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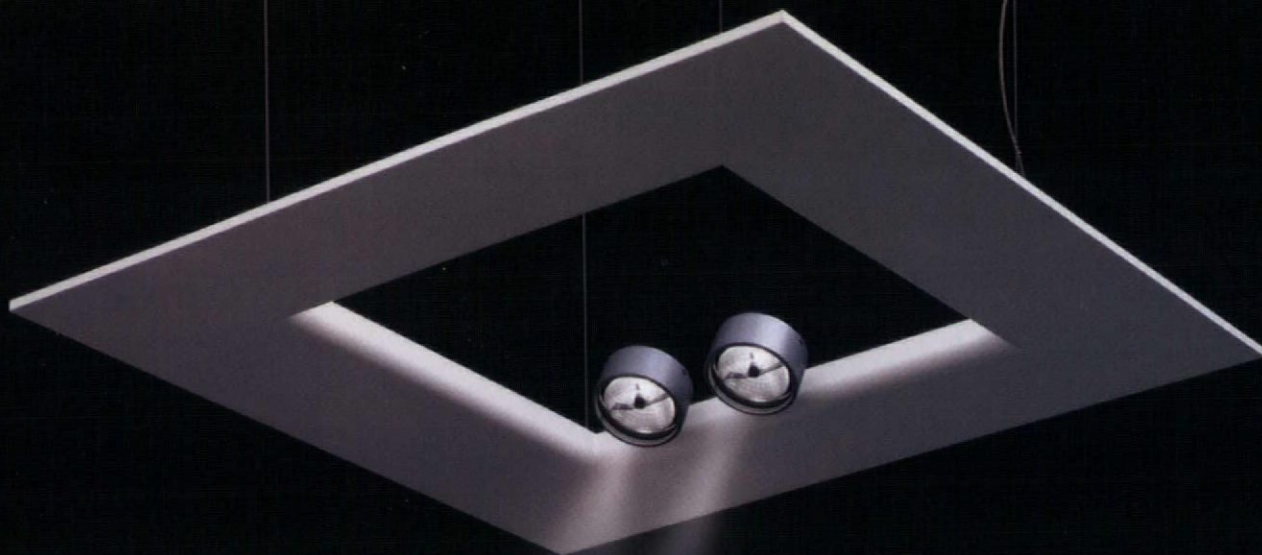
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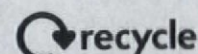
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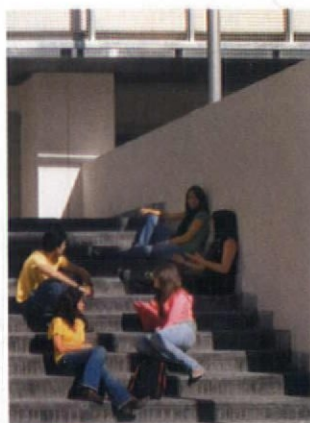
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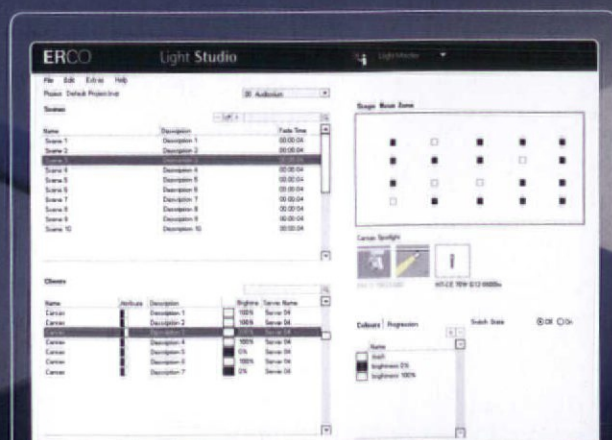
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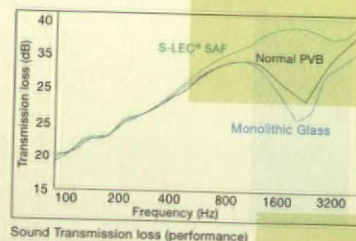
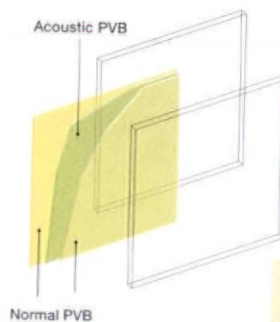


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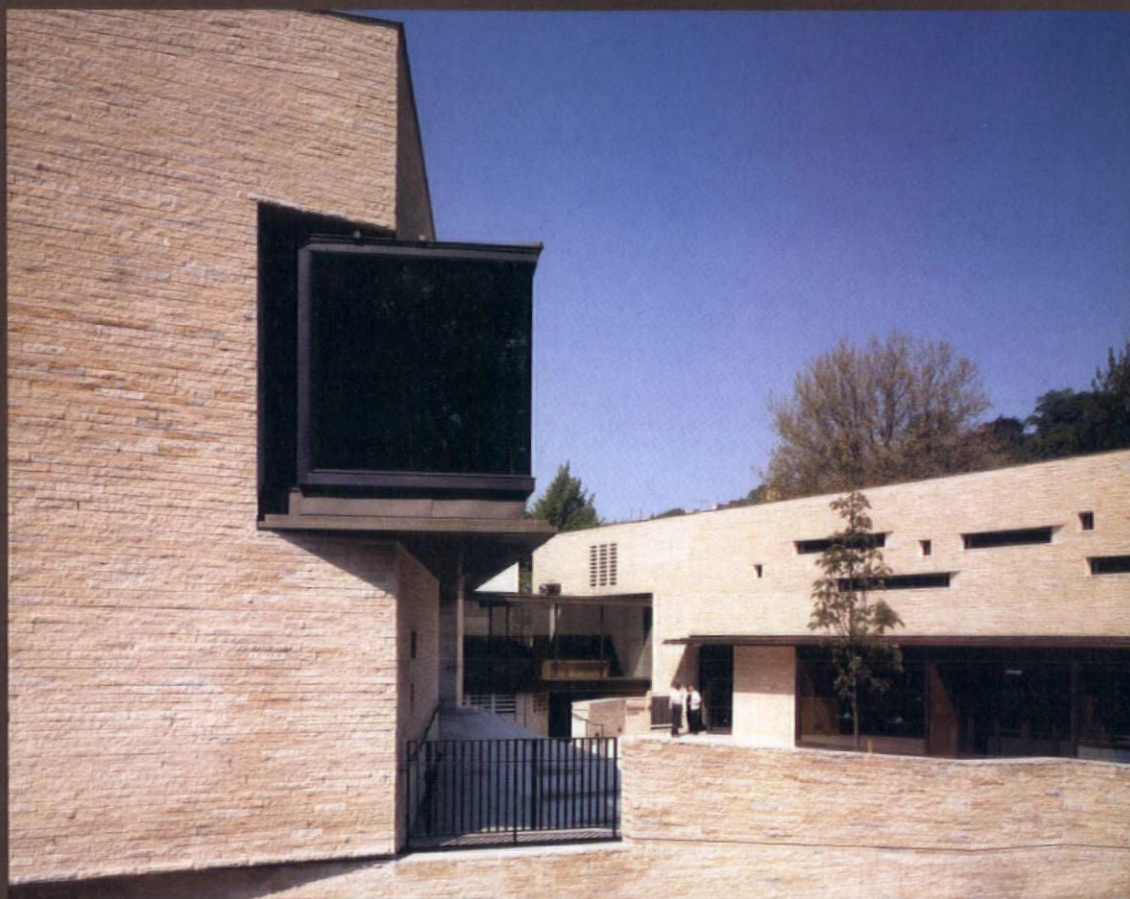
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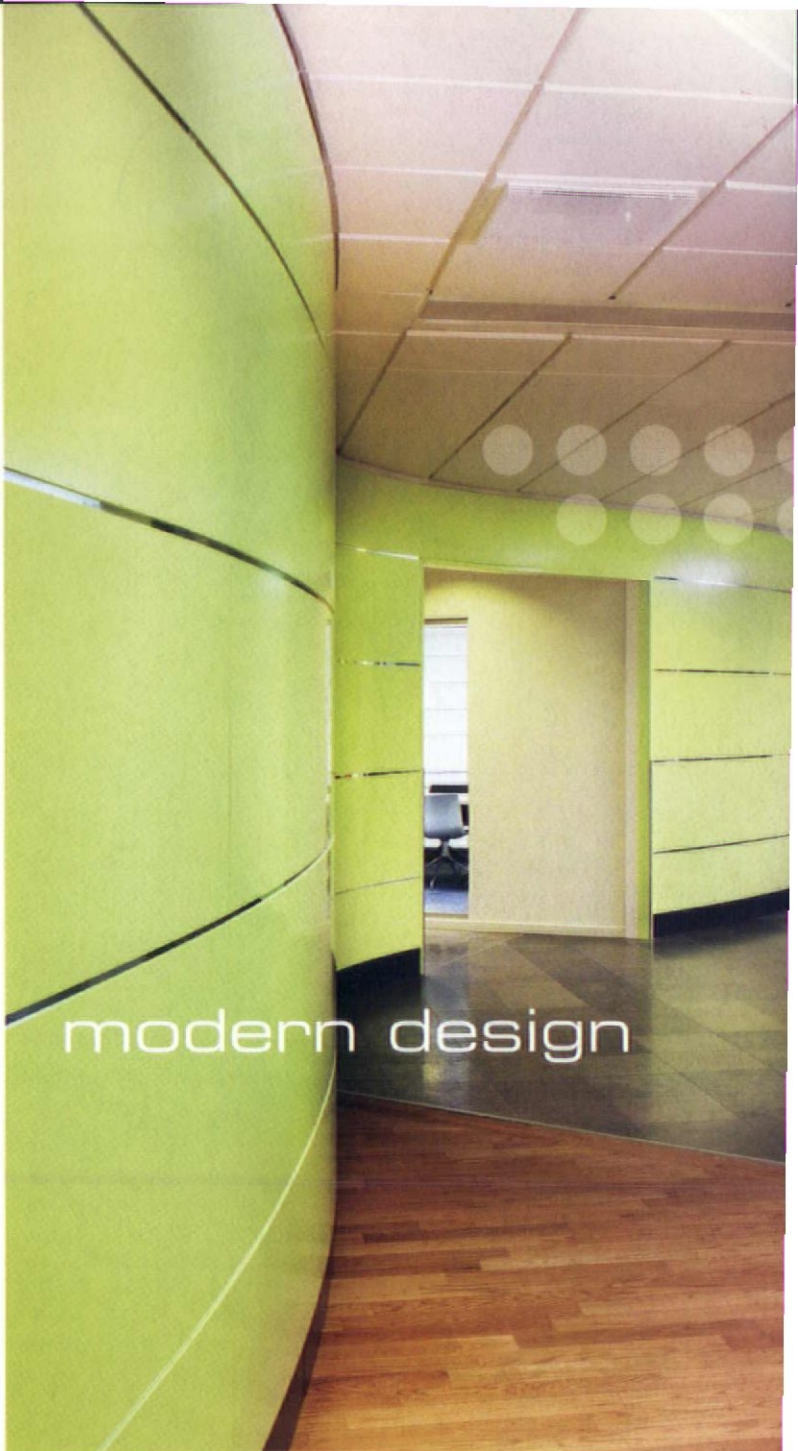
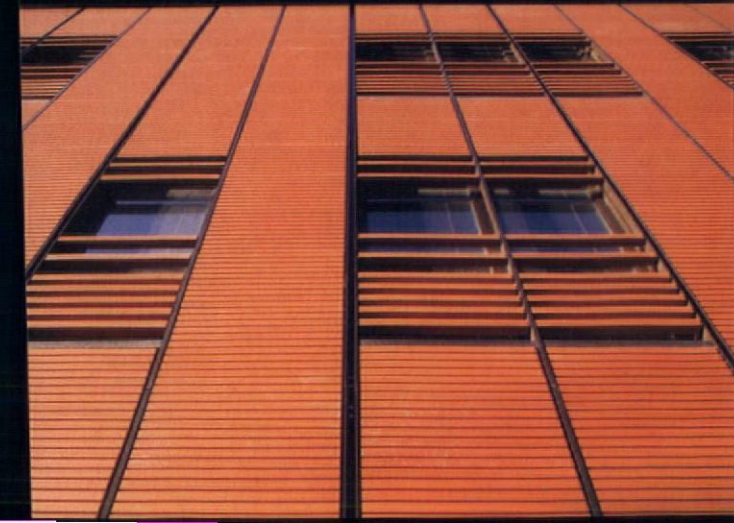
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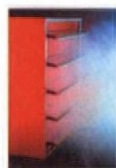
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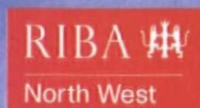
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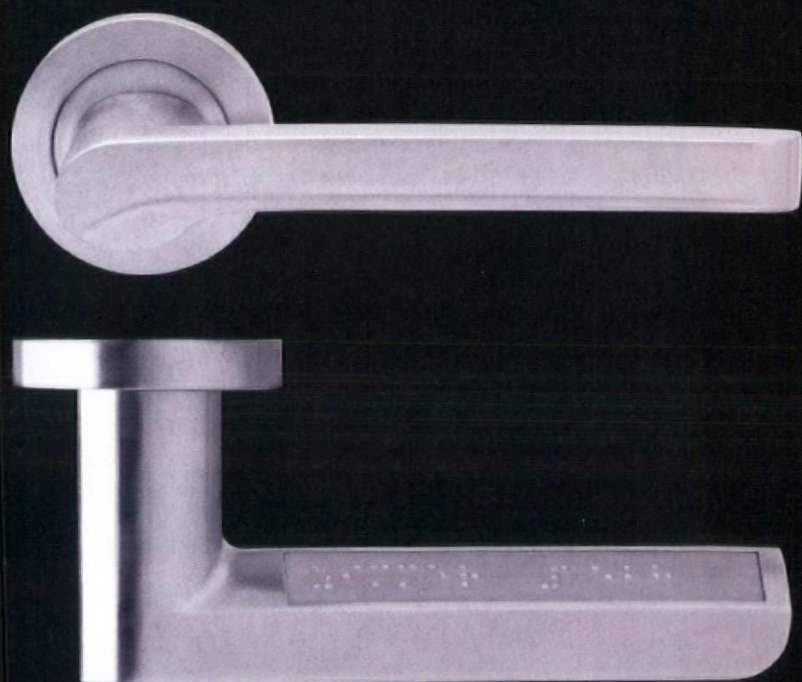
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ABSTRACT





RENZO PIANO'S CALIFORNIA ACADEMY OF SCIENCES IN SAN FRANCISCO; HOME-GROWN TALENT WINS THE COMPETITION FOR THE EUROPEAN SOLIDARITY CENTRE IN GDANSK; THE BURGEONING SHOOTS OF THE ECOLE SPECIALE D'ARCHITECTURE IN PARIS, UNDER THE INSPIRED AND INSPIRING DIRECTORSHIP OF ODILE DECQ.

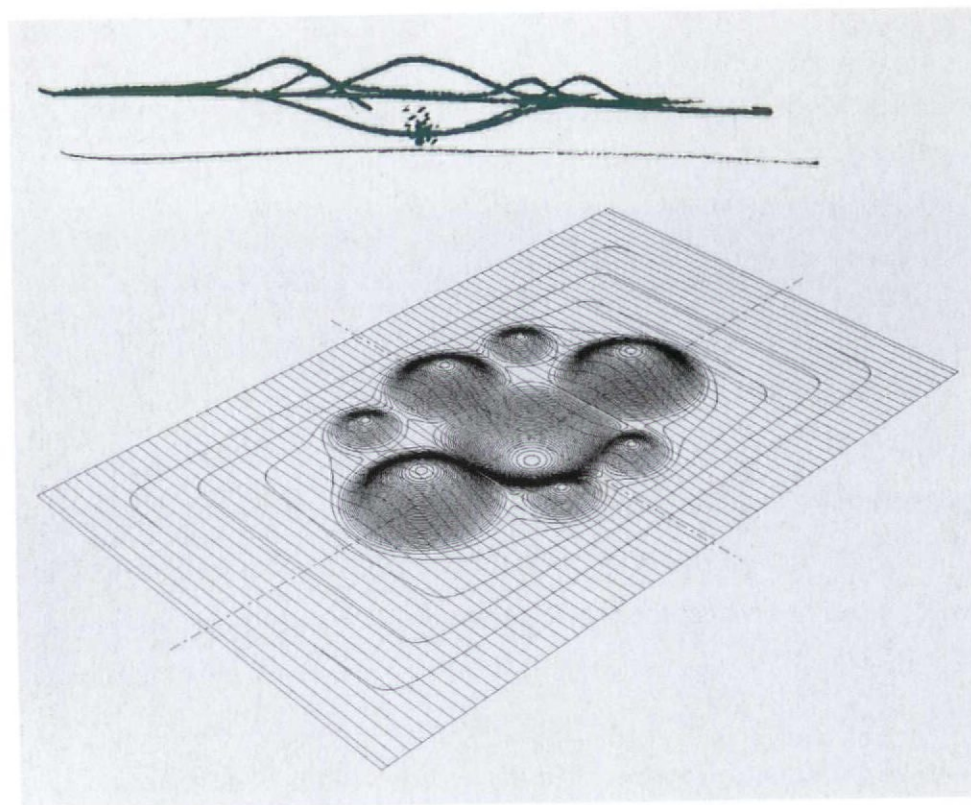
## ENVIRONMENTALISM IS COLLECTIVE

Since the 1960s, concerns about the environment have become increasingly significant politically, in relation to the natural world, buildings and cities. The concerns themselves have modified over time: we did not know 40 years ago about the effects of carbon, and were more concerned with pollution and subsequently the depletion of natural resources and the price of energy. Those and more current concerns, despite the passion with which they have been expressed, have not resulted in the fundamental rethink that environmentalists might have wished. It is true that public attitudes in the developed world have changed, but that has not led to huge changes in behaviour. We drive more, fly more, consume more, pollute more and still assume that economic growth is an end in itself. Do you laugh or cry as you contemplate Western Europe beating its breast over energy consumption, while much of the US and the entire developing world carries on more or less regardless, the latter for understandable reasons?

It is an all-too-human characteristic to be able to hold two contradictory views about a given question simultaneously. In opinion polls most people say they think we should all pollute less, but that they also intend to continue to do things which pollute (driving, flying and so on). As the great French cynic La Rochefoucauld remarked, 'Hypocrisy is the tribute vice pays to virtue'. In a consumerist culture, atomised behaviour and desires are held to be paramount unless decision-makers and their supporters can define, establish and defend robustly a notion of a greater good. Consumerist ideology means worrying that airlines may be overcharging, rather than that aviation fuel should attract taxes. I shop, therefore I am – even on the internet.

What are the creators and maintainers of the built environment to do in these circumstances? First (*pace* the French philosopher), decline to be cynical; that is not the proper starting point for professionals with a far greater responsibility than most individuals for a significant part of our futures. Second, try to find a common design language, a common analytical method, which can be applied by architects and engineers across the world in assessing and proposing existing and future buildings and cities. What are the priorities in making an energy strategy for a building or a city quarter? Finally, the design professions should push political decision-makers to take on the big issues, to think seriously about the greater good, and to try to bring about a level regulatory playing field, whereby the enlightened self-interest of individuals, corporations and all levels of government leads to a greater understanding of the benefits of acting collectively. PAUL FINCH





The roofscape comprises a series of domes that relate to the increased amplitude of key internal spaces.

## ACADEMY OF LIFE

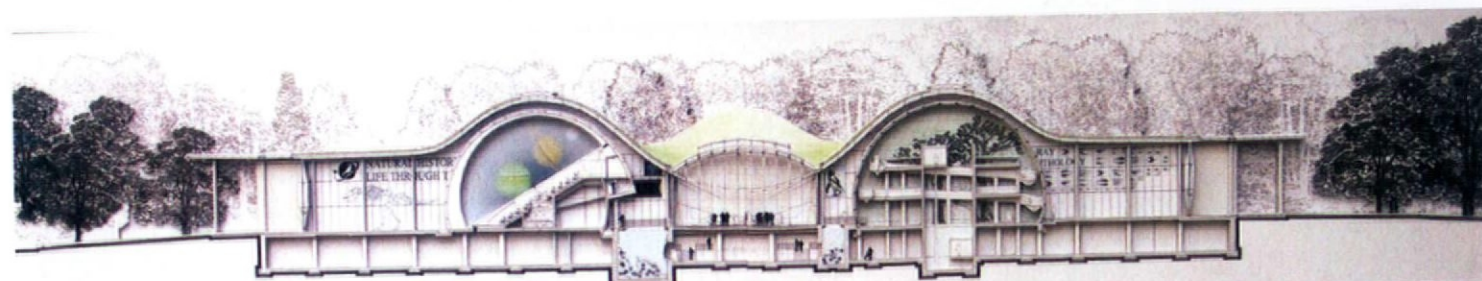
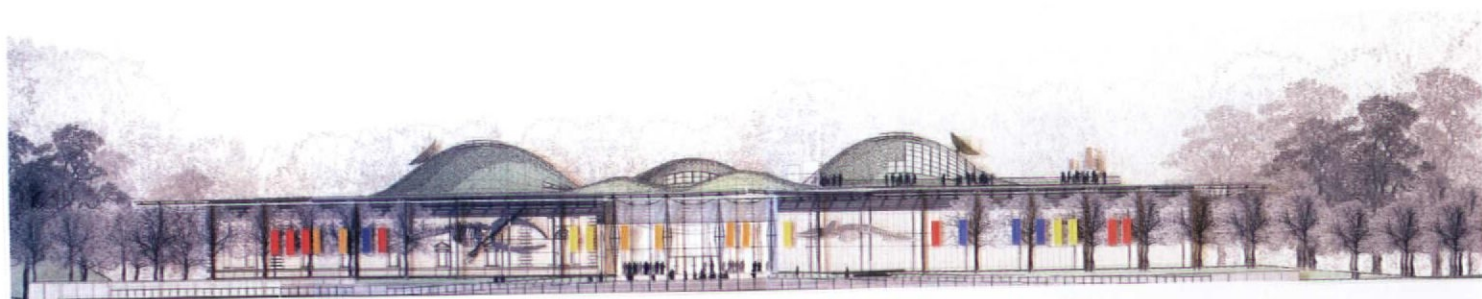
**With over 1.7 million native plants on its roof, the Academy of Sciences comes to life.**

Construction work is complete on Renzo Piano's California Academy of Sciences. As featured in the AR preview issue (AR April 2005), the scheme was necessary as key parts of

the existing complex had been closed following the Loma Prieta earthquake of 1989. A new building was proposed that would also respond to the ambition for the academy to extend its work, exhibition spaces, specimen collections, and public activities to as wide an audience as possible. Unlike Herzog & de Meuron's de Young Museum that sits opposite, the Academy conforms to the site's formal arrangement.

This extends internally with principal and secondary axis clarifying the visitor experience. While tracing this route with project architect Brett Terpeluk, the story of how Renzo Piano secured the commission emerged, indicating how important his understanding of the architect/client relationship was to his bid.

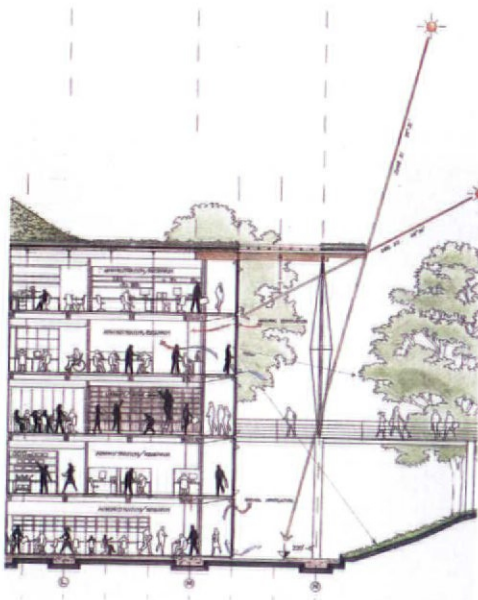
Having invited a number of high profile international architects to apply, many pulled out all the stops to win, hiring helicopters to take aerial photographs and producing large-scale models to discuss at interview. By contrast, Renzo Piano turned up with his daughter, apparently unprepared. No models. No drawings. Spending a number of days on site, in discussion with the client's expert groups, Piano rolled up his sleeves and started drawing, quickly establishing the concept of draping the landscape over the academy's essential functions. His approach dramatically changed the opinion of the client who had convinced themselves that their flying architect was the person for the job. Fully engaged with their needs, recognising that in-house expertise was something that should be brought into the design process, Piano quickly understood that a large part of the scheme – the creation of internal and external habitats – would benefit from their input. As an example of this the roof forms a huge habitat, carefully composed with input from the Academy's botanists. Forming a large external laboratory, this expansive area is more than a typical off-the-shelf green roof system. Instead it provides a great resource for the Academy's ongoing research, bringing with it many obvious environmental benefits. A full study of the building will follow later this year. **ROB GREGORY**







Seen from Herzog & de Meuron's de Young Museum tower, Piano's Academy of Sciences reinforces the formality of gardens. Photographs: Rob Gregory.

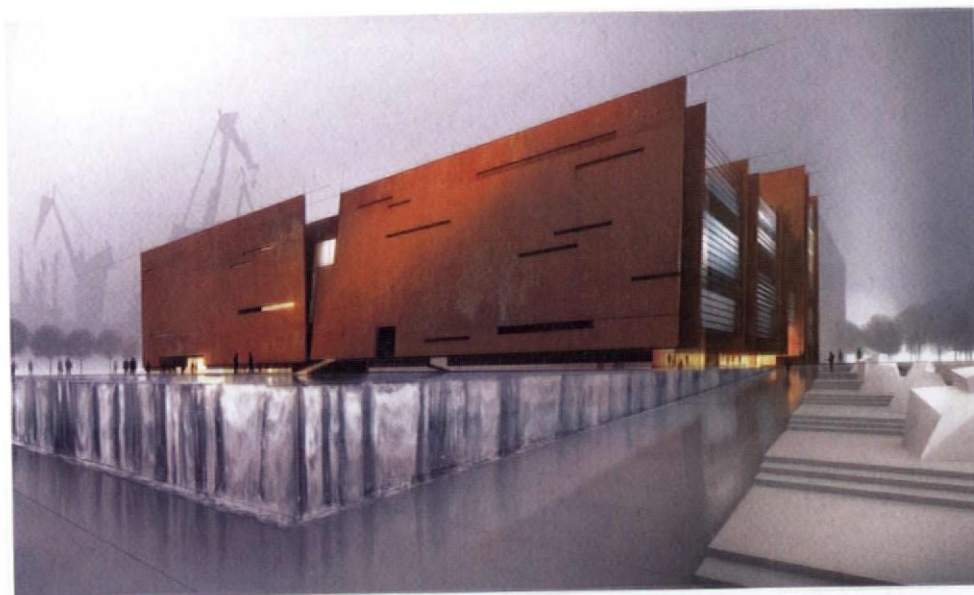


Perimeter areas are shaded and naturally ventilated.

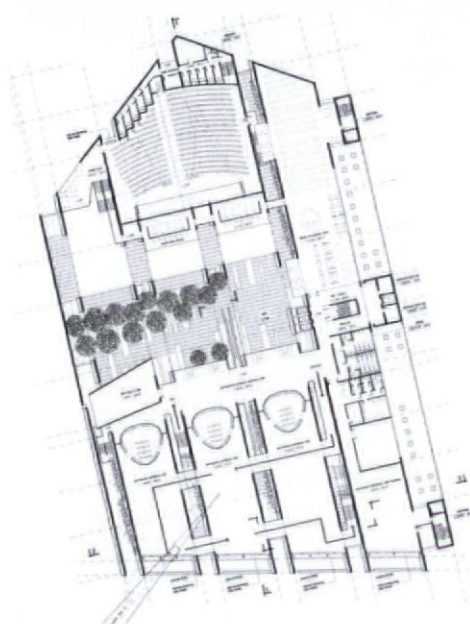


From an observation deck, when the Academy opens later this year, visitors will see a new form of landscape lab.

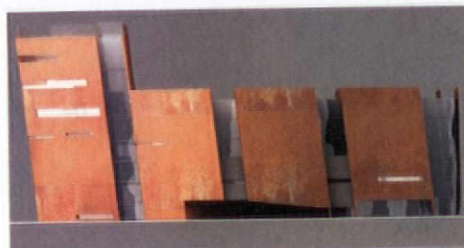




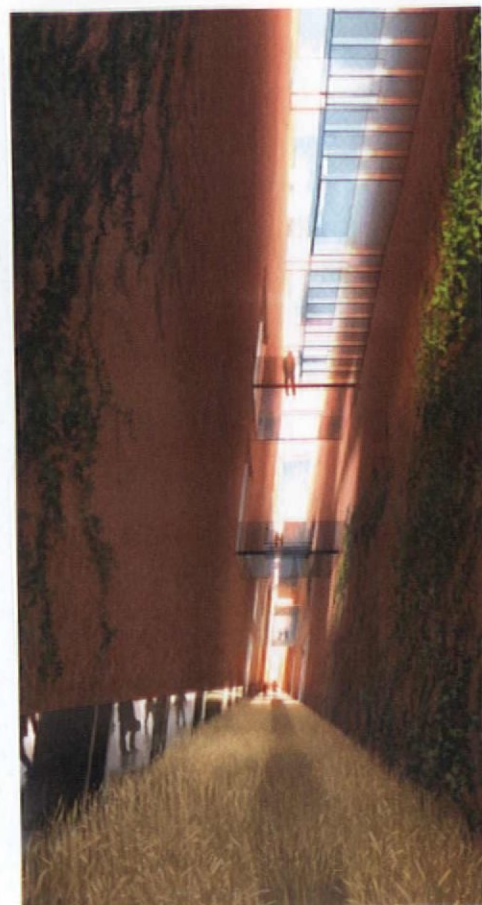
Seen from Solidarity Square, winner creates 'dynamic but uncomplicated background to the Three Crosses Monument'.



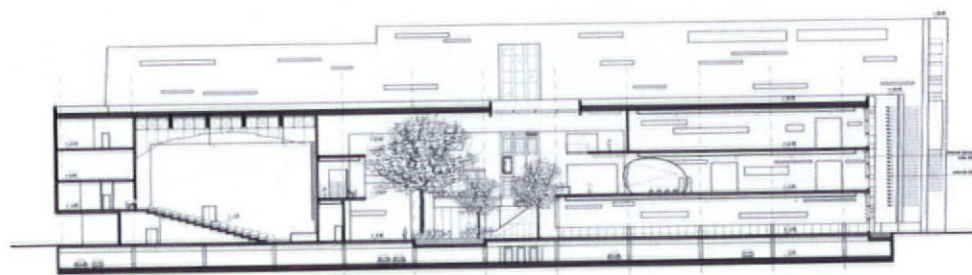
In plan and section, internal spaces ...



Elevations incorporate Cor-Ten steel panels.



Tall narrow ravines recall grain of Gdansk's old town.



... and functions are arranged with clarity. An internal courtyard was part of the competition brief.

## THE LONG ROAD TO FREEDOM

**An international competition signals hope for Gdansk's flawed shipyard masterplan.**

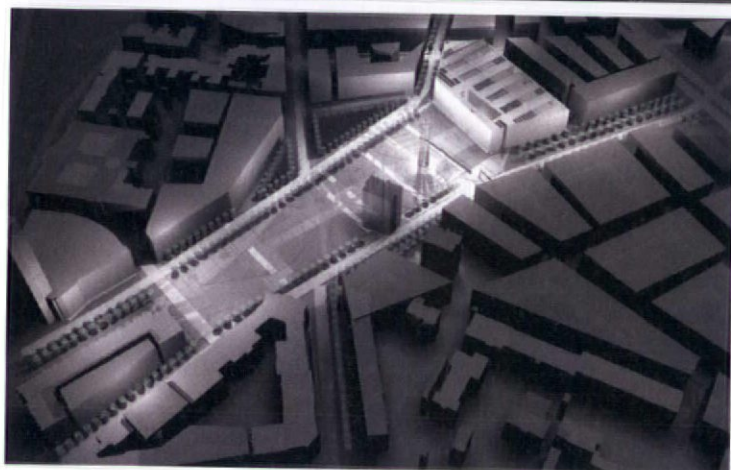
Solidarity has a powerful resonance. Harmony, unity, likemindedness, accord, however you define it, it expresses the determination of any fight against adversity. In Gdansk, resonance is palpable, expressed by the robust Three Crosses Monument that towers over the Gdansk Shipyard, commemorating lives lost in the strikes of 1970. Here, 10 years later, Lech Walesa founded the independent self-governing trade union 'Solidarity' as the first non-Communist trade union in a Communist country, leading to his election victory in December 1989 which signalled the fall of the entire Communist Bloc.

In recognition of this legacy, architects were invited to participate in an anonymous competition to design the European Solidarity Centre; a £55 million building to re-house the Solidarity Museum and provide space for exhibitions and departments documenting the history of democratic opposition in Poland and other ex-Communist countries. While strict pre-qualification rules of engagement may have deterred familiar big names, the competition attracted 58 compliant entries from as far afield as the US, Australia, and Brazil. In recognition of solidarity among the nation's historic labour force, over half of the entries were from Poland, with eventual winners surprising even local jury members, as a practice from Gdansk emerged from the crowded public meeting to fill the stage with a team dominated by female architects.

As noted by George Ferguson, ex-RIBA president and international juror (alongside Stefan Behnisch and Jeremy Dixon), the Przedsiębiorstwo Projektowo-Wdrozeniowe FORT design took the best first steps in the building's long road to completion. Striking a balance of contradictions in the brief for an adaptable building with a strong identity, the design responded in plan and section, recalling the narrow alleys of Gdansk's historic city grain, applying the robust shipyard aesthetic with Cor-Ten steel, and lifting its skirt for permeability at ground level. Concerned that a developer-led masterplan for the shipyard could subvert the spirit of the place, the Jury made recommendations for the next stage. Can the spirit of Solidarity rise again to overcome the potentially crushing impact of a new post-Communist developer-led economic force? R. G.



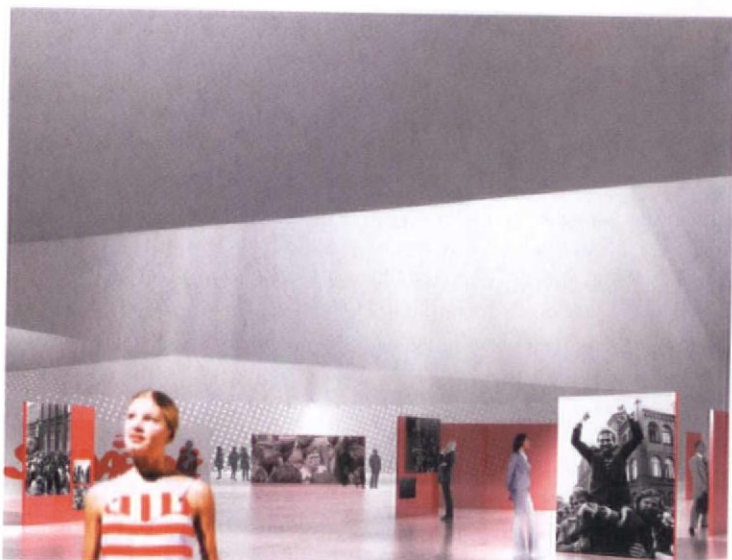
view



Second place: Gray International from Warsaw. Part of a sophisticated urban design.



Third place: Arkitema K/S from Denmark (above and below), acknowledged as the most daring of the compliant schemes, used form to suggest masses assembled in solidarity.



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Aerial view of Dublin's Elm Park campus, the largest low-energy mixed-use development of its kind in Ireland.



Housing for senior citizens and the community centre. Buildings are carefully angled to catch light and air.



One of the trio of office blocks.

## EMERALD GREEN

Irish partnership Bucholz McEvoy have form when it comes to designing elegant, ecologically aware buildings. Their Limerick County offices for instance (AR May 2004) and call centre in Galway (AR July 2005) were both examples of thoughtful responses to unremarkable briefs, elevating mundane building types into exemplary economic and experiential models for passive, low-energy development. Now the practice has moved up a gear in scale and ambition with the completion of Elm Park, a new mixed-use scheme on a site off Dublin's



Apartment blocks have a crisp, cuboid geometry.

Merrion Road. The largest consciously environmentally responsive scheme in Ireland, the campus of 14 buildings, including offices, apartments, a conference centre, leisure centre and seven blocks of housing for the elderly, is arranged around a large landscaped garden that conceals a subterranean car park and service area. Conceived as a low-energy scheme from the earliest noodling sketches, every aspect of the architecture and engineering is integrated to achieve this, with structure, facades, lighting, heating and ventilation systems brought together physically and operationally as a holistic entity. But it's not rocket science. Underscoring the project is the simple but obvious notion of keeping energy consumption low in the first place. Buildings are oriented along a north-south axis to maximise natural light and ventilation and long thin plans reduce dependency on artificial sources. A combined heat and power plant serves the entire complex, with wood pellet burning boilers generating electricity from waste heat. The architectural language of timber and glass is familiar Bucholz McEvoy, but don't be fooled by the soft, Scandinavian spirit. Construction was rigorously regimented and modularised, with prefabrication employed to speed construction times while also enhancing quality. Facade packages were coordinated from Germany, Austria and Denmark and the site was organised like a well-drilled Japanese car factory, constantly in motion, with elements, components and materials arriving 'just-in-time'.

Clearly, monitoring will be required to see if Elm Park lives up to its low-energy expectations, but as both a memorable new piece of urban infrastructure and a compelling vision of mixed-use sustainable development, it throws down the green gauntlet for others to follow. C. S.

## erratum

Photographs of Ecoboulevard, Madrid (AR December, pp36-39, except picture 4) were by Roland Halbe, not Emilio P. Doiztua as stated.





THE MANDARIN ORIENTAL HOTEL, HONG KONG  
dcm studios

## THE CHOICE OF PROFESSIONALS



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ALBION RIVERSIDE  
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EMIRATES STADIUM  
HOK SPORT ARCHITECTURE

GREATER LONDON HOUSE  
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New École director Odile Decq with students.



Christmas party cum exhibition at the École Spéciale.

## Peter Cook

### Springtime in Paris and the burgeoning shoots of the École Spéciale d'Architecture

You cannot fail to succumb to its delightful setting – the long wall onto the Boulevard Raspail, Nouvel's Fondation Cartier opposite, and a brave piece of slotted-angle and exposed-pipe architecture from the '60s that contains studios alongside. There sits the sweet old École Spéciale d'Architecture; this private but thoroughly established institution has remained insulated from the turns and tumbles of the public Academies. They became *'unités pédagogiques d'architecture'*, then something else, holding strikes, revolutions, restructurings and redefinitions, while playing along with a characteristic French rhetoric that overlay the lingering habits of protocol, elitism and the detachment from the business of making buildings.

Of course we English share some of the Americans' fascination and envy of the lives and loves of the characters that inhabited the studios and small hotels of the streets all around; just what was Man Ray saying to Picabia? Satie to Léger? No wonder Robert Mallet-Stevens came out of this school, neither entirely stagey Viennese revivalist or proto-brutalist, but somehow both!

Nowadays the École Spéciale attracts French students who are fed up with the lack of actual teaching in some of the public schools. It also attracts the Japanese (who can indulge in their love-affair with all things French), the privileged from the former colonies, and not a few who are afraid of the reputations that London and New York have for working you hard. The romantic life of being a student in Paris is amplified now by the fact that you can hop onto a publicly provided grey bike and comfortably order your coffee in English. You can also afford to live within the Périphérique – which is hard going in the London or New York equivalents.

Yet the most extraordinary thing about the

school occurred less than a year ago, when the school community (structured similarly to that of the Architectural Association) elected Odile Decq, the most glamorous and most hard-hitting of its professors, to be its new director.

For a moment, detaching the story from the leafy boulevard and its memories and taking a rain-check on the current state of architecture schools, we find that the head/director/dean/chair – whether elected from among the professors or brought in from outside – is generally that old standby: the 'safe pair of hands'. More often than not it is an architect who has snuggled down within the comforts of midday corridor conversations that go round and round ('Yes, what an interesting idea, we must do something about it, but we'll have to wait for next year's budget'.) And next year turns out to be very much like the one before. Students come and go; whether wide-eyed or cynical, an economic 'downer' temporarily seduces a few real architects back into teaching, but the power lies, usually, with the 'regulars'. The constant pressure to make architecture into a 'legitimate' academic discipline, increasingly pushing the notion that without a PhD you are merely some kind of plant life.

In the last two or three years, more and more of the key players have chosen history-theory



Topographic models at the École Spéciale.

figures as their heads. Apart from the Asians – Qingyun Ma at USC, Hitoshi Abe at UCLA, Yung Ho Chang at MIT (all designer-architects) or the larger-than-life figures of Wolf Prix at the Angewandte in Vienna and Eric Owen Moss at SCI-Arc – it's all a bit weedy and safe and full of 'faculty talk'.

So the recent Christmas Party at the École Spéciale could have just been a tipped-Gauloise-and-fizz 'jolly' (which it was) – but it was something more. Decq has deftly pulled in a number of working outsiders to teach: one of Germany's inventive engineers, one of Turkey's fastest-building architects, one of London's most exotic Bartlett Chinese, one of Rome's sharpest digi-minds, returnees from Harvard and a resourceful English bridge designer. The best in-house teachers are spread across the younger years; Decq quickly introduced a competitiveness by making the party into an exhibition with prizes awarded by an outside jury. Suddenly the teachers had to be on their mettle. Suddenly, some of the chatter is about the work, suddenly some of the work is starting to look good: with evidence that her experience in teaching at the Bartlett, Columbia, SCI-Arc and Montreal is coming into play. Mercilessly borrowing useful tricks and rituals.

All have been grafted onto the spirit of the old school: prizes are also awarded to teachers for their new building, their competition win, their new books. Why don't all schools do that? You see Mathilde's new crèche, Alfonso's apartment building, Justin's tome, all up there on the big screen. Perhaps elsewhere it would be too embarrassing for those corridor-chatters to admit that they'd designed, er, nothing that year?

From a distance, Decq is easily misread. Don't be taken in by the good looks, the studied post-punk black, by the sweep and swish of her buildings. A tough examiner and critic and a real professional who keeps her office going with her other arm and foot so as to continue a healthy stream of competition wins, she has to run fast and hard to beat a certain tradition of well-heeled dilettantism that typifies some of the local students. Just as the tipped Gauloise is under attack so will be the sloppy drawing habits, reliance upon chat rather than hard graft, amid the pleasantness of a walled garden where you can gossip for hours occupying a piece of ace Paris real estate.

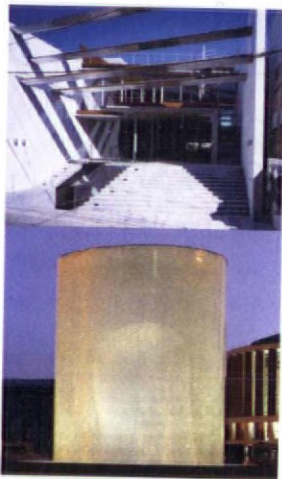
Enter stage left some nasty, ambitious, professional students, speaking many tongues and making many drawings, models, animations, competing for recognition. Attracted by a good airport and fast trains to everywhere in Europe, as much as by the artistic ghosts of Montparnasse.

So the Anglo-Saxon network had better look out, observe the recent success of the Angewandte and brace itself for yet another challenger.



## Emerging Architecture

Next generation architects from around the world show and tell at the RIBA with a series of talks and an accompanying exhibition

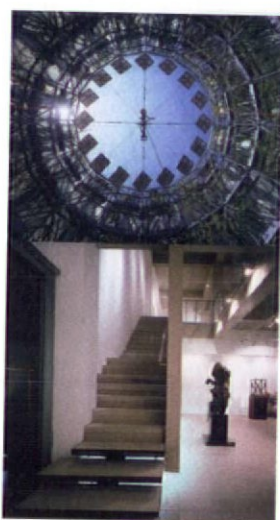


**Taketo Shimohigoshi/  
AAE + FAM Arquitectura  
y Urbanismo**

**31 January 18.30**

Taketo Shimohigoshi will be talking about architecture in central Tokyo. Shimohigoshi has been considering the architectural landscape of Tokyo and the relationships between architecture and the overcrowded image of the city. He will talk about his ideas, using some of his projects by way of example.

The 11 March Memorial for the victims of the Madrid terrorist attacks was inaugurated opposite Atocha train station in Madrid on 11 March 2007, the third anniversary of the terrorist attacks. FAM Arquitectura y Urbanismo will talk about their design for the memorial, exploring the thought processes behind it, and the new construction methods they used to create it.



**Ecosistema Urbano  
Arquitectos +  
Unsangdong Architects  
Cooperation**

**5 February 18.30**

Ecosistema Urbano Architects will talk about their Eco-boulevard of Vallecas which they define as a process of 'urban recycling'. Self sufficient 'air trees' provide temporary public, social and recreational spaces. Once the new suburban area and vegetation has developed to the extent that it no longer needs these air conditioned environments, they are easily dismantled, leaving spaces that resemble forest clearings.

Unsangdong principals Yoon Gyoo Jang and Chang Hoon Shin are both acutely aware of and responsive to the growing globalisation of architecture. Their new gallery is an assured piece of urban sculpture that clearly reflects wider international influences and brings a sense of verve to Seoul's tatty cityscape.

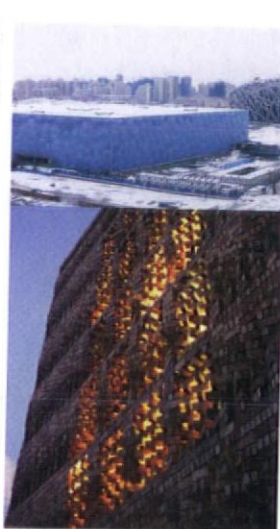


**FAR frohn&rojas +  
Studio Tamassociati**

**19 February 18.30**

Founded in 2004, FAR frohn&rojas is a networked practice operating between Germany, Chile and Mexico. Looking at their 'Wall House' and placing it within the context of their other work, Marc Frohn (concept development & design principal) discusses his work approach of obsessively playing with the 'deep structures' underlying architecture, such as legal constraints, technological and ecological frameworks.

Studio Tamassociati is committed to policies that strengthen conditions of security and integration and that favour democratic growth, social justice and environmental sustainability. In this lecture, they will talk about their winning project, the Prayer and Meditation Pavilion, in Khartoum, Sudan and the ideas that shape they way in which they work.

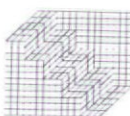


**Chris Bosse +  
Anagram Architects**

**26 February 18.30**

Sydney based, German architect Chris Bosse bases his work on the computational study of organic structures and resulting spatial conceptions. He pushes the boundaries of structure and architecture by means of digital and experimental form-finding. With PTW architects in Sydney, he was a concept architect of the Watercube in Beijing.

Anagram Architects was founded in 2001 in New Delhi. Their young practice works across a wide range, from modest residences to large public infrastructure facilities. They will discuss some of their most recent projects, including the offices of the South Asian Human Rights Documentation Centre in New Delhi, where they attempt to combine their own modernist training with traditional design practices with the aim of creating new experiences.



Buro Happold

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## comment

As designers, we should be familiar with the taking of difficult decisions. Unhappily, the evidence all around us is that generations of designers have been complicit in society's failure to address issues related to climate change. But in our complex world, it seems that the overlay of sustainability requirements can be too much to cope with; so we reduce sustainability analysis to retrofitting environmental features, singular metrics, assessment tools and labels. We thereby delude ourselves. These assessment tools can 'successfully' be applied only after the formative design process has determined 90 per cent of the outcomes. They are, perhaps necessarily, configured with a normalised and bland view of the relationship between separate environmental issues.

As a consequence, within some of the assessment mechanisms, it is entirely possible to get the highest (positive) rating without any regard to energy efficiency, conservation or carbon emissions mitigation: 'greenwash' and tactical box-ticking become an art form. Other assessment tools do have minimum standards in some of their criteria, but at a level that will not radically address energy efficiency and carbon emission. Given the imperative of climate change, do we need radical change or this sort of Band-aid? Furthermore, there is often scant regard paid to the impacts and opportunities for individuals, wider society and the cultural context of place, resulting in a focus on a range of purely physical environmental aspects – as has been the case since the Rio summit narrowed the world's terms of reference for sustainability.

The tools we use for assessment have been a significant first step in helping to engage the disparate design world, to get us up to speed with the sustainability agenda, and to offer more objective benchmarking in a cynical world. There is certainly an important role for tools and assessment, but these need to follow the process of design, to act as audit rather than leading design via a checklist. Holistic design, an abused term if ever there was one, should not become the dog wagged by the tail of assessment.

Now that we are familiar with environmental principles, and with the mechanisms that can improve our work, we can be more discriminating in setting ourselves a first objective; to create built form sustainably. There is an opportunity in so doing to reflect the

broad issues which resonate with our purpose as designers of place – people and their culture – within a discipline which is modern and forward-looking. Perhaps we might term this 'whole-life sustainability', as a driving force in all that we do.

The problem is how designers are to understand fundamental issues, and set first-principle priorities for projects in diverse landscapes. How do we distil the relevant and important from the incidental? I would suggest a two-stage process: first, to understand issues that are constant, and the context within which they sit, and second to set priorities with collaborators in our work and lives, weighting the balance of fundamental considerations with the specific context of a particular project. A balance is to be maintained between a clear and distinct design philosophy grounded in universal recognisable values, and an agility to maximise the unique potential of any given project.

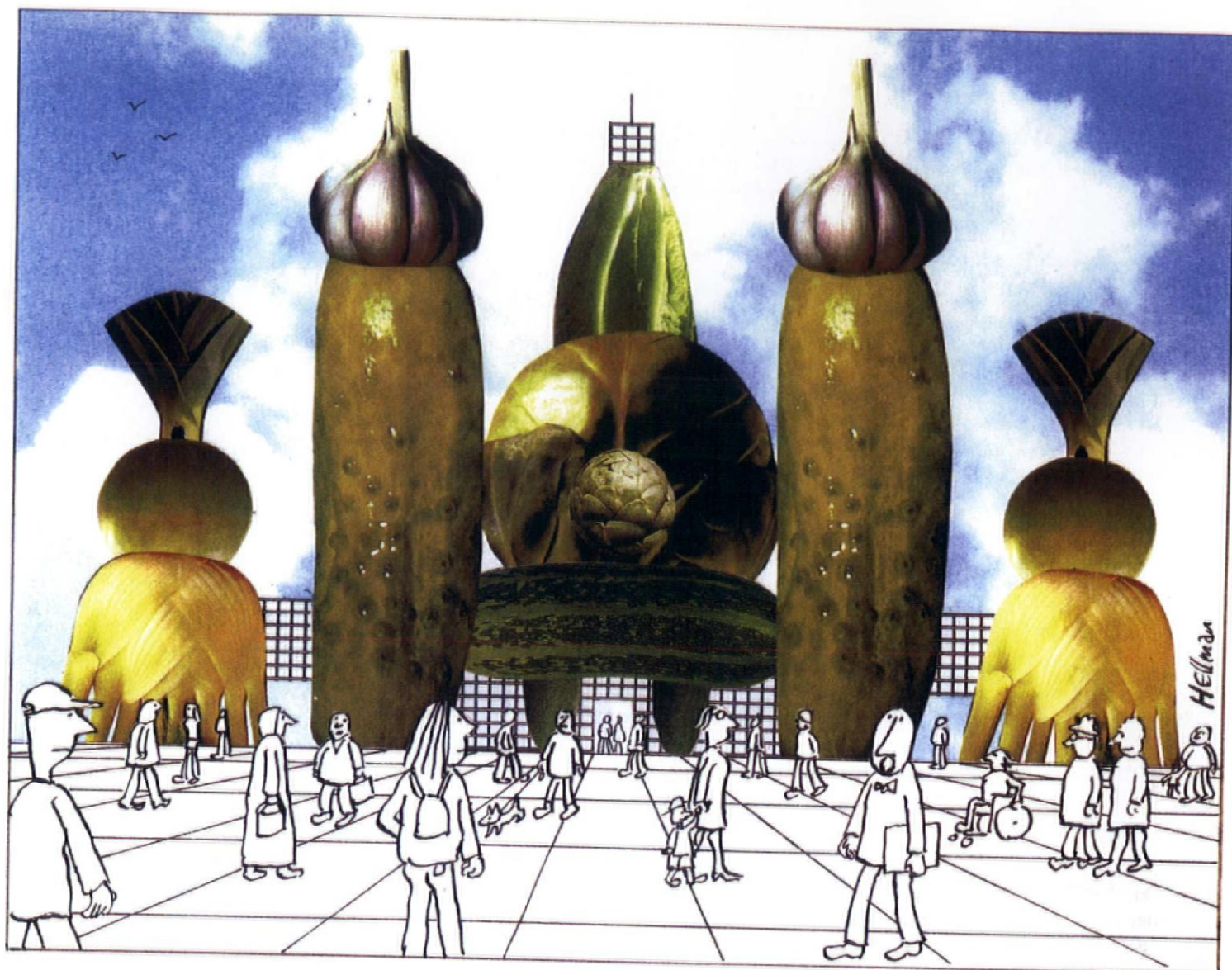
We can think about sustainability issues at three scales (global, regional and local) with three aspects (environmental, social and economic). Priorities in balancing them are difficult to set, but set they must be. There is overlap, but issues that are global include climate change impacts and its mitigation, fossil fuel depletion, materials supply (today), global policy and economics, poverty and deforestation. Regional aspects include macro-climate characteristics, water distribution, climate change adaptation, energy supply, water, waste, biodiversity, policy and planning issues, and direct societal aspects such as inequity and social justice. Local issues include micro-climate characteristics, climate change mitigation and adaptation, water supply, physical environment, energy use and generation, materials supply (tomorrow), project economics, potentially diverse community interaction and the individual.

These suggest a series of key issues that are constantly with us; energy and climate change (mitigation and adaptation), water, waste and societal aspects, all considered within scaled economic frameworks. This gives the clues as the starting point for our imperatives. Reduction in energy use by the building, by design and construction, and by its users through intuitive usability and engagement, low-carbon energy supplies, water-use reduction

# MAKING SENSE OF THE NEW GREEN AGENDA

**It is clear that we are reacting too slowly to the world around us and critically endemic problems are not being addressed. These are important times, in which our choices will crucially influence how we evolve. Will our societies be fractured with exhausted resources or progress into a successful, albeit resource-constrained, future?**





and responsible use of materials and minimising waste, all deserve radical ideas. In projects today, we are already setting demanding targets for these environmental issues, irrespective of the assessment tool to be adopted.

What of the particular issues of a project, such as the social aspect? Empowering people to fulfil their potential, and as enablers for buildings to fulfil their potential, is now suggesting a closer relationship and direct interaction between the individual, the collective and the built environment. This symbiotic relationship is central to the success of a project, and takes much deeper cognisance of culture, habit, behaviour and locale. Each project will have its own characteristics, and may have complex relationships to resolve, involving many people and priorities. We need a way of thinking, of inclusion, to capture the breadth of these issues at a multitude of levels, and an expansive attitude of enquiry as fundamental drivers to a project.

But there is another issue too. In the public's mind, architecture has assumed a singularly visual aspect in its art and medium. For some, this difference has become starkly contrasted between the architecture of shape-making, often abstracted from context and culture, and the expression of ideas in form; a deeper understanding of the meaning of design and buildings and their impact on people and the environment. We cannot move forward if we do not challenge a tradition overpowered by superficial styling. If architecture is to

rediscover its relevance to human experience, it needs to recognise its unique obligation in reflecting and responding to the wider context in which it is placed and consequently experienced. In many respects this is where its unique power lies. This relates to physical and cultural context as well as the environmental imperatives required to secure our future.

We can no longer rely on the orthodox hierarchy of the design relationship. A more collaborative way of working must be engaged. In our studio, we're working to unify these in a wider collaborative model, and use the shorthand 'unified design'. It is proving possible to assimilate and consider a broad range of complex ideas, which reflect not only an aesthetic sensibility, but a real recognition of the imperatives that face us. The potential of our projects to engage, serve and uplift the wider, long-term ideals of society are as important as the environmental imperatives we face. We need to reflect on whether our projects are fulfilling their potential for those that use and enjoy them, and for society and the environment generally. By thinking in this way, we can liberate the true creativity of designers to create non-formulaic approaches with skill and breadth of knowledge, humility and a committed sense of purpose as to how buildings can affect people and their environment, context and culture for the better. MICHAEL BEAVEN

Michael Beaven is Director of Arup Associates





## CUBIST CASBAH

Social housing on the edge of Madrid is transformed into a modern eco casbah.



location plan




**HOUSING, MADRID, SPAIN**  
ARCHITECTS  
**MORPHOSIS & BDU ESTUDIO  
DE ARQUITECTURA**

The competition-winning social housing project that Morphosis completed in December of last year offers a dramatic contrast to the bland brick towers of middle-class apartments that surround it. A gleaming white complex of cubist blocks, patios and walkways, it evokes the hill villages of Andalusia or the casbahs of north Africa. Located in Carabanchel, a masterplanned community bordered by the ring road to the south-west of the fast-growing Spanish capital, it is one of 27 projects in that area sponsored by EMVS, the city housing authority. These were all designed by new or established architects, from Spain and abroad, and they are scattered among the private developments. The construction budget is a frugal €600sqm, and the completed units are offered for sale or rent at a third of the market rate.

Morphosis principal Thom Mayne rose to the challenge: 'We've always made a practice of building inexpensively', he says. 'I share the idealism of the early Modernists, and the client gave us free rein conceptually as long as we met the budget.' For this first venture in Spain, Mayne's team collaborated with BDU Estudio de Arquitectura, a fledgling Madrid firm founded by Begoña Díaz-Urgorri who briefly worked for Morphosis, and gained experience building another innovative project for EMVS.

Residential construction in Spain is booming, and government agencies estimate that 900 000 units were built last year – almost as many as



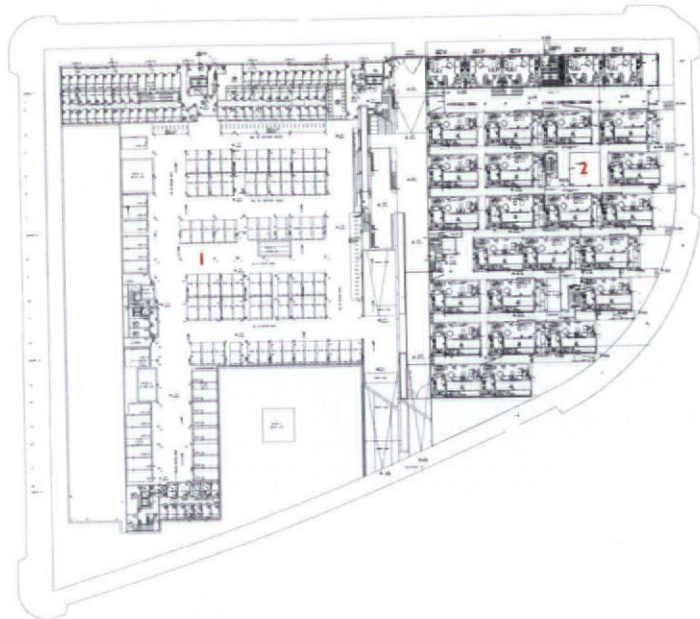


1  
Long slab blocks  
frame the  
'village' of low-  
rise dwellings  
and courtyards.

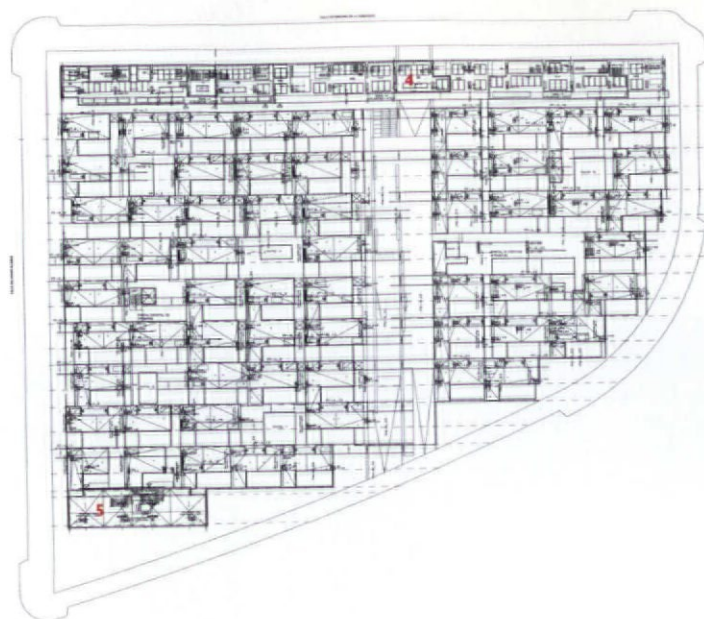
2  
Wind towers  
create a surreal  
landscape of  
periscopes on  
the fringe of  
Madrid.

3  
Networks  
of passages  
connect the  
complex. Over  
time, the  
Constructivist  
contours will  
be softened by  
planting.

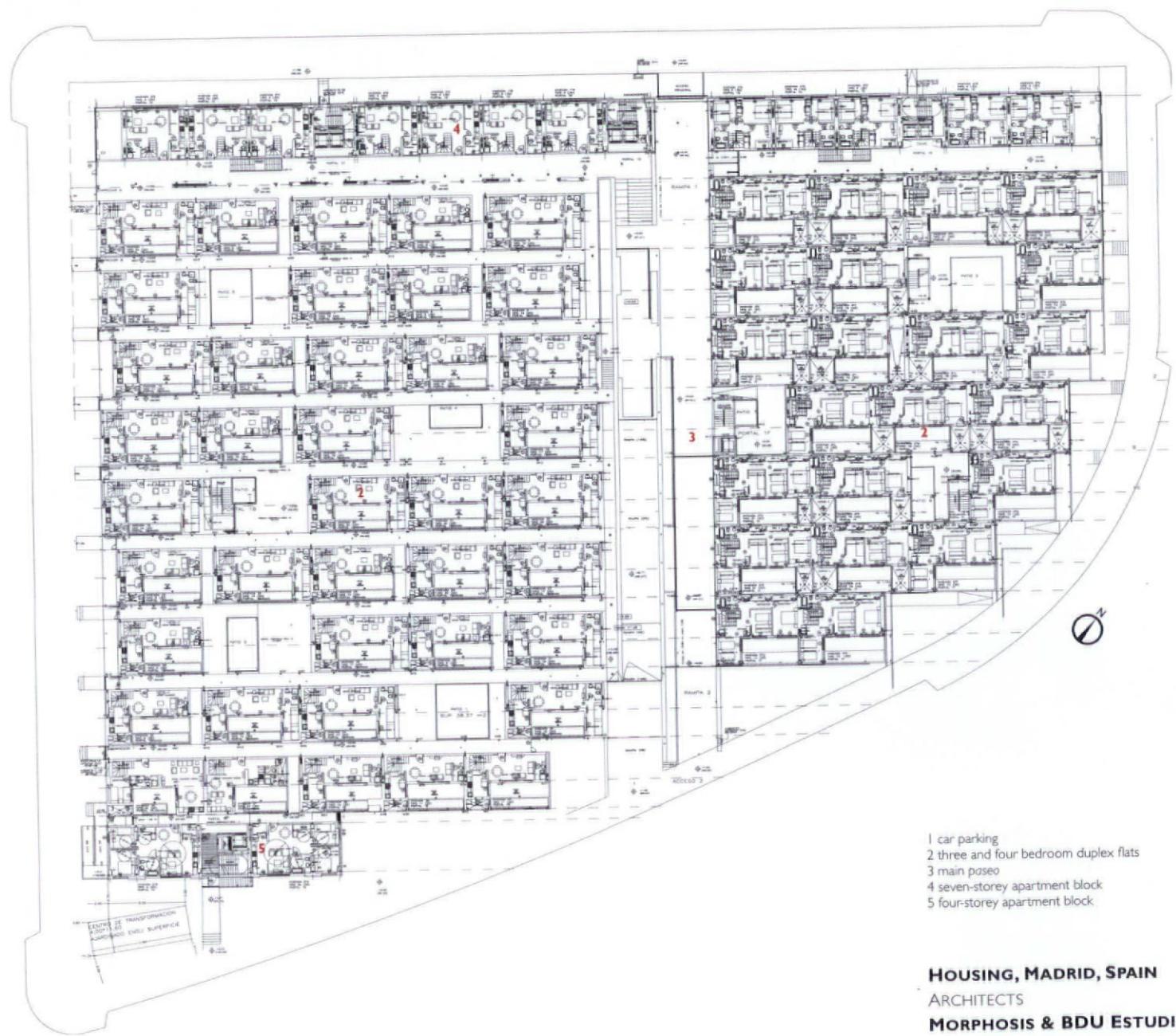




ground floor plan (scale approx 1:1500)



second floor plan

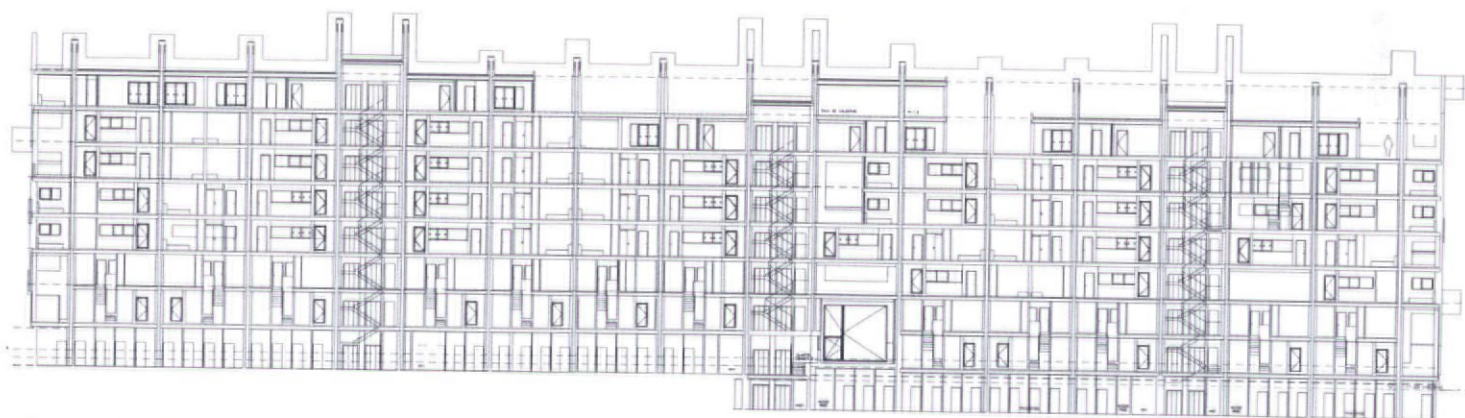


- 1 car parking
- 2 three and four bedroom duplex flats
- 3 main paseo
- 4 seven-storey apartment block
- 5 four-storey apartment block

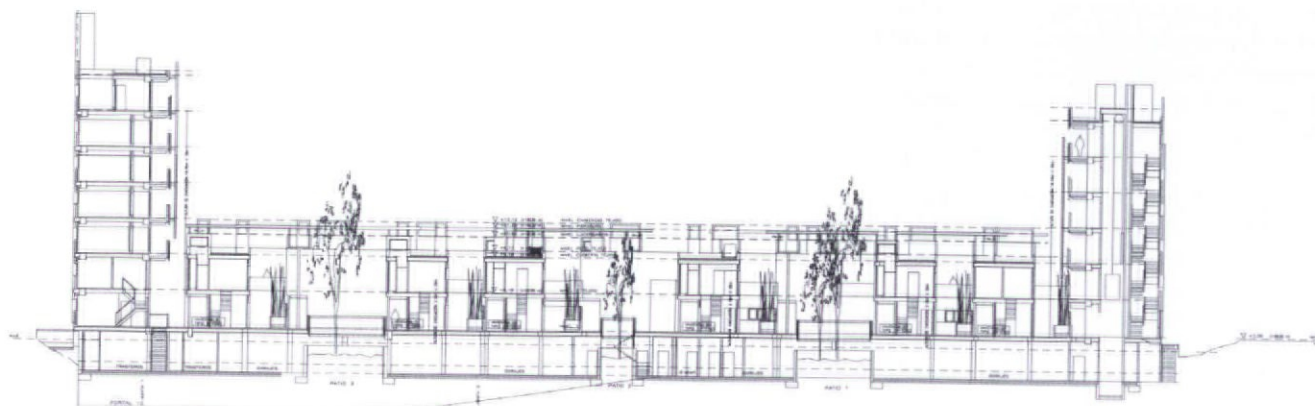
**HOUSING, MADRID, SPAIN**  
 ARCHITECTS  
**MORPHOSIS & BDU ESTUDIO**  
**DE ARQUITECTURA**



4  
Wind towers draw in  
cooling breezes.



long section through seven-storey slab block tower



cross section through towers and low-rise units





were constructed in the rest of Europe. In part this is due to a surge of immigration, in part to a frenzy of speculation, but most of the privately financed houses and apartment blocks are conventional in design and poorly constructed. Public housing is much more adventurous, and Mayne's vision, which was fleshed out by Diaz-Urgorri and Morphosis project architect Pavel Getov, is a brilliant reworking of the Mediterranean vernacular in the tradition of Le Corbusier and Team Ten.

The architects stacked the two-bedroom apartments in a thin-section seven-storey slab that runs along the north side of the site. The street facade has small openings, and the apartments open up to south-facing terraces at each level. A four-storey block defines the south boundary, and these two bars of small units bracket a village-like complex of three- and four-bedroom duplexes, with a podium of parking below. A broad *paseo*, shaded by aluminium mesh canopies that will support a variety of flowering plants, bisects the complex from north to south, connecting to a network of narrow passages. Public plazas alternate with inner patios. 'We tried to create an infrastructure for social interchange, with neighbours meeting casually and conversing from one space to another', says Mayne.

To keep construction costs down, the architects played variations on a simple, three-dimensional module, and employed the standard building system of a concrete structural frame and stuccoed brick infill. Mesh-covered Styrofoam panels sprayed with cement are supported on steel poles to define the *paseo*. The mature trees that Morphosis had wanted to plant were eliminated as an economy, and the plantings have yet to soften the canopies, giving the project a sharp-edged Constructivist look. The units are compact (60 to 100sqm) but attractively finished, with hardwood floors, terrazzo stairs and built-in cabinets. Chimney-like towers serve as ventilation shafts, pulling in cool breezes and evacuating hot air, and natural ventilation from the open spaces keeps the units cool on all but the hottest days. Solar panels contribute to the heating, and abundant natural light also reduces energy costs. MICHAEL WEBB



**Architects**  
Morphosis &  
BDU Estudio de Arquitectura  
**Photographer**  
Nic Lehoux

**5, 6**  
The casbah-like infrastructure of passages, stairs and internal courtyards will act as a physical armature for social interaction, but much depends on how the real inhabitants will appropriate the spaces.

**7**  
White walls and sharply defined forms make for a Modern Mediterranean vernacular.





**HOUSING, MADRID, SPAIN**  
ARCHITECTS  
**MORPHOSIS & BDU ESTUDIO  
DE ARQUITECTURA**

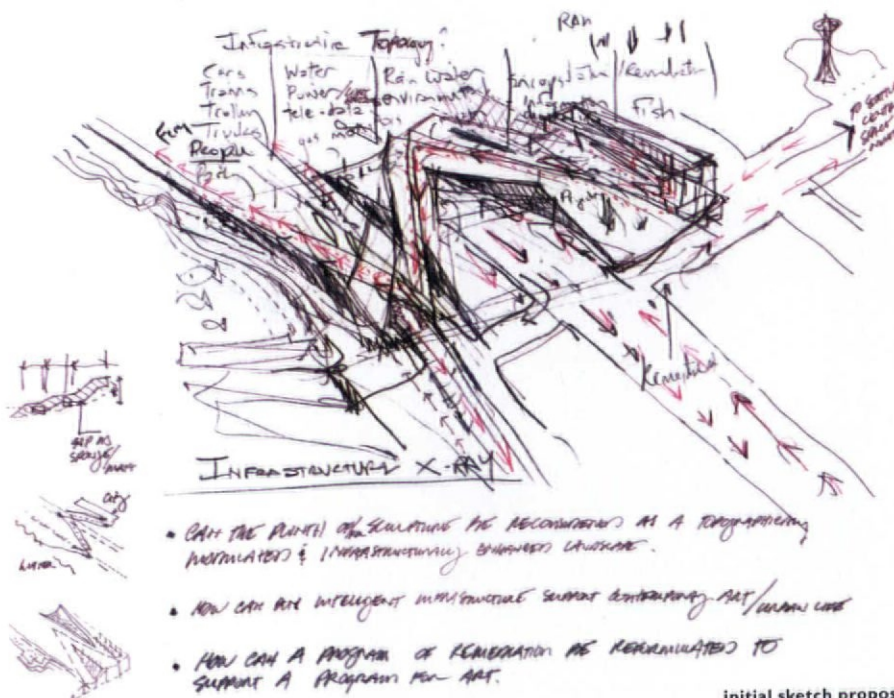


The SAM, which opened in 1933 on a site overlooking Seattle, expanded and moved into the city in 1991. Designed by Venturi Scott Brown, the early '90s building was distinguished by an assertively decorated facade that wrapped around a corner site on First Avenue and University Street with a mix of supergraphics, colour and conspicuous historical pastiche. With a more recent infusion of energy and new-found wealth from coffee, computers and the internet, the museum has expanded again. As a result of a collaboration with the Washington Mutual Bank it now occupies prime frontage along an entire city block on First Avenue.

During the construction of this new building another site became available in the city, prompting the Seattle Art Museum to consider further expansion. In an imaginative move that consolidated the notion of putting art alongside commerce downtown, the museum saw this as an opportunity to create another cultural destination by reclaiming the former industrial



**A new urban park provides a green lung for Seattle and reconnects city and waterfront.**



initial sketch proposal





1  
The waterfront  
site prior to  
redevelopment.

2  
The new pavilion and  
park spectacularly  
reunite the city with  
the waterfront.

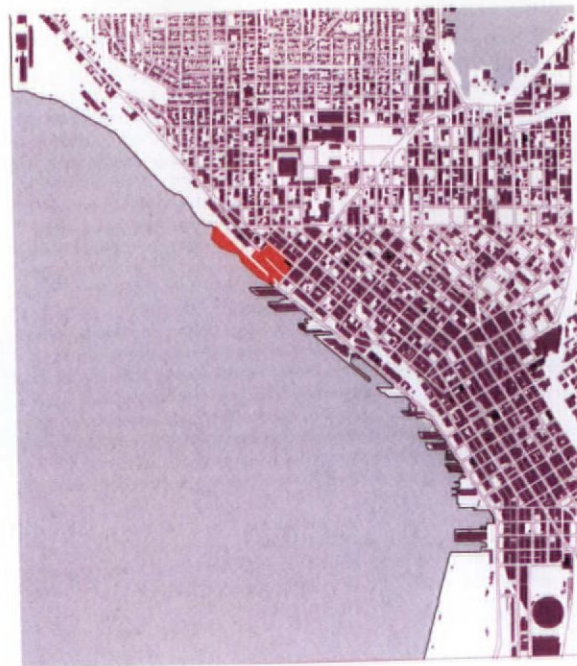
3  
The undulating  
topography is cut  
through with paths,  
lawns and planting.



site to make a new public park to house a growing collection of sculpture by internationally significant artists. Just as a vacant power station became an unlikely eastern outpost of the Tate Gallery in London (AR August 2000) and a major destination on a new public path along the Thames, so these projects locate the museum in the city and connect that city to the waterfront.

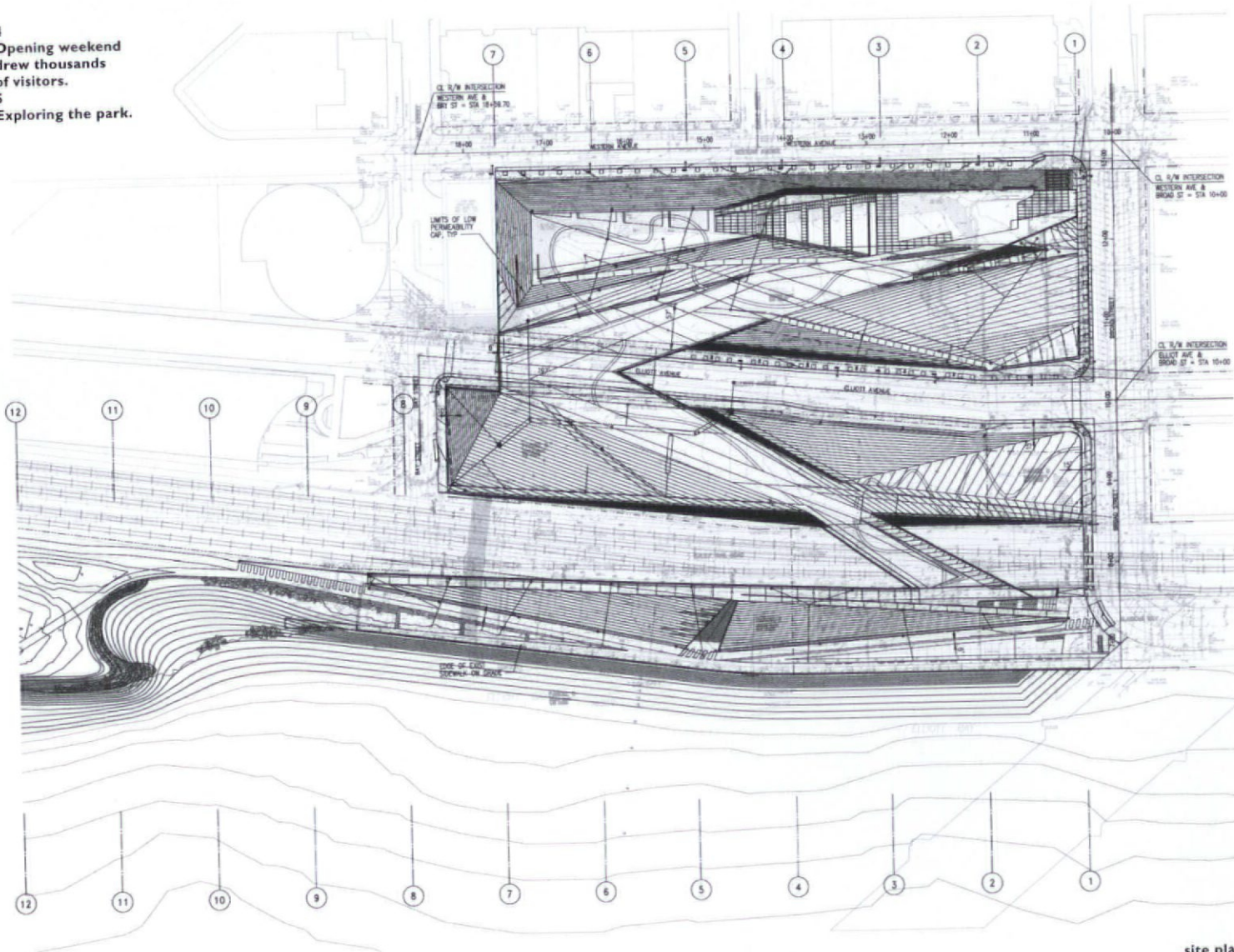
The 8.5 acre site, which slopes down steeply from Western Avenue to the water's edge, was the last piece of undeveloped downtown waterfront in the city. A former fuel transfer facility, it was divided into three distinct parcels of land by Elliott Avenue, a four lane arterial road, and the active Burlington Northern Santa Fe Railroad line, and surrounded by a rapidly growing group of residential towers.

In their competition-winning submission, Weiss/Manfredi proposed a new topography for the site organised around a nearly half a mile long path for pedestrians. It descended in a continuous zigzag from the corner of Western Avenue and Broad Street, bridged over Elliott Avenue and the existing railway line and terminated in a waterfront park. Marked at the entrance on Western Avenue by a pavilion housing art and public amenities, that path also defined a series of sites for large-scale outdoor public art set within a more extensive constructed landscape.



location plan

- 4 Opening weekend drew thousands of visitors.
- 5 Exploring the park.



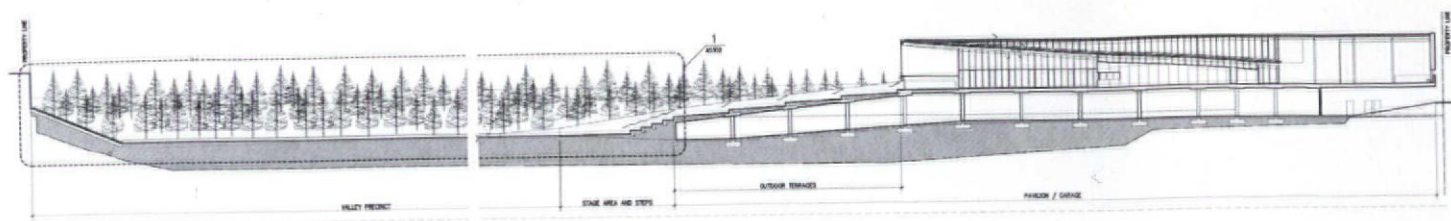
site plan



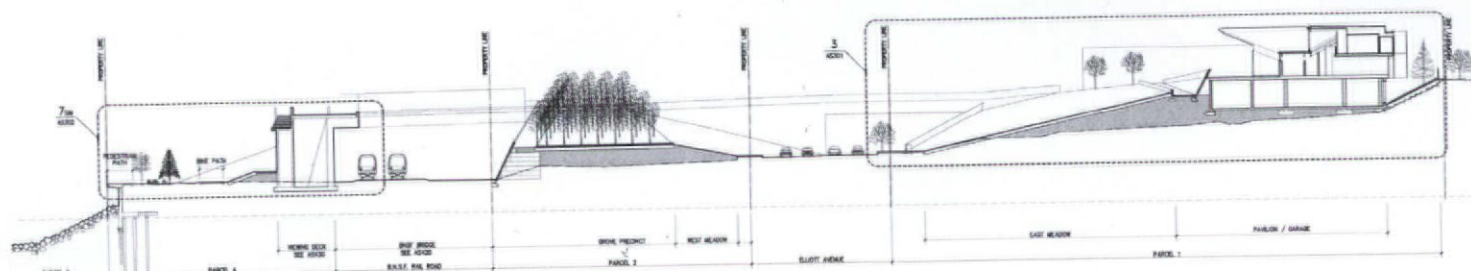


SCULPTURE PARK,  
SEATTLE, USA  
ARCHITECT  
WEISS/MANFREDI





long section through site and pavilion



cross section through site and pavilion

## SCULPTURE PARK, SEATTLE, USA

ARCHITECT

WEISS/MANFREDI

The Olympic Sculpture Park, which opened last year, is now the location of an impressive collection of large-scale work by Calder, Oldenburg, Serra, Bourgeois, Caro and other notable artists viewed against backdrops of city towers, spectacular natural landscapes and the long horizon of the ocean. Designed as a low, faceted box, the pavilion serves as a lookout, a portico at the entrance to the park, a simple shelter from the weather and the balcony of a tiered outdoor amphitheatre. Long folded roofs effectively frame views and provide sheltered outdoor spaces while the conspicuous lightness and detailing of metal and glass cladding reference the other Seattle Art Museum which is a few minutes' walk away.

As well as providing access to public art, this new path to the waterfront is the framework for an overlay of natural landscapes. Within these landscapes necessary infrastructural elements have been identified as locations for site specific commissions. Where the path crosses over the existing road the resulting bridge becomes the site for *Seattle Cloud Cover* – a laminated glass shelter designed by Teresita Fernández – and walls that buttress the path along Broad Street bulge out to create a toplit space that houses *Seattle Vivarium* – an installation by the artist Mark Dion.

The simplicity and directness of the first sketches presented by Weiss/Manfredi are effectively translated in the built scheme and, as 'landscape urbanism' increasingly defines a new body of academic research, this project clearly demonstrates the reality and tangible benefits of integrating large-scale infrastructure, nature, art and building. Seen together these two latest extensions of the Seattle Art Museum are a compelling demonstration of how cultural institutions can advance sustainable design through the inspired transformation of space and the reconstruction of cities. BRIAN CARTER

### Architects

Weiss/Manfredi, New York

Civil and structural engineer

Magnusson Klemencic Associates

Landscape architects

Charles Anderson Landscape Architecture

Photographs

Ben Benschneider, 1, 2, 4, 5, 7, 8

Paul Warchol, 3, 6

Bruce Moore, 9

6 Waterfront promenade.

7 The glazed pavilion forms a beacon in the landscape.

8 Pavilion interior, connecting with and celebrating the wider world.

9 Sculpture (in this case *Eagle* by Alexander Calder, 1971) and nature.



6



7







MUSEUM, GRAND RAPIDS,  
MICHIGAN, USA  
ARCHITECT  
WHY ARCHITECTURE



| Sober yet seductive; a generously proportioned portico addresses Maya Lin's park and the wider city.

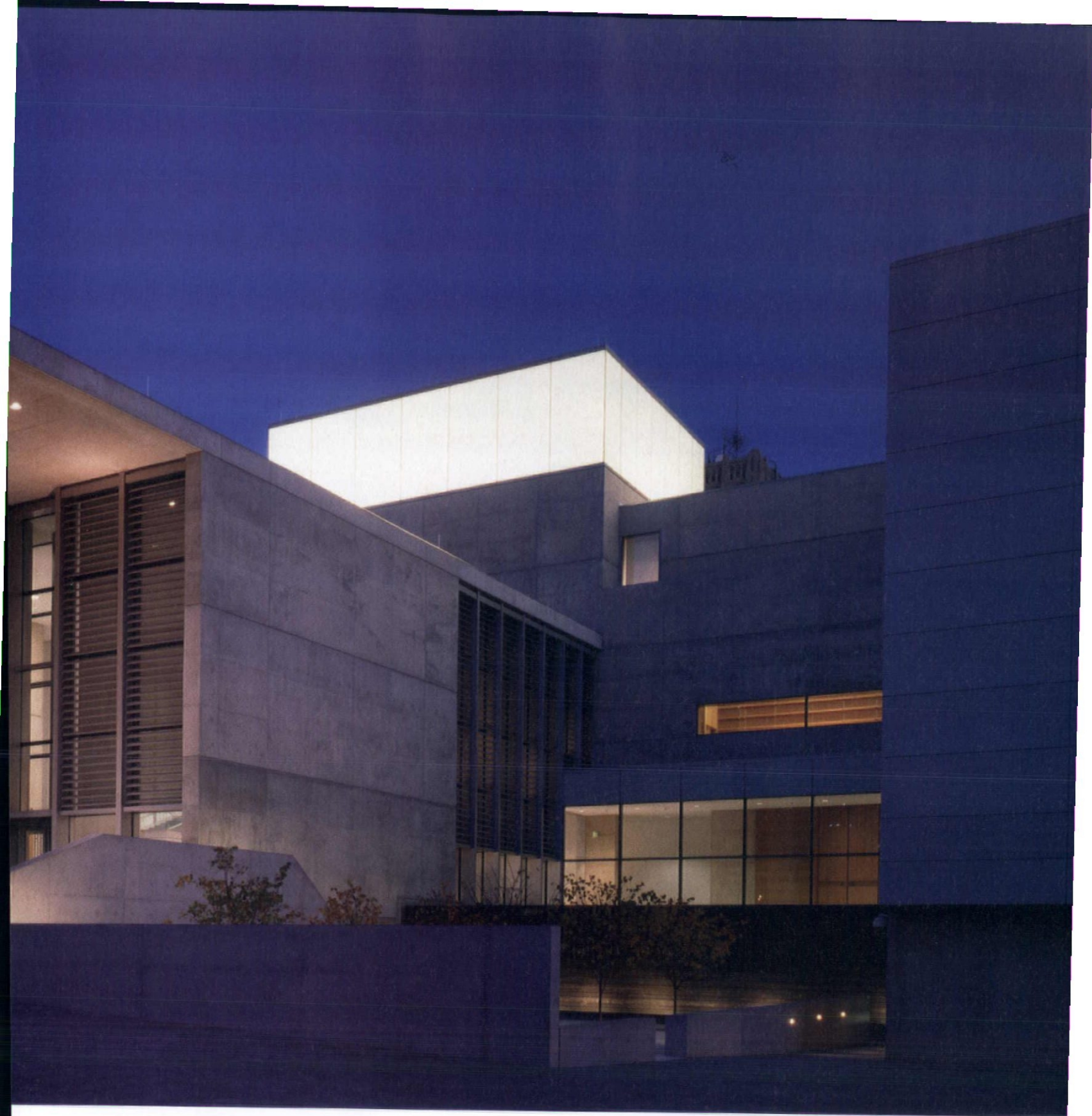
## CRAFT SKILLS

A new art museum for Grand Rapids  
soberly extols environmental concerns.

The area around Grand Rapids, Michigan, was settled by Dutch Calvinists and the tradition of frugality and craft is still alive in this centre of American furniture production. Steelcase, which collaborated with Frank Lloyd Wright, is based there, and Herman Miller, which was transformed by George Nelson and the Eames in the postwar decades, is located nearby in Zeeland. So it is refreshing to discover that the centre of Grand Rapids – in contrast to so many in the Mid-western states of America – has retained its vitality and now boasts an exemplary, environmentally sensitive art museum.

Having waited almost a century for a building it could call its own, the board looked across the lake to the costly extravaganza that Calatrava was adding to the Milwaukee Museum of Art, and resolved to build a sober,





frill-free showcase for its collection. After an initial flirtation with a firm that failed to please, they turned to a promising newcomer. Kulapat Yantrasast, who co-founded WHY Architects with Yo-ichiro Hakomori in 2003, was project architect for Tadao Ando's highly acclaimed Fort Worth Art Museum, and there are obvious affinities between the two buildings. What's remarkable is how quickly Yantrasast, who worked with Ando for seven years and continues to collaborate with the Japanese master, has found his own distinctive forms of expression.

The new art museum (GRAM) is an airy, light-filled cluster of glass and impeccably poured concrete boxes, tied together with a boldly jutting canopy and crowned with a trio of glass lanterns. It is set at an angle to a downtown artery and is partially obscured by the silver birches and

grassy knolls of Maya Lin's elliptical park. Fingers of the museum extend into the greenery, and a reflecting pool and dry garden provide additional exposure for the administrative wing, axial lobby, and restaurant. These open and green spaces mediate between the bustle of the city and the serenity of the galleries, which open off the lofty skylit lobby and extended flights of stairs to two upper levels.

There's an easy flow of space throughout the building and a seamless link between circulation and display areas. The first of these exhibits classic modern furniture that was produced in and around Grand Rapids. Each gallery is harmoniously proportioned and lit in a different way – most dramatically on the third floor, where you look up into the softly glowing lanterns and the inverted pyramid that crowns them as though





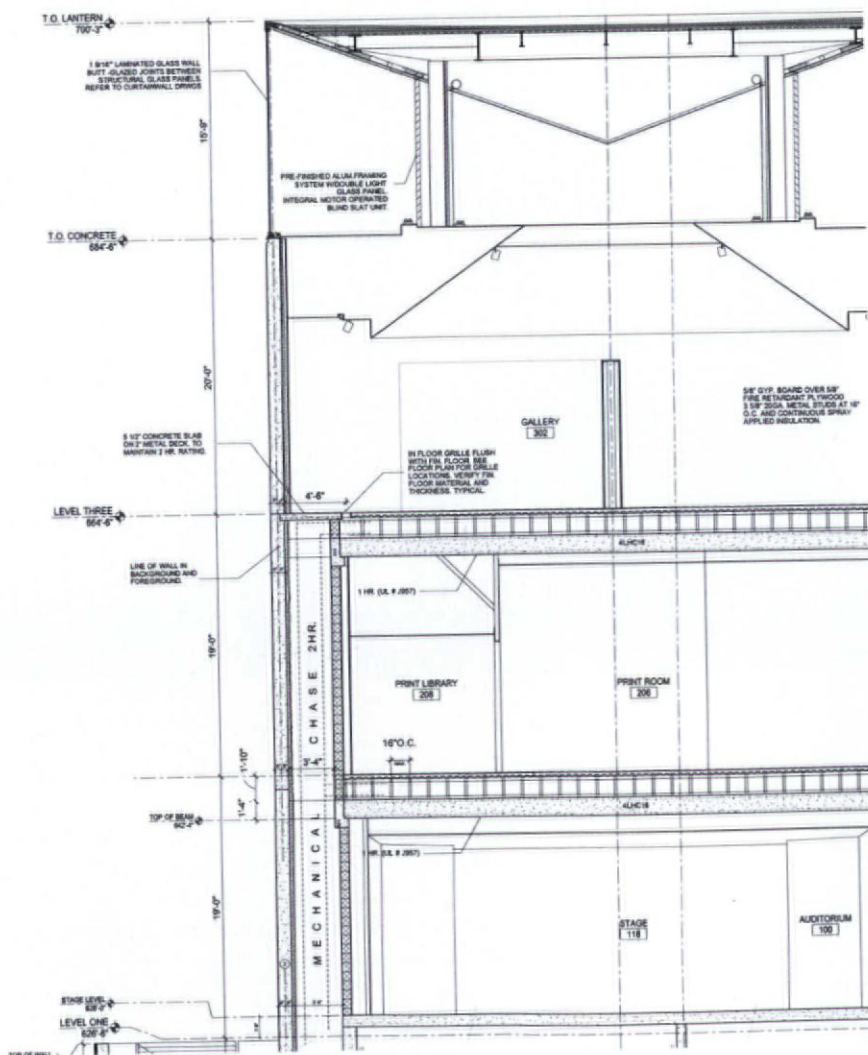
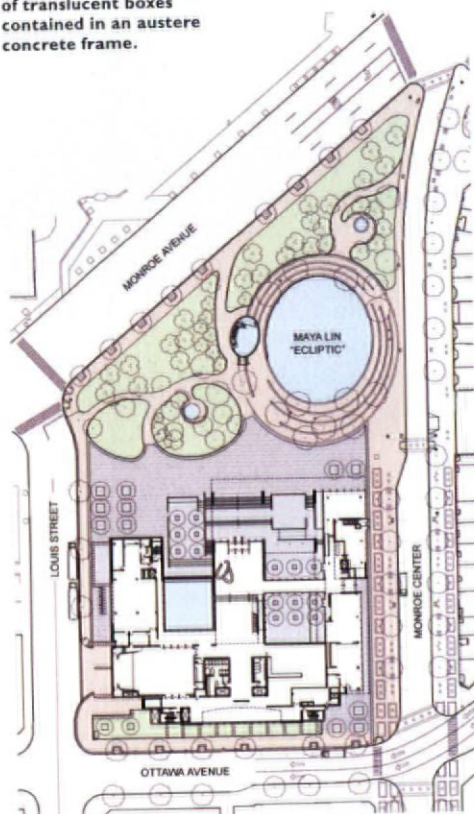
schematic of environmental control principles

## MUSEUM, GRAND RAPIDS, MICHIGAN, USA

ARCHITECT

WHY ARCHITECTURE

2  
Downtown Grand Rapids.  
The museum is a series  
of translucent boxes  
contained in an austere  
concrete frame.

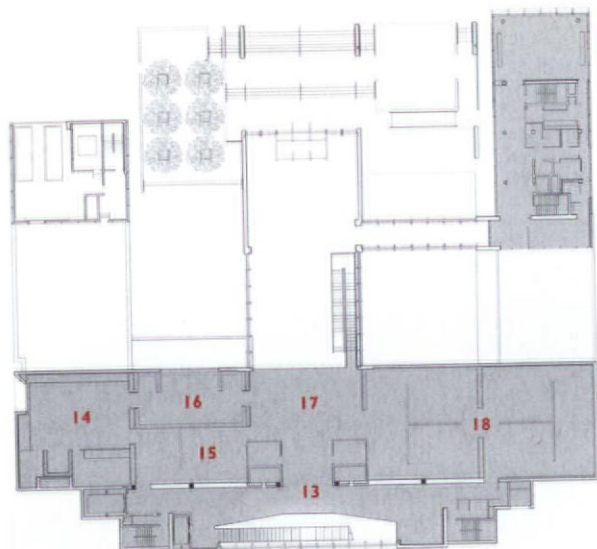


detailed section

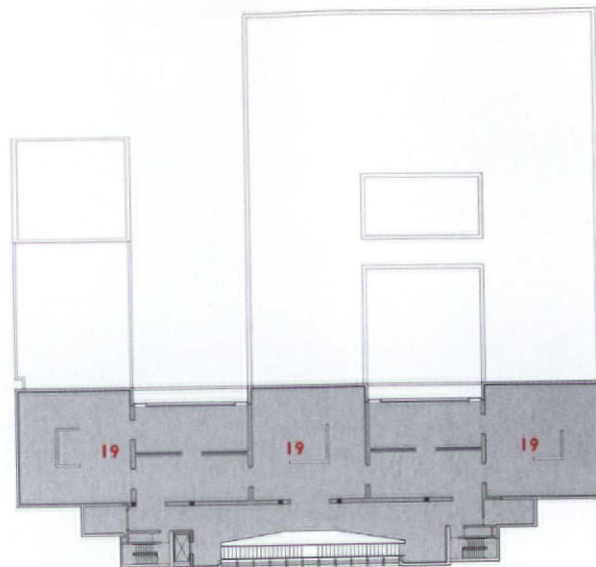






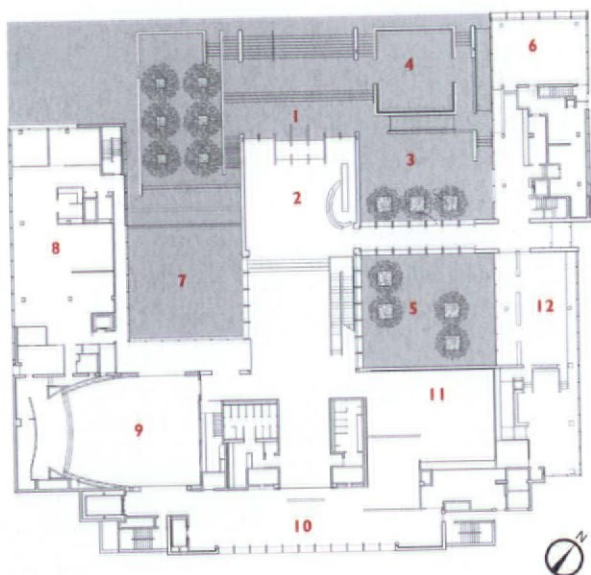


first floor

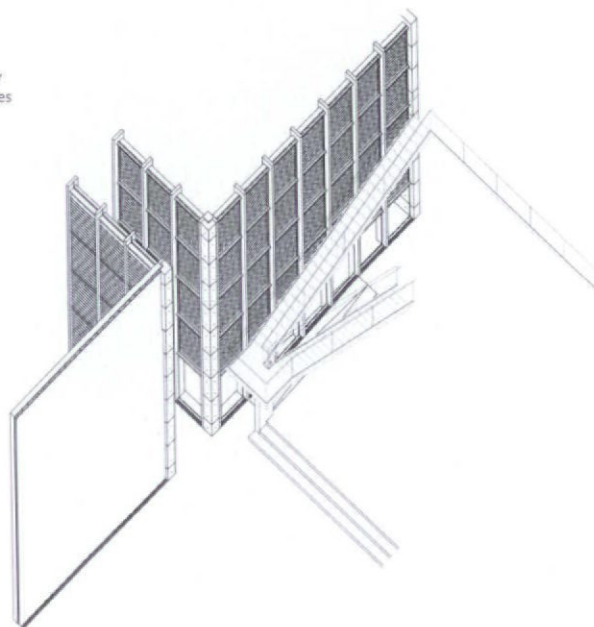


second floor

- 1 entrance
- 2 main lobby
- 3 dining court
- 4 dining terrace
- 5 sculpture court
- 6 café
- 7 reflecting pool
- 8 museum offices
- 9 auditorium
- 10 east court
- 11 design and modern craft gallery
- 12 museum store
- 13 east court gallery
- 14 works on paper study
- 15 works on paper gallery
- 16 balcony
- 17 library
- 18 temporary exhibitions gallery
- 19 permanent collections galleries



ground floor plan (scale approx 1:1000)



isometric projection of main lobby

3, 4, 5  
The soaring, light-filled space of the main lobby. Three-quarters of the building is naturally lit, but this luminance is baffled and filtered to reduce heat gain.

**MUSEUM, GRAND RAPIDS,  
MICHIGAN, USA**

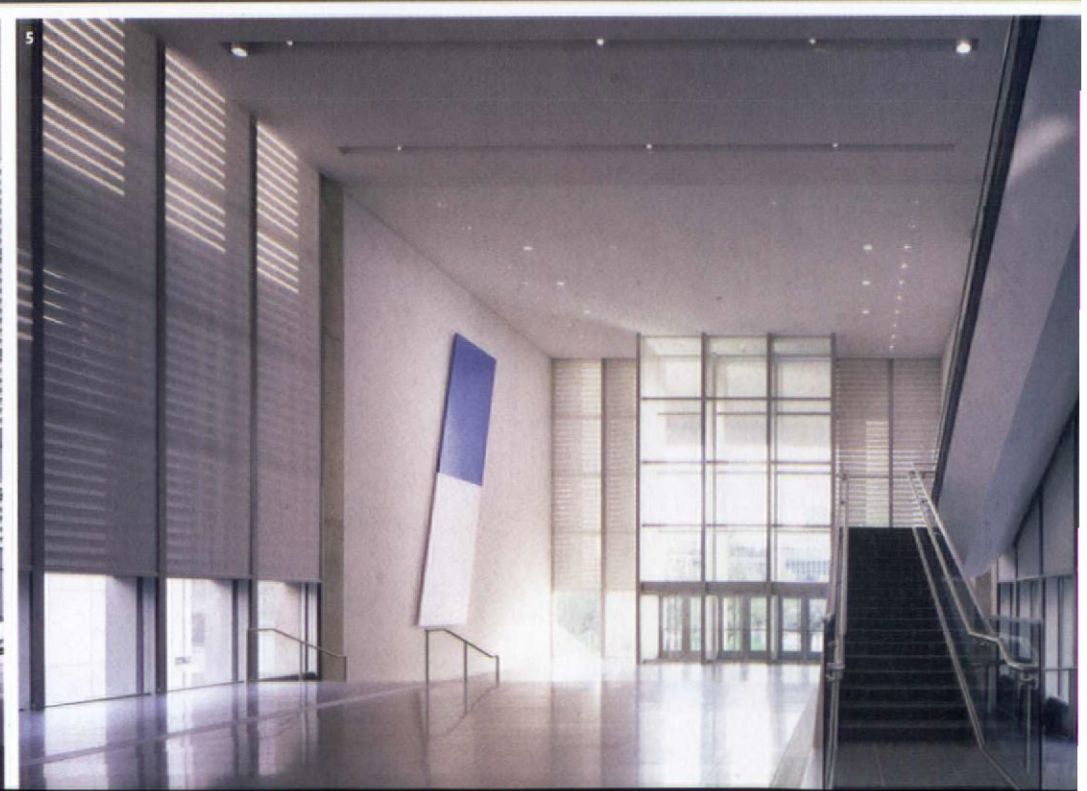
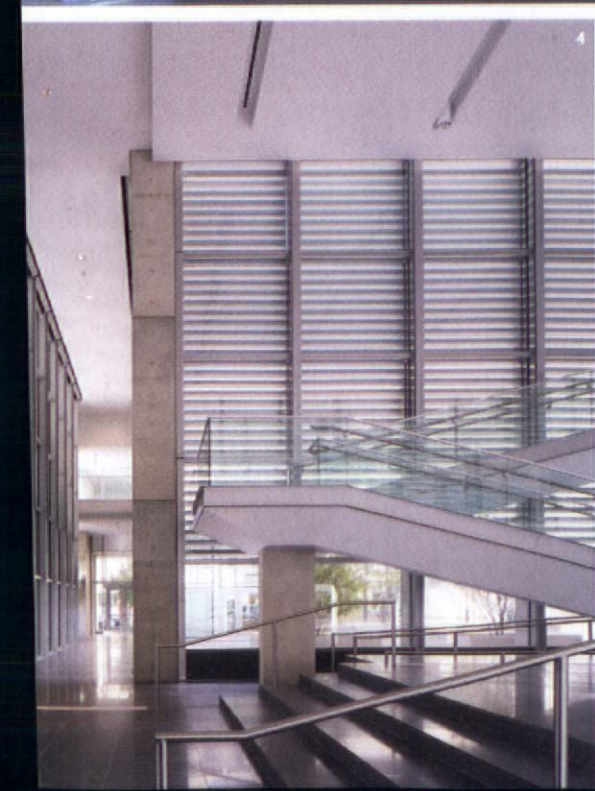
ARCHITECT

**WHY ARCHITECTURE**

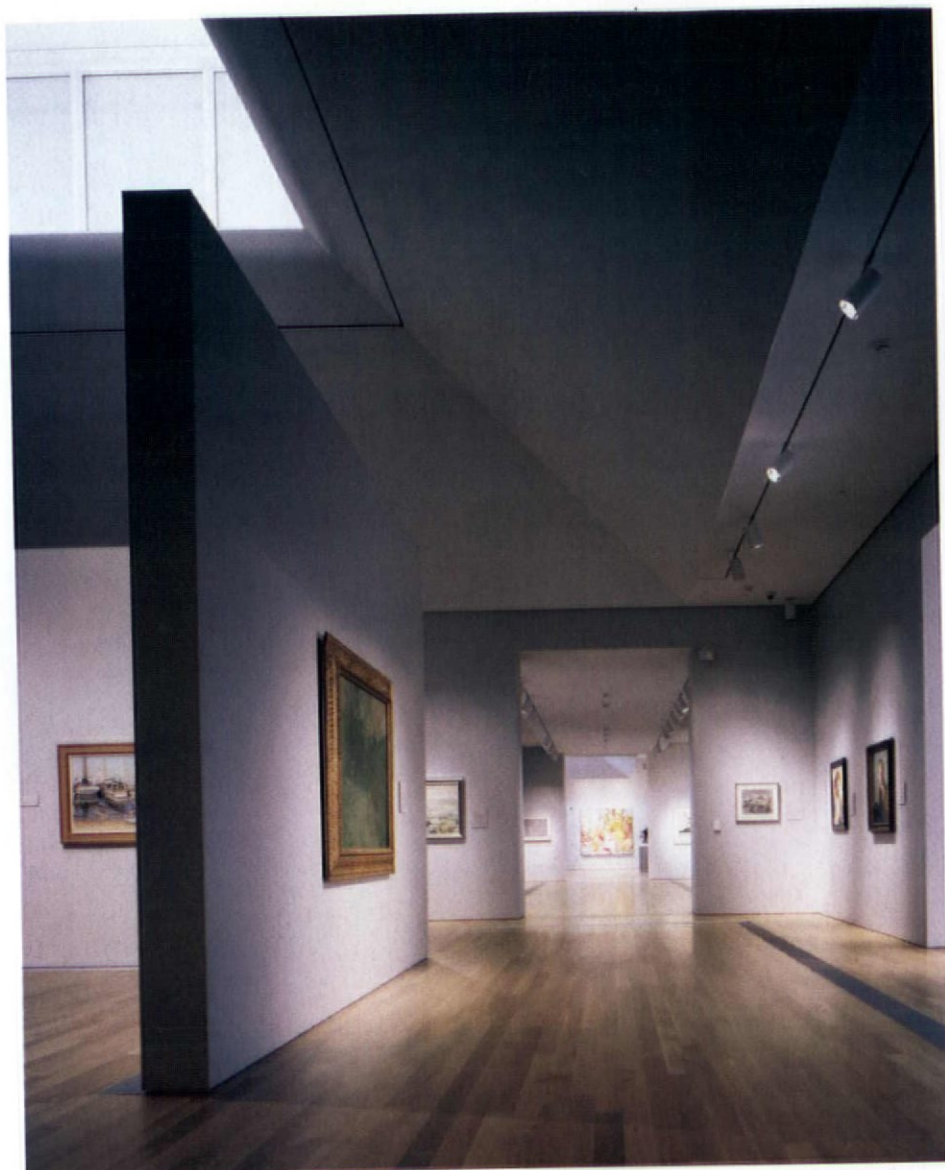


long section









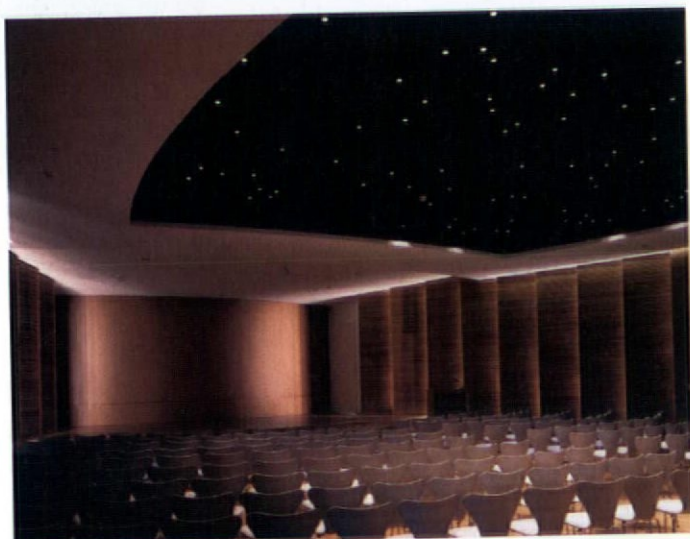
6



7



8



9

#### Architect

why Architecture, Culver City

#### Photographs

Steve Hall@Hedrich Blessing, 1, 9; Grand Rapids Art Museum, 2; Chris Barrett@Hedrich Blessing, 3, 4; Scott McDonald@Hedrich Blessing, 5, 6, 8, 10; why Architecture, 7

they were James Turrell sky spaces. The cool light is warmed by the white oak floors, upper-level stairs, and cabinetry. Too many museums have begun to resemble malls; at GRAM, the café and retail area are set off to one side and have a separate identity, looking out to a side street, but the handsome, wood-lined auditorium is an extension of the lobby.

Peter Wege, the former CEO of Steelcase, gave the lead grant of \$20 million for the new building on condition it be green. The quest for a Gold LEED rating helped shape the design, though Yantrasast insists that green is largely a matter of common sense. Wherever possible, the building is constructed of locally sourced, recycled and recyclable materials. Seventy per cent of the building is naturally lit, but the light is baffled and filtered to reduce heat gain and protect the art works. Aluminum louvres, optimally angled to open up views and block sun, cover the extensive glazing. The crisp elegance of the facades, the skilful balance of volumes and the felicitous siting make GRAM a model of substance and style.

Back in LA, why is designing a house that is wrapped in a continuous band like a strip of film, converting a warehouse into a photo studio, building a Zen-like spa, and creating a footbridge over the concrete channel that imprisons the LA river. They are also redesigning existing galleries at the Chicago Art Institute, in anticipation of Renzo Piano's addition, and hoping that the success of GRAM will bring larger commissions. MICHAEL WEBB



MUSEUM, GRAND RAPIDS,  
MICHIGAN, USA  
ARCHITECT  
WHY ARCHITECTURE



6  
Toplit galleries on the  
upper floor recall James  
Turrell's sky spaces.

7  
A mammoth Warhol  
greet visitors at the end  
of the lobby.

8  
Typical gallery. Timber  
floors and white walls form  
a neutral backdrop for art.

9  
The museum's auditorium.

10  
Galleries are linked by a  
promenading staircase.



## process

The AR has followed Peter Hübner's work for over 20 years, and it has been distinctive in three ways: an increasingly green agenda related to materials and climatic control, a technical inventiveness of a rather improvisatory kind, and a wholehearted commitment to user participation. Having begun his career as a technical expert in prefabrication, Hübner discovered in the 1980s quite a different role as ringmaster and coordinator of the design and construction process, letting the building develop according to its own conditions to reveal its own personality. The latest addition to the *oeuvre* provides a graphic demonstration of this at a suitably small scale, with a particularly telling series of images to document the process.

The evangelical youth group in Ludwigshafen lacked a space for prayer and contemplation – a kind of chapel – but they had very limited funds, and knowing of Hübner from his earlier projects, they asked him to see whether it was possible to construct one modestly with an element of self-build. He agreed to run a weekend workshop in April 2005, bringing two members of his office: Christoph Forster and Christian Remes. The regional head of the Christian youth group and a local priest were present, along with the group members. They were first invited to make scale models of themselves in clay at a scale of 1:10, then to experiment with their bodies, standing in a ring to test the effect on the proposed site, then standing, sitting, or lying in various configurations indoors to see what kinds and sizes of space were needed. Suitable enclosures were modelled with the help of the clay figures, and there were discussions about the different and sometimes simultaneous uses of the proposed space. The patterns of use produced concave areas which could be enclosed with a corrugated card wall, and bringing together the different needs suggested a clover-leaf type of plan. Experiments with the card wall revealed the possibility and desirability of a varied section as well as a varied plan to get a more elegant three-dimensional result. The weekend meeting closed with the production of two small models at a scale of 1:20 for further consideration.



Workshops introduce the group to spatial concepts.



Exploring configurations and a sense of scale.



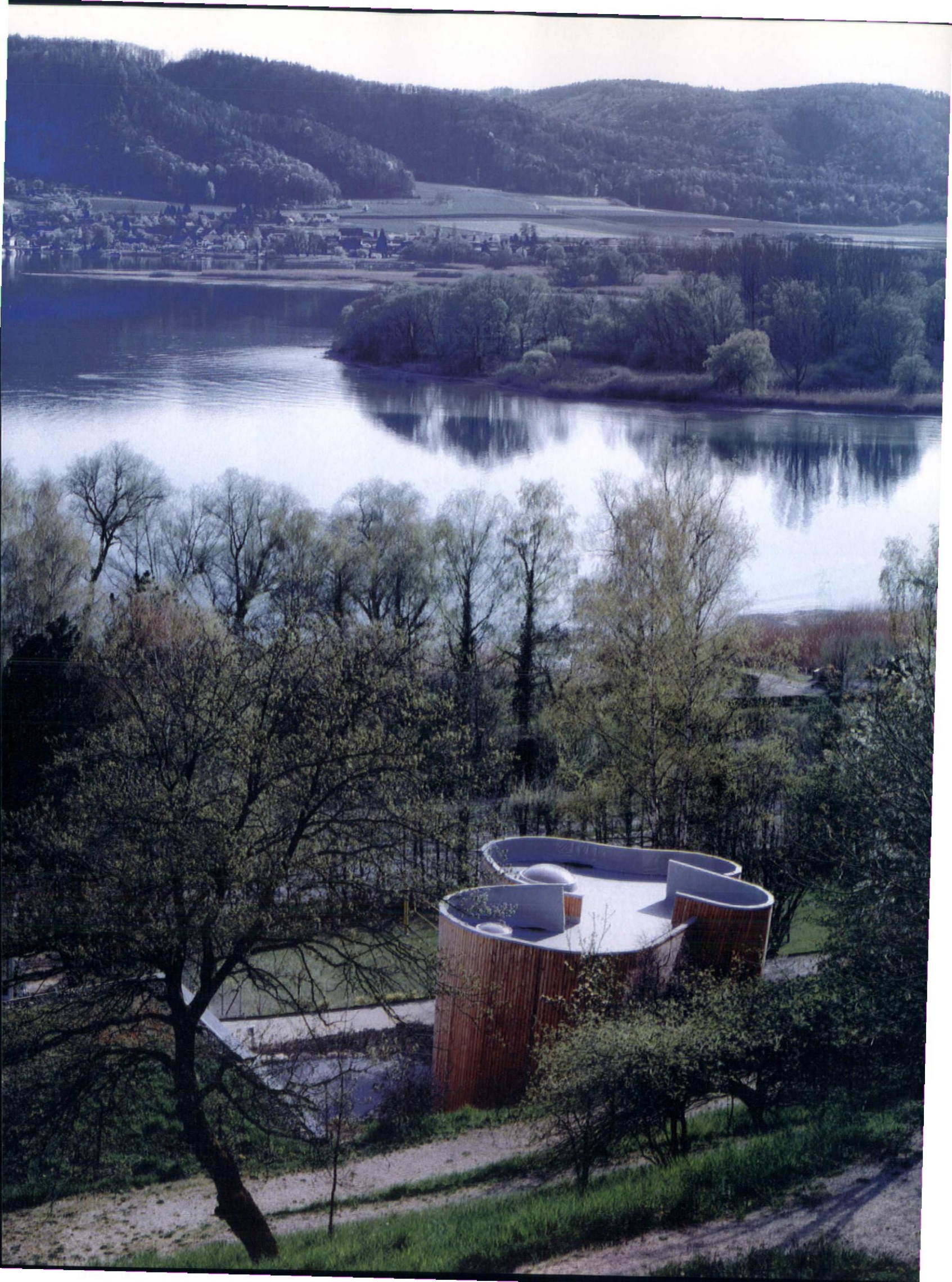
Above: the group marking out territory on site.  
Below, left: developing the plan form using clay figures.  
Below, right: making a detailed model at 1:10 scale.  
Opposite: the finished building on its hillside site.

# ROOM OF SILENCE

**Peter Hübner's latest building demonstrates how the process of participation can generate an architecture enriched by both the human condition and a clear sense of ecological responsiveness.**



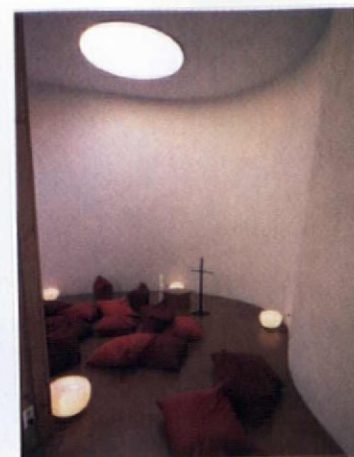








Constructing the external walls. The studwork frame changes angles to cope with the floor and roof plate geometries.



The warm, womb-like interior.



Youthworkers during summer camp.



Assembling the flat plate floor.



Roof plate in position.



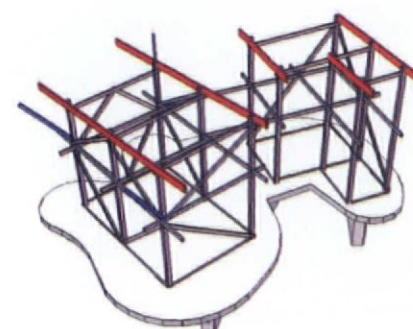
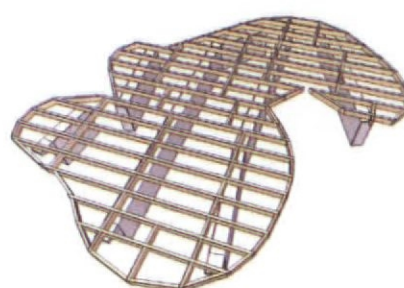
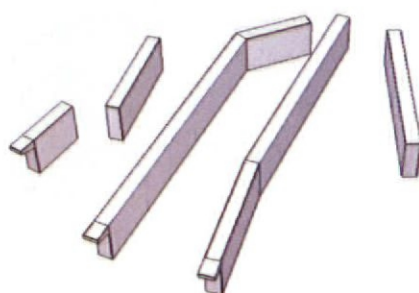
External wall studwork in progress.



Completed view from the rear.

The group met again in July to consider the design in more detail and to produce an accurate model at a scale of 1:10. In the interim Hübner, his assistants, and their engineers, had been considering how to construct the thing. Concrete, the automatic choice for such complex forms in the 1960s or 1970s, would have been impossibly expensive to shutter, very heavy, and even then in need of insulation; also it was unthinkable for self-build. So why not do it all with timber? Flat plates for the floor and roof could be assembled as conventional timber box structures, and the curved perimeter of each trimmed off as required. The two plates could then be linked by a series of regular vertical studs which could change angle as they progressed around the building. The form thus achieved could be clad externally in Douglas fir planking, internally in plasterboard, with insulation between and a membrane

to waterproof the roof. To detach the vulnerable structure from the wet ground, the floor plate could be raised on sleeper walls supported by economical strip foundations, and the roof plate held in position by temporary internal timber scaffolding until the entire studwork was complete. Building started in May 2006 under the control of a full-time foreman, as with many earlier Hübner projects. This time it was Jens Helm, appointed by the architects and part of their office. As well as the Christian youth group members and their priests, architectural students from both Stuttgart and Saarbrücken took part in the construction as part of their training, and the more technical operations were handled by specialist trades. The external cladding was finished by October, leaving internal finishes to be completed in a more leisurely fashion over the winter of 2006/7.







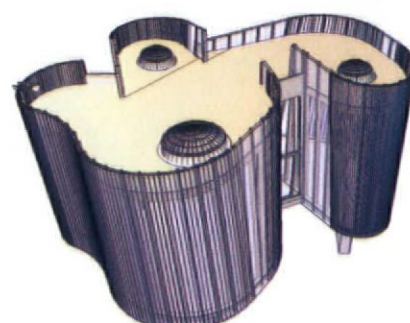
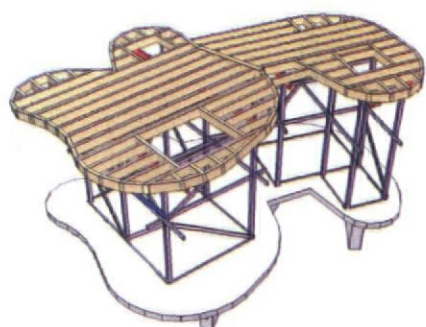
Despite the low budget, the completed building is architecturally distinctive, with its sensuously curved form wrapped in an external skin of slim Douglas fir strips.

The result is a building that is surprisingly distinctive both inside and out, which generates a suitably tranquil and inspiring atmosphere for prayer and contemplation. Chosen by common consent, the clover-leaf plan can host unified communal events and also accommodate separate groups in its corners. Three of these are topped with roof lights, while sidelight falls from vertical windows in the gaps between the cylinders, so the natural light is in places intense but also varied, and the sun projects its course across the walls.

This lively interior is combined with a scaleless and sculptural external form which contrasts effectively with its relatively profane neighbours, fulfilling the expectation of a 'religious building'. Despite the low budget there is no need to apologise for a cheap building,

and the anonymous compromise of a standard prefabricated shed, often considered the only solution for the price, has been avoided. More important still, though, is the hidden aesthetic component known only to the users: the identification with their building by the youth group. First they gained an education in architecture, thinking hard perhaps for the first time about the use and significance of space and the means to construct it, then they gained a personal sense of empowerment through being able to determine their own environment. The effect on their confidence and their future lives may be impossible to measure but past experience suggests it is considerable. **PETER BLUNDELL JONES**

**Architect** plus+bauplanung GmbH: Peter Hübner, Christoph Forster, Olaf Hübner, Christian Remes  
**Structural engineer** Adrian Pocanschi





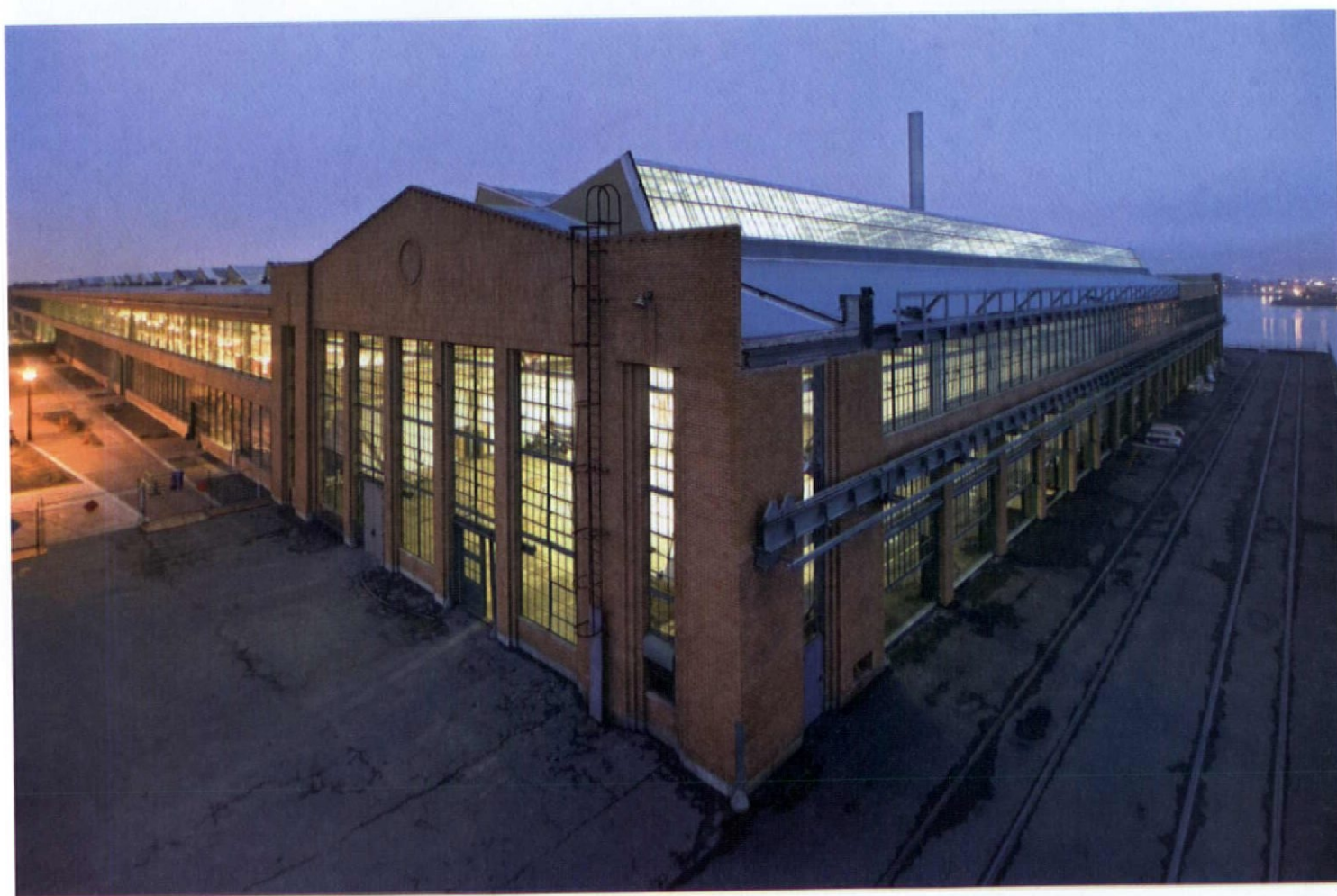
process



2



3



4

# FORD FOCUSED





5

6



1 The scene in the awe-inspiring Craneway at the opening ceremony in 1931.

2 This factory produced, among other vehicles, Ford's Model A, seen here on the production line.

3 The aerial view shows how the building has a strong north/south axis, with Craneway jettied over the water.

4 At the southern end a jettied platform projects the dramatic 20m high Craneway over the bay.

5 Inside Mountain Hardwear's upper level workspace, office 'huts' provide essential cellular space when needed. Slender cross bracing was added after the earthquake.

6 The existing interiors are expansive, providing scope for adaptation.

7 Inside Vetrasso's production and storage area.

7



At over 400m long, Albert Kahn's Ford Assembly Building in Richmond, California broke new ground when it was built in 1931. Situated on the northern shore of San Francisco Bay, it commands dramatic views of the city's distinctive skyline. Surviving the 1989 Loma Prieta earthquake, the building's distinctive form – the continuous bands of windows and sawtooth north lights – has some of Kahn's most impressive interiors; particularly the building's awe-inspiring Craneway at the southernmost end, but also the two levels of former production line and administrative spaces that now host some of San Francisco's thriving industries.

Under the design direction of Marcy Wong and Donn Logan, the goal of the architects, developers and new tenants has been twofold – to re-appropriate and enhance the building's most powerful architectural aspects, while improving its environmental performance and operational capacity for new users: Mountain Hardwear – producers (and users) of high performance outdoor equipment and apparel; the SunPower Corporation – producers of solar power systems; and Vetrasso – who recycle windcreens and glass waste to manufacture distinctive worktops. All of whom have admirable ambitions to promote the main tenets of sustainability through their businesses.

In broad terms the architect's touch has been light, working with plan geometries that adhere to the building's repetitive order, and proposing new installations that defer to original elements. Each of the three key tenants has worked closely with architect and developer, resulting in unique and bespoke conditions. Mountain Hardwear will be occupying space at the north of the site, taking advantage of proximity to the site entrance to re-use Ford's original sales showroom for their own Friends and Family Store. And, along with extensive testing and development space, they will also be re-colonising Ford's delightful timber and glass manager's office suite. Vetrasso occupy the ground-floor single storey to the east, taking advantage of access and servicing capacity for their production process. And the more conventionally desk-bound SunPower





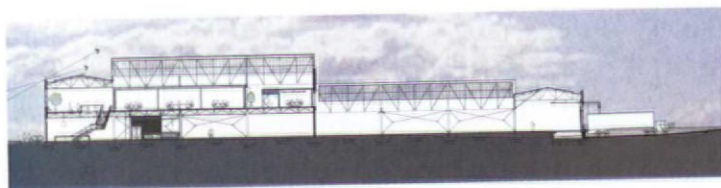
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9



long section looking east showing jettied Craneway over Bay



cross section looking north

workspace features a central bamboo-clad conference suite and a series of upper-level offices that overlook the stunning Craneway.

The developer and tenants have generated a holistic shared vision for impressive environmental and social aspirations. Working together, the developer and SunPower have committed to a groundbreaking landlord/tenant agreement that will result in the installation of a 1MW solar panel array on the near perfect roof configuration, with the potential for all tenants to enter into so-called Power Purchase Agreements. Furthermore, developer Eddie Orton already runs a shuttle bus between the waterfront and the Bay Area Rapid Transit station in Richmond, and is promoting the introduction of ferry service to the Ford peninsula, adding to the benefit of the building's adjacency to the Bay Trail, a bike and pedestrian path that circumscribes the San Francisco Bay. Topping this, Mountain Hardwear (who, as you may expect, employ many hardened adrenaline junkies) are even proposing a row to work scheme with their own internal canoe storage facilities.

Future phases include conversion of the Craneway into a public entertainment venue and the future home of the National Park Service's Rosie the Riveter Visitors Center. All of which is a model for creative re-use, in a region historically criticised for poor environmental stewardship. With schemes like this, opinions are changing, not least in Richmond, that benefits from the support of City mayor, Gayle McLaughlin: the first Green Party candidate elected to this office in California. All in all, A for effort, and for execution. ROB GREGORY

8 SunPower's upper-level offices have stunning views into adjacent Craneway.

9 Essential services and cellular spaces sit within the original volumes.

10 Working with the linear geometries, office 'huts' form internal streets.

11 At the heart of SunPower's work space, bamboo-clad meeting room suite in existing volume.

12 Mountain Hardwear will occupy Ford's original manager's offices.

13 Wherever possible original features were stockpiled for re-use ...

14 ... seen here with refurbished pendant lights and staircase in the café.



10

**Architect**  
Marcy Wong & Donn Logan  
Architects, California  
**Photographs**  
Billy Hustace





11



12



13



14



The agenda of the Modern Movement is commonly seen as intrinsically unsustainable – it promoted mass production and consumption, the motor car, rapid obsolescence, and the use of high-energy-content materials such as glass, steel and concrete. Especially in some of its wackier late manifestations such as Archigram it arguably did mostly that. But while the desire to embrace industrial methods of production, and the mass markets that that implied, was undoubtedly an important component of Modern Movement ideology, this was married – as Pevsner for one was insistent in pointing out – to an inheritance from the Arts and Crafts movement and its later planning manifestation, the Garden City movement. From this direction came a preference for simplicity and sparseness (embodied in William Morris' famous dictum that you should have nothing in your house that you do not know to be useful or believe to be beautiful), which implied a restraint of consumption, and an aspiration for the 'green city' (or 'City Verdant' – to use Gropius's term in *The New Architecture and the Bauhaus* translated by Morton Shand), the city permeated by nature.

The 'green city' ideal is evident in the work of many architects of the Modern Movement, such as the projected apartments by the Wannsee by Gropius of 1932 (and the emphasis he had laid on craftwork at the Bauhaus is also well known, extending to the New Bauhaus in Chicago), or Mies van der Rohe's Lafayette Park in Detroit of 1955-56, but no one expressed the polarities of industrialism and 'greenery' more forcefully than Le Corbusier. The Arts and Crafts heritage, absorbed from his teacher L'Eplattenier who, from travels in England and friendship with the Englishman Clement Heaton, carried the torch of nature and the hand-made from Ruskin, was strongest in him. It would be fair to say that Le Corbusier saw industrialisation as the means by which man could again make contact with nature, and be freed for the pursuit of the hand-made (the work of art being for him the product of individual sensibility, and therefore hand-made).

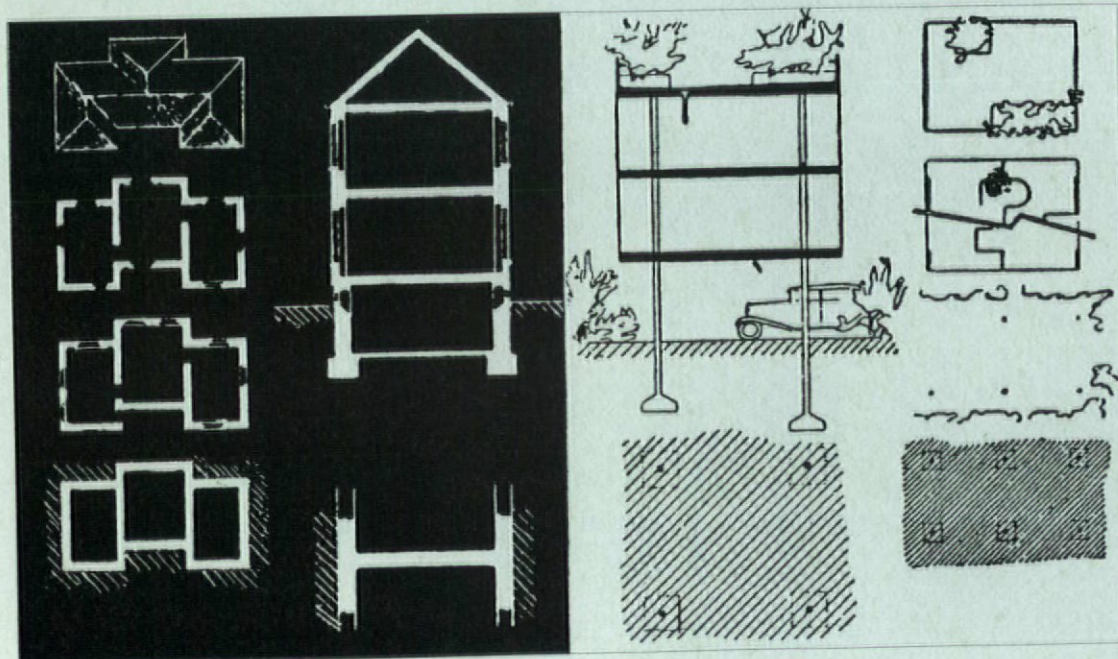
The specific threat that carbon emissions from industrial processes would lead to global warming and a destructive rise in sea levels, which is of such concern now, had not been identified at that time. But the risk to the health of man from the pollution and lack of sunlight common in the dense industrial city were central concerns, and the need to husband the resources of nature, to avoid the waste both of time and materials, was fundamental to his thought. In the Radiant City, his model of green city, 'the link *nature-man* is re-established'. It is notable also how many of the specific technical components of current 'green' or sustainable construction theory, such as the 'green roof' and rammed earth walling, were being proposed by him from the 1920s onwards. He was himself devoted to the simple open-air life that he practised every summer in his timber cabin – the Petit Cabanon – next to the Mediterranean at Roquebrune.

One of the lessons Le Corbusier sought to draw in *Towards a New Architecture* (1923) from the comparison between buildings and transport vehicles of various kinds was that of miniaturisation: that the door into a room, for example, could be a much narrower, lighter, less bulky affair than was customary. The development of aeroplanes in particular had forced the reduction in size and weight of every component, and hence in the consumption of materials. Furniture – the 'equipment of the home' – could similarly be reduced from the customary massive pieces to their functional minimum, with potential gain in elegance as well as reduction in consumption. In architecture a reduction in scale in many areas was also possible and could, he felt, allow an expansion elsewhere where it would 'tell' – for example a reduced ceiling height of 2200mm could be doubled in the living area to 4500mm. He frequently drew attention to the very slender walls (and consequent saving in use of materials) made possible by steel or concrete frame construction, compared to the immense thicknesses of load-bearing walls, citing building regulations in Prague which demanded external

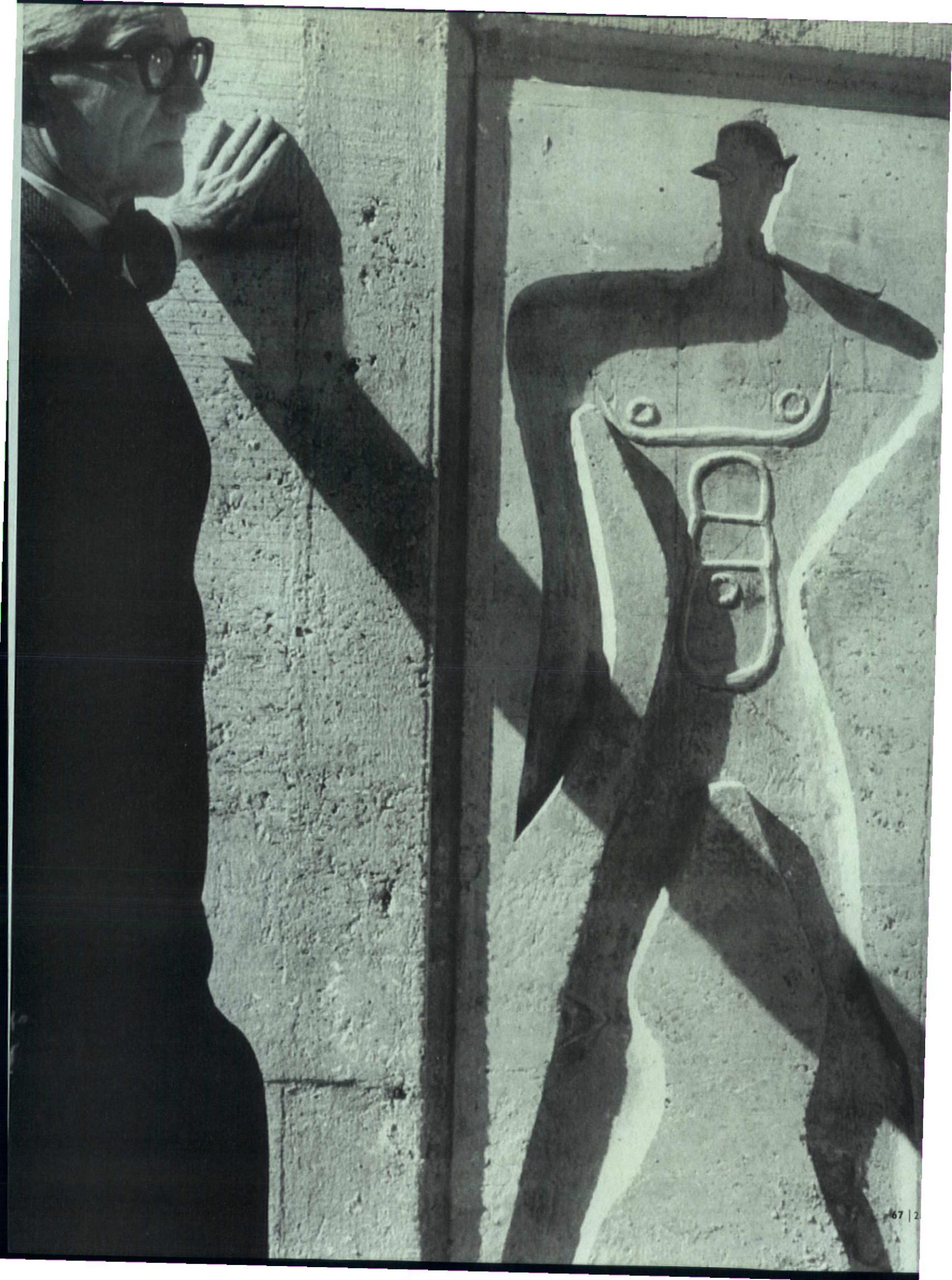
# L'HOMME VERT

Though environmental awareness is a recent phenomenon, it has deeper and perhaps surprising roots in the Modern Movement, especially in the work of Le Corbusier.

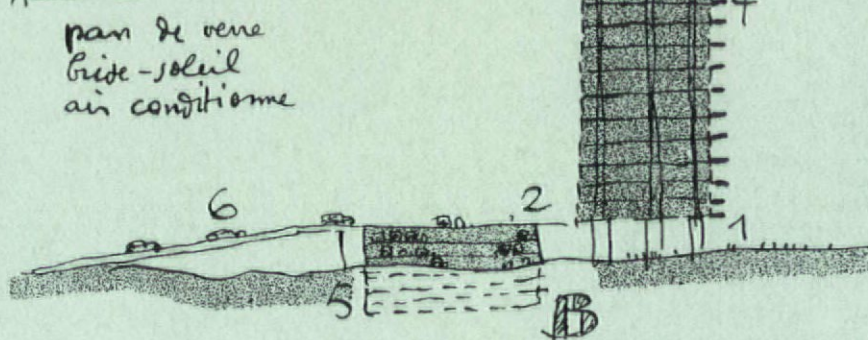
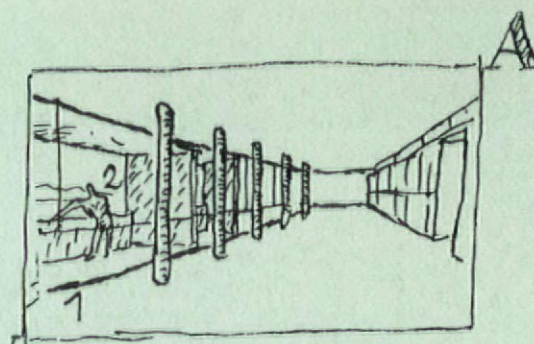
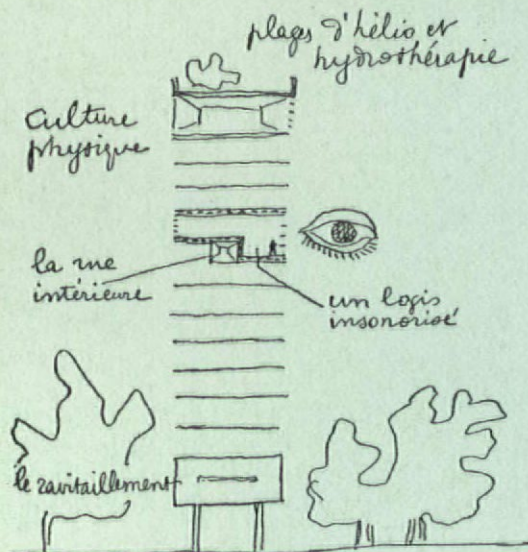
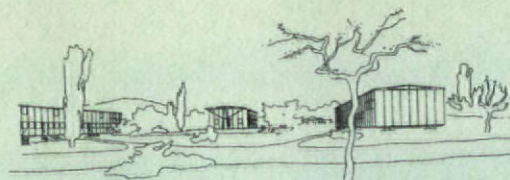
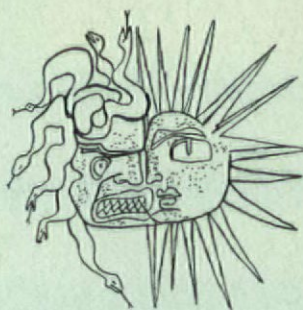
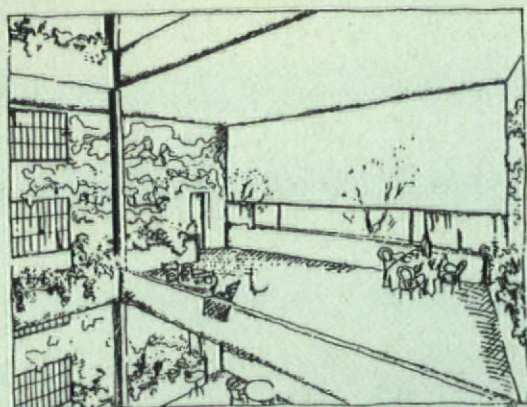
Opposite page:  
Le Corbusier at the  
opening of the  
Unité d'Habitation in  
Marseilles, 1952.  
Photograph:  
Lucien Hervé.  
Right: the famous  
'five points' of the  
new architecture from  
1926 – pilotis, roof  
gardens, free plan,  
horizontal windows  
and a free facade.











Clockwise from top left: sketch of a garden terrace, early 1920s; the polarities of nature encapsulated; unbuilt project for a prefabricated school for refugees, designed in collaboration with Jean Prouvé, 1940; principles of brises-soleil, now widely integrated in buildings everywhere; the health-giving properties of a typical Unité d'Habitation.

wall thicknesses of 450mm minimum at the top, increasing by 150mm stages for every storey below. This process of reduction in structure and mass, which was central to the Modern Movement agenda, was thus 'sustainable' in its economy in the use of materials.

One of the 'Five Points of the New Architecture' proposed by Le Corbusier and Pierre Jeanneret in the first volume of their *Oeuvre Complète* (1929) was the roof garden. The flat roof, long used as a vital living space in the Arab world, as additional playgrounds for London Board schools in the late nineteenth century, and by Auguste Perret in his Rue Franklin apartment building in Paris of 1903 (where he was perhaps the first to plant them), was for Le Corbusier the prime locale for what might be seen as the defining intellectual activity of the world he sought to create – communion between man and nature. From there, raised above the tumult of the world below, bathed in light, with distance and an uninterrupted view of the sky all around, man could soliloquise and contemplate his situation within nature and the cosmos. Beginning with the Villas La Roche and Jeanneret of 1923 and continuing throughout his career, the roof gardens (including 'green roofs' not intended for regular access) provide some of the most lyrical moments in his oeuvre. Roof-top soil and greenery, presented initially as a technical counter-measure to the high thermal coefficient of expansion of concrete and to limit excess rainwater run-off, was practically to overwhelm the building itself in projects such as his Petit Maison de Weekend of 1935.

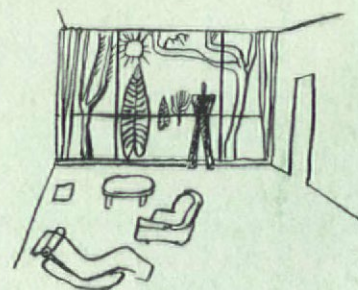
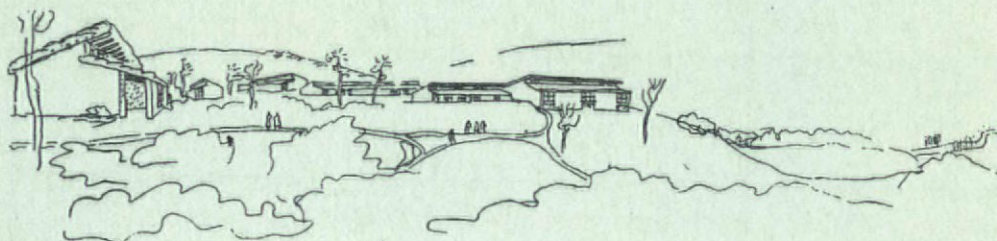
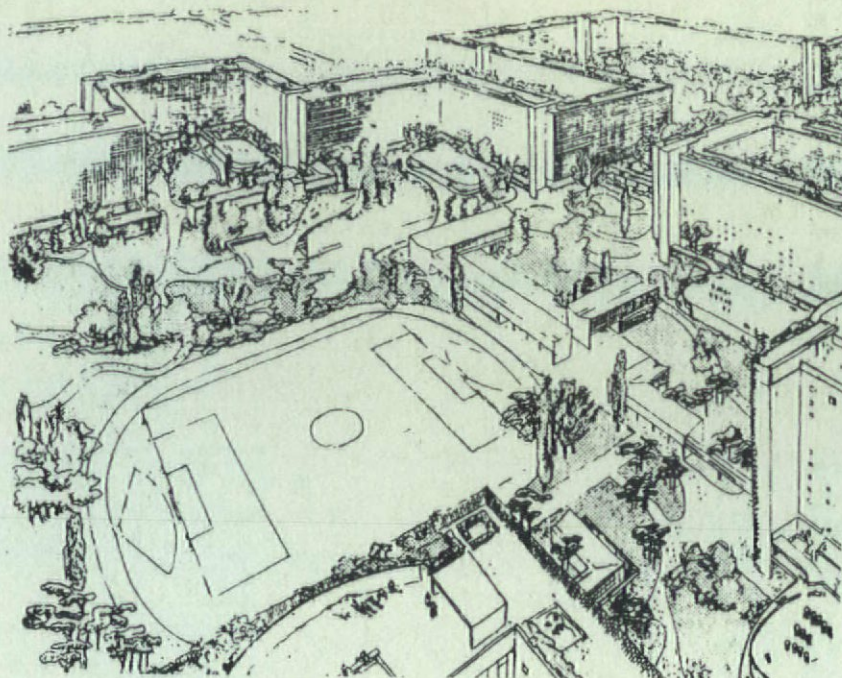
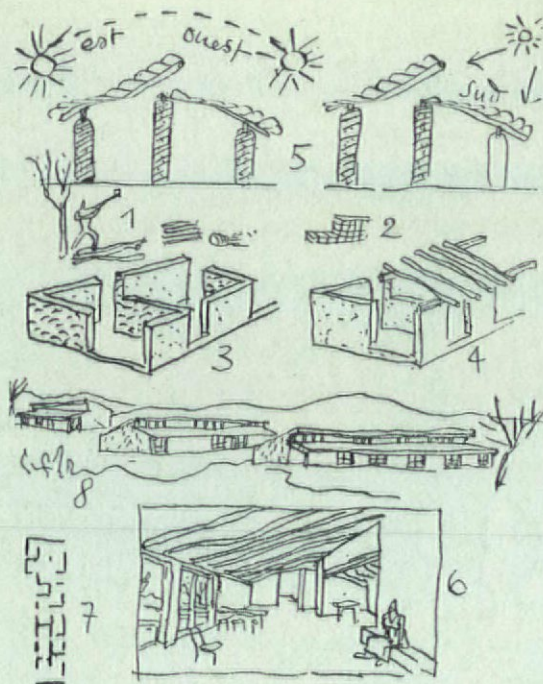
Perhaps the 'greenest' project Le Corbusier ever designed was the Murondin emergency housing project of 1940 intended for refugees from the first stage of the war in Belgium. He had increasingly begun to use

'natural' materials for construction from 1930 onwards, with the rubble stone walls of the Villa de Mandrot and the Errazuris house project, but the Murondin project exploited an even more basic material – rammed earth (*pisé*) for the walls, with logs (*rondins*) supporting luxuriant pitched 'green roofs', generously overhanging the walls to shelter them, and all to be built entirely of materials found on the spot. This was a response to the wartime lack of transport and other materials, but it clearly aroused a sensuous response in him. Characteristically he proposed in parallel a lightweight solution for emergency schools – published on the adjacent pages of the *Oeuvre Complète* – using a sheet metal system developed with Jean Prouvé, at a time steel was still available. They were to be carried forward by the army to make good the damage they had caused.

Immediately after the war, scarcity continued, and Le Corbusier again proposed rammed earth housing, in a different form – the Unité d'Habitation Transitoire. Finally in 1948 the same material was proposed – now seen as permanent construction – for the housing attached to the proposed pilgrimage centre of La Sainte-Baume near Marseilles. 'Life in these *pisé* buildings can have great dignity and regain for man in the machine age a sense of the fundamental resources of humanity and of nature', he wrote. With its vaulted roofing and thick walls, it referred to the vernacular traditions of the eastern Mediterranean, and like them would have provided the comfort of high thermal mass.

In the case of more conventional housing, post-war steel shortages were at the same time moving him from steel frame to heavier reinforced-concrete construction with higher thermal mass, and thus effecting a complete revolution in his architecture. The Unité d'Habitation at Marseilles was a notable example, where he was particularly proud of





Clockwise from top left: construction sequence for the Murondin emergency housing project of 1940, using logs and rammed earth from the immediate locale; apartment buildings surround schools and parks in the Radiant City, 1935; sketch showing the development of the picture window; Murondin housing on site.

the thermal efficiency of the design due to the very small amount of external wall in relation to the floorspace of each apartment.

But it is in Le Corbusier's persistent efforts to resolve the Great Waste (*'le grand gaspillage'*) of the modern city that his broadest claim to have addressed the question of sustainability lies. The waste he referred to was the waste caused by the unnecessary travel involved in urban and suburban life – 'Trains, Pullmans, metros, cars, roads, and the administration of it all, the personnel required to run it, maintain it, repair it and police it – that is the stupid waste of modern times'. At first he felt the solution lay simply in building cities that were both more compact and greener, and it is worth noting that the Radiant City model of 1933, housing about 1.5 million people, on paper occupies a land area not very different from that of Cambridge with a population of about 100 000. In 1935 he wrote 'the new city is compact and occupies less space. It has no suburbs. The transport problem solves itself. We learn to walk again. With buildings 50 metres high we can accommodate 1000 persons to the hectare – a super-density. Only 12% of the ground space is occupied by buildings, the remaining 88% being parks and sports grounds ... The motor car, is the sickness, the cancer ... it will be used for making the short journey into the country at weekends, or even during the week'. The prevalence of greenery throughout the city would make it unnecessary, as Le Corbusier saw it, to live in low density suburbs (which he persisted in calling 'garden cities') to satisfy the craving for nature, with the long distance commuting that that demanded. The same benefits, without the travel, could be obtained from his vertical garden city (*'cité-jardin vertical'*). Later, during the war, he came to believe that a plan form allowing an even closer relationship

between work, home, and nature – the linear industrial city – was the answer. Manufacturing industry would no longer be regarded as an urban activity but would be strung out along the routes of road, canal, and railway between compact nodal 'cities of exchange'. Housing would be stretched out along these routes in parallel with the industry, making it possible for the working population to live very close to their employment indeed (though he did not make the error of supposing that in a free society they would necessarily do so), as well as to nature. Such an arrangement was well-adapted to be served by public transport or indeed for walking.

Le Corbusier assumed that with the higher productivity of 'the machine', and after the waste of time, effort, and material spent in needless travel and in the production of superfluous consumer goods had been eliminated, the working day could be reduced to four hours. The free time left would then become 'the real working day of the machine age. Work disinterested and without monetary reward, a giving of oneself; keeping fit to ensure good physique, good morale, and ethical development ...' His aim by the elimination of waste was the positive one of freeing man from unnecessary labour and thereby enabling him to get closer to himself and to nature, rather than simply the negative one of avoiding carbon emissions. But the solutions he proposed often prefigured the 'sustainable' policies of today – which might indeed be better received if more often informed by a similar moral and creative agenda; and it is to be hoped that the restraint in consumption now called for in the interests of sustainability will be as productive in design as wartime scarcities were for Le Corbusier.

JAMES DUNNETT



### Biotope Restoration

Biotope (a combination of two Greek words: 'bio' = life + 'topos' = place)

Biotope is an area of uniform environmental conditions that provide a living place for a specific assemblage of plants and animals. Biotopes can be seen in just around every corner. If you plant flowers or bushes in your garden, your garden will soon become a biotope where many kinds of insects, birds and animals can gather.



Wildlife in the United Arab Emirates



# DUBAI RETHINK

Nikken Sekkei is working on energy-efficient ideas at the scale of the city and (overleaf) the individual building.

2





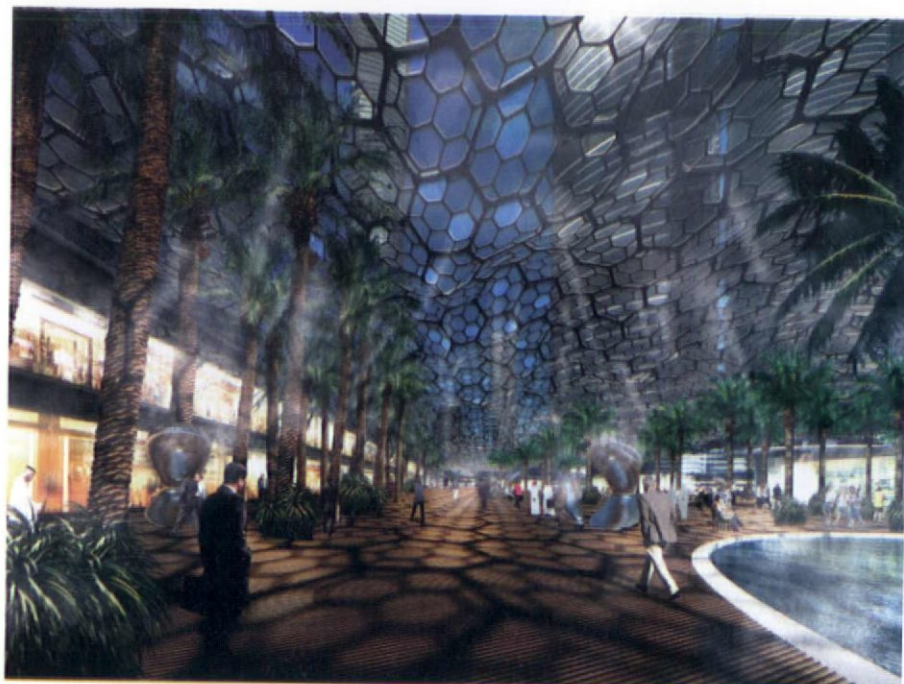
Given climate change, intensive urbanisation and oil price inflation, it is not surprising that the attention of architects and masterplanners continues to turn to environmentally friendly cities. The latest multi-disciplinary proposition comes from Nikken Sekkei, the Japanese architect and engineer which is becoming active in the Gulf (having built in 40 countries since its inception in 1900).

Shown here is the firm's 'Cool City' concept for Dubai, covering an area of 5 million square metres, providing 6 million square metres of mixed-use buildings, and featuring a 500 metre tower. As with other city models of this type, the plan is circular, with a central transport hub, maximised walking routes, and energy features already tested in the Japanese context, claimed to save some 60 per cent on a conventional Gulf development.

Nikken Sekkei launched the proposal with formal presentations in Abu Dhabi and Dubai late last year, with active support from Japanese manufacturers and bankers and from local companies.

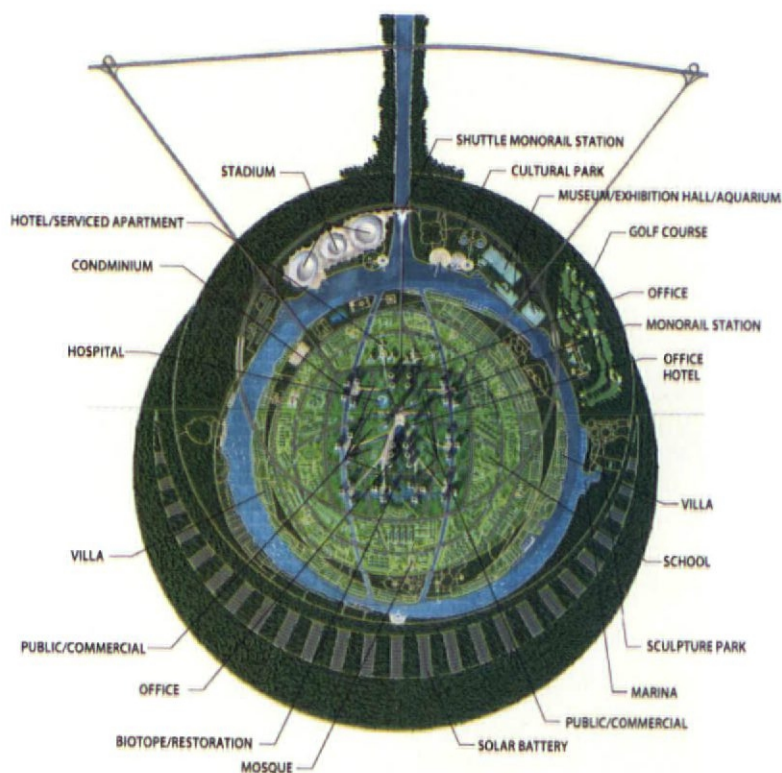
The irony of Japan (which has no oil) linking with the Gulf (which is founded on it) was not lost on those present. But with the oil expected to run out in Dubai within 20 years, resource efficiency is looking increasingly important for future planning strategy.

PAUL FINCH

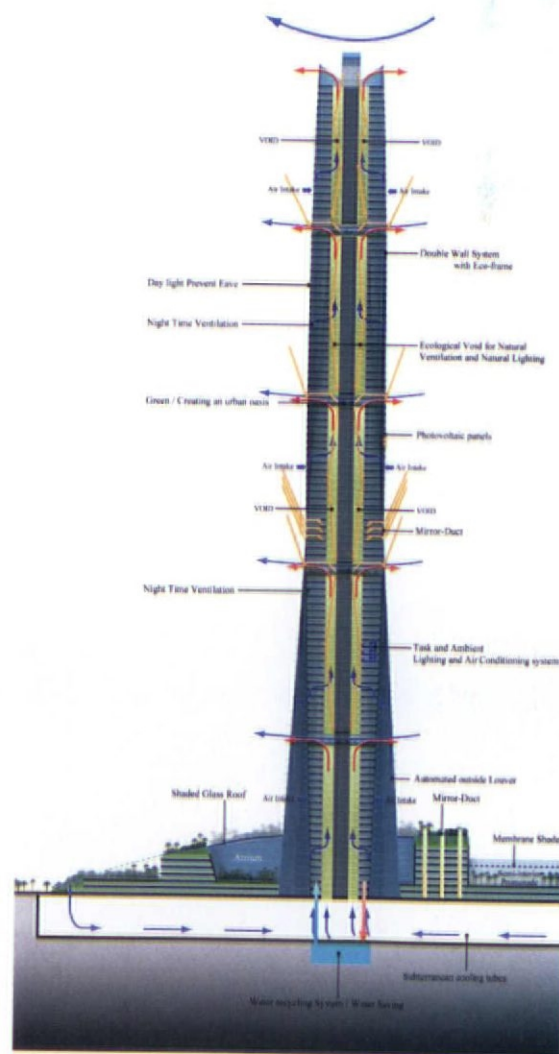


3

- 1 'Cool City' is connected to the sea.
- 2 The design echoes substantial green spaces which already feature in parts of Dubai's public space.
- 3 Excessive temperatures make shaded interior spaces a significant part of the proposal.

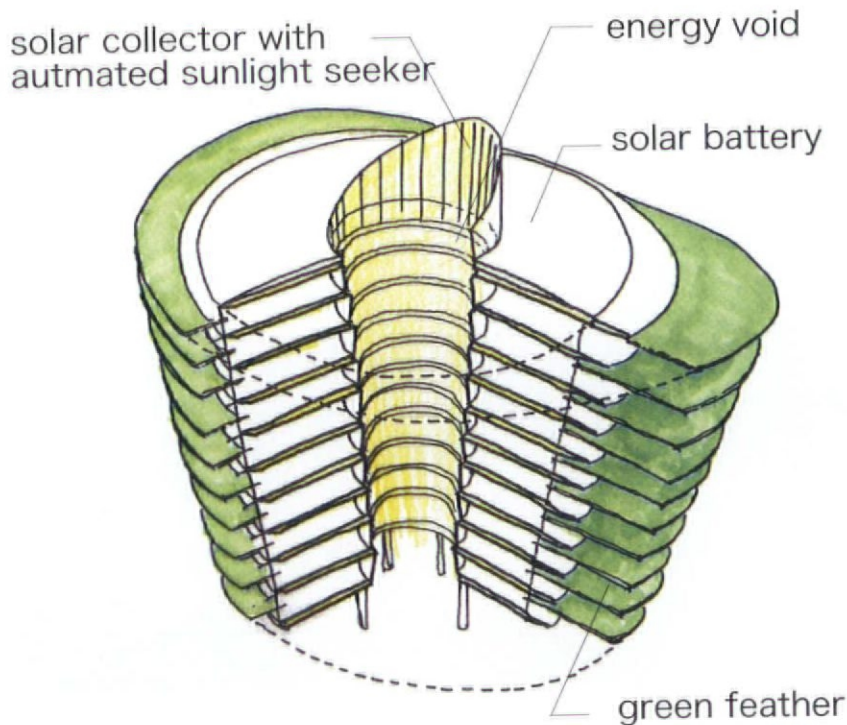


mixed uses all related to a centralised transport hub



lighting and ventilation strategies attempt to minimise energy consumption



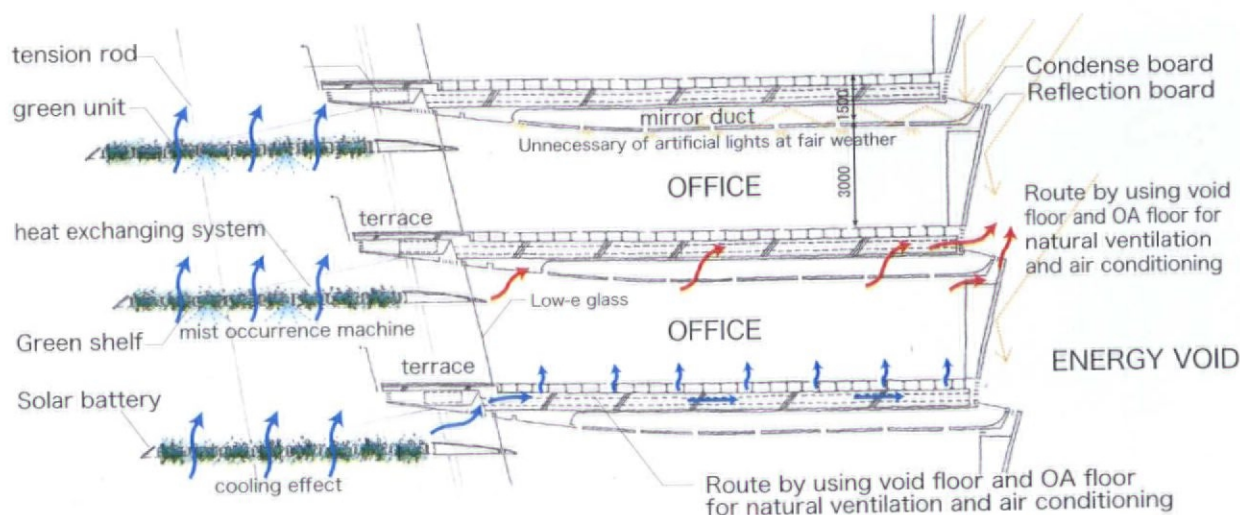
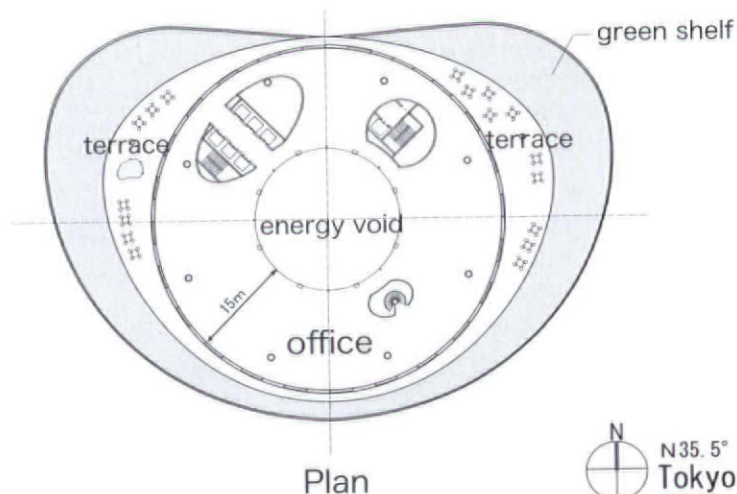
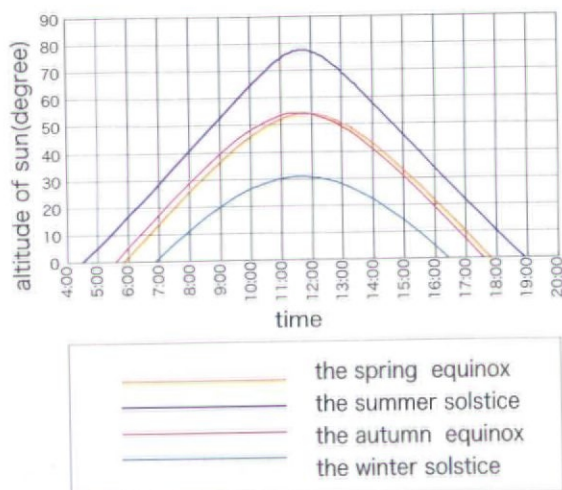


## DESIGN LATITUDE

This low-energy office building was a Nikken Sekkei internal competition winner (architects Hiroyuki and Takeyoshi Suzuki), capable of adaptation depending on the latitude in which it is built.

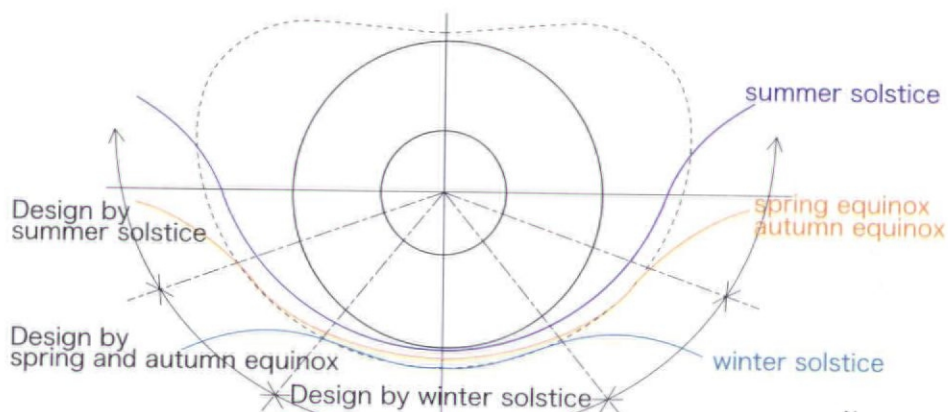
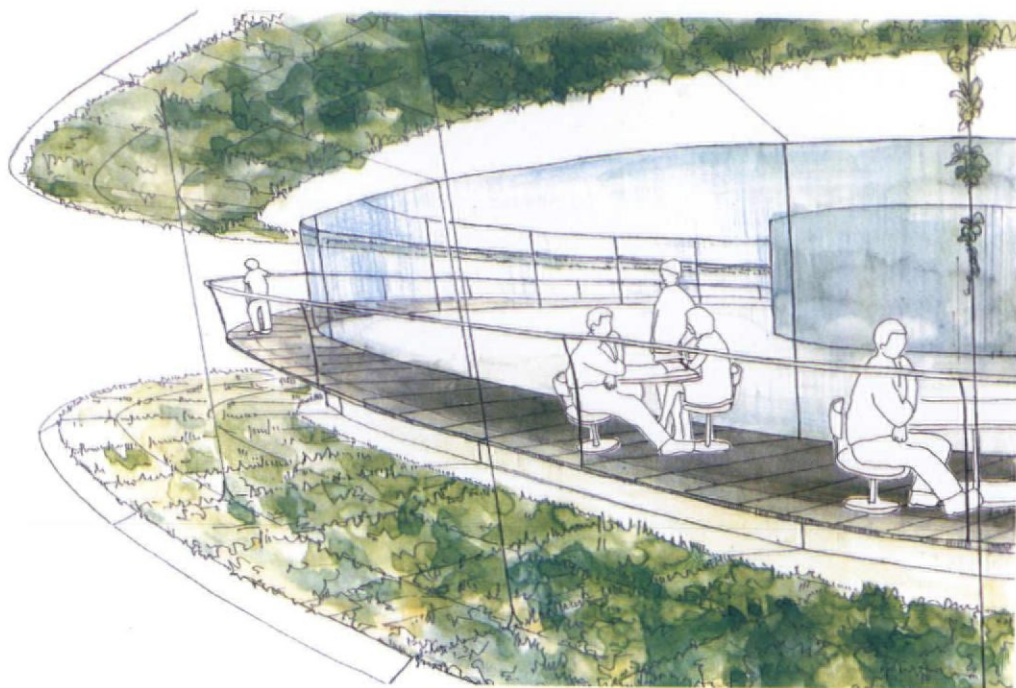
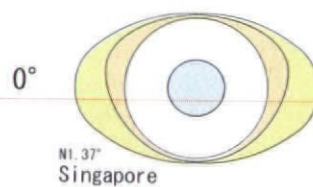
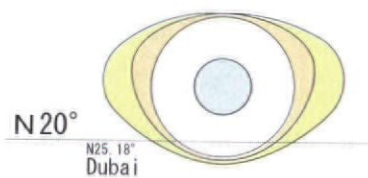
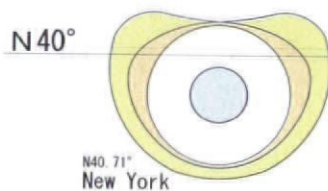
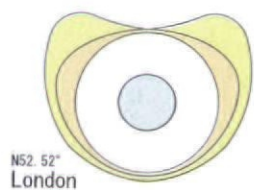
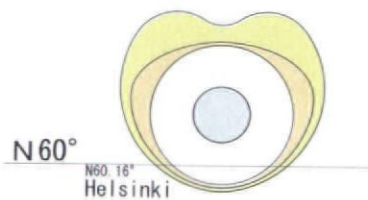
Overhanging eaves host planting which mitigates extreme climates and combats solar glare, reinterpreting the idea of the Japanese veranda (*engawa*). The 'green feathers' of the planting provide a cooling effect round the building, with this cooler air taken inside as part of the ventilation strategy. The dimensions of the eaves are calculated on the basis of sun angles on different elevations at different solstices.

The low, flat form of the building helps reduce the area of outer skin; other design features include a circular mirror-finished shaft which takes sunlight to all floors (ceilings have mirror ducts), cutting the use of artificial lighting. P. F.

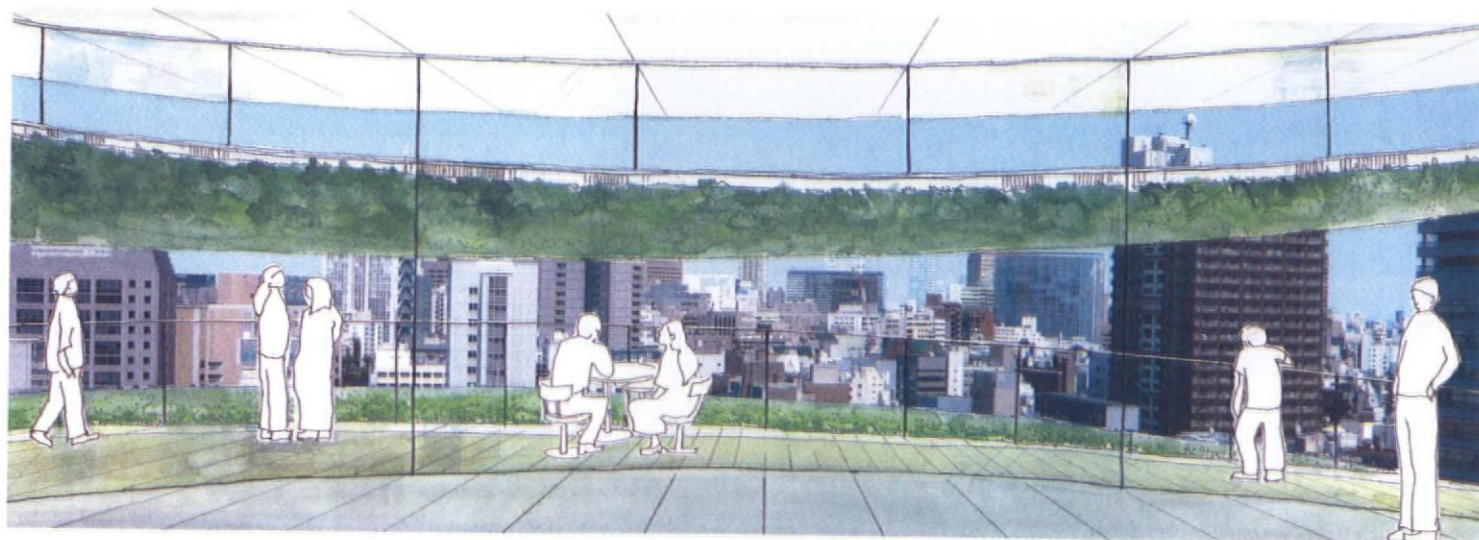


Detailed Section





Eaves form by altitude of sun





Architecture has only a small part to play in the affairs of man. It does, nonetheless, bring together much that is important for society at large: shelter, social function, technology, art, economics, politics, science and more. Consequently, architecture can be a mirror to society. Since the early twentieth century, architects have sought to link design symbolically to express a particular analysis of society and its future direction. This analysis has often been technological, but it has also been spiritual, psychological and even cosmological. But this view can be reversed; society can be made a mirror to architecture. We can understand architecture as a natural reflection of what is current socially, politically and economically.

A series of social, political and economic changes that affect everything from the operation of nations to everyday life come under the collective title of 'globalisation'. Often considered just to be the domination of the world by global corporations, the phenomenon of globalisation goes much further than this. It is summarised by Jürgen Habermas: 'By "globalisation" is meant the cumulative processes of a worldwide expansion of trade and production, commodity and financial markets, fashions, the media and computer programs, news and communications networks, transportation systems and flows of migration, the risks engendered by large-scale technology, environmental damage and epidemics, as well as organised crime and terrorism'.<sup>1</sup> Globalisation may now have its own global band of protestors but it is generally acknowledged that, save a major catastrophe, 'the intensification of worldwide social relations in such a way that local happenings are shaped by events occurring many miles away and vice versa'<sup>2</sup> is unavoidable and increasing.

Imperialism, internationalism and other forms of interchange between cultures and economies has been taking place for millennia, but globalisation is different in effect, depth and breadth.

At the end of the Second World War, experience of the depression and the holocaust convinced the dominant Western powers that the world economy and the welfare of humanity could no longer be left to the vagaries of nation states. The Bretton-Woods agreement, which led to the creation of the IMF and the World Bank, and the establishment of the United Nations and the Declaration of Human Rights, put in place the institutional framework for a global economy and a global political philosophy between 1944 and 1948. This was the foundation of globalisation and both events were based on Western or Enlightenment principles. The idea of the free market could be traced to Adam Smith. Globally enforced individual rights over and above the community or nation state fulfilled Condorcet's aspirations for the equality of man and Immanuel Kant's ideal of world government.

These principles could not be realised at a global level until the collapse of the Soviet Empire in 1989. The IMF's imposition of a free market system on an exhausted Russian economy<sup>3</sup> was followed by the voluntary liberalisation of the Indian and Chinese economies (although not the Chinese political system) in the early '90s. This free market

was a north-Atlantic economic system evangelically promoted by the USA (and often politically linked to American-style liberal democracy or 'freedom'). As a consequence, globalisation can appear to be a form of American imperialism. In the short term this seems to be the effect. But the ideology is that of liberalisation, rather than imperial protection and control, and the true liberaliser must acknowledge the possibility of a loss of control over what has been liberalised.

Globalisation is a new world order. We do not know its outcome or have a full picture of its nature as we are only in its earliest stages. Some commentators consider it to be 'high-modernity'<sup>4</sup> and the realisation of the ideals of the Enlightenment, while others believe it to be a new phenomenon of equal but different significance to the Enlightenment.<sup>5</sup> At this stage, however, it is clearly a Western world order, dominated by north-Atlantic culture, and the most evident outcome has been the spread of north-Atlantic products and corporations. The effect is described by Helena Norberg-Hodge: 'Western consumer conformity is descending on the less industrialised parts of the world like an avalanche. "Development" brings tourism, Western films and products and, more recently, satellite television to the remotest corners of the Earth. All provide overwhelming images of luxury and power. Adverts and action films give the impression that everyone in the West is rich, beautiful and brave, and leads a life filled with excitement and glamour ... [A]dvertisers make it clear that Westernized fashion accessories equal sophistication and "cool". In diverse "developing" nations around the world, people are induced to meet their needs not through their community or local economy, but by trying to "buy in" to the global market.'<sup>6</sup> Put more succinctly by Theodore Levitt, 'everywhere everything gets more and more like everything else as the world's preference structure is relentlessly homogenized'.<sup>7</sup>

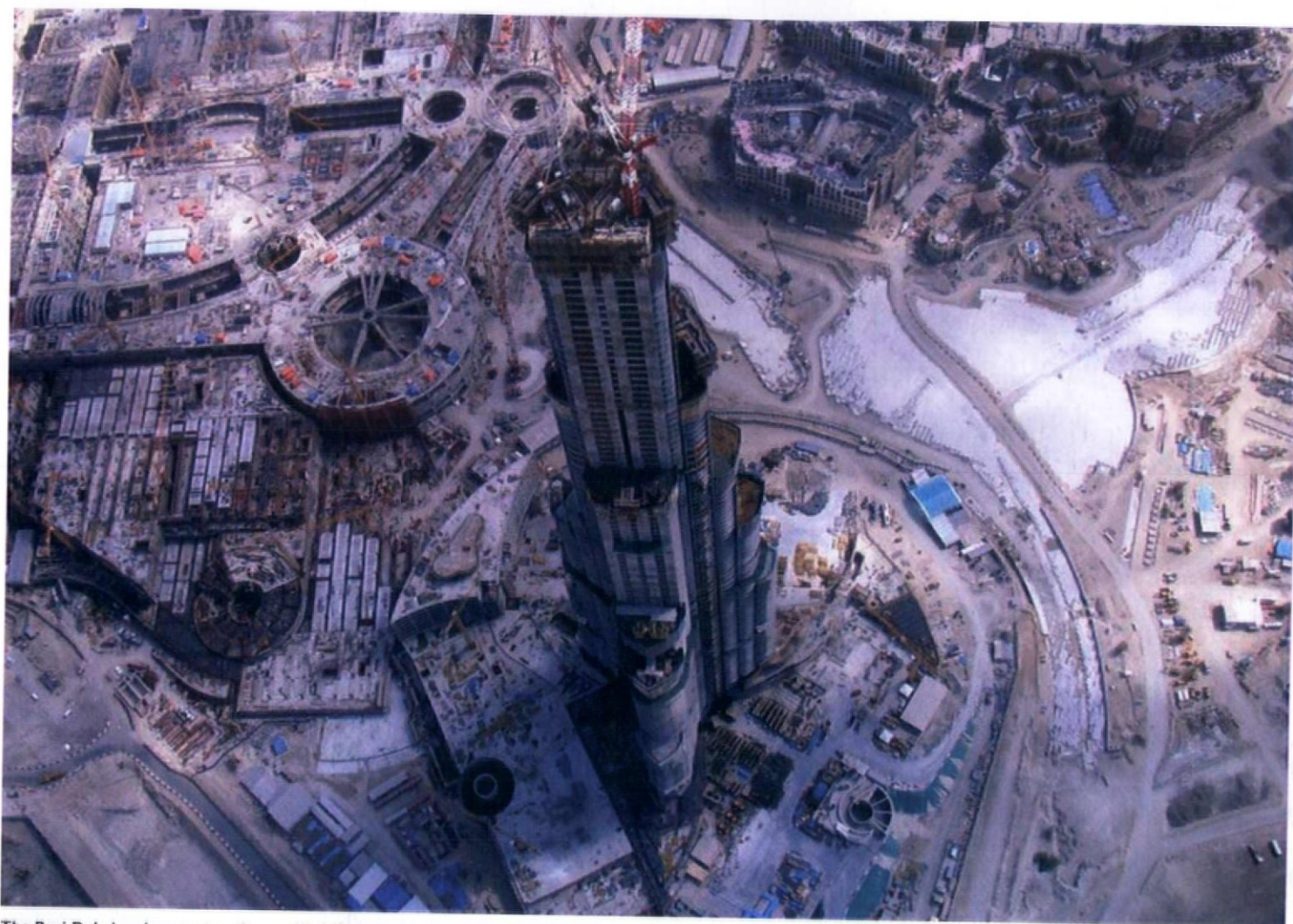
In architecture, the historical development of globalisation corresponded very closely to the ascendancy of Modernism. Founding Modernist ideals had always been global in ambition. In 1919 Walter Gropius said, 'One day there will be a world-view, and then there will also be its sign, its crystal - architecture'.<sup>8</sup> By 1932 it had been identified as the 'International Style' and, although this was really a development of 'parallel experiments' between nations,<sup>9</sup> it was presented as a 'contemporary style, which exists throughout the world, ... unified and inclusive'.<sup>10</sup> By 1948, the year the foundations of globalisation were finally laid, Modernism had so obliterated traditional architecture that it came to be described as simply 'modern'.<sup>11</sup> Modernism was also, quite specifically, a north-Atlantic cultural phenomenon. It was based on the ideals of the same Western Enlightenment thinking that informed globalisation: rationality, scientific innovation, progress and the end of tradition. With globalisation Modernism conquered the earth. As Maxwell Fry noted as early as 1969, Modernism is an 'architectural story which is first a record of dispersal from Germany and Central Europe to the ends of the earth, but first to England and America'.<sup>12</sup>

For countries swept up in the tide of the global economy, the

# GLOBALISATION AND ARCHITECTURE

The challenges of globalisation are relentlessly shaping architecture's relationship with society and culture.





The Burj Dubai under construction – with 110 storeys and at 380m high, this soaring aspirational pinnacle will be the world's tallest building, but it could be anywhere.

association of Modernism with rationality, progress and successful and dominant north-Atlantic economies was irresistible. Furthermore, the Modernist association with the principal building types identified with key aspects of globalisation – the corporate office, the airport, the international hotel and the shopping mall – provided a clear symbolic link with the engines of global capital expansion. In a very short space of time the homogenisation of global consumerism had its parallel in the homogenisation of city centres throughout the world. It was observed by Henry-Russell Hitchcock as early as 1951.<sup>13</sup> The glass-walled office block has become the Coca-Cola of architecture. Now, without reference to signage or vehicle registration plates, it is often impossible to identify the global location of parts of San Francisco, Osaka, São Paulo, Brussels, Berlin and Shanghai.

The response of the architectural profession has been equally clear. While it is impossible to accurately estimate the increased number of international commissions, an indication of the increased globalisation of architecture can be found in the cumulative number of branch offices opened in different global regions. Since the fall of the Berlin Wall in 1989 these have increased by from less than 20 to more than 150.<sup>14</sup> Of the 55 large architectural practices with offices in other global regions, 80 per cent have their head offices in English-speaking countries and even the two Hong Kong firms were founded in the nineteenth-century colonial period by UK expatriates.

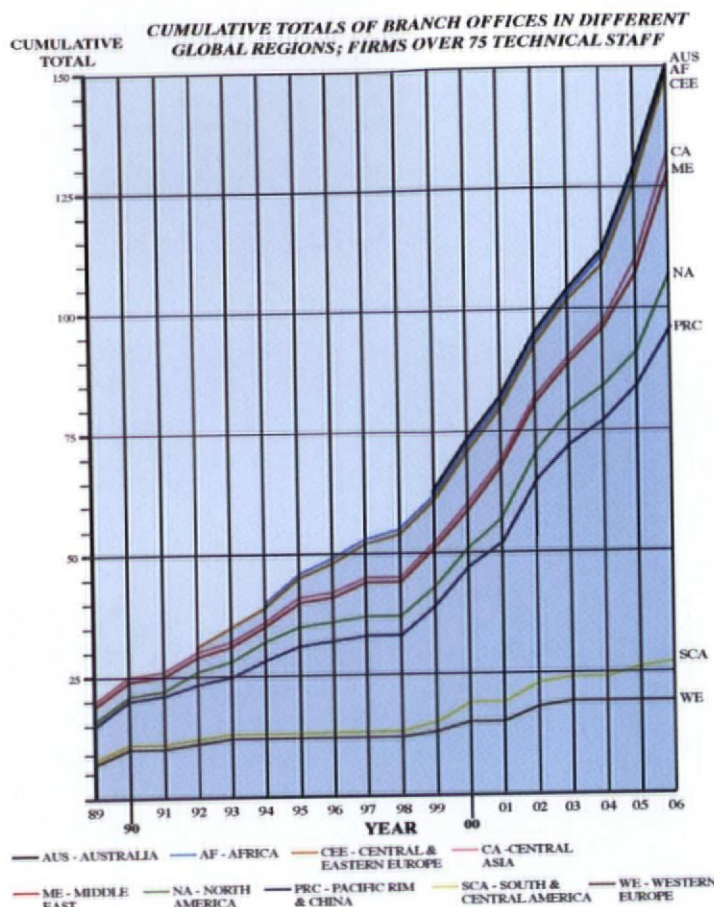
Globalised commercial architecture has developed a symbiotic relationship with a new breed of global star architects. As cities, more than nations, now compete to attract global investment and global tourism, they seek brand differentiation and symbolic modernity. The commissioning of public buildings by star architects is now an established marketing technique. The buildings must be (in the literal sense of the

word) extra-ordinary and designed by one of a small band of global architects whose nationality is more accidental than significant. The names are familiar and include Frank Gehry, Daniel Libeskind, Jean Nouvel, Rem Koolhaas, Norman Foster, Santiago Calatrava and Renzo Piano. The personal status of these architects is now so great and the demand for their presence so high – from students, the lecture circuit and competitions as well as the cities themselves – that their work is almost by necessity strongly conceptual and cannot rely on any detailed study of fine grain or culture of the locality. Indeed, as it is the intention that the building should be an iconic global product, local distinctiveness is often not a desirable characteristic.

The competitive marketing of these buildings by cities has set up an upward demand spiral. Out of the work of the star architects, design types and styles emerge and become identified with successful cities, even before they are built. As star architects are, by definition, limited in number, demand for symbolic and extraordinary buildings far outstrips the capacity of the star group to provide their own designs, however conceptual their original input may be. The conceptual nature of the star product allows global commercial firms (who have sometimes been acting as the executive architects for star architects) to clone the trademark design characteristics of the star product. The reproduction of the spiral or twisted forms, globular glass, planar intersection and so on is facilitated by the use of the same sophisticated computer graphics employed by the offices of the star architects to develop and present their concepts.

This trickle-down effect and the high status of star architects within the architectural profession have influenced architecture more generally than the global origins of the star product. The new architecture has been approvingly dubbed 'supermodern' by the Dutch critic Hans





Ibelings. 'For this architecture the surroundings constitute neither legitimation nor inspiration for these are derived from what goes on inside the building, from the programme. This autonomy is in many cases reinforced by the fact that the building has an inscrutable exterior that betrays nothing of what happens inside ... In many instances these buildings look as if they might house just about anything: an office or a school, a bank or a research centre, a hotel or apartments, a shopping mall or an airport terminal.'<sup>15</sup>

Globalisation itself is, however, more complex than the simple expansion of Western capital and concomitant spread of products, culture and style. The creation of the rights of the individual over their resident community or state has changed the role of the relationship between the state and the individual. At the same time, the free movement of global corporations and capital has restricted the ability of the state to maintain an autonomous economy. The principle that the state could control its citizens and wage war with other states, established in the Treaty of Westphalia in 1648, has been significantly eroded. Aggressive nationalism, which in the nineteenth century often led to the suppression and incorporation of diverse groups to form nation-states, is no longer a functional necessity for defence or economic containment. 'The nation-state has become too small to solve global problems and too large to deal with local ones.'<sup>16</sup> As the power of the nation-state declines, regional, local and ethnic identities re-emerge. In 1990 there were 800 micro-national movements in a world of fewer than 200 states.<sup>17</sup> This is localisation, the other face of globalisation.

Localisation is closely associated with the politics of identity. Identity is community and place-related and the individuality of community and place are undermined by global homogenisation. Migration, instantaneous communication and increased travel all threaten and dislocate community identity. At the same time, members of communities can intensify their association with one another and their place of origin over long distances with the internet and the other communication media. The same phenomena can also promote the local cohesion of ethnic communities or micro states. To be Catalanian

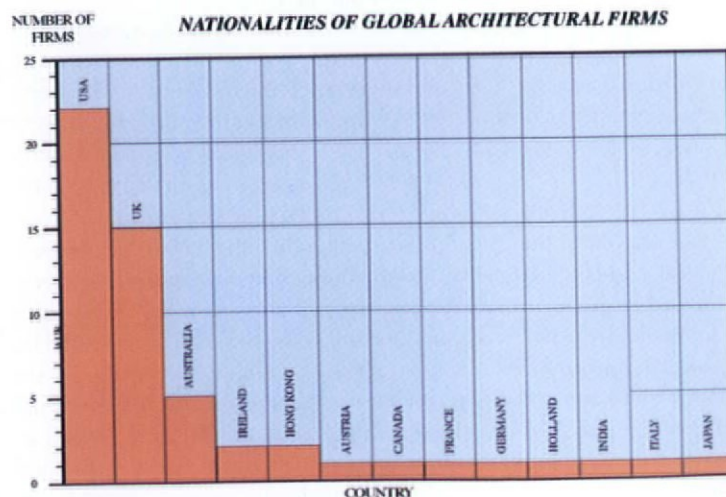
is not ethnic, it is to speak Catalan in Catalonia and Catalan-language television is an important agent in the consolidation of an increasingly independent Catalonia. The widely dispersed Sami community, an ethnic micro-nation recognised across Norway, Sweden, Finland and Russia, is brought together by a dedicated Sami website.

The sociological, political and economic impact of region and identity is a powerful force in the globalised world. Dislocated identity can lead to fundamentalism and terrorism. Regional revival can lead to civil war and national fragmentation. The need to attract global capital can divert cities from the interests of their national governments.

It has been recognised for some time that international Modernism had a homogenising tendency. Post-Modernism was a direct response to this but had a short life. In 1982 Kenneth Frampton, principally as a Modernist rebuff to the overt cultural symbolism of Post-Modernism, published the first of a number of essays on 'Critical Regionalism' to highlight what he saw as localising tendencies in current Modernism. The definition of what made a building regional, however, was vestigial and amounted to as little as building to the contours of the site. When combined with the insistence that it 'should not be sentimentally identified with the vernacular',<sup>18</sup> the theory was a long way from any readily-comprehensible form of local identity. Architectural interest in any kind of literal contextualism is now a minority activity.

There is, nonetheless, independent evidence of a new concern for localisation of place. A 30 per cent increase in the last 10 years makes urban tourism the highest growth tourist sector in Europe. The principal demands of the urban tourist are for high quality, cultural and 'authentic' (or apparently authentic) places.<sup>19</sup> In 2004 Richard Florida followed up his ground-breaking book *The Rise of the Creative Class*, which identified the key role of innovators in the information-age economy, with *Cities and the Creative Class*. With empirical research he demonstrated that 'the quality of place, a city or region, has replaced access as the pivotal point of competitive advantage. Quality-of-place features attractive to talented workers of a region have thus become central to regional strategies for developing high-tech industries'.<sup>20</sup> In 1992 the mayors of Rio de Janeiro and Barcelona, brought together respectively by the correspondence of the United Nations Conference on the Environment and Development and the Olympic Games, signed the Rio-Barcelona Declaration. Point 4 included the statement: 'We also favour cultural differences, every city's own identity, and we believe that city planning and architecture should emphasize these proper symbols'.<sup>21</sup>

Concern with the identity of place is, not surprisingly, more evident in urban design and urbanism than in architecture – although many urbanists are architects. In the last 15 years there has been a growing urbanist movement specifically concerned with the individuality and identity of place. One of the earliest and the most successful is the American Congress for the New Urbanism (CNU) which was founded







Instant metropolis – the skyscraper-lined corniche of Dubai is an obvious manifestation of globalisation, attracting both capital and a wealthy, mobile expat population.

in 1993 and seeks 'the reconfiguration of sprawling suburbs into communities of real neighbourhoods and diverse districts' and 'the redevelopment of towns and cities [to] respect historical patterns, precedents and boundaries'.<sup>22</sup> A Vision of Europe was founded a year previously in Bologna with the objective of 'the creation of villages, neighbourhoods, cities and even metropolises, marked by new structural and formal qualities that will make them comparable to their historic counterparts'.<sup>23</sup> Ten years later, a sister organisation to the CNU, the Council for European Urbanism (CEU), was established in Bruges and promotes 'the distinctive character of European cities, towns, villages and countryside [and] consolidation, renewal and growth in keeping with regional identity and the aspirations of citizens'.<sup>24</sup> In 2006 the Academy of Urbanism was created out of an initiative by the then president of the RIBA, George Ferguson, and asserts that 'the design of spaces and buildings should be influenced by their context and seek to enhance local character and heritage'.<sup>25</sup>

While the rhetoric suggests that there is an association between the minority traditional movement in architecture and the urbanist movement (and indeed there is), the broad base of the urbanist movement is indicated by the UK Government's 1999 report, *Towards an Urban Renaissance*, written by an 'Urban Task Force' chaired by the leading Modernist, Richard Rogers. In common with the other urbanist organisations it had a concern for identity and context: 'The diversity of urban neighbourhoods means that different places will respond to the pressure for change in different ways ... This diversity reflects the full richness of the English urban tradition'.<sup>26</sup>

This interest in local contextual identity runs contrary to the homogeneous international architecture of star architects and their followers. The contrast is illustrated by a famous clash between the two ideologies which took place, appropriately enough, in Berlin – flashpoint for the fall of the Russian empire. When the Bundestag voted to move to Berlin in 1991, the regeneration of the reunited city was under the control of Hans Stimmann, Director of Municipal Construction. Stimmann strictly regulated reconstruction to maintain the distinctive historic character of the city by reinstating traditional city blocks and limiting building heights and materials. He said, 'I wanted to go back to a city structure that I call a European city. I wanted to make Berlin readable again'.<sup>27</sup> Daniel Libeskind, resident while working on the Jewish Museum, considered these to be rules 'that are transforming ... the city into banal uniformity'.<sup>28</sup> Stimmann for his part told Libeskind that his museum was 'an architectural fart'.<sup>29</sup> Libeskind left Berlin for Los Angeles.

These two poles of modern architecture – supermodernism and the particularity of place – are clear reflections of the two poles of globalisation – homogenisation and localisation. As joint products of globalisation they must not be seen as totally distinct. The city of Bilbao did not just erect Frank Gehry's Guggenheim, the definitive iconic building, it restored the fabric of its historic centre. The future of both architectural persuasions will be tested in the latest and most urgent global crisis – the survival of the ecology of the planet such that it will continue to support our global civilisation. This is the supreme challenge for globalisation: the cause, the effect and the resolution are and will be global and local. It will affect all aspects of social, political and economic life and it will, as day follows night, have a profound impact on architecture. ROBERT ADAM

#### Footnotes

- 1 Jürgen Habermas, *The Divided West*, Polity Press, 2006, p175.
- 2 Anthony Giddens, *The Consequences of Modernity*, Polity Press, 1991, p64.
- 3 Joseph E. Stiglitz, *Globalization and Its Discontents*, Penguin, 2002.
- 4 In particular Anthony Giddens and Ulrich Beck.
- 5 In particular Martin Albrow but see also Immanuel Wallerstein.
- 6 Helena Norberg-Hodge, 'The March of the Monoculture', *The Ecologist*, Vol 29, No 2, May/June 1999, p195.
- 7 Theodore Levitt, *Harvard Business Review*, May-June 1983.
- 8 Walter Gropius, Bruno Taut, Adolf Behne, 'New Ideas on Architecture', leaflet at Arbeitsrat für Kunst, April 1919.
- 9 Henry-Russell Hitchcock and Philip Johnson, *The International Style*, Norton, 1995, originally published 1932, p36.
- 10 *Ibid*, p35.
- 11 Henry-Russell Hitchcock, speaking at 'What is Happening to Modern Architecture?' *Bulletin of the Museum of Modern Art* XV, no 3, Spring 1948. Symposium in MOMA 11 Feb 1948.
- 12 Maxwell Fry, *Art in a Machine Age*, Methuen 1969, p133.
- 13 Henry-Russell Hitchcock, 'The International Style Twenty Years After', *Architectural Record*, August 1951.
- 14 Survey by author of architectural firms with total worldwide staff over 75 with branch offices in global regions other than region of head office, taken from *BD Survey: 'World Architecture 100'*, January 2007. Offices with two or more technical staff. Response rate 52 of 55. Global regions are: Africa, Australasia, Central Asia, Central/Eastern Europe, Middle East, North America, Pacific Rim and China, South and Central America, Western Europe.
- 15 Hans Ibelings, *Supermodernism: Architecture in the Age of Globalisation*, NAi Publishers, 1998, p88.
- 16 Daniel Bell, *The End of Ideology: On the Exhaustion of Political Ideas in the Fifties*, Harvard University Press, 1962 (expression much used subsequently).
- 17 Jan Aart Scholte, *Globalisation: a critical introduction*, Palgrave Macmillan, 2005, p233.
- 18 Kenneth Frampton, 'Ten Points on an Architecture of Regionalism: A Provisional Polemic', *Center 3: New Regionalism*, 1987, pp20-27.
- 19 *City Tourism and Culture*, European Travel Commission Research Group, 2005.
- 20 Richard Florida, *Cities and the Creative Class*, Routledge, 2005, p50.
- 21 Quoted in, Jordi Borja and Manuel Castells, *Local and Global, Management of Cities in the Information Age*, Earthscan, 1997, pp227-230.
- 22 CNU Charter and Principles Point 6.
- 23 Vision of Europe, Charter of the City of the New Renaissance, Point 2.
- 24 The Charter for European Urbanism, Stockholm, 6 November 2003, 'Action'.
- 25 Academy of Urbanism, Manifesto, 2007.
- 26 Urban Task Force: *Towards an Urban Renaissance*, 1999, p30.
- 27 Quoted by Andreas Tzortzis, *International Herald Tribune*, 29 September 2006.
- 28 Brian Ladd, *The Ghosts of Berlin: Confronting German History in the Urban Landscape*, University of Chicago Press, 1997.
- 29 Daniel Libeskind, *Breaking Ground: Adventures in Life and Architecture*, John Murray, 2005.



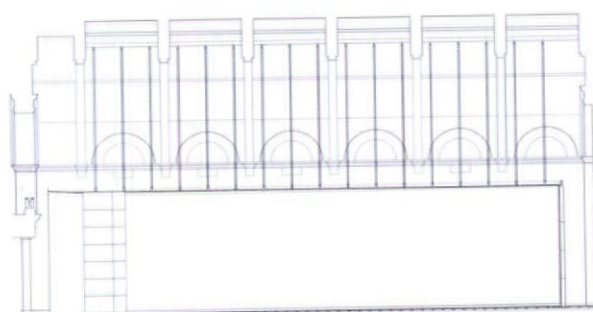


Infrequent visitors are excused for having dusty memories of the Victoria and Albert Museum, with its imposing spaces and artefacts exhibited in typical salon style. As the legacy of the Great Exhibition, the V&A describes itself as the world's greatest museum of art and design. Architecturally, it is less assured, described as a 'labyrinthine museum' that threads its way across its 5 hectare site. With access and communication as key obligations, FuturePlan is the V&A's development strategy that has seen them employ emerging architects such as Gareth Hoskins, MUMA and Softroom. Block Architecture are the latest.

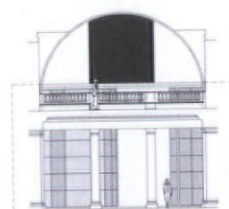
One of the strengths of Block's competition-winning strategy was how they turned constraints to their advantage, unifying ingenuity and delight. In response to a brief that called for a 7m high exhibition space set within but not touching the lower half of the vaulted gallery, a first floor bridge added another dimension, making the installation visible from above. While others may have experimented with sculptural forms or reflective surfaces that played off the geometries of the vault, Block knew that such surfaces could become unsightly dust traps. So they reduced the installation's surface area, specifying honeycomb panels that present a tiny surface area, and reduced structural sections to the minimum. All of this is hung from over 3000 steel cables that create a stratospheric spectacle with a mist-like mirage recalling Olafur Eliasson's internal precipitation *Beauty*, only dry and frozen in time. Back on the ground, Block flexed its sculptural muscles just once, with an array of 7m high carbon-fibre pivoted screens, that not only give curators opportunity to adjust the permeability of the space, but that also add a crafted quality to the installation, with the weave of the carbon fibre providing a contemporary equivalent to the many antiques seen elsewhere. ROB GREGORY

## Purple rain

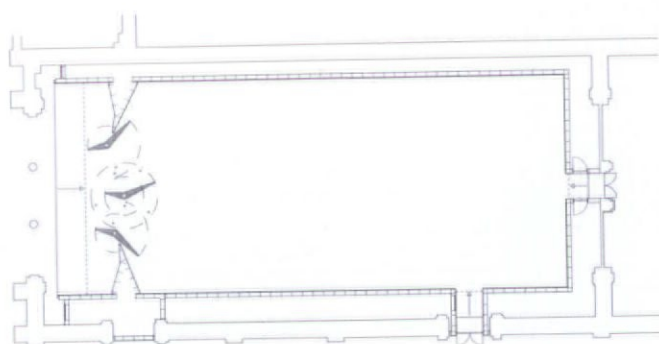
Block Architecture allow the rain to hold things up in the V&A.



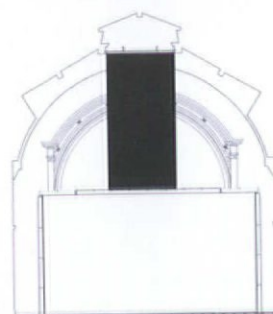
long section



elevation from entrance hall



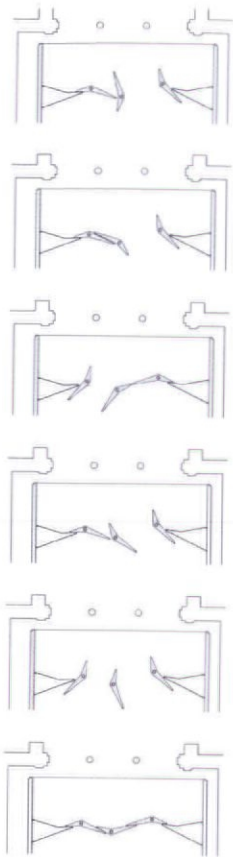
plan (scale approx 1:400)



short section

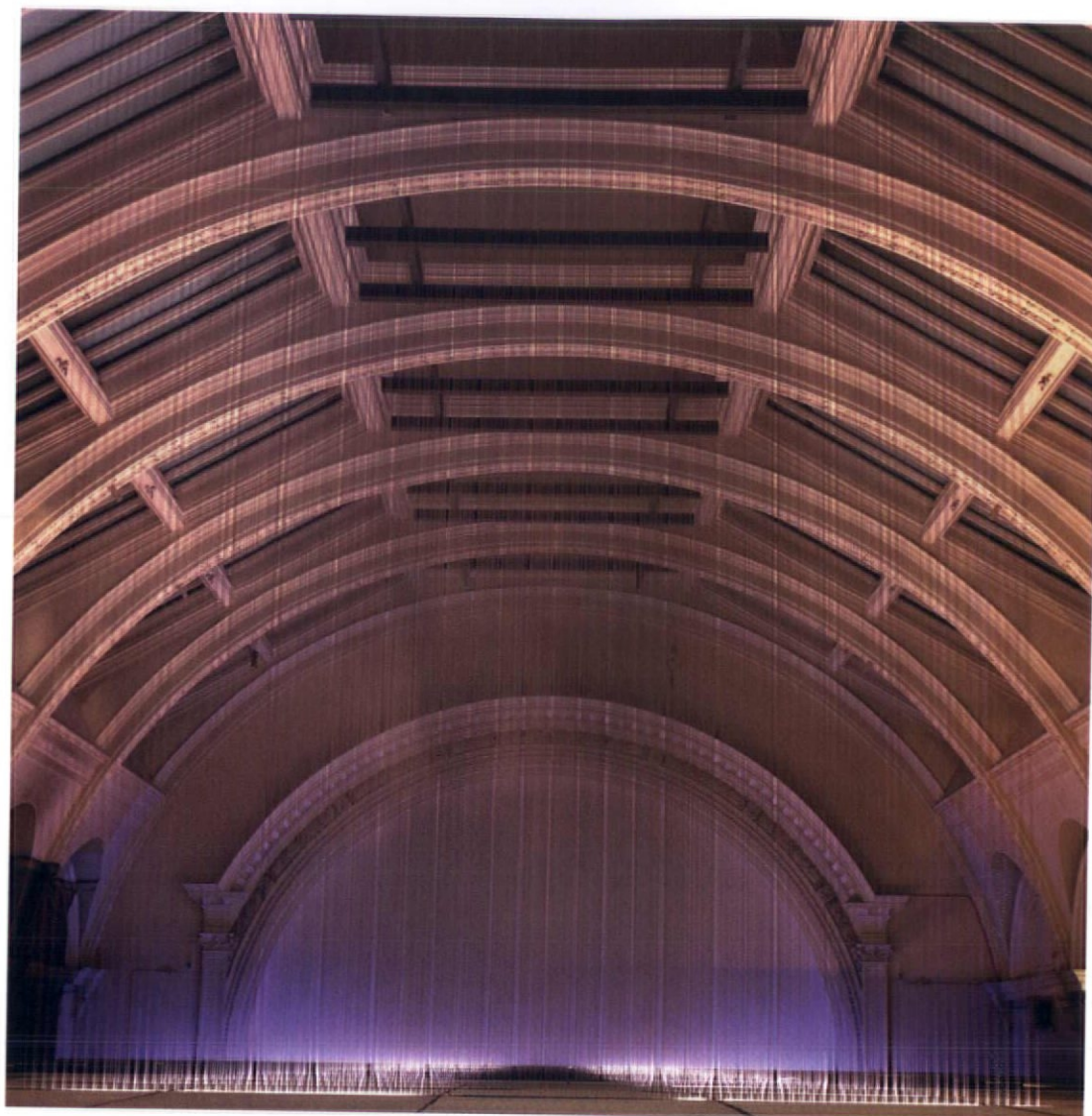
**Architect**  
Block Architecture, London  
**Structural engineer**  
Packman Lucas  
**Photographs**  
Leon Chow





possible screen configurations

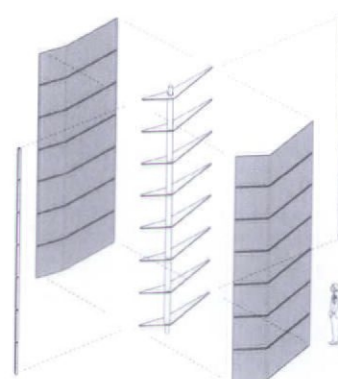
**GALLERY, V&A, LONDON**  
ARCHITECT  
**BLOCK ARCHITECTURE**



2



3



isometric of carbon-fibre clad screens

- 1 From the entrance hall, carbon-fibre screens create an impressive backdrop.
- 2 From above, distressed vault is transformed by a purple haze of light falling on cables.
- 3 Entering the Jamie Fobert-designed exhibition, while maintaining glimpsed views, space is well proportioned and fully serviced.





There is something reassuringly down to earth about the manner and approach of south London architect Jon Broome. While die-hard environmentalists should be avoided at drinks parties, for fear of having your spirits dampened under gloomy climate-changed clouds, Broome projects a realistic and measured optimism that housing design can be improved, and accordingly has led by example in the field of self-build and low-energy domestic design.

Beginning his career working for the legendary Walter Segal, Broome founded Architype (winners of the national RIBA Sustainability Award 2007) in 1984 where he worked for 16 years. Leaving the practice in safe hands in 2000, he is now a sole practitioner, living and working from his own exemplary self-built house near Forest Gate. Completed 14 years ago, the

house stands as a manifesto of Broome's ideas, with clients, students and TV producers often frequenting its curiously contorted interiors.

Yielding in plan and section to the most mature elements of the garden's landscape, the house was conceived as a roofed piece of garden. Around a central regular grid of bare tree-trunk columns, a series of apparently haphazard volumes provide cellular space for five bedrooms, a living room and office. Directly above the columns sits a folded and curved roof, beyond which project the various outshots.

Despite many eccentricities in plan, in reality the interior has a powerful coherence, regulated by the orthogonal column grid, and unified through extended vistas that pass in, out and back in to the spaces, blurring any distinction between living tree trunks and

# Home education

As the focus of Jon Broome's recent self-build book, his own home has much to teach.

- 1 The principal roof is supported on tree-trunk columns, elevated above cellular volumes articulated by bold Trespa panels.
- 2 All roofs are planted, nurturing a diverse habitat.
- 3 Blurred boundaries work particularly well.

HOUSE,  
LONDON  
ARCHITECT  
JON BROOME











4

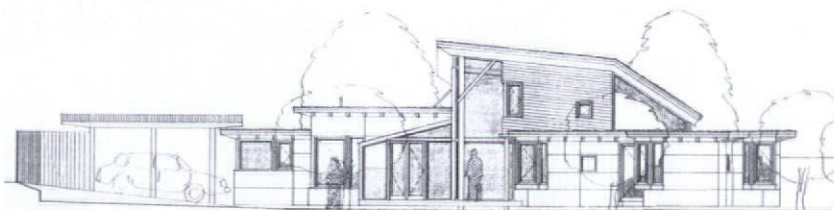


5

## HOUSE, LONDON

ARCHITECT

JON BROOME



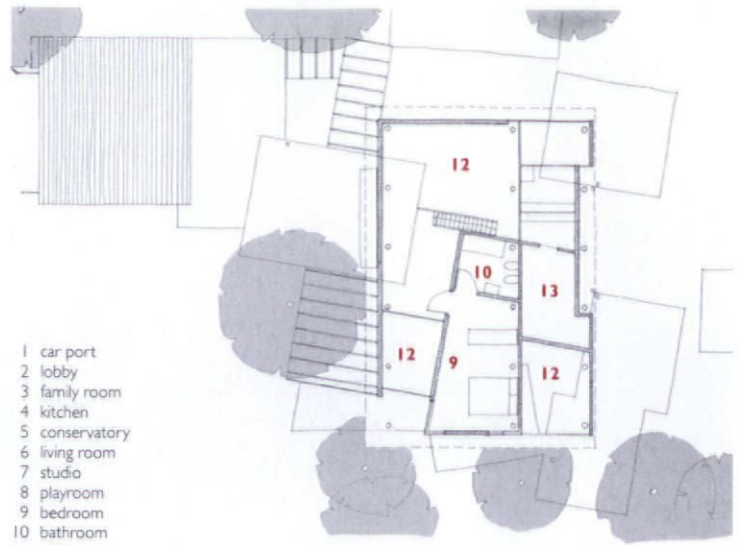
north elevation

adapted tree columns. Wherever you look, another unique condition adds intrigue and specificity, without leading to any of the bodged details commonly associated with the notion of the hand-made.

The process of building this house, and the routine of living with it, has given Broome the opportunity to extend the essence of Segal's work, which through necessity was reduced and rationalised to barest minimum. With added colour and moderated flamboyance, it also incorporates many of the lessons learnt from Christopher Alexander's *Pattern Language*,

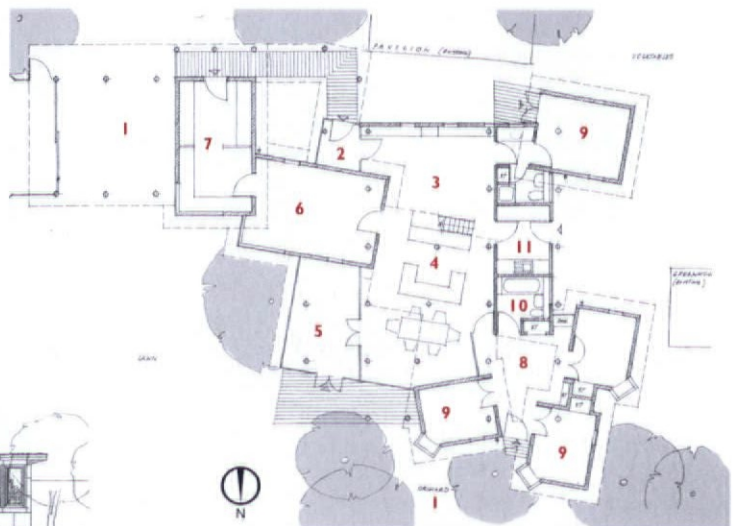
another key element in the formation of Broome's philosophy, that recalls how both were committed to making the process of building more accessible and understandable. Extending these methodologies in his own modest way, Broome's own account of this house is recommended to anyone who is drawn to the prospect of embarking on self-build, or indeed anyone working in the domestic sector. *The Green Self-Build Book* is available from [www.greenbooks.co.uk](http://www.greenbooks.co.uk). ROB GREGORY

Architect  
Jon Broome  
Photographs  
Ed Sumner/VIEW



- 1 car port
- 2 lobby
- 3 family room
- 4 kitchen
- 5 conservatory
- 6 living room
- 7 studio
- 8 playroom
- 9 bedroom
- 10 bathroom
- 11 utility room
- 12 void
- 13 loft

first floor plan



ground floor plan



6

- 4 The kitchen is very much at the heart of the home.
- 5 Spatial generosity helps to create luminous interiors.
- 6 Every room has a unique quality of its own.
- 7 Elements are clearly articulated: structure, volumes and screens.







# Specifier's Information

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## Bisley

Bisley, the UK's largest manufacturer of steel based office storage, is the first to be using the British Contract Furnishing & Design Association (BCFA) Carbon Footprint Calculator to calculate the carbon footprint of its range of steel storage units. The BCFA's Carbon Footprint Calculator spreadsheet is in line with guidance from the Intergovernmental Panel on Climate Change and expresses the carbon or carbon dioxide which is inherent in a product by virtue of its raw materials and the manufacture and distribution process.

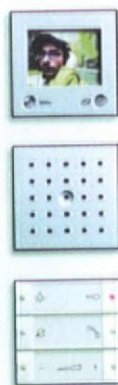
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## IES

Taking a unique approach to the verification assessment of tender returns for its school modernisation programme, Glasgow City Council chose to evaluate the performance of the designs themselves. To create an effective education environment, they put emphasis on ensuring that good ventilation and natural light was provided in the most energy-efficient manner, by using building performance simulation consultants, IES Consulting.

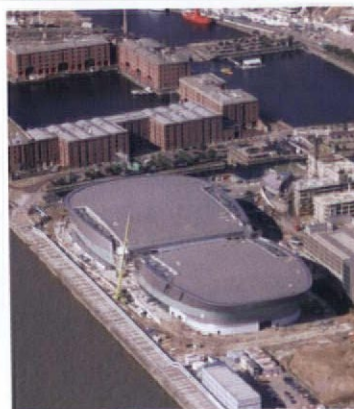
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## Häfele

Häfele have combined biometrics and audio/video entry controls with the introduction of Gira security systems. Gira combines a fingerprint reader with a door-located audio or audio/video combined communication system all integrated in a small flush mounted panel designed for access points handling up to 100 readings, with no reliance on computer controls or software. Data captured by the reader are recorded for analysis, even slight injuries are registered and the reader can also detect signs of life in the finger presented.

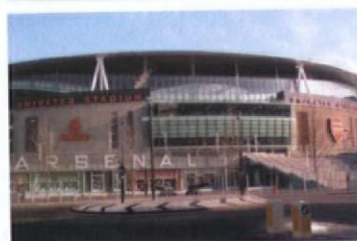
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## Corus

Corus Colorcoat HPS2000® pre-finished steel in metallic finish, Orion, has been specified by Wilkinson Eyre Architects as part of the wall cladding at Liverpool's new Kings Waterfront Arena. According to Project Architect Erick Ramelow, 'Our concern was life expectancy under a marine environment - hence the decision to use Colorcoat HPS2000® on both the roof and the lower walls of the building. The product is the most durable around and is backed by the Confidex® Guarantee most comprehensive available'.

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## Keim Mineral Paints

The Emirates Stadium, home to Arsenal FC, features a glass plank facade at podium general access areas, steel mesh screens which overlap the exposed concrete of the vertical circulation cores, and a metallic under clad roof. Keim Concretal Lasur low pigmentation colourwash system was chosen as an anti-graffiti coating to protect the low level exterior concrete surfaces of the stadium including the perimeter wall round the pitch. It acts as a stain which penetrates the concrete surface and forms a chemical crystalline bond to provide a longlife 'invisible' solution.

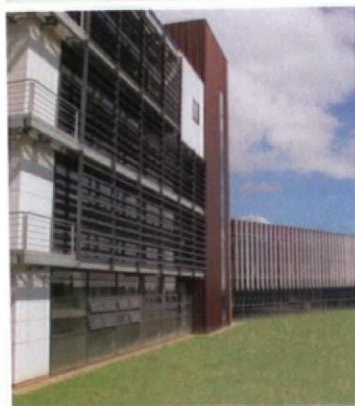
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## Reynaers

Reynaers' CW50 SC curtain-walling system has played a key part in the creation of a Sainsbury's at the heart of the regeneration of Maidenhead centre. The building features Reynaers CW50 SC curtain wall facade and roof system. The CW50 SC was selected as it provides designers with unlimited creative freedom, allowing maximum entrance of light into a building. This is because the structurally clamped system permits any combination of vertical and inclined planes, together with the integration of different types of vents, creating a seamless facade.

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## Levolux

A new £24million secondary school has chosen Levolux's innovative sun screening system to keep lesson time cool for nearly 1000 pupils. The custom-designed shading, featuring large energy screens and vertical blade louvres along with an area of horizontal fins and walkway, has been installed at Cardinal Hume Catholic School in Gateshead. Constructed predominantly over two storeys on a Greenfield site, with a five-floor tower on one side, the 10,000m<sup>2</sup> landmark school also boasts the latest technology and a multi-use games area.

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## Marley Eternit

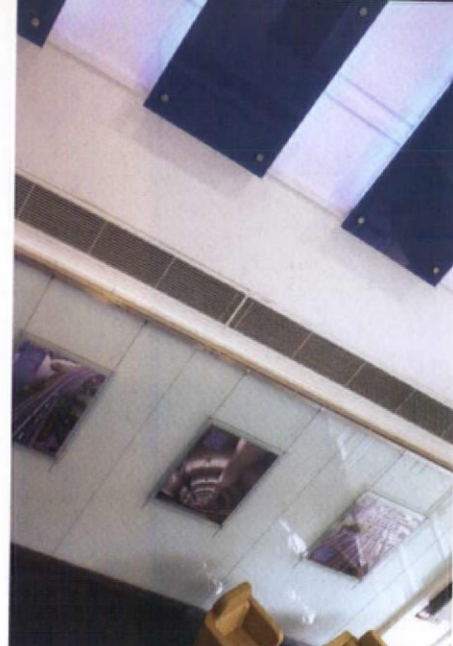
Marley Eternit is expanding its Hawkins clay plain tiles range, manufactured in Staffordshire since the 19th century, with a new colour, Blue Smooth. This heritage, combined with the most modern firing techniques, gives a unique colour range, of four colours, Staffordshire Blue, Staffordshire Mixture, Dark Heather and Blue Smooth. Marley Eternit, known for its environmental innovations, achieves an 'A' rating for its clay plain roof tiles in the BRE's 'Green Guide to Specification', enabling specifiers to obtain environmental credits for buildings under the BREEAM and Eco Homes schemes.

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# reviews

## THE JOY OF HEXAGONS

### HONEYCOMB TUBE ARCHITECTURE

By HTA Association. Tokyo: Shinkenchiku-sha. 2007. \$58

This book is close-packed, full of ideas, approaches, ambitions, all of which are loosely organised around the use of hexagonal frame structural systems.

The declared ambition, made early on in a disparate collection of introductory essays, is the creation of a sweeping system, one capable of replacing the flat slab concrete frame and trabeated steel skeleton, contemporary structural canons that the presentation narrowly attributes to Le Corbusier and Mies van der Rohe respectively.

There are strong theoretical insights. That the discovery of carbon atoms organised into 'Bucky-balls' came only after Buckminster Fuller's invention of the geodesic dome and in an inverse way that carbon nanotubes now offer patterns for unforeseen structures are taken as cues to find a '[design] space between architecture and self-organising spaces'.

The chapters are drawn together from research sponsored by one of the Japanese mass housing corporations so there is inevitably a strong balance of practical application. The editors allow the hexagonal motif to mean different things to different contributors so this becomes a compendium of commercial innovation and simple speculation. Long-term maintenance is given its proper place and there is even an examination of ways these concepts might be inserted into the Japanese mass housing industrial complex. Though the stitch marks show, there are real insights moving across these adjacencies to break up the trammelled thought of the different industrial cultures.

The relationship of practical experiment and computer analysis is explored here in an interview format with researchers, and the equivalence of design to pure research is well-illustrated. The serendipity of the very rigid superstructures produced by hexagonal tubes being ideally suited to the latest trend in Japanese earthquake engineering, base isolation, is fascinating. However the design experiment HTA1, a response to a particular brief requirement, turns out to be a rather conventional looking 'super-atrium' building. Having taken part in such exercises ourselves we know the slip into banality is difficult to avoid, but in HTA1 there is no metonymy of detailing to force the principles into all parts of the construction. The outer wall of precast elements seems to go little further than the experiments which Richard Seifert,

George Marsh and Willy Frishmann made some forty years ago. There is a very telling working drawing of a double-height hexagonal bay fitted with conventional, rectangular fenestration. Elsewhere, the honeycomb core 'aerolams' and framing of modern aircraft and the bullet train are referred to, aerodynamic forms but under whose surface lie patterns far closer to the self-organised structures alluded to here and surely more thorough applications of the principles of this book.

The team could have done with a mathematician to treat the potential of hexagonal organisations rigorously. The grids of Frank Lloyd Wright are noted but don't lead to a formal three-dimensional treatment of potential generating systems. There is a telling rendering of two hexagonal towers achieving loneliness in the crowded downtown of Tokyo. But what of an entire city of tubular buildings? Where is that image of shining spicules disappearing in atmospheric perspective?

For all the claims that the 'hexagonal motif' has a global capacity for organising construction and represents a contemporary expression: 'honeycombs as magnificent symbol for future of architecture', the work here feels more like a pre-adaptation of something else yet to come. It is an excellent source book of form. The expensive production values, sleeved folio and duotone prints might have been better exploited with a volume just of images, tubes generated from different boundary conditions, together with a supplement of commentaries. Nevertheless it's a document well worth returning to for ideas on process just as much as on structure and pattern. MATTHEW WELLS

## GREEN GAUGE

### THE ENVIRONMENTAL IMAGINATION: TECHNICS AND POETICS OF THE ARCHITECTURAL ENVIRONMENTAL ENVIRONMENT

By Dean Hawkes. London: Routledge. 2008. £28

For those of us who allow the environmental flow of heat, light and air in our buildings to influence form and space, this is one of the books that we have been waiting for. It is not an updated version of Banham's *The Well Tempered Environment*: that still needs to be written. It is more an exploration of how environmental issues can inform the poetry of architecture, a parallel exploration of the poetics of the architectural environment to Kenneth Frampton's *Studies in Tectonic Culture*.

We are offered a series of essays that take us from Soane to Labrouste and Mackintosh through twentieth-century Modernism to

Fehn and Zumthor, Siza and Holl. The essays focus more on buildings rather than architects and the choice inevitably begs the question what do they all have in common, and why are there some notable exceptions? You would have expected Renzo Piano to have deserved a case study, and Glenn Murcutt's work speaks eloquently of light and heat. Why are Corb and Mies there but not Wright? The choice, as Dean Hawkes partially explains in his preface, is slightly random.

You are left with the impression that here is an author who towards the end of an extraordinary career in education, theory and practice has decided to make pilgrimages to several of his favourite buildings and record those experiences. It is, as Hawkes says, indulgent research, leading to eloquent writing which becomes an indulgence to read. And the final section which brings together spaces for art, sacred spaces and finally Zumthor's Therme Vals, only serves to emphasise that we are concerned with an architecture of all the senses, beyond the mere quantification of thermal comfort.

This book is an extremely important contribution to the theory of environmental design in architecture and only serves to highlight the missing link between an endless supply of books on sustainability, and the conceptual thinking of those architects whose inspiration has been the poetics of environmental design.

Each one of these essays could become a book – indeed you are left in some cases yearning for a larger format with more detailed plans and images. Although beautifully restrained in its graphical style, the small black and white photographs are often inadequate. It leaves you wanting to learn more – to delve into the very complete references or better still to make the pilgrimages the author has made, and it makes you want to complete the story, by linking the qualitative study that this book eloquently represents to a more quantitative analysis of why and how these buildings work for us on a sensual level. PETER CLEGG

## TECHNICAL NOUS

### JEAN RONDELET: THE ARCHITECT AS TECHNICIAN

By Robin Middleton and Marie-Noëlle Baudouin-Matuszek. London: Yale University Press. 2007. £50

It used to be puzzling when student essays referred to the windows of the Panthéon in Paris having to be 'blocked' because the 'factor of safety' was 'too low': this distortion stemmed from Summerson's *Classical Language*



of *Architecture*. Jacques-Germain Soufflot (1713-80) was appointed architect for the new church of Ste-Geneviève in 1755, a building which had walls punctured by windows. From 1791, following a Revolutionary Decree, the church was converted into the Panthéon to commemorate the Great and Good, a transformation with which Antoine-Chrysostôme Quatremère de Quincy (1755-1849) was closely connected. Quatremère's alterations to the church deliberately set out to give the building the *character* of a mausoleum by eliminating the windows, creating blank walls, and relying only on lighting at high level to give both exterior and interior greater and funereal solemnity.

However, there were also structural problems associated with the piers supporting the pendentives, drum, and dome of Soufflot's creation, and it was Jean-Baptiste Rondelet (1743-1828), Soufflot's former assistant, who emerged as the key figure in stabilising the building (although Maximilien Brébion [1716-96] and François 'Le Romain' Soufflot [before 1764-1802] were also important protagonists).

Rondelet is mostly remembered today for his *Traité théorique et pratique de l'art de bâtir* (1802-17 – much of which had already appeared as articles in the *Encyclopédie méthodique*) and his *Mémoire sur l'architecture considérée généralement* (1790). He emerged as a major influence on the training of architects in the nineteenth century, not only through his writings and practical demonstrations, but as a teacher. This copiously illustrated book establishes these facts, although Rondelet's importance had already been made clear in the biography by M.-N. Baudouin-Matuszek published in the exhibition catalogue, *Soufflot et son temps*, edited by M. Gallet (1980).

While it is useful to have archive illustrations showing unrealised early schemes by Soufflot for Ste-Geneviève as well as later proposals for transforming the church (the pyramid intersecting the building designed by Charles de Wailly [1730-98] is one of the most radical), many of the colour-plates are distorted, and one (Plate 175) is back-to-front (obvious because the inscriptions on the pedestals of the statues are mirror-images). Another irritant is the decision to print hefty quotations in French accompanied by English translations in parentheses: either the originals or the translations could have been placed in a true footnote, which would have helped the flow, but even better would have been summaries of these quotes, which are far too numerous and obtrusive as they are, making the whole thing unnecessarily tedious and exhausting to read. The Index could have been much better too.

JAMES STEVENS CURL



Before the magic of CAD, people used to have to actually draw things by hand, and the architect's sketchbook was one way of keeping your craft skills honed. The vigour of such quick, hand to eye recording is captured in *Richard England Architect as Artist*, edited by Dennis Sharp, London, BookART, 2007, £40. Drawn from a lifetime of practice in Malta and travels around the world, England's versatile oeuvre covers all types of media; shown here is a 1994 sketch of Prague. Essays by Manfredi Nicoletti and Mario Botta complete an elegantly designed package.

## THINKERS FOR ARCHITECTS

### DELEUZE & GUATTARI FOR ARCHITECTS

By Andrew Ballantyne

### HEIDEGGER FOR ARCHITECTS

By Adam Sharr

### IRIGAY FOR ARCHITECTS

By Peg Rawes. Thinkers for Architects

series editor: Adam Sharr. Abingdon: Routledge. 2007. £15.99 each

There are two obvious problems with introductions to philosophical and critical thought for the general architect reader. First, the moment a particular strain of thinking is made simple enough for the lay reader to understand, it loses its point: we're talking, after all, about defensive and cliquey cults here. Furthermore, professional theorists make careers out of slowly refining vague ideas: if they had made clear, definitive statements they would have been out of business. Second, there is a whole strain of writing by philosophers about architecture that does not engage with real buildings at all. I've reviewed here in the past *The Ethical Function of Architecture* by Karsten Harries, and Andrew Benjamin's *Architectural Philosophy* and I was struck by the fact that these people might have been writing about anything or any building, seemingly unable to make a valid distinction between one piece of architecture and another; and yet the former book, which had some very peculiar ideas about architectural history, has evidently struck a chord with cult members.

That said, at least two of these new books make a creditable attempt to present their subjects in a useful way, and from quite different angles. Sharr's version of Heidegger concentrates on two or three key ideas, and presents them sharply and clearly, and sometimes repetitively, and interspersed with the necessary apologies for the subject's unavoidable Nazism. Ballantyne's *Deleuze & Guattari* is by contrast a personal account which gives some general sense of the feelings – the cult word is 'affect', isn't it? – that the two French theorists have inspired in him personally. The results in both books are useful and worth reading. By contrast the third book, by Rawes on Irigay, is incomprehensible; the only response a lay reader will feel is astonishment that anyone could spend their professional life reading or writing these vacuous self-indulgent ramblings.

It is a mistake to have made these books so expensive: they should have been within reach of students. At £15.99 each they are not. And their design is very peculiar: short sections of text suddenly reappear in a vast font disrupting the flow. You have to train your eyes to ignore them if you are to read the book at all. In a way it is rather wonderful that Routledge can continue in this funny little world of its own, so popular with academics and so inexplicable to everyone else. TIMOTHY BRITAIN-CATLIN

Book reviews from *The Architectural Review* can now be seen on our website at [www.arplus.com](http://www.arplus.com) and the books can be ordered online, many at a special discount.



# reviews

## WE'LL ALWAYS HAVE PARIS

**30 years on, Richard Rogers comes home to the Pompidou Centre.**

Paris currently belongs to Richard Rogers – or, mindful of the succession plan, Rogers Stirk Harbour as we must now learn to call them. Yet within this newly constituted supergroup, there can be no doubt as to the identity of the lead singer. The spruced-up Pompidou, itself now 30, forms the venue for a 40th anniversary *festschrift*, from the heady, hippy days of Team 4, to Barajas, Heathrow and beyond. It's quite a trajectory. For those at architecture schools in the late '70s (such as your correspondent), the duelling High-Tech gurus of Rogers and Foster supplied the architectural soundtrack to our student lives as we wrestled to put the guts on the outside of the building, regardless of the wilful impracticality of it all. The original competition drawing for the Pompidou is a particularly Proustian moment; a fragrant *madeleine* of Rotring ink on curdled tracing paper. Like something dashed off in the lunch hour, the building is reduced and abstracted to a grid of diagonal bracing as Richard and Renzo recast Cedric's Fun Palace for the Rue Beaubourg. Tellingly, no one has ever attempted a Son of Pompidou (whatever happened to column-free space?), but thirty years on, it has long moved beyond the shock of the new and the Himalayan challenge of maintenance to become a highly cherished, bonkers-but-brilliant part of Paris's cultural and physical landscape. To paraphrase Wren's epitaph 'If you seek his monument, look around'.

From such strange seeds sprang a truly meteoric career, arcing through the white heat of High-Tech (Fleetguard, Inmos, Lloyd's) to be transmuted into something altogether richer and stranger when the fetish for industrial sheds and yachting details as a substitute for tectonic expression began to wear thin. Despite the odd Brobdingnagian lapse (notably the Dome, but reborn as a music venue the nation is now taking to its collective bosom), Rogers' output has an enviable consistency of thought



Model of the Lloyd's building, a mid-'80s monument to High-Tech that still adds punk panache to the City skyline.

and application. In the '90s he audaciously melded green concerns with High-Tech to beget Eco-Tech and kept ahead of the game by devolving into planning, urbanism, landscape and politics. He also cultivated an urbane, televisual bonhomie that consistently espoused the virtues of social inclusion, civil society and café culture. And though like all architects of *un certain âge*, you sense a gradual plateauing out as offices and waistlines expand, Barajas proved that the Rogers mojo was still working. Who else could reinvent the airport, that most ghastly of modern building types, as a luminous oasis peppered with rainbow columns sheltering under a cosy timber blanket? Bring on Terminal 5.

And therein lies a problem. The English diseases of obfuscation and meanness underscored by a masochistic penchant for bureaucracy meant that while Barajas was built in the twinkling of a Spanish eye, Heathrow has sputtered and lumbered like a crippled jumbo, picked over and dissected by the mother of all public enquiries. If anyone can rise above

such a debilitating fracas, then it is Rogers (Lloyd's and the Dome were also uneasy rides), but you wonder that his bonhomie and appetite for building are still intact. As with other tall architectural poppies, the UK has not been an especially receptive milieu and much of his best work has been in more accommodating foreign pastures – the European Court of Human Rights in Strasbourg, Bordeaux Law Courts, Pompidou, Barajas, Kabuki-cho in Tokyo. As if to underline this, Paris got first peek at the anniversary jamboree, which is due to wend its way to London's Design Museum later this year.

Set in the glazed fish tank of the Pompidou's ground-floor exhibition space, with the fourth *arrondissement* as set dressing, the Rogers trajectory is loosely structured around a series of themed sections. Each informal cluster (Transparent, Green, Public, Urban and so on) is colour coded for visual and intellectual legibility, but it's a classic curator's conceit, as clearly many of the buildings could fit into or straddle across other categories. As ever, the models steal the show, backed by an array of drawings, photographs and newly fashionable electronic presentations. Anchoring the displays is a nodal enclave of squidgy pink seating designed to encourage interaction with a chained library of books and magazines. A timeline beats out those four decades, with the prehistory perhaps the most curiously touching – Rogers and Foster in furry hats at Yale, Renzo in flares, all our yesterdays – and then the Pompidou moment when things changed forever with that piece of yellowing tracing paper.



Timeline beats out the decades.



Wearing well – the Pompidou hosts the Rogers show.



What makes great architects great? Some think that Foster's provincial origins inculcated in him a flinty desire to excel, but Rogers was even more of an outsider, being both foreign (Italian, in post-war Britain) and dyslexic. You don't doubt that puts a measure of iron in the soul, but if so, he has worn it well. CATHERINE SLESSOR

*At Pompidou Centre until 3 March, [www.centrepompidou.fr](http://www.centrepompidou.fr) then at the Design Museum, London, from 24 April until 10 August [www.designmuseum.org](http://www.designmuseum.org)*

## browser

### Sutherland Lyall stops to sniff the cyber snowdrops bursting through the land.

#### Preservation order

I forgot to do the annual Browser Awards last month. All right I didn't know we did them either. But I must pay my annual homage to Eric Morehouse and his unfailingly intriguing, weekly architectural website feeds which he calls Webcandy. You subscribe free at <http://eyecandy-webcandy.blogspot.com>. Forget the slight hint of salacity in that web address because there is not a bosom in sight: this is straight down the line stuff; a weekly and often more frequent diet of architectural websites which Morehouse has winkled out of the electronic soup and sends us without comment. Courteous, kindly and circumspect. The Japanese award the Living National Treasure status to their great potters and tea ceremony masters and calligraphers. I'd like to propose Eric Morehouse as the architectural webiverse's first Living International Treasure.

#### Frozen music

Given the way architects trot out that old Friedrich von Schelling saw about architecture being frozen music, you'd think you'd hear a lot more sound on websites. But no, that old Calvinist white-walls-less-is-more-fit-for-purpose conditioning has condemned we auditors of architectural websites to a very dull aural experience indeed. I have to say that sound or music of itself is not enough. I can think of one site whose amateur musical accompaniment put me off the practice for life. But any aficionado of those 1950s Canadian Film Board abstract animations will know the value of the occasional click or berrrrrupt as a mouse scrolls over a screen button. So I'm half pleased that French practice Brenac & Gonzalez do music on their website at [www.brenac-gonzalez-architectes.com](http://www.brenac-gonzalez-architectes.com). It's half pleased because the music, which accompanies the quite whizzy animated graphic introduction, is a bit so-so. And, after you reach a page where lots of versions of the practice name float around, it fades out. For no good reason. And

you hate yourself for then asking what the music was doing there in the first place. So all I want to say at this point is: Music good. Good music and well integrated with the site, much better. And please, don't do it yourself. Hire a professional. Or rent an appropriate tune.

#### Twice or half?

*Harvard Design Magazine* at [www.gsd.harvard.edu/research/publications/hdm](http://www.gsd.harvard.edu/research/publications/hdm), is a bi-annual publication whose subscription costs locals about 16 quid and us over here maybe £30. I think bi-annual means twice a year. If it means every two years that's quite a lot of dosh for participating in what is actually the means for a bunch of academics to claim publication brownie points and thus promotion to adjunct professor or whatever. People un-anxious to read a lot of academic waffle can try the above url to read maybe 15 per cent of the printed version on-line – and for free. Actually some of it is quite readable and thoughtful and in the current issue there are perceptive book reviews and the odd feature. Try the piece titled Blowfish, subtitled 'What to do When a Design Jury Attacks'. This is a jokey response to the horrors of the traditional jury. One which I think has legs is No 22, the Condescension response: 'Look the critic dead in the eye and say, "Well, well, look at Mr Fancy-Pants"' ... another is the Godzilla Defence: 'Suddenly scream like a monster and lumber around the room with your arms straight out. Proceed to crush your models like a small Japanese village'. And another suggests you just beat 'the living crap out of the critic'. I have to say that although I really go for the latter, the other hundred or so suggested responses are pretty wimpy but they do underline how lowly architecture students regard the crit as a helpful method of teaching.

#### Writing on the wall

And finally a Webcandy site from Eric Morehouse. It's that of Minneapolis-based artist Christopher Paul Baker's Urban Screens, shown at last year's AIGA design conference in Denver <http://tinyurl.com/2nfhos>. What he did was night-time computer projections on to a flat local building facade. Participants were asked simple questions such as 'Discuss architecture as a Deleuzian transgressive device' which were answered using mobile phones and interpreted visually and sonically – and playfully by scattering the animated characters of the answer around the elevation 'screen' accompanied by broadcast electronic music. OK, I made up that bit about Deleuze. But it all makes you think that there has to be more to architecture than bricks and mortar.

*Sutherland Lyall is at [sutherland.lyall@btinternet.com](mailto:sutherland.lyall@btinternet.com)*

## diary

AR'S CHOICE OF INTERNATIONAL EXHIBITIONS FROM [WWW.ARPLUS.COM](http://WWW.ARPLUS.COM)

### GERMANY

HANS ARP – FRITZ WINTER. DIALOGUE WITHOUT MEETING

Pinakothek der Moderne, Munich  
14.2.08–12.5.08

The exhibition sets out to examine the impact of Arp by comparing and contrasting him with the art of Fritz Winter. In the early 1930s Winter (1905–1976) produced 'biomorphic' works on paper and canvas that have up till now received little attention within his oeuvre. These are juxtaposed with the collages and reliefs by Arp to illustrate the artistic affinity between the painters.  
[www.pinakothek-der-moderne.de](http://www.pinakothek-der-moderne.de)

### UNITED KINGDOM

AR AWARDS FOR EMERGING ARCHITECTURE

RIBA, 66 Portland Place, London

Until end of February

The premiated entries from this year's AR Awards (AR Dec 2007) are a testament to the talent and imagination of young architects today. Entries include a memorial to the 11 March bombing in Madrid, a beach café in Littlehampton, UK, a wacky extension at a Science Park in Nordborg, Denmark, activity containers at a Melbourne playground, a wind and water café in Vietnam, a prayer pavilion in Sudan, and houses in Chile and Bangladesh. Free entry.  
[www.architecture.com](http://www.architecture.com)  
[www.architecturalreviewawards.com](http://www.architecturalreviewawards.com)

FROM RUSSIA: FRENCH AND RUSSIAN MASTER PAINTINGS 1870–1925 FROM MOSCOW AND ST PETERSBURG

Royal Academy of the Arts, London

Until 18 April

A landmark exhibition presenting modern masterpieces from Russia's principal collections. Over 120 paintings by Russian and French artists are displayed together for the first time ever in the UK. Works featured include paintings by Renoir, Cézanne, Van Gogh, Gauguin and Matisse, alongside those by Kandinsky, Tatlin and Malevich.  
[www.royalacademy.org.uk](http://www.royalacademy.org.uk)

### UNITED STATES OF AMERICA

JEAN-MICHEL CRATTAZ: QUASAR

SCI-Arc Gallery, Los Angeles

Until 3 September 2008

A new site-specific installation by the LA/NY-based design/media firm slap!, founded by architect Jean-Michel Crataz, and produced with the Stanford Linear Accelerator Center (SLAC) and Stanford's Kavli Institute for Particle Astrophysics and Cosmology. Quasar is 'an immersive light and sound space made from prototype membranes and realised as an interactive light/sound object and comprised of a dense array of interlinked elements describing an intricate three-dimensional structure'.  
[www.sciarc.edu](http://www.sciarc.edu)

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The new Paris showcase building for Citroën, at 42 Champs Élysées, is as unexpected as it is refreshing. This replacement for André Citroën's original 1920s building is designed by Manuelle Gautrand, a rising star in the Paris architectural firmament. You can see why.

Her challenge was to produce a piece of architecture which synthesises form, interiors and engineering, plus the manufacturer's colours and branding – the world in which car design operates. Her solution has produced a brilliant one-off which looks curiously contextual, despite its utterly different architecture.

You cannot buy a car in this dramatic infill, but you can admire different examples of Citroëns which occupy all the entire height of the 30m void that comprises the building's interior. Eight revolving turntables, cantilevered off a concrete-filled mast, display cars which form the basis of temporary exhibitions (the current offering is sports cars from the 1920s to the present).

The Citroën chevron is exploited in the design of the exterior, which stretches over the entire building as a form of prismatic truss, dealing with planning requirements to produce a much lower rear elevation at its base. The structure also allows the motif to be expressed three-dimensionally rather than being merely imprinted on the facade.

Gautrand has designed the interiors and the Corian cabinets which house electronic display systems (providing films and technical information about the vehicles). It is the cars that are the stars of the show for most visitors; but the architecture is just as memorable. PAUL FINCH

delight



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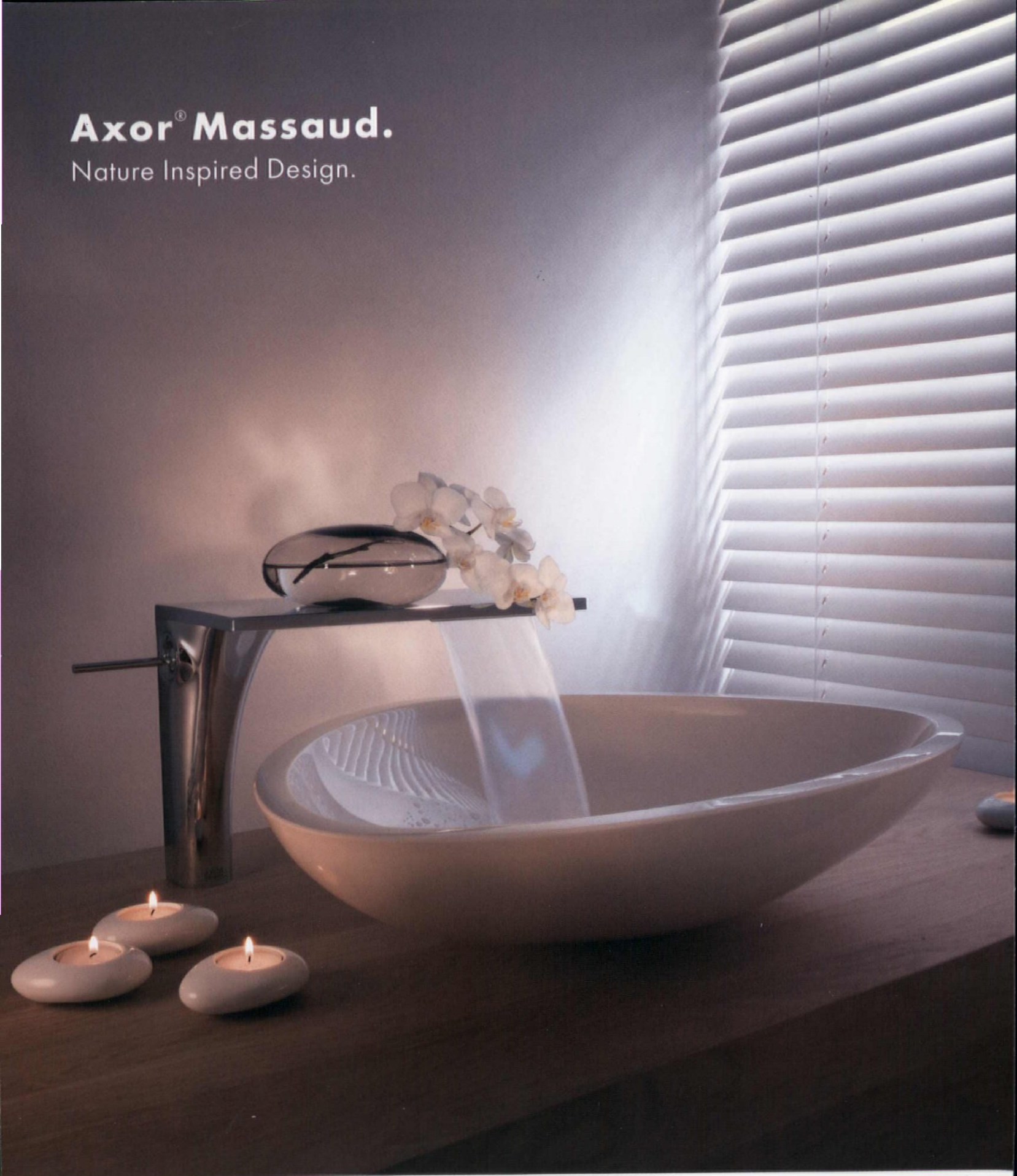
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