

Overview

USA

Discipline and punish

Architects need a Hippocratic Oath of their own to prevent human rights abuses, argues *Raphael Sperry*



The execution chamber in Indiana where Oklahoma City bomber Timothy McVeigh was killed in 2001: should architects be involved?

We think of architectural regulations as being there to ensure that buildings are safe for the public. But what if a building's harm is not caused by unexpected structural failure but by the building performing exactly as intended? Can a building designed to facilitate human rights violations amount to a violation in itself? And what is the responsibility of the architects involved? These are the questions at the centre of the current debate in America around the architectural profession's involvement in prison design.

The US's 2.3 million prison inmates represent the largest proportion of a society behind bars anywhere in the world, making the operation and construction of prisons a huge industry. Execution and the use of prolonged solitary confinement are widespread – and widely criticised. Amnesty International and the UN condemn US practices such as isolation, which

can damage the long-term mental health and eyesight of an individual in a matter of weeks. Meanwhile the UK, followed by the EU, recently banned exports of the lethal injection drug sodium thiopental to America hoping to pressure states to rethink their position on the death penalty. While the world is toughening its stance on US penal conditions, disturbingly, licensed architects are involved in the construction of new prisons including death chambers and isolation cells specifically designed for human rights violations.

The American Institute of Architects (AIA) is to be commended for already having a requirement within its ethics code that members 'uphold human rights in all their professional endeavors'. Despite the damage done to human rights by US detention projects at Guantanamo, in Poland, Romania and at home, elsewhere in the

English-speaking world neither the RIBA nor Australian Institute of Architects takes such a clear position. Nor does the Canadian architectural code or Union Internationales des Architectes with its model code of ethics. Yet despite the AIA's apparently strong stance it has not been enough to guide licensed architects faced with clients demanding design assistance at or across the line of human rights violations.

The concept of human rights first emerged in 536BC when Cyrus the Great conquered the city of Babylon subsequently freeing slaves, declaring that all people had the right to choose their own religion, and establishing racial equality in Ancient Persian law. Modern human rights treaties arose in the aftermath of the Second World War and were mechanisms to protect populations from harm by oppressive regimes. Although today Western governments seem

inclined to resist international oversight or accountability, at their inception human rights were a source of patriotic pride and diplomatic finesse. Civil society has long been a bulwark of their strength and architects, as professionals within civil society, see our freedoms and well-being rise and fall with everyone else's. Human rights do not only apply in moments of constitutional crisis but in everyday life, where the work of architecture is generally conducted. Architects must be aware of the ethical dimensions of their projects to avoid what political theorist Hannah Arendt famously called 'the banality of evil' – the subtle trajectory from accepting a morally questionable project to becoming familiar enough with a problematic client that one stops questioning their programmes altogether.

How should the architectural profession respond to this? Currently the group Architects Designers and Planners for Social Responsibility – of which I am president – is petitioning the AIA to amend its code of ethics to specifically prohibit member architects from designing spaces intended to violate human rights. Doctors and other medical professionals already have similar codes built into their professional statutes. An AIA amendment would have profound international consequences.

US prison architects are currently courted by foreign governments, especially from the developing world, seeking to adopt 'modern' prison designs. Iraq's Abu Ghraib prison, site of numerous mass executions under Saddam Hussein and infamous cases of torture by US Army personnel, was designed by American architect Edmund Whiting, and built by British contractors in the late 1960s. Since then, US firms have worked in Mexico, Colombia, the United Arab Emirates – places where an 'interrogation suite' listed in an architectural brief today may be listed by Human Rights Watch

tomorrow. The CIA's now-notorious 'secret' prisons outside America were built in 2003 with prefabricated cells from the SteelCell company of Baldwin, Georgia which also supplied cells for the construction of the widely condemned detention centre in Guantanamo Bay using designs provided by American architects and engineers. American architects led by the AIA are in a powerful position to take a stand, pushing the moral consensus of the society forward.

People in prison are a hard group to advocate for. With the exception of the unjustly imprisoned (a surprisingly high percentage in the US, even on death row, where their cases receive the most scrutiny), people in prison have broken the law, often harming others, sometimes horribly. But prisoners' human rights are not about their crimes, but about protecting our societies from falling below a minimal level of decency and ensuring that we continue to aim for our highest aspirations. Barack Obama said of Nelson Mandela, 'he was fighting for the freedom of the prisoners but also for the freedom of the jailers'. When architects design prisons, we take responsibility not only for the conditions of prisoners and guards on the inside, but for the status of freedom of everyone on the outside as well. Legislators, governors and prison staffers of course hold the greatest responsibility for prison conditions – after all, any room can be used to torture someone, not just one intended as a solitary isolation cell. The ethical burden on designers is too great for individual architects or firms to handle alone, which is why the AIA must speak clearly and forcefully for human rights. Turning our backs on projects that would violate human rights is an essential move towards realising a vision of a world of equality and prosperity – the world that architects strive to build every day.

INDIA

Modern heritage under threat

William JR Curtis

India is experiencing the positive and negative effects of a hyper-inflated capitalist boom. A new middle class hungry for consumer goods of all kinds is clogging up the cities with flashy new cars but air pollution is at unprecedented levels. A third-rate Americanisation is evident at every turn in shabbily constructed glass towers and shopping malls. The squalor of the poor is being replaced by the squalor of the rich but it is not certain if there is an appreciable trickle-down effect of wealth in real terms. In India, as elsewhere, the gap between rich and poor grows wider. Neoliberal policies invite in factories but ask for little taxation for the public purse. Land grabbing is on the rise and laissez-faire speculation is such that the sum paid for a centrally placed site has less and less to do with an existing building and more and more to do with the saleable price of the piece of land itself.

This last point concerning 'desirable and profitable building land' poses a threat to the architectural heritage of India, especially the modern architectural heritage, which is scarcely protected by legislation



The shiny marble floor is an unwelcome addition to Corbusier's Assembly Building

or by national or international patrimony status. Take one of Le Corbusier's absolute masterpieces, the Mill Owner's Association Building, which sits on a prime site next to the Sabarmati River in Ahmedabad. Adjacent riverside embankments have been constructed which provide public walkways in places but also profitable real-estate opportunities for the construction of luxury towers. The old elite of educated mill owners who brought Le Corbusier and Kahn to the city has faded away and been replaced by a vulgar mercantile class which has little time for niceties such as universal masterpieces of modern architecture. With the price per square metre multiplying year by year how long will it be before the pressure is on to demolish the Mill Owner's Building?

The same is true of Le Corbusier's Shodhan House nearby, while his City Museum is left to rot in a scandalous state of abandon which expresses perfectly the retreat from civic values. Only the Sarabhai House tucked away in the leafy estate at Shahibaug seems safe in the middle term. As for Louis Kahn's Indian Institute of Management (IIM) in Ahmedabad, there is a very real danger that it will be pulled down. The structures suffered some damage in the earthquake of 2001 but the brickwork was never maintained properly by the owners and there is more than a rumour that entire sectors of Kahn's work will be demolished to be replaced by flashier buildings in the image of an emerging management elite. If this happens it will be an act of vandalism that will reflect very badly on the reputation of IIM as a responsible international institution. Vikram Sarabhai who helped to set the whole thing up half a century ago must be turning in his grave.

Ahmedabad is in fact one of the world's leading museums of modern architecture with outstanding buildings such as Correa's Gandhi Ashram



EDMUND SUMNER/VIEW



EDMUND SUMNER/VIEW

Top: Louis Kahn's Institute of Management in Ahmedabad is at risk of demolition
Bottom: Le Corbusier's Shodhan House in the same city may also be at risk

Museum, Doshi's CEPT School of Architecture and his studio Sangath. Hopefully the Gandhi Museum is inviolate but the CEPT campus is a prime site and in the current political atmosphere of Gujarat may well be vulnerable. The Chief Minister of the State of Gujarat, Narendra Modi, who is running for Prime Minister of India in the coming General Election, represents the BJP, a political constellation which combines aggressive business practices with elements of Hindu fundamentalism and which has not been above inter-community frictions (Modi has not been able to shake off the perception that he may have turned a blind eye to murderous rioting in Ahmedabad in 2002). All of this is miles away from the balanced secularism that supported Modernism in the early

days of the Indian Republic. So how is Chandigarh faring, Nehru's showpiece of the 'New India'? Economically it is flourishing and has become one of the most desirable cities in which to live in India, with its clean air, its leafy streets and parks, its cosmopolitan shops and restaurants, its lake, and its relative peace and quiet. But the Capitol (a foundation stone of modern secular India and a 'cosmic and political landscape') remains incomplete. Le Corbusier's Assembly Building, surely one of the greatest buildings of the 20th century, is tragically divided between the States of Punjab and Haryana, and has been vulgarised with shiny marble floors and wooden skirting on the columns, interventions worthy of a two-star hotel. The High

Court is in better shape though now painted the wrong colours, while the Secretariat continues to take a bashing. With the current obsession with security, a wire fence now bisects the Capitol. Meanwhile the magical connection to the foothills of the Himalayas to the north is about to be ruined by voracious property dealers and corrupt politicians who intend to construct 30-storey towers. In contemporary India nothing is sacred (even historical sites and museums are left to go to pot). In the age of greed and privatisation the public realm is wrecked and the idealism of the founding fathers is undermined. Historical and cultural memory matter less and less: today it is the price of everything and the value of nothing.

GERMANY

Urban triage in Berlin

Elvia Wilk
 'What's wrong with Germany?' demanded the cover of a recent *Mark Magazine*. The issue identified three of the country's architectural mega-problems: Berlin's Brandenburg Airport, Hamburg's Elbphilharmonie, and Stuttgart's new central train station, S21. As the articles make clear, you'd be hard-pressed to find a singular answer to 'what's wrong?' in each city, much less the country as a whole, but there are certainly some running themes – overambitious time frames, underambitious budgets, lack of governmental transparency, and years wasted

finger-pointing, for instance. Luckily, over the last century German cities have developed an institutional apparatus to address precisely these problems. Behold the Internationale Bauausstellung (International Building Exhibition, or IBA): a citywide initiative exploring contemporary development issues in architecture and urban planning. Though generally instated by city governments, the IBA has become an umbrella for any number of public and private initiatives, serving the multiple purposes of showing off existing projects, initiating new ones, and inviting feedback from citizens and outsiders. Since the first edition in Darmstadt in 1901, there have been 13 IBAs of varying size and ambition across Germany – eight of which have taken off since just 2000. Over

recent decades the definition of the format has become rather nebulous – even its German-ness: in 2010 the tri-national region of Basel jumped on board and started one too. The most prominent IBA in history was certainly Interbau, Berlin's major postwar reconstruction and face-saving plan, which took place 1957-61. Interbau brought 53 international architects to redesign the destroyed Hansaviertel area, ushering in an era of postwar Modernism along with 1.4 million visitors and their wallets. Three decades later a second Berlin IBA was held (1979-87), turning its focus to 'careful reconstruction' and renewal. Despite the IBA downplaying flashy new buildings, the second edition had some political similarities with the last – aiming to reestablish West



John Hejduk's recently preserved contribution to the 'Postmodern' Berlin IBA, 1986-7

Berlin as a progressive entity on the world stage in contrast to its eastern counterpart, and to perpetuate its image as the centre of German culture by updating its architectural profile.

Besides lots of architecture (ranging from banal to bizarre to fantastic), both Berlin IBAs also built public platforms to assess urban growth and redevelopment in the midst of rapid local change and geopolitical shift. In other words, precisely what needs to happen in Berlin today. And Berlin was indeed on track for a third IBA in 2020 – but in June 2013 the event was cancelled because the Senate couldn't squeeze out enough money. To clarify: the 30 million euros of life support that are being pumped out of the city budget every month to maintain the

comatose Brandenburg Airport have drained the city and left cultural institutions anaemic. And this in a place where the culture industry is, and always has been, its lifeblood.

Hamburg has just reached the end of a long, ambitious and well-funded IBA. A total of 63 projects are near completion, nourished by a combination of public and private funds amounting to about a billion euros. Over the last seven years, Hamburgers have benefited from brand-new public piazzas, schools, social housing, the world's first building with a 'bioreactor facade', and a baking museum in a historic windmill. Berlin may well be a tiny bit jealous. It has spent the cost of five Hamburg IBAs and over 15 years on its stupid

and useless airport.

IBAs could be considered nationalist propaganda like any biennale, distracting from deep-seated, complex issues with new construction and fanfare. A case in point, over recent years Hamburg has seen growing conflict – even violent riots earlier this year – about the kind of gentrification that is always obliquely related to development.

Berlin is neither industrial nor post-industrial: there's never been a major industry to build up public funds – and good luck trying to raise private money for an opera house. What it does have, still, is a steadily growing mobile culture class and a good deal of cultural tourism. Given its undisputed status as a European culture hub, you might assume that culture would be the first place to invest some money. And yet – despite repeated pressure – Berlin still doesn't have an official Kunsthalle, unlike every other major city in the country.

The culture class loves Berlin because of its low barriers to entry. You can show up on easyJet, grab a cheap room somewhere, not learn German, and after a minor squabble with immigration nab some kind of visa. The city government seems to heartily welcome us. But the flip-side of this hands-off attitude is a total lack of institutional support for the arts – the 'you do your thing, we'll do ours' nonchalance that some would simply call 'neoliberalism'.

The Berlin Senate banks on the fact that anglophone expats will remain relatively uninvolved with local politics – and that longtime Berliners have been adequately repressed to the point of cynicism following the heavily protested destruction of the illustrious Palast der Republik in 2008. Citizens ruefully sign petitions protesting the hasty redevelopment of the disused Tempelhof Airport, the only public space of its kind in the world, while Mayor Klaus Wowereit carries on with his bowdlerisation of historic

landmarks by selling off the square footage to real estate developers.

The city is indeed gentrifying in the most romantic sense of the word – yet the familiar sights of squatters being evicted and the elderly left on the street only encompasses part of the nasty situation. While Berlin's growing population is quickly edged towards the peripheries, in the already-unlivable centre, million-euro apartments are being jammed between the remaining landmark buildings, for someone not-from-Berlin to ostensibly inhabit. In a year, you won't be able to see the Schinkel Pavilion from Schinkel's Friedrichswerder Church because a tower with a rooftop pool will be wedged between the two. Rather than gentrification, 'it would be more accurate to call this a progressive anestetisation of the inner city', as Georg Diez aptly called it in a *Der Spiegel* article.

Medical metaphors abound when talking about Berlin's urban situation. Our cultural institutions desperately need a healthcare plan. In the meantime, like city-dwellers around the world, Berliners are attempting triage. A group of citizens has recently organised 'DIY IBA', using their own time and resources to reflect on Berlin's pressing issues. If only this sort of ingenuity could be combined with the city's bank account.

GLOBAL

Water world

Jon Astbury

At 200m long, The World is the largest super-yacht on the planet, boasting 165 private apartments. Meanwhile, in Lagos, Nigeria 100,000 people live a precarious but increasingly typical existence above a fetid lagoon in the slums of Makoko. Life on the sea is polarised by such dramatic economic extremes: either a hasty, dangerous necessity or the

height of luxury. Yet today, the increasingly dramatic effects of a changing climate and rising social inequality are forcing new approaches to waterborne life.

The uncomfortable sight of a tourist cruise ship drifting past floating slums along the Mekong delta in Vietnam is emblematic of our split engagement with life on water. Thousands live on the Mekong delta as cities, unable to cope with an exploding population, stretch out on to the water, congregating to form ad-hoc communities on market days. In Ho Chi Minh, Vietnam's largest city, entire districts are at the mercy of the Mekong and Saigon Rivers. With a risk of flooding twice a day in rainy seasons and record water levels last year, the glamour of the 1989 Saigon Floating Hotel is a distant memory.

Across East Asia, Vietnam and South Africa, thousands face the same situation, with life on the water presenting the only answer. Poor construction, a lack of infrastructure and water-borne diseases have led to many floating communities resembling post-apocalyptic settlements.

These problems are not just restricted to developing countries. In the UK, growing overcrowding and an increasingly

inflated property market are pushing hard-up Londoners to seek radical alternatives to conventional accommodation. A growing fleet of 10,000 houseboats on the city's canals now supports a transient community attempting to escape the British housing crisis.

In the face of accelerating change, ad-hoc approaches are clearly unsustainable. However for a positive glimpse of what a ground-up floating infrastructure could provide urban planners can turn to the Netherlands. Rotterdam harbour may not look as dramatic as Vietnam's floating markets, but concerns with rising water levels are just as pressing. The Dutch developers Dura Vermeer have long been experimenting with amphibious houses. In Maasbommel they float on hollow concrete cubes anchored to the ground with a single pile, and in Rotterdam harbour solar-powered domes sit on platforms of expanded polystyrene that rise and fall with the water level. These small artificial islands herald an ambitious plan to create 13,000 climate-proof houses in the Stadshavens area by 2040, including 1,200 floating residences. Back in London the Royal Docks is set to transform

15 acres of water into a desirable – and floating – village of luxury flats while Baca Architects' design for an amphibious Thames-side house is already on site.

It was hard to miss the reappearance of the Freedom Ship in the press last year, a proposal from the 1990s for a monolithic, mile-long ocean vessel capable of supporting up to 100,000 inhabitants that cruises the world once every two years. Project member Roger Gooch relaunched the project last year having sensed a more sympathetic economic climate. Despite the project's dated renderings depicting an aquatic multi-storey car park, Gooch's bold ideas are timely and increasingly popular. Last year research organisation the Seasteading Institute launched their Floating Cities Project, the first step in creating a start-up city built using modular floating platforms allowing for a gradual growth and the rearranging of communities rather than a last-minute rush to the seas.

Schemes like these are reminiscent of Buckminster Fuller's Triton in the 1960s, or the centrepiece of Expo '75 in Tokyo, Aquapolis – anchored platforms integrated with the mainland physically, economically and socially. The Japanese government spent 13 billion yen developing Kiyonori Kikutake's unrealised floating platforms that, although subsequently superseded by the 1,000-metre floating airport Mega-Float, was emblematic of a once infectious optimism for floating cities that is again finding its way into mainstream urbanism.

The utopian visions of the Seasteading Institute jar with the very real slums of Makoko but, as issues of extreme weather and rising sea-levels increasingly intersect with ballooning populations, the serious consideration of positive urban-scale relationships to water may come to define city planning.

GLOBAL

Après moi, le déluge

Sofie Pelsmakers

In the past year the world has witnessed extreme flooding on a global scale. China, Canada, Central Europe and Mexico were hit last summer, followed by violent floods in parts of the UK, Indonesia, the Philippines and Vietnam this winter. Such events provide us with a glimpse into what the future might hold. A warming world will continue to alter the intensity, duration and distribution of rainfall while rising sea levels threaten coastal defence breaches during storms.

These dangers are exacerbated by urbanisation. The increase in hard, impermeable surfaces encourages greater rainwater run-off in extreme events, resulting in more urban and flash-flooding compounded by a greater concentration of people at risk. Flooding does not just damage buildings and infrastructure but leads to macroeconomic losses and can harm public health. In tropical areas, for example, standing water can spread diseases carried by mosquitoes, and flood-water contaminated by sewage spreads infectious illnesses.

Many cities lack the experience or knowledge to respond effectively to such intense events, however when confronted with the knowledge that flooding is likely to become more frequent and to affect more people, clearly we need to become more resourceful in equipping our urban environments to deal with the effects of extreme flooding.

We need to 'flood-proof' our cities. And, to this end, there are three main strategies: 'retreat' (to let water in), 'defend' (to keep water out) or 'attack' (to reclaim water by building on it). The Netherlands, which has more than 50 per cent of its landmass below sea level, combines attack with retreat – a marked contrast



The Floating Ecopolis, designed by Vincent Callebaut to house climate change refugees

to the UK's primary focus on flood defence.

In cities, urban designers need to allow adequate space for water storage. Other measures, such as the provision of efficient water flow channels, urban reservoirs to collect rainwater and an increase in green spaces will also help. A combination of systems is likely to be most effective. This could include such measures as permeable surfaces, water harvesting, water retention and water channelling networks of ponds, canals, wetlands and water-filled public squares.

Architects are well placed to design flood-resilient buildings, which protect properties and inhabitants by enabling easier repair and drying out in the event of floods. This requires the integration of international technical and engineering innovations into landscapes and urban fabric. A multi-disciplinary approach is essential, where designers, urban planners and engineers work together with landscape architects, ecologists and water experts to find the best solutions.

Evidence of successful innovation can already be seen worldwide. Dutch architects Herman Hertzberger, Art Zaaier and Waterstudio began exploring the concept of floating structures over a decade ago, while the construction company Dura Vermeer has built a floating greenhouse prototype on a raft foundation. Typically, structures are anchored vertically to posts so they float up and down as the flood water levels demand (usually up to around 3-6 metres), but not away from their location. Building access and services are provided via flexible connections.

Nissen Adams and Baca Architects have advanced flood-resistant design in the UK through the creation of 'amphibious' or floating structures, the first of which will be built along the river Thames in Marlow and is due to complete later this year. The house utilises marine technology

with a buoyant hull. Meanwhile American architects Morphosis designed and built their prefabricated 'Float House' in response to the floods and hurricanes which periodically threaten New Orleans. The entire building can break away from its foundations and float to safety in a flash flood.

Baca, who were called in by the UK government during recent floods, have also been exploring flood-sensitive design through research aiming to masterplan flood-resilient homes surrounded by extended biodiverse swales and marshes, which act as water reservoirs to reduce flood-risk elsewhere. The architects designed a flood-resistant house to be built at BRE Innovation Park in Watford. This prototype structure will be artificially flooded to demonstrate how different technologies and materials can work to withstand exposure through the use of water-resistant materials for floors, walls and fixtures, and the siting of electrical controls, cables and appliances a metre above the ground.

Elsewhere, London-based Assael Architecture is designing flood-proof housing built on 3-metre-high stilts, raising the question of how to design floodable spaces that will remain of high architectural quality and practical use in dry conditions.

Neglecting to future-proof our buildings will only result in an urban realm ill-adapted to the future needs of our society within a changing local and global environment. Buildings will fail to function effectively under extreme weather conditions, inevitably leading to wasteful energy use and exacerbating the effects of global warming. At worst, the inability of our built environment to cater to the demands of a changing planet will result in a stock of dangerous, unhealthy buildings unfit for purpose, increasing the necessity for costly, carbon-intensive interventions in years to come.



The women who built the world

Scratch beneath the surface of history and the story of architecture is infused with the ideas and influence of female designers, often working against the grain to realise their visions. To mark International Women's Day and deconstruct the arcane notion that architecture is a man's job, we've put together a special homepage celebrating the lives and work of just some of the 20th- and 21st-century women who have built and are building the world we live in.



Speculative design

By deliberately not setting out to address predetermined problems, speculative design can escape from conventional capitalist systems offering visionary new directions forward.



The Zaha Hadid archive

British Iraqi architect Zaha Hadid is arguably the most influential practising architect on the planet. From her earliest competition entries to her latest buildings we collect all the AR's past coverage of Hadid into an online-only special feature.

The history of money design

As the Bank of England unveils a new design of the £1 coin we examine the evolving design of monetary means of exchange.



Pioneer of design: Eileen Gray

Joseph Rykwert's 1972 examination of Eileen Gray's work which rekindled widespread acclaim for her provocative designs which are as innovative as they are enigmatic.



The curious case of Russian monotowns

A sixth of Russia's population live in monotowns, Fordian factory settlements each designed to facilitate a single industry, often in inhospitable and inaccessible locations. Now the question of the monocities' future is a social time bomb.



Milan

The Architectural Review's design correspondent James Haldane will be reporting on highlights from the Milan Furniture Fair in April.

[Read more online at architectural-review.com](http://architectural-review.com)