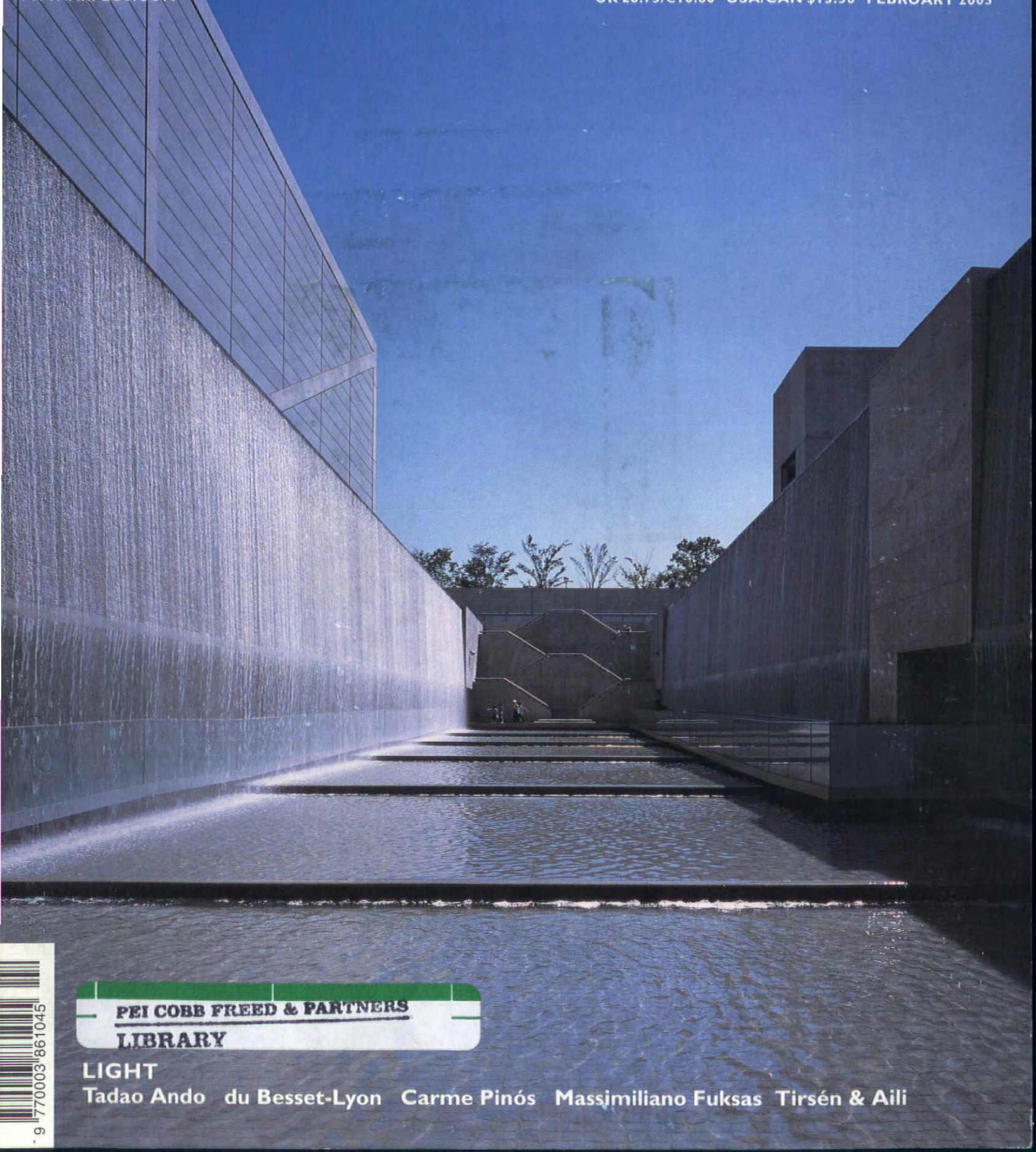


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Managing Editor

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Italian Advertising Sales, Milan

Carlo Fiorucci

Tel: +39 (0)2 58310219; fax: +39 (0)2 58315710

US Advertising Sales, New York

Catherine Sidoti

Tel: +1 212 599 5209; fax: +1 212 599 5202

Production Manager

Nicola Ozpembe 020 7505 6762

Marketing Manager

Mike Aplin 020 7505 6615

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Publisher

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Group Editorial Director

Paul Finch

Managing Director

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List rental: Anita Johnson, Qbase

Tel: +44 (0)1925 644800

Fax: +44 (0)1925 644801

Email: anita@qbase.net

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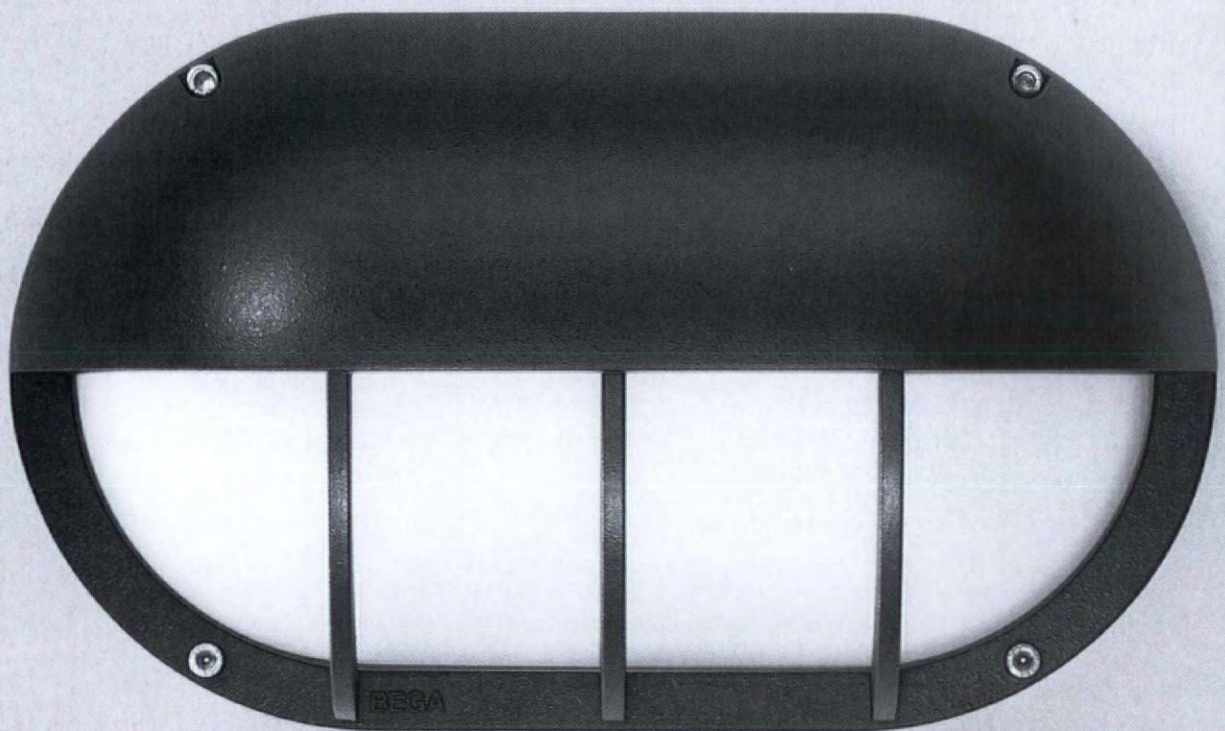
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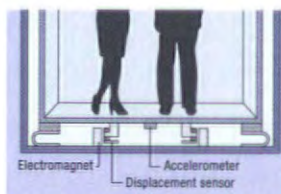


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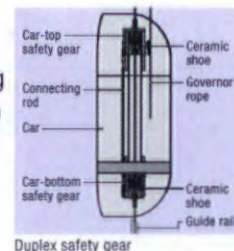
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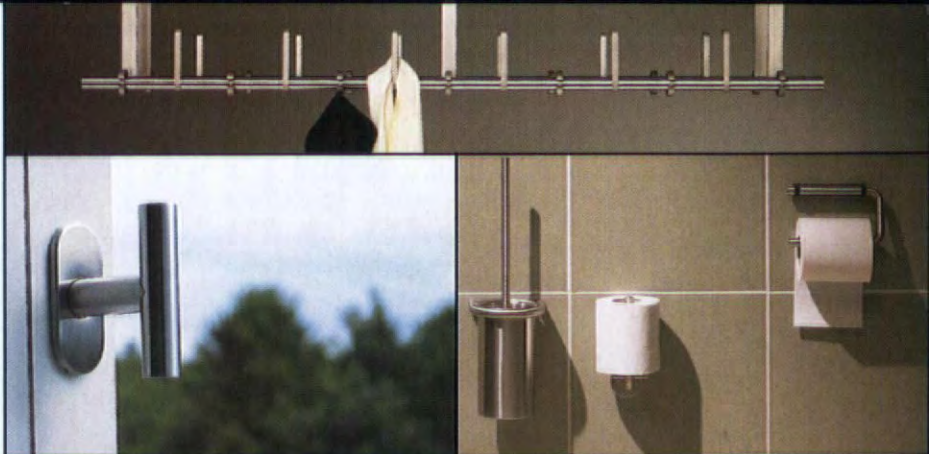
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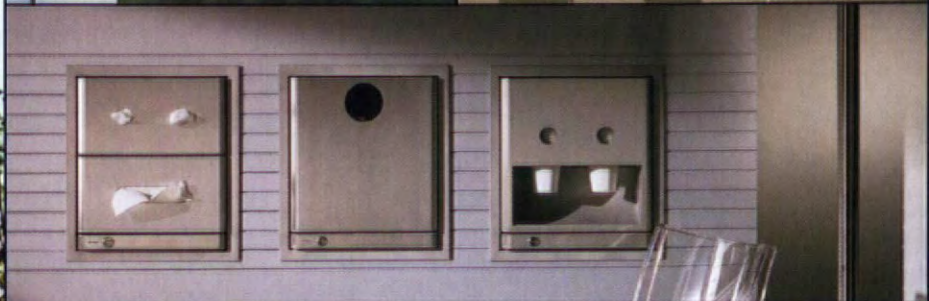
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Washroom
Handrail
Wardrobe
Signs



Hardware



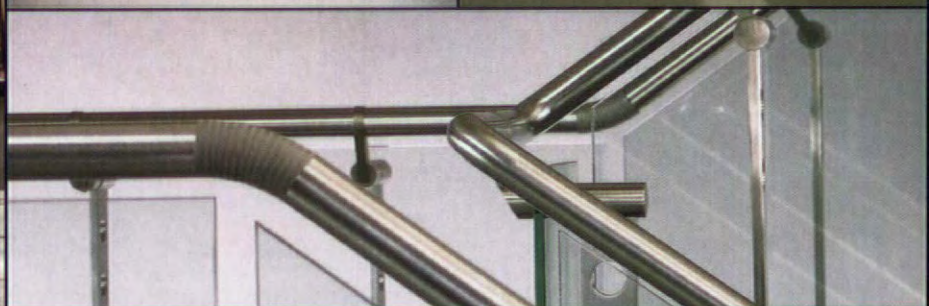
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In the last hundred years, humanity has become ever more urban and, now in the West, increasingly suburban. Cities have generated civilization, but they are increasingly eating up the world. If we are to remain civilized and try to live in some kind of harmony with the planet, we must evolve new kinds of urban planning, new architectures and new ways of relating to nature. If we do not, we will not survive as a recognizable species. How are we to plan? What are we to build? How can we create cities in which we can live in harmony with the natural world?

The Architectural Review is holding a conference on Greening the European City on 19 March 2003 at the RIBA in which distinguished architects, environmental engineers and landscapists from all over Europe will discuss issues, innovations and initiatives (see below). Full details about this conference can be found at www.arplus.com. This conference will address the most important issues facing all responsible for creating the human-made world. To book call +44 (0)20 7505 6745 or email: magdalena.lojszczyk@emap.com

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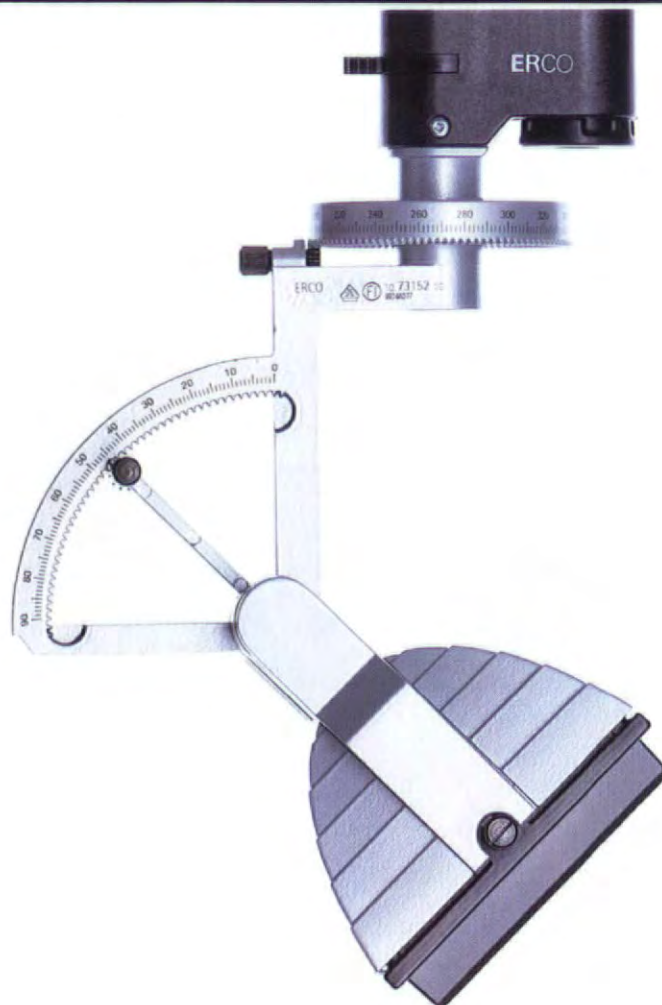
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view

MONUMENTAL PROPOSALS BY FASHIONABLE ARCHITECTURAL SUPERSTARS FOR LOWER MANHATTAN: ARE THESE APPROPRIATE MEMORIALS TO SEPTEMBER 11 AND WILL THEY ENHANCE THE CITY? CHIPPERFIELD WINS PALMENGARTEN GESELLSCHAFTSHAUS IN FRANKFURT. DARRYL CHEN REPORTS ON THE GREAT BOOM IN SHANGHAI.

IS THERE A FUTURE FOR GROUND ZERO?

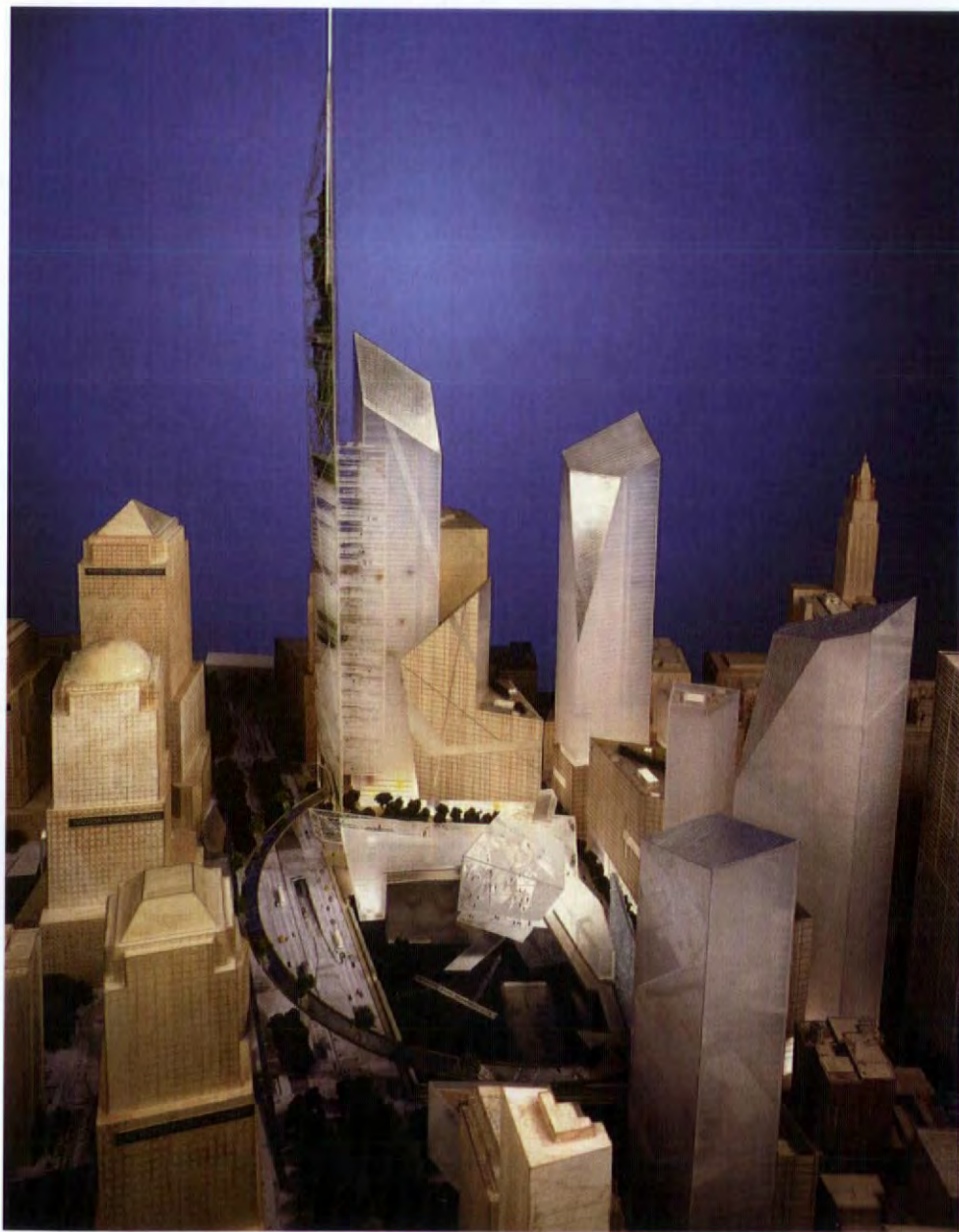
Following the terrorist attack of September 11 2001, resulting in the collapse of the World Trade Center's Twin Towers, architects and critics world-wide, along with the local leaseholder and planners, voiced immediate concerns about future development. It has become obvious, however, after a long, painful process of public meetings, that to establish a successful

masterplan for the 16-acre (6.5 ha) site will require an act of courage beyond the kind of inspired ingenuity that usually moves architecture one notch higher. New York City has understandably become so entangled in the emotional aspects of its human loss that no one appears prepared to separate public and private mourning from the exceptional opportunity presented to make an innovative fresh start that will reintegrate and improve the city fabric.

Having failed to produce a satisfactory plan from its own architects and planners at an earlier stage, the Lower Manhattan Development Corporation commissioned seven architectural firms or collaborative teams to offer planning designs for the site. These were unveiled last December with great fanfare in the newly-restored Winter Garden, the sparkling glass barrel-vaulted structure designed by Cesar Pelli in Battery Park City across from Ground Zero, as the World Trade Center site is now known. (The Winter Garden itself had been shattered by the attack.) Given the names of the architects and their reputations for both successful planning and design, the collective outcome was a major disappointment. Although there are some ingenious solutions for transportation networks and cultural amenities new to the neighbourhood, all of the proposals were hostage to the Memorial lobby.

Unfortunately, restrictions placed on the architects by the official brief for the 'Innovative Design Study' tied them to the past, making it impossible for them simply to devise the best and most original plans for a financial district that is also rapidly becoming residential. Now New Yorkers will never know what these minds could have produced under more productive and liberating circumstances. None of the architects went against the programme's 'strong preference for preserving the footprints of the twin towers for memorial or memorial related elements'. In truth, the towers were always a mistake of urban design principles – too large, too tall, and set in a windswept empty plaza. The fact that the city must now be saddled for ever with their gigantic footprints is counter to the spirit of renewal and survival so well exemplified by cities in war-torn Europe after the Second World War. In reality, these spaces are not burial sites and, therefore, should not be treated as virtual hallowed ground.

Another of the stipulations called for a restored skyline 'to provide a significant, identifiable symbol ... a new icon for New York City'. Four of the presentations proposed the tallest buildings in the world, and not only the tallest but also the safest – with alternative corridors and stairways in case of emergency. Has nothing been learned as a result of September 11? No building that tall, no matter how 'green' and sustainable, is safe, and the best memorial is to guarantee that future employees are not plagued



Libeskind's cluster of glass prisms with interior forest in the spire. Shaft of sunlight on 11 September is memorial.



Foster and Partners' twin towers touch three times to make viewing platforms: but will the public be able to use them? Towers top multi-storey transportation hub.

by anxiety. As these architects know, towers do not have to be tallest to be elegant and urban.

The brief was right in recognizing how the area had become more residential since the construction of the Twin Towers, citing both the Park Avenue-like apartment houses around public squares in Battery Park City and the continuing rehabilitation of surrounding commercial buildings into residences. Also, the programme wisely called for reinstating the criss-crossed street system destroyed by the construction of the Twin Towers in order to create new commercial areas and a circulation pattern that would integrate the old lower Manhattan with Battery Park City and the Hudson River beyond. (A glance just across the river to New Jersey reveals the rapidly developing business quarter of Jersey City indicating that maybe a bridge should be the city's priority since the area is still only directly accessible by boat and train.)

New York is not the most beautiful city in the world, but it has an electric environment and retains the pioneer spirit going back to its Dutch settlers who first colonized this neighbourhood with its narrow winding streets. What give the district its beauty are its density and the long canyons of light between towers. What is called for is a new and exciting complex of buildings that will become seamless with their surroundings and serve the public with commercial, cultural and residential facilities. Perhaps the most painful idea for the city to face is the need to make the former World Trade Center completely disappear.

Although none of the architects was invited to design the actual memorial – the subject of a later international competition – they all attempted to suggest one within their overall planning designs. Daniel Libeskind, who recalls his own shipside view of downtown New York as a teenage immigrant, was so impressed by the survival of the tow-

ers' slurry walls that he retained them and sunk the footprints below a cluster of prismatic glass buildings, the spire of the tallest housing an interior forest. (So-called public gardens in upper stories of buildings were another unrealistic theme of several proposals in a city where you cannot even go to a dentist in Rockefeller Center without showing a photo ID.) In addition to a museum for September 11, the configuration of Libeskind's structures allowed for an annual shaft of direct sunlight to mark the anniversary of the attack.

In Foster and Partners' plan, the footprints are excavated beneath high steel and stone walls in a park setting, and the underground perimeter appears to have a series of shrinelike spaces in which the grieving can remember their loved ones, though it is questionable how many families ever want to return to the site except for official occasions. (Also, one need only recall the failed shopping well at the General Motors Building at



SOM's multi-use glass cluster: closest to needed density?



Meier with Eisenman, Gwathmey and Holl designed 'proverbial camel' to try to combine tower and urban gateway.



Emerging Architecture

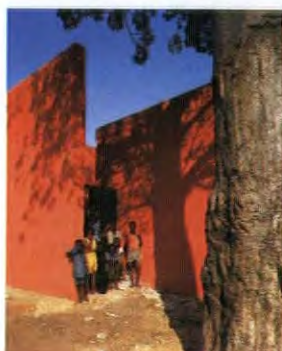
Next generation architects from around the world show and tell at the RIBA in a lecture series and accompanying exhibition

Emerging Architecture spring lecture series

A series of four seminars with presentations from winners and highly commended architects from the ar+d Emerging Architecture competition. The architects will talk about their recent work in general as well as focusing on their prize winning projects.

The awards are a partnership between The Architectural Review and d line International, the Danish architectural design firm. They celebrate the work of young architects and designers usually at the start of their career and not yet well known.

The accompanying exhibition of winning and highly commended entrants will be in Gallery 2 from 24 February to 29 March 2003.



25 February

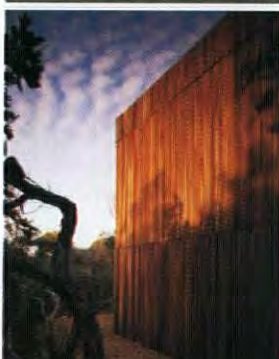
**Helena Sandman +
Niall McLaughlin**

6.30pm 6th Floor Conference Room

Helena Sandman, of Hollm  n Reuter Sandman from Finland, presents their heroic Women's Centre in Senegal, a new social facility built using local techniques and materials.

Niall McLaughlin of Niall McLaughlin Architects from London focuses on their brilliant Bandstand for the De la Warr Pavilion in Bexhill-on-Sea which can be moved around the pavilion for different times and types of performances.

Chaired by Peter Davey, Editor of *The Architectural Review*



6 March

**Daniel Bonilla +
Sean Godsell**

6.30pm 6th Floor Conference Room

Daniel Bonilla of Daniel Bonilla Arquitectos from Columbia focuses on their small chapel in Bogota which can be radically changed to accommodate 100 to 2000 worshippers by throwing open the two halves of a timber wall.

Australian architect, Sean Godsell, profiles his latest magical house dug into the side of a sand dune on a beach in Melbourne.

Chaired by Peter Davey, Editor of *The Architectural Review*



11 March

**Hideki Yoshimatsu +
Sasa Begovic**

6.30pm 6th Floor Conference Room

Japanese architect Hideki Yoshimatsu has collaborated with Archipro Architects, and presents their intensely moving symphony of materials and sound, the cemetery for the unknown in Hiroshima, Japan. Represented by 1500 stainless steel rods which form abstracted groves silhouetted against dark vegetation.

Sasa Begovic of 3LHD Architects presents their extraordinarily dignified memorial bridge in Rijeka. Dedicated to the dead in the civil wars, this bridge connects the east and west of the city centre through its project of simplicity and sophistication.

Chaired by Professor Iain Borden, Director of the Bartlett School of Architecture, UCL



18 March

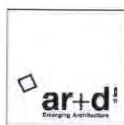
**Marion Blackwell +
J  rgen Mayer**

6.30pm 6th Floor Conference Room

Radical ruralist, architect Marion Blackwell from the USA focuses on his small cabin in rural North Carolina. Built as a structure for a carport, it also serves as a place in which honey from neighbouring hives can be processed and stored.

J  rgen Mayer of J  rgen Mayer H Architekten presents their temporary lounge for the 2002 UIA Congress in Berlin. The abstracted interior landscape provided a powerful yet calm space with reusable modular elements.

Chaired by Professor Iain Borden, Director of the Bartlett School of Architecture, UCL



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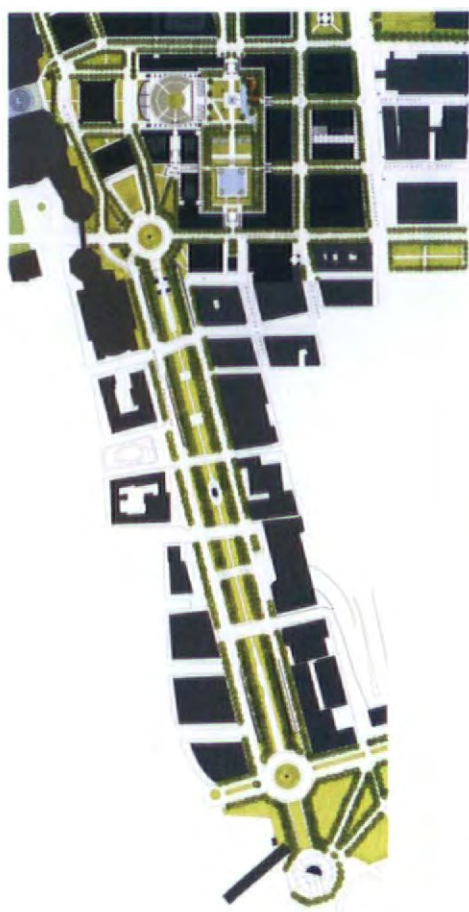
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above: Hollm  n Reuter Sandman   Juha Ikonen
below: Niall McLaughlin Architects   Nicholas Kane
above: Daniel Bonilla Arquitectos   Jorge Gamboa
below: Sean Godsell Architects
above: Hideki Yoshimatsu, Archipro Architects
below: 3LHD
above: J  rgen Mayer H   Urte Walker
below: Marion Blackwell   Richard Johnson



Peterson/Littenberg: buildings of human scale and context. But does Lower Manhattan need any more parks?

Fifth Avenue and 58th Street to understand New Yorkers' distaste for outdoor spaces below ground, with the exception of the skating rink at Rockefeller Center.) The firm's graceful 'twinned towers' (among the tallest) based on triangulation technology touch at three points to create observation platforms and other amenities, though again it is uncertain if the public would ever be permitted entry because of security considerations. The best Foster contribution is a multi-storey transportation hub under an immense glass canopy, which could reasonably become the sole use of the site.

In a similar vein, United Architects' collaboration (including Foreign Office Architects, Reiser + Umemoto RUR Architecture PC and others) proposed a descent into the footprints to gaze up to their new towers, a family of futuristic sloping and cantilevered structures they call a 'crystalline veil' to protect the space below. In a Wagnerian turn, they see the 'Sky Memorial' in an upper floor as a kind of Valhalla where 'the heroes lived'. Richard Meier, Peter Eisenman, Charles Gwathmey and Steven Holl (a Supreme Court of architects) truly designed the proverbial camel (the horse designed by a committee) with their two tick-tack-toe buildings at right-angles as a new concept for a tower cum ceremonial gateway incorporating horizontal escape routes between the vertical elements.



Think replaces World Trade Center with World Cultural Center containing inner buildings for different arts.

These also overlook a windy plaza where the footprints are reflecting pools, never mind how dirty still water becomes in New York where freezing temperatures preclude water altogether in winter leaving unattractive empty basins.

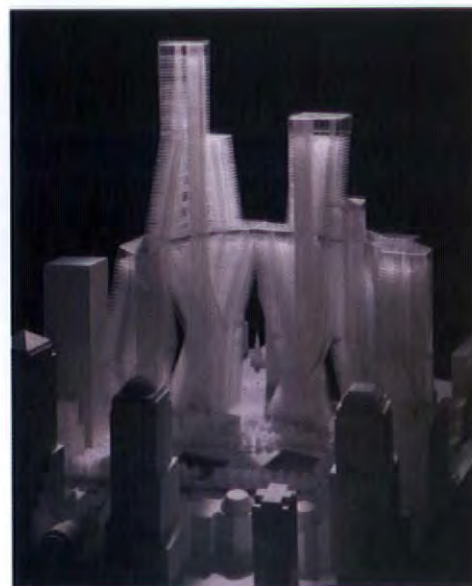
By completely filling the site with a grid of vertical glass zigzag structures, Skidmore, Owings & Merrill came closest to the concept of density to provide multi-use buildings – cultural as well as commercial – though they also incorporated those inevitable sky gardens above and reflecting pools below. It would be a massive block of light on the skyline. At the other extreme, the centrepiece of Peterson/Littenberg's proposal is a sunken walled garden, an urban courtyard determined by the geometry of the footprints with an outdoor amphitheatre on one of them with a museum underneath. Buildings of a more humane size and context would surround this green space, but one wonders whether any of the architects considered the nearby parks and gardens in Battery Park City which seem ample enough to serve the community without more vast green areas for the city to maintain. This firm did introduce one of the most seductive urban elements of all by converting West Street, between Ground Zero and Battery Park City, into a grand tree-lined boulevard extending to the tip of Manhattan.

Finally, Think, a team including Frederic Schwartz, Rafael Viñoly, Shigeru Ban and landscape architect Ken Smith, submitted three different proposals: a 16-acre inclined rooftop Sky Park over a retail concourse, a hotel, offices and a transportation centre; the Great Room, a glass-enclosed public plaza, with the footprints protected by glass cylinders, and next to it the tallest building in the world; and the World Cultural Center, featuring two open latticework towers that would contain within them at different levels distinctly separate buildings designed by various architects to house the performing arts, a

conference centre and an open amphitheatre. The lightness and elegance of this seemingly fantasy structure was truly innovative and seemed, in the end, more New York than the first two designs.

During the almost seven weeks the proposals were on view behind glass at the Winter Garden, people came in droves to view them, and children found the models and accompanying videos even more exciting than the usual holiday store windows uptown. In order to exhibit their three different designs in the urban context, Think, for example, elevated each one in turn on rotating raised platforms that fit into a scale model of lower Manhattan. As one small boy watched the towers of the first design sink below, he remarked, 'What a good idea, if the planes come again, they can just make the buildings disappear'. PAULA DEITZ

All photographs courtesy of Lower Manhattan Development Corporation.



United Architects' 'crystalline veil' protects the footprints of original World Trade Center buildings.

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Section of Frankfurt's Palmengarten Gesellschaftshaus by Chipperfield: old is old; new, new.

CHIPPER IN FRANKFURT

David Chipperfield has been chosen to extend and restore the Palmengarten Gesellschaftshaus in Frankfurt am Main after a two-stage competition. The project won because of its sensitive treatment of the historic fabric and its creation of a new relationship between building and surrounding garden.

The German city's palm garden was originally created by Friedrich Kayser, but destroyed by fire in 1878, and its Neo-Renaissance replacement by Heinrich Theodor Schmidt was adapted in the '20s by Ernst May and Martin Elsässer and partly destroyed in the War, then added to with a drear 1954 functional addition.

Chipperfield's reworking is intended to create a strong connection between the tropical plants of the interior and the northern European ones of the surrounding garden. The postwar wing will be demolished and in its place a new glazed link will be created between Gesellschaftshaus (reception hall) and palm house proper. The new element takes its rhythm from Schmidt's elevation, and that of the glazing of the hothouse.

AR'S CONFERENCE

The Architectural Review will hold a conference on Greening the European City at the RIBA in London on 19 March. We face a world ecological crisis of unprecedented proportions in which cities and their buildings are eating up the planet's resources at ever-increasing rates.

Distinguished architects and thinkers from all over Europe, including Nicholas Grimshaw, Lucien Kroll, Stefan Behnisch, Philippe Samyn, Mario Cucinella, Christoph Ingenhoven, Alain Cousseran and Max Fordham, will discuss new forms of urban planning and architecture that will enable us to live in greater harmony with

nature and each other. Further details can be found on p14 or on our website (see below).

ARPLUS ADDS TO MAG

The Architectural Review's own specialized website <http://www.arplus.com> greatly adds to information provided in the magazine. Besides reproducing selected features from the paper product, the site has up-to-date world-wide news on architectural exhibitions, competitions and events.

There is a jobs section, a directory of museums and galleries, and one of architects and photographers featured in The Architectural Review – and of course latest information about our awards: the ar+d prizes for emerging architects, with over 700 entries, and the newly inaugurated Project Awards at MIPIM, the international property and development fair held annually in Cannes.

AR+D EXHIBITION + LECTURES AT RIBA

The winning and commended schemes of the latest ar+d awards (AR December 2002) will be on show at the RIBA in London from 24 February to 29 March. The awards, organized by The Architectural Review and the Danish design company d line with support by Buro Happold celebrate the work of young architects and designers, most of whom are unknown to the international community. Entries were received from all over the world. Winners this year were a memorial bridge in Croatia, a bee-keeper's hut in North Carolina, a cemetery in Hiroshima, Japan, a demountable interior landscape for the UIA in Berlin and a sundial beach house in Victoria, Australia.

The designers of these, and of some of the commended schemes will be lecturing at the RIBA during the course of the exhibition. Further details on p20.

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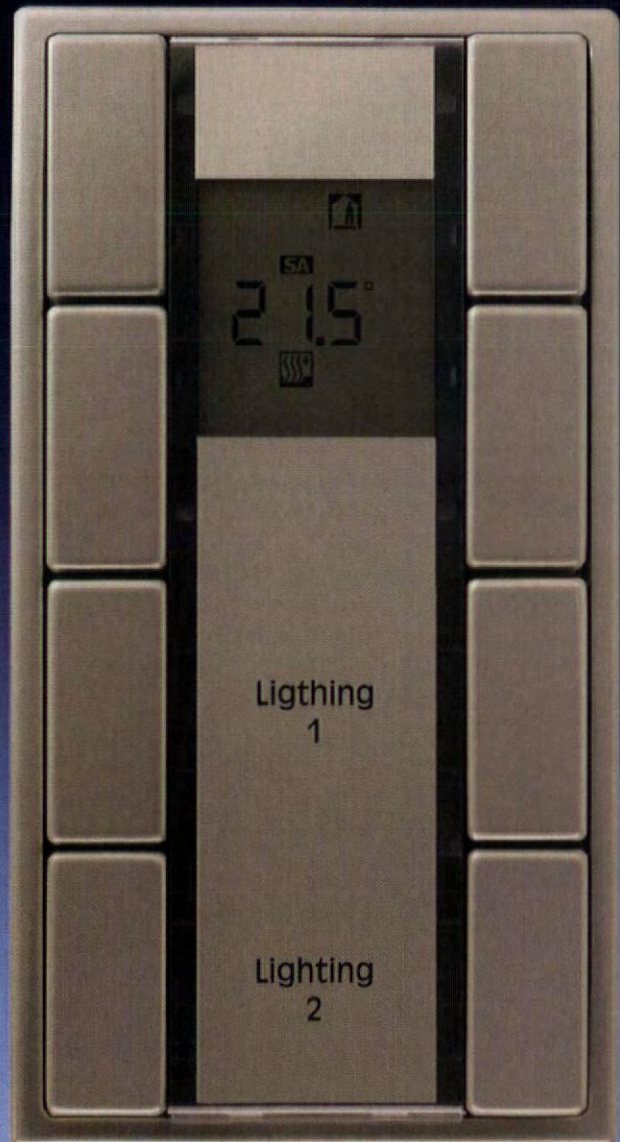
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Diagram: EIB room controller in stainless steel

EIB room controller



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browser

Sutherland Lyall nimbly swings through the forests of architectural cyberspace.

Dean down, more to come

This month's architect's site is that of the legendary and amiable Bernard Tschumi at <http://www.tschumi.com>. Following his transformation of Columbia's graduate school of architecture 'into an international model for architectural education', it says on the news page which pops up in front of the home page, Tschumi is stepping down at the end of June as dean (though not from the faculty) to devote more time to do architecture. Unweening vanity, you immediately think. Trouble is Tschumi has transformed Columbia and since this break is a big thing in his life maybe he's entitled to say so without us whipping out the tall-poppies scissors. He is currently working on museums in New York, Athens and Sao Paulo, an athletics stadium in Cincinnati and a headquarters building in Switzerland. This is almost as much building in one year, you might have gleaned from the 12 projects listed under the heading Projects, as he has done in the previous twenty. In fact, the office has actually recently completed \$200 million worth of construction work. You discover this only when you click on the vague section heading 'Information'. So this is not an especially easy site from which to extract information despite the virtuously small number of section heads: News, Projects, Theoretical works (which is to say unbuilt projects), Information and Contact. And even

using a fast ADSL modem it takes finite time for thumbnails to expand into readable images. Designed by a young person with superb eyesight and no thought for Internet Explorer's extremely useful Text Size function, it's actually a pretty cool site and the low resolution of the too-small images was probably decided on more in the cause of speed than as a bar to students downloading the images and doing goodness knows what with them – as many name architects seem to fear. This is an architect's architect's site rather than a marketing one and although it needs an annual check-up it's pretty good.

Biggest and best?

Texas has the world's ninth largest economy. So you are bound to take *Texas Architect*, the magazine of the Texas Society of Architects with a circulation of some 15 000, quite seriously – especially when it puts most of the previous issue's feature articles on the website at www.texasarchitect.org. The print magazine comes out six times a year so I haven't sat around long enough to find out, probably the site changes at the same rate with more topical updates to the meetings and events pages – although early this year there was still a flyer for a late October 2002 products exhibition. Still, the scope and extent of the site is exemplary: information about the society, resources for members, public resources, a jobs section, the aforesaid meetings and features section, awards including very comprehensive descriptions of winners – and more. No it's not even faintly in the same league as the site of the RIBA with twice the members and whose country's economy is round about number four in the world. But you feel this is a very solid site, if a bit neglected.

Coming to terms

ArtLex at www.artlex.com is an information bank of visual culture: the name comes from concatenating 'art' and the 'lex' of lexicon as in dictionary. It has definitions for more than 3300 terms used in visual culture, 'along with thousands of supporting images, pronunciation notes, great quotations and cross references', so it says on the home page. I tried 'gouache', always tricky to say straight after lunch and I guess 'gwahsh' is about as good as the *Shorter Oxford Dictionary* offers. Before those PADDI librarians write in again, I did try Callicrates and Ictinus. To no effect. There were lots and lots of words based on icon but nothing approaching the Greeks. Not a word about 'metope' either although useful old 'pronaos' was there. In the 'architecture' entry there was this: 'the jargon of architecture is what architects and designers archly call

"talkitecture" or "archispeak". They refer to windows as "glazing" or "fenestration" and a beam or lintel as "trabeation" ... Nothing is simply flat, it's "planar" instead'. While regular readers will know I have a certain sympathy for these general sentiments I think the bloke who wrote that had just had a bad experience with an interior decorator and was out for revenge on anyone.

Virtuous conservation

I'm a sucker for stuff to do with sustainable architecture partly because an old mate of mine, Steven Szokolay, was the father of solar energy studies in Britain and partly because it is a pretty good idea. The most obvious site is SustainableABC at www.sustainableabc.com. It has terrific links to all sorts of things from architects and architecture to straw bale construction. And for a really comprehensive bibliography try www.architect.org/institute/programs/sustainable/index.html.

The most you can lose is your name

Architectural institutions worldwide are going to have to do something about protection of title. Not from back street building surveyors but computer geeks. I was checking out an old reference '20 questions to ask your Architect ...' in the hope that you might be able to check it out and have 20 smart answers ready for that tricky client. The 'architect' involved turned out to be a software developer. Something Must Be Done.

Utzon the honorary Oz

There's this site, whose address I won't burden you with, which has a section called 'filling the gaps' about fifty notable names. I was intrigued to see among Edgar Allan Poe, el Nino, Rasputin and The Oscars, an entry for Jørn Utzon, 'probably one of the most accomplished architects in the world'. Admittedly this is on the site of Australian crossword king and queen, James and Christine Lovatt. But it means something, especially when there's also an entry in, ahem, Dinkum Aussies, no Danish entry that I could find and nothing from Majorca where the great man now lives. According to <http://www.dinkumaussies.com/ARCHITECTURE%2FJoern%20Utzon.htm>, in 1988 when Utzon was asked to redesign the interior of his Sydney Opera house, the man who sacked him, David Hughes then aged 87, laughed his head off. The latter was living in a seaside retirement apartment with a knighthood. I'm not surprised that the Australians have dropped all that knight and peer stuff.

Sutherland Lyall is at sutherland.lyall@btinternet.com



Tschumi chez lui: extraordinary value of work.

letters

PROGENY OF CYBER ANORAKS?

SIR: Your January issue contained two buildings that seem to be 'all the rage': the Yokohama Port Terminal by Foreign Office Architects, and the Imperial War Museum of the North (what a dreadful name) by Daniel Libeskind.

Both of these are fashionable – but why? The Terminal (which can be used but rarely) appears to be little more than a series of wandering rather gloomy ramps, and, outside, you are not even allowed to walk on the grass, an unlikely material which has been installed with such vast expense in the middle of the sea.

The museum is supposed to be a representation of shards of an earth shattered by war but brought together by the healing powers of the mighty Libeskind. I cannot believe that anyone can understand that message unless they have read the script beforehand. Did Ictinus and Callicrates or Palladio require people to read a text-book before visiting their work?

Can it be that both these buildings, which have been created with amazing care by extensive use of computing power, are modern examples of Emperor's clothing, cut today not by tailors but cyber anoraks?

Yours etc

JOHN JAKES

Sydney, Australia

LIBESKIND: GO TO THE SUPERMARKET

SIR: Does Libeskind expect too much of architecture? At his Jewish Museum in Berlin (AR April 1999), the jagged, seemingly wilful lines of the fenestration strips are supposed to represent relationships between the homes of distinguished Jewish citizens, as perceived in plan.

Once they were elevated, they lost whatever small relationship to history and myth they may have had. (The dates at which individuals lived in the different terminations of the lines were widely different.) Looking through the slits, you surely cannot usually see the places that they are intended to link. Can even Libeskind remember what each line is supposed to represent?

In his Imperial War Museum at Salford (AR January), he again uses a mythic proposal: this time of the broken globe, whose shards have been brought together in atonement for war and violence. If he had not written such ideas down, none of us would get within miles of guessing them.

While buildings such as the great temples and cathedrals of the past could, and did, present myths in three dimensions, such achievements were possible only because the myths were accepted by virtually the whole of society. Individual architects cannot possibly impose myths on the rest of culture through their own buildings, however glamorous and attractive.

In Western Europe at least there are no consensual myths, apart perhaps from that of meretricious plenty and absurd media celebrity. Perhaps to get in touch with popular imagination, Libeskind should have a go at a supermarket or television studio.

Yours etc

ABRAHAM GRAVES

Berlin, Germany

FRY RESCUED

SIR: On behalf of the architects responsible for rescuing the Maxwell Fry house at Coombe Hill, may I respectfully point out that the correspondent in your January issue is mistaken on all counts. 'Developers' have not 'recently acquired' the property. It was bought over 18

months ago by a private owner for his family and own occupation. 'Plastic windows' have not 'already gone in'. On the contrary, virtually all the original steel windows had already been replaced by unsympathetic aluminium substitutions (including the ones shown in your illustration) and have now been returned to the original fenestration pattern with steel windows. The house is not 'being drastically gutted'. It was derelict and uninhabitable after severe damage by flooding, having been substantially and unsympathetically altered by previous owners. These illiterate alterations are being removed or corrected and the few surviving and salvageable features are being restored. Lastly, the grounds are not 'being swamped with a number of grotesque new houses'. Perhaps your correspondent assumes the contractor's site huts are permanent? Accordingly your title was also incorrect.

I am rather surprised that a journal of the AR's standing would print such a letter without checking the facts. I trust therefore you will feel obliged to correct this misinformation.

Yours etc

JOHN ALLAN

London, England

OPEN PLAN

SIR: Edward Robbins (AR November 2002, p20) rightly castigates the architectural profession for gathering round the corpse of the World Trade Center like hyenas, and the uncritical assumptions made about the necessity of rebuilding. He fails to spell out the possibility that the proper response to the situation would be to leave the site as an open space.

Yours etc

ALAN KENNEDY

London SW12, England



March

Traditionally, we have saved our greatest artistic efforts for expressing humanity's relationship to the gods. The pursuit of the numinous is one of the most important threads that have formed architecture, often interwoven with the celebration of temporal power. Now, in many parts of the world, the connection between the two has become unravelled. What should religious buildings be like today: how can we try to capture the numinous?

The March issue of *The Architectural Review* looks at new work for the faiths, and ranges from Rafael Moneo's cathedral of La Señora de Los Angeles to the synagogue by Wandel Hoefer Lorch on the Elbe in Dresden. Social buildings that are not made for worship alone

include the Ismaili Centre in Lisbon by Raj Rewal and the Catholic Theological College in Melbourne, Australia.

We shall also include a preview of Renzo Piano Building Workshop's pilgrimage church San Giovanni Rotondo in southern Italy for Padre Pio, the amazingly popular Capuchin monk who was canonized by the Pope last year. In contrast, we shall have Jim Antoniou's analysis of a very secular city: Le Corbusier's Chandigarh in its present state, rather different from what its master imagined. And, of course, we shall have our regular diet of reviews of books, exhibitions, well-designed products, *Design Review* and *Delight*. Buy this and 11 other exploratory and challenging issues at a discount by filling in the enclosed subscription card or using the AR's website at: www.arplus.com

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The city exists in a giddy state of equilibrium between government control and market forces ...

View from Shanghai

Darryl Chen's Shanghai is more a process than a static cityscape: an explosion of object buildings is tempered by new infrastructure, parks and conservation.

Shanghai presents a unique almost control-model kind of urban subject matter among world metropolises. It is a city which after experiencing incredible economic prosperity through the turn of the nineteenth century froze its free market development under thirty years of failed socialist revolution, and then started again on an accelerating trajectory towards capitalist ideals. The city currently exists in a giddy state of equilibrium between government control and market forces, the monolithic state regime acting as a valve for releasing massive forces which would otherwise send the country into a multi-directional frenzy of socio-economic instability. It is an increasingly well-documented picture of intersecting sociological vectors and is clearly shown in urban form transforming so rapidly as to render it inapplicable to traditional static analysis. Visitors should be warned of making hasty conclusions about a city which lends itself too easily to cliché and whose presence in popular imagination is potentially fuelled by a mythologized past.

The government continues to invest heavily in urban infrastructure – the kind of investment which represents the hardware of any global city. Since the early 1990s, which saw construc-

tion of overhead expressways and an underground transit network, the city has seen massive upgrades in its infrastructure – a fifth road bridge has just been completed over the Huangpu River with two new under-river tunnels under construction; the outer ringroad has recently been completed; the world's first commercial magnetic levitation rail system will later this year link the new Pudong airport with the central city; US\$3 billion has been allotted for the 2010 World Expo; and public green space is marked to triple per capita by 2020. These measures are accelerating the city into modernization and to some degree designed to impress a world audience. Whether the bureaucratic animal can manage the hardware and sustain modernization beyond the construction of bridges and subway lines is yet to be seen.

The most high-profile development in recent years has been Xintiandi. Here architects preserved and reconstructed two city blocks of shikumen (literally, 'stone gate') houses and opened a public spine through the middle to create a dining/retail/entertainment district capitalizing on the historic value of the distinctly Shanghaiese building type. Xintiandi is a site rich in irony – here the city's privileged classes dine on sushi adjacent to a house memorialized as the site of the Communist Party's first congress. And while the project introduces quality urban public space to a city increasingly reliant on indoor shopping malls, it is a semi-private space under the burden of heavy automated surveillance and guards who

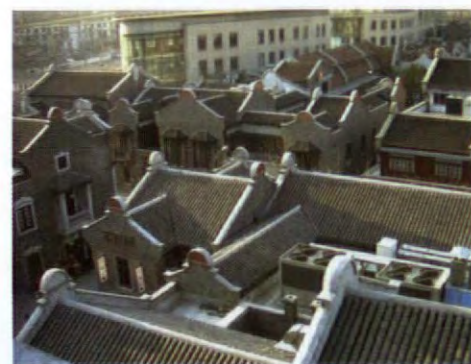


... which defies static analysis.



Razing of whole neighbourhoods has allowed high rise.

will exclude shabby-looking locals. The development is but one stage of a massive urban intervention which sees neighbouring blocks to be developed with high-rise serviced apartments, luxury apartments, hotel and artificial lake. Preservation enthusiasts have largely



Preservation of traditional city structure ...



... reveals the complex nature of Chinese urban space.

been impressed with Xintiandi, though the success of the project has inflated land values in the district and is leading to the quick demolition of neighbouring shikumen communities as property prices soar. It is an increasingly common condition of modern cities that historic conservation can only be successful when preservation goals are aligned with those of developers and inevitably those of the massive global tourism industry.

Traditional housing in Shanghai from the mid-nineteenth century consisted mostly of *lilongs*, or dense networks of connected two-storey buildings occupying a city block with shops fronting outwards onto public streets, and residences above accessed from internal alleyways. The term *lilong* refers to these alleyways which are first reached through gateways from main streets, and then are hierarchically organized through semi-public, semi-private and private lanes and courtyards throughout the block. The apparent lack of formalized public space in the history of Chinese architecture can be partially explained by this model – residents talk, cook, eat, wash and play in these alleyways and form a strong social fabric which extends the nuclear family unit to a network of extended family and neighbours. This homogeneous mat of housing throughout the city was augmented with uniform medium-rise worker housing in the '50s and '60s. In recent years with wholesale razing of neighbourhoods for high-rise developments and transplanting entire communities to government subsidized



Singular monuments, usually designed by foreign architects, create international standardized cityscape.

housing on the city's fringes (part of the massive shift towards private home ownership), comes the discontinuation of a way of life which gave at least a semblance of stability and security to the city's inhabitants.

As regrettable as it is to see such lively urban fabric instantly erased, clearing such communities is an upgrading of the city's amenities and marks just the latest wave of urban renewal. The low-rise clustered urban form was a result of developers in the late nineteenth century rushing to meet new housing demands in a city transforming itself from feudal village into modern city. At the onset of the Communist revolution, the state assumed ownership of land and enforced a collectivized model of living.

Municipal agencies have now identified nearly four hundred structures and 11 districts as 'fine historic buildings and zones', for example, detached garden houses in the former French concession. Such policy seeks to preserve an urban form unique among Chinese cities, though a clear strategy for their ownership, upkeep and protection has yet to be approved.

A parallel phenomenon to the displacement of lower class residents sees citizens from the burgeoning middle class renting closer to the centre of the city in a glut of residential apartment complexes. Developers have been having a field day buying rights and providing upmarket housing in the form of post-modern pastiches taking on such names as Versailles and the French Riviera. Further up the economic

scale, developers are also pillaging the worst of Western sprawl with gated communities and suburban replica villages in far flung Pudong, Gubei and Hongqiao districts.

Exemplars of contemporary architecture are still mainly the domain of foreign architects – SOM, KPF, Jerde, Foster, MVRDV, Wood+Zapata, Arquitectonica and RTKL all have projects here, with Tange, Graves and many others well on the way. While the presence of foreign design expertise is upping the ante with local design institutes and contributing to an international standardized cityscape, these buildings with notable exceptions are largely singular monuments. Planning authorities, property developers and architects have rarely beneficially focused interests. The Lujiazui financial districts opposite the Bund and the rest of Pudong have succumbed to engineering-led urban planning and scaleless development parcels which leave little opportunity for an urbane pedestrian environment. Huaihai and Nanjing roads have developed as credible 'market streets' and their skylines have given hierarchy to the city's urban form. As the public domain is upgraded and the built fabric stitched together over time, hopefully we will see a more legible environment for humans within this realm of isolated shopping malls and high-rise towers.

The urban architecture of Shanghai is the physical corollary of the paradoxes and conflicts in current political dogma, a turbulent modern history and an inherently flexible and resourceful people. DARRYL CHEN



Massive high-tech upgrades in urban infrastructure ...



... including new river crossings. Are they sustainable?

design review

LANDSCAPING AND TUNNEL, PRAGUE, CZECH REPUBLIC

ARCHITECT

AP ATELIER/JOSEF PLESKOT

- A upper deer moat
- B lower deer moat
- C Powder Bridge
- D St Vitus Cathedral



site plan



The tunnel, by AP Atelier, connects the lower and upper parts of the deer moat at the foot of Prague Castle. This park is considered a national treasure and the tunnel is part of a larger plan, originally proposed by Vaclav Havel, to encourage pedestrians to use it better and to create an alternative route from town to castle. The more usual way is to cross the Powder Bridge slung across the valley.

By following the new path, you climb the stony incline of Chotkova Street to the lower deer moat; and walking gently uphill, you trace the bed of the Brusnice stream which runs against you down the valley. By degrees, the

walk takes you to the upper deer moat and Pheasantry, and to the castle's north gate. The tunnel occurs where the stream is channelled underneath the Powder Bridge, along the path of a drain buried beneath its supporting mound. In this mound is also interred an older Renaissance bridge, a column of which has been discovered and preserved.

Measuring 84m in length, the tunnel is a long narrow oval, the encompassing arch patterned and textured by the structural brickwork. It is striped along its length by luminance from fittings sunk into the concrete floor. The tunnel is contained at each end by

portals inclined in Egyptian manner; and these mouths are framed by concrete embankments that spread out wide to encompass the deer moat paths and open bed of the stream. Entrance from the open air to the dim shadowy tunnel is dramatic and mirrors childhood dreams.

The sequence of materials and textures is an important part of the tunnel experience. These range from stained and patterned concrete of various kinds to stone and brick. Externally, there is the cast concrete (coloured by iron filings) of embankment walls and the stone paving and stream bed. Internally, a transition from stained concrete and rough stone

to the brick vaulting is denoted by béton brut panels; underfoot, you tread on a surface composed half of fluted concrete, and half of metal grilles which cover the waters of the stream. About halfway along the tunnel, a niche reveals a section of the supporting structure, part of the original Powder Bridge, which has been rescued and restored. Lined with finely levelled cement, the niche is floored with river pebbles.

Architect

AP Atelier/Josef Pleskot, Prague

Project architects

Josef Pleskot, Isabela Grosseová, Jana Kantorová, Zdeněk Rudolf, Jitka Svobodová, Jiří Trčka

Photographs

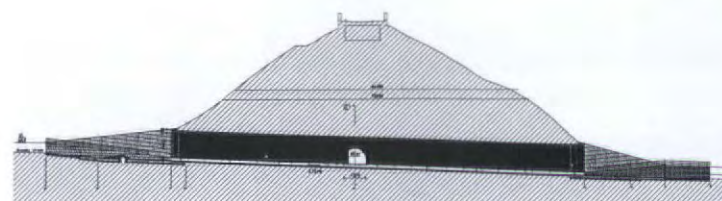
Jan Malý

1 Entrance from lower deer moat to tunnel beneath Powder Bridge.

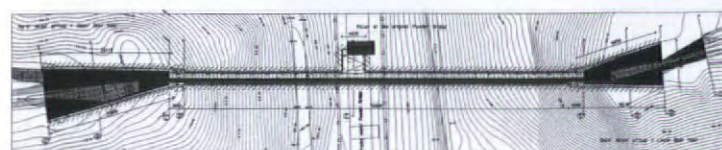
2 Oval tunnel lined with brick. Underfoot are concrete and metal grilles over Brusnice stream.

Tunnel vision

A landscaped path from the city of Prague to the castle takes visitors along the verdant deer moat and through a new tunnel under the Powder Bridge.

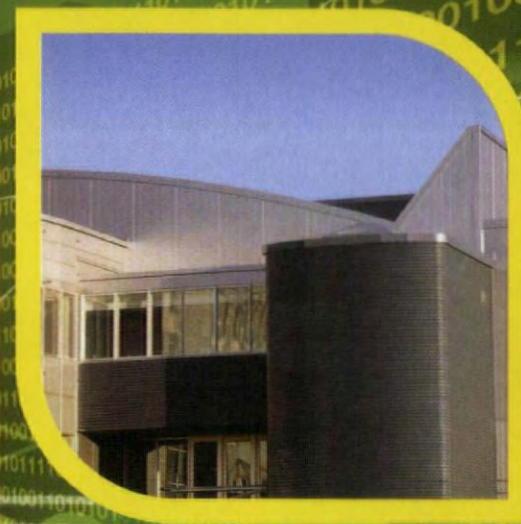


section through embankment (scale approx 1:750)



tunnel plan





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comment

LIGHT ON MATTER

Without light, the world would seem almost formless. From the first, architects have reinterpreted the luminance of the heavens. Added to this awesome task is the challenge of imaginatively providing artificial illumination. Are we up to it?

The atrium, which is the fulcrum of Frank Gehry's Bilbao Gallery, shows a remarkable talent for luminous drama reminiscent of the Baroque (photograph by Christian Richters).

'The earth was without form, and void; and darkness was upon the face of the deep ... And God said, Let there be light: and there was light. And God saw the light, that it was good; and God divided the light from the darkness'.¹ All the peoples of the Book – Muslims, Christians and Jews – believe that light is the source of life and that, without light, all life will perish.² But light is not just an essential to existence for most species. It is an inspiration to all animate creatures – most intensely perhaps to humans, who as far as we can understand, have celebrated the coming and the passing of the light of the day, the waning and rising of the moon, and the alternation between sunny summer and dour winter in all their religions, not just those of the Book, but since beginnings of our species. Without light, as the God of the Old Testament realized, 'the earth was without form'.

And of course, for most of us, the earth only acquires form when it is perceived in light. Of all the senses that give us a sense of form of our surroundings, the visual is the most important for most people, with the aural and haptic ones providing additional but non-essential information. Le Corbusier, as a fiery '20s polemicist, urged that 'Architecture is the masterly, correct and magnificent play of masses brought together in light. Our eyes are made to see forms in light'.³ With experience, Corb realized that our eyes and brains are made to perceive and respond to spaces as well as forms. His 1924 insistence that the primary elements of architecture are 'prisms, cubes and cylinders, pyramids or spheres' was modified in his postwar work. His perceptions of the non-Euclidean world and the importance of space matured in the mastery of Ronchamp, where an organic space, derived from its religious rituals is made almost palpable by the amazing shafts and sheets of light that penetrate the body of the church from its carefully organized openings.

The history of religious buildings is the history of human civilization and its relationship to light. From the Egyptians, Celts and pre-Columbian peoples, societies have built structures that celebrate light and the changes of the seasons. The Romans and Byzantines were the first people (in the West at least) to have made great public interiors (as opposed to the open-air time-measuring devices like Stonehenge or secretive enclosed ones like Egyptian temples or the ancient tombs of Ireland). Buildings like the Pantheon or Hagia Sophia were devices that introduced light to grand interiors in ways that reinforced their sacerdotal purposes. For instance the disc cast by rays of sunlight that descends to the interior of the Pantheon from the oculus in the dome (one of the most powerful images in the whole of architecture) fell successively on the images of the gods and emperors which filled the niches of the walls; the whole Roman state religion was made clear to the congregation by moving light. Similarly, in Byzantine churches, light was used dramatically to emphasize the stories of the faith and its most important annual and diurnal moments. The notion of the building as a numinous instrument was continued in descendants of Byzantine architecture as different as Gothic churches of the North and Ottoman mosques in the Middle East. Baroque churches, with their great and often awe-inspiring drama, were the last examples of buildings as instruments of religion.

Luminous drama

The tradition died (at least overtly) in the rationalism of the eighteenth century, when the fire of the Counter Reformation that had set the Baroque ablaze had been reduced to embers. It is no coincidence perhaps that by the beginning of the next century, gas lighting became increasingly popular, first in city streets to counter crime, then in buildings like factories so that workers could be kept at their machines far longer than they have been able to toil by the light of day. Artificial lighting, first by gas, then by electricity after Swan and then Edison invented the incandescent filament lamp in the late 1870s,⁴ radically transformed humankind's relationship to nature. Electricity allowed the Industrial Revolution to explode all over the world, gradually transforming culture from being fundamentally mechanically based to today's post-modern electronic ways of living and thinking.

The enormous power given by electricity has radically transformed all

our lives, not least those of architects. Without electricity, modern civilization would be impossible. Up to Baroque times architects, at least when making great public buildings, inherited the mantle of the priests of the earliest religions as interpreters of the cosmos to humanity by modifying and manipulating the light given by the Great Architect of the Universe. Universal, reliable and even human-made light, completely independent of diurnal rhythm, has abolished the shamanist aspects of our calling.

Certainly, we can create luminous drama with techniques often derived from the theatre and cinema, which (at least in their television modes) have taken the role of religion in much of the Western world. But the even, undifferentiated light that comes down from the ceiling of the open-plan office in which I am editing this leader, and in which so many of us have to work all the time is a hangover of Modernism, with its inheritance of some of the fiercer aspects of the Industrial Revolution, and its belief in universal standardized solutions to all humanity's needs. (I wrote the main part of it at home with a small lamp casting a pool of light over my desk, books and keyboard.)

Of course, we all need a decent standard basic background: we need to be kept dry in the rain; at a reasonable temperature during times of heat and cold, and appropriately lit during our waking hours. But in heroically trying to achieve these for everyone, Modernism⁵ abolished mystery, individuality and magic, which remain essential components of the human psyche. They are largely realized in light, but not the drear, endless fluorescent sub-glare of the soulless desert of the standardized office or factory. Too much light makes the world without form.

In working places, new technology will allow people to adjust their lighting conditions to suit themselves and the ways in which they work, giving a degree of respite from the twenty-first century Panopticon in which every movement is inspected by management, in much the same way as Bentham's prisoners were surveyed by the overseer of his ideal prison. New technology can allow buildings to react to light, much as trees do. It is absurd to expect that buildings can be intelligent, but as technology advances, they can be caused to behave more like plants, with integrated sensory structural and services systems, and processes similar to photosynthesis, light-orientated movement and transpiration.

Light modifying devices like electro- and phototropic glazing, light emitting diodes (LEDs, which may replace incandescent and fluorescent lamps for many purposes) and organic LEDs, which can allow large surfaces to emit light (and accept energy from the sun), all offer wonderful possibilities. But we cannot yet understand them creatively. After all, it took centuries for the Romans to appreciate the possibilities of light in large spaces; Gothic was honed by generations; the Baroque was quicker in its evolution, and so was Modern normative artificial illumination, but post-modern, electronic and organic techniques for modifying and generating light are only in their infancy.

In developing and applying the technologies, we must not forget the lessons of the ancestors. Light is essential and magical. We must never forget the intimacy of gentle natural light falling through a domestic window or the drama of the shaft on a Bernini altarpiece; the slow motion of sun through sky accentuated by the ever-changing internal shadows; the stories told by light in the glass of Gothic cathedrals. Whether we can ever match and even extend them in our own way will depend on imagination, invention and sensitivities that we seem scarcely to have shown yet – or even begun to think about. P. D.

1 Genesis Ch I, ii-iv. King James's version.

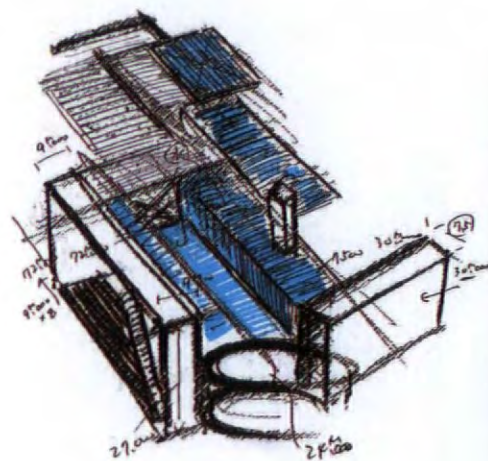
2 This is of course not entirely true, for early peoples did not know about the denizens of the dark like anaerobic bacteria, axolotls or the wriggling worms that dwell round fumaroles in the deep trenches of the oceans, all reproducing and surviving in total absence of light. Other creatures, like the freshwater dolphins of the Ganges or the Mekong River, are blind and rely on high-frequency sound to establish their relationship to their surroundings. But they do of course depend on complex life-chains that themselves are sourced in photosynthesis.

3 Le Corbusier, *Towards a New Architecture*, trs Frederick Etchells, Architectural Press, London, 1927, p31. The original French *Vers une Architecture* was published in 1924, when Corbusier was 37.

4 The first public gas company in the world was set up in London in 1812, and Westminster Bridge was the first public thoroughfare to be illuminated by gaslight. The first public power station was set up by Edison in 1883 in Holborn, London; it supplied, among other places, the Central Criminal Court and the General Post Office.

5 With wonderful exceptions such as Ronchamp and almost the complete works of Aalto.

HISTORICAL MUSEUM,
OSAKA, JAPAN
ARCHITECT
TADAO ANDO

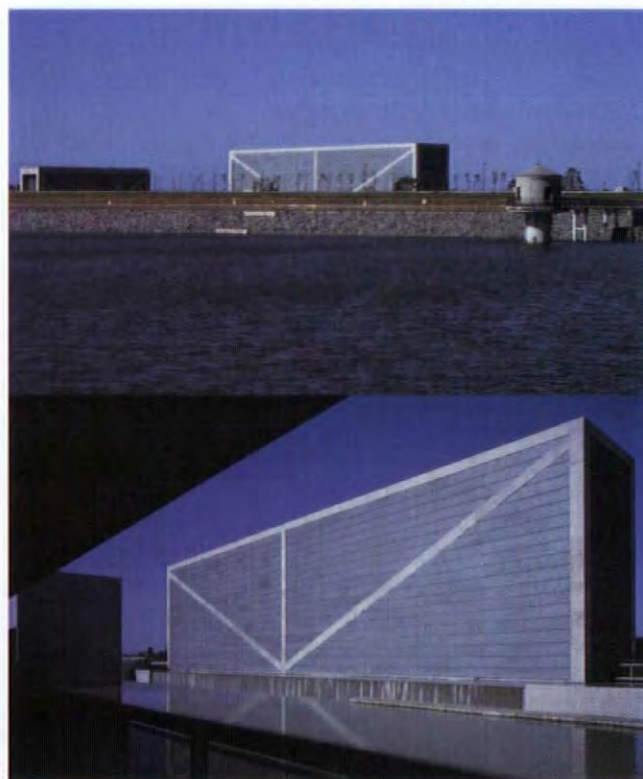


WATER AND LIGHT

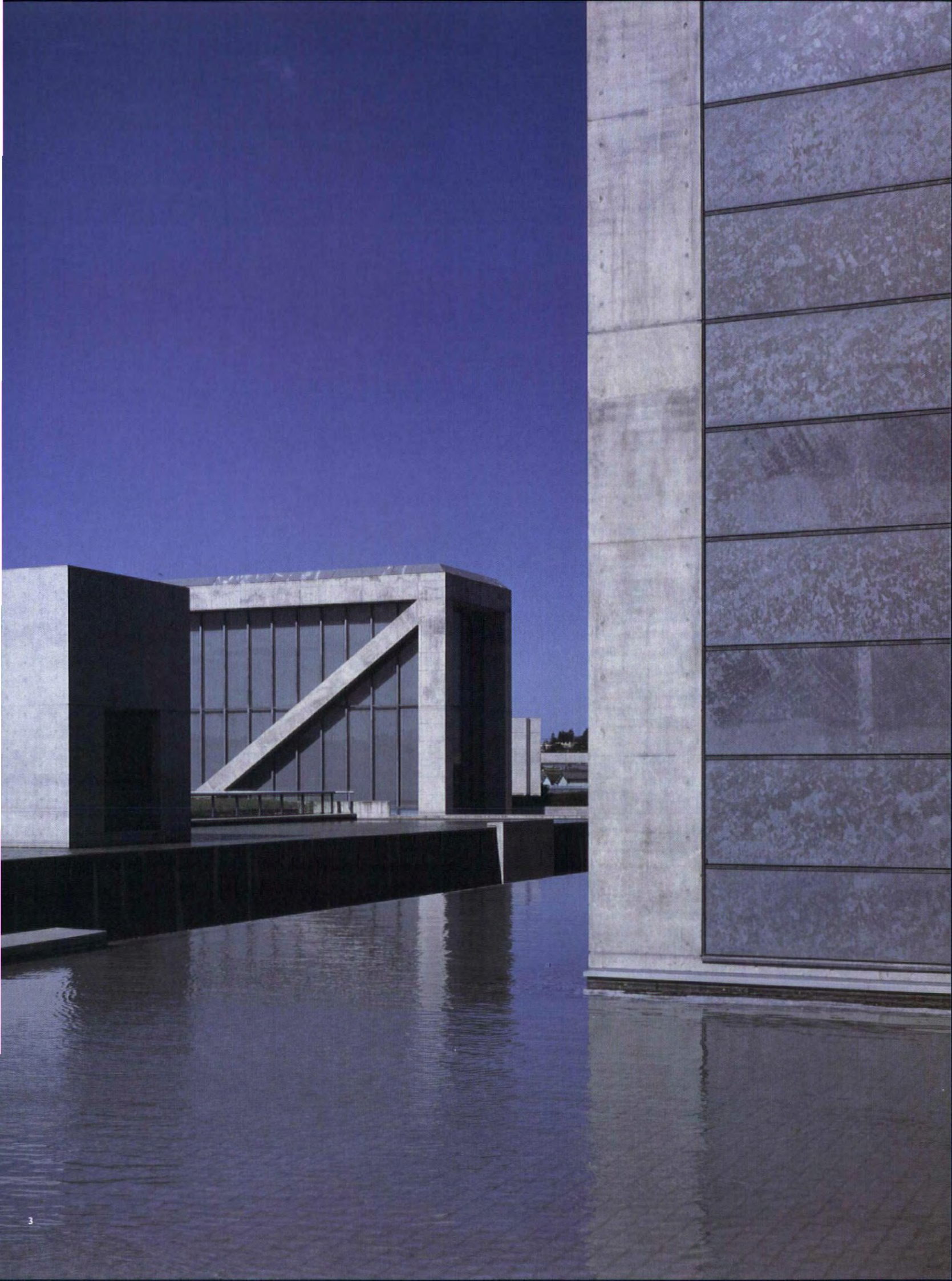
A new museum dedicated to the relics and techniques of ancient Japanese water engineering is a series of soaring spaces that lyrically synthesize water and light.

The Japanese are mad for museums, erecting elaborate structures to celebrate sand, sunsets, bridges (this last a playful recreation of Palladio's unrealized design for the Rialto in Venice) and just about everything else that can be put within four walls. Tadao Ando has made a specialty of this building type, designing museums for children, literature, wood, daylight, and two for prehistoric tombs, as well as a succession of art museums – most recently in Fort Worth, Texas. In each, he strives to find an appropriate expression of the theme, developing architectural metaphors from an austere vocabulary of concrete planes and rotundas, ramps and stairs. In the best of these, there is a harmonious match of container and contents; in others, the processional routes and soaring volumes upstage the exhibits and exhaust less athletic visitors.

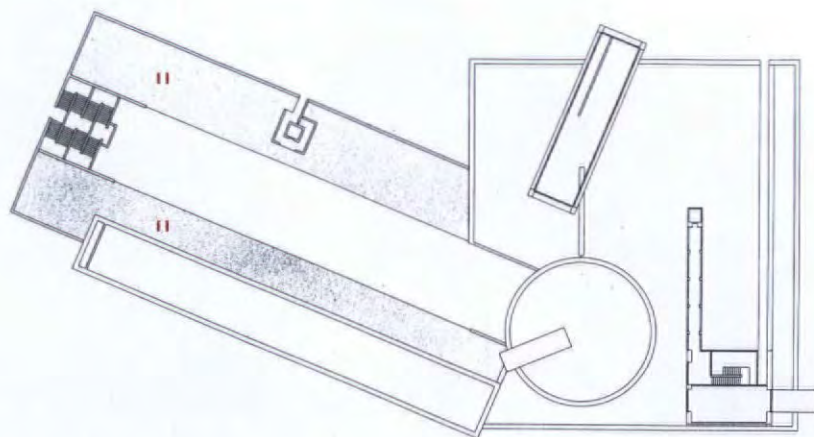
The Sayamaike Historical Museum in Ando's home city of Osaka is an impressive monument that conveys the power of water and the challenge it presents to engineers who want to tame it. It is located beside an artificial lake that dates back to the seventh century. Over the centuries, monks and feudal retainers applied their skills to enlarging the earthen dam and installing wood or stone conduits to carry water to neighbouring fields. Relics of this early engineering were excavated when the shore of the lake was recently heightened and landscaped to serve as a flood control basin. A 15.4m high slice through the old dam was painstakingly cut away, dried out, and reassembled to show how layers were added and sluices threaded through by a succession of builders.



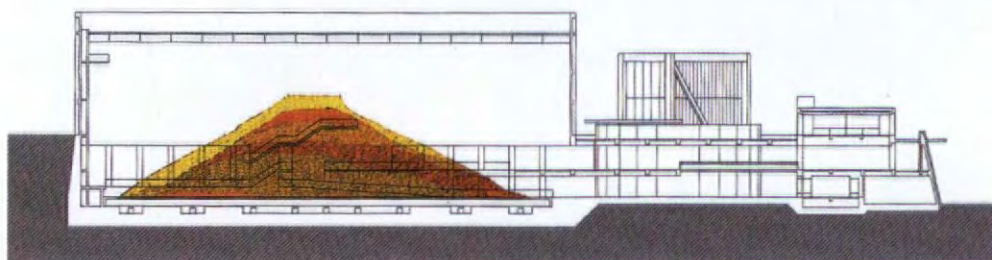
- 1 The museum is poised on the edge of an artificial lake that dates back to the seventh century.
- 2 Crisp cuboid volumes are reflected in the building's internal pools.
- 3 Simple geometries combine with Ando's characteristically austere palette of materials.



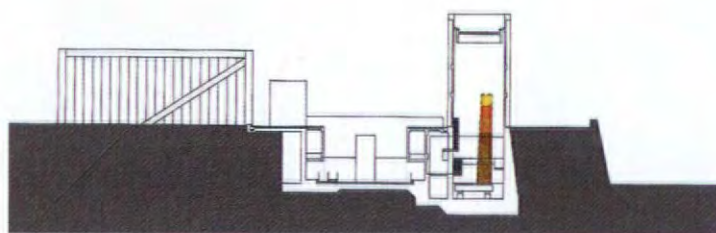
**HISTORICAL MUSEUM,
OSAKA, JAPAN**
ARCHITECT
TADAO ANDO



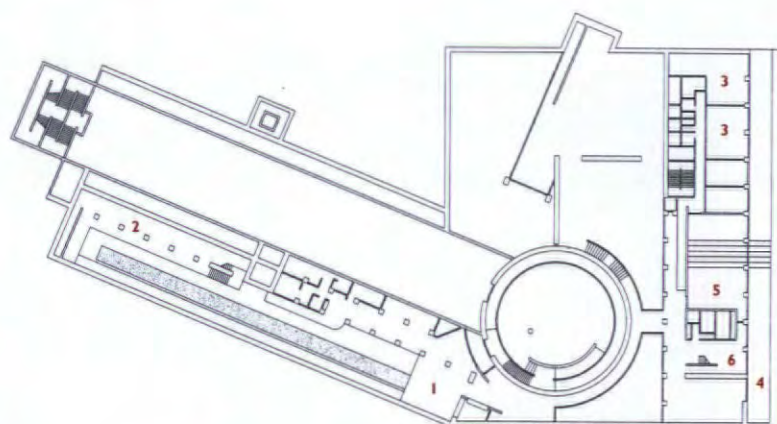
second floor plan



long section

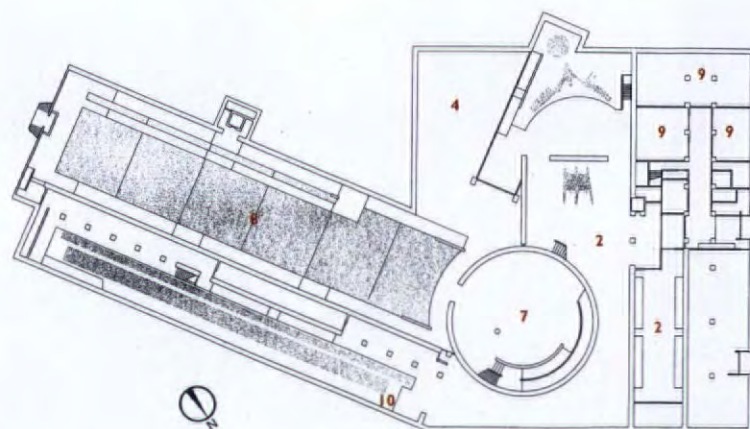
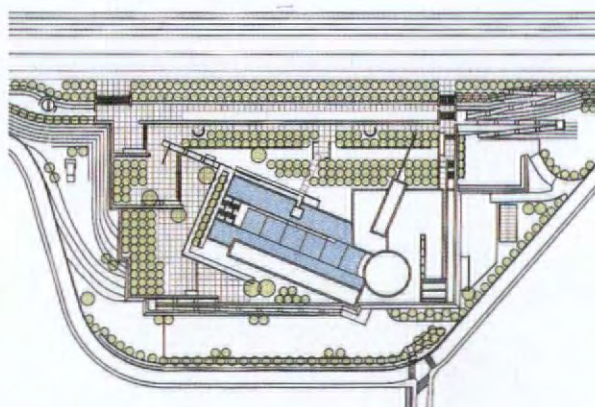


cross section



first floor plan

- 1 entrance hall
- 2 exhibition space
- 3 staff offices
- 4 court
- 5 auditorium
- 6 foyer
- 7 rotunda
- 8 central pool
- 9 storage
- 10 excavated dam
- 11 cascading pools





4

5



4

A rotunda acts as a hinge between the two parts of the building.

5

The long central pool is framed by diaphanous, cascading walls of water, with the rotunda beyond.

**HISTORICAL MUSEUM,
OSAKA, JAPAN**
ARCHITECT
TADAO ANDO



7

6
Visitors pass along the edge of the central pool, with its light diffusing curtain of water.

7
The soaring internal spaces were determined by the scale of the building's contents.

8
The excavated wall of a dam housed in a triple-height exhibition hall is museum's main archaeological relic.



6

To house this earthwork, Ando has erected a multi-level bastion that rises like a castle beside the pond, shutting out its banal suburban neighbours. A switchback ramp scales a battered wall of rough granite blocks and you wonder if defenders will appear on the ramparts above and drive you off with rocks and boiling oil. You emerge into a bare concrete piazza and look for an entry to a windowless slab that could be the castle keep. The monolith is enigmatic and seemingly impenetrable, its cross-bracing expressed in bands of white on grey stone. Steps in a corner of the piazza lead down to a court in which you are suddenly overwhelmed by water cascading down the walls, splashing over a recessed walkway, and throwing off a fine mist – as though you had scaled a dam and found yourself in its sluiceway, wondering if the force of the torrent might carry you away. It's one of Ando's most compelling theatrical coups, but he diminishes its impact by extending the underwater passage into a rotunda, from where another ramp leads to the mid-level entrance in the side of the slab.

Within the museum, the brute power of the masonry and tumbling water is dissipated. Though the earth dam may be historically important, it's not much to look at and it is dwarfed by the hall that rises far above, even when you are descending the ramp that leads past it to the display area below. Archaeologists may appreciate the fragments of primitive plumbing that are stretched out through another hall and wrapped around the rotunda, but students of architecture are more likely to ignore the displays and gaze admiringly at this monumental sculpture by a master of light, space, and meticulously poured concrete. As such, it's magnificent, but it drew only a couple of visitors on a recent Sunday afternoon. Nor does the lake lure you to its sterile banks, for the abundant wildlife it may once have contained now survives only as a video (maddeningly repeated in the lobby) in which two insufferably cute infants fly in on a leaf and chatter excitedly about the birds and flowers as music tinkles over this fantasy of nature preserved. MICHAEL WEBB

Architect

Tadao Ando Architect & Associates, Osaka

Project team

Tadao Ando, Takaaki Mizutani, Kanya Sogo

Structural engineer

Wada

Mechanical engineer

Setsubi-Giken

Photographs

Shigeo Ogawa/Japan Architect





The library of Troyes houses one of the four most important book and print collections in France, including a book on Petrarch containing handwritten notations by Dante, and St Bernard's own bible. The town's history often ran in parallel with the history of the book in France and a new mediatheque, designed by the young Paris-based partnership of du Besset-Lyon, was commissioned to house these national treasures, as well as provide the more usual

civic and cultural facilities. When architect Dominique Lyon first visited the site, however, he discovered, with some dismay, that part of the cleared ground was already under construction. Bordering the main boulevard, this parcel of land would have been the mediatheque's main frontage and entrance. But the local authorities had sold it to McDonalds for a restaurant and 'McDrive'. So for Lyon the project became defined not in terms of making a statement

through exterior form (he saw no point in trying to compete with the presence of McDonalds), but through the creation of an interior realm.

Lyon describes the interior as an 'event space', that acts as an internal, mini-city, vast enough to engulf and negate the neighbouring McDonalds. The primary means of this reversal of interior and exterior is a suspended, gilt metal mesh which covers the entire ceiling of the first floor, creating a glittering artificial firmament. The golden mesh can be tantalizing glimpsed from the entrance foyer, up the main, exuberantly pink stairwell which immediately comes into view once you get beyond the utterly plain, grid-like facade. Plans to extend the mesh to beneath the projected roof of the front elevation – echoing a similar interior to exterior movement of neon strip lighting on the ground floor ceiling – foundered when the mesh manufacturer stopped production. However, Lyon hopes that a visit by President Jacques Chirac in late 2002 will rekindle regional, political enthusiasm for the project and help reinstate this important civic element.

The building is divided into four zones. Crowned by the undulating mesh ceiling, the main space is the first floor, which houses a quartet of reading rooms radiating around a central, open corridor and reading space, separated by plain glass partitions. By contrast, the ground floor is made up of striations, a series of three parallel zones and functions. The main foyer channels directly into the eastern striation which combines

MEDIATHEQUE, TROYES, FRANCE
ARCHITECT
DU BESSET-LYON



location plan

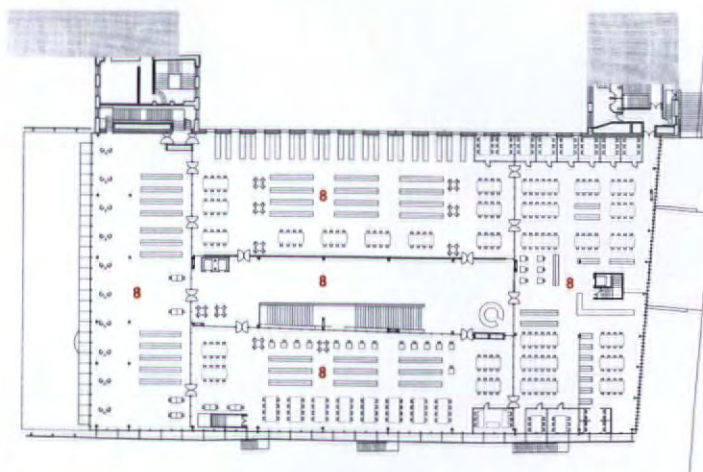
DANTE'S DRIVE-IN

The inventive use of materials and graphics enlivens the interior of this new provincial mediatheque, creating a dramatic inner realm.

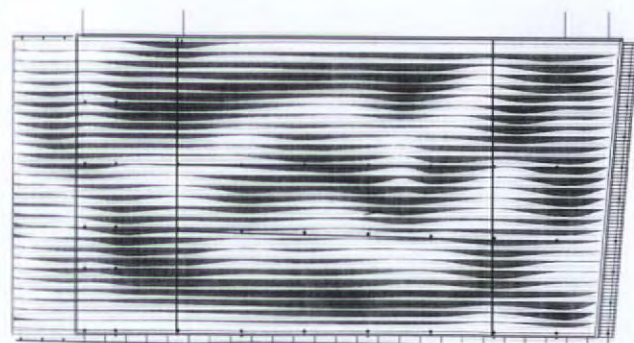


1
The sleek skin of the new
mediatheque is ruptured by a long
tear along its side, like paper collage.
The anodyne glass box contains a
sensuous inner realm.

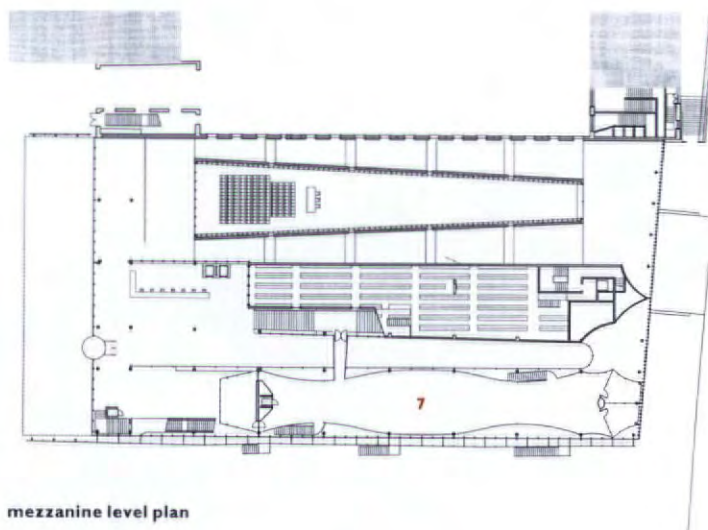
2
One of the building's internal
streets, with views through to the
children's library on the right.



first floor plan

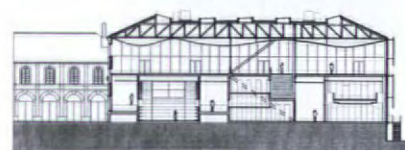


reflected ceiling plan

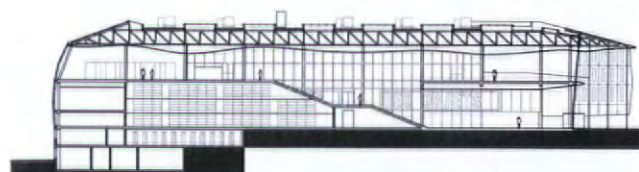


mezzanine level plan

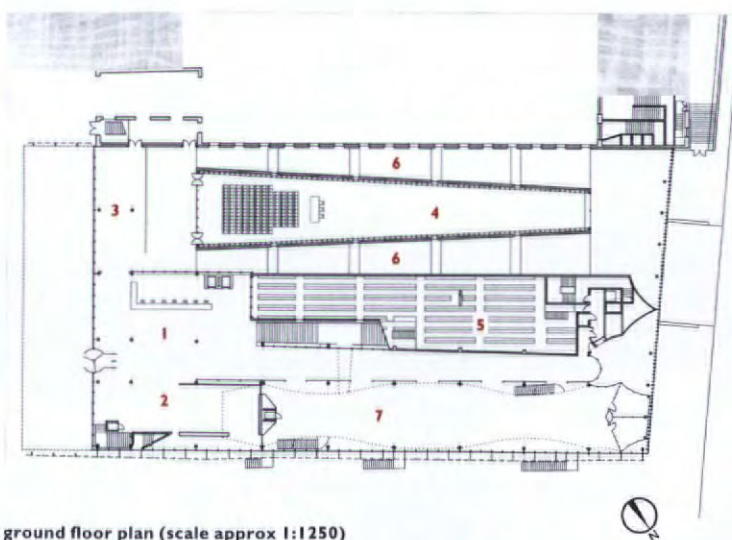
- 1 entrance hall
- 2 temporary exhibition space
- 3 news stand
- 4 historical collections
- 5 stacks
- 6 permanent exhibition space
- 7 children's library
- 8 main reading room



cross section



long section



ground floor plan (scale approx 1:1250)



- 3 Undulating mezzanine level of the children's library.
- 4 Main reading room, engulfed by its golden mesh ceiling.
- 5 Bold graphics and strong colours animate the interior.



Architect

Du Besset-Lyon, Paris

Project team

Pierre du Besset, Dominique Lyon,

Alain Chiffolleau, Gary Glaser,

Lawrence Weiner

Structural engineer

Khephren

Services engineer

Alto

Facade engineer

Van Santen

Photographs

Paul Raftery/VIEW

6

Antiquarian books line the walls of the historical collection.

7

Antiquarian book reading area in the main reading room.

8, 9

The mesh ceiling sparkles and scintillates with light, enlivening the reading room spaces.

exhibition and reading rooms with generous circulation spaces. It also manifests the participation of two invited American artists, funded through France's 'one per cent for art' initiative. Gary Glaser advised on the colour scheme, and Lawrence Weiner has produced a text artwork. Strictly speaking, this conceptual intervention starts on the east elevation with a 96m long blue-glazed screen, or 'stripe'. According to Lyon, this is not a facade, but more of an indefinite edge, its colour patinated by computer graphics and an undulating 'tear' along its centre, which Lyon likens to the paper *découpage* works of Rodin. Weiner's text (also in blue) is overlaid on the yellow glazing which separates the children's reading zone from the ground floor corridor. At over 50m long, it is as much a peripatetic event as it is about cognition. The text *écrit dans le coeur des objets* ('written in the heart of objects') refers to the literal nature of a child's association of word and object as revealed in the work of the experimental psychologist Jean Piaget.

Central and west striations are devoted to the historical collections. Storage racks occupy the centre of the building and continue down into basement spaces.

Visually, the main collection hardly registers in the public spaces – the ends of the racks are just visible from the foyer, through two layers of gridded frames and glazing. Immediately beyond this, however, is a space of pure spectacle. A token historical collection, comprising mainly leather-bound (and, as Lyon suggests, largely irrelevant) local records books, is shelved in a huge glazed box, 55m in length. This permanently visible selection of the reserves has been framed with theatrical devices of forced perspective within the box, and ramps to either side, rising in a shallow gradient along its length. Ramps and a viewing platform to the rear of the box form part of the circulation of the town's wider tourist route. In the western striation, history becomes an image, its floor to ceiling annals fitted and transformed into a spatial illusion, around which people circulate without having any reason to enter. The ramps are like extensions of the drive-in, platforms from which to consume or view. Conversely, the precious central collection remains hidden, as if within a closed cargo hold, hermetically sealed from contamination – a quiescent space in the heart of the labyrinth.

ROBIN WILSON



6

MEDIATHEQUE, TROYES, FRANCE

ARCHITECT

DU BESSET-LYON



7



8
9





**SECONDARY SCHOOL,
MOLLERUSSA, SPAIN**

ARCHITECT
CARME PINÓS

Schools are the places in which we grow from being protected members of families to citizens, semi-autonomous people in society. So the principal spatial problem for school designers is to generate a hierarchy of spaces that range from shelter for timid and nervous individuals, through places for groups small and large, to focus areas in which the whole community can come together.

In arranging such hierarchies, circulation systems are of great importance, for it is in these that the ordinary social interactions of school take place. They should be carefully adjusted to the age of the children. For the smallest, everything should be intimate: long vistas and large volumes are clearly to be avoided. As pupils become older and grow into students, circulation systems ought to become more complicated, offering ever more complex interpretations of the individual in space and society.

Many schools get this transition very wrong, presenting the transition from being little and almost defenceless to being a virtually independent individual as merely the experience of a succession of more and more institutional spaces. Indeed, this was the overwhelming experience of most schools until the middle of last century. But in Europe at least, postwar school design began to explore the possibilities of generating spaces that could respond to the changing perceptions of growing people.

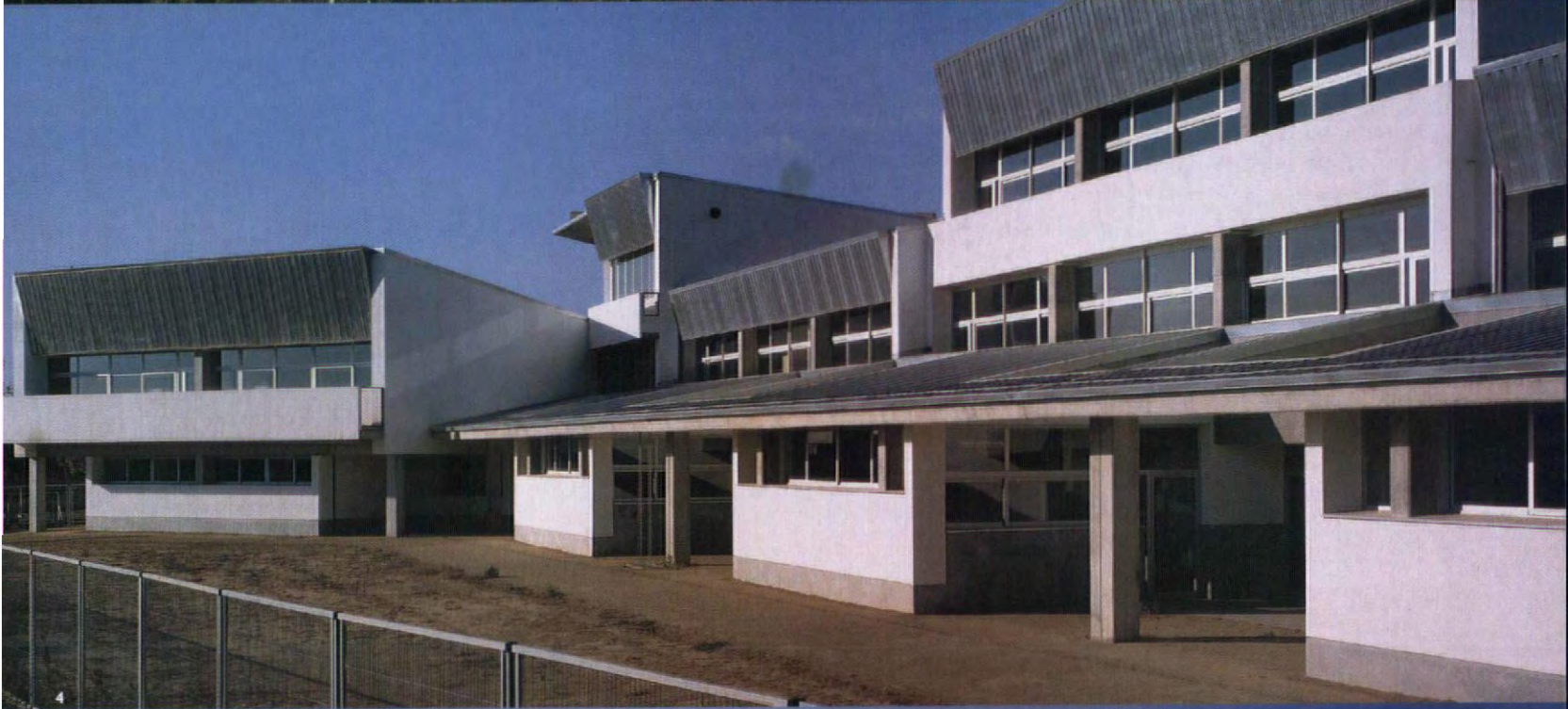
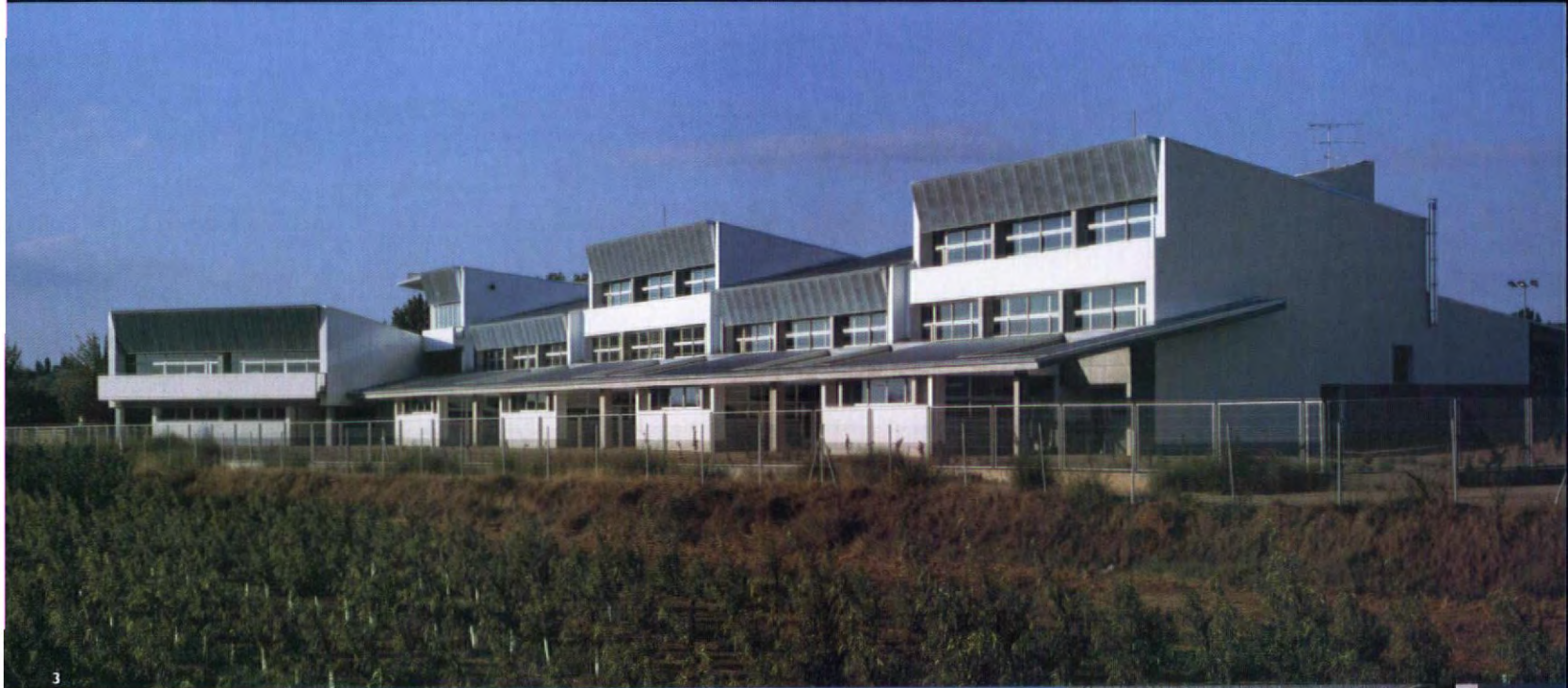
The secondary school by Carme Pinós at Mollerussa, a small town to the east of Lleida (Lérida) in Catalonia, is an important addition to this tradition: a fascinating proposal about how to generate a building that can help and reinforce increasing adulthood and involvement of the individual with society, while preserving personal identity. The site is quite small for its

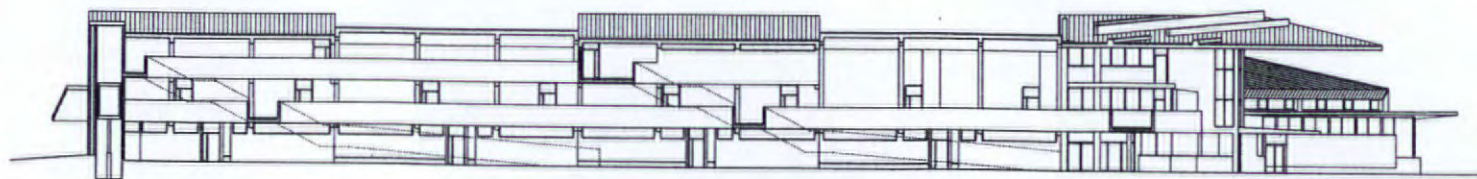
- 1 From south, with new school garden, right.
- 2 Simple pitched roofs and white walls harmonize with traditional agricultural buildings.
- 3 From north-east, laboratory block to left.
- 4 Ground floor classrooms on east side have communal covered patios.
- 5 Main entrance from south with library, right, topped by laboratories and gymnasium/cafeteria block, left.

SECONDARY FORM

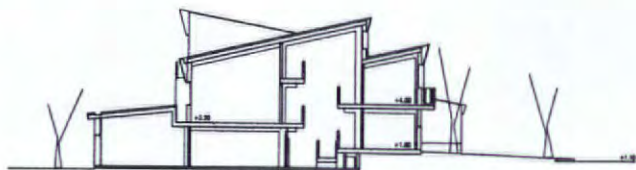
Honed to respond to intense Catalan light and to a rural landscape, this school fosters the development of individuals into being adult members of a community.



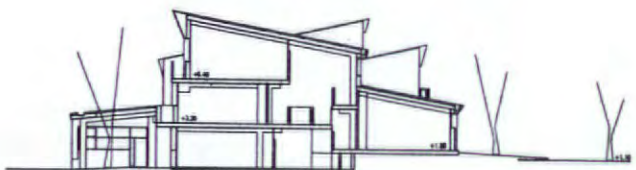




long section

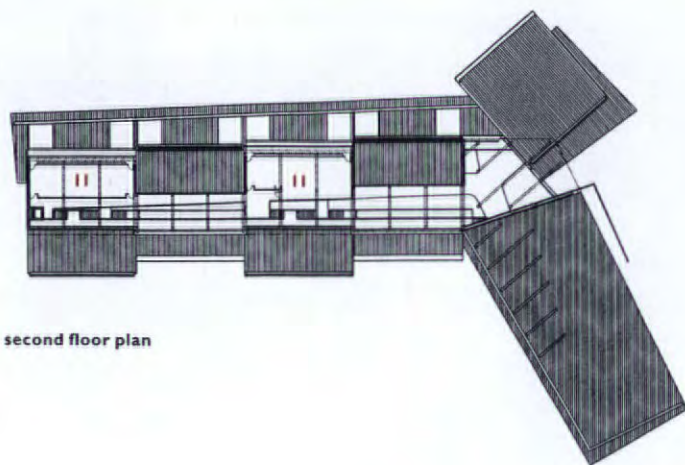


A-A cross section

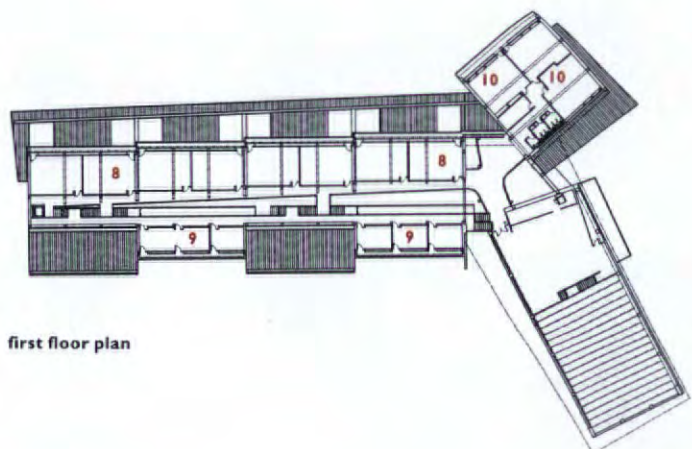


B-B cross section

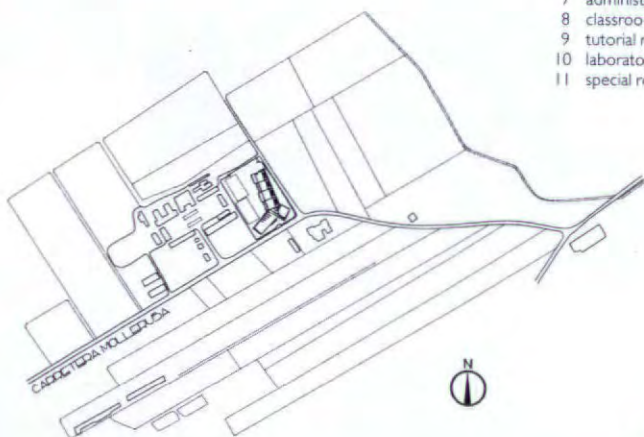
- 1 entrance
- 2 foyer
- 3 gym
- 4 changing
- 5 kitchen
- 6 library
- 7 administration
- 8 classroom
- 9 tutorial room
- 10 laboratory
- 11 special room



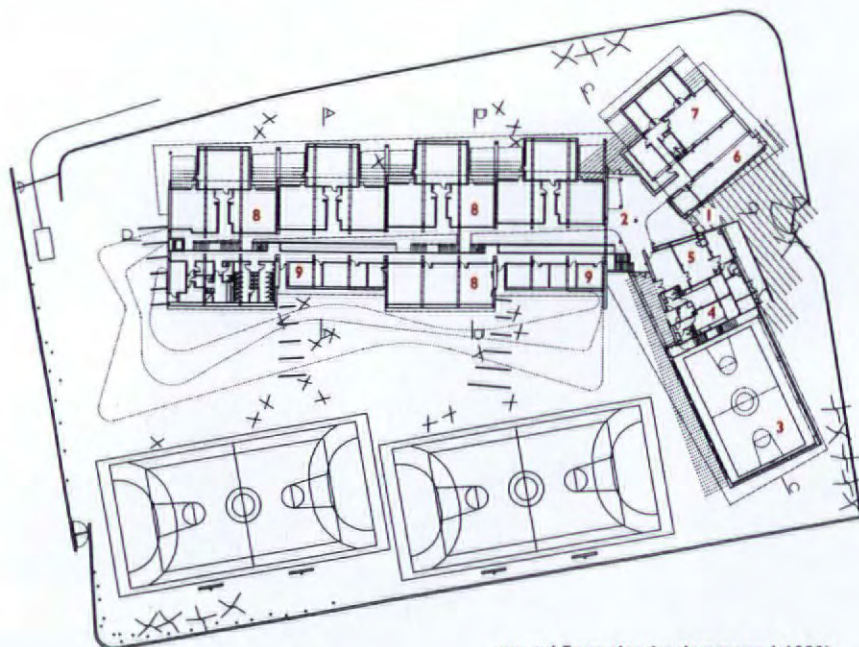
second floor plan



first floor plan



location plan



ground floor plan (scale approx 1:1200)

**SECONDARY SCHOOL,
MOLLERUSSA, SPAIN**
ARCHITECT
CARME PINÓS

6
Ramps, stairs and galleries in
ever-changing light offer wide
spectrum of social spaces.



**SECONDARY SCHOOL,
MOLLERUSSA, SPAIN**
ARCHITECT
CARME PINÓS

contents. A rectangle on the edge of the village among orchards and fields, it has to accommodate two full-scale sports fields as well as gardens and the large building.

In effect, the site is divided into three semi-independent spaces by the building: entrance to the south, playing fields to the west, and tranquil tree-planted garden. The entrance is gently emphasized by the canted wings of the library, laboratory and administration wing, and the one housing gym and cafeteria. The main interior axis runs from south to north, with laboratories and most classrooms looking over the orchard to the east, and smaller tutorial spaces facing west. So the rooms are appropriately orientated, with the larger and more impersonal ones avoiding the heat and glare of the later part of the day, and the smaller ones (in which the internal climate can be more easily controlled by individuals) facing afternoon and evening sun.

All this is held together by an armature of circulation, a long south-north, multi-level volume that relates all the different parts of the organization. Ramps, stairs, galleries and balconies of this gentle yet powerful spine offer the complexities needed by emerging adults, affording a range of experience from axial directionality to semi-privacy in its interstices. The whole complex volume is mainly lit from clerestories that cast slowly-moving sunlight down to ground level. Without regular sunlight, the place can be almost Piranesian; when the sun shines, it becomes full of multiple possibilities. The space distils natural forces and uses them to provide a continuously changing stage-set on which people starting out in life can write their own scripts.

Construction is conventional, economical and careful. The grey, well cast, easily maintained concrete structure is exposed. Infill is white painted blockwork. Roofs and fascias are of standard ribbed metal sheeting. It is a tough, honed building, yet tender to its users. Seen from a distance across the fields and fruit trees, its pitched roofs and white walls harmonize with the traditional rural buildings. The school is a quiet focus of community. JOHN ANSTRUTHER



7

7
Looking south towards main
entrance.

8
Circulation armature that unites all
volumes.

Architect

Carme Pinós, Barcelona

Project team

Carme Pinós Desplat, Juan Antonio Andreu,
Javier Bustos, Ferran Grau, Cristina Ramos,
Nicola Regusci

Photographs

Duccio Malagamba



ART GALLERY, PARIS, FRANCE
ARCHITECT
LACATON & VASSAL





ART IN PROCESS

The Palais de Tokyo, a showpiece of the 1938 Paris Exposition, has been re-opened after years of inactivity and decay. It is again a dynamic exhibition venue, but in a way that would never have been imagined 60 years ago.

The state-funded conversion of the Palais de Tokyo in Paris has involved, primarily, the reawakening of a building that had lain dormant to the public for thirty years. It has also been about the creation of a new context for contemporary art. The fact that architects Lacaton & Vassal have managed to reconcile the pragmatics of the former with the spatial extravagances of the latter (within an initial budget of just under 4 million euros), is cause enough to applaud their achievement. However, among the current crop of new, international art venues, the Palais also succeeds in addressing more challenging issues such as the tactics and politics of display.

Originally designed by Dondel, Aubert, Viard and Dastugue, the Palais was completed for the International Exhibition of 1937. The design was chosen, controversially, ahead of

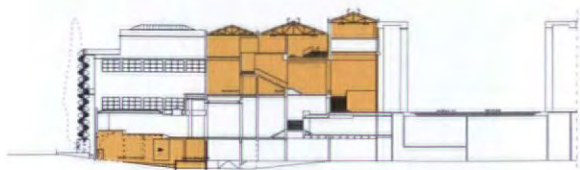
proposals by Robert Mallet-Stevens and Le Corbusier in an open competition. Though the palace's exterior remained intact, the interior has undergone a succession of alterations. Its last period of full occupation came to an end in 1976, when the national modern art collection was moved to the newly completed Pompidou. The history of the interior then became increasingly convoluted, not least by the last of the aborted projects – a scheme for a Palais du Cinéma, stopped for political reasons in the mid-1990s. This had advanced to a point at which the building had been made structurally unsafe, and the interior come to resemble a Piranesi ruin.

The initial phase of the work generated 8000 square metres for the principal gallery spaces (which occupy the ground floor and part of the first), and a bookshop and

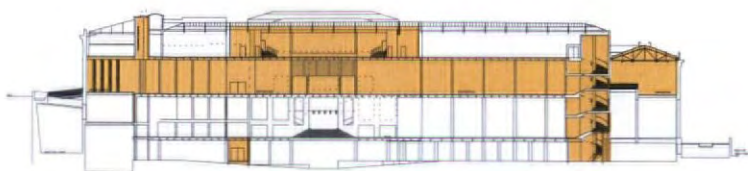
1 The etiolated scraped '30s Classicism of the exterior of the Palais de Tokyo has been preserved through all vicissitudes ...

2 ... but the interior suffered badly from several abortive alterations: now its transient, changeful qualities are welcomed.

ART GALLERY, PARIS, FRANCE
 ARCHITECT
LACATON & VASSAL



east-west section



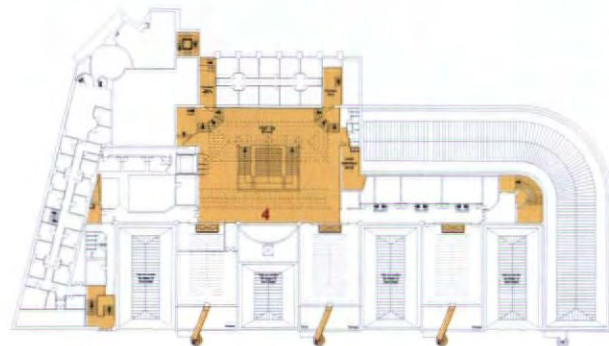
north-south section



level 1B

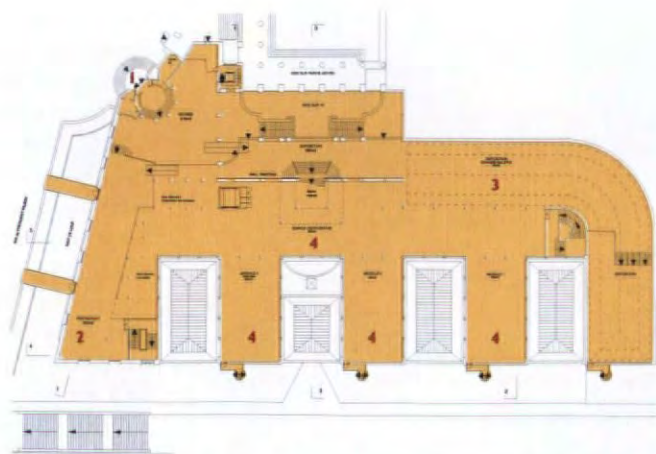
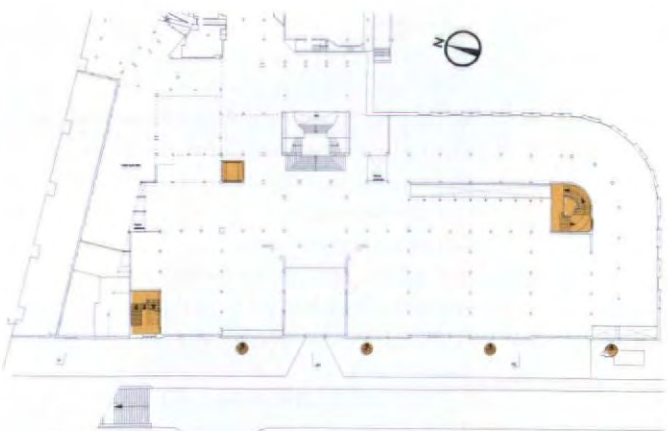


3



level 3A

- 1 entrance
- 2 restaurant
- 3 grande gallerie
- 4 exhibition
- 5 void



level 2

3, 4, 5
Effectively, the work on both building and artworks is endless, as 'architecture-in-process merges seamlessly with art-in-process'. Main contribution of architects of new transformation is to re-introduce abundance of natural light to exhibition areas. They battled against transforming spaces into white boxes.



ART GALLERY, PARIS, FRANCE

ARCHITECT

LACATON & VASSAL



restaurant. Beyond ensuring structural integrity and the reintroduction of power and services, the main physical adjustments made by Lacaton & Vassal concerned the floors and the roof. Usable areas of original stone flooring were kept and extended with concrete. For the roof, the aim was to reclaim the abundance of natural light provided by the original design, reopening all the skylights and replacing some of the glass with polycarbonate panels. These are rigged to an automatic ventilation system, in technology originally developed for greenhouses.

The main entrance in the north-west corner opens into a cupola-covered volume, a feature of the original design. But the space has been intriguingly and provocatively cannibalized. A ragged chunk is missing from one of the cupola's five supporting columns and marble entrance desks have been customized with a few spray-paint, pixel-dot graffiti stencils, reminiscent of space-invader characters. Metal fencing and black and yellow security floor tape loosely guide the direction of visitor flow beyond, toward a frankfurter van trailer, which now serves as the ticket booth. In crossing the threshold, the academic grandeur of the Neo-Classical exterior has given way to its antithesis: a light, open, industrial warehouse space, under the control of something akin to an artists' squat.

Certainly not all these elements are by the architects Lacaton & Vassal (the stencils are by the graphic designers M/M, for example). But they have made the interior possible.

Their vision of social space is pervasive,

inspired, partly, by the Djemaa El-Fnaa market square of Marrakesh – a space of movement and change, constantly formed and reformed by the 'whim of its actors'.

Long before the first of the artworks was installed, Jean-Philippe Vassal suggested that art had already begun at the Palais. He was referring to the life of the site, a period he calls 'habitation'. His notion dispenses with the idea of a definitive point of completion. Effectively, the site work is endless, as architecture-in-process merges seamlessly with art-in-process. The interior of the Palais has been defined as a receptacle for a constant evolution of finishes, as new artists occupy its spaces and adapt them to their own requirements. The architects battled to ensure that the interior was not whitewashed, like an orthodox gallery.

But the Palais does not definitively debunk the white cube convention, as has been suggested. Effectively, the skin of the cube has been removed as the precondition for art, but can also be replaced, along with any other appropriate solution to a particular work. The backdrop to art at the Palais is an adaptable stripped surface on which artists and curators can experiment freely, with no misgivings about the physical effects of previous or future activity. The internal spaces display the building's history through traces of surfaces and juxtaposed layers. As light has been brought back into the Palais, so its total physical history has been revealed and, in a sense, reappropriated as a readymade and hybrid architecture.

ROBIN WILSON

Architect

Lacaton & Vassal, Paris

Project team

Anne Lacaton, Jean-Philippe Vassal, Jalili Amor, Emmanuelle Delage, Florian de Pous, Mathieu Laporte, David Pradel

Structural engineer

INGEROP

Photographs

Paul Raftery/VIEW

6

Bookshop: architects' range of ordinary, cheap materials and careful lighting gives intensity to forgotten corner.

7

Original structure and finishes are preserved as far as possible ...

8

... for instance in restaurant, but where stone floors are damaged or destroyed, they are extended in concrete.



ROMAN REVIVAL

In Frascati, to the south of Rome, the seventeenth-century stables of a famous villa have been converted with great sensitivity into an archaeological museum.

The Villa Aldobrandini and its spectacular water gardens at Frascati were constructed in 1601-11, during the Counter Reformation, by Carlo Maderno, architect of St Peter's facade, and Giovanni Fontana. The villa, built as a summer residence for Cardinal Pietro Aldobrandini, 'nephew' of Pope Clement VIII, dominates the town, and faces across the countryside to St Peter's dome.

Theatrically set against steep forest on the edge of the town, the villa is the centrepiece of an Arcadian vision of nature. The gardens, with a semi-circular water-theatre and nymphaeum are fed by an axial sequence of waterfalls, and are one of the best

and most famous examples of early Italian Baroque landscape.

The villa is still privately owned, but the suite of seventeenth-century stable buildings next to the town square now belongs to the city. It has been transformed with great sensitivity, by Massimiliano Fuksas, into the Museo Tuscolano. The museum houses archaeological fragments of the Roman city of Tuscolo, remains of which are scattered over the Alban hills; but it also accommodates an exhibition hall and auditorium. In converting the buildings, Fuksas has impinged very lightly on the old structures, leaving the architecture to speak for itself; but his poetic response

to it, and to the superb setting, is very evident, as is his talent for enhancing inherent architectural drama.

The site had two magnificent rectangular halls set end to end, in need of repair and restoration. Once this was done, and the buildings cleared of unnecessary accretions, the architect was left with an enormous double-height volume, requiring a new first floor, and a smaller vaulted one with a chamber above. As an organizing device, a new service core and lift shaft were inserted into the inner end of the main hall, forming a central cross-axis and establishing the museum's two separate sections.

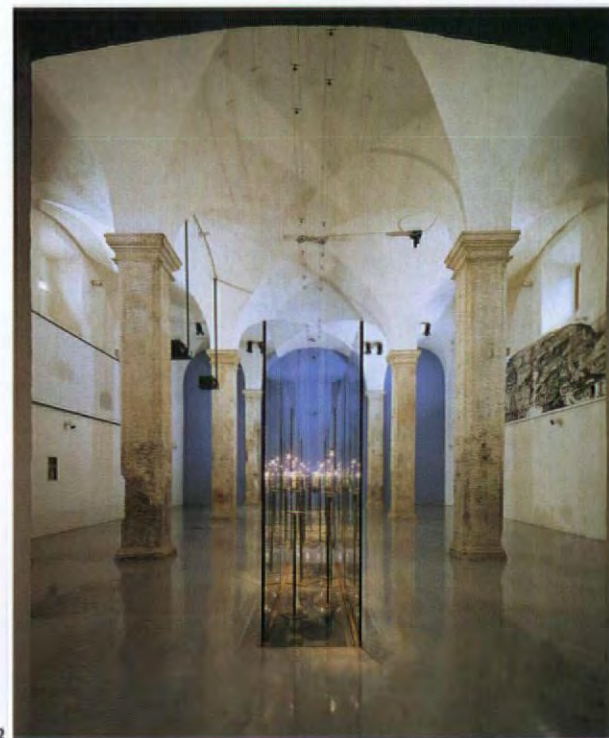
ARCHAEOLOGICAL MUSEUM, FRASCATI, ITALY

ARCHITECT

MASSIMILIANO FUKSAS



1



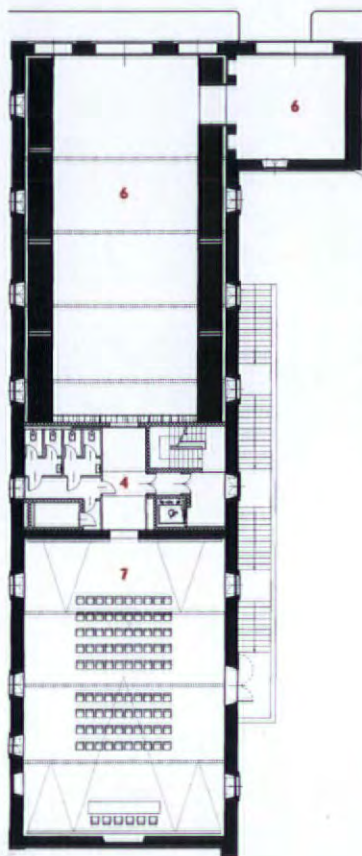
2

1
Main west face. Original entrance (right) is now a window onto town hall square; new entrance (left) in adjacent building.

2
East vaulted gallery on ground floor.

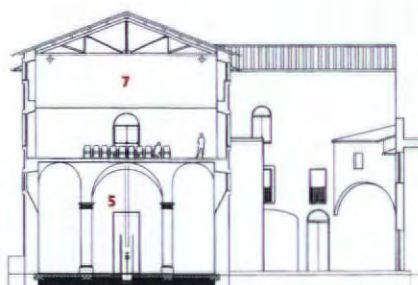
3
Main gallery with new first floor and staircases.



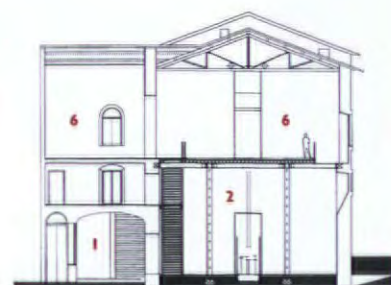


first floor plan

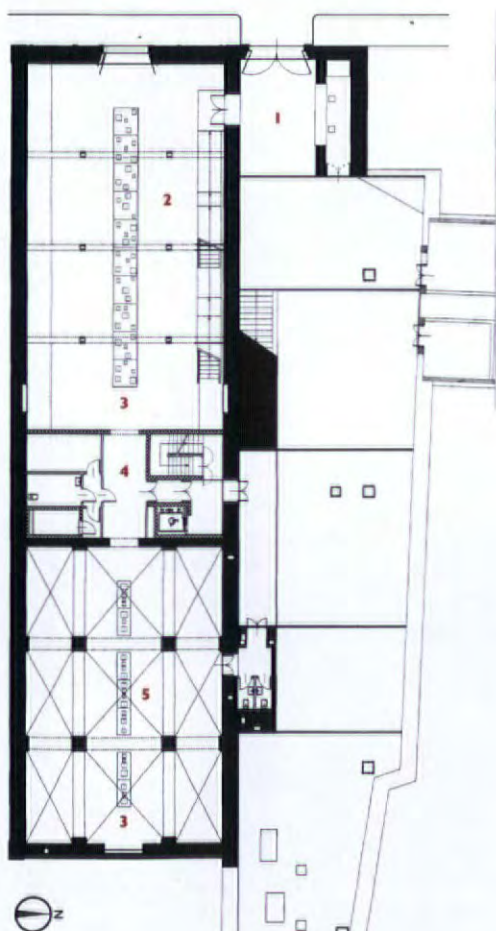
- 4 Exhibition hall on upper level; new floor, with glass balustrading, floats free of old structure.
 5 Main gallery; north wall and new staircases. Archaeological exhibits in glass case on slender bronze stands.
 6 Upper chamber over entrance and glass bridge to exhibition hall. New windows over town hall square.



north-south cross section



north-south cross section



west-east long section

- 1 entrance
 2 main gallery
 3 exhibition case
 4 service core
 5 vaulted gallery
 6 exhibition hall
 7 auditorium

New insertions have been made distinct from the old structure and the marks of previous occupation and wear and tear have been left as archaeological traces. Except for the occasional plane of coloured plaster and new glazing, the buildings have not been smoothed down; rather, in keeping with the nature of the exhibits, the textures of materials – rough stone, brick, flaking plaster and concrete – have been treasured.

In the main gallery a large window, framing a view of the

town hall square, replaced the original main entrance; and a new entrance was created in an adjoining lodge. Within the gallery, RSJ columns and beams support a new first floor of concrete and steel. Floating short of the old perimeter walls, it accommodates an aerial flight of steel and wood stairs from ground level. Another parallel flight beneath takes you to offices on an intermediate level over the entrance. The immateriality of the inserted structures is induced by height and





ARCHAEOLOGICAL MUSEUM, FRASCATI, ITALY

ARCHITECT

MASSIMILIANO FUKSAS



length, and by being counterpoised against the massive masonry wall, its thickness displayed in the deep reveals of small square windows set high above the ground.

Displayed on slender bronze stands designed by Massimo Mazzone, and illuminated by tiny spots of suspended light, the exhibits have been rendered equally ethereal. Arranged in a long procession, they are enclosed by transparent sheets of toughened laminated glass, 2.60m high and set straight into the polished concrete floor. This crystalline case forms a central spine down the length of the ground floor and is visible from the square outside. As an example of

exhibition design, it is irresistible.

Upstairs, is the cultural centre with the well-equipped auditorium contained in the chamber over the vaulted gallery. The larger hall under high roof timbers is used for exhibitions and other cultural events. Through windows there are wide views over the Roman countryside and of the Villa Aldobrandini.

Architect

Massimiliano Fukas Architetto, Rome with Doriana O. Mandrelli

Project team

Massimiliano Fukas, Doriana O. Mandrelli, Lorenzo Accapezzato

Artist

Massimo Mazzone

Photographs

Giovanna Piemonti



LIGHT READING

A library which draws on the light of the north to create a major contribution to both civic life and scholarship.

Sweden is developing an enviable record for producing fine public libraries, just at a time when they are being shut down, or at least gravely starved of funds, in other Western countries. The one at Härnösand, on the east coast, about halfway up the Gulf of Bothnia, has quite a lot in common with the Linköping library (AR May 2001). For instance, both occupy crucial sites in the centre of town facing the main park; both are large glass boxes; both are intended to be social foci, as well as centres of learning and leisure.

But they are modified by local circumstances. At Härnösand, the library is between the city centre and the university and links both. The site slopes steeply from university down to the town, so the glass box is carved into the hill and there are two main entrances, with the upper (eastern) one three levels above the townward one diametrically opposite in plan.

Internally, trays of floors serve different functions, with the municipal library occupying lower parts and the academic areas at the top. At park level, there is a large café, a bookshop and the lecture theatre, as well as the main battery of book-stacks. From here, an airy atrium rises past the double-height spaces of the first floor children's and main libraries to the academic levels on floors two and three.

LIBRARY, HÄRNÖSAND, SWEDEN

ARCHITECT

FFNS ARKITEKTER WITH TIRSÉN & AILI ARKITEKTER

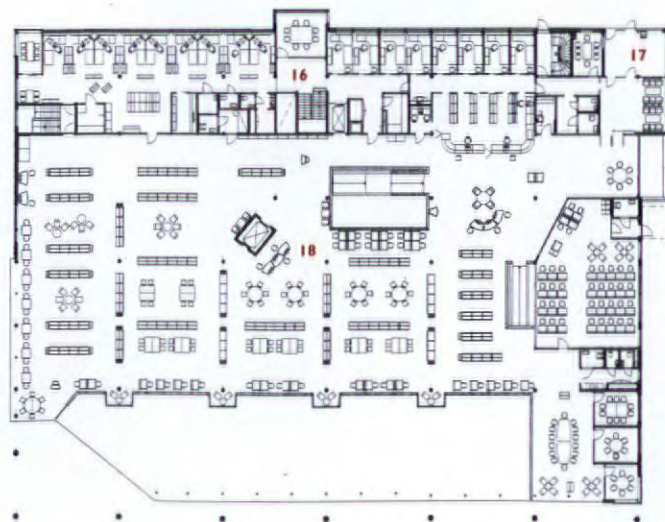


- 1 From park, library sails like an enormous Modernist ship towards city centre (left).
- 2 Building adopts scale of city centre and, simultaneously, academic buildings at top of hill.
- 3 Trays of space define different functions: for instance, newspaper reading terrace (right), first floor main library (left), academic reading levels above.





first floor plan



third floor plan

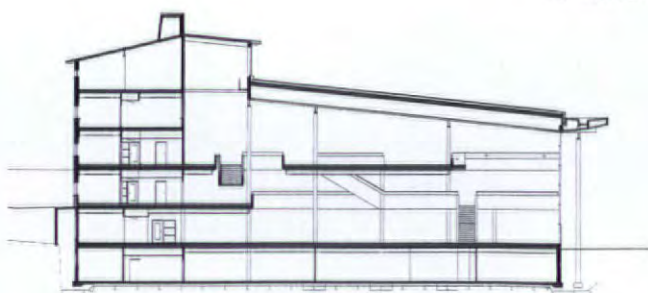


lower entrance level plan (scale approx 1:840)

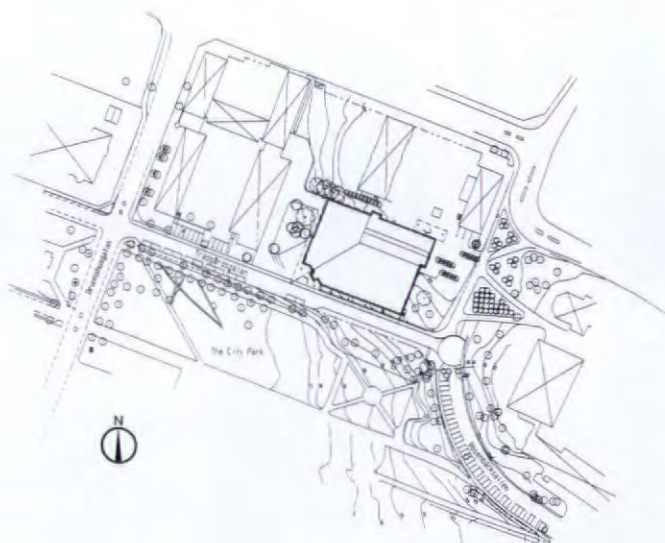
- 1 lower (civic) entrance
- 2 reception
- 3 cafeteria
- 4 lecture theatre
- 5 stack
- 6 bookshop
- 7 plant and fountain
- 8 children
- 9 general city library
- 10 newspapers
- 11 music
- 12 reading room
- 13 periodicals
- 14 study
- 15 computer training
- 16 offices
- 17 upper (academic) entrance
- 18 main academic library



second floor plan



north-south section



location plan

LIBRARY, HÄRNÖSAND, SWEDEN

ARCHITECT

FFNS ARKITEKTER WITH TIRSÉN & AILI ARKITEKTER



4
5

4 Materials are carefully chosen to create a calm and welcoming atmosphere: for instance, oiled oak floors and balustrades, white stained pine laths in ceilings.

5 Climate control systems include automatically adjusted external blinds and light sensors on bookcases which activate ceiling lamps.





6

Here, floor two (periodicals and study areas) is a gallery round the civic reading room and floor three hovers over the whole big space, with small balconies overlooking the park. On top is the much smaller county library.

In fact, the building is not so much a glass box as one sliced diagonally, with the upper end cut against the rock. The whole northern side, which mainly fronts offices, workshops, staff areas and service rooms, is much more opaque with conventional ratios of solid to void. The delicate glass facades of the south and west sides with their trussed glass mullions and oiled oak transoms are surrounded by tall, elegant and immensely thin colonnades. They overlook the park and city centre, so the surroundings become a backdrop for the great volume.

By any measure, this is a fine, lofty urban space. It is filled with light, both from the glass walls, and from a slot at the back of the plan between the great reading room and the small spaces at the back. Down this chasm in the middle of the plan, light pours from clerestory and glazed east gable: down past the county library, where windows of the inner rooms draw in luminance; down the stairwell to the academic floors, right down to the level of the civic library. So the whole volume is filled with light. And, like a proper piece of city, it offers all manner of different spaces, from the public forum of the foyer to a wide spectrum of more particular places, in which you can read, muse and search, in various forms of company and privacy, from the cheerful chat of study groups to the intense isolation of a carrel. This nuanced and sensitive interweaving of personal and public spaces is one of the greatest contributions of Scandinavia to democratic architecture, and it has key origins in much of Erskine's work, particularly his Stockholm University library (AR August 1983).

Putting two big glass walls towards west and south is normally a recipe for energy disaster. But the architects believe that heat gain in summer will be reduced by the roof overhang, by automated external blinds and movable internal curtains with trees of the park providing further shading. Cold in winter is to some extent modified by the oak mullions that are formed to lead downdraughts away from the glass. Air is led in to the whole building through a small waterfall in the foyer and expelled up the great slot. In between, it passes through the slats of the ceilings so that the mass of the concrete structure can act as thermal flywheel.

While the south and west sides are transparent, north and east ones are quite different, heavily insulated and solid. Here, the library almost seems to be two different buildings, an upper clumsy ruddy, almost rural one, rather unhappily married to a lower elegant, urban spouse. But at both top and bottom of the slope, the Sambibliotek is in scale with its surroundings. It is a decent and inspiring contribution to the city. HENRY MILES

LIBRARY, HÄRNÖSAND, SWEDEN

ARCHITECT

FFNS ARKITEKTER WITH TIRSÉN & AILI ARKITEKTER



7

6

Roof overhang modulates sunshine and is finished with natural larch laths.

7

Upper (north-east) entrance, where more rustic building emerges.

8

Great slot which pours light down into middle of plan, past county library to upper entrance level and lower floors.

Architect

FFNS Arkitekter, Umeå with Hans Tirsén of Tirsén & Aili Arkitekter, Luleå as the architect responsible

Project team

Hans Tirsén, Martin Häller, Arne Wistedt, Ulf Widmark, Jan-Ola Hansson

Landscape

KM and Schibbye Landskap

Interior design

Inredningsgruppen, Sundsvall

Photographs

Kalle Åkesson



A change of heart, a new vision for architecture? If there really is a new paradigm in architecture then it will reflect changes in science, religion and politics and it doesn't take a clairvoyant to see that George Bush & Junta (as Gore Vidal calls them) are very much locked into a medieval world view (if that isn't an insult to the Gothic). No, the reigning disciplines are struggling with primitive orientations and will continue to do so until one catastrophe or another (global, ecological?) forces them to shift gears, there is no widespread cultural movement under way. Nevertheless, one can discern the beginnings of a shift in architecture that relates to a deep transformation going on in the sciences and in time, I believe, this will permeate all other areas of life. The new sciences of complexity – fractals, nonlinear dynamics, the new cosmology, self-organizing systems – have brought about the change in perspective. We have moved from a mechanistic view of the universe to one that is self-organizing at all levels, from the atom to the galaxy. Illuminated by the computer, this new world view is paralleled by changes now occurring in architecture.

Several key buildings show its promise – those by Americans Frank Gehry, Peter Eisenman, and Daniel Libeskind. There is also a vast amount of other work on the edge of the new paradigm by the Dutch architects Rem Koolhaas, Ben van Berkel and MVRDV, or other Europeans like Santiago Calatrava and Coop Himmelblau, or those who have moved on from High-Tech in England, such as Norman Foster. These architects, as well as those that flirted with Deconstruction – Hadid, Moss, and Morphosis – look set to take on the philosophy. In Australia, ARM (Ashton Raggatt MacDougall) has been mining the territory for many years and another group, LAB, is completing a seminal work of the new movement, Melbourne's Federation Square. Soon there will be enough buildings to see if all this is more than a fashion, or change of style, but it certainly is the latter.

The emergent grammar is constantly provoking. It varies from ungainly blobs to elegant waveforms, from jagged fractals to impersonal datascares. It challenges the old languages of Classicism and Modernism with the idea that a new urban order is possible, one closer to the ever-varying patterns of nature. One may not like it at first, and be critical of its shortcomings, but on second glance it may turn out to be more interesting, more in tune with perception than the incessant repetition of colonnades and curtain walls.

The plurality of styles is a keynote. This reflects the underlying concern for the increasing pluralism of global cities. Growing out of post-modern complexity of the '60s and '70s (Jane Jacobs and Robert Venturi), is the complexity theory of the 1980s, which forms the unifying idea. Pluralism leads to conflict, the inclusion of opposite tastes and composite goals, a melting and boiling pot. Modernist purity and reduction could not handle this reality very well. But the goals of the new par-

adigm are wider than the science and politics that supports it, or the computer that allows it to be conceived and built economically. This is the shift in world view that sees nature and culture as growing out of the narrative of the universe, a story that has only recently been sketched by the new cosmology in the last thirty years. In a global culture of conflict this narrative provides a possible direction and iconography that transcend national and sectarian interests.

Organi-Tech

To see what is at stake one might start with those at the edge of the new tradition and see how they differ from those closer to the centre. I would call them Organi-Tech architects because they reflect both their Modernist parents, the High-Tech architects who used to dominate Britain, and their grandparents, organic architects such as Frank Lloyd Wright and Hugo Häring who tried to parallel natural forms. Organi-Tech, like its twin 'Eco-Tech', straddles both sides of this duality; it continues an obsession with technology and structural expression while, at the same time, becoming more ecological. The contradictions this leads to, are openly admitted by Ken Yeang, who acknowledges that while the skyscraper is very un-ecological by nature it is hardly going to disappear as the corporate type of choice. So, like Foster, Piano and other Modernists, he aims to make them less environmentally costly. Richard Rogers is committed to this policy at the regional scale and currently making heroic attempts to change the entropic urban trends of Britain. Other Organi-Tech designers produce surprising structural metaphors that celebrate the organic nature of structure, the bones, muscles and rippling skin of an athlete at full stretch. Both Nicholas Grimshaw and Santiago Calatrava have designed expressive skeletons meant to dazzle the eye, especially when the sun is out.¹ They are filigreed light-traps, or pulsating exoskeletons that show our bodily relation to other organisms. One cannot help being moved by these spectacular constructions even if their message often may be too obvious.

Yet, while relating to nature and exploiting the computer in design, these architects have not accepted the rest of the new philosophy. This is evident in several ways, particularly in their handling of structure. This they make, in the manner of Mies van der Rohe, excessively repetitive. They conceive prefabricated elements that are identical, or in mathematical jargon 'self-same rather than self-similar', boringly replicated rather than fractal. Most of nature – galaxies, developing embryos, heartbeats and brain waves – grows and changes with minor variations. This insight was finally given a scientific basis by the late 1970s, after the computer scientist Benoit Mandelbrot wrote his polemical treatise, *The Fractal Geometry of Nature* in 1977. It took more than a decade before the idea was assimilated by architects, and translated into computer production for building. But by the 1990s it led to the promise of a new

THE NEW PARADIGM IN ARCHITECTURE

Charles Jencks suggests culture is transforming itself from the simple certainties of Modernism to a much more complex interpretation of reality based on biology, mathematics and cosmology. Architecture is responding.

1
MVRDV's pavilion at the Hanover Expo 2000 (AR September 2000), a strange and humorous interpretation of modern Dutch culture.

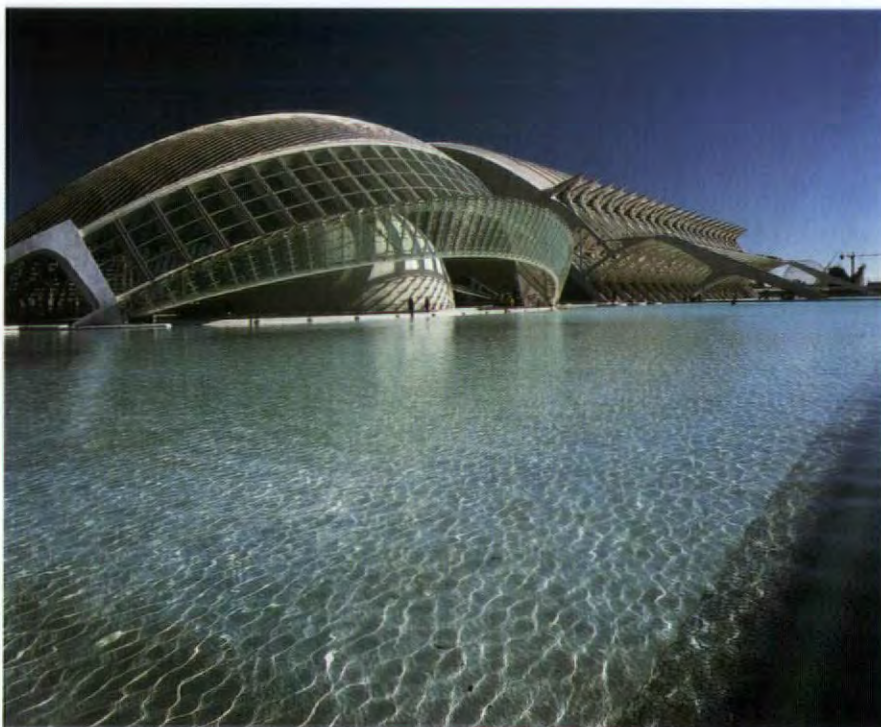


urban order that, like a rainforest, is always self-similar and always evolving slowly, an order more sensuous and surprising than the duplication of self-same elements. Perception delights in fractals, in a slightly varying stimulus, which is why, at dinner, it is better to compare wines than stick with the same one. Endless repetition dulls the palette, as *Organic Tech* designers show when they multiply a good idea to exhaustion. Think of Renzo Piano's beautiful Kansai airport, the same interesting airfoil shape extruded for a whole mile, until it is boredom squared. Architects, by contrast, who use fractals – Libeskind, ARM, Morphosis – literally give us a break from their standard forms, and the young group LAB and Bates Smart have already pushed beyond these first experiments and refined the grammar.²

Another identifiable group, producing rounded fractals, were recently christened 'Blobmeisters' in New York. The label implies several truths, not all of them flattering. First that these 'meisters' were determined to capture the field, and do so with 'blob grammars' and abstruse theories based on computer analogies – cyberspace, hybrid space, digital hypersurface were some of the other terms. Often the Blobmeisters were young university professors and their students engaged in the usual turf wars. Greg Lynn, easily the most creative and intelligent of this group, has argued in a series of books that the blob is really a developed form of the cube. It can handle more information than the dumb box; its complexity and therefore sensitivity are potentially greater. But this is not the case, if the grammar is not scaled and phrased with skill and correlated with function. So many blobs are simply the result of stacked geodesics, like Grimshaw's Eden project, a series of bubble-forms that remind me of what geologists call globular clusters – enticing, edible, squashy in appearance. But these creations can sometimes be awkward, for instance around the entrance, or where they meet the ground or another structure. Norman Foster's two giant blobs, one for the mayor of London the other for a new music centre in Newcastle, have these problems. The internal space and structure are more con-

vincing than the way they relate to the city. By contrast, his Swiss Re Headquarters building is a perfected, stretched blob conceived as a city landmark. It started off life as an egg shape and then, after wind and structural studies, re-emerged as other natural metaphors – not only the far-fetched gherkin of the tabloids, but a more plausible and welcoming pine cone and pineapple. The spiral sky courts and aesthetic refinements give further rationale to these metaphors, making them multivalent and enigmatic in a plausible way. Once again the computer helped produce self-similar forms at an acceptable price. The entasis of this skyscraper, like that of a Doric column, leads to a new kind of propositional beauty, one worked out digitally.³

Foster's partial shift from a Cartesian to blob grammar marks a turn of mainstream practice towards the new paradigm. It follows many sculptural experiments, for instance those of Will Alsop in Marseilles and Frank Gehry in Europe, Japan and America. Ever since Gehry's Guggenheim opened in Bilbao, in 1997, architects realized a new kind of building type had emerged, and that there was a standard to surpass. His landmark building (telling euphemism for what used to be called a monument) pulls this former industrial city and its environs together – the river, the trains, cars, bridges and mountains – and it reflects the shifting moods of nature, the slightest change in sunlight or rain. Most importantly its forms are suggestive and enigmatic in ways that relate both to the natural context and the central role of the museum in a global culture. Indeed, because of what is called the Bilbao Effect, the enigmatic signifier has become the reigning method of designing large civic buildings, especially museums. This emergent strategy, which starts in a small way during the 1950s with Ronchamp and the Sydney Opera House, has now become a dominant convention of the new paradigm. Peter Eisenman, Rem Koolhaas, Daniel Libeskind, Coop Himmelblau, Zaha Hadid, Morphosis, Eric Moss – and now mainstream architects such as Renzo Piano – produce suggestive and unusual shapes as a matter of course, as if architecture had become a branch of surrealist scul-



Santiago Calatrava, City of Arts and Sciences, Valencia, Spain. Spectacular urban landscape has positive organic metaphors and many qualities of the new paradigm, but not a fractal grammar.



LAB with Bates Smart, Federation Square, Melbourne, 'this fractal landmark summarizes so much of the new paradigm'...



... 'A form of neo-medieval urbanism, the city fabric as the new icon'. Enigmatic shards 'suggest a new contextualism'.

ture. It has, and the results may often be overblown pseudo-art, but it is worth examining the multiple causes of this shift.

The chief negative reasons are cultural. With the decline of the Christian and Modern belief systems, with the rise of consumer society and a celebrity system, architects are caught in a vicious trap. They have little credible public conventions and ideologies to build for, they lack any iconography beyond a debased machine aesthetic (or High-Tech) and an ecological imperative that has yet to produce accepted symbols, so they are pushed and pulled in opposite ways. The absence of all beliefs leads them to a degree zero minimalism, a good expression of neutrality, but of course one that is totally absorbed into the reigning system. By contrast, a competitive culture demands difference, significance, and fantastic expression in excess of the building task. The enigmatic signifier responds to this conundrum. The injunction is: you must design an extraordinary landmark, but it must not look like anything seen before and refer to no known religion, ideology or set of conventions.

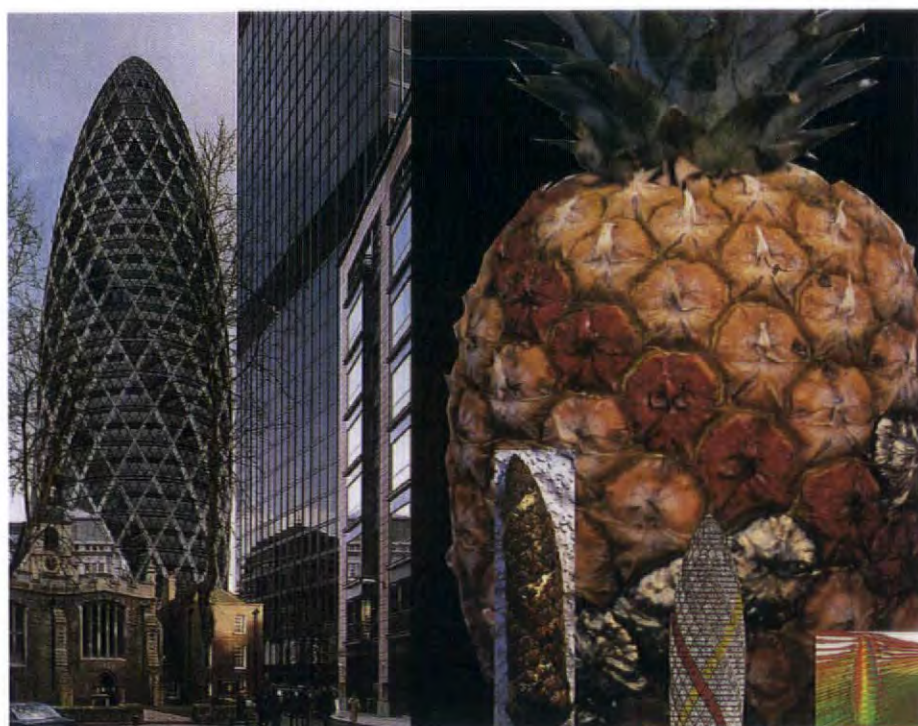
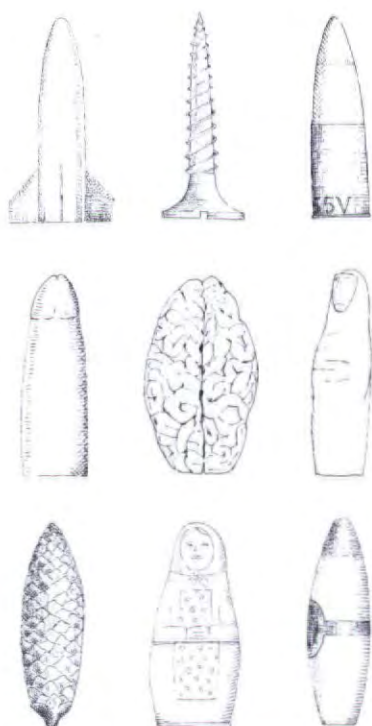
The enigmatic signifier

The enigmatic signifier in the hands of Gehry can work well because he labours over the sculptural aspects of the form and light and adopts multiple metaphors that relate, albeit loosely, to the building's role. Thus in his Disney Concert Hall, the overtones of music and cultural brio were interpreted with clashing petal forms, ship metaphors and symphonic images. At Bilbao many critics found similar allusions to fishes, ducks, trains, clouds and the adjacent hills.⁴ One excited writer acclaimed the structure a 'Constructivist artichoke', another a 'mermaid in metallic sequins'. Several of these organic overtones might be appropriate to the central place of art in the city today, the museum as cathedral; some might be subjective or accidental. But, with the best work in the new paradigm, these metaphors are more than random projections, the outcome of a Rorschach test or automatic, unconscious creation. They are emergent, multivalent signifiers in search of an open interpretation, one

related to the building task, the site and the language of the particular architecture. The idea of the 'open work' of art has been in the air since Umberto Eco proposed it as a typical response of artists and writers in the 1960s. Now, for social reasons, it has emerged more fully into architectural view. As the monument has mutated into the landmark building, as architects have lost most conventional iconography, they now hope to find through a process of search and invention, some emergent metaphors, those that amaze and delight but are not specific to any ideology.

Again this search is aided by computer – all Gehry's curved buildings are produced this way, and at little more expense than if they had been constructed from repetitive boxes. While he admits he doesn't know how to switch on a computer, and uses the machine to perfect and manufacture forms worked out sculpturally, younger architects exploit the generative aspects of the digital revolution. Dutch architects, in particular the group MVRDV, construct datascares based on different assumptions and then allow the computer to model various results around each one. These are then turned into designs and presented polemically to the press, the public and politicians. Alternative societies are contrasted in their 'Metacity/Datatown' of 1999; for instance Holland as a high consumption Los Angeles is opposed to a country of thrifty vegetarians. The built implications of these choices are then exaggerated and turned into an ironic, democratic poetry. It is democratic because the data are a result of collective laws, building codes, straw polls and debated choice; it is ironic because these various forces conflict and often contradict each other, producing bizarre results; and it is poetic because the consequences are presented in deadpan, colourful juxtaposition. One case in point is their Dutch Pavilion for EXPO 2000.⁵

This last humorous construction alternates floors of open greenery and enclosed workspace, then surmounts them with wind turbines and a roof garden. At the top a pond collects rainwater and it is circulated throughout, forming an efficient cycle along with the heat re-circulated from the auditorium below. Ecological motivations alternate with eco-



Foster and Partners, Swiss Re Headquarters, London. Originally conceived as an egg-like form, blob shape has been stretched to resemble many other organic and artefactual things: pine cone, pineapple, cucumber and phallus as well as missile, bullet and bomb. 'Computer-perfected entasis makes it a good example of propositional beauty.'

nomic efficiencies, nature's cycles intermingle with human activities. One floor is a grid of trees in pots whose bases penetrate the floor below forming a sculptural ceiling. Strange associations are made. Edible plants and flowers occupy floors in repetitive rows, recalling the factory farms of Holland, which mass-produce a remorselessly standardized nature. An exterior stairway wraps the open and closed volume like coil of black DNA. Semi-transparent screens and varying colours classify the activities like boxes of data on the computer screen. In effect, the forces at work in the Dutch system are handled digitally and emerge in unlikely new combinations. At this point a sceptic will ask how all this differs from the old Modernist commitment to treating the city as a mere summation of statistical forces, the very thing Jane Jacobs and the complexity paradigm criticize. Well, it has to be admitted that much of the thinking here, as elsewhere, is a carryover from the past. The neutrality, the acceptance of urban and commercial forces as given, the pragmatism and opportunism are hardly a step forward. To reiterate, the new paradigm is at the beginning, not the middle or apex of its development and many architects such as Calatrava and MVRDV are only partially engaged with it. But, at the same time, these and other Dutch architects and so many of the young exploiting cyberspace, also use the data as creative tools. Their datascares are often truly emergent structures, as well as Dadascapes, new forms of bottom-up organization not possible to realize before the advent of fast computation.

The same is true of another trend of the new paradigm, emergence of the landform as a building type and its correlate, the waveform organized around a new grammar of strange attractors. Peter Eisenman has led the way with his Aronoff Center in Cincinnati, a staccato landform that oscillates around a strange attractor of chevrons and zigzags. It looks in part like the jiggling of tectonic plates, an earthquake, the basic metaphor of the earth as a constantly shifting ground rather than the terra firma we assume. Matter comes alive in this architecture at a gigantic scale. His City of Culture in Santiago de Compostela, now under construction, is another undulating landform that picks up the

surrounding landscape as well as other generating metaphors, the local emblem of the Coquille St Jacques and the adjacent medieval city.

Coop Himmelblau, like Morphosis and Zaha Hadid, has won several recent competitions with a wave-like landform – the schemes for a museum in Lyons, and a BMW centre in Germany. Then there is the LAB landform already mentioned, the one built by Enric Miralles in Alicante and those of Ben van Berkel under way. These ten or so artificial grounds really do constitute an emergent urban type, but the one that really put it on the architectural map was FOA's Yokohama Port Terminal, designed in 1995 and finished just before the final of the 2002 World Cup Football.⁶ Part urban infrastructure and part civic space for sunbathing, festivals and public events, it has the mixture of activities typical of other landforms. Again it was conceived inside the belly of a computer, and the architects Moussavi and Zaero-Polo are quite proud about the way they were surprised by the emergent results, even when they didn't like them ('an alienating artistic technique' to which they are, ironically, un-alienated). Shades of Park Hill Sheffield and automatic writing? They eschew the obvious wave and maritime metaphors, but there is no reason for the public to follow suit. This is another exciting enigmatic signifier.

Public and esoteric meanings

I believe it is the job of architects to take responsibility for the public and esoteric meanings of a civic building, whether a surprise or not, but this is an especially difficult task in a global culture without a shared value system. The temptation is to hide behind social and technical requirements, to use supposed determinants to suppress symbolism. Perhaps the only architect of the new paradigm who admits to both larger spiritual concerns and a public symbolism is Daniel Libeskind. His Imperial War Museum of the North, outside Manchester, explicitly symbolizes the various kinds of war (on land, sea and in the air) as well as a globe that is fragmented by strife.⁷ He constantly invokes the cultural and emotional plane of expression as the duty of the architect, he is not afraid of facing up to the fundamental issues of meaning and nihilism that silence other designers.



Libeskind's Imperial War Museum of the North near Manchester, England (AR January 2003). The architect 'constantly invokes the cultural and emotional plane of expression'.



Foreign Office Architects, Yokohama terminal, Japan (AR January 2003): landform building ...

Perhaps, like Gehry, some of his expressive grammar is too often repeated across projects, but one has to applaud his courage in confronting a major problem of the moment: the spiritual crisis, and the loss of a shared metaphysics. Many people, and some philosophers, would say this deprivation in the global age is inevitable and permanent. Yet other philosophers, notably Mary Midgely, argue that new credible, public concepts have emerged such as the notion of the earth as a self-regulating system, Gaia. The metaphor of a dynamic planet tuning itself through feedback is, of course, one of the insights of the new paradigm in science, but whether architects come up with a public iconography based on Gaia remains to be seen. My belief is that the universe story will become a shared metaphysics. It is not yet a public religion, and may never become one, but it is still more than a diverting pastime of astrophysics. It is the orientation point for the future, in search of a corresponding iconology. The Death of God, like the death of other major narratives over the last hundred years, may be confined to the West, especially visible now that the globe is arming for the ultimate clash of civilizations. But fundamentalisms are not living cultural movements however powerful they may be. They have produced no art worth preserving, and the deeper problems remain.

In spite of these problems, the question of whether the new paradigm exists in architecture is worth asking. Do these seven strands hold together, does something unite them? Does the Organi-Tech architecture relate to the fractal, do the enigmatic signifiers emerge out of datascares? Are they connected to the fashion for folding and blob-architecture, the prevalence of landforms and waves; an iconography based on Gaia and cosmogenesis? My view is that the sciences of complexity underlie all these movements, as much as does the computer, while an informing morality has yet to emerge. The answer is mixed. As Nikolaus Pevsner wrote concerning the paradigm of Modernism in nineteenth-century Britain, seven swallows do not necessarily make a summer make. True, this may be a false start, the old paradigm of Modernism can easily reassert its hegemony, as it is lurking behind every Blair and Bush. But a wind is stirring architecture, at least it is the beginning of a shift in theory and practice.

1 Santiago Calatrava, City of Arts and Sciences, Valencia, 1991-2002. Positive organic metaphors but not a fractal grammar. This spectacular urban landscape has many qualities of the new paradigm, and several virtues such as the sculpted white concrete that profiles the structural forces in exciting and innovative ways, but the repetitive nature of the elements typifies the old way of thinking. Much Eco-Tech shows this ambivalent aspect – a half step toward the new paradigm.

2 LAB with Bates Smart, Federation Square, Melbourne, 1997-2002. Containing a museum of Australian art, cinemas, a glazed atrium for public meetings and an outdoor amphitheatre for political events of the city, this fractal landform summarizes so much of the new paradigm. Its enigmatic shards suggest a new contextualism: the glass, metal and sandstone of surrounding buildings is here splintered and reassembled in a dynamic way. Like Eisenman's Santiago landform the result is a form of neo-medieval urbanism, the city fabric as the new icon.

3 Norman Foster, Swiss Re Headquarters, London 1996-2002. Originally conceived in an egg form, this blob shape was stretched to resemble many other organic things in addition to the notorious gherkin – a pine cone, pineapple, cucumber and phallus – as well as a missile, bullet and bomb. Not only does this polysemy make it an enigmatic signifier, but the computer-perfected entasis makes it a good example of propositional beauty – the central planned skyscraper with elegant double curves shooting to the sky.

4 Frank Gehry, The New Guggenheim, Bilbao 1993-97. The popular and critical success of this building confirmed the enigmatic signifier as the convention for the contemporary monument. Although critics captured part of the suggested overtones of this building – Constructivist artichoke, fish, mermaid and boat – it is the capacity to mean many more things that makes the enigmatic signifier a multivalent symbol. Metaphors drawn by Madelon Vriesendorp.

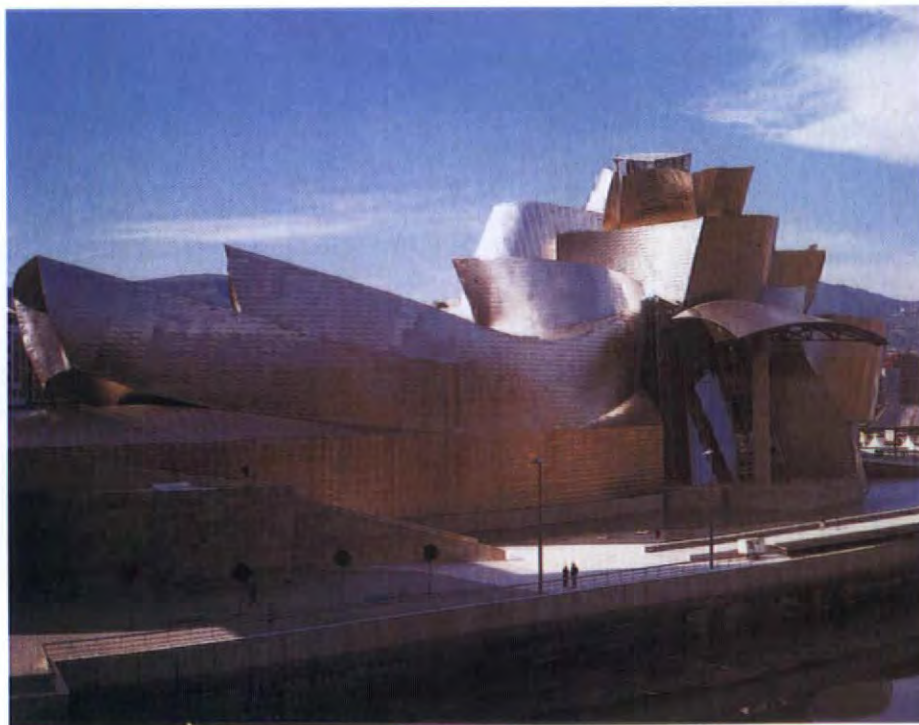
5 MVRDV, Dutch Pavilion, EXPO 2000, Hanover. A stack of synthetic ecologies and artificial grounds determined as a statistical representation of the future Dutch landscape. From the top down can be found 1) windmills, and water on the artificial lake that flows into 2) sheets of water in an exhibition space and then to 3) a forest grown with high-powered lights. Next level down 4) is an auditorium with projection space, to 5) an agricultural section of smaller plants again artificially lit, to reach 6) a ground floor and grotto of houses and shops. Views and movement are celebrated by the exterior staircase. The sustainability of the closed cycle makes sense, the juxtaposition of gardens and moods is a delight, the remorseless logic humorous, but the question is raised: 'will all of life be managed and phased?' No wonder a vocal group in Holland want more wilderness (MVRDV).

6 Foreign Office Architects (FOA): Moussavi & Zaero-Polo, Yokohama International Port Terminal, 1993-2002. The landform building as infrastructure and folded landscape of activities. Like the blob building the landform tends to merge floor, wall and roof in a seamless continuity. The architects do not intend the appropriate ship, water and wave metaphors, but like Mies van der Rohe seek a neutral, generic and technological architecture – yet they allow emergence of the unintended.

7 Daniel Libeskind, Imperial War Museum of the North, Trafford, Manchester, 1998-2002. A symbolic, spiritual and cosmic architecture is still relatively rare but a few architects are trying. Here the globe shattered through conflict is reassembled as three curved shards: the tall Air Shard, marks the entrance, and holds flying instruments of war in its open structure; the Earth Shard is a huge exhibition area with even the floor curving gently, the Water Shard curves down towards the adjacent canal and minesweeper moored there. This huge expressive structure is both a giant advertisement, in the sense of Venturi's Duck Building, and an enigmatic signifier of conflict and its resolutions.



... 'as infrastructure and folded landscape of activities ... a feeling of continuous continuity'.



Frank Gehry: the Guggenheim, Bilbao (AR December 1997). 'The popular and critical success of this building confirmed the enigmatic signifier as the convention for the contemporary monument.'



Czech in

A Prague hotel testifies to the architects' pleasure in spare use of materials, and their respect for craft traditions.

Andél's is a hotel in Prague, with an interior designed with opulent severity by Jestico + Whiles. The building is part of a larger mixed development built in the city's Smichov district. Once run-down, the area is being regenerated and the development, which includes a multiplex cinema (also by Jestico + Whiles), shops and offices, connects Radlicka Street to the west of the river Vltava, and to Jean Nouvel's new Zlatý Anděl complex and Anděl metro station.

Jestico + Whiles have been involved in designing hotels before – One Aldwych, The Strand, and The Hempel, Bayswater, are both in London. But in each case, the architects' commission stopped short of completing the interiors. One Aldwych was furnished by an interior designer, and the practice

was responsible only for The Hempel's shell. In Prague, the practice designed the hotel's interior down to the furniture and fittings, devising a clear logical plan and sustaining an austere elegant design that acknowledges the Bohemian context and works visually and functionally. In different ways, both the previous hotels lost something in the final execution of their interiors.

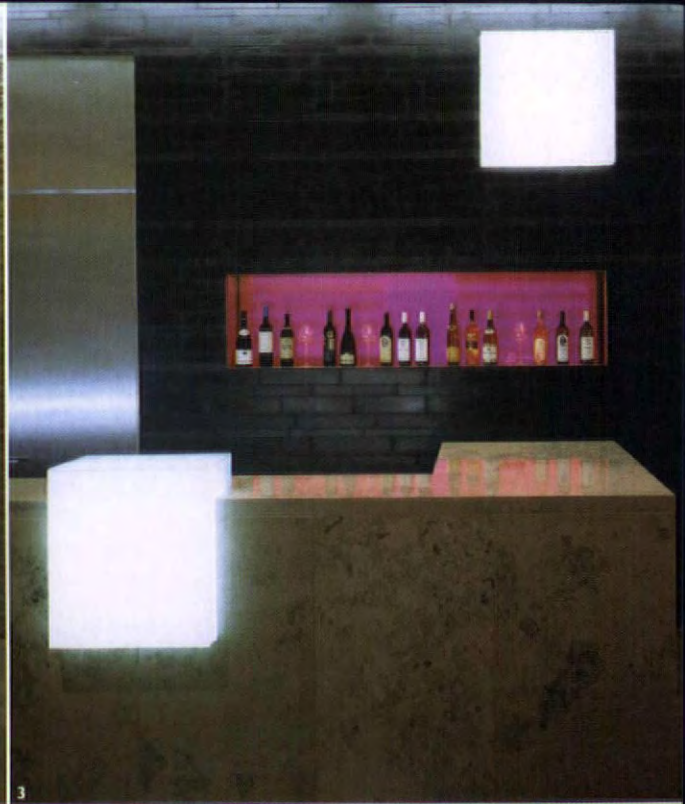
Andél's has 280 bedrooms, conference facilities and a restaurant for 200 people on the first floor, and a ground floor bar. From the street you pass through an etched glass door into a large hall. This is a simply conceived space depending for drama on immense expanses of pale stone and flashes of brilliant colour. The floor is paved with slabs of

limestone; and walls, lined with textured stone, have niches carved out of the surface, coloured scarlet and pink. A translucent curtain defines seating areas. When drawn and seen from the outside, the curtain becomes a screen animated by shadows of those within.

Throughout the design there is a constant interplay between materials, colours and textures; between the density of materials such as stone and slate and the insubstantial. The reception desk, which is a heavy monolithic block of stone set with writing blocks of stacked glass, seems to hover on a cushion of light; while the architects' reinterpretation of the grand staircase appears weightless, with wide stone treads enclosed by slender balustrading and diaphanous etched glass walls.

**HOTEL, PRAGUE,
CZECH REPUBLIC**
ARCHITECT
JESTICO + WHILES

1, 2
Ground floor lobby and reception:
monolithic reception desk with
writing tablets of stacked glass.
3
Ground floor bar. Slate wall and
stone bar inset with glowing cubes.
4
Ground floor bar. Suspended
spiralling copper lamp referring to
Bohemian metalwork traditions.



2 3



References to Bohemian metalworking and glass traditions appear here and there. The great spiralling lamp, lighting the ground floor café, is made of copper as are the intricate mesh cupboards of the cloakroom upstairs. Lifts are surrounded by glowing glass; and luminous white glass boxes are inset into the bar's polished stone counter in the ground floor café. Behind the counter a wall of dark coursed slate is incised with a slot lined with blood red glass. Upstairs, etched glass light wells diffuse luminance into the restaurant and glazed screens enclose private rooms. Use of glass reaches an apogee in design of a Crystal Room pushed out over the street at first floor level and reached by a glass bridge. Here, under a back-lit mirrored ceiling, the impression is of being inside a faceted gem.

Furniture and fittings are sparsely designed and elegant. In light airy bedrooms, furniture of polished lacquer and glass is (to some extent) flexible. A desk, composed of a sheet of glass, can be rotated on a cabinet to become a dressing table under a wall-mounted mirror. A chaise longue is

accompanied by a cube that can be a footrest, a table or seating extension. Bathrooms are lined with stone, with lavatories and showers in separate enclosures contained by frameless glass doors and lined by a wall of flame coloured glass.

Conference facilities have adjustable lighting, proper acoustics, projection screens and technical equipment, and comfortable seating. The main space can be subdivided by sliding creamy leather panels.

Architect

Jestico + Whiles, London

Project architect

David Perera, Sean Clifton, Tony Ingram, Johanna Stockhammer, Jackie Coburn, Gayle Hanley, David Whitehead, Paul Miller

Architects for the shell

Satra Picek Architects

Photographs

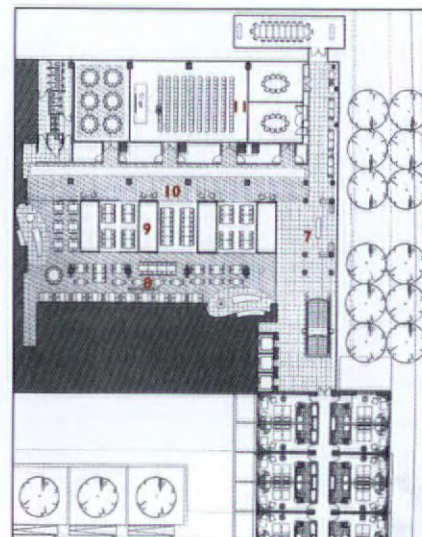
Aleš Jungmann

5 Architects' reinterpretation of grand staircase between slender balustrading and glass walls. Left, light framed lifts.

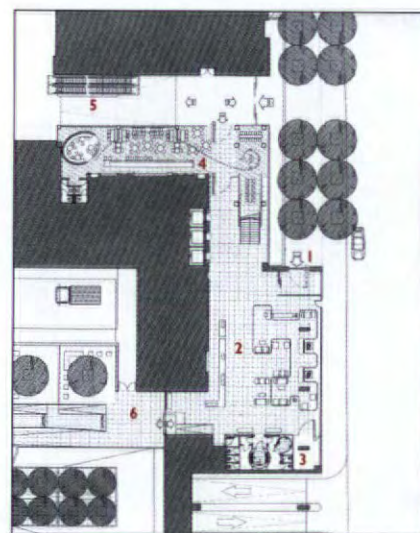
6 Bedroom furniture by the practice.

7 First floor dining room illuminated by glass lightwell.

8 Private dining room on first floor enclosed by sliding glass screens.



first floor plan



ground floor plan (scale approx 1:875)



5

- 1 main entrance
- 2 reception/lobby
- 3 shop
- 4 café/bar
- 5 escalator to metro
- 6 garden
- 7 first floor reception
- 8 restaurant
- 9 private dining
- 10 pre-conference
- 11 conference/banquet

HOTEL, PRAGUE, CZECH REPUBLIC

ARCHITECT

JESTICO + WHILES



6



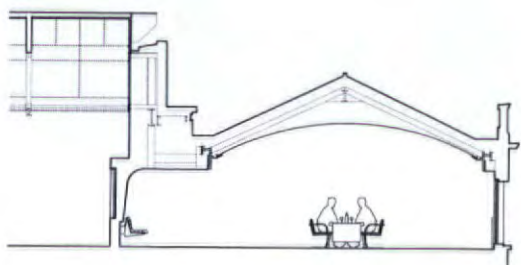
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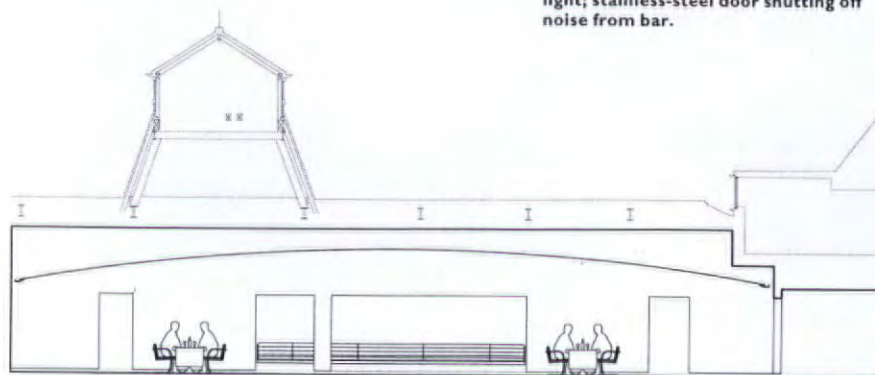


Fifth amendment

The restaurant on the famous fifth floor of a London department store has been remodelled and shaped for the twenty-first century.



south-north cross section



east-west long section

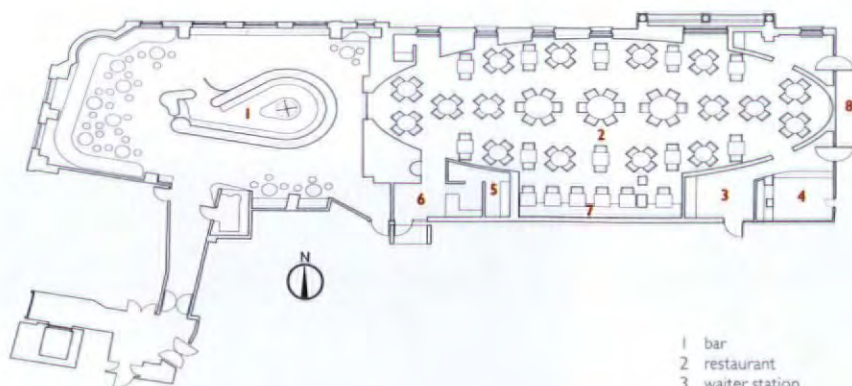
It is ten years since Julian Wickham transformed the Fifth Floor of the Harvey Nichols department store in Knightsbridge (AR July 1993). His design of a café and indoor marketplace under a rippling polycarbonate roof elaborated, with his own brand of exuberance, on French traditions of shopping and was astonishing. The top floor became the favourite destination for a sophisticated clientele and, for Harvey Nichols, set a precedent. Its success led to other excursions into the higher

reaches of design, including Lifschutz Davidson's spectacular glass restaurant on the top of Oxo Tower wharf in London (AR February 1997) and the Forth Floor at the top of the new Harvey Nichols in Edinburgh. In stark contrast to poor old Harrods, now submerged in a sea of vulgarity, Harvey Nichols has acquired a reputation for being the most discerning of architectural clients. Lifschutz Davidson's latest scheme for the store is the redesign of Wickham's restaurant to one side of the

Fifth Floor marketplace. This was originally intended as a quiet retreat from the visual clamour outside, but possibly for that reason became somewhat overlooked. The client requested that it be given a more prominent, more glamorous identity.

By exercising its considerable powers of invention, and by manipulating light and geometry, the practice has completely altered the space. The original dining room was rectangular with a bar set on its axis alongside the market wine store;

at the opposite end of the room you had glimpses, through portholes, of kitchen theatrics. Going back to the idea of the private dining room, Lifschutz Davidson drew an ellipse within the rectangle and, shutting the kitchens away from view, banished ancillary areas – reception, cloakroom, waiter station and dispense bar – to the resulting interstices. Entrance from the bar, which used to be the only way of getting into the restaurant, has been narrowed and a stainless-steel door introduced (in the past, the bar



plan (scale approx 1:480)

- 1 bar
- 2 restaurant
- 3 waiter station
- 4 dispense bar
- 5 cloakroom
- 6 reception
- 7 banquet seating
- 8 kitchen

RESTAURANT, KNIGHTSBRIDGE, LONDON

ARCHITECT

LIFSCHUTZ DAVIDSON ARCHITECTS





has been disruptively noisy). A new entrance now leads in directly from the marketplace. This too is narrow so that emergence into the dining room is all the more dramatic.

Enclosed by an artificial sky and walls lined by illuminated glass tubes, the room is defined by luminance. Design of the ceiling (recalling Wagner's post office in Vienna and Wright's Johnson Wax building) is another version of the kinetic ceiling, first tried out in the Oxo Tower's restaurant. There, overhead fins control acoustics

and lighting; white by day and blue by night, they open and close to suggest the change from diurnal to nocturnal luminance.

In Knightsbridge, lighting behind the glass is connected to sensors on the roof of the building. Without you realizing it, tiny adjustments in light levels (a computer damps down extremes) are continually taking place as they do even on an overcast day. At night the ceiling is dark.

Energy-saving fibre-optics have been used to illuminate the glass tubes lining the walls.

Behind them acoustic walls absorb the sound bouncing off and between the curved surfaces; unlike most new restaurants in London, this one should be relatively quiet. Visually, spaces between the tubes add texture and at times the walls seem covered with glowing fabric. A colour wheel introduced into the lighting system allows the room to be suffused by sunset colours – it's a safe bet that this will not be popular with diners, though the sophistication of the system is such that white linen and white

Brno chairs stay white and the colours of wine are unaffected.

Lifschutz Davidson plainly enjoy concocting these interiors, for everything about them proclaims it. The lustrous ambiance here, recalling those early studio portraits of Hollywood stars, is of a different kind to the hard-edged glamour of Oxo Tower and prompts nostalgia for an old-fashioned cream soda. P. M.

Architect
Lifschutz Davidson Architects, London
Photographs
Chris Gascoigne/VIEW



The F-2 house near Mexico City, by Adriá + Broid + Rojkind, is L-shaped and fitted into the right angle of a wedge-shaped site. It is shielded from neighbouring eyes by garden walls of rough basalt and concrete and looks over a lightly wooded valley.

If there is one dominant element in the composition of this house, it is the wall. The very solidity of walls here points up the fluidity of space, which does seem more like water flowing through and around dense obstructions. Thick planes of basalt or concrete are sliced open to reveal a fragile glass kernel – cut out to frame a view,

or suspended, like a heavy curtain, short of the floor to control light and reflection off a rich expanse of polished wood.

The architectural language and forms of this scholarly house are essentially Modernist. Acknowledgements of the early exponents exist in the cantilevered travertine terrace at the entrance, the oversailing roof and slender free-standing columns, floating horizontals and the geometry of the most southerly facade, with its projecting and receding elements. But the predominance and thickness of the sheltering walls recalls the adobe. Such references, however, are delicately contrived:

dark basalt walls around the entrance are separated from the floating roof by a narrow clerestory, internally by a gap; and as you move away from the boundaries into the heart of the site, basalt gives way to light-reflective fair-faced concrete. Mexican sun is fierce, and the robust compositions of textures and forms, like those of the desert, create strong plays of light and shadow. Glass-enclosed interiors pulled back from concrete walls and roof edges remind you, when seen side on, of cave slots in rock.

The house, which settles into the north-south slope, consists of a single-storey wing running

Solid and void

A masterly exercise in interpenetration of spaces allied with a sensuous understanding of solid materiality.



HOUSE, MEXICO CITY, MEXICO

ARCHITECT

ADRIÁ + BROID + ROJKIND

ar house



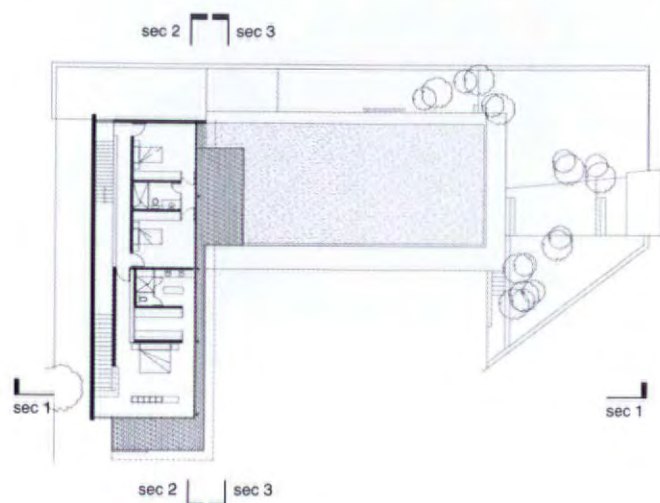
1 Entrance from east through basalt wall.

2 South front with its play of planes and carefully juxtaposed solid and void. Lowest floor is for games and library.

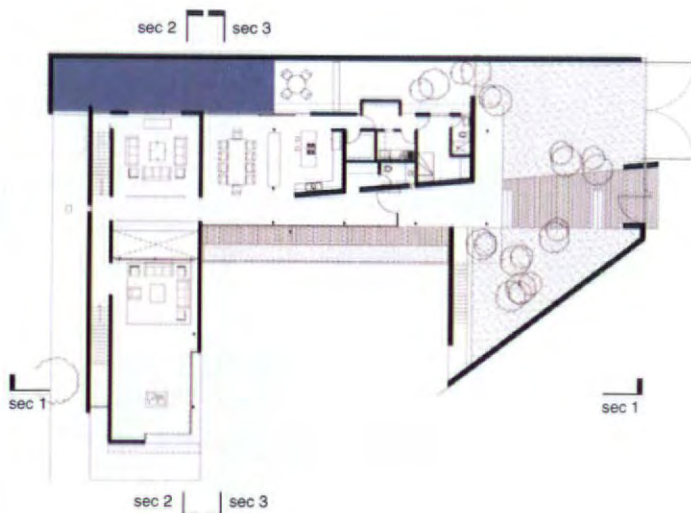
HOUSE, MEXICO CITY, MEXICO

ARCHITECT

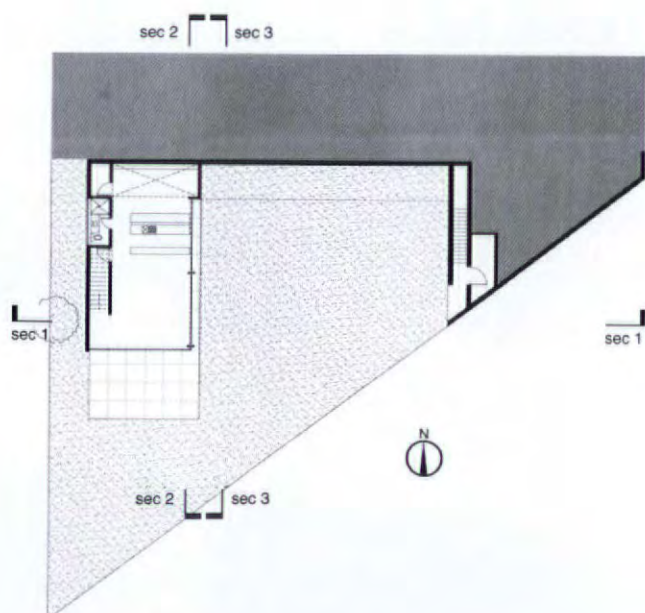
ADRIÁ + BROID + ROJKIND



upper level



entrance level



across the grain of the site, from garage and entrance on the east. Containing the kitchen and dining room, the wing penetrates the second three-storey wing at the middle level, and leads to the main living quarters. Above are bedrooms, and below, as the ground falls away, are a games room and library.

Floored with warm polished wood, spaces are generous and interconnect visually through slots cut in dividing walls. A library bookcase of African wenge is double-height, rising through the floor to become a living room bookcase screening the room from the study. Peripheries have been given great attention, and in places are made dramatic. To the south, the house looks onto the leafy garden and woods; to the north, the kitchen and dining room are enclosed by sliding glass doors onto a small private terrace and pool, where diffused light and reflection play over a rough basalt wall. To the west is a glass-roofed

chasm between concrete walls rising the height of the building and enclosing a long flight of stairs to each level. Here and there, holes cut into the east wall open up the interiors to the cool light of the chasm and provide the occasional oblique glimpse into rooms from the staircase.

Architect

Adriá + Broid + Rojkind

Project architects

Miquel Adriá, Isaac Broid, Michel Rojkind, Benjamin Campos, Andres Altesor, Agustin Pereyra, Miguel del Rio, Hernan Cuadra, Pauline Goycoolea

Photographs

Undine Prohl

3

Single-storey wing penetrates three-level main block ...

4

... with junction celebrated by deck.

5

Main sitting room.

6

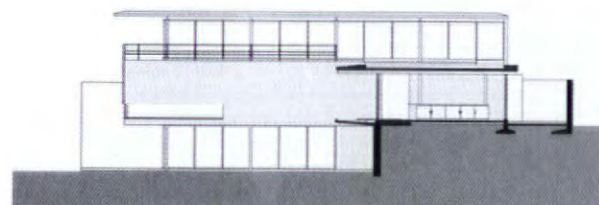
Kitchen and dining room.

7

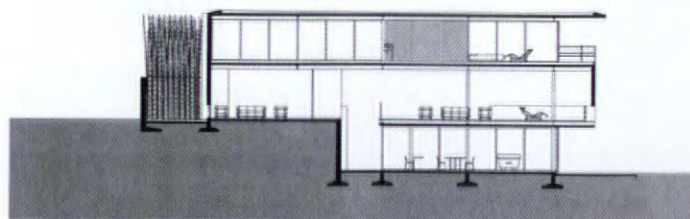
The great slot.

8

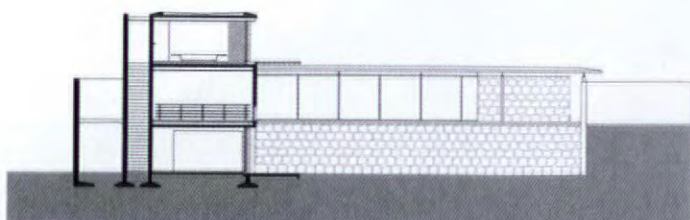
Unexpected openings focus light and views of chasm.



section 3



section 2



section 1





501

Susan Dawson reviews the latest lighting products on the market.

501 SE'LUX LIGHTING

Trimless is a recessed lighting module which allows the luminaire to lie completely flush with the wall or ceiling, creating a clean edge detail. The range can be recessed into roof spaces or fitted into walls. They can be equipped with low brightness or satin shieldings.

Enquiry 501 www.arplus.com/enq.html

502 MODULAR LIGHTING INSTRUMENTS

Modular has introduced a winter collection of new luminaires.

Thub is a recessed or ceiling-mounted fixture housed in a curved organic shell of opal polycarbonate that sheds a diffused light, giving the impression the ceiling emits light and not the fixture. Downnut is a circular downlighter with a lacquered aluminium body.

Crosslink is a series of rectangular luminaires which can be fitted into a cross-shaped frame in a variety of combinations. The luminaires house compact fluorescent lamps screened with coloured or opal polycarbonate filters. Another luminaire, Square Moon Backlit, is a wall-mounted or suspended variation on this theme. Finally, a suspended luminaire with a novel cylindrical shape, Half Pipe, has just been launched.

Enquiry 502 www.arplus.com/enq.html



502



503

503 RESOLUTE

Designed by Douglas Valey, the Cloud 3 Pendant is part of Resolute's Clouds collection, luminaires based on flexible satin-finished aluminium hardware. The Clouds range is made of hand blown glass and comes in four shades and three colours; Opal white, Aqua over white and Tea over white. All lips and heels are mirror polished. Wall, ceiling and table fixtures complete the range.

Enquiry 503 www.arplus.com/enq.html

504 WOODHOUSE

A slender 8m high luminaire, Light Stack, has been developed for Regents Place, London. The top section is an acrylic tube which has an internal refraction system with sealed mirrored ends. Coloured filters, fitted within the light projector, create an orange glow of light at night with a consistent colour spread. The bottom section of the luminaire is made of stainless steel.

Enquiry 504 www.arplus.com/enq.html



504



505

505 MARTIN

The School of Lighting Design, housed in a refurbished building in a historic area of Lyons, France is the first educational institution for lighting design and lighting technique. The new school is the site of one of the first installations in France of Alien O2, a modular and programmable architectural light with full range colour mixing. The glass facades of the rear and side wall are lit internally on three levels with 16 Alien O2 CMY colour changers, creating a play of light and shadow. Another installation – eight MiniMAC Maestro moving heads equipped with colour filters – can be seen through the windows of the Classical main facade. The entire lighting project is controlled by two Martin 2510 playback control units.

Enquiry 505 www.arplus.com/enq.html

506 ANSORG

A new footbridge, designed by Schlaich, Bergermann & Partner, directs travellers from the railway station to the town centre of Bad Homburg, Germany. A flight of stairs gives access to the footbridge, which is suspended by cables from a towering tree-like mast with four supporting arms. At night the staircase is lit by LED luminaires set in the staircase risers and in the balustrade handrails. The arms and the base of the mast are dramatically lit from below with narrow-beam recessed spotlights.

Enquiry 506 www.arplus.com/enq.html



506

507



507 SPECTRAL

Three Spectral products – Frameless, Zet and Balance – have been awarded the iF Design Award 2003. Frameless is a family of ceiling luminaires with virtually imperceptible aluminium edge profiles – the visible edge is reduced to one millimetre. Zet is a table luminaire and Balance is a lighting system of ceiling or floor mounted luminaires for flexible office workspaces.

Enquiry 507 www.arplus.com/enq.html

508



508 LUTRON

Grafik Integrale is a lighting control system designed for small offices, conference rooms, lecture theatres and home cinemas. It is designed to operate various lighting loads – such as low voltage transformer, neon, cold cathode and fluorescent – without the need for interfaces, ensuring simplicity for specifier, installer and user. Preset 'scenes' and individual lighting sources in a room can be controlled at the touch of a button or by means of an infrared remote control.

Enquiry 508 www.arplus.com/enq.html

509



509 TRE CI LUCE

Wave is a wall or ceiling-mounted luminaire for indirect or diffused lighting. The extruded and injection-moulded aluminium body has an anodised finish and chromed details. A fully adjustable lamp diffuser allows the light pattern to be modified to suit individual requirements.

Enquiry 509 www.arplus.com/enq.html



cloud 1 pendant



cloud 2 pendant



cloud 2 ceiling

510 TRILUX LENZE

Astron is a new series of elegant wing-like luminaires suitable for a wide range of applications. They can be wall-mounted for general lighting of foyers and corridors; they can also be suspended for task lighting in workplaces. Each luminaire has a light-guiding wing-like profile, fabricated in clear polycarbonate or extruded aluminium. The luminaires can be used individually or in pairs.

Enquiry 510 www.arplus.com/enq.html

511 SITECO

The new SQ aluminium street light combines a robust cast aluminium enclosure with innovative lighting technology. The radially faceted optic ensures a high degree of even illumination even when poles are set relatively wide apart. It can be mounted on poles or projections. SQ 200 is designed for mounting heights of 6 to 10m and is suitable for roads, crossings, expressways and large parking parks as well as industrial parks.

Enquiry 511 www.arplus.com/enq.html

512 FOSCARINI

Blob, by Karim Rashid, is a 'shining island' floor lamp of white or coloured satin polypropylene. In its smaller version (460mm long and 130mm high) the floor lamp can double as a table, wall or ceiling lamp. In the larger version (1330mm long and 400mm high) it can be used as a seat or table surface. A medium-sized version (980mm long and 330mm high) is also available.

Enquiry 512 www.arplus.com/enq.html



510



511



512

RESOLUTE



cloud 3 wall

the clouds lighting system
hand blown glass
hardware satin aluminium, stainless steel cables
designed by Douglas Varey

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Specifier's Information



900 www.arplus.com/enq.html

Rigidal

The Convention Centre and Concourse building, Dubai is covered with a Rigidal Ziplok 400 mill-finish aluminium roof with standing seams. The sheets of aluminium, up to 85m in length, are rolled directly onto the roof to create a continuous weathertight covering without end laps. The centre will open to host the World Bank Group this September, and will stage sporting events and concerts. The roof's acoustic performance was an important requirement and Rigidal has developed a system which exceeds the performance requirements as well as keeping costs within budget.



901 www.arplus.com/enq.html

Dulux Trade

Redecoration of 11 houses at South Petherton, Somerset, offered an unusual challenge to Dulux Trade. The timber-framed houses were on stilts and the exposed nature of the site had made them susceptible to rot and decay. Dulux Trade recommended hard-wearing products suitable for the materials and exposure conditions. Matching colours were chosen for the main cladding from the wide range of Cuprinol Trade Landscape Stain; the joinery was painted with Dulux Trade Weathershield Exterior Woodstain, and Dulux Trade Smooth Masonry Paint was applied to fibreboard panels.



902 www.arplus.com/enq.html

HansenGlass

The A2 building on Edinburgh's latest business development, Edinburgh Park, is fitted with 2000m² of HansenGlass architectural, insulating and safety glazing products. Thermocool™ Luxguard and K products were used in facade and lift shaft areas. The main entrance of the building is a frameless glass box; the doors, side panels, transoms and fin supports were fabricated of Thermospan™ and Tempo™ toughened glass.



903 www.arplus.com/enq.html

Vetrotech Saint-Gobain

A Cardiff restaurant has been fitted with Vetrotech Saint-Gobain's SGG Swissflam-N2, a multi-laminated fire resistant, fully insulated glass with 30 minutes of integrity and insulation. The restaurant, Signor Valentino, has a large glass frontage overlooking Cardiff Bay. SGG Swissflam-N2, a Class A safety glass certified to BS 6202, is of sheets of laminated safety glass separated by a clear interlayer. In the event of fire, the intumescent layer turns opaque and expands to form a fully insulating heat shield, greatly reducing the transmission of radiated and conducted heat.



904 www.arplus.com/enq.html

Mabeg

The design and development of waiting areas in airports is an exciting challenge for manufacturer Mabeg. Sessa Two is a range of seating with clean lines and distinctive detail, designed by Manuel Scholl. Its appeal is due to the combination of straight and curved elements. The range, it is claimed, is so convenient and ergonomically comfortable that users will want to linger.



905 www.arplus.com/enq.html

Kawneer

Kawneer has launched 45 IPT, a cost-effective thermally efficient dual colour framing system for windows at ground and first floors. The system was designed with the Consortium for Local Authority Special Projects (CLASP) specifically for refurbishment of education buildings, but is also suitable for commercial projects such as retail display windows. 45 IPT meets the thermal requirements of Part L (England and Wales) and Part J (Scotland) of Building Regulations. The slim-line framing modules come in various sizes and feature fixed lights, opening vents and insulated panels.



906 www.arplus.com/enq.html

Alcan

Discovery Place, Southwood, Farnborough, designed by Rolfe Judd, is one of three three-storey buildings clad on all elevations with a total of 4500m² of Alcan's J57S anodising quality aluminium. J57S has a warranty of reproducible and uniform colour when anodised to appropriate standards. The natural anodised aluminium finish was produced by Heywood Metal Finishers and the aluminium was fabricated by West Midland Aluminium Pressings. The subcontractor was Structural UK.



907 www.arplus.com/enq.html

Chilstone

A classical temple with Doric Columns forms the focal point at the end of a long vista at Battlestone Hill, part of the Royal Horticultural Gardens at Wisley, Surrey. The temple is one of a number of Classical designs produced by Chilstone Architectural Stonework.

MORE THAN SKIN DEEP

SURFACE ARCHITECTURE

By David Leatherbarrow and Mohsen Mostafavi.
London: MIT Press. 2002. £26.50

Leatherbarrow and Mostafavi's *Surface Architecture* takes as its premise the contemporary conflict between architectural production methods and representation or, taken to its extreme, modernity and tradition. They ask: 'How can design utilise the opportunities of current industrial production so that the practice of architectural representation is neither independent of nor subjugated to the domination of technology?'

To answer this question they trace a fascinating path through architectural history, concentrating on the progression from symbolic load-bearing massive edifices to the conceptual and physical separation of skin and structure in modern architecture. The tension between the latter has in recent years been focused on the building's surface, which has become a canvas for stylistic extremes, generating vacuous and anonymous city office blocks and redundant historical pastiche. In contrast to these extremes, however, Leatherbarrow and Mostafavi present a wealth of architectural examples which explore the potential inherent in the resolution of the apparent incompatibility of mass production technology and architectural expression, and which offer possibilities for a future architecture of material and surface richness, and of meaning.

The final Postscript situates the debate within a philosophical, mythological and ecological context, contemplating what can be achieved through the appropriation of technological potential into the realm of human praxis and its specific conditions. This kind of reciprocal arrangement is shown as essential in giving architecture its relevance to the continually evolving process of human existence.

Most refreshing is the attention given to previously marginalized architects and buildings, for example George Howe and William Lescaze's Philadelphia Savings Fund Society Building, and Alejandro de la Sota's Civil Government Building in Tarragona. It is also a credit to the authors' skill that the content is kept utterly accessible. Meticulously and beautifully conceived and presented, *Surface Architecture* rewards reading and re-reading, inspiring the pursuit of new possibilities in the creation of architecture.

BOBBY OPEN

WHERE THE WONDER?

LEONARDO'S LAPTOP: HUMAN NEEDS AND THE NEW COMPUTING TECHNOLOGIES

By Ben Shneiderman. London: MIT Press. 2002.
£16.50

When I was a student in the 1950s I fixed my drawing paper to my board with drawing pins – draughting tape had not been invented – and I drew with either a newly sharpened pencil or a ruling pen. As a research student in the 1960s I made a small contribution to the beginnings of computer applications in architecture by writing software – in Fortran IV – and submitting it on punched paper tape to a mainframe computer that occupied an entire building. Now in my academic work and my practice I make widespread use of computer technologies. In addition to the obvious benefits of CAD draughting, I make daily use of e-mail and the Internet to communicate with clients, colleagues, consultants, contractors, local authorities and students and I access Building Regulations, technical information, make bibliographical searches and download images. My desktop and laptop computers are many times more powerful than the 1960s mainframe that supported the research activity

of an entire university. This is all commonplace; we are emphatically in the 'computer age'.

Shneiderman is a distinguished computer scientist and I approached his book in the hope that it would offer rich insights into the future of computers. Sadly, I have to report that I am disappointed. The principal thesis is that there has to be a shift from the 'old computing', which was about what computers could do, to the 'new computing', which is about what users can do. This might be an issue in the enclaves of computer science, and I admit that there are occasions when I struggle to use some piece of software or other, but the ubiquity of computers in many walks of life suggests that the battle is substantially won. From an architect's point of view, the poverty of the argument is most obviously revealed in a chapter called 'Mega-creativity'. Here an account of a 'future' architectural design process reveals minimal understanding of the nature of architectural practice and the nature and extent of current computer applications in the field. Its naïveté is shocking and undermines confidence in the entire project.

Leonardo's Laptop is a wonderful title that conjures up all sorts of speculations about the contents of the book. Is there some deep metaphor? Will we find a profound symbiosis between the Renaissance and the digital worlds? Will we be offered new insights into Leonardo and his work? Again there is disappointment. All we are given is trite speculation. 'The Renaissance integration of disciplines that Leonardo da Vinci exemplified could guide us in repairing the split in our modern world. Leonardo integrated engineering with human values. He blended science and art ... Leonardo-like thinking could help users and technology developers to envision the next generation of information and communication technologies.' Enough said.

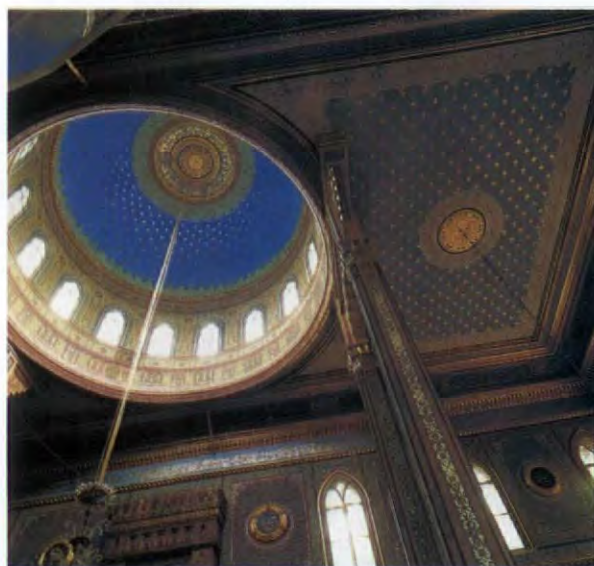
DEAN HAWKES

MODERNISMUS REDIVIVUS

BACK FROM UTOPIA: THE CHALLENGE OF THE MODERN MOVEMENT

Edited by Hubert-Jan Henket and Hilde Heynen.
Rotterdam: 010 Publishers. 2002. €37.50

The editors of this large, glossy, floppy book wrote to a number of leading people in the architectural world and asked them for their thoughts on various set questions: the more practical among them were asked whether the spirit of the Modern Movement was still relevant today, what its lessons were, and whether its monuments should be preserved; critics, historians, and others involved in what in Yiddish would be called the *Luftgeschäft* of the profession were asked much the same thing, but in a slightly fancier way. The result is more like an encyclopaedia than a coherent book, with short pieces, some graphic



Inside the Hamidiye Mosque, Yıldız by Sargis Karapeti Balyan from Istanbul 1900: *Art Nouveau Architecture and Interiors*, by Diana Barillari and Ezio Godoli, Rizzoli, New York, 2002, \$45. A whirlwind tour of the curious late flowering of Ottoman Art, when traditional Muslim and Turkish motifs and ways of handling space blended with new ideas and materials fresh from Western Europe to create a partly realized dream city on the Bosphorus, much of which still exists in quite good condition today. Istanbul is one of the great capitals of Art Nouveau, like Paris, Brussels and Vienna. Excellent photographs and evocative text, but very few drawings and no index.

but mostly written, on a very wide range of aspects of Modernism.

There are certainly some pearls here: any book with a contribution by Catherine Cooke is generally worth reading, and there are also memorable pieces by John Allan, Harry Seidler, and Julius Shulman among others. Nostalgia for Modernist architecture has become so widespread recently that the interesting thing now is the way in which the articles are written and the books are edited: there is an odd mixture here between the very general (for example, the AA in the 1950s), and the very specific (aspects of the Van Nelle factories), making the book more of a stage in a Modernist revival than a landmark event in its own right.

Shulman's biography here includes the statement that his night-time photograph of Case Study House #22 overlooking the glittering lights of Los Angeles is 'the most famous photograph of architecture in the world'. Is that really true? Answers on a postcard, please.

TIMOTHY BRITTAIN-CATLIN

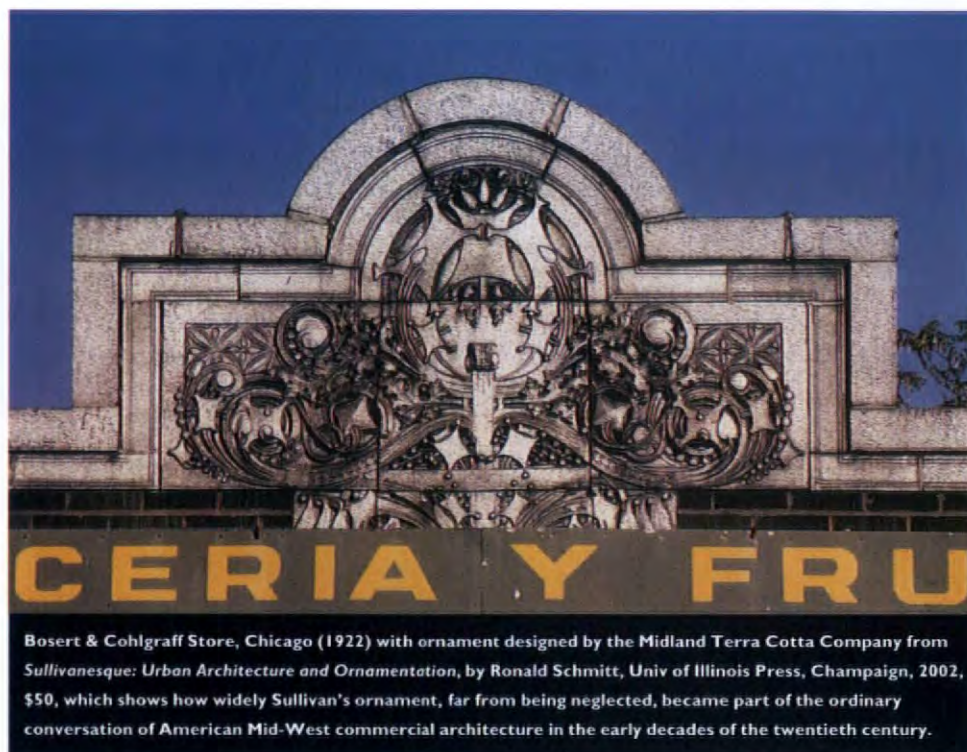
US ARISES

ALL AMERICAN: INNOVATION IN AMERICAN ARCHITECTURE

By Brian Carter and Annette LeCuyer. London: Thames & Hudson. 2002. £24.95

Flanked by two pertinent, if unduly short essays entitled 'The Critical Edge' and 'Altered States', this is a compendium of independent American architecture. Such practice is neither subsumed within real estate and the corporate profession nor exposed – yet – to the vagaries of international design stardom. Little to see therefore of Edge City shopping malls or PoMo office buildings; little to read of the important cultural influence of, say, Meier and Eisenman or of Holl, Williams & Tsien, Morphosis and Moss. *All American* is an illustrated journey across the United States between the inevitable poles of Manhattan and West Los Angeles, a visit to 20 practices and 84 projects, mostly realized.

In fact this architecture – and the authors' agenda – is very much about realization. The chosen designers (average age 44) might be characterized as Builder Architects, many of them – especially between the coasts – as Framptonian Critical Regionalists. Thus we have poetic but pragmatic projects in Arizona from both Wendell Burnette and Rick Joy (The School of Bruder?); beautiful-looking houses in Minnesota and Wisconsin by Vincent James; and prismatic timber structures in Wyoming, Florida and Washington State by Boston-based Charles Rose. Even less likely firms chosen for inclusion, such as FORM and the generally ubiquitous Greg Lynn, focus on construction, albeit through the interpolation of computer technology.



At whom is this book aimed? Uncaptioned photographs tend to cover three-quarters of each double-page spread, with the descriptive text, in a thin blue typeface, typically reduced to an eighth-page white square. Ipso facto, plans or other drawings are relegated to the remaining one-eighth approximate square, printed white-on-blue with so little information as to be merely iconographic. Positioning architecture in a 'conceptual territory of the real and virtual' are Liz Diller and Rick Scofidio (born 1935, and so destabilizing the group age profile). Here images of Daly Genik's factory refurbishment in Santa Monica (traffic lights, stalled cars, palm tree fragments) or Doug Garofalo's Markow Residence, Illinois (speculator suburbia visible to edge of frame) aid contextualization.

Ultimately, Carter and LeCuyer identify the term 'landscape urbanism' as a strategy to effect fabrication and the environment in America today.

RAYMUND RYAN

WHEN THE FUTURE?

PREFAB

By Allison Arieff and Bryan Burkhart. Utah: Gibbs Smith, Publisher. 2002. \$39.95

For decades we have been told that the future of housing lies with prefabrication. But the future never comes.

However, to a certain extent, almost all buildings are prefabricated in that they are made from components manufactured off-site. Many of the houses in this book are assembled

from such components, so the line between a prefabricated house and a traditional one is blurred. Wisely, the authors do not attempt to define what a 'Prefab' is, they are content with the common sense position that accepts as a prefab any building where large parts of the enclosure are assembled off-site.

This is an attractive book and starts with a history of the prefabricated house, told from a US West Coast viewpoint. It is an excellent history, the authors being keen that 'prefab' should shed its image of the temporary and the makeshift. The history is followed by case studies which prove this point.

The Case Studies are divided into three categories, Production, Custom and Concept according to the aspect of the design that the authors see as paramount. Benthem Crouwel, Shigeru Ban, Julyan Wickham, Aldo van Eyck and Pierre d'Avoine are represented, as well as an impressive number of houses by equally talented designers that you have never heard of. There are a few dogs, but on the whole it is gratifying to see that such stunning houses have been built. My own favourite is a New South Wales Farmhouse by Collins and Turner.

My regret is the lack of nitty-gritty. There are no details, so one is left in ignorance as to how the parts fit together.

JOHN WINTER

Book reviews from this and recent issues of *The Architectural Review* can now be seen on our website at www.arplus.com and the books can be ordered online, many at special discount.



DEEP INSIDE A PREHISTORICALLY ANCIENT CRATER IN THE ARIZONA DESERT, ARTIST JAMES TURRELL HAS CREATED A COMPLEX SERIES OF CHAMBERS AND TUNNELS TO WATCH THE SKY AND EXPERIENCE LIGHT.

For the last 30 years, American artist James Turrell has been at work in the Arizona desert, creating 'instruments for light' in the raw, scoured landscape. Millennia ago, a vent ripped open below what is now central Arizona, pushing up molten rock with irresistible force through a series of volcanic plugs. One of these plugs, the Roden Crater, forms the remarkable site and stage for Turrell's experiments with light and illusion. The crater is a particularly well-formed cinder cone, its rippling swell and bulk hinting slightly disturbingly at a living, organic presence beneath the desert earth. In a mammoth project that is ongoing (and not yet open to the public), Turrell has constructed a series of 'experiences of light', staged in different shaped chambers, pathways, tunnels and openings with views of the sky from within and around the surface of the crater. Part earthwork, part sculpture and part architecture, the work is on a truly Brobdingagian scale (the crater bowl is 400ft high, the equivalent of a 60-storey building). Some spaces allow observers to measure the passage of time through the movements of planets and stars, while others celebrate the more subjective, experiential relationship

between humanity and nature, through the pyrotechnic spectacle of a sunrise or sunset, or by being exposed to the different, mutable qualities of light as if it were a tangible substance.

Carved out of the geological flesh of the crater, the skycatching and skywatching spaces have a primeval intensity, as if they had been once inhabited, like the Valley of the Kings in Egypt or Chitzen Itza in Mexico, but are now an eerily vacant monument to a lost civilization. As Turrell puts it 'These things once had use. Now they are just open to the elements and you just have to feel what goes on there by the feelings that the spaces give to you'. Turrell's work fuses ancient tradition with contemporary influences – the crater is located on a working cattle ranch and the region is inflected by Native American, Western and modern cultures. Yet though monumental in conception and scale, the Roden Crater is not a monument in the conventional historic sense. Rather, it captures the drama of light, landscape, and celestial events to heighten the subjective understanding of our universe. And, like all the most moving and memorable works of art, it make us aware, with a mixture of trepidation and elation, of our place in the world. C. S.



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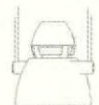
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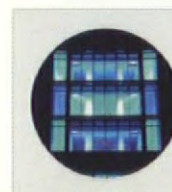
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