecture. Most facades were refurbished with plaster or a bituminous layer behind which the typical tar decorations of the BBB and Winget houses disappeared (built with pumic stone slabs and meander patterns by Han van Loghem and with blocks and stripes, respectively). The roofs of the Bron houses were replaced with greater eaves projection (of 60 cm). The obelisk-like columns with cement eggs of the Olbertz houses were removed.

Money was lacking for collective internal improvements, which occasionally were made by the inhabitants at their own expense. Just the inner gardens and sheds were renovated collectively.

Protection and Renovation

In 1968 the public library, made of de-ironed coarse concrete, had to be closed because of its crumbling state and

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

Fig. 1. Amsterdam-Watergraafsmeer, Concrete Village, complex with former office of the female housing inspector, upper dwelling and grocer's shop at the corner of the Brink and Landbouwstraat, built in 1927 in de-ironed corase concrete to Dick Greiner's design; situation in 1973 before restoration, showing problems of dampness (Photo RDMZ, Zeist).

Fig. 2. Amsterdam, Concrete Village, view of the concrete houses at Graanstraat/ Duivendrechtselaan, dating from 1925, with covered decorations by all-over plastering of the fifties; left the Winget houses by Jan Mulder (today with restored black stripes) and right the BBB houses by Han van Loghem (today with new geometric decorations instead of the previous meanders); situation in 1981 (Photo RDMZ, Zeist).

Fig. 3. Amsterdam, Concrete Village, the brick-built houses along the Oogststraat by D. Veldhorst (1957–59) which have replaced the unreparible coarse concrete houses by Willem Greve from 1925 (Photo RDMZ, Zeist, 1984).

Fig. 4. Rotterdam-Strevelswijk, Dortsmondstraat, view of the garden side of the first concrete housing estate Isola I with cheerful bars and balconies, designed by Jan van Hardeveld and Jan Pauw in 1921, situation shortly after completion and recently restored by Jaap Franso (Reproduction from the 'Isolabouw' brochure).

Fig. 5. Rotterdam-Bloemhof, Tweede Balsemienstraat, central part of the Kossel I concrete housing estate, designed by F. Hulsbosch in 1921–22 with pitched roofs; situation before the recent reconstruction (Photo RDMZ, Zeist, 1981).

Fig. 6. Rotterdam-Hillesluis, H. Croesinckstraat, the three-soreyed block-built concrete housing estate of Isola II during the renovation of 1983, when new entrances and plastering were added; originally designed by Jan van Hardeveld and Jan Pauw in 1922–24 (Photo RDMZ, Zeist).

stayed buttressed for sixteen years, awaiting restoration. Also the houses waited long for restoration, hindered by a restricted budget and a serious respect for the aged inhabitants, being as ragged as their homes and not willing to move nor to pay more than doubled rents after renovation.

While the renovation plans were under preparation – according to the rules and finances provided by the urban renewal policy of the late seventies and with lots of opportunities for public comment – both the Dutch Council and Department of Historic buildings intervened by nominating the core buildings of *Betondorp* around the Brink (village green) as listed monuments (in 1982). This decision, fitting in the program of listing the most important monuments of the Modern Movement, created better conditions for the conservation of the central amenities designed by Dick Greiner. So the majority of the concrete houses remained unprotected by state, in the anticipation that unrestricted renovation actions would do better for these altered and numerous dwellings.

Two firms were contracted for the complicated tasks to reconcile technical, social and architectural historic demands with restricted budgets: Onno Greiner in 1981 for restoring and partial re-use of his father's creations around the six-sided square Brink (with main shops and neighbourhood amenities) and Dick Peet in 1984 for renovating the rest. In both cases the outer walls would be refurbished with external insulation and thermopane windows, paying also attention to the architectural details.

Greiner decided to wrap the coarse concrete with plastic covering and to finish it with a similar mineral plaster layer to the original, making the new wall 6 cm thicker. The original wooden window frames and doors, which were carefully detailed and well kept, were re-fitted at the same depth as before. For the main window another solution was needed because the original leaded lights had been stolen. The decorations were reconstructed after the original design, but placed within a plastic frame with look alike glazing bars and with the admonishing proverb TIMEO HOMINEM UNIUS LIBRI (I fear the man of one book) again in the glazed wall of the reading room. The upstair dwellings received more windows in the same style. The adjacent cart stores were converted to a new community cen-

tre by replacing the former garage doors by large windows and by pulling down some division walls. The original community centre, built as the companion piece at the other side of the concrete pergola before the inner court of the Brink, was re-used as a paramedical service centre. All meandering tile patterns near the entrances were replaced.

For the shops and opposite houses a similar combination of plastic and plaster covering and re-use of wooden window frames was adapted. Recently some shopkeepers placed new signs outside, whether against or according to the original features, but clearly expressing that they still function.[6]

Upgrading Experimental Houses

Concerning the other concrete houses Dick Peek decided to cover them all with a mineral plaster (of the system Strikotherm 300) and to refer to the previous differences by means of new detailing (colours, plasticity). Since earlier renovations had affected most houses already, he felt free to make new choices and to underline the unity of the Concrete Village as a whole and not to mark the differences between the systems. Today one can no longer see what was the original type of construction method, but on the other hand the concrete houses are conserved in their main sizes and building materials and recognizable as historical experiments. For reasons of comfort and energy saving it could be accepted that all original windows are replaced by thermopane glass in hardwooded frames without glazing bars. However, some other new details might be disputed, especially of the elemental houses by Van Loghem, where the (partly enlarged) windows are carefully incorporated in projecting framework but new garish yellow doors are placed under new geometric patterns. The same type of doors, in blue, is used for the blocks of houses by Valk which originally did not show any similarity with Van Loghem's creations. If there was no hesitation to reconstruct some eye-catching details and doors elsewhere (e.g. the 'zebra stripes' on the Winget houses by Jan Mulder, the colour schemes of the Hunkemöller houses by Jan Gratama, the horizontal grooves of the Bron houses by Dick Greiner), why not here the meanders and doors? At least one can say that reputed artists (Harmen Abma and Dick Cassée) were

involved to design the new decorations in the same spirit as before (together with Norman Dillworth for the steel sculptures on the Olbertz houses). For other decorations the budget was cancelled. Meanwhile, most interiors are upgraded to modern standards within the limited spaces by offering two or three variants.

At present almost all dwellings have a shower, but in the early twenties such a modern convenience was only sparsely introduced in the concrete council houses and regarded as experimental as the whole project of Concrete Village.[7]

Renovartions in Rotterdam South

Minimum Housing for Maximal Results

Rotterdam surpassed Amsterdam in number of concrete dwellings, but experimented with fewer systems. Favourites were the monolith method of the German firm Kossel and the Isola blocks of the Dutch firm Stulemeyer (IGB). The tests took place on the marshy left bank of the river Maas, where afterwards, in 1925–29, J.J.P. Oud's famous Kiefhoek estate would be built with plastered walls of brick nearby the concrete estate of Isola II at Hillesluis. In three stages 1300 concrete houses and 31 shops were built near the municipal garden village Bloemhof (Flower court).[8] For both aesthetic and practical reasons the municipality prescribed that the adjacent dwellings of cast concrete (Kossel I) had to be provided with traditional pitched roofs, while all other concrete houses could have flat roofs (which was a heavily disputed modern feature in the early twenties). For economic reasons foundations and living space were reduced to an absolute minimum (just as in Amsterdam). In the first stage one and two family dwellings were combined in two-storeyed rows. For the second stage the budgets were cut, so that also three storeyed blocks occurred, in spite of the weak foundations. The number of bedrooms varied from two to four (mainly three, according to the governmental instructions), corridors were left out to save space for beds, while prefixed cupboards were provided for storage and balconies at the rear of the upper, flat-roofed dwellings to store the coal and to dry the laundry.[9]

Radical Renewal

When about 1980 the sweep of urban renewal arrived in Bloemhof, a new interest arose in the architectural qualities of the early concrete experiments, followed by pleas for renovation instead of demolition. But unlike Amsterdam, where the small sizes were kept unchanged for the inhabitants (who had lived in Betondorp for decades), the Rotterdam housing department decided that the dwellings, in spite of their original intention, had become too small for accommodating complete families (often of mediterranean immigrants). Both policy and population showed a great dynamism.[10] In the eighties most dwellings had been enlarged (by extensions at the rear, or, in the case of Kossel II, by combining two units to one to the design of Rob van der Heiden from Bureau Peters en Boogers) and they obtained a new external insulation and coloured finishing, together with modern conveniences inside.

About 1990 a paradoxical policy originated: on the one hand the municipality assigned the experimental concrete estates as protected monuments, but on the other hand the renovations became more radical than before.[11] The heart of Kossel I with the pitched roofed gate houses with colourful tiled wainscots was reconstructed while several adjacent blocks with bad foundations were replaced by new units. These were designed by three different architects (DKV, A3, Rob Boekraad), who showed more or less respect to the specific qualities of the remaining parts of the experimental housing estate in idea, shape, materials, colours and details within the small margins of the municipal conditions.[12]

How surprisingly different is the renovation of the 129 concrete houses of Isola I, for which Jaap Franso had been commissioned in 1992. The original creations by Jan van Hardeveld, characterized by subtle plasticity and striking stripes, had been praised in several (foreign) publications for their truly modern architecture (e.g. *De Stijl* and *L'Architecture vivante*). Later on they were affected by several repairs to meet the continuous complaints about dampness, noise and other deficencies. Before drawing up his renovation plans, which had to suit current needs of privacy and comfort, Franso made a thorough analysis of the architectural and technical features. He discovered that Van Hardeveld had innovated not only

the alcove-less groundplans (with in types II and III the living room as a central hall and only heated room, around which kitchen and bedrooms were placed without corridors), but also constructive details (with supporting walls parallel to the facades and supporting beams laid upon the outer wall of the cavity wall and triangular shaped concrete blocks for the drainpipes). By ingenious internal interventions, Franso redivided the small rooms to create separated bed and sanitary rooms. In types II and V he projected small extensions at the rear, leaving the piles and balconies intact. Despite the small inner spaces he adapted insulation layers inside (against noise) and outside (against leaking). For the finishing touch of the facades Franso reconstructed the original colour schemes (just as he did in Wils' famous Papaverhof estate). The eyecatching orange-brownish bases and black bars between the upper windows are justified by contemporary descriptions, original drawings and cover of the Isola brochure as well as by the paint remnants on the original concrete blocks.[13]

In sharp contrast with this careful approach the radical renovations of the three storeyed Isola II estate around a semi-public triangular court show little respect to the original architecture. In the eighties the entrances had been changed and the facades had been painted in fresh, but unhistoric colours. Now it seems that these investments might be a waist. At this very moment the municipal housing department is considering seriously the demolition of these monuments despite their protected state, for economic reasons. It would be too expensive to improve the foundations, which indeed are minimal, but renovation is not impossible. For Rotterdam, so much used to renewal since the war damage, it is hard to take care of their recent heritage of social housing, but the town could be just as proud of it as its rival Amsterdam.

Conclusion

After all, the Dutch concrete housing experiments have no expiration date for architects and conservationists, but they are a source of inspiration for revitalising an interesting part of recent heritage. From the wide range of repair, reconstruction, renovation and radical renewal often a mixed choice is made. Some results might raise mixed feelings

if one has the original architecture in mind, but we may not forget that otherwise none of the concrete villages would have survived. Currently, the social housing estates of the twentieth century, both pre-war and early post-war, are more and more endangered by a businesslike housing policy, which is more in favour of new houses for middle and high class people than trying to keep low-rented housing for the less privileged. Not all estates deserve to be kept but some special projects do, like the early concrete villages. Therefore we should continue our efforts to safeguard their specific values in the everlasting tension between vision and reality.

Notes

1 The Netherlands had not been involved directly in the fighting of the First World War, but did suffer from the bad side effects, such as demobilisation and shortage of building materials and housing; see for the history and international exchanges my dissertation: M.C. Kuipers, 'Bouwen in Beton, experimenten in de volkshuisvesting voor 1940', 's-Gravenhage 1987.

2 See: H.T. Siraa, 'Een miljoen nieuwe woningen', 's-Gravenhage 1989 and N. de Vreeze, 'Woningbouw, inspiratie & Ambities, kwalitatieve grondslagen van de sociale woningbouw in Nederland', Almere 1993, p. 249–339.

3 Only the corner houses of the Winget system had three levels, with a shop on the first floor. The foundations were reduced to the absolute minimum (slabs of reinforced concrete, mostly combined with wooden piles), most floors and staircases were made of wood instead of concrete; the adopted systems were: Korrelbeton (=coarse concrete), Kossel, Non Plus (all monolith constructions); Bims Beton Bouw (BBB), Bron, Hunkemöller (all prefab constructions); Bredero (Olbertz), Isotherme, Winget (all concrete blocks); and Dorlonco (a combination of steel frame and concrete walls), see Kuipers, o.c. (note 1), p. 184–202.

4 Other complexes built with Olbertz blocks, as in 's Hertogenbosch, Teteringen and Utrecht, were plastered at second stage, but later on they were pulled down, partly or completely; see note 1.

5 The coarse concrete houses at The Hague and Rotterdam contained de-ironed slags and were successful (see note 1); it is also reported that the coarse concrete system of Willem Greve has been adopted in Edinburgh, see: J. Frew, 'Concrete, Cosmopolitanism and Low-cost House design: The Short Architectural Career of A.H. Campbell, 1923–1926', in Architectural Heritage V, The Journal of the Architectural Heritage Society of Scotland, p. 29–38.

6 One of the current shops is accommodated in the former pub, which in spite of persistant stories had been settled in the earliest stage of Concrete Village, but had to close soon since it never became popular. On the other hand the anti-clerical attitude of the reigning social democrats had not allowed to build churches until the post-war period. Only a cupper topped tower was permitted, which still acts as the focus point of the central village square (Brink). See note 1.

7 The occupants could also choose the alternative of a mere external facelift, which choise was made in 55 of 717 cases. See for all details of the renovations: 'Betondorp gebouwd/verbouwd 1923–1987' (exhibition catalogue of Stichting Wonen), Amsterdam 1987 (and note 1).

8 The estates are named and numbered after their systems and stages: 788 dwellings of system Kossel, I: 1921–22, II:

1923–24, designed by F. Hulsbosch; 489 dwellings of system Isola, I: 1921–22, II: 1923–24, designed by J.M. van Hardeveld; 30 dwellings of system Korrelbeton, 1930, designed by W. and J. Greve and W. van Tijen; see Kuipers, o.c. (note 1), p. 104–118.

9 Especially Suze Groeneweg, the first female (social democrat) member of the Rotterdam council, had pleaded for enough space for beds, cupboards and drying the laundry; see Kuipers, o.c. (note 1), p. 104–105.

10 See 'Stadsvernieuwingsplan Hillesluis', Rotterdam 1983, and Sj. Cusveller (ed.), Tuindorp in beton, bouwexperimenten op Zuid, 1921–1929' (exhibition catalogue Urban Development Rotterdam), Rotterdam 1989.

11 Only the second stage of the Kossel housing estate and the Korrelbeton ensemble did not receive municipal protection; see H. Baaij and J. Oudenaarden, 'Mo-

numenten uit Rotterdam', Rotterdam 1992, p. 58–63 and '1e Rotterdamse monumentenatlas', Rotterdam 1992.

12 All blocks have flat roofs and a certain plasticity, but are higher than the original blocks. DKV Architects designed four carefully detailed blocks for elderly people at the east side; the adapted colours, however, do not suit the original concept, but this is a minor compared to the blunt architecture of the western blocks by A3 Architects; see Jan Duursma, 'De Kossel gered?', De Architect, March 1991, p. 94–98.

13 Hereby I like to thank Jaap Franso, who is an active member of the Dutch DOCOMOMO working party, for his extensive information about the renovation of Isola I, for which he toke into account not only his own experiences with the Papaverhof but also recent renovation reports concerning the experimental housing estates in Berlin.

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The Should Not of Conservation Doctrine: on the Legitimacy of Reconstruction of MOMO Architecture

Introduction

Since its foundation conservation discipline has been a polemic field, confronting positions ranged between idealist reintegrative and pragmatic positivist ones. The debate got revived since disciplinary interests expanded to city and territory and to recent past. But while the concern for urban conservation generated a flourished scholarly research emerged as a search for both novel cognitive tools pertinent to the understanding of transformations of built environment and innovative design methodology, the young heritage still lacks a clearly articulated methodology. This paper is meant to bring greater clarity and practical sense to this problem.

My purpose focuses on reconstruction, one of the most controversial type of intervention qualified by most of conservation scholarship and legislation as an "anti-historical, vulgar, incorrect and risky" practice of restoration, a "rough recomposition of which history has dismembered, shattered, decomposed, altered or crushed". But paradoxically, reconstruction seems to be the favoured approach of MoMo architecture conservation. So, do we need a different theoretical framework for MoMo conservation, considering this body of built artifacts separately? We argue that its sustainable conservation and manage-

ment should be founded on objective knowledge of typological processes proper to each anthropic environment rather that on the universal prescriptions of the traditional conservation doctrine. As such, MoMo conservation can be tackled through the same unitarian, holistic approach as pre-industrial heritage.

More particularly, the paper attempts to fill out the debate (1) firstly, by establishing the fundamental importance of the notion of cultural identity; (2) secondly, by showing how the identity of built environments can be defined and preserved through the re-construction of historical formative and transformative processes of architectural and urban structures; (3) thirdly, by discussing the main differences between this cognitive-explanatory approach and the traditional prescriptive-proscriptive doctrine of conservation; and (4) finally by illustrating this conceptual opposition and its operational consequences with an example referring to the functional adaptation of outstanding buildings to changing needs.

1. Identity of Cities and Territories

Increasing theoretical and practical difficulties in solving the problems that arise in both Modern Movement architecture and urban management brought conservation to a moment of necessary redefinition of its goals, its role and its relationship with society.

The impact of post-modernism seriously affected the foundations of this discipline, engendered and justified by modernity. The gradual expansion of the conservation corpus from the concept of monument to built heritage, and then to built environment and cultural landscape, parallel to a disciplinary or functional fragmentation of heritage, indicates not only a quantitative growth, but more so, a new awareness with respect to the past. Conjointly, the progressive compression of reference time has led to the elimination of the temporal dimension. Insatiable, the "conservable" has broadened immeasurably over the last two decades, almost swallowing a barely cooled past: it embraces today "all creations and products of both nature and man that constitute the frame of our life in time and space".[1] Thus everything has value but nothing is of value anymore. Beauty is no longer canonized, bad taste is recognized as being good taste, fake as being real.

The crisis of meaning, engendered by post-modernism manifests itself through the "incapacity, proper to contemporary societies to elaborate and to propose or to impose on individuals or groups a system of references (ideas, norms, values, ideals) that could enable them to build their identity".[2] The "semantic jamming" that dominates our symbolic universe led to the disappearance of touchstones, and particularly, to the dissolution of traditional criteria that founded, up to now, historic preservation.

In this context, a questioning of the field's body of guiding principles has been raised. The key-concepts have been reexamined and reformulated; the system of values traditionally associated with built heritage has been expanded, without solving, however, the difficulties of an inadequate theoretical framework and of a legislation turned inefficient. As for authenticity, the master concept so scrutinized lately,[3] the valuable scholarly examination is not yet conducive to a proper understanding of values and is less so to the formulation of effective operational guidelines, for which this concept proved to be irrelevant. Fairly typical to the occidental art world and transposed to architecture via the monument-work of art, the concept of authenticity remained imbued with its original collector mentality. And while certain conservationists still agree with the idea of applying authenticity in practical ways to decision-making and pretend even to "measure" it,[4] other experts believe that, with regard to architecture, the issue of authenticity could not be addressed in the same terms that it was tackled by entire generations of art collectors and connoisseurs, with the exclusive intention of assigning an economic value corresponding to esthetic value and viceversa, to objects alienated from their original spatial and temporal context. Uniqueness, rarity, authenticity, are, in their opinion, "categories external to the world of architecture, where forgery has no economic sense, and thus has no sense at all".[5] In this respect, it suffices to remember how many baroque churches have been destroyed in the name of authenticity!

I believe that it is more appropriate, for conservation purposes, to consider as fundamental the concept of identity. Intimately linked to the notions of memory and significance according to a mechanism that Bergson, Freud and Proust, among others, brought into light,

identity is the essence of the relationship established between men and things.

It is not by chance that Freud, in his "Civilization and its discontents",[6] starts his analysis with the analogy between city and memory, in order to explain the necessary repression of unnecessary memories of a psychical being, as an exigency of a harmonious adaptation to the present[7]. The monument is here the equivalent of recollection for the psychical life of a being. Through active memory, it contributes to the constitution of self-identity in relation to society. Analogously, it ensures the constitution, recovery and preservation of cultural identity.

In the same way that psychical trauma causes the loss of memories, the destruction of culturally significant artifacts seriously affects collective memory, provoking irreversible disturbances of individual and social identity. The places deprived of sense have lost, together with their recognizable characters, the memory of their history. It seems henceforth that the way of bringing back significance to the city after the tearful fracture provoked by insensitive urban renewal is by remembering.

Still, one problem occurs: the definition of identity, as the "character of what remains the same despite change", and the notion of change, as "the passing from one form, phase or state to another; becoming different", seem to be irreconcilable. In this situation, one can ask oneself: how can built environments, subjected to continuous change, preserve their identity?

It is Freud again who teaches us that the fragments of the past are recognized as memories only when they are associated with emotions. He also demonstrates that our memory follows a sedimentation process wherein memory prints are reshaped according to new elements, that is to say that our memories are never the exact reproduction of a past event: they amalgamate, change and move, contrarily to the 19th century belief in the existence of permanent memories archives in the mind that could be reactivated as analogous images. Thus, the prints recording is no longer reduced to a storage of old perceptions; it rather integrates the prints within the web of associations in movement. In other words, an actual perception is quickly transformed by other elements of different periods of time with which it resounds; as such, it is a re-creation which integrates current events and eve-

ry-changeable impressions through which one experiences his past.

Transposed analogously to built environments, memory is nourished by structural permanencies wherein the identity of things is embodied. Consequently, identity can be preserved through change provided that every new intervention be compatible with the upholding of the place's structure of permanencies.[8] This reasoning provides the key of conciliation between identity and change, while clarifying the link between identity and continuity.

Let's see now which are the tools that help us to identify and recuperate the values whereby identity can be reconstituted and preserved.

2. Reconstruction of Typological Processes and Identification of Limits of Transformability

Cultural values started to be recognized only when the younger "planned city" became effectively opposed to the older "spontaneously growth city", because of a radical difference in the mode of building the city. The way of assessing the value of a place favored then the rarity and uniqueness of "exceptional" artifacts – the "monuments" – rather than its historic and civic continuity.[9]

The designation, in the 60s and early 70s of "arrondissements historiques", "secteurs sauvegardés", "historic districts", and "conservation areas", marked a new awareness. But, as far as concerns operational aspects, the "urbanists" and the "restorers" confronted with the urgency of thwarting the offensive of urban renewal, proved to be unable to solve the problem of the historic city and expressed considerable unease about the state of their cognitive and critical tools.

It is in such a context that urban morphology developed as a new research field, in the 1950s, in Italy, thanks to the valuable contribution of Saverio Muratori. His definition of "a priori" building type concept as a full expression of a previous building tradition that reveals itself over defined historical periods within the same cultural area, led to the discovery of the chain of logic that links the building to the city and of cyclic laws that preside historically over the organic development of the city. The main outcome of these studies is the affirmation of the necessity to anchor design and planning practices in objec-

tive knowledge of transformation processes.

Confirming and refining this stream of thought, the work of the Italian Gianfranco Caniggia applied such a concept more specifically to conservation. Indeed, in the late 60s, he brought to light the "typological process", a concept which allowed the definition of a more comprehensive and refined method. Processual typology, as stated by Caniggia, deals with the recognition and understanding of historical-formative values derived from the processual continuity of mutations.[10] It also explains how these values inform the project.

Elaborated and verified for the ordinary building (the humble, residential building, made by non-architects), the method applies also to the specialized building (non-residential building, always produced throughout a project), in all cultural areas and scales of anthropic environment (building, urban fabric, city, territory). Yet a problem occurs: how can this method apply to Modern housing, which is not an outcome of spontaneous building culture, but of critical consciousness of an architect. Modernity brought the distorsion of traditional rules, by creating a strong opposition between typology and morphology: the first directly derived from the transformative processes, from the type as concept of housing, and the second, imposed by the architect, constraning the type to improper, anorganic rules; in short, a coexistance of 2 instances: the type and the intention of the designer. It is thus more accurate in this case to speak about change instead of typological transformations. In this view, modern housing seems closer to outstanding building category, given also the few and carefully documented transformations to which it was subjected. This is the case of the "icons". However, in most cases, modern housing get "spontaneousized", namely dramatically transformed (see Le Corbusier's Pessac), or the intentional superimposing was contextually sensitive, as in the case of Romanian modern architecture, especially the city of Bucharest, where modern housing was always built in continuity with existent building tradition, considering the local modes of using the available resources and techniques. In this situation, Modern housing fall into ordinary building category.

Generally, in order to retain and preserve the cultural identity of places, it is necessary to confirm the continuity

of the typological processes which determined the city evolution over time. In this respect, it is essential to recover the leading type of first edification of urban fabric, considering that an existing plan feature, exerts an influence on subsequent developments constituting a morphological frame in which a subsequent plan unit develops more or less comfortably.

In this perspective, conservation constitutes both an actual and transitory state in the logic of transformative process. The issue is to choose, among the synchronic possible interpretations of the current type, the one that suits, that could be acceptable within the frame of this transformative process so as to get an optimum accord. To this end, it is necessary to identify the limits of transformability outside which a building, a city or a territory loses its recognizable characters, thus its cultural identity.

A diachronical and analogical reconstruction of different transformation stages indicates the chronological succession and derivation of recognizable building types. This procedure provides a series of acceptable propositions within each version of the given typological process. In this light, structural and functional adaptation becomes a programmed and continuous activity of conscious maintenance, in affinity with built tradition, recognized and explained in order to individuate the streams that deserve to survive.

3. Transformation Rules of Built Environments vs Prescriptions and Proscriptions of Conservation Doctrine

This approach of conservation based on the knowledge of the formative processes and the "reading" of transformations differs fundamentally from traditional conservation doctrine, namely the body of contrasting and often confusing theoretical positions that fuel most legislations, charters and recommendations at the national and international level.

Pretending to cleave to the universal prescriptive ideals, the conservation theory was guided until recently by criteria adopted for the restoration of art objects, where the esthetic instance was privileged over the structural one. The focus on visual aspects, on appearance[11], derives from the general principle of methodological unity applied to all artistic manifestations from all periods.

The objects recognized as worthy of conservation are carefully chosen among the human built products according to every-changeable criteria, strongly imbued by subjective, esthetic prejudices affected by taste fluctuations; however, uniqueness and rarity have always prevailed in the evaluation of places. The selection is conditioned by a preliminary recognition of artistic and historic qualities that clearly distinguishes the conservable from the non-conservable. Subjected to personal interpretation, this approach of conservation is difficult to apply to conservation and management of Modern Movement architecture as well as large scale structures that entered, gradually, the "favored" field. By the way, the very notions of "heritage" and "inventory", are based on this way of thinking.

Transposed to monuments from the world of art objects, the discipline of conservation has inherited that conception of history and of history of art on which it was founded in the 19th century. This is traditional history, turned to unique events, attached to a linear and cumulative conception of time that dissociates the present from the past.

In conservation practice, this historic culture conveyed to the adoption of a discriminatory treatment of cultural resources; that is, on one hand, the inertia of privileging, at the operational level, the «exceptional» manifestations, or, in a more restrictive sense, the so-called «chef-d'œuvres»; and on the other hand, the application of extreme conservation measures that impede on the natural transformation process. This is the case of "reservation" practice as a protection measure of monuments, sites and districts. The removal of those structures from urban dynamics for their strict patrimonial interest, has had the perverse effect of "zooning", a term I actually prefer to "musealization" for its capacity to express the focus on life, treated as a stage-set, as an object to be displayed, with well-known lifeless results. Last but not least, "reservation" practice was often interpreted by the developers and decision-makers as an authorization to allow everything outside protected areas based on the principle that if there were some interest, it would have been officially decreed by the concerned instances.

This attitude privileges the sacred historical-documentary values and condemns reconstruction using analogous but new materials and building practi-

ces as historical fake, designated as such according – paradoxically – to a modernist conception of truth. The practical results turned out to be very diverse: on one side, the absolutism of documentary value and the ignorance of the historical-architectural value leading to a collection of remains whose ongoing life embodied in the processual evolving of forms has been stopped; on the other side, the partial explanation of documentary value and the consideration of an "up-dated" architectural value, which glorify the criterion of distinctiveness by using, in reconstructions, "frankly modern" forms and techniques.

This epistemological position is opposed by a conception of history that aims at the understanding of the processual character of architecture. Through a conscious interpretation of transformation stages, every built object is seen as the individualization of a historic process of diversification and specialization of forms where the present is explained by the past and determines the future; a conception of history, related to the discovery, within the field of history, of cyclical and oscillatory processes and of repetitive facts. According to this new dimension of history applied to large extents and to a long duration, one should bring to light the repetitions, their stability, and discover an element of structure. Structure, according to Braudel, relates to facts which, during a very long period, stay constant, or evolve only in a imperceptible manner (the "permanencies"), that act as a set of constraints, limits or barriers, forbidding different variables to exceed a certain threshold (the "limit of transformability").

Furthermore, the proliferation of collective memory brought foreword a renewal of historiography.[12] Based on the memory of an experience lived by a community, this "new history" is radically opposed to traditional history based on historic memory. The new history can be interpreted as a revolution of memory which involves the abandon of linear temporality in favor of an ethnological or anthropological point of view. With regards to conservation, it results in an non-discriminatory, integrative and unitary attitude with respect to all contexts of intervention which requires the identification of structural permanencies that found the identity of a place.

Moreover, the reintegration of losses of a historic building in a distinctive, contemporary manner, let say a post-

modern structure for example, is considered, in this perspective, an arbitrary re-writing which contradicts the natural development of the artifact; it is a historical fake. Reconstruction through the analogous substitution of irretrievably damaged structural elements with similar ones, of the same material, new, using the same technique without any intention to forge, is "true" from a historical-architectural point of view, for achieving coherence between structure, utilization and form; and is "false" from a documentary point of view.

To sum up, if conservation theory once fit into a period wherein the heritage corpus, well delineated in time and space, was constituted of built "events", today it is no longer appropriate to current cultural parameters. My point is that it is no longer "adjustable" and thus any attempt to up-date, such as semantic expansion of key-concepts, etc., is a mere speculation unable to restore a living and comprehensible language to the world of collective memories. Traditional conservation theory has reached its own 'limit of transformability'.

The alternative of an approach based on issues of memory and identity seems, in this respect, more responsive and appropriate.

4. Reusing Outstanding Buildings

In order to illustrate the ideas previously discussed, I will examine one of the essential aspects of conservation: the functional adaptation of modern outstanding buildings as seen through the two distinct theoretical frameworks.

Despite the common principles of "compatibility" and of "minimum intervention", the ways of assigning a new function to a historic building differ largely according to the criteria and method one may choose.

Indeed, conservation theory assesses the future function by considering the merely intrinsic characteristics of the building. It recommends, whenever possible, keeping the original or present use – the ideal case – as it involves fewer harmful changes. If this is not possible, it prescribes a "compatible" use; a requirement which generally refers to an accord with the morphology of the given building, in terms of dimension, scale, color and materials. Intervention is thus limited to the physical consideration of architectural and decorative elements.

The explanatory approach based on the study of evolving processes of forms approaches the issue quite differently: the "outstanding" building, as a specialized stream of building derived from the ordinary building and part of urban and territorial structures, is also a result of typological process, less readable in this case as strongly mediated by intentional superimposing; the specialized building being, since always, designed. A morphogenetic method, similar to the one used for ordinary buildings, helps to find an appropriate solution, able to ensure identity and continuity. In considering functional adaptation as a new mutation, the method facilitates the recognition and retaining of essential organic components of type, while admitting the removal of additions that jeopardize its organic consistency.

Yet the proposal of a new function depends also on the transformations that occur at the level of the city and territory, each growth phase modifying the hierarchy of services of the preceding phase, their relative position in the urban structure, and their size. This dynamics has already been made explicit by a series of studies[13] which showed that generally, the services grow and specialize progressively, while localizing differently according to the diverse qualifications assumed by the district to which they belong.[14] In considering these mutations that engendered also changes at the morphological level of buildings, it follows that the new function should also meet needs in terms of services of that given module.

Finally, the question proved quite complex. Finding a concordance between the typological characteristics of a building designed for sheltering a specific function, and a current use which should be simultaneously consistent with the typo-morphological characteristics of the building and with the hierarchy of polarities within the urban fabric is no easy task. One needs first to understand the formative phases of these structures and then to determine the limit that they admit within the process of the typological stream before finally adapting a new pertinent function.

Moreover, this reasoning does not exclude demolition. Demolition occurs when the specialization of an outstanding building is too advanced and its capacity to absorb other functions is too limited, but also when none of the current acceptable functions within the

framework of that specialized type are compatible with its relative position in the urban fabric, city or territory. When adaptation can no longer be affected satisfactorily, the pressure of functional requirements results in the destruction of obsolete forms and their replacement.

Within the same stream of thought, Françoise Choay pleads, in a recent essay titled "De la demolition", for the restoration of the dialectics of conservation/demolition. Beside the conservation of "objects that we no longer know how to build", she suggests the "demolition of any built artifact that comes out of traditional criteria leading to demolition, such as decay, maladjustment, insecurity, uselessness, dysfunction...".[15] This logic explains also the demolition of certain buildings despite their established status as historic monuments. This shows, finally, that an anthropic environment management based on intrinsic attributes, such as integrity, authenticity, state of conservation, etc., no longer suffices to guarantee its perpetuity and its appropriation. Furthermore, management, by nature interested in the process, tends to evacuate the content. The 'step by step' schemes of strategic urban and territorial management, which have become so popular lately, have no consistency if not supported by clearly articulated principles and methods providing the tools necessary to a deep understanding of existing building culture. Logistics cannot substitute method.

In conclusion, conservation should necessarily be conceived within the framework of a global transformative process of anthropic environment, which integrates conservation and innovation. The identification of rules which acted in the past to shape our built environment provides the necessary knowledge to understand the sense of the historical dimension of human experience and permits a conscious management and control of transformations.

This cultural attitude is still in its infancy and the new ideas are slow to be assimilated, but only their affirmation could provide, today, the conceptual foundations of a new conservation practice.

Notes

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2   RAMONET, I. L'Agonie de la culture, Le Monde Diplomatique, 1994.

3 See LARSEN, K.E. (ed.) *Nara Conference on Authenticity, Japan 1994, Proceedings,* Unesco World Heritage Centre, Agency for Cultural Affairs (Japon), Iccrom, Icomos, Tapir Publishers, 1995.

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5 MARCONI, P. *Il restauro e l'architetto,* Venezia, Marsilio, 1993, pp. 121, 122,127.

6 FREUD, S. *Civilization and its discontents,* London, Hogarth Press, 1973 (c.1963).

7 CHOAY, F. "Riegl, Freud et les monuments historiques: pour une approche sociétale de la préservation", in LAVIN, Irvin (editor), *World Art. Themes of Unity in Diversity, Acts of the XXVIth International Congress of the History of Art,* University Park and London: The Pennsylvania State University Press, vol. vol III, part VII Preserving world art, pp. 799–809.

8 CLEMENTI, A. "Il trattamento delle memorie" in Clementi, A. (editor). *Il senso delle memorie in architettura e urbanistica.* Roma-Bari, Laterza, pp. 5–36.

9 "... un territoire, une municipalité ou une partie d'une municipalité (étaient) désignés comme étant patrimoniaux... en raison de la concentration de monuments ou de sites historiques qu'on y trouve" (Loi sur les biens culturels, Québec, 1972).

10 CANIGGIA, G. "La struttura del luogo come costruzione processuale" in Maffei, G. (ed.), Caniggia, G. *Ragionamenti di tipologia. Operatività della tipologia processuale in architettura,* Firenze, Alinea, 1997.

11 POMIAN, K. "Musée et patrimoine", in H.P. Jeudy (ed.), *Patrimoines en folie,* 1990, pp. 177–198: "The constitution of cultural heritage consists in a transformation of certain wastes in semiophores and in a change of ends and significance of certain semiophores. The choice of objects that enter the cultural heritage corpus depends on their capacity to receive significance. This capacity relies mainly on their history, their rarity, their external appearance. [...] once they become semiophores, the wastes are submitted to a special protection against the corrosive influences of environment and against the damages that men are susceptible to provoke".

12 Pierre Nora has explained very well the difference between objective memory of traditional history, of document-monument, and collective memory as the incessant re-elaboration of the present. If, until recent times, history was identified with memory, in the sense that the first secreted the second, argued Nora, today history is written under the pressure of collective memories produced by breakdowns (wars, economic breakdowns, and collapse of traditional life systems, globalization). The study of memories whose major contribution to historiography is to make explicit what is implicit, puts into question all of historiographic tradition. NORA, P. "Mémoire collective" in Le Goff, J.; Chartier, R. and Revel, J. (ed.) *La nouvelle histoire,* Paris, CEPL, 1978, p. 398–401. See also HALBWACHS, M. *La mémoire collective,* Paris, PUF, 1950.

13 MAFFEI, G.-L. "L'edilizia specialistica", in Macci, L. *Materiali per un progetto d'architettura,* Firenze, Teorema, 1980; CANIGGIA, G. "L'edilizia specialistica", in Maffei, G.-L. (ed.), *Gianfranco Caniggia. Ragionamenti di tipologia. Operatività della tipologia processuale in architettura,* Firenze, Alinea, 1997.

14 Maffei, G.-L. "L'edilizia specialistica", in Macci, L. *Op. cit.,* p. 32.

15 CHOAY, F. "De la démolition", in *Métamorphoses parisiennes,* Paris, Pierre Mardaga Editeur, 1995 pp. 11–28.

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The Challenge of Authenticity for Modern Architecture and Heritage

As I stand here before you, I feel a little like a novice mountain climber working with faulty equipment and without a rappel rope. The attempt to reach certain intellectual summits and meet the theoretical challenges posed by the principle of authenticity to the conservation of modern architecture, is motivated by the discussions we had within the Docomomo's International Specialist Committee on Registers (ISC/R). There, we approached the thorny issue of the adding MoMo buildings, sites and neighbourhoods to the register. The group I was chairing at the time focused mainly on the method to be used, rather than on selecting the modernist buildings and areas that should benefit from such a status. We examined the relevance of the criteria to be applied in the context of the World Heritage Convention and it was agreed that they were all applicable, with the exception of the criterion stipulating that each property nominated pass the authenticity test. The report submitted by DOCOMOMO International to ICOMOS states that concerning the Modern Movement, the authenticity of the idea, and hence of the form, the appearance, takes precedence over the material authenticity of the object and cites the impossibility of obtaining, much less reproducing some of the industrial materials used at the time of the construction. But is this purely technical justification sufficient? Doesn't the issue of authenticity force us to question the very nature of architecture in general, and modern architecture in particular? Doesn't it go back to the very definition of this utilitarian art,

which should be considered not only in terms of production, but also in terms of use, creation and appreciation?

In the 19th century, the debate over the preservation of historic monuments was closely related to the discussion of architecture. The great conservationist thinkers, Ruskin and Viollet-le-Duc, were also concerned about the principles that should guide architectural practice, changed as it was by technical progress. We consider that they participated in the advent of the Modern Movement, since Nikolaus Pevsner published the first history of its origins in 1936; of course, in his view, art critic John Ruskin was involved more as a theoretician enamoured with truth than as a devout art lover. The diametrically opposed approaches put forward by these two contemporaries with regard to the preservation of old buildings, stems from their contrasting understanding of architecture. For Ruskin, a fervent opponent of any form of restoration, architecture is governed by great immutable principles; whether contemporary or old, public or private, it is "historical": man may live without it... but he cannot remember without it. For Viollet-le-Duc, on the other hand, it represents expression and service, in response to the cultural and material needs of the present, using methods of the present. In charge of restoring a number of national monuments in his country, the French architect restored them to a condition that he stated could never have existed earlier. This was validated by a rationalist approach to construction and a materialist view of historical development.

Today, discussions about architectural creation and heritage conservation are parallel; architects who make the news are rarely actively involved in saving old buildings and neighbourhoods. Since the turn of the century, thanks to the critical thinking of Italian engineer and architect Camillo Boito and more particularly, forward-thinking Viennese art historian Alois Riegl, close to the avant-garde, the conservation of historic monuments has gained its disciplinary autonomy. Later, the organization of conferences and the foundation of specialized organizations gave it its institutional independence. Remember that the first Conference on conservation of historical and artistic monuments took place in 1931, in Athens, and its proceedings were published two years later, when CIAM (Congrès Internationaux d'Architecture Moderne) held its

meeting aboard the Patris II. On this cruise, a series of recommendations was formulated on the historic heritage of cities. The section of the *Charte d'Athènes* on this subject echoes the famous booklet written by Riegl entitled *The Modern Cult of Monuments*; it demands the preservation of buildings that are precious witnesses of the past, as long as they do not stand in the way of social justice and public health. Furthermore, although the *Charte d'Athènes* recommends "the demolition of unsanitary houses and slums" around certain historic buildings or even the "complete transplantation" of monuments for functional reasons, it rejects the pastiche of new construction in old neighbourhoods, affirming that the use of styles taken from the past leads only to a false reconstitution, "capable only of discrediting authentic testimonies". While the concept of authenticity is central to the doctrine of conservation, the same is not true for architecture, although of course such a concern is not entirely absent. However, the term is omitted from the vocabulary of practitioners and critics, its presence being rather subterranean, subliminal, as images or words hidden behind others. But as we will see, this authenticity has more to do with practice than with objects.

The first article of the first international charter adopted in 1964, in Venice, to ensure conservation and restauration of monuments and sites requires that the monumental works of the past be transmitted "in the full richness of their authenticity" to future generations. This requirement is reiterated in the document prepared to guide the implementation of the World Heritage Convention. In this document, authenticity is one of the most important criteria, *the only one* that is exclusive, unlike the six others that aim to identify the value of buildings and sites as testimony of social, technical or artistic history, or as ethnographic documents. It states that a monument, area or site must "meet the test of authenticity in design, material, workmanship and setting". This list of alternatives introduces a certain amount of ambiguity into the application of this principle.

In 1994, at the invitation of the Japanese government and under the auspices of ICOMOS, an international meeting was organized in Nara to clarify this delicate issue. Guest speaker Françoise Choay, author of L'Allégorie du patrimoine, pointed out in a particularly critical paper that, far from being

a universal value, authenticity is a basic tenet of Western culture and that, as it was previously understood, both the object and the criteria used are uniquely textual. In antiquity and in the Middle Ages, the authenticity of a text was recognized by its physical characteristics or stylistic traits that attested to its source or ensured its correspondence with an original, without regard to its significance or content. However in its modern usage, authenticity is not limited to establishing the legitimacy of a written document; rather it is applied to tangible objects, historical documents and works of art. As pointed out by Choay, these do not have the literal or abstract permanence of a document. Indeed, in addition to frequently sustaining changes at the hands of man, they undergo the inexorable effects of time, making the idea that it is possible to restore something to its original condition purely hypothetical. Of course, the authenticity of a building erected in the recent past is easier to establish, since the responsibility of the many professionals involved in its construction is secured by many documents, and a great deal of valuable information is also provided by photography. However, in the case of 20th century architecture, its authenticity is more difficult to preserve since the durability of many of the man-made and prefabricated materials used in construction is often limited and their replacement is not always possible, since they are no longer being manufactured. Because of this situation, the ISC/R has decided to give precedence to the authenticity of design and form rather than to material and workmanship, as I mentioned in the introduction.

It must be said that in the context of DOCOMOMO International, whose membership is largely composed of individuals and groups who remain attached to the tradition of the Modern Movement, its ideology of progress and its principles of formal simplicity and technical rationality, the desire to save modernist buildings is generally motivated by their art value, a value that we hesitate to qualify as being relative, as does Alois Riegl in his analysis of modern cult of monuments, since it belongs both to the past and to the present. What ensues is a tendency to want to restore buildings and sites to their original condition, since they are considered valid models for contemporary architectural practice. So to what extent is it legitimate to give greater importance to design rather than to materials or workmanship in their conservation?

Such an approach refers to a concept of architecture, which is in keeping with the idealist tradition of art. This considers works as bearers not only of wisdom, but also of knowledge, if not a capacity to transform the world. Hegel, in his course on aesthetics, gave the most systematic discussion of these new ideas that appeared around the turn of the 19th century. According to Hegel, art is the tangible manifestation of the Mind, of Truth, since in his view, only Ideas are true. Such an assertion had already been put forward by Plato, although situated in a somewhat different vision of reality, indifferent to change and to fate, as well as to the materiality of people and things. For Hegel, the arts as disciplines and styles mark out the dialectical development of the Mind, succeeding in a more or less adequate manner in expressing its progress toward the Absolute, in the visual sphere. This rational and abstract interpretation leaves room for more a subjective view expressed by Nietzsche, who praised the great artists rather than the times, and who saw in art the manifestation of the will to power, a force that was both spiritual and vital, able to impose order on chaos. Regardless of whether this spiritual impetus is called Zeitgeist or Kunstwollen, whether it is discovered or invented, we can see that these concepts of art and architecture are at the very foundation of the diversity of the tendencies within the Modern Movement. They lead to placing greater importance on form rather than material, the latter being mastered by the dynamism of line in the furniture and buildings designed by Van de Velde, the abstraction of the geometry in purist houses or a process of elementarisation developed by the members of De Stijl. The modernists early this century were seeking truth far more than authenticity, an immediately understandable universal principle.

However, although in a manner that was not explicit, the concept of authenticity entered into architectural thinking after the Second World War, when modernism was reconceptualized, to borrow from the title of a major conference on the history of modern architecture that took place last spring at Harvard University in Boston. This meeting was organized in conjunction with the Canadian Center of Architecture and Maristella Casciatto and Sarah Ksiazek

were among the guest speakers. This meeting was evidence of a shift in research interest in the field of architectural history, which had focused previously on the heroic years, and it encouraged the formulation of new hypotheses taking into account readjustments, indeed discontinuities within the Modern Movement. One of the most enlightening papers, in my view, was on "authenticity's domiciles proposals by Alison and Peter Smithson". In her paper, Ksiazek reviewed the interpretations that had been given to two projects dating back to 1956 by the famous British architect couple, their "Pavilion and Patio" installation set up at the "This is Tomorrow" exhibition presented in the Whitechapel Art Gallery in London's East End and the 1:1 scale model of "the house of future" built for the ideal homes exhibition organized by the Daily Mail. The author stressed the critical strength of these two projects, which were so different from one another, the first being a sort of modern hut made of reclaimed materials, the other, a house built entirely of plastic.

Without pressing on with my own investigations – which may be unwise – I have allowed myself to be convinced, and least as far as "Pavilion and Patio" is concerned, that this is minimal, basic, crude shelter introduces a profound change in the conception of architecture and modernism, with the emphasis being placed on the material rather than the form. This thesis is all the more interesting in that the intellectual horizon of this architectural production is identified, in this case, being the existentialist ideas shared by the English post-war avant-garde, and indebted to Heidegger's *Being and Time*, a book published in 1927. Within the context of this new philosophy arising from crises in Western civilization which weakened confidence in generalized and inevitable technological and social progress, "the nature of building is letting dwell," according to Heidegger. Architecture is much less an aesthetic thing or a tool or machine, than one thing among others revealing the existential suffering of man who, as a free being, is obliged to give meaning to the world.

But what is its relationship to heritage conservation? In fact, it is extremely interesting to note that the philosophical and literary texts on which this approach is based contain observations on artistic creation and the appreciation of works that allows us to pursue thoughts

along these lines. In his discussion on the art of writing in a book entitled *What is Literature ?*, Sartre states that a work of art is not a sign, a representation, but rather a thing, an object filled with subjectivity, whose meaning cannot be exhausted, an infinity of words being required to express it. Furthermore, continues Sartre, the creative act is but an incomplete and abstract moment in the production of a work; it requires appreciation as its dialectical equivalent, these two connected acts requiring two separate agents. It is the combined effort of the author and the reader, the creator and the viewer, that produces this concrete and imaginary object that is the work of art.

This idea that a work of art is produced as much in its creation as in its appreciation can also be found in Martin Heidegger. Unlike Sartre, the German philosopher focuses on architecture or rather the built environment. In the basic text of his aesthetic, "The Origin of the Work of Art," written in 1936, he uses the Greek temple as an example to understand the essence of art that reveals Truth: "A building, a Greek temple, portrays nothing. It simply stands there in the middle of the rock-cleft valley. The temple, in its standing there, first gives to things their look and to men the outlook on themselves." He explains that if the work cannot exist without having been created by the creator, nor can it exist without those who appreciate it, or to use Heidegger's term, without "preservers". Note too that in the essay entitled "Building", which was first delivered in 1951 as a lecture by Heidegger to an audience consisting largely of architects, the concept of dwelling and place are explained with a bridge spanning the river. It is common knowledge that this paper was the basis for Critical Regionalism, a position in architecture that lays claims to the MoMo tradition.

In conclusion, and to return to the metaphor of the mountain climber that I used to open this presentation, I would like to confess that I have not scaled the peak – far from it. The thoughts that I have shared with you today are incomplete both theoretically and historiographically. Many questions have not been addressed, such as the consequences of the specific collective and often industrial mode of production in architecture, in the context of the Modern Movement.

Of course, this exploration does emphasize MoMo's complexity and perhaps discerns within it an epistemological split which may be similar to the one experienced in philosophy during this century, specifically with the development of phenomenology, a form of thinking which, rejecting both idealism and materialism, placed the individual at the heart of things and the world. Architects like LC, when he abandoned his purist credo, contributed to the critical revaluation of modernism. Remember that Kahn too was invited by the Team to participate in the Otterloo meeting. This type of observation is important because it makes it possible to refute the outright condemnations of the Modern Movement. In the context of DOCOMOMO International, we have always been deaf to the criticisms made of the Modern Movement, particularly regarding its failings. Of course, not all challenges have equal relevance. Rather than ignoring them, I think that they should be dealt with, because if the Modern Movement is still relevant as a historiographic concept and a cultural position, we must articulate convincing arguments that refute any criticisms.

Furthermore, with regard to the problems posed by conservation, this pursuit of authenticity within this century's thought on art and architecture leads us to be more attentive not only to the materiality, the tactility of building, but also to its topographical aspects. Lastly, it confronts us with our responsibilities: we will not find justification for conservation in the past; through conservation, we do not collect or convey messages that have been left to us by previous generations, but rather we give meaning to beings and things in the present.

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Miami Beach Tourism and Historic Preservation

The image of the State of Florida has its genesis in the Late Renaissance. In the New World expeditions of the sixteenth century, ostensibly quest for gold and territory, also inspire the desire to find this earthly paradise.

In Europe published descriptions of the explorations were popular. Based on the image of the Eden, Florida mythologies were as bountiful and temperate, enliven by the noble savage standing naked in the paradise garden. The most notable of the old Spanish legends was collected and published in 1530 under the name Decades of the New World by Petro Martiere D'Angeria. He describes some reports from Ponce de Leon story of the "Fountain of Youth" which later became a tourist attraction. It also became a favorite Leiv-Motive of the designers of the Art Deco Movement called "The Frozen Fountain".

Even the name "Florida" (Feast of Flowers), conjures visions of paradise The idea of the Landscape as a source of wonder for travelers takes place in the United States, between 1820 and 1830. Places like the Niagara Falls, the Grand Canyon and Yosemite, describe in quasi-religious terms by writers who called themselves "pilgrims". The idea is trace to the church in medieval Europe that encouraged travel to sacred sites enshrined with religious buildings or symbolic structures.

As society became more secular travel propels by the desire to transport physically rather than spiritually from the mundane state of wonder. Small attractions proliferated as automobile use increased. When the first North and South highways were completed, Florida became a favorite destination. In a 1924 Saturday Evening Post article noted:

"This year something less than 15 millions Americans will indulge in the motor tours." These travelers and these tourists called "tin-can tourist" held annual camp meetings in several small towns along U.S. Route 27 that ran from Ohio to Central Florida. They celebrate their annual Christmas meeting in the town of Arcadia and later over Dixie Highway U.S.1 arriving to Miami.

As a result to the traveling, different attractions were open along the roadside. They group into thematic categories, Florida being a magical source or shrines. In 1925 Silver Springs were designated to the National Register Landmark as the largest artisan well in the world.(Another category was Florida as Eden gardens and the last one as the underworld the alligators and reptile attractions.

Another important factor in the development of South Florida was the airplane by one of his pioneer's Curtis who had planes in Miami Beach, and also develops and area called Miami Springs. Furthermore, Pan Am has its central and main airport in Miami, from where its reached the Caribbean and South America, attracting tourists to the local area with different advertising ideas selling the exotic and bucolic images of the area.

In what follows, instead of looking for its crisis or cures, I am more interested in looking how the city of Miami Beach evolved to the way it is today. This presentation is about a city as it is, not as it may be. As people need change and city continue it growth we should never deviate from its historical heritage. We should focus on preservation of its urban landscape and architecture.

A major achievement of architecture is to create a place. By defining a space where people can gather and feel at whole with themselves. Architecture has two type of tools used as a medium of expression. Those tools are real and abstracts; In the first, we can name the light, shadow, color, perspective and texture of the materials; In the latter, we have the symbolism implicit in every work, and the sensations that make the impact in the user or spectator of the architectural man made environment.

All this elements and its relationships give us a sense of place. Every individual relates to it in different degrees and whether physically of psychologically

These images I am about to show are in the City of Miami Beach and more precisely in the area that contains the Art Deco Historic District. This district was designated in 1979 to the National Register of Historic Places. It contains the local Historic Districts of Ocean Drive, Collins Avenue, Flamingo Park, the sections of Española Way and the Museum. This Historic District was built more than 60 years ago with design concepts and attitudes different from today cultural and socioeconomic needs.

Since its beginning as a "Tourist Center" or "Tourist Resort" as mentioned early, its conditions and parameters were different from today residents customs and needs. The factors that have altered the urban sprawl have been the automobiles, recreational facilities and mainly the air-conditioned that has increased the tourism all year long.

From these parameters the clash and the inevitable change of the city evolve. The adaptation of the permanent resident and temporary tourist is a result of the interactive relationship to the city. The cities have a life that is systematic and changes through time. It adapts to its new users as far as they protect the city's structures that are in the first place what attracted the tourists to its renovated urban cores.

In 1926 the City of Miami Beach was incorporated. Before the city was an avocado plantation that did not work and was further change by pioneers like Collins, the brothers Lummus, but mainly by Carl Fisher. He among other activities was the creator of the Indianapolis race track and developed the incandescent lamp for automobile that he later sold to Presto-Lite.

Carl Fisher supplied the money to finish a wooden bridge. The causeway became the first to link the mainland with the island in 1920. Also, the installation of street cars helped the development of Miami Beach. In 1921 there were only five hotels and nine apartment buildings with a permanent population of 644 residents. Its climax in construction came between the 30's and 40's and after the war in the 50's and 60's. The tourist center started competing with Las Vegas bringing shows and concerts of Frank Sinatra, Dean Martin and the big Jazz Bands.

The Entertainment activities happen in the Northern area where Bal Harbor and Mid-Beach is located today. During World War II this area had the concentration camps for the German prisoners, and artillery training field at its beaches. This area is also where the hotels of Morris Lapidus like the Sheraton originally

known as Americana, the Fountainbleau and the Eden Rock can be seen.

The area of Ocean Drive that faces the beach and Lummus Park is where the largest concentration of facilities from hotels to restaurants can be found. This area is the most widely advertised in magazines and travel brochures; that I called "for export".

Within the last four years Lincoln Road, an area also in the Historic District, has quickly grown. Lincoln Road developed by Morris Lapidus' during the 60's and remodeled in 1996. In this pedestrian mall, buildings such as the Lincoln Theater (home of the Philharmonic Symphony of Miami) and designed by Collins & Lambert in 1936 can be found. This area has a concentration of cultural and artistic activities. It has many themes from restaurants and sidewalk cafes to the weekends' antique market.

Miami Beach has its unique characters that differentiate it from other cities. However, we find similarities that allow us to compare and analyzed them. Its different factors and its relationships are the link to its socioeconomic and cultural life and also, somehow define the urban landscape. In the last seven years the Historic District has maintained a continuous activity toward the preservation, restoration and rehabilitation of old buildings for hospitality enterprises and private owners for single buildings or small multifamily dwellings and stores.

In this period of "rediscovery" mainly for tourist business, we encounter an area that was decadent socially and physically. Therefore, not in an easy task, the Miami Beach preservationists, developers, residents and its city's officials have embraced its rebirths, and supported its new image. It is important to mention that in this area of the city we find the largest support for low-income public housing in the State of Florida.

Due to the common spaces within the city we can see the interactive relationships within the older and younger people and the diverse ethnical and cultural backgrounds most in the local markets and shops.

Any urban change and the gentrification have its consequence and create an impact to the area therefore disrupting the original life of its older resident. The old resident defines as an ancient retired American and Latin generally Cuban settled in the area after the Mariel boat lift form the 70's. After them other groups of low cultural and economic resources arrived and transformed

the area in a "Nobody land" except the characters of Miami Vice.

The City of Miami Beach was one of the few cities in the United Stated that the Afro-American population never allows to settle. Josephine Baker who acted in the mayor hotels had to go to the mainland to stay overnight in a hotel that allows blacks. Keeping its pioneer's idea, which a resort town does not need, a place to be buried only to have fun, therefore, the city has no cemeteries. In 1996 the south sector of the island was designated to the historic district of Ocean Beach. In this area we find the first hotel and synagogue of course with Art Deco motivesThis sector was the only one where the Jew community were allowed to settle in the beginnings of Miami Beach.

For the economy of the area, we can say that since 1993 44 % of all real estate transaction in the city has been done in the historic district that comprises 14 % of the city's area.

In all the reconstruction work the interiors are the most difficult to control because most of them are done with closed doors and gutted during the weekend. During this time no city hall inspectors are in around, so it is easy to skip regulations. Among the hotels that have followed the scrutiny Historic preservation standards have been The Kenmore Hotel, The Colony Hotel and the Astor Hotel.

As a preservationist and scholar of the Modern Movement and its Art Deco, I favor preserving or restoring the buildings of the area without the original colors from 70 years ago; rather to not have renovation and habitable conditions at all. By allowing this anti-academic or "pure" preservationist renovation, we got a favorable approach if we remember 17 years ago the deplorable stage of the Miami Beach buildings and its residents.

Dealing with rehabilitation and preservation that I call "urban rescue", it is important to analyze the strategy's use. In Miami Beach the original area of the Historic District established 1979, was not thought the terms of "Pure Preservation". The urban landscape was presented, or re-presented keeping the spirit of its architecture of the past; but with new color treatment that somehow went along with the architecture and gave a new identity to the Deco District. Rediscovering or creating for instance the Deco Tropical's color palette the one that was not historic at all but was with-

out a doubt photogenic and supported by the Historic Department of City Hall.

As we can see it, "Photogenic Quality" was the subliminal goal of the designers involved in the rescue of the buildings. Today this palette scheme still it is in the center of discussion for the pure preservationists that defend the original colors: off-white or chalk with a touch of color in the eyebrow's edge to delineate and emphasize the streamlines as characteristic fixtures of those buildings.

Despite its buildings non-academic or historic colors the area generates the city's only two industries: the international and local tourism, and the one that turns around the advertisement, where model agencies and the film industry found a workable background all 365 days of the year. Furthermore it is less expensive than the Caribbean Islands or other cities for production purposes.

For more than twenty years the Miami Design Preservation League has protected and supervised Miami Beach new constructions and renovations. It has also organized the "The Art Deco Weekend" celebrating the Modern Era, with a festival that includes a lecture series, a film festival, street vendors of antiques and art and guided tours. Next year the theme will be the Golden Age of Sports and will take place in January 15 to the 18 of 1999.

South Miami Beach is the second behind Disney World in Orlando, as the largest tourist attraction of the state of Florida. The Greater Miami Convention and Visitors Bureau statistics show that in Dade County during 1997, 9.8 million tourists stayed overnight. From the total of 71 % who stopped in South Beach the average stay was 6.3 days. The average expenditures were $185.36 with a total expenditure of the county of $11.6 Billions; 54 % of its visitor arrived by airplane and 44 % by car.

As stated before the renovation or Urban Rescue has a direct consequence with the life of the city making a clash between the old and the new; for instance its infrastructure remained the same, and as a result cause has cause problems for the tourists and its permanent residents. As the city expanded its attractions for the tourists, the insertion of their automobiles has increased in the last years. Parking garages have been built but it still does not accommodate the amount of traffic to the area. Some zones mark as residents parking only. This problem increases during the weekend making it almost impossible to find

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a space. The automobile has mayor cause of disruption in the urban fabric like in the rest of the world; basically were it was not designed for them.

In Miami Beach we have done a "necessary concession" on the issue after many arguments with the designers and the developers regarding a parking building. Finally we have the support of the city officials to maintain the scale of the old image of Collins Street. The original facades of the buildings along this street were preserved and restored. The parking was moved back maintaining the original facade about 5 ft. behind the old one; keeping the store spaces help to maintain the pedestrian scale with its spatial relationship that the street had before. These spaces serve as the pedestrian link to the area. Due to the positive response from the Historic Preservation and Rehabilitation Department the parking spaces have improved due to many parking garages built in the area. Also the city has begun a free transportation service decorated with local artists.

In the last few months due to the large amount of private transit, the city public transportation authority provides bus transport local residents and tourists from parking places in the more frequented areas South Beach and Lincoln Road; resolution that alleviates the local traffic.

The other way it is to be part of the local flavor and use one of the most common ways of transportation that compete with not only the pedestrians in a city that has the perfect scale for them, but also with the cars.

Eight years ago you were able to find a table for breakfast or lunch in any restaurant. Today it has become such a fashionable spot that in most of the restaurants you have to wait about an hour or more.

Despite all it pros and cons, tourism has brought a new life to the area. The economy has improved and as a result the historic patrimony and heritage preserve. South Beach 1 1/2 square mile composes of 900 buildings from the Modern Movement of the 20 and 30's. The area has vernacular architecture, Mediterranean Revival, architectures from the 50's and 60's and a larger portion of Tropical Deco. An also a design from Miralda for Versacci's store.

An important aspect from the Preservation and Rehabilitation Movement in Miami Beach is the close work and collaboration between the Building Department, the Historic Department and the Miami Design Preservation League. This non profit Preservation League made up of volunteers from different professions, is committed to preserve the area heritage. Being the oldest organization in the world dedicated to preserve buildings from the Modern Movement included Deco Architecture.

In the Miami Design Preservation League we find a committee that revise all the projects and building permits for renovation or construction in the area. Their roll is to keep the final construction according to the existing urban landscape. Also we give Design and rehabilitation awards to encourage the preservation interest among its residents; being at the end in benefit for them and to the visitors as well.

I will briefly show the restoration and rehabilitation of the buildings found it this area. They may not be of greater architectural value however its importance rely in the concentration of building done during the 30's and seen exclusively here.

We can conclude that the importance of the architecture of Miami Beach cannot be found in the high level of its details or expensive materials like the stanley steel, marble or granite that we can find in cities like New York, Chicago or Los Angeles. Here we found that the designers of Miami Beach, without economic resources, they captured the spirit of the époque. And today thanks to the vision of a group of designers, real estate business and city officials, as well as the response of the international community of tourists, had prove one more time that the "Urban Rescue" or renovation of Miami Beach; it is compatible with the tourism and at the same time, the tourism is the one that help with its economic resources to maintain and preserve the renovations in the area.

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Experiments in Siberian Constructivism during the 1920s

"Do not forget that Russia (even the part situated in Europe) had very little in common with Europe. In many ways this country is still a riddle, but who has fallen in love with experiment can find there a beautiful field for his activities."

Johannes Bernardus van Loghem, lecture in Hilversum 'Innovation work in the Soviet Union".

Novosibirsk was founded in 1893. The settlement was known variously as Gusevka or Aleksandrovsky, in 1895 it was renamed Novonikolaevsk in honour of the accession of Tsar Nicholas II. The population of Novosibirsk today is 1 400 000.

The decision to create a powerful industrial base in the eastern regions of the Soviet-Union with the use of the natural resources of the Ural and of Western Siberia determined in great lines the development of the Siberian region in the 1920–1930th. The main factor in urban planning in that time was industry. The economical principle of bringing together natural and labour resources was the basis for urbanisation. Crowds of peasants left the agricultural places for the cities. In the given period the rates of growth of the urban population of Siberia exceeded the all-union ones: in 1897 – 8 %, in 1926 – 12 % and in 1939 up to 29 %. The minister of Education A. V. Lunacharskiy, when visiting Siberia in1928, called Novosibirsk Siberian Chicago because of the dynamism of its growth. (The Novosibirsk city population held in 1917 – 69 800 inhabitants, in 1928 – 133 500, in 1931 – 176 900 and in 1934 – 294 000).

But the growth of the urban population had a forced character, so the majority of the buildings of 'Siberian Chicago' had only one storey and a timber construction (f.e. in 1932 – 90.9 % of buildings).[1]

Little quantity and many times complete absence in Siberian settlements of stone or brick in buildings inherited from the previous epoch opened the possibility for new concepts of city planning and their realisation in practice. The quick development of new industrial centres in Western Siberia has played an experimental role in the development in practice of the new theory of the 'socialist town' and 'socialist settlement', based on an interpretation of Howard's ideas on "the garden city". The insights of the socalled urbanist movement affected the projects for regional centres, and also the design of communal houses.

Somewhat later the famous German architect and city planner Ernst May was invited to the Soviet Union. He perceived his arrival in the USSR as a chance "to accept the participation in the largest state-political experiment of all times". E. May (and his group of architects and city-planners) who worked in Novosibirsk, apprehended with enthusiasm the ideas of the first Five-year Plan. "This five-year plan of the USSR is grandiose", he remarked in the report "About the construction of new cities in the USSR", presented at the International Congress on New Building (CIAM) on May 5, 1931 in Berlin. "The clearness of the purposes put forward and the straightness of the enforced ways to their achievement are surprising".

Urban Planning

Novonikolaevsk developed on the basis of the 1896 planning system of Aleksandrovsky settlement (by the measurer Kuznetsov). It was a regular rectangular block system with square lots for farmhouses. In November 1925 the engineer Ivan I. Zagrivko (Zagreev) made a draft plan for Novosibirsk.

It was a theoretical model of a reconstruction of the city in modern conditions according to principles of hygiene, economy and aesthetics. The author improved the existing rectangular block system by adding diagonal main streets from the centre of the city outwards. In his plan the author I. Zagrivko literally used the Ebenezer Howard ideas: the plan had a round shape, a ring road and a "green ring", while a large part

of the city was used for parks, play grounds, etc. The main difference with Howard's garden-city was the inclusion within the city structure of the industry. Of course this very schematic plan, which resembled the "Città Ideale" of the Renaissance, designed without economical and demographical calculation was not realised.

In 1926–1929 Prof. Boris A. Korshunov, J. Grinvald and D. Babenkov made a project for a city plan for Novosibirsk on the basis of an economic calculation by Nikolay Kolosovskiy. The history of the city, its actual socio-economical and demographical situation, its resources and future perspectives (mostly developing of industry) were scientifically and into the detail investigated by the planner group. This plan called 'Big Novosibirsk' was, in its professionalism, preciseness of calculations and realism, one of the best city plan projects in the history of urban planning in Siberia. It was only partly realised, but it had a big influence on the following urban plan projects for Novosibirsk.

The left bank Novosibirsk – socialist town in 1930 by architects D. Babenkov, A. Vlasov and N. Polyakov (VOPRA's brigade – All-Union Association of Proletarian Architects) is a high level example of Soviet urban planning practices. The plan had a very good elaborated functional zones system. The main idea of the project was socio-economically and in its daily life organisation a new town of the socialist type. The town was designed for 120 000–150 000 inhabitants and consisted in structural elements – housing combinates for 500–1000 persons. There were two types of housing combinates: 30 % of the town buildings with regular apartments and 70 % – communal houses. These combinates contained several dwelling units with common public centre. Two or three combinates were connected by walkways at the second level. In these housing combinates the architects designed only one central kitchen. This "kitchen-factory" produced food and prefabricated products for the whole town.

The public buildings were situated according to a decentralisation principle: the town had three district centres with public garden (park), clubs, a post office, a universal shop (supermarket) and an administration building and 'business' centre with a square for mass meetings and demonstrations, organised by the so-called Palace of Culture, a

museum and a hotel. All freestanding buildings were surrounded by green spaces.[2] These green zones of 500–650 meters width seperated the housing areas from the industrial zone. Victor A. Vesnin characterised this plan as: "A very short but stormy (active) time and rich in ideas this project is a great contribution to the history of the socialist town. It includes in the way it was done all the valuable and interesting things of socialist town projects, even hadn't formed in thoughts and words now can be found in this project". But the plan of left bank Novosibirsk was not completely realised.

Mass Activity in Architectural Process

Till that time city planning and building had been considered as the creation of a new way of life for a new society. After the revolution and the civil war there were only a few professional architects in Siberia.

Also the idea that working people could create a new world without the help of specialists was very popular in that time. Sometimes it led to curious situations: in 1927 five schools were constructed in the Barabinsk district designed by schoolboys. The projects contained so many mistakes that the constructed schools had to be demolished.

In the beginning mass creativity had a big influence on the construction of public buildings. The Lenin House and the Labour Palace suffered a lot from competition of dilettante projects and public discussion in newspapers. But in the end of 1920s architecture became more professional.

Constructivist Movement

The first buildings according to functional architecture's principles were built in Novosibirsk by Moscow based architects: in 1925–1927 an Industrial Bank of the USSR by A. Shwidkovskiy and G. Golts and in 1926–1928 the so-called "Profitable House" (Department store and hotel) by professor D. Fridman. The competition for both buildings was won by the MAO (Moscow architectural association). Both buildings had a concrete skeleton, which was virtuously and clearly shown on the outside.

In 1927 students – adherents of the Constructivist movement – formed in the Tomsk Institute of Technology a branch of O.S.A. (Association of Modern Architects). But many of the professional architects did not accept Constructivist ideas, their opinion was picturesquely expressed by professor Andrey D. Kryachkov in his lecture at Siberian Institute of Technology in Tomsk; he explained Constructivism as "a temporary event similar to latest fashion of short lady's skirts". He said : "In few years after Constructivism will only remain its name and its modern leaders will renounce many things". For such comments Andrey D. Kryachkov was strongly criticised in the SA ('Modern architecture') magazin by the leader of the Tomsk Constructivists, Nicolay S. Kuzmin. In his article Kuzmin called such architects as Kryachkov 'bankrupt eclectisists' and 'voluptuous aestheticists, crying over SA asceticism'. The most valuable argument of Nicolay Kuzmin was: "Constructivism is one hundred percent Marxism". In that time that was the main thing. It is curious enough that after such critic by his own student Prof. Kryachkov – 'voluptuous individualist' later (after few months) started to work as a Constructivist and as such successfully took part in several All-Union competitions (eight times first and second prizes).

The main achievements of Constructivism in Novosibirsk were courageous methods in functional plan structure, elaboration of light construction and using in architecture new scientific inventions. Professor Andrey D. Kryachkov later wrote: "Constructivism in Siberia was moderate, rational and a bit peculiar".

New Typology

The quest for a new typology was from then on only displayed in the architecture of the public buildings of the region. As a demonstration post-revolutionary social reformation in Novosibirsk were built the Lenin House, the Labour Palace, various clubs, so called Culture Palaces, sound cinemas, a film studio. The House of Culture and Science was conceived in a huge scale as the central meeting point of the city. The immigrating crowds of country people brought to the city new problems: (also as result of the Bolshevik's collectivisation in agriculture), insanitary and epidemies of infectuous diseases. The government tried to solve these problems through the organisation of "factory-kitchens", hospitals, medical institutions, bath houses etc.

In 1927 SIBZDRAV (Siberian public health service) organised a closed competition of drafts for the Regional hospital in Novosibirsk. To take part in this competition the following experts were invited: Prof. N. Markovnikov, Prof. N. Ladovskiy and A. Grinberg from Moscow, Prof. L. Iljin from Leningrad and Prof. A. Kryachkov from Tomsk. A. Grinberg won the competition. He completed his project with N. Gofman and A. Klimuhin. In 1928 the Hospital complex was constructed. It had a well elaborated functional plan system, favourable building orientation and according to the Siberian climate a subterranian communication system. From the general planning composition to the buildings and their details – all was submitted to ideas of the Progressive architecture.

In the same year 1927 the competition of projects for the First Polyclinic was organised. The architect P. Shchekin from Moscow won the competition. The building was constructed in 1928. The concrete skeleton, a new system of plan organisation (without corridors – rooms connected through waiting halls) made this building one of the best examples of Progressive architecture.

A very interesting example of Modern Movement architecture was the unrealised project for the main buildings of " The Protection of Maternity and Infancy" Institute in Novosibirsk by Boris A. Gordeev and Sergey P. Turgenev (in 1930). This building formed the centre of a huge Institute's complex. It was connected with the Women and Clinic buildings and the Polyclinic by heated bridges on the second level. The architecture of the building had a bright Constructivist character.

The huge complex of buildings of the Siberian State Regional Institute of Physical Culture (it had all-union importance) in Novosibirsk by Boris A. Gordeev and Sergey P. Turgenev should bring health to the masses and propagandise sports. The complex was calculated for 1000 students and contained building of Institute with public centre, student hostels and apartment houses for staff and faculties of Institute. The buildings were virtuously combined in one whole planning composition. The project was confirmed by the Regional authorities and building should start in 1931. But it never happened.

Workers' Residential Construction Co-operative Association

The housing construction in the 1920–30th in the USSR was closely connected to the quest for new forms for the
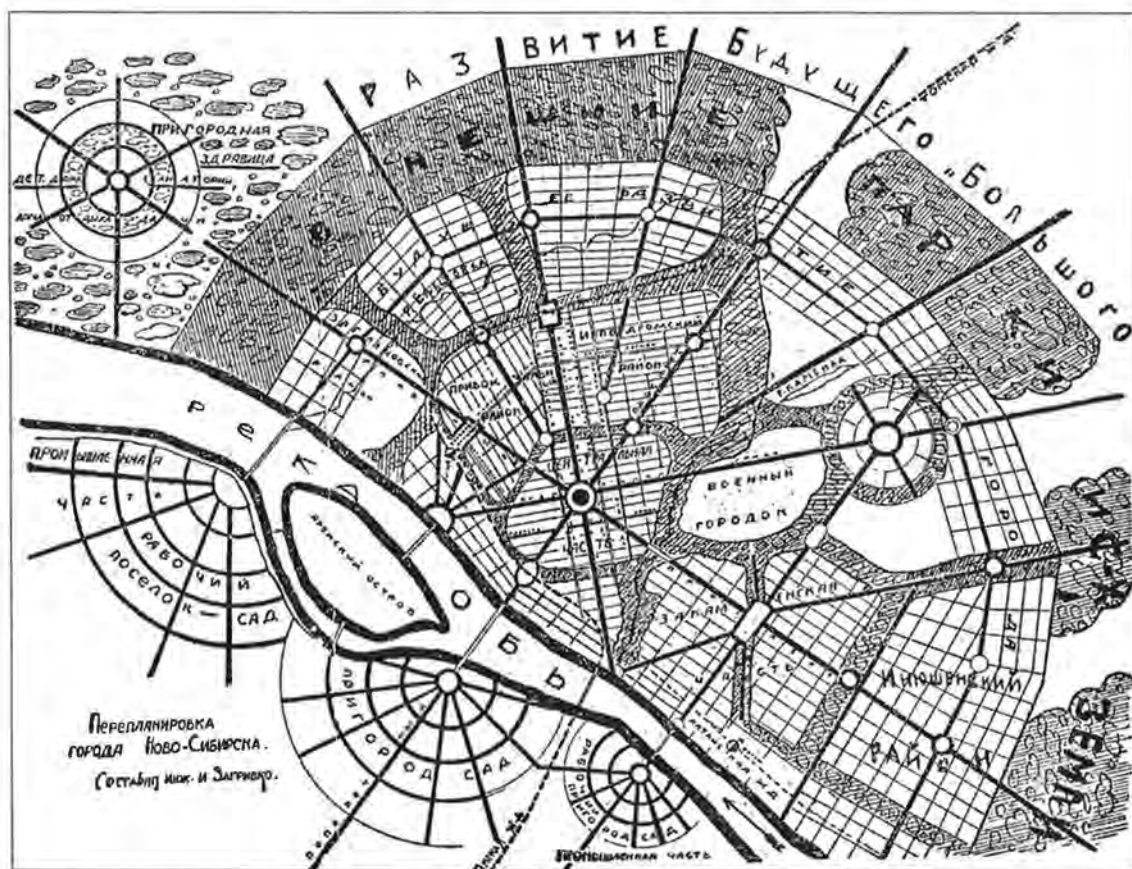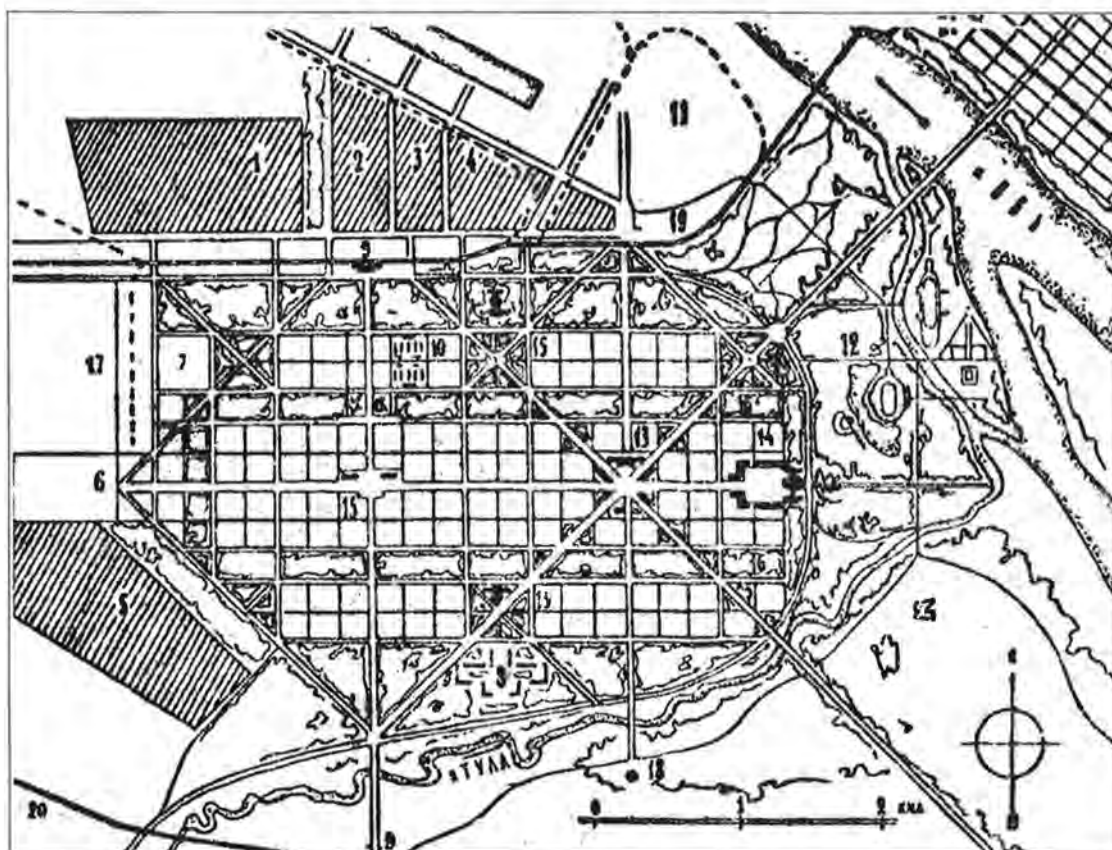
Fig. 1.

Fig. 2

Fig. 1. Ivan I. Zagrivko (Zagreev). The draft of plane for Novosibirsk, 1925.

Fig. 2. D. Babenkov, A. Vlasov and N. Polyakov. The left bank Novosibirsk – socialist town, 1930.
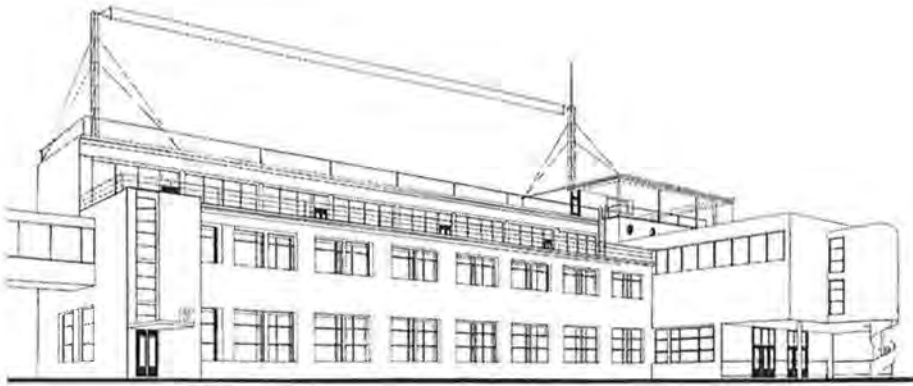
Fig. 3.
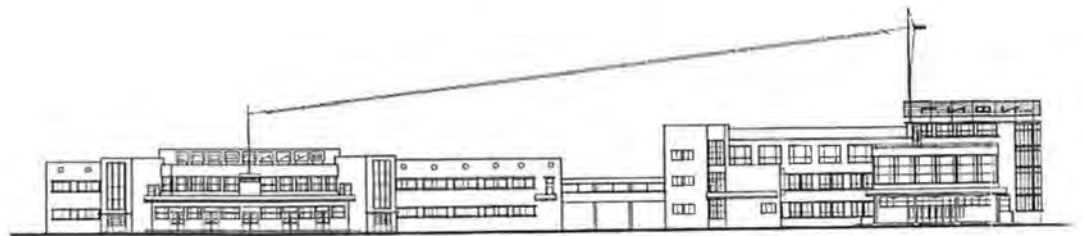
Fig. 4.

Fig. 5.

Fig. 3. Boris A. Gordeev and Sergey P. Turgenev. The project of main buildings for "Protection of Maternity and Infancy" Institute in Novosibirsk, 1930.

Fig. 4. Boris A. Gordeev, Sergey P. Turgenev. The complex of buildings of Siberian State Regional Institute of Physical Culture in Novosibirsk, North fasade of main building, 1931.

Fig. 5. Boris A. Gordeev, Ivan T. Voronov, Sergey P. Turgenev, Nikolay V. Nikitin. The ("Many-storied") Commune-houses in Novosibirsk, 1928–1931.

Fig. 6. Boris A. Gordeev, Dmitriy I. Kozmin. The 100-apartment house of the "Sibcombine" factory, 1930.

Fig. 6.

expected socialisation of the communist society. In Novosibirsk the large housing problem in 1928–1932 must be solved by the Workers' residential construction co-operative association: 'Printer', 'Working five-year plan', 'Chemist', 'Red tanner', Checist'. From construction of separate houses they came to construction of block-complexes. This association constructed 'large' brick communal buildings with communal dining hall, factory-kitchens, reading rooms, sport-halls, bathrooms and showers (usually placed at the end of the corridor on each floor), rooms for 4–8 years children, rooms for 1–2 years children and special rooms for babies. For adult persons, children before 13 years and children 13–16 years were designed separate bedrooms. The newspapers wrote: "Two rooms and kitchen with its petty bourgeoisie cosiness become history. Instead of them the new socialist way of life shall come! Give way for the new way of life!". The constructed buildings had all 'modern' conveniences as water pipe, central heating and canalisation.

The diploma project of "The Commune-house for Anjero – Sudjensk miners" by a student of Tomsk Institute of Technology – Nikolay S. Kuzmin in 1928 was the most important theoretical proposition for this type of housing and became enormously popular after its publication in the SA ('Modern architecture') magazine. Kuzmin used for the spatial organisation of the miners' everyday process the method of a scientific organisation of labour in industry (he called it 'scientific organisation of everyday life').

The realisation of the first Commune-houses in Novosibirsk, Novokuznetsk, Prokopevsk and Anjero – Sudjensk (all in the Novosibirsk-Kuzbass area) begun in the building season of 1930. In the same year a very important event determined the fate of the Commune-house idea in the region. This event concerned the 100-apartment house designed for the 'Sibcombine' factory.[3] The first project, designed by B. Gordeev and D. Kozmin, was strongly criticised for the low level of socialisation of daily life and the use of the usual individual apartments. A more radical approach for the Sibcombine factory 100-apartment house was offered by the architects (students of Tomsk Institute of Technology) D. M. Ageev and Stepanchenko in an alternative variant. Their project, with the use of the whole arsenal of means for the socialisation of life: absence of individual kitchens and bathrooms, separation of the children from the parents etc. found great support in the press and at meetings of architects. But the specialists of the factory, who had arrived from the European part of the country, with support of the factory administration refused to use the building-complex.

It was built with several changes according to he first project, but was later on redecorated.

The housing complexes without usual apartments did not find support from the consumers. It was not suitable in the socio-economical conditions of that time and the way people lived. The majority of the mass were also not fond of the aesthetics of Modern architecture, they called the new buildings boxes and card boards. These new buildings, after few years, usually were reconstructed to traditional apartment buildings.

Further experiments in this area were stopped by the ZK VKP(b) resolution "About work on reorganisation of life" of May 16, 1930.

Reality

But even that speedy and intensive tempo of housing construction could not solve the Novosibirsk dwelling problem. In 1932 the dwellings area of the city was 870 000 sq.meters. It was 3.3 square meters of dwelling per person. The population growth was much quicker than that of living space. For instance in 1926 it was 4.25 sq. m per person, in 1928 – 4.17 sq. m (in general for Siberia it was 4.85 sq. m for one inhabitant). In general people lived in permanent dugouts, huts and turf houses. The unregulated, constructed without official permission, buildings formed whole districts, called 'impudent'.

This most fruitful and interesting period in Siberian architecture and urbanism has not left to us the full materialisation of its ideas.

Extensive project work had been done, but most of it exists only on paper.

Some buildings, of which construction had been started, were unfinished or remodeled (redecorated) in the time of 'Stalin Empire style'.

Political, economic and social changes of the 1980–1990s have resulted in the ending of a centrifugal stage of development of the cities of the region. The coming stage of development and reconstruction of city centres and suburbs questions the continuity of the urban environment.

Misunderstanding of the historical and architectonic value of the Constructivist architecture and the negative attitude of the public estimating buildings from the position of modern social conditions, the poor quality of the building materials and the bad condition of several buildings – can result in their loss. The preservation of the Heritage of Siberian Constructivism has become a most urgent item.

Notes

1 The owners of such houses had cattle and agricultural household.
2 The town had 30 % green spaces in its territory.
3 The Sibcombine-factory of agricultural machines was designed as 'largest in the World' (12 000 workers).

ISC Session: Urbanism

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The Modernist Doctrine: Interpretation in Muesmann's Plan of Sofia – 1938

"The town plan of Professor Adolph Muesmann which aimed to turn Sofia into a modern, developed and socially regulated city with gardens, hygienic residential building, etc." was decreed and made into a law by an Ordinance of 12 April 1938 (1; 4). Already at that time, the plan provoked heated debates and criticism on professional, nationalistic, ideological, speculative and other grounds. Rejected after 9 September 1994 and placed under a tacit ban, the plan was recently virtually buried out from the basement of the Sofia City Hall and almost "canonised".

To honour the 60th anniversary of its creation, the "exhumed" plan was dissected so as to see whether its "ideas are still alive" and be cited as an example in the drawing of a comprehensive town plan for present-day Sofia (2; 1–2). In other words, Muesmann's plan was not only rehabilitated but was consciously opposed to the socialist period in the town planning practices in Sofia which started after 9 September 1944. Unfortunately, the change of the political paradigm blinded the professional eye making it incapable of tracing its own professional historical tradition which had been free form politically-motivated decisions.

If the incumbent Sofia authorities consider themselves political successors and followers of the political tradition which was severed on 9 September 1944 (3; 3), it is hardly appropriate to include Muesmann's plan in these context, i.e. use it for political and ideological speculations (4). No matter how synthetic, interdisciplinary and depending on social and political conditions town planning is, it has its own internal laws which work independently disregarding any artificial limits imposed against it, irrespective of whether state, political or ideological. It is this relative independence that ensures the identification of a given style in town planning, the supremacy of a given town planning paradigm, and the progress of the profession itself.

Put more precisely, thanks to its *stylistic identification with Modernism*, Muesmann's plan of Sofia, even though theoretically unfulfilled, in practice found its implementation, in one way or another, in its successors, i.e. the plan of L. Tonev (1945) and the plan of L. Neikov (1961), as well as in the plan of 1975 which failed to be approved.

Despite the revolutionary change of the socio-political paradigm, the socialist period ensured the *consistency in the Modernist tradition*; whether openly or covertly, consciously or by intuition, the continuity in the town planning ideas of Modernism was guaranteed, along with their motivation in the genetically inherent tectonic structure of the town.

Despite the fact that Professor A. Muesmann was a famous representative of the official architectural thinking of Nazi Germany, his plan, no matter how paradoxical it may seem, actually followed the *Left paradigm of the Modernist town planning*. In it, one can even trace analogies with the "Bolshevik" Athens Charter. We shall try to analyse this strange metamorphosis and its logic.

We shall start with the personality factor. The person who designed the Sofia plan in 1938, Architect Adolph Muesmann, was born in 1880 in Augsburg, Germany. He graduated architecture in Munich in 1904. At the time the works by Theodor Fritsch, *Die Stadt der Zukunft* (1896) and *Die Neue Gemeinde* (1897) which were the first to introduce the idea of the satellite towns, had already been published (on 5; 67, 95). The German Society for Garden Towns had already been established (1902). Ebener Howard's book about the garden towns, *Tomorrow, a Peaceful Path to Real Reform*, which enjoyed tremendous popularity in the world, had already been translated into German. In Germany the book was very popular in building the so-called workers' settlements. In 1908 near Dresden there emerged the town that was the closest to a prototype of a garden town, Hellerau, later followed by the town of Perlach near Munich, and then by a number of garden suburbs that appeared in almost all cities...

Most histories of the Modernist movement in town planning start with exactly Sir Howard's theory of the garden town. Some historians even claim that
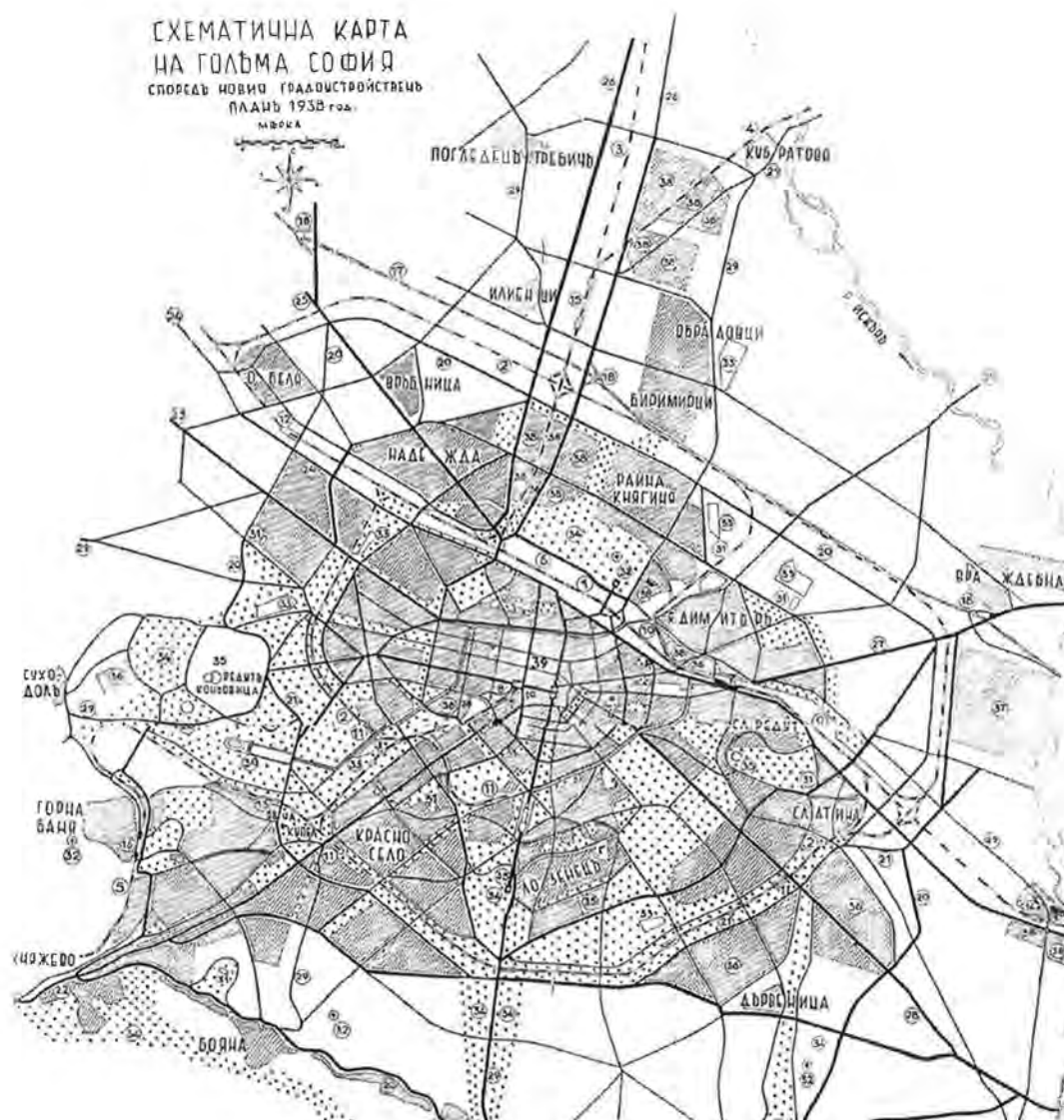

Fig. 1

200

СХЕМАТИЧНА КАРТА
НА ГОЛѢМА СОФИЯ
СПОРЕДЬ НОВИЯ ГРАДОУСТРОЙСТВЕНЬ
ПЛАНЬ 1938 год

ПОГЛЕДЕЦЬ ГРЕБИЧЬ

КУБ РАТОВО

ИЛИЕН ЦИ

ОБРА ДОВЦИ

О ПЕЛО

ВРѢБ НИЦА

БИРИМИРЦИ

НАДС ЖДА

РАЙНА КНЯГИНЯ

ВРА ЖДѢБНА

СУХО ДОЛЬ

СРЕДНЯ ГОРУБАНИЦА

СА РЕДИ

ГОРНА БАНЯ

СЛАТИНА

ЕКШИНА

КРАСНО СЕЛО

ЛО ЗЕНЕЦЬ

ДѢРВЕ НИЦА

КНЯЖЕВО

БОЯНА

Fig. 2.

ПЛАНЬ
на
СТОЛИЦА
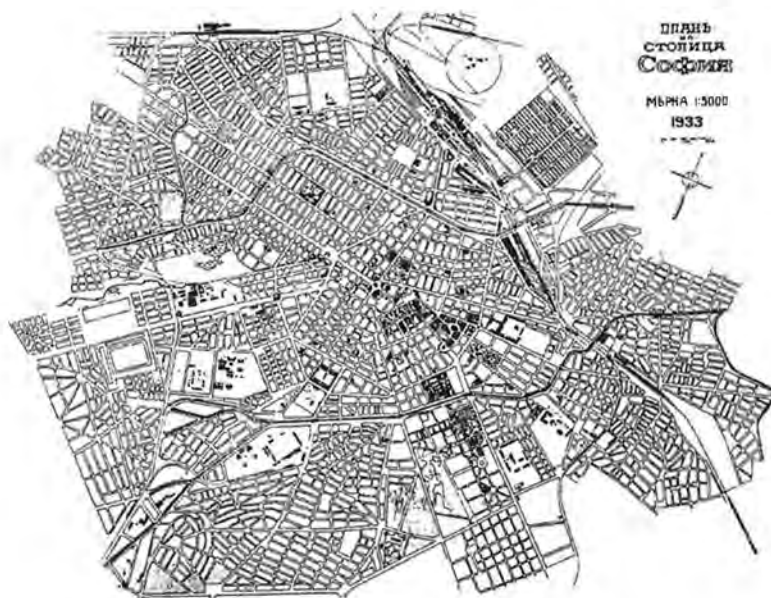София

МѢРКА 1:5000
1933

Fig. 3.

Fig. 1. General town plan of Sofia, 1961; team headed by architect L. Neikov.

Fig. 2. Schematic map of Greater Sofia according to the new town plan 1938 (the Muesmann plan).

Fig. 3. Plan of the capital Sofia, scale 1:5 000, 1933 (situation before the Muesmann plan).

almost all later concepts for the spatial organisation of the modern city are a variety or developments of the theory of the garden town. This in fact is the first formalised theory of the "modern city". The British historian Arnold Whittick says that the theory was the first to consider town planning in its social aspect and that the period between the two world wars did not see a theory more progressive than the one in question (6; 146–7). The essence of the theory is the "marriage of the town and the village whose children will be the new hope, the new life, the new civilisation" (on 6; 145).

It is an established fact that the followers of the theory in Germany were mostly Left-oriented, as well as that many of the principles underlying the concept were followed in the subsequent extensive construction of workers' settlements – the work of the famous Bauhaus school.

Muesmann could not but be influenced by this context. However, US scholar John Lampe claims that Muesmann is a follower of the Nazi style of the garden town. In an article about Muesmann's plan of Sofia, Lampe identifies a group of Right-oriented followers of the idea of the garden town among the German middle class, whose interest is related with the formal possibility of social and ethnic segregation in the regional organisation of the town. Lampe places Muesmann in the group of conservative architects to whom the Bauhaus with its apartment residential estates only marred the real value of the garden town. During the Wiemar period at an international gathering Muesmann reportedly said that the ideal should be a one-family house with individual garden as this was conductive to good health, family life and the love to the father's land, as if predicting the similar Nazi slogans that emerged later. To Muesmann, the four-storey buildings for eight families, that were typical of the socialist plans in Berlin, Frankfurt and Vienna, were undesired and too big (grosshaus). On his part, during the 1920s, Muesmann took part in the planning of the suburbs of Dusseldorf which turned out to be one of the dozens of post-war projects in Central Europe based on his kleinhouse principles. Lampe says also that after Hitler came to power in January 1933, the leading socialist architects who were banished from Weimar were replaced by architects such as the Fuhrer's favou-

rite, Speer, as well as professors like Adolph Muesmann who was appointed head of the town planning institute in Dresden and enjoyed the official support of the powers that be (7; 46–48).

Even if we assume as right Muesmann's being grouped with the supporters of the Nazi idea about the garden town, in the case with the Sofia plan there worked other, stronger, personality factors. What happened is that in Bulgaria the idea about the garden towns and its interpretations from various aspects had been well known, in its original form at that. As early as in 1912 Architect Tr. Trendafilov who studied in Italy published an article entitled "Garden Towns" on the journal of the Bulgarian Architects and Engineers Society. The doyen of the Bulgarian town planning Architect G. Nenov wrote A Town Planning Handbook in 1924 in which he familiarised the architectural fellowship with the theory and practice of the garden town in great detail and with many illustrations.

The first competition for a workers settlement in Bulgaria was invited in 1925. It concerned a project for the Pernik mines the most important mining complex for the country and its industrialisation. Other competitions followed, all requiring designing a "garden town". This is where the Bulgarian town planning "embarked on the path of Modernism" (8). The idea had lost nothing of its significance in designing the plan of Sofia; what is more, it gained popularity, along with winning its own identity here, on Bulgarian soil.

There is no doubt that on the eve of designing the "Muesmann plan" the Left alternative of the garden town (respectively, garden settlement, garden suburb) was accepted in Bulgaria. The socio-economic situation after the Balkan Wars and World War One determined the left orientation of the Bulgarian public life and, naturally, the town planning thought. A number of facts should be borne in mind: the September anti-fascist uprising in 1923, the effect of the Great October Socialist Revolution and the establishment of the Union of Soviet Socialist Republics which gave rise to hundreds of municipal communes governed by socialists and communists. Thus, for example, in 1932 Sofia too "turned red [the colour of the communists] – the local elections were won by the commune" (9; 57), despite the fact that the elections were later declared void and there was a military coup d'etat.

After World War One a huge number of refugees from Macedonia, Thrace, Dobroudja and the Western Outlands flooded Sofia, driven away from their homes on what used to be Bulgarian territory the country had then lost. The migration flow to Sofia was further increased by local immigrants from the nearby villages. Outside the regulation boundary of the city there started to emerge brand new big areas which, by necessity, had to be included within the city's borders "with all consequences and burdens to the municipal budget ... One other transformation started to make itself prominent: a stronger growth in terms of height ... " (10; 277). A senior town planning committee was set up with the city hall whose task was to draft a bill on Sofia's expansion and construction plan, as well as a programme for a future town plan of the capital. The bill was prepared in 1932–33, accompanied by six months of incessant debates, discussions, conferences, etc. The professional and public opinion had already formed its ideas and notions about the future town plan, before the Nazi coup in 1934 and before Muesmann's arrival. This fact was the factor that caused the disagreement and future conflicts, as well as the ensuing compromises, between the two parties – the group of the local professionals and regional governors the one hand, and Professor Muesmann and his associates on the other. As far as the topic of our analysis is concerned: the interpretation of the theories of the city is concerned, the discrepancies were in the way in its application in the concrete situation in Sofia. Principally, everybody was in favour of Sofia being built as a garden town.

In a leaflet entitled What are the Big Mistakes in the Muesmann Plan Architect Tonev wrote, "[The plan] envisages the formation of several satellite settlements to both the west and east of Sofia, without there being any economic feasibility for their creation and livelihood of the population with a view to the local conditions. In fact .... such settlements for unemployed people ... or workers in active industrial or other type of enterprises and centres were set up in Germany but their establishment was determined by the local socio-economic conditions and political organisation. Sofia suffers from pernicious scattering of area, with weak density and impoverished population ... it is wrong to consider establishing new satellite settlements for such a Sofia." Tonev ta-

kes a stand against "the principle of de-centralisation" at the background of an already sufficiently "poor" and "scatte-red" Sofia. However, this does not mean that he was against the idea of the garden city (11; 9–10), evidence for which can be found in his town plan of Kyus-tendil of 1938, for instance.

The parties made a mutual compro-mise regarding the height of the buil-dings and their nature (individual-public), which was again determined by the actual circumstances. Thus, Sofia's as-sistant mayor Radoslav Mihailov, who admitted in 1932 that, "undoubtedly, Sofia must grow in height, instead of scattering indiscriminately in its vast suburbs ... " (12; 206), and engineer Y. Danchov who even before the appro-val of the Muessman plan claimed that the "natural transition form the previous one-storey Sofia house to the multyflat building of the European city" had been delineated already before the First Bal-kan War, conceded, under Professor Muesmann's influence, their firm stands. Thus, in the article *The Moral from Muesmann's Plan* (14; 266) Danchov wrote, "Professor Muesmann has found that the small house for one or two fa-milies is the best construction Sofia must seek in the future. This type of construc-tion has been especially recommended for the external areas of the third town zone where rented homes and co-ope-rative buildings are allowed only in the centres of the respective areas and along the main communicating streets. As far as the height of the buildings goes, Professor Muesmann thinks that the con-struction of high multi-storeyed buildings has to be allowed only in the internal parts of the town, in the so-called city, or in the vicinity of public buildings. Muesmann rejects, for hygienic and social reasons, the high – the 10 – and over storeyed buildings" (14). Such buildings should only be allowed at separate places only for compositional reasons, in zones 1 and 2 (inner city) and possibly in zone 3. We could not but point out that, essentially, this was a compromise on Muesmann's part as he had found a "rapidly gro-wing town" where high construction had been already a fact and "buildings 6 to 8 stories high were going up" (15; 374) even in the "aristocratic zone of the town". However, this is how the inter-pretation of the concept of the garden town assumes its real face which ensu-red its viability until the present time.

An analysis of the evolution in the town planning of Sofia in the time after the Muesmann plan until 1990 when a competition was held for a new com-prehensive plan of Sofia shows that the idea about a garden town, or rather about a town with satellites, is very much alive; what is more, it has grown into a permanent and productive ma-trix of the Bulgarian town planning thought in the course of 60 years (16). This is where the value of the so-called Muesmann plan is: the discovery of the most appropriate town planning con-cept for Sofia. The concept is naturally and organically linked with the topo-genesis of the city and the inherent laws for developing its radial-concentric struc-ture. The credit for the correct view of the historically assigned town plan text of Sofia, as well as for the realistic vi-sionary practice, should not really go to Professor Muesmann or his opponents but rather on the mutual *balancing of extremes*, the straight jacket of the soci-al reality which barred any utopias.

Under the Muesmann plan, the terri-tory of Greater Sofia was structured in the following way:

- inner town core, clearly separated from the other city areas by means of broad green areas and a ring-shaped boulevard; this is the so-cal-led zone 1 – the central;
- a second compact zone, again se-parated by a ring road;
- a third zone called social, divided in sections (for cheap houses) by means of green areas;
- industrial and crafts zones – in the northern part near the main railway station, the Serdika station and the separate cargo railway stations;
- a fourth residential zone – the "vil-la" zone (Gorna Banya, Dragalevtsi, Lozenets, to the southeast of the Boris Garden), at the foot of the Vitosha Mountain;
- a fifth zone which included the villa-ges round Sofia;
- an external zone, also called a farm zone.

The system of green areas cuts the who-le area radially, concentrically and tangentially, as Muesmann put it. Spe-cial attention is paid to a big sports and recreation facility with a stadium, racing course, swimming pool, open-air theatre, exhibition areas, and other such facilities, in the south-western part of the city, later called "the western green wed-ge" which stretched to the inner city. Si-milarly to the Boris Garden to the east,

a western, northern and southern park were proposed. "The water channels, the mountain springs, run along the green areas. They form small ponds. The green areas will be used to build a graveyard and a new airport. Afforesta-tion is proposed for some external ter-rains" (15; 381).

Other specific features of the plan are the two ring roads, the street net-work, which Muesmann described as a "combination of the radial system with the concentric and tangent system" (a new thing is the tangent system by means of which the "inner city became lighter needing the least of extensions and tra-cing of new streets" (15; 381). The ma-jor (outgoing and tangent) motorways are located in the green and park are-as. A broad-track high-speed electric tram was envisaged. According to Mues-mann, the organisation of the railway and road transport made the land and subway trains redundant. "The city can grow by means of independent housing estates such as those envisaged for the suburbs," Muesmann wrote (15; 382).

The schematic description and the graphic scheme-illustration make it pos-sible to reconstruct the model (frame) of the Muesmann plan and to compare it with the ideal notion of a garden town or city with satellites which for its part will disclose a number of real analo-gies and similarities. The diachronic analysis of the town plans after Mues-mann – the plans of Professor L. Tonev (1945) and Architect L. Neikov (1961), made together with comparing them with Muesmann's plan on the one hand, and the ideal model of a city with satellite, on the other, shows that the two plans can be classified, to a great extent, as reconstruction of the prototype, as the authors themselves confirmed (17). "Ac-tually, Muesmann's town plan had to be updated," one of the co-authors of the 1961 plan admitted in 1992 (17). This "deep continuity" in the 1961 plan can hardly be attributed only to the single fact that Architect Lyuben Neikov stu-died with Professor Muesmann, was one of his team, and mastered and used his techniques during the "hard post-war years" as Professor Hr. Genchev ex-plains today (18; 280). The basic rea-son is in the conditions of its implemen-tation: the Left paradigm of Modernism, which was effected through the Mues-mann plan, in the socialist period when private property was absent and the "centralised town planning" naturally found its continuity.

Let us now compare the fundamental principles in the Athens Charter which was declared "Bolshevik" and in Muesmann's plan of Sofia. It is enough to only cite them to see that the analogies are there.

House

"The fourth congress of CIAM which was held in Athens proclaimed the following postulate: sun, greenery and space – these are the three key elements of town planning" (19; 93).

What Should be Required

"From now on the housing estates will be allocated the best town areas in terms of the optimum topographic and weather conditions, areas which are sunny and encircled by green belts ... The existing green areas must be used to the maximum; they must be restored and new plants have to be grown ... The choice of the housing territory must be chosen with a view of hygiene..."

Rest and Recreation

"The creation and safeguarding the green areas in the towns is an important undertaking which helps improve people's health and constitutes one of the major tasks of the town planner...

What Should be Required

... The general town plan scheme of the population centres must be changed: agglomerations should gradually turn into green cities...

The weekly hours for rest and recreation have to be spent in special purpose-built places: parks, forests, sports grounds, stadiums and beaches... Large areas in the suburbs must be allocated for this purpose...

The existing natural factors: rivers, forests, mountains have to be used in a sensible way...

Work

What Should be Required

The industrial zones must be separated from the housing estates with the space between them turned into a green belt ... The industrial estates should be built along railways, channels, roads ... The crafts which provide immediate services to the population should be located at a specially allocated areas within the town borders...

Traffic

What Should be Required

The roads and motorways have to be designated according to their purpose... The streets must be differentiated, depending on their purpose, as: town streets, promenades, transit motorways, main arteries... The highways must by all means be flanked by green areas..."

From the *Conclusion* which outlines the basic principles of the doctrine we shall quote only the significant parts which fully correspond to Muesmann's plan:

"The key of modern town planning is in the four functions: living (inhabiting), work, rest and traffic.. In the present time town planning is called upon to secure the four functions: firstly, to guarantee a healthy home to the human being; secondly, to organise the space where work takes place; thirdly, to provide everything necessary to organise man's free time and fourthly, to provide suitable connections among all these places creating transport links and networks...

Town planning should be made hand in hand with designing a project for zoning..." (19).

Of course, it should be noted that the Athens Charter contains propositions that are absolutely different from Muesmann's plan. These are for example the postulates about the multi-storeyed residential buildings, about the "first and foremost role of architecture", about the "expropriation of the private property" and the full "subordination of the private interest to the common interest", etc. Given the socio-political situation in Bulgaria in 1938, such ideas could not be expected in Muesmann's plan at all. However, exactly the same ideas of the Modernist doctrine became reality for the Bulgarian and Sofia town planning particularly, in the ensuing – the socialist – period. The baton of Modernism was passed.

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Marching Together to the Capitalist Future: State Social Housing and Laissez-Faire Nationalism in Hong Kong and Singapore

This lecture is intended to complement Desmond Hui's paper (in a parallel session). It presents a commentary on Asian urbanism not from the inside, but by an outsider, by someone from Europe. Of course, the structure of DOCOMOMO encourages exchanges of views between widely separated cultures. But as Scotland was closely implicated in the colonial rule of Hong Kong in the past, my comments are made with diffidence, and I apologise for the inevitable errors and biases that may result! Arguably, just like colonialism, the main purpose of this lecture is, from the European viewpoint, a 'selfish' one. But what we hope to gain now is something very different from the plundering of the past. What we are looking for now is inspiration, from the social building achievements in Asia.

Now, one of the European biases that, prior to this conference, has informed the work of DOCOMOMO, is the assumption that the social-collectivist aspect of the Modern Movement, the aspect which claimed to put *utilitas* and *firmitas* before *venustas*, was an episode that was largely specific to the circumstances of early 20th century Europe, and which has now been consigned to past history. It often seems today that any attempts to carry on with a Modernist ethos in contemporary architecture

now are dominated by the poetic, formal and individualistic strain of Modernism, which seems to have finally triumphed: building programmes dominated by mass and production are relegated to a category of market-driven utility. One could even argue that the work of Modernist heritage organisations, like ourselves, goes even further: that we actively corrupt the physical remains of the collectivist era, by subverting them into individualistic preserved icons. Yet is it really possible to purge Modernism of its social idealism without cutting out its soul? In this paper, I'd like to suggest, like many of the speakers at this conference so far, that all hope is not yet lost – and, for that hope, we in Europe have to look eastwards.

Now, we have to begin by freely admitting that the fundamental driving force of modern society since the 18th century has been the quest for freedom and individualism. But the essential companion and counterbalance to this has been a social and collective ethos, which has repeatedly asserted itself at critical times, when the legitimacy of states or societies was called into question. The early and mid 20th century period of world war and mass ideological confrontation, centred in Continental Europe and eastern Asia, has been by far the worst of these crises, but it's not the only one; and it's unlikely to be the last.

What I want to suggest in this paper is that the crises of the future may well stimulate a reinvigoration of the social-mobilisation aspect of modern architecture. I want to focus, as one possible pointer to this, on the growing challenges and tensions of present-day East Asia, and the place within that politico-economic context occupied by the vast urban replanning and social housing programmes of Hong Kong and Singapore. These are, on the one hand, campaigns of a clearly Modernist social mass-provision character, which set themselves squarely in the Modern tradition of architectural mass-provision while far outstripping the old European setpieces of social Functionalism in scale and boldness: even the most utopian European early Modernist visions are dwarfed by the reality of Hong Kong today. But on the other hand, they have a strikingly different political and economic context from their predecessors, at least in Europe. They are shaped not by the structures of reformist anti-capitalist ideologies, by the old European-style

radical avant-gardes, but by the desire to nurture capitalism in times of instability – an instability that has dramatically reared its head again in the present economic crises. They are shaped not by Western internationalism and bourgeois intellectualism, but by a combination of a Chinese city-state nationalism and – more controversially – persisting elements of a colonial administrative ethos.

Let's have a brief look at these incredible programmes. They began after World War II, when the credibility of European imperialism in the east had been shattered by the Japanese. Immediately afterwards, Hong Kong and Singapore, both classic British colonial entrepot port enclaves, with largely Chinese populations, were overshadowed by communist insurgencies and (in Singapore's case) ethnic divisions, and were overrun by vast waves of refugees. Over the period of the 1940s–1960s, the British acknowledged the unsustainability of the status quo and embarked on two somewhat different decolonisation strategies.

Singapore was decolonised directly as part of the Malayan federation, and following ethnic tensions, split off in the mid 60s as an independent statelet under the somewhat authoritarian rule of the People's Action Party, led by Lee Kwan Yew. Hong Kong was kept under British occupation for several more decades, insulating it as a capitalist enclave from the most extreme periods of Communist instability in the rest of China. In effect, the British themselves began, or were compelled to begin, a process of behind-the-scenes decolonisation, which would set up Hong Kong as an autonomous cultural unit that could be reunited in due course with a more stable China. In both cases, the administrative method used was basically the same, namely, a dirigiste 19th-century ethos of colonial development, modified by selective instruments of 20th-century European welfare-statism – including, above all, the role of town and country planning, and mass social housing (fig. 1).

Which brings us directly to the built environment, and to the Modern Movement. But not only to the Modern Movement: because the architectural form of the vast programmes of public housing and planned settlement which began in both territories from the early 1950s was not simply a reflection, or an inflation, of European Modernist forms, but also

an organic development of older colonial and Chinese patterns.

Let us look, for example, at the early public housing drive in Hong Kong. This featured, from the beginning, very strong influences of the Modernist concept of the block of apartments with internal modern facilities, and access to light and air. But there were also, mixed in with this, powerful elements of the colonial types of improved dwellings derived ultimately from military barracks – something which reached Hong Kong via the so-called 'chawl' blocks built in 19th-century Indian cities. The Modernist and colonial approaches had a kind of hierarchical relationship. The first was concentrated in the somewhat high-class social housing of the Hong Kong Housing Authority and Housing Society, and the second, as we heard in Desmond Hui's paper, in the utilitarian H-shaped 'resettlement' or 'Mark I' blocks of almost unserviced one-room flats built from 1953 for refugees (fig 2 and 3). And, overlaid across both, were the Chinese cultural traditions of collective extended-family habitation and the mixture of commercial and domestic; because of the shortage of land and the incredible demographic pressures, both the Housing Authority and Resettlement estates were far denser than anything in European Modernism (at up to 3,000 persons per acre). This density allowed a level of communal and commercial services which was beyond the wildest dreams of European social utopians, in the case of the planned facilities of the high-class estates, and beyond their worst nightmares, in the case of the unplanned facilities of the resettlement schemes (fig. 4).

A further aspect of the Asian cultural context of Singapore and Hong Kong public housing was, and is, the direct cross-fertilisation between the two. The most dramatic example of this has been the policy of turning public housing in tower blocks into a vehicle of mass homeownership, as a means of nationalist embedding of refugee populations. This was invented in Singapore by Lee Kwan Yew in the 1960s, who began a system under which compulsory social-insurance levies could be partly converted into mortgages. Within a quarter of a century, 85 % of the Singapore population were living in owner occupied high rise public housing. Then, from the mid 70s, the policy has been

taken up with a vengeance in Hong Kong, in the so-called Home Ownership Scheme, under which the Housing Authority has built, for subsidised sale, vast numbers of flats in tower blocks of 30–40 storeys – far higher than the rather demure, European-scale developments in Singapore. This association of mass state housing and homeownership, in Chinese-dominated city-states, could be argued to have, so far, realised the classless aspirations of 1920s European Modernism rather better than the class-stigmatised reality of much European public housing – although its viability is now, as Desmond pointed out in his paper, under severe threat from the economic crisis (fig 5 and 6).

It was not only in the policies and the forms of housing, but also in the overall concepts of the city that the legacy of international Modernism interacted with Chinese and colonialist cultural influences. The decision was taken after independence in Singapore, and in the early 70s in Hong Kong, to apply the technologies of Modernist regional planning, and in particular the concept of decentralised new settlements or new towns, to the shaping of the entire areas of their territories. This decision would be especially momentous in Hong Kong. By integrating the part supposedly ceded to Britain in perpetuity with the part that was 'on lease', the decolonisation of the whole territory when the lease expired in 1997 became inevitable. Regional planning in Hong Kong set the clock loudly ticking towards 1997, but at the same time held out the hope of creating a place with its own roots and identity, and of making the eventual reunification a two-way process.

Now, of course, the concepts of new towns and green belts were not simply an export from Europe to Asia. They were also ideas whose earlier development in Europe had itself been conditioned by colonial planning experiences, by mechanisms of segregation such as 'cantonments', 'lines' and 'locations'. However, as implemented in Hong Kong, the regional planning concept owed rather more to postwar European Modernism than to colonial settlement patterns. It was linked especially to the later phase of Modernist planning from the 1950s, to the reaction away from functionally segregated new town towards more densely nucleated forms and

overlapping uses: the first completely new town in Hong Kong, Sha Tin, developed from the mid 70s to the mid 90s, is similar in its clustered and rather linear layout to 1950s/60s Cumbernauld, with its megastructure centre and its sharp juxtaposition with surrounding hills.

But it was in the sheer intensity and scale with which that cluster concept was tackled in Hong Kong that something new, something arguably deriving from Chinese rather than European urban culture, was created. Even the most dense Western new towns simply could not attain the critical mass of density to really overcome functional segregation, and make possible an environment which was truly Modern, which catered for rising expectations of personal living space, yet which consistently integrated people's homes with other uses: even today, with all the urbanist talk in Europe of 'mixed use' and the 'dense urban village', most built attempts at that ideal still generally look quite dispersed. Even in Singapore, with its less urgent pressures of demography and identity, the new towns are relatively spacious. But in Hong Kong's new towns, and in its redevelopments in the existing fabric, a truly social Modernism is the everyday norm. Every large new housing project, by definition, consists of towers of flats integrated with a large megastructural centre of commerce and public transport. These homes are unambiguously Modern dwellings, whose self-containment and modernity distances them radically from the old, unstructured collectivity of the Resettlement barrack blocks; yet they have all the commercial and community possibilities of city life on their doorstep.

These differences between Europe and Asia, in my opinion, underline the fact that the social ethos of modern architecture is not something specific to Europe or to the past, but something that can spring up in other places, in response to new challenges. How will East Asian social modernism respond to today's economic crisis, and perhaps to the nationalist or ethnic crises of tomorrow? That will be something not for European commentators such as ourselves, but for Asian decision-makers and designers, to determine. What we hope is that we can learn something from their solutions, as well as from *their* judgements about *our* future policies.
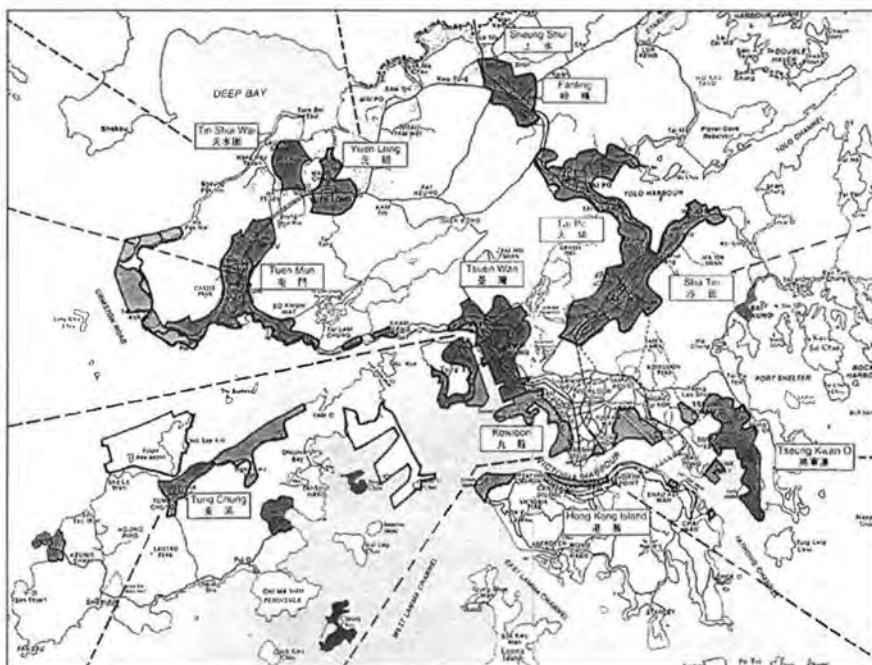
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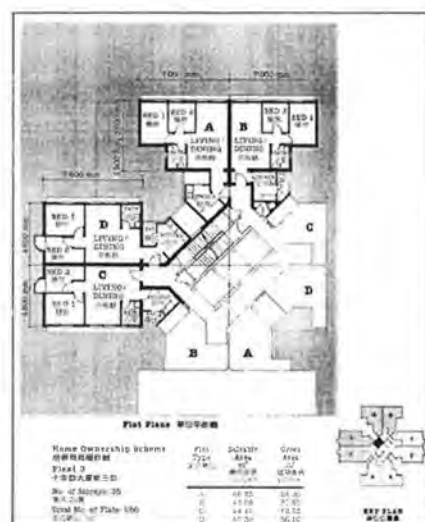
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Fig. 6.

Fig. 1. 1993 map of urban areas of Hong Kong. New Towns and reclamation areas are shaded.

Fig. 2. Estate diagram of one of the largest developments by the Hong Kong Housing Authority before its reorganisation in 1973

Fig. 3. Typical Mark I Resettlement scheme /Kwun Tong, Kowloon), seen in 1983, showing the incredibly high densities and the overrunning of the areas around by hawkers' structures.

Fig. 4. HKHA rental scheme of cruciform blocks being built in Kowloon in 1985: this was an early example of semi-mechanised construction dispensing with the bamboo scaffolding universal until then.

Fig. 5. Floor plans of typical point blocks of the early stages of the Hong Kong Home Ownership Scheme.

Fig. 6. Mock-up (built for Hong Kong exhibition in Edinbburgh, 1966) of interior of living room of contemporary HOS flat in "Harmony" type tower block.

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Social Ambitions in Belgian Modern Housing Projects from the 1920s to the 1960s

Historical Introduction and Evolution of the Social Housing Movement in Belgium

The question of social housing in an over-industrialized Belgium has been tackled from the middle of the 19th century on. Several approaches and typologies appeared. The first realizations were built by rich maecenases and progressive industrialists. They were linked to important industries, mostly outside the city-centers, and showed a concern for order, organization and moralization of the way of living of the workers. While these rare progressive concepts appeared, most of the workers were still living in insalubrious *impasses* that were cankers in the cities. The city-councils of the main cities (Brussels, Liège, Gent, Antwerp) touched by this urban cholera took measures to avoid the inhuman working class housing. In the name of social progress, hygienic concern and urban aesthetic considerations communal authorities decided to incorporate social housing preoccupations in the global urban management. Blocks of social flats of the same model as the current type were integrated in the cities and suburbs. Catholic, liberal and socialist political parties had each their own vision to promote social housing and educate the working class.

The Housing Act of 1889, inspired by catholic views, was an important premise for the social housing movement. This Act promoted a housing-owning working class and saw for the first time the creation of the system of a savings bank giving loans to local building companies. This initiative permitted to cooperatives to appear and to represent the concerns of the working class for the very first time.

But it was during the First World War that the premises of modernity in social housing were set. The terrible war damages (about 120.000 destroyed houses + the retard of 4 years were nothing was built) provoked an international solidarity movement for the reconstruction of Belgium.

The Belgian urban and architectural situation was well known abroad. Indeed, just before the war, Belgian urban planners and architects played an important theoretical role during the "7th International Congress of Architects" in London, 1906 and the "Town-Planning Conference" in London, 1910. This role was strengthened by the organization of the "Premier congrès international et exposition comparée des villes" set up in Gent in 1913 by the "International Union of Cities". This congress meant the transition between the fatherly and esthetical urban conceptions of the 19th century and de social urban conceptions of the coming modern times. Several international conferences were hold during the war to find the best solutions, economicaly and socialy, for the needed new housing within an urban concern.

At the same time a number of modernist architects and urban planners (Huib Hoste, Louis Van der Swaelmen, Jean-Jules Eggericx, Raphael Verwilghen, Raymond Moenaert ...) spent the years of war in exile in France, Great Britain and The Netherlands, where they learned about the progressive urban theories and the advanced construction techniques and visited the main realizations by Ebenezer Howard, Raymond Unwin and H.P. Berlage. They participated in the main conference about the reconstruction of Belgium, organized in London in 1915 by the International Garden Cities and Town Planning Association, presided by Raymond Unwin.

These were the premises of a modern social architecture and urbanism in Belgium. The Belgian government, exceeded by so much goodwill and progressive influences, decided only to accept temporary housing systems. Those wooden huts and prefabricated dwellings donated after the war by the surrounding countries quickly brought up the question of more durable concepts on housing and their integration into an urban policy.

This need, together with the lack of building materials and skilled craftsmen led in 1919 to the creation of the "Société Nationale des Habitations et de Logements à Bon Marché" (national society for low cost housing), encouraging new typologies in social housing, especially garden neighbourhoods. It further led to the foundation in 1921 of the "Comptoir National des Matéraux", which promoted and tested new construction materials and techniques. Tens of garden cities were built all over the country and especially in the suburbs of Brussels. Much attention has been given to the general lay-out and the design of the public space, in most cases by the urban planner Louis Van der Swaelmen. The dwellings had to answer to criteria as rapidity, quantity, quality and low cost. Most of them applied new concrete construction systems as e.g. the German Non Plus-system, which can be considered as the most used method in Belgium.

Among the most interesting modernist garden neighbourhoods, one should mention "Klein Rusland" in Zelzate designed by Huib Hoste and built between 1921–1923; the perfect "Cité moderne" built by Victor Bourgeois in the suburb Brussels between 1922–1925; the green "Le Logis-Floréal" built by Jean-Jules Eggericx, Raymond Moenaert and Lucien François in the suburb of Brussels between 1921–1930; "Kapelleveld" built by Huib Hoste, Antoine Pompe, Paul Rubbers and Jean-François Hoeben in the suburb of Brussels between 1923–1930, whith a mixed use of traditional and progressive construction techniques and forms;.and the experimental "Het Rad/La Roue" in Anderlecht, built by Jean-Jules Eggericx 1921–1922, using 21 different concrete systems.

The economical crisis of the 1930's put more or less an end to this progressive social housing policy. As a matter of fact, the government decided that from now on it was better to stimulate individual housing and private ownership, more specifically in rural or suburban areas, a.o. through the creation by law in 1935 of the "Société Nationale de la Petite Propriété Terrienne" (national society for small landed property), an initiative of the catholic minister Moyersoen. The government restrained the experiences in large scale collective housing and cut down the subsidies.
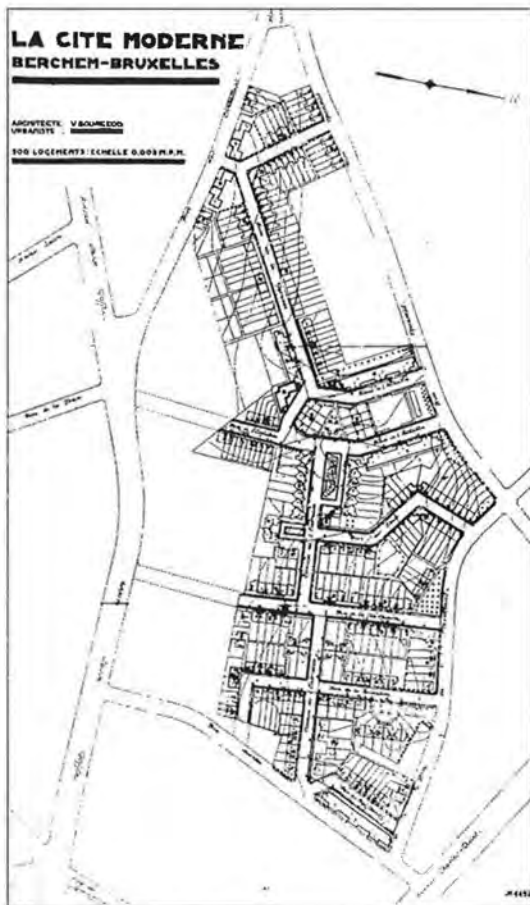
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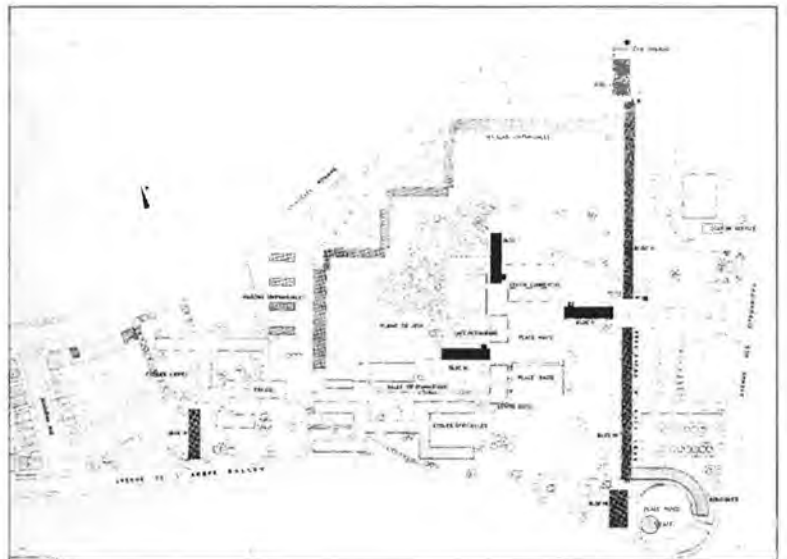
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Fig. 4.

Fig. 1. La Cité Moderne. Initial situation plan with collective services and 500 dwellings. (Coll. A.A.M.)

Fig. 2. La Cité Moderne. View of the main square Place des Cooperateurs, photograph of the period.
(G: Mansy – Coll. A.A.M.)

Fig. 3. La Cité Modèle. Initial situation plan. (from Bouwen en wonen, Blad voor vormgeving, nr.10, 1958)

Fig. 4. La Cité Modèle. Model of initial project. (from Bouwen en wonen, Blad voor vormgeving, nr.10, 1958)

These restrictions were of course to the detriment of collective services. This radical change can also be explained by the fear of some for the concentration of a leftist working class in large scale social housing entities. Men spoke at that time of the danger of "a red belt around Brussels".

The situation after the second world war was completely different: there was much less destruction than after the first world war, which also means no housing shortage as was the case in the surrounding countries. From the moment the economy took off, the government for that reason decided to promote a general modernization of public services and infrastructures. Government buildings, offices, banks, schools, sports and cultural centres arose while an ambitious infrastructure policy started with the construction of the national airport, the modernization and extension of the commercial harbour of Antwerp and an unbounded net of highways. The idea was to enhance through this large scale investment a completely liberalized free market economy, a unique situation in post-war Europe. As to housing, the government continued the 1930's policy of private ownership of individual houses on small privately owned lots. The pre-war Moyersoen-law of 1935 was implemented by the 1948 De Taeye-law on the construction of privately owned low cost houses, once again a catholic initiative defending the individual family against every form of exaggerated collectivism. This led to a predominance, even till now, of the construction of individual houses, even in the sector of public housing.

In 1949 the socialist minister and architect Fernand Brunfaut, reintroduced a policy of high density collective housing. High-rise buildings and collective facilities testified of a post-war modern image of social housing expressing a form of pragmatic, planified socialism. The large open spaces and public facilities not always have been built as initially designed: spatial coherence and urban character are missing in many cases. A further lack of interest and maintenance makes them problematic nowadays.

Among the most characteristic examples, one can mention the dwellings designed and built by Charles Van Nueten in the very heart of the popular neighbourhood of Brussels for the "Foyer Bruxellois" (social Brussels cooperative) in 1950; the severe "Luchtbal" ensemble built by Hugo Van Kuyck in

Antwerp between 1948–1961; the more flexible "Watersportbaan" ensemble built by Geo Bontick and Adrien Bressers and others in Gent between 1953–1965; the "Champ des Manoeuvres" ensemble built by the Groupe EGAU, Charles Carlier, Hyacinthe Lhoest and Jules Mozin in Liège between 1951–1961; the "Kiel" ensemble built by Renaat Braem, R Maes and V. Maeremans in Antwerp between 1951–1958; the idealistic "Cité modèle" built by Renaat Braem, Victor Coolens, Jean Van Doosselaere, René Panis, Groupe L'Equerre and Structures in the suburb of Brussels between 1956–1969; the "Sint-Maartensdal" ensemble built by Renaat Braem, J. De Mol and A. Moerkerke in Leuven between 1957–1967.

Two Prototypes

Two prototypical examples are considered in this contribution: *La Cité Moderne* (1922–1925) by Victor Bourgeois as an early modernist version of the surface consuming garden city, on the one hand, and, on the other hand, *La Cité Modèle* (1956–1969) by a group of architects under the direction of Renaat Braem as a late example of Le Corbusier's *Ville Radieuse*. The importance of both examples lies in the avantgarde architectural language as well as in the urban quality expressing modern ideals of collectivity.

History and description of *La Cité Moderne*

In 1922 Victor Bourgeois (1897–1962), together with his brother Pierre Bourgeois and Georges Rens set up the cooperative company "La Société Coopérative des Locataires La Cité Moderne". The aim of the cooperative company was to deal with the large and urgent demand for low-cost dwellings after the war. By introducing collective facilities the cooperative company hoped to increase the community and solidarity feeling among the residents. Initiatives like these were regulated and subsidized by the authorities through the "Société Nationale de l'Habitation à Bon Marché".

The original plan faced the construction of 500 dwellings with shops and collective facilities such a school, a library, a reunion hall and a public bathhouse. Only 274 dwellings and a few shops were realized because of the lack of subventions due to a change in government policy. 15 different typologies

of dwellings, houses and apartments, had to answer the different needs of the residents. The scarcity of traditional building materials and craftsmen obliged Bourgeois to look for more simple and cheaper building techniques. After several study-trips in Germany, France and The Netherlands, Bourgeois decided to use the German Non-Plus building system. The architectural style is an early modernism inspired by the work of the contemporary Dutch architects J.J.P. Oud and Jan Wils. Flat roofs, to avoid the hygienic problems of the attics allowed for a certain freedom in the indentation of the different volumes and increased the cubist character.

The urban plan has been conceived in collaboration with the urban planner and landscape architect Louis Van der Swaelmen. It combined a separated net of paths for pedestrians between the individual gardens and a system of shifting streets discouraging through traffic. *La Place des Coopérateurs*, in the centre of *La Cité Moderne*, was conceived as the symbol of the new spirit of community and solidarity with shops and a civic centre including a library and meeting rooms. Although the shops only were built, *La Place des Coopérateurs* still reveals the idealistic intentions.

The realization of *La Cité Moderne* brought Victor Bourgeois an immediate international reputation. In 1927 he was invited to design a house at the *Weissenhofsiedlung* in Stuttgart and he was very much involved with CIAM since its foundation in 1928.

Victor Bourgeois together with Huib Hoste must be considered as the most important precursor of modernist architecture in Belgium and his *Cité Moderne* as the manifesto of a large scale modernist project.

History and description of *La Cité Modèle*

Renaat Braem (1910) is an convinced leftist architect who always tried on the one hand to put forward the collective aim to protect the society from individual extravagances and, on the other hand, to praise the free imaginative individual. A large number of projects and realizations testify of this duality. Braem is also known as a prolific writer. Excellent drawer and open to the new concepts of the architecture of his time, Braem was invited by Le Corbusier to spent several months in 1936–1937 in his office where he worked on the *Unité d' Habitation*.

One of Braem's major projects is *La Cité Modèle* in Brussels, realized in collaboration with Victor Coolens, Jean Van Doosselaere, René Panis, the offices "l'Equerre" and "Structures" between 1956–1969. Braem succeeded to turn into his own progressive ideals what was meant by the government to be a model social housing project. It was the socialist deputy Fernand Brunfaut who asked Braem in 1956 to elaborate his *Cité Modèle* for "Le Foyer Laekenois", to be built in front of the area where the Expo 1958 was planned. It had to show to the visitors an ideal image of the social housing policy in Belgium.

The original project included several high-rise buildings and individual houses plus public facilities as schools, religious and other socio-cultural equipments. 12 blocks of dwellings of which 10 high-rise buildings (from 7 to 16 stories) and 2 long buildings (5 stories), 1029 apartements in total, and a small socio-cultural centre were built. The buildings are distributed on a sloped. The originality of the project lies in the character of the public open space. Indeed, some of the high-rise buildings are built on pilotis. The urban plan is strictly orthogonal to give the residents and the visitors a peaceful, clear and ordered impression of their *Cité*. Braem wanted a strictly organized urban plan and a severe and elementary architecture to react against the chaotic urban and architectural environment, typical in Belgium at that time.

Braem has deliberately separated car traffic from pedestrians. An orthogonal net of footpaths crosses the whole area and links the different blocks through green pleasure grounds, while car traffic and parking accomodations are banned outside and underground the area of the *Cité Modèle*. The *Place Haute* can be considered as the centre of the *Cité* as the central crossroad of the footpaths. Public activities are supposed to happen on this square. The administrative centre of "Le Foyer Laekenois", a post-office and some shops are situated at the most accessible extremity of the *Cité*.

The 2 very long 5-story blocks were seen by Braem as a wall to protect the inhabitants from "the bad capitalist influence" of the Expo 58 in front of the *Cité Modèle*. This is a kind of paradox when one thinks that the *Cité Modèle*

was a government initiative to be shown to the public of the Expo!

The construction of the *Cité Modèle* also means the first experiment of heavy prefabrication in Belgium. The French *Barets* and *Cauvet* construction systems have been used.

The *Cité Modèle* is the testimony of Braem's idealist and humanist will. Even if financial problems prevented the project to be finished before the Expo and in the end not all the planned collective services were built, *la Cité Modèle* can still be considered as the most progressive example of post-war social housing.

Conservation and Restoration: the Accomplishment of Social Ambitions

Modernist architecture appears in Belgium with the debate about reconstruction during and after the first world war. The need for new housing typologies and the use of new building materials and techniques brought about a new architectural and urban language through the construction of social housing neighbourhoods. The link between the emergence of modernism and the need for social housing is undeniable and sincere.

Conservation and restoration of modernist social housing is a problematic matter because of two of its characteristics:

Firstly, in many cases only a part of the project has been realized: collective facilities and public spaces were never completed or even built, even if they were essential aspects of the initial project. From the start the projects as realized were impoverished versions of the projects as planned. Social housing was not an evident item for a conservative government and for the higher financial world.

Secondly, even if collective facilities and public space have been realized to a certain degree, as in the *Cité Moderne* and in the *Cité Modèle*, a lack of maintenance policy is leading to a further impoverishment. Sacrifice of green-strips for the increasing parking needs and accidental interventions of individual occupants or other causes for the deterioration of the original concept and intention. The "poor" character of social housing neighbourhoods leads a

larger public to develop a rather negative attitude.

The conservation and restoration attitude of modernist social architecture must confront the original intentions with today's needs and norms of social housing, more particularly as to collective facilities and public spaces.

As the social intention is at the origin of modernist architecture and urban planning and is still surviving in this kind of social housing neighbourhoods, since they are still in use, the best way for preserving this architecture is even to strengthen its social intentions. For this reason it is important to put forward an "urban restoration", meaning re-designing the public place, eventually creating additional collective facilities and restoring the architectural identity of the buildings.

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Was Archigram Modern or What Should We do with the South Bank?

The Modern Movement in architecture sought at its origins in the 1920s not merely to embrace modern technology and the social conditions of the twentieth century, but to mitigate them: by modern constructional means, it aimed to introduce nature into the human urban habitat, and a sense of space. Alongside conditions conducive to physical health, it sought to create a serenity in which the powers of the human intellect could flourish and find expression. Arguably much architecture called 'Modern' in the last fifty years – both built and projected – has sought to push further the expression of modern technology, but has forgotten about the mitigation.

Does DOCOMOMO exist to defend and promote the original ideals of the Modern Movement, or does it accept such later 'Modern' developments as its concern, simply because they may be notable examples of their kind? Such a choice may confront it at London's South Bank arts complex alongside the Thames, where the work of an Archigram-led team of architects of the late 1960s overlays that of the Festival of Britain architects from the late 1940s, and will in turn shortly be overlain (it is proposed) by the work of Richard Rogers. At the core of the South Bank is the Festival Hall, one of Britain's very few Grade 1-listed Modern Movement buildings and the only survivor of that important national exhibition of 1951, the Festival of Britain. It is argued here that it would effectively be impossible to restore it, as is planned, if the Richard Rogers proposal were to go ahead, but that an opportunity exists to re-introduce space and nature to its setting, without which any restoration would be incomplete; for a Modern Movement work of architecture cannot have its full value except in an appropriate spatial context. The possibility of the Rogers scheme being realised, very real at the time this paper was written – over £2 million of public money had already been spent developing the design –, has now receded, and the somewhat drastic counter-proposal here advanced in response is even less likely to happen. But I believe the essence of the argument in spatial terms still has relevance.

The Rogers plan for the South Bank brings together an architect seen as representative of progressive ideals today, with the Royal Festival Hall, a design now fifty years old and acknowledged as a major monument of the Modern Movement. Are the two in sympathy? If not, does it matter? Or are alternative approaches possible to the problems of the South Bank, which would reflect more closely the ideals implicit in the Festival Hall and realise the benefits which the Modern Movement was intended to provide? Specifically, are the spatial ideals of Modern architecture separable, as is so often thought, from those of Modern urbanism – or is a 'Modern' setting essential to the validity of a work of Modern architecture?

It would be wrong to be too precious about the Festival Hall, a flawed, unfinished, and much altered masterpiece. But it is one whose spirit commands a respect that has well earned it its Grade 1 listed status. Under the leadership of Leslie Martin with his consistent theoretical approach, and Peter Moro, an authentic continental Modern with an elegant lightness of touch, the London County Council design team combined to lend it a humane authority which has survived. But critical views were possible. Kidder Smith, for example, in *The New Architecture in Europe* (1959) thought its detail was restless and that 'too many cooks had stirred the various facades'; and design rigour undoubtedly extended more to the section than to the plan (a characteristic perhaps of Martin's later work). Unlike the Corbusian models which inspired it, (League of Nations, Centrosoyuz, Palace of the Soviets), the Festival Hall's wedge-shaped outer plan form does not reflect the shape of the auditorium within, which is purely rectilinear. Also unlike the Corbusian originals (but not necessarily to its disadvantage), it was entered from the side, not axially. An axial entry would have been obstructed by the proposed second landward auditorium or by the river. As a result the north entry-side facade facing Waterloo Bridge became of great importance and was embellished with elaborate decorative patterns. These were removed during the 'purification' of the mid 1960s, when the side entry was also effectively superseded by the entrance off (or below) the new walkway along the river frontage. The second auditorium was never built, but it seems inconceivable that it was conceived simply as a block stuck onto the landward facade, as is sometimes suggested: it must surely have been encased within an extension of the outer walls, a second 'egg in the box'.

The most prized architectural feature of the Festival Hall is the spacious foyer, offering perspectives of round columns and staircases under the dramatically sloping underbelly of the auditorium. An obvious concomitant of this was the sense of light and space beyond, at the end of the perspectives, an extension of the inner space to the outside. The feeling of light and space much impressed those who saw it when new, and it must have been more marked than it is now because, before the moving forward of the west frontage towards the river in 1964, that light source was closer to the heart of the building, and because in the absence of any substantial buildings downstream on the north, the great north side windows must also have admitted more light.

A spacious exterior layout was as much part of the Modern Movement idea as a spacious interior. Large glass windows uniting interior and exterior are of little use unless the exterior is worth looking at. It is unlikely that designers seeking a free-flowing interior spatial effect will be satisfied with rigidly compartmentalised external spaces. An architecture that is 'the masterly, correct, and magnificent play of forms under light' can only be realised where there is sufficient space to allow the forms to be read in the round and the light to play on them. Any examination for example of Le Corbusier's designs for civic and cultural centres, such as for St. Die (1945), reveals an abundance of space. The relationship with nature was also fundamental.

All this of course began to be reversed from the beginning of the 1960s:

the Smithsons' Berlin Plan competition entry of 1961 was based on an intricate network of upper level walkways above a ground surface devoted to vehicular traffic (an idea against which Le Corbusier had inveighed in *The Radiant City*, 1932), and showed no interest in the serenity of Corbusian space or pure form, or nature. Neither was Archigram interested in these, but in creating an effect of pulsating vitality. The expression of Movement, not stasis, became the objective, and so an architecture based on an expression of the channels of movement – whether of people or mechanical 'services' – became established. This determined the conception in 1964 of the Queen Elizabeth Hall and the Hayward Gallery, built on the site adjacent to the Festival Hall to the north, with Archigram members Ron Herron and Warren Chalk on the design team: the dominant upper level walkways reflect the thrusting geometry of the Smithsons' Berlin plan, and the external massing is shaped by boldly expressed service ductwork encased in heavy shutter-boarded concrete (a functional paradox, as Reyner Banham remarked). Of pure form and sense of space there is none, but an additive composition intended to suggest the possibility of constant change – another form of movement.

The result, carried out with care in the detail design and craftsmanship (in the shuttering especially), had a kind of quirky 'avant garde' quality that has given concert and gallery goers fun and a sense of adventure over thirty years, even if the internal and external spaces are not in fact very comfortable, and the universally insoluble problem of what to do with the space underneath raised walkways is very much in evidence. But the fact that the design philosophy was so antithetical to that of the Festival Hall in one way avoided conflict: the indistinct massing provided a foil rather than competition for the clear form of the Festival Hall.

The influence of Archigram ideas on Richard Rogers is well-known: the emphasis on service ductwork and escalators at the Pompidou Centre (1970) is evidence, now more logically carried out in metallic rather than concrete construction. It is hoped that the reality of pulsating vitality (perhaps of an undesirable sort), which the bunker-like existing structures of the Hayward and Queen Elizabeth Hall in the event failed to deliver, will now be generated within

the great glass canopy with which he proposes to encase them. But two of their important qualities will immediately be destroyed: the upper level walkways which are an essential part of their conception and composition will be largely removed, and the additive 'broken-down' massing which provides a foil for the Festival Hall will be concealed beneath a single-all-enveloping mass which will not only provide competition for the Festival Hall, it will swamp it.

More important still, however, the glass canopy will exacerbate the damage done to the setting of the Festival Hall by the construction of the Hayward and Queen Elizabeth Hall in the first place, and the overcrowding that it caused. For it is arguable that their site, considered and rejected for the National Theatre (to avoid competing with the mass of the Festival Hall), should never have been developed at all. The composition of the Festival of Britain site was based on two large buildings of basically horizontal mass, one on each side of Hungerford Bridge, and each with its attendant contrasting 'vertical feature' – the Festival Hall with the Shot Tower downstream, and the Dome of Discovery with the Skylon upstream. Lionel Esher wrote in *The Observer* in 1951 that the chief planner of the Festival Hugh Casson "has been able to anchor his deliberately flimsy structures to the fat rectangle of the Festival Hall, which... has the same inevitable relationship with the Shot Tower as an Italian Romanesque church with its campanile (may they never be divided)". In other words, the need for these two structures to dominate the area of land between the Hungerford and Waterloo bridges was recognised, and the consequent need to make the other Festival pavilions on the side 'deliberately flimsy' or insubstantial.

The Hayward and Queen Elizabeth Hall of course were anything but flimsy. Sweeping aside the Shot Tower, they blocked the main approach to and view of the Festival Hall from the north, creating a dismal 'valley' alongside it, and they blocked the view northwards from its foyer and roof terraces over the 'flimsy structures' (interspersed with planting) towards Waterloo Bridge and the river. The dominance of the Festival Hall on the narrow piece of land between the two bridges was undermined and any feeling of Corbusian openness destroyed.

The proposed glass canopy will exacerbate these effects. Coming down

to within a few metres of the north facade of the Festival Hall it will block outlook and light in that direction even further and, extending in an undulating line along the river frontage, it will impede the view of the river there also. The roof terraces, modelled on those of Le Corbusier's League of Nations project where they were to have afforded a view of the Lake of Geneva and the Alps, and which in London originally offered a view of the Thames and the City skyline beyond, will instead have a view of a sea of glass – even though money is to be spent as part of the proposed restoration to re-open them to the public. The main west river front of the Festival Hall will only be visible from the far bank above an undulating canopy, and threatens to look ridiculous.

It appears likely that for a cost similar to that of substantially altering the Queen Elizabeth Hall and Hayward and then covering them with the glass canopy, a wholly new gallery and concert hall of comparable size could be built. It is worth asking therefore whether, in lieu of attempting to ameliorate the perceived functional shortcomings of the present structures, it would not be better to build anew on a different site and give back to the Festival Hall the space, light, and air which is its birthright.

The perfect site exists. Upstream of the Hungerford Bridge, alongside the river, lies the Hungerford Car Park – earmarked, so it says in the brief for the competition won by Rogers, for a 'major cultural building'. Lambeth Council, however, the planning authority, has argued for the retention of this as open space, to be added to Jubilee Gardens alongside. If the site were to be used in this way, a situation would exist where the entire space between County Hall and Hungerford Bridge was open, whilst on the other side of Hungerford Bridge three major national institutions – the Festival Hall, Hayward/Queen Elizabeth Hall, and the National Theatre – were crowded together.

The solution is to exchange the Hungerford Car Park as an open space for the site alongside the Festival Hall presently occupied by the Hayward/Queen Elizabeth Hall. In other words, to demolish the Hayward/Queen Elizabeth Hall and rebuild them on the Hungerford Car Park, leaving their present site open. In this way a regular rhythm of public buildings and public open spaces would be created along this stretch
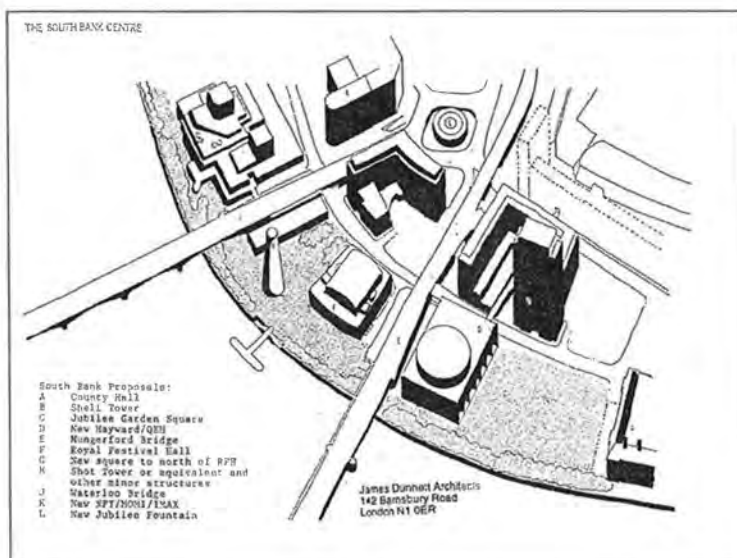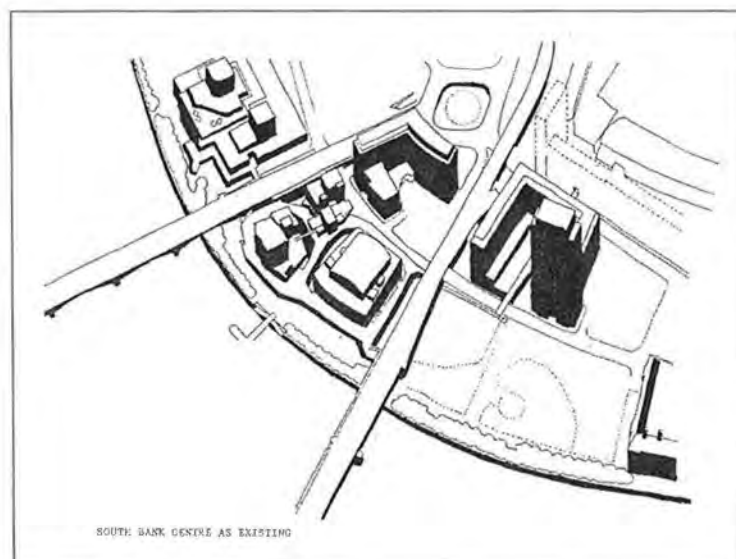
Fig. 1.

Fig. 2.

Fig. 3.

Fig. 1. The South Bank as here proposed.

Fig. 2. The South Bank as existing.

Fig. 3. The square with new Hayward Gallery and Queen Elizabeth
Hall and existing Shell Tower.

of the Thames. There would effectively be two garden squares, one between County Hall, the new Hayward/Queen Elizabeth Hall, and the Shell tower, and the other between the Festival Hall and Waterloo Bridge. In both cases, Venice-like, the river would form the fourth side of the square. Jubilee Gardens, at present a rather forlorn space, would gain life and significance if fronted by a new Hayward/Queen Elizabeth Hall. The Festival Hall could again be seen and entered from its original point of entry, the north side facing Waterloo Bridge, and would have the light and space it needs, standing unobstructed on the ground. A sort of solution would also have been found for the difficult architectural problem of how best to approach a building designed to be seen from afar across water, where no comparable long-distance landward views are available. By creating an open space adjacent on the waterfront, across which such a building can be approach-ed, it is enabled to address satisfactorily both the water and the bank on which it stands.

If the demand to re-erect the Skylon gained weight, the site of the Shot Tower would be perfectly suitable for it, since it could replace the missing 'campanile'. If the Museum of the Moving Image is to remain under the embankment of Waterloo Bridge, it could begin to open up towards the new square facing the Festival Hall. Even the National Theatre could benefit 'round the corner' under Waterloo Bridge. The new gallery and concert hall could also be build complete without interfering with the programme of the existing complex, ready for a direct transfer.

The present Hayward and Queen Elizabeth Hall are a document of a moment in British architectural history, and their loss might be regretted. But under the Rogers proposals they will effectively be lost anyway, so drastic will be their transformation. Paradoxi-cally, their rebuilding on the Hungerford Car Park site would make possible the re-creation of Rogers' most admired success more exactly than will the present proposal. Perhaps the greatest success of the Pompidou Centre is the space alongside it – the great rectangular square across which it is seen and approached, which lends it presence, and which is always thronged with people. The Festival Hall could enjoy the same relationship with its own square, which too could be thronged with people if suitable peripheral functions were encouraged – people perhaps enjoying themselves more in the open air than they would under a glass canopy.

Less drastic ways of tackling the South Bank's environmental problems would certainly be possible, such as by 'greening' the terraces and walkways. But we should be wary of reinforcing the negative effects of the present Hayward and Queen Elizabeth Hall, whilst destroying what qualities they have.
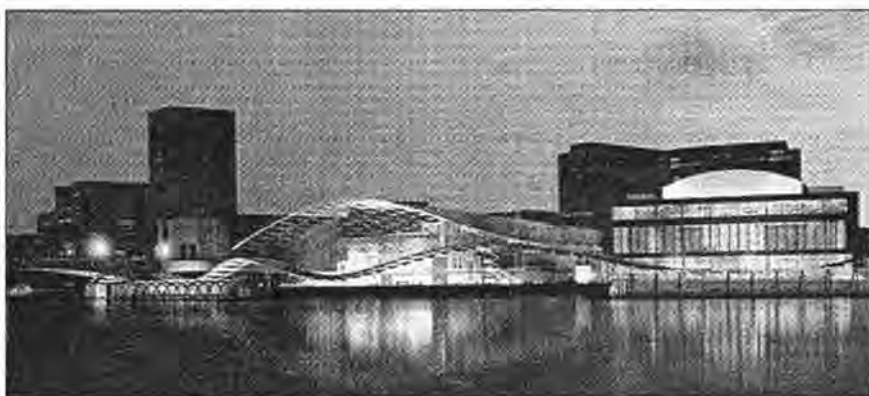

Fig. 4a.

Fig. 4b.

Fig. 5.

Figs. 4a+b. The Richard Rogers Partnership proposal.

Fig. 5. Original west (river) facade of the Festival Hall.

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Losses and Legacies: Vancouver's Burrard Street

In 1951, a year before her Coronation, Princess Elizabeth and the Duke of Edinburgh rode in a motorcade down Burrard Street enroute to a welcome ceremony at City Hall. Leonard Frank's view from atop the Hotel Vancouver showed the street lined with simple low buildings and dominated by the Marine Building, Vancouver's Art Deco jewel of an office tower in the background (fig. 1). While there were other institutions and landmarks from the city's first 65 years peppered along the street's 11 block traverse from northeast to southwest across the downtown peninsula, the best was yet to come. Its width and prominent location gave no clues as to the transformation which was to occur over the next few years. In fact, nothing of significance had been built in the 20 years since the Marine Building and the Art Deco Burrard Bridge at southern edge of the street's downtown stretch. But by of the decade, Burrard Street would provide a very public display of a half dozen remarkable buildings of the modernist era.

This paper will discuss the importance of Burrard Street as a key part of Vancouver's urban fabric and the significance of the modernist buildings which were built there. While two are gone and one reclad almost beyond recognition, three important ones remain. The losses helped to galvanize interest in the efforts to preserve some key aspects of the modern era in Vancouver and the place they had in defining Burrard Street's role in the city development.

Vancouver is the third largest city in Canada, the gateway to the Pacific and the largest port on the west coast of North America. The downtown peninsula is a small but densely built area of the city, which is at the heart of a metropolitan area – Greater Vancouver – with a population of about one and one half million people. Bounded by water to the north and south and a 1000 acre park to the west, downtown Vancouver is reached by three major bridges which connect it to the southern part of the city across English Bay and another, the Lion's Gate suspension bridge to the North Shore communities across Burrard Inlet.

Incorporated as a city in 1886, the site of what was to become downtown Vancouver was surveyed as a bricklayer's claim in 1863. The diagonal street grid of the downtown core can partly be traced to this survey which indicated a compass variation of 22.15 degrees. Oddly, the actual variation is closer to 45 degrees from true north. The first fire insurance maps of the city in 1889 show Burrard Street lined with sporadically placed small buildings, mostly made of wood. An exception was the sandstone English Church (which would become known as Christ Church Cathedral) at the corner of Burrard and West Georgia Streets, built in 1889–93 and designed by C.O. Wickenden. It is the city's oldest church and one of the oldest surviving buildings in its original location in Vancouver.

The plan indicates Burrard Street by name and shows it measuring 100 feet in width. Only West Georgia Street, Vancouver's major east-west downtown route is the same width. Most others are 66 feet wide The reason why Burrard Street was given such prominence is not clear, especially since it did not connect to the rest of the city until the Burrard Bridge was built in the early 1930's. Only Lauchlan A. Hamilton, the assistant land commissioner of the Canadian Pacific Railway who laid out the city streets, would know why it was given such prominence. He named it after Burrard Inlet, which had been named by Captain George Vancouver almost a century earlier for a navy friend, Sir Henry Burrard.

Even a decade later, in 1897, there is little clue as to the prominence the street would ultimately assume. An archival photo shows a snow covered scene of wooden houses, picket fences and boardwalks lining the street. By the turn of the century, though, some major buildings started to appear. Located diagonally opposite Christ Church at Burrard and Georgia – the site where the modernist Burrard Building would be built 55 years later – was the handsome Richardsonian Romanesque Wesley Methodist church, here rendered in wooden clapboards. Other churches and schools and a major hospital would be built further south on the street. The schools are gone and the original churches have been replaced by more important stone structures and the hospital remains as an important city landmark. St. Paul's hospital, a handsome brick and terra cotta building with original parts by Robert Tegen dating from 1912 and many additions, presents a lively and ornate profile to the middle section of Burrard Street.

At the end of the 1920's, and on the cusp of the Great Depression, the Art Deco period found a flowering in Vancouver and two of the city's most remarkable structures of that period are located like bookends at the north and south ends of Burrard St. The Marine Building is at north end of Burrard, overlooking the inlet of the same name. Designed by McCarter Nairn Architects in 1929–30 it celebrates – in glazed terra cotta, brick, bronze, stained glass and marquetry – the sea and transportation themes in a complete Art Deco ensemble, inside and out. It is one of the most notable buildings of this period in Canada.

At the southern end of the street, the Burrard Bridge crosses False Creek. A bridge in this location, connecting downtown with Kitsilano, Point Grey and the new University of British Columbia, had been recommended by Harland Bartholomew in his Town Plan for Vancouver of 1927. Built in 1930–32 to designs by J.R. Grant and Sharp and Thompson, in an Art Deco design, the massive concrete pylons, ship motifs and two pairs of polygonal concrete torcheres, fitted with stained glass lanterns, mark the entries to the bridge. When lit, they resemble flickering flames. A view north in 1934 shows streets lined with wooden houses from which the massive Hotel Vancouver emerges. The neighbourhood to the west of Burrard Street was and remains a compact and residential area with one of the highest population densities in North America. Although most of the wooden houses have been replaced with low and high rise apartment buildings, the amenities of the area – walking distance to downtown, parks and beaches, make it a very livable area of the city.

One of the Château style hotels – a signature of most large Canadian cities – the Hotel Vancouver, designed by

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 1. Motorcade of Princess Elizabeth and the Duke of Edinburgh on Burrard Street, October 20, 1951; photo by Leonard Frank; courtesy City of Vancouver Archives # LP 181.

Fig. 2. Aerial view of Vancouver's downtown peninsula, 1960; Williams Brothers photo courtesy City of Vancouver Archives # Air P.92 N.104.

The Burrard Bridge, in the lower left, connects to Burrard Street running northeast in the left centre of the view. The B.C. Electric Building is in the centre mid-ground of the photo, with the Burrard Building just to the upper left. Beyond, near the edge of Burrard Inlet is the Marine Building.

Fig. 3. View of Vancouver Public Library, c. 1957 (Semmens and Simpson, 1956–57); photo courtesy Vancouver Public Library # 77448-D.

Fig. 4. View of Dal Grauer Substation, 1954 (Sharp and Thompson, Berwick and Pratt, 1953–54); photo courtesy Vancouver Public Library # 77322.

Archibald and Schofield, was begun in 1929 but not finished until a decade later. It has always been a major landmark on the city's skyline and its location at the corner of Burrard and West Georgia Streets marked the importance of this intersection in the downtown. The original Art Deco interiors, now gone, reflect the taste of the 1930's. Dancing to the Dal Richards Orchestra at the Panorama Roof, with its magnificent view up and down Burrard Street, was the place to be and the centre of social life in Vancouver for decades. The Timber Club restaurant, decorated with tree trunks and logging paraphernalia provided a foil for elegant hotel dining and the place for many three martini business lunches. Today, the Hotel is still a landmark at Burrard and Georgia, but the street has grown up around it. In place of the small wooden buildings of the late 1890's, the street is lined with high rise offices, hotels, shops and apartments as well as the historic institutional and religious buildings.

Since the beginnings of the city in historic Gastown, the business and shopping centre of Vancouver has gradually shifted west. After World War II, and in the 1950's particularly, the centre of the city gravitated west towards Burrard St (fig. 2). Today, some of the highest densities and some of the city's largest commercial buildings are located within a block of Burrard Street. The street has at last achieved the status of a major civic thoroughfare. Contributing greatly to that change was the erection, in the 1950's of six important modernist buildings, the losses and legacies of this paper.

The first was the Customs House designed by C.B.K. Van Norman and built from 1950-55. It is an important work in that is was one of the first major modernist buildings in the city after the Second World War and certainly the most prominent. Located across from the Marine Building at the north end of Burrard, the building featured a hybrid of concrete and curtain wall construction and had panels of local andesite stone. Responded to its angled and sloped site with articulated and varied façades designs, it was a remarkably contextual building for its time. A small but unsuccessful battle raged in the late 1980's to preserve it but it was allowed to be demolished in 1992. Today the site is still vacant, as the promised replacement office tower was never built.

Eyebrows were also raised and brows furrowed when Van Norman's Burrard

Building dating from 1955-56, was reclad in 1989-90 in a rehabilitation by Musson Cattel Mackey Architects. The original horizontal banding of the curtain wall and the building's elegant façade proportions – owing much to SOM's Lever House in New York (1950-52) – were changed with the addition of mirrored glass, chrome and granite cladding.

These two losses precipitated in 1990 – co-incidently, the same year DOCOMOMO was launched – the start of the city's Recent Landmarks program. This initiative has been described in an article (by this author and Marco D'Agostini) in the DOCOMOMO Journal (June 1994) and in a chapter in DOCOMOMO's book, edited by Allen Cunningham, Modern Movement Heritage (E&FN Spon, 1998). Raising public awareness and preserving buildings from this period were the objectives of this public planning program and to date there have been 21 buildings listed and 3 designated by Vancouver City Council from the post-1940's era in Vancouver. (In Vancouver, a building at least 20 years old can be considered for heritage listing.)

Another delightful building from the 50's was the CKNX radio station building located farther south on Burrard St. A tiny work designed by Ron Thom in 1956 in a west coast Prairie school mode, it had a distinctive tower, skylit corridors and a fine mosaic tile mural by B.C. Binning. The mural is all that was preserved when the building was demolished in 1989.

However, further north on Burrard, a trio of pivotal modernist buildings in the city are still standing. They are legacies of an important period of the city's development, when Burrard Street took on a role of prominence and stature. Two of the buildings have been rehabilitated and one is likely to be upgraded and restored soon. They are the former Vancouver Public Library, the former B.C. Electric Building and the Dal Grauer Substation.

In 1957, the doors opened on Vancouver's new central library (fig. 3). Located at the corner of Robson and Burrard Streets, the location was quite far west from downtown at the time, which was still centred along West Hastings and Granville Streets. It replaced the old Carnegie Library, a sandstone neo-Renaissance building located at the far east part of the downtown, near the old townsite of the city, at Main and Has-

tings St. The new site was on the western edge of the downtown, and bordered on the West End residential neighbourhood. It was next door to the towering Hotel Vancouver and the contrast in style adopted by Semmens and Simpson was quite apparent. Quite a change too was the image of a library. No classical columns, grand staircase or domes, this was a transparent, efficient building based on modernist principles, but with modifying elements of west coast regionalism. The building featured a humane scale, movable sun screen louvres and public art inside and out. It was an inviting place for people to use.

And use it they did. By the early 1990's it was crammed with patrons, books and periodicals and occupied a highly visible and increasingly desirable downtown location. In the past two decades Robson Street has evolved from a few blocks of small shops and services spanning the West End and downtown to an important retail street. Gradually, shops along Robson were commanding the highest rents in the country, and the library found itself at the city's busiest shopping intersection. In 1995, the library moved to new premises further east along Robson St. The city sold the building to a development company which, finding no market for a new office tower on the site, decided to convert the building to Robson Central, a mixed use rehabilitation project designed by James Cheng architect. It incorporates a Planet Hollywood restaurant, Virgin Records Megastore and a television studio. The problems of the rehabilitation are not the focus of this paper, but I remain confident that the most offending changes to this designated building – the signage, black box retail concept with huge music industry posters displayed in the windows of the former reading room and the rooftop satellite dish – are reversible. In the meantime, the building continues to provide a focus for pedestrian activity along Robson and Burrard, a suitable scale for the street, preserves the views of the landmark Hotel Vancouver and is a legacy of the 1950's boom era of the city. The new television studio, which takes advantage of the transparency of the building and its connection to the street, maintains symbolic connection to the building's original purpose. In the station's programming, the building is used as a backdrop for person-in-the-street interviews, broadcasting daily a bit of

modernism and urbanity into the living rooms of the city.

Further up the street is the former B.C. Electric Building designed by Thompson Berwick and Pratt in 1955–57. Its lozenge shaped plan – no desk was further than 5 metres from a window – slender profile, pierced concrete cornice, mosaic tile murals and two-toned aluminum curtain wall are part of this distinctive modernist building which embodies aspects of West Coast regionalism in the detailing and colour palate. While its location at Burrard and Nelson Streets was very remote from any other offices in the downtown at the time, the site afforded commanding views from all 22 floors as it was located at the highest point of land in the downtown peninsula. Besides being a visual landmark on the downtown skyline it was also an audible landmark, as the source of the noontime chiming, from an airhorn, of the first notes of the national anthem. Its conversion in 1994 to condominium apartments was designed by Paul Merrick architect who has balanced conservation with renewal. The success of this conversion – all 264 apartments sold in two days – was due in part to their affordability, but also to the desirability of living in the downtown and the splendid views from the large windows of the former office building. New hotel developments in the surrounding blocks are now taking care to preserve the views of, and from, this modern landmark.

Perhaps the most distinctive building of the group – and the one which presents a dramatic industrial face to Burrard Street – is the Dal Grauer Substation (fig. 4). Linked to the former B.C. Electric Building next door, it predates its tower cousin, being built in 1953–54. It is oldest remaining modernist building on the street. Sharp and Thompson, Berwick and Pratt created a transparent box for this hydro substation which serves power to the entire downtown peninsula. Staircases, corridors and power equipment, picked out in bright colours, were part of the fenestration composition and displayed the wonders of its equipment and services to the street. It was also a symbol to the public of the key role of hydro-electric power in the province. While the original clarity has been obscured by the installation of plexiglas panels, a restoration of the façade and seismic upgrading of the concrete shell and equipment is in the offing for this jewel of modernism on this most modern of streets.

Today, the legacies of the important boom in Vancouver of the post war period is evident in the buildings of that era along Burrard Street. They are legacies of a pattern of the city's development and are expressive and important works of architecture. They are also representative of the way modernism evolved and adapted to the climatic, natural and cultural context of Canada's west coast. They represent examples of how rehabilitation can be achieved with buildings of the post-war era, and are instructive for the lessons learned in the difficulties and potential of preserving buildings of the recent past. The modernist buildings fill out the spectrum of Vancouver's development history, being part of a continuum of buildings from the very earliest days of the city, to its Art Deco period to its more recent developments.

The view from the Royal motorcade of almost five decades ago was quite different from that of today. Since 1951, the buildings that were built of the modernist era – despite the losses in the intervening years – provide a snapshot of the evolution of Burrard Street, and of Vancouver itself.

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The Postwar Modern City, problem child or challenge?

Introduction

If documentation has the ambition to be of service to conservation, it better not follow its own agenda, but try to connect to current developments in housing and physical planning. The past years, in the Netherlands the emphasis in urban renewal has shifted from the 19th and early 20th century townparts to the postwar residential areas. Investments in restauration plans, new residential and commercial development, renovation and infrastructure, will be concentrated in these townparts in the coming years. This demands a 'pro-active' attitude from researchers, architects and planners in DOCOMOMO, to inform the responsable authorities about the socio-cultural values of these townparts. In the Netherlands, DOCOMOMO is one of the organisations trying to encourage, if not take a leading position in the professional and public debate on the future of our postwar urban heritage.

My presentation will first touch upon the visions of modernity in the postwar reconstruction period, then briefly sketch the present day reality of these townparts, to conclude with an attempt to answer the question if momo-visions can survive in todays reality and be passed on to the future. I will do this on the basis of some examples from the Netherlands and the Russian regions of Ural and Siberia.

Vision

Many urban districts that have been built in the 1950's and 1960's radiate the optimism and renewed belief in progress and democracy after the war. In many cases they are based upon a widely spread sincere aspiration to create the perfect functional city. In the Netherlands I know no better example of what could be refered to as 'the new spirit' than Rotterdam.

The war left a large open space in the core of the city, and the will to create a new heart and a new identity. On one of the previous DOCOMOMO conferences I sketched the remarkable way traditional and modern streams in architecture and urban planning worked together in a new idiom of urban form, with a touch of Americanism on top.

The rigorous economic circumstances and shortage after the war appeared to be an inspiring setting for the postwar society trying to cope with accomodation of the many homeless and of new economic activity. The building industry was the number one booming business and on top with regard to capital investment. This proved to be a good breeding ground for the ideas of the Modern Movement, building on the experiments of modernism in architecture and urban planning that had been developed in the 1930's. But now with a strong emphasis on the existing social and economic reality, rather than on the basis of theoretical ideology alone.

The will to continue the CIAM (International Conferences on Modern Architecture) was strong: Team Ten and many other representatives of the modern stream in urban planning were determined to establish a new tradition. Holland seemed to become again what it had been for centuries before: a laboratory for experiments with new concepts of spatial planning.

In Sliač I showed you the example of 'De Bijlmermeer', by many considered to be the outstanding school model, the prototype of functionalism in postwar urban planning in the Netherlands.

But also the earlier example of the small new town of Nagele was an attempt to implement ideas of functional townplanning in the purest possible way.

Pilot projects like Nagele were of great influence on the professional debate and the education of architects and townplanners in the 1960's and 1970's, thanks to people like Jaap Bakema and Aldo van Eyck. But unfortunatly these examples were not generally followed in practise; many towns designed extension plans on a more or less traditional basis, without the purity and the integrity that characterises a plan like that of Nagele. Anyway, within 25 years the image of the city would change drastically: the population and the built up surface would double, as would the amount of infrastructure.

Reality

While the cultural and historic values of residential districts from the interbellum is widely recognized today, many post-war townparts seem to be outlawed. The growth in public interest in conservation issues passes over the postwar districts. The general public consideres them to be ugly, scaleless, unhospitable and hostile. Indeed, generally they have lost their original glance and they have become a much neglected part of the residential stock, where the social and economic problems of present day society seem to accumulate.

De Bijlmermeer was a good example of this downward spiral of appreciation and neglect, but also the large residential districts in the south-eastern part of Den Haag, once a new urban arcadia, became in many ways the trashcan of the city, if you will forgive me the expression.

Why is it that these townparts, that have originated from a specifically ideological background, have lost their public appreciation? What can be done to acquire new public awareness and political goodwill for the many values and potentials these districts still have?

Can MOMO-visions Survive in Todays Reality?

Only recently the post-war city has become a subject of study and public interest, mostly due to the fact that many townparts have reached the end of their technical life. Owners, housing corporations and municipalities are facing the question wether to renovate these townparts or to demolish them to make way for new development. In spite of a growing number of private organisations that show interest in the social and cultural values, these are practically never included in the decisionmaking.

A good example is an initiative taken in Rotterdam by a local group of architects and architectural historians, to investigate the way that the special interest of the part of the city that had been rebuilt after the war could be emphasized more effectively in the city's urban management policy. Among others,

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 1. The White Watertower, Ekaterinburg.

Fig. 2. ... one meter of drainpipe ...

Fig. 3. Housing estate by Ernst May, Novosibirsk.

Fig. 4. ... a matter of good advise ...

Fig. 5. Kuzbass housing by Van Loghem, Kemerovo.

DOCOMOMO's international secretary Wessel de Jonge contributed to an outstanding report, presented to the city council, but upto now with no noticable impact on the way the postwar heritage is treated – and not seldom mistreated – daily.

What is the current significance of the original visions and how can they be incorporated in renovation and redevelopment schemes? Is conservation of postwar residential districts in accordance with the underlying visions possible at all?

In Den Haag South-West the municipality has recognized the special sociocultural significance of the area and tries to base the urban restructuring plans on an analysis of existing building patterns and architectural and spatial qualities. This seems to result in respectful but unorthodox designs, inspired on and adding to the historic matter, but without copying it. After all, these neighbourhoods were meant to accomodate lower income groups and are still fit to do so again, for new social groups of an entire different nature, with a high percentage of immigrants, if we succeed in adepting these neighbourhoods respectfully to new demands.

The use of public open space for instance has fundamentally changed compared to the respectable society of the 1950's and 1960's. But the original urban design can handle adaptations like that easily; what more proof does one need of the vision and quality with which these neighbourhoods were built originally.

I am not sure De Bijlmermeer is doing so well though. Here the interventions needed to break the negative spiral of social and technical decay are so drastic and so numerous that I fear much of the original concept will be erased without a new, related quality replacing it. But maybe I am too pessimistic about it and maybe it is even not possible to accomodate the people living there now and tomorrow in accordance with the materialized social ideas of yesterday.

A careful handling of the urban heritage cannot be forced by law or regulations, but should be in the heart of policy makers, politicians and the public. Underlining the importance of conservation alone is never productive. On the contrary, the most succesful examples are the situations in which the cultural objectives of conservation and the architectural quality of new development have been connected succesfully to so-

cial and economic objectives. Only in that wide political context the protection, or better cultivation of the spirit of modernity can stand a chance.

The Wide Variety Instruments in the Orchestra of an Integrated Conservation Policy

Allow me to take you on a little trip and illustrate my point on the basis of a studyvisit to three Russian cities: Ekaterinburg, Kemerovo and Novosibirsk in October/November 1997. The purpose of that visit (initiated and organized by Jan Molema's Foundation for the Analysis of Buildings) was an exchange of experiences and ideas between specialists from the Netherlands, the United Kingdom and Russia, concerning the architectural and urban heritage of Constructivism.

Unfortunatly our DOCOMOMO-collegue Lyudmila Tokmeninova from Ekaterinburg couldn't come to this conference in Stockholm. We intended this to be a joint presentation, giving you a double view on the matter, but you will have to do with only my angle I am affraid.

What I will do is take you along on our trip, in an attempt to show you the many sides of an integrated conservation and development policy and the many issues of a social or economical nature that have to be included and dealt with before there can be a basic favorable climate for restauration. Issues that conservationists are not used to deal with, but should have an open eye for.

First of all we must acknoledge the unmeasurable cultural capital which is formed by the Constructivist architecture and urban layout. I will only give you a taste of it, as my purpose is not to show you the architectural richness but to sketch the outlines of an effective way of handling it.

Ivan Nevzgodine has shown outstanding examples of Constructivism in Novosibirsk yesterday, and there is an excellent poster presentation on Ekaterinburg by Catherine Cooke and Marieke Kuipers in the panel-exhibition hall.

The first challenge is to get an integrated conservation and development policy into action in a society with no financial resources to support that. It is hardly imaginable in our western experience to get something done without substantial financial incentives. How-

ever, there is no lack of venture capital, there is only lack of public money and often lack of confidence in a well-conditioned investment climate. So the public sector should concentrate on conditioning and stearing instruments to encourage the right private investments, rather than the financial incentives we are taking for granted in western society.

It is imperative that conservation schemes are compatible to the local economic circumstances: what use is it to parachute a western conservation practise which is alien to the emerging (momentarily stagnating) economy? Methods and techniques have to be tailor-made and adapted to a subsidy-less society. One of the basic conditions is to create a solid, sustainable and continuous urban development policy. This provides legal security to investors and to the public. Building permits, infrastructure and other public provisions can be capitalized as the input of the local administration in a public-private development cooperation.

Other basic conditions for any conservation scheme to be succesful are: public awareness of, and political commitment to the cultural historical values. To involve the public we can use all kinds of manifestations, publications, exhibitions, the press and the media and, probably most important, school education.

But also the political decisionmakers have to be made aware of the fact that a careful handling of the living environment is a cultural responsibility by eminence.

International exchange should not be limited to government-to-government projects, but should include (or make way for) the private sector. Not only city management, but also building management, institutional organisation in the field of public housing, project asessment and commercial development are sectors where cooperation is needed urgently.

Many succesful businessmen are willing to do something back for society. For instance to use existing buildings of historic interest fbr new, commercially attractive purposes, instead of knocking them down. If they are allowed to be part of the public-private coalition, the rest is a matter of taste and good advise.

A reasonable level of public services is a basic condition to attract private investments. Simple things like garbage collection and good infrastructure

are essential to a sustainable conservation policy and a careful development of the living environment. If the environmental quality as a whole is not handled adequatly, capital will be scared off in stead of attracted.

The concepts of periodical maintenance and financial depreciation have to get implemented in management and exploitation of real estate. Especially cost and benefit balances, in everyday practise, will have to create awareness of economic feasibility. One meter of drainpipe fixed in time will prevent serious problems and unnecessary costs.

Another point of attention is the informal economy. We must realize there is more than one economy in Russia: besides the 'official' economy, there are uncontroled economies, like the wide range of small commercial businesses in the street. In fact that is everydays economic reality, but there is literaly no room for it. We should see it as a task for urban planners to accomodate this. After all, this side of economic life should have a normal place in the daily living environment, instead of being abandoned to the backrooms and hidden corners of the city. Especially while this side of urban life could very well be used to improve the quality of the public realm.

Generally, the professional education of designers is excellent. But an essential skill is missing: the political and managerial methods and techniques needed to implement, execute and, most important, maintain plans and policies. What good is it to renew masterplans and land-use plans on a regular basis if nobody is forced to follow them?

Also research and documentation are excellent. But there is a shortage in efective communication techniques, especially to mobilize public interest in cultural history and matters of building and planning. After all, the built environment is the backbone of the cultural identity of a society. Constructivism is not much considered something to be proud of. People tend to be more interested in 'monuments' they can easily identify with, as the architecture of Constructivism is still much associated with the period of Stalinism.

All the points of attention I have mentioned are equally important to prepare and maintain a succesful integrated conservation policy. Urban conservation itself can never be considered to be an independent disciplin; it will always be necessary to find strategic coalitions with connecting disciplins and to find a well-balanced mix of planning, management, design, education, environmental planning, communication and public involvement.

Conclusion

The significance of cultural streams like Constructivism can be experienced positively or in a negative sense, but will always be part of the cultural notions of a society. No art is such an excellent mirror of culture and society as architecture. Therefor, wether the public appreciation is high or low, we simply must investigate the original ideals in connection to current planning issues, and the meaning they can still have in our present day and future situation. I think it is not even optional; it is simply impossible to deny the cultural background of our built environment. After all it is part of our collective identity.

Whatever level of intervention is necessary, if we are determined to handle our environment with respect and integrity, development will always be related to the underlying visions and add to the collective memory in a positive way eventually. The examples from Russia may look different, but from a policymaker's point of view they are essentially the same as the examples from the Netherlands I have shown.

What we have encountered in Russia is an unmeasurable treasure of natural and cultural resources, and a resourceful, talented and inventive society. We have found that if we add up our skills and experiences, together we can create the conditions needed to favour a prosperous future for this delightful mutual heritage of modernity.

Because carrying the spirit of the Modern Movement into the future is what the international DOCOMOMO community is all about.

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Rio de Janeiro, México, Caracas: University Cities and Modernities 1936–1962

The years immediately after World War II were especially important for education and culture in Latin America. They were years in which university structures, the products of maturing forces that had been developing since the beginning of the 20th century or even a little before, were consolidated in various countries on the sub-continent. Since the beginning of the 19th century, higher education institutions all over the world had become crucibles for the emergence of liberal movements, of national affirmation and integration. They provided the background for ideological growth, intellectual development and political space for the great clash of ideas, which was a feature of the national and international debate all through the 20th century.

Within the Latin American universe, the constitution of universities also represented the constitution of a new means to produce knowledge. It was a quest to overcome retarded development, build a progressively more modern society out of the distant past when it had been seared by colonial domination and a 19th century exhausted by struggles for emancipation or political stability. The oldest higher education establishments in Spanish America go back to the 16th century (Santo Domingo, 1538; Lima and Mexico City 1551): about twenty institutions had been founded in by the 19th century (none within the Portuguese sphere of influence). They were controlled by religious orders and de-

dicated to teaching theology and canon law, missionary structures tied to Iberian policies of sovereignty over colonial territories. For developing societies, in a process of urbanization and lacking intellectual resources, educating their elites was a typical response to the desire to change and seek scientific, technological and humanistic achievement. Founding universities was a means of overcoming a past that lacked an independent education and research tradition and harbored misgivings of a nationalistic nature regarding the way to consolidate the concept of citizenship, the nation and identity. These initiatives' commitment to change and emancipation indicated a project for social and cultural renewal and the materialization of these forces, symbolized by the universities created, are outstanding evidence of episodes in which art, architecture and urbanism became metaphors of modernism.

The large, 20th century universities were established by merging isolated units – that had been scattered in buildings throughout the hearts of cities – into one single location away from the traditional urban nucleus, in a process gathering together schools, services and student dormitories. Examples of these complexes in Latin America are the university cities in Rio de Janeiro and São Paulo (Brazil), Concepción (Chile), Tucumán (Argentina), Caracas (Venezuela), Mexico City (México), Bogotá (Colombia) and Quito (Equador). Amongst these and other significant initiatives in the post-second world war period, three universities stand out for their histories and achievements, based on different ideas and efforts, but all having the underlying link of creating their own references to modernity. The routes followed by the Rio de Janeiro, Mexico City and Caracas university cities tell the story of these special manifestations of modernity.

Rio de Janeiro University City

Different ideological plans and perspectives marked the troubled course of construction of the university city in Rio de Janeiro. As soon as the commission of academics for planning the University of Brazil had been constituted in 1935, the most eminent figure in Italian Fascist architectural culture and urbanism, Marcello Piacentini, was invited to study the Brazilian campus. He visited Rio de Janeiro in August of that year. His pro-

ject for the then recently inaugurated University of Rome was a model and the pride of a regime, which had aroused the Brazilian Government's warm admiration during the 30s. In parallel, nationalistic pressure from the engineer's and architect's professional representative bodies in 1936, forced the Ministry of Education to set up a commission of architecture – comprised of local technical personnel – to study the location and physical project for the Rio de Janeiro university campus. Lucio Costa, Paulo Fragoso, Affonso Eduardo Reidy, Ângelo Bruhns and Firmino Saldanha,[1] were members of the team, a group in which Le Corbusier's influence predominated. At the same time that he was a member of the University campus commission, Lucio Costa coordinated the project for the new Ministry of Education and Health headquarters, the final design of which had already been concluded. From this correlation – of Lucio Costa's presence in developing both the architecture for the Ministry's headquarters and the urban planning/architectural project for the university city was born Costa's suggestion, accepted by the Minister Gustavo Capanema, to invite Le Corbusier to act as a consultant to the modernist group.

Le Corbusier's second visit to Brazil lasted 36 days, between July 13 and August 18, 1936. It resulted in six conferences in the National School of Music, the development of new basic sketches for the Palace of the Ministry of Education and Health and the University City of Brazil, and no concrete accomplishment – beyond a series of intrigues. As we know, Le Corbusier left a proposal for the Ministry headquarters at the seafront, but the team led by Lucio Costa developed the definitive project. This was executed on the Castelo esplanade and became an internationally recognized point of reference for modern architecture.

Le Corbusier's university city was a composition of various urban planning propositions and previous building typologies: The Mundaneum and the World Museum (1929), Museum of Contemporary Art in Paris (1931), Palace of the Soviets in Moscow (1931), Palace of the League of Nations in Geneva (1931) and the Ville Radieuse (1935). The collage strategy or architectural-urbanistic variations on previously developed themes were part of Le Corbusier's practice in developing projects during the 30s. This can be seen

in the city-planning for the left bank of the Scheldt in Antwerp (1933) and city-planning for Nemours (1933) or even in the Rio de Janeiro university city itself. It was a manifestation of the fifty year-old Le Corbusier's torment, who in 1936 wrote in a letter "In some way I need to build in some way or other, or else I shall die a theoretician which I find repugnant",[2] Le Corbusier's proposal delivered to the Minister on the eve of his departure from Rio de Janeiro in August 1936, was immediately disapproved by the commission of academics who sympathized with the ideas represented by Marcello Piacenti's architecture. Lucio Costa, resisting the group that identified with the Fascist line, promptly developed a new preliminary project[3] for the Quinta da Boa Vista area, that was submitted on October 12 to Minister Capanema. The commission, which was jealousy committed to the ideas of the Italian architect, rather than those of the French-Swiss master, similarly rejected this.

Despite the profusion of proposals developed for the university city in Rio de Janeiro during 1936, none was used. During 1937–38 Marcello Piacentini and his coworker, Vittorio Morpugo, developed plans for the University City of the University of Brazil,[4] under the auspices of the Government and the commission of academics, which had ratified this in 1938. However, political vicissitudes and the course of a world conflict made it impossible to carry out the project. Neither Le Corbusier, nor Lucio Costa, nor Piacentini/Morpugo saw their ideas materialize.

Until 1949, innumerable contingencies delayed the establishment of the university city, including the definition of a new site for the campus. It fell to one of the members in the Ministry of Education and Health team – Jorge Machado Moreira – to be chosen as chief architect of the University of Brazil's Technical Office (ETUB). This entity was charged with carrying out urban planning and architecture for the university city on *Ilha Universitária*, University Island, known today as *Iha do Fundão*. Between 1949 and 1962, Moreira organized a large design office and coordinated the development of the urbanistic and architectural proposals for a university complex. The guiding principles were based on Le Corbusier's post-world War II spatial concept as shown in the 1946 plan for reconstructing Saint-Dié. The establishment of a hierarchy

for vehicle and pedestrian circulation, a landscape with wide horizons marked by the slabs of isolated buildings and some low level blocks – other than explicitly adopting the Museum of Unlimited Extension – were some of the references made to Le Corbusier's ideas, according to a faithful disciple of the master. Roberto Burle Marx was an important member of the team contributing both to the campus's landscaping project as well as tile murals in the buildings.

Moreira's original project was not implemented in its entirety, and his withdrawal from directing the technical office due to poor health, did not vouchsafe full continuity of what would have been the most faithful application of Le Corbusier's urbanistic doctrine, without the French-Swiss master's direct intervention.

The Mexico City University City

The first Mexican university goes back to the 16th century (therefore in the colonial period) but in 1867 it was closed by the republicans and reestablished only in 1910 at the commemoration marking the centenary of the country's fight for independence. Over decades, the idea was nourished of grouping together the dispersed units and university services in a single location. In 1943, land was acquired for this in the then distant Pedregal de San Ángel region, to the south of the city. Three years later the *Comissión Constructora de La Ciudad Universitária* was set up and it launched a public competition for submission of proposals covering the general plan for a university city. This initiative stimulated the *Escuela Nacional de Arquitectura* (National School of Architecture) to promote an internal competition which resulted in the preliminary ideas of three students – Teodoro González de León (today one of Mexico's most important architects), Armando Franco and Enrique Molinar, being selected. Professors and other students took up the cause of preparing the final drawing for presentation in the public competition. The students and professors' proposal won and, in a general way, its guidelines were adopted in developing the plan of the University City for the Universidad Nacional Autónoma de México.

The definitive plan was prepared by a team that was formed in 1949, head-

ed by the architects Mario Pani and Enrique del Moral, who were responsible for setting up a large office for designing and building the new university city. Mario Pani, who graduated from the Paris École des Beaux-Arts in 1934, was one of the most important Mexican architects, well known for the rational urbanistic perspective that was associated with innovative architectural propositions in mid-20th century Mexico. Enrique del Moral, also one of the great Mexican architects of the period, graduated from the *Escuela Nacional de Arquitetura* of UNAM, collaborated with Mario Pani on various projects.

One of the principal features of the university city was its admirable sense of unity, despite the intricacy of its plan. It absorbed the diversity in architectural approaches shown by the team of almost seventy architects under Pani and del Moral's leadership. The complexity of the undertaking and the impending political deadlines made it imperative to prepare plans and carry out the work rapidly so that the university city could be symbolically inaugurated at the end of President Miguel Alemán's term of office in 1952. However, it only began to be occupied effectively two years later. In spite of the apparent unity, which could have denoted work by a single author, the university city was the result of collective creation in which the different parts make up a relatively well-adjusted whole, without evidence of disjointed heterogeneity.

In general, the functional circulatory structure and rigid separation of pedestrians and vehicles and the evidence of rigorously modernist zoning, exists side by side with an unusual grandiose orthogonal *plaza* that imposes order on the larger complex, and whose scale and relationship with the buildings is inspired by the spatiality of pre-Hispanic urban complexes such as the *Calzada de los Muertos* in Teotihuacán. Buildings and open spaces are situated on different levels, requiring skill in modeling surfaces to make use of and adequately employ the volcanic layer which is a feature of the territory. Agreement and continuity of these different planes is achieved by means of long staircases, amphitheaters, ramps and retaining walls – with evident imagery reference to pre-Hispanic sites – using igneous rock taken from the ground there and applied in paving and facing surfaces, in bases or foundations, in walls, in stairways and embankments. The University
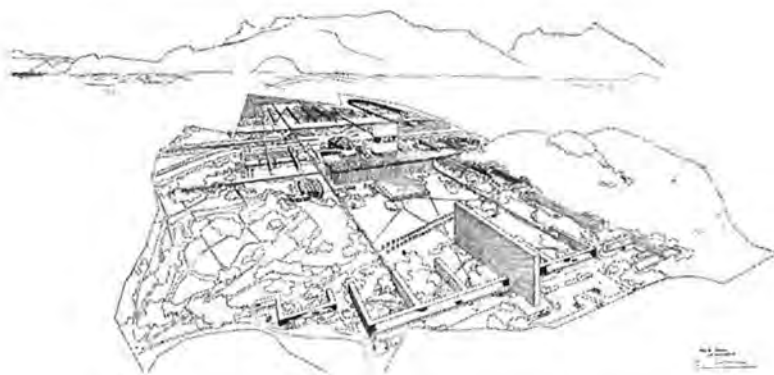
Fig. 1.
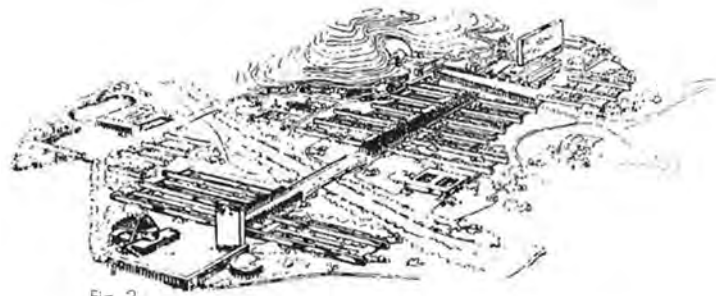
Fig. 2.

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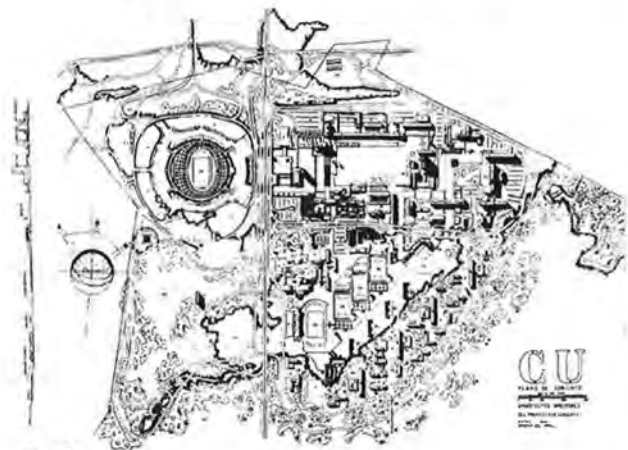
Fig. 1. Plan of the University of Brazil, Rio de Janeiro, by Le Corbusier, 1936.

Fig. 2. Plan of the University of Brazil, Rio de Janeiro, by Lucio Costa, 1936.

Fig. 3. Plan of the University of Brazil, Rio de Janeiro, by Jorge Machado Moreira and ETUB, 1949.

Fig. 4. Faculty of Architecture and Urbanism at the University of Brazil, by Jorge Machado Moreira and ETUB.

Fig. 5. Hospital at the University of Brazil, by Jorge Machado Moreira and ETUB.

Fig. 6. Plan of the UNAM University City, México, by Mario Pani and Enrique del Moral, 1949.

Fig. 6.
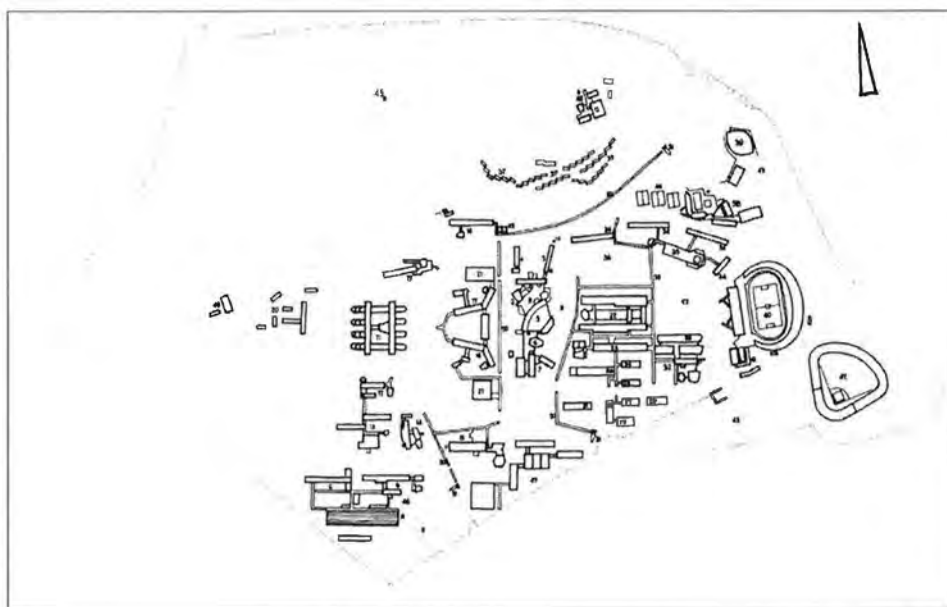
Fig. 7.

Fig. 8.

Fig. 9.

Fig. 10.

Fig. 11.

Fig. 7. Central Library (left) by Juan O'Gorman, Gustavo Saavedra, Juan Martínez de Velasco; Rectorate Building (right), by Mario Pani, Enrique del Moral, Salvador Ortega Flores, at the UNAM University City.

Fig. 8. University Stadium by Augusto Pérez Palacios, Raúl Salinas Moro, Jorge Bravo Jiménez; Diego Rivera, reliefs, at the UNAM University City.

Fig. 9. Plan of the UCV University City, Caracas, by Carlos Raúl Villanueva, 1943–1955.

Fig. 10. The Aula Magna by Carlos Raul Villanueva, at the UCV University City.

Fig. 11. The Aula Magna interior with Alexander Calder's mobiles.

Stadium was an undertaking in which the use of sloping banks, the stone coating – in the fashion of ancestral pyramids – suggests a pre-Columbian man-made object. These insertions integrate into the El Pedregal landscape in deference to Mexican tectonic imagination.

The movement integrating plasticity in the university city, and above all that of the muralists, is another distinct feature in the complex. Muralism – which was commended as modern and nationalistic – was the Latin American artist's first pictorial manifestation with social-political concerns.[5] In it, realism sought to become an expression of public art for immediate collective assimilation, based on a figurativeness inspired by popular and pre-Hispanic art, all aimed at raising the Mexican people's social conscience. The public architectural work magnificently supported the connection with the muralist's monumental pictorial character and the collaboration between architecture and Muralism signified the enthronement of a peculiarly Mexican modernity. In this, a prestigious "recent tradition" of a nationalistic character – the muralist's art – coexisted with a modern collection of ideas, which were implemented through architecture. Two of the most important Mexican muralists – Diego Rivera and David Alfaro Siqueiros – collaborated, making their murals available in the university city. At all events, as Jorge Alberto Manrique observes so well that "not all plans included murals nor was the idea of plastic integration universally accepted. The opposition defended the idea that mural works were not truly elements associated with an architectural function but were dispensable additions – in which they were not wrong. But one of the complex's distinguishing features that sets it apart from any other in the world, is the presence of these works, known as integrated or superimposed".[5]

The different buildings planned and executed over long decades, record different approaches: the Science Faculty (planned by Raúl Cacho, Eugenio Peschard, Félix Sánchez Bayón) and Institutes with the building in a slab, topped with vaulted structure reminiscent of modern Brazilian architecture a style that reached its zenith in Brazilian architecture and the lecture block distinguished by José Chávez Morado's mural; the glass tower of the rectorate building (planned by Mario Pani, Enrique del Moral, Salvador Ortega Flo-

res) with Siqueiros's monumental mural on the lower block; the allegorical and intriguing mosaics by Juan O'Gorman on the Central Library: the discrete and limpidly opaque volume of the School of Architecture (by José Villagrán García, Alfonso Liceaga, Francisco García Lascurain); the disciplined and rational humanities lecture block (by various architects), counter-balance each other and the telluric undertakings such as the University Stadium (Augusto Pérez Palacios, Raúl Salinas Moro, Jorge Bravo Jiménez; Diego Rivera, reliefs) and the *frontones* (the courts for the jai-alai game) (by Alberto T. Irai. Neither the dry International Style nor Muralism's or the pre-Hispanic reliefs excessive picturesqueness predominated. Jorge Alberto Manrique does an excellent synthesis of the environment in which the university city architecture was developed. This blend represented the introduction of nationalistic modernity, overcoming the nationalistic conservatism that had been established in the first decades of the century with neoclassical and neo-Aztec styles of manifestations. The complex was, in more ways than one, the culmination of more than twenty years of modern Mexican architecture, as well as having great nationalistic purpose. "Nationalism was the great phantom to which post-revolutionary Mexican culture resorted. The critics asked the artists to create an 'escuela mexicana' (Mexican school) based as much on the landscape – the physical Mexico – as on the types of people, their costume and the great historical events – the moral Mexico – and the artists responded with more or less ability. 'Rediscover Mexico', 'reencounter true Mexican roots" turned into a generalized concern. 'The Mexican Renaissance' set the tone for this wave of nationalistic concern which went from an interest in the popular arts to the study of the pre-Hispanic past and its art, anthropological and historical investigation, painting, sculpture and the graphic arts, literature, music and dance. Over 30 years, and most especially in the 30s and 40s, this concern with nationalism had become officially recognized and, due to its use by part of the State, had taken on a triumphalist nature. However, architecture was excluded from this. The post-revolutionary regimes after World War II intended showing a modern, national image (which had some points of contradiction according to the manner in which it was presented). In general, Mexican culture respon-

ded involuntarily to this image. Only architecture was genuinely modern but in no way, convincingly nationalistic. The architectural adventure that the Ciudad Universitaria represents should be understood in the light of this cultural moment and the 'bad conscience' that was felt because it did not show evidence of the of the nationalistic aspects that were present and which were intended to shape the Mexican scene".[6]

The Caracas University City

The enterprise for the Universidad Central de Venezuela (UCV) complex was surrounded by political intrigue, as a result of the historical circumstances in which the plans and work were developed. The creation of the UCV university campus goes back to 1943, when a commission was constituted to plan it. This commission was charged with preliminarily analyzing the program for the campus and university hospital and choosing a site. The old Hacienda Ibarra chosen was then a distant area from the center of the capital. These studies required that such similar experiences as the then recently inaugurated Universidad Nacional campus in Bogotá, an urban project plan by Leopold Rother, be taken into account. The lack of architectural unity shown by this university city influenced the decision to delegate the leadership in planning the Venezuelan campus to a single professional. Carlos Raúl Villanueva was chosen for the task.[7] The most important Venezuelan architect, he graduated in 1928 from the Paris École des Beaux-Arts, and practically his whole career was spent as an architect for the State, in public institutions. Between 1929 and 1939 he worked in the Ministry of Works and from 1940 to 1960, was the Banco Obrero's architect, during which period he planned housing estates such as El Silencio (1941–43), El Paraíso (1952–54) and 23 de Enero (1955–57). Beginning in 1944 and for more than 20 years; he was responsible for planning the UCV University City. As the Ministry of Works representative, Villanueva was a member of the initial preparatory commission for the university project, and began a task that would culminate in the creation of his masterwork.

The young Villanueva, recently arrived from Europe, at the beginning of his career practiced architecture rooted in historicism. The first plan proposed

for the university city demonstrated classical monumentality, inherent to composition in the "beaux arts". As time passed, this was discarded in favor of less rigid solutions that addressed demands in stages, so that the previous plan's guidelines were gradually diluted. A network of covered walkways and groups of buildings, providing a greater sense of protection and continuity of spaces, substituted the compositional scheme comprised of monumental axes. The sensation of contiguity was associated with greater control of the environment, by means of various solutions to shade, filter the intense light and protect from the rain, all features of the humid, tropical Caracas climate. The spaces and buildings on the campus stand as witness to Villanueva's trajectory from the academic to the modern. The first undertakings, dating from the middle of the 40s, are concentrated in the hospital complex (Clinic Hospital, Institute of Experimental Medicine, Institute of Anatomy, Institute of Pathological Anatomy). These show the architect on the way to European rationalism, separating himself from historicism and, starting in the 50s, the celebration of structures as architectural expression [the Olympic stadium, baseball stadium, tennis courts, Olympic swimming pool and the *Aula Magna* (Great Hall)] denoting his architectural maturity. The major highlight of the UCV university city dates from this time, the *synthesis of the arts* proposition.

Villanueva's first attempts at this ambitious proposition to integrate architecture with painting and sculpture on a grand scale within the university city confines go back to 1952. The debate within the plastic art forms in the years immediately following the World War II, was centered on the argument of realism *versus* abstractionism. In Latin America, the politicization of the artistic milieu at that time added another argument, that of nationalism *versus* internationalism. Within this debate, Mexican Muralism was a point of articulate reference for Latin American artists' social and nationalistic commitment. Pedro León Castro (exceptionally, amongst the artists having figurative works in the Venezuelan university city) stated that abstractionism was an instrument of imperialism. Villanueva's refined sensitivity indicated abstract art as a companion for his architecture and a form of dialogue with contemporaneousness and he did not favorably regard the ex-

periment then underway at the University City of Mexico. The architect's contacts with the French *avant-garde* compelled him to bring works by Jean Arp, André Bloc, Alexander Calder, Wilfredo Lam, Henri Laurens, Fernand Léger, Antoine Pevsner and Victor Vasarely to Caracas. Alternatively, he commissioned works by Venezuelan artists that were studying or had studied in well-known Parisian ateliers, such as Mateo Manaure, Alejandro Otero, Pascual Navarro and Carlos Gozález Bogen.[8] The works produced in Paris before being embarked for Venezuela at the end of 1953, were exhibited in the Museum of Modern Art in Paris. Not all the works were ordered having in mind a definite space within the university city. *The Clouds* Calder's masterwork in the Great Hall, came about from a discussion the artist had with Robert Newmann, the acoustics engineer. In March 1954, the Covered Plaza, the Great Hall and the Central Library were inaugurated at an event, which drew the world's attention, the opening of the 10th Inter-American Conference of Chancellors. Although defined architecturally and urbanistically during the 40s, at a time when democracy prevailed, the university city was partially inaugurated during the dictatorship of General Pérez Jiménez (who honored Villanueva and his daring project) and it became a propaganda pawn for a regime which, evidently, was opposed by the artists and intellectuals. With the conclusion of the international encounter, the Government lost interest in the foreign artists and returned to acquiring local artists' work. After passing through various governments and regimes, Carlos Raúl Villanueva was criticized for his condescension to the dictatorship, a fact that was to cause him serious political-ideological strictures in the future. Nevertheless, in spite of this burden, the teachings and legacy of having realized a peerless work, integrating avant-garde architecture, painting and sculpture on a grand scale, and in practice instituting a great contemporary art museum with the dimensions of a university city, were born from Villanueva's conscience that he was entailing to Venezuela a transcendental accomplishment in architecture, urbanism and modern art.

Modernities without Borders

The constitution of some Latin American universities showed evidence of the con-

scious attempt to establish a new scientific, technological and humanistic reference in which the capacity for invention would undermine recognized patterns and disputed cultural limits. It is significant that in these distinct experiences one comes across practices that are characterized as specific responses to outstanding issues at an historical moment. The universities, as much in Rio de Janeiro as in Mexico City and Caracas, all national capitals (and here other Latin American enterprises in non-capitals could be mentioned), represented means of occupying as yet non-urban empty spaces on an unprecedented magnitude and organizing expansionist vectors for the cities. Cities flanked by cities that became cities within cities, the university campuses were laboratories of urbanism dealing with the occupation of virgin territory – a theme dear to and distinctly connected with the Americas. Thus as the Latin American colonial urban nuclei were applications of Renaissance theories on ideal cities, the mid-20th century universities were an experimental field for modern urbanism, for CIAM doctrines and North American planning. But their features are not mere transfers of modern urbanistic precepts. Specific development, caring for the open or transitional spaces in the warm humid climate of Rio de Janeiro or Caracas or the Mexican pre-Hispanic spatial references, introduced new meanings into the design of university nuclei, different to those of their European or North American counterparts. The burning hot issues of identity and nationalism were faced in different and even divergent manners. Brazil after World War II achieved a leading position producing architecture internationally recognized as bearing distinctive features. It has its own identity nurtured by local creativity being applied to Le Corbusierian principles. The Rio de Janeiro University City was nothing more than the reiteration of an architectural movement in consolidation, implicit in which was the affirmation of an artistic and architectural manifestation of Brazilian identity. Mexico embarked on a program in which identity and nationalism were post-revolutionary slogans. Its university city set the scene for synthesizing and demonstrating the quest for a modernizing, national conscience through integration of the muralist's art (with its strong political-ideological content), of rationalist architecture (of International Style inspirationinspired internationally)

and of spatiality and pre-Hispanic references, as possible signs expressing the Mexican character. An analogous process seeking to synthesize the arts, but with distinguished denotation, characterized the Venezuelan approach to building their university city. In Venezuela, there was no explicit official policy relating to nationalistic or modernizing movements. Villanueva was also unmoved by the figurative appeals of Mexican art which influenced so many active artists in Latin America (including Brazil). On the contrary, Caracas's university city became a museum of the avant-garde in international abstract art, guided by the cosmopolitan personality of its creator. The recognition of Venezuelan modernity per se was manifest in the original integration of art without frontiers and architecture deeply rooted locally, without necessarily causing an irreconcilable duality.

Rio de Janeiro, Mexico City and Caracas: their university cities should be understood as buttresses for the complex political and ideological propositions showing that Latin American art, architecture and urbanism cannot be appreciated according to orthodox definitions of modernity. Latin American modernity should be understood as a specific manifestation of its context, which necessarily presupposes the agreement of other references in order to understand other meanings of modernity.

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Te Aro Replanned, Repopulated

It seems to me there is a tragedy of architecture, for a precise reason. People don't build simply in order to put a roof over their heads, they build in order to render homage. The act of building is an act of homage rendered, and the tragedy is that of knowing who or what is the addressee of this gift. The great architectures of the past knew to whom buildings should be addressed. It could be a divinity, in all forms; it could be a prince; it could be an idea of Reason, such as the Republic, or the People, or the Proletariat, as in certain aspects of the Modern movement. But it was always the universal addressee. Today we don't know the destination of building, and this too is an aspect of the failure of the universal.

Jean-François Lyotard[1]

An Urban Discourse

On November 25 1947, the Wellington Architectural Centre opened its second Summer School of Design. In introducing the school, John Cox, the Centre's president and a town planning officer in the Ministry of Works, commented on the future of the city. He speculated that it was 'completely feasible' that the metropolitan area of Wellington could one day have a population of ten million people. His apparent concerns were technical and economic ones. Without a reconsideration of the mode of land use in the inner city area inevitable growth would lead to the urbanisation of land as far away as the Manawatu and over the Rimutakas (ie, more than 50km from the central city). It would also entail the inner city's decline.[2] With the idea of bringing these issues to the public's attention, the Centre

had decided to focus its summer school of 1947/48 on the replanning of a large area of central Wellington at risk: Te Aro Flat. It was an area widely believed to be in physical and social decay.

Cox's hyperbolic statements about Wellington's possible future, though perhaps surprising to us given that the city then had a population of less than a quarter million, were made within a context of wider speculations and concerns about the current state and the future of New Zealand's cities. Growth for Wellington had been foreseen by the Minister of Works Mr Semple, for example, who in 1943 predicted the emergence of a greater Wellington, what he called 'a real Empire city'.[3]

But it was not so much growth as the decaying condition of the inner cities that was, up to 1946, the subject of discussion. The poor quality of housing was of particular concern: the war had delayed the government's attempts to ameliorate housing conditions that were a legacy of the economic depression of the thirties. New Zealand's first Labour Government, elected in 1935, determined on taking office to proceed with a full survey of the condition of all the housing stock in the country's urban areas, to be followed by a programme of improvement and building initiatives. All this of course focussed on physical conditions, and was predicated on a technocratic, utilitarian, hygienist conception of housing.

Despite arguments such as architect Cedric Firth's that working class housing in New Zealand should be built after the apartment models followed on the Continent, and despite some experiments by the Department of Housing Construction with high density flats, the state housing programme as it finally got underway in 1937 proceeded basically on suburban lines.[4] The rapid postwar expansion of state house construction and the resumption of private sector suburban development lead to a new urban worry: sprawl.[5]

The sprawl and tentacles of the new suburbias on the one hand; the crowded, decaying slums of the old inner cities on the other: the Architectural Centre's proposal to investigate Te Aro and redesign it came at a key moment when New Zealand seemed haunted by two kinds of urban spectre. In fact it was a general concern with the need to plan for the new city that had motivated the foundation of the Centre in Wellington in 1946.

The specific problems of Te Aro had been recognised as early as 1897, when the Cyclopaedia of New Zealand had said of the area 'parts are shamefully crowded with the dwellings of the poor, many of which are quite unfit for human habitation.'[6] But the City's interest in the area was not focussed until 1945 when the Housing Improvement Act shifted responsibility for inner city slum clearance and the rehousing of the poor and indigent onto municipal authorities. (State houses, by contrast, were not for the destitute, but for those with families and for those who could work.)

Shortly before the Housing Improvement Act was passed by Parliament, the Wellington City Engineer put forth the council's thinking about how conditions in Te Aro should be alleviated. Slum clearance and new housing were a key part of this, as well as new roads. The housing was to be high density, and 'probably go up six or more stories'. But the city engineer thought this regrettable '...because the single unit dwelling was the most valuable contribution to good citizenship.'[7] A normative model of the citizen is of course implicit here. It is significant that this is articulated publicly, in effect in the name of the City, by its principle engineer. Housing and the construction of citizenship are matters to be addressed by technical expertise.

The Architecture of Te Aro Replanned

On 23 February 1948, the Te Aro Replanned project produced by the sixty or so student participants in the Summer School was completed. The project took the form of a very large model of the entire Te Aro district, and many drawings. It proposed virtually the complete destruction and rebuilding of the district's fabric, a prospect as likely and as alarming as a Wellington of ten million people. Activities were separated into distinct zones: light industry, entertainment, residential areas, a civic area adjacent to the existing town hall, retail. Roads were to be realigned, and traffic separated from pedestrian areas. More green space was to be introduced into the district.

The way in which various activities were disposed in Te Aro Replanned is not surprising. What shocked were the model and the drawings the students prepared to show how the replanned Te Aro might be realised as more than

a zoning diagram. John Cox wrote of the Te Aro Replanned design: 'The student argument had given form to… growing uneasiness about the inconvenience of the city and the economic waste involved in its planless haphazard growth. But it was the vision of what a New Zealand city could really look like that came as a revelation.'[8] Functional issues, broadly, were dealt with by the students, but it is the look of the place as they saw it that is breathtaking still to those of us familiar with Wellington. It is disconcerting still to see the central city's landscape with all its old building fabric gone. Just as shocking is the formal language of the architecture depicted in place of the vanished old. It was in the best modernist manner.

What were the sources of this architectural language, this mode of design? Before 1940, Le Corbusier's work and that of German and Dutch modernist architects had come to be known in New Zealand through English journals such as The Architectural Review. Further, local architects had brought back direct experience of European modernism and its English derivatives from their overseas travels; refugee architects arriving as the second world war loomed brought further knowledge. But modernism was still a minority taste in New Zealand.

Things changed with the war. After 1945, modernism had become for younger architects a generally accepted aesthetic language. In fact, the students of the 1947/48 Summer School of Design could see examples of modernist slab blocks arising on their own doorsteps – the Department of Housing Construction had itself taken up a modernist line in the larger apartments buildings it started constructing as part of the state housing programme, beginning with the Berhampore flats (1938–40) and the Dixon Street flats (1942–43). Located on a hillside elevated above the downtown area, the ten storey slab of Dixon Street loomed above the rest of central Wellington, including Te Aro, a symbolically important assertion of modernity in the centre of the capital.

Orchestrating Visibility

An exhibition of Te Aro Replanned was opened at the Wellington City Library on February 24 1948. Its success was sensational. Though the timeliness of the exhibition and the controversial nature of the Te Aro Replanned architecture

assured public attention, its very wide reception was carefully managed by the Centre itself: from the beginning it had been intended that the Te Aro Replanned project would be shown publicly.[9] It was meant to shock. But the Centre's orchestration of the project's visibility went much further than this event and was to have long term consequences with regard to the Centre's public role, its own visibility.

The degree to which publicity drove Te Aro is apparent in the setting up by the Centre's executive of an Exhibition Publicity subcommittee. This directly oversaw the production of the large model that was the fulcrum of the design and the exhibition. Media attention also was cultivated through this subcommittee, radio stations and film makers canvassed, a photographer commissioned.[10]

A great deal of attention in Wellington was generated for the exhibition of Te Aro Replanned. It was publicised and reported by the three daily newspapers, and discussed in radio broadcasts. Public interest in the exhibition was intense: it was visited by over twenty thousand people, more than any other exhibition the library had hosted.[11] Subsequently it was shown at Parliament Buildings in June, and then toured to Auckland, New Zealand's largest city, where it again received attention from the newspapers. It then went to the provincial towns of Napier and Gisborne. It was suggested that it go to other places in New Zealand as well, and even to Australia.[12]

Illustrated accounts of Te Aro Replanned were published in a number of magazines. They addressed a range of audiences: the literary and review periodical Landfall, the national weekly The Listener, and Home and Building, a popular consumerist magazine published under the auspices of the New Zealand Institute of Architects. It featured as the cover story of the second issue of the Centre's own journal, Design Review.[13] The reviews in Landfall and the other magazines were each by Centre members.

The drawings of Te Aro Replanned no less than the model were conditioned by an anticipated public relations campaign. The image most widely disseminated – it was published at least three times – featured a cut-out photograph of the movie star Deborah Kerr collaged on to its surface.[14]

The Centre grasped intuitively perhaps but clearly enough that the envi-

ronment in which the new architecture was to proceed was conditioned by mass media as much as by any physical situation. In such circumstances sensational was good. Perhaps they had learned this, too, from the Department of Housing Construction: the opening of the Dixon Street flats in 1943 had been orchestrated to help the Labour Party's campaign for the elections of that year.[15] Indeed, in subsequent years the Centre would itself become directly involved in political campaigns. The tremendous public success of Te Aro Replanned gave the Architectural Centre the impetus, the authority, and the respect that it needed to become an important critical voice in Wellington city and beyond. It continued to exercise this voice with regard to the Te Aro area for many years.

In 1959 – driven by this concern for Te Aro and by other planning matters – two Centre members successfully made themselves available as candidates in that year's local body elections.[16] Projecting themselves into an explicitly representational role, they were still living on the cultural capital generated by their careful management of Te Aro Replanned twelve years earlier.

Repopulating Te Aro

An important aspect of the work that the students undertook in the Te Aro Replanned Summer School was – before designing – to survey the district during the December of 1947. One of their teachers wrote:

They met many people whom they had merely known about before. They began to know the people who constitute a city, the woman who lives in a sub-standard house, the small factory owner, and his employees, they looked anew at the tram conductor who collected fares in the area they planned, they came to know the man who repairs the electric power cable, the shop-keeper and the shopper.[17]

As this passage suggests, Te Aro in 1947 was notable for the nature of its working class life in the midst of a district slowly converting to commercial activity. But – unacknowledged by the Centre and other municipal and professional organisations – it was also notable for its ethnic diversity at a time when New Zealand's urban populations were generally homogenous (Maori emigration from rural areas was still low). It was the only place in Wellington where

such diversity could be seen in the street.[18] Te Aro supported the centre of Wellington's then small Chinese community in Haining and Frederick Streets, where were located the Chinese Freemasons' Hall, Chinese Mission Hall, and Tung Jung association. The people who lived in these streets and gathered in these institutions were almost exclusively from southern China, or descended from families who had come from there – Tung Jung was a county association based on an area east of Guangzhou.[19] A Chinese community had been present in New Zealand since the Otago gold rush of the 1860s. Those who remained in New Zealand after the gold fields were exhausted became market gardeners, or, in the urban areas, green grocers, launderers, or import and export merchants.

There was an Indian presence in Te Aro as well, concentrated near Buckle Street in Tory Street and Tui Street. As with the Chinese, the Indian community mostly consisted of single males. They came from the Navsari district of Gujarat. As with the Chinese, the Indian community mostly consisted of single males.

The gender imbalances in both the Chinese and Indian communities were a reflection of New Zealand's history of restrictive immigration legislation, of institutionalised racism, but also of the hope held by many Asian migrants that their sojourns in New Zealand would be only temporary.[20] The relative absence of women lead, in turn, to a belief that the Chinese, particularly, were fundamentally immoral.[21] Certainly, the small Chinese area of Te Aro was strongly associated with images of crime in the print media. Through the fifties, a number of articles appeared in Wellington newspapers contrasting the emergence of a modern Te Aro with a depraved past of opium dens and illicit gambling.[22] A separate academic discourse emphasised assimilation.[23]

Photographs of Te Aro showing its ethnic diversity can be found in public collections in New Zealand, though because ethnic minorities had always been stigmatised such images are not common. But the Chinese were highly visible through their control of a number of small retail businesses in the district. Occasionally, they appear to have occupied the space of the street quite confidently – in images, say, of Chinese freemasons parading in Frederick Street on the opening of their building there in 1925; a Chinese fruiterer working on the back

of his truck in Courtenay Place in 1927; members of the Tung Jung Association, photographed outside their building in 1937; a group of Chinese girls taken in Jessie Street around 1948; two smartly dressed young women, taken in Jessie Street again, some time in the fifties. The Indians were lower down the socio-economic ladder than the Chinese, working as hawkers, bottle collectors, and so on.[24] These occupations must have made them apparent on the street.

In Te Aro Replanned, these visible differences are eliminated. The drawings of the scheme are animated by human figures: young, trim, and white. People not unlike the students, perhaps, who did the drawings and made the model. In fact the students had in a sense repopulated Te Aro as they moved through its streets, conducting their surveys. The inhabitants of the new Te Aro are all as white and modern as its architecture. They are all related to Deborah Kerr, that icon of WASP pluck, shown watching Te Aro from her balcony. The architecture in this drawing corresponds geographically and formally with that of the city council's Nairn Street housing scheme of the early 1960s, built as part of a programme initiated by one of the Centre councillors elected in 1959. The partnership that designed Nairn Street included architect Warwick Keen, who had been a student at the Summer School of 1947/48.[25] But in the published drawings of Nairn Street there is no foreground balcony for Kerr to inhabit: the architects and their ideal inhabitants would not come here to live after all.

The Architecture Centre's ongoing battles with the Wellington City Council during the fifties emphasised the value of high density housing. It was, ironically, the Asian ethnic communities more than anyone else who maintained such a pattern of high density living. As they slowly dispersed out of Te Aro, many of the Chinese and Indians regrouped in the adjacent area of Newtown, with its relatively dense fabric, and assumed a mode of urban living without the help of any architects.

Conclusion

In recent years Te Aro Replanned has been recalled with a degree of nostalgia for the lost innocence of modernity. In 1989, the Unbuilt Wellington exhibition at the Wellington City Art Gallery featured Te Aro Replanned, with around

half the curator's exhibition catalogue essay being devoted to the project.[26] As the Architectural Centre celebrated its fiftieth anniversary in 1996, much of the retrospection again focussed on Te Aro. Deborah Kerr once more adorned the walls of an exhibition, held to mark the occasion, at the City Gallery, now housed in the old library building where Te Aro Replanned made its first public outing in 1948.[27] The drawing she inhabited made a return to print space as well, illustrating one of a series of articles on the Centre in the professional journal Architecture New Zealand.[28]

The nostalgia is, however, problematic. For the most part it has lacked any critical edge and has been motivated by a desire to relive the salad days of the modern in New Zealand. The innocence of those days was marked by a certain blindness, a certain ideological commitment to the idea of architecture as normative technique alone. But no architecture is merely technique.

A contemporary member of the Centre wrote of the architecture in Te Aro Replanned that 'Buildings grew as their needs were discovered and not in accordance with any pre-conceived idea of what a building should be like. Representation was banished entirely and buildings became orderly logical structures.'[29] Cox described the architecture as making no public gestures.[30] But Te Aro Replanned was nothing if not a public gesture. In any case, the possibility of such a disinterested architecture – entirely a matter of technique, of putting roofs over heads – was itself a pre-conceived idea that entailed some perhaps unintended gestures and representations. Where were Te Aro's other communities to go, the Chinese, the Indians? Had the Architectural Centre replanned Te Aro for them? Who, indeed, was the addressee of the Architectural Centre's gift of Te Aro Replanned? Of course, hindsight is cheap. But it is important to ask these questions now not so much to criticise what happened in the past but because urban space more than ever must be thought of as heterogenous, the place where difference is inscribed.[31]

Notes

1 Lyotard, 'Response to Kenneth Frampton', in Postmodernism ICA Documents, ed Lisa Appignanesi, (London: Free Association Books, 1989) 91.
2 'Planning Problem of Te Aro Flat', in the Southern Cross, (Wellington) 26 November 1947.

3 'City of the Future: Mr Semple Looks Ahead', in the *Evening Post*, (Wellington) 19 July 1943.

4 Cedric Firth, *State Housing in New Zealand*, (Wellington: Ministry of Works, 1949).

5 See, for example, the manifesto of the Architectural Group, *On the Necessity for Architecture* (Auckland, 1946).

6 *Cyclopaedia of New Zealand*, vol 1, (Wellington, 1897) 294; cited in Ben Schrader, *Planning Happy Families: A History of the Naenae Idea*, MA thesis, Victoria University of Wellington (1993) 32.

7 'Zoning of Te Aro Flat: Council's Tentative Plans Explained', in the *Dominion*, (Wellington) 1 March 1945.

8 Cox, 'A Town Planning Exhibition', *Landfall*, vol 2 no 2 (June 1948) 136.

9 The Architectural Centre, Executive Committee minutes, 7 November 1947, Alexander Turnbull Library, Wellington, Ms papers 2278 folder 1.

10 The Architectural Centre, Executive Committee minutes, 15 January 1948 & 22 February 1948.

11 'Te Aro Plans Inspected by More than 20,000 People', the *Dominion*, 3 April 1948, 10.

12 The Architectural Centre, Executive Committee minutes, 27 February 1948, 21 June 1948 & 21 January 1949.

13 John Cox, 'A Town Planning Exhibition', *Landfall*, vol 2 no 2 (June 1948); E A Plishke '"Te Aro Rebuilt" – The Story of An Exhibition', *New Zealand Listener*, vol 18 no 456 (19 March 1948); Anthony Treadwell, 'What a City Could Be', *Home and Building*, vol XI no 2 (Oct/Nov 1948); 'H W', 'Te Aro Re-planned: A Study in Teamwork', *Design Review*, no 2 (July 1948).

14 The maker of this drawing, William Toomath, has identified the figure as Kerr.

15 Julia Gatley, 'Whose Baby? The Authorship of the Dixon Street Flats', in *Accessory Architecture Proceedings*, vol 3 (Auckland: University of Auckland Department of Architecture, 1995) 82.

16 Paul Walker, 'Order from Chaos: Replanning Te Aro', in *Zeal and Crusade: the Modern Movement in Wellington*, ed John Wilson (Christchurch: Te Waihora Press, 1996).

17 Treadwell, 23.

18 In 1956 while only 3.5 % of Wellington's population was of non-European ethnicity, 17.1 % of Te Aro's was. T G McGee, *The Indian Community in Wellington*, MA thesis, Victoria University of Wellington (1961) 121–123.

19 'Background', The Tung Jung Collection folder, PA COLL 3149, Alexander Turnbull Library, Wellington.

20 McGee, 29& 53–54.

21 Ng Bikleen Fong, *The Chinese in New Zealand* (Hong Kong: Hong Kong University Press, 1959) 17.

22 See for example, '"Chinatown" Gives Way to Modern Factories', in the *Evening Post*, 17 August 1955; and 'More of Chinatown's Slums Disappearing', *Evening Post*, 6 October 1955.

23 The subtitle of Ng Bikleen Fong's book is 'A Study in Assimilation', while McGee's thesis bears the subtitle 'A Geographical Contribution to the Study of Assimilation'.

24 McGee, 118.

25 A photograph of students working on Te Aro Replanned published in the *Dominion*, 24 February 1948, includes Keen. On Nairn Street, see 'Nairn Street Redevelopment Project', *New Zealand Institute of Architects Journal*, vol 31 no 9, (September 1964) 258.

26 Stuart Niven, 'Introduction: What a City Could Be, Unbuilt Wellington 1940–1990', in *Unbuilt Wellington* (Wellington: City Art Gallery, 1989).

27 In reviewing Cuttings From the Centre, the 50th anniversary exhibition, Sarah Treadwell noted that its 'gently critical structuring prevented nostalgia from being entirely comfortable'. See Treadwell, 'Word and Image', *Architecture New Zealand* (May/June 1997) 31.

28 William Toomath, 'Education by Design', *Architecture New Zealand* (July/August 1996) 59.

29 Anthony Treadwell, 37.

30 Cox, 136.

31 The research presented in this paper was supported by funding from the Internal Grants Committee, Victoria University of Wellington.

ISC Session: Register

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Tourism and Architecture

The contrast between the tourist's cultu-re and the atmosphere of the place he visits has always been the basic attrac-tion of travelling; to visit the unknown, something different, the differences be-tween us; this is travel as a flight from our everyday routine.

Early tourism, spa tourism and "tra-vellers", due to its minority character, found these differences: there were dif-ferences in the landscape, in the cultu-re, in architectural forms. The tourist was that strange being, dressed strangely, doing strange things in an atmosphere that was strange to him. At the time, tourist architecture was no stranger to this axiom: traditional and colonial ar-chitecture, linked to the culture of the place in question.

When the forms of modern architec-ture started to prevail (and this occurred very quickly in the Canary Islands, thanks to Miguel Martín-Fernández (fig. 1), tour-ist architecture was not included in the trend, maybe due to a wish to conserve a certain air of regional identity. This philosophy of clinging to the past in or-der to be different, went as far as de-liberately inventing and falsifying the environment. In 1936, Néstor Martín-Fernández (a painter and brother of the architect, whom he worked with on many of his projects, e.g. the Pueblo Cana-rio, (fig. 2) once said: "one must not forget that tourism feeds off an admira-tion of the past, which must be re-built before their eyes, inventing, if necessa-ry, to supplement the lack of genuine atmosphere wisely and faithfully".[1]

The appearance of mass tourism in the late 50's and 60's brought about a substantial change in this conservative school of thought and, at the same time, the appearance of two paradoxical si-tuations or contradictions related to the new phenomenon. The first paradox: the attraction of differences, (fig. 3), disap-pears precisely because of the ease of communications and the massive afflu-ence of tourists to a destination, in which there is sometimes less original popula-tion and architecture than "alien" cultu-re. That is, the more communication the-re is, the less cultural differences exist. Paul Virilio recently wrote on the sub-ject: "a land constantly flown over, cros-sed, violated in a grandiose way .... sed, ... I am no longer aware of distance ....".[2]

Thus, the very phenomenon of mass tourism and intercommunication is what destroys its own essence: the very diffe-rence it seeks (at least the cultural diffe-rences).

The second paradox is also related to the phenomenon of differences but from another standpoint as the other factor that tourists pursue and seek is scenery and environmental differences. The landscape here once again acts as a sign of identity that differentiates one place from another. But, once again, the object so hotly pursued and sear-ched for is destroyed. The desire to posses a place and its later mass occu-pation ends up destroying the very va-lues that have taken us there in the first place.

There is a story in the texts of Baud-rillard that clearly illustrates one of the most interesting and difficult phenome-na of the architecture of tourism. It is the cruel story of the woman who recei-ves a love letter from a man, to which she replies: "What part of me has sedu-ced you the most?" He answers: "Your eyes" and he is rewarded with a packet containing the eye that has seduced him.[3]

On mentioning the story and talking about satisfying desires, Baudrillard says that the worst of all is to be rewar-ded with exactly what one has asked for. She lost an eye, but he has lost face. "How can I wink an eye at any woman now without being given it in return?"

It seems that the phenomenon of tour-ism suffers from something similar to what happened to the arduous lover of our story.

The tourist is moved by a search for something different from his every-day routine: different cultures and different landscapes. By trying to reach the desi-red goal, the tourist inevitably provo-kes its contradictory and painful destruc-tion. When a mass of tourists (not an individual one but a mass, which is what characterises tourism nowadays) is pla-ced in the middle of a different culture, or in an extraordinary landscape, by enjoying it, they provoke its paradoxi-cal annihilation.

The architecture of the 20th century is situated in this same contradictory struggle. Caught between destroying and reinforcing the landscape, between loosing and recovering certain kinds of identity.

The first buildings put up for mass tourism, having overcome vernacular, or pseudo-vernacular signs of identity, are a direct transfer of the volumetric solutions of the early years of the Mo-dernist Movement: isolated blocks sur-rounded by gardens. Blocks, on the oth-er hand, that will become progressively larger and more crowded over time and without considering where the limit of landscape compatible growth is. In oth-er words, growing in scale and size, whilst maintaining the set idea that this approach could be valid in an unlimi-ted progression and growth dynamic. This inertial and automatic route, in which ideas are not revised but, rather grow incessantly and unconsciously, not only occurs in tourism, it also happens in other fields of human activity as the occupational density of the land in-creases at a dizzy speed. In the end, the problem of mass tourism is no diffe-rent from the problem of mass housing or the mass use of cars. These high dens-ity-related factors – increasing important – generated a revision of the role of public spaces in the late 50's, when Otterlo's CIAM mooted the ideals of "de-mocratising" form and adapting archi-tectural composition to the use and en-joyment of public spaces. When these new fields of investigation were propo-sed, they immediately aroused interes-ting architectural responses that were a long way from previous building types and systems, in which a different emp-hasis was placed on the relations be-tween architecture and the site. One of the most significant of these compositio-nal structures, with regard to its break with or re-formulation of past methods, were the mat buildings (in Allison & Smithson terms), including Candilis, Jo-sic and Woods' Concourse for Frank-furt, (fig. 4), Le Corbusier's Venice Hos-pital, (fig. 5), or the Berlin Haupstadt competition of A and P Smithson them-selves.[4]

The first signs of the processes of change begin to appear in these inte-

resting project, processes that become more clearly defined later on, in modern times: the use of non-hierarchical organisations, field or diffuse compositional structures, attention to environmental problems and nature. But the most interesting aspect of these projects is without doubt the way in which they re-formulate a new relationship between free space and space occupied by building; in re-formulation in the face of the floating and prismatic block of a high-density sponged alternative in which empty and built spaces live on equal terms.

This formal investigation approach, opened up in the late 50's, brings new formulae to bear on tourist architecture, formulae that once again accept the possibility of the survival and strengthening of the land and the landscape by building on it. The first proposals of tourist architecture appear in the mid-60's, proposals that reject the isolated block and start formal investigation into the most widely accepted architecture of the area. Two projects appear in the Canary Islands (which appear in the DOCO-MOMO Iberian Register)[5] that are worth mentioning for reasons other than architectural interest and their ability to offer contemporary reflexive solutions.

Hotel Oasis and Vintersol Centre

In the 70's, Corrales and Molezún, with their Hotel Oasis in Maspalomas, (fig. 6), and Diaz-Llanos and Saavedra, with the Vintersol Rehabilitation Centre in Los Cristianos, (fig. 7), established fragmented structures that are superimposed, like a mesh, on an existing landscape.

The Hotel is situated in one of the most beautiful spots on the Canary Island coast, a natural oasis, taking advantage of the splendid vegetation of *Phoenix canariensis*, which are reinforced with other, exogenous species in the gardens.

In the Hotel Oasis, there is a relationship with the infiltrated landscape, the boundaries of architecture with the natural environment can be seen, vegetation covers everything, the architecture, despite its large scale, seems like a background wall of the landscape, the facade, built from pre-fabricated sections of volcanic stone, helps the building to blend into the site.

The architectural structure of the complex as a whole is well aware of the building's situation of being an element

resting on a natural landscape. It spreads over the site like a beach mat, provoking a porous effect of patios and gardens penetrating between the constructed volumes.

Diaz-Llanos and Saavedra, on the other hand, in the Swedish rehabilitation centre, use a strategy of colonisation, a geometric enclosure superimposed on the land. The perimeter is used to frame certain visions of the landscape. Inside, there are two superimposed meshes, one made of occupied spaces and the other of emptiness, sheets of water, pedestrian arbours and gardens, without one dominating the other. Even the outside swimming pool is superimposed on the sea. The visible cement structures, metal structures and recesses talk of a synthesis between the modern language of the era and the vernacular.

After these examples – we are currently faced with the reality of even higher occupation density than in the 60's. Cultural identities do not seem to be very valid in the face or a total and homogeneous invasion of international cultures and the continual affluence of general, or global ideas. Nowadays, it is obvious that the problem of mass tourism can not be solved by simply building on ever larger scales with the same ideas. We must continue along the path of re-formulating new solutions for the problem of differentiating from the globalising identity, without falling into the (re-fried) Caribbean-African-Oceanic style that is so often used in tourist architecture these days, which is merely the maximum expression of the new internationalisation.

Maybe we can find the way from the 60's experiences already mentioned, a path that allows high density buildings to live in harmony with the landscape; buildings that consider simultaneously and in the same way, the importance of emptiness compared with built spaces. This would give us the chance to change the landscape into the fundamental argument of the project; an operation that we feel will be the leading player of the up-coming end of the century.

Re-formulating open spaces gives us the chance to work on them, not just to conserve or maintain them, but by operating on them directly; re-formulating and inventing them, creating a new territory. At the same time, we modify architectural solutions, shifting them toward matters related to re-defining the landscape (architecture-ground, facade-vege-

tation, deck-pool). Identity in the space of the global culture, will no so much be the identity of local cultures (even if these are invented) as the identity of the landscapes and environments that can thus be reinforced and protected by the action of tourism.

Maybe now, inverting Baudrillard's fatal strategy, desiring and pursuing a landscape and cultural differences will not necessarily lead to its destruction.

Recently we have developed competitions for building tourist complexes that will act as a more graphic explanation of what we have been saying.

Bungalows, Maspalomas Golf

The area where the project is to be located is now fairly densely occupied, a corner, a residue, between pockets of building and the edge of the golf course.

The project considers the idea of the limit between architecture and landscape.

It consists in the merger of two landscapes: the rockwork one, black and rough at the back and the golf course landscape, soft and green in the area of the swimming pool. The architecture emerges on the edge of these two landscapes. Using the project as an argument for a thought process of this kind meant using the following resources.

- Using the slight 2–3 m. slope across the width of the site to differentiate between two completely different planes.
- Use the length of the site to give all the bungalows outlook and views, located in the landscape like the repetition structures of minimalist artists.
- Use the building itself and the movements of the terrain as elements that reinforce these intentions (folds).
- Use different landscaping for the lower and upper gardens to strengthen the intention of dissolving the boundary between the site and the golf course, or of dissolving the boundary between the area that is built and the area that is not.

In short: use the building as a new boundary between the black of the asphalt (extended by the black of the cinder) and the green and rolling nature of the

Fig. 1.

Fig. 2.

Fig. 3.
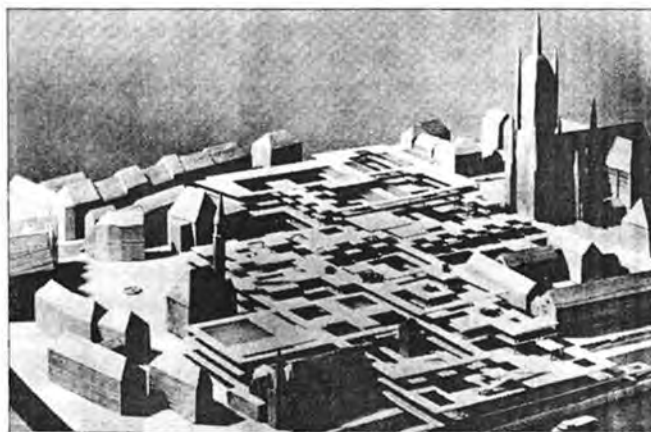
Fig. 4.
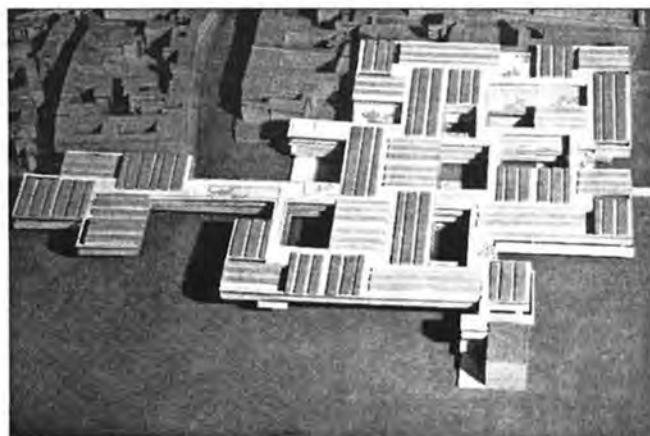
Fig. 5.

Fig. 1. The forms of modern architecture startet very quickly in the Canary Island. Cabildo Insular de Gran Canaria 1929–1936.. Miguel Martín Fernández.

Fig. 2. Pueblo Canario, 1936. Miguel y Nestor Martín Fernández, Folklore Center for Tourism : " One must not forget that Tourism feeds off an admiration of de past..."

Fig. 3 Maspalomas. Typical early 60' s postcard shows, the attraccion of invented diferences.

Fig. 4. Mat-building. Frankfurt Competición. Candilis, Josic and Woods. 1963.

Fig. 5. Mat-building. Venice Hospital. Le Corbusier.1964.

Fig. 6a.
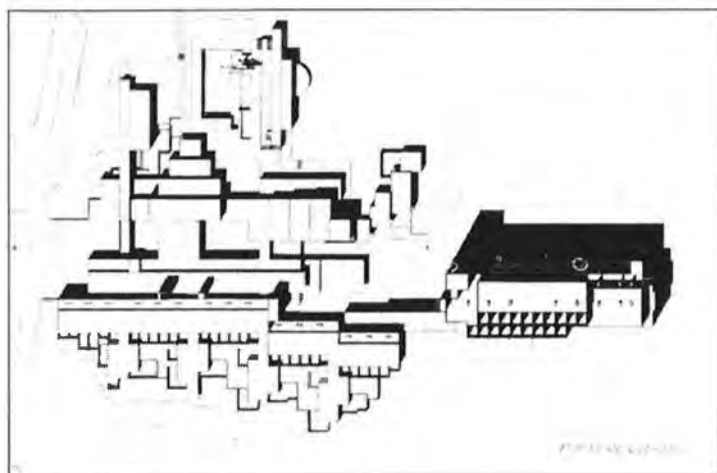
Fig. 6b.
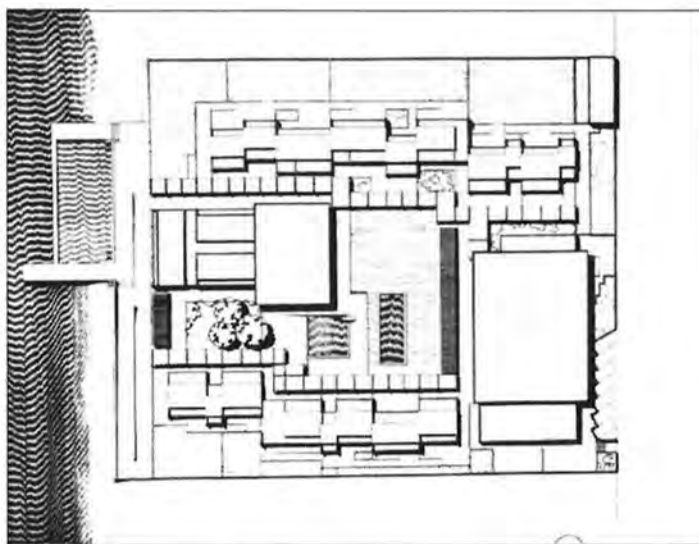
Fig. 7a.

Fig. 7b.

Fig. 6. Hotel Oasis, Maspalomas, Gran Canaria, Corrales y Molezun, 1965-1967.

Fig. 7. Vintersol Center, Los Cristianos, Tenerife, Diaz-Llanos y Saavedra, 1963-1964.

golf course, which stretches to the edge of the interior terracing.

Hotel in Meloneras

In this project, we established the following strategies for the landscape.

Order and Fragmentation

We redefined the block, the great invention of the modern school, easy to build and with possibilities of growth, change height and to be located in different positions on the plot, using it as a repetition structure. In a position close to minimal, we tried to achieve states of maximum order with the minimum means and complexity of elements.

Architecture – Ground

We used the subsoil with techniques that enabled us to maintain the openings to the outside to locate everything that was not repetition structure related to the landscape, such as the part of the programme of auxiliary services, Thalassotherapy centre, conference centre, etc., like buried architecture.

Infiltration

The blocks are articulated by patios between them – umbraculae through which the garden is infiltrated – landscape. The mesh or weave idea that was mooted in the 70's is resolved here in a more open manner. The garden landscape opens up and blends with the landscape of the sea.

Loss of Scale

To break with the idea of large scale, we used the following strategies:

* The volume that contains the hall and common areas presents an abstract image. It is a blind prism that shows no elements that can be used as a reference of its scale, there are no doors or windows, just a large roof awning that gives entrance.

  Minimising the height of the blocks by setting back the top story, giving the appearance that the blocks have no more than 4 stories.
* Eliminating the image of repeated corridors and terraces that is so common in tourist architecture; blind panels over the corridors allow vertical light in horizontally. On the enclosure of the room terraces, sheets of wood, that fold up like tree trunks, give an image of continuity, keeping any reference to size at a distance.

Camouflage

The image of the hotel is revealed slowly through the trees of the garden-car park at the entrance. Some times, the facades appear like a background wall behind the trees; other times, like tree trunks, blending with the trees in the garden; and other times they appear like branches, like a bas relief on the cement. In short, architecture as landscape instead of architecture on the landscape.

Inventing a Landscape

Faced with the evidence of a non-existent landscape (the only thing there are building sites waiting to be built on), we chose to invent one (just as Nestor de La Torre did with his vernacular architecture). To do this, we used a Pop Art strategy of appropriating images from the mass media consumed by tourists, the exotic, adventure, travel agents' brochures, theme hotels.

The landscape around the hotel emerges like the narrative in a comic, (Tin Tin in the Congo), reproducing different African scenes, the savannah, the steppes, the oasis, etc.

We presented the garden as a theme landscape, like a geographic map; the swimming pool as the delta of a river; caves as restaurants, huts, prehistoric inscriptions on the floors, animals and plants on a giant scale. In short, a whole series of archetypes of the meaning of a journey toward the exotic that could well be in a tourist's mind.

Notes

1 Néstor Martín-Fernández de la Torre. April 1936, published 1939. "N° 3 Habla Néstor".
2 Paul Virilio. El Cybermonde, la politiqe du pire. Catedra – Madrid 1988.
3 Baudrillard, Jean. Les estratégies fatales. Editorial Anagrama. Barcelona 1984.
4 See José Antonio Sosa "Enviroment Constructeurs : from Mat-Building to Programatic Lava." Quaderns 220. Barcelona 1998.
5 See AA V V " Architecture of the Modern Movement". 1925–1965. Editorial Actar Barcelona 1997.

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Social Aspiration and Modern Architecture in Greece during the Twenties and Thirties

In the late 1920s and, even more so, in the 1930s, Modern architecture flourished in Greece in a manner which expressed social visions and was connected with interest on the part of the state sector. On the theoretical level, the visions of Greek architects followed the thinking of the great European masters, as formulated in France and Germany. As was only natural, however, their visions and architectural expression were dependent on the real level on the specific social, economic, political and cultural conditions prevailing in Greece at that time, which were very different from those of the dominant capitalist space of Central Europe. As a result, the theoretical specifications and, in particular, the social and town planning documentation of a Le Corbusier or of the architects who made up the CIAM group were completely inconsistent with the developments of the time in Greece. Cities were not yet metropolitan: even in Athens, houses rarely had more than two storeys, with courtyards, and, in comparative terms, the streets were too wide for the question of inadequate lighting or ventilation or of unhealthy living conditions to arise. Housing ought to increase in density in order for the modern metropolis seen in Greece as a *desideratum* to emerge. Industrial development was limited – as was the working class, which was hard to see as a threat in the manner of the European metropolis. These observations are not intended to convey the impression that all

was ideal under a 'welfare state' regime: in fact, many of the residential units did not meet modern rules of hygiene and the public welfare system was comparatively limited in matters of health and education. Given these conditions, opportunities for the implementation of the social vision of Modern architecture arose on two different levels: the sudden need to house more than one million refugees driven from their homes by the ill-calculated war in Asia Minor (1918–1922), and political interest in two sectors of social welfare – health and education – which formed part of a broader vision of *modernisation* to allow the Greeks to 'converge' with the rest of Europe.

In both cases, the state sought an architecture capable simultaneously of solving problems in the optimal functional and technical manner and also of *expressing* the most up-to-date concepts current in the countries of Central Europe. Modern architecture – as a programme, as aesthetics and as an ideology – was seen as the principal means for achieving this social vision, a major part of which was ideological and could be summed up as the *modernisation* of Greece. Large numbers of schools, hospitals and refugee housing units were thus built, often on enviable terms, without pressure from social groups or the expression of anxiety on the part of architecture, but under the guidance and with the will of the state, which sought out for this purpose architects who were young, largely unknown, and had often studied abroad. In many cases, the architectural results were impressive and the buildings gained wide recognition within the Modern movement.

The total number of refugees who made their way to Greece has been estimated at 1,400,000 – and the population of their new home was barely 4,000,000. Most of the social work of housing the refugees was accomplished, in the initial phase, by a Refugee Settlement Commission directed by the League of Nations. The prime target of the Commission was to built as many houses as possible as quickly as possible at the minimum possible cost. The new settlements were simply organised, on geometric grid layouts; the houses themselves were constructed in the traditional manner, and the number of types employed was limited. Many of those buildings are still standing, but it is not easy to examine them in the terms of the Modern movement.

After 1930, responsibility for planning and construction passed to the Ministry of Welfare. Now, for the first time, Greek architects turned their attention to low-cost housing. At that time, most Greek architects saw the apartment block as a new and civilised housing medium capable of ensuring that even the poor lived in excellent conditions. Between 1933 and 1936, more than 1,000 small apartments in refugee blocks were designed and built in the central districts of Athens and Piraeus. These blocks reflected the search conducted by European Modernism for cheap housing and rational methods of urban planning – as expressed, for example, at the 2nd and 3rd CIAMs of 1929 and 1930 and as dealt with at the 4th CIAM, held in Athens in 1933. All these methods focused on minimising the size of the residential unit, using a typology which was common to the whole of Europe at the time. The two-roomed apartments (with kitchen, toilet and storeroom) had a floor area of no more than 30 to 33 square metres, while the area of the one-room apartments was about 23 square metres. As a rule, the blocks had three storeys and were fitted with neither elevators nor corridors. There were staircases for each set of six apartments, and there was a shared wash-house. The blocks were in the shape of elongated rectangular prisms arranged in parallel rows or in simple L- and U-shapes. The morphology was simple, without any attempt at ornamentation. A clear concept of Modern movement aesthetics can be seen in the staircase windows, the balcony cantilevers and the geometrical organisation of the masses. For reasons of economy, the blocks were built using reinforced concrete slabs carried on plastered stone masonry, thus explaining the restrictions obviously applied to the apertures. All these refugee blocks are still inhabited, but they have never been maintained on a collective basis and their history has left deep scars upon them: on the one hand, they were the bastions of the Red forces during the civil strife of 1944, and on the other, they have been frequently though spasmodically repaired and altered by their residents during the years that followed.

A notable position among these blocks is occupied by the complex on Alexandras Avenue, a main street in central Athens. It consists of eight blocks containing 228 one- and two-roomed apartments and was designed by the

architects K. Laskaris and D. Kyriakos. The complex is one of the most distinctive landmarks in modern Athens, and is among the ten buildings selected by the Greek DoCoMoMo group for the registers of Modern architecture. Nonetheless, the buildings have declined in the collective consciousness of the Athenians into memories of an unhappy time best forgotten, and they are now menaced with demolition by the Ministry of the Environment, which wishes to replace them with a park. The position is similar in the cases of the seven blocks of apartments on Lycabettus hill (in a prestigious district close to Gropius' American Embassy), the nine blocks in Kokkinia (a neglected area close to an industrial zone) and the four blocks in Dourgouti, next to a busy road intersection.

Unlike the Ministry of Welfare, whose approach was entirely enforced as it was faced with an emergency housing problem which it strove to solve in the most modern manner – at the furthest extremities of the European experience – the Ministry of Education took the broader prospect of a politically preselected modernisation as its starting-point for designing and implementing an extremely extensive and ambitious programme of building schools throughout Greece. At precisely the same period – down to the end of the Thirties – a large number of hospital and social welfare buildings were planned, designed and constructed in the same perspective of social modernisation; unlike the schools, however, these buildings have so far been very scantily studied and published. The specifications for the schools and the hospitals and welfare buildings were largely based on the criteria of a strict rationalism in the functional, constructional and aesthetic spheres. The systematic distribution of the buildings over the entire territory of Greece did not fulfil only the intention of creating a modern, socially-conscious state; it also introduced the image of that state – condensed into plain rectangular prisms, with a simple geometrical arrangement, large apertures and, in a few cases, with curves and free-standing columns – into the traditional environment of the small towns or the peripheral suburbs of Athens, Piraeus and Thessaloniki. However, unlike the refugee apartment blocks, which have retained their original appearance, though neglected, most of the schools and the hospital and social welfare buildings have been very exten-

sively converted because they are still in use and have had to be adapted again and again to the changing needs of society. Additional floors and wings have been constructed, new equipment has been installed, some demolition work has been carried out, and maintenance has been continuous – with obvious consequences for the morphology of buildings which were treated as useful shells to meet needs as well as possible, rather than as architectural projects, modern or otherwise.

The educational reforms of 1929 and the more general social policy implemented by the government in 1928–1932 had a direct and pronounced impact on education. By 1933, 1,809 new schools had been built throughout Greece and more than 1,000 were under construction. In order to design and execute this enormous volume of work being carried out by the technical services of the Ministry of Education, the younger generation of architects – sensitive to the innovations of the Modern movement – was pressed into service. Many of school buildings of Athens attracted the interest of the European architects who attended the 4th CIAM and were published in the best-known journals of the day. Although very few of these school buildings have been scheduled for preservation, contemporary and more recent publications, surveys and the creation of a comprehensive archive of source material have ensured that they now have the recognition they deserve.

In the primary school designed by Dimitris Pikionis for the other side of Lycabettus hill – in the centre of Athens – the pure prismatic masses and the large rectangular windows are in harmony with the slope of the ground, while the natural landscape is accentuated by the paved stone paths and the fact that the classrooms open out on to the flat roofs. However, grafted on to the pervasive rationalism are typological elements from the ancient Greek tradition, such as the colonnade along the southeast side of the building, and eloquent references to the art of the anonymous craftsmen of Greek vernacular architecture.

The primary schools designed by K. Panayotakos in Athens achieved immediate recognition – by Le Corbusier, among others, who in the summer of 1933 enthusiastically signed his name on the white wall of one of them. With their imposing geometry and plain mas-

ses, with selected elements mounted on cantilevers or pilotis, with their large windows and the rational organisation of their masses, these schools were an impressive intervention in the simplest of city neighbourhoods, setting the tone for the modernisation which was the objective and for the character of Greek Modernism.

Similar features are to be found in the schools which P. Karantinos designed throughout Greece, introducing the same Modern spirit into areas which varied widely in both geographical and cultural terms: from Athens (next to the Acropolis) to Mytilene, from the Cyclades to Crete, and from the workers' city of Piraeus to the neo-Classical town of Nafplio. N. Mitsakis, on the other hand, engaged in a search for the borderline between the strict idiom of rational Modernism and the unique cultural physiognomy of the specific location, colouring the morphological and typological components of his schools with references to the scholarly and vernacular architectural traditions. One could also mention the schools designed by Kakouris and Georgakopoulos, which developed a purely modern poetry in small provincial towns such as Aigio, Mesolongi and Kavala.

As we have already noted, the Thirties were also notable for the achievements made in hospital and social welfare buildings. Large hospitals were built in Athens and other cities, with numerous smaller structures going up all over the country. These functional institutions were designed – in a spirit of greater or lesser Modernism – by architects who worked with much more independence than those involved in the centrally-controlled school programme. In some cases, the prevailing approach was the plain morphology of a modern Classicism, while in others it was merely plain that the architect was aware of the basic principles, vocabulary and syntax of the Modern movement. A significant change came about in the last three years of the decade, when the Ministry of Public Health set up a centrally-controlled technical service which developed systematic activities on a scale comparable with that of the school programme – except that Fascism had prevailed on the political stage. On the one hand, this favoured a return to traditional, local or neo-Classical idioms; on the other, it made possible a strict rationalism which may well have been a reflection of Italian models.

Fig. 1.
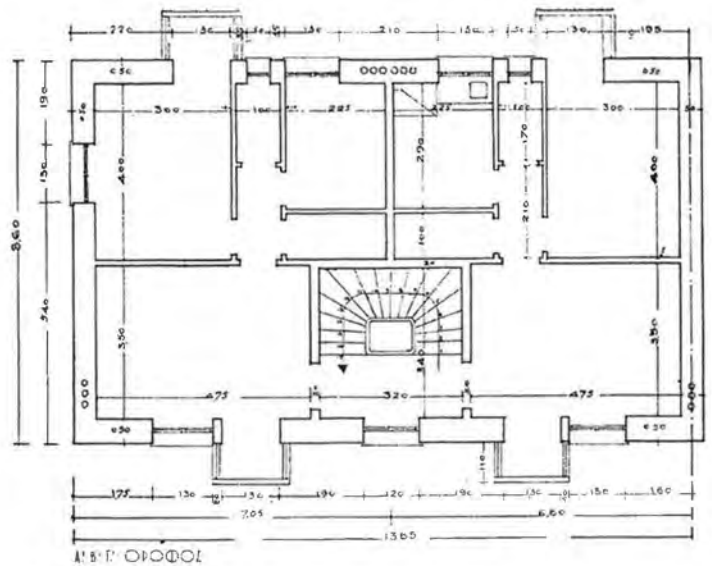
Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

Fig. 1. K. Laskaris, refugee apartment blocks on Alexandras Avenue, Athens, 1933.

Fig. 2. K. Laskaris, refugee apartment blocks on Alexandras Avenue: typical floor plan.

Fig. 3. K. Panayotakos, primary school in Athens, 1933.

Fig. 4. N. Mitsakis, primary school in Athens, 1932.

Fig. 5. I. Despotopoulos, Sotiria Sanatorium, Athens, 1932.

Fig. 6. P. Georgakopoulos, main kitchen and laundry building in the Sotiria Sanatorium complex, Athens, 1937.

The first example of these structures lies on the borderline between school and hospital buildings and is relatively early, being designed in 1929 and constructed in the early Thirties. The building in question is the University of Athens Medical School, actually a hospital and still in use, designed by the architect E. Kriezis. In general, it is strictly rational in function and form, with cylindrical and polygonal elements articulated into linear wings with restrained references to the syntax of neo-Classicism and interesting structures in plain reinforced concrete for public areas such as the anatomy amphitheatre and a rhythmic typology for the apertures, with quite a number of variations.

More flexible articulations are to be found in the sanatoriums and hospitals of I. Despotopoulos. In 1932, in the Sotiria Sanatorium in Athens, he placed particular emphasis on the "aesthetic and simultaneously expedient formulation of differing needs and requirements", producing a composition which possessed all the basic characteristics of the Modern movement but has subsequently undergone extensive conversion and change. The architecture of the sanatorium in Arkadia, built in 1935–1941, is impressive but stricter; its proximity to the town of Tripoli, which is in a state of comparative decline, has enabled the building to retain its original form, with all the current problems caused by poor maintenance which that involves.

To return to the large Sotiria complex in Athens, I would like to deal with three more buildings of the Fascist period, designed in 1937: the Nurses' Home, by I. Antoniadis, with elements of Modern morphology despite the classical organisation of the masses, the 300-bed pavilion by K. Kitsikis, with a curving functional organisation initiating a dialogue with the sun and symmetries adapted so as to employ a clearly Modern vocabulary, and the main kitchen and laundry building, by P. Georgakopoulos, which reveals the most extensive design elaboration we have so far seen on the principles of the Modern

movement, with complete liberation from morphological and typological memories of the past. All three buildings are still standing and in use by what is now the Hospital for Thoracic Diseases, but no particular care or attention has been paid to their architecture.

Last of all, we have the interesting projects of P. Tzelepis, most of them intended for use by children. The Children's Village on the seafront in Athens was demolished during the Second World War, but that on Mt Penteli just outside the city – constructed in 1936–1937 – is still in its original condition. The complex of buildings, arranged in a U-shaped type, develops a social rationale of spatial development in what is a rational construction using plain reinforced concrete and equally plain masonry. The entire complex obeys a module pattern starting out from each single bed, while at the same time attempting to integrate itself – in morphological and symbolic terms – into the rather mountainous and wooded landscape of Mt Penteli.

Some of the hospital and welfare buildings, such as the Medical School and the Children's Villages, achieved international recognition, while others remained on the sidelines. Most of them are now treated with indifference or even contempt by the state and in the collective consciousness of the Greeks. To widen our perspective to include all the social welfare buildings constructed in Greece between the Wars – refugee apartment blocks, schools and hospitals – we could say that the same spirit of indifference and contempt applies to all of them. In the case of the apartment blocks, the situation has gone as far as rejection – rejection which has created an immediate danger of demolition. Where the schools are concerned, there are a few exceptional cases of recognised and even scheduled buildings – where the name of an acknowledged architect comes into play – but most of them have suffered terribly from bad maintenance, conversions and, above all, extensions which have made them unrecognisable, though they are still in

use. An awareness of the architectural interest of the hospital buildings has not yet been cultivated. The largest and most urban structures have been extensively damaged, extended and converted in the name of functionality and modernisation, while those in the regions, where their use is less dynamic, have retained their original form but have suffered from poor maintenance.

To sum up, the Modern movement was extensively developed in terms of social welfare buildings in the Greece of the inter-War period, but the public awareness of the significance and value of the architecture of these structures is disproportionately low today, by comparison with the time at which they were built. It seems most likely that while then they were the functional, constructional and aesthetic incarnation of a social and ideological vision of modernisation, that vision came to a grim end in a Fascist dictatorship and ten years of war and civil strife; today, the buildings are above all incarnations of memories of the sufferings of those years and of all the deprivation of post-War Greece – memories from which the collective consciousness would like to have liberated itself by deleting them all, by demolishing the buildings, by opening up the way forward to a different and much more optimistic future. The elevations of the refugee apartment blocks in Athens, unmaintained for the last fifty four years, scarred with the bullet-marks of the Civil War, no longer look forward in hope to some cure or therapy, to better maintenance; only final cancellation awaits them. Some of the abandoned sanatoriums seem likely to share the same fate. Against that background, the question arises for us, the architects of modern Greece, of whether the public buildings of the inter-War period are to be preserved or simply maintained; and we must also face the question of a return to, and a more profound examination of, the most essential of the lessons to be learned from the Modern movement as it was perceived and implemented in our country.

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Pre and Post-1945 Public Housing in Hungary: Dilemmas about Their Listing and Preserving

The registry of Modern Movement buildings in Hungary is a work in progress the first phase of which. was published two years ago, in the form of a brochure that contained 59 buildings and ensembles from the period between 1930–1949. In this brochure, there is only one public housing complex. The same complex alone figures on the list of locally preserved heritage, while modern public housing is entirely missing from our National Heritage List. My paper will examine the possible causes of this lack as well as issues the listing and preserving of public housing raise.

In order to understand the context of modern public housing in Hungary, it is necessary to divide the history in two distinct periods: before and after 1945. The first period was capitalist, while the second basically communist. The inter-war years in Hungary were not the best time for social housing. Public authorities only acted in case of emergency and the housing they provided for the most neglected section of the population was too little and of a very modest level. After 1945, social housing became a major concern. Except for a short Stalinist period, architecture and urban planning was modern. This period provides us a considerable amount of works, and not only solo buildings but housing estates and even whole new towns.

The Hungarian working party has concentrated, until now, on the inter-war period which produced a great number of significant works that overshadowed the far less impressive social housing schemes. As far as post-war public housing is concerned, its evaluation and selection raises theoretical problems as well as the issue of political attitudes towards our recent past. Because the two periods are so different, distinct criteria for the registry should be developed for each of them.

In the first period, the main issue we are confronted with is the appearance of schemes which had a progressive social agenda but were not necessarily innovative technologically and aesthetically. An early and amazing example is the workers'colony of the State Railways Machine Factory completed in 1909, in Budapest. The five-storey perimeter block consists of 655 small flats and was originally provided with all kinds of services (laundry, day nursery, surgery, library, restaurant, a large theatre hall, ice factory and a public bath). The community building has a rather traditional exterior but a magnificent reinforced concrete structure inside. This is the very idea of a modern collective house that was realized here albeit the architectural expression is not modern. Can we consider the progressive social agenda and technical innovation as sufficiently important to list this Colony as a modern estate? I would tend to regard this work as belonging to the prehistory of Modern Movement rather than being an integral part of it.

Less innovative was public housing of the 1920s. State emergency dwellings built for refugees and homeless people did not attain the level to be called architecture. Municipal housing schemes of the same decade were of higher quality but far from being modern. Their site plan was better than that of speculative tenement blocks but their style was either National Romanticism or a sort of Classicism. What social insurance companies and mining works constructed rather belonged to the Garden City Movement. In no way, I think, should we include these works in DOCOMOMO registers. Modern housing projects and urban plans made by the Hungarian CIAM-group remained largely on paper with the sole exception of Köztársaság Square Apartments in Budapest (1934). As we have seen earlier, this complex, commissioned by the National Social Insurance Institute, was built according to the most advanced architectural and town planning principles and, as such, de-

served well its place in the DOCOMO-MO National Register. Indeed, it should be included in the International Selection since this is the only work of the period that entirely meets the tripartite criteria of being innovative socially, technologically and aesthetically.

At the end of the 1930s, however, a local government program was launched in Budapest which resulted in the construction of several small flats, all detached from the traditional appearance. Although none of them could match the quality of Köztársaság Square Apartments, they would merit a closer attention. Social housing at Gubacsi Street (1937) consists of twin-slabs with access galleries the rigour of which is a reminder of Hilberseimer's schemes. Since authorities prescribed the arrangement and size of the flats, architects have their hands tied. As the gifted Olgyay brothers explained: "This type of housing estate has usually a very monotonous appearance, due to the fixed flat unit space and the cheap and simple execution. One chance to make it a little attractive lies in the possibility of the arrangement." In the case of their Hamzsabégi Street estate (1940–42) the arc-shape of the blocks, derived from the triangular form of the site tried to achieve this, while the long block with access galleries they designed to another site (Hungária Street 1943?) excelled with an unusual staircase and plastically moulded concrete balconies. Other architects used the brick finish for their premises (Szolo Street Flats by Rimanóczy and others, 1940) or wood boarding and shutters on the facade (Vihar Street Flats by Wanner and others 1941–43). Most of these blocks had pitched roof due to the wartime shortage of building materials.

Because there are so few pre-war schemes of this sort, we should recognize less impressive projects in our registry work, especially if they were designed by good architects and present some originality in site plan or/and architectural expression. The buildings mentioned above should be taken in at least into the National Register.

The post-war years raise different issues. One of them is the problem of standard projects. The 1948 production of the first state project office illustrates this with good examples. The point block (by Pál Németh and others) is all what has been built of an ambitious scheme prepared for the Budapest riverbanks. Intended to loosen the very dense ur-

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ban fabric, this nine-storey building was the first domestic tower block in Hungary. The Lehel Square Flats (by József Schall and István Piszer) represent another type of housing with six-storey slabs placed parallel to each other. Two of the four slabs are identical, that is the project was used as a standard. Since copies are forming a coherent ensemble here, the replica does not make any trouble for the selection. Slightly different is the case of the slab with access galleries (by Schall, Gádoros and Piszer) which, though being designed as a non-series project, was actually built in many copies throughout the country for it proved to be very popular. It is no doubt that we should recognize this building as part of our modern heritage (for its architectural quality and primacy in the range of post-war workers' housing) but the question is which one of the series? The first copy ever realized, the best variation or the best preserved one? Perhaps all of them?

A serious problem to consider is the listing and preserving of new socialist towns that were built from 1949 onwards. Unlike new towns in Britain and Scandinavia the initial urban planning concept of which could survive in the course of the realization, the master plan of Hungarian new towns had to suffer several alterations, due to sudden ideological changes that occurred to our history during the 1950s. Fairly typical to this is the development of the socialist model town Dunaújváros (originally called Sztalinváros) which was to represent the achievements of the first Five-Year Plan. Its construction began in 1950 along the Danube next to an important industrial steel plant according to a master plan prepared by a designers' collaborative headed by Tibor Weiner, a former student of Hannes Meyer at the Bauhaus. Weiner conceived the first plans on the model of a Siedlung but the flat-roofed cubes and slabs floating in a green space were soon followed by large and monumental housing blocks; they formed a more compact and traditional urban composition which met the requirements of Stalinist policy. The guidelines changed again around 1955–56 when tenets of the Modern Movement were rehabilitated and new methods of prefabrication encouraged. In evaluating this example for the registry, a whole series of issues are facing us. What should we protect of a new town like Dunaújváros? Is it possible to cut off its first modern phase

and neglect the rest? On what level is this town innovative and meaningful to the architectural history? I do not want to answer all these questions, simply make it clear that both the site plan and building types of the first phase meet the criteria for being listed as Modern Movement work. Especially important are the standardized housing-units designed by József Schall in 1950 which could be put together so as to form several types that had nicknames such as the Cube, the Bone, the Small and Big Buffalo.

The miner town Komló in the southern region of Hungary could somehow avoid breaks in its development surely because morphology of the hilly site did not allow planners to follow either a straightforward modernist or a traditionalist urban pattern. Its master plan (by Kálmán Lux, 1949–54) with an organic road system where streets and houses follow the contours of the ground is highly reminiscent of the site-conscious layout of Scandinavian housing estates and satellite towns. Unfortunately, the first housing types that had been somewhat adapted in form and building material (the use of rubble) to local conditions were later to be replaced by the cheapest and therefore very unpretentious national type, a long and narrow apartment building with pitched roof. Nevertheless, Komló is a notable urban work the novelty and uniqueness of which, at least in our history, cannot be denied. It is to be discussed if these peculiarities are enough to include this town to our National Register.

The formal composition of Stalinist urban districts seems to be far off the Modern Movement. One cannot claim, however, that the distinctive feature of being modern in urbanism is the abolition of all kind of urban fabric. Why should we exclude from our registry those urban developments of the late 1950s that, instead of dispersing housing units in an infinite space, attached them so as to form large protected communal courtyards? The line of demarcation between what should be in and out, could be partly the style of the buildings, partly the lack of the bombastic element in the urban plan. According to these guidelines, the 1954 plan of the Ülloi Street estate in Budapest should be out, while the development plan for one side of the same street (realized in 1955–56) could be in. It is plausible to decide in favour of some housing estates (e.g. Fiastyúk Street 1954–60), where

the original master plan was preserved or slightly reworked but architecture of the blocks became simplified and modernized. These were not only the first large-scale developments in Budapest designed consistently but also the first instances of using basic industrialized methods of building.

It is very difficult to form an opinion without bias about housing production of the 1960s and 1970s. In 1958, the Hungarian government set the target of building one million dwellings within fifteen years, and this plan could not be fulfilled without a rationalized and industrially developed building industry. Novel techniques were applied, and from the mid-1960s Soviet large-panel prefabrication factories provided most of the slabs which were erected on lands that had been bulldozed flat to give planners free hand. Surroundings of these large housing developments were meagre, service facilities scarce and construction of their core has usually been omitted. Their prestige (if there was ever) has been lost and they are desperately waiting for a refurbishment. Because of these problems, any attempt at the listing and preserving of such districts would be a bad mistake and could provoke a violent reaction on behalf of the inhabitants. Any measure is possible only when related to a complete rehabilitation project that would respond to the practical demands of those living there.

From this period, one could consider the listing of solo buildings, preferably prototypes such as the first point blocks executed with cast-in-situ concrete walls (by János Pomsár 1961, Tibor Tenke 1963, Zoltán Farkasdy 1964). The one designed by Tibor Tenke for Budafok excels in its flexible groundplan as well as manifesting the sliding-shuttering technology by its rounded corners and randomly distributed embrasure-like openings. This building stands on an experimental housing estate, the second one that was created to test new techniques and prototypes. The first was built in "buda between 1959–63, as a consequence of a national competition for new housing types (from row-houses to high-rise). Every flat of the prototype buildings were furnished and open to the public as a temporary dwelling-exhibition. Since this experimental housing estate presented a greater variety of new flat types and innovative technologies of the day than later housing developments, it should be at least documented thoroughly if not listed.

No one of the above mentioned examples figures on our lists and registers. There is an apparent aversion against post-war housing estates among both common man and professionals. This is due partly to the fact that these buildings are the product of a regime that had not been elected but imposed on the country and collapsed not so long ago, partly to the rather poor quality and bad repair of the buildings. Small flats in these blocks hardly meet the living standard of our day and after many decades of state property which meant a total neglect of their maintenance, residents who were offered to buy their flat and form condominiums are not able to pay the costs of a complete renovation. It is really sad that not only the man of the street but also professionals who work for municipalities and in the field of preservation often are not able to consider these potential 'young monuments' in an objective way. As if they felt shame of the works that date from a period they have aversion against. In 1992, the exhibition "Architecture and Planning in Hungary 1945–1956" (later enlarged to 1959) organized by the Hungarian Museum of Architecture could hardly avoid to be suppressed since it was regarded as a nostalgia for the past regime. Though not overtly expressed, the same political motives may contribute, on behalf of the authorities, to the deferring or refusal of the listing of some post-war works. Hesitation in the evaluation and general criticism of modernist ideals all endanger this part of our modern heritage.

The most urgent task, therefore, the Hungarian working party has to set itself is the investigation of the post-war heritage. It is also important to enlarge our scope beyond solo works, and involve ensembles, whole urban districts or new towns, together with landscaping. Parallel to this activity, we must revise our criterion-system so as to involve those works which may not be particularly innovative and impressive but represent the social concern or cultural attitudes of the time.

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Modernism & Folk Architecture: the Reinterpretation of the Modern Architecture Aesthetics in the Folk Houses of North-Eastern Brazil

North-eastern Brazil is a region which spans the humid Atlantic Forest Zone and semi-arid territories. The original Atlantic Forest was destroyed by the Portuguese colonizers and replaced by vast sugar cane plantations worked by slaves brought from Africa. Since the XVI century, this region has had a traditional role as a producer of sugar and its inhabitants descend from a mixture of white Portuguese, black Africans and the indigenous population. (Cavalcanti: 1997a)

The colonial society established divisions of classes and race and still today the unfair segregation of the poor follows the pattern initiated by the Portuguese: the majority of the poor people working in sugar mills and alcohol distilleries with a low income and very poor standard of living. The inland semi-arid territories, the Agreste and Sertao, have irregular rainfall, long periods of drought and higher temperatures, the land being tradionally given over to agriculture and cattle-breeding.

The adverse living conditions of the poor of North-eastern Brazil shaped a particular built environment which consists of rural and urban villages and townships with linear streets formed by long and narrow plots with one-storey multicoloured terraced houses of modest scale (approximately 50 sq.m.), mostly built with wattle and daub or bricks (fig. 1). These houses are built by people who have no access to formal education in schools or universities. They are mostly illiterate. Yet, they have developed building methods, technologies and architectural solutions which are handed from one generation to the next. Common knowledge, folk wisdom. With the help of their elders, the young masons learn their profession and skills.

As folk culture is the expression of people's creativity, values, dreams, aspirations and their relationship with society, it can be said that the folk architecture of North-eastern Brazil is a profound manifestation of folk art in architecture. It represents the feelings of a large segment of the people of this impoverished region about their exclusion from society. The most striking feature of this folk architecture is the concern with the house's main facade and its design composition combining colours, textures and geometrical or figurative elements. Through these facades, people show their right to artistic expression and their idealization and conquest of beauty. The main facade, a mere 15 sq.m of wall, where visions of individual worlds are materialized, seems to be part of a magic universe where the search for beauty and aesthetic pleasure are not privileges of the dominant classes (fig. 2). It shows a refusal of the poor to accept the absence of poetry in their daily life and makes clear the needs of art, even having to cope with their unfair lot. From this struggle against a ruthless society which perpetuates centuries of human exploitation, emerges a unique landscape, magic, beautiful and daring, where artistic freedom and joy have no formal or pictorial limitations.

As Lina Bo Bardi (1994) points out

Folk art is very far from the idea of l'art pour l'art...
...... it lives together with the most miserable conditions.

Being a direct response to to the user's needs and economic conditions, the functional character of folk architecture is revealed in the cheap building solutions and materials. The extreme poverty of the North-eastern inland population produces a built form in which everything not strictly necessary is excluded. One particular feature is the harmonious integration with the natural landscape and with the surrounding built environment, (fig. 3), where there are no sharp contrasts, in scale land use. As opposed to erudite architecture, folk architecture is not monumental and it does not express power. At least not the political and economic power of the ruling class. It is an architecture basically produced for living needs, not for speculation and consumption.

Meanwhile, this folk architecture is not a mere shelter. Beauty is a requirement. The facade has a markedly symbolic meaning and carries messages and lessons of aesthetic and artistic joy in its graphic design, either in the rigorous symmetry (fig. 4), or in the complex and exuberant freedom of composition which generates irregular lines intercepting solid and geometrical figures.

The preference for the platibanda or frieze, the extension of the facade above the ceiling line, where bas-relief elements are applied in a large variety of patterns and colours, is closely connected with the need for assertion and aspiration for a better status. The traditional hanging eaves characteristic of the colonial period is rejected, as the platibanda symbolizes differences, divergences of aesthetic ideals and artistic expression, the search for originality, individuality and values of economic ascendancy. The platibanda is an architectural feature which is widely used to express the status and identity of the builder or owner of folk architecture in North-eastern Brazil.

The platibanda was introduced to Brazilian architecture in the early XX century with the neo-classicism brought by the French Mission of 1816 which followed the exodus of the Portuguese Royal Family to Brazil in its escape from Napoleon. Among other changes in the way of life of Brazilian society, this was to cause further changes in the urban fabric of Brazilian cities, which legally enforced the 'European look'. For instance, under the new building regulations, the use of hanging eaves was not allowed anymore and the use of the platibanda became compulsory.

The platibanda became popular at the turn of the century and in the first decades of the XX century with its eclectic architectural vocabulary, being decorated with bas-reliefs with floral and geometrical motifs, both in the houses of the middle classes and in the large residences of the bourgeoisie. In the late 1920's, public buildings such as cinemas, theatres, markets, schools, post-offices, etc., were built in the Art-Déco style establishing the transition from the excessive decoration of eclectic archi-

tecture to the geometrism and reduction of ornaments characteristic of the proto-modern Brazilian architecture.

Modernism came to Brazil in 1922 with the Week of Modern Art which gave emphasis to literature and painting. Mário de Andrade and Tarsila do Amaral were some of the main leaders of this movement which aimed at searching for a national form of art and for the right of artistic expression. In architecture, modernism would come later in the 1930s with the construction of the Ministry of Education Building, designed by a team of architects headed by Lúcio Costa with the consultancy of Le Corbusier.

From the 1930s onwards, a new aesthetic was disseminated by the Brazilian media. National magazines such as O Cruzeiro had their pages carefully designed with graphics, publicity and lettering in the Art-Déco style as well as photos and images of Hollywood films and artists, new car designs, new machines, the first skyscrapers of Sao Paulo, etc. A fascinating modern world was portrayed, which would have great influence on people's ways of life in the big cities, determining patterns of behaviour and ideals. Although beyond the horizons of the daily life of the poor, the new trend of modernity became part of their dreams, fantasies, and, eventually, a source of inspiration for folk architecture and aesthetics, greatly contributing to the shaping of the particular built environment in North-eastern Brazil. Designs would then start to carry symbols of that modernity through the free reinterpretation of Art Déco vocabulary, establishing a decisive break with the traditional and historic eclecticism in architecture, now rejected. To the majority of house owners and builders, the platibanda is considered as a modern element and revolutionary reaction against the outdated colonial conventions.

Modernism was to be again in Brazil's agenda in 1960, when Juscelino Kubitschek, 'an ally of modernization', built Brasília in five years with a functionalist-urban project and modern architecture. (Bicca: 1998) Modernity was then assimilated by the Brazilian people, even in the remote villages and towns, through the 'fantastic' images of a new era, that of conquering Brazil's hinterland and building a truly modern capital city. People would identify themselves with symbols of 'progress', technical competence and the spectacular buildings designed by Oscar Niemeyer.

A sense of national pride and identity was created. This was to be reflected in folk architecture, as throughout the country, lower-middle class houses had their facades decorated with designs inspired by Brasília's most famous building, Niemeyer's Palácio da Alvorada. Unfortunately, this was followed by a catastrophic era known as 'the Brazilian miracle' whose megaprojects carried out under the military dictatorship which took over the country in 1964, brought huge international debts, social unrest and restraints on individual freedom.

Modern Aesthetics & Folk Architecture

In many cases, the basis of the design composition of folk architecture in North-eastern Brazil, the modular and rhythmic divisions of the facade, its proportions, its orderly arrangements of geometric forms with triangular, crystal and prismoid motifs follows Art-Déco principles. However, the result is a free reinterpretation along with the builder's intuitive process of creation (figs. 6, 7 and 8) which incorporates elements of symbolic connotation and belongs to folk traditions such as extravagantly contrasting colours and the figures of stars (fig. 9), shells, flowers, birds, etc., moulded in bas-relief and applied to the platibanda when dried.

It clearly expresses the personal values, aesthetic preferences, ideals of beauty of the builder or owner together with the typical atmosphere of the region's folk art. When asked about the reasons of such exuberant design composition, the most common answer is '...because it is beautiful'. These facades are their sensual impressions, feelings, their reaction or, as Ariano Suassuna (1987) describes, ...a protest against the misery, the dreariness, the ugliness, the routine and the monotony of their lives.

In addition, the facades disclose the builder/owner's inner universe through the abstract nature of the rhythmic visual patterns of simplified forms and lines, and reveals an intimate and singular world which makes beauty necessary. It shows their wishes and pleasures as opposed to their precarious daily existence, the voluptuous contrast of bright colours (fig. 10), the lyricism of the folk imagery mostly beyond the understanding of erudite man, who most of the time, considers the qualities and features of folk architecture as purely accidental.

Facade composition also reflects the region's folk art. In this case, the design combines the juxtaposition of triangles with a harmonious rhythm of colours (fig. 11). In many cases, design composition reinterprets, with simplified forms and geometrical abstractions, the purist concept of modern aesthetics (fig. 14).

However, the ideology of the modern movement to bring a better life to society never became a reality in these inland territories of North-eastern Brazil. Most of the people, often marginalized by the ruling classes, live in rural or urban settlements which are the pure expression of poverty. No appropriate development policies for improving the housing conditions and infrastructure, as well as health and education are given the necessary priority by public institutions. Fig. 15 shows the village of Tambor, in the Agreste of Pernambuco, and its rich variety of facade design using geometrical elements applied on the platibanda and painted in a rich mixture of colours. As it can be seen, Tambor is a very poor rural village, with unpaved streets and lacking adequate services and infrastructure. But there's an amazing contrast between the poetic language of its abstract design compositions and coloured facades and the surrounding poverty.

Thus, modern aesthetics became a collective tool of self-expression for the poor in their continuous search for human fulfillment. The sensuous design schemes of the facade's walls, the ingenuous use of the available local resources given their financial circunstances and the technical expertise of skilled masons, make the architecture of North-Eastern Brazil transcend its utilitarian and practical character to become an instrument by which the poor manifest their delightful pleasure and leave their impressions on built form.

Conclusions

Folk architecture is made by and for the people without the participation of architects. It results from people's personal knowledge and can be differentiated from erudite architecture in not following architectural rules or guidelines. (Cavalcanti: 1997b) It has been regarded as a secondary category of architecture and hardly forms part of official inventories. In 1972, Rapoport pointed out that folk architecture was being ignored by history as well as by the theory of architecture.
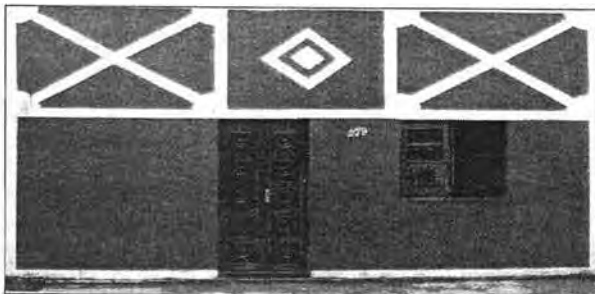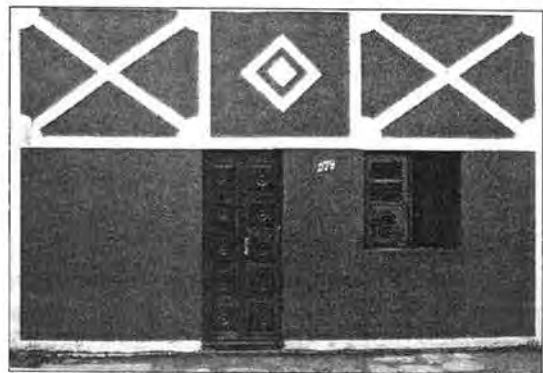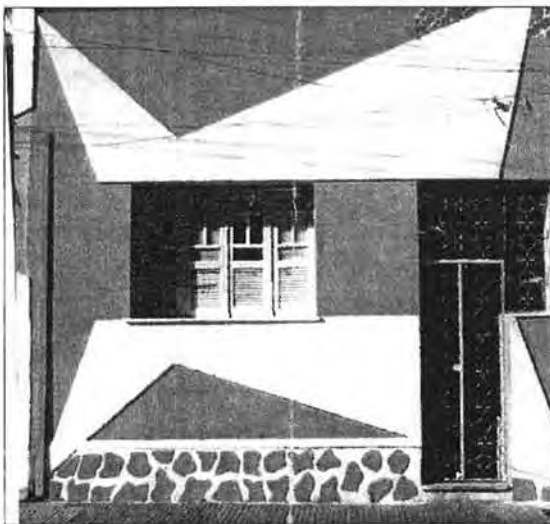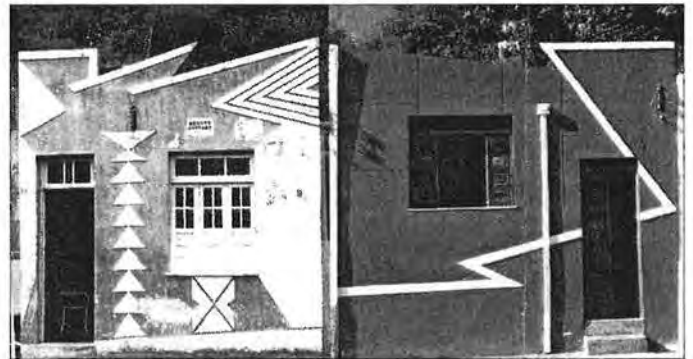
In 1997, The Encyclopaedia of Vernacular Architecture of the World was published (Oliver), bringing an enormous contribution to the study and inventory of vernacular built environments, together with a comprehensive account of 'buildings, their materials and construction, their enrichment and meaning, types and uses, as well as the specific circumstances in which they are built by diverse cultures'. The folk architecture of North-eastern Brazil is part of this encyclopaedia. (Cavalcanti: 1997a)

However, still in academic circles, folk architecture is sometimes seen by architects as picturesque or kitsch. In general, politicians and ordinary people give no importance to what they regard as an embarassing backward legacy, conflicting with their own ideals and aspirations.

This paper is based on the findings of research completed by the author in 1997 which is a result of four years of studies and field trips throughout the North-eastern states of Pernambuco, Alagoas, Sergipe and Bahia. Over 300 urban and rural settlements were examined and the main examples of each typological category compiled in a comprehensive inventory which included colour photographs, maps and interviews with the builders, owners and users of the folk houses of the region. This is an important document which brings evidence that there is a direct relationship between poverty and the needs of aesthetic pleasure in the folk architecture examined. It also shows how modern aesthetics is seen in the abstract formal repertoire, in the clarity of meaning, in the pure form and anti-historicism of the facade composition of the folk architecture of North-eastern Brazil.

Regarding DOCOMOMO's request for establishing criteria for the selection of typologies to be designated for eventual conservation, it is fundamental to highlight the following points:

1. Built environments are the result of a direct interaction between culture and people. In the folk built environment of North-eastern Brazil, poverty plays a major role in the production of building forms which shows how people live in hardship, their emotional and artistic reaction to it, their struggle for a better life, their view of the world in which they are excluded, their aims and intentions.
2. To preserve the folk built environment of North-eastern Brazil means to perpetuate the miserable conditions of people's lives and their abnormal living standards. These villages and small towns are not only bricks and stones, a neutral framework in which their inhabitants exercise artistic experiences. As such they should not be preserved (fig. 17).
3. Conservation must go beyond cultural, aesthetic and technical parameters to include investments in the social and physical infrastructure of these urban and rural settlements. An attempt to integrate conservation and urban development was carried out in the small village of Mirandiba-Tupanaci, situated in the Sertao do Pajeú region, in the North-eastern state of Pernambuco. A project coordinated by the planning institution for the State's inland municipalities brought together the local government of Tupanaci and the National Ministry of Culture-MinC to refurbish 50 houses (including facades, infrastructure, sanitation, floors and kitchen facilities) in connection with the preservation of Mirandiba's architectural heritage consisting of a folk built environment sharing the same characteristics of those examined in this paper. (Oliveira: 1997).

My proposal to The Fifth International DOCOMOMO is to get support from DOCOMOMO International in order to develop joint efforts to gather funds from Brazilian and international institutions concerned with the preservation of our cultural heritage in order to:

1. Publish the inventory of folk architecture in North-eastern Brazil already carried out. This would unveil the specific characteristics of those places and show how modern aesthetics evolved from an erudite and sophisticated architectural vocabulary into a free reinterpretation of shapes, colours, proportions, abstract and pure forms to which is added the realism, myth and lyricism of the building forms which constitute the neglected heritage made by the poor of North-eastern Brazil.
2. Carry out projects for physical, social and economic regeneration or revitalization of those urban and rural settlements with design strategies in which popular values, priorities and needs are respected and taken into consideration. This could be achieved through joint efforts from experts, politicians and policy decision-makers.

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Architecture, Conservation, Identification: A Case for the Recent, a Case for the Ordinary

Everyday. Commonplace. Mundane: buildings we experience each day, buildings we generally take for granted. Motels, service stations, suburban houses, corner shops: architecture spawned of the automobile, and continuously at its mercy. Modest structures which have impact on our lives. We experience them as often as, if not more than, the libraries, churches and museums of our towns and cities.

Recent and ordinary architecture must be considered when creating a truly representative cultural heritage. In countries like Australia and New Zealand, conservation of the recent and the ordinary could be viewed as having particular relevance because it spans a sizeable portion of the entire building stock continuum.

But these ordinary buildings rarely won professional awards. They may not even have been architecturally designed. These are ordinary environments, where the 'event' has the ability to take precedence over the 'style'. They are important symbols of our society and culture, heavily imbued with ideals and values. As such, they are worthy of recognition as significant elements of our cultural heritage.

Identification and assessment are fundamental steps in the conservation process. They are value laden activities which can be influenced by factors including politics, economics, taste and opinion. Existing methods of identification and assessment may no longer be appropriate for the recent and the ordinary. These buildings demand new attitudes and new approaches, and present an opportunity for new expectations.

This paper challenges the traditional idea of conservation. In presenting a case for the recent and the ordinary, it moves beyond the context of traditional conservation discourse, and forward to the future. It acknowledges the transformations evident in all spheres of society through the impact of technology, and suggests conservation practice must be at the forefront of these changes to maintain credibility and feasibility in a dynamic world.

The Emotive Power of the Word

Words and terminology used in conservation are interesting; Language has proven emotive power so when dealing with an emotive topic like conservation, its use must be taken seriously. One obvious obstacle is the difficulty in making recent buildings fit into the popular notion of heritage. Preconceptions of the idea of heritage set up prejudices which need to be removed. These prejudices restrict the public's notion of heritage to Victoriana, museums, horse-drawn coaches and similar ye olde worlde images. Such associations are an impediment to broadening perception of what is culturally valuable. If a building doesn't fit public perception it has little chance of being considered seriously. For this reason 'heritage' will not be used in respect to the recent. Instead 'architecture' has been chosen.

'Historic' is another problematic word, since it too has definite implications associated with buildings of a particular age, and with images of antiquity and the ancient. Often the people associated with recent buildings are still living, and having those alive who remember a building's construction is another obstacle in it being viewed historic. A 1930s building doesn't always fit the public perception of what is historic, let alone a building from the 1950s or 1960s. So when moves are made to conserve these buildings under the historic umbrella, the public has difficulty in comprehending their relevance. Yet use of 'historic' is pervasive in conservation practice, and for the public its use equates to unquestioned value and importance. The unfortunate converse is

that if a building doesn't fit the popular perception of historic, as in the case of the recent, then it is in danger of being considered of no value. This problem is further perpetuated by the use of historic in titles of conservation organisations such as the 'Historic Houses Trust' in New South Wales, Australia, and the 'Historic Places Trust' in New Zealand, which by their names would appear to exclude any association with the recent.

The Recent

The idea that we need to value buildings from the recent past because they are evidence of our social and cultural history, and will remind us of how things were in the late twentieth century, is straightforward. The recent past is especially significant because it can teach us about where we *ourselves* have come from, not just our parents and grandparents. And in rapidly changing times these reminders are particularly relevant.

But regardless of our appreciation, these buildings are inevitably overlooked in the conservation equation. Realities, practicalities and ideas about age priority mean that limited resources are tied up with older architecture. With the benefit of hindsight we realise that the immediate past is valuable, yet still we witness the destruction of buildings, and experience regret.

The justification that recent architecture just isn't old enough to be appreciated is a purist argument not a populist one: we need only look through antiques and collectibles shops at the premium prices on 1950s, 1960s and 1970s items of Poole china, Murano glass and Knoll furniture to see an emerging public interest in the recent past.

History substantiates the case. Fashion is retrospective and cyclical. We almost inevitably come to revere objects from the past. Even objects cheaply produced and of poor quality become collectible. They still speak of some social or cultural condition that gave rise to their existence. Recognition of their value acknowledges popular culture.

Unfortunately, intellectual and cultural trends are often detrimental to the profile of contemporaneous architecture. Personal taste is a major problem as it tends to overshadow other more pertinent criteria when determining significance, and recent buildings are especially prone to aesthetic judgement. Without the benefit of time to gain

respect, they are often seen as objects of bad taste and out of fashion.

The Ordinary

Within the context of the 'recent', concentration is centred on the term 'ordinary'. Venturi et al label architecture as 'ordinary' or 'conventional' in one of two ways: either by its construction or by how it is perceived.[1] The context in which 'ordinary' is used in this paper acknowledges both definitions, but is extended to include function.

Ordinary buildings are often small structures, not dominant statements. They perform everyday functions, where people carry out daily activities, and they may not be unique in doing so. More often than not they are privately owned: they represent private enterprise, and individual taste and aspiration. Guardianship lies with the owner, and the public unquestioningly relinquishes responsibility.

Probably built without any direct input from an architect, an ordinary building may have been based on an image from a magazine, or perhaps a catalogue design. So with no awards, no precedents, and no public perception of the value in, or responsibility for this architecture, what justification is there for identifying these buildings as important?

A building is more than just a physical object with a history. It is the embodiment of ideas and values, with associated meanings for individuals and communities.[2] Yet conservation practice is still very much preoccupied with the history of architecture, which while presenting an aesthetically pleasing view of the past, is fundamentally limited. Importance can also be given to the history of people, which includes everyday activities like going to school, earning a living, shopping, and going on holiday. These social activities contribute to the essence of our existence, and influence how we create and give meaning to our environment. They are interwoven with our cultural traditions of the past, our cultural identity in the present and our cultural aspirations for the future.[3] Many of these everyday activities are carried out in ordinary places.

Ordinary architecture might be considered to emphasise the 'event' at the expense of 'style' where event is about function and the everyday and style is about architectural statements and awards. Architect Bernard Tschumi emp-

hasises the important relationship between event and architecture when he says, 'There is no space without event, no architecture without programme; the meaning of architecture, its social relevance and its formal invention, cannot be dissociated from the events that "happen" in it.'[4] A building is a site of human activity, and its cultural value should be judged on that basis, irrespective of form. A document of social behaviour and custom can have as much, if not more, cultural importance as one considered fashionable by a select group of professionals.

The Cult of Style

The history of architecture is frequently treated as a history of styles. Since the nineteenth century architectural periods have been differentiated this way, with styles viewed as fixed and definite stages of development. Stylistic divisions and developments were identified by observation and classification.[5] This identification method provided opportunity for comparison which has since been an essential feature of architectural history. Conservation practice has adopted similar methods of classification, and is often concerned with determining if a building is a pure or best example of a specific style.

This stylistic view of architectural history is linear, and implies static, isolated moments. In reality we are dealing with a dynamic continuum, where the formal delineation of an individual style can only exist as an abstract idea. Use of simplistic categories for classifying buildings is convenient but restrictive. It is responsible for the exclusion of any building outside its specific classification.[6] As well as recent and ordinary architecture, this selective oversight has in the past excluded recognition of the primitive and the vernacular.

Preoccupation with style has tended to exclude the human factor from architectural history, treating it as independent of the environment to which it belonged. Having now recognised the value of the relationship between architecture and people, we are seeing more emphasis on the society which produced the style, rather than the style itself.[7] And the importance of social activity to the case of the recent and the ordinary has already been emphasised.

To overcome the over-dominance of the cult of style, the role of architecture as a social and cultural document must

be revealed. We need to remind both ourselves and the public that many buildings now rightly considered historic and significant were also once criticised and reviled by architectural critics and the general public. It is a natural process of history and of fashion.

The Reality

On a practical level, how can we identify, assess and conserve recent and ordinary architecture, particularly given its vast quantity? Much post-1945 architecture resulted from increased postwar capital production and a proliferation of building opportunities. The outcome was an unprecedented range of designs, and a vast array of new building types, for markets including leisure and retail. Consequently, the selection of specific buildings worthy of recognition is a challenge. And if we look to the future, the number of buildings termed recent and ordinary will be phenomenal.

In addition, many buildings had stringent budgets, and used cheap materials, and experimental techniques. A building from the 1960s which was expected to last about 30 years is by now deteriorating. Today's buildings have an even shorter life-expectancy. Therefore, as well as quantity, issues of quality, high maintenance and technical challenges enter the conservation equation.

Many examples of recent architecture were intended to be ephemeral: They were built to exploit a trend, an economic opportunity or a location. Should we attempt to save these buildings when threatened by the same factors which brought them into existence? Perhaps it could be viewed as poetic justice that buildings resulting from a laissez faire approach might meet their demise in a similar fashion.

Recent architecture cannot be realistically considered for conservation in the same way as old architecture. For a start, few recent and ordinary buildings would meet the current criteria used to justify conservation: None can be considered for their antiquity, and few can be considered for their rarity, or for their association with significant events or people.

The Future

I suggest that the question of how to deal with the conservation of recent architecture might best be answered by

looking to the future. The conservation profession is generally so preoccupied with yesterday, that tomorrow is often overlooked.

We conserve now with the idea that a building will exist into the future, but we should take the time to contemplate what this really means. The future is an astronomically long time, so do we really expect conservation work to last that long? The concept becomes almost too inconceivable to grasp. And how much relevance will current conservation principles have in this unknown future anyway?

Underpinning this thought is the belief that the *idea* of conservation must evolve. Conservation operates within the context of contemporary design and planning; dynamic processes adopting change, and reacting to it. To maintain credibility, conservation will be forced to keep pace with its related disciplines.

Current conservation practice centres on plans, reports, charters, guidelines and statutes which have a philosophical basis and a practical application. But they are merely tools developed to suit the current climate. They shouldn't restrict our ability to accept and adapt to future possibilities. We must still question the relevance of our conservation actions for present and future generations.

The technological revolution is a major global force, transforming all aspects of life, and challenging traditional tenets. There is now a software dimension to culture which is as important as its hardware. Many processes once real are now invisible, and cables, telephone lines and radio waves are necessary parts of the modern environment. The expectations of architecture in this software age have diminished.[8]

The idea of virtual architecture renders space and form obsolete as quantifiable or aesthetic entities.[9] Space is no longer seen as a three-dimensional construct relying on the object for definition. It has been suggested that the object of the future will be something evanescent, light and psychic. The material narrative as we know it is being replaced by a cosmic narrative.[10]

Contemporary life is now so highly influenced by the visual image, that this form of experience is gaining new meaning. Image of object rather than object itself is an accepted feature of computer technology, with virtual reality, teleconferencing, home shopping, and even dating at our fingertips. How conservation philosophy might change in light of technology, given its impact upon society in general, and the object in particular, becomes an issue.

Presently conservation emphasises the existence of the object, be it building, artefact or landscape. Charters and guidelines are based upon that assumption. We value the ability of the extant building to provide an immediate and tangible link with the past. But if technology is transforming our relationship with the object or physical presence of the object, these shifts in our expectations and values must ultimately impact upon the conservation arena. The precise extent of impact is impossible to determine, but it seems probable that conservation philosophy will be considerably different as a result.

Somewhere here may lie a solution to the problem of the conservation of recent and ordinary architecture. Presently it is an anomaly in the conservation scene, where traditional philosophy is geared to the historic. But with the introduction of new ideas about conservation which recognise the expectations of a transformed society, there will be a new context from which to consider these buildings.

For example, if the image of object experience is accepted in place of the actual object, something like cinema might take on new meaning. We already recognise the power of television and cinema to alter the sense of reality. Contemporary cinema provides a fine narrative of everyday life with motels, houses, service stations and restaurants having a continuing history of portrayal. Notwithstanding the possibility of creative hyperbole, film offers an accurate and valuable record of a place: not only do we get the exterior, but also the valuable interior perspective, usually lost over time. Of equal importance, we gain a sense of the event: the people, and their interaction with their environment. Consider Egoyan's *The Sweet Hereafter* (1997) where the local motel and its owners are woven into the plot. Or Hitchcock's *Psycho* (1960) where Bates Motel has been immortalised. Three different stories in Jarmusch's *Mystery Train* (1989) are linked by the hotel where the characters stay. All movies enable the viewer to experience the physical characteristics of the buildings, both exterior and interior, including furnishings, and present versions of their interactions with people.

But rather than just viewing a film image of a building as a recording method to document, might not our shift in expectation to an acceptance of image in place of object, also allow film to be considered a conservation process as well, along with the processes of preservation, reconstruction, restoration and adaptation? Used as such, the film medium could be considered socially democratic as it would no longer be restricted to specialised professionals but would become an unconscious and uncalculated process integrated with popular culture.

Conclusion

These ideas might appear radical, even far-fetched. They challenge not only what is conserved, but also the meaning of conservation itself. But the fact remains that contemporary conservation philosophy has changed little since the nineteenth century of Ruskin and Morris. Yet disciplines like architecture and design within which context conservation operates, have experienced considerable shifts in *their* philosophical bases.

We are living in a world where the pace of change is ever-increasing and we cannot hope to know precisely what the future may hold. Changes in the postmodern condition are continuing to have major impacts on the institutions traditionally responsible for holding societies together. Thinkers within these institutions are re-evaluating the needs of society within the context of the global environment.[11] Conclusions are drawn with a quotation by Wiel Arets, architect and thinker, concerning his ideas about architecture and film.

'..... Through the rapid succession of images and the torrent of stimuli, architecture is cinematic. We experience the city through the car window, as if watching a film.....To speak of film and architecture is not innocent; it suggests how the city and urban life are drastically altered by new media and technologies. Perceiving life as if it were a film is only the beginning of an altered reality. We are discovering how traditional ways of observing are being transformed into new strategies of perception.'[12]

Notes

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2 Johnston, C., *What is Social Value?: a discussion paper*, Canberra, Australian Government Publishing Service, 1992, p.iii.

3 *Ibid*, p.6.

4 Thackera, J., 'Beyond the Object in Design' In: Thakera, J., (ed), *Design after modernism:beyond the object*, London, Thames and Hudson, 1988, p.17.

5 Baker, D., *Living with the Past: the Historic Environment*, Bedford, UK, David Baker, 1983, p.39.

6 *Ibid*, p.6.

7 Linstrum, D., 'The Uses of Architectural History Today', in: *SAHANZ 87*, papers, fourth annual conference, Sydney, Society of Architectural Historians Australia and New Zealand, 1991, p.6.

8 Coates, N., 'Street Signs', in: Thackara, J. (ed), *Design after Modernism: Beyond the Object*, London, Thames and Hudson, p.99.

9 Ingersoll, R., 'Cities of the Americas in the Information Age', in: *"TRANS>arts.cultures.media"*, on-line at: http://www.echonyc.com/~TRANS

10 Donà, C., 'Invisible Design' in: Thackara, J. (ed), *Design after Modernism: Beyond the Object*, London, Thames and Hudson, p.155.

11 Van Dahm, J., & Mullinax, K., 'Post-modern viewpoints' in: *Beirut: (Re)Building the Contemporary City*, week 3 summary notes, on-line at: http://www.asu.edu/caed/Faculty/Biln/MullinaxVanDahm_notes.html

12 Arets, W., 'An Alabaster Skin', in: *Columbia Documents of Architecture and Theory, Volume Two*, New York, Columbia University Graduate School of Architecture, Planning and Preservation, 1993, p.37.

ISC Session: Education

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The Teaching of Construction in the Domain of Architecture

..."et ils se considéraint comme des gens très serieux, occupés de choses utiles". Flaubert, *Bouvard et Pécuchet*

The scope of architectural institutional education is, historically, the transmission of criteria, or better said, of techniques to attain 'correct' architectural form. The main difference between the two trends of the French matrix that served, internationally, as models for institutional training is to be found in the aspect from which proceeds this correct architectural form.

According to the Academic tradition, established at the École des Beaux-Arts, the correct form eventuates from the operation of a compositional theory, through the use of elements of architecture and elements of composition. Guadet's *Eléments et Théorie de l'Architecture* (1901–04) presents a synthesis of such a design technique. For the Polytechnic system, matured in many engineering schools starting with the course of Civil Architecture of the École Polytechnique, the correct form is associated to the rationalization of distribution according to *tracés régulateurs* and to the study of the different building types. Durand, in *Précis des Leçons d'Architecture donnés à l'Ecole Polytechnique* (1802–05), has established this ideal.

The emphasis in formal synthesis in institutional education, founded in explicit design techniques, has resulted in the eminence of methods of architectural training advanced through exercises of composition. This fact did not entail, however, a default of disciplines foreign to architectural composition. A transmission of knowledge about construction

has always been present in different curricula; Rondelet's *L'Art de Batir* (1807) is a pioneer example of the general building treatise commonly employed. Notwithstanding, this effort to translate practical know-how into formal architectural education poses specific issues, since it is inexorably subsidiary to the teaching of correct form.

Obviously, architectural institutional education has risen from an extant economic activity – building, as a social interpolation in order to guarantee or reinforce its ideological, aesthetic and tangible technical dimension. Therefore, in the Beaux-Arts system, to build is a ordinary activity, a trite activity, to which architectural design fastens seeming aesthetic or symbolic qualities: design qualifies construction. Later in time, the Polytechnic system – apparently more attuned to this ordinary activity – will promote the study of knowledge coming from the fields of mathematics and physics, quantifying construction.

In this process, construction becomes split. In one hand, practical activity, disqualified and disquantified, organized according to convention: that agreement between the different parts, represented by the client, the architect and the entrepreneur, about the correct manner of building, about the 'rules of the art'. In the other, technical knowledge adjusted to the institutional universe. In the sphere of education, in tandem with composition exercises it will be found syllabi about procedures of quantification: grapho-statics, strength of materials and, latter, soil mechanics and so on. Construction, properly, appears only in a descriptive manner, as metalanguage (in São Paulo Polytechnic School, for instance, the discipline concerning building was called "Technology of Elementary Professions"), because, as a practical activity, its teaching is unattainable within the institution that is meant exactly to mediate practice and technique.

Hence, the propensity to tackle only abstract questions in the study of construction. Through the second half of the 19th century and the first half of the 20th century, the technical training associated with Architecture has been further and further characterized by a reduction in the importance given to the immediate understanding of constructional processes and a concomitant valorization of quantifiable subjects: structural calculus, hydraulics and electricity, foundations, and, more recently, calculations

about thermal and acoustical performance, computer appliances, etc..

In the second quarter of the 20th century, two new factors came to affect architectural institutional education: the diffusion and assimilation of the Modern Movement thought and the extensive enactment of laws controlling the professions associated with construction.

Lets see firstly the aesthetic contention. Since the Renaissance, the idea of 'novel' in Architecture has represented more some new way of interpreting the past than the prescription of forms without precedents. However, from the 19th century onwards, in the context of utopian thought, architectural theory came to identify the idea of a 'correct form' with that of 'technical progress' and, consequently, to allow and welcome formal newness. In these circumstances, it would be correct that Architecture that somehow endorsed technical advancement or took its meanings from it: the new materials, the new building systems, the new typologies, the new programs, etc..

With the Modern Movement, such identification was accentuated, taking traits of a theoretical paradigm that should inform the design of correct architectural forms. In fact, it is quite accurate to distinguish the Modern Movement precisely as that architectural style that has as main basis of aesthetic legitimization, instead of correct formal models in themselves, the incorporation of such technical advances – new materials, new building systems, new typologies, new programs, new equipments – for the production of formal newness. At the end, a new rationality supposedly draw from the reality of production means. And this new rationality should also be incorporated to actual building, should once more qualify construction, which now has to have as goal the coordination of those new technical resources, through the employment of serial production, pre-fabricated elements, premolded components and so on. In this context, the banal and practical activity of building ultimately disappears, assimilated now directly to architectural design as an adjective, to aesthetics as constructivism: constructional honesty.

The legal issue touches the organization of work in the field of building after the enactment of professional regulations. Besides the unheard of value given to institutional education – that has contrived in the long run a market reserve for holders of diplomas by way

of the exclusion of those builders inserted in the convention –, professional statutes have broadened even more the breach between the practical activity of building and the technical method of its teaching.

As already seen, institutional education is unequivocally associated with the division of two activities relatively organic – the conception and construction of a building, according to some convention – in two other activities relatively autonomous and apart – the design of a building and the construction of this design. With the wide dissemination of professional regulations in the 1930's (thus, a much recent reality), not only such division became legal but one more factor of mediation was interposed: how to distinguish engineers and architects – both certified and therefore legitimate – and, even more grave, how to distinguish designers and builders? Through another adjective: to design buildings, in all its aspects (architectural, structural and installation designs), would be a liberal activity, while to build buildings would be a commercial activity.

Schematically, the liberal portion stays under the responsibility of architects and/or engineers in charge of the formal solution of the architectural problem and of several specialized architects and/or engineers in charge of technical issues such as structural calculus, hydraulics, electricity, etc.. Construction, identified with the commercial portion of the transaction, stays with entrepreneurs who also engage, besides foremen and workers, certified architects and/or engineers for the execution of the job. This way, design apparently loses its mercantile character, hidden by procedures of qualification and quantification, and can not even be presented as real productive work, while in the so called commercial province, disappear all controls of that standards of quality of building exacted and assured by convention.

The outcome is ambiguous. From an aestheticizated and liberal practice to contemporary institutional education, having disappeared the conscience as such of the existence of the trite activity of building, the necessity for its teaching also disappears. The technically recreated issues concerning construction are metaphorically incorporated to architectural design, transmuted in criteria to reach correct form: without Rondelet, *firmitas* becomes *venustas*. In this transposition, architectural design can no longer be taught as a compositional technique: Durand and Guadet discarded, *venustas* becomes irrational. Or, said in another way, contemporary institutional education, sanctioned by a constructivist aesthetic and supported by a neo-corporativist professional statute, has not achieved – and maybe could not have done so – a transmission of knowledge, systematic and independent, about construction.

Mabel M. Scarone
DOCOMOMO, Argentina

DOCOMOMO, Education and Redesign – Conservation of an Urban Opportunity Area of Buenos Aires – a Question of Principles and Methodology

In the underlying persistence of the founding principles of the Modern Movement, still at the very roots of our present teaching, is where we find today the basis for research and study not only for conservation but also in the broader field of training the general practitioners in architecture and urban design capable to face present and future social demands.

In spite of the world global problems of today, our national contexts – be they educational, political, economical, etc. – still retain a number of lagging aspects that force us to face different professional realities with adequate proceedings and operational methods fit, to meet real local planning demands and possibilities.

Within those important changes, the cultural and scientific foundations of our Universities are being strongly affected.

Non the less in matters having to do with the training of our future planners and architects.

This presentation tries to give a rapid insight of our local DoCoMoMo's working party efforts, covering a number of activities – inventory, register, press conferences, research, restoration, teaching – which in this case converge to set up a Pilot Plan that has enabled

us to tie MoMo principles with the present needs in education.

The idea may not sound entirely new for the broad membership of DoCoMoMo since, already in Barcelona (1994)* and again in Sliach (1996)* – see note 1 – references were made as to the "building up" of a teaching method with which the fundamentals of the MoMo's theories and results in practice could again return to be considered as an important cornerstone of teaching.

After four years of a continued policy related with training, we can now give an integrated report of the situation as it stands today.

Let us fall back to 1994. It was then we began to probe in the professional circles with "eye opening" reports on the permanent values of MoMo architecture of the 20's and 30's, underlining the sad state of disrepair or agression played on these now historic monuments.

With the use of our still then tentative local MoMo register which was submitted to open critical participation of well known practising architects of different generations (30's/60's) in planned meetings and round table discussions, a trend of thought – even a rediscovery of values by the younger generation of professionals – began to take shape.

Different seminars and courses on MoMo architecture – specially Argentinian – could now be useful not only for the "cause of architecture" but also to make students, designers and architects familiar with DoCoMoMo's international activities and principles.

These activities – with help from the press – attracted the attention of the architectural organised bodies and institutions – such the case of Universities and our Central Professional Council – both volunteering to support further efforts, now in the academic levels.

Argentine DoCoMoMo thus became a steering group "to furnish the necessary documentary and theoretical support" for a research body of professors and assistants coming from different training areas of the School of Architecture of the University of Buenos Aires: Architectural Design proper; Theory and History of Architecture. In a second phase of their work the Structural and Mechanical Engineering Areas were to be integrated to the team.

The academic results of the task proved to be fruitful and interesting to a point that, gradually the first proposal, limited to a Faculty research and teach-

ing staff, loomed as a possibility to be experienced and tackled by students of undergraduate and graduate levels.

Throughout this exercise, the statement: "creative design proposals can only exist if construction is mastered at different levels of complexity", held true, as also and equally important that "a relation of the problems to be solved with the real existing context is imperative" (Again Barcelona 1994).

Since then, the 90's have been significally important in matters concerning the "Identity" and "Pride of Place" of the different urban and rural areas of our country as elsewhere. Planners and urban designers have finally found a need for, and discovered the underlying importance of, the supporting arguments of conservation for their newly conceived proposals.

Conservation and renewal areas have mushroomed in the long forgotten parts of our urban tissues.

This is certainly true if we speak of Buenos Aires.

So finally the stage was set to bring together DoCoMoMo's know-how, the University's academic interests and the real needs of worried planners and architects working "on the spot", all tied up – integrated – as a logical outcome to our present situation.

DoCoMoMo was called upon to evaluate different so called "opportunity areas" with urban, architectural and cultural value for Buenos Aires central district.

A decision was finally drawn in favour of the "Corrientes Avenue redevelopment area".

We should briefly explain what this area looks like and what it stands for in the eyes of the current urban citizen of Buenos Aires.

Corrientes Avenue, an east-west link of the Capital City, is an important traffic thoroughfare where buildings of major public and commercial uses line along this monumental spine. Secondary streets cut this spine at right angles, dividing it into well defined segments (100 meters long). Each is dotted with one or more large scale monuments which dominate and provide a visual character for the segmented avenue.

Although most of these buildings have a similar architectural 19th/20th century scale and styles, each one is radically different in shape, highth and function from the others.

The uniqueness of each monument gives a unique identity to the street seg-
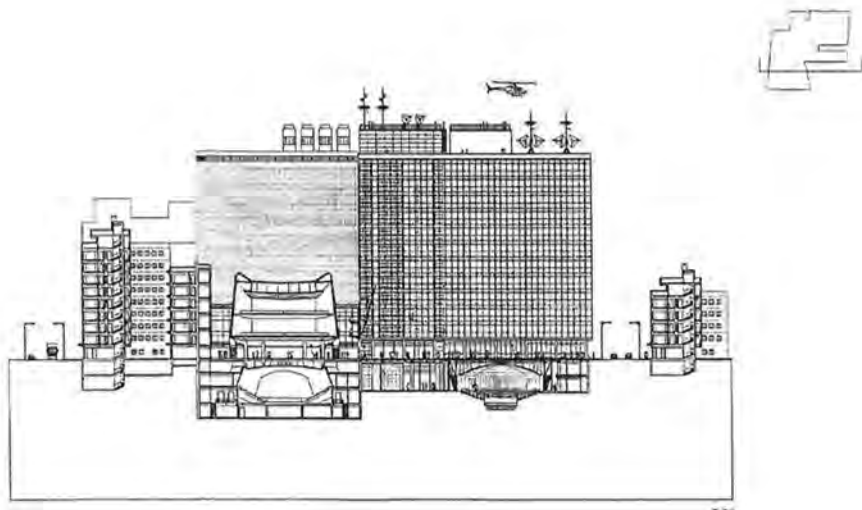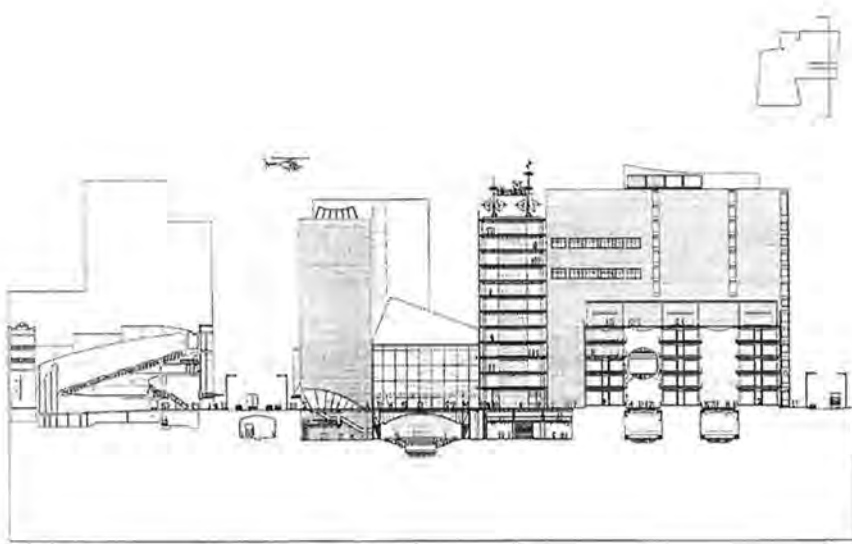
Undergraduate student's conservation proposal for the
San Martin Cultural complex – Corrientes Avenue
Area – Buenos Aires.

ment it dominates. In this way street segments are differentiated from each other.

These major spatial events (buildings) are, from a functional point of view, major spatial and social gathering places: cinemas, theatres, night clubs, (disco's), hotels. Restaurants and cafes are located so as to act as connecting cedules between the parts of the spine so as to make the relationship between the segments memorable.

A number of remaining less important architectural examples complete the tissue of this urban structure.

The resulting visual experience, is accepted today as in it was at the end of the century and well supported by present social and psychological conditions of our Buenos Aires citizens who take pride of "la calle del tango" (tango street) or "Buenos Aires' Broadway".

One of the major 20th century architectural features on this Avenue is the *San Martín Theatre* and Cultural Center complex – an outstanding building of the 1950's – at present in a sorry state of disrepair. Years of misuse, lack of maintenance and even vandalization have left it's marks on a building of remarkable spatial and architectural values. A fitting document of it's time.

Architect Mario Roberto Alvarez – the designer (now in his 80's and still active) – has always been hailed as one of the important key figures of that period.

An honour member of our DoCoMoMo working party, his building received the Certificate of Outstanding Architectural Value after having been included in the list of the thirteen examples sent to, and published by, the ISC/R.

Alvarez fully supported the proposals and conservation plans for the Theatre and Cultural Center and opened his files for the use of the complete history and documentation still in existence of this complex.

Not long after this possible course of action had been drawn, support was received from an unexpected quarter: the Government Body (newly elected) of the City of Buenos Aires.

The report and exhibition drawings of undergraduate students in Conservation and Architectural Design – both subject under my supervision at the University – using Architect Alvarez's working plans and "on the spot" appreciation of the decay of Avenue Corrientes environment, plus the sorry state of the "San Martín", did not fail in arousing the interest of the press and, as a logical outcome, of the City's authorities.

The government City Planning office decided to work on a Pilot Plan for the recovery of this area and to focus on several of it's major buildings to favour their conservation, restoration and maintenance. The DoCoMoMo working party has been called in to monitor this activity and prepare guidelines, inventory lists and technical recommendations.

The Faculty of Architecture of the University of Buenos Aires has broadened the whole experience to other groups of design and urban renovation of the school and decided this urban area to be the context for the Thesis proposals of this year (1998).

We expect that the results of these student's proposals will turn to be a "pool of ideas" for professionals to test and further develop.

The joint actions of DoCoMoMo – University (and now City Planning Office) in progress should, by the end of this academic year (December) furnish us all with an experience and further on, a set of guidelines to put into use in other areas of our Capital City where MoMo architecture stands as a focal point vital for *two of the most outstanding principles in conservation policies*: Identity – Pride of Place.

Irénée Scalbert
United Kingdom

The Value of Objectivity

We refuse to recognize problems of form, but only problems of building.

> Form is not the aim of our work, but only the result.
> Form, by itself, does not exist.
> Form as an aim is formalism; and that we reject.

The thrust of this statement is familiar. Every modern architect, it seems, could have written it. It makes as much sense in the context of the 1920's and the 1950's as it does, in the context of today. The recognition of value in building per se, the implicit association of form with architecture, and above all the forceful rejection of formalism all seem contemporary. For the better part of the 20th century, the difficulty in circumventing the use of form – something that was far more difficult than the removal of ornament – weighed upon architects like a burden of guilt.

The above statement was written by Mies van der Rohe in 1923, one year after the architect drew his project for a concrete office building, and statement and project are a perfect foil for one another. Both are succinct to the point of terseness. They illustrate a state of mind which was not altogether unique. Similar statements to the above were made by collegues of Mies in Berlin. Others with the same bent could be found without much difficulty in the writings of most prominent modern architects in Germany and elsewhere. An aversion or at the very least an ambivalence towards the concept of form is among the most persistent and determining facts in the architecture of the 20th century.

Adolf Loos offered an evocative illustration of this sentiment, even though his protest was directed against ornament rather than form. In a brief essay written at the close of the 19th century, he described the Vienna of the Ring as a Potemkin City, and denounced the fraud consisting in giving to bourgeois apartment blocks the appearance of Renaissance or Baroque palaces fit for the nobility. The expression was adapted from the "Potemkin villages" whose existence was alleged by a hostile western press during the war between Russia and Turkey. In an attempt to please Catherine the Great, Prince Potemkin would have literally stage-managed the Empress's tour through Crimea in 1778. Peasants would have been dragged from elsewhere, and paraded through sham villages built of cardboard and paste, to present Catherine with the spectacle of a prosperous country. These Potemkin villages were well suited to Loos' preoccupations and to those of Modernists in general. They did not merely indicate the moral bankruptcy of a system: beyond the cardboard and paste, they pointed to a longing for reality.

A unique and now well documented movement in the history of architecture ensued. Architects discovered and sought to attach themselves to a reality which, even by today's standards, must have seemed to unfold with extraordinary speed and vividness: steel and concrete frames, lifts, bridges, dams, automobiles, cruise liners, planes, radio, film, advertising, primitive sculpture, jazz, cubism, abstraction... Artefacts that were peripheral to architecture appeared to have a superior beauty and power, and to participate in a heightened prophetic reality. Hence a longing started for the new, for the unfamiliarly real, within which architecture sought to become absorbed or which it attempted to claim for itself.

John Summerson was among the first critics of this temptation of the real. In 1941, he lectured at the Architectural Association in London about "the mischievous analogy", and described how modern architects came to replace stylistic imitation with analogies between building and various aspects of life. "The architect, he wrote, has walked out of himself, rather like a second personality is seen to walk out of the first in a psychological film. He has ... left the first personality at the drawing board and taken the second (the "live" personality) on a world-tour of contemporary life – scientific research, psychology, engineering, the arts and a great many other things."

This situation, inherent to Functionalism, ensured as Summerson saw it that buildings became dull and diagrammatic to all but the architects. The personality on the drawing board, the historian proposed, must be drawn into the second, live personality. Reunited, they will shake off the ideology of the minimum (then promoted by the CIAMs). They will substitute minimum requirements for maximum possibilites, and learn not only how to economize space, but also how to be extravagant with it.

Twenty years later, interest in form, plasticity and style which had been such a low priority until then, did burst on the architectural stage, for ewample in the shock performance of the Leicester Engineering Building by Stirling & Gowan, First came the rise of history assisted by Colin Rowe and Aldo Rossi. The rehabilitation of the conception of architecture as a language followed, aided by Robert Venturi and Charles Jencks. Architecture became a system of meanings which could be equally well enshrined in the classical orders and in Le Corbusier's "five points". The two criteria of originality and literacy came to dominate its appreciation, making it possible to criticize architecture in terms that were exclusively its own.

What could Summerson have made of this? In 1941, the architect appeared to have walked out of himself, and to have lost the key to his identity. Several years later, a key was found, borrowed from art historians and structuralist critics. But contrary to Summerson's wishes, it was not the personality at the drawing board who joined the second, live personality. The reverse occurred: the live one came to roost by the drawing board, and inaugurated one of the most conservative periods in the history of architecture. If the architect could seem at one time to have locked himself out, he now appears to have locked himself in. In semi-darkness, he is feeling his way through the closure of formalism in an effort to retrieve a sharper, more open sense of reality.

The enduring hope that Modernism would liberate architecture from an obsession with form was disappointed. The pleasures of form-making proved addictive, and the curiosity and patience necessary for a consequent study of life (to use Summerson's simple expression) decreased in proportion. In compensation for this shameful addiction, self-conscious expression was concealed inside an attitude which claims to be

"natural". Beneath a mask of simplicity, form play was granted a new lease of life. In British works like Tony Fretton's or in Swiss works like Herzog de Meuron's, form thrives all the better as a result of its clandestinity.

This covert life of forms can be illustrated with two paradigms, the monolith and the mirror. With the monolith, for instance the church of Ste Bernadette (1964) built by Paul Virilio and Claude Parent at Nevers, an attempt is made at replacing geometrical form with topological space. Concessions to expression or style are violently suppressed. With the mirror, great play is made between appearance and reality, thus making the recognition of forms difficult. A good example is the Goetz gallery (1992) built in Munich by Herzog & de Meuron in which the distinctness of materials – translucent glass, brushed aluminium and ash veneer – becomes blurred, and essence and image, confused.

On the basis of appearance alone, the monolith and the mirror could not be more different. One exudes mass, density and strength, when the other is intangible, thin and brittle. The one is rounded, and the other, sharp. The one is all continuous form, like a sculpture by Henri Moore whose inside is ever returned into an outside, while the other, like a Dan Graham, is all reflections playing into and against one another.

Yet they have more in common than is immediately apparent. Both evade geometrical definition. Both show no sign of interiors and appear closed and hermetic. The church at Nevers thrives on the banality of the blob, and the Goetz gallery thrives on the banality of the box. Aspiring to a condition beneath the threshold of expression, one quality survives in both buildings: that of presence.

Presence is not a new esthetic category. It is for instance a distinctive attribute of buildings designed by James Stirling. Yet the difference between the latter's manner and the sensibility of many contemporary architects is revealing. For Stirling, the presence of form is literally a measure of its fullness, form being akin to an intangible vessel destined to be filled with material. Today to the contrary, presence shall be more intense if it is disembodied, if it is freed from the distraction of form. Architects now cultivate the semblance that the vessel itself has been removed, and that one is presented with a pure essence – as in a work by the artist James Turrell.

Wanting at first to break through the closure of formalism, architects are now faced with another kind of closure. Rather than having superseded the hold of form, they became tangled with its opposite, non-form. A mood of silence and distance came down upon architecture, and muffled the babble of forms which filled the 1970's and 1980's. The esthe-

tic of presence, of being without language, now offers itself as the new objectivity, as a *sachlichkeit* for today. For Mies, though, as well as a majority of modern architects, objectivity described not only a specific, radiant quality in an object, but also the directness by which this object was to be made: it pertained to esthetics as well as ethics. Fundamentally dissociated from the transparency cultivated by early Modernists, today's new objectivity counfounds one's understanding with an impenetrable opacity and strangeness.

The esthetic of presence completes the confusion between form and reality which has marred the course of architecture during this century. Far from marking a return to the real, it elevates form, or rather non-form, to new heights. It invests architectural objects with occult powers, with an aura which appear to deny, in an impressive display of vanity, their ability to serve life. Yet the potential of objectivity in architecture resides in a whole range of relationships which it establishes between the world of inanimate objects and that of the living – between material and sensation, form and signification, and performance and service. Helping to free practice from prejudice, its value lies in its ability to bring architecture into people's lives, in ways that can be far more satisfying than the adoration of its aura.

The lecture halls of the Leicester Engineering Building by Stirling and Gowah "God may be in the details, but the devil is in the forms". Photo John Donat 1963.

Towards the next Conference: Brasilia

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The Morphology of Brasilia: an Evaluation

(This paper is a development of a lecture originally presented to the *1991 Nippon Life Insurance Foundation Symposium*, Osaka, Japan, November 2, 1991. It is also, in great part, and under the title *Transformations of Brasília*, exhibited in the personal homepage of the author: www.tba.com.br/pages/fredrosa)

Introduction

The original propositions concerning the urbanistic plan for Brasilia, here understood as the urban spatial system serving the national Capital of Brazil, have suffered some significant transformations along time. The Capital is now almost forty years old, and, despite the maintenance of the basic principles which have been used in the original design of the city, new attributes have been incorporated, at various levels. I suggest two levels should be considered in such a discussion, as follows.

1. The macro level of the territory of the Federal District as a whole, concerning mainly the distribution of the urban land uses over the available land.

2. The lower level of the Pilot Plan itself, designed as the very core of the Capital, with the main political-administrative functions of the city, together with its housing areas.

All such transformations have their logic. I will try to describe briefly the main examples of them, and to offer an interpretation of their occurrence.

This paper is organised in three parts. First, I will offer a brief description of the overall spatial picture of the whole city. Second, I will comment on the basic transformations which have occurred along time, partly in response to original problems, partly as a result of the dynamics of the city's growth. Third, I will discuss remaining problems, which are structural in the city's design and which tend to be present in the city's life for a long time.

Part 1: Brasilia – Basic Description

Brasilia is known internationally as one of the largest scale experiments realised under the doctrine of the Modern Movement in Architecture and Urbanism, which has become an important reference in the field of urban design all over the world. However, conceived to serve as the capital of a country, there are some specificities in the design of Brasilia which should be considered, regardless its obedience to the basic principles of the Modern Movement.

Concerning the Pilot Plan – the originally designed bit of the city –, I suggest we may identify four spatial typologies. First, the space which attempts to respond to the character of the city, namely the Monumental Axis, where the main administrative and governmental buildings locate. More particularly, the Esplanade of the Ministries (fig. 1) and the Square of the Three Powers, constitute the monumental and symbolic space *par excellence*. This space is a sort of an "appendix" to the city, located at a peripheral position concerning the residential "wings", which shall be commented below.

Secondly, there is the urban core proper, constituted by specialised "sectors" which contain in turn offices, banks, hotels, amusement and cultural facilities, hospitals, radio and television studios, and, more recently, shopping centres (fig. 2). This urban core is located around the crossing of the two structural elements of the city, which are the Monumental Axis, commented above, and the Road Axis, along which the residential superblocks are located.

Thirdly, there is the residential area proper, constituted by the neighbourhood units along the south and north "wings", with its local facilities of shopping, education, health, communication, recreation and so on (fig. 3).

These three elements constituted what the author of the plan, Lucio Costa, called, respectively, the monumental, the gregarious, and the secular (or daily) scales of the city. (He also referred to the "bucolic" scale, which would be constituted by the rural areas around, but which, to my point of view, does not constitute an urban scale proper). I think we should add a fourth element, which is constituted by the low density area around the Pilot Plan, which is occupied by embassies, individual housing, private clubs and other special institutional buildings.

Beyond that, we have the satellite nuclei, at various distances from the Pilot Plan, and which shall be commented further on. At the beginning they were constituted as mere dormitory towns for people who fundamentally worked in the Pilot Plan. This situation is changing along time, and some degree of economic independence is already observable today, as it is the case with Taguatinga, which is quickly becoming the economic centre of the future metropolis (fig. 4). The satellite cities house altogether approximately 4/5 of the total population of the Federal District.

Part 2: Transformations Along Time

2.1. The Macro Level of the Federal District

The Pilot Plan was thought to house 500,000 inhabitants as a final population target. After saturation, the idea was to build satellite nuclei, around and away from "mother city" *circa* 25km. A permanent protection of a "sanitary belt" should maintain the Pilot Plan as an isolated, clearly identifiable spatial unit. What actually happened was very different from this. On the one hand, the building of satellite nuclei dates from the very foundation of the city. On the other, the "sanitary belt", having resisted for almost three decades, is now subject to strong controversy, and is slowly being eliminated.

From the very beginning, the building workers did not succeed in living in the residential areas of the original Plan. The Free City was found, a nucleus of pioneer immigrants, 15 km away from the centre of the Pilot Plan, one which has consolidated and constitutes today one of the nearest satellite towns, called Núcleo Bandeirante. What happened with the first immigrants who have built the Free City, also happened with the huge amounts of people who arrived in the following years, from all over the country, but mainly from the neighbouring states of Minas and Goiás and

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

Fig. 7.

Fig. 8.

Fig. 1. The Esplanade of Ministries, in Brasilia.

Fig. 2. South Commercial Sector, in the urban core.

Fig. 3. A set of superblocks of the South Wing.

Fig. 4. Taguatinga, satellite city of the Federal District, in Brazil.

Fig. 5. The Road Platform, in the crossing of the Monumental Axis (upper left to lower right) with the Road Axis (lower left to upper right).

Fig. 6. The various levels of the Road Platform complex, showing the North Amusement Sector (which has actually become a shopping centre) in the bottom right.

Fig. 7. The park between the Road Platform and the TV Tower.

Fig. 8. "Street" between the South Commercial Sector (right) and the South Hotel Sector (left).

from the Northeast Region: without being able to afford the expensive housing typology of the Neighbourhood Units of the Plan, and without having the permission to build a different typology, they had to improvise their housing types in illegal settlements which, in some cases, took many years to become legally recognised. We shall see, in item 2, below, how pressures to build different typologies in the Pilot Plan itself soon forced some transformations of the original Plan, even though they were not enough to respond to the strong immigrant pressure commented above.

Thus, this is the first and most important transformation which occurred in the overall structure of the territory: much before the complete occupation of the central core of the future metropolis, which even today still present many housing plots unoccupied, a string of satellite nuclei developed, creating, from the very start, a very sparse, low density, urban tissue (it is even difficult to call this "urban").

The second transformation is more recent. In 1986, Lucio Costa himself began to admit the occupation of the green belt around the Pilot Plan, and he himself proposed a review of the original spatial structure, which implied two sorts of changes. First, the occupation of the some areas along the main roads connecting the Plan with the satellite towns. Second, the definition of new housing areas very close to, and around, the Pilot Plan itself.

It became more and more difficult to justify an extremely expensive urban structure, with enormous empty areas amongst its constituent elements. Such costs may be exemplified through the ratio of bus passengers per kilometre of urban lines in Brasilia, which amount to about two and a half times the average ratio of other Brazilian cities of the same size. More recent studies, related with the preparation of a master territorial plan for the whole Federal District, strongly emphasise the need to review the sparse occupation along the main road axes, as a way of minimising the bad economic and social effects of such spatial structure.

I would suggest two main groups of reasons for the original propositions of the territorial structure as a whole in Brasilia. On the one hand, there were ideological reasons which supported a particular urban scene for the Capital: conceived as a symbol, not only for the country, but for the whole world, the

Capital should not admit, in its very core, something which might jeopardised the image of a developed country so hardly pursued. On the other hand, market forces have presided over the access to the land, by which it became very difficult for the low income people to achieve housing space in the more central parts of the city. More recently, however, pressures from various social origins, resulted somehow in a re-orientation of the original principles, although, until now, to a very low degree.

2.2. The Level of the Pilot Plan

Also at this level, the implementation of the Plan along the years led to interesting transformations. I will comment briefly on: a) the appearance of new housing areas; b) the appearance of a commercial avenue serving directly the consumer (the W3), replacing a service road for wholesale firms; c) the change in the morphology of the local shopping, serving the neighbourhood units; d) the change in use of the space between the bus station, located in the Road Platform, in the very centre of the city, and the TV Tower. From an empty space to be seen, this place became one of the liveliest of the whole city, although mainly on week-ends and holidays.

New Housing Areas

Although the poorest part of the population had to admit living kilometres away from the Plan, as commented above, the original housing typology, based on expensive six stories high buildings over pilotis, with elevators, have soon proved inadequate to house even the lower income levels of the civil servants, whom the city was, after all, supposed to serve. Thus, a fourth row of super-blocks (the 400's) was created, consisting of buildings only three stories high, without elevators, still over pilotis. But in this case an exception was accepted in the beginning (and after that abandoned): it was also possible to build here economic housing three stories high, without pilotis. Also, another row of superblocks was created (the 700's) along the W3 Avenue, consisting of row houses, and with some rare occurrence of buildings two stories high over pilotis.

For some time, these changes have guaranteed the presence of a lower-

middle class in the Pilot Plan, but as the years have passed, this has become less and less true. Land speculation which kept many housing plots without buildings for years, and the market pressures which increased the prices of the existent buildings, ended by pushing these lower classes to the periphery of the satellite towns. Once more the peculiarity of Brasilia shows up, and this is also due to the land use structure we have here. The distance of the satellite towns increases the gap between the prices found in the Pilot Plan and in the peripheral towns, in such a way that the former is rapidly becoming a very homogeneous middle-high and high classes millieu. It is true that some of those popular buildings still exist, but they are rapidly being "gentrified", reforms becoming frequent all over the place.

Transformation of a Commercial Strip

The W3 Avenue was supposed to be a service road, supporting wholesale firms, which should serve the local shopping of the neighbourhood units. It is now something which, in Brasilia, most closely looks like an urban street, as previously existed before the attributes of the modernistic city became dominant in urban design. Three main factors have been responsible for such a change, as follows.

First, the implementation of the central commercial area was very much delayed. Commercial activities, in the original idea of the Pilot Plan, should happen only in two sorts of spaces: 1) the local shopping, inbetween the superblocks, and 2) the central Commercial Sectors, which, together with the Bank, the Amusement, the Hospital, the Cultural, the Hotels, the Radio/Television and the sectors for some Government agencies ("autarchies"), constitute what we might call the Centre of Civil Society, in contrast with the Centre of the State, formed by the Esplanade of the Ministries and the Square of the Three Powers. For a long time, the central commercial sectors have remained eccentric, concerning the parts of the city which have actually been built. The W3 Avenue was more strongly consolidated near the first superblocks to be implemented.

Second, the implementation of the super-blocks of row houses (the 700's) since the very beginning of the city, made the W3 a much more central urban

thoroughfare than it was thought of before. Instead of being a road which would constitute a sort of perimeter ring of the Pilot Plan, it became the only long distance avenue which had buildings on both sides, located very near the traffic lanes. This contradicted one of the basic principles of modernistic design, namely the radical separation of spaces for circulation from activities-adapted spaces. It was not mere chance that, for many years, the W3 constituted the cultural core of the city. Two reasons may have contributed for its recent decay. First, in a city where motorization ratios approximates, or even surpasses, the ratios of developed countries, it could no longer compete with the better offer of parking spaces of the new shopping centres. Secondly, although constituting something which most closely approximated the urban avenue, it still had a morphological characteristic which made it different from a traditional commercial street: only one side of it was commercial, the other remaining residential, what increased the distance pedestrians had to go through, in order to check different buying alternatives.

Third, its continuity, in contrast with the discontinuous structure of local shopping, together with its proximity of the residential areas, gave it good conditions to compete with advantage with the local shopping for a long time. Shopping, as well as services, constituted, in the W3, a mix of local, district and central land uses, what increased the diversity which has always to be present in consolidated urban streets.

It is also important to notice a more recent change both in the morphology and in the use of the buildings along the W3, in the residential side. Not only buildings are opening windows and doors directly to the avenue (where there were previously blind façades), but also these residences are housing more and more urban facilities, such as informal hotels, private clinics etc. The pressure for central uses is very great, and the tendency is obviously a thorough transformation of this strip, into commercial uses in both sides.

Morphology of the Local Shopping

The modernistic principle, already commented above, of radically separating circulation of vehicles from activities-adapted spaces, was also present in the morphology of the local shopping.

Between two rows of shops there should exist only a service road, and the shops should open only to the interior of the residential super-blocks. This was coherent with the idea of the neighbourhood unit and its alleged self sufficiency: local shopping was supposed to be used only by residents in the superblocks close to that commerce. Modernistic designers believed in the autonomy of bits of the urban tissue as a real, or at least desirable, fact concerning both functional and sociological attributes of city structure.

In Brasilia such a fallacy was once more demonstrated. Shops turned their front to the street, and their backs to the interior of the super-blocks, from the very beginning. This has created, in the south wing, a very unpleasant sort of "backyard landscape" facing the residential buildings. It was clear that even the most "local" urban service, is already *urban*, and not local, in the sense that it already relates to the city as a whole, and not to its immediate surroundings. To deny that purported autonomy of bits of the city is not to deny the differentiation which exists between places which are more accessible and places which are less accessible. But fragmentation or radical segregation – as the concept of the neighbourhood unit implies – is another story altogether. Perhaps one of the biggest flaws of modernistic design has been this obsession with separation and unambiguous classification of places, designed for a culture which, despite strong tendencies otherwise, still invests in intense face to face contacts among great numbers of diverse people, using same places.

In the north wing, which has been implemented after this problem was observed, the morphology of the local shopping is different. There is no "backyard landscape", for we have shops opening to an arcade which surrounds the whole building. But unfortunately this was achieved at the expense of the greater continuity we had in the local shopping street of the south wing.

The Change in Use of the Space between the Road Platform and the TV Tower

One of the fundamental attributes of the city design, which has been explicitly stressed by Lucio Costa himself, was the possibility of arrival of long distance bus travels in the very core of the city. The Road Platform is a huge and com-

plex building and traffic junction, and, for all its problems and potentialities, it is perhaps one of the most fascinating bits of the Pilot Plan of Brasilia (fig. 5). It is a four-level structure (underground vehicle passage, ground level, mezzanine and a higher parking and circulation deck for cars and pedestrians), which connects the two residential wings, and crosses at ground level with the Monumental Axis (fig. 6). It is the place in the urban centre of Brasilia where the presence of people is most dense, varied, continuous and prolonged.

The location of the TV Tower, also in the Monumental Axis, but further away and upground to the west, has created another pole in the city core, which attracted, in the beginning, tourists who used a privileged viewpoint, in the Tower itself, from which the city can be seen. The presence of tourists generated a craftsmen's fair, and this in turn, generated more people form the city itself to visit the fair. With time, the use of this green space between the Tower and the Road Platform became very dense, particularly on week ends, and one of the main reference points for leisure to the lower income population of the whole Federal District (fig. 7). From an inquiry we made, it was clear that the main reasons for the intense presence in the place was "to see people", the "lack of alternatives" in the rest of the city, and the "beauty of the place".

The interest of this case lies in the fact that this is the only intensely used public open space in the city, despite the fact that it is not well equipped with adequate facilities for the users. The use of the space happens *despite* the original intentions of its design. It is the presence of the population which is forcing the local government to more and more adapt the space to the large numbers of people who come here.

Part 3: Remaining Problems

Land Use Structure of the Pilot Plan as a Whole

I have commented above on the problems of commuting passengers from the satellite towns to the Pilot Plan, due to the land use structure of the Federal District as a whole. But there are problems

concerning the land use structure of the initial Pilot Plan itself.

A first point is related to the radical separation between housing and jobs areas, despite the transformations of the W3 Avenue already commented upon. More work space is being built in the areas which already constitute the main job area of the Plan – the Esplanade of the Ministries. This is already beginning to cause traffic jams in peak ours in the main accesses to the city core.

Concentration of jobs in places which are completely empty of housing leads to a radical desertification of these areas, in non-working periods. This has very high infra-structure costs, as well as a "day-after landscape" at nights, in week-ends and holidays. Unfortunately we do not envisage a reverse of such a policy in the short term. On the contrary, because of the still large tracts of available land in the very periphery of the city centre, the tendency is that even more jobs will be created in this area, directing the land use structure of the city to an even more unbalanced situation.

One of the basic characteristics of the city is thus reinforced, namely the one by which spaces are different *in kind*, and not *in degree*. A more balanced situation would require that residences should expand towards the central areas, as well as job areas should be expanded towards the residential areas. The present unbalanced situation of the city's land use structure is also very much related to the modernistic fallacy that all people have the same needs concerning residential areas. Learning from experience in other cities, we know that there are people who love isolated buildings scattering all over green areas, but also that there are those who need a more *urban* environment (single people, students, couples without children etc., who will always form a very large part of the population). Easy access to urban facilities are crucial for these people, and they do not find this in a low density, exclusively residential, millieu.

A second point is related to the non-residential land use specified for many plots within the Pilot Plan, to which there has been no adequate demand. Many of these places are still empty of buildings, contributing to the low density and the bad use of the infrastructure available. A review of these pre-determined uses has to be intensified, even to the point that we conclude that residen-

tial buildings should be erected in these areas, so that the unbalance between housing areas and job areas should somehow be corrected.

A third point should be noticed, in that, even today, almost forty years after the inauguration of the city, many residential plots of land are still empty in the Pilot Plan. Government has not been able (or willing) to stop land speculation in the most valuable tracts of residential land in the Federal District. There is simply no sufficient demand from high income classes, which are able to pay for the prices which are asked for in the remaining areas of the Pilot Plan. Government should force these pieces of land to be put into the market, thus improving the overall density of the city, which is around the extremely low figures of 20 inhabitants per hectare.

Deterioration of Urban Scape through "Blind" Areas

Three factors, very typical of modernistic design, affect seriously the urban scape of Brasilia. One is the occurrence of service roads, even in the most central parts of the city. Unlike "traditional" design, in which buildings have no backs to the public space, the conception of "social" and service roads as two completely isolated entities, generate an urban tissue with many derelict areas, such as the "street" which separates the South Commercial Sector from the South Hotel Sector (fig. 8).

Secondly, as modernistic design conceives the city as a landscape of isolated objects, it provokes the appearance of many blind areas, that is, areas to which no doors at all open, or, at most, areas related only with service entrances. This causes the existence of spaces similar in character to those formed by service roads, of a poor quality, particularly in a central urban area, for the inexistence of an intense relationship between interiors and exteriors diminishes the probability of people moving through these open areas.

Thirdly, large earth movements, together with little attention paid to the relation of the buildings to its surrounding areas (for, again, they are mainly conceived as isolated entities), cause the appearance of vertical or inclined blind walls, contributing to the discontinuity of the urban tissue. This is very much observed around the bank sectors and the Road Platform.

Indoors Biased Urban Life

The idea of the gregarious scale at the urban core was very much damaged by the factors indicated above and by the more recent tendency of building shopping malls at the very city centre. The "amusement" sectors, particularly in the north side, were conceived as individual buildings which transform the whole open space available in these sectors into private areas. There is even a private security system which "selects" people who may (or may not) enter these areas, according, for example, to the way they are dressed.

This concentration of shops and office buildings connecting with open, but private, areas, contributes to the emptying of the actual public realm in the city core, which more and more becomes the unqualified interstices between individual objects. This universal urbanistic trend, which damages very much public life in the cities, is also present with full force in Brasilia.

Universal Residential Morphology

I have already touched upon the localisation of residential units in relation with other land uses. Let me now consider the configuration of the housing areas proper.

The superblock was believed to be the ideal residential morphology for all. This has proved not so. It is not that we have complete dissatisfaction with the superblocks, as some critics have wrongly suggested. But there is clearly a difference in the assessment that different social classes make of their place of living. For the middle-high and high classes, there is little complaint. The stile of life of these classes is not space-based, that is, their social contacts, for whatever purposes, do not take place in the neighbourhood. They love private clubs, visits to friends' homes regardless of place, and country houses in week-ends.

The mode of life of the lower income people, however, who somehow have succeeded in staying in the Pilot Plan until today, is a different thing altogether. Their contacts is more spatially based, that is, encounters with neighbours are more intense, and they are more dependent on public transportation. For these people, the morphology is not as positively assessed. They complain about the indirect relation with the public space, about the lack of move-

ment in the open areas, about the unpleasant routes they have to go through as pedestrians in this city.

Modernistic design has not considered that pedestrians and drivers use and perceive the city in quite different ways. Not only it has not considered that drivers will never be a hundred per cent of the total population, but also it has misconceived the person of the driver itself, who transforms himself into a pedestrian much more often than imagined.

Conclusion

I have attempted to indicate, in this lecture, the problems that time and life have made evident in the city of Brasilia. There are some problems which are very much embedded in the fundamental principles of design of the Capital. Others, could be solved without interfering too much on the very essence of the city's conception. They could be solved by adding elements of urban design to the elements already existing. There is already a clear tendency for this "urbanism of additions", more at the macro level of the Federal District as a whole, and less at the scale of the Pilot Plan itself.

The aesthetic qualities of the city's design would not necessarily be jeopardised by these transformations. The strong prejudices which exist against these changes have not considered carefully other examples of urban design around the world, which have been successful in achieving the co-existence of both monumental and secular scales in the design of cities and capitals. In the case of Brasilia, there is the strange fear that the consideration of the ethic dimension may seriously damage the aesthetic dimension. On the contrary, I think perfectly possible that we may have a city which is, at the same time, good and beautiful, both for its daily users, and for the distant traveller who comes once in a life time for its appreciation.

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Evolution of Forms and Functions in the Plano Piloto – Brasília, Df.

1. Introduction

Brasília is the product of a decision made in the fifties – to build the national capital of a developing country – that becomes, through its construction, a geographic tombstone of the development of the central plateau and the "march to west". It is also foreseen as a symbol of Brazil's effort to become a developed country. Its birth derives, therefore, from an act of political will and national expectation, in a voluntary effort within a democratic regime of freedom.

The building of Brasília involves a complex setting of political, economic, geographical, social and cultural variables as well as urban, architectural and environmental aspects. The evaluation of these topics has been done by several authors[1] and this brief paper refers to forms and functions in Brasília and how its population reacted to the guidelines derived from the ideology of the modern movement, imposed to them through a plan prepared in consultants' offices.

The question involves the contrast between the ideology that guided the master plan and the cultural, social and economic background of its population. The modern movement origins can be traced back to the Illuminism and

the belief of a common condition to develop human society, independently of its cultural, economic, political or social background. Quoting Choay: "l'urbanisme est dépolitisé. (La) transformation de l'urbanisme peut s'expliquer par l'évolution de la societé industrielle dans les pays capitalistes." She also indicates that urbanism "n'échappe pas complètement à la dimension de l'imaginaire" and it was a "mouvement utopique".[2]

Although the modern movement was influential in Brazil since the thirties, with the building of the Ministry of Culture and Education in Rio de Janeiro (1936) being an important contribution, it is quite evident that its knowledge remained restricted to a national elite. The building of Brasília was to affect several hundred thousand people and to impose a new controversial type of urban format and design that would affect their daily movements, environmental conditions, provision of services & commerce.

This imposed urban model constitutes, therefore, a unique experience in modern times of an ideology that emerges – or is imposed – through an urban plan that has no roots in the Brazilian culture. Similar to other recent western concepts, e.g. Marxism and Psychoanalysis, the principles of the modern movement intend or pretend to be universal concepts that lie above cultural diversity.

The city constructed was the product of modernism in a specific period of history and it reflects an imaginary model (the Aristotelian nous) of this movement. In other words, the urbanism summarized by the Plano Piloto had already been virtually built in preceding propositions of leaders such as Le Corbusier.[3] Other participants of the national contest to select the project were also influenced by the Modern Movement.[4]

The specificity of Costa's project was his intention to promote a clear example of a city (urbs) built accordingly to modern movement principles that would also serve as the national capital (civitas) of a people with its own specific cultural characteristics.

To respond to foreseen demands Costa defines three major types of space he wants the city to offer: the monumental, the gregarious and the bucolic space. The objective was to have a city "in which orderly and efficient work may be carried out, of vitality and charm,

conducive to reverie and intellectual speculation", not only the seat of the Government but also "a center of culture which will attract to it the finest and most perceptive intellects in the country".

These three major types of space – that follow modern movement principles in form and function – and their integration with Brazilian culture are briefly evaluated in four functional spaces of Brasília, as follow: the esplanade or the Mall, the southern and northern central commercial areas, the neighborhood commercial areas and the Super Quadras (super blocks) housing units.

2. The Mall or the Monumental Axis

2.1. Introduction

The urbanistic founding of Brasília as a civitas was based in the notion that the city should be "imbued with a certain dignity and nobility of purpose – for it is from this basic attitude of his (the urbanist) that must spring the sense of order, fitness and proportion which will confer real monumentality to his urban scheme", monumentality understood as a "palpable and conscious expression of true value and significance".

The central urban and architectural expression of these intentions is the esplanade or the Mall, where the Federal Administration buildings are located and which has the ideogram of Brasília – the two high rectangles and the two half spheres – as its visual point of reference.

The concept used for this mall, also called Monumental Axis when encompassing its full extension from the Praça dos Tres Poderes to the bus central station, had its conceptual origins based on traditional urbanism and cannot be seen as a concept of the modern movement. In Brasília this concept was linked to a functional proposal in which it is important to perceive the quality and diversity of the emerging space.

As it extends through its 3,465 meters, the Mall has a serene and almost religious majesty as if the lateral buildings were pillars that will take one to a more noble space, a colonnade as in Renaissance buildings and majestic stones of a Stonehenge.

2.2. The Esplanade

The esplanade is an expression of the modern movement if considered the similarity of its buildings with those of Le

Corbusier's urban projects. To many observers the result is a dull architectural portrait that cannot be compared with more recent expressions of urban design diversity and richness, such as the Park Avenue in New York, La Defense in Paris or the urban renewal of Saxon countries.

For this purpose it has been usually accepted that all buildings around the esplanade have the same value and format and this observation deserves a closer look because the monumental characteristic of the esplanade mutes and changes, as one moves through it. In this evolution in space and time there are three areas to be found according to a formal pattern that combines architectural values with the functional hierarchy of ministries in Brazilian administration (fig. 1).

The first area perceived emerges as one enters the esplanade through the bus terminal. The first sight is that of an incomplete project. In the foreground are land lots preserved for museums and cultural buildings. The cathedral follows framed by the buildings of the ministries. In the majestic background stands the Legislative complex as the focal point of the mall (fig. 2).

Moving into the esplanade to where the cathedral stands, the perception is that of an urban area built without any empty spaces. The religious building emerges in all its beauty and values, in sharp contrast with the dullness of the ministries that follow.

As one moves through the colored gardens and reaches the last section of the esplanade, two buildings will emerge presenting an architectural expression as beautiful and original as the Cathedral. These last buildings of the esplanade, one at each side, contrast with the preceding glass boxes and provide a new sense of beauty and dignity to this area. Their unique architectural design and formal expression reflects a functional priority in the federal administration as the buildings are the Foreign Relations Ministry and the Ministry of Justice: the first coordinates policies with foreign nations, the second the policies of the State with the Nation.[5]

To express these basic administrative roles, the architecture has an exquisite form and are masterpieces of Niemeyer's creative ability. The conclusion is that the format of buildings expresses federal administrative structure and the hierarchy of its ministries.

This conclusion is framed by frequent changes in denomination of Ministries located in other buildings, which happens in Brazil due to political demands or to modernization of public administration.

The last area of the esplanade provides a view of the Praça dos 3 Poderes from a higher level (fig. 3). Descending a gentle slope, one leaves the ministries of the Executive branch and enters a new urban dimension of the axis: the triangular piazza where are located: "the Government Palace and the Supreme Court in the base, the Congress Building at the tip" (fig. 4).

The piazza expresses a fundamental dimension of Brazilian democracy. It epitomizes the balance of the Executive, the Legislative and the Judiciary. This is the most noble space of the civitas, with its museums and monuments. The architectural values are reinforced by the open view to the lake and the blue skies in the south, which are major components of the urban design of Brasilia, as indicated by Edmund Bacon.[6]

In 1997, the formal balance and the design of the piazza were disturbed and strongly changed by the construction of the Superior Court of Justice, a Niemeyer's project that harmed and affected the grace and the equilibrium of the original concept (figs. 5 and 6).

2.3. The Esplanade and the People

To evaluate public use of the esplanade's space it is necessary to distinguish two major sectors of the mall: the lateral area where the buildings are located and the central green area.

a. The Lateral Buildings Area

Lucio Costa's concept was to build a linkage between blocks to provide support services for public officials. These were not built and services are now provided either inside the ministries or through informal business on the streets. In other words: the provision was made in Costa's plan, the linkages were not built and informal stands and kiosks provide such services today.

b. The Central Green Area of the Esplanade

The public use and the environmental conditions of Brasilia's monumental mall are subject to a great number of restrictions that limit its use by pedestrians, turning it into a public space quite different from the mall in Washington DC or the Champs Elysees in Paris.

Its major characteristic is the absence of people as a consequence of the lack of trees to provide shadow – much needed in tropical conditions – and the lack of adequate pavement which results in poor walking conditions for pedestrians. This scarcity of trees, in strong contrast with other malls, is technically explained by urban planners as to preserve the sight of the Congress in the background, free from any visual barrier.

Therefore the central green area is left with no pedestrian use and it is sporadically used in public events and massive meetings, e.g. the catholic mass with the presence of the Pope; political marches, meetings and music concerts. The mall is appropriate for these large meetings and its public use is then similar to those in other capitals.

2.4. The Trademark

The architectural expression of the Brazilian Legislative in the Mall became the logotype or trademark of Brasilia, such as the Eiffel Tower for Paris or the Big Ben for London. The public acceptance of these "two towers and two half circumferences" is remarkable and the permanence of the Legislative during the twenty years of the military government (1964/1985) can be attributed to the prevailing military ideology and also to the strong effect of the trademark in the media and in public opinion.

More recently it has been noticed that letters of young people living in Brasília will indicate the city through the trademark and will not spell the city's name.

3. The Commercial Areas

3.1. Introduction

According to the original master plan for the Plano Piloto of Brasilia, the transition from the urbs to the civitas starts in the crossing of the two axis, where the highway platform is located and is surrounded by the city cuore with its gregarious functions.

The functions assigned to this central area are those traditionally found in other cities due to its high level of accessibility. In Brasília the location of these functions follow the rigid land use pattern defined by the Master Plan, with areas exclusively assigned for hospitals, hotels, bank and financial institutions, commerce and services. The land use distribution has its origins in the rational concepts of the modern movement
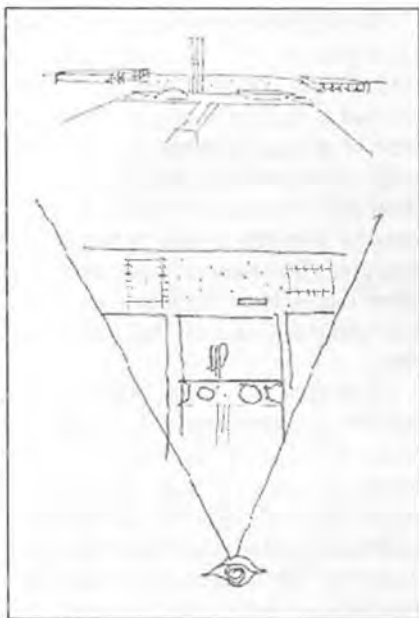
Fig. 1.

Fig. 2.
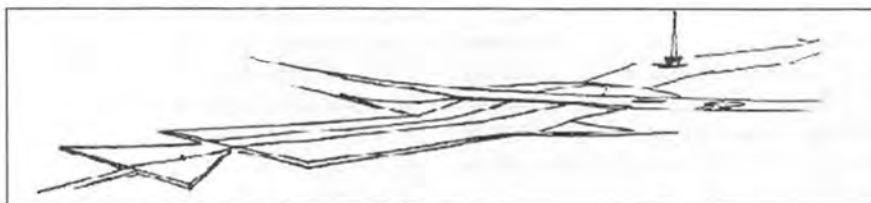
Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

Fig. 7.

Fig. 8.

Fig. 9.

Fig. 10.

Fig. 1. Costa's sketch for the Monumental Axis.

Fig. 2. The Esplanade – First area.

Fig. 3. Niemeyer's sketch for the Three Powers Square.

Fig. 4. The Esplanade – Last area.

Fig. 5. The Planalto Palace – Praça Dos Três Poderes (Three Powers Square).

Fig. 6. The Justice Palace – Praça Dos Três Poderes (Three Powers Square).

Fig. 7. The Southern Commercial Sector – SCS.

Fig. 8. The Local Commerce in the Residential Axis – SCLS.

Fig. 9. The Northern Commercial Sector – SCN.

Fig. 10. The Local Commerce in the North Residential Axis – SCLN.

and it has produced a sterile urban environment, that lacks the vigor of the heterogeneity of functions that is so typical of modern cities and the dynamics of urban central areas.

An analysis of the evolution of the original proposal for the commercial areas of the cuore is developed below because it constitutes an interesting example of the evolution through time of the same function in an urban tissue.

The urban plan of Brasília defines two symmetric commercial sectors located in the south (the Setor Commercial Sul – SCS) and in the north (the SCN). According to the original project the two urban sectors would have a similar architectural expression. This did not happen since SCS was built in the 60's and 70's according to guidelines of the founding fathers, and SCN was developed in recent decades adopting quite different guidelines approved by CAUMA, the architectural and environmental council, at the request of local developers.

The question is to what extent the original concept was adopted and whether the new architectural and functional formats of the northern sector contradict the principles of the modern movement as defined by Costa's proposition. In our evaluation we avoid a major question, continuously ignored by public officials: these two commercial areas have metropolitan functions (circa two million inhabitants) and are not limited to demands of the Plano Piloto's population, estimated in half a million people.

3.2. SCS – The South Commercial Sector

This area is entirely built and faces the deterioration of constructions and in the use of its public areas. The decay of this area is due mostly to informal commerce and services as well as prostitution and drug dealings and use. Its construction was started in the 50's according to the architectural guidelines of NOVACAP, which defined the continuity of the façades and the plant to be adopted in each edification. The product of these procedures, later changed, has a formal expression that can be defined as monotonous and homogeneous (fig. 7).

SCS starts at the structural axis, where the metro station is being built, in an area that is occupied by towers sixteen story high. It follows a continuous development of six level buildings that occupy the remaining area. Higher

buildings face the W3 Avenue limiting the SCS, which also has a few sparse towers with 12 floors within it. The sector has the formal characteristics defined by the founding fathers of the city and follows guidelines defined by Lucio Costa at that time.

The area is used by banks, commerce, public and private offices, a few restaurants and several informal activities. The urban environment is badly maintained. It lacks parking lots, although a great number of parking areas were defined in the original plan that nowadays are not enough for the increasing number of vehicles in the area. There is also the lack of adequate conditions for pedestrians. The SCS environment resembles a traditional city of the 50´s in its buildings and streets. It is an urban cuore that does not have the urban density, the traffic or the vibrations of a metropolitan central area for it resembles the downtown of medium sized cities in Brazil.

The deterioration of SCS and its unsafe conditions led to the move of several offices to other areas, e.g. the World Bank bureau to SCN. It led also to demands of real state owners for improvements by the public administration. On the other hand there are many university teachers and preservationists which support the preservation of the SCS with limited improvements and the modern movement principles in Brasília.

3.3. SCN – The North Commercial Sector

The building pattern of SCN, placed in symmetry to its counterpart, has a completely different shape and functional format, although it answers to similar urban functions and has been constructed using a similar street and parking structure (fig. 8).

The buildings are mainly towers or commercial centers distributed irregularly through the area, offering a rich architectural diversity that cannot be compared to the rigid homogeneity of the SCS. In SCN each building is an independent functional unit with restaurants, offices and commerce. The internal malls present a good environment and provide the services and facilities demanded by its office users and by visitors. The centers compete with initiatives to attract the people and offer safety conditions much demanded by Brazilians urbanites afraid of shopping and walking in many streets of Brazilian cities.

The urban tissue that has been produced resembles an archipelago, each unit performing as an isle that offers services that will attract shoppers and buyers from the entire metropolitan area. These service & commerce complexes are not linked by an adequate communication system and the street design of the sector is unfit to pedestrians. Yet, each one of these buildings was approved by CAUMA but the area does not have a specific urban project for its public spaces, streets, parking lots and flow of vehicles that will consider the existing buildings and benefit from its beauty and heterogeneity to define the whole urban space of SCN.

Summarizing, the SCN is a product of the modernization of commerce & services and its buildings are similar to those found in other contemporary developments. Each unit provides the basic conditions for a dynamic and rich encounter of people from Brasilia's Plano Piloto and its Metropolitan Area. However, the SCN is regarded by members of the modern movement and defenders of Costa's plan as an undesirable urban and architectural setting, that conflicts with the basic master plan.

3.4. Conclusion

The architectural format of SCN responds to contemporary demands of commerce and services and corresponds to the densities in occupation of the master plan. The archipelago was constructed using the same basic guidelines and the street pattern of SCS and, surprisingly as it might sound, Costa's plan was flexible enough to provide the central city functions in new emerging forms that could not be forseen in the 50's and which answer today to the demands of Brasilia's people.

4. The Local Commercial Areas

4.1

The housing and the local commerce and services are distributed in both sides of the North/South axis, usually called the Rodoviário Axis or the *Residential Axis*. These are clearly designed to offer the gregarious and bucolic functions of the urbs, according to the principles of modern movement and with the intention of providing Brazilians with new urban guidelines and principles.

Costa's intention was to define a residential surrounding based on Super

Quadras or superblocks and have its daily demands supplied by local commercial areas that would open directly to the Super Quadras.

This part of the original project is probably the one that received more changes in the evolutionary process of the city. Here Costa's plan expresses an evident lack of understanding of commercial and service location and its functional hierarchy in the urban tissue and in the urban system. For analytical purposes the evaluation of the original Local Commercial Areas is developed in three phases.

The original concept was to have a one level building that would open to the super-quadras along the east-west streets that limit the superblocks. In the first phase of the construction of Brasilia this area was redesigned and the local commerce oriented to streets with its back closed without any interaction with the Super Quadras (fig. 9).

In phase two there was a commercial and service specialization of several streets. This economy of agglomeration is well known in urban economics but apparently was not foreseen or was not specifically addressed in Costa's plan. As a consequence of this natural urban process, nowadays several commercial streets or sectors (SC) do not provide neighborhood services for their Super Quadras but are specialized in specific services. Some example areas are SCS 109/110 provision in electric equipment; SCS 405/406 in restaurants; SCN 207/208 in computers and software, SCS 102/302 in pharmacies and medical supply stores.

The concentration of specific activities in commercial sectors generated several demands for parking and sidewalks that cannot be provided by present conditions and have not been accepted by the local administrators due to their commitments with conservationist institutions and, more recently with UNESCO.

Phase three was produced by the development of the characteristics of buildings along the most recently built commercial streets. This evolution is more evident in the comparison of the original concept and the models being adopted in Super Quadras of the northern area (fig. 10).

4.2 Conclusion

The definition of the local commercial areas was the component of the original project of Costa most strongly transformed as its services suffered the strongest changes in their location and physical pattern. There have not been any recent studies about this question, one that is not dear to urbanism in general and to Brazilian planners in particular.

One of the most important conclusions derived from these changes in Costa's proposition is that they were a consequence of his lack of concern with economies of agglomeration and of scale in commercial and service activities. It also reflects the increasing search for quality of today's consumers and the flexibility provided by cars. All these factors result in the need for urban planning and design to seek flexibility and functionality in relation to these activities.

5. Housing and Common Space in the Super Quadras

The concept of Super Quadras as a bucolic area of the urbs constitutes the last topic of this paper. Several projects of urban housing areas have a remarkable similarity to Costa's project: the transparency of ground level is found in Le Corbusier's projects; the residential compounds for 2.000 persons whatever their economic conditions and background are found in the reform movement of the first decades of this century; the concept of Super Quadras can be traced back to housing projects in Europe which present the same physical homogeneity of its buildings, something that is frequently found in many eastern countries.

Yet, Costa was capable of assembling these components and providing a residential development consistent with the ideology of the modern movement as well as designing a shelter for a population used to other Brazilian housing characteristics. The Super Quadras can be evaluated according to a number of variables, some of which are indicated bellow.

Concerning the provision of urban services, the population density defined is not adequate for providing public services that demand economies of scale, e.g. public transportation. To resolve this issue changes in the original plan would be necessary but these are not acceptable as Brasilia is a World Heritage in UNESCO.

The urban design of Super Quadras is another topic that demands further evaluation. For many of those who live in Brasilia, the city offers a bucolic environment and it is a fine example of a garden city, where one can take a walk surrounded by woods where buildings are placed. In the other extreme are those who consider the city dull and its buildings ugly and monotonous. The urban environment provides support for both statements depending on personal expectations and the scale or priorities of each one. But whatever the point of view that emerges, it is clear that Brasilia is a unique city as to its urban environment. It is also the city where most inhabitants rely on the numerical indication of the Super Quadras to get home every day because there are no landmarks in the urban residential scenario to indicate one's location.

As to the internal functional and spatial characteristics of the super-quadras, one must remember that each unit usually has its own characteristic and there has been no comparative studies of the Super Quadras spatial format or functional pattern.

The population acceptance of the principles adopted in the original project of Costa has been quite strong. The most important topics concerning the insertion and use of the population in the Super Quadras are:

- transparency at floor level has been losing its importance and several blocks are using these areas for deposit, common use spaces, private closed parking and areas with low fences to avoid crossing by general public.
- the Super Quadras are not the neighborhood units foreseen in the original plan and their schools and kindergartens are not the place where most of its children study. This is due to the low quality of public education in Brazil.

It is important to say that the original neighborhood centers were not constructed. The only exception is the small area of the south aisle comprising Super Quadras 106, 107, 108, 109, 306, 307, 308 and 309, where the equipments proposed by Costa to serve the *Neighborhood Unit*, including a club, were built. A study of its use by inhabitants of this particular area is quite needed in order to investigate the acceptance of this modern movement concept by local population.

6. Conclusion

This brief document was designed to provide a preliminary evaluation of Bra-

silia as a landmark of modern movement urbanism, its acceptance by Brazilians and its insertion in Brazilian cultural development. Its conception is understood as follows:

"The gift of Brasilia is not primarily the form of its structures or the formal symmetry of its composition, but rather the reformulation of the vision of the city as a totality" Edmund Bacon in The Design of Cities.

The development of this paper follows Paul Valéry: *Tantot je pense, tantot je suis*. As urbanists and inhabitants of Brasilia we present these brief remarks as topics for discussion and further studies and research.

Notes

1   COSTA, Lúcio, "Brasília, cidade que inventei – Relatório do Plano Piloto de Brasília" Brasília : GDF/ArPDF/CODE-PLAN/DePHA, 1991; COSTA, L. "Lucio Costa – Registro de uma Vivencia", Brasília : Edit. UnB – Empresa das Artes, 1995; HOLSTON, James, "A cidade modernista – uma crítica de Brasília e sua utopia" São Paulo : Companhia das Letras, 1993 and many other studies realized by the ptofessors of the University of Brasília.

2   Choay, Françoise. "L'urbanisme" Paris : Editions du Seuil, 1965

3   Architect Samper, who worked in Le Corbusier's atelier for several years, in a conference held in the Colombian Embassy in Brasilia described his first arrival in Brasilia and the emotion he felt going from the airport to the cuore of the city: "It was like going through the maquetes and studies of Le Corbusier built on real scale".

4   Jorge Wilheim evaluates the propositions that were awarded in 1956 to indicate the influence of the modern movement in most urban propositions presented. He understands that Costa's project won because it was for a "closed city" that could be constructed in five years and the only organic propositions were MMM Roberto's and his own. See:WILHEIM, Jorge. *Brasília 1960 – uma interpretação* in "Brasília história, urbanismo, arquitetura, construção" 2.ed. São Paulo : Acrópole, 1960

5   In the seventies, when the building of the Ministry of Finances was to be built in a open lot at the esplanade, its powerful Minister Mario Henrique Simonsen required a new architectural design for it, due to the importance of its function in the Federal Administration. His purpose was to have a project similar to the Foreign Relations or Justice Ministry buildings. The requirement was denied and a building – similar to the others – was built. There is a certain *sagesse* in this similarity or dullness, that comes from the observation that several administrative reforms have taken place in the last thirty years and its unique visible external effect in the mall was to have the letters, with the name of the ministries, changed in the forefront.

5   See BACON, Edmund, "Design of Cities", revised edition, The Viking Press, New York, 1974. Bacon revised his point of view, and in the revised edition he states that "Unfortunately, Brasília cannot be understood except as experience on the ground in the city itself. (As) pointed out by Lucio Costa (...) Brasília could be apprehended only in relation to the clouds which, continually passing overhead, throw changing pools of light and shadow, over the architectural forms." p. 235. The simple and popular way to recognize this peculiarity is the recognition, of inhabitants and visitors, that in Brasília one can always see the skies and the horizon. This conditions deeply affects the recognition and the evaluation of the architectural forms and its landscape.

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The First Modern Architects in Brazil: 1930–50

The stimulus for researching this paper came from two books: one, the well known "Viena Rossa" by Manfredo Tafuri[1] and the other, a master thesis in sociology: "State, Social Welfare and Housing", by Marta Farah.[1] The first book attempts to show that the housing estates built by the Viena's socialist administration, between 1919 and 1933, were an integral part of the efforts made by the vanguards of the Modern Movement to solve the serious shortage of working class housing after the first World War. The second addresses the organization and politics of the housing agencies set up by the IAPs – Pension and Retirement Institutes[2] – organized by Getulio Vargas (1883–1954) after the 1930 revolution. As early as november 1930, a new Ministry of Labour, Industry and Commerce was created to stimulate the industrialization and modernization of the country. The new government also looked for political legitimation passing an advanced social legislation, which was thought would secure the support of the new urban proletariat, specially labour trade unions and the IAPs, one for each production sector, and all under the aegis of the new ministry. These housing agencies started, in 1936, to build large estates for their affiliates.

It is rather disturbing to notice that, more than fifty years later, these housing estates have not yet received the critical attention they effectively deserve for their innovative character in the context of the Brazilian Modern Movement. In terms of scale, planning care and social commitment, these housing complexes could well compare with the best similar realizations built in Europe,

in the years between the two great wars. They were designed with great attention and the units for the "minimum standards" were grouped in blocks, usually with three levels, often on *pilotis*, leaving large amounts of greenery used for schools, sports and other collective services. They were built looking for the maximum rationality of the available resources and they answered quite well to what Getulio Vargas asked for in a public speech in November of 1938: "... I gave instructions to the Labour Ministry ... to study and design large housing complexes of modest but comfortable homes.

For that purpose I recommended that large real properties should be bought, and, if necessary, the most valuable; with attention to the right cost; that the means of transportation should be considered; that the construction methods should be rational; that the purchase of construction materials should be done directly from the producer, in order to have the best price for the best house..."[3]. This part of the speech was most probably written by Rubens Porto, who was both an architect and an engineer and has been the Labour Minister adviser for a long period. He was a Roman Catholic social reformer, who used to write in the liberal press urging the State to intervene in the housing question. His most interesting book, "The Labour Housing Problem and the Welfare Institutes"[4] was published in 1938 and showed an extremely clear vision on how should the State approach, organize and finance the housing estates he thought necessary to preserve the traditional values of the working class family. He was very well acquainted with all the Modern Movement achievements and theories. For him, "minimum standards" were not incompatible with adequate housing provided the apartment was delivered with specially designed furniture, adequate sun and wind exposure, sports, schools and *pilotis* for the evening familiar leisure. He criticizes Le Corbusier recommended densities and suggests that Ernst May *siedlungen* in Frankfurt, such as Westhausen, of 1929, were not as effective as small three storeys apartment blocks on *pilotis*. The book is possibly the best programme for the new housing schemes that were under design at the time.

These realizations demonstrate that, by the end of the 1930's, there was already in Brazil an elite of architects and engineers, such as Carlos Frederico

Ferreira (head of the Design Department of IAPI and architect of the Realengo Housing Complex, Rio de Janeiro, with 2344 units, 1939–43, and the seminal Vila Guiomar complex in Santo André, with 1724 units built in 1940–49)[5], Attílio Correa Lima (Várzea do Carmo in São Paulo, with 602 flats, partially built in 1942, and the Heliopolis estate, unfortunately unbuilt, also in São Paulo, with 16.000 apartments, 1942–43), Paulo Antunes Ribeiro (Mooca housing estate in São Paulo, 576 units, built in 1946–50), Alim Pedro (Santos, 548 apartments, 1950), Eduardo Kneese de Mello (Japurá Street block, with 310 maisonnettes in São Paulo, finished in 1947, and the Cidade Jardim Housing Estate, with 770 units, unbuilt), Marcial Fleury de Oliveira (Santa Cruz housing in São Paulo, with 282 flats of 1946–50), and many others, which are not mentioned here, but where fully prepared to design and built according to the best standards set up by the Modern Movement.

During the period of 1930–50, Brazil was still a predominantly rural country, but an increasing internal migration to urban areas such as São Paulo and Rio de Janeiro then Federal District, indicated the need to undertake the planning and building of as many houses as possible. The number of units achieved by these housing agencies were remarkable; Marta Farah, in her well researched thesis, calculated that 124.025 units were either directly built (plan A) or financed (plan B) in twenty years (1937–57). When General Eurico Gaspar Dutra was elected president, in 1945, ending 15 years of the Vargas' regime, he was well aware of growing urban problems due to intense rural emigration and social unrest. Cities like Rio de Janeiro, for instance, had an increase of 1.7 million inhabitants (from 1.6 to 3.3 million) in less than 20 years, from 1940 to 1960. During his administration alone, 19.670 units were built in 72 housing estates all around the country.

Of these realizations, only a few received public recognition such as the neighbourhoods designed by architect Affonso Eduardo Reidy for the employees of the municipality of Rio de Janeiro in the late 1940's. The Pedregulho (1947) and Gávea (1952) complexes, undoubtedly works of remarkable formal innovation and attentive social consciousnes, received an exceptional attention of the international press, when in reality they were only a part of a

Fig. 1.
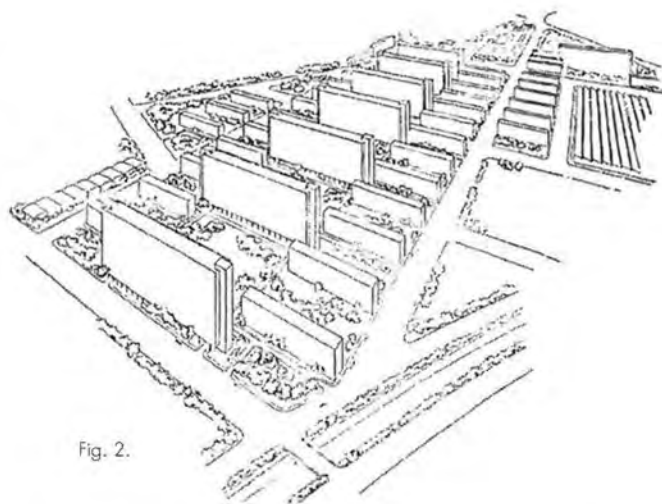
Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

Fig. 1. Santa Cruz Housing Complex. Photo: Francisco Azeredo.

Fig. 2. Várzea do Carmo Housing Complex. PDF, November, 1942.

Fig. 3. Cidade Jardim Housing Complex. Encyclópedie de l'Architecture Nouvelle.

Fig. 4. Vila Guiomar Housing Complex. Photo: Francisco Azeredo.

Fig. 5. Mooca Housing Complex. Industriários nº 7, February, 1949.

Fig. 6. Pedregulho Housing Complex: School. PDF, nº 1, Jan/Mar 1953.

much larger production, spread all over the national territory, indicating that in some institutes, such as the IAPI (Pension and Retirement Institute for the Industry's employees), there was already a housing policy clearly formulated and thoroughly implemented by professional managers, architects and engineers, such as Alim Pedro, who was its president from 1946 to 1951. To stress this point, a few cases could be analised. In 1943, the well known office of MMM Roberto designed a remarkable block with 72 apartments, some of them maisonettes in the heart of São Paulo. The Anchieta residential block had gardens designed by Burle Marx and the same elegant details of their most famous buildings. This one was never published except for a short reference in a recent São Paulo guide. In 1953, Flávio Marinho Rego, working for the Planning Department of the Federal District in Rio de Janeiro, designed a large housing estate with 1314 apartments in Deodoro for the FCP[6], a public agency of short existence for the construction of social housing. The apartments, most of them maisonettes, were distributed in 26 blocks, some of them long and gently curved; an existing mango wood was preserved; schools and the usual services were provided. It was rarely published and then only in administrative magazines of the municipality of Rio de Janeiro[7]. Unbuilt estates were widely published such as the Cidade Jardim Housing Complex, designed by Eduardo Kneese de Mello, indicating that the critics, either brazilian scholars or foreigners, had not researched in depth, accepting guided tours and prejudices as true evidence. There is no other excuse for the complete ommission of this large production in the most recent general histories published about the Modern Movement in Brazil, such as the Yves Bruand[8] "Contemporary Architecture in Brazil" or the "General History of the Arts in Brazil" organized by Walter Zanini[9].

The political troubles of the second Vargas regime (1950–54), the beginning of inflation in the 1950's and the construction of Brasilia in 1957, where the IAP's built their last blocks, were all causes for the sharp decline of this process. The number and quality of these constructions are significant and there are no valid explanation for the silence and lack of interest that these housing estates received over the years. This research has the purpose of breaking the silence and call the attention to one of the most interesting moments of the Brazilian Modern Movement.

Notes

1 MANFREDO TAFURI (org.), "Viena Rossa. La politica residenziale nella Viena socialista, 1919–1933". Milano, Electa Editrice, 1980.
2 MARTA FERREIRA DOS SANTOS FARAH, "Estado, Previdência Social e Habitação". Dissertação de mestrado em sociologia, apresentada ao Departamento de Ciências Sociais da FFLCH da USP, 1983.
3 IAPs – Instituto de Aposentadoria e Pensões.
4 GETULIO VARGAS, O Estado Novo e o Momento Brasileiro, in: "A Nova Política do Brasil". Volume VI, Rio de Janeiro, L. J. Olympio, 1940.
5 RUBENS PORTO, "O Problema das Casas Operárias e os Institutos de Caixas de Aposentadoria e Pensões". Rio de Janeiro, 1938.
6 LUIS A. G. DE ANDRADE e SÉRGIO DE AZEVEDO, "Habitação e Poder: Da Fundação da Casa Popular ao Banco Nacional da Habitação". Rio de Janeiro, Zahar Editores, 1982.
7 FLAVIO MARINHO REGO, Conjunto Residencial em Deodoro. Fundação da Casa Popular, in: Revista Municipal de Engenharia, PDF, Vol. XX, no 2 abr / jun 1953.
8 YVES BRUAND, "Arquitetura Contemporânea no Brasil". São Paulo, Editora Perspectiva, 1991.
9 WALTER ZANINI (org.), "História Geral da Arte no Brasil". 2 volumes, São Paulo, Instituto Walther Moreira Salles e Fundação Djalma Guimarães, 1983.

Beside the Conference

The DOCOMOMO Council Meeting

The Grand Final

The Post Conference Tour in Stockholm

The DOCOMOMO Council Meeting

Swedish Museum of Architecture, Stockholm
Friday, September 18, 1998
Wessel de Jonge,
Secretary DOCOMOMO International

The DOCOMOMO Council Meeting was attended by representatives from Argentina (Alfredo Conti), Belgium (Luc Verpoest), Brazil (Anna Beatriz Galvão), Bulgaria (Penyo Stolarov), Canada British Columbia (Robert Lemon) and Québec (France Vanlaethem), Croatia (Darja Radovic), Czechia (Jan Sedlák), Denmark (Ola Wedebrunn), Estonia (Karin Hallas), Finland (Maija Kairamo), France (Jacques Repiquet), Germany (Jos Tomlow), Greece (Panayotis Tournikiotis), Hungary (Tamás Pinter), Iberia (Susana Landrove), Ireland (Shane O'Toole), Israel (Arie Sivan), Italy (Anna Maria Zorgno), Japan (Hiroyuki Suzuki), Latvia (Janis Krastins), The Netherlands (Rob Docter), Norway (Anette Albjerk), Poland (Maria Zychowska), Russia (Maria Nachtchokina), Scotland (Miles Glendinning), Slovakia (Klara Kubickova), Slovenia (Stane Bernik), Sweden (Marianne Råberg), Switzerland (Ruggero Tropeano), the United Kingdom (Allen Cunningham), and the United States (Theo Prudon). Not represented were Canada Ontario, Dominican Republic, Lithuania, and Romania. Of the 32 countries and regions represented in the Council all but eight had voting power, according to their status as related to their contribution to the DOCOMOMO Register Project.

Of the many decisions that were made, the most important ones can be briefly summarised as follows:

- British Columbia (Canada) was unanimously accepted as a new Regional Working party.
- As agreed by the Council in 1997, DOCOMOMO Brazil will organise the Sixth International DOCOMOMO Conference from September 19–22, 2000 AD, in Brasília, dedicated to the theme 'The Modern City Facing the Future', Frederico de Holanda in Brasília and Anna Beatriz Galvão, assisted by Angela West Pedrão in Salvador de Bahia will co-ordinate the Conference.
- For the Seventh Conference, in September 2002, Jacques Repiquet for the French Working party proposed Paris with the provisional theme 'The Modern Movement Facing the Future'. Since the French proposal is still in an embryonic state, the Council decided to uphold its decision until the required information will be submitted by France by January 15, 1999. A written vote by the Council in March will then result in a final decision.

Executive Committee

For the coming two years, the International Secretariat will remain in The Netherlands but has moved from Eindhoven to Delft University of Technology. Hubert-Jan Henket was re-elected as the Chairman of the Executive Committee (EC), and Wessel de Jonge as the Secretary. However, they pointed out clearly to the Council that they will be available until 2002 at the latest.

Maristella Casciato from Italy was re-elected as the Coordinator for the ISCs. The Swedish representative Marina Botta, after having received an ovation for her splendid work in organising the Fifth Conference, stepped down as an EC member for the Conferences. Her seat in the EC is taken over by Anna Beatriz Galvão from Brazil.

Constitutional Matters and Membership

The intention of the EC, as announced in the 1996 Sliac Council Meeting, to stop discussions about the DOCOMOMO Constitution was gladly fulfilled. The only item that was mentioned was the introduction of the Euro as the new DOCOMOMO currency for Membership Fees as of September, 1999.

As regards the Membership Fee percentages, the fees for Estonia, Latvia, Lithuania, Poland, Slovakia, Uruguay and Yugoslavia will be set at 40 % as from September 30, 1998. The Fee percentages for the other countries will remain as agreed before. The representative from Latvia disagreed strongly with this decision because of the unfairness to treat the Baltic States differently from Russia, that remains exempted from the membership fee. Although several countries abstained, only Latvia remained against.

International Specialist Committees

ISC on Registers

The Chairman thanked the ISC/R for the quality and the amount of work done for the Advisory Report on the World Heritage List, that was produced on invitation of ICOMOS and finished last November 30. France Vanlaethem was acknowledged in particular for having chaired the Committee for two years.

The Council was also particularly grateful to Gérard Monnier and Daniel Bernstein for their hospitality towards the DOCOMOMO Registers in Paris.

Since June 1998, the DOCOMOMO Registers have been moved to the Netherlands Architecture Institute where they are now open to the public.

As members of the ISC/R were re-elected Maristella Casciato (Chair, Italy), Marieke Kuipers (Secretary, The Netherlands), David Whitham (Scotland), Dennis Sharp (UK), Andras Ferkai (Hungary), France Vanlaethem (Québec), Jorge Gazaneo (Argentina, ex ufficio). New members are Panayotis Tournikiotis (Greece), Luc Verpoest (Belgium), David Fixler (USA East Coast) and Anthony Merchell (USA West Coast). Gary Koll (USA West Coast) decided to withdraw his candidacy.

The register fiches for Urbanism and Landscape, which have been developed by the ISC/U+L, will be integrated with the existing fiches as used by the ISC/R so far. By the end of 1998, the guidelines for the Register Project will be revised accordingly. These new fiches on architecture, urbanism and landscape and the revised guidelines will be introduced for a 'new series' of the DOCOMOMO Register; the existing fiches need not to be revised for the time being.

The ISC/R, together with the Working parties and the ISC/P, will participate in the publication of a slip box

containing approximately 25 leaflets each covering the National or Regional Register of one Working party, to be ready for the 2000 AD Conference in Brasília.

The Council was pleasantly surprised to learn that again some national Working parties have established multilateral exchange programs for register documentation, this time involving Scotland, The Netherlands and Hungary.

The ISC/R invited the Working parties to report on their work more regularly in the Journal. To this end, the Committee proposed standardised inquiry forms to facilitate a more structural supply of information at least once a year. The IS intends to introduce this new means of gathering information for the Journal as soon as these forms will become available from the ISC/R.

ISC on Education and Theory

It was observed that the performance of the ISC/E so far is inversely proportional to the amount of Committee members. Notwithstanding, the Committee proposed to add the field of Theory to their aims so as to create a forum for discussion of across the board theoretical and historical issues around conservation. This proposal was unanimously accepted though with one dissenting voice from an EC member. The Committee's name will be changed accordingly into ISC/E+T.

The Committee decided to establish, as resources permit, an education website. Also, the Committee decided to dedicate more of their efforts to increase student participation in the International Conferences. The Council agreed with both intentions.

Allen Cunningham (Chair, UK), Arie Sivan (Secretary, Israel), Daniel Bernstein (France), Stefan Slachta (Slovakia), Penyo Stolarov (Bulgaria), Wenche Findal (Norway), Catherine Cooke (UK) and Karin Kirsch (Germany) were asked to continue their membership. Luc Verpoest (Belgium) was chosen as a new member, while Ben Rebel was elected as a corresponding member for The Netherlands.

ISC on Technology

As members of the ISC/T have been re-elected Jadwiga Urbanik (Poland), Jos Tomlow (Germany), Hans Jürgen Kiehl (Norway), Tony Walker (UK), Ola Wedebrunn (Chair, Denmark), Susan Mac-Donald (Australia), Juha Lemström (Fin-

land), Tom Jester (USA) and Wessel de Jonge (The Netherlands). New members are Els Claessens (Secretary, Belgium), Anna Maria Zorgno (Italy) and Mariël Polman (The Netherlands).

The Chairman thanked Wessel de Jonge for founding and chairing the ISC/T for the first four years, and for organising the Curtain Wall and Exposed Concrete seminars. Given the successful Windows and Glass seminar in Copenhagen in the Spring of 1998, organised by Ola Wedebrunn, there is sufficient reason to trust in a positive future for the ISC/T under his chairmanship. The establishment of the Technology Data base on the Internet is another encouraging action by the new Chair.

The Committee's working program for the coming years involves the extension of the data base and its linkage to the DOCOMOMO website, and the production of more Technology Seminars and Dossiers. As future themes are mentioned modern timber applications (the transformation of traditional into modern structural frames, wood panels, fiber boards, laminates and so on), stone claddings, colour, light claddings, and thermal insulation.

ISC on Urbanism and Landscape

The ISC on Urbanism and its Sub-committee on Gardens and Landscape merged into one committee. In order to keep the creative tensions between the two it was agreed to have the new ISC/U+L organised into two sub-committees, on Urbanism and on Landscape and Gardens, each with its own secretary. The Chairman thanked Marco Aurélio Gomes for chairing the Committee for the past years and for his great input in the debates within DOCOMOMO, and welcomed Jan Birksted as the Chair of the new ISC/U+L.

All current members were re-elected, while Catherine Rinne (USA) and Hannah Lewi (Australia) were welcomed as new members. The ISC/U+L therefore now consists of Jan Birksted (Chair, UK), the members of the ISSC/U Marco Aurélio Gomes (Secretary, Brazil), Miles Glendinning (Scotland), Wanda Konownowicz (Poland), Alfredo Conti (Argentina), Anna Beatriz Galvão (Brazil), Paul Meurs and Rob Docter (both The Netherlands), and the members of the ISSC/L+G Lodewijk Baljon (Secretary, The Netherlands), Franco Panzini (Italy), Jan Woudstra (UK), Guilherme Mazza Dourada

(Brazil), Catherine Rinne (USA) and Hannah Lewi (Australia).

The ISC/U+L's working program for the coming years is firstly involved with the organisation of the DOCOMOMO Conference in Brasília. As part of this activity is has been agreed to launch a special issue of the Journal at the Brasília Conference in coordination with the ISC/U+L.

Secondly, the register fiches for U+L have been newly designed to fit a globally accepted standard, and will be made operational as of January 1, 1999. The handling of the new fiches when completed and returned by the Working parties is another major task. The fiche will also be integrated in the standard fiches devised by the ISC/R for their new series of registers as of 1999.

Thirdly, the Committee supports the collaborative initiative of the Hungarian, Netherlands and Scottish Working parties, with the support of their national heritage agencies, to put into effect the new fiches in these three countries. Miles Glendinning has been nominated to coordinate this project.

The ISC/U+L intends to have a meeting in September 1999 in Cambridge, Mass. to coordinate and prepare for the 2000 AD Conference in Brazil.

ISC on Publications

A first result of this Committee is the recent publication of 'Modern Movement Heritage' edited by Allen Cunningham, the start of a series of essays on modern matters, which will be published by our new publisher E & FN Spon, an imprint of Routledge, once every two years. The Council decided earlier on that the members of this Committee will be, qualitative qua, the members of the EC and the Chairpersons of the ISCs, and that the International Chairman will be the Chair of the ISC/P.

The members of this Committee are therefore Hubert-Jan Henket (Chair, EC), Wessel de Jonge (EC, editor Journal), Maristella Casciato (EC and ISC/R), Allen Cunningham (Secretary, ISC/E+T), Ola Wedebrunn (ISC/T) and Jan Birksted (ISC/U+L). Dennis Sharp (UK) and Jorge Gazaneo (Argentina) were re-appointed as expert consultants to the ISC/P.

It is the intention to publish the National Registers' slip box before the Brasília Conference in 2000 AD. The proposed graphic design for this publi-

cation, by Michael Frost, met great enthusiasm and was unanimously acclaimed. Dennis Sharp was appointed editor with Catherine Cooke as consultant editor.

Other proposals are the publication of the International Selection fiches and a book on the approx. 80 most important MoMo buildings in the world, aiming at a wide audience. The Council decided that these two need more careful consideration before approval can be given and invited more detailed proposals before the next meeting.

Homework

All Working parties were asked to select five to ten urban and landscape case studies in their country and to complete the newly designed register fiches for these. They should also complete their work for the Register as required by the ISC/R. New Guidelines and a time schedule will be sent by the ISC/R.

Besides, the Working parties were asked to contribute to the slip box file publication for which they will be approached by the editor Dennis Sharp.

Miscellaneous

The Council decided on resolutions regarding the safeguarding of Villa E-1027 by Eileen Gray and Jean Badovici, of the Dublin Airport Terminal, and of the Moredun Housing Area in Scotland. The respective resolutions will be sent, with letters from the Secretary, to the authorities concerned.

The Council also decided to support an international initiative to protect the city of Asmara in Eritrea.

The «Grand Final»

Fig. 1.

In 1930 some American architects dressed up to perform «The skyline of New York». With that inspiration 22 Docomomo teams from many different countries performed their favourite MoMo buildings at the final party of the Conference named ' MoMo building in disguise'.

The maskerade took place at the «plaza» of the Museum of Architecture with Jöran Lindvall, head of the Museum as conferencier. Famous and everyday MoMo buildings were unfolded, reconstructed, put on and walked on the stage to the rhythm of modern music and to the applause of the spectators.

Performance and design of the different «costumes» were evaluated and awarded by a serious jury who had the honour to be headed by the outstanding modern architect Ralph Erskine, together with Maristella Casciato and Marina Botta.

Prizes have been awarded to:

- John Allen and Allen Powers, from UK, for their presentation of the Penguin Pool, as best functional costume-dance interaction.
- Bengt Lindroos, from Sweden, with his representation of the Stockholm Television Tower (designed by himself), for best design and folding invention.
- Klara Kubickova hided in Emil Belus' watertower and Wessel de Jonge in Jan Duiker's Zonnestraal pavilion for best conformity between dress and building.
- Allen Cunningham and the staff of the Swedish Docomomo group for the best show performance.

Fig. 2.

Fig. 3.

Photos by Thomas Hjertén and Linda E. Botta.

Fig. 1. The Viipuri library presented by the Finnish team.

Fig. 2. The jury with Ralph Erskine.

Fig. 3. Wessel de Jonge in the staircase of Jan Duiker's Zonnestraal pavilion.

Fig. 4.

Fig. 5.

Fig. 6.

Fig. 4. The head of International Docomomo with a beautiful hat.

Fig. 5. Emil Belus' watertower with Klara Kubickova.

Fig. 6. A group of building in disguise.

Fig. 7.

Fig. 8.

Fig. 9.

Fig. 7. Other buildings in disguise.

Fig. 8. The winners: The Penguin Pool with John Allen and Allen Powers.

Fig. 9. The conferencier, Jöran Lindvall.

Fig. 10.

Fig. 11.

Fig. 10. A performance by Allen Cunningham.

Fig. 11. The Television Tower in Stockholm beard by its architect, Bengt Lindroos.

Fig. 12. Hötorget on parade with the Swedish team.

Fig. 12.

Post Conference tour in Stockholm

The guide booklet for the Post Conference Tour in Stockholm

During a one-day tour participants have had the possibility to get acquainted with the Modern Movement architecture and planning in Stockholm. A few special buildings and some housing areas have been selected:

Housing area at Gärdet, from the 1930s.

Student union house at the Royal Institute of Technology, by Sven Markelius and Uno Åhrén, 1930.

Sveaplan secondary school for girls, by Nils Ahrbom and Helge Zimdal, 1936, renewed 1996.

Traneberg housing area, from the 1930s.

Vällingby Community center, by Sven Markelius and Backström and Reinius, 1954, with St. Tomas church, by Peter Celsing, 1957.

Blackeberg housing area from the 1950s.

Södra Ängby villa area from the 1930s.

Ålstengatan row houses, by Paul Hedqvist, 1932.

Restaurant of S:t Göran's hospital, 1986, presented by the architect Ralph Erskine himself.

Collective housing, by Sven Markelius, 1935, renewed 1992.

Woodland cemetery, by Gunnar Asplund and Sigurd Lewerentz, 1918–1940.

Italian Institute of Culture, by Gió Ponti, 1958.

Pre and Post Conference Tours in the Nordic Countries

Participants have had the possibility to choose study tours in the other Nordic countries before and after the Conference in Stockholm.

All the Nordic tours have been successfully organised and enjoyed by Docomomo members and sympathisers!

Denmark

A Pre Conference Tour has been offered in *Copenhagen* organised by the Danish Docomomo working party. The program started at the Danish Centre of Architecture, Gammeldok, with the opening of an exhibition of the architecture of Danish Modernism. The tour has included visit to buildings by Arne Jacobsen, Kay Fisker, Vilhelm Lauritzen, Mogens Lassen and many others. Participants have also been introduced to the contemporary Danish architecture with a visit to the Danish Architects House.

Norway

A Pre Conference Tour was offered in *Oslo* organised by the Norwegian Docomomo group including visits to: social housing areas, private housing and public buildings both in rural and urban contexts. The tour visited pre-war buildings by the architects Lars Backer, Arne Korsmo, Ove Bang and Gudolf Blakstad & Herman Munthe-Kaas, as well as post-war buildings by Arnstein Arneberg & Magnus Poulsson, Arne Korsmo, Christian Norberg-Schulz, Geir Grung, Sverre Fehn and Kjell Lund & Nils Slaatto.

Finland

A Post-Post Conference Tour has been offered in South Finland, organised by the Finnish Docomomo working party. The program has included *Turku and Helsinki* with buildings and sites designed by Alvar Aalto, Erik Bryggman and other prominent Finnish Modernists. The Paimio sanatorium by Aalto was one of special interest, since it is now nominated for the World Heritage List. The tour included also the Tapiola Garden City, some rarely visited modernist interiors and some of the latest modern buildings in housing and city architecture.

Iceland

A Post-Post Conference Tour has been offered in *Reykjavik* organised by a Modern Movement interest group in Iceland. The tour has focused on the transition of Reykjavik from a small town at the beginning of this century to a national capital, which to a large extent derives its architectural and urban character from the ideas of the Modern Movement – as well as regional characteristics in construction and materials, use of geothermal hot water and the relationship with the open landscape.

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