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visits the Royal College of  
Art's new studios, illustrated  
here with a photograph by  
Philip Vile (see p74)

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'I have to be playful,  
serene, open and  
emotional because  
that is how architecture  
is perceived'

**Peter Zumthor, p16**

'I am much closer to  
Peter Eisenman and  
Zaha Hadid than I am  
to Peter Zumthor'

**Steven Holl, p20**

'If we don't make changes  
and simply focus on  
the flood, we wind up  
as so many Canutes,  
bashing away at the  
relentlessly rising seas'

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'Delacroix's *Liberty  
Leading the People*  
over the barricades  
is presented as the  
culminating point of  
five-and-a-half millennia:  
Vive La France!'

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'A brand-new, €22  
million public building  
has the same throwaway  
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'Our digital lives are  
accumulating in endless  
fields of server farms,  
containing tweets,  
check-ins, Instagrams,  
porn banks, pokes and,  
now, floating icebergs'

**Liam Young, p96**



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**Selçuk Avcı** is the principal of Avcı Architects and co-founder of the development company Urbanista International. In *View from* he bemoans the disturbing unstructured building frenzy taking place in heritage-rich Istanbul

**Matthew Barac** is a senior lecturer at London's South Bank University and also our regular *Pedagogy* correspondent. This month he visits the Porto School of Architecture, FAUP

**Peter Buchanan** is a London-based architecture writer and lecturer. Former AR Deputy Editor, this month he expands the Big Rethink to encompass urbanism

**David Cohn** is an architecture critic and writer based in Madrid, and a frequent contributor to these pages. This issue he reports on the Contemporary Art Centre in Córdoba by Nieto Sobejano Arquitectos

**William JR Curtis** is a critic, historian of 20th-century architecture and author of such seminal texts as *Modern Architecture Since 1900* and *Le Corbusier: Ideas and Form*. This month he visits the new branch of the Louvre in Lens, considers the legacy of Fernando Távora in *Reputations*, and lambasts the lamentable judgement of the Mies van der Rohe Award jury in *Overview*

**Will Hunter** is the Deputy Editor of *The Architectural Review* and founder of Alternative Routes for Architecture (ARFA). Over this issue and next, he reports on changes to three London art and design schools: Central St Martins, the Royal College of Art and London Metropolitan – with insider knowledge of the latter two, having taught at them for the last few years

**Ayla Lepine** is an architectural historian and writer, and is currently a Fellow at the Yale University School of Sacred Music. Here she reviews a book by Darcy Grimaldo Grigsby on the colossal engineering projects of the 19th century

**Vasco Mourão** is an architecture graduate from Braga in Portugal whose obsessively detailed hand drawing of a fictional city incorporating real buildings appears in *Folio*

**James Pallister** is Senior Editor at *The Architects' Journal*. For the March issue, he writes in *Overview* on the enigma that is Peter Zumthor, this year's RIBA Royal Gold Medal recipient

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**Joseph Rykwert** is a distinguished architectural historian, professor emeritus at the University of Pennsylvania and author of *The Seduction of Place*, among many other books. He reviews a book on *Chinese Architecture and Metaphor* by Jiren Feng

**Alvaro Siza** started practising as an architect in 1958. He has designed many high-profile buildings, such as the Galician Centre for Contemporary Art in Santiago de Compostela, Spain. He was a colleague of the more senior Fernando Távora in 1950s and '60s Portugal and illustrates this month's *Reputations* which focuses on Távora

**James Soane**, who this month reviews a Tokyo townhouse by Ryue Nishizawa for our *Buildings* section, is director of Project Orange Architects and author of *New Homes*

**Michael Sorkin** is a critic, architect and Distinguished Professor of Architecture at the City University of New York. This month he surveys the wreckage of Hurricane Sandy in *Viewpoints*, and cautions against complacency in its wake

**Edward Wainwright** is an architectural writer and researcher, associate editor of *Architectural Research Quarterly*, and visiting tutor at the Universities of Sheffield and Newcastle. In *Overview* he looks into MVRDV's Glass Farm in Schijndel, the Netherlands

**Gwen Webber** is US correspondent at *Blueprint* magazine and a project assistant at the International Network for the Conservation of Contemporary Art. She visited the Storefront in New York for the *Think-Space: The Competitive Hypothesis* exhibition

**Austin Williams** is a lecturer in architecture at XJTU in Suzhou and author of *The Enemies of Progress*. In *Buildings* he examines a new development in Chengdu by Steven Holl

**Liam Young** is a lecturer in architecture at the Princeton University School of Architecture, and at the Architectural Association. He is founder of thinktank Tomorrow's Thoughts Today. This month he reviews *Frozen Relic: Arctic Works*, an exhibition documenting icebergs

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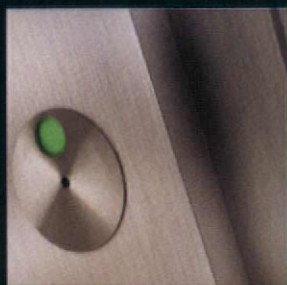
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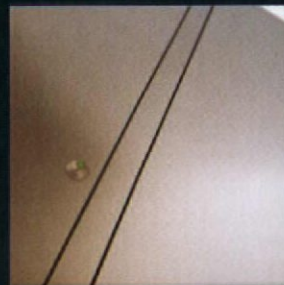
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# Editorial view

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**The power of culture to reflect the best aspects of humanity does not always save it from the worst**

The recent news that Islamist militants had set fire to the Ahmed Baba Centre in Timbuktu (p17), as they retreated into the desert after invading and occupying the northern part of Mali, came as a predictable but nonetheless dismaying coda to a short but nasty civil war.

As is often the case in such conflicts, it was characterised by a brutish intolerance of culture and history that did not conform to a narrow extremist worldview, terrifyingly manifest in the calculated destruction of buildings and artefacts. The Ahmed Baba Centre (AR April 2010) was originally designed to house a fraction of Mali's unique trove of ancient manuscripts, cultural treasures that illuminate past lives and eloquently express Africa's intellectual tradition. Through the written word and sacred sites (the remarkable mud mosques and shrines of Timbuktu and Djenné), Islam spread through north Africa. Now fanatics clamour to destroy in a day what has endured for centuries, a priceless legacy of books and buildings that reminds us of our common humanity. Around 1,400 manuscripts were lost in the conflagration, but fortunately the bulk of the collection was evacuated before the militants descended on Timbuktu. The building also survived. Books, as the Nazis could attest, burn more easily and more spectacularly than buildings.

Whether it's the Taliban using giant Buddhas for target practice or Napoleon's troops allegedly shooting off the Sphinx's nose, cultural vandalism is nothing new in itself. In the fog of war and its

aftermath, the urge to desecrate or proscribe the culture of your vanquished enemy seems to satisfy an innate primeval urge aimed at eradicating a sense of identity and memory. Often this can assume absurdist dimensions. Not content with blowing up the Buddhas of Bamiyan and banning female education, the Taliban also outlawed kite flying, chess, lobsters and nail polish, among other things.

Yet cultural vandalism is not just confined to the developing world. Eugène Delacroix's famous painting *Liberty Leading the People*, now relocated from its historic home in Paris to the Louvre's new SANAA-designed outpost in Lens, was crudely defaced by a visitor intent on gaining publicity for a 9/11 conspiracy theory. Brandishing a marker pen is clearly not the same as systematically burning 1,400 manuscripts, but it raises the issue of how to mediate the interaction between people and things, and the wider relationship between culture and society. 'We live in violent times, and some of this violence is directed against artistic patrimony', says William JR Curtis in his critique of the Lens Louvre (p28). As he goes on to observe, this kind of lapse surely calls into question the Louvre's mission to decentralise high culture by exporting it to the French provinces in a fashionably ethereal architecture that 'seems fragile despite its weighty contents'. More luxury goods shop than museum, SANAA's building shows that architects are equally capable of another kind of cultural vandalism.

**Catherine Slessor, Editor**



# Overview

SEVILLE, SPAIN

## Mushroom clouds

The Metropol Parasol in Seville has been shortlisted for the Mies van der Rohe Award. An outraged *William JR Curtis* wants to know why



WILLIAM JR CURTIS

The nominated Metropol Parasol, Plaza de la Encarnación, Seville by Jürgen Mayer H: urbane addition or hideous intrusion?

Architectural awards, like cigarettes, should carry the qualification that they can harm health, or at least the health of cities and societies. The Mies van der Rohe Award (or European Prize for Contemporary Architecture) is, according to its own publicity, supposed 'to acknowledge and reward quality architecture produced in Europe' and to offer 'both individuals and public institutions an opportunity to reach a clear understanding of the cultural role of architecture in the construction of our cities'. Maybe this soothing text requires some adjustment this year to read 'an obfuscation of the role of privatisation, financial interests and sensationalism in the destruction of our cities'? How else can you explain the presence in the recently announced shortlist (none of it inspiring), of the Metropol Parasol in Seville by Jürgen Mayer H which effectively wrecks the Plaza de la Encarnación in the historic core with a self-indulgent exercise in pointless form making and geometrical tricks?

Known locally as the 'poisoned mushrooms', Mayer's awkward structures destroy any sense of scale, vulgarise one of Europe's great historical cities and privatise public urban space with a shabby shopping mall below and a paying viewing platform above. Of course, the sexy promotional photos of the project avoid showing the shoddy construction of ungainly wooden fillets slotted into a banal concrete megastructure and the negative impact upon the surrounding domestic facades and upon what is left of the pavements at ground level. Meanwhile, several 'useful idiots' in the intellectually bankrupt 'theory scene' of American academia can be found chanting on and on about Deleuzian folds (without having seen the real thing apparently). But the central question is this: what on earth is this piece of techno kitsch, this shipwreck from the era of icons, doing on the shortlist of a prize that claims to promote architectural and urban quality? Doesn't this make nonsense of the Mies van der

Rohe Award? One has for some time suspected that choices are propelled by a cadre of curator apparatchiks who promote their national agendas within the European programme but without much critical sense: 'eyes which do not see'.

But the situation is worse than that. At the time of writing, the City Hall of Seville is considering how to get roughly four million euros back from the architect on the grounds that the project cost twice what it should (final figure 102 million euros) due to mistakes in the process of realisation (*El País*, Andalusia, 13/02/2013). Is this really the example that the Mies van der Rohe Award wishes to promote, particularly in a period of acute economic crisis in which Andalusia has some of the worst unemployment in Europe? Oddly enough Mayer still gets a platform in the USA, for example giving the first lecture of the academic year at the Graduate School of Design, Harvard University last September. By now one is used to the fact that



the fancy Ivy League schools are out of touch with social and political reality, lost in the cloud cuckoo land of 'parametrics', but there is no reason that the 'European Prize for Contemporary Architecture' should abandon any sense of responsibility just to serve the interests of a muddle-headed jury and a rather hopeless set of so-called 'advisors'. Yes let us please encourage 'a clear understanding of the cultural role of architecture in the control of our cities' first of all by censoring architectural pollution, secondly by not promoting trash with grandiose sounding awards.

**The next lecture in the series, on Architecture & Meaning, is on 12 March, with guest speakers William JR Curtis and Richard Wentworth. [architectural-review.com/ArchitectureAnd](http://architectural-review.com/ArchitectureAnd)**

## LONDON, UK

### Gold watch

*James Pallister*

Peter Zumthor is talking about sport. Probably tennis. Not that the type of sport particularly matters (though he does regularly take to the court to keep fit; you can imagine him in whites, crouched and rocking, waiting for the next serve to come). What he's getting at is a type of focus sportsmen develop, a 'relaxed feeling of concentrating, but not concentrating ...' analogous to the relaxed concentration from which good design can originate.

Interviewed at the RIBA on the occasion of being awarded the Royal Gold Medal, Zumthor elaborates on keeping his approach to architecture simple: 'I want to please people with my buildings unconsciously, emotionally. That's all. I don't want to lecture them.' But this requires an openness: 'That's where the sportsman's focus comes in, says Zumthor: 'In judging what I am doing I have to be playful and serene and open

and emotional because that – as we all know – is how architecture is perceived, not in an abstract.'

He's not afraid to take his time: 'Sometimes it's hard to get there because I can tell something is missing. I have to be honest with myself. I have to tell the client maybe I am not yet ready, please be patient for another one month or two or year, then you will have the rewards'.

How do you convince clients that it's worth taking the extra time? 'By quality. One client once said, at a time when things were difficult: "Your best argument is the finished building".' At his lecture later that evening he was asked how his buildings relate to the architectural canon? He doesn't really care, after all, he isn't 'a typological architect'.

It can all seem counter to how many architects exist. Surely developing the focus, the patience and the sensibility to minutiae, his work comes from a slower pace, an appreciation for the finer, slower things in life: knowing the importance of sitting down for a nice cup of coffee, a meal which has been prepared with care on a favourite plate, that sort of thing. How can architects develop that when their professional lives require them, in London at least, to spend all hours working?

For Zumthor it's up to the individual: 'I customised my practice in the way I wanted to work. I think everybody can do that. You can always say "This is how I want to work" and let's go from this. This is my approach.'



**RIBA Royal Gold Medallist Peter Zumthor**

Getting away from it all has worked for him. His studio is in Haldenstein – a village on the outskirts of Chur. Not a lot happens in Chur. One visit, I was eating an illicit sandwich in the town square on a Sunday, the first reaction which dawned on me is that Swiss etiquette meant I shouldn't be doing this. The second was that it may be the most illicit thing that has happened in the town all year. With its town square, cake shops, churches, and Valerio Olgiati-designed entrance ramp to the small but grandly-named Graubünden Parliament, Chur is but a buzzing metropolis compared with Haldenstein, where Zumthor lives, has his studio and has produced the work that won him the Pritzker.

Zumthor worked for the preservation of monuments trust for over a decade. Mindful of his long tutelage, I tell him about a novelist friend, who went off to writing school as an eager graduate and was told to go away. Live life, fall in love, have your heart broken, sleep with some men, she was advised. Then come back. Was there an equivalent for architects? Zumthor laughs. Not quite, though many of the students who pass through his studio could do with loosening up, he says. 'In the training to become an architect there is certainly too much emphasis on the abstract: on the correct theory, on the correct idea or the correct concept and sometimes that stays very abstract and has nothing to do with real life.'

He echoed this concern the day after, when he was guest of honour at the President's Medals crit. After a particularly obtuse project was presented, he commended the drawing skills but noted: 'The tendency to become a little too abstract and theoretical leads to a situation where no one can use these guys to build buildings'. Fair point. But ever amiable, he pointed out '...but you can also be a professor or a philosopher – these are also good professions!'

## TIMBUKTU, MALI

### Damage limitation

*Catherine Slessor*

The recent invasion and occupation of the northern part of Mali by groups of Islamist rebels brought havoc to the region. The imposition of a particularly draconian form of Sharia law was accompanied by the wanton 'purging' of cultural sites and artefacts deemed at odds with the extreme Islamist views of the occupying Ansar Dine, the so-called 'Defenders of the Faith'. This began with the razing of ancient shrines of Sufi saints (the Sufi version of Islam being considered especially idolatrous) and culminated in the Ahmed Baba Centre in Timbuktu being deliberately torched as the militants were finally driven out of the city by French troops at the end of January.

Reviewed in the AR in April 2010, the Ahmed Baba Centre was purpose built to house a unique collection of Mali's historic manuscripts. Covering an array of subjects from poetry to astronomy, these fragile, calligraphic treasures testify to the richness of Africa's cultural and intellectual past, challenging the commonly held notion that the continent could only sustain an oral tradition. Ironically, in view of recent events, many were polemical tracts on issues such as slavery, divorce and the possibility of peaceful coexistence between Christians, Jews and Muslims. Now part of this priceless heritage is lost forever.

Between the 12th and 16th centuries, Timbuktu became an important centre for commerce through the trading of gold, salt, ivory and slaves, and quickly coalesced into a vibrant, multicultural city. This pluralistic society attracted thousands of scholars, transforming Timbuktu into the pre-eminent cultural locus of Muslim Africa. Today some 700,000 manuscripts are estimated to exist in various





The charred remains of ancient manuscripts at the Ahmed Baba Centre in Timbuktu

libraries and private collections, but as Mali is desperately poor, preservation efforts are largely dependent on foreign aid.

The Ahmed Baba Centre was a joint venture between Mali and South Africa, initiated after a visit in 2002 by South Africa's then president Thabo Mbeki, whose government donated funds to assist in the research and archiving of Mali's written heritage. Two South African practices, DHK and Twothink Architects, collaborated on the centre's design with local firms.

Project architect Andre Spies of Twothink talked exclusively to the AR from Cape Town. 'Of the 30,000 manuscripts in the centre's collection most were evacuated to Bamako [the Malian capital] as the rebels advanced on Timbuktu', he said. 'Some 2,000 were left in the building and of those around 1,400 were burnt and destroyed. But the archive is subdivided into a series of smaller strong rooms and somehow one of these remained undiscovered by the militants, so about 600 of the manuscripts survived.'

'Fortunately, damage to the building is not as severe as reported by some South African and other international media', he continued. 'The fire affected the documents rather than the building. Water damage was

worse; taps were opened in the male ablution area and water poured down into the basement archive. My main concern now is that the surviving manuscripts need to be kept in strictly climate-controlled conditions, with a very low level of humidity. Moving them to Bamako will subject them to a potentially harmful hot and humid environment. But at least they are safe for the time being.'

However, as impoverished Mali struggles to recover its equilibrium, the nuances of heritage preservation would seem to be a low national priority. And as the militants, mainly Tuareg tribesmen, have dispersed into the desert rather than being definitively routed, they may attempt to regroup and launch further assaults. Parts of Timbuktu's old town have UNESCO World Heritage status and could still be at risk if the conflict reignites. During their tyrannical tenure, Ansar Dine radicals threatened to destroy the three great mud mosques of Djingareyber, Sankore and Sidi Yahia, even though these sacred sites played a pivotal role in the early Islamisation of Africa.

Burning books, a dependably despot act with many resonant historical precedents, clearly proved a much easier option.

## SCHIJNDEL, NETHERLANDS

### A touch of glass

Edward Wainwright

First impressions can be deceptive. Questions are raised. Why is a barn encased inside a glass casket? Or a built version of a computer game model ensconced in the middle of a Dutch market-town square? And why are the walls peeled away to reveal the interior of a modern shop unit, or café? In Western towns and cities, we've become accustomed to the fritted-glass facade explicitly revealing the interior world of the office, the pumping autoeroticism of the city gym, and the extreme lucidity of the apartments of the hyper-wealthy. We've grown so used to the transparency, the openness of glass and the clarity of tectonic meaning that the shock of the opaque brings into sharp focus glass's inherent ambiguity.

Completed in January, MVRDV's Glass Farm in the Dutch town of Schijndel articulates the uncanny potential of the material that has, largely, lain dormant throughout much of Modern architecture's recent history. Glass – enabling the enlightenment triumvirate of openness, clarity and lucidity – is the very harbinger of the transparent. It has come to connote the democratic process (if you can see it, you can change it, goes the unspoken maxim of many a parliament building).

What contrast, then, the illusion of opacity imprinted on the all-glass envelope of this community amenity building in a Netherlands' town square.



Skin deep: MVRDV's barn-printed glass

Taking the form of a traditional Schijndel barn, multiplied 1.6 times, the facilities of the Glass Farm (wellness centre, shops and cafés) are enclosed in 1,800 metres of fritted glass-facade, printed with the representation of an archetypal regional farm – the perfect image of a non-existent reality: a compelling simulacrum (a copy of an original that never was) in glass and steel.

'Augmented history' is how MVRDV term the outsized scale and composite imagery of the facade (composed of photographs of all remaining Schijndel farms): a barn door is four metres high, bricks appear unusually larger than one remembers them to be, and we are transported through the looking-glass into a confusing realm of scale, translucency and material ambiguity. With 'augmented reality' (the digital overlay on the material world) becoming increasingly common, and the boundaries between the virtual and actual blurring, a building like Glass Farm asks intriguing questions of surface, depth, material and meaning. Here, the technical expertise of the complex curtain wall (engineered to within an inch of its life) is subsumed by the expressive possibility of a material that can passively glow; that can reveal and hide; that can expose and conceal. Style becomes just surface deep, second to spectacle, and history gets repaired – made to be the perfect, ideal, archetypal form it really should have been.

Glass Farm could be read as a truly 21st-century building. A direct product of the logic of Google Images, of Bing Maps, of Photoshop and the digital mash-up. Its historicist playfulness and background technological achievements have brought back to the use of glass a sense of colourful narrative – albeit one of indeterminate meaning – much as stained glass has done for centuries, and inflected the transparent with that most meaningful of commodities: ambiguity.

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# Interview

## Steven Holl

As the AR features Steven Holl's new building in China (p50), *Emmanuel Petit* talks to the American architect about poetry, Wittgenstein and the futility of philosophy in a world of rapid change

**EP:** One of your most recent projects is a mixed-use urban building in Chengdu, the Sliced Porosity Block, in which you put architecture to the service of a series of urban ideas. I am curious to hear you articulate your thoughts about what constitutes a good human environment, how you create the ingredients of a 'micro-urbanism' in this project, and what your attitude is towards the Chinese City?

**SH:** There are 1.3 billion people in China, and right now, the country is going through the most radical transformation of its political, social and urban structure in its very long history. I never set foot in China until 2001. Before then, in Asia, I had only been to Japan (over 60 times for two of my projects), but never to China.

What fascinates me about China is that there is more poetry written in that culture than in all the other civilisations combined. The first book of poetry that was ever given to me was an anthology of Chinese poetry entitled *The White Pony*; and interestingly, its editor, Robert Payne, claimed that if you want to understand a people, you must first understand their poetry. That's how I started when I went to China.

My first project there was the Nanjing Sifang Art Museum, to be followed by the Linked Hybrid Towers in Beijing, then the Vanke Center or Horizontal Skyscraper in Shenzhen and the Porosity Block in Chengdu. Now, Chengdu is a city of 10 million people; it is thus bigger than almost all of our cities in the United States, but people here don't know about it. And our project is right next to the centre of Chengdu – it is a bit like what 5th Avenue and 60th Street would be in New York City.

I have written about urbanism and public space, and so my goal was to question the developer formula, according to which two towers – one residential and one office – sit on top of a flat shopping mall. We wanted to take their programme and use it to shape urban space.

So we moved all the volume to the perimeter and made a big public space in the middle; we did not want any blank walls where you meet the street, but insisted on a sense of porosity on the edges of the streets. We then broke a giant hole in every one of the main facades and inserted a smaller building inside them to mediate between the 32-storey buildings and the human scale. We carved a series of gigantic pieces out of the section and

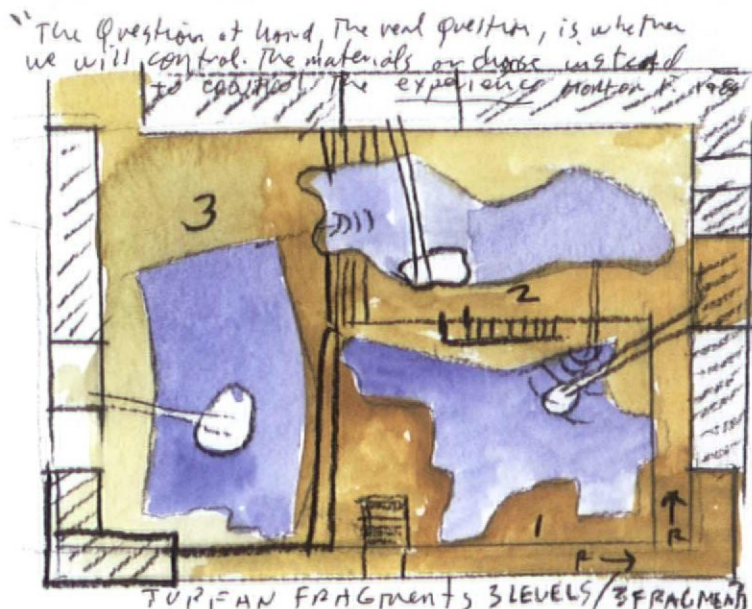
inserted smaller buildings in them – like for instance the history pavilion, where you can visit the history of the site. For the public space in the middle, we activated the narrative of a poem by Du Fu from the year 745, and introduced the idea of three valleys, with their cascading fountains and green areas.

Many of my observations about urbanism are based on Greenwich Village, where I live and where you can walk in any direction and find cafés, restaurants and shops. The length of a New York City block is 200 feet, and it is important that the city allows you to cross through buildings or blocks every once in a while. The Manhattan grid is extremely effective this way.

In Chengdu, you can penetrate the block from many different entry points; each of them has a particular character.

**EP:** Your Chengdu project is based on the rationalist and traditional urban typology of a perimeter block, which is then, however, sliced by a series of expressive cuts which fragment the initial diagram.

I feel that one can extract from this double strategy your affinity with the rational architecture of Aldo Rossi, and, at the same time,



**Left:** Steven Holl's sketches for the Sliced Porosity Block in Chengdu quote Morton Feldman's question: 'will we control the materials or choose instead to control the experience?'

**Right:** Holl rejected conventional tower-and-podium groupings, submerging the ground floor levels to create pavement level space



with the abstract expressivity of Carlo Scarpa.

Rossi always reconfirms unchanging architectural type-form, while Scarpa never closes spatial figures and always opens form to alternative figures.

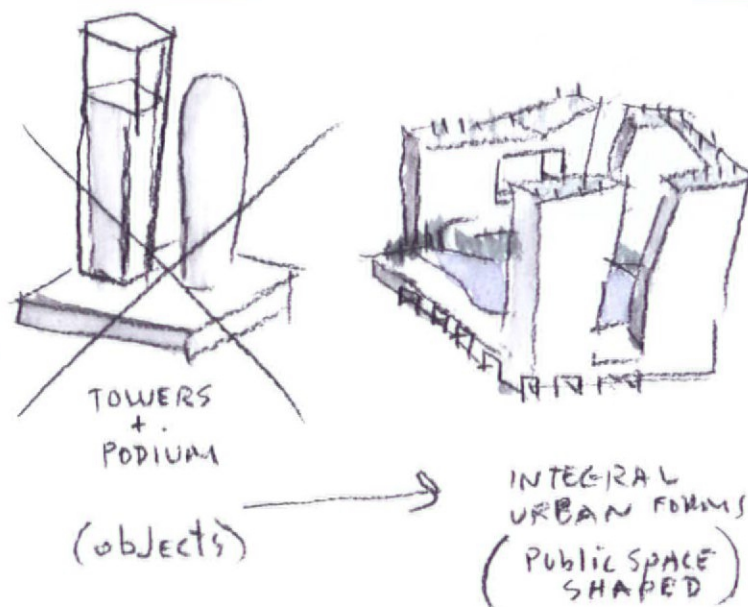
How does your architectural poetry relate to these seemingly incompatible sensibilities in architecture – to the strict and metaphysical poetry of Rossi, on the one hand, and the lyricism of Scarpa, on the other? It seems that John Hejduk should also be mentioned in this context of poetry; for him, architecture granted access to the realm of angels. Your poetry is more abstract and less mythifying ...

**SH:** In the Porosity Block, the light does the slicing, and so does the building code. In fact the cuts assure that every part of the block and the context get maximum light exposure – which is regulated by the local building code.

But it is true that poetry is the most important part of my life. And I loved Aldo. We became friends; I met him in his studio in Milan around 1979. He was a poet. There is a sense of the ineffable in some of his early work. Just look at those black shadows in his drawings. But when I made a pilgrimage to his Gallarate and his Modena cemetery projects, I was disappointed, because he cared more about his ideas than about the actual construction.

That is why Scarpa, to me, is ultimately more important. He was one of the great architects. There is a lot of emotional intensity in his work, and you can always go back to his architecture and see something new. He has a great sense of materiality and an understanding of detail vis-à-vis how things are made. And the tectonic joint is so important to Scarpa.

In the end, the real singing of the song has to come out in the movement of the body through the actual space. But there needs to be an idea which drives the



design. I am on both sides of the fence that way. I think this is also evidenced in our Chengdu project. Certainly the best way to understand it is to experience the dynamic quality of the space.

And for sure Hejduk was an enormous influence – he was a great man. Poetry is at the heart of architecture. I was mesmerised by John; he was so important to me. Especially his Half-House and the Wall Houses: they were incredible things to me.

And Le Corbusier cannot go unmentioned. Especially his La Tourette monastery. I stayed there four times in some of the monk cells. I think it is his greatest work. I also like Ronchamp, and the church he did with José Oubrière [Saint-Pierre in Firminy]: those three works contain the most subjective impulse of Le Corbusier. In those, you can see many dimensions, and there is always this ineffable space. I never tire of going back.

**EP:** Returning to the Porosity Block, the geometry of the exterior facade evokes the structure of your Simmons Hall project at MIT. What was the architectural intention behind the homogeneous appearance in both Cambridge and Chengdu?

It seems like you are giving tectonics a modern upgrade.

**SH:** The Porosity Block is currently the largest exoskeletal loadbearing concrete structure in China. Its white coloration reflects the light and lights up the buildings at night.

But let's talk about tectonics. We hear that it is the end of tectonics because of digital fabrication. If you don't make anything larger than a boat that is probably true; the digital has supercharged things to the point where we can imagine enormous fabrications which have no joints and which are continuous and smooth.

But I am going to give you an example, and that is the Boeing Dreamliner. When they turned the fuselage of the Dreamliner into carbon fibre as a continuous piece – a brilliant breakthrough in aeronautical technology – the big problem came in the tectonic joints between the fuselage and the wings, and that is where they lost two and a half years in the production of the Dreamliner. As far as I am concerned, that proves that tectonics will never disappear.

We too are presently making six gigantic digitally-cut stones,

where there are no working drawings; everything goes directly to a five-axis cutter in Lecce, Italy, and it will be delivered and installed in Milan.

There will have been no working drawings exchanged and there will have been no trips to the factory. That's going to be the future of architecture: we will eliminate working drawings, but we will not eliminate tectonics.

**EP:** You describe yourself as a phenomenologist; you refer a lot to Maurice Merleau-Ponty – the philosopher who published *Phenomenology of Perception* in 1945. Can an architectural phenomenon ever speak for itself?

**SH:** No. I definitely believe in ideas driving a design, and that makes me different from the people who pretend to be phenomenologists. I am very different from them: you must have an idea to drive a design. I am much closer to Peter Eisenman or Zaha Hadid than I am to Zumthor. Le Corbusier always had an idea; and so did Louis Kahn. That's for me enormously important. I also believe that you don't need to know what that idea is to appreciate a building.

I agree with Ludwig Wittgenstein, when he said that there is no such thing as phenomenology, but only phenomenological questions. Wittgenstein said that ideas are like ladders: they get us to a platform, and when we arrive there, we can kick the ladder away. I think that is really a great statement. In Wittgenstein, every statement is a question. *Remarks on Colour* is a book on all kinds of questions.

I think the time we live in is so full of change, and that you cannot have a philosophical position in such a situation in which change is so dramatically unpredictable. This is particularly the case in China. So all you can do is to ask questions; and that is what Wittgenstein did.





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# View from...



An economic boom, earthquake laws requiring swathes of regeneration, and constraints of time and budget are a toxic mix for Istanbul's heritage

BURAK PEKAKCAN/BETTY IMAGES

## Istanbul, Turkey

Turkey's booming economy is ripping out the cultural and historical heart of Istanbul, laments *Selçuk Avcı*

Turkey is a 'European' country rare among its peers in having a booming construction industry. It has shed the late 19th-century accolade of being the 'Sick Man of Europe'. The rate at which huge chunks of city are being developed is scary, not only because there is a sense of 'where is all the money coming from and who will ultimately buy it all?', but also, 'are we taking enough time to think this through?'

Istanbul is one of those rare cities, with a silhouette not unlike New York, Paris or Florence, made indelibly memorable by its skyline of beautiful mosques and minarets that still decorate its hills today. But you only have to look a little further beyond the Byzantine/Ottoman old city and you immediately encounter the marching of skyscraping stumps with no distinctive shape or form; just large lumps of dumb concrete and curtain walling. I look from my window over the Bosphorus every morning to regret this loss, and am frustrated that this will never be erased, even by the huge earthquake – God forbid – that everyone is fearfully expecting to hit. New buildings are constrained by such stringent earthquake building regulations that very few architects dare experiment with form.

I lament every day that architects are cutting each other's throats with fees so low

they have no budget for the time required to design reasonable buildings, let alone time to persuade their clients about cost benefit or aesthetics and who are therefore themselves to blame for this rapid loss. This is keeping out international competition, which benefits no one. Look at London's skyline, which despite its relative wealth, is now endowed with some very beautiful tall buildings.

To add salt to the wound we are endowed with an extremely successful government, which rules almost all the metropolitan areas both centrally and locally and is eager to continue to build at as rapid a rate as possible to maximise this precious seam of economic growth. Turkey is, in short, being destroyed street by street, at such a rate that I really truly wish we did not have this economic boom right now, when our system of local government, its civil service, and its operators are simply not sufficiently trained to cope with this rate of rapid change. To add more salt to the wound, we don't see the damage that we architects are doing to ourselves and our cities by undercutting each other.

This is indeed a paradox in a growth economy where you would expect to see fees rising. Investor clients, beyond the rare few, do not understand this paradox and don't mind making even bigger profits from developments where they could

easily pay more for a better service from our competent, just time and budget poor, architects.

Turkey has great architects, many as worldly wise and capable as any competing on a global scale, some winning awards. But they look no further than the boundaries that are drawn for them by equally great contractors, who take them on design and build escapades beyond the borders of their own country, where they are able to do their better work.

The earthquake laws have brought another opportunity: a string of urban regeneration schemes that will enable swathes of the city to be rebuilt. The regeneration law that was passed through parliament late last year, allowing developers to gather a minimum of 70 per cent of local residents' signatures to get carte blanche to demolish and rebuild whole neighbourhoods of the metropolitan areas, is the great opportunity that the country was waiting for. But this opportunity will dwindle away faster than you can say tomorrow, when more concrete stumps will be dotted along the skyline. UK architects and urban designers should take note: despite the ridiculous fees, this is an opportunity that they will never find elsewhere, especially in their own country, to create on a scale that is unimaginable. I am calling to all of you everywhere to come and contribute to this great boom.



# The Architecture Foundation

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# Viewpoints



MICHAEL SORKIN

## Beyond new flood defences we need new ways of living with nature

One of the unexpected outcomes of the damage inflicted by Hurricane Sandy has been a remarkably sanguine response from our public officials, a frank understanding that the city must urgently fortify itself against rising seas and energetic storms. Surprising, too, is the broad consensus that this was a largely anthropogenic disaster and that we risk repetition if we don't deal with questions of defence and of habit: it's little disputed that we can no longer live as we have.

Technically, flood protection isn't exactly rocket science. The most difficult issues are distributive, matters of equity, of how we apportion risk and repair. As after Katrina, the discourse includes triage, whether to protect or evacuate those in harm's way, raising fundamental questions of the nature of habitability, and the right to it. But we are also in the midst of a broad epistemological shift – a re-understanding of our relationship to 'natural' forces – recognising that events like Sandy are a symptom of a climate change with a trajectory that could take centuries to reverse and that it's therefore myopic to engage event-based, local protective measures without a vigorous attack on the roots of the problem. Unless we radically reduce the number of Buicks on the road, stop the inexorable rise of coal power, halt the global assault on our forests, and get the temperature down, we're fucked.

Given the failure of the international community to act decisively, we are obliged to make more concerted efforts at home,

even if this risks discharging an ethical duty without much impact on the global environment. Architecture must lead as building is the source of about 75 per cent of greenhouse emissions, calling for radical changes in how we heat, cool, and light our structures, construct them, move between them, and in what we consume within them. Our progress is real but painfully slow. But if we don't make these changes and simply focus on the flood, we wind up as so many Canutes, bashing away at the relentlessly rising seas.

The current conversation is split between partisans of two approaches to flood mitigation: soft and hard. This division is both sentimentalised and politicised in ways that are instructive but risk being unproductive. Most *bien pensant* environmentalists take the position that more 'natural' forms of intervention are preferable to the machismo of massive constructions, of dams and dykes and giant barriers. Surely we do need more soft systems, even their eventual takeover. Pavements must become porous, bioswales should snake through town, roofs should become green, oyster beds and wetlands should be restored and extended, flood zones abandoned. But, there are obvious limits on the ability of natural systems to offer protection. A standard rule of thumb for the capacity of coastal wetlands to mitigate storm surges is that a mile of wetland is required to attenuate a foot of ocean rise. A wetland extending 20 miles into the

Atlantic and filling Long Island Sound is not entirely practical.

New York requires a canny combination of tactics of resistance and of acceptance. On the hard side, we need defences along our coastlines and the growth of more amphibian forms of architecture, including the elevation of buildings and vital installations above flood level. We must also retrofit buildings for survivability via distributed forms of infrastructure that will allow far greater resilience and much higher levels of local autonomy in both emergencies and in normal civil life. And we will surely need some big, Dutch-style, moves. I'm still agnostic about the particulars of the massive flood barriers currently being proposed. Will a huge floodwall across the bight from New Jersey to Long Island actually protect the city from surges? What will be the consequences on either side of the thing from the displaced water? No barrier can protect us from permanently rising seas. But we must act decisively and, although it will cost a fortune, questions of expense recede before what will surely be at least \$100 billion worth of damage from Sandy, a staggering amount that makes the critique of such huge interventions – from the angle of proportionality – moot.

The need to think radically is clear. The climate scientist Klaus Jacob – observing the large territory on the high ground of Queens occupied by cemeteries – has suggested the logic of switching the dead and the living. It's a reasonable thought.

## LAST WORDS

'How can anything like culture exist in this stream of Photoshopped incontinence?'

**Sam Jacobs hits out at the uncritical publishing of press releases by Dezeen in his new column on ... Dezeen, 24 January**

'The wall looks like a design feature from a men's loo. Frankly I didn't know whether to rest upon it or pee against it'

**Jay Rayner on David Chipperfield's redesign of the 'once-great Café Royal', *The Observer*, 10 February**

'Would any other profession do this?'

**Jeremy Till notes the 'shameless' self-regard of Ando, Tschumi, Libeskind, Pelli, and 11 others who voted for their own work in *Vanity Fair's* poll of the most significant buildings since 1980, *Twitter*, 27 January**



# Your views

## Hot-desking in the dark satanic mills

My employer has recently moved premises, and my resulting disorientation made the AR's *Revisit* of two office buildings in Sacramento last month particularly resonant. For me, the most pertinent finding of the investigation was the ineluctable irrationality of the workplace throughout its historical mutations, as it reeled about in response to changes in the economy, medical science, organisational fashion and public ethics.

In this regard the Bateson Building was a kind of concrete weathervane, its constant gyrations making visible the buffeting winds of unreason. Built in response to the oil crisis of the '70s, designed to symbolise (but not to actually enact) the ludicrously optimistic 'integrated systems' of cybernetic theory, and mutilated in response to a health scare (the mass panic over Legionnaires' Disease, which led to the closure of its air-con system), the Bateson Building is a monument to bureaucratic folly.

My own experience suggests that this folly has only worsened in recent years: as job security has been whittled away, any residual landmarks in the *Bürolandschaft* have been eroded to create a wasteland of team pods and hot-desks. Like Patty Hearst imprisoned in her wardrobe, contemporary office workers are constantly shaken about in their glass boxes until, disoriented and desperate, they are willing to accept any old *schmegegge*; in this case, post-Fordist 'rationalisation', the enslavement of interns, and the end of full-time, permanent roles paying a living wage.

Funnily enough, it was the architecture of Fordism – Albert Kahn's vast free-planned hangars – that led to the demise of Fordist labour. When the free plan was applied to the office, it removed all privacy and permanence, and made efficient working relationships (and concentration) impossible.

**John Goldstein, Milwaukee, by email**

## Lorenzo was a drag queen?

Paul Davies's rollicking ride through Brunelleschi's biography (AR February 2013) was certainly entertaining, but might have benefited from a lengthier gestation period. His repetition of conventional myths suggests only a glancing acquaintance with Brunelleschi scholarship (a look at Howard Saalman's introduction to the Antonio Manetti *Vita* would have revealed the shaky foundations of some of these stories). Crowning this imaginative reconstruction is Davies's bizarre insinuation that Brunelleschi and Donatello were lovers; I might as well claim that Lorenzo the Magnificent was a raging drag queen – I've got just as much evidence.

**Candy Spender, New York, by email**

## Follow the money

The debate in these pages about education (AR October 2012) prompted me to make the following observations. Currently, architects have very little control over how buildings are built. I would submit that the only way architects can truly influence the built environment is by procuring it themselves.

Not only should architects design buildings, they should also steer their financing and construction: the architect as builder and patron. Consider how well placed architects are to identify and leverage development opportunity (especially complex inner-city, brownfield projects that most developers would see as more trouble than they're worth). The whole basis of marketing our professional service these days revolves around the value added to a development by availing of our expertise: why not put our money where our mouth is?

What I suggest is that the architect pursues a more

innovative career pattern by becoming the leader of a fully integrated, closed-loop (but not insular), business model.

Architects by nature and training are highly risk averse but it is essential that we become more entrepreneurial. The process of transfiguration would start by providing architectural education that teaches both construction management skills, economics, business administration and ethical corporate governance; even in our typical mode of practice we are exceptionally weak in these areas.

The default mode of practice would be as a design-build manufacturer which would fund future moves into development (a logical division of labour would be required of course, but always within the architect's role). At the first opportunity autonomy should be sought from the service provider role.

This will require a more cavalier attitude to business than we are used to, but there is precedent of varying degree for what I am suggesting; in terms of architect as builder we have Frank Lloyd Wright's apprentices who took on the role of construction manager for his Usonian houses. For architect as developer/promoter we have Eric Lyons with Span Developments who produced some excellent examples of high quality, highly progressive, speculative housing.

Some will react to this by citing examples of financial disaster which befell many architect-speculators in the 18th and 19th century or by forewarning the death of any remaining altruism or idealism in architectural design if one of our main goals becomes the pursuit of filthy lucre. I would leave you with a final question to address this: if developers were trained as architects, would we have now a better or worse built environment? I would strongly argue that it would be better.

**Kirk McCormack, comment on AR website**

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# ART THROUGH THE LENS

Despite its trophy architecture, the Louvre's new provincial outpost raises questions about its wider mission of decentralising high culture





**Musée du Louvre,  
Lens, France,  
SANAA**





# CRITICISM

## WILLIAM JR CURTIS

This provincial outpost of the Musée du Louvre in Paris stands on the outskirts of Lens, a dreary ex-mining town with a good football team and the highest slag heaps in Europe. It is an unlikely place to discover masterpieces by Leonardo da Vinci or Delacroix, or to inspect antique Roman statues and Islamic ceramics, and it represents a daring exercise in decentralisation and cultural outreach. In theory, the Louvre Lens will in turn generate economic gains for the town and the surrounding region of the Nord-Pas-de-Calais. A certain paternalism is here combined with calculations that were surely influenced by the Bilbao effect. As it happens, the new building opens its doors at a moment of acute crisis in which hundreds of jobs a day are being lost from the industrial sector in France. The shining vision of SANAA's silvery minimalist sheds floating over a reconstituted landscape on top of a disused mine represents a gesture of extreme optimism in the face of dark realities confronting the post-industrial economy. The people may or may not want art but they most certainly need jobs.

The Louvre Lens is disposed in five roughly oblong pieces strewn across the flat landscape rather like boats at anchor in a stream which tugs them in slightly different directions. The moment you rise from the road up a slope

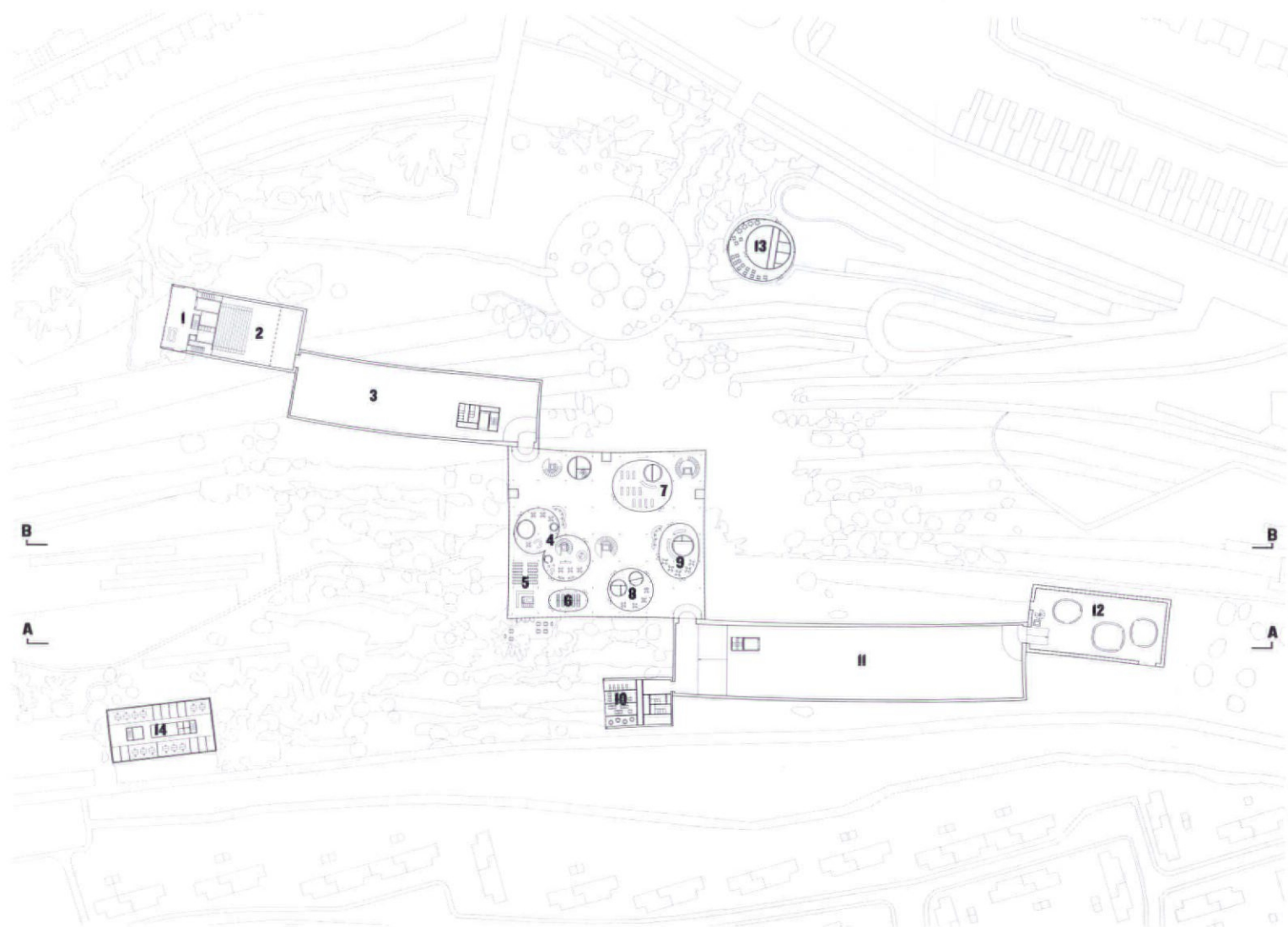
between walls of rough earth and pebbles you grasp how the building is conceived as part of the plateau. The foreground established by the landscapist Catherine Mosbach includes meandering paths recalling the geometry of mine shafts while the small hummocks of grass and curved cuts in the concrete anticipate the free-plan curves inside the transparent parts of the structure. The two main exhibition sheds are clad in partly reflective aluminium and this catches the vast northern sky while successfully diffusing the light. I first saw these walls in rain and they reacted sensitively to the grey atmosphere. The public route towards the glazed public hall and main entrances is clearly signalled by the pattern of pathways. The exterior concrete surface continues on the interior as a smooth floor. The space flows easily into the lobbies with their slender white pilotis and curved glass partitions containing bookshop, restaurant, information centre and the like. Nothing new about this: it is the usual SANAA recipe representing a fusion of Miesian transparency and the Corbusian free plan.

The glazed lobby area feels as if it belongs to the wider landscape, an effect redoubled when humps in the surrounding park seem to rhyme with the artificial mountains of slag heaps in the distance. On some subliminal level you are touched by the contrast and interaction between metallic materials and natural minerals. The choices of internal circulation are spelt

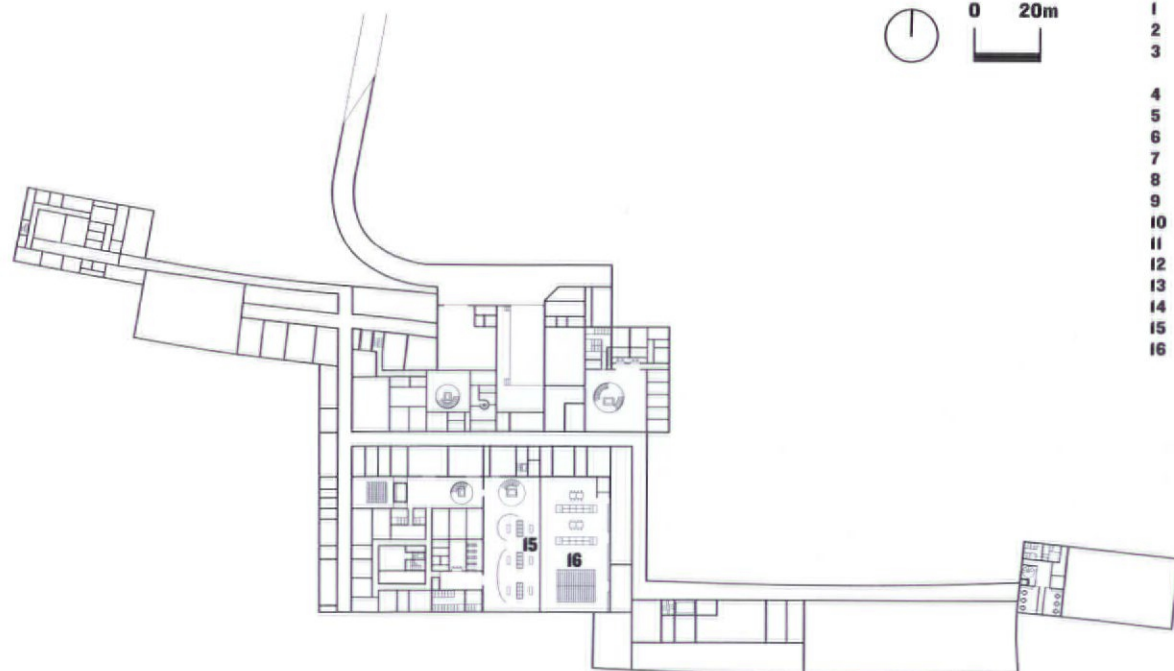
## Musée du Louvre, Lens, France, SANAA

1. (Previous page) austere landscaping by Catherine Mosbach alludes to the industrial slag heaps that tower over the town  
2. From the air, these black pyramids dominate the landscape. The museum's series of delicate pavilions is a conspicuous presence amid an urban texture of repetitive residential units





ground floor plan



lower ground floor plan



- 1 foyer
- 2 stage
- 3 temporary exhibitions
- 4 resource centre
- 5 cafeteria
- 6 picnic space
- 7 bookshop
- 8 visitors' bubble
- 9 members' bubble
- 10 workshop
- 11 temporary gallery
- 12 glass pavilion
- 13 restaurant
- 14 administration
- 15 discovery space
- 16 archive











out by the architecture. Either you turn right into the closed and toplit hall for temporary (paying) exhibitions, or you filter off to the left into the (free) great Gallery of Time in which the objects loaned from the Louvre in Paris are on display. The temporary exhibition hall is an entirely adequate shed for showing works of art and objects of all periods, materials and sizes, especially since its scale is broken down by temporary partitions working as a secondary system of compartments linked along a route through wide openings. Currently there is an exhibition about the Renaissance which is beautifully installed to reveal works, objects and treatises at their best under a mixture of artificial light and natural light filtered through ceiling louvres between slender steel cross beams. The exhibition designer has also used colours such as Pompeii red and deep blue in combination with greys and off-white to establish a sequence of perspectives which enhance the objects on display while enlivening the overall space and luring the visitor from one section to another. Near the entrance is a lateral slot with benches which allows one to inspect Leonardo's astounding *The Virgin and Child with St Anne* at one end and Titian's magisterial portrait of *François Ier* at the other.

By contrast, the vast Gallery of Time, over 125 metres of uninterrupted exhibition space bridged by thin steel beams and flanked by the same sort of aluminium surfaces as are used outside, raises a lot of doubts concerning both the architecture and the museum installation. The official line promoting this 'museum without walls' is that this is a universal corridor of history in which works can be compared laterally with ones contemporaneous with them from other societies. Henri-Loyrette, President Director of the Louvre, likes to quote the French author Charles Péguy: 'the long and visible progression of humanity'. This sounds all right in theory and there is even a line on the wall marking the millennia and the centuries from ancient Egypt all the way to Delacroix, a sort of potted version of the history of art in several easy steps. But even this chronological model breaks down when one reflects

that 'time' in history has different meanings in say the Western and Islamic worlds, or in Ancient Rome and Mesopotamia, including different starting points, myths of origins, destinies and cosmologies. The fact that three works are all produced around AD800, for example, is not necessarily a sound basis for meaningful comparison. The idea of a museum representing 'humanity' of course derives from the French 'Lumières' or Enlightenment, but this rhetoric also comes in handy as a way of covering up the role of past French (and indeed European) Imperialism in the acquisition of objects, for example from Egypt, Ancient Greece and the Middle East. The shadow of Napoleon still falls over the Louvre just as the shadow of Elgin falls over the British Museum.

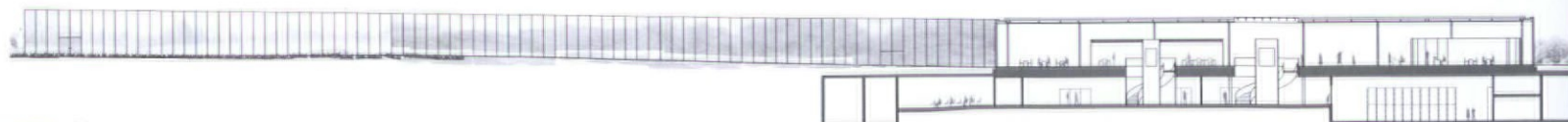
In reality one experiences the works in the great space as a sort of jumble of individual incidents in which totally arbitrary connections are made between foreground and background. Far from conveying a grand historical progression, the installation suggests a post-modern arbitrariness. The visitors wander around with audio-guides close to their ears listening to potted explanations, and the wall texts are full of Geneva talk about the unity of people around the Mediterranean and suchlike fictions. What you end up with is a sort of tele-zapping version of visual culture and a politically correct Europackaging. In this 'universal' version of the history of art, East and South-East Asia hardly figure at all. No wonder, for in the dividing up of cultural territories (and spoils) in Paris, China, Japan, South-East Asia and so on are the primary concern of the Musée Guimet rather than the Louvre. There is a forlorn window-shading screen or *jali* in red sandstone from a building of the Mughal period in India, and there are some beautiful objects from Persia, but otherwise the historical centre of gravity is pretty far west and north. Another casualty of the linear presentation of time is the phenomenon of renaissances, historical revivals and returns. The director of the Louvre might do well to reread a great French art historian of the past, namely Henri Focillon, who suggested that: 'The principle

**Musée du Louvre,  
Lens, France,  
SANAA**

**3. (Previous page) the shimmering aluminium facade delicately reflects the grey northern sky**  
**4. Skylights diffuse this cold glow through a gauzy false ceiling in the entrance lobby, where a restaurant and bookshop are housed in glazed pods**

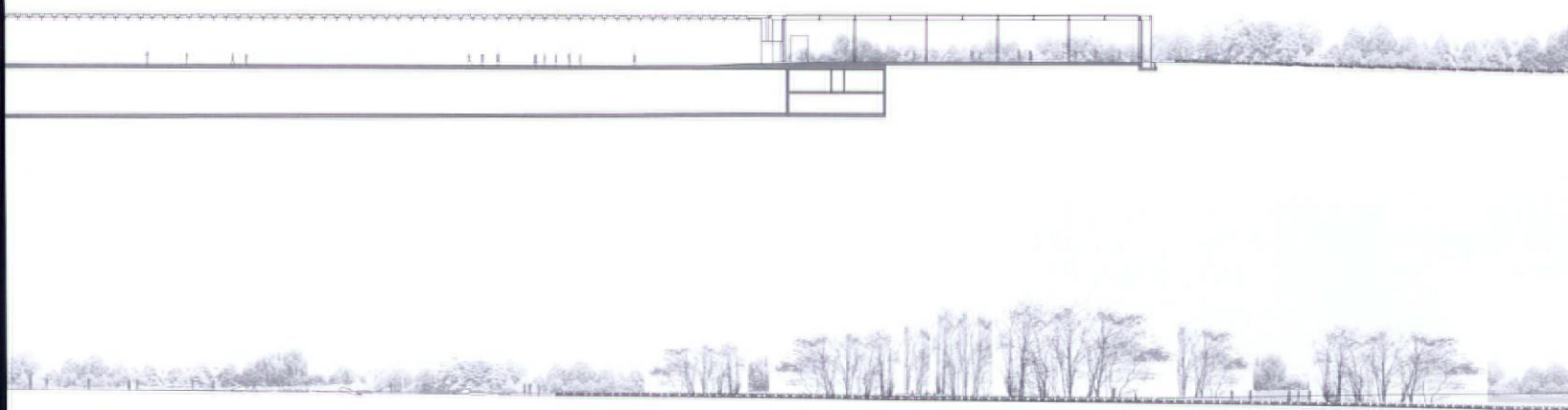


section BB



section AA





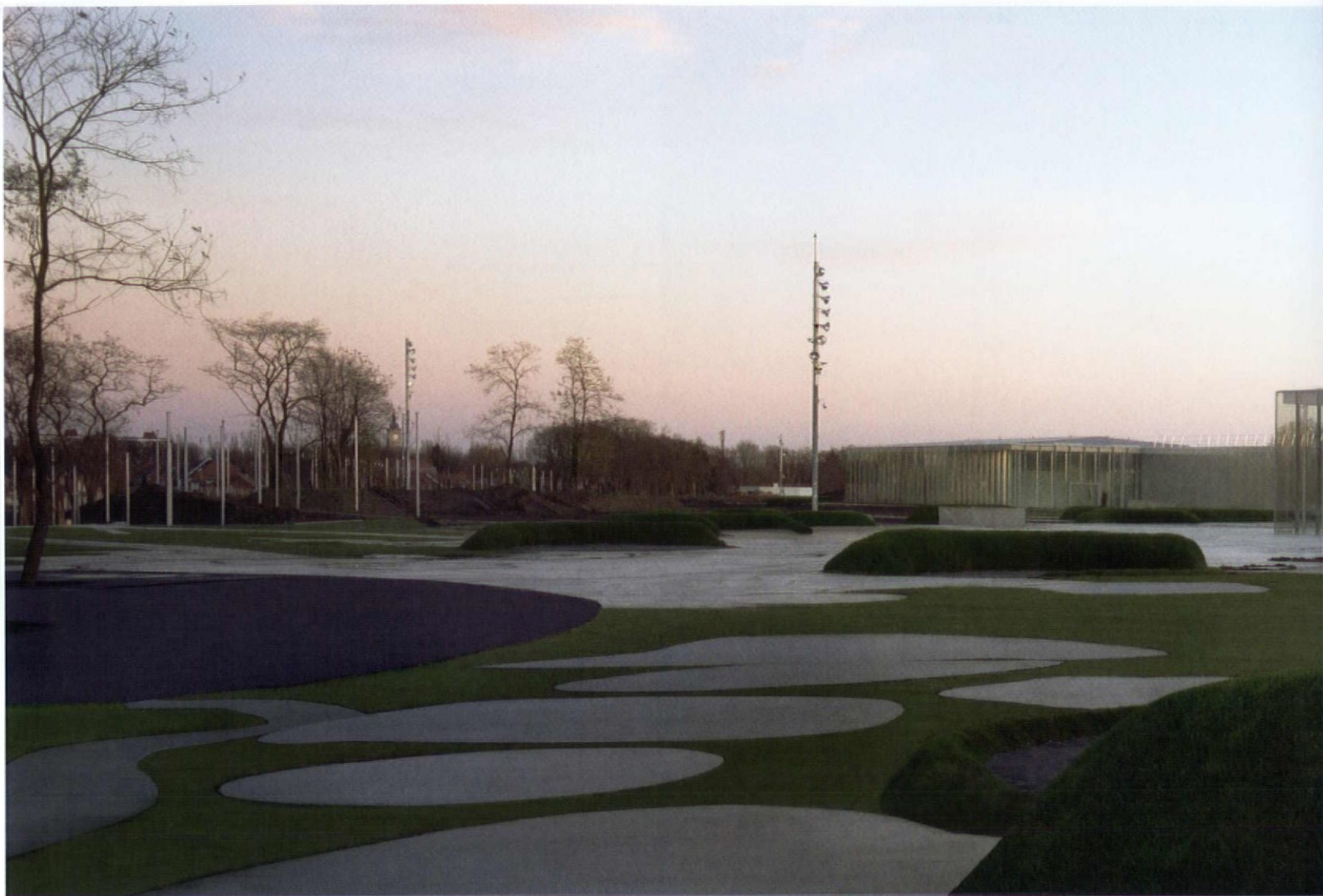












which gives support to a work of art is not necessarily contemporary with it. It is quite capable of slipping back into the past or forward into the future. The artist inhabits a time which is by no means necessarily the history of his own time.'

The stands themselves in the great hall have been quite skilfully designed by Studio Adrien Gardère, which has a lot of experience of chic museum interiors, and they are supposed to interact with the larger space around them and above them. They are subtly floated off the smooth concrete floor by means of gaps and are varied in size according to the objects on display. Collectively though this does not really come off as the vast hall neutralises differences between works by its sheer overhead size and volume, and its uniformity of lighting. One desperately hopes for some kind of partitions like the ones which work so well in the temporary exhibitions space, in order to respond to differences of scale. SANAA have sloped the floor to follow the terrain, and the walls themselves are ever so slightly curved, moves which ought to activate the space, but these understated devices get lost in a haze of silver reflections along both sides. Somewhere or other I read a text by a curator or a designer claiming that these blurred reflections of art works and people would enhance the experience and even suggest the absent works still back at Louvre HQ in Paris. Talk about wishful thinking: in my view the silver aluminium side walls are a disaster

which denature the objects and convey the overall atmosphere of a suave luxury goods store in an international airport or an upmarket mall. There was a split second when I thought I should be looking for the price tickets of the objects on sale.

Almost in spite of themselves, SANAA produce the high-fashion effect in their buildings. Luxury goods, make-up and perfumes account for a profitable commercial bridge between France and Japan these days (no accident that SANAA designed the Dior building in Tokyo, truly an example of minimalist chic). Did I also get the feeling for an instant in the Gallery of Time of moving through a Kenzo ad? Nor should the hook up be forgotten between cultural institutions, plutocratic collectors and the art market in France, which has led to aberrations such as a Jeff Koons show at Versailles, and the installation of a trendy Indian artist in the once sedate galleries of the Guimet. The Louvre Abu Dhabi, with its kitsch flying-saucer dome floating over a kasbah six-star

'The shining vision of SANAA's silvery minimalist sheds floating over a reconstituted landscape on top of a disused mine represents a gesture of extreme optimism'

**5. (Previous page)**  
floor-to-ceiling glazing  
illuminates the circulation  
spaces of the museum ...  
**6. ... this creates an**  
interplay of reflection  
and transparency with  
the aluminium panels  
of the gallery spaces,  
and an externally legible  
division of function





shopping mall (another of Jean Nouvel's stunts) is also packaged in a whole lot of universalising rhetoric but is surely also about globalisation and big oil money. There are interesting questions here about how buildings communicate through association. The organisers of the Louvre Lens want to have it all ways: high culture and low, elegant yet populist. There is a hilarious video installation in the lobby by Ange Leccia called 'L'amour Louvre' which is projected onto the curved glass partitions and which moves suavely and effortlessly between old black and white photos of miners, pithead gear and sooty houses, and airbrushed versions of Renaissance female faces by well-known artists. This is certainly a top-down version of society made more for the posh visitors from Paris, Brussels and London, than for the present-day working class population of Lens.

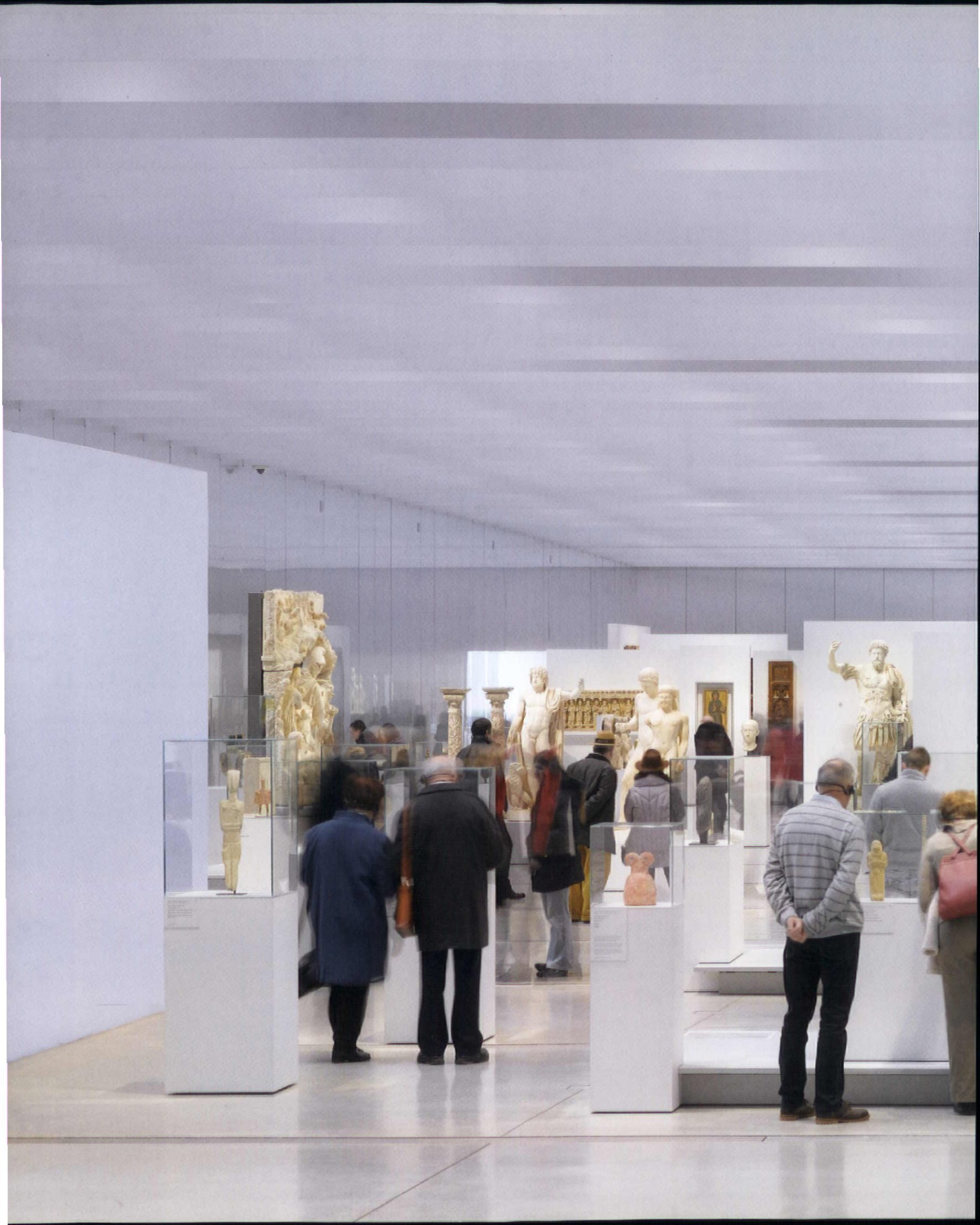
Of course, curators and museum directors love indulging their pet aesthetic and social theories in their museum spaces as one has seen, for example, with the Serota hangings in the Tate Modern according to vague genres such as 'Landscape'. As a result one of my favourite Mondrians is completely overwhelmed by larger installations and is poorly lit low down on a high wall. At the Quai Branly Museum in Paris (AR October 2006), Nouvel trivialised magnificent objects from diverse world cultures by inserting them in a Tarzan jungle scenario with about as much allure as a disco plunged in semi-darkness.

SANAA's silver sheds could in fact serve better to show off large modern pieces such as Richard Serra's brown steel *Torqued Ellipses* or even machine parts from a high-grade engineering firm. Somewhere along the line the architectural and artistic messages have got scrambled in this daring endeavour. One of the most misleading features of the 'Hall of Time' is the notion that both terms 'time' and 'art' are unambiguously universal. On some levels maybe, but on others it is differences of culture, meaning, site and yes even aesthetic intention, that count. One wonders too if the approach is not too 'art for art's sake'. Perhaps there could be areas here and there which cordon off individual works and explain their original context and function? 'Art' means different things in different places and at different times.

One slides out of the Gallery of Time past Delacroix's *Liberty Leading the People* over the barricades. This is presented unambiguously as the culminating point of roughly five and a half millennia: Vive La France! Vive la République! One then emerges again in the light of day in another transparent pavilion with three cylindrical volumes set down into the free plan, though in this case they are not made of glass but have white painted walls. Inside there are more exhibits alluding to notions of time, with works from different civilisations dealing with days, weeks, months and years through various frameworks of meaning. Again one has the feeling that this parallel

**Musée du Louvre,  
Lens, France,  
SANAA**













treatment of works by themes is a little too cute and overdone. Back to curator land where exhibition organisers have to keep reshuffling the same cards into entertaining new packs – Picasso and his women, Picasso and the colour blue, Picasso and Malaga, or whatever. All this keeps the wheels of the PhD machinery turning with oversized catalogues weighed down by tedious specialists' articles squabbling through their footnotes. For the moment the Louvre Lens has avoided this with quite a lucid guidebook which, if anything, suffers from being simplistic. Finally one can leave the museum parts of the building altogether to find the fifth pavilion at the other end which contains a spacious auditorium for lectures and evening events.

So where will all this lead? It is obviously far too early to assess the impact of the Louvre Lens on its town and its region. One of the best moments for me was when I came across a school group in front of the Leonardo,

looking hard and even listening to their very intense teacher who spent at least 15 minutes analysing the work in several ways and teaching the pupils how to see. Museum-goers have different attention spans and there are always those unexpected moments of inspiration. The word 'museum' after all suggests both the Muses and amusement. For the moment the museum and its park are rather cut off from Lens and there is the risk that visitors may circumvent the place altogether. A person may arrive by train from Paris (a little over an hour for the few direct connections), or from Lille which is less than 20 minutes away and with fast train connections to London, Paris and Brussels. A small bus transports the tourist from the station to the park where the long, low buildings of the museum are, a journey of roughly 12 minutes (although there is usually a wait). Of course, others arrive by car from the network of northern *autoroutes* and park as best they can, but whatever their means of transport, the visitors have little contact with the town and commerce of Lens. At present, there is relatively little to attract them, despite several local efforts at the '*muséification*' of the former world of miners and mining. These days difficult histories including those of war and social conflict (both part of this region's past) undergo a sort of aesthetic camouflage to suit manipulated 'memory'.

As I sat in a dreary restaurant opposite the railway station staring down into the soothing brown surface

**7. (Previous page)** the Gallery of Time is a Malrauvian 'museum without walls', essentially a space in which objects on loan from Paris are jumbled together without regard for the specificity of their origins  
**8. Curved glass partitions** define seating alcoves  
**9. The curators lead** the people to Delacroix's famous (and recently defaced) image of *La Liberté*, apparently the culmination of all history

'The openness and lack of protection of the works present severe security risks. On 7 February came the news that Delacroix's *Liberty Leading the People* was vandalised by someone who scribbled on it in indelible ink'





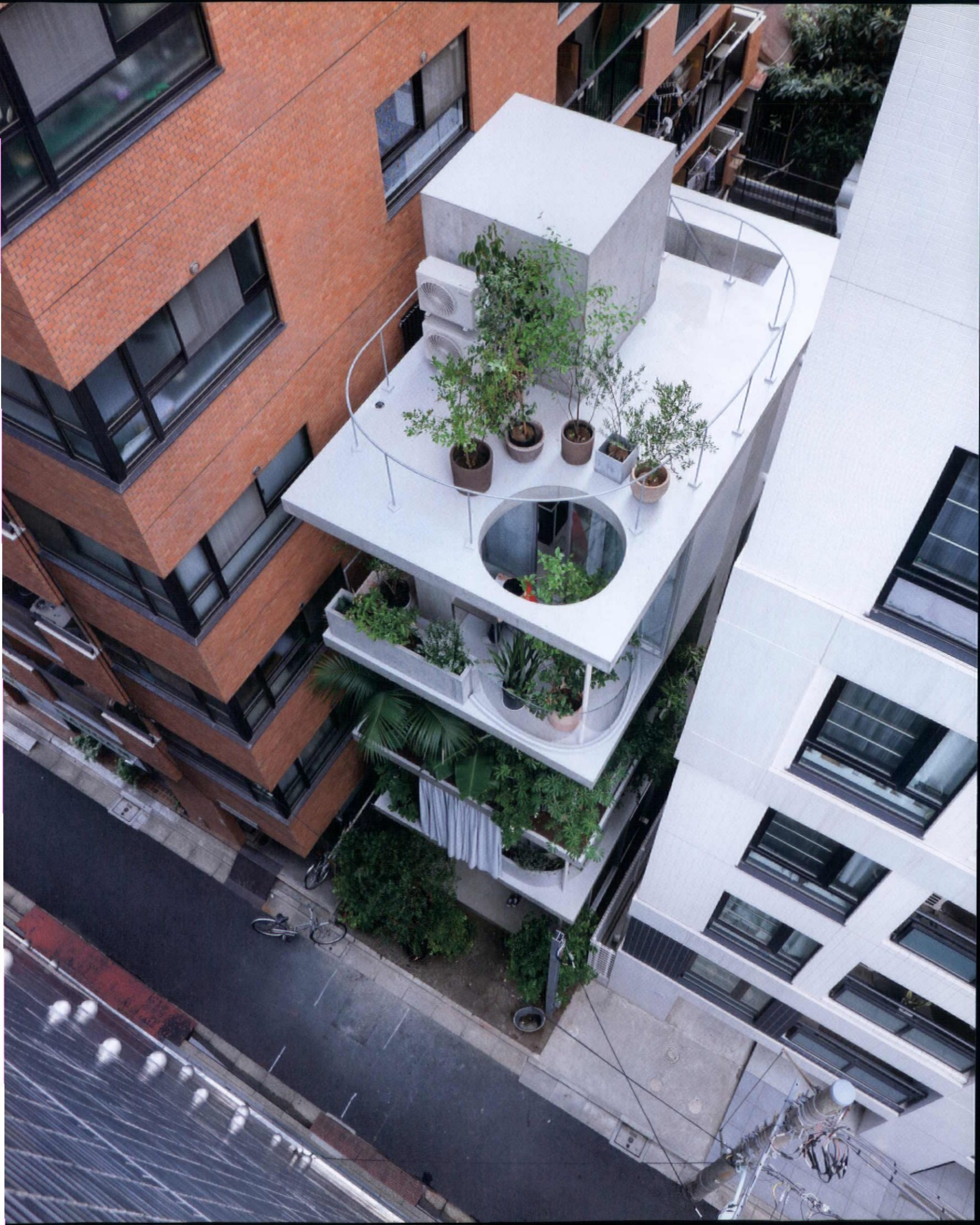
of my Leffe beer, I could not help reflecting upon all the different types of museums, from palatial heaps in capital cities, to linear ensembles in landscape, to unified spaces and great halls. The SANAA solution to the Louvre Lens is based upon a more or less linear arrangement with vast exterior surfaces easily accessible from the surroundings, a point which raises concerns of security. The building seems fragile given its weighty contents. On the other hand, the two large, toplit halls can be modified at will, except for that problematic shiny aluminium wall inside the Gallery of Time. As it happens the openness and lack of protection of the works in the Gallery of Time also present severe security risks. At the time of writing (8 February) the news has just come out that yesterday evening the Delacroix *Liberty Leading the People* was vandalised by someone who scribbled the enigmatic, probably political message 'AE911' on it in indelible ink. That is bad enough, but supposing it had been the Leonardo and a maniac with a cutter? We live in violent times and some of this violence is directed against artistic patrimony, whether it is blowing up rock-cut Buddhas, destroying ancient tombs, standing idly by as museums and archaeological sites are looted (as in Iraq), or burning manuscripts and national libraries to destroy identity and memory. Maybe it is time to ship the masterpieces back to Paris where they are possibly safer? The cultural mission of decentralisation is already looking rather shaky.

As for the larger social and geographical thinking behind the Louvre Lens, one inevitably poses the question: why Lens of all places, this nosedive of a town? Who would want to hang around in the town centre more than the time to pick up a snack (and in this area much gastronomic progress has to be made)? Despite all the talk of decentralisation, maybe Lens is still too close to Paris after all, especially by modern transport? And how appreciated will this institution be, given that it is unclear exactly how it will enhance the local economy? Why not put it in a major provincial city like Toulouse, for example, which could gain from such a cosmopolitan endeavour and which has an immediate catchment of over three million people? Why not place it somewhere in the agglomeration of Nice (like the Fondation Maeght at St Paul-de-Vence), with its five million people and its truly international airport, the second most important in France? And if the 'neglected north' is the political strategy, why not stick it in Lille? Minutes later the TGV for Paris swept in and I settled back into my seat as the flat landscape shot by at 300 kilometres an hour. In a flash, my mind shifted to Britain, with its creaking, overpriced trains, its jammed roads, its infected hospitals, its shut public libraries, its over expensive universities, and its zero cultural budgets in major cities. Despite all the quibbling, the endeavour of Louvre Lens seemed worth entertaining after all.

**Musée du Louvre,  
Lens, France,  
SANAA**

**Architect**  
SANAA  
**Photographs**  
Roland Halbe, 3-5, 7-9  
Hisao Suzuki, 1, 6  
Iwan Baan, 2







Townhouse,  
Tokyo, Japan,  
Ryue Nishizawa



# TOKYO DOM-INO

Designed by Ryue Nishizawa of SANAA, this house of floating concrete planes and glass walls contrives an ascetic domesticity tempered only by nature





1. (Previous page) the house is stacked like a club sandwich between less permeable facades
2. (Previous page) occupants are utterly exposed to the neighbours
3. Gauzy curtains enclose and screen the bedroom on the third floor
4. (Opposite) the arrangement of floating concrete slabs recalls Corb's Dom-Ino frame, reprised and reworked in a very different context nearly a century on

## REPORT

### JAMES SOANE

Tokyo is a city of juxtapositions. From Zen temples to temples of Mammon, falling-down timber shacks next to polished glass towers, and tiny pocket gardens near immaculate formal planting. So this four-storey house by Ryue Nishizawa (one half of SANAA) appears to fit right in by definition. The question is whether this is enough.

The structure is articulated as a series of concrete slabs, apparently floating, though on closer inspection there are three differently-shaped concrete columns holding up the structure as well as a spindly corner metal column – Le Corbusier's Dom-Ino frame revisited 99 years on. The ground floor is a caravan-like arrangement of seating, storage, kitchen and dining. A lightweight metal staircase connects all the floors. The first floor accommodates a tiny bedroom (open above and below) and an L-shaped open balcony with an outdoor meeting room. On the second floor, the stair becomes enclosed, and there is an outdoor space leading to a self-contained bathroom at the rear of the building. Rising up to the third floor there is a second bedroom, a private terrace to the front and a linear stair, again outside at the rear, leading up to the roof terrace. Here a circular cut-out in the roof slab presents a Modernist architectural

motif that is visible from the street. It is difficult to ignore the prosaic concerns that arise from minimal railings both on the staircase and the roof terrace, but presumably it is a risk that has been evaluated. Do they really do things so differently over there?

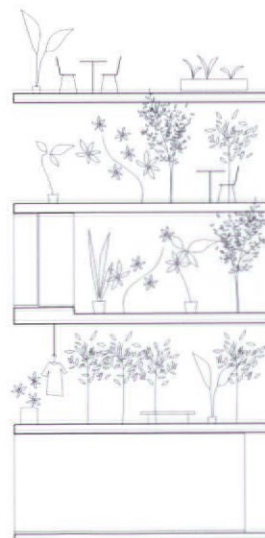
What makes this little building extraordinary is the use of planting, mainly in pots, that not only animates the facade but also penetrates deep into the house. The architect's drawings of the section are cartoons showing no facades, just a series of horizontal shelves inhabited by trees, plants and the odd chair and table. The result in many ways is exactly that – an inhabited diagram. A further layer of domesticity is added through the use of fine gauze curtains that allows for some form of privacy. They are perhaps a nod to Shigeru Ban's Curtain House, also in Tokyo, completed in 1995. The difference is in the parti – Ban's house still differentiates between inside and outside, while here the distinction is far more porous. Indeed the floor finish to some of the exterior spaces is actually earth, and the journey to the bathroom requires you to go outside, perhaps barefoot, taking a few steps before sliding the frosted door to come inside again.

Looking from the outside, at street level, or more significantly from the windows of the flanking

### Townhouse, Tokyo, Japan, Ryue Nishizawa

buildings that have views right into the house, it is difficult to make sense of the building at an urban level. While we are perhaps used to seeing the Japanese house as something that is inward-looking, this is the opposite – a house for looking into. The project also questions the notion of permanence. Is it a pop-up house, here today and gone tomorrow? What if another owner, less enamoured with gardening, moves in and takes all the greenery away – surely it becomes less lovely and a completely different proposition? In many ways the contingency of the greenery adds to the fragile nature of the whole construction. The hard concrete is a familiar sight within the fabric of the city, and in parts so are balconies crammed with plants and flowers; but here we have a poetic essay that collides these two worlds into a conceit that is fantastical and yet very domestic.

This provocative project also interrogates the notion of domestic space and how we live. Is it having the detached address that is the luxury, or is it the vertically stacked self-contained world that is bespoke, eccentric and very personal? There are issues of privacy with bedrooms open to the stair, questions of seasonal occupation – after all it still gets cold in Tokyo (down to 2°C in January) – where the use of the outside spaces must be limited. It is disappointing to see that the

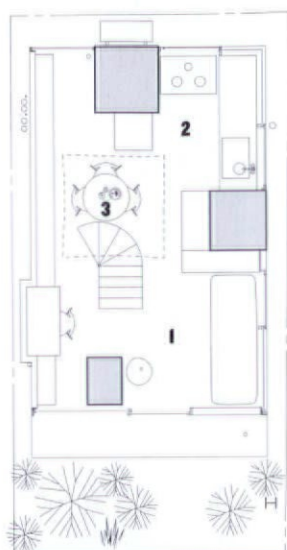


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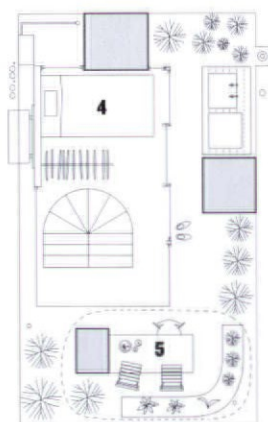




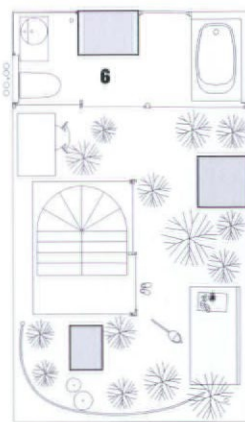




ground floor plan



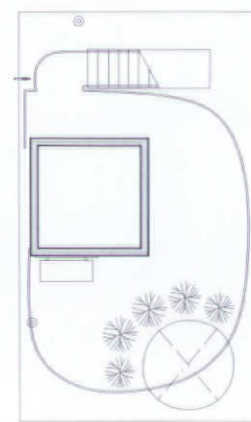
first floor plan



second floor plan



third floor plan



roof plan

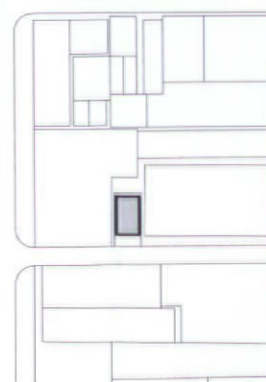
- 1 living room
- 2 kitchen
- 3 dining room
- 4 bedroom
- 5 meeting room
- 6 bathroom



**5.** A packed earth floor and lush planting lend an organic softness to the dominant language of hard concrete and glass planes  
**6.** (Opposite) the vertiginous spiral stair forms the spine of the building

**Architect**  
 Ryue Nishizawa  
**Photographs**  
 Iwan Baan

### Townhouse, Tokyo, Japan, Ryue Nishizawa



site plan

internal climate control is through standard air-conditioning cassette units mounted to the wall with the requisite chiller on the roof. It would have been wonderful to think that somehow the vegetation had a positive effect on the microclimate of the home – perhaps it does?

Less of a machine to live in and more of a living appliance; a propagator for plants and people. This house is of the moment. Like the much larger 1111 Lincoln Road project by Herzog & de Meuron in Miami (AR June 2010), this tiny structure plays with the economy of the concrete slab as an organising device, then inhabits it in an unprecedented manner – playing with conventions of outside and inside, facade and interior, nature and artifice. It represents the uncertain fate of Modernity, while embracing its legacy.

Its graphic presence on the street demands scrutiny, while once inside the city dematerialises into a series of views mediated by nature. The designer finishes and minimal detailing demand a rigorously ascetic lifestyle, at the same time requiring the owner to literally feed and water its organic inhabitants. Although not a model that is likely to be seen as a prototype, it feels like a call for action, challenging how we want to or should be living in cities. For that it is to be applauded. (I am just not sure I would wish to be its custodian.)







# CHINESE CHEQUERS

The 'sliced porosity' of Steven Holl's latest Chinese mega-project is a graphic presence implanted in the pulsating heart of Chengdu





**Mixed-use  
development,  
Chengdu, China,  
Steven Holl  
Architects**







## CRITICISM

### AUSTIN WILLIAMS

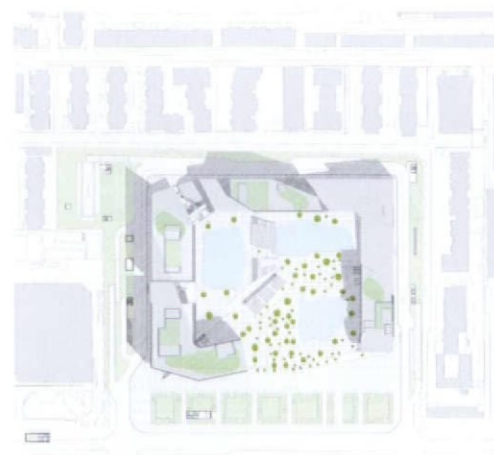
Renmin Road – People's Road – is a six-mile long, dual carriageway that runs through the centre of Chengdu. It is 10 lanes wide (or 12 if you allow for the tendency of Chinese drivers to ignore road markings) and south of Mao's statue in Tianfu Square, it's as straight as an arrow. Even though this main arterial route – like most roads in Chengdu – is a thick sea of honking congestion, the local street scene is actually as pleasant and urbane as New York and as lively and crowded as Delhi.

On either side of the 50-metre-wide highway, the tree-lined pavements are a bustle of activity. While the road traffic chugs through the middle, a flotilla of e-bikes invades the pavement with no intention of slowing down. The pavement is a casual mix of traffic and children. Its urban frontage of residential and commercial, of offices and eateries, means that there are always crowds: chatting, strolling, spitting, playing mahjong or dodging motorcyclists.

One of the busiest intersections of Renmin Road, at the South Section Ring Road, is the

location of Steven Holl's latest creation in China. The 120-metre-high concrete angular blocks are a recognisable Holl presence, looming over the main thoroughfare. But by setting the buildings back even further than the neighbouring blocks, the pedestrian flow at street level is allowed to thin out and as such, the design incorporates a pedestrian level engagement that belies the height of the main structures and blends well with the human scale and the urban context. On a balmy January afternoon, construction workers and office staff alike laze on the seating surrounding new sunken gardens, fountains and pools. Chengdu's self-promotion as the 'laid-back' city of China seems to be reflected and celebrated by this urban scene – a place of gardens, open space and public congregation.

Holl's building, a series of linked towers, encloses a procession of tiered public piazzas. Again, the link with the street level frontage is a subtle enticement to enter. What might have been a rather foreboding structure actually presents an accessible ramped (or travelator) entrance into the heart of the complex. Holl's 'trademark' corner entry



location plan





**Mixed-use  
development,  
Chengdu, China,  
Steven Holl  
Architects**

**1. (Previous page)**  
Holl's towers are  
a distinctive and graphic  
addition to the dense  
urban fabric of Chengdu  
**2.** Set back from the  
street, the blocks widen  
the pavement and invite  
passers-by into the square  
**3.** Pools reflect the  
(so far) gleaming  
polished concrete  
of the facades



**Mixed-use  
development,  
Chengdu, China,  
Steven Holl  
Architects**



**level 3 plan**



**level 2 plan**

- office
- hotel
- apartments
- retail
- public
- semi-public
- circulation
- services







level II plan



level 8 plan

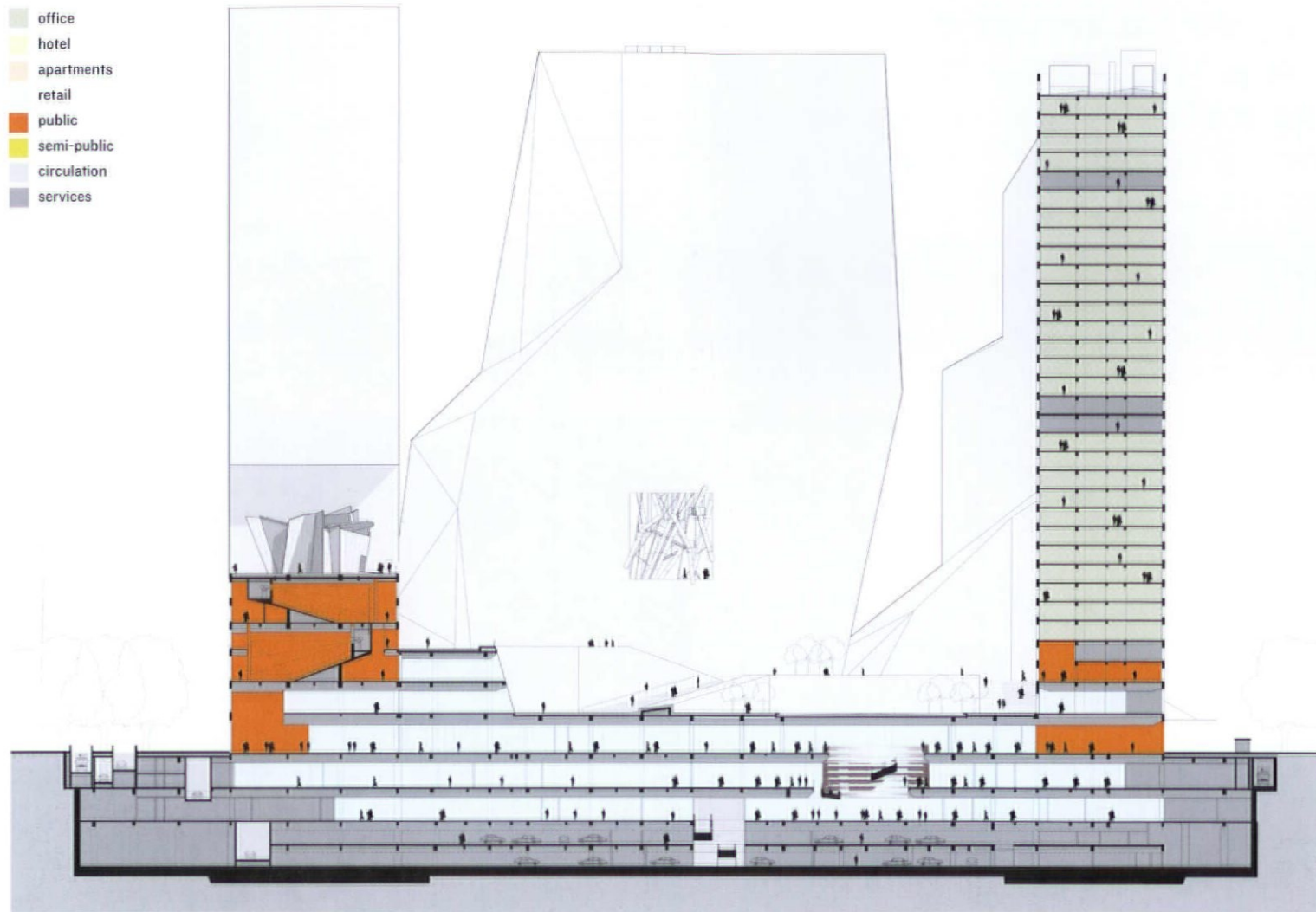












section AA

points play with the parallax views of the towers, especially so on the moving walkway. And the front elevation balustrading at first-floor level provides an opportunity to look out over the frantic street life from the relative calm of the interior, or to glimpse the Tai Chi pensioners in the gymnasium opposite, but it also acts as a lure.

#### Social construction

On Google Maps, this site still shows up as the location of the Sichuan Provincial Museum, home to artefacts ranging from the Neolithic to the Qing Dynasty (and including famous revolutionary heritage relics of the Red Army's Long March to Yan'an). However, the museum was demolished and its contents placed in storage five years ago, because the area was earmarked for redevelopment into what the tourist information maps call, the city's 'Amusement Zone'. Promoted under the ethereal but architecturally literal title 'Sliced Porosity' – more of this later – this building is, in fact, the Raffles Shopping Centre and gaudy logos adorn many of the elevations. As part of the deal to replace a public museum, the developer (CapitalLand,

one of Asia's largest real estate companies based in Singapore) was required to ensure that public access was prioritised, hence the centrality of the piazza concept.

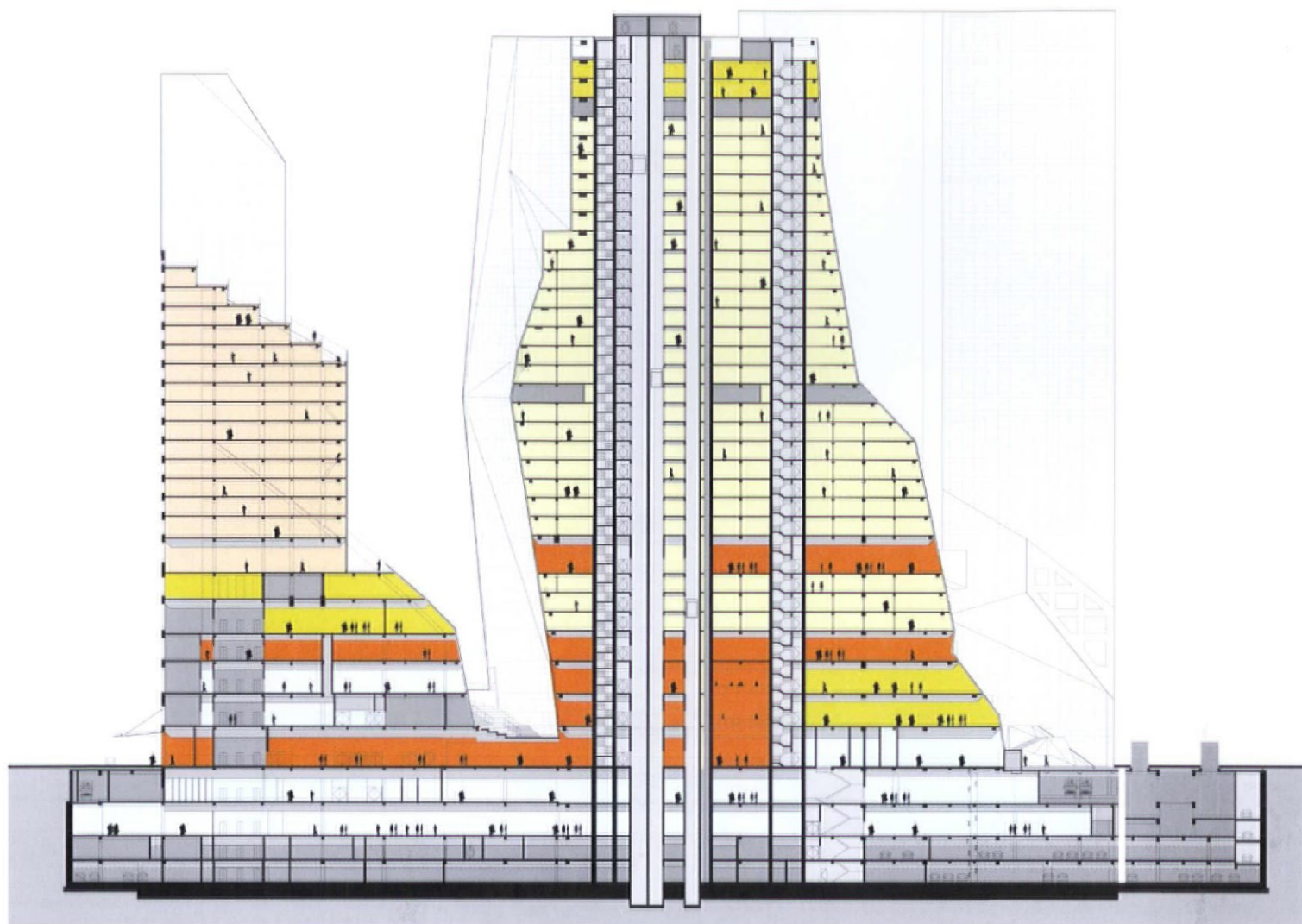
Steven Holl's 300,000-square-metre shopping mall, with commercial and residential above, is the first major building on the site. In essence, it is a mixed-use development comprising apartments over a podium block. The shopping mall design and fit out – which has obviously had no expense spared in marble flooring and sandstone cladding – was done 'by others'.

Construction started in 2007 and the apartments are still being fitted out. That's quite slow for China, but this was a complicated build even by Chinese standards. Huge excavations; 9am to 5pm working hours to minimise noise impact on neighbouring housing; and a tight site that meant that the compound had to be within the boundary of the site itself and lifted as the building came out of the ground. Added to this, strict building codes that were implemented in the aftermath of the Sichuan earthquake – the devastating tremor registering 8.0 on the Richter scale, that killed approximately

**Mixed-use  
development,  
Chengdu, China,  
Steven Holl  
Architects**

4. (Previous page)  
the graphic clarity of the  
facades is extended to the  
diagrammatic simplicity of  
the landscaping and pools,  
recalling the aesthetic of  
Minimalist sculpture





section BB

70,000 people in 2008 (as Steven Holl released the first press release about the works commencing) – which had its epicentre just 50 miles from this site. If this building is merely viewed as the embodiment of the spirit of genuine regional reconstruction in China then it is a remarkable achievement. Such economic and social resilience puts Western risk aversion into stark relief.

Build quality was a high priority in this project. The internal construction standards are a little shoddy, with badly fixed insulation (but at least there is insulation) and no vapour barrier or meaningful cavity closers. However, Holl's insistence on the quality of the external finish deserves mention as, remarkably, the exterior of the building is fair-faced concrete which has no surface treatment. The intense whiteness of the building, the sharp arrises,

**'In its simplest form, Holl's building is an engineering model writ large: a straightforward reflection of the structural forces at work'**

the smooth appearance, the vertical lines are simply testament to the quality of the workmanship and the relentlessness of the quality management. It is no mean feat attaining either in China.

Three hundred wall sample panels were made, inspected, rejected and perfected to engender the required standard of finish. With 1,400 people working on the project – at one time – in the last few months, the project manager deserves special credit. In fact, here in China, where so many projects are handed over at detailed design stage with no concern, or control, over the finished performance, the pristine appearance of this building is not far short of miraculous. Inevitably, the pollution, the ever-present threat of rain and this building's pseudo-Modernist lack of external drip eaves will undoubtedly cause streaking in the not-too-distant future, but for now, the building looks very sharp indeed.

Two recesses in the building contain the 'pavilions'. The one designed by Lebbeus Woods and artist Christoph a. Kumpusch, is a spatial array of fluorescent tubes. Rising over three floors, there is a simple metal staircase in the centre that allows people to walk

through it and out to cantilevered viewing galleries. The sculpture lights up at 6pm to create what Woods suggested would be 'one that gives us the opportunity to experience a type of space we haven't experienced before'. Having experienced the sculpture several times, there is something arrogantly fatuous and, at the same time, incontrovertible in that statement. Actually, the botched manufacture of the light boxes jars with the fine work of the overall building, but it was 'interesting' to see how a relatively ungainly sculpture – when viewed from outside – looked quite jaunty, from within, when the lights were on.

The second pavilion is a Gehry-esque Corten enclosure (that is actually open to the elements) containing a small auditorium of tiered seating in locally harvested bamboo. Originally promoted as a history museum (as a guilty memory of the demolished Provincial Museum), it is now more likely, say the developers, to be a corporate events gallery. It is situated on a flat roof cut out of the main block and is one of the more interesting, although publicly inaccessible places. Overlooking the 1950s Mao-era concrete residential blocks on the north side



**Mixed-use  
development,  
Chengdu, China,  
Steven Holl  
Architects**



**5. The logic of the building's structural system creates a series of irregular geometries that serve to humanise the relentless grid**  
**6. Illuminated after dusk, a sculpture designed by the late Lebbeus Woods erupts out of the facade**

**Architect**  
Steven Holl  
**Photographs**  
Shu He except 4  
by Iwan Baan





and into the pavilion piazzas to the south, it has a commanding presence and is a slightly superior sculptural and architectural rival to the Lebbeus Woods pavilion opposite.

#### Form follows daylight

In its simplest form, Holl's building is essentially an engineering model writ large: a straightforward reflection of the structural forces at work. Uncompromising diagonals are positioned at the most structurally efficient locations regardless of their slightly disjointed aesthetic. Rather than extending from corner to corner of the square window grid, many are off centre, which results, in places, in tiny triangles of glazing arising from the structural logic. These little quirks tend to humanise the grid somewhat. Ironically, this humane element is thus derived from not intervening, consciously. Or maybe, by not consciously intervening.

Holl has said that he tries to 'come up with a concept that has a deeper meaning than just a form'. In an interview with Joseph Masheck in 2002 he noted that: 'The very first thought, the meaningful first diagram, the "concept" for the building, is a combination of eye and

'There is something relentlessly logical about the building. As the culmination of evidence-based design, the effect has been to create something more clinical than spiritual'

mind and hand, and, one hopes, the spirit.' A decade later, Holl's initial watercolour sketches for 'Sliced Porosity' are proof that he is still engaged at a human level with his architectural concepts.


But one man's 'distinctive oeuvre', is another man's 'creeping laziness in the generative use of form follows function. So, for example, while the structural frame represents the output of an engineer's software package, the overall layout of the building is the culmination of a sun-path analysis. The local building regulations demand at least two-hours of sun per day for the piazza area and surrounding apartments. This shouldn't be difficult as the building is on a north-south axis with the western edge exposed to the wide street and low-level

buildings beyond. However, the architect claims that rigorous analysis of sun-path diagrams resulted in the final form. (Funnily enough, Chengdu has one of the lowest number of hours of sunshine in China and locals told me that 'in Chengdu, you never see the sun'.) No matter: the towers were apparently sliced away in heliodon model tests as the masts took over – the cutaways represented by glazing in the actual building; uncut walls represented by the concrete grid. One online wag noted that 'Steven Holl totally knows how to put a foam-cutter to good use'.

Even though this sun-path explanation isn't totally convincing (because it refers to the sun angles on just one day of the year), there is something relentlessly logical about this building. And there's the rub. As the culmination of evidence-based design, maybe, the effect has been to create something more clinical than spiritual. Admittedly, the spaces are agreeable, the shapes are fine, the landscaping is reasonable, the overall effect is pleasing. Lebbeus Woods' sculpture is 'interesting'. Undoubtedly, the public, if and when they decide to populate this space, will enjoy it. What can I say? It's 'nice'.



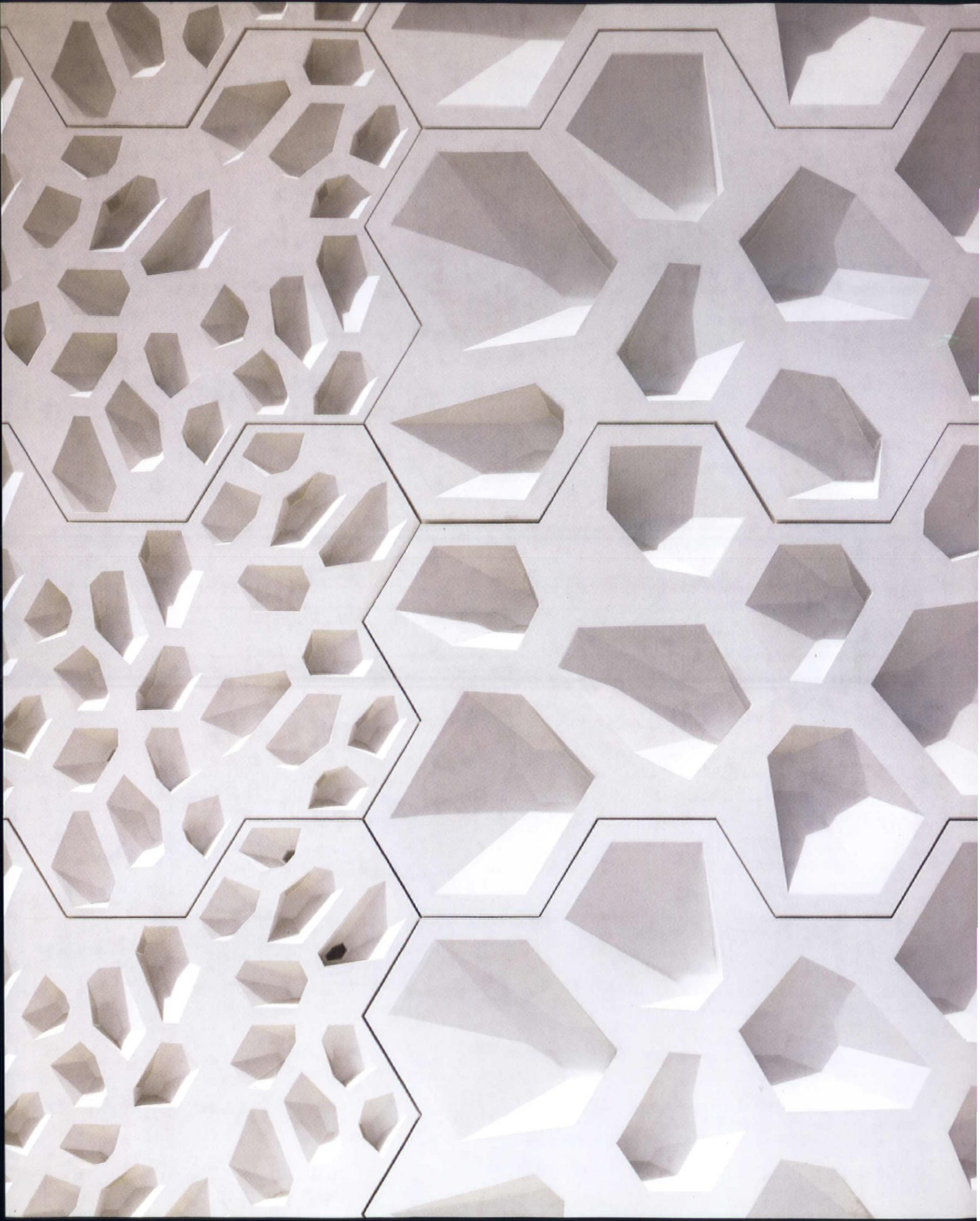
Contemporary  
Art Centre,  
Córdoba, Spain,  
Nieto Sobejano  
Arquitectos



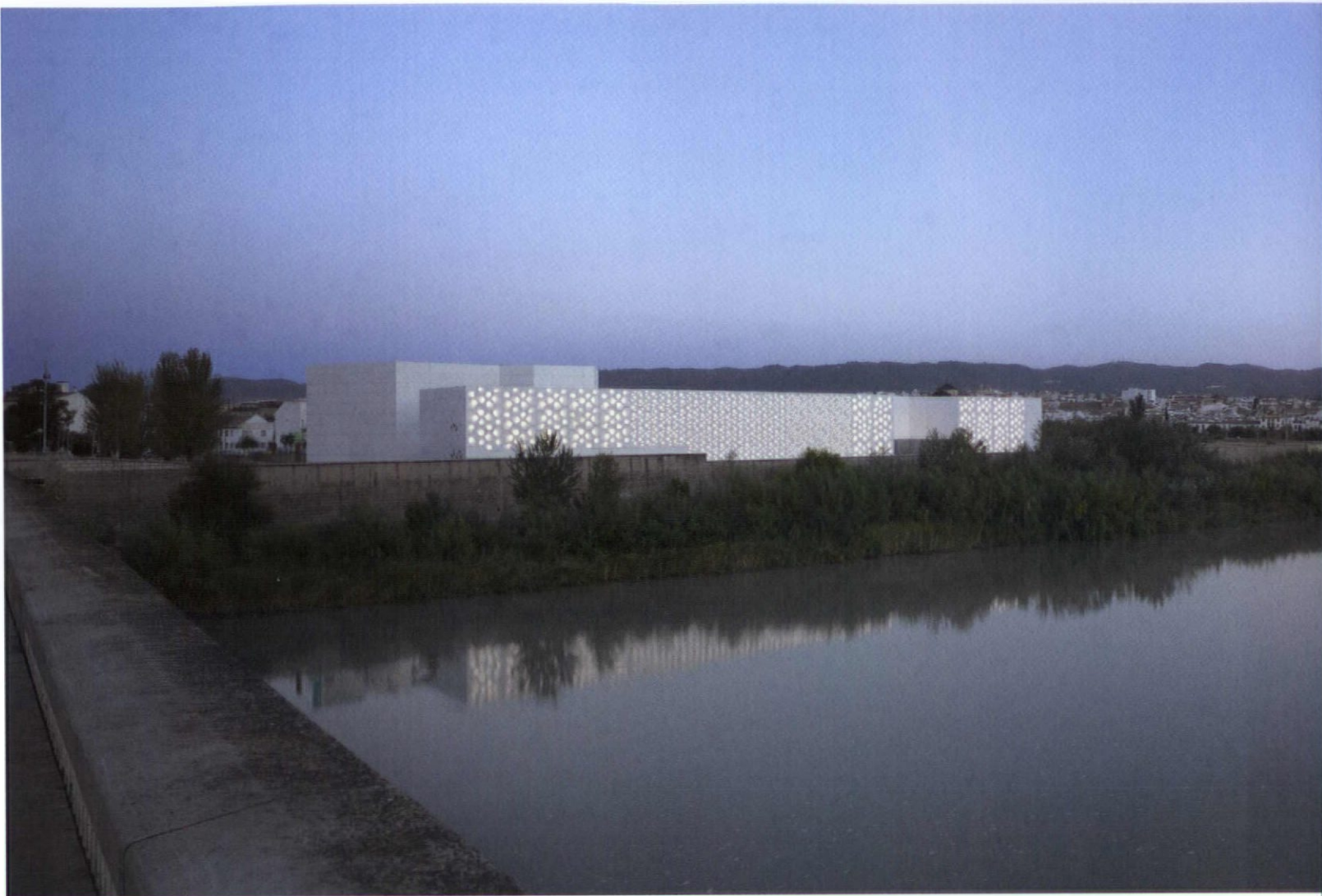
# CONCRETE ARABESQUE

Drawing on the richness of Islamic forms and geometries, Nieto Sobejano's new art centre in Córdoba reinterprets ancient motifs through contemporary materials and spatial relationships









## REPORT

### DAVID COHN

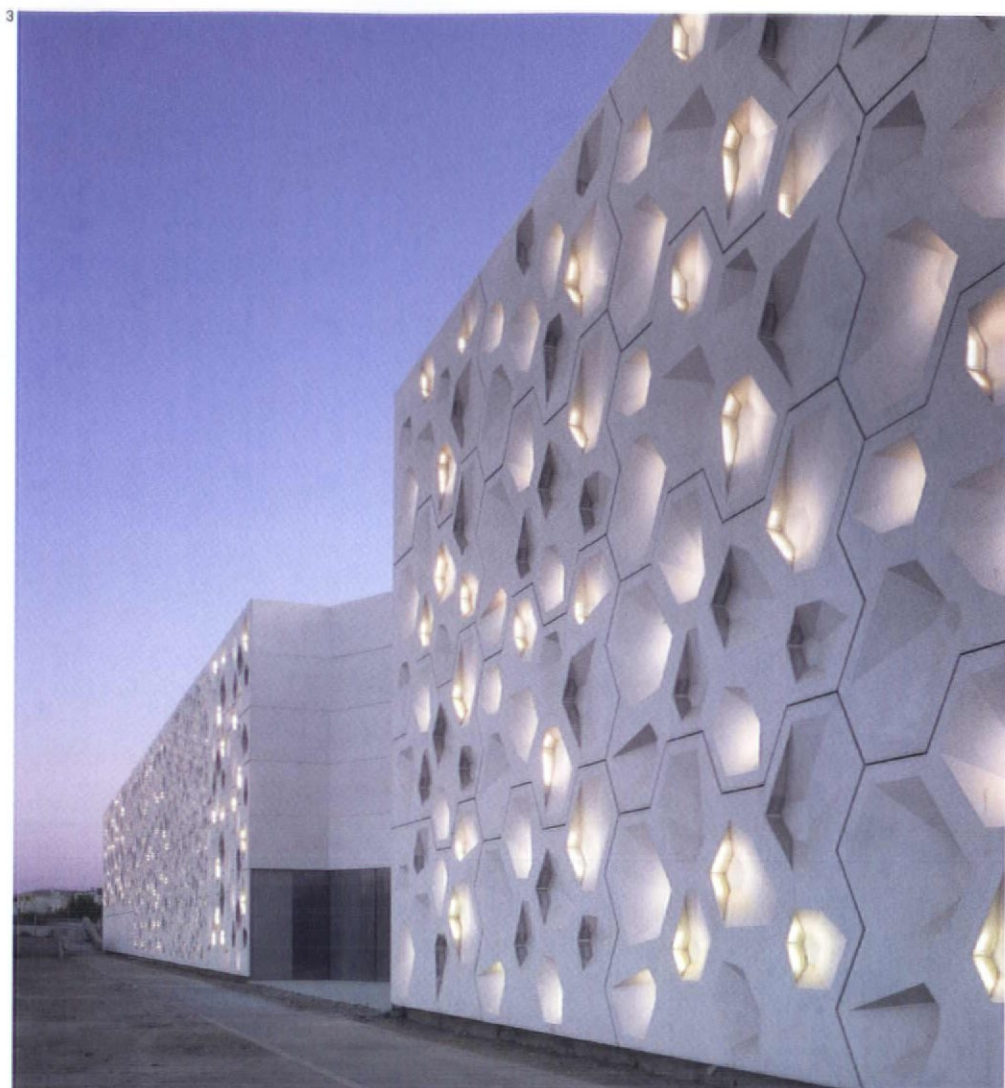
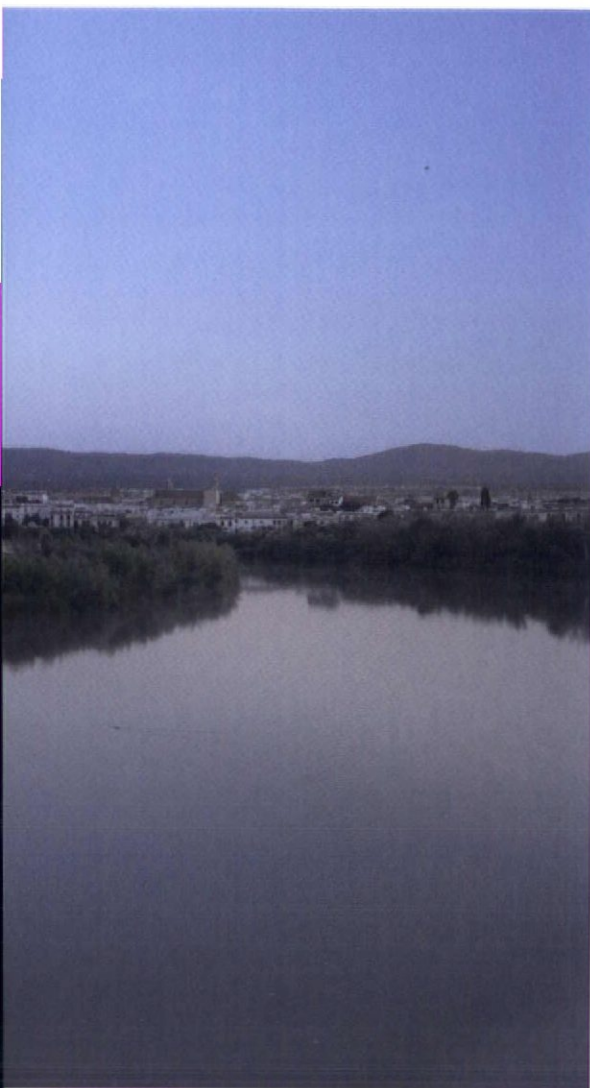
Working in Córdoba, Spain, the Madrid-based architects Fuensanta Nieto and Enrique Sobejano adapt principles from Islamic geometric patterns in both the organisation of their Contemporary Art Centre Córdoba, and in the design of its facades. Inside, a chain of irregular, hexagonal exhibition spaces string through the otherwise diaphanous interiors. Outside, the nearly opaque facades are relieved by honeycombed screens that follow the same irregular but logical patterns.

The seed of the design lies in the subdivision of a regular hexagon into three irregular hexagons, leaving three smaller, four-sided leftover spaces between them. Each cluster of three hexagons, measuring 150, 90 and 60 square metres respectively, forms the basic unit of the exhibition galleries and is repeated along the building's length, with changes in orientation, three times. A smaller, fourth cluster off the entry forms the cafeteria, and a larger cluster is dedicated to the 'black box', a multi-purpose



location plan





**Contemporary  
Art Centre,  
Córdoba, Spain,  
Nieto Sobejano  
Arquitectos**

**1. (Previous page) the non-orthogonal geometry of the facade extends the cellular rhythm of the plan**  
**2. The building occupies a riverside site on a peninsula overlooking Córdoba's old city**  
**3. Programmable LEDs hidden in the wall surface turn the facade into a glowing geometric screen**

space for performances and other events. The underlying regular geometry of the cells allows them to couple seamlessly, forming a sequence through the centre of the building, including four open-air patios in intermediate spaces, and creating surprising cross-views between them. Areas of orthogonal space frame the galleries on both sides. On the side of the building overlooking the Guadalquivir River, a long gallery provides independent access to each cell, and ends in a media library. At the back, the cells open directly into the area of artists' studios, with offices and laboratories on the level above them.

This repetitive cellular design, non-hierarchical and 'isotropic' in the terminology of the architects, belongs to one of the more interesting developments in contemporary Spanish architecture, the return to Organicism. Inspired by Bruno Zevi's 1945 book, *Towards an Organic Architecture*, and the work of Frank Lloyd Wright and Alvar Aalto, Spanish Organicists in the 1950s and '60s used many of the same ideas, as seen in José A Corrales and Ramón V Molezún's honeycomb-like Spanish Pavilion at the 1958 Universal Exhibition in Brussels,

'Its solidity, its defined geometric forms, and its inventive use of Córdoba's Islamic heritage plays directly against the virtual and placeless nature of the art'

or the hypostyle hall of José María García de Paredes's 1964 Almendrales Church in Madrid. In the past decade, a number of Spanish architects have stepped away from Functionalist or Minimalist formulas to return to such ideas, most notably Luis Mansilla and Emilio Tuñón in their 2005 MUSAC Museum in León. Like Mansilla and Tuñón, and indeed like their Organicist predecessors, Nieto and Sobejano bring to this formal play the same discipline of means, materials and detailing that characterised their earlier, more restrained works.

The Córdoba Contemporary Art Centre is located on a peninsula opposite the old city and its historic mosque. It is sited on the far side of the peninsula, where a congress centre was originally to have been built. In 2002, Rem Koolhaas's competition-winning scheme



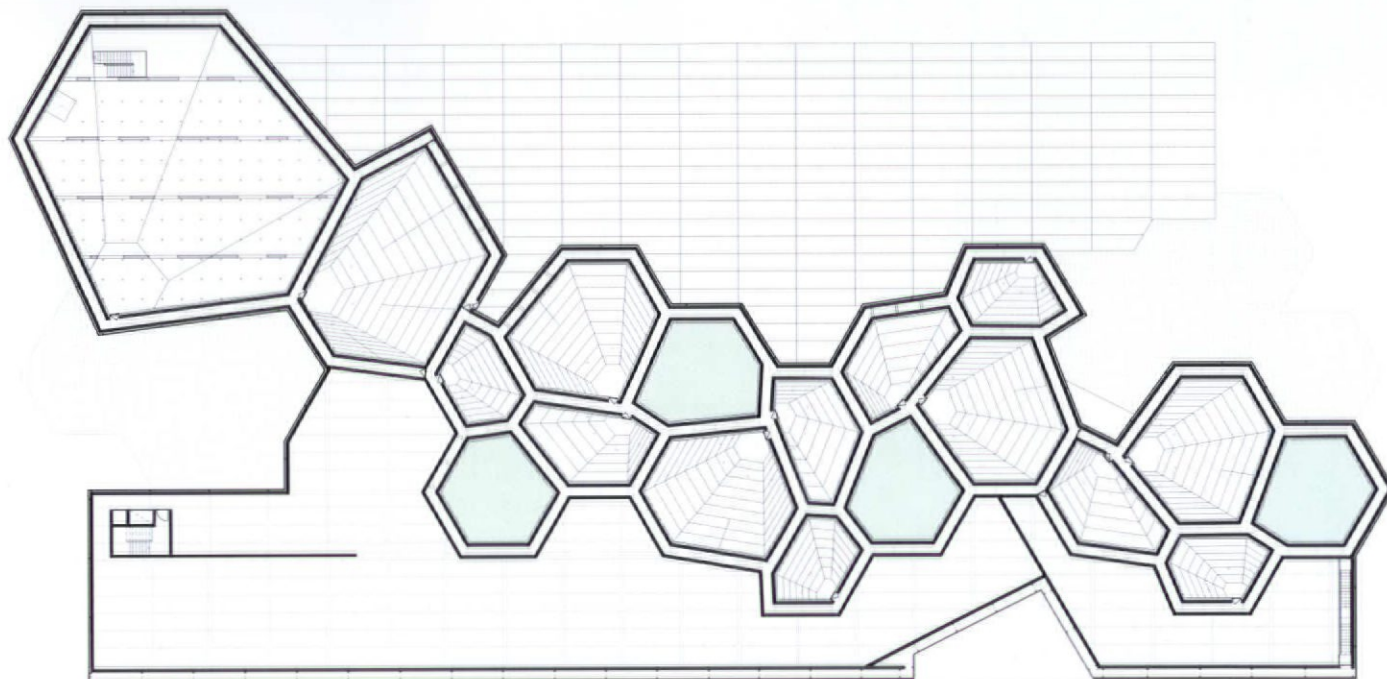


4. From above, the spaces of the galleries and workshops are revealed as a giant honeycomb of tessellating cells

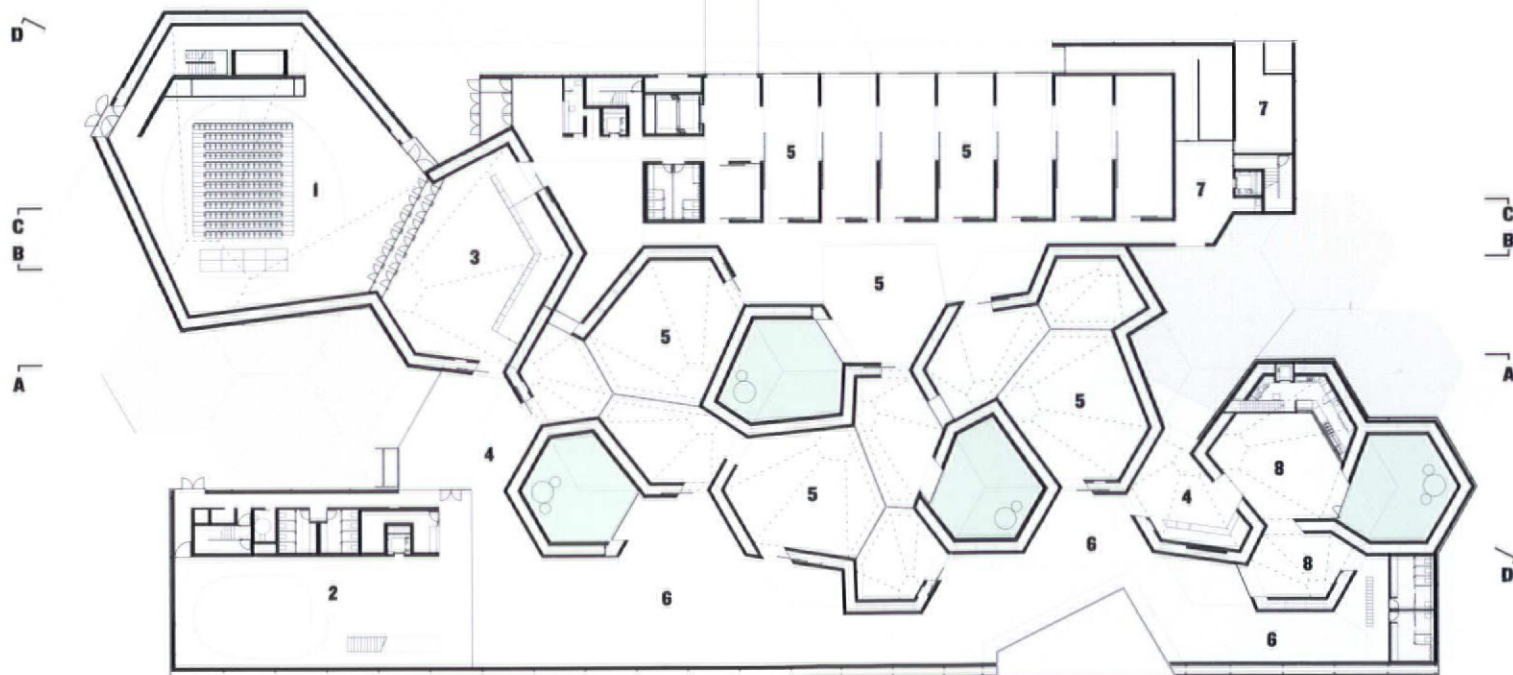
- 1 black box
- 2 media library
- 3 shop
- 4 entrance lobby
- 5 galleries
- 6 exhibition
- 7 facilities area
- 8 cafeteria



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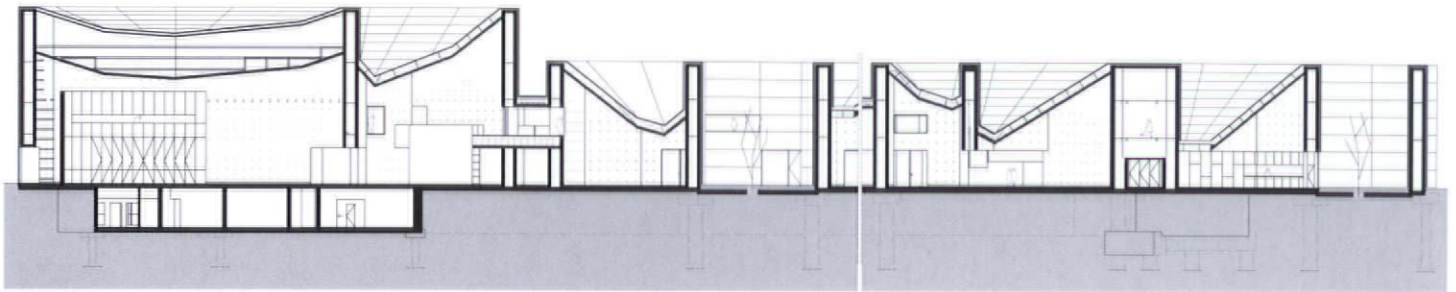


roof plan



ground floor plan

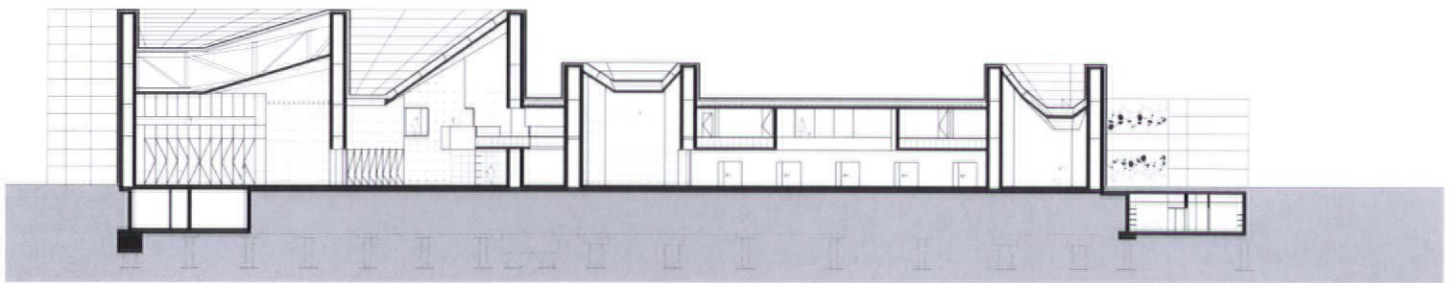




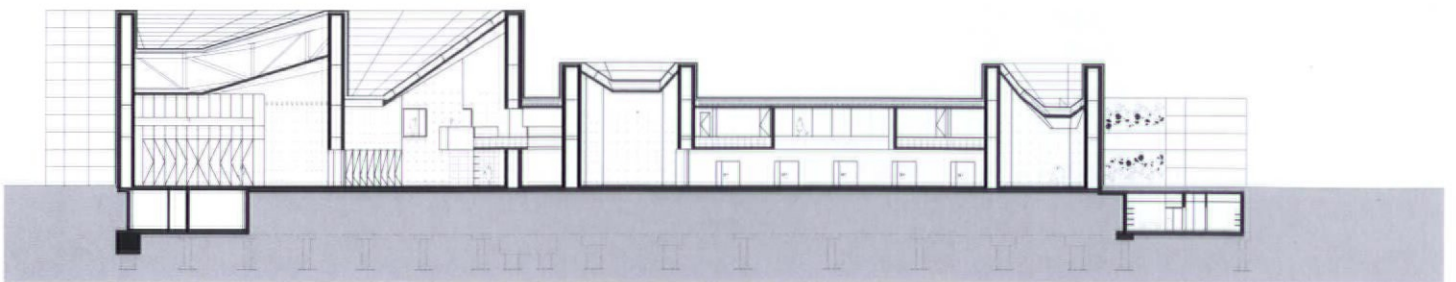
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**section BB**



**section AA**





for the latter left the site open – Koolhaas moved his project closer to the old city, proposing a dynamic, linear structure that pointed diagonally towards the mosque. The *Junta*, or regional government of Andalucía, organised a new competition in 2005 for a facility on the site that would include artists' workshops and exhibition spaces, 'a centre for new modes of expression, digital art, video art, all that is intangible', explains Enrique Sobejano.

With heavy cutbacks in public spending, both projects are now in limbo. The congress

centre was cancelled by Córdoba's new Mayor last year. Plans to put the arts centre into operation 'have come to a halt', according to Sobejano, due to lack of funds and higher priorities. The architects have proposed to turn the building over to 'groups of young artists, collectives, people who need space more than money, like the Tabacalera', says Sobejano, referring to an 18th-century tobacco factory in Madrid that the Ministry of Culture has ceded to neighbourhood collectives for social and artistic activities. Thus, a brand-new, 22 million euro public building has the same throwaway value in crisis-ridden Spain as a ruined factory.

Curiously, this convergence is anticipated by the Nieto Sobejano design, with its reduced palette of exquisitely-handled, 'tough' finishes that purposely emulate industrial structures. Inside the building, the marks of formwork boarding on the thick, exposed load-bearing concrete walls and ceilings are as regular and measured as laid brick. Floors are of magnesite, a seamless, high-strength industrial paving of aggregates and resin. For the steel doors, balustrades and framing, special techniques were used to increase

## Contemporary Art Centre, Córdoba, Spain, Nieto Sobejano Arquitectos

5. Each cell is top-lit by a skylight the shape of which echoes the plan of the space that it pierces  
6. In a modern reprise of the Moorish pierced wall, daylight dapples into a corridor through irregular openings in the facade  
7. (Opposite) these lights appear as inverted or prolapsed versions of the cones at La Tourette; they also refer to the vaults of the Alhambra











the scale of the multi-hued, crystalline surface patterns that are characteristic of galvanisation. 'We didn't want a neutral space', explains Sobejano, 'but spaces with a high architectonic charge that artists could respond to.' In its solidity, its defined geometric forms, and its inventive use of Córdoba's Islamic heritage, the design assumes a physical presence that plays directly against the immaterial, virtual and placeless nature of the art it was built to promote.

Sobejano compares the inverted pyramidal ceiling of each gallery cell to the Islamic *muqaras*, the intricate patterns of miniature corbels, squinches and domes found in many of the vaulted ceilings of the Alhambra. Rising to different heights, each ceiling slopes down to a hexagonal skylight, covered

'Sobejano describes their search as interpreting contemporary architecture and space using Islamic geometric rules, which are actually quite contemporary'

by a stretched translucent membrane, that is identical in shape to the room itself. The thick, hollow walls between cells are accessible for both mechanical services and mounting exhibitions, with circular 'pores' that bore through the walls on a 900mm grid for use in installations. Each cell can be closed off as an independent exhibition area using motorised steel pocket doors that descend from the upper part of the wall. The studio area is equally flexible, with spaces separated by sliding steel doors, allowing artists to occupy one or more studios as needed.

The exterior facades are clad in prefabricated panels of GRC (glass-reinforced concrete). Their screens use the same hexagonal patterns as the galleries, which again are manipulated at different scales and orientations. The long screen facing the river is actually a bas-relief, and each indentation is furnished with indirect LED lighting, converting the facade into a media screen with 1,500 'pixels' for projecting moving images, a concept that the architects developed with the Berlin studio realities:united. The windows of the offices on the opposite side of the building have

### Contemporary Art Centre, Córdoba, Spain, Nieto Sobejano Arquitectos

8. The cells can be divided by massive steel partitions that descend from above  
9. (Opposite) a grid of circular pore-like fixings in the walls enables the installation of many different kinds of art works









a conventional pierced screen. The concept of the embossed facade is a regular theme in the work of the architects. Bas-relief maps of Mérida cover the facades of their congress centre there, and the randomly-pierced aluminium panels of their addition to the San Telmo Museum in San Sebastián (AR July 2011) are designed to host lichen and other vegetation. Here the perfect surface of the GRC is pockmarked, like Swiss cheese, by the organic irritation of the irregular hexagons.

Nieto Sobejano expertly sculpt the massing, using the high profile of the black

box to frame the long opening on the studio side of the building, for example. This strategy recalls the massing of IM Pei's East Wing of the National Gallery in Washington, another design developed from non-orthogonal geometry. The connection reveals the great distance between the two works, from the regular triangular grid of the East Wing to the open-ended, bubble-like chain of spaces of the Córdoba work. Nieto Sobejano break open geometry to organic accident.

Sobejano relates that they first became interested in Islamic pattern when working on the visitors centre at the site of the Madinat al-Zahra Palace north of Córdoba (AR April 2009). The project won the Aga Khan Award in 2010 and has led to new commissions in India and Morocco, where the architects continue to explore these themes. Sobejano describes their search 'to interpret contemporary architecture and space using Islamic geometric rules, which are actually quite contemporary – they are not centred, they expand in all directions, and they are combinational. You define three or four parameters, and everything comes out of that. It's a profoundly modern way of thinking.'

## Contemporary Art Centre, Córdoba, Spain, Nieto Sobejano Arquitectos

10. Irregular vermiculation allows light to penetrate a corridor as if the concrete were as delicate as a rice-patterned ceramic  
11. An austere enfilade of exhibition spaces  
12. (Opposite) light plays across the crisply shuttered concrete



**Architect**  
Nieto Sobejano  
Arquitectos  
**Structural engineer**  
N.B. 35  
**Lighting facade**  
Nieto Sobejano and  
realities:united  
**Photographs**  
All photos are by  
Roland Halbe except for 4







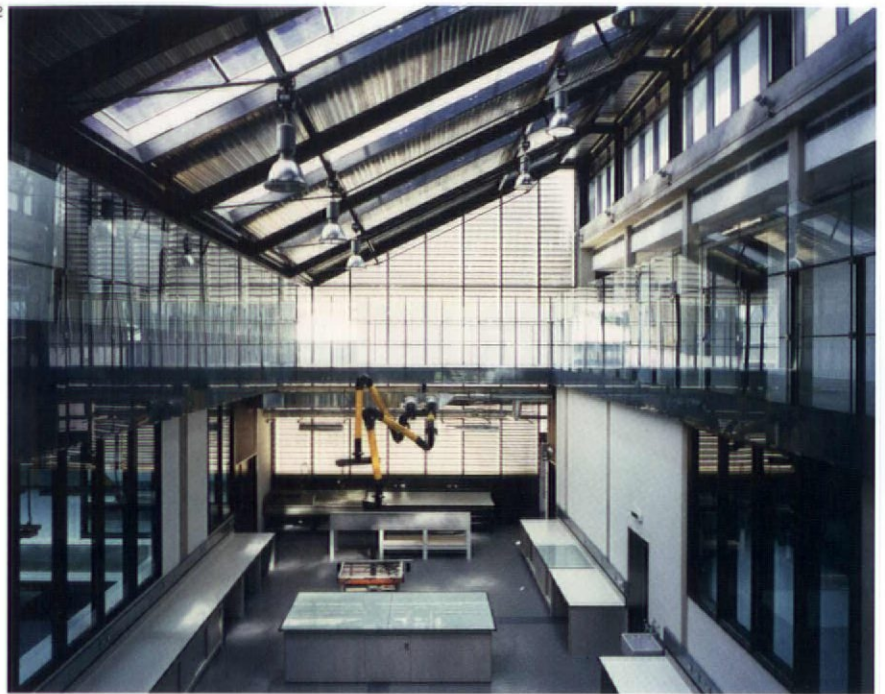






1. The RCA places an emphasis on craft. It gives over about half a programme's space to workshops
2. The machine hall is the unifying space of the new Dyson Building; it will double in length when the Woo Building is completed

2



# LONDON SCHOOLS PART ONE ROYAL COLLEGE OF ART

Set within a national story of transformation in higher education, three of London's art and design schools are reshaping their identities and spatial organisation simultaneously.

As the Royal College of Art splits into two equal campuses, Central St Martins is united in a single building from a dozen sites, and London Metropolitan merges its art and architecture schools into one. This first article reports on the social and pedagogical agendas shaping the RCA's latest changes



The Royal College of Art styles itself as 'the world's oldest art school in continuous operation', a proud boast that slightly falters on its technicality, setting the mind wonderingly off onto some intermittent older rival. But the point is that the RCA is very old (established 1837), and where it is surely unrivalled is in its alumni. The headline names are glittering enough – Henry Moore, David Hockney, Edwin Lutyens, James Dyson – but there is little diminuendo in the 'second tier' (David Adjaye, Frank Auerbach, Christopher Bailey, Peter Blake, Quentin Blake, Ossie Clark, Robin Day, Thomas Heatherwick, Barbara Hepworth ... the roll call goes on).

At the end of last year, the college attempted to condense this breadth of achievement into its Kensington galleries for *The Perfect Place to Grow*, an exhibition to celebrate its 175th anniversary. The show title is doubly ironic – knowingly so when it borrows its name from a work of art by Tracey Emin, who famously hated her time there and smashed her paintings with a hammer in its courtyard; and then surely inadvertently, as a wry comment about a college that rapidly outgrew the Darwin Building, the home completed by HT Cadbury-Brown in 1962.

'For so long the RCA has existed on slightly substandard accommodation,' says Graham Haworth of Haworth Tompkins, the architect of the college's recent expansion, 'and because you have to charge more fees now, people want proper facilities'. The practice won a competition in 2007 to create a Battersea campus around the lonely sculpture department which had decamped there, to a converted industrial building, in 1991. Satisfying the urgent need for fine art studios, the first completed addition was the Sackler Building (2009), essentially a new building inside the brick shell of an old factory.

The next two phases are the Dyson Building and the Woo Building, which have been split for funding reasons but were conceived as one. The first – named after inventive alumnus and sponsor James Dyson – opened in 2012; the second will complete next year. By the middle of this decade, when all three of the Battersea buildings are in use, the college plans to have grown student numbers by just under 50 per cent, expanding its physical space by a third. A third of the students will be in Battersea, and – after a planned further phase – around half will be by the start of the next decade.

'The two campuses are both different and the same, whole in their own right but also partial – a paradox expressed with a photo of Gilbert and George'

While the student experience may well be affected by this numerical growth, it will perhaps be more influenced by this splitting of the college in two. For an institution that has flourished on the intensity of interactions intimately staged in a single place, this is potentially risky. Isn't there a danger that the outpost south of the river will undermine the main camp? Or, to quote Philip Larkin (from another context): 'Why did he think adding meant increase? To me it was dilution.'

RCA Rector Paul Thompson is quick to quash this line of thought: 'We don't want two separate centres. We want to encourage the people who are based in Battersea to come up to Kensington, either for social events, or lectures in the evening, or the library.' There is an hourly shuttle bus, which on a very good day takes a mere 11 minutes. But, of course, at an institutional level the character of this transformation is critical.

'It has been the most debated part of the development,' says Haworth who instinctively saw the two campuses as both different and the same, whole in their own right but also partial – a paradoxical position he expressed succinctly with a photograph of the artists Gilbert and George. For Thompson, it is a great opportunity to update the RCA's identity. 'Everyone has always thought of us as being "Kensington", "The Royal Borough"', he says. 'Battersea does cast us in a different light. It is becoming more and more a centre of activity in London with the American Embassy, the development of Battersea Power Station, and in design terms it's already got Vivienne Westwood, Norman Foster and Will Alsop, literally on our street.'

Coming over Battersea Bridge, the new campus is one block back from the River Thames, behind a bloated apartment building by Norman Foster, practically dumped on his own doorstep (against the conventional wisdom), on the site next to his office. 'It's a part of the city that we work in quite a lot – like the Young Vic at the Cut – in that second layer of London set back from the river, where it becomes more visceral and workaday,' says Haworth. 'That has generated the physical appearance. So it's got a very direct functional message as an aesthetic.'

The effect is quiet, unassuming, even reticent. The sawtooth roofs evoke the industrial architecture that is typical of this area historically, the pared-back materials emphasising this point. It works very well for the functional parts, but the more public areas that line Battersea Bridge Road required greater transparency, and the gear change between these two conditions has not, for me, been completely successfully resolved.

Moving along the perimeter, the building quickly has to shift between mute studios, welcoming gallery (though currently only open when a show is on as the main student entrance is at the rear), and culminate in the commercial reality of retail. It is a bumpy

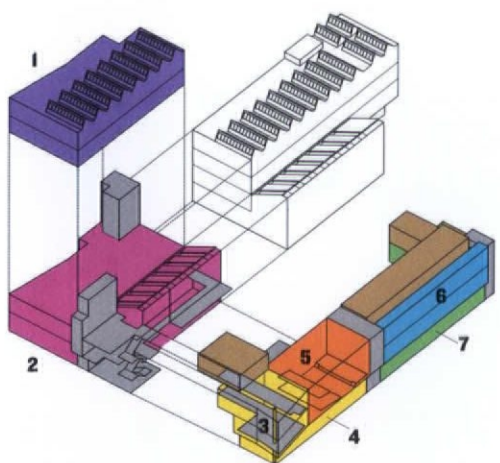


site plan

- 1 Sackler Building
- 2 Dyson Building
- 3 Woo Building
- 4 sculpture school
- 5 Battersea Bridge Road
- 6 Norman Foster-designed apartments

**Royal College of Art, Battersea, London, UK, Haworth Tompkins**

- 1 photography
- 2 printmaking
- 3 gallery
- 4 café/bar
- 5 lecture theatre
- 6 innovation
- 7 retail



exploded axonometric



3

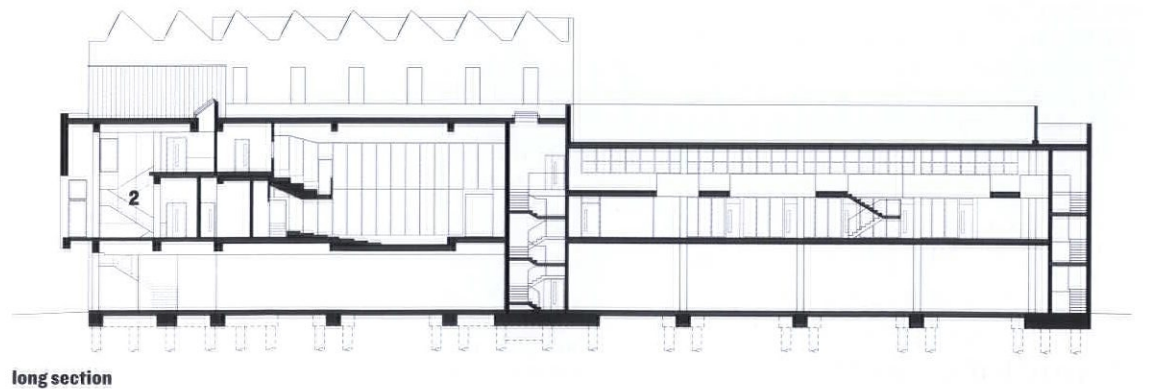
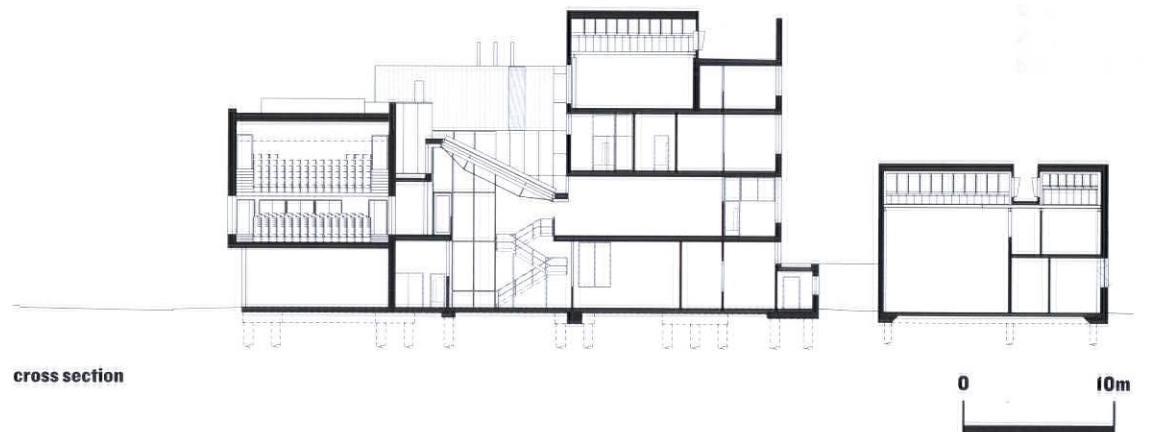


4



**3. The Dyson Building is set one block back from the Thames, where there is retail at the ground level of the main road**

**4. A young Darwin Building in Kensington, which overlooks Hyde Park. On the left (out of view) is the Royal Albert Hall**





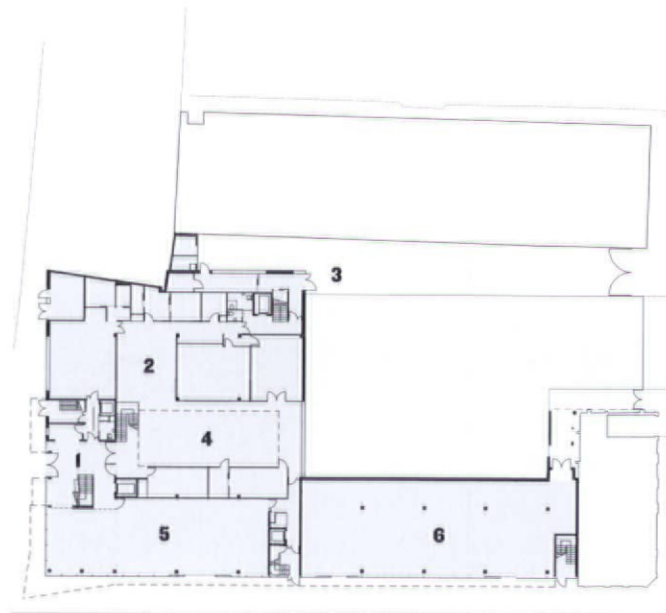
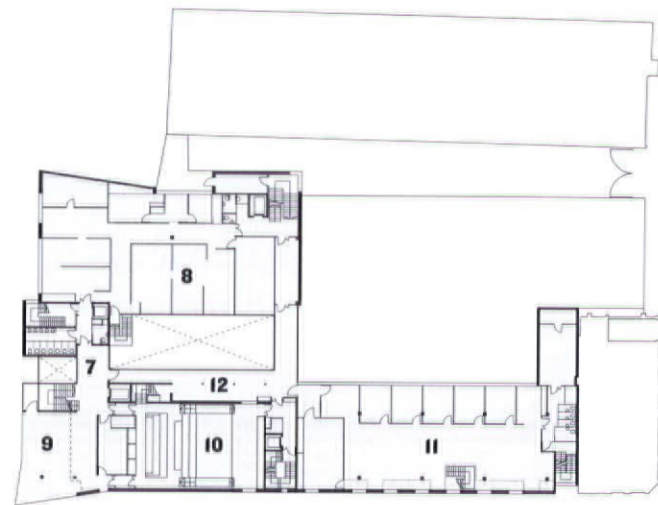
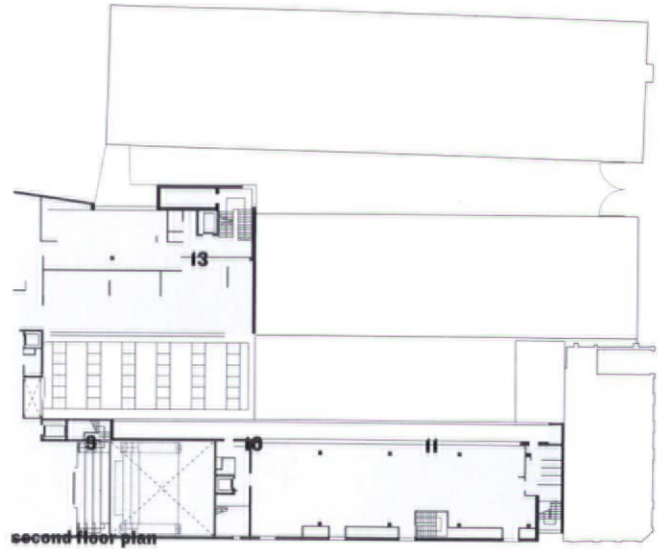




**Royal College  
of Art, Battersea,  
London, UK,  
Haworth  
Tompkins**



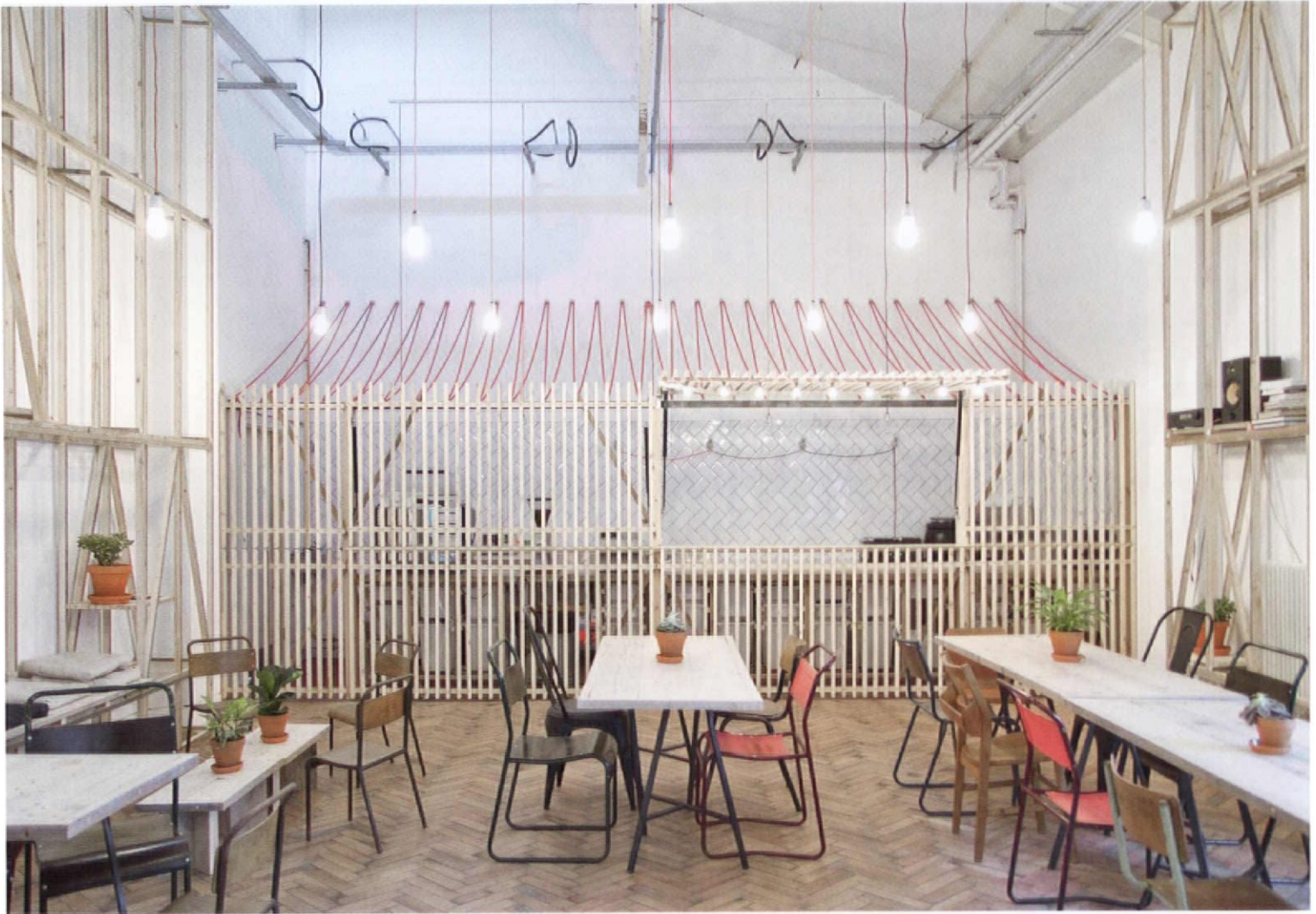
- 1** entrance foyer
- 2** student entrance
- 3** printmaking workshops
- 4** machine hall
- 5** gallery
- 6** retail space
- 7** upper foyer
- 8** printmaking studios
- 9** café/bar
- 10** lecture theatre
- 11** innovation RCA
- 12** hot desking area
- 13** photography processing



**5.** The triple-height machine hall, looking back into the gallery entrance. The space is overlooked by the different studio spaces; hot desks for visitors from Kensington and elsewhere are on the mezzanine on the left



6



7



8



**Architect**

Haworth Tompkins

**Photographs**

All by Philip Vile, except:

2 by Hélène Binet;

4 by John Maltby;

6 by Wai Ming Ng;

9 courtesy of the RCA



6. Battersea's new social centre is a café in the sculpture school designed by architecture graduates Joseph Deane, Tom Surman and Percy Weston  
 7. The first-floor gallery in the Dyson Building  
 8. One of the new studios, where Haworth Tompkins have sought to make a very quiet backdrop to the production of art; this first glimpse of student inhabitation shows the strategy's success  
 9. The Darwin Building's studios, shown here in the 1960s, were also a reference point. They are now being 'desilted' for contemporary use  
 10. A typical north-facing sawtooth roof in the Battersea campus

## Royal College of Art, Battersea, London, UK, Haworth Tompkins

transition to make in a short space, and a difficult one for a practice whose architecture is as polygraphically honest as Haworth Tompkins'; externally, straying from the literal might have been more beguiling.

Inside, however, the honesty of the architecture is absolutely spot on. The building, at its simplest, is split into three strips. The closest to the main road contains the more outward-facing amenities, such as the gallery, the café, a 220-seat lecture theatre and start-up spaces for recent graduates; in the middle is a triple-height workshop called the 'machine hall'; and in the strip farthest back is the studio space for the different programmes. The Dyson Building contains photography and printmaking, and when the Woo Building is completed, it will extrude this section, doubling the length of the machine hall and creating studio space for ceramics, glass, metalwork and jewellery.

Though notionally you can read the three bands underlying the building's organisation, this is not an inhabited diagram, and the spatial experience is both subtle and complex. 'The college does have an idea that there is fluidity between programmes, and, depending on who you talk to, you get a positive sense that that is happening or not,' explains Haworth. 'Within our building we've tried to open it up with a lot of horizontal drift and views through the building. It's quite open visually, with a lot of glass screens.'

The unifying space is the machine hall, which can be seen into from the entrance gallery, on the way up to public lectures, but also, more informally, from studio spaces or the circulation across it. 'You can see printmaking on one side, and people playing with clay on the other, and we think that interchange will be different to the Darwin Building at the moment, which is a series of stacked factory floors,' continues Haworth.

Unlike many academic institutions, which are now encouraging their flocks off campus, the RCA wants its students to work in the college. 'Part of the deal is that you get a desk space,' says Haworth, 'and then the particular programmes we're dealing with have a lot of very specific technical components too. Printmaking, for instance, has a whole floor just of equipment, from high-end digital to screen printing.' It is typically, he estimates, a 50/50 split between studio space and workshop for each programme.

But alongside this requirement for specificity, Haworth Tompkins has also been mindful of future change. 'We kept the building very flexible in terms of its spatial arrangement,' says the architect. 'The floors are very open plan, so if they did want to change them in 10 years' time they could do. The spaces could be appropriated quite easily. For instance, we kept the sawtooth roofs at the top for photography in case they were later used as painting studios. But we designed a system for them to be blacked out.'

The practice has taken a utilitarian approach to the interior, making an architecture that is keen to express the way it's made. Inspiration has come from Functionalist precedents such as the Boots Pharmaceutical Factory (1931) by Owen Williams, the Ulm School of Design (1957) by Max Bill, and Erco Studios and Technical Centre (1988) by Uwe Kiessler.

But there are also very clear parallels to be made to Cadbury-Brown, who asserted that, 'Money should be spent on space rather than finishes – as a place where art is in a continual process of being made, the interior especially should be plain ... its principal functions should be to act as a background to art and not assert itself as an "art thing".' As a description of how Haworth Tompkins has operated, this statement resonates six decades on and can't really be bettered. In their underlying approach, the Battersea buildings bear the genetic imprint of their stately Royal forbear.

And, of course, this senior architectural relation is also in a process of change. 'Every time there is a move down to Battersea it gives us the opportunity to reassess what goes on in Kensington,' says Thompson, who commissioned Haworth Tompkins to do a masterplan for the whole college midway through the thrust south of the river. The main moves will be to sort out the skip-strewn rear entrance, creating a proper loading bay, while opening up and giving more status to this primary arrival sequence.

The rectorate will move from the ground floor up to the top, which will sensibly clear the gallery space. And there will be a lot of what Haworth calls 'desilting': removing the layers of entrenchment that have built up over time, and restoring the factory-style studio spaces to their original open plan with views out on all sides. This has already happened on the sixth floor, where architecture and fashion cohabit, an odd disciplinary marriage, perhaps, but one that adds to the gaiety of the college's social (if not creative) life.

And what of life in Battersea? 'It's still very early days, and the inhabitants there are trying to figure out how they want to use the space,' says Thompson. However, an auspicious start has been made with the café in the sculpture building, designed and built by three of last year's architecture graduates with the sculpture school's Richard Wentworth acting not so much as client, but guru impresario. The students moved it from the originally earmarked space to a room that opens onto a little courtyard, and it has already become Battersea's social centre.

Furthermore, as a project that unites both sides of the river, and where students rub along with faculty, it's a positive augury for the continuation of the creative collisions the college has been so reputed for in its past.

**Next month's article will conclude with Central St Martins and London Metropolitan University**

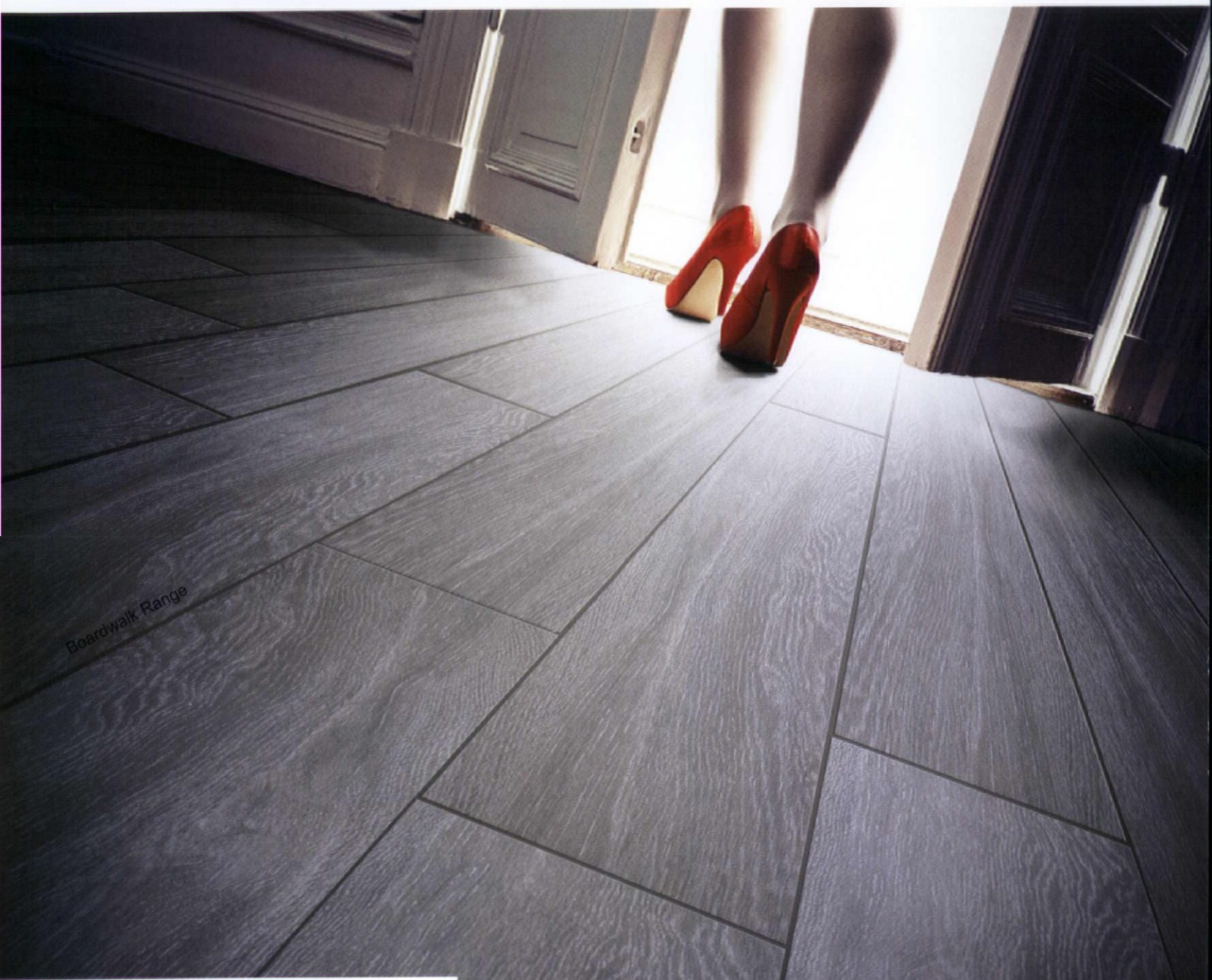






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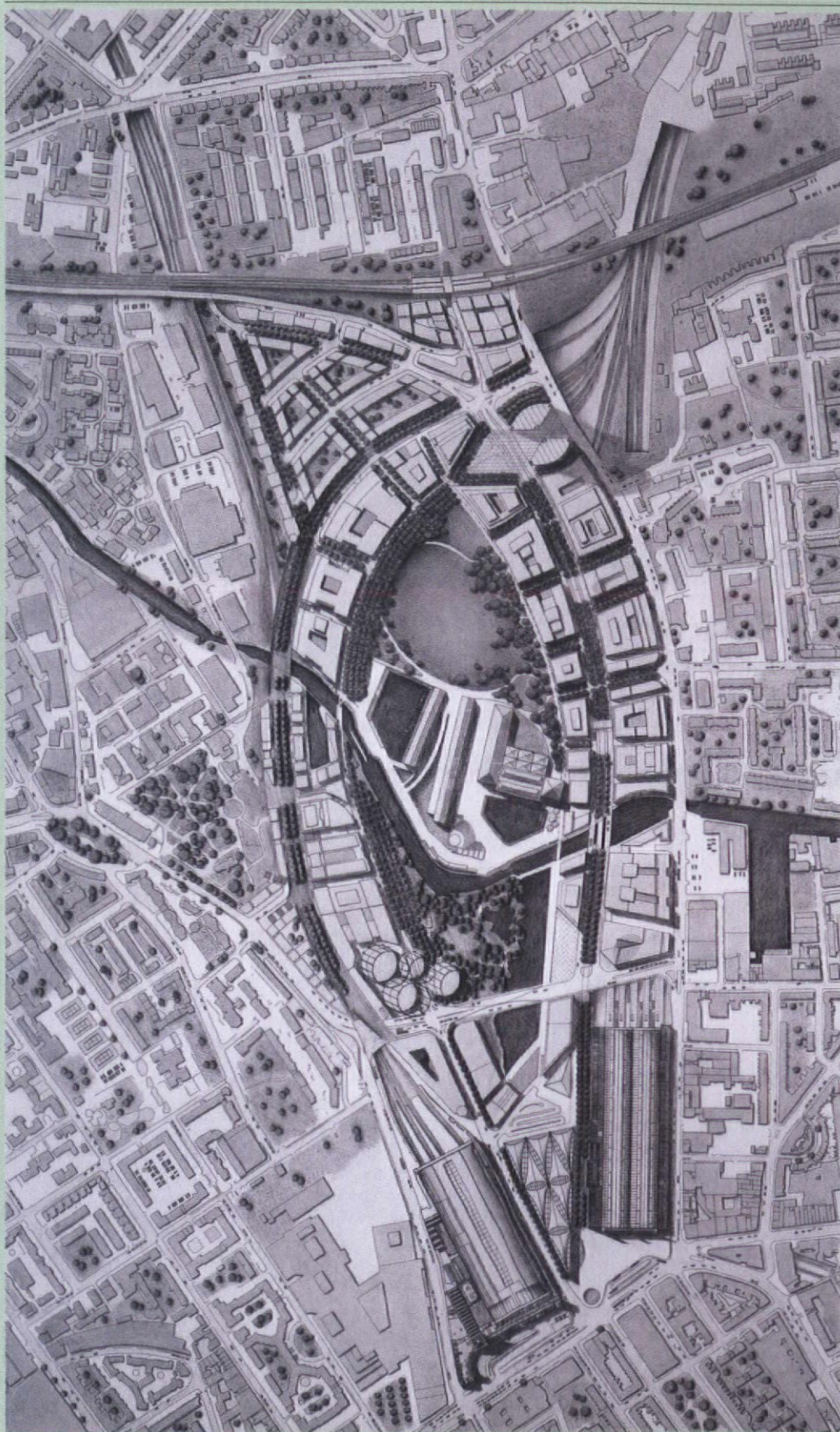
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# THE BIG RETHINK URBAN DESIGN

The fundamental purpose of urban design is to provide a framework to guide the development of the citizen. As this AR campaign reaches its conclusion, the penultimate essay attacks the City of Doing found in modernity and calls for a return to the spatial and social richness of the City of Being — necessary for the flourishing of humanity in the 21st century

**PETER BUCHANAN**

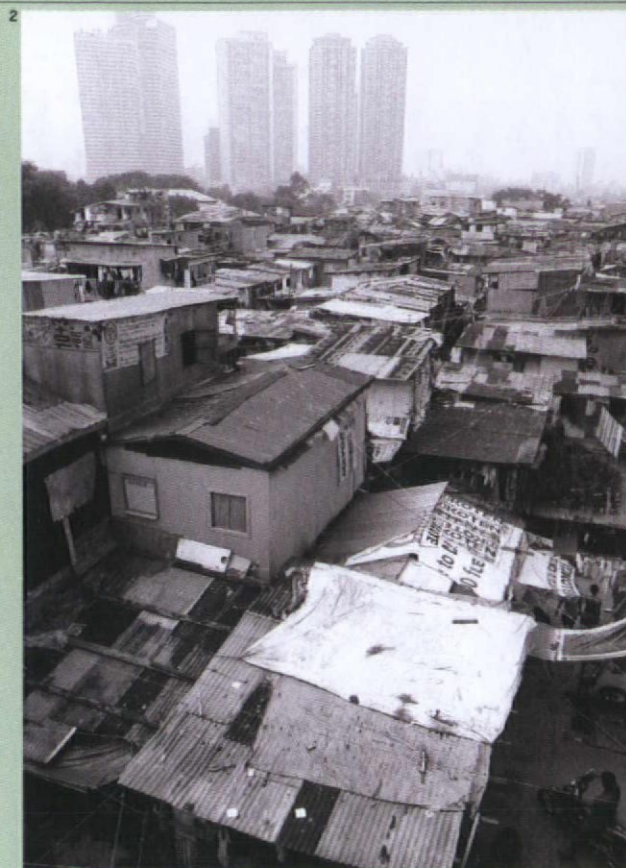


In the largest-ever wave of human migration, vast numbers all over the developing world are flooding from countryside to city. Most of humanity is now urbanised as new settlements, some expanding into vast megacities, mushroom rapidly – and around them sprawling slums provide the initial foothold in the transition from peasant to urbanite. Many of these new cities, like the newer parts of old ones, are dismal aggregations of sweatshop factories and crowded residential buildings of stacked hutch-like homes. But, like the even less salubrious slums, these offer escape from the grinding poverty of the countryside, with its lack of education and healthcare. The first generations entering these cities and slums willingly sacrifice their lives to give their children the education and opportunities they never had and to support dependents in the countryside. And despite the slums' decrepit and unhealthy conditions, they do in a sense 'work': people progressively upgrade their homes, or move on, as they can afford to; and the slums are hotbeds of small-scale entrepreneurship and creativity. Indeed it is well-intended interventions, such as construction of state-funded new housing, that tend to fail. Slum dwellers cannot afford the rents and implicit lifestyle of the new housing, whose leases secretly fall to the better off to be sublet for profit.

Seemingly somewhat contrary is the ongoing trend in developed countries for cities to focus on improving their open spaces and quality of life. Influential examples are the transformation of Barcelona, initiated by Oriol Bohigas in the 1980s as advisor on urban affairs to two consecutive mayors, and the Slow City (Cittaslow) movement originating in Italy. Such developments are characteristic of wealthier countries with relatively stable or even declining populations. Besides improving the quality of life in cities – making them better places for leisurely enjoyment, so less stressed and in various ways healthier – the spreading Slow City movement also emphasises enhancing local characteristics and culture, including regional food and cuisine. It thus resists the homogenising impact of globalisation. Yet precisely because of this it also makes a city more attractive to skills and investment in our globalised world, where cities as much as countries compete for these economic essentials, and key assets are a city's quality of life and individuality of character.

The most important and influential of current developments goes further. This is the Transition Towns movement now spreading rapidly through the towns and cities of much of the world. Its primary emphasis is on building local resilience, and so sustainability, through a wide range of community and environmental initiatives. Although there is much to be learnt from this movement, it is tangential to the focus of this essay. But it is strange how few architects participate in the movement and that when mentioned in architectural schools, even those within a very active Transition Town, neither students nor staff tend to be aware of this. Part of the problem seems to be architects' reluctance to dismount their professional pedestal and muck in as equals with ordinary folk more knowledgeable and committed than themselves.

Much about the future may be impossible to predict, not least because of rapid technical innovation and,



**1. (Previous page) final version of abandoned masterplan for railway lands north of St Pancras and King's Cross stations in London by Foster + Partners with the Space Syntax consultancy. Organised around a clearly configured armature of streets and open spaces, it combines the grandeur of the city as cultural artefact with the viability of city as organism**  
**2. Rising rapidly all over the developing world are cities of tall towers and surrounding slums**

particularly, the continuing exponential increase in computing power in accordance with Moore's Law. How many of today's gadgets and the way they have affected daily life could have been envisioned a couple of decades ago? But other assumptions about the future seem pretty safe bets, including those underlying this series of essays, not only because they are founded on discernible trends, but even more so because they are urgently necessary to resolving a wide range of dangerously pressing issues. The most threatening of these, as earlier essays have argued, are endemic to modernity. And resolving them would require, among other things, counterbalancing modernity's too exclusive focus on the quantitative and objective with attention also to the qualitative and subjective, including the desire to live in accord with personal values and aspirations.

Without this, for reasons also argued in earlier essays, progress towards sustainability will remain elusive. Hence trends like the Slow City and Transition Towns agenda, as well as the sort of urban design advocated in this essay, are certain to prove germane to the exploding cities of the developed world, to which all such concerns currently seem utterly alien. Rural people arriving in the cities might willingly sacrifice themselves for dependents and future generations; but their children and following generations will inevitably have, and want to realise, very different aspirations. Nor will being able to afford consumer goodies and distracting entertainment persuade them to compromise their ideals. They will want lives and



work of dignity, offering meaning and personal fulfilment – what the city always promised, but delivered to only a minority, and will soon be deemed essential by most. So the challenges facing these mushrooming cities are much more than the overwhelming current concerns of number and quantity, such as housing and employment for their burgeoning populations, feeding them and disposing of wastes and emissions. Difficult as these are to achieve, they are conceptually easier to entertain than dealing with such psycho-cultural challenges as conceiving of cities that offer lifestyles and work of dignity, meaning and fulfilment in line with very varied individual notions of purpose, identity and personal destiny.

In the light of all this, the current assumption of more and more of us living in cities and mega-cities seems less than inevitable. Besides, in times like these when we are undergoing massive and pivotal historic change, it is as likely for some trends to reverse as to continue. For instance, many analysts and commentators have been warning of problems of future food supply and security. Our current systems are heavily dependent on oil for farm machinery and transport, fertilisers and pesticides. Even though Peak Oil no longer seems the looming challenge many assumed until recently, our energy-intensive agriculture is problematic for, among other things, the emissions produced, the poisoning of land and water, the loss of biodiversity and the un-nutritious food produced. Its unviability and the need to offer millions dignified and meaningful work suggests there may be a return to the land, to small-scale labour-intensive farming, to regenerating and living in harmony with the earth and its daily and seasonal cycles, to producing local nutritious food and leaving a long-term legacy for one's descendants. After all, the poverty presently associated with such farming has been brought about by the corporations that

'Trends like the Slow City and Transition Towns agenda, as well as the sort of urban design advocated in this essay, are certain to prove germane to the exploding cities of the developed world, to which all such concerns currently seem utterly alien'

are trashing the planet to maximise profits by driving down prices and feeding us highly processed, unhealthy food. What is being suggested here is not the end of cities, but rather that the future might lie with a range of differing kinds and sizes of settlements, some no doubt of a sort yet to be conceived. After all, thanks to the Internet and various forms of energy-efficient public and private transport, combining the best of urban and rural life is now perfectly possible.

Besides, although global population is projected to continue to grow until mid-century, when it will reach between nine and 10 billion, some analysts now say it will not only plateau but then start to dwindle. Wherever women have become educated, population has stabilised and in some countries declined as birth rates fall below replacement levels. This is a pattern, it is argued, that is bound to be repeated globally. Yet it could be that declining birth rates are a consequence not only of female education but also of mothers having to work in our neo-liberal economies. Countries with good childcare provision, like Iceland, see less of a drop in birth rates. Anyway, the likelihood is that the population pressures of the present and near future may be relatively short term. From an evolutionary perspective, this population bulge could be seen as a way to further pressurise humankind to make the next jump in its own evolution – from modernity to trans-modernity, from wanting to conquer or suppress nature to seeking symbiosis with it, crucial steps towards sustainability. So, much of the squalid urban fabric built this millennium may soon come down, both because of declining populations and so as to create more liveable cities better suited to future aspirations and the true purposes of cities – something the design of these mushrooming cities maybe should already acknowledge.

The challenge of sustainability will increasingly influence urban planning and design, as it does already in the advocacy for the Compact City – dense with mixed-use neighbourhoods to encourage walking, lessen the need to commute and make public transport feasible – and prioritising construction on brownfield rather than greenfield sites. Computer modelling and use of suitable planting can lead to improved microclimates: by channelling cooling breezes and excluding gusty downdraughts, for instance; by planting roofs to shade them and aid transpiration; by using deciduous plants for summer shading of streets and facades; and so on. Besides improving external microclimates, such measures reduce loading on mechanical equipment within buildings or help to eliminate it entirely. These and other pragmatic measures are widely known and discussed, and so need no elaboration in these few pages. Nor do such similarly

3. Climate as a determinant of design: a narrow shady street that channels breezes in Foster + Partners' design for Masdar City, Abu Dhabi





significant ones for saving and recycling water, enhancing biodiversity and providing refuge for wildlife and corridors for its movement.

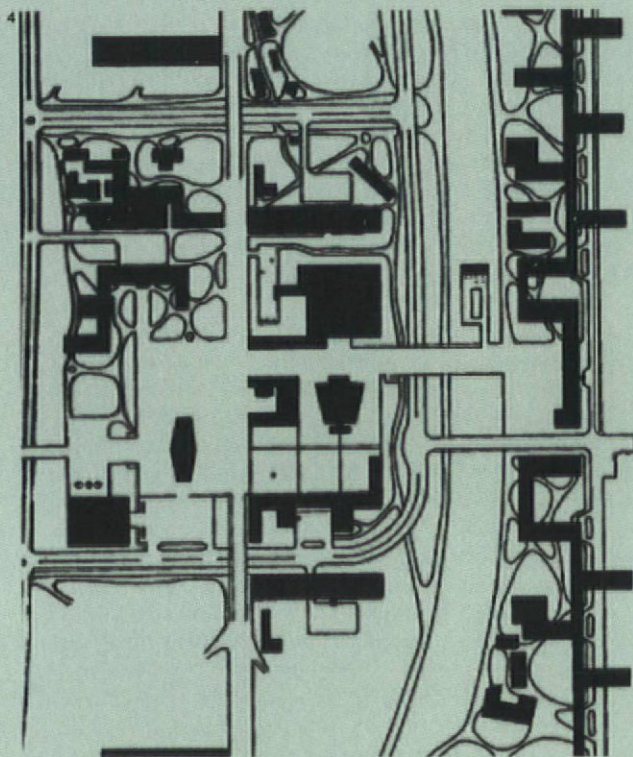
Another important factor beginning to receive attention in urban design discussion is human health, and not only by maintaining cleaner air and water and minimising the many environmental toxins ranging from vehicle exhausts to off-gassed chemicals from buildings. The epidemic of obesity and associated diabetes are due partly to the processed foods with which corporations swamp supermarkets and fast food outlets, but also because in the contemporary city, hours are wasted commuting long distances rather than walking or cycling in pleasant conditions. Another contributory factor to many diseases is increasingly understood to be inflammation, often compounded by the solitary lifestyles, loneliness and lack of community characterised by modern city life and exacerbated by its design. These are issues we will return to in next month's essay.

Two other developments already raised in an earlier essay will also in time impact profoundly the life and design of urban areas. First is the ongoing emergence of what Daniel Pink has labelled the Conceptual Age.<sup>1</sup> Second is progress towards what Jeremy Rifkin refers to as the Third Industrial Revolution<sup>2</sup> (TIR) – if politicians can be persuaded to stop fighting to preserve the corporate behemoths of the Second Industrial Revolution (SIR) and the privileges of those at the top of their pyramidal command structures, all at the expense of most of us and the emerging TIR. Pink notes how following the migration of rote manual labour (factory work) from the developed to the developing world, and so the transition from the Industrial to the Information Age,

rote non-manual or intellectual (linear sequential, left-brain) work is now following: call centres, accounts, even legal advice and medical diagnostics. Now, as wages in these countries and transport costs increase, some manufacturing is returning to the post-industrial developed world. Nevertheless, in our progression from the Information to the Conceptual Age, our cities are refocusing their economies on creativity, culture and caring (all drawing on right-brain capacities of empathy, pattern recognition and so on) – caring because required by our ageing populations, and culture to cater for the long post-retirement portion of the lives of an educated citizenry. This suggests cities combining the buzz of the very best contemporary cities with the virtues of the Slow City.

## Redefining purpose

Behind all these essays, as already explicitly stated and argued in them, are key assumptions. Central to these is that in this pivotal moment in history several epochs of differing duration are drawing to a more or less simultaneous close, in particular 4-500 years of modernity along with its terminal, meltdown phase of postmodernity. The emergence of the Conceptual Age and TIR are part of this larger transition. Thus the times demand that much be radically rethought, right down to such basics as the fundamental purposes of things. This is especially true of architecture and urbanism because the Modernist conceptions of their purposes, along with the associated vision of what constitutes the good life they are to frame, are so desperately impoverished. In contrast to their too-exclusive emphasis on the objective, the Right-Hand Quadrants of the AQAL diagram, it is time to



**City of Doing and City of Being**  
**4. Le Corbusier's masterplan for St Dié** consists of object buildings dispersed in landscaped open space – a city fragmented into differing things done in different places  
**5. The Nolli plan of Rome** shows a city of contiguous fabric, with the open space as the figure against the ground of buildings, a city in which you are immersed and exposed



'Certainly the city is a place of trade and manufacture, residence and recreation, education and welfare. But the quintessential and most elevated purpose of the city is as the crucible in which culture, creativity and consciousness continually evolve'

re-emphasise the many dimensions of human subjectivity, the Left-Hand Quadrants, and to reground architecture and urbanism in these too. Their fundamental purposes need redefining in terms of their deepest, originating human impulses to be as inspiring, ennobling and encompassing as possible so as to inspire urgently needed change.

Among the most memorably taunting of the graffiti slogans of Paris '68 was 'Métro, Boulot, Dodo', life reduced to a meaningless, relentless round of commuting, work and sleep. Terrifyingly, this is an exact and fair summary of the Functional City of modern town planning as promulgated by the Athens Charter: urban settlements of dispersed zones for work, housing and recreation connected by circulation-only transport routes. This is human life reduced to a mere productive economic unit, its pointlessness to be compensated for by the addictive distractions of consumerism and entertainment. Indeed, the underlying ethos of such planning was a weird mixture of socialism and consumerism, seeking a balanced allocation of requisite facilities: one playground per so many houses; one primary school per multiple of that many houses; and so on. Town-planning manuals of the mid-20th century exemplify this dismal approach exactly and in many parts of the world towns and cities were laid out like this. The insidious legacy of this thinking continues, if often more subtly.

This modern Functionalist City is what I described in an AR essay of a few years back as the City of Doing, as opposed to the City of Being.<sup>3</sup> It is a city shaped only by the seemingly rational, objective concerns of the Right-Hand Quadrants. At its not-infrequent extreme, it is a city of freestanding mono-functional object buildings dispersed in mono-functional zones and to which access is gained by movement-only channels lacking all the social dimensions of the traditional street – what in a much earlier AR essay<sup>4</sup> I described as the 'wiring diagram city'. This is a 'city' in which not only is urban fabric fragmented, but so is civic life and the psyche of the citizens. In it life breaks down into discrete and discontinuous roles dispersed between different locations (home, workplace, sports field) requiring different modes of behaviour (parent, employee, athlete or fan) all isolated in a conceptual and spatial void, through which you travel in the encapsulated anonymity of car or public transport. In such a city nobody is known in their entirety, the reductionist and mechanistic conception of the layout resulting in the avoidance of community entanglements and chance encounters, with their complexities and contradictions that provoke self-reflection, so leading to self-knowledge and psychological maturation.

Certainly the city is a place of trade and manufacture, residence and recreation, education and healthcare, and so on – the things the city of modern planning provided for. But the quintessential and most elevated purpose of the city is as the crucible in which culture, creativity and consciousness continually evolve. Consistent with this view, some archaeologists now speculate that the initial origins of the city are not as a place of trade but of large religious gatherings, and that it was the need to feed these that provided the impetus to produce agricultural surplus. The city remains the best, but not only, place to become fully developed as a human by today's understandings of what that means, and where tomorrow's understandings of what that will be are being forged. To do this, the city must cater to the very different needs and aspirations of its citizens through all ages and stages of life, from dependent infant and then exploring child through to adulthood and families to old age. Adding yet further complexity to this is that the city is now home to many cultures, to some of which it is a melting pot while others wish to retain their particular traditions and lifestyles. It is in helping to understand these diverse world views and their underpinning values, as well as in how best to accommodate and communicate with these groups, that disciplines like Spiral Dynamics are proving invaluable to architects and urbanists – no matter how much their schema of developmental levels is offensive to the postmodern mindset.

Hence the fundamental purpose of urban design is to provide a framework (spatial, functional, circulatory, economic, legal etc) to best guide the development of the citizen as well as the city or urban area. It is about the interdependencies and mutual development to fulfil the latent potentials of citizen and city by elaborating as richly and coherently as possible the many different places of the city and so also of the lived experience of its inhabitants. It is an art of space, time and change or maturation. Time here includes the cycles of day and season, the lifespan of citizens as they grow and mature. Time also includes the long unknown future in which cities and culture evolve and change as is healthy and inevitable, and in which buildings will come and go while the city nevertheless retains much of its unique character and identity. As with our redefinition of the purpose of architecture in an earlier essay, this returns to the centre of design consideration our full humanity, from where it was displaced and trivialised by elevating Functionalism, the quantifiable and the objective, at the expense of qualitative realms of the cultural, experiential and psychological. A city of such reinvigorated purpose would be rich in experiences and things to do and explore, and through this develop your personal interests and capacities, as you are socialised and develop empathy in interaction with community and other cultures. Such thoughts confirm how impoverished is much modern and contemporary architecture and urbanism. Yet we have become accustomed to a world of compact and mutely rectangular pieces of electronic equipment of extreme functionality and user-friendliness. If only more buildings and urban design could emulate this instead of indulging in whizzy forms that deliver next to nothing.



6



## Development of urban design

Although the legacy of modern planning still lingers on, its weaknesses were soon obvious to some. In the 1950s this led in the USA to the formation of urban design as a discipline that would act as a bridge between the abstractions of planning and the individual buildings of architecture, providing some context for the latter to respond to and embed themselves in. The first urban design course anywhere was initiated by Josep Lluís Sert when Dean at Harvard. But the approach most germane to our argument here, which will be expanded upon later in this essay, was that taught by Professor David Crane as the Civic Design Program at the University of Pennsylvania in the late 1950s and 1960s. Although many of the best urban designers studied under Crane or ex-students of his, this approach and its legacy have been too soon forgotten, perhaps in part because Crane published little. Complementary to Crane's teaching, and hugely influential as a critique of Modernist planning, was Jane Jacobs' *The Death and Life of Great American Cities* of 1961 and, to a lesser degree, the later *The Uses of Disorder* by Richard Sennett of 1970, which still deserves wider attention by architects. Both these books are largely about the being and becoming dimensions of urbanism, as was much needed then and still is today.

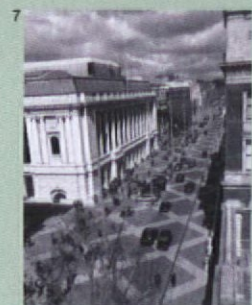
Jacobs' book helped fuel the backlash against modern planning and urban redevelopment among the many who were appalled at the destruction of historic buildings and neighbourhoods. This led to the conservation movement and contributed to Postmodernism, which offered cogent if too-narrow critiques of modern architecture and planning, decrying abstract object buildings for their lack of relationship to context, history and even the street wall. These themes were taken up in Europe by the postmodern Neo-Rationalists who advocated returning to the traditional typologies of street, square and urban block. And their architecture, even if somewhat abstracted, was also based on and evoked traditional typologies so as to,

supposedly, be rooted in and carry forward the past. Together these debates – if not the often ghastly architecture that resulted – definitely had a beneficial impact and brought to the work of many architects a new sensitivity to history, context and civic responsibilities, leading to the belated maturity of some late-modern architecture.

Another significant development was the publication of *A Pattern Language* by Christopher Alexander et al. A book packed with ideas and wisdom, it certainly has its weaknesses, particularly the constructional patterns. Architects are also put off by the implied return to craft construction of a rather crude sort, and the retro formal language. But it is very much a book about the City of Being and Becoming, of richly articulated and varied places that will nourish and develop the psyche and a richly vibrant community life, and in which even buildings and urban spaces convey a sense of life, almost as beings in themselves. It is a book whose time has yet to come, particularly as it plays an important role for times of profound cultural change by sifting and condensing into a usable formula the wisdom of the past so that it can be carried forward to influence the next era.

A very different, and superficially almost antithetical, development is the emergence and increasing use of the analytic, computer-exploiting techniques of Space Syntax.<sup>5</sup> This is a set of narrowly Right-Hand Quadrant techniques that provide a powerful predictive tool both for analysis prior to design and for checking proposals as they are being developed. Although immensely useful, Space Syntax lacks the breadth and attention to all the Left-Hand Quadrants concerns of the David Crane approach. Besides, Crane had developed strikingly similar graphic techniques for analysing movement patterns that, if lacking the precision of Space Syntaxes computer-dependent methods, are not only far less narrow but also help designers to gain a deep feeling for the forces at work around and within the area under consideration.

**6. World Squares for All,** a remodelling of London's Trafalgar and Parliament Squares and Whitehall which links them, by Foster + Partners with Space Syntax as consultants. Trafalgar Square, the classical centre of the ex-Empire, with architecture derived ultimately from the Roman imperium, is now made pedestrian accessible with new stairs up the pedestrianised street in front of the National Gallery





### Shortcomings of current urban design

A problem with much urban design is that it is still infected with modern, Functionalist thinking – too limited to the Right-Hand Quadrants. This is particularly obvious in schemes of blanket zoning and mono-functional components, such as traffic-only streets and single function buildings – masterplans of a sort still being produced. To oversimplify to clarify a point, let's contrast two opposed approaches to urban design. One prioritises zoning, and the allocation of functions and facilities in predetermined ratios, served by transport links. The other shapes movement and public space into a spatial armature made up of many different kinds of places (streets, alleys, squares, parks etc) articulating a range of qualitatively different locations, each suited to a range of functions. Compared with the former, this approach is more flexible, both in allowing choice in the kinds of buildings erected initially and for these to be rebuilt over time while the spatial armature ensures some continuity of character and identity. If the former has its roots in the modern City of Doing, the latter tends towards the City of Being, the

**7. South Kensington's Exhibition Road shows scant regard to context**  
**8. Masterplan for whole World Squares scheme with Trafalgar Square to north and interlocking green spaces around Parliament Square resembling an English cathedral close**



model to which historic cities conformed.

The difference between these approaches can be found in what at first may seem similar enterprises. Contrasting examples are Mayor Ken Livingstone's project, initiated by his advisor Richard Rogers, to furnish London with a series of new public spaces, and Foster + Partners' pre-Livingstone and only partially implemented scheme, World Squares for All.<sup>6</sup> The first of these creates trendily designed spaces with little regard for context, or making meaningful connections with the past, such as the repaved Exhibition Road in South Kensington; except at its southern end, this lacks the adjacent uses and dense hinterland to bring it properly to life. Although the best known, this is by no means the most misguidedly conceived of these spaces.

World Squares for All, designed with analytical input and advice from the Space Syntax consultancy and traffic engineers, is very different. It draws on careful study of context to draw together into a new whole two of London's major public spaces, and makes these more pedestrian-accessible by closing streets on one side of each to vehicular traffic. Equally important is that the scheme intensifies the contrasts, symbolic meanings and connections to history of both spaces. Stone-paved Trafalgar Square is Classical (faced by the Neo-Classical National Gallery, St Martins-in-the-Fields, Canada House and the cod Cape Dutch Classical of South Africa House) and adorned with statues of military heroes, as befitting the centre of what was Britain's Empire. In complete contrast, the area around Parliament Square was to be a softly green and leafy sequence of interlinking spaces, redolent of that peculiarly English urban form, the cathedral close, and flanked by the Gothic Westminster Abbey and St Margaret's Church and the Neo-Gothic Houses of Parliament. Connecting these centres of Empire and England is the refurbished Whitehall, whose slight curve obscures one from the other, with the Privy Garden as an enticing mid-point visible from both. Foster also proposed that these spaces be linked by further upgraded pedestrian connections to other monuments in central London as part of his concern with 'wayfinding', helping visitors to orient and find their way around. The whole scheme therefore is about connections, not only spatial and pedestrian but also to history, thus attending to the cultural dimensions of the Right-Hand Quadrants. Sadly Livingstone and his team failed to grasp this and asked other designers to hard-landscape only the central space of Parliament Square, which his successor Boris Johnson rightly scotched. Although this does not apply to World Squares, it seems that a weakness of much current urban design is that it is undertaken by architects untrained

'That urban design is taught only very cursorily if at all in architectural schools – or is replaced by superficial exercises in 'mapping' and so on, or offered only as an elective or masters course – is a scandal'

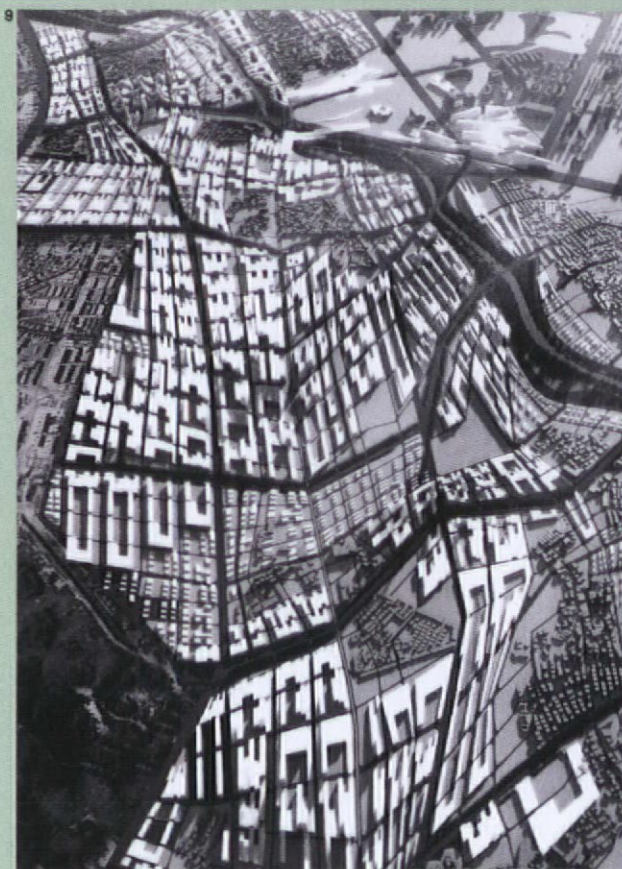


in, or without a deep understanding of, urban design. Such schemes often look orderly and well-organised at first glance, but closer inspection reveals no deeper 'structuring' logic. One weakness is an essential lack of understanding of how movement, its density of flow and character, generates adjacent uses (particularly retail) and provides the framework that animates and articulates the scheme and ties it into its context. This becomes apparent when it is impossible, from study of the movement network, to predict the location of land uses (functions) and relative land values. Missing too seems an understanding of the many temporal dimensions urban design must deal with. Besides the cycles of the day, there is phased implementation that should generate its own momentum towards completion. And then the various physical elements each have different lifecycles: major ones such as boulevards and parks that give the primary order and identity to an urban area last centuries; minor streets and lanes might be adjusted over decades; and buildings come and go in various cycles. Good urban design is thus not only spatial, it must also be highly strategic. It is thus an art of tersely understated synthesis, yet has also to be suggestive enough to both invest a scheme with character and to elicit from architects a rich array of appropriate responses over time. This capacity to allow yet condition change is a hallmark of good urban design, something that often only the trained and experienced eye can judge.

Currently fashionable approaches such as parametric urbanism and landscape urbanism exhibit all the above flaws. To reintroduce landscaping and nature into the city as fairly dominant elements is for many reasons admirable – benefiting bio-diversity and wildlife, controlling flood waters, tempering the climate, providing a recreational environment for a range of outdoor pursuits and sport, and so on. But as with Parametricist schemes, most urban landscape ones fail for their lack of the urban dimension, such as how movement generates land uses and how the movement network can be articulated to create a variety of locations that are qualitatively different just by virtue of their location in that net, prior to any further elaboration. The roads in such schemes may wiggle, the blocks may distort in blobby forms, but many of these schemes lack essential variety, each location being boringly much the same as any other.

## Methodology

That urban design is taught only very cursorily if at all in architectural schools – or is replaced by superficial exercises in 'mapping' and so on, or offered only as an elective or masters course – is a scandal. This may reflect a shortage of the requisite skills to teach it, particularly in the studio, and is apparently also yet another dire consequence of the Research Assessment Exercises: these undervalue design as something woolly and un-academic, leading to the erosion of spatial urban design in favour of the a-spatial abstractions of sociologically oriented planning. A thorough grounding in urban design undoubtedly makes for better architects, more alert to the wider responsibilities and impacts of their designs, and better able to analyse the needs and potentials of



9. An example of an urban-landscape masterplan: 'Deep Ground' plan for Longgang in China by GroundLab and Plasma Studio in collaboration. Despite the wiggly roads and distorted blocks, the configuration of movement and green space system provides little inherent diversity of character and location

the surrounding area that the building should address and capitalise upon. Moreover, any training in urban design would better prepare architects to undertake large-scale projects, as well as to appreciate a good urban design scheme when confronted by it and help understand how to respond to it architecturally.

Another benefit is that familiarity with urban design would make architects more aware and disciplined as designers generally. Urban design operates on a larger spatial canvas than architecture and must consider longer time periods in which it involves and impacts upon major capital investments. Design is thus an iterative process involving wide-ranging research and following a rigorously disciplined sequence.

The architectural design process may start from many points simultaneously, including working from the general, such as context, down to the particular, and vice versa, thinking about suitable materials and their detailing and working upwards. Often a better understanding of the problem and what the architect should be striving to achieve only emerges during design.

**'A city is both a cultural artefact, consciously and wilfully shaped by humankind, yet also a living organism unconsciously shaped by its own internal metabolic forces'**



By contrast, urban design tends to proceed from the general to the particular, starting with research and analysis. Then before design starts, or after only tentative exploratory forays to test potentials, clearly stated goals are formulated to guide design, and against which to check whether the design will deliver. This discipline is essential to achieving a terse yet immensely inclusive synthesis whose understated forms are nevertheless pregnant with many potentials for responding to and elaborating upon what are usually only subtly suggestive cues crafted by the urban designer.

The particular approach briefly sketched here described as if for redeveloping or reworking an existing urban area to be part of a 21st-century City of Being, derives from that created and taught by David Crane and his colleagues more than half a century ago. It is one of those now-forgotten developments worth resurrecting, carrying forward and updating as part of the necessary Big Rethink. It recognises that a city is both a cultural artefact, consciously and wilfully shaped by humankind, yet also a living organism unconsciously shaped by its own internal metabolic forces. From the former comes much of a city's grandeur and identity, from its boulevards and urban set pieces of squares and monuments – although sometimes topography contributes too, as in extreme examples such as Cape Town and Rio de Janeiro. From the latter, as an organism, comes a city's viability, vitality and resilience. Designers need to keep the former in mind, that the city is a cultural artefact, and part of the initial research – particularly if undertaken by foreign consultants – may sometimes include study of the local culture and customs. If a large-scale project, research might also start with investigating the natural features and forces that partially shaped both these and the city – topography, geology, hydrology, climate, ecology and so on, as well as the interdependencies of the city and its bio-regional hinterland.

More usually analysis will concentrate on understanding the organic dimensions of the city, a process which often includes charting its historical development (so explaining many of its particular quirks) and understanding the area to be masterplanned in relation to this history. It is particularly important to understand the movement system, the lifeblood that both serves and generates the land uses and much of the character and identity of the city. Crane developed a graphic technique for abstracting and so clarifying the role of each component of the movement network, giving much the same information as Space Syntax. But his technique also indicated something of the particular nature of each element, not only the intensity of movement it channelled but its character as, say, a 'through way' or 'activity street' such as that flanked by retail. As with Space Syntax, this technique also ensures that the eventual design is seamlessly stitched into the surrounding city, and perhaps extends and brings to fruition latent potentials it uncovers there. Also very important are the fine-scale surveys of land use, land value and building condition. After a period of studying

#### Checklist of some urban design criteria, particularly applicable to the 'capital web':

<b>Context</b>	<i>A prime shaper of urban design is the larger context, to which it must connect but also provide for some of what it lacks, making the most of the various opportunities this may present</i>
<b>Configuration</b>	<i>Urban design is the art of creating a richly configured armature or 'capital web', of movement and green space systems interwoven to create as many qualitatively different places and locations as possible</i>
<b>Change</b>	<i>This armature is designed to persist over time yet allow the elements adjacent it to keep changing, while it both retains a certain consistency of character and identity, and itself changes – through, say, increased intensity of use, resurfacing and gradual acquisition of monuments</i>
<b>Continuity/connection</b>	<i>The armature both extends elements in the surrounding city into the site – so that the scheme is an intrinsic part of the city, not a disconnected island within it – and ensures these continuities over time. A major role for urban design today is to connect up again the fabric of the city fragmented by modernity and also to forge new connections with nature as a multi-functional resource and for spiritual succour</i>
<b>Character</b>	<i>The armature or capital web is designed not only for function and flexibility but also to confer memorable character and identity, which may enhance quality of life and confer a competitive advantage over other cities in attracting skills and investment</i>
<b>Ceremonial/civitas</b>	<i>A function of the city, overlooked by the Functional City, is to host various kinds of ceremonies of differing size, as enhanced in places of suitable civic character</i>
<b>Choice</b>	<i>A richly configured armature or capital web creates choice between a variety of kinds of places, which can each host various functions and afford a range of experiences and interpretations as to their meanings. This is a fundamental purpose of the city</i>
<b>Contrast</b>	<i>This is most easily created by designing in as many contrasts as possible, between such things as: big and small; busily noisy and quiet; hard surfaced and verdantly shady; openly overlooked and private refuge; and so on</i>
<b>Comprehensiveness</b>	<i>Urban design strives to provide as wide a range of functions and experiences as is appropriate, recognising all the different ages and stages in people's lives that it must host, along with the various cultures and customs characteristic of today's cities</i>
<b>Coherence/comprehensibility</b>	<i>To orient people and be best used, an urban design needs to be 'legible', easily read and remembered in its geometric configuration and internal logic</i>
<b>Cues</b>	<i>Crucial to the art of urban design is ensuring the armature, though understated to enhance long-term flexibility, also be subtly suggestive of how architects might respond to and complete it</i>
<b>Community</b>	<i>Modern architecture and urban design tend to undervalue and be unsupportive of community, which remains essential for such things as fully socialising children and helping adults achieve self-knowledge and psychological maturity</i>
<b>Conflict and contradiction</b>	<i>A great benefit of community is that the inevitable conflicts and contradictions encountered erode the 'pure' or fantasy sense of identity that can be a consequence of modern-city life as lived fragmented between and encapsulated in the independent protocols of the City of Doing</i>
<b>Culture and customs</b>	<i>Certain once-local cultural traditions are becoming global, particularly the Mediterranean lifestyle of alfresco dining in public and so on. Yet cultural traditions – of decorum, privacy, gender roles etc – can be major determinants of urban form, particularly of the shaping of the public realm and its uses</i>
<b>Climate</b>	<i>Along with microclimate – and its modulation by topography (as, say, in night-time temperature inversion) – can be a major determinant of the armature's design, affecting width and orientation of spaces, degree of shading and admission of sun and so on</i>



the movement diagrams, along with aerial photographs, you develop a remarkably vivid feeling for the life of the city-organism, almost as if watching a slowed-down amoeba under a microscope. You can see how it is changing and why, which bits are healthy and which are blighted, and get a good sense of what is required to regenerate a blighted area, such as channelling movement through or away from it. A key aspect of urban design is learning how to work with these metabolic forces, letting some continue or even encouraging them, and redirecting others, perhaps by subtly manipulating their momentum.

To complement this Right Quadrant approach, various exercises can be undertaken to get insight into the subjective experience and perceptions of the locals as well as of their problems and aspirations – the Left Quadrants. These are often facilitated using a wide range of procedures developed since the days of Crane's programme but fairly widely used in workshops and meetings such as those of Transition Towns. What is important and meaningful to the locals is often markedly different to what the detached professionals might assume. Inevitably, different age groups have different perceptions and desires, and in our multicultural cities the contrasts between what different cultures value can be striking. This phase tends to produce invaluable knowledge, and also initiates the participation of members of the local community in order to better serve them and help them acquire a sense of ownership.

Once all this research is well under way, and there is a good understanding of the objective pressures and potentials as well as the subjective concerns of the community, the urban design team can start to consider what form their intervention might take. As the initial step, goals are carefully formulated: both general goals for the whole project and others for each of its subcomponents, such as the street system, planted open spaces, positioning of public facilities and so on. These are then presented to and discussed with locals, municipal officials and members of the business community to further elaborate, revise and refine them. Again this is one of the key participatory phases of the process that sometimes leads to considerable reorientation in the ideas and intentions of the professionals. Only after this does design begin in earnest.

The primary focus of design is on what Crane called the Capital Web, a valuable term that has fallen out of use. The closest contemporary equivalent is armature, but this seems to mean somewhat different things to different designers. The capital web encompasses the total public realm – the streets, squares, parks, public buildings and public transport systems – all things paid for and used by the public. The elements on which design attention

is initially focused are the movement and green space networks. In what has become almost a norm, the green space network of parks and other planted spaces tends to be elaborated wherever possible into an alternative system for moving around, independent of and interwoven with the main movement system of streets and pavements.

The aim is to configure the capital web into as richly varied a system as possible and appropriate. This is done by teasing apart the movement and green space systems into subcomponents (each a place in its own right), creating hierarchies of different size, character and intensity of use (through, say, boulevard, street, residential road, lane etc and, say, large park, sports fields, greenway, pocket park, playground etc) and then interweaving these to create a complex yet coherent framework of many kinds of public places. Where these cross are points of intensity and potential encounter, a whole range of qualitatively differentiated locations suggestive of and suited – functionally, experientially and even symbolically – to various kinds of uses, which can each find their appropriate place. (Each place, though, might be suited to a relatively limited range of uses: hence a site axially located at the end of a main street may be suited to ceremonially civic, religious or community use.) It is this framework or armature that invests legibility, identity and choice and that persists through time with buildings being built and demolished around it, while it too changes somewhat yet ensures some recognisable continuity of visual and experiential character.

The art of urban design goes further than configuring a framework of many diverse places and locations: it also has to give subtle cues as to how architecture can respond to, complete, enhance and give meaning to this richly varied public realm. Of course, many architects don't respond to such cues, whether because they are diehard Modernists concerned only with the internal workings of their mutely abstract object-buildings, or because they equate being avant-garde with deliberately breaking rules. So part of an urban design might be a set of guidelines to be complied with. These might restrict to a limited range the functional types of buildings to be built in certain areas, stipulate plot ratios, cornice heights and that the buildings should follow the back-of-pavement for a percentage of its frontage. Besides visual and spatial reasons, there are other advantages to such guidelines, in that they might ensure a match between the capacities of the various forms of infrastructure and the loadings imposed by the buildings. And sometimes guidelines go much further in stipulating cladding materials, percentage of window to wall, ground floor arcades and so on. Until architects acquire a more mature and expanded design ethos, which values the city at least as much as their own building, that seems fair enough.

## The example of Auch

Looking for illustrations for this essay turned up a number of perfectly decent urban design schemes that nevertheless don't demonstrate the full richness an

**10, 11. Auch in south-west France has an armature of interlinked urban spaces of varying spatial and functional character and mood endowing this little city with a public realm as richly diverse as that of a metropolis and which has remained visible over the centuries**  
**10. Plan of city centre**  
**11. Busy square seen from town hall steps opening into the market square whose splay-sided foreshortening draws the cathedral forward**

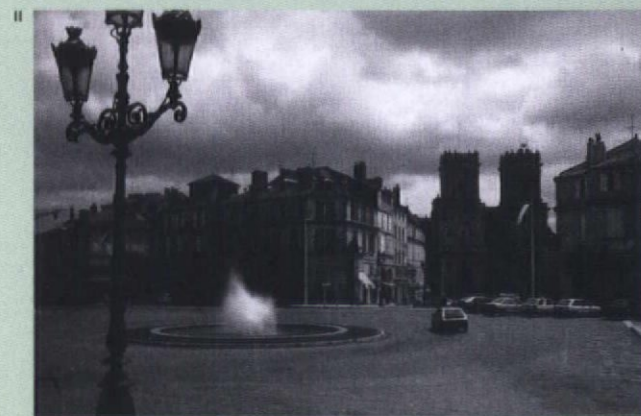
'The city remains the best, but not only, place to become fully developed as a human by today's understanding of what that means, and where tomorrow's understandings of what that will be are being forged'





approach such as this can result in. An ideal that often comes to mind is the compact historic centre of Auch in south-west France. Within a small area it has an extraordinary range of quite different interlocking spaces, each very aptly related to the civic buildings that face it, and that together offer a very full panoply of the experiences urban life has to offer. Prominent in the plan of the city centre are two squares of more or less the same shape and size centred on circular pools of identical size. One square, alongside the cathedral and where the medieval cloister once was, overlooks a steep slope and grand stair down to the River Gers and the countryside beyond. It is shady, quiet and contemplative, showing how the essential character of a place can persist through even dramatic change. A murmuring water spout is the fountain in the middle of the large pool, making just enough sound to enhance the sense of quietness. The other square is 19th century and a traffic gyratory on the main vehicular route through town. Here the fountain is a boisterously splashing affair to assert its presence above the traffic noise. The square is flanked by cafés, a fine hotel and the town hall that confronts, across this square and the long splay-sided market square, the main facade of the cathedral, this relationship made possible by the skewed alignment of the two squares. A smaller splay-sided square directly off the market square sets off what is the library at its end while steps up from the gyratory square lead to a long esplanade shaded by rows of plane trees and on clear days offers views of the Pyrenees. The long axis of the esplanade is marked by a wider gap in the rows of trees that seems to continue into the arched doorway of the courthouse.<sup>7</sup>

And so on, and so on in a richly configured network of places of strikingly different character exactly apt in form and experiential quality to their use and location, an aptness matched by the forms and decorum of the civic institutions that face the squares and the institution facing them across yet another a square. What an ideal to keep in mind as we start to regenerate our cities to their full human purpose through urban design.



- 1 River Gers
- 2 quiet square (ex-cloister)
- 3 cathedral
- 4 covered markets
- 5 main shopping street
- 6 market square
- 7 library
- 8 town hall
- 9 esplanade
- 10 law court

- 1. Pink, Daniel, *A Whole New Mind: How to Thrive in the New Conceptual Age*, Cyan Books, London, 2005. See essay in footnote 3.
- 2. Rifkin, Jeremy, *The Third Industrial Revolution: How Lateral Power is Transforming Energy, the Economy and the World*, Palgrave Macmillan, New York, 2011. See also review of this book by Peter Buchanan in AR January 2012.
- 3. Peter Buchanan, *From Doing to Being*, AR October 2006.
- 4. Peter Buchanan, *What City? A Plea for Place in the Public Realm*, AR November 1988.
- 5. For an extended and easily grasped explanation of the techniques and uses of Space Syntax see *Space Syntax and Urban Design* by Peter Buchanan in *Norman Foster Works Volume 3*, Prestel, 2007.
- 6. For more detailed discussion of World Squares for All see Peter Buchanan's essay in *Norman Foster: Works Volume 6*, Prestel, 2013.
- 7. For an extended description and discussion of Auch see *Auch: Organs of the Body Politic* by Peter Buchanan, AR July 1987.

**The concluding Big Rethink essay will draw together the ideas put forward over the last year into a proposal for a new, 21st-century neighbourhood**



# REVIEWS

## Potemkin cities

AUSTIN WILLIAMS

*A History of Future Cities*, Daniel Brook, WW Norton & Co, £27.95

What have Shanghai, Bombay, St Petersburg and Dubai got in common? On the face of it, not much, but this book argues convincingly it is that they were all 'built to look as if they were not where they are'. That is to say that this is the tale of four cities that have transcended their localities, their nationalities and their eras to emerge on the world's stage. These cities, Daniel Brook argues, were founded on the promise to build the future and this book is a celebration of that modern condition.

Brook presents a measured analysis and a critical paean to cosmopolitanism, recognising that things are not fated to turn out well. It celebrates the progressive development that urbanity brings, but acknowledges that such advances are not linear nor are they guaranteed. The focus is on several cities (and their peoples) that have been propelled onto the world's stage – leapfrogging the steady evolution of urban development, often by

non-democratic means. It examines the beneficial outcomes as well as some of the unintended consequences of that radicalising forward movement. There are a considerable number of desperate authors hinting at the beneficent nature of benign dictatorship: Jacques, Hawksley, Sixsmith, etc, but this author seems to be much more humanistic than they.

The book opens with the amazing tale of St Petersburg, exactly 300 years old this year, which became the Imperial capital of all Russia. Created by Tsar Peter the Great it was modelled on Amsterdam, which was the leading economy of the time and an exemplar of Western values, culture and civilisation. Built on the Neva River on the Gulf of Finland, it became known as the 'window on the West', but it was built by an autocratic ruler at the cost of thousands of lives. Boldly, Brook suggests that it was worth it.

Ditto Mumbai *née* Bombay which was devised on the whim of a colonialist's pen. Modern Bombay, Brook argues, sprang from the mind of Sir Bartle Frere of the East India Company who had the dream of making the *urbs prima in India* (first city of India). Here, 'even Indians could be properly civilised

through exposure to Western culture and education'. We baulk at the non-PC phraseology, but miss the positive ambition at our peril. Similarly, the seeds were set for modern Shanghai to emerge during the country's Century of Humiliation. It was because China was under foreign domination, and because Shanghai was being designed with Western creature comforts, that the indigenous population was inspired to challenge the system. It culminated in social revolution, self-definition and Jazz-Age modernity.

These urban stories are recounted with fascinating detail, sometimes veering off at tangents, some less helpful than others. As a result, this book is really three in one: the opening section – the most engaging – recounts the historic origins of cities 'rushing into the future'. The second book is an intelligent travelogue, with interesting anecdotes, a strange cast of characters and shrewd observations. It would be enlightening to visit any of these cities armed with this book. The third book is an exploration of the interregnum between the cities' formation and today. This is the urban promise denied, an explanation of how these urban centres messed up. The central section has less coherence, purely because the unifying theme of progress and modernity that Brook has established as their *raison d'être* in the first section is no longer there. The cohesion of the book falls away into loosely connected episodes as the promise of these cities ebbed away due to war (St Petersburg), revolution (Shanghai) or bureaucracy (Mumbai).

However, even though each city has failed in many ways, Brook hints that such problems are part of the process of growing up. These global, emergent cities can survive and regroup precisely because they capture the human spirit.

Enter Dubai. 'Whether or not Dubai itself endures', says Brook, 'the idea of Dubai will endure.'

Left: the Bund in Shanghai is a mélange of matronly Classicism and some vaguely oriental motifs. But this transplanted historicism fuelled Chinese futurism





It might be a strange land ruled over by an unelected autocrat of whom we know little, but it also happens to be a forward-thinking, dynamic, future-oriented, experiment in universalism. Brook is no romantic and recognises the inequalities taking place behind the scenes, but he takes an optimistic stance. 'Writing off Dubai', he says 'is writing off the world as it might be.' This is an impressive line, and all the more so for the contemptuous sniggering that it will no doubt engender.

When Bjarke Ingels, the over-flattered wunderkind of contemporary urbanism, argues that 'the majority of the cities that will be our cities of the future are already here', we should worry about the state of creativity and social ambition. This kind of End of History whimper should give us pause for thought about what passes for vision these days. This is all the more reason why Brook's book is a necessary challenge for our miserablist times.

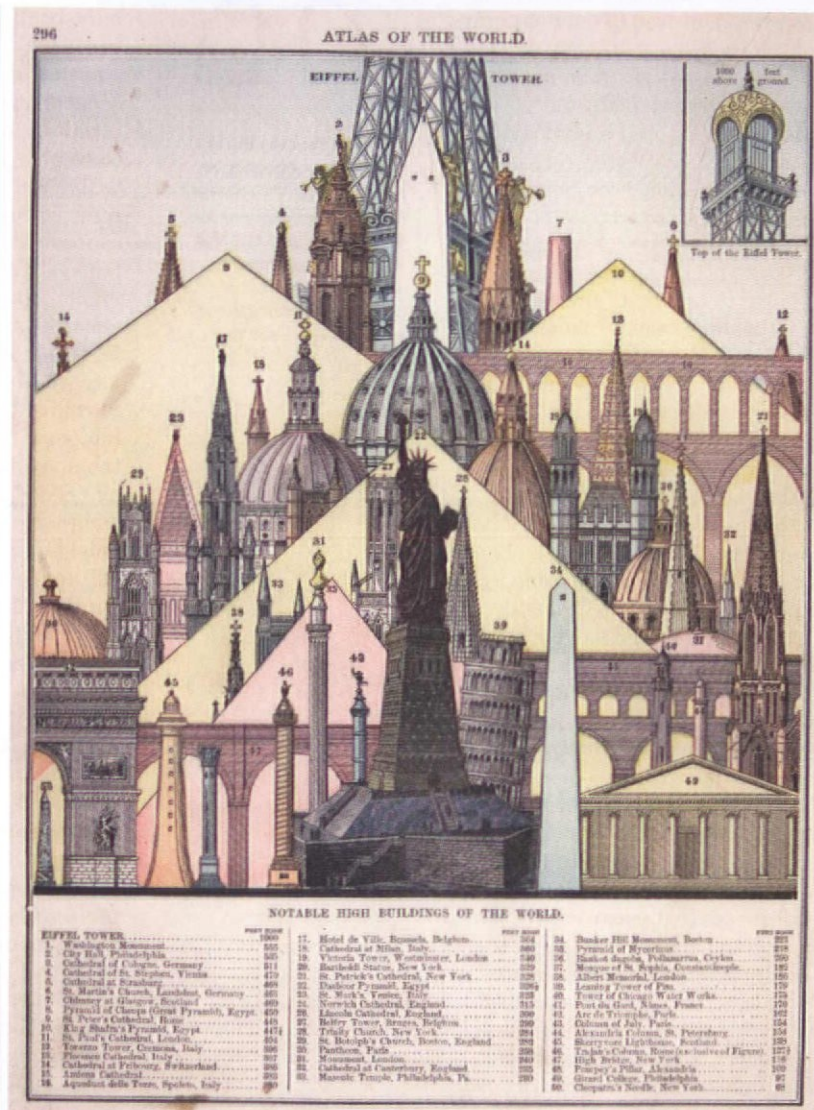
## Size matters

AYLA LEPINE

*Colossal: Engineering the Suez Canal, Statue of Liberty, Eiffel Tower and Panama Canal*, Darcy Grimaldo Grigsby, Periscope Publishing, £45

The image of the engineer as both megalomaniac and impresario was a common 19th-century trope. It was widely believed that for better or for worse, the engineer's skillset would determine the success or failure of the modern city. In 1835, Emile Péreire, caught up in post-Napoleonic attempts to create the Suez Canal, calmly asserted that: 'For me it is not enough to have traced my gigantic programmes on paper, rather I want to write my idea on the earth.' The globe as blank canvas was a concept that defined imperial and structural ambitions

**Right: all civilisations are reduced to their highest points by our obsession with scale. It is a moronically simple measure for progress according to which bigger always means better**



alike. Massive projects are difficult to grasp and to manage, both in their execution and their interpretation. Immensity is disorientating. For the Panama and Suez Canals, which were designed to divert, widen and radically alter geography to permit bulk trade on an unprecedented scale, pride and ingenuity were inextricably tied together on a world stage. The Eiffel Tower's audacious uselessness marked it as a monument to progress itself, allegorising the engineering ingenuity that gave

modern structures their common frameworks, regardless of their diverse functions. The Statue of Liberty transformed the infinitely mutable yet indisputably fundamental American concept of freedom into a towering symbol, the scale and complexity of which united engineering's vast calculations with sculpture's fluid artfulness.

As an art historian, Darcy Grimaldo Grigsby's broad aim over a long career has been to illuminate unexpected aspects of visual



culture by turning to the nuanced, contradictory, and ego-driven ways that people portray themselves and one another. *Colossal's* purpose is to expose the underplayed micro-level histories that supported the world's most famous macro-projects, demonstrating how four huge objects by French 19th-century engineers were vessels for outrageous ambition and minute twists of fate. The real kick in this richly illustrated book is, however, delivered to contemporary continuities of a centuries-old obsession with size: 'man-made enormity was originally an expression of power and unassailable authority; it now verges on kitsch and hallucination, even humiliation,' claims Grimaldo Grigsby. She explains that: 'To seek status on the basis of size alone is an exercise doomed to failure. It always was.'

Grimaldo Grigsby explains that when embarking on the project she 'came to appreciate how effectively colossal scale obscures the criminality of human aggression and the ruthlessness of capitalism with a rhetoric of progress and the altruistic engineering of global commerce'. Those who worked on these projects therefore came more fully into the frame in Grimaldo Grigsby's book than had been accomplished in previous studies. The value of this compilation of four case studies in modern iconic engineering is its ability to use unusual and rare visual material – from models and stereoscopic photographs to souvenirs and posters – to form ways of understanding these huge endeavours that encapsulate their grand achievements and their equally large-scale consequences.

In 1854, the French naturalist writer brothers Edmond and Jules de Goncourt gravely predicted that 'Industry will kill art'. In Jules Verne's recently discovered novel *Paris in the Twentieth Century*, written on the precipice between the 19th century's unmitigated industrialisation and the 20th's looming unknown futures, he looks forward into a dystopian metropolis hacked apart by brash, unrelenting commerce. One voice in this novel asks, 'What has killed art?' Another replies that machinery is to blame: 'mechanics, engineers, technicians – devil take me if Raphael, Titian, Veronese, and Leonardo could ever have come into being! They'd have had to compete with mechanical



**Above: is that the Eiffel Tower in your pocket, or are you pleased to see me? Gargantuan erections are snipped down to size and reproduced as popular souvenirs, symbols of their places of origin and of our having been there**

procedures, and they'd have starved to death! Ah, machinery!'

Narratives of engineering projects that celebrate their scale and status tend to overlook the political and commercial forces that produced them. It is rare that the Eiffel Tower is discussed in relation to an age in which the breadth and sophistication of engineering also took loss of life into account in a relatively sanguine way: 'so much so engineers and industrialists became accustomed to calculating how many human lives a project might "cost" and how those costs might alter profits'. With the proliferation of plastic and metal souvenirs, a whole city contained within a single object could be reduced to a diminutive, highly reproducible, and very affordable trinket. The immensity of a colossal monument was made almost absurdly manageable. Paris or New York could be microcosmically located in the Eiffel Tower or the Statue of Liberty, and then inserted into your pocket. Souvenirs reversed the dynamics of social power embedded in these projects. Popular composite images comparing the height of tall buildings nested cultural achievements inside one another like Russian dolls, showing that the Eiffel Tower dwarfed the pyramids and implying that for all its historical richness, France had usurped ancient Egypt. Colossal engineering became a shorthand for cultural prowess as never before.

Grimaldo Grigsby responds to this modern pastime of comparing size by ending the book with an appraisal of tall structures from more recent decades, criticising the perpetual ambition to build tall in light of the close investigation of 19th-century French projects. Renzo Piano's Shard (1,016 feet) is practically pint-sized compared with Kohn Pedersen Fox Associates' 2008 Shanghai World Financial Center (1,614 feet). Nothing comes close to the ferocious scale of Dubai's Burj Khalifa (2,700 feet), designed by Skidmore, Owings and Merrill, and named after the benefactor who offered a near-instantaneous bail-out of billions for Dubai in 2009. Anish Kapoor's Olympics contribution, the Orbit Tower, is a twisted amalgam of skyscraper culture, colossal history, and the specific forms and ambitions of a very 19th-century inheritance. Projects claiming that they are the tallest and the most 'iconic' in a given country, a region, or a

continent, contain more than a pinch of melancholy. If yet another tall glass tower's distinction is its sheer size, some other tower – with some other colossal price tag and debatable motives and functions – will soon supersede it. The inevitability of high structures, regardless of their purpose, materials, or local contexts, is Grimaldo Grigsby's real subject. Why build tall? Whether we focus on hubris, hyperbole, technical innovation on a grand scale, or too-often hidden human consequences and loss of life that attends many of these oversized projects, there is a single bottom line which is always declared in every single one of these endeavours: the simplistic and usually unquestioned equation of height with progress.

## The impossibility of forgetting

LIAM YOUNG

*Frozen Relic: Arctic Works by ScanLAB Projects, AA, London, ended 9 February*

Arne's Floe is an iceberg that existed at 17:01:07hrs on 16 September at 79 22.558 N, 003 04.611 W in the Arctic Ocean. It has since been torn apart by undersea currents and dissolved by a warming climate, but in a time when everything is digital nothing really has to disappear.

*Frozen Relic*, created by ScanLAB Projects (who wrote last month's *View from*), was an exhibition full of artefacts like this that no longer exist. In fact they *no longer exist* in precise and exacting millimetre detail. They drift across a data landscape in which we can still see every crack, every ragged edge, every blemish and fissure. They are high-resolution laser scans generated in the Fram Strait north-west of Svalbard by ScanLAB, Greenpeace and the Department of Applied Mathematics and Theoretical Physics at Cambridge University. The memories of these seasonal islands have been frozen in a ghostly coordinate cloud of XYZ and RGB values. They were presented as extraordinary backlit prints and projections of the survey scans, and as an archipelago of scaled reproductions in cast ice formed against 3D printed moulds of the landscape. There was a chill in the air and the sound of dripping water echoed through the gallery.



Memories are produced by us and our technologies. Laser scanners, capable of capturing large-scale landscapes to within an accuracy of millimetres, are beginning to change the way we record and remember. They are tools of both science and wonder. These arctic surveys were commissioned to collect data used to calibrate simulation models and research how ice floes form and break up. In *Frozen Relic* they also become a mausoleum and remind us in intricate detail of an endangered landscape that is now the icon of contemporary climate change. The space of the scan has become a new form of archive.

Another laser-scanning group CyArk, an abbreviation of 'cyber archive', has made it their mission to travel around the world recording world heritage sites such as Mayan temples and Egyptian pyramids. It is a project born out of an anxiety that our precious landscapes are disappearing faster than we can preserve them. It is a refusal to allow things to slip away.

In his TED talk Ben Kacyra, the founder of CyArk and early pioneer of the technology, laments that they were unable to scan the Bamiyan Buddhas before they were blown up by the Taliban. Would digital simulacra of these treasures reassure us after they are gone or would the data be used to recreate them as if the war never happened?

As ScanLAB have done with their melting facsimiles of distant ice floes, will we begin to reproduce our increasingly scanned worlds physically? Would it be a curated collection of replica landscapes wrought from the tool paths of herds of CNC machines, 3D printed layer by layer, a carved duplicate at extreme resolution, a theme park of synthetic copies, and like plastic tits on an ageing celebrity, timeless, as everything around them decays.

Beyond the exactness of physical reproductions, the laser scan suggests new ways of relating to digital environments. We are presented with the possibilities of an extraordinarily accurate digital *Doppelgänger*, a 1:1 avatar of our world. How would we inhabit this space? Could we wander the point clouds, a digital zoo of precious artefacts, a forensic landscape of what the world was, frozen in a given moment? Would we walk through it with our children as if it were the British Museum, would we line



**Above:** what at first sight appears to be an aerial photograph of the Greenpeace vessel *Arctic Sunrise* is actually nothing of the sort – scanners placed on the ice collected data, through which a virtual camera later roamed to make this image. The black spots on the ice show where the scanner stood (it can't scan itself), and the 'pools of light' surrounding these are indications of data density. **Below:** ScanLAB researchers collaborated with Greenpeace on the project in Norway



up our sniper scopes and take out insurgents in a hyper-real video game environment, would we see familiar fragments of lost monuments repurposed in the CGI backgrounds of fantasy films?

Our contemporary experience of landscapes is changing. We see across vast distances through the lens of nature documentaries, we watch nesting box webcams and swipe through hyperlinked, geotagged Flickr collections. We could soon be armchair tourists exploring past Google Earths formed from the scan data of landscapes lost and, like Sandy Island, a ghost in the South Pacific that was only recently undiscovered – or rather discovered to exist solely in Google Maps – would we ever really know they weren't there?

In *Frozen Relic*, the scan transports us, in exacting detail, from London to the distant landscapes that our major metropolises are affecting. With Unknown Fields, our research studio at the Architectural Association, I go on annual expeditions to visit these peripheral territories. We understand that if we are ever to change our attitudes to these landscapes that we are consuming then we must first bear witness to them. There is value in cataloguing parts of the world with this precision, but in a digital age, when everything is remembered nothing is precious.

Our digital lives are accumulating in endless fields of super-cooled server farms, containing tweets, check-ins, Instagrams, porn banks, pokes and, now, floating icebergs. The geothermal fields of Iceland and small towns in Middle America are becoming a home to the world's data. In sprawling warehouses browser searches sit beside glaciers, emails beside Mayan temples. Server farms are something between filing cabinets and cathedrals. If they are the new repositories of all knowledge and ephemera then how is the data stored, how do we access it, and is anything ever forgotten? Can some data be designed to decay – could pixels erode with time, like a portrait of Dorian Gray, slowly ageing with our sins?

The Argentine magic realist Jorge Luis Borges tells the story of a boy who has lost the ability to forget. His world is one of 'intolerably uncountable details'. He finds it hard to sleep, to make generalities, he is incapable of abstraction since, just like the laser scan, he recalls 'every crevice and every moulding of the various houses which surround him'. He is unable to engage the present, adrift in the intricate data scape of his perfect memory.

What we choose to remember, what we chose to keep, defines who we are. The permanence of a point cloud iceberg, drifting endlessly in a digital sea, is an eternal reminder of how much we have to lose.



## Character building

JOSEPH RYKWERT

*Chinese Architecture and Metaphor; Song Culture in the Yingzao Fashi Building Manual*, Jiren Feng, University of Hawaii Press/Hong Kong University Press, \$53

For someone who can barely make out a dozen characters to 'review' this book would be an impertinence. This is not a review therefore, but a 'notice' as they used to say.

Professor Feng's book is primarily concerned with the *Yingzao Fashi* (as its title makes clear), the building handbook written by Li Jie, who is usually described as an 'official'; working in the Imperial Directorate of Construction, he certainly was that – though he was also a painter-calligrapher, a philologist, a horse-fancier and gambler, someone very different from his much earlier Roman Imperial opposite number, the very sedate Vitruvius.

A millennium separated them, and while a retired, independent Vitruvius dedicated his book to Augustus, Li wrote at the direct command of one Emperor – Zhezong (1086-1100). And his book was finally published by yet another, Huizong (no mean calligrapher himself, the originator of the 'Slender Gold' style) in 1103, and it became the most important work on architecture and building for Imperial China. It has, of course, been much studied – even in English – over the last century, but it is Professor Feng's contention, which seems entirely justified, that it has been treated too much as a

handbook to standard details and measurements, even though it is centrally concerned with metaphors, of which the most important is the analogy between the structure of plant forms and that of columns, and the entablature of bracket-corbels which support the roof. The analogy is not one of look-alike, but is structurally reasoned. Moreover, Feng has given Li's book a fascinating but rather unfamiliar context – since it is, after all, the culmination of much architectural theorising which went on in more general works: the *Erya* (an encyclopaedic dictionary which includes much architectural terminology – compiled a millennium before Li's book) and the commentary on it, *Erya Shu*; the fragmentary *Mujing* of Yu Hao, or the *Sanlilu* of Nie Zhongyi are the best known. And of course Li garnered material from such predecessors, much as Vitruvius relied on older Hellenistic architect-theorists. However the writings of Li Jie's predecessors, unlike those of Vitruvius, do survive, though they are unfortunately all too little known. Most are writings of literary men, scholar-calligraphers. In all of them a great deal of attention is devoted to geometry – to the manipulation of the water-level, the compass, and the plumb-line as well as to ritual practice: the establishing of orientation, the varieties of geomancy and that physical and historical examination of the terrain which is popularly familiar in the west as Feng Shui – but which has its own complex, ancient literature.

Li Jie did not just rely on his reading, but gathered much

information from craftsmen, so that the language in which he writes is an amalgam of the learnt style of the scholar-philologists and the more pedestrian locutions of masons and woodworkers. But it is evident that his narrative will be quite unfamiliar to Western architectural historians since the style of many of his predecessors (some of the texts he considers are rhymed prose rhapsodies in praise of grand and famous buildings) will come as a surprise. All this Professor Feng has considered in detail with the help of many quotations, given first in Chinese characters and then in English translation. He demonstrates – convincingly, to my mind – that the tradition of Chinese architecture originates in the confluence of two streams, the craftsmanly and the literary, but with craftsmen often partnering the literati as near-equals.

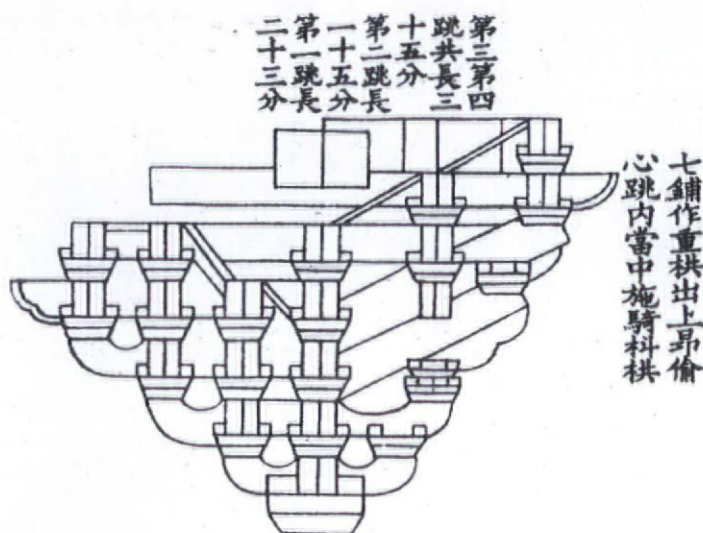
Jiren Feng's book is the latest volume in the University of Hawaii's *Spatial Habitus* series which is a very worthwhile enterprise and I, for one, hope that he will be encouraged by the reception of this book to undertake further studies of Chinese architectural writing which are virtually unknown to Western historians and theorists.

## Competitive streak

GWEN WEBBER

*Think Space: Competitive Hypothesis*, Storefront for Art and Architecture, New York, USA, ended 15 February

The design competition is a key mechanism in architectural production and progress. Its prevalence in contemporary design has put some of this generation's most revered designers on the map but it has also become synonymous with the rise of celebrity architects and signature architecture. Though directives and regulations shift, architecture competitions have changed little since their revival in the Renaissance, and they have weathered controversy for just as long. Criticised for favouring larger, wealthier practices over the smaller ones they originally sought to include, there has been a level of acceptance that the competition, however biased, is part of professional practice. After all,



Left: joinery becomes an organic metaphor in the classic Chinese architecture manual, *Yingzao Fashi*



subjectivity and scrutiny are architecture's cultural norms.

In *Think Space: The Competitive Hypothesis*, this normality is challenged. The curators begin with the distinction between two trades: 'material' capital (design and engineering conglomerates whose names are less visible and are less discursive, but who monopolise new construction) and 'symbolic' capital (a reference to the images and ideas generated by practices that rely on an army of interns). To illustrate these positions, the show is divided into four sections.

The first section presents a variety of powerful statements, curated by Carmelo Rodríguez Cedillo and Daniel Fernández Pascual. At the entrance to the show, hanging in front of a sparsely adorned wall, is a white sphere with peepholes, inside which stands a golden replica of Michelangelo's David. The submission is accompanied with a letter to judge Arata Isozaki from Piero Frassinelli of Superstudio, describing its entry for the 1976 Shinkenchiku Residential Design Competition themed 'House for a Superstar'. As the visitor learns that the image of David has been planted in the mind of Isozaki on a previous meeting with Frassinelli's colleague, the problematic notion of influence – however insidious or subtle – highlights the subjective, fallible nature of competitions.

Indeed, the parallel question of how valuable authorship and autonomy are to architecture and what impact this has on the outcome of competitions is boldly dealt with in Archizoom's 1970 rubber stamp declaring: 'Projects Must Be Signed' ('Il Progetti Si Firmano'). While the grandfathers of architecture enjoy the currency of recognition, neither invited competitions nor the assumed level playing field of anonymous competitions can promise equality. At the risk of disqualification, the practice signed and titled its entry for the Università degli Studi in Florence as a comment on the hypocrisy of anonymity.

Before entering the second section the visitor is presented with the RIBA's 1872 Survey on the Guidelines for Competitions. Its questions, conducted at the behest of a new commission to investigate corruption and deception in architectural competitions, are frank and surprisingly relevant, raising contemporary concerns about

Right: an artificial cloud of water vapour floats above Lake Neuchâtel, Switzerland, in Diller Scofidio + Renfro's renowned Blur Building  
Below: another competition-winning design, Yokohama Port Building by Foreign Office Architects. Both were displayed in the exhibition *Think Space* as positive examples of competitions that marked pivotal moments in architecture



favouritism and financial and professional merit. One rather wordy question stands out: 'Whether in your opinion the condition frequently laid down by committees, requiring the successful architect to let the premium merge in his ordinary professional commission, is justified by the idea that the labour expended upon the premiated design materially diminishes his subsequent labour.'

Mounted along a darkened corridor is a non-specific, backlit diorama of a man looking out over a rural landscape. Titled *The Habitat of Homo Economicus*, this section is intended to present the empty visuals that accompany proposals for large-scale development, as well as desirable scenes for sensual-savvy clients. Curators Ross Exo Adams and Ivonne Santoyo-Orozco stress a contemporary tendency to accept a reality built on 'figurelessness and interchangeability'.

What seems like a direct contrast to this, the third section, *Think Space Past Forward* presents the winners and honourable mentions of three pivotal architectural competitions: The Peak Leisure Club, Yokohama Port Terminal and The Blur Building. As part of a wider project of the Past Forward competition series, the designs pinpoint singular moments in history that changed the discipline and, for the practices that won, mark a crystallisation of architectural ideologies. Though only a small cross-section, the examples demonstrate the positive impact of competitions and their potential to transform our environment. It is interesting to see the context of the winning proposals and to look back

at the moment of genesis for the practices. The iconic, Suprematist-inspired proposal by Zaha Hadid; the moment that Foreign Office Architects crafted a signature style, to which it never returned; and the possibility-bending, materially stimulating Blur Building by Diller Scofidio + Renfro.

The final section, *Mind The Gap*, presents a hall of fame for the unnamed interns who make the competition process possible. This represents an ongoing criticism of contemporary practice. Born out of the disjuncture between the fast-paced productivity and accelerated urbanisation of a post-Fordist era and the sluggishness of the building process, this section forms the core of the exhibition's concept. To realise the Storefront's aspirations to stage diabolic provocation and open dialogue, the wedge-shaped gallery doubles as a confessional space. Highlighting the other aspect of competitions – that of individual gain – in its exposed party wall, one anonymous scribe proclaims: 'I stole the contracts from my boss and quit'.

While the exhibition explores aspects of the complex system behind architectural production and eschews the temptation to show a singular, historic perspective, it doesn't speak to the role of public consultation. Perhaps Andreas Papadakis, *AD's* editor at the time, got it right in 1981 when he sought the expert opinion of children for his Doll's House competition. Architectural competitions were originally established to engage the public, the patrons and the users of buildings. Like the gallery, they must re-engage with this purpose.



# PEDAGOGY

## FAUP, Portugal

MATTHEW BARAC

Chalky shadows play across the south-facing facade of the exhibition hall block of the Porto University Faculty of Architecture (FAUP). The horizontal line drawn by a window canopy carries the eye to one of several terraces, reached by ramps, which lead up to Álvaro Siza's pavilion of 1985-86 – a prelude to his design for the relocated school, completed in 1993. Against the background noise of motorway traffic to the north, a gentle hubbub rises from the shady café patio at the lower level of the sloping site, where students chat and drink coffee. Laptops and iPads share tables with overflowing ashtrays and empty paper cups. Alongside this familiar detritus is something rarely sighted in architecture schools today.

On almost every table – or under the arm or in the bag of almost every student – is a sketchbook.

This should not come as a surprise. Sketching 'can be considered our core didactical tool', says José Miguel Rodrigues, director of the MArch programme. And he means it; 'first and second year students are not allowed to use the computer, in order to have a direct relation between thinking and doing' through hand-drawing. This credo informs a curriculum which incorporates drawing as freehand representation of the built environment, as a tool to analyse design problems, and through drawing live models.

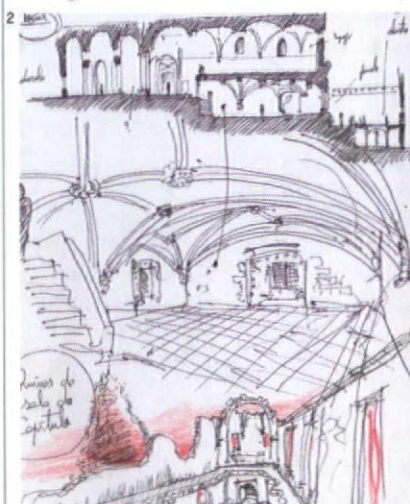
For Rodrigues and Manuel Montenegro, who together teach drawing as a research methodology in architectural history, pencil and paper are significant for more than just pedagogical reasons. The sketch

1. Álvaro Siza's original sketch for the relocated FAUP campus in Massarelos

2. Aptly for a school with Siza among its alumni, the sketchbook has become the primary design tool of FAUP. Students are barred from using digital representation of any kind until the third year

3. Filipa Ferreira's first-year sketch sensitively delineates the rambling paths in the hills surrounding Massarelos

is central to the 20th-century tradition of the 'School of Porto' in which FAUP is anchored. Associated with Siza as well as Eduardo Souto de Moura, Portugal's other Pritzker laureate, the School emerged according to a regional concept of modern architecture. Scholars Eduardo Fernandes and Jorge Figueira, who completed PhDs on the topic at FAUP, both trace the School's origins to Fernando Távora's 'permanent modernity': a timelessness that arises when a building resonates with its physical and cultural context. Initially set out in his 1947 publication *O Problema da Casa Portuguesa*, Távora developed this idea in his teaching and in canonical built works. As Fernandes explains, the School subsists in 'a way of thinking connected to a way of doing'. Important to this legacy is what Figueira calls 'the reinvention of





the sketch': an emphasis on analogical drawing as a vehicle for architectural creativity.

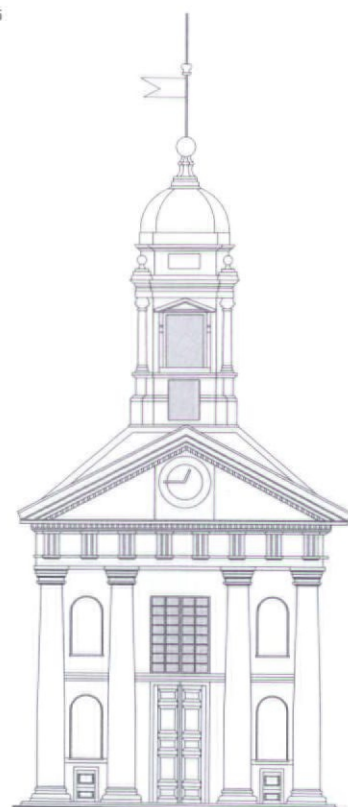
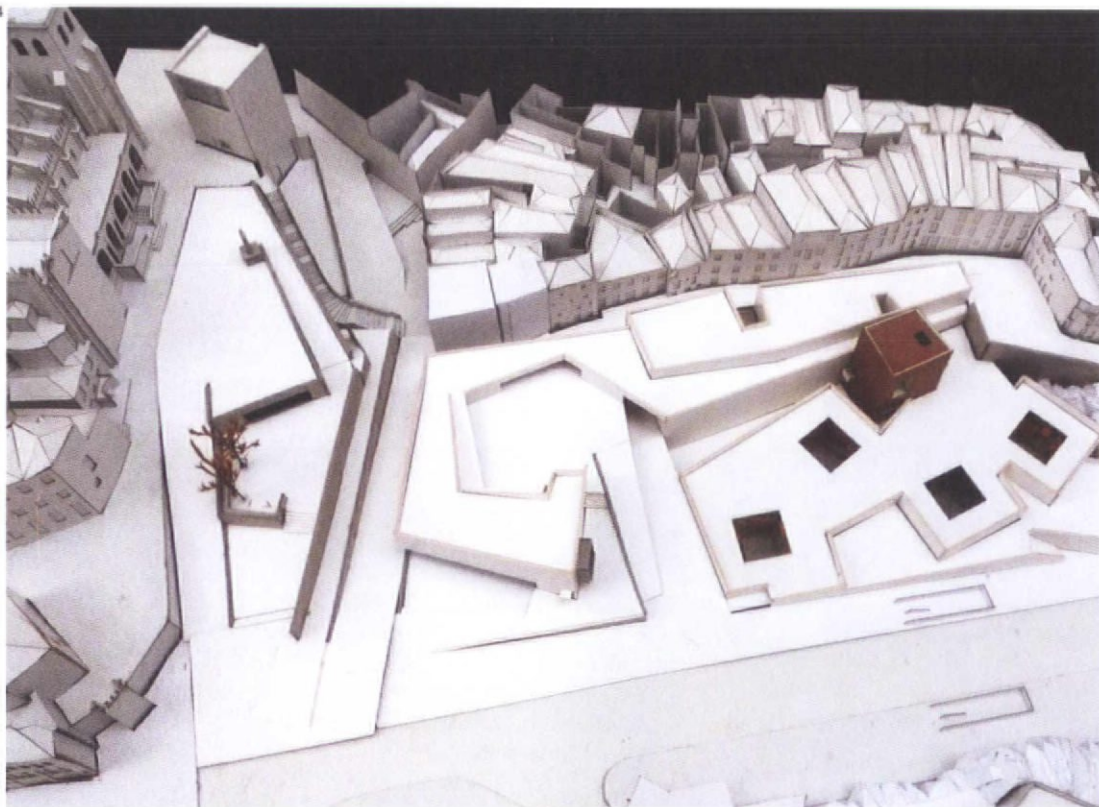
FAUP today honours this legacy, harking back to the spare artistry of its eminent forefathers, and also to the faculty's origins in the School of Fine Arts. This tradition is brought together with technical skills and social awareness in the studio which, Rodrigues explains, is envisaged 'as the place for the synthesis of knowledge'. Undergraduates follow a three-year course leading to a two-year master's degree. Professional training consolidates core School of Porto themes, in particular the give and take between architecture and the city. The drawing board is endorsed as the key setting for design education and experimentation. Accordingly, Siza's site plan prioritises the studios which occupy four playfully sculptural, blocky towers boasting

**4. A topographical card model by student Tomás Cambão proposes a series of public spaces stepping down the north-facing slope from Porto's historic city centre, while maintaining views up to the 13th-century cathedral. 5. The fusion of measured drawings with essay-writing is intended to give students a fuller understanding of historic ideas. Here students collaborated to redraw elevations from Christopher Wren's Chelsea Hospital**

views out over the river Douro.

Context is crucial to the FAUP pedagogy, and a project by student Tomás Cambão, sited next to Porto cathedral, painstakingly negotiates historical and topographical constraints to propose a new urban landscape offering clear views of the Romanesque monument. Promenades and platforms invite the public onto a sculpted roof that connects the proposed, half-buried buildings to one another and to the ground. Sensitivity to context is systematically cultivated in students through exercises in freehand drawing: 'the lingua franca of an architect' as Rodrigues puts it. First-year student Filipa Ferreira's sketch of a small dwelling, reached by meandering paths in a 19th-century district not far from FAUP, uses lines on the page to imaginatively reinsert a house into its urban setting.

Differently calibrated drawings provide a counterpoint to the freehand sketch. A technical section by Francisca Lopes translates her design intentions into constructional details. The facade articulates intersecting volumes: brick-clad below, relating to existing buildings across the street, and plastered above in a neighbourly gesture towards a social housing scheme next door. Too often, context is reduced to either temporal or spatial criteria, but at FAUP the visual dimension of cultural knowledge is reinforced by combining drawing with essay-writing. Christopher Wren's Royal Hospital Chelsea elevations are redrawn by Ana Rita Fernandes, Ana Santos, Diogo Pereira, Francisco Pais and Iolanda Tavares as part of their third-year historical studies, close-reading Wren's design logic in relation to scale and composition, proportion and architectural order.





# REPUTATIONS

## Fernando Távora

WILLIAM JR CURTIS

As history unfolds, unexpected connections appear between the recent and the more distant past. Works which were once discussed as central retreat into the background, while others which seemed marginal at the time move into the foreground. The late 1950s and early '60s in Porto were crucial turning points in which Fernando Távora (1923-2005) and his younger colleague Álvaro Siza established their personal styles while crystallising a wide range of issues to do with modernity and tradition, the architectural object and surrounding space, the universal and the local. In retrospect, the Tennis Pavilion by Távora and the Swimming Pool by Siza, both in the park of the Quinta da Conceição near Matosinhos, stand out as seminal buildings. It is insufficient to refer to these achievements by means of muddled historical characterisations such as 'critical regionalism' or to try to tie them to the nebulous formulations of Team Ten. They need to be understood in relation to the Portuguese architectural culture of the period and the ever evolving strands of modern architecture combining the local and the general in places as varied as Spain, Mexico, Japan and Yugoslavia at the time.

The ensemble of structures built by Távora in the park of the abandoned monastery of the Quinta da Conceição – including the Tennis Pavilion, the outdoor room of the northern entrance, the stepping walkways and the reconstructed cloister – constituted an entire symbolic landscape laden with hidden memories and allusions, and drawing together influences as varied as the architecture of Frank Lloyd Wright and the temples of ancient Japan, but in an exploration of a modern space. They also returned to archetypes such as the platform and the hovering roof. The park,

conceived in 1957, served as a pastoral filter between the residential areas to the north and the harder industrial region to the south, even passing under the roadway at the lower end to establish an extension of public space. In addition to the primary axis and diagonal routes over platforms, Távora established stopping points where people might pause and meditate upon historical fragments, textured paving stones, rough masonry and troughs of water.

One of the underlying themes at Quinta da Conceição is that of the outdoor room open to the sky. This is first announced at the northern entrance with its red walls, and its main portal with hovering granite lintel framing the way into the park along the main axis. It suggests a Meso-American ruin and recalls works by Luis Barragán (which Távora did not know). The path descends towards a point of punctuation in the distance: an abstract sculpture resembling an ancient stele with a semi-circular top, which turns out, when one is below, to be the back of a curved archaeological fragment embedded in a modern form.

This game of representation and abstraction continues throughout the park, as does the contrast between modern materials such as concrete, and traditional ones such as masonry. Immense care has gone into the articulation of joints so as to reinforce the materiality of stonework, particularly in the sustaining walls and the rough blocks of granite used in the paving of the main pathway. Inevitably one thinks of the ground plane in Japanese temples in Kyoto (which Távora experienced) where movement is guided by the changing feeling of the paving underfoot. In the park, the types of wall run all the way from the boldest granite masonry to thin, plastered surfaces – from traditional rustication to suggestions of the cultivated.

*'Like a navigator of modern times, Távora travelled far and wide in his quest for architectural truths'*

**Fernando Távora**  
**1923-2005**  
**Education**  
Porto School of Fine Arts  
**Educator**  
Professor at the Faculty of Architecture, University of Porto  
**Key buildings**  
Municipal Market, Santa Maria da Feira (1953-59)  
Tennis Pavilion, Quinta da Conceição Park, Matosinhos (1956-60)  
Santa Marinha Convent, Guimarães (1975-84)  
**Quote**  
'A good building is like a good shirt, it must have a good collar and a good pair of cuffs, if it doesn't, it's still a shirt, but is it a good one?'

The Tennis Pavilion itself plays against the ground plane and the horizontal of the tennis court in a complex game of weight and flotation. It relies upon modern materials such as concrete and steel to achieve wide lateral spans without supports, yet it still flirts with the idea of traditional masonry pillars. These are inserted in the rear wall in such a way that they protrude from the surface but do not touch the ground. They recall the granite piers used in vineyards in northern Portugal and convey a sense of the rustic, even the primitive. They allude to traditional construction, but subvert it in a manner that underlines the feeling of hovering of the main pavilion space, an airy room entirely open along its south-eastern side so as to afford an uninterrupted view over tennis court and park. The floor is covered in red and white tiles while the entire roof is supported on wooden rafters sitting on a long concrete beam which runs from one end to the other without intermediary columns, sits on a whitewashed wall at each end and protrudes beyond them. The long horizontal handrail, a cylinder of steel, and the rain gutter above, are also detailed so that they appear suspended in mid air.

There are subliminal allusions to bamboo rails and gutters in Japanese temples, but these are combined with a reinterpretation of the overlapping planes and struts of De Stijl. The Tennis Pavilion works with voids as well as solids, and engages at a distance with the spatial dynamics of Neo-Plasticism and the abstraction of Mondrian. It is like a delayed reaction to a past avant-garde in defiance of a cloying and earthbound traditionalism, that of the formulaic and official 'Portuguese House' with its folkloric clichés, which Távora openly criticised in writing. The Tennis Pavilion takes on the character of a modest manifesto in favour of a modernity that also returns to roots.





One recalls the architect's interest in the writings of Bruno Zevi who tried to define the essence of modern architecture through its liberation of a new kind of space, first revealed in the work of Frank Lloyd Wright then carried forward in what he felt was an 'organic' tradition. Aalto also figured in this lineage and in the floating, angled roof of the Tennis Pavilion one encounters echoes of both Wright's Taliesin West (1937) with its tilted, tent-like superstructure riding over a base of crude masonry, and of Aalto's Maison Carré (1957), with its wedge-shaped roof hovering above a stepped section responding to the sloping landscape.

These 'modern' precedents coexist in tension with Távora's readings of the rural vernacular of northern Portugal, especially the tiled and tilted roofs and the terracing. Modern concepts and images interact with traditional ones, just as they do in several of Távora's other works of the same period such as the Mercado Municipal at Vila de Feira of 1953-59 or the Casa de Férias of 1957-59. The Pavilion was a synthesis of fundamental ideas, even suggesting a Primitive Hut – an essay on the very notion of architectural origins.

Portugal is sometimes treated as a 'marginal' country, a caricature which forgets the numerous links to the Americas, Asia and the rest of the world. In Porto, in particular the very notion of the 'local' has been modified by historical overlays imported from places around the globe. One is struck by the cosmopolitanism of Távora's architectural culture, his absorption of past monuments and civilisations, and his investigation of basic themes transcending particular examples. Like a navigator of modern times, Távora travelled far and wide in his quest for architectural truths.

**An exhibition *Fernando Távora: Permanent Modernity* is being held at the School of Architecture of the University of Minho, Guimarães, Portugal, until 15 March 2013**

ÁLVARO SIZA





# **AR HOUSE 2013**

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# THE THINK SERIES

02



### Introduction by ORMS

As a practice, ORMS is keen to understand the everyday issues and challenges faced by both the architectural profession and our colleagues and clients in the wider construction industry. The Think initiative supports our belief that the best way of doing this is through debate and research, the outcomes of which will ultimately inform our architectural approach.

What follows is the result of the first stage in the Think process – a frank, informal and fascinating dialogue between some of the people we most admire in the industry, drawn from a wide variety of disciplines and representing many different sides of the debate. Their lively insights are highly thought-provoking and, inevitably, raise more questions than they answer. But they successfully highlight the conflicting issues which will influence the future development of educational buildings – and identify many new avenues for debate and design exploration.

### The guests

**Phillippa De'Ath (PD)** is Programme Director and co-founder of Hackney New School, opening in September 2013. She has 10 years' experience in technology, business strategy and recruitment at IBM, after a short spell in the live music industry

**Kate Heron (KH)** is Head of Architecture at the University of Westminster and Director of Ambika P3. Her background is in practice as Feary + Heron Architects, and in the arts. She is a past chair of SCHOSA. She has taught and been an external examiner in many UK schools of architecture, and an advisor to the EPFL in Lausanne. Most recently she has joined a Europe-wide consortium of seven schools of architecture known as ADAPT-r which has EU funding to develop an international training network of researchers based in 'venturous practice', and to expand the established RMIT PhD programme of research by practice

**Coreen Hester (CH)** is Head of School at the American School in London (ASL). She taught English literature and writing before she began her career as an administrator in independent schools in the US. She was High School Principal at the ASL 1995-97, and Head of School at the Hamlin School in San Francisco for 10 years, before returning to the ASL in 2007

**Duncan McCorquodale (DM)** established Black Dog Publishing, a London-based book publisher noted for its fresh, eclectic perspective on contemporary culture. He also founded Artifice books on architecture. He originally studied History and Theory of Architecture at the Architectural Association and following graduation taught at the Bartlett School of Architecture

### The hosts

**Oliver Richards (OR)** founded ORMS in 1984, and his skills in balancing the visionary qualities of design with practicality and cost consciousness are central to the philosophy of the practice

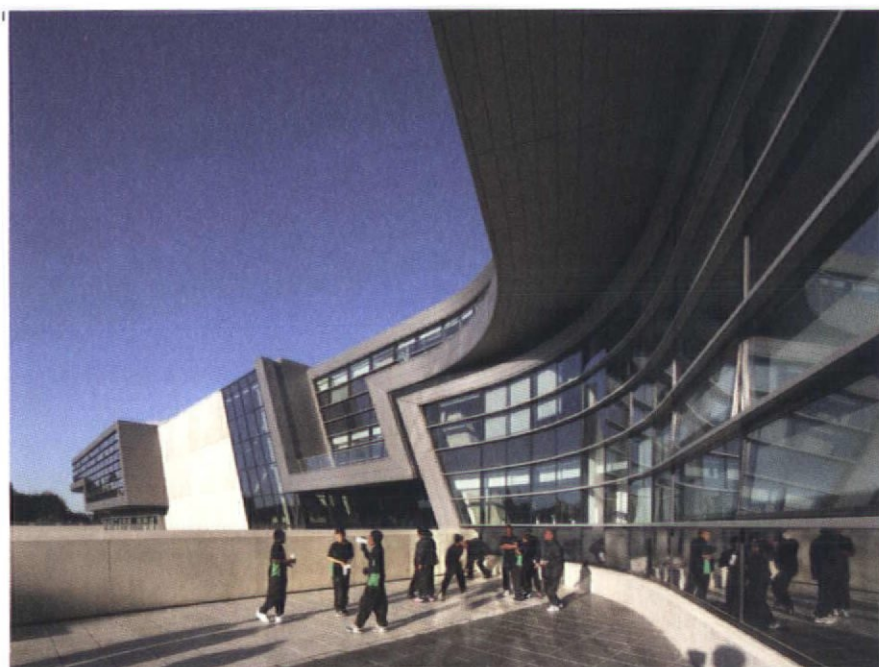
**John McRae (JM)** is an Equity Director of ORMS and chief instigator of the Think initiative which reflects his own passion for creating a built environment closely informed by the users' well-being

**Richard Keating (RK)** joined ORMS in 2005, was made an Associate in 2008 and Associate Director in 2010. His focus within the practice is on the Education and Commercial sectors and he also heads up its technical workshops and reviews. He is a Governor at Woodside School, Walthamstow



# SCHOOL LESSONS

## A DISCUSSION ON THE FUTURE OF EDUCATIONAL BUILDINGS



Continuing the collaboration between British practice ORMS and the AR, the Think Series aims to promote dialogue between different disciplines within architecture and construction. In this second edition we explore the issues shaping the debate on buildings for education

*Despite schools still being a recognisable typology that transcends eras, buildings for education, especially in the UK, are now increasingly subject to the conflicting pressures of funding and political agendas, as well as different strategies for procurement, such as free schools, and the rise of digital technology in the classroom. How do these factors impact on architecture and can architects still create meaningful places and spaces for learning?*

**OR:** What we want to try and get out of this is to think about the serious issues facing the UK to see whether we can come up with some ideas about how to make life better. ORMS has designed a number of different schools but they have all been in the private sector. Between us we have a number of kids and we care about the next generation and how are we going to solve these big issues for the future. I think that starting a school from scratch is a really interesting idea because it makes you think there's no commonly accepted ground.

**JM:** Phillippa, why did you get involved in setting up a free school? What was the driver for it?

**PD:** Partly by being an employer of UK graduates in the technology industry and finding that really hard, and partly by mentoring kids in secondary schools and being quite surprised at the provision of general state education. And so I became much more interested in secondary education. I was trying to become a governor and met others interested in developing ideas about what a school would look like organised in a different way. We then went through the marketing and application process run by the Department for Education. We also walked the streets of Hackney and approached everybody who looked like they might have a 10 year old kid, and said, 'We're opening this school, what do you think?'

**OR:** How many other groups of people are doing this? Are you exceptional?

**PD:** Several hundred groups applied when we did and 100 were approved. Half of those are religious schools so they are backed by a church, mosque or synagogue. Most of the other half are groups of teachers and a head, who have said, 'We could do our own version'. So we were different in the fact that the deputy head joined the team after we originally decided to do it.



**KH:** What's your business model?

**PD:** It's a state-funded state school so it's free to attend. Its genesis is fairly typical of the way new schools now get set-up as free schools, where a group puts forward a bid with support from the local community to open a school.

**CH:** What's your philosophy?

**PD:** It's based on the Theresianum, a school in Vienna, which has run this model of the 'teaching morning' and the 'study afternoon' for hundreds of years. The idea is to help children not just be academically excellent but also to learn how to stick up for themselves, to think for themselves and to critique what they're presented with. This is especially relevant as the volume of information now available to children and to all of us is so immense.

**OR:** Is that the real differentiator? That you have a philosophy which is tried and tested, and so gives you the kudos and ability to persuade both funders and pupils that you're worth following?

**PD:** Yes, but there are many levels to it. I think there's an intellectually strong vision of what the school will be like, but we've also shown that we've met the practical challenge of setting it up in the first place.

**CH:** Schools still generally look like they were a hundred years ago. That's why it's so interesting to start something new. Now knowledge *is* free so the question is, 'What are you going to teach and learn?' The philosophy of American education is based on critical thinking, problem solving, risk taking, a deep commitment to understanding, so that you don't understand it unless you can teach it to someone else or apply it in a novel situation.

**OR:** Faith schools have an automatic philosophy attached to them. I wonder how many of the new schools that have been set-up in the UK, the free schools, actually *do* have some kind of philosophy?

**CH:** You're only a school if you have a shared philosophy, if you have essential agreements among the people who work in that school, to put together something that is cogent.

**JM:** I think it's fascinating that you have to justify a philosophy to start a free school. Perhaps the question should be 'Does the government and the state side have a philosophy for all the other thousands of schools that they're heading up?'

**PD:** In the bid process it's made very explicit that basic need (ie, are there enough school places?) is not actually part of the discussion about funding. Instead it's about parental demand and that parental demand is based on, 'Do people like what you're offering?', so that's really the philosophy. It's essentially introducing free market principles to the state education pot of money, but that would only be a debate if all the other existing state schools were truly all the same. I visited 40 primary schools in Hackney, Islington and Tower Hamlets and they're all so different for so many reasons: different catchment, different management, different building, different history. Each is palpably different and what they want their ideal student to be like is also different.

**KH:** One of the problematic things about free schools is that they are so open to being used for faith schools. For many people this is extremely tricky because they're teaching groups in order to be separate, not in order to contribute to the greater good.

**PD:** There's a perception that the Church of England and Catholic primary schools are better and better for probably reasons that nobody would ever really dare to say. Everybody knows somebody who suddenly starts going to Sunday school when they have a four year old and it's not because they've suddenly turned to God; it's because they're trying to get into a good school. From our perspective it's helpful because it completely diffuses the debate of whether there should be a school like ours in Hackney, which is visibly open to everybody. One of the other two schools that have been opened is a faith school.

## PUPIL POWER

*Given the current rush to set up new schools and the pressure on capacity (London alone is facing a shortfall of 90,000 school places), how do different philosophies of education mesh with architectural ambition? And how do new ways of learning and collaboration influence design?*

**DM:** I'm curious about the idea of a good school and philosophies informing education, particularly for younger children and how that relates to architecture. And it seems curious that you have a school that you don't even know is going to exist yet – where does the architecture come into this? There's a sense of a feeding frenzy around these new schools. If there are hundreds of them to be built, they have to be built within a short time frame so inevitably some of them aren't going to be done very well. Where the architecture component comes into good schools and education more generally seems to me a profound point of discussion.

**OR:** If you look at the best Danish schools these schools are allowed to evolve. We did some work for the American School in London 15 years ago and we're now doing something completely different, but this process of evolution and being able to evolve to match the needs of society is a completely different scenario from the PFI school. Then you've got to get it right all in one go and that's an impossible thing to do.

**JM:** As architects, our role is to develop a wider vision. So somebody might say, 'I've got £30 million for this building', or they might say, 'I want extra space for 20 pupils'. We always start with a wider perspective and say, 'Actually, *don't* build a £30 million building, put £10 million there, put £5 million into teaching and £5 million to unlock another series of buildings. 'You've got £30 million – design a building', is one way of creating architecture but it's not a holistic way.

**CH:** It's a very interesting time in education. You can explore ideas, such as the relationship between technology and research and how people work. Today it's about collaboration, about kids working in teams on projects. We need to plan for more project-based learning because that's what we know these kids are going to have to do, because their jobs haven't been invented yet. So why educate them for our past? Children need to have a variety of experiences so they can find their passions, so they can



'Schools still generally look like they were a hundred years ago. That's why it's so interesting to start something new'

COREEN HESTER



see what they're going to do for the rest of their lives. So how do they learn those things and how do they do those things and what are the spaces going to look like?

**OR:** When your school was built in the 1970s, it was built with clusters of classrooms around a central resource area. Originally there were five classrooms but within a year people put up partitions. I wonder now whether the kids could actually cope with it 40 years on, if you took the partitions down?

**CH:** As well as freedom and autonomy and the development of an individual perspective, children also look for a community. The best part about the pods at the American School is that in a big building they give pupils a sense of, 'This is who we are, this is where we are.'

**KH:** A lot of students' learning happens outside buildings but there are universities that have sort of so-called 'learning spaces', where students just perch on some elegant piece of furniture, with their iPad. But I'm not sure that that really works either. However the need for community still holds true for universities. Students will search for free knowledge that is widely available. Some of them are quite able to discern what is worth having and some are not. For a lot of students the limitless availability of material is completely confusing. They need to learn to discriminate between good information and stuff they just copy. I'd say that's a very big part of the challenge that we face at the moment. But architecture is a model of learning that encourages reflective practice.

**OR:** Another issue is the availability of external space. I wondered how much a lack of external space, the requirement to move around town, as opposed to being on your own campus between shared facilities, really mattered and as educators whether that would worry you?



**CH:** So you're asking how important it is, proximity?

**RK:** And also green space. I was amazed when I started looking at schools for my children. It's a given that there won't be a playing field, it will be a tarmac space.

**OR:** But is this going to deprive our next generation of kids or will they actually rise to the challenge and do something different and become urban kids? There are lots of retail units around the edges of towns that are going to be empty in the next 10 years. Would it be better to put a school there, where you've presently got a big car park, and you have to bus the kids to school? Or would it be better to have an urban school right in the middle of where people are living? How much do these things matter?

**KH:** I think we all need some space, so it's not just schools. It seems one of the things we haven't talked about is how the planning process might be a bit helpful in predicting when new schools are going to be needed. So London's population's been growing but their number of schools has to follow the measurement of the growth rather than anticipated growth. If you think about the proposed new changes in planning legislation with housing estates popping up in the green belt or in other bits of green space, there's absolutely no mention of schools. There needs to be more integrated thought about the relationship between communities and schools.

**DM:** This goes back to the idea about knowledge being free, in that I think that in London in particular, as the provision for green and open spaces is pretty remarkable but people don't actually make use of them ...

**OR:** In the 19th century there were often playgrounds on school roofs.

1. (Previous page) the Stirling Prize winning Evelyn Grace Academy by Zaha Hadid epitomises the school as an architectural object imbued with the power to transform educational outcomes  
2. Victorian classroom from the Brook Street Ragged and Industrial School, founded in 1843. As a typology, the school remains largely unchanged since that era, but the rise of digital technology and new means of procurement are now impacting on form and organisation  
3. Steiner school, an example of a school with a strong philosophy expressed through its environment



**DM:** ... but it's something that could make quite a remarkable difference in a city as dense as London. It's about freedom of knowledge but also being able to access it, which might mean that it's not free, that you have to be inculcated or educated to make use of knowledge. There are architectural issues here but they're not getting that much air-play. The education debate seems to be quite siloed, going on within a certain area. Then there are young parents. I have a four-year-old son, so we're starting to think now about his next role within education. We weren't thinking about that two years ago.

#### MODELS FOR MODEL SCHOOLS

*The relationship between good new architecture and the public perception of a particular school is not always clear cut. Some schools still retain the social stigma of being 'bad' schools, despite their impressive new buildings. Conversely, unexceptional architecture (and committed teaching staff) can sustain a school community and inculcate a positive educational spirit.*

**CH:** Choosing a school, whether it's a free school or a fee-paying school is so much a reflection of a parent's life view and philosophy. As an educator, I want great, consistent programmes, delivered by caring, passionate teachers. So I only want people to come to the school that I run because we have a similar view. If the parent wants what I'm giving then it's going to work because there's an alignment, a school/home partnership. And the building is secondary. The American School in London is ugly as sin. But inside it's an art show and it has great facilities and kids can play and learn music and the concerts are great and the athletics are fun and learning is exciting.

**PD:** In Hackney, the Building Schools for the Future PFI initiative has spent considerable resources on new Academy buildings, using renowned architects. One of them is now known to be one of the best secondary schools in the country, but others aren't by any stretch. They've just got really fancy buildings. So there's this interesting backlash from parents going, 'Well, we can see that they've spent tens of millions on that but I still wouldn't want to send my kids there because it's still a terrifying school.'

**DM:** Teaching is key but I think that the quality of the architecture is also key; it's essential.

**CH:** Form does have to follow function but I just think that function also has to be of high quality. You do have to have good facilities, and we still don't spend money on facilities.

**DM:** The model of some of the new Scandinavian schools is interesting, they've taken on board IT and it's engendered another way of thinking about children occupying space and interacting with one another. I agree, I think there should be all kinds of different provisions but I do think that the architecture is kind of essential here.

**JM:** This is quite interesting, how the philosophy of the school impacts on its design. Isn't it important that the environment should be embracing that philosophy? If you think of Steiner schools, the Steiner environment is very aligned with the philosophy of Steiner teaching. Things such as desks and colour and the shapes and the movement and the space are all intrinsic.



'But I think the key for us as a profession is that we're pre-programmed to break rules, as architects. We go around every day, analysing and breaking rules; we can do that and we need to align ourselves with the people that will support the breaking of the rules'

**JOHN MCRAE**



4. Opened in 2004, the Mossbourne Community Academy in Hackney by Rogers Stirk Harbour + Partners was emblematic of a drive to improve educational standards in a deprived London borough, with architecture duly playing its part

5. The King's Library at the British Library in London. Studious nomads with laptops and iPads are dwarfed by the impressive (but increasingly redundant) physicality of George III's historic book collection

**KH:** Architects are still extremely good at having an overview and helping to realise people's ideas long before anything becomes an artefact.

**PD:** We are lucky because one of the founders of our free school is an architect, so at least we can have some discussion among ourselves, but our ability to influence that decision is really slight. Most of the time we're deliberately kept out of the discussion.

**DM:** What you're both saying is very interesting in that there's a generally shared perception, particularly within the UK, that there's been this major programme of schools building, but the architects probably haven't been all that involved in the wider discussion behind planning and commissioning of that new stock.

**KH:** We should learn from what's been done before and we're incredibly bad at that; post-occupancy evaluation.

#### ARE LIBRARIES DEAD?

*The impact of digital technology in the classroom has irrevocably shifted the dynamics of teaching and learning. How does this affect and transform traditional spaces for study such as libraries? And how is the fact that information is now free changing buildings for education?*

**OR:** The younger generation has taken a leap forward because of the advent of digital technology. Do we need libraries any more, if information is free?

**CH:** You don't need computer labs but you do need libraries – but how many books are in the library, is the question.

**OR:** So I do think there is a new platform of opportunity because kids are more flexible than ever before and are going to become more so.

**KH:** I'm just thinking of the SANAA building at EPFL in Lausanne which is a library but actually everything you see is completely curling spaces and you can't put down chairs because the floors aren't flat, so it's all bean-bags and iPads. But below ground are the books, so they have got them both.

**DM:** I think the British Library is also rather remarkable in its aspiration. It's now turned into a space where people seemingly hang out, you can't get a cubicle in the reading rooms very easily, unless you get in there very early. But people go there to socialise and they are involved in learning. It's all about education. You have this huge stack of historic books, the King's Library, something that digital technology can't possibly emulate, but all around this great accumulation of books there are also people working on iPads.

**KH:** Computers, yes. But then architecture in all of the things we've just been talking about is absolutely key.

**JM:** Just last week we were on a trip to Denmark and we went to a school to look at science laboratories. Interestingly, the way that that building had been developed was essentially rectangular, on plan, with a very simple, functional facade. In the centre were the labs, with all the formal teaching spaces around the perimeter.

Inside this giant space you had a series of almost counsel-like chambers, and through this they'd created a vibrant community. You would walk between the chambers, with acoustic lining on every horizontal surface, and everybody was just milling around and through this space. They also had mobile blackboards and they were teaching in it. So there were 500 people around you, but because of the layout and acoustics, you'd have no idea. It was truly brilliant because you saw things happening. There were groups of people together, there were people on iPads, there were people with their blackboards and it had a fantastic and engaged community feel. I just thought there was something magical about that sense of bringing together, the use of technology and the interaction with people.

#### THE POTENTIAL OF REUSE

*Models of development from other sectors can be useful in advancing debate and suggesting new ideas. The imaginative reuse of existing buildings provides architectural and pedagogical opportunities*

**OR:** We're also doing some research on Generation Y, in relation to office buildings. The Tea Building in Shoreditch is an exemplar for how expectations of the younger generation are now being met by quite gritty, industrial buildings, which form different sorts of office environments. It's changed the whole perception of what an office should be now and what it should be used for.

**CH:** Look at the Bay School in San Francisco, which is an old army barracks converted to a school, very successfully. I think architects are going to be more necessary because spaces are not necessarily going to be built for schools but you've got to make schools work in those spaces.

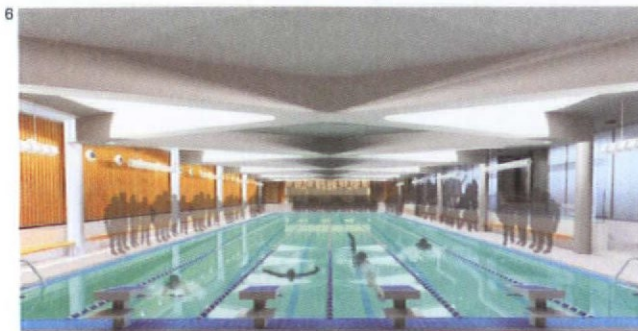
**JM:** But I think the key for us as a profession is that we're pre-programmed to break rules, as architects. We go around every day, analysing and breaking rules; we can do that and we need to align ourselves with the people that will support the breaking of the rules.

**OR:** Is anyone doing some sensible research into what makes a good educational environment, that you know of, any architectural research?

**KH:** In the past there has been quite a lot. But with the Schools for the Future programme, for instance, all the effort seemed to go into designing certain exemplar schools. Now I think there is a sense of disappointment because this couldn't be followed through in any meaningful way. A lot of things were stopped part-way and there was little evaluation of how effective those new schools really were. Some will turn out to be quite good and some will turn out to be quite bad, and we should be able to learn from both. At present one of the interesting growth areas in architecture at my college is what we call 'interior architecture', which presupposes that all designers are going to be doing is working with and modifying existing buildings to accommodate new uses.

**JM:** We have a number of interior architecture trained people and it is interesting that the thought process is different to the traditionally trained architect – they are looking at personal experience in an environment and how it's created internally.





**KH:** One thing we haven't talked about: we've talked about schools needing more places than exist, but with universities it's the opposite. Because of demographic changes, there will be fewer and for the next five years there will be smaller numbers of 18 year olds. Therefore the great challenge that faces universities is what else can they do, apart from teaching standard degree courses. I don't get the impression that it has been considered at all, yet it has profound implications.

**JM:** No, but interestingly, in 18 years' time ...

**KH:** Suddenly there's going to be a change again. So I think that the coincidence of there being fewer 18 year olds and because of the new fee systems, it'll put this huge pressure on UK universities.

## ENCOURAGING ENTREPRENEURSHIP

*The discussion concluded with the idea of school and college buildings becoming flexible armatures for various activities beyond their immediate institutional demands. As well as economic advantages, this also serves to embed them more intimately within the wider community*

**DM:** So do UK universities need to find alternative uses?

**KH:** Or devise other forms of how education will be beyond the traditional pattern of somebody going to university immediately after school and then having a career for life. People now move around more and change their careers and it might be that higher education has to be able to adapt in response.

**OR:** This might presumably involve more emphasis on things such as distance learning?

**KH:** A lot more distance learning. But going back to the experience of the Open University, what they found quite early on was that while you could do everything through

the radio or television, there was also a need for groups of people to get together, so they then invented their summer school system.

**OR:** So programming will become much more complex?

**JM:** If there existed the capacity to have some aspects of schooling within a university environment, it would then hopefully encourage pupils to go on to the university environment after school.

**DM:** It's a change of thinking, isn't it? I mean, in terms of the university stock, people don't tend to think like that. They think that it's there for a purpose and I suppose in some cases, like laboratories, it is. But there are also other precedents, such as the Ideas Stores. In Vancouver there have been some interesting initiatives with new sports buildings, partly on the back of the Olympics. They had been built as community centres but would then become libraries, as well as swimming pools and leisure centres, sometimes offering medical provision. Universities need to change their thinking in terms of what they can do.

**OR:** The ability for buildings to evolve and happily contain different types of uses is going to be more fundamental. The traditional mono-cultural use of buildings seems to be breaking down and we will all have to be prepared for this.

**KH:** Yes, absolutely, and encourage the multi-use of space that was once built for a particular purpose.

**RK:** That's what my school's getting very excited about. As a state school they don't really have any means of earning money, so we've been looking how this might work. There are a couple of buildings on our site, which have separate entrances, so this deals with the security issues and allows people to use the buildings at weekends and evenings. As a result of the increased income, they can now afford that fantastic bit of playground equipment that previously they hadn't been able to get funding for.

**KH:** It does mean we all have to think in a much more entrepreneurial way. At the University of Westminster, we have a space which was the old engineering construction hall (when we had an engineering school) and it was closed. Then people realised that it was a fantastic space and worked out the various things that could happen in it. Then we also realised that we could, for very little money, refurbish it sufficiently, so it was safe. I said, 'We can run this space to be self funding by letting it commercially for a third of the year, for another third of the year we'll have programmes and for another third the university can use it for things like exams', otherwise they'd have to pay rent to exam boards. It's now working but I can feel that people are still deeply suspicious of what could be a new hybridised way of operating.

**JM:** I've taken quite a few things out of this discussion, notably how technology is changing the way that people interact but also may be taught. This give you a completely different set of parameters for a building and a building type. Another issue is the potential of the independent school sector. They have buildings, they have the ethos, they have the history and the power to make decisions far more quickly. It's also about schools linking up with universities to maximise the use of buildings. Again, it's about shifting that mindset.

**6. Proposal for a new swimming pool at the American School in London by ORMS**

**7. Having designed a series of additions to Uppingham School, ORMS are currently working on a new 'destination' Science Block. The L-shaped building forms a quad that physically and intellectually connects science with other subjects, such as sport, art drama and mathematics**

## Photographs

- 1 Hufton + Crow/VIEW
- 2 Corbis
- 3 Colin McPherson/Corbis
- 4 Edmund Sumner/VIEW
- 5 John Harper/Corbis



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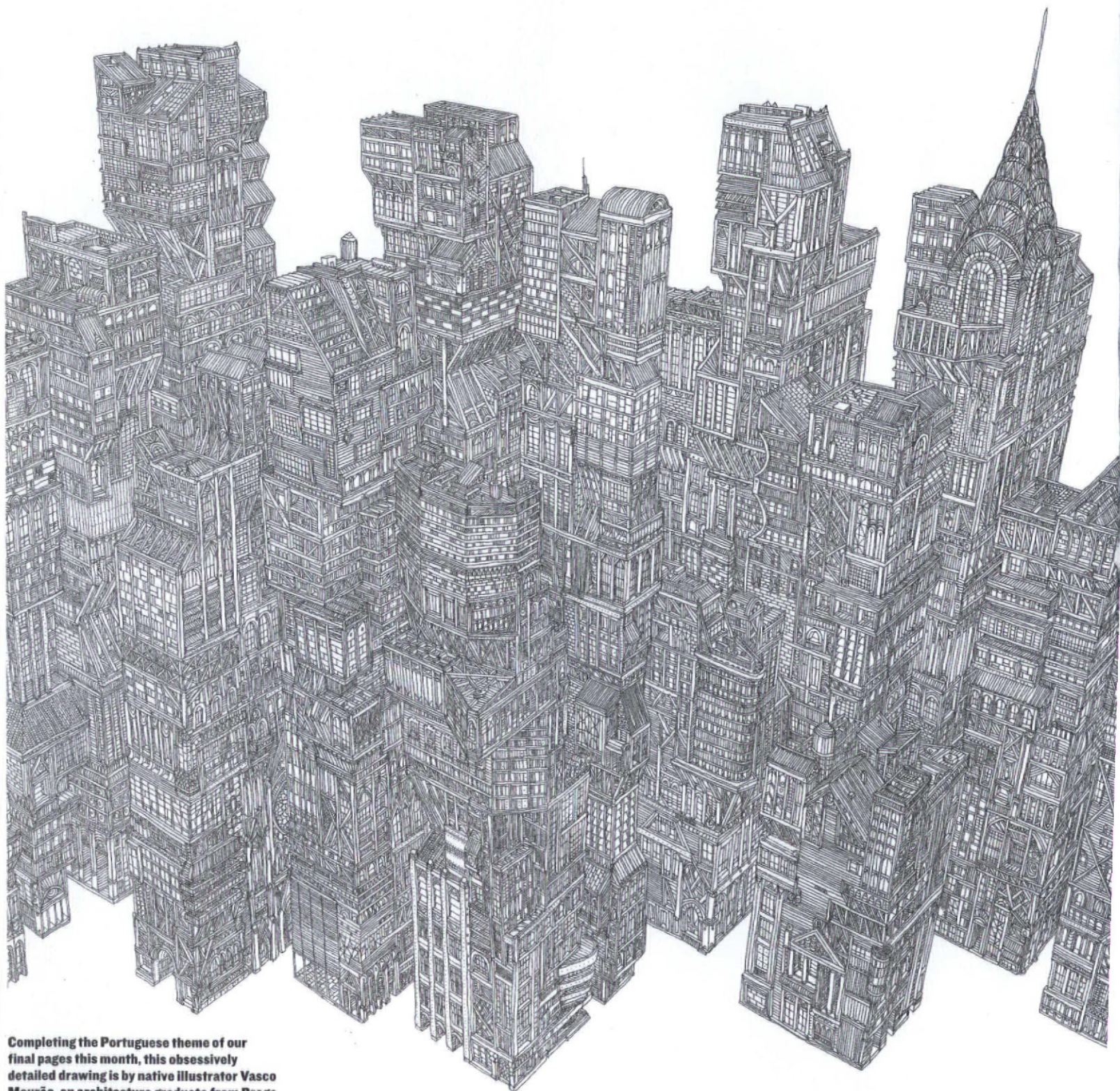
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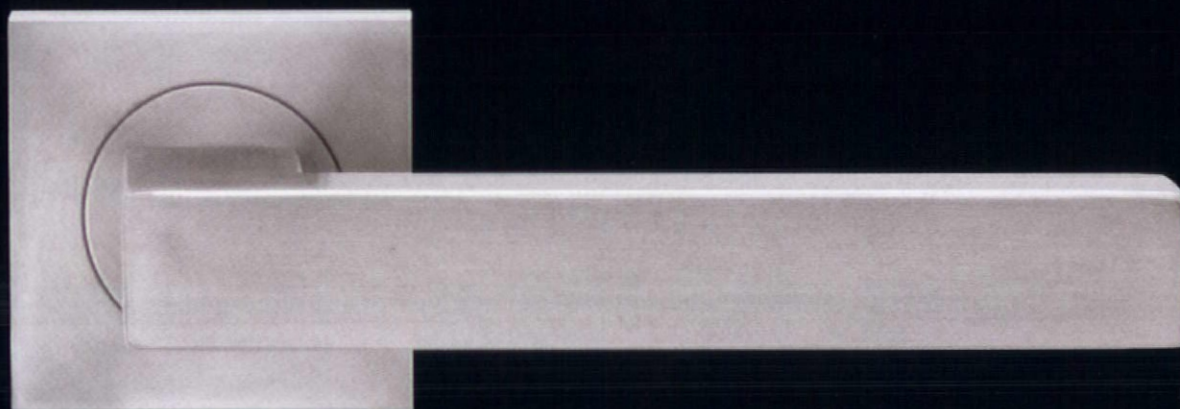




Completing the Portuguese theme of our final pages this month, this obsessively detailed drawing is by native illustrator Vasco Mourão, an architecture graduate from Braga ([mistemmourao.com](http://mistemmourao.com))



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