THE ARCHITECTURAL REVIEW

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TRANSPARENCY

Sauerbruch Hutton in Biberach Toki's Diet Ando in Texas Erickson's glass museum

9 770003 861052



"Heavier-than-air flying machines are impossible." 99

– Lord Kelvin, British scientist, 1899.

How embarrassing. Yet people are making similarly complacent and misguided prediction today in the debate over floor coverings. Some pundits claim that hard floorings have won the argument. Unfortunately this belief overlooks t radical innovations being made by the new wav of carpet designers. You can now find carpets inspired by such diverse materials as glass, me sand, pearl, stone and paper. They'll destroy your preconceptions.

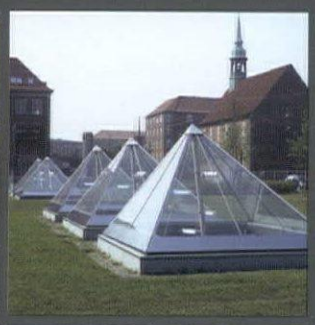
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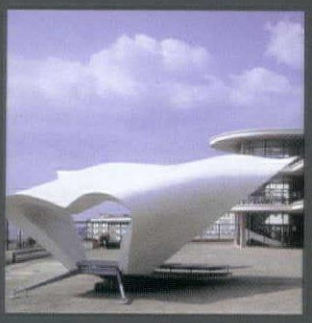
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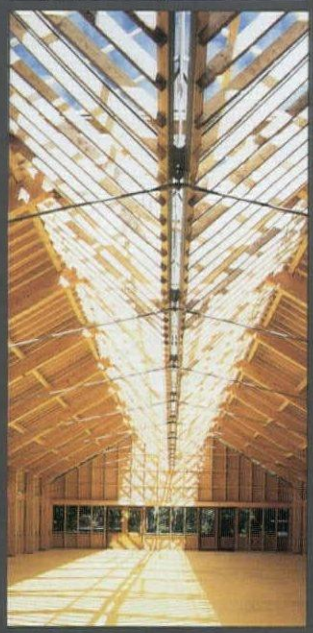
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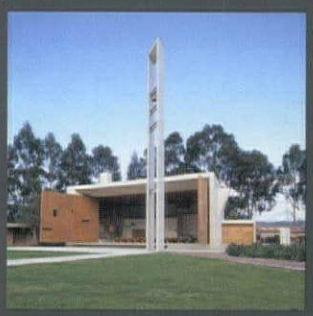




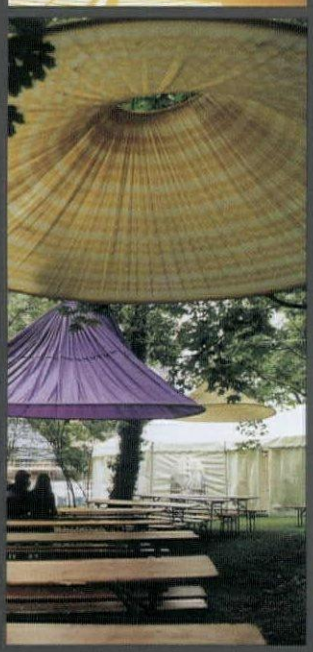




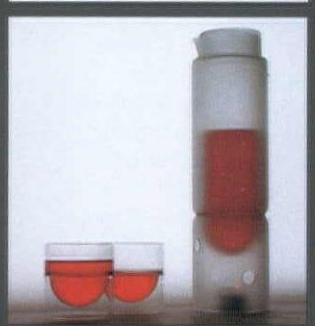








ar+d d line
Emerging Architecture



The world's leading emerging architecture award

JURY

The Jury will be:

SHIGERU BAN
Shigeru Ban Architects, Tokyo, Japan

AHMED BUCHEERY
Gulf House Engineering, Manama, Bahrain

FRANÇOISE-HÉLÈNE JOURDA
Jourda Architects, Paris, France

FARSHID MOUSSAVI
Foreign Office Architects, London, England

MICHAEL SORKIN
Michael Sorkin Studio, New York, USA

PETER DAVEY
Editor of The Architectural Review

ELIGIBILITY

1 Who Can Enter

Architects and other design professionals whose qualifications are recognized by their local accreditation organization, provided that they are 45 or younger during the year 2003.

Entries are encouraged from individuals, groups, partnerships, and those working for larger practices. Those working for larger practices must provide written evidence from their principal in the employing office guaranteeing that the work is that of the entrant(s).

2 Completed Work

ar+d emerging architecture celebrates excellence in completed work. Entries can be made for any building, interior, landscape, urban or product design.

3 Categories

Categories will not be decided beforehand, but decided on by the Jury. Entries to previous awards represented some of the following areas:

- Buildings – new build and refurbishment: offices, shops, schools, houses, housing, industrial, transport, restaurants, recreational, cultural, municipal and religious
- Interiors – new build and refurbishment: similar to building category, in particular restaurants, shops, houses, clubs and galleries
- Urban design
- Product design – light fittings, architectural design, furniture, cladding, and structural systems
- Street Furniture – lights, bus stops, bollards, post boxes, signs
- Landscape – soft and hard
- Bridges
- Temporary or portable structures – exhibition stands
- Theatre works

4 Age Restriction

The age limit of 45 has been chosen on the basis that many emerging architects are unable to realize designs or develop an original vision before that time, either because of the long education and training period, or because of lack of opportunity.

WINNING ENTRIES

5 Prizes

The total prize money is £10 000 sterling. The Jury may choose a number of winners and highly commended entries (there were three winners in 2000 with 12 highly commended entries; eight winners in 2001 with 18 highly commended entries; and five winners and 21 highly commended entries in 2002).

6 Publication

Winners and those highly commended by the Jury will be published in December 2003 issue of The Architectural Review and on the site www.arplusd.com.

7 Prize Giving Ceremony

The **ar+d** prize giving will be held in London in late autumn. The winner(s) will receive a trophy, and will be invited by The Architectural Review, **d line**™ *international as* and Buro Happold to the event.

8 Lecture Series

In spring 2004, winners will be invited to give talks on their work at the Royal Institute of British Architects in London as part of the RIBA's Spring Lecture Series (schedule to be confirmed). The programme of talks will be accompanied by an exhibition of winning entries at the RIBA.

9 Worldwide Exhibition

Winning and other highly commended entries will be exhibited at the prize giving, and subsequent exhibitions in major cities worldwide (schedule to be confirmed). Winning boards may be reproduced to protect originals.

10 Other Media

The **ar+d** team will provide information on all winning entries to other architectural magazines, newspapers and relevant media worldwide. Please help us by choosing your preferred local media on the entry form.

11 Providing Additional Materials for Publishing

Additional photography, drawings and other information from winning entrants will be urgently requested for the December publication during the week beginning 29 September. Entry will acknowledge that The Architectural Review and **d line**™ *international as* have the right to reproduce materials in whole or part without payment of copyright (where we are made aware of their names, photographers will be acknowledged).

ENTRY REQUIREMENTS

12 Entries

The maximum number of entries from any individual, group, partnership or larger practice is three – with each entry showing only ONE scheme. As there is a new Jury, work entered for the previous awards may be re-submitted on new boards. Incomplete work, unrealized schemes, projects, CD–ROMS, videos, transparencies, models, prototypes and multiple schemes entered on one board will NOT be accepted.

13 No Entry Fees

There are no entry fees to the **ar+d** award to encourage the widest possible selection of entries from around the world.

14 Boards

Each entry should be mounted on two A2 sized boards, and must include photography (in either colour or black and white), drawings, and if appropriate a brief written description in English. The identity and location of the submission is helpful to the Jury. Maximum board size is 420mm x 594mm or approximately 16.5in x 23.4in – preferably lightweight art board or equivalent.

15 Anonymity

To ensure anonymity in judging, no names of entrants or collaborating parties may appear on any part of the board. On receipt, each board and entry form will be allocated a number allowing identification – for extra security please include your international telephone number on the back of the board. Only after the Jury has made its decisions, will the identity of the winners be revealed.

16 Entry Forms

Each submission must have a separate entry form. All entrants must be named in the submission. Please copy the entry form where necessary. Complete the form clearly and enclose in a sealed envelope attached to one board.

17 Entry Deadline

Deadline for receipt of entries is Tuesday 16 September. To ensure timely receipt, we recommend using a carrier that guarantees delivery. All entries received will be acknowledged on our website at www.arplusd.com/received.htm as soon as possible after the deadline.

DELIVERY AND COURIER

18 Send to:

Entries should be properly packaged and clearly marked '**ar+d**' on the outside. They should be sent to:
The Architectural Review, 151 Rosebery Avenue, London EC1R 4GB, United Kingdom.

19 Documentation

Please ensure that entries are delivered by the closing date. Entries posted on the closing date will be accepted but must be received before 19 September.
IMPORTANT:
Your entry must be marked as **NCV** (no commercial value) on any courier documentation. The **ar+d** emerging architecture award will NOT accept any courier charges or taxes resulting from delivery. Personal deliveries to the AR editorial offices are accepted during normal working hours.

20 Return of Entries

Entries will not be returned. The **ar+d** emerging architecture award assumes no liability for loss or damage of entries.

www.arplus.com

ENTRY FORM

Deadline: 16 September 2003

Please complete this entry form as clearly as possible. Photocopies of this form may be used. Complete in capital letters.

FIRM/PRACTICE

ADDRESS

CITY/TOWN

POST/ZIP CODE

COUNTRY

TELEPHONE NUMBER

FAX NUMBER

EMAIL ADDRESS

CONTACT NAME FOR ENTRY

NAMES OF THE DESIGN TEAM

1

2

3

4

5

PROJECT NAME

CITY

The **ar+d** team will be sending information about all the winning entries to media worldwide. Please let us have your preferred choices of your local relevant media:

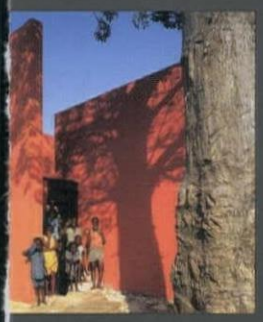
1 ARCHITECTURAL MAGAZINE .....

2 NEWSPAPER .....

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EMERGING ARCHITECTURE AWARD



Inaugurated in 1999, the ar+d award was conceived by The Architectural Review and **d line**™ *international as*, the distinguished Danish architectural design firm; it is supported by Buro Happold.



Intended to bring wider international recognition to a talented new generation of architects and designers under 45, it has attracted entries from over 80 countries, representing every continent.



Work submitted ranged from small domestic conversions to large public buildings, light fittings to landscapes.

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THE ARCHITECTURAL REVIEW

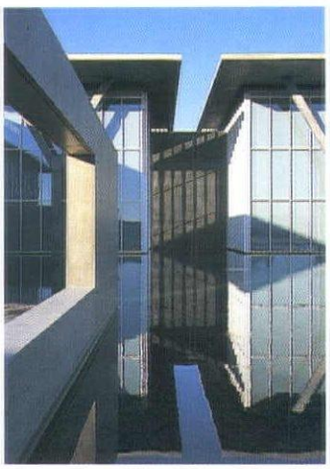
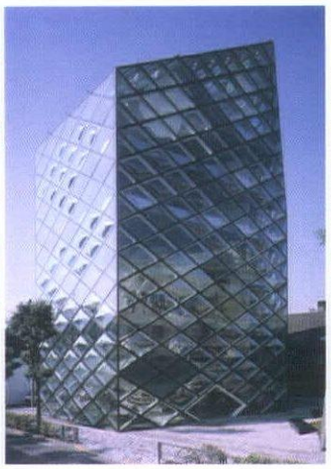
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12 a.m.

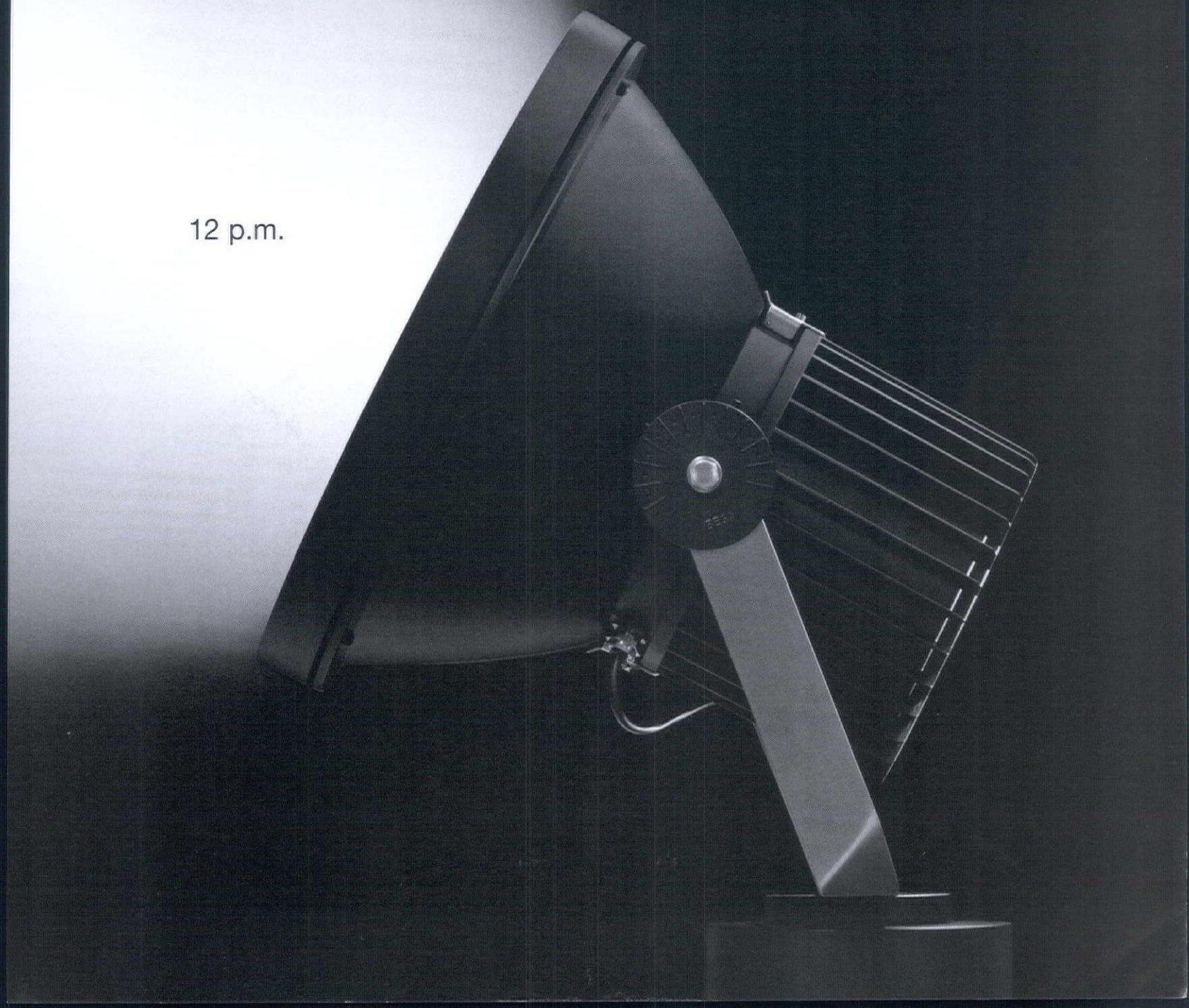


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ar+d award 2003
the world's leading emerging architecture award

Inaugurated in 1999, the **ar+d award** for Emerging Architecture, conceived by The Architectural Review and **d line**™ *international as*, manufacturer of architectural design products, has become the biggest and best award for young architects in the world. Intended to bring wider international recognition to a talented new generation of architects and designers under 45, in previous years the award has attracted entries from over 60 countries world wide.

Deadline for receipt of entries is 16 September.

For further information:
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Internet: www.arplusd.com

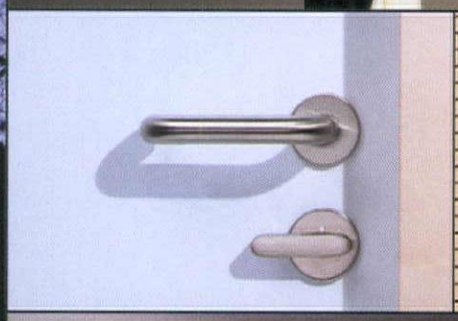


Architects: Kunat & Haack

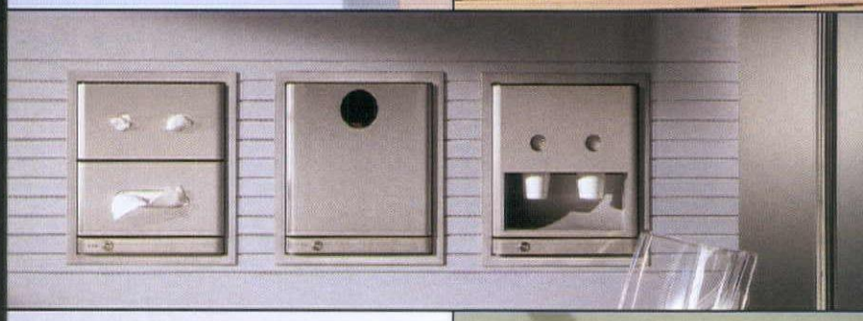
Photographer: Brøndum/Poul Buchard

Project: Bosch, Berlin

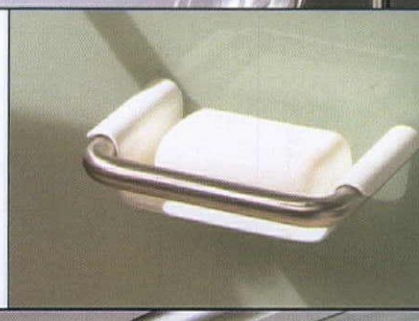


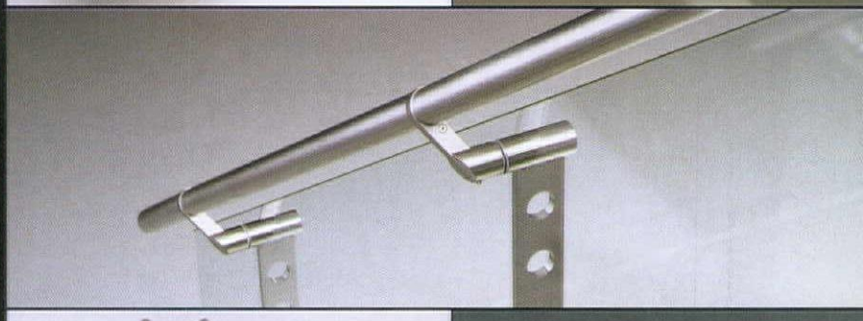


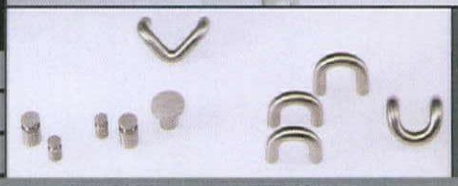










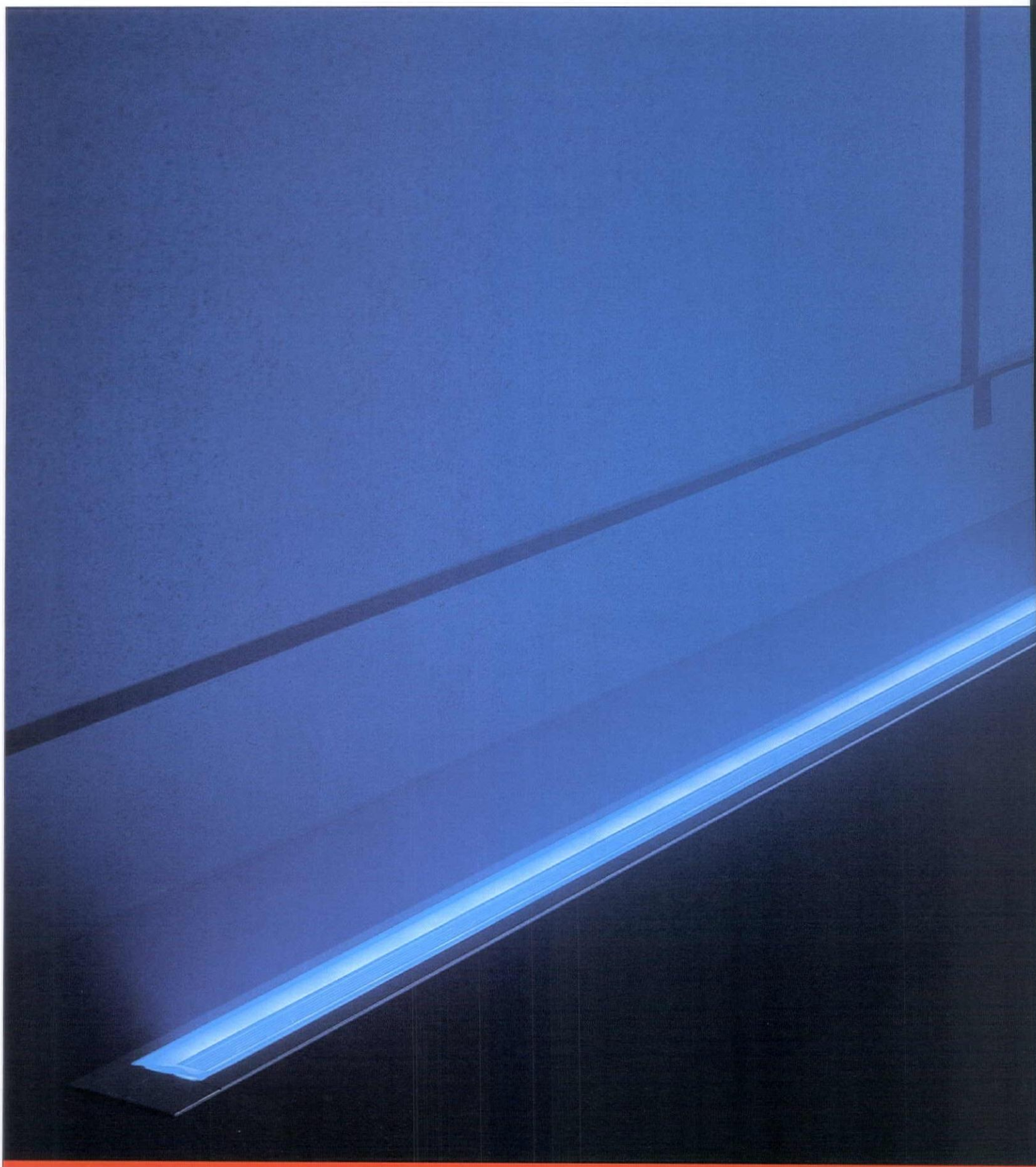


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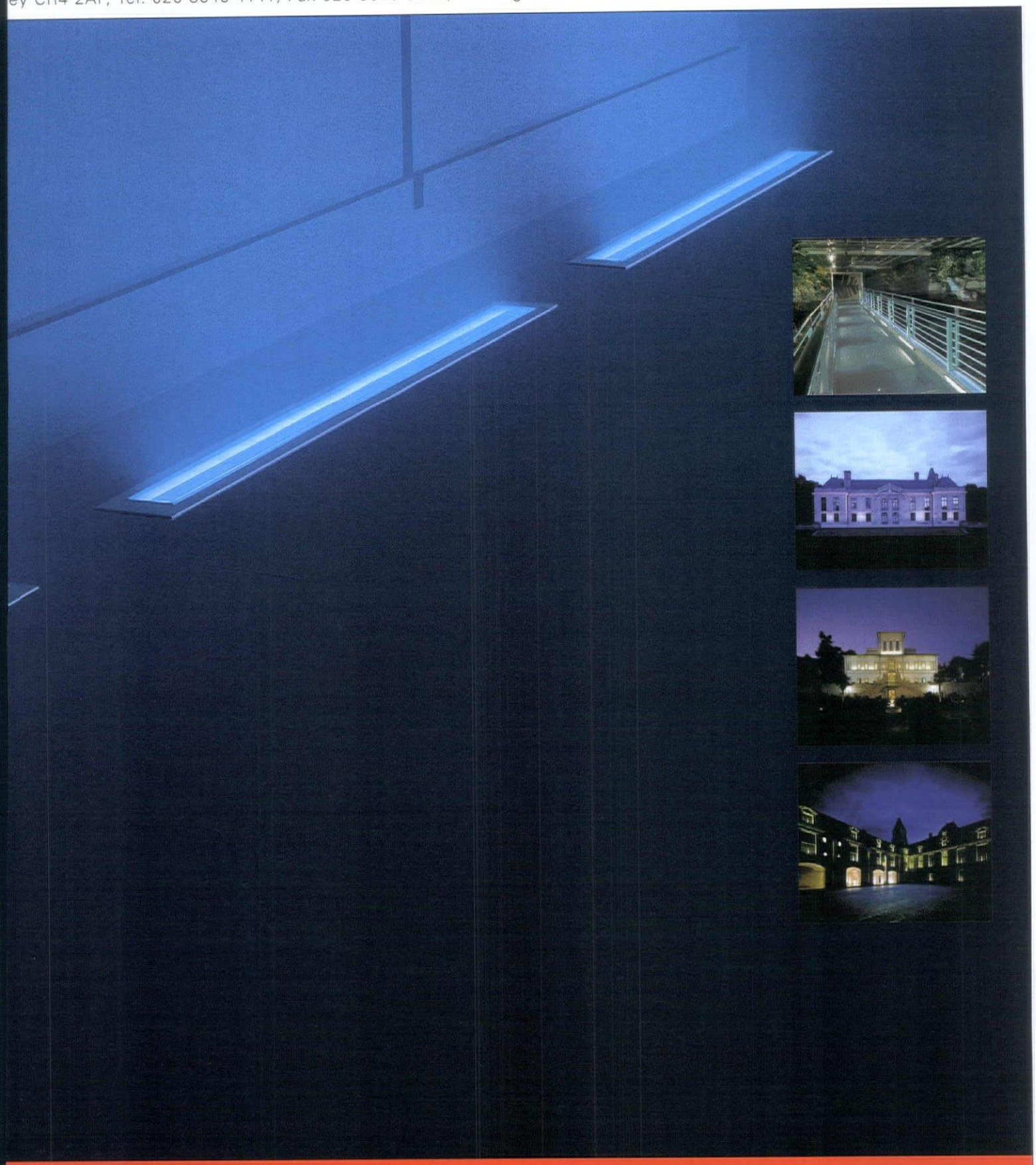


Linealuce, design by Jean Michel Wilmotte. A new approach to external (or internal) lighting which focuses on enhancing the architectural features of both historical and modern buildings and spaces.

The recessed version (shown here) offers alternative light sources: T16 fluorescent modules can create amazing chiaroscuro effects as they bathe walls in light while Xenon lamp modules can be used to advantage to illuminate – for example - beautiful old buildings that call for soft, warm, even lighting.

A range of accessories is available to produce filtered and coloured light. www.iguzzini.co.uk

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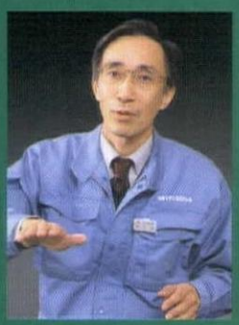
Better Light for a Better Life. iGuzzini

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MITSUBISHI ELECTRIC

Changes for the Better

Spiral Escalator

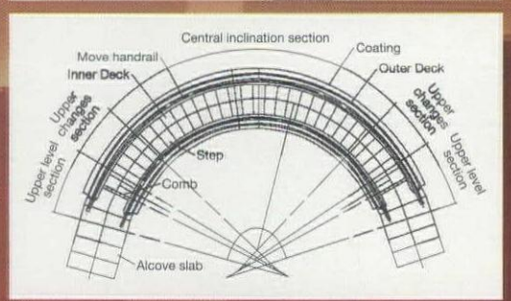


"Instead of thinking of an escalator as simply something that links two floors in a building, we wanted to create a transport system that would add a panoramic view of the building to the journey between floors." That was the light-hearted thinking that led to the birth of the spiral escalator. While it seems as simple as drawing an arc on paper, in reality the development process was very difficult. It took four years of trial and error to overcome problems such as the path and step analysis, the radial structure that curves in 3D, and the force exerted by the curved shape. A physical monument to our spirit of endeavor, the spiral escalator is now installed in some of the most immpressive buildings in the world. As a "unique escalator built to enhance its location while providing passenger enjoyment," the spiral escalator continues to take riders on a scenic route.

Yasumasa Haruta - Manager, Escalator Engineering Sec., Engineering Dept., Inazawa Works

Touch of Drama





The unique Moving Center Shape made the seemingly impossible spiral form possible

There is only one central point to a circle. Creating a spiral escalator around it, however, creates distortion: the stairs twist at the top and bottom, the steps lean to the right and left, and occasional gaps occur because the escalator's inclination angle varies between the horizontal and inclined sections. To solve such problems we came up with the idea of a curving staircase that comprises several radial arcs around different central points. The center of the spiral is actually several different points in three dimensions, or what we call the Moving Center Shape. This technology was only made possible with the analytic power of high-speed computers and high-precision manufacturing of NC (Numerical Control) machinery.



Quality in Motion

ELEVATORS AND ESCALATORS

The scenic escalator.

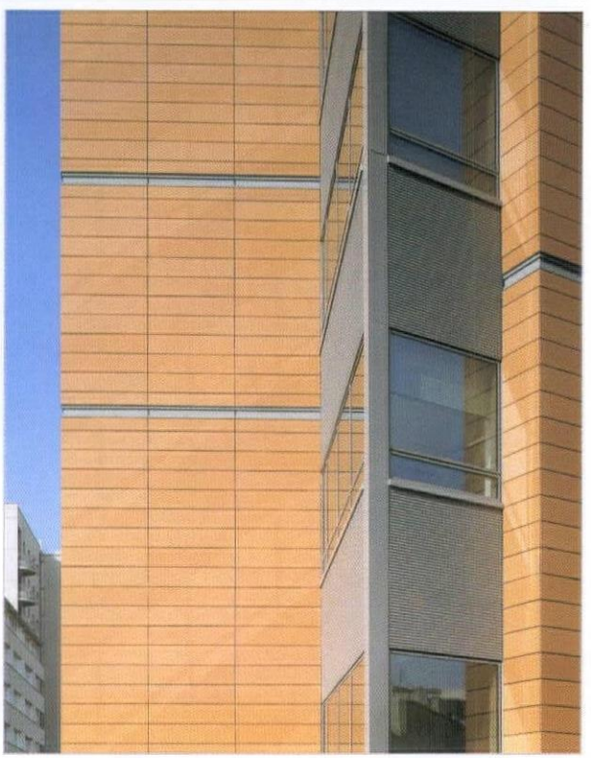
www.mitsubishi-elevator.com

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38° marmomacc

International Exhibition of Marble, Stone and Technology

Veronafiere 2nd-5th October 2003



marble art culture

Cultural Events

Event **1**

INTERNATIONAL STONE ARCHITECTURE AWARD 2003

8th edition

The International Stone Architecture Award is the most prestigious prize for works that - in terms of architectural status and technical-expressive quality in the use of stone materials - have become major examples on the international panorama.

Jury:

François Burkhardt, Berlin
Fulvio Irace, Milan
Juan José Lahuerta, Barcelona
Werner Oechslin, Zurich
Vincenzo Pavan, Verona

Exhibition
of award-winning projects 2nd-5th October 2003

Presentation
of award-winning projects
Saturday 4th October 2003

Award-winning projects:

Jürg Conzett - Gianfranco Bronzini - Patrick Gartmann
Suransuns Promenade, River Viamala, Chur, Switzerland, 2000

Frank O. Gehry
Pariser Platz 3 / DG Bank, Berlin, Germany, 2001

AMP Arquitectos
Presidential Palace, Santa Cruz de Tenerife, Spain, 2001

Hans Kollhoff & Helga Timmermann
Residential and office complex in Walter Benjamin Platz, Berlin, Germany, 2001

Hans Hollein
Vulcania - European Volcano Park, St. Ours-Les-Roches, Chermont-Ferrand, France, 2002

Vincenzo Latina
New courtyard area, Bottari block, Siracusa, Italy, 2002

Ad Memoriam Award
Mario Ridolfi (1904-1984)
Casa Lina, Marmore, Terni, Italy, 1964-1967

These Awards will be flanked during the 38th Marmomacc by a series of events: award ceremony with the participation of the authors, who will present their works; exhibition of award-winning projects; publication of a bilingual catalogue.

Event **2**

PIXEL & MARBLE

The material nature of virtual languages. An international convention investigating the relationships between stone materials and fluid architecture through digital information processing systems.

Convention
Friday 3rd October 2003

Event **3**

THE STONE HOUSE

The settings of domestic life will be explored in a new design project by designers Roberto and Ludovica Palomba who rediscover materials, particularly stone, and, through technical collaboration in related sectors (marble, furnishing and accessories), develop experimental experience in new interior design approaches.

Exhibition-Laboratory
2nd-5th October 2003

studio Mirandola

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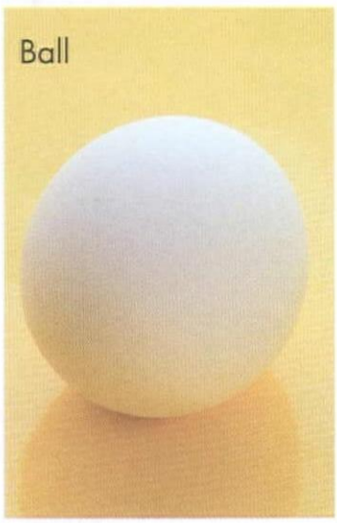
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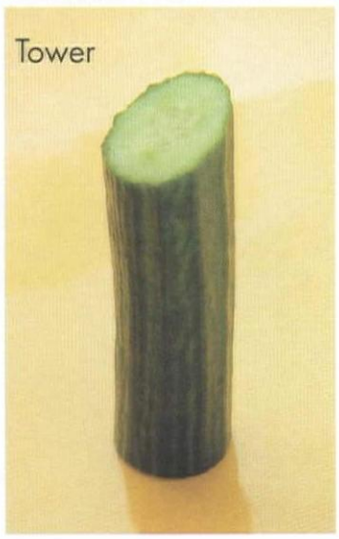
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Winner
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2002

This luminaire is available as pendant, mountable and in-built ceiling luminaire.
The interplay of the various colours of the iris can be adjusted by inserting coloured films into the housing ring.

Design: M. Kocks, P. H. Neuhorst

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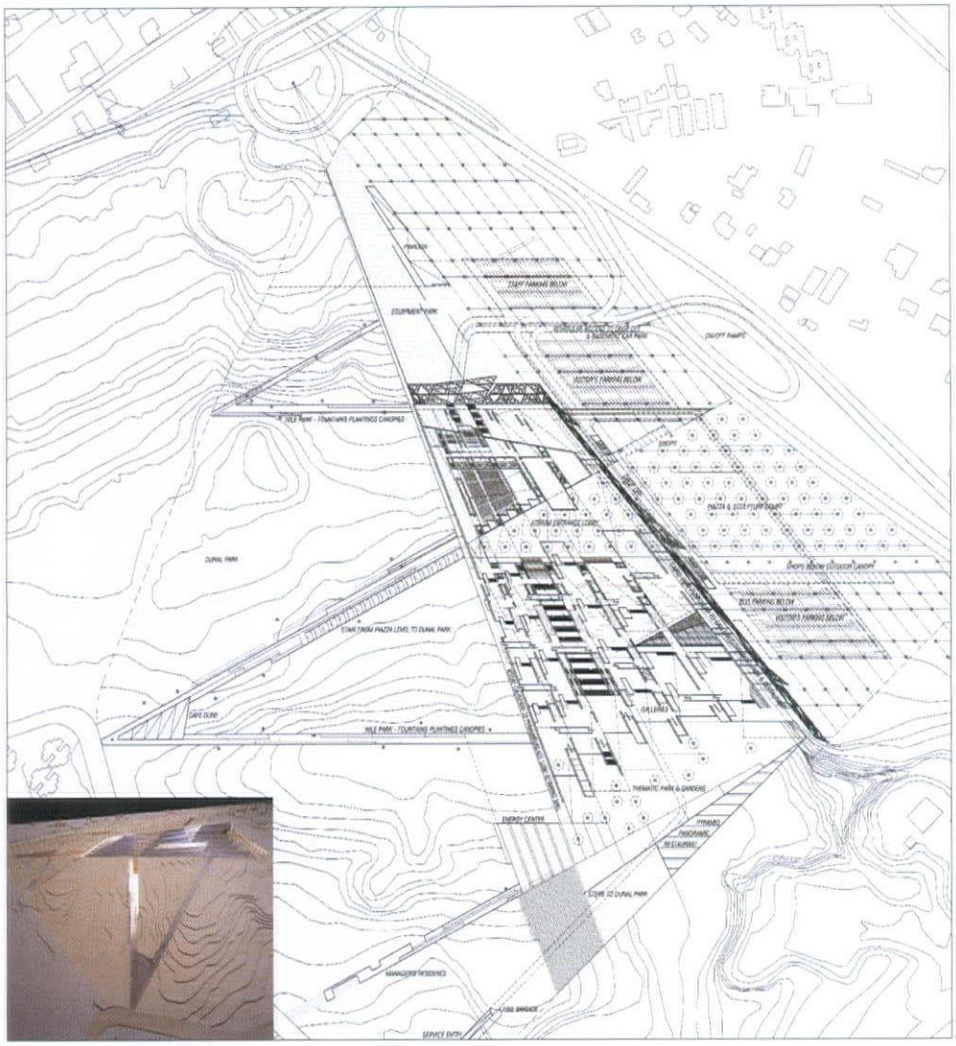
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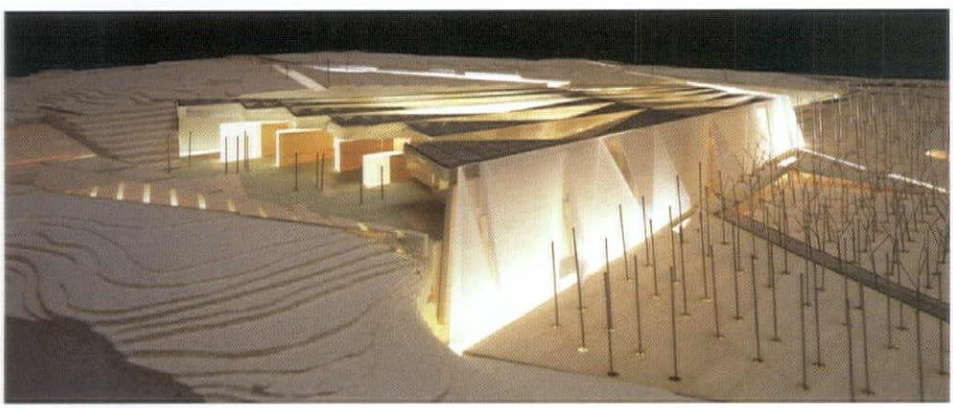
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view

UNKNOWN ARCHITECTS FROM IRELAND WIN ONE OF THE WORLD'S BIGGEST ARCHITECTURAL COMPETITIONS FOR THE GRAND MUSEUM OF EGYPT NEAR THE PYRAMIDS OF GIZA; MAJOR BERLIN RETROSPECTIVE OF RATIONALIST JOSEF PAUL KLEIHUES AT 70; VIEW FROM BHUTAN; CHARLES JENCKS REPLIES TO HIS NEW PARADIGM CRITICS



Site plan showing museum's uppermost gallery level, Cairo ringroad to north, and new landscaped Nile Park.



Landscraping fractured geometries: easterly view of the competition model, with the sculpture park to the right of the Museum's illuminated wall, the thematic park and pyramid panoramic restaurant to the left.

GRAND PROJECT

By occupying sight lines drawn between Cairo and the pyramids, heneghan. peng.architects' competition-winning scheme for the Grand Museum of Egypt uses light to span between ancient culture and modern complexity.

International newcomers, Dublin-based heneghan.peng.architects, have beaten off over 1500 competitors to win one of the largest ever global architectural design competitions. Their design for the Grand Museum of Egypt, located on the first desert plateau outside Cairo, between the great Pyramids of Giza and the city, will be one of the largest museums in the world. With extensive conference, library and multimedia provision, the building is intended to be more than a mere container of artefacts devoted to egyptology, becoming instead an international centre of culture, and a spectacular landscape feature.

On their first site visit the architects were awe-struck by the strength, presence and power of the pyramids as seen from the ring-road approach from Cairo. So their objective was to use the building as a physical and notional bridge between modernity and antiquity. Set against the night sky and the floodlit pyramids, the composition's nocturnal appearance was of particular significance, with a translucent stone skin and fractured triangulated geometries providing a contemporary counterpoint to the solidity and geometric purity of the ancient structures.

The 38 000 sq m 'dessert hugging' complex occupies a void within a three-dimensional frame inscribed by a set of visual axes from the site to the three pyramids, that in turn define the museum's structural order. Triangulated structural sub-divisions are used to weave the necessary display technology into the fabric of the museum, with the walls supporting the museum's specific display requirements.

Having won the competition in collaboration with Arup (Structures), Buro Happold (services), and lighting consultants Bartenbach Lichtlabor, the team are now reviewing the brief with the client – the Egyptian Ministry of Culture – before

Bright shining shadow by glastec

double skin
smoke vents
sunshading
light reflection
roof lights

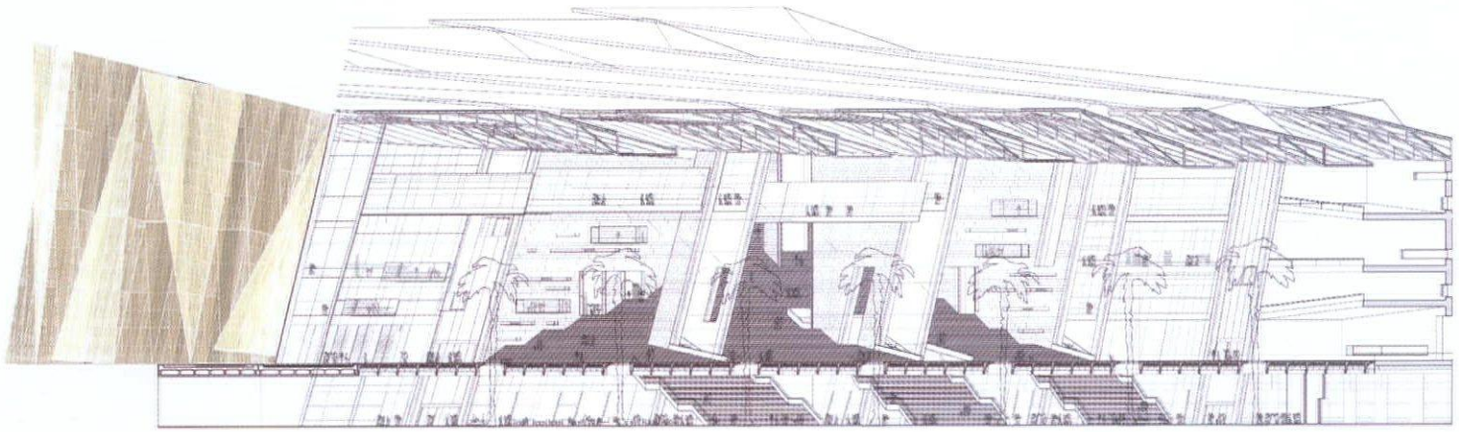
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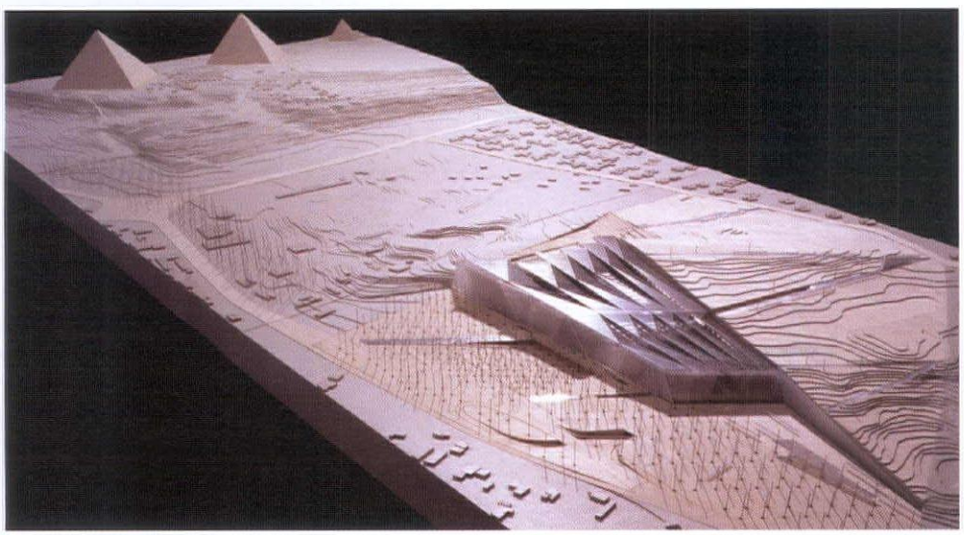


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Top: cross-section through entrance lobby atrium. An environmental buffer zone between blistering heat of exterior and the highly controlled gallery spaces beyond. Above: museum acts as inscription, marking point where the viewer changes direction between Cairo and the pyramids.

progressing the detailed design. While many may conclude that heneghan.peng.architects were surprise winners, beating more established teams such as those fronted by Will Alsop, Future Systems, and Zaha Hadid, they have in fact won a number of important competitions, two of which most significantly have led to realization. These include the 11 000 sq m €40m local government head offices for Kildare County Council (in association with Arthur Kibney & Partners), and more recently with an appointment to design a €60m Hotel in Kilternan, South County Dublin.

ROB GREGORY

KLEIHUES AT 70

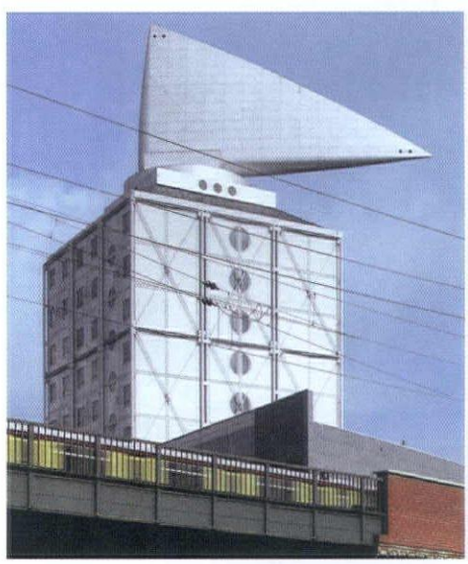
A major Berlin retrospective of the work and life of Josef Paul Kleihues shows that his influence is still strongly felt.

The standing and reputation of Josef Paul Kleihues in contemporary German architecture is well recognized. Since he opened his own architectural practice in Berlin in 1962, Kleihues' work and influence has been strongly linked with the history of the once divided German capital and, since the fall of the Wall, even more with the critical reconstruction of new Berlin. On 11 June 2003, Kleihues celebrated his 70th birthday, an event that prompted his former office principal, Paul Kahlfeldt, art historian Andres Lepik, as well as Kleihues' eldest son Jan to surprise him with an exhibition of his work and influences at the Museum of Contemporary Art, the so-called Hamburger Bahnhof in Berlin.

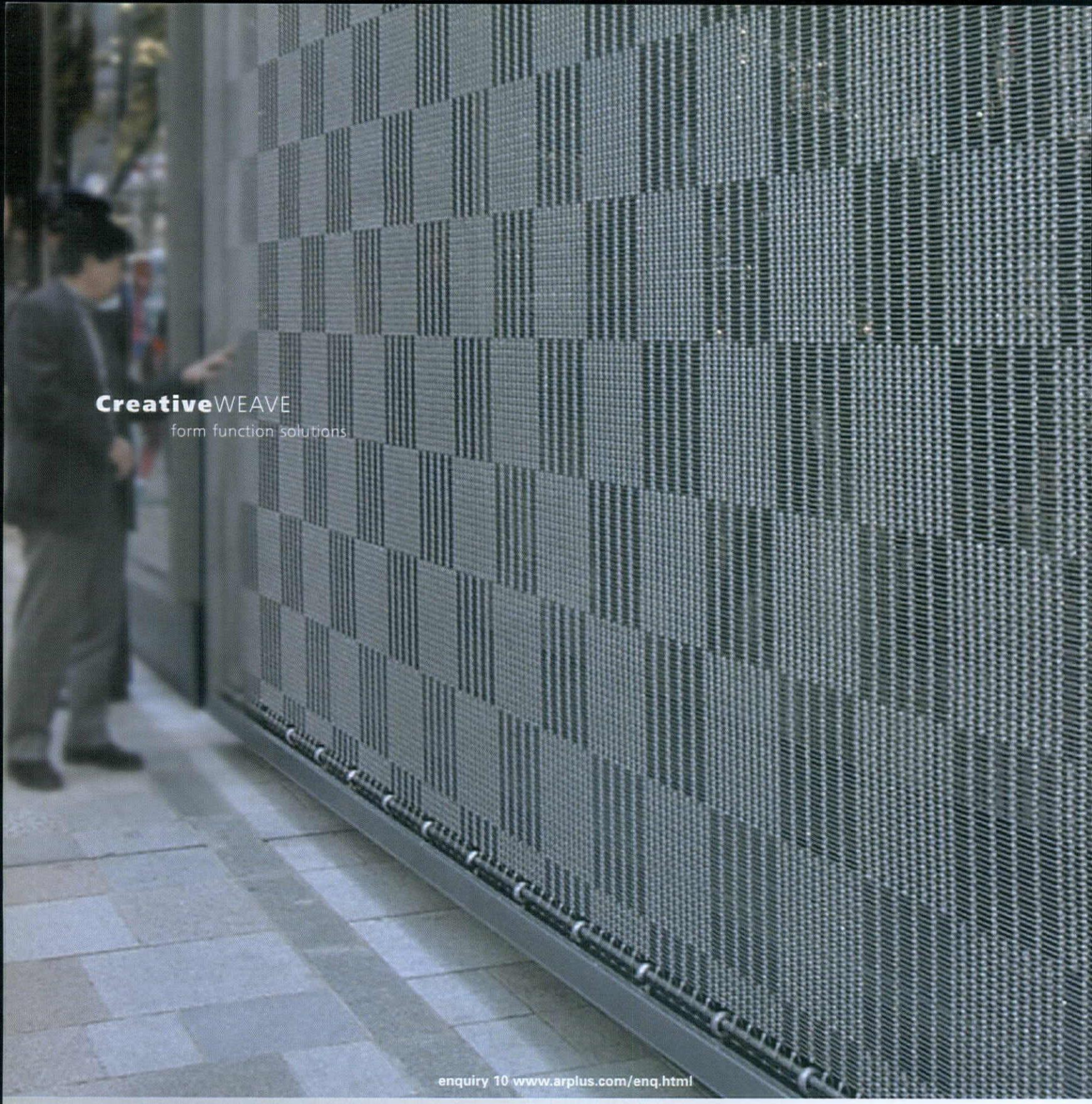
Emphatically entitled *Stadt-Bau-Kunst*, the exhibition is not a typical parade of architectural masterpieces in chronological order. Rather it creates poetic and geometric centres of interest based on Kleihues' poem *Seven Pillars of Architecture* displayed with small accompanying programmatic drawings. Visitors meander through seven geometric room dividers symbolizing Kleihues' seven architectural virtues: geometry, construction, harmony, perfection, function, utopia and poetry. Kleihues had nothing to do with the organization of the exhibition and it took the aforementioned trio two years of secret preparation to compile this extraordinary show.

The inspired curators concentrated primarily on Kleihues' built oeuvre in Berlin which spans forty uninterrupted years. However, they also imaginatively incorporate other architects' work (for instance Libeskind, Grassi, Ungers, Stirling) and paintings from Kleihues' private collection by Baselitz, Lüpertz and Lewandowsky. In parts the exhibition resembles that of an avid collector with truly encyclopaedic taste ranging from rare books, to illustrations by Gilly, street and household furniture as well as the obligatory plans and models and, of course, the paintings. Despite its thematic complexity, the major strands of Kleihues' work are clearly exposed and the significant buildings given sufficient space.

Nowadays, every German architect is familiar with Kleihues' pioneering urban concepts and buildings. Key ones such as 'Poetic Rationality' or 'Critical Reconstruction' still have a refreshing idealistic and formal influence on the Berlin



Office block in Charlottenburg, 1994: one of Kleihues's many buildings that have shaped Berlin's skyline.



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Brand Statement:

Façade at Louis Vuitton Flagship Store, Tokyo

Different types of woven stainless steel mesh in combination with coloured and mirrored glass produce a façade that constantly changes. As the central element at the entrance a 22 square meter mesh surface imitates the chessboard pattern of a new model series. It embodies Louis Vuitton's exclusive product brand statement.

Architect: Jun Aoki & Associates

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urban and architectural scene. The Berlin International Building Exhibition (IBA) or the latest initiative known as Planwerk Innenstadt pay undeniable homage to Kleihues' ideas and architecture. So there could not have been a better setting for this show than the Hamburger Bahnhof. Refurbished and extended by Kleihues during the late 1980s, it has now become Berlin's first address for the city's permanent contemporary art collection. CHRISTIAN BRENSING

Stadt-Bau-Kunst, *Josef Paul Kleihues' 70th birthday exhibition, Hamburger Bahnhof, Berlin, until 31 August.*
www.hamburgerbahnhof.de

browser

Unflaggingly, Sutherland Lyall tunnels for ore in the huge mountains of cyberworld.

Interventionists found

I know we don't go around plugging Lawrence King's or Thames & Hudson's current new titles lists but that's precisely what I'm doing for CD publisher In-D. It flogs CDs of important, newish architects. It's not a giant stable of up and comers but it includes architects like Will Bruder, Eric Owen Moss, Morphosis, plus some golden oldies in the form of Rudolph Schindler and one or two FLWs. Prices are pretty reasonable at a median of around $30 and some are less. I've sneaked a look at a small sample of the disks themselves and they are great – exactly the thing schools and big-picture practice libraries should probably own. Take a look at some samples at *www.planetarchitecture.com*. There are some names on the home page list such as Frank Israel, Roto, Rick Joy and Scogin Elam Bray, whose CDs you don't seem to be able to buy at the moment – hopefully soon because their web sites are either non-existent or are embarrassingly barren.

Things to come?

With the above shortcomings in mind and with the help of Google, I turned to casting a cheerfully avuncular eye in the direction of joint MIPIM-AR prizewinners, Sydneysiders Francis-Jones Morehen Thorp. I found the home page, it's at *www.fjmt.com.au/*. And that, er, is that. Just a home page, neatly designed, containing a few pix, email addresses and the practice name. Is this an attempt to emulate the total cool of those superstar architects who eschew the very idea of a website? (Unofficial fan-sites are a different matter, in fact I'd advise everyone to get the office junior to set up an apparently independent site in praise of your practice – no I didn't say that.) Is it a local dementia, fanned by the hot dry winds sweeping across those billions of acres of desert? Or is it the beginning of a popular revulsion by the architectural avant-garde against concentrated electronic marketing? Here at this column we're feeling a tad insecure.

Who they?

We all quite like the odd enigmatic site. But I think if I ever meet the people who designed Xhabitation at *www.xhabitation.com* I'll probably offer them no more than the chance to put on their own blindfolds before they get ... It may well be that the people who run Xhabitation have done so already although I suspect that they did the site themselves. The 'about us' button produces a statement which includes such sentences, complete with capital letter, as 'Space becomes infinite and Time is never enough.' You think of other more appropriate button names than 'About us'. Like 'Dull clichés'. You cautiously click on 'Interactive' and there is an exaggerated bird's-eye perspective of some orthogonal line forms with bits flashing in green and rows of numerals which change apparently purposefully. Purposefully? No, they just change. You click on one of the four headings, and up come two obscurely tiny thumbnails plus name, client and building website. It's the same when you click 'Architecture' except that 'site' in this section means location, not website. Can you enlarge the thumbnails, which are now in colour? Clicking on anything apart from the navigation bar is like talking to a sulky teen. You give the site up eventually, declining the possibility of an email correspondence and remaining quite uncertain about which country the telephone numbers might relate to – and wondering whether the tiny thumbnails might have been quite as intriguing as you imagined. Still entirely in the dark about who and what Xhabitation is/was/might have been, you hold on to the thought that is some young architectural group's electronic marketing tool. And hope you are wrong.

Catholic spread

The hour after I filed copy last time about Irish Architecture Online (at *www.archiseek.com*) they added a section about Barcelona, which is still one of the most fashionable design destinations in Europe. With refreshing honesty and slightly dodgy expression, the site director says that, like the Paris guide, 'Barcelona will take a few years to do the architecture of the city justice.' Just to update you, Archiseek.com is 'the international project of Irish-architecture.com' which has discussion forums, architectural competitions and guides to the architecture of Edinburgh, Paris, Tours, Santa Fe – the American one and Winnipeg as well as Barcelona and is one to cherish for the long term.

Interventions

Sorry about the archischoolspeak but 'intervention' really is the correct way to describe much of the content of *hacks.mit.edu* (note the absence of a www). The local, non-computer, non-journalist, MIT meaning of 'hack' is 'a clever, benign and ethical prank or practical joke.' So what's this site doing here? you ask. Well, it's a bit weak but many of the best MIT hacks involve the local campus architecture, especially the domes of the Rogers and McLaurin buildings. Their summits have provided the loci for, among others, a convincing campus police car complete with flashing light and furry dice – and a Neil Armstrong-style Moon landing complete with small flag. It's in the detail. Then there was the giant R2-D2 robot round the dome. The most architectural of hacks seems to have been the 1992 transformation of a big space (Lobby 7) into the Cathedral of the All-Night Tool (read All-Night Swot) complete with stained-glass windows, pews, confessional and cheap imitations of all the usual kit you get in cathedrals. While it was still erect, two MIT alumni got married by a priest and priestess of Wicca, also alumni. For cultural historians the really interesting thing about the site is that it reveals that the wonderful idea of the Blinkenlights projects in Paris and Berlin last year promoted by the Chaos Computer Club (and noticed in the November 2002 Browser) had really been invented by MIT pranksters who in 1993 converted windows (as Blinkenlights was to) at the top of the Green building on the MIT campus into a giant digital sound meter which continuously reported sound levels from a Boston Pops gig being played just across the river.

If you get fed up with typing the longer urls in Browser, click through *www.arplus.com*, select 'directory' then 'BROWSER and General Architecture Sites' and there at the beginning are this month's crop of addresses waiting for you to click on. The accumulated browser sites are there too in alphabetical order.

Sutherland Lyall is at sutherland.lyall@btinternet.com

letters

NEW (OLD) PARADIGM?

SIR: Whether or not there is a new paradigm in architecture and if so, is it worthy, are issues for debate and as my article suggested (AR February) one should be sceptical of all such claims. Nevertheless an argument has to be made and, in the nature of such things as trends, movements and world views, they are only ever statistical, partial and, 'more or less'.

No architect has ever completely summarized the Gothic any more than been completely Modern; historians have made these points time and again.

Thus some partial answers to your sceptics. 'Yes', Graham McKay is right (AR April), form-givers such as Foster and Libeskind have also dominated old paradigm architecture, they often will; but 'No', Gehry's Bilbao was not 'clay shaped by hand', but rather a multivalent work shaped by twenty or so working models at many scales, as well as computer-cut ones. That multiple method of investigating human scale, light, surface and space is what makes the building still the leading exemplar of the paradigm, even though it was designed first in 1993. And why should buildings 'mimic' the cosmos? Partly because we identify with natural evolving beings – have an empathy for the human, animal and mineral kingdoms among others – and partly because architecture should symbolize our relationship to the universe (as it did with many old paradigms). To go beyond a neutral abstraction it needs such iconography and rootedness.

Peter Davey finds that one building of the New (Old) Paradigm – Federation Square – is lacking in human scale and relationship to the city of Melbourne. Other critics, such as William Mitchell and I who have seen it, feel quite the opposite. It is precisely the way it breaks down the surrounding larger 'inhuman'-scaled and repetitive buildings that makes it more related to our bodies, size and perception. One virtue of fractal architecture, as Benoit Mandelbrot pointed out, was its superiority to Modernism in providing scaling devices at many levels – from a great distance right up to the touchable detail. The magic of fractal scaling is this continual transformation, as indeed the fractal now given his name has revealed to us.

Davey, also like McKay, questions why architecture should be modelled on, or 'copy', nature, while Matthias Bauer (AR May) asks, by contrast, why UK and US architecture isn't nearly as green as Germany's building. Ecological performance is important, as is the green iconography of fractals and growing plants etc: no doubt the Germans are way ahead on much of this. But we should disentangle the different levels of 'nature' here and how we relate to them.

Davey, following Darwin and Dawkins, finds nature 'wasteful and cruel', that is hardly an ethical model. So, in its competitive mode, where it decimates nine out of ten species, it is immoral. However, in its Gaian mode, as a self-organizing, balancing system it shows harmonies, creative emergence and the sustenance of life. It even shows some purposefulness, or teleonomy, as it balances oxygen, nitrogen and other physical conditions at their best ratios for sustaining life. Gaian nature is just one more example of the beauty and morality inherent in the universe even before there are humans around to appreciate such qualities. Part of the new paradigm in science and architecture is to reveal that these benign aspects are cosmic and just as much a standard for culture as the humanist values that Davey supports.

Man is not the measure of all things, nor is the universe as a whole – but rather, as the new paradigm scientist Ilya Prigogine said, the continual dialogue between the two.

Yours etc
CHARLES JENCKS
Dumfries, Scotland

AR SELF-DECON

SIR: I couldn't agree more with Peter Davey's swipe at Charles Jencks's wacky theories of fractal geometry et al at the end of his critique of Federation Square (AR May 2003) and I see where you stand. However I didn't realize how committed you were to the theory of deconstructivism. My January and May copies of AR have self-deconstructed leaving me holding a bundle of loose papers. Perhaps the first priority of building design (and publishing) is that the thing produced is well put together.

Yours etc
CARL THOMPSON
Saint Tropez, France

We have changed printer and hope that all will be wonderful now. The Editor

MOVING DISAPPOINTMENT

SIR: I am disappointed to see your feature on the Moving Image Centre, Sydney (AR May). Could you not find enough 'entertainment' buildings to fill the issue? I thought you published features on built buildings rather than virtual images of possible future constructions. Could you please clarify what your policy is? Please concentrate on showing 'buildings' rather than 'projects' as that is what I (and presumably most of your customers) buy your magazine for.

Yours etc
PAUL WALLACE
London, England

RE: ARCHITECTURE FOR ALL

SIR: Thank you for mentioning the Architecture for All Project and Campaign (Browser, AR June, p28). The article was however somewhat incorrect as the Adopt a Drawing Scheme which forms part of the £10 million campaign to re-house the RIBA Drawings Collection and create new study rooms and Architectural Galleries at the V&A will ensure that supporters donating £100 or more are offered the opportunity to adopt a drawing. The figures mentioned in the article of donations between £5000 and £50 000 are in respect of the adoption of the most prized drawings in the collection which totals over 600 000 and which is part of our national heritage.

With regards to the doubt expressed about the opening of new galleries, thanks to the support of the Heritage Lottery Fund, private donors, RIBA regions, members, personnel and the British Architectural Library Trust fundraising team, we are on the way to achieving our target. As a result the project will commence in the Autumn of this year with an envisaged completion date by the end of 2004.

On a final note, I do feel that for a major donation the 'Sutherland Lyall Curatorship' has a nice ring about it and would bring pleasure to Charles Hind.

Yours etc
P. M. ROSE
Chairman, British Architectural Library Trust
Chairman, Architecture for All Fundraising Action Group, London, England

BARDED

SIR: As a graduate of Bard College and an intern architect, I was delighted to read your article on the new Richard B. Fisher Center for the Performing Arts at my alma-mater by Gehry Partners (AR July).

Two things I would like to note in the article. First, and perhaps most important: you misspelled President Botstein's first name. It is Leon Botstein; not Leo Botstein as written on the first page of the article.

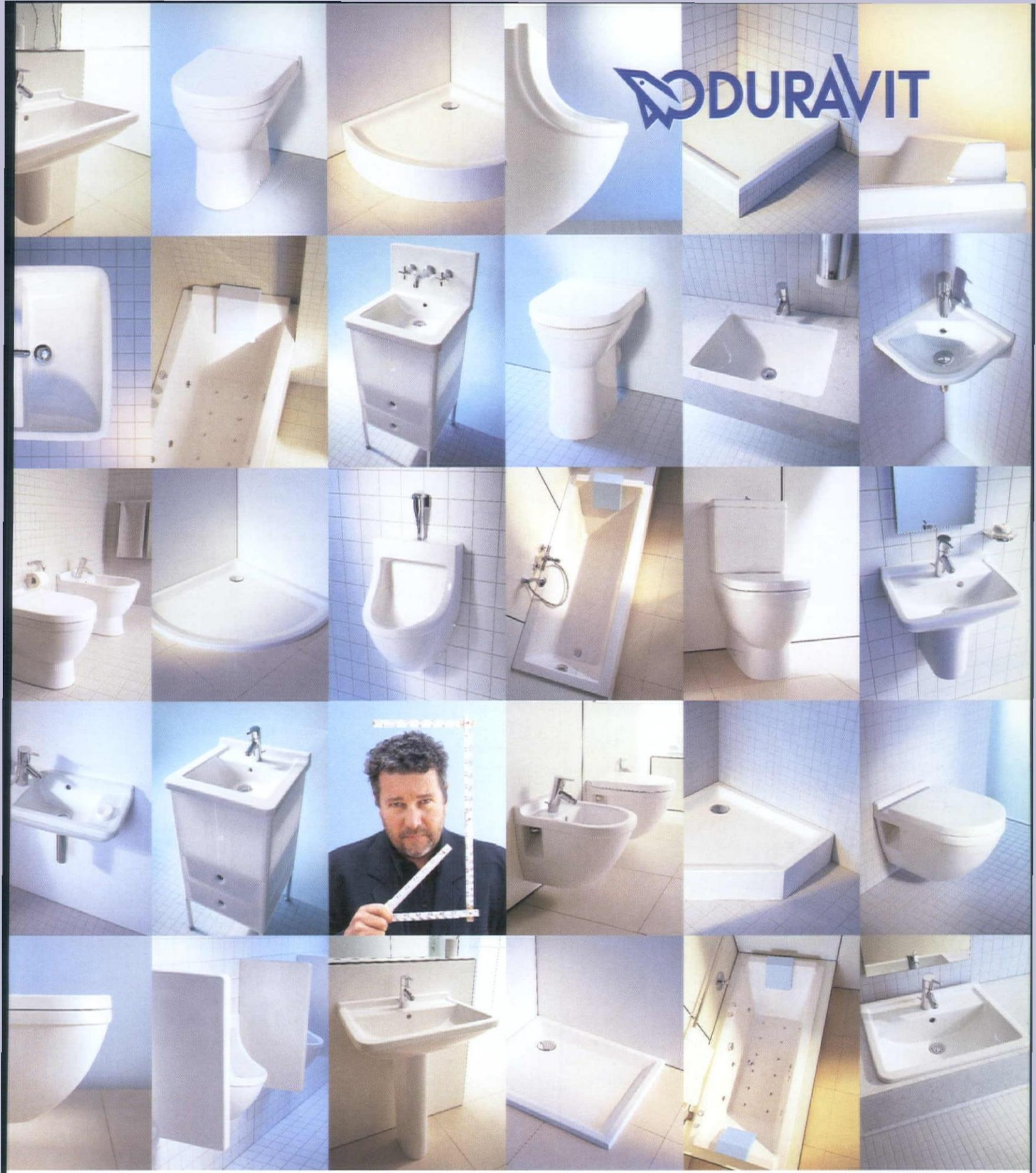
Second, and less important: no mention was made in the article of the nineteenth-century gothic manor house (serving as a dormitory) that is next door to the Fisher Center. Although if memory serves it is separated by trees from the new Performing Arts Center, it is still there.

In any case, thank you again for the article.

Yours etc
ADAM WEISS
Bard College, 1997, New York, USA

errata

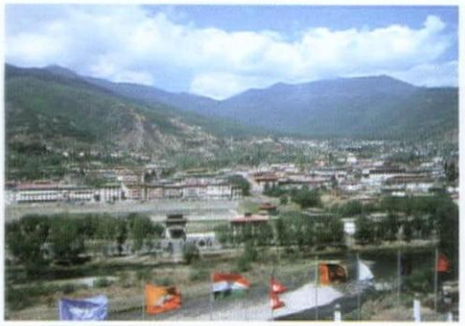
The photo credit for Contemporary Art Museum, Cincinnati by Zaha Hadid (AR July, p38) should have read John E. Linden/Arcaid.



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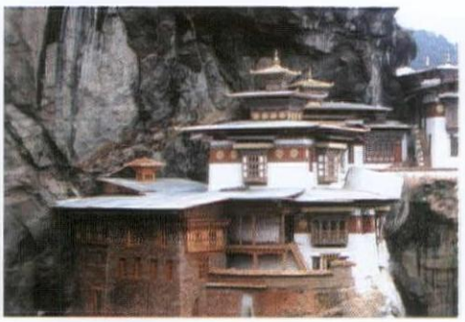
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Little flat land. Settlements are beginning to devour agricultural land in river valleys.



Traditional precipice-hugging mountain buildings bear some strange resemblances to Swiss chalets.



Dzongs, which incorporate fortress, monastery and temple are made of rammed earth, stone and cypress.



Traditional *dzong* layered composition ends against sky with great overhangs and dentilled cornice.

View from Bhutan

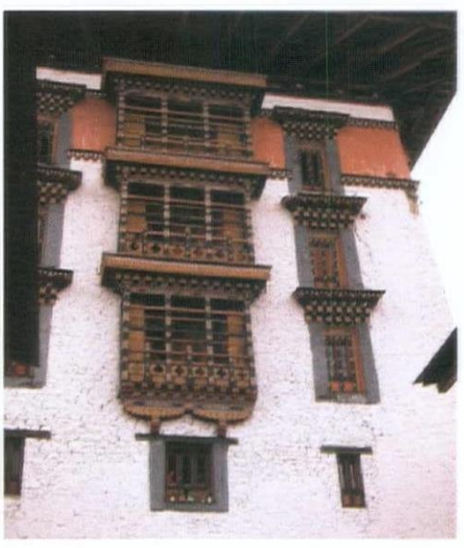
In Bhutan, life and architecture have changed little for the last four centuries. But urbanization, electricity and television have started to make irreversible changes.

Protected by its formidable geography, Bhutan has been isolated until quite recently. It was only fifty years ago that it started to open and it was not till 1974 that tourism began. Today fewer than 6000 tourists visit per year. Its population is estimated at 600 000.

A brief topographic sketch: Bhutan is a spectacularly beautiful country. It is 150km from south to north, rising like a gigantic staircase from 180m elevation on the hot and humid plains of India to 7550m in the Great Himalayas bordering Tibet. Some 330km east to west at its widest point, Bhutan is bisected by five mountain ranges that run north-south. Any journey east-west involves mountain passes, some up to 4000m high. There is very little flat land. The scarce land at the bottom of the valley is used primarily for agriculture and settlement. Major rivers run south, downhill to India, providing Bhutan with its biggest export, hydro-electric power.

Bhutan is in rapid transition from the seventeenth century to the twenty-first. It is consciously trying to preserve the elements that contribute to its traditional culture, the environment, and an attitude of 'gross national happiness'.

In an attempt to preserve and promote traditional cultural values, legislation dictates that Bhutanese wear national dress and that all building construction emulates national historic styles. So most buildings borrow from the building orders of Bhutan's most striking and dominant architecture, its religious buildings, the *Dzong* (fortress/temple) and *Lhkhangs* (temples). Their forms and construction techniques influence virtually every building in the country. Although the result is a very homogenous and harmonious look to the cultural and built landscape, the arrival of television in 1998 and Bhutan's own aggressive education programme for its young will probably mean challenges to these restrictions of personal expression will begin to emerge.



All Bhutanese must wear national dress, and so must buildings. Structures become more open as they ascend.

Dzongs are large rammed earth, stone, and cypress timber structures. Their original function in Tibet was as fortress and district administration centres. In Bhutan, monastery and temple functions were added. They are strategically positioned on mountainsides, on the confluence of two rivers or overlooking valley entrances. In times of war, the entire population of the valley would seek refuge in them. Most *Dzongs* were built during the seventeenth century. They were built without drawings, guided by a mental concept of what was to be built and in response to the natural site. Squares and rectangles are the main planning module and these warp into parallelograms to accommodate the natural topography. The formal architectural order is stunning and for fortified buildings, surprisingly light. The battered masonry walls rise dramatically from the landscape. The only opening to penetrate the base of white-washed masonry is the massive entrance door. The next horizontal layer has occasional punched window openings with expressed timber lintels. Higher up on the walls is a continuous band of intricate timber bay windows. The traditional trefoil window arch expressed in timber is ubiquitous, along with corbelled timber dentils used as a supporting cornice. These details are normally highly decorated with carvings and paint, but also look quite fantastic in their natural timber state. Just below the roof is the chimera, a wide red stripe signifying a religious building. Flying above all this are the wide overhanging eaves of the low slope timber roofs. Think Frank Lloyd Wright prairie house crossbred with a Japanese royal palace. Because of the short lifespan of the shingles, they are slowly being replaced by galvanized metal roof sheets. These buildings are huge. The Punakha Dzong is 180m long by 25m tall with the interior of its temple soaring eight stories high.

These religious buildings constitute an incomparable living architectural heritage. As a comparison, many timber temples are older than Machu Picchu. Several major temples have been rebuilt in recent years, usually as the result of fire or earthquake damage. The enormous effort in construction and maintenance of Bhutan's over two thousand religious structures can perhaps be explained by the following creative philosophy:

'Religious objects and buildings ... are sacred. They are not considered as inanimate objects but as supports of faith ... The artist does not work to make a work of art but a work of faith, which he wants as beautiful as possible, while following the precise and symbolic iconometric and iconographic rules codified in trea-

tises. The artist has very little composition freedom but his talent lies in the execution.'*

The Paro Dzong is visually familiar, as it was used in the opening sequence of Bertolucci's *Little Buddha*. Yet the view up to it from the cantilevered bridge is breathtaking. Its imposing size and its mountainside position dominate the Paro Valley. We were able to enter both secular and religious courtyards to see the Paro Tsechu, an annual five-day festival. The monks dress in wild, colourful masks and costumes and perform dances that are believed to subdue evil spirits.

Above the Paro Valley are many temples dating from the seventh to the seventeenth centuries. Temples are meditation centres, often located in isolation. Some hang from cliffs seemingly defying gravity. An example is the small temple at Bundra balanced on stilts above a beautiful alpine meadow. Taktsang or Tiger's Nest is Bhutan's most famous monastery and one of the most venerated pilgrimage sites in the Himalayan world. It is perched on the side of a cliff, 900m above the floor of the Paro Valley. This really is one of those 'How did they do it' buildings. In 1998, a fire of unknown origin destroyed the main structure of Taktsang. It has just been rebuilt using materials and engineering not available in seventeenth-century Bhutan. A lightweight tram was built from the valley floor to a rock outcrop near the temple to facilitate moving materials to the building. A large timber joinery shop was set up at the base of the tram. Here, all the timber pieces were prefabricated. Traditional timber buildings in Bhutan are jointed together using no steel fasteners.

After temples, the most common building forms are traditional farmhouses. Though functions differ, the building order is a miniature copy of the large temples. Rammed earth or stone walls form the base and courtyard with the timber bay window level inserted above. Tying the structure together is the elaborately decorated timber cornice line. Floating above this ensemble are the wide eaves of low sloped roofs. Ground floor is used for animals and storage. The first floor is residential with one room serving as a highly decorated family chapel. The third level, under the roof structure, is an open walled attic space used as storage and drying area. Although separated by 7500km and a completely different cultural history, they resemble the traditional Swiss chalet. The contemporary house is similar to the historical house. The most obvious difference is that glass windows have replaced sliding wood shutters, and houses now have electricity. In fact, the whole country has been recently wired and this step into the consumer age will probably result in more attention paid to the thermal properties of buildings. This is a necessary step. The massive walls work well as heat sinks, but the beautiful timber walls, with all their complex joinery, are too porous to hold heat. Until recently, Bhutan was a rural society, but a rush to the cities is on. Thimphu became the capital in the 1950s and its population has tripled in the last twenty years to 50 000. Thimphu is concentrating its buildings into a more urban mass and most residential areas are four-storey apartments. The emerging city form for both Thimphu and Paro is lineal, following river valleys, consuming some of the richest farmlands as they expand.

The Paro Valley is one of the most populated areas of the country with people settled in a string of villages along the rivers. The country's only airport occupies a significant portion of the level valley bottom. At the confluence of the two rivers, a small centre of three-storey commercial buildings has recently been built, covering a four block area. This will certainly become the middle of a thriving town devouring the rich rice fields that currently surround it.



Paro Tsechu: the annual festival at the great Paro Dzong where dancing monks subdue evil spirits.



New and rebuilt structures are beginning to diverge from traditional patterns as new materials are introduced.

Bhutan is an amazing place. It's like stepping back into the seventeenth century, into an agrarian population of delightful, gentle Buddhists – though some wear flash Oakley sunglasses as they sit down to their laptops.

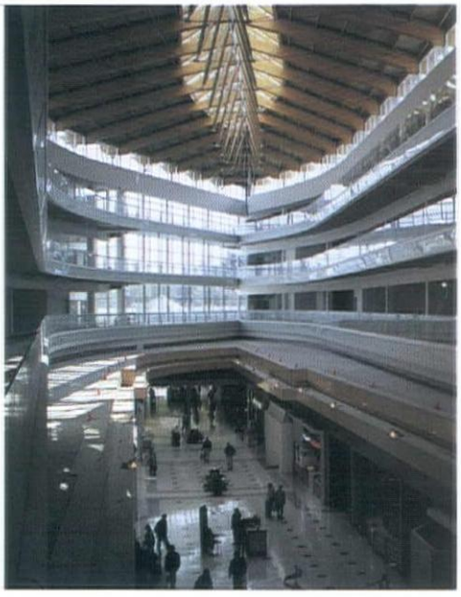
BO HELLIWELL and KIM SMITH

**From an article by Françoise Pommaret, entitled 'Bhutan: A Kingdom of the Himalayas', p11,* The Living Religious & Cultural Traditions of Bhutan, *published by the National Museum, Janpath, New Delhi, 2001.*

September

Next month's issue looks at architecture for mixed use. Variety is the spice of life, so it is said, yet reconciling different functions within the same building is often fraught with problems. However, mixed use is vital to the health of cities and has a crucial role to play in animating and enlivening the urban realm. Concentrations of monofunctional buildings, such as in central business districts or residential suburbs, make for lifeless environments outside certain times of day. New strategies are beginning to emerge for often quite sophisticated combinations of uses, or finding imaginative new uses for existing buildings, and the September issue looks at some of the best examples from around the world.

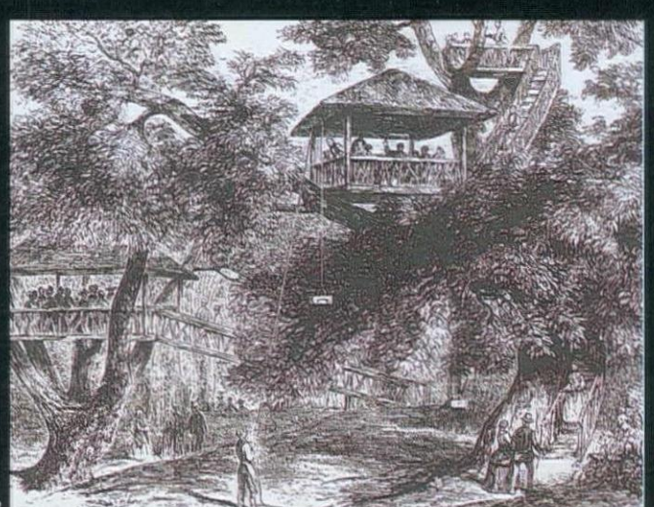
In Valencia, a nineteenth-century market has been skilfully revived by Borgos Dance to house a number of new uses; in Vancouver, Bing Thom Architects have brought together an office block, university building and shopping mall; in London's Waterloo de Rijke Marsh Morgan propose a prototype for high density urban living; and Nicholas Grimshaw's revival of Bath Spa tactfully reintegrates a historic structure with the city. We report on the latest developments in London's King's Cross, an astonishingly varied area on the cusp of major development which will hopefully preserve and encourage its cherished diversity. Plus the usual stimulating mixture of Interior Design, Delight and View. Buy this and 11 other thought-provoking issues by completing the enclosed subscription form or click on our website at: **www.arplus.com**



1

Glazed eyrie

Long cherished in popular imagination, the traditional rustic tree-house is given a dynamic new twist in this ingenious all-glass protoype.



2

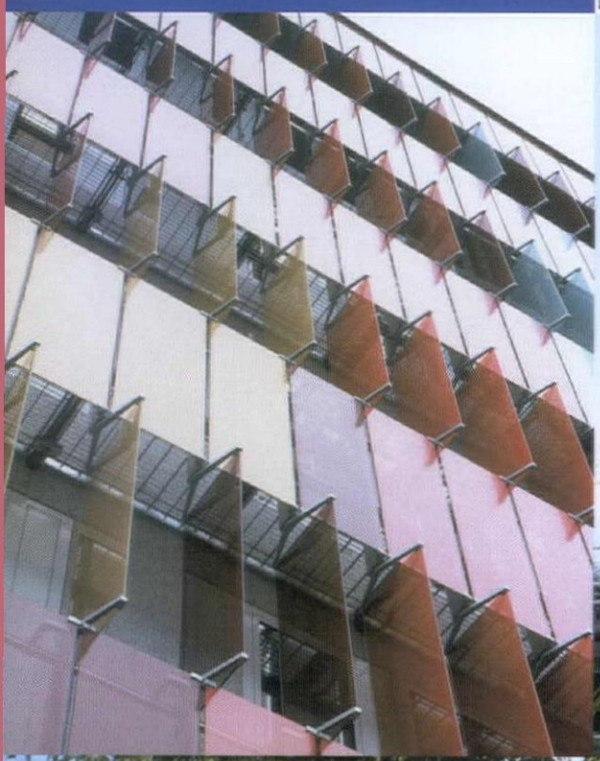
TREE-HOUSE PROTOTYPE
ARCHITECT
CHRISTOF JANTZEN

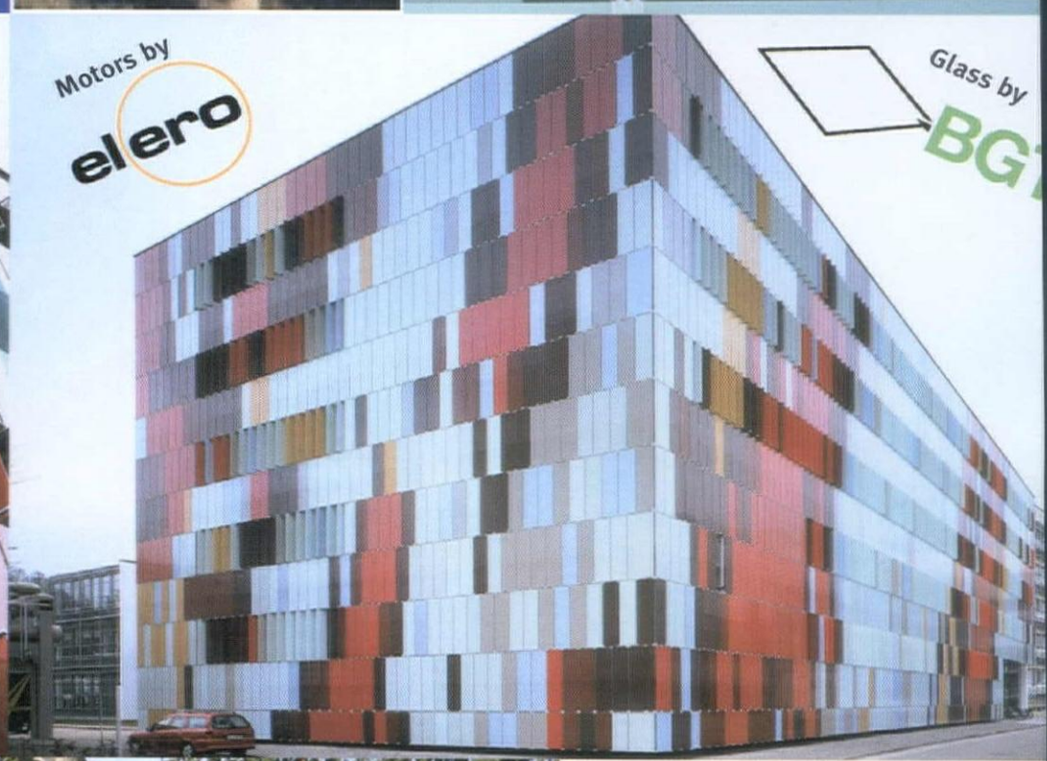
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Made famous by Tarzan, the tree-house has long occupied a cherished niche in popular imagination. The French were particularly enthusiastic exponents of tree life; a Parisian pleasure garden became famous in the early twentieth century for its elaborate treetop structures and the activities they accommodated. Revellers could dine in the trees and enjoy a drink with certain ladies who would emerge from the branches on Saturday evenings. More prosaically, the Kombai tribe in remote Papua New Guinea swamps hoist their dwellings as much as 30m up towering sago palms to avoid enemies and repel mosquitoes. Possibly the oldest tree-house in the world dates from 1692, constructed in the branches of a 600 year old lime in the garden of Pitchford Hall in Shropshire. When she was 13, the future Queen Victoria scrambled up into this petite Tudorbethan confection to get a better view of a fox hunt. In literature, Italo Calvino describes Baron Rampante 'the climbing baron' who ascended into a tree at 15 and finally descended as a corpse. And then, of course, there is Tarzan.

A contemporary view of the archetypal tree-house is provided by Christof Jantzen of German practice Behnisch, Behnisch & Partner, who has designed an all glass structure that explores the effects of light and transparency, as opposed to more conventional rustic stereotypes. Made of insulated glass panels with a kaleidoscopic glazed roof, the compact structure is a grown-up version of the childhood treetop retreat and can be used as an office, art studio, yoga space or reading room. Framed in lightweight steel and supported by two concrete columns, the 600sq ft rectangular volume hovers lightly but firmly above the arboreal landscape.

Though not built in a tree *per se*, the house's glass skin and laminated glass beams aim to induce a heightened interaction with nature, giving occupants the sensation that they are indeed communing with nature among the branches. A multi-coloured Benday dot pattern (based on a photograph of a cloudy sky) is imprinted on the glass roof panels, giving the surface an almost textile-like quality as light dapples and filters through different layers of colour and glass. 'The glazed roof has a screen-like effect on the interior', says Jantzen. 'It creates a strong relationship with the sky above and the area surrounding the tree-house'.

Currently based in Behnisch's Los Angeles office, Jantzen trained at SCI-Arc and worked on the practice's spa at Bad Elster (AR April 2001), which also manifested an inventive penchant for the use of coloured glass. To devise a workable prototype for his twenty-first century tree-house, he undertook a lengthy process of design development and conducted extensive research into materials. Now all he needs is a suitably wooded site and a client with aspirations to be a latter-day Tarzan or Queen Victoria. C. S.



3



4

Architect
Christof Jantzen of
Behnisch, Behnisch & Partner

1
Jantzen's prototype tree-house is a lightweight glass enclosed eyrie, hovering on two concrete columns.
2
Tree-houses in Robinson, a popular turn-of-the-century pleasure garden near Paris. Diners had their meals hoisted up into the branches.
3
An abstract cloud pattern is imprinted on the glass roof.
4
Communing with nature in the tree tops. Light dapples through the sky pattern on the roof.



Tender to redevelop The Carlisle Pier Dun Laoghaire, Co. Dublin

- Prime waterfront property extending to approximately 0.91 hectares (2.25 acres) in the heart of Dun Laoghaire Harbour, Dublin.
- Specific objective of Dun Laoghaire Rathdown County Council that the redevelopment of The Carlisle Pier will result in an exceptional landmark building of international quality that regenerates and enlivens the waterfront.
- Where a cultural element of national importance is achieved on The Carlisle Pier other uses which underpin the commercial viability of the scheme will also be considered. These uses may include hotel, office, restaurant/bars, shops and residential.

Briefing documents and questionnaire are available from CB Hamilton Osborne King upon payment of €200 per information pack. Interested parties/consortia are invited to submit proposals before October 1st 2003 to design, construct, finance and operate the development.

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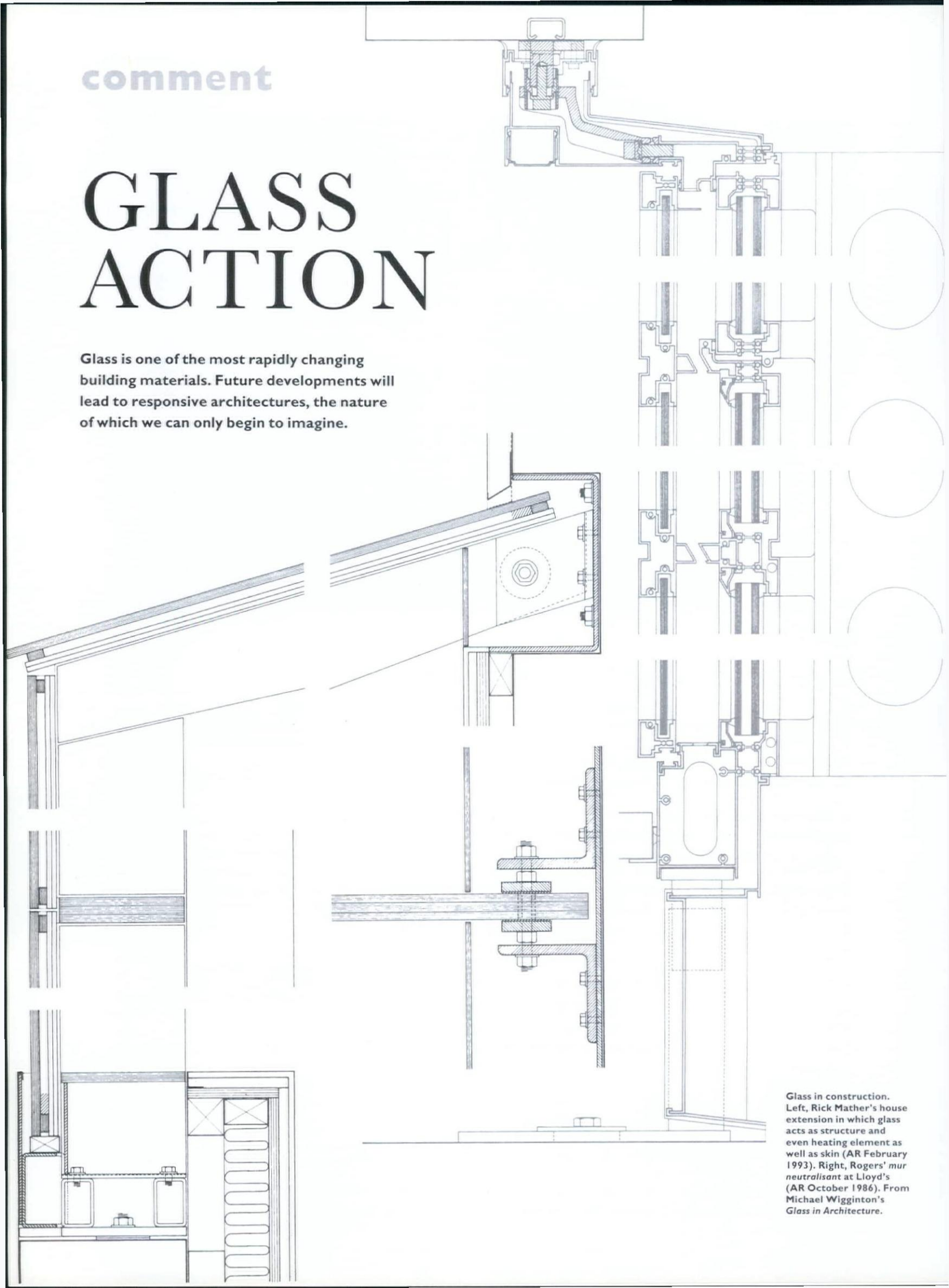
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GLASS ACTION

Glass is one of the most rapidly changing building materials. Future developments will lead to responsive architectures, the nature of which we can only begin to imagine.



Glass in construction. Left, Rick Mather's house extension in which glass acts as structure and even heating element as well as skin (AR February 1993). Right, Rogers' *mur neutralisant* at Lloyd's (AR October 1986). From Michael Wigginton's *Glass in Architecture*.

'Who, when he first saw the sand and ashes by a casual intenseness of heat melted into metalline form, rugged with excrescences and clouded with impurities, would have imagined that in this shapeless lump lay concealed so many conveniences of life as would, in time, constitute a great part of the happiness of the world?' Dr Johnson, the English eighteenth-century savant, was remarkably perceptive about the nature of glass that, as he pointed out, is a 'body at once in a high degree solid and transparent; which might admit the light of the sun, and exclude the violence of the wind'.[1]

It is hard for us to imagine a world without glass, but Romans in Classical times could not look out of a glazed window because, even if they could afford glass (which could be cast in quite large sheets), it was too clouded with impurities to see through. Little glass was used in windows (*vindauga* – the wind's eyes) between the collapse of the Roman Empire and the birth of medieval industry.

Glass really became an important constituent of building in the twelfth and thirteenth centuries, when the Gothic revolution was made possible by the relatively cheap and extensive production of glass in north-west Europe. Painted glass was for religious buildings, where it told Biblical stories to illiterate congregations. But by the sixteenth century, clear glass was used extensively in houses for the rich in Holland and England, creating potentially new forms of relationship between interior and exterior which were increasingly masked by the fashion for Italianate architecture that, derived from a country generally much hotter than north-west Europe, naturally had a much greater proportion of solid to void in elevations than was necessary further north.

Dirt and glass

By the time Johnson was looking out through his Georgian window, a balance had been struck in English architecture that lasted for some two hundred years until the revolution of the nineteenth century, exemplified by Decimus Burton's Palm House at Kew Gardens, London, designed with the great engineer Richard Turner. It was in some senses a celebration of the abolition of the tax on glass in 1845.

Suddenly, glass and iron could be used to enclose very large spaces. The Crystal Palace followed Kew within half a decade.[2] All seemed poised for a great architectural revolution, but it was one that had to wait for at least sixty years to have much general effect.

One of the reasons for the failure of the new technologies to transform architecture[3] must surely have been the problem defined by Lewis Mumford: 'Glass is of all possible building materials the one which most requires a clean atmosphere. Its smooth surface does not absorb dirt and grime, but permits it visibly to accumulate, and in the act of accumulation it loses its own best qualities.'[4]

Mumford pointed out that the roofs of cheap glass and iron in station train sheds of steam powered railways were 'the last place where glass could be used with profit' because 'glass covering became almost as opaque to the sun's rays as it would have been if solid iron or brick had been used instead'. Glass and iron roofs were almost impossibly expensive to clean. He looked forward to a new age of technology in which smokeless cities would reduce the need for washing windows. But the curse of cleaning persists to our own less sooty times. Exciting developments in self-cleaning glass are yet to be tested over a long period, but if such substances can be made extensively and cheaply, it will free thousands of people from the dull and sometimes alarming task of washing glass walls while suspended in flimsy cradles or alpine harnesses.

The other great problem of glass envelopes is their transparency not only to light, but to much of the electro-magnetic spectrum. While the greenhouse effect may be useful if you want to grow palm trees in temperate climates, the phenomenon has completely different results when it is engendered in spaces for human use. The office in which we edit the AR is a standard 1990s British sealed-unit curtain walled concrete slab and column job, complete with the heating and cooling systems common at the time.

Murs neutralisants

We are certainly shielded from the violence of wind and rain, but on hot summer days, little can be done to prevent over-heating and, in winter, we have to spend a lot of money keeping the place above the legal minimum temperature for workplaces. From my desk, I should have a fine view of St Paul's Cathedral through the trees, towers and spires of inner London. But I get glimpses of Wren's great church only occasionally, because the poor people who work next to the glass wall continually lower blinds and louvres to protect themselves from glare, overheating or cold strike. Technology of such buildings has scarcely advanced since Le Corbusier built the Cité de Refuge in Paris in the early '30s, where he prophetically proposed a *mur neutralisant* which was to have two layers of glass with a void between them in which tempered air would flow to modify differences between external and internal climates. In fact, the building turned out to be something of a disaster because in the end Corbusier could not afford the inner glass leaf, or the ventilation system needed to produce the tempered air.[5] So it overheated in summer, was too cold in winter and had dreadful condensation. Opening windows had to be introduced shortly after the hostel was inaugurated.

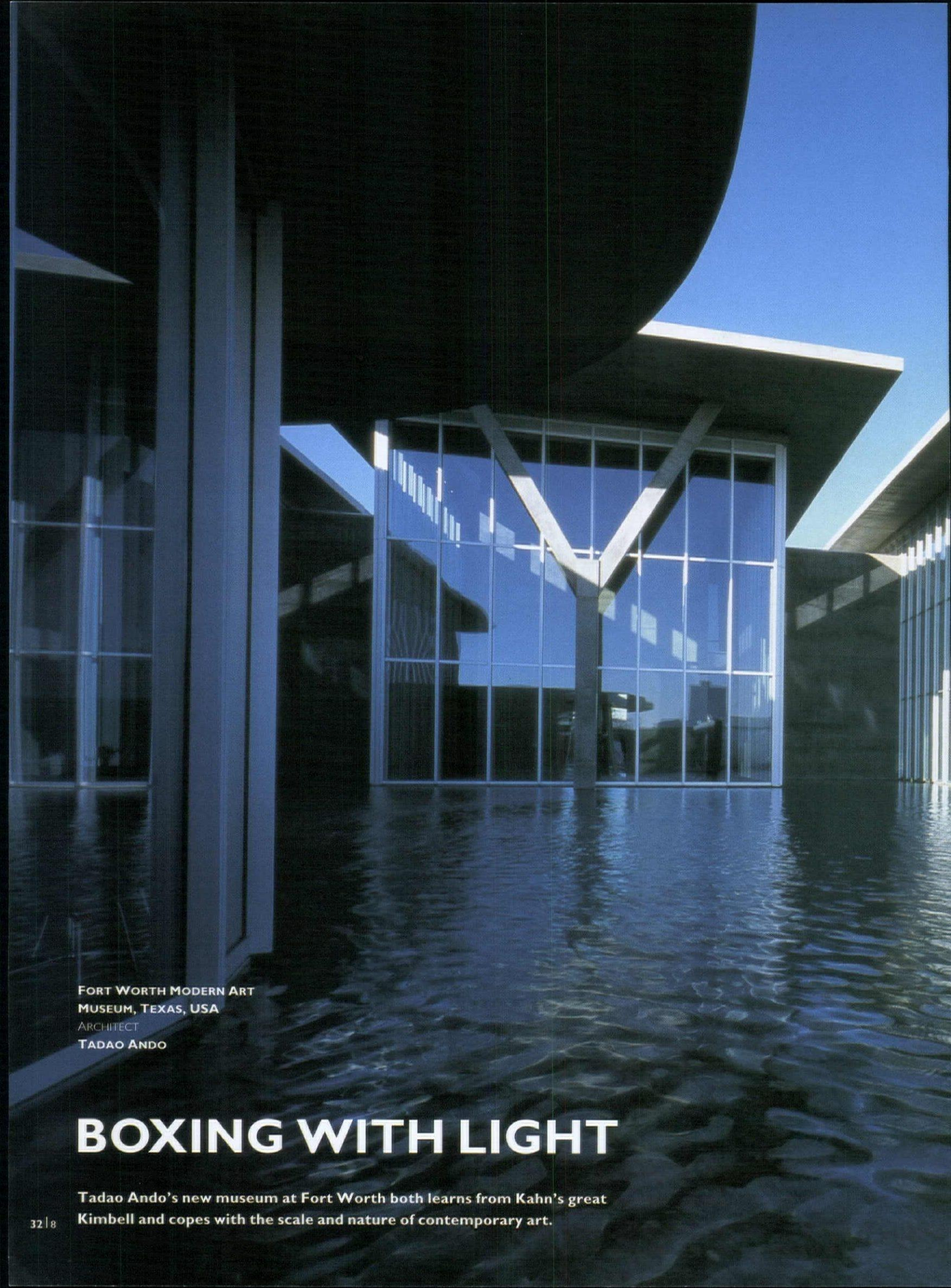
At last, *murs neutralisants* have been realized, and they are becoming ever more sophisticated, particularly in the German-speaking countries (see for instance p52 and p58 of this issue), where a benign combination of humane legislation, sensible investment, and lack of indigenous oil and gas has generated a generation of buildings (mainly offices) that are much cheaper to run than ones like the AR office, and which allow a degree of individual control over the internal climate of the workplace.

Much to be expected

Such advances depend on thorough understanding of building physics and construction, but much else is surely to be expected. Technologies such as low emissivity coatings and fritting are now commonplace, and will doubtless be extensively developed. Combinations of glass and plastics offer many possibilities. Continuing developments in the nature of glass itself, making the material on a large scale structurally efficient, and phototropic or electrotropic could lead to buildings that change with every cloud that passes in front of the sun.

Combined with responsive mechanical control systems of external, interstitial and internal radiation such as louvres and brise-soleil, such transparent skins will give the transition between inside and out astonishing properties that we can imagine only as dimly as Dr Johnson could have envisaged the Crystal Palace. And I will get an ever-changing view of St Paul's in all seasons. P. D.

1 Quoted in Macfarlane, Alan and Gerry Martin, *The Glass Bathyscape*, Profile Books, 2003, p7.
2 Wigginton, Michael admirably describes the very complicated evolution of glass and iron buildings in *Glass in Architecture*, Phaidon, London, 1996, pp33-48.
3 Even Burton built his Temperate House at Kew in 1860 with a masonry Neo-Classical ground level.
4 Mumford, Lewis, *The Culture of Cities*, Secker & Warburg, London, 1938, p207.
5 See Wigginton, *op cit*, pp 56.



Fort Worth Modern Art Museum, Texas, USA
Architect
Tadao Ando

BOXING WITH LIGHT

Tadao Ando's new museum at Fort Worth both learns from Kahn's great Kimbell and copes with the scale and nature of contemporary art.



I
Pavilions terminate to east with Y-shaped columns supporting roofs' shading projections. Left is curve of café roof.

Building next to an internationally recognized masterpiece is inevitably a daunting task, but to create a building of similar type to the great work is a challenge that few can rise to. Tadao Ando won the competition for the Fort Worth Modern Art Museum in 1997 (AR February 1998). It is part of the city's cultural complex, set in a park in a low-density suburb of the city, just across the road from Louis Kahn's Kimbell Art Museum, one of the greatest gallery buildings of the last century.

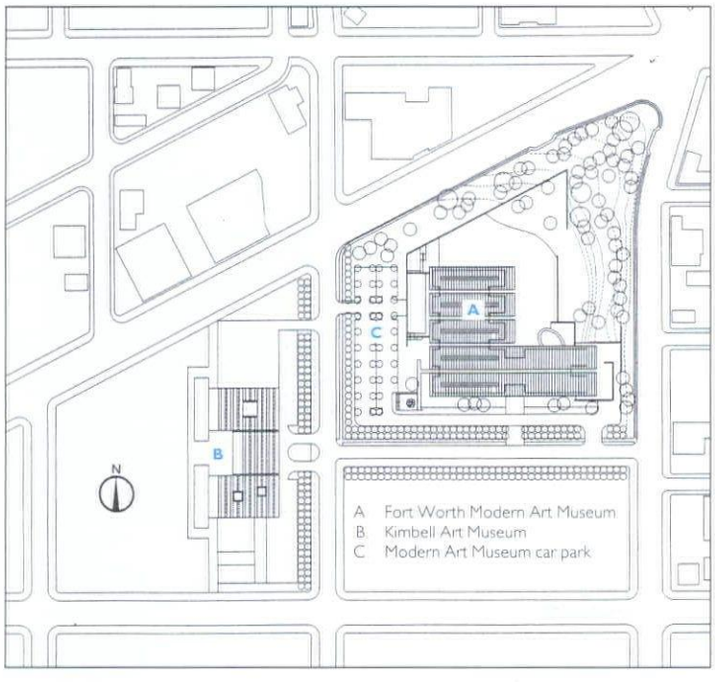
The big site is flat and featureless, so Ando has transformed it by dextrous tree planting (partly to mask the car park), walls against the busiest roads, lawns and a shallow pool, or rather young lake, over which the city's downtown makes a dramatic skyline. But as Ando remarked when he got the commission, even if the site was dull 'the Kimbell is a mountain'. Ando's strategy for organizing the new building is partly based on the Kimbell, with calm parallel gallery spaces, lit as far as possible by daylight and opening on to nature (in the Kahn building exquisitely planted courts, but in the Ando the much larger new park). To some extent, Ando turns his back (or at least west side) on Kahn, with a dull elevation, car park and (at ground level) service spaces. Perhaps it was impossible to address the earlier building directly, and when the planting round the car park grows the juxtaposition of the two will seem more gentle.

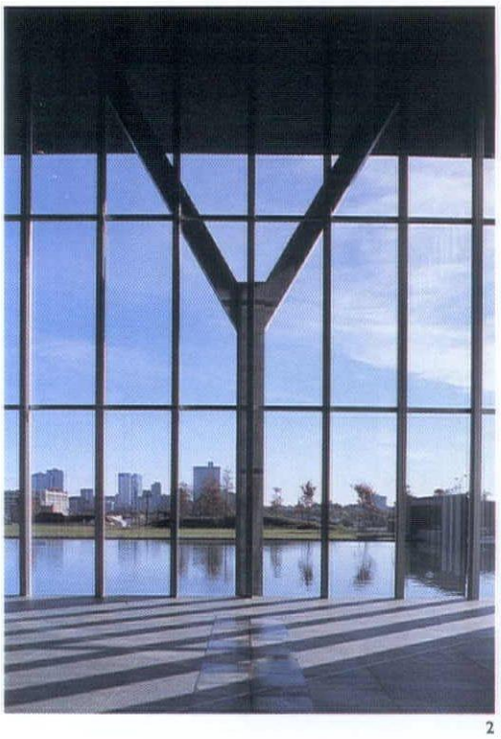
For all the similarities, there are very significant differences between the two buildings. Kahn's galleries are reminiscent of Cistercian vaults in their awesome simplicity. Ando's exhibition spaces are concrete boxes within glass ones. The heavy inner boxes are the main containers for the artworks, while the glass ones provide intermediate spaces between galleries and the lake and lawns.

The other major difference between Ando and Kahn is that Ando (for all the size of his site) found it necessary to put his galleries on two levels. One of the reasons for this must surely be the difference in scale between much contemporary work and the paintings in the Kimbell, which contains a fundamentally private collection of works of easel and domestic scale. Fort Worth's Modern needed larger spaces, some of double height, to accommodate really big pieces. Ando has exploited the possibilities of his two levels of galleries with sudden surprising juxtapositions of volume and scale, but the arrangement means that lower, single-height galleries must inevitably seem slightly second class because they cannot receive daylight. Upstairs galleries are top lit as in the Kimbell, either through diffusing fabric ceilings (such as the one over the stair hall) or from clerestories, which project light onto inclined cornices and then down into the spaces. In both cases, daylight is supplemented by artificial sources, but arrangements seem rather clumsy compared to the apparently effortless combination of concrete vaults and botanically curved metal reflectors of Kahn's building.

Routes through the galleries are arranged to encourage wandering, with some openings arranged enfilade, but with occasional departures from axiality. The major public space is the double-height entrance hall which, as you go in, offers fine views over the lake, the semi-private garden beyond and the glass boxes of the gallery spaces poking out into the water to receive the Hockney-like constantly changing dappled reflections of the water surface. To the right of the

FORT WORTH MODERN ART MUSEUM, TEXAS, USA
ARCHITECT
TADAO ANDO





2

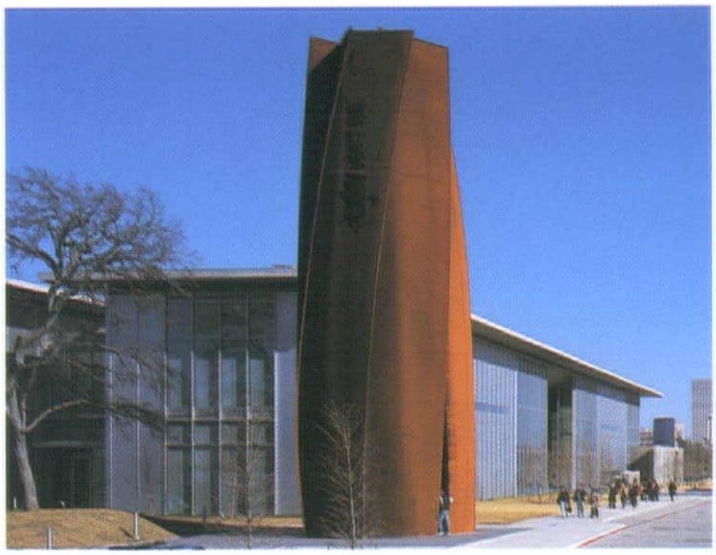
2
Looking out from the intermediate space between glass and concrete boxes over lake to skyline of Fort Worth.
3
From north, towards entrance hall.



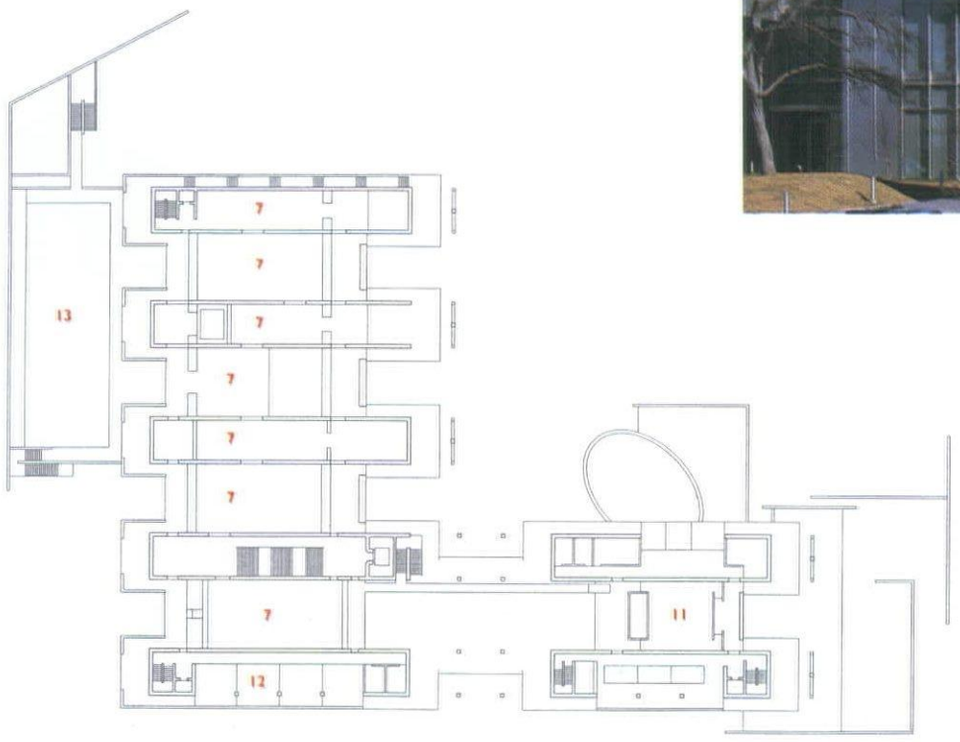
Fort Worth Modern Art Museum, Texas, USA

Architect

Tadao Ando



4



first floor

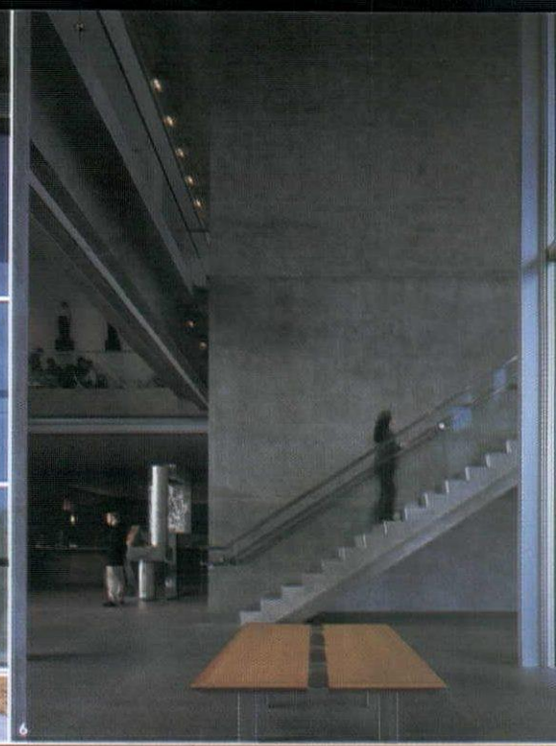


ground floor (scale approx 1:1250)

1 entrance hall
2 information desk
3 museum shop
4 café restaurant
5 terrace
6 auditorium
7 gallery
8 art workshop
9 loading dock
10 storage
11 offices
12 art classrooms
13 sculpture terrace
14 mechanical plant
15 parking

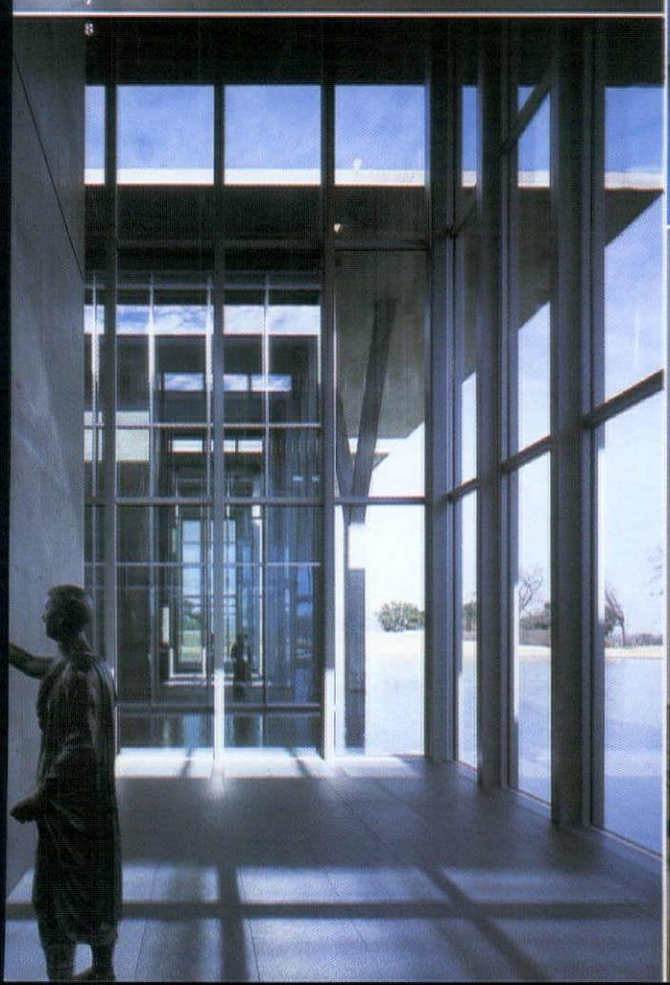
4
Richard Serra's rusty landmark from south-west.
5
The semi Neo-Classical entrance.
6, 7
Entrance hall.
8
Intermediate space between concrete gallery box (left) and glass.
9
Special oval gallery with Anselm Kiefer's *Book with Wings*.
10
Ando exploits changes in scale of two-storey building.


5

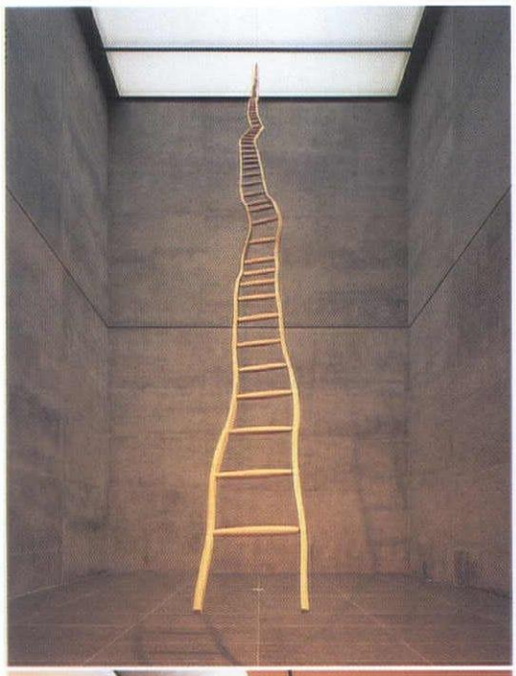

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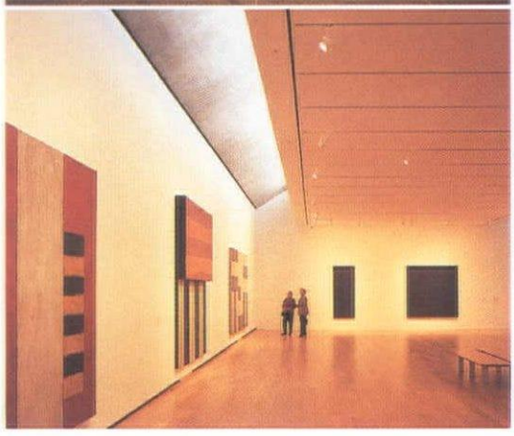

9


8


10



11



12

11
Double-height gallery to house scale of contemporary artworks.
12
First-floor gallery with clerestorey light reflected off inclined cornice.
13
The great stair, under diffusing fabric ceiling.

FORT WORTH MODERN ART MUSEUM, TEXAS, USA

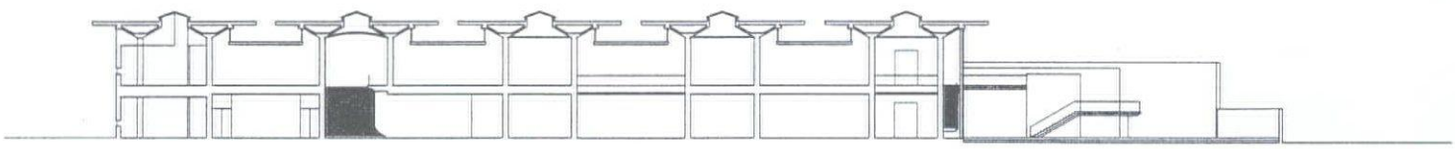
ARCHITECT

TADAO ANDO

entrance is the auditorium and a cafeteria that has a terrace poking out into the lake. To the left is the information desk, from which you are directed to either the entrance of the ground floor galleries, or the stairs, where you are cleverly deflected upwards by the curve of a special ground floor gallery.

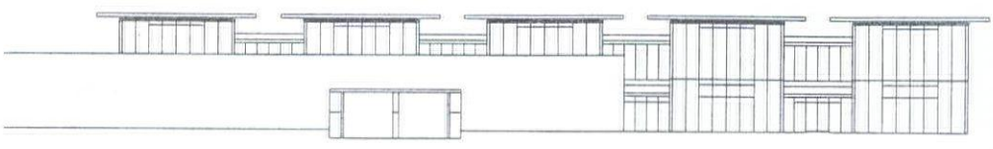
All this is very thoughtful, and the building is pleasant and sometimes exciting to be in, while providing unassertive spaces in the concrete boxes that never overwhelm the works on display in the first hang. But it must inevitably be compared to the Kimbell, both because of its sighting and its parti. Differences are quite profound. While the Kimbell, for all its monumental qualities, is welcoming with a generous embrace, the double height of the Ando building is partly responsible for a much more formal, almost scraped Neo-Classical entrance. The entrance hall itself, for all its fine volume and views (and its dramatic bridge, which leads staff over the volume at first floor level) is both austere and rather daunting. The insistent rhythm of glazing bars dominates perception.

To me, from both inside and out, the bars seem heavy, and the proportions they describe elongated and overstretched. While not advocating planar glazing, I wonder if there couldn't have been a less strident approach to making the glass walls, which themselves are causing some problems of insolation and glare. The relative coarseness of the glazing contrasts with the really excellent quality of the fairfaced concrete, which rivals Zumthor's at Bregenz (AR December 1997), most unusual in the US. As in the Austrian building, the soft grey walls are an excellent backdrop to all visual art – surely the most important attribute of any gallery. Undoubtedly, Ando has made a fine museum – but on that site, it is inevitably subject to tough appraisal. ROGER MORANT

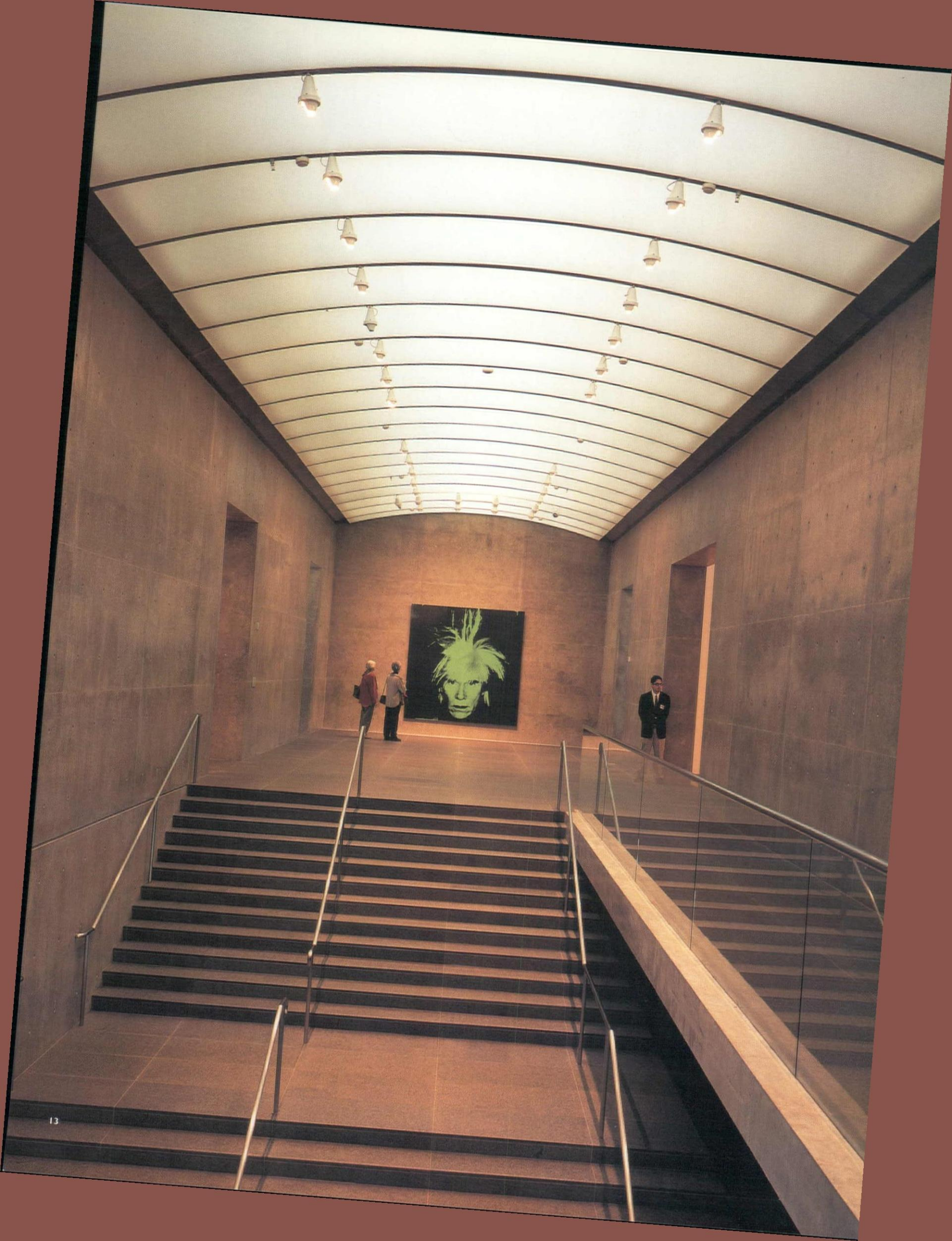


south-north section through galleries

Architect
Tadao Ando Architect & Associates, Tokyo
Project team
Tadao Ando, Masataka Yano, Kulapat Yantrasast, Peter Arendt, Larry Burns, Rollie Childers, Nobuhiko Shoga, Jory Alexander
Lighting consultant
George Sexton Associates
Photographs
All photographs by John E. Linden apart from 1 by Mitsuo Matsuoka and 2 by Tadao Ando

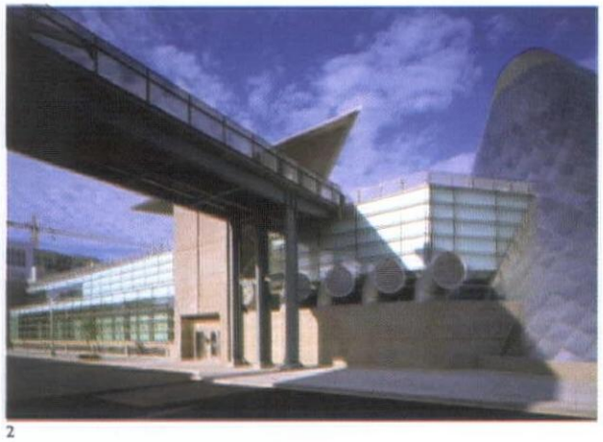


dull west elevation (facing Kimbell) in which aluminium panels are sometimes substituted for glass to reduce insolation





1



2

1
Levels of raised ground from Foss Channel.
2
Bridge approach.
3
Buster Simpson's planes of glass hover over pool.

CONICAL REFLECTIONS

Erickson's Tacoma Museum of Glass celebrates manufacture and material qualities of one of humankind's greatest inventions.

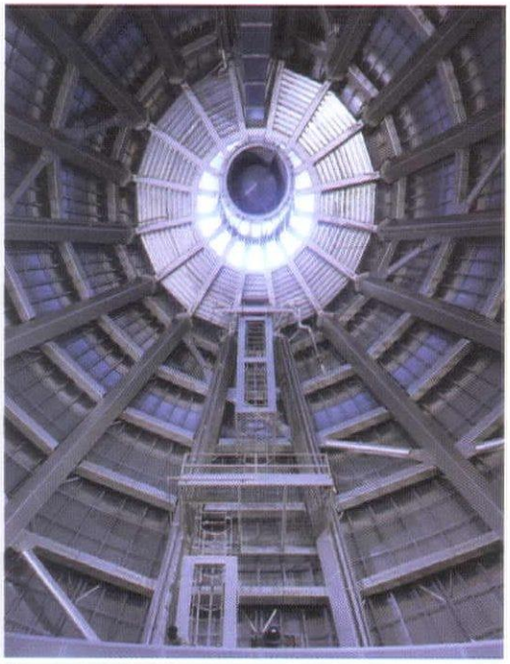
Arthur Erickson is a master of raised urban ground. His splendid piazza in Vancouver, which gently makes green public terraces in the middle of the city to greet the court building (AR July 1980) is surely one of the great triumphs of twentieth-century urban design. His Museum of Glass at Tacoma, further down the Pacific coast in Washington State, USA, is another essay in the same vein (though smaller). And it is a new Erickson venture into museum building, recalling his legendary Vancouver museum of the culture of indigenous peoples.

Unlike that building, the glass museum is downtown, locked into urban structure of railway and highway, seaside and centre. It ascends from the waterfront of the Foss Channel, one of Tacoma's harbours, as a series of planes, some of water, which are linked by ramps and a grand stair that winds round the dramatic signpost of the place, the skewed shining cone of its big space covered by stainless-steel lizard-skin tiles. The cone is tilted as an abstracted memory of the structures of the sawmill burners of the Pacific Northwest, but it also evokes the silhouette of Mt Rainier, the magic peak of this part of the coast. Erickson says that the structure would have been clad in glass, and so would much else of the mainly concrete building if 'devalue engineering' had not been brought to bear on the project. In the end, he decided that stainless steel could shimmer nearly as piercingly as glass.

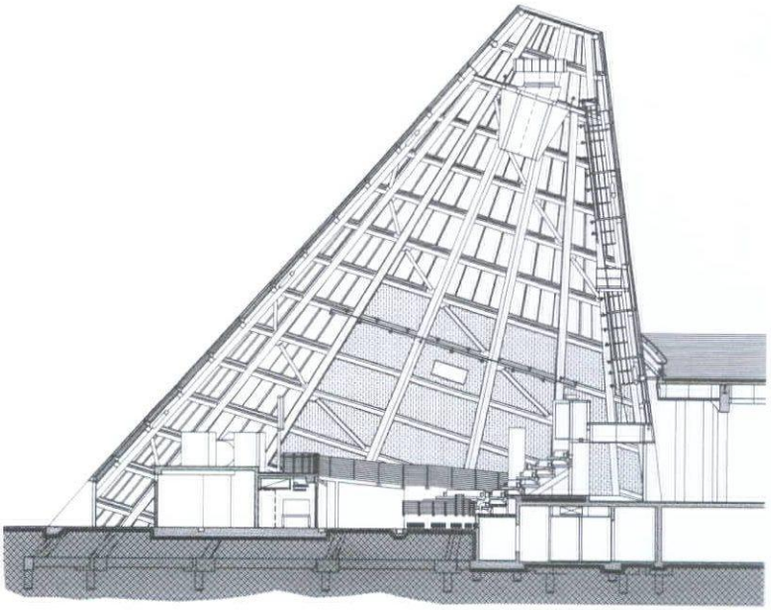
Most people approach the museum across a bridge which spans railway and motorway. This rather kitsch route is by Andersson Wise working with a local artist who has created ingenious but obvious interpretations of Pacific marine life-forms in glass. The steel and concrete bridge connects the museum's serene upper level to the core of downtown Tacoma, and the history museum, University of

GLASS MUSEUM, TACOMA, USA
ARCHITECT
ARTHUR ERICKSON WITH THOMAS COOK REED REINVALD ARCHITECTS





4



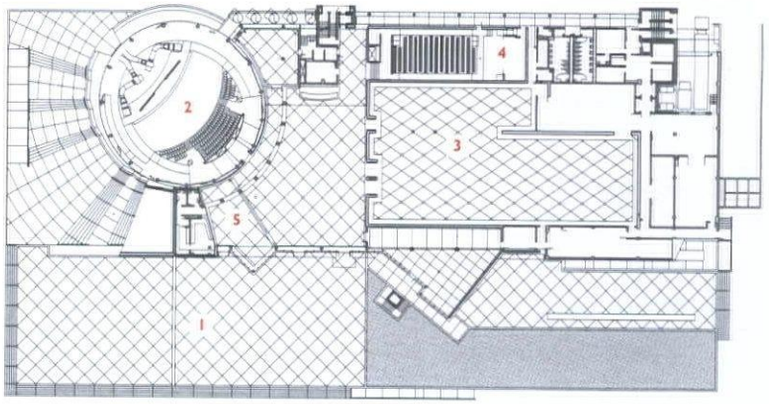
section through cone

GLASS MUSEUM, TACOMA, USA

ARCHITECT

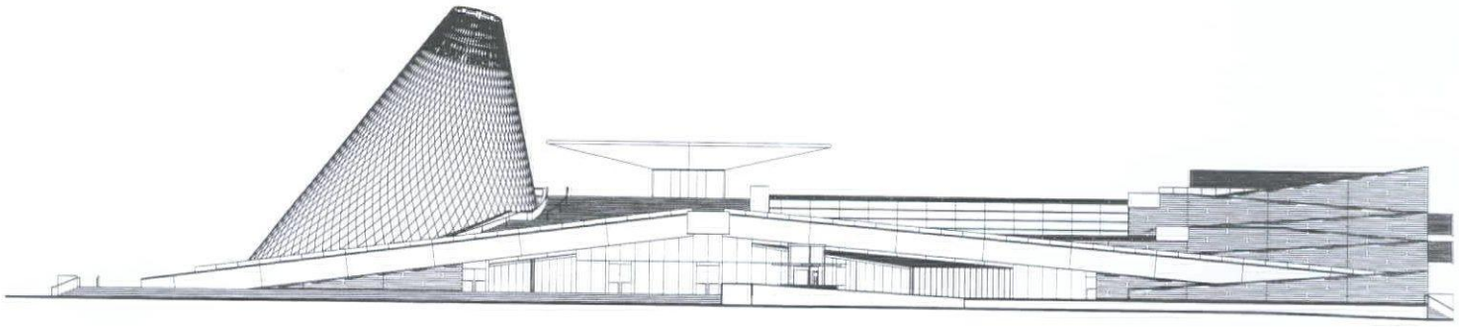
ARTHUR ERICKSON WITH THOMAS COOK REED REINVALD ARCHITECTS

4
Cone is not only dramatic but a means of dissipating heat from furnaces.
5
Approaching the cone up ramps.
6
Howard Ben Tré's spurting fountains.



plan of principal level (scale 1:1300)

1 piazza
2 great cone
3 galleries
4 lecture theatre
5 entrance



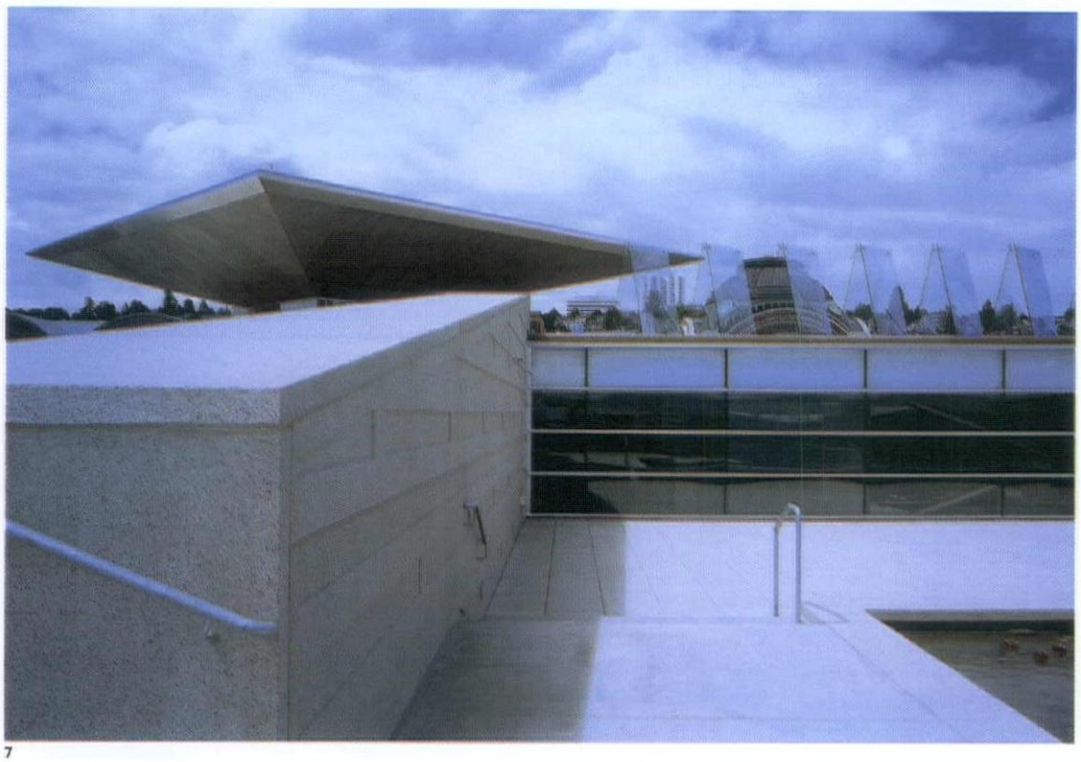
 east elevation showing ramps and terraces. Bridge is right of cone



5



6



7

Architect
Arthur Erickson with Thomas Cook Reed Reinvald Architects
Project team
Arthur Erickson, Wyn Bielaska
Lighting controls
Lutron
Photographs
All photographs by Nic Lehoux except no 1 by Russell Johnson



8

Washington, and the future art museum. Other collaborations with artists have been more fruitful, notably the opposed repeating reflective glass planes posed over a long pool by Buster Simpson, and Howard Ben Tré's deliciously spurting fountains.

Inside, the cone's tall and dramatic space is a hot theatrical inferno. Two furnaces melt glass, and there are five crucibles in which it is kept molten, and an equal number of annealers, in which the finished work is cooled down gently to prevent cracking. Height is needed to get rid of the heat; the furnaces blare and growl. Extremely able and witty glass artists perform in front of an audience of up to 140 people. It is all very different from the calm terraces and stairs which surround the cone, and from the galleries that are under them.

These are rather low, neutral spaces but functional: appropriate in scale for the necessarily small objects that they are designed to exhibit, which are often excellently demonstrated by careful use of electric light. It is sad that Erickson, the master of voids and shafts of light, was not able to thoughtfully introduce more natural luminance: glass and transparency are just as important in moderating daylight as the electric produced variety. Surely in a museum devoted to glass production, we should have some notion of the material's intermediary role between outside and in.

The cone is the dramatic focus. It crashes down into the galleries, the cafeteria and foyer, still wearing its stainless-steel lizard armour, making you always aware of the theatre it contains. It is often assumed that Erickson is a sketcher – not too involved with the making of his ideas. But at Tacoma, detailing is thoroughly thought out: clean, simple and well made, it is a very fine example of what can be achieved within the usually crushingly efficient but dull US building industry. E. M.

7
Inverted pyramidal roof marks bridge entrance.
8
Galleries are neutral and scaled for small objects.
9
The theatrical glass kitchen.

GLASS MUSEUM, TACOMA, USA
ARCHITECT
ARTHUR ERICKSON WITH THOMAS COOK REED REINVALD ARCHITECTS





1

Like a modern Medici with matching accessories, Miuccia Prada and her eponymous fashion house have become synonymous with a shrewdly intrepid approach to architectural patronage. Since 1999, Prada has embarked on a programme of new store designs and brand expansion through a select stellar cabal of the avant-garde (Rem Koolhaas, Kazuyo Sejima, and Herzog & de Meuron). Though the worlds of architecture and fashion have a fertile and often colourful reciprocity, this goes beyond the periodic tasteful fit-out into a more serious (and big budget) exploration of the radical that aims to reinvent the simple act of clothes shopping into a singular experience – consumerism as culture or religion and shops as carefully choreographed environments or temples. (Perhaps not so different from the Medicis after all.)

The first so-called 'Epicentre' store designed by Koolhaas was unveiled on New York's Broadway in 2000; three years on, *fashionistas* and architecture pilgrims have a new reference point on their global compasses with the completion of the biggest Prada flagship store to date in Tokyo, designed by Herzog & de Meuron. At a cost of £52 million, budget, it seems, is no object, despite falls in company profits (down from £36 million in 2001 to £19 million last year, though the Asian market is still apparently buoyant). The Swiss partnership has also been charged with converting a piano factory for the house's New York head office and designing a new production centre in Tuscany. Such creative interaction represents an intriguing shift in the cultural landscape of architecture. Whereas a generation ago architects' imaginations were exercised by helicopters and yachting wire, now it is high fashion and modern art.

Prada Tokyo is in Harajuku, an area famous for both its couture and street fashion, manifest by the parades of exotically attired young Japanese who cruise up and down the broad main drag of Otomosando, which, with its trees and cafés, is Tokyo's closest approximation to a Parisian boulevard. At its east end it tapers and morphs into the city's Bond Street, an elegant ghetto of deluxe flagships clinging staidly together, like first class passengers in the Titanic's lifeboats, for succour against the blare and dislocation of modern Tokyo. In a city with virtually no public space in the European sense (land is far too precious a commodity to remain empty), Herzog & de Meuron's first move is a bold and urbanistically generous one, stacking up the shop and office accommodation into a stumpy five-sided block to create a small piazza at its base. The piazza is enclosed by an angular wall covered in soft green moss that will gradually flourish, a reminder of the slow beauty of organic life in the midst of artifice. Hemmed in on all sides by low-rise buildings, the forecourt provides a breathing space for meeting, socializing and window shopping. It also makes the tower more of a distinguishable object in its own right, like a chunky bubble-wrapped bauble on a tray.

FASHION STORE, TOKYO, JAPAN
ARCHITECT
HERZOG & DE MEURON

UNDER THE NET

Wrapped in a crystalline grid, this new store in Tokyo marks the latest step in Prada's plans for world fashion domination.

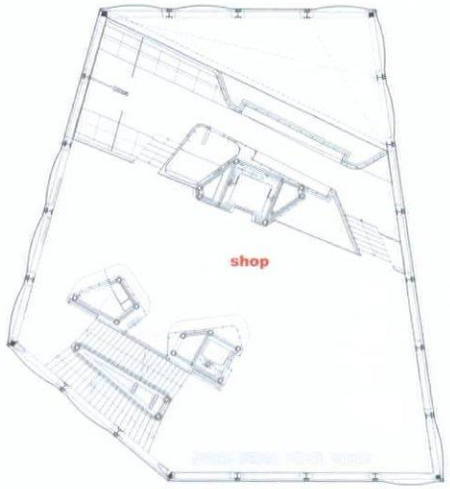


location plan

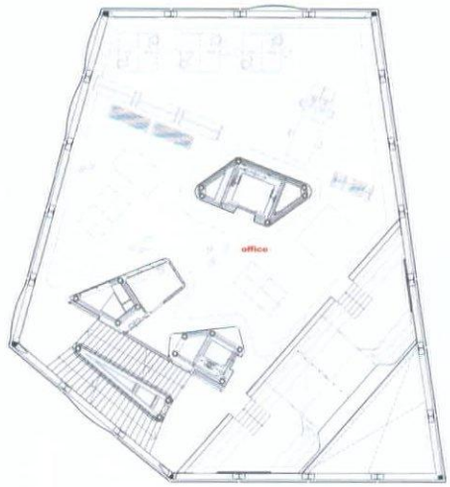


1
The Prada tower draws back from the edge of its site to create a small public piazza.
2
Detail of the rhomboidal grid with its glass infill panels that envelops the building like a huge net or piece of bubble wrap.

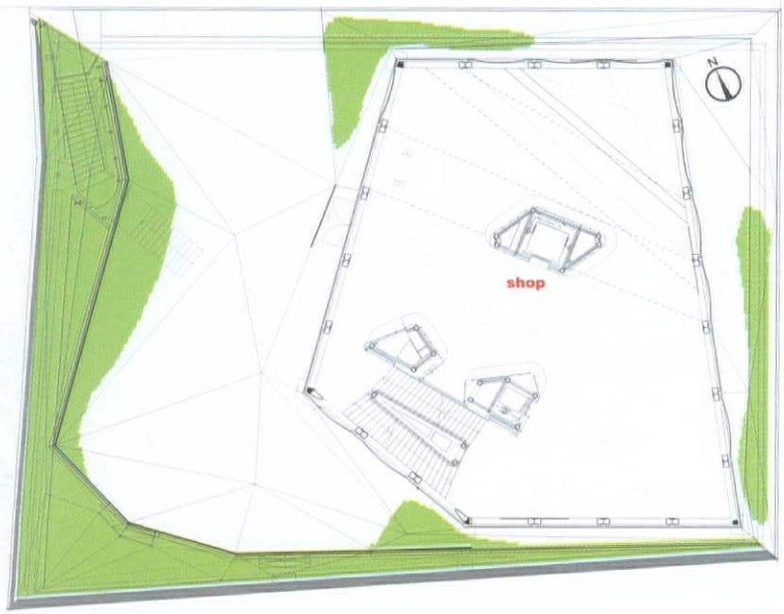
FASHION STORE,
TOKYO, JAPAN
ARCHITECT
HERZOG & DE MEURON



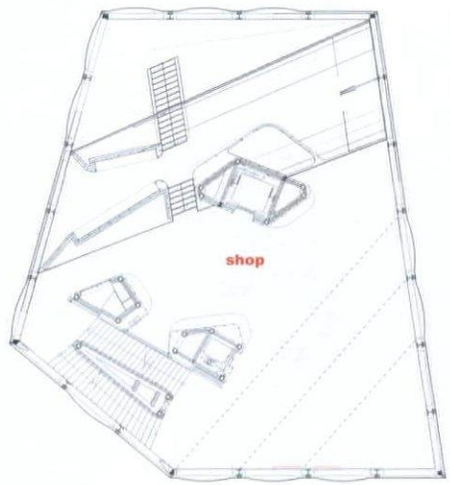
first floor



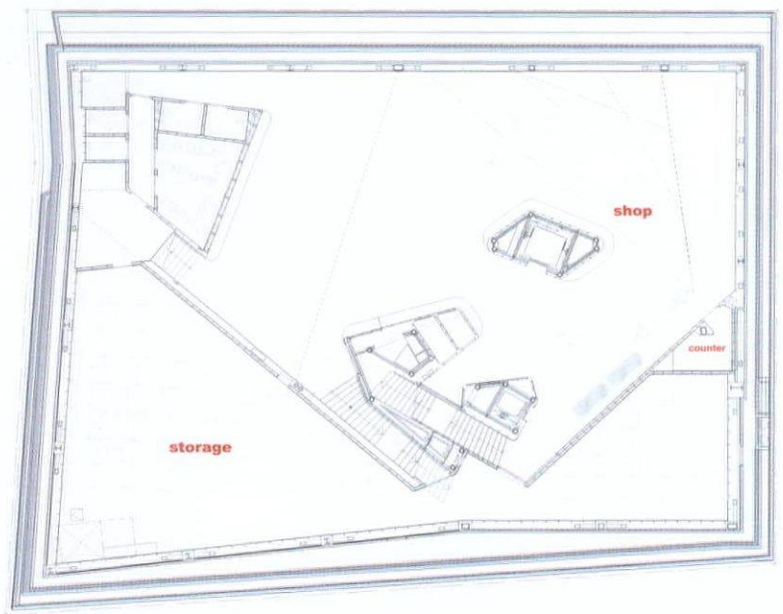
fourth floor



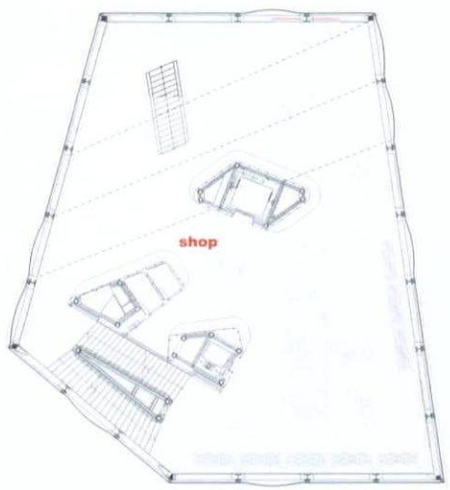
ground floor plan (scale approx 1:250)



third floor

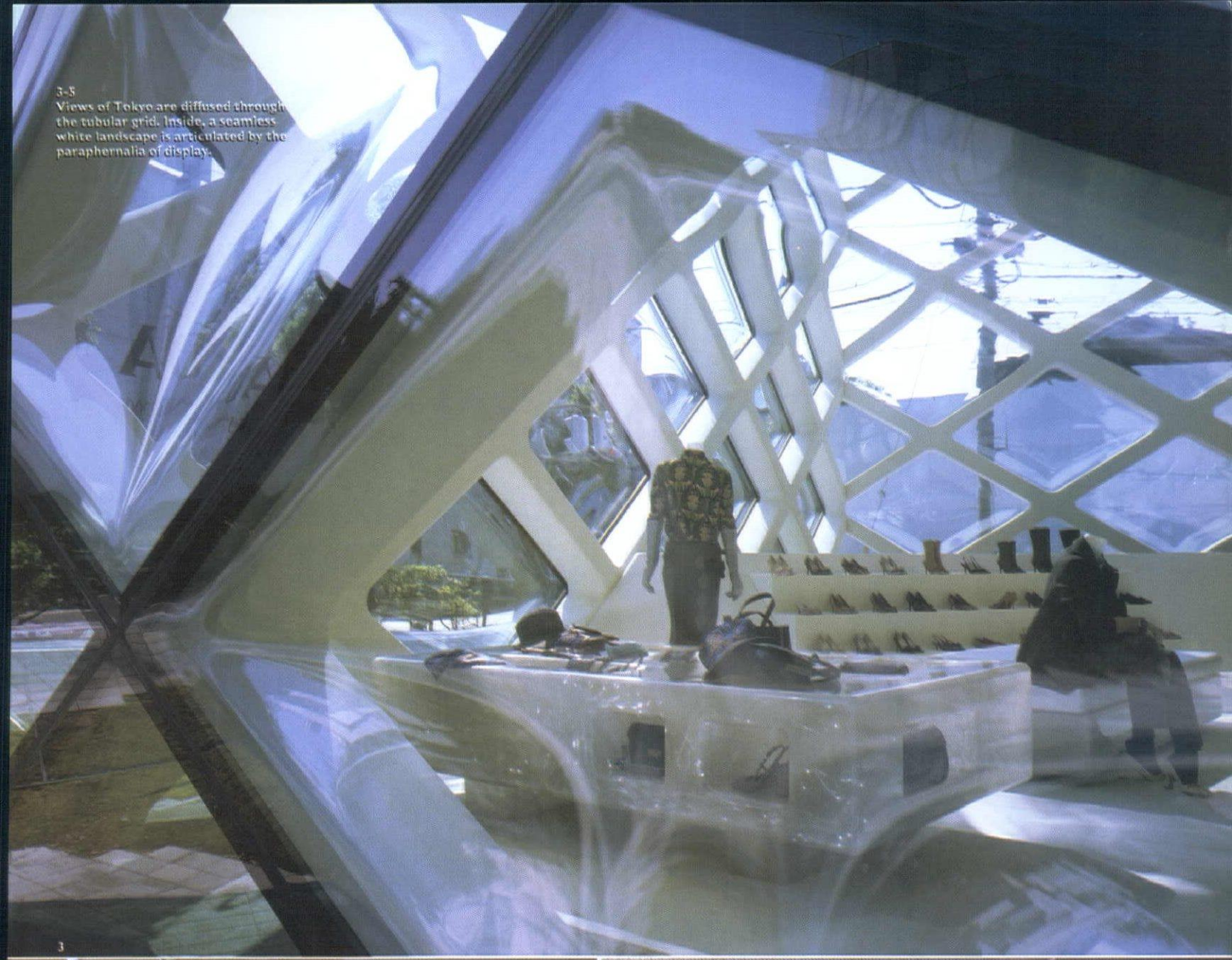


basement plan

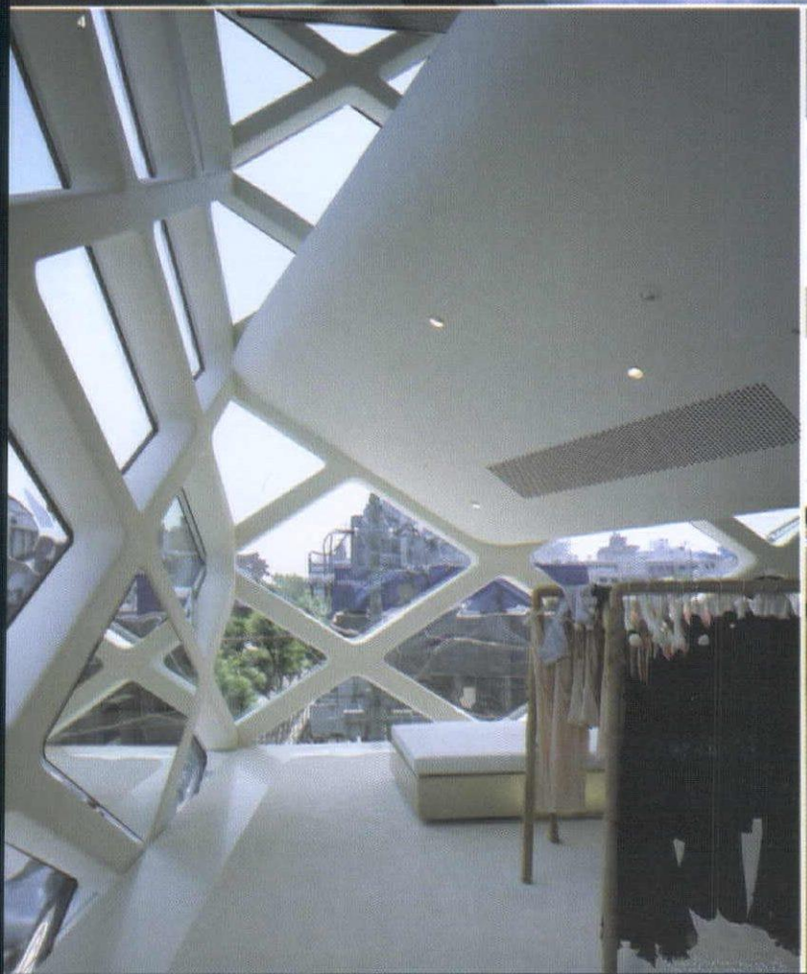


second floor

3-5
Views of Tokyo are diffused through the tubular grid. Inside, a seamless white landscape is articulated by the paraphernalia of display.



3



4



5

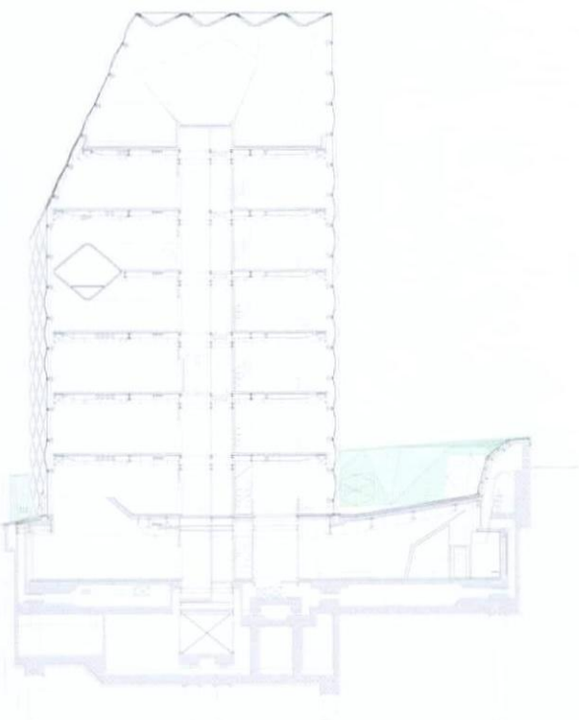


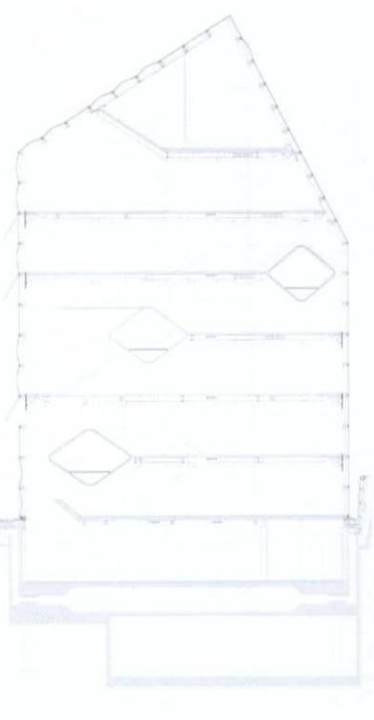


Though it might appear capricious, the irregular geometry of the tower is in fact dictated by Tokyo's complex zoning and planning laws that have shaped and eroded the basic six-storey block. Herzog & de Meuron's early exploratory models resembled roughly carved pieces of ice, now evolved into a more streamlined and tautly chamfered form. This is wrapped in a rhomboidal grid, like a giant fishing net (or string vest), infilled with a mixture of flat, concave and convex panels of glass. Most are clear, some, where they enclose changing rooms, are translucent. The convex panels billow out gently through the grid like bubbles or puckered flesh (enhancing the string vest analogy). Cunningly, there is no single focal shop window; rather the entire building is a huge display case, generating faceted reflections and an array of changing, almost cinematic, views from both outside and inside. At night, light pulsates through the crystalline lattice, tantalizingly exposing floors of merchandise.

Tied back to the vertical cores of the building, the tubular steel grid forms part of the structure, so that facade and structure are in effect a seamless entity. The grid acts as stiffening element, bracing the structure against seismic forces. Inside all is equally seamless. A meandering labyrinth of cool white space forms a suitably neutral canvas for the carefully orchestrated display of designer objects. At intervals, the double-height spaces are penetrated by the diagrid structure, bleached white like dinosaur ribs. Changing rooms are enclosed by panels of electropic glass that can turn opaque at the flick of a switch. Lights and monitors wiggle provocatively on serpentine stalks adding a whiff of *Barbarella* campness, compounded by the puzzling and slightly perverse presence of an array of white fur rugs. And everywhere there are glimpses of the Tokyo streetscape filtered and framed by the giant net. Though Prada is undoubtedly technically sophisticated, you wonder, slightly heretically, if a mere boutique merits such a concentrated application of resources and architectural imagination. But this is the rarefied world of fashion, where normal rules have never applied. PHOEBE CHOW

Architect
Herzog & de Meuron, Basel
Project team
Jacques Herzog, Pierre de Meuron, Stefan Marbach, Reto Pedrocchi, Wolfgang Hardt, Hiroshi Kikuchi, Yuko Himeno, Shinya Okuda, Daniel Pokora, Mathis Tinner, Luca Andrisani, Andreas Fries, Georg Schmid
Associate architect
Takenaka Corporation
Structural engineers
Takenaka Corporation, WGG Schnetzer Puskas
Mechanical engineers
Takenaka Corporation, Waldhauser Engineering
Facade consultant
Emmer Pfenninger
Lighting consultant
Arup Lighting
Photographs
Nacasa & Partners







Fashion store, Tokyo, Japan

Herzog & de Meuron

4.
Inside the seamless white labyrinth.
7.
At night the crystalline fabrics pulsates with light.
8.
Surreal-like fittings add a camp, futuristic air. The untreated timber floor is a reprise of Tate Modern.



1

FULL COLOUR

Intended as a landmark in an otherwise dreary part of the city, this building incorporates latest glass technology and passive energy devices.

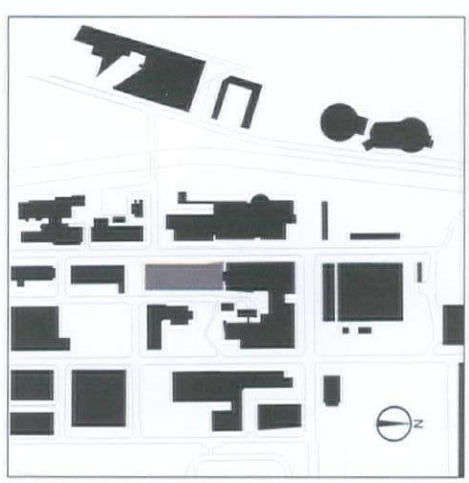
Sauerbruch Hutton's pharmacological laboratories for Boehringer Ingelheim Pharma KG in Biberach, south-west Germany are intended to be a landmark in an otherwise neat but dull industrial research complex. In essence, the building has a routine programme: just more offices and laboratories to add to the mass already there. Attached to a dreary existing block, the new seven-storey building politely continues its height, but is quite different in expression. Sauerbruch & Hutton have used their familiar palette of colours: magenta, ochre, burnt sienna, pale blue-white and so on, to generate an abstract pattern of vertical rectangles, which wanders gently over the whole facade. The building is undoubtedly the most dramatic on the whole campus, and, though it is not on the main road, it acts as a visual attractor to the middle of the complex, and its generous one-and-a-half level height foyer, associated with the cafeteria and smoking area (which can be used for informal lectures), is a focus for cross-campus paths.

In fact, the coloured panels are single-paned silk-screen fritted glass louvres that form a rainscreen over the whole visible part of the exterior, save the entrances, which are in ordinary glass. The rainscreen is part of an overall energy strategy.

Planning is very simple: accommodation is divided into four strips. On the west side, offices are naturally ventilated. Then there is the atrium, which brings light from the sky into the middle of the building, and also acts as a thermal chimney, allowing the whole west side of the building to be naturally ventilated. To the east is the laboratory strip, in which all spaces are air conditioned (and sometimes specially ventilated) but naturally lit. Between this strip and the atrium is a layer of dark labs from which daylight must be excluded. Laboratories are connected to galleries that serve the offices by bridges over the voids of the atrium, and both labs and offices are capable of varied configuration. Open staircases connect floors of the atrium through the voids.

In energy terms, the main problem with such a large glass-covered box is of course cooling. The rainscreen filters effects of sun and external temperature. Its tempered louvres, the ones opposite the window strips on the inner wall, are centrally pivoted, and the three external walls are controlled separately by a central building management system. Convection in the voids between rainscreen and the inner walls (which have insulation on the outside) promotes natural ventilation in the offices and cooling for the

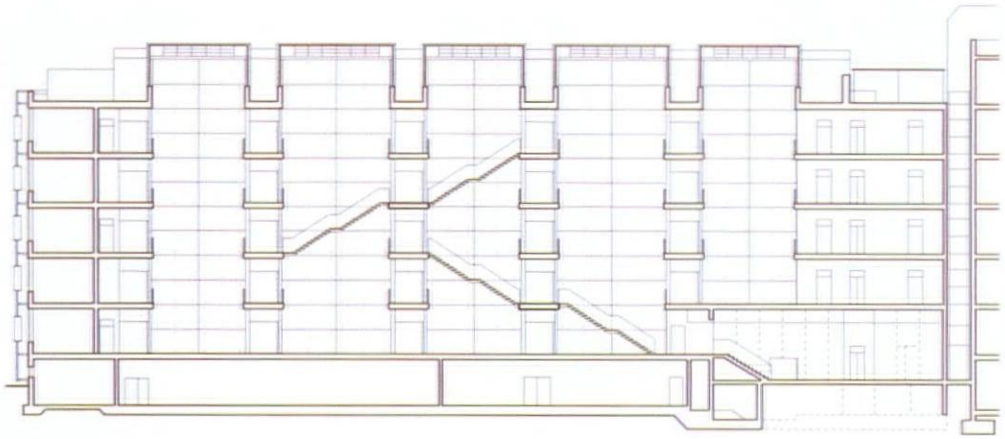
LABORATORIES,
BIBERACH, GERMANY
ARCHITECT
SAUERBRUCH HUTTON
ARCHITECTS



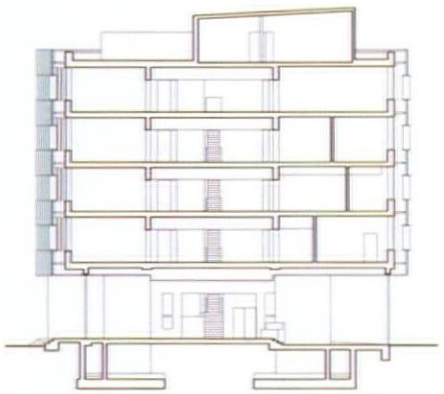
site plan



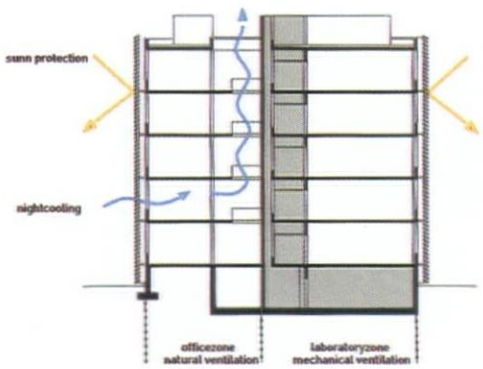
1
From north: new landmark building conforms to general planning guidelines.
2
Building closed with all louvres shut.



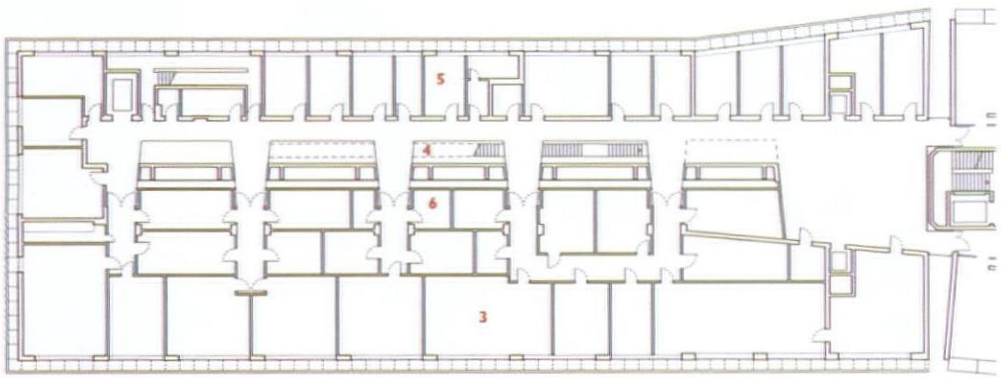
long section



cross section

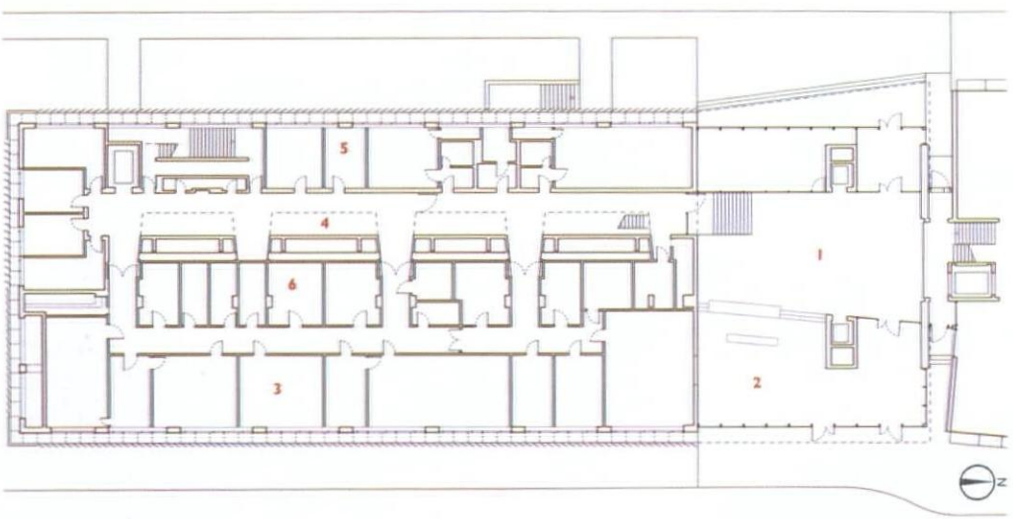


principles of passive cooling



typical floor

1 entrance hall
2 cafeteria
3 laboratories
4 atrium
5 offices
6 dark zone

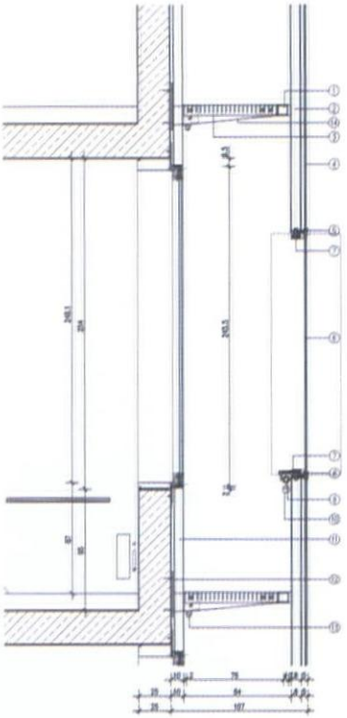


 ground floor (scale approx 1:600)

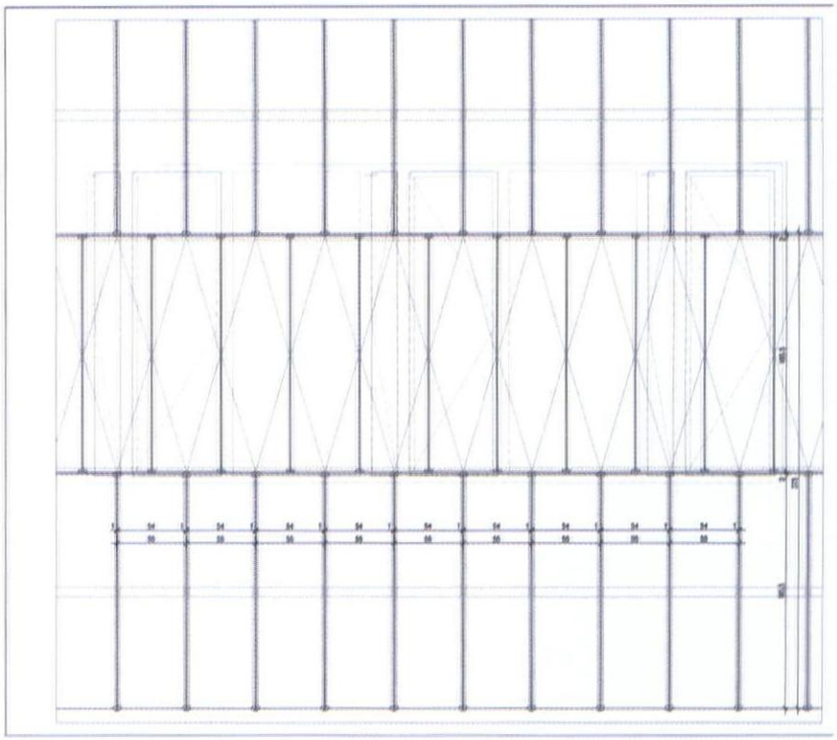


3
With louvres open, building takes on completely different and more sparkling aspect.

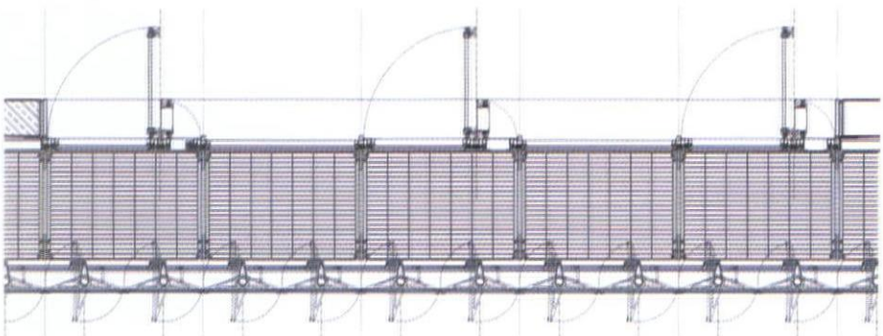
LABORATORIES, BIBERACH, GERMANY
ARCHITECT
SAUERBRUCH HUTTON ARCHITECTS



wall: detailed section



wall: detailed elevation



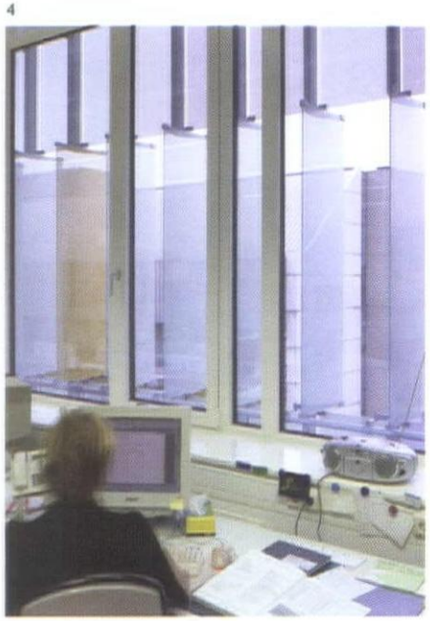
plan of wall arrangements (scale approx 1:50)

laboratories. Exposed concrete in foyer and atrium allows the structure to act as a thermal flywheel and, in summer, night air is induced up the atrium to cool the mass.

On sunny days particularly, the building sparkles. Open louvres through which light is transmitted take on completely different colours from fixed spandrel panels of the same kind of glass. As the sun moves, the building changes with it. But one is left with a worry: what happens to people who have to look out from their offices or labs through a passage of magenta glass if they don't like magenta? EMMA JACQUES

Architect
Sauerbruch Hutton Architects, Berlin
Project team
Louisa Hutton, Matthias Sauerbruch, Juan Lucas Young, Konrad Opitz, Jürgen Bartenschlag, Marcus von der Oelsnitz, Hirokatsu Asano, Nicole Berganski, Denise Dih, Claus Marquart, Daniela McCarthy, Annette Kreyerhoff, Florian Völker, Andreas Weber, Nicole Winge
Flooring
Freudenberg, Noraplan
Lighting planning/fittings
Zumtobel Staff
Facade and windows
M+V Sonnenschutz GmbH
Photographs
Gerrit Engel

4



5



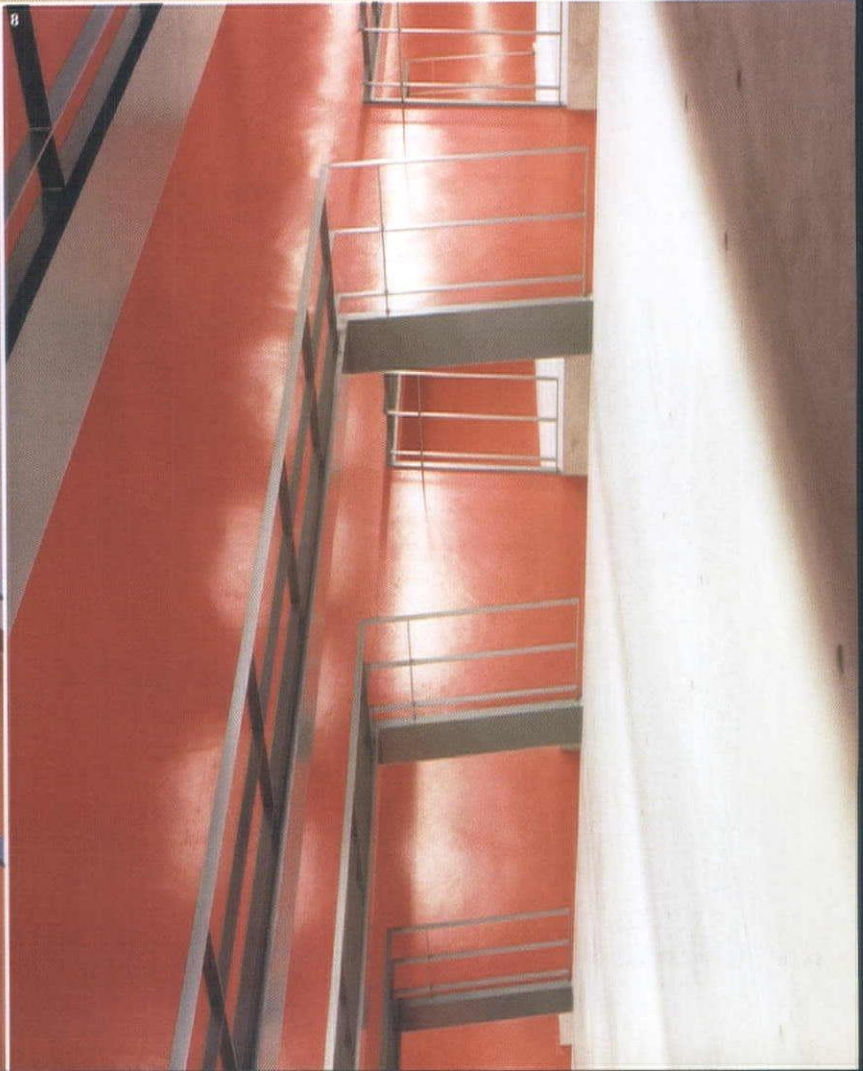
4
Typical office, looking through double wall.
5
Wall void.
6
Entrance hall.
7
Atrium acts as thermal chimney.
8
Bridges link office gallery to laboratory zone.



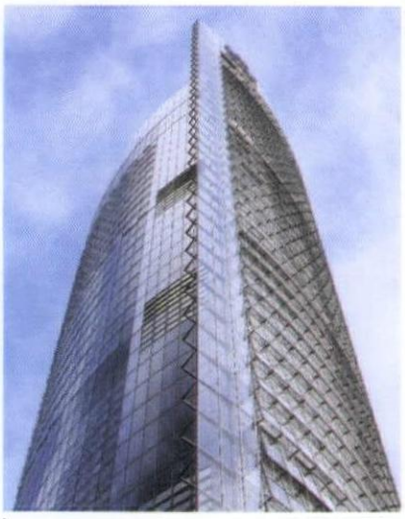
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7



8



1

OFFICES, BONN, GERMANY
ARCHITECT
MURPHY/JAHN

ECO TOWER

Glass towers are not necessarily eco friendly. This one shows how new architecture can be evolved from ecological and humane principles.

Murphy/Jahn's Post Tower dominates Bonn's former government quarter which forms the city edge against the Rhineside Central Park. Formally, the tower complements Egon Eiermann's Langer Eugen tower, previously for the civil service and now to be occupied by the UN, and Günter Behnisch's parliament building (AR March 1993), which will become a conference centre now that the Bundestag has moved to Berlin. The long horizontal white strips of the broadcasting station Deutsche Welle by Joachim Schürmann & Partner (initially intended to serve the parliament building) complete a public campus.

The new tower develops the best traditions of modern German office building. Most offices are for one to three people; all have windows and views over river and city. Energy efficiency and conservation are equally generative in the parti. Basically, the building consists of the 162m office tower and a four-storey semi-detached podium block containing auditoria and the larger meeting rooms.

In plan, the tower is an oval, split down the middle, with the two halves slightly shifted against each other. Connecting the two arcs of accommodation is the 7.2m wide vertical circulation and services core. In this, every nine storeys, there is the glass floor of a skygarden which acts as a communications level and vertical circulation crossover. Banks of glass lifts are in the middle of the skygardens, providing views and orientation.

Tower walls have a double skin of glass. The outer layer is a rainscreen and there are automatically regulated blinds in the voids between inner and outer layers of glass which are over a metre wide. The thermal mass of the building's concrete structure is called into



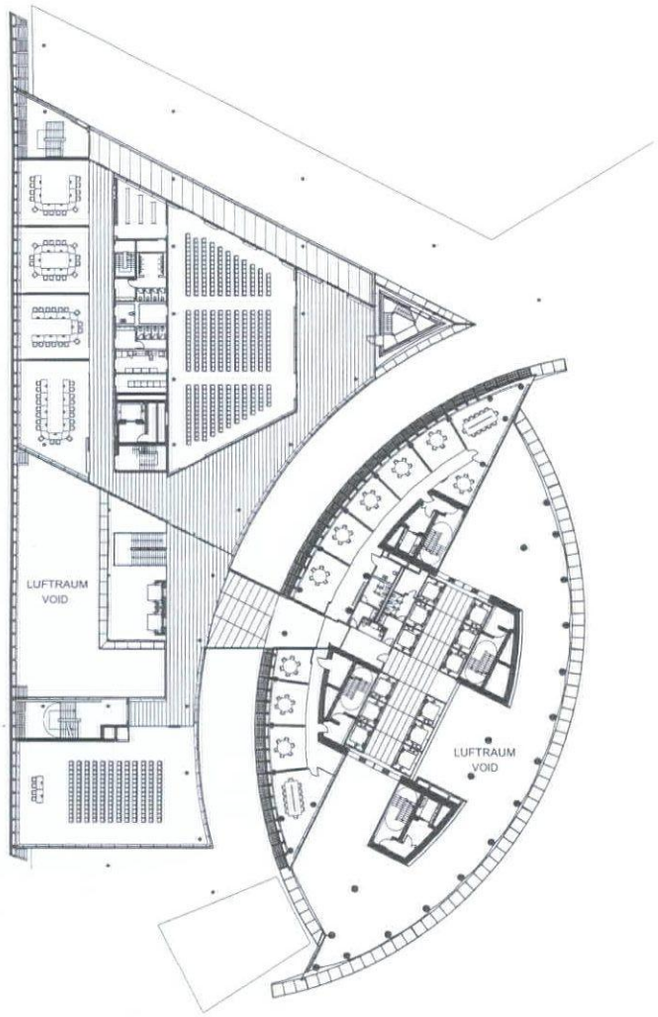
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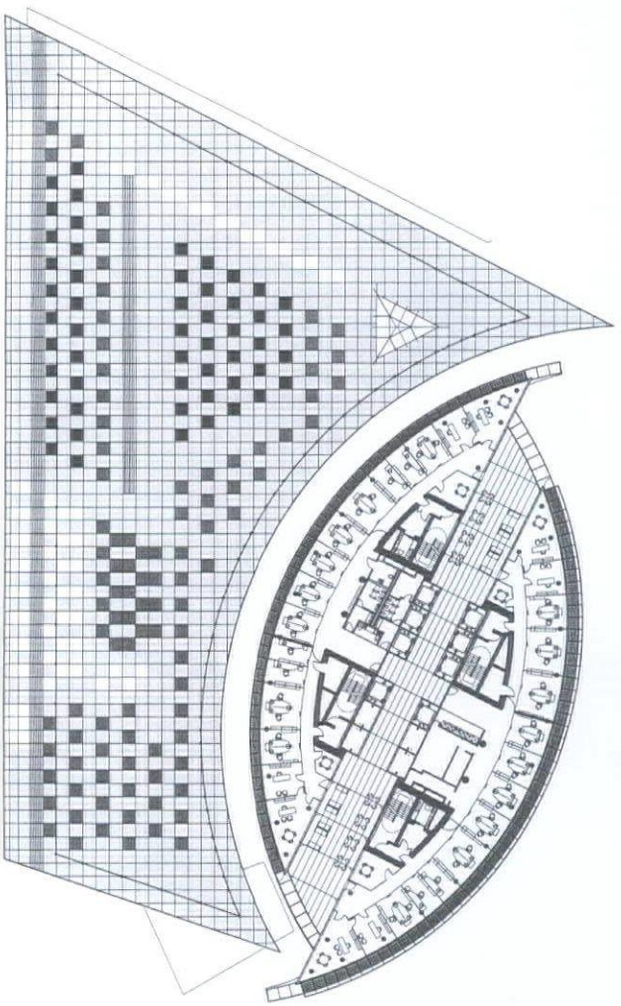
2

1
Detail showing different glass treatments: right, south elevation; middle, central core with louvred skygardens; left, north elevation.
2
Tower entrance.
3
Podium contains auditoria and communal spaces.
4
A landmark on the Rhine.

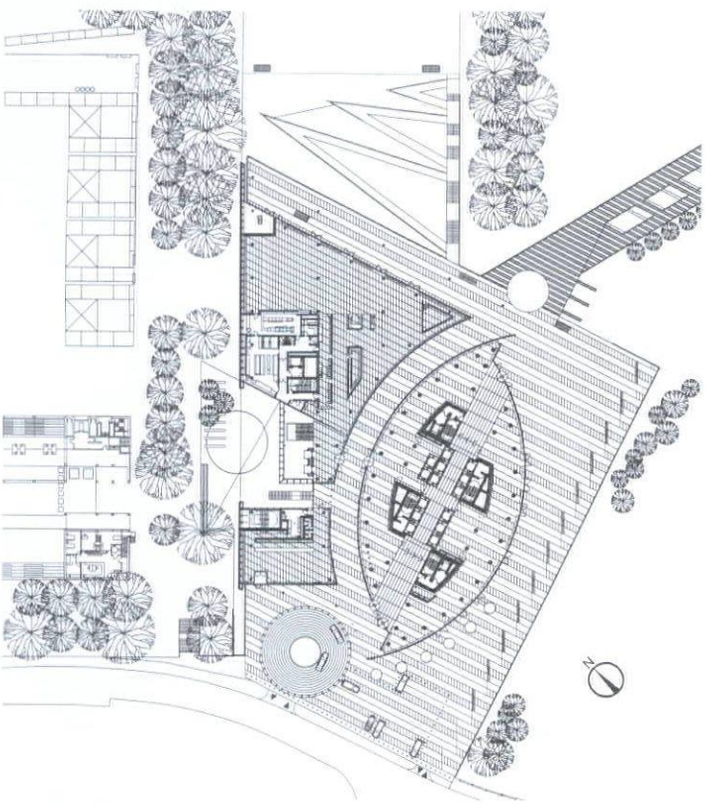




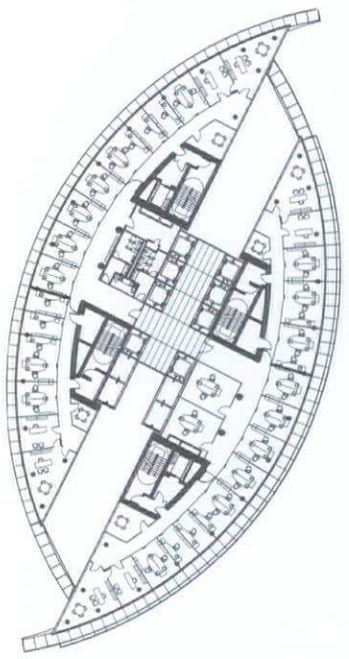
third floor (scale approx 1:900)



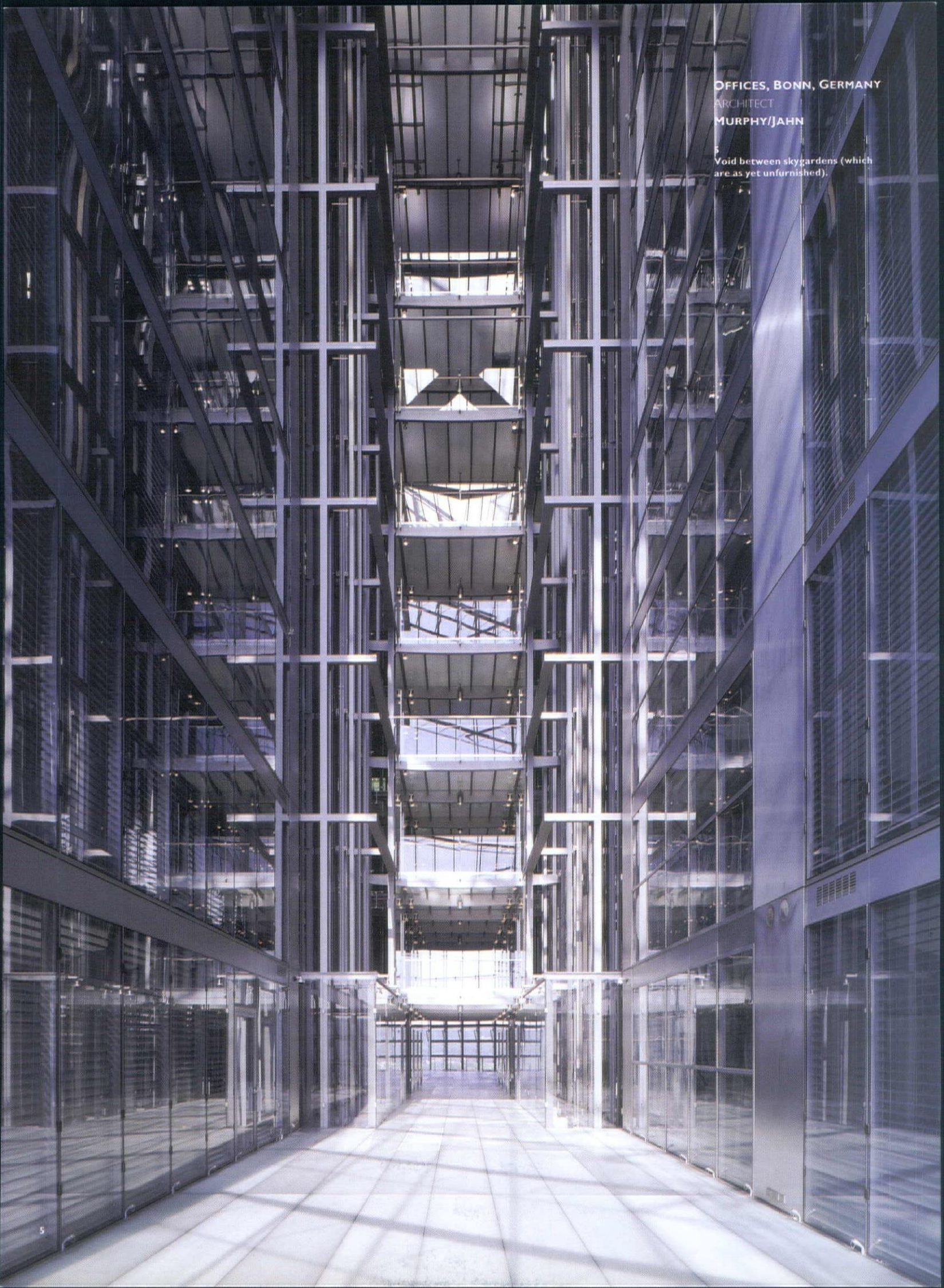
fourth floor (with skygarden)



site and ground plan (scale approx 1:1700)



typical office floor (without skygarden)



Offices, Bonn, Germany
ARCHITECT
Murphy/Jahn

5
Void between skygardens (which are as yet unfurnished).

play as part of the interior climate control system, using a cast-in pipe system that circulates water heated and cooled as necessary, partly using waste heat. Automated glass flaps in the rainscreens admit fresh air to the cavity to balance room temperatures; and air flow in the cavity can be mechanically assisted when necessary. Exhaust air from the offices conditions the climate of the skygardens, which themselves can obtain natural cross-ventilation through the louvred glass walls at their outer (east and west) ends.

All these systems are integrated and controlled by a computerized building management system. The building cost, even with the computerized system and the double glass shell, is reckoned to be no greater than for a conventional sealed air-conditioned building, and operating costs are expected to be 60 per cent less.

Spatially, the building has the drama of the central voids and skygardens: often rather giddy-making. In contrast, the curved office corridors avoid the institutional feeling of so many German office buildings, in which the ruthless dominion of one-point perspective in the passages that serve the small offices induces a grinding institutional feel. Here, the single-banked corridors are luminous with daylight and their gentle curves prevent Kafkaesque sensations. What superficially appears to be yet another glass tower is in fact extremely thoughtful in human, cost and environmental terms.

MARY GIBBS

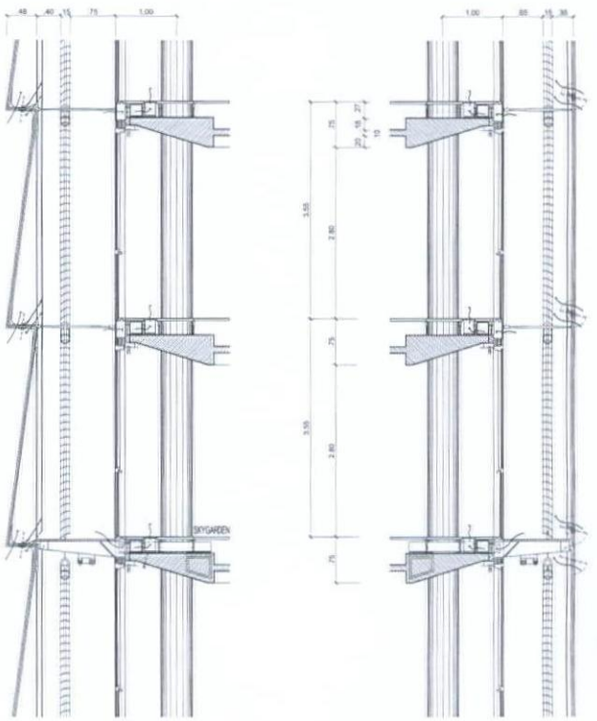
Architect
Murphy/Jahn, Bonn
Project team
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Werner Sobek Ingenieure
Energy/comfort
Transsolar Energietechnik
Lighting consultant
L-Plan
Facade consultant
DS-Plan
Photographs
Andreas Teller

OFFICES, BONN, GERMANY

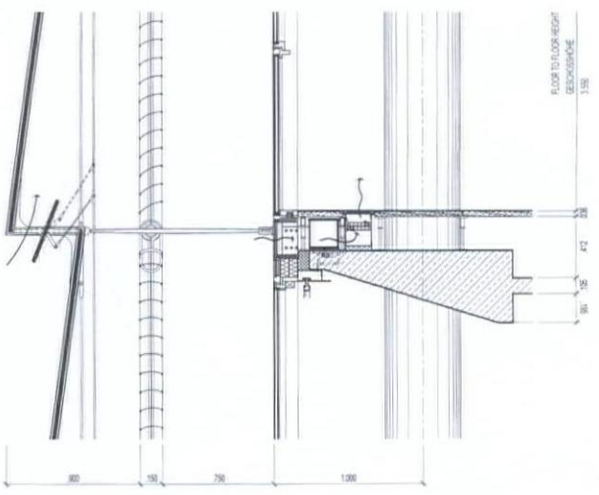
ARCHITECT

MURPHY/JAHN

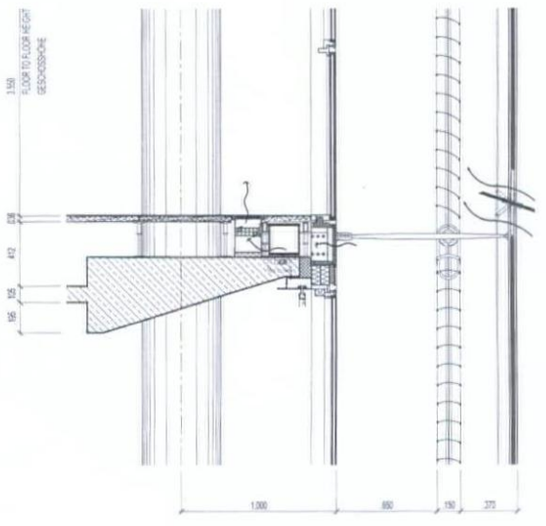
6
Ground floor entrance hall.
7
Typical office corridor.
8
Void between external walls.
9
Penthouse.



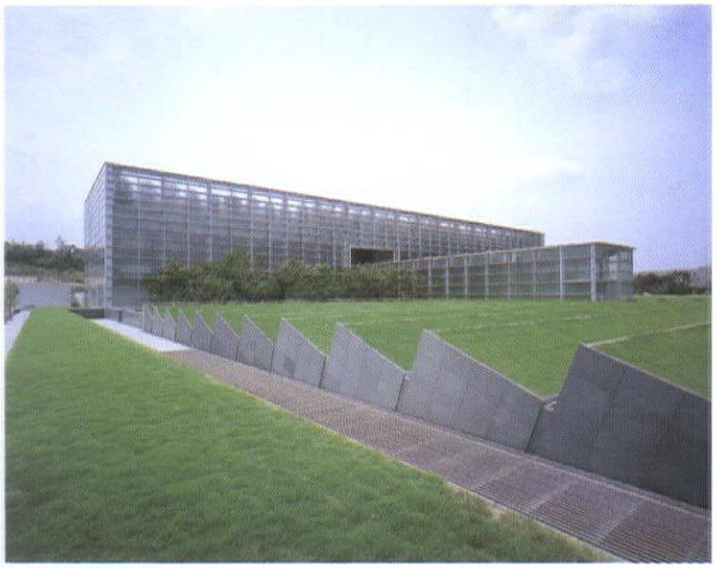
sections of south (left) and north facades showing airflow



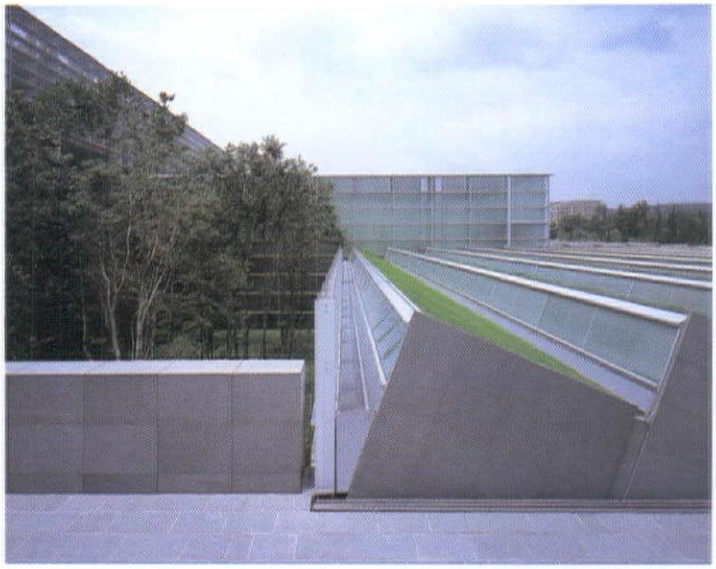
detailed floor and wall junction, south facade (scale 1:50)



detailed floor and wall junction, north facade



1



2

GLASS CLOISTER

Clad in a shimmering glazed skin, Japan's new national library is a dignified modern shrine to the transforming power of knowledge that explores the properties of glass.

1
Japan's national library is housed in a sleek glass box, but appearances are slightly deceptive – most of the building is buried below ground.
2
Reading room roof forms an entrance plateau; below is a sunken courtyard.
3
Main lobby looking across the courtyard and its serene fragment of nature to the reading room beyond.

Modelled on the US Library of Congress, Japan's National Diet Library was established in 1948. Originally it housed material from the Diet (Japanese parliament) libraries and the Imperial Library, dating back to the latter half of the nineteenth century. After over 50 years it has become the country's library of record and is now striving to preserve and document Japan's cultural heritage. Today its major collections encompass political and constitutional history, legal and parliamentary records, maps, science and technology, rare books, music and foreign publications on Japan. The bulk of the collection was first consolidated in 1968 in a building near the Diet itself in central Tokyo. An annex was added in 1993, but more space was soon needed to cope with an increasing volume of paper publications as well as the challenges presented by electronic media. In 1996 an international competition was held to design a new library, the Kansai-kan, to provide storage and research facilities more attuned to the changing needs of the twenty-first century. From nearly 500 submissions, Tokyo-based Fumio Toki was selected to develop and build his proposal, a shimmering glass volume that seems paradoxically the antithesis of the solidity and monumentality more traditionally associated with the repository of a nation's knowledge.

As land in central Tokyo is both scarce and costly, the site for the new library lies some 500km away in the wooded Keihanna hills, on the boundary between Japan's two ancient capitals of Kyoto and Nara. The surrounding area is currently being developed as Kansai Science City, an ambitiously conceived research and technology campus begun 15 years ago and still continuing to evolve. Acknowledging the site's historic context and the sensitivity of the landscape, Toki's design takes natural elements such as light, wind, greenery and transparency as its formal cues. It also aims to minimize its impact on its surroundings by placing the main reading room and three floors of bookstacks housing six million volumes (with the capacity for 20 million), below ground in a vast climate-controlled subterranean labyrinth.

In a move that recalls Perrault's Bibliothèque Nationale (AR July 1995), the parallel volumes of the reading room and lobby enclose a sunken tree-planted courtyard, the presence of nature intended to cultivate the necessary sense of monastic detachment required for study. Unlike Perrault, however, who gaily installed France's books in a quartet of patently unsuitable glass towers, here the beautifully crisp Miesian glazed box that constitutes the library's public face contains research and administration spaces. Rising seven storeys above the bookstacks below, the lightness and transparency of the box are delicate foils to the more massive, hermetic storage spaces, an obvious metaphor for the relationship being a flower and its roots. As if to emphasize this, the topmost floor contains a cafeteria overlooking a roof garden, its foliage tantalizingly screened by panels of milkily translucent glass resembling rice paper, so the building appears to be literally in bloom.

The meticulously choreographed approach to the library suggests something of its spatial organization, but it is also intended as a gentle decompression in preparation for the cloistered intensity of study. The transition from campus to library, from the noisy everyday world to a different, almost sacred, realm, is marked by a waterfall and lawn. Visitors traverse a plateau, which is in fact the roof of the reading room, its serrated skylights partly enveloped by grass like some kind of curious

LIBRARY, TOKYO, JAPAN
ARCHITECT
FUMIO TOKI

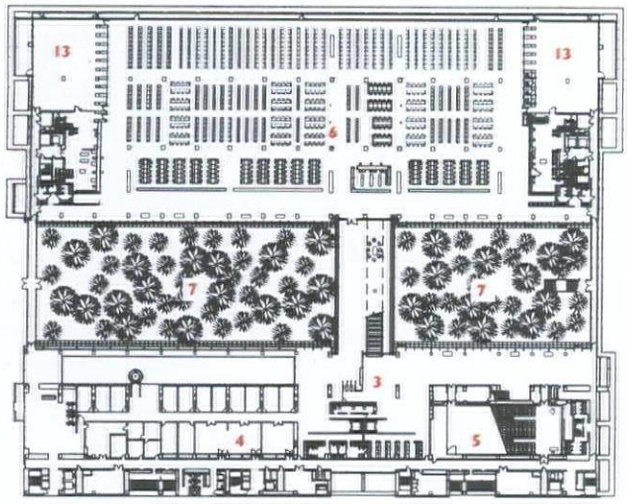




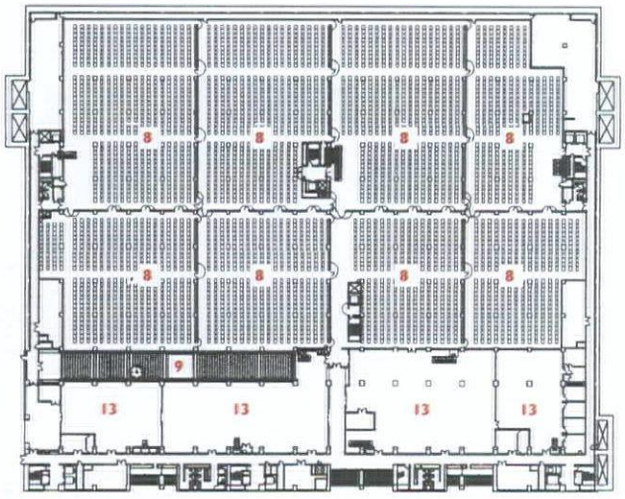




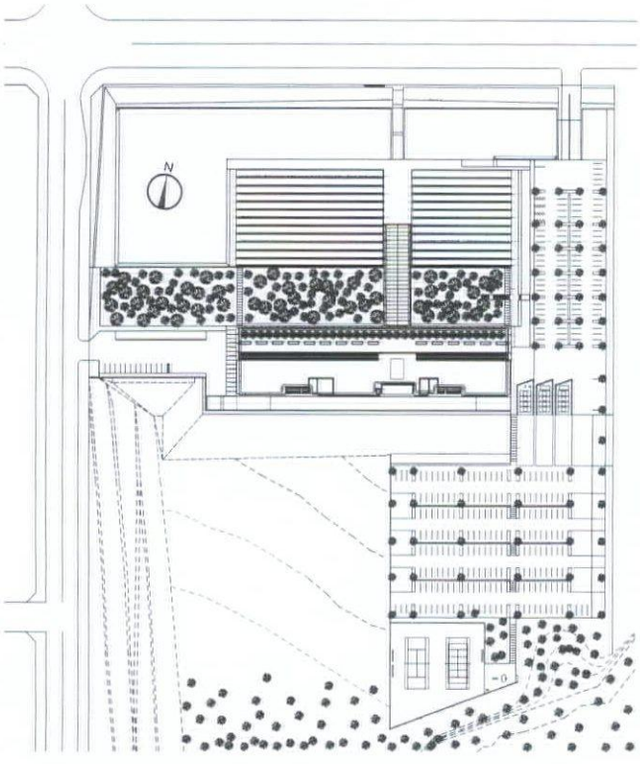




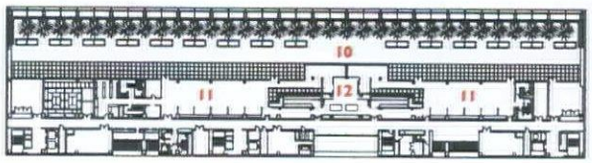
lower ground (entrance level and reading room)



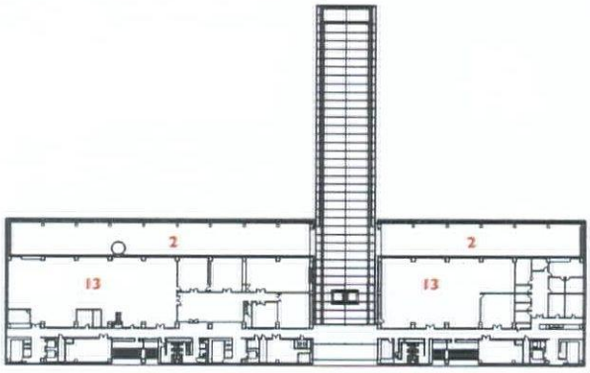
first basement (level -2)



site plan

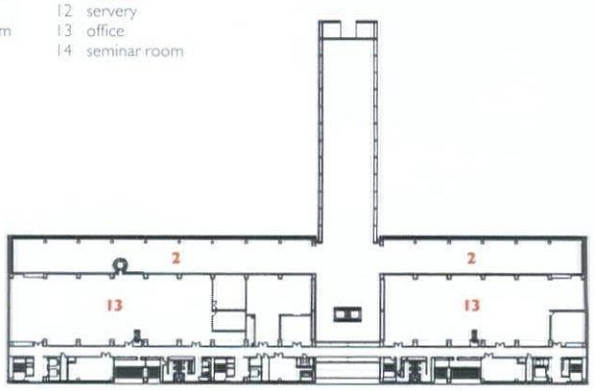


third floor

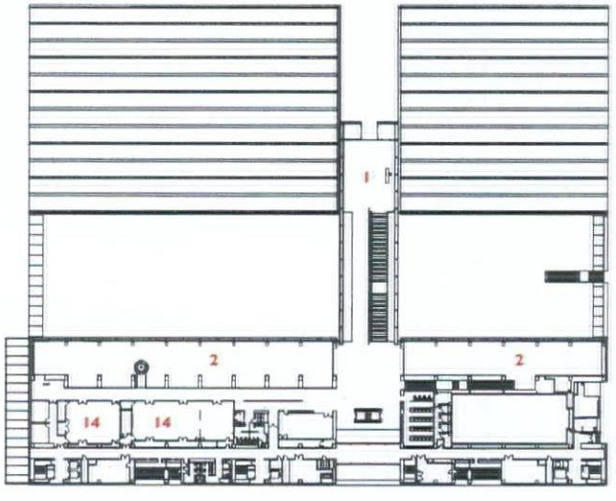


second floor

1 entrance hall
2 atrium
3 lobby
4 study rooms
5 auditorium
6 reading room
7 courtyard
8 bookstack
9 light court
10 roof garden
11 cafetena
12 servery
13 office
14 seminar room



first floor



ground floor plan (scale approx 1:1500)

LIBRARY, TOKYO, JAPAN

ARCHITECT

FUMIO TOKI

4

Glass panels of varying degrees of translucency generate a complex, shimmering play of light.

5

A ramp leads down through the sunken courtyard to the entrance lobby, one level below ground.





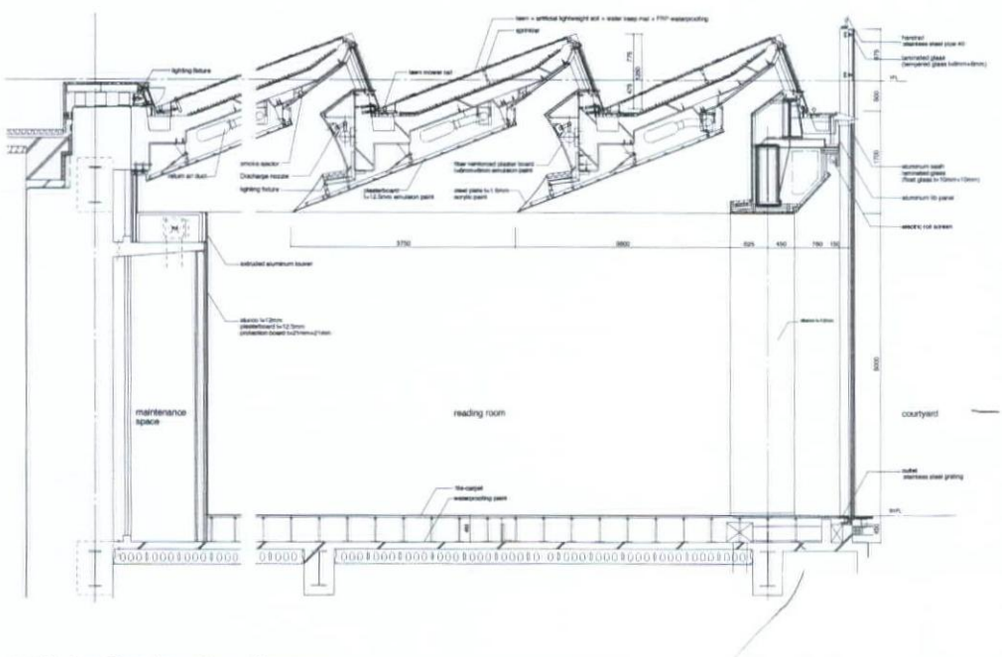


6

artificial meadow. A glazed tunnel set slightly off axis leads down through the treelined courtyard into the entrance lobby, one level below ground. From this tall luminous space, the inner sanctum of the reading room is visible across the courtyard. Despite the building's size, orientation is simple, with different spaces clearly recognizable and logically ordered by the 7.5 x 15m structural grid. Overlooking the courtyard and its picturesquely framed trees, the reading room is a generously proportioned volume illuminated by rows of skylights. Lightwells at lower levels funnel daylight down into the more remote bowels of the building.

Though its basic form is a simple box, Kansai-kan is by no means an exercise in fashionably lifeless minimalism. The 800mm thick double-skinned glass curtain wall reflects the trees and changing light to become a subtly mutable (and deceptively insubstantial) external membrane. Air handling ducts within the walls are also made of sandblasted tempered glass, so adding to the complex play of reflections. Other materials, such as white stucco for the walls and creamy natural stone for the floors orchestrate textural contrasts and convey a sense of permanence appropriate to a major national institution. Detailing has an understated elegance and imaginative precision that resonates in the calm, dignified spaces. With its monastic study rooms, cathedral-like proportions and aura of tranquillity, the building is a modern, secular shrine to the power of human knowledge, offering the possibility of true enlightenment in an age of increasing anomie. PHOEBE CHOW

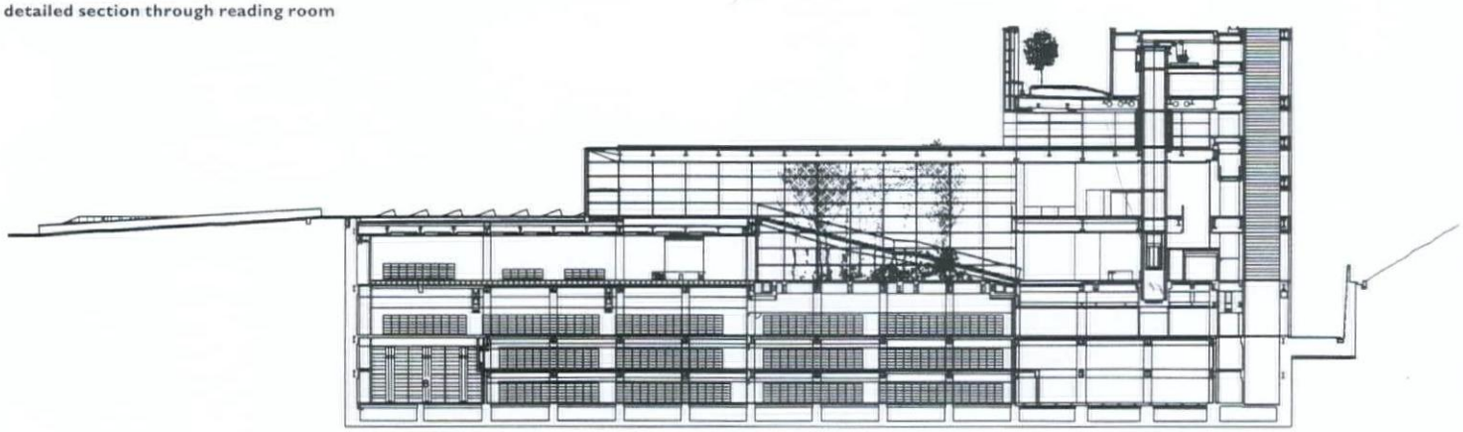
LIBRARY, TOKYO, JAPAN
ARCHITECT
FUMIO TOKI



detailed section through reading room

Architect
Fumio Toki Associates, Tokyo
Stone flooring
Rocamat
Furniture
Fritz Hansen
Photographs
Forum, Koutaro Hirano

6
The building is a modern shrine to the sanctity of knowledge.
7
The main public reading room lit by rows of skylights.
8
Entrance staircase. Detailing and choice of materials have an understated elegance.
9
Research and administration rooms in the glass box overlook the tall, luminous lobby.





7



8



9

LIGHT INDUSTRY

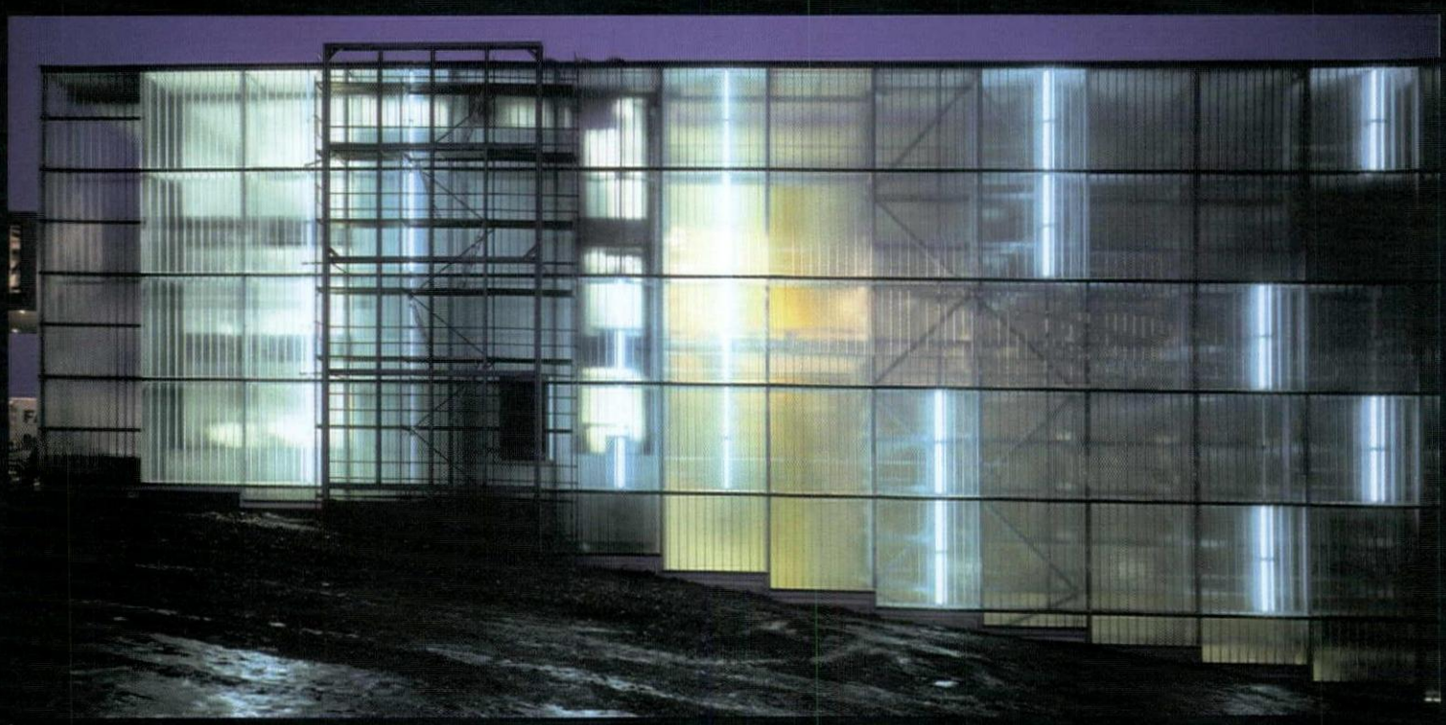
A new warehouse for lighting company Erco is given a dynamic twist through an ingenious translucent glass skin seductively animated by light.

LIGHTING WAREHOUSE, LÜDENSCHEID, GERMANY
ARCHITECT
SCHNEIDER + SCHUMACHER

All over Europe, the fringes of suburbia are blighted by the dreary apparatus of industry – undecorated sheds and dour offices in glum lots girdled by sterile acres of parking. Erco, the innovative German lighting company, was determined that its production complex should rise above such lowest common denominator thinking and commissioned the Frankfurt-based partnership of Schneider + Schumacher to design a new warehouse to augment its two existing production buildings. But what could have been the usual mundane, hulking shed has been elevated and transformed into a piece of kinetic sculpture.

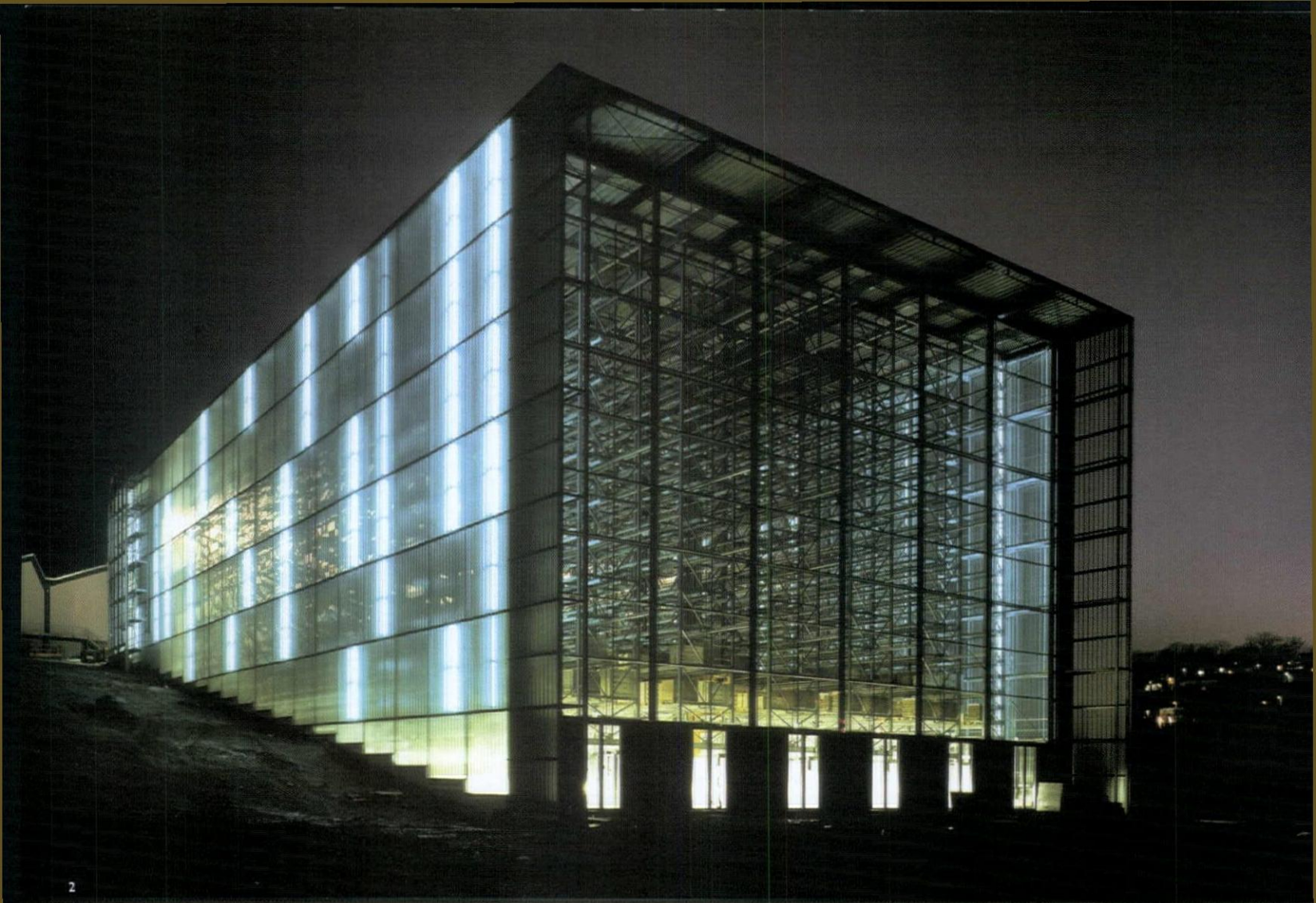
Set in a campus surrounded by tree-clad hills and rolling fields on the edge of Lüdenscheid, Erco's environs are almost Arcadian. Within this pastoral setting, the company's latest addition is immediately distinguishable. A big, long box, slightly disconcerting in its size and plainness, is partly dug into a hillside. So far, so predictable, but its huge flanks are encased in a delicately ribbed translucent skin that scintillates arrestingly with both natural and artificial light.

Capable of storing up to 7000 pallet-based goods, the new warehouse is a monument to industrial functionalism. Ingeniously, the pallet racking system doubles as the building's structure, like a mammoth vertical space frame. At a soaring 23m high, the cavernous interior is a veritable cathedral of industry as six automated cranes constantly whizz up and down the narrow aisles storing and retrieving goods. External loading and unloading take place at the south-west end, where the building is bunkered into the hill. An enclosed walkway links the warehouse to an existing production plant, so staff aren't always obliged to brave the elements. Both the short ends are fully transparent, with glass panels measuring 2.2 x 4.5m attached to steel profiles and their edges sealed with silicon.

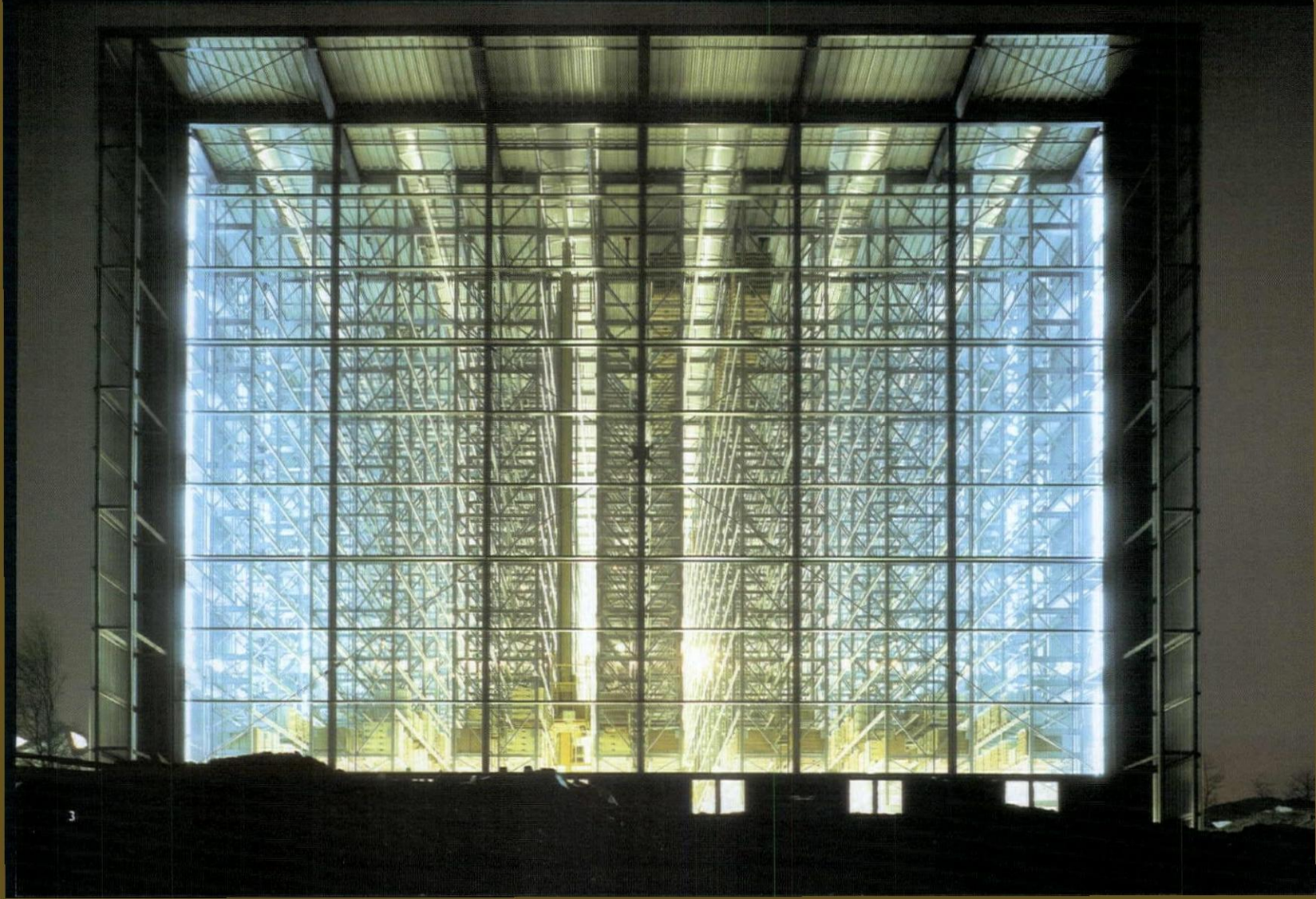


1

1
The long side facades palpitate with light, generated by neon tubes set behind the double layer of translucent glass cladding.
2
The warehouse in full-on mode.
3
The huge racking system acts as the building's structure.



2



3

LIGHTING WAREHOUSE, LÜDENSCHEID, GERMANY

ARCHITECT

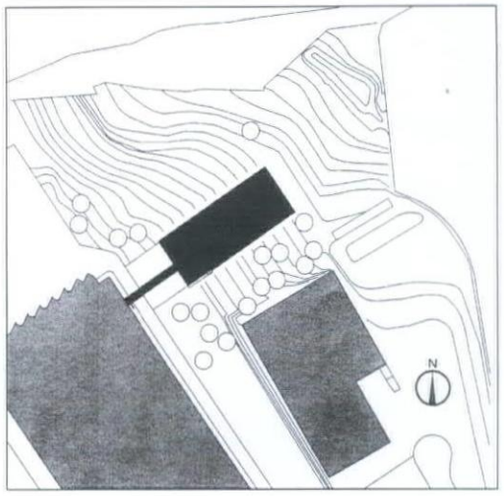
SCHNEIDER + SCHUMACHER

The 73m long side facades are less conventional; these were custom designed exploiting the principles of structural glazing. Two layers of 7mm thick translucent cast glass panels with a shallow U profile are mounted vertically, with the U profile facing outwards, which gives the external skin its subtly ribbed appearance. Held in place by the steel racking system behind, the glazing system is simple, economical, tough and self stabilizing. During the day, the geometry of the storage system is just visible through the glass, giving some sense of the building's general function.

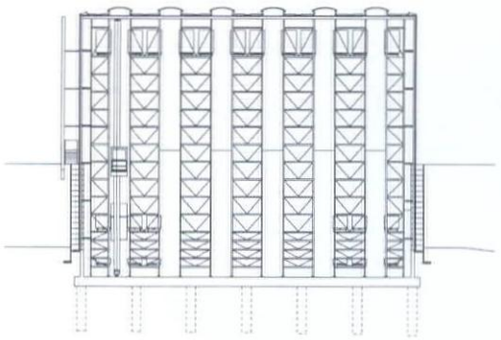
At night, the translucent membrane palpitates with light in a remarkable installation conceived by lighting designer Uwe Belzer. Set inside the glass wall, 140 slim neon tubes in hues of vivid blue and chartreuse flash to generate a constantly changing pattern of twinkling vertical lines, solids and voids. Belzer's luminous tattoo animates the building mass and seeps out to embellish the surroundings, giving the campus an eye-catching prominence. Cannily, Erco regards such innovation as good for business – after all, if a dull warehouse can magically morph into a kinetic light sculpture, the possibilities are endless. C. S.

Architect
Schneider + Schumacher, Frankfurt am Main
Project team
Gunilla Klinkhammer, Robert Binder, Nadja Hellenthal, Alexander Probst, Till Schneider
Landscape consultant
Bernd Korte
Lighting design
Uwe Belzner
Facade
Hunsrücker Glasveredelung
Photographs
Jörg Hempel

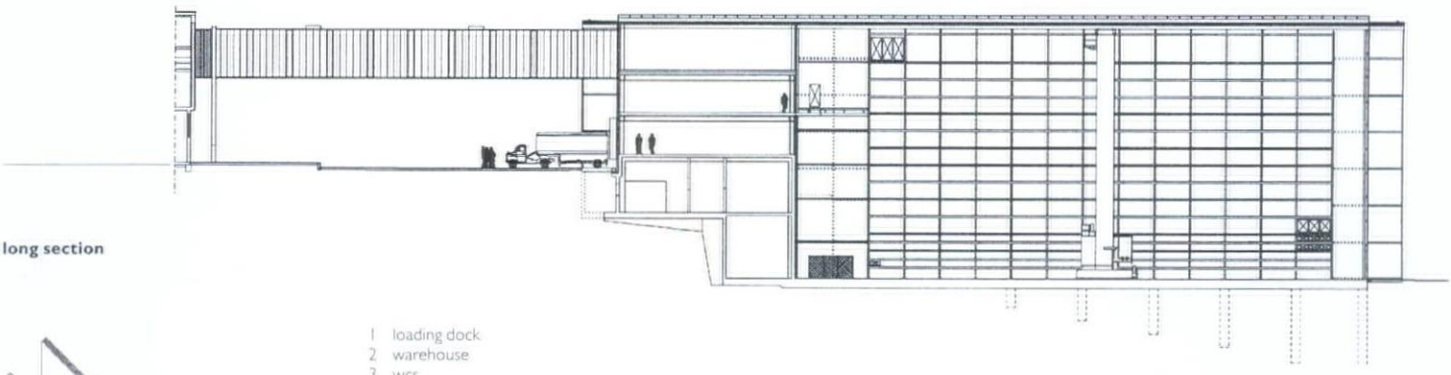
4
Loading dock at west end, partly buried in hillside. Tube links new warehouse with rest of complex.
5
Erco in Arcadia.
6
The slick, sleek box.
7
One of the six aisles in the automated storage system.



site plan

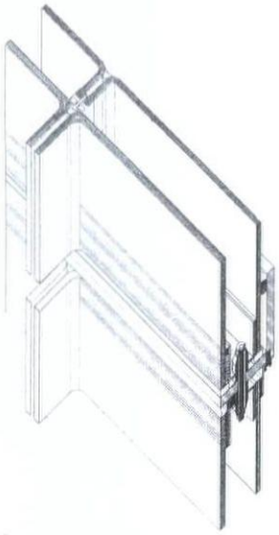


cross section

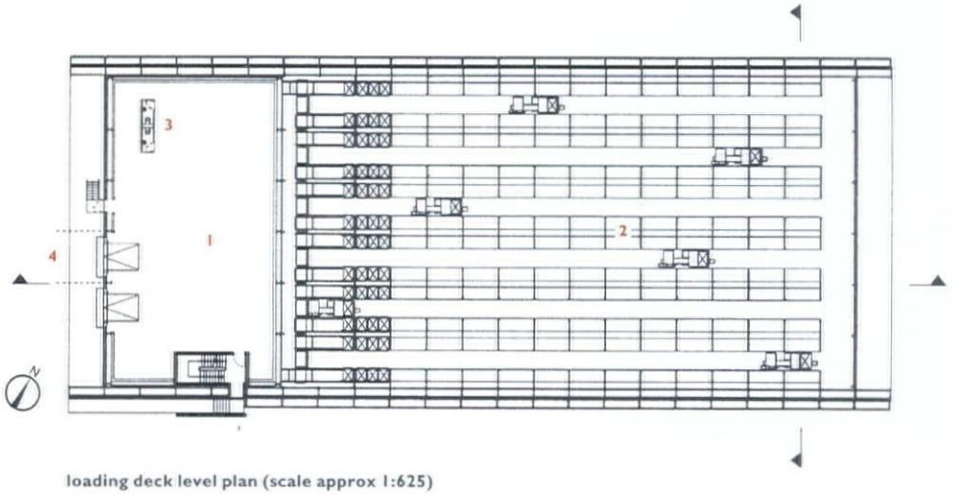


long section

1 loading dock
2 warehouse
3 wcs
4 bridge above



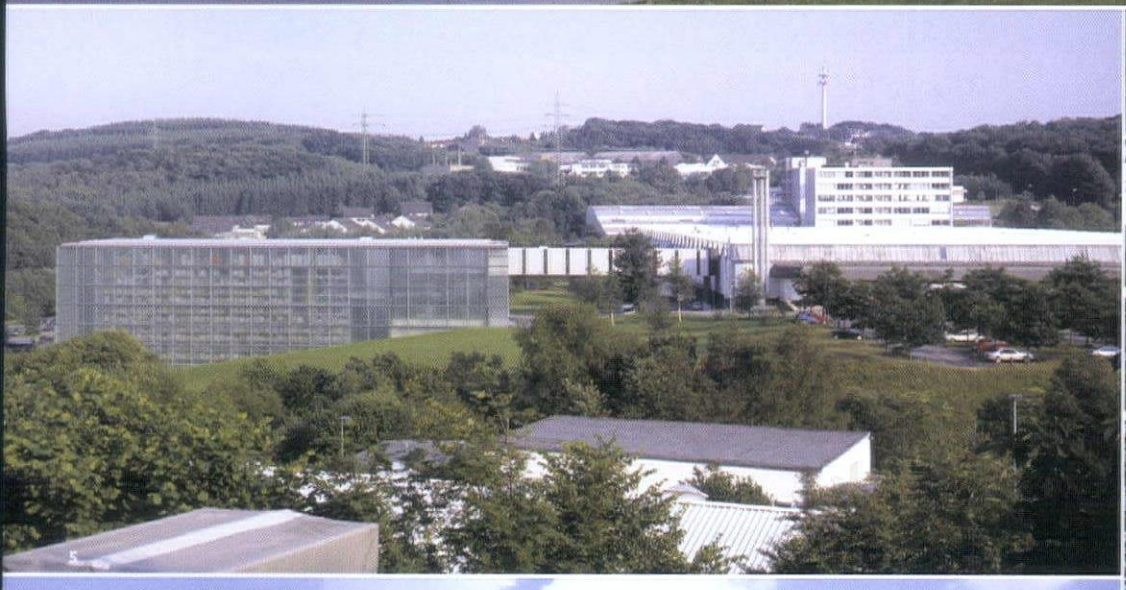
isometric detail of cast glass facade



loading deck level plan (scale approx 1:625)



4



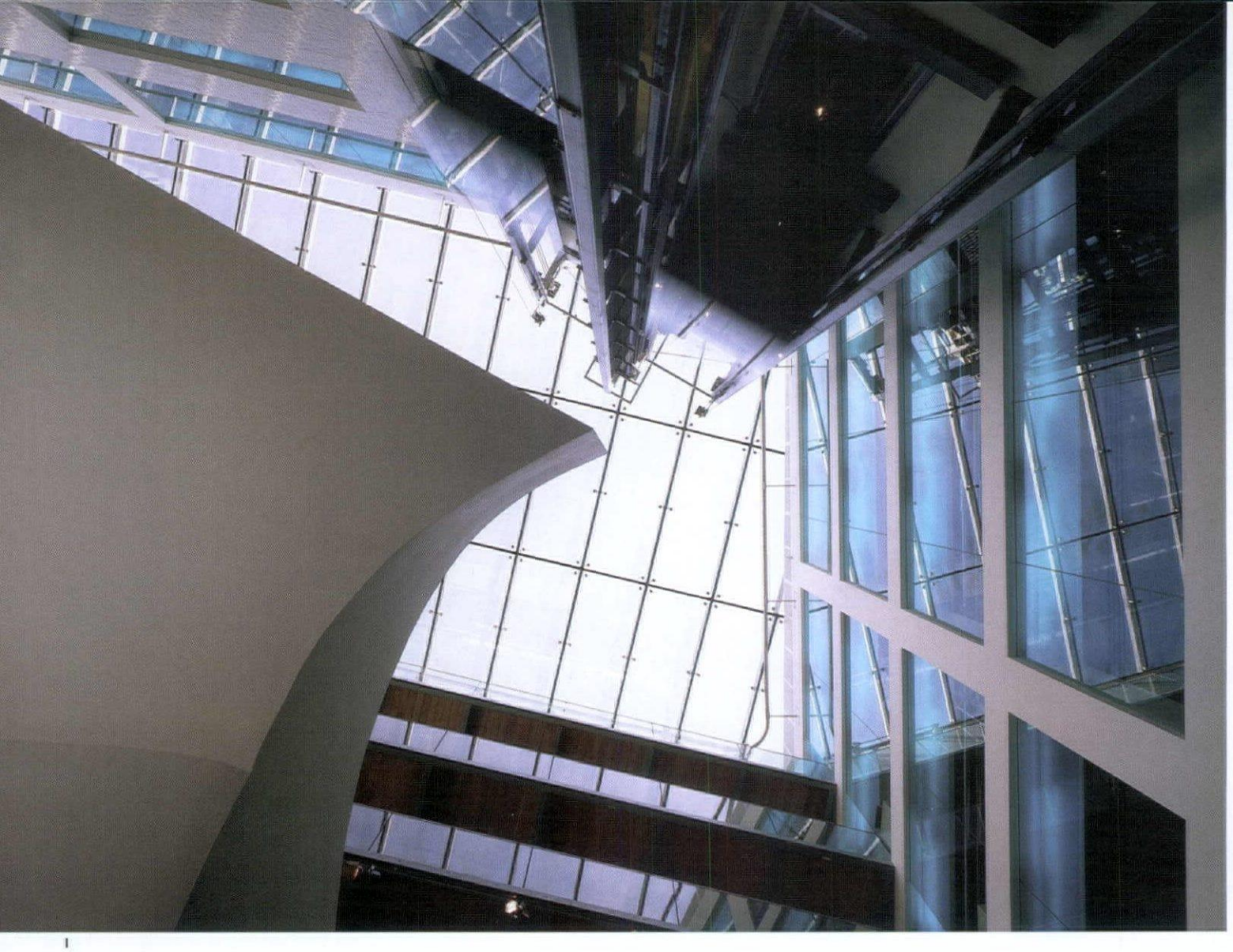
5



6



7



1

Desk jockeys

Just add glass ... how new light has transformed a dingy courtyard garden into a new shared atrium for EMI.

OFFICES, KENSINGTON, LONDON
ARCHITECT
MOREYSMITH

As the environmental debate has moved from green to brown fields, it is time to add grey buildings to the agenda: a generation of redundant buildings that sit empty and abandoned in the shadow of an apparently relentless new generation of office developments. When the design of speculative offices seems relatively standardized, with cladding and cores defining the empty space in between as workplace, is there not a better way for us to regenerate cities? Once stripped of software – obsolete services and finishes that by their very nature have a short shelf life – how can we upgrade the structural hardware to avoid unnecessary waste?

For EMI, Prestbury Holdings and architects MoreySmith, the opportunity to demonstrate the financial, environmental and social benefits of this option were recently tested in Kensington, London. Within the shell of the former Penguin Book's headquarters, a new space has been created that forms a focus for four previously dispersed EMI companies. Through the reuse of this building, and specifically its dingy courtyard garden, the EMI Group, EMI Recorded Music (Global and Continental Europe), and EMI Classics are now housed together under a new roof.

1
New circulation; balconies, glazed bypass bridges, stripped down lifts and curved stair have all been added in the former garden courtyard.
2
New place; a captured space which brings light and life to a potentially obsolete structure.

interior design

For Linda Morey Smith and her team, finding the building and suggesting its reuse was a real coup, leading her ten-year-old practice into a new field of architectural intervention. Through their vision and enthusiasm, they managed to convince both tenant and landlord to invest in a structure that had insufficient ventilation, inadequate daylighting and limited floor loadings.

The simplicity of the main moves belies the complexity that working with exciting buildings inevitably entails. But the appeal to their commercial clients was clear – add glass. First, re-glaze the prominent facade to provide a new five-storey showcase addressing High Street Kensington; second, glaze over and around the courtyard; third, re-spray the unsightly and severely dated 1970s red aluminium window frames and cladding panels. Then, add to the atrium a luminous white skin of glazed bricks and a series of feature elements – balconies, stairs and stripped down lift shafts – and you very nearly have a new building.

Clearly it was not as easy as one, two, three. Indeed in response to the building's primary purpose – to unite four distinct and highly image conscious companies, each with its own distinct brand – significant design diplomacy was needed when considering the environment on each floor, not to mention the significant structural improvements and complex services co-ordination that lie behind the new skins. But, in a single move, the new atrium does provide a number of key benefits; improved daylighting significantly reduces the reliance on artificial light, and underfloor heating, high level ventilation, and heat reclamation create a stable buffer zone for more conventionally controlled office spaces. Furthermore the atrium also eliminates the need for dark centralized corridors, providing continuous routes via balconies, glazed bypass bridges, and casually through informal desk layouts.

EMI have now moved into their new home, and are very happy, but the true measure of the success of the project is that on completion Prestbury Holdings sold the property to a new landlord, Englander, no doubt for a significant profit.

ROB GREGORY

Architect
MoreySmith
Project team
Linda Morey Smith, Andrew McCann, Graeme Montague
Services Engineer
Cameron Taylor Brady; Peter Hammond
Structural Engineer
Sinclair Knight Mertz; Ian Stephenson
Photographs
Chris Gascoigne/VIEW

OFFICES, KENSINGTON, LONDON

ARCHITECT

MOREYSMITH

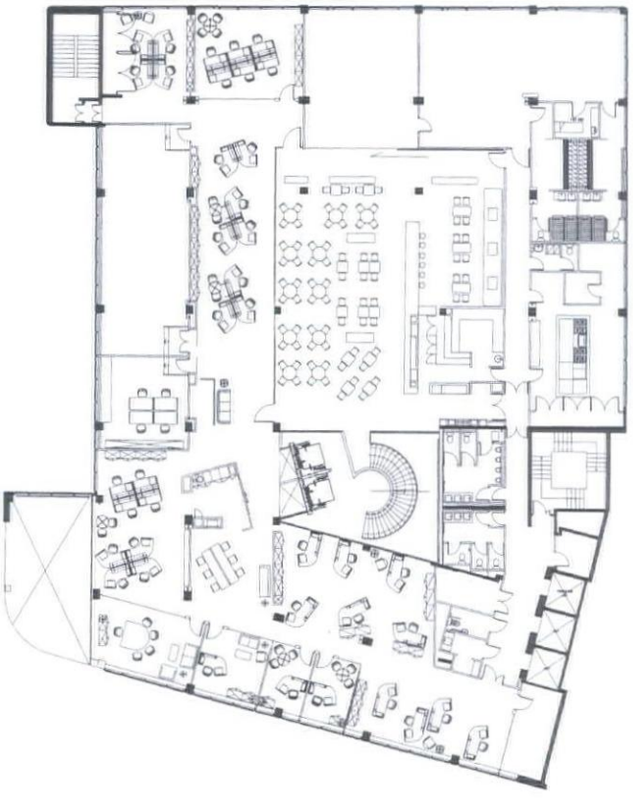


4



3

3
New atrium has a raised café area, leading onto breakout areas, including an aerobics studio, a snug and a stage area where EMI can showcase new talent.
4
Former courtyard garden – a dark, dingy underused space.



first floor plan showing void over entrance and atrium café (scale approx 1:500)



1

In the woods

An architect's own house in the Hudson Valley is designed to evoke Rousseau's simplicity and nature worship.

HOUSE, GARRISON, NEW YORK, USA
ARCHITECT
ADAM YARINSKY/ARO

To 'do something simple well' was Architecture Research Office (ARO) partner Adam Yarinsky's primary aim in building his own country house.*

The house sits in a clearing on a steep wooded site in upstate New York – Garrison is a small town in a part of the Hudson Valley fast being colonized by weekenders and even some commuters to the city. While Yarinsky's house backs on to the Appalachian Trail and has deer staring through the windows (previous owners of the plot used it for shooting), some neighbouring houses (all just out of sight) have neatly mown lots and feel very suburban. The impression of isolation is carefully stage-managed.

As a result, Garrison House feels comfortable and unimposing. It is a home where an architect-owner can switch off from work, relax and enjoy the world he has created. And it is robust enough to cope with his two energetic small children: there is nothing too precious or pristine.

In plan, two long rectilinear blocks are juxtaposed side by side, but only partially aligned. The lower one sits on the ground, the upper one (raised by about four feet) is over a

1
A Modern gazebo in the woods. Large roof overhangs counter excessive summer insolation.

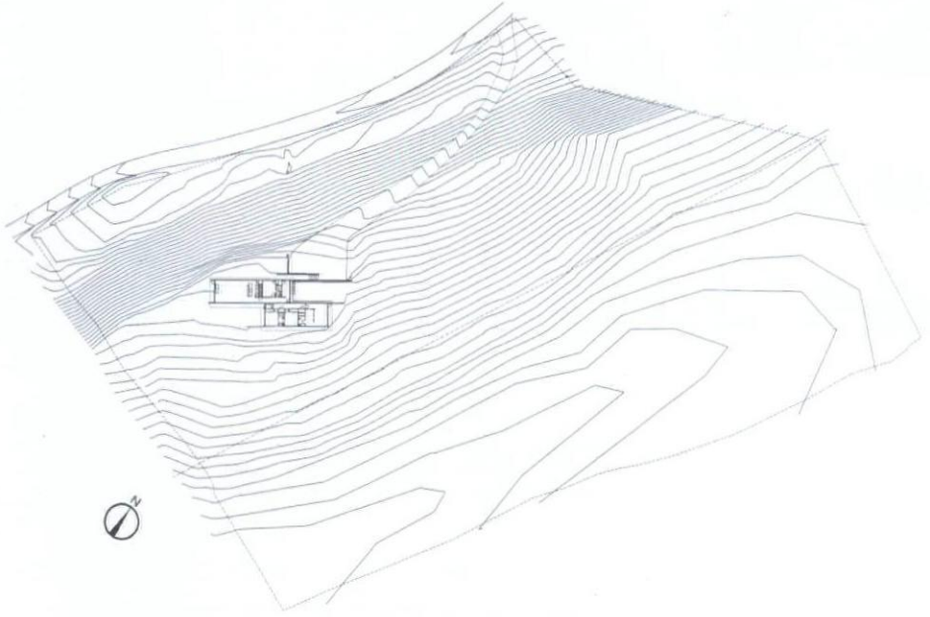


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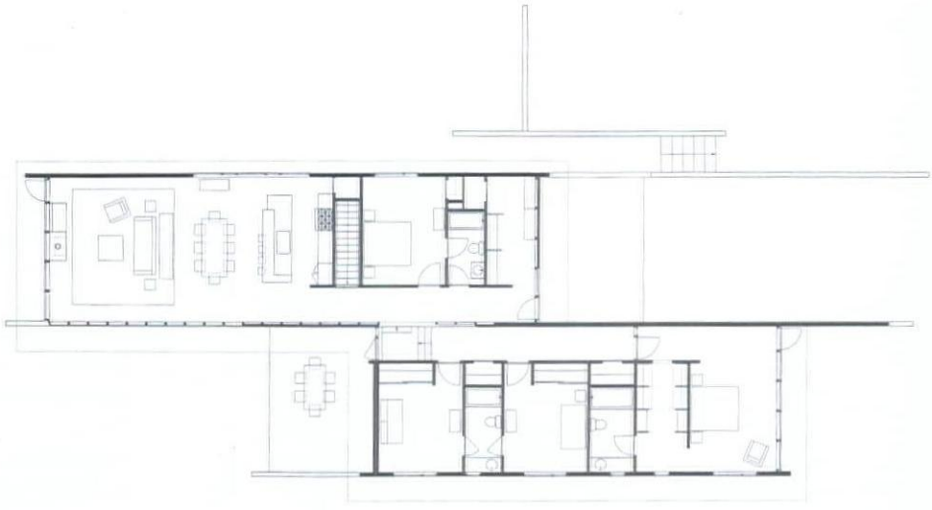
HOUSE, GARRISON,
NEW YORK, USA
ARCHITECT
ADAM YARINSKY/ARO

basement, and built into the hillside. A steep drive leads down to a parking area on a third level, above the house. From here, the entrance route is via a semi-enclosed courtyard with a concrete retaining wall. Standing at the front door, you see along the full length of the upper block and out to the woods beyond. A wide hall leads past guest accommodation to a single volume: a large, well-proportioned kitchen/dining/living room, which is described by Yarinsky as an 11ft (3.35m) high 'loft like' space, but with full-height glazing on two sides and generous windows to the hillside.

Materials suggest continuity between inside and outside: floors are cast concrete; the horizontally corrugated aluminium siding slides past the front door and into the hall and the rough timber of the structural mullions and framing recalls the regular rhythm of a dense forest. The thin plan and its orientation are chosen to facilitate cross ventilation. But the house can also be air-conditioned and the envelope is airtight, so continuity is visual rather than physical. With only a single narrow doorway in the far corner of living space, one at the end of the lower block and one to one side of the main bedroom, nature is held at bay and provides a backdrop.



site plan



plan (scale approx 1:320)



3

Tension between natural and man-made is further emphasized by closer examination of the materials. In fact, the structural timber is an engineered product, Paralam, made in sheets from compressed chips of fast-growing softwood, and cut into strips. Factory-stencilled markings on the original slab edges are a reminder of this process. In contrast, Yarinsky relishes the gradual visual softening of the aluminium which will weather to a soft silver.

Bathrooms are simply detailed with subway tiles. Windows are narrow profile aluminium, a system chosen in consultation with the contractor for ease of fixing to the plywood of the wall. Where windows puncture the solid wall, fibre cement board is used in place of aluminium. The palette is restrained and low key.

Yarinsky met his ARO partner Stephen Cassell when both were working for Steven Holl. They are building a reputation as a practice that learns through the process of building. The clarity and unfussiness of Garrison House, and the sense of detachment, unusual for an architect's own house, should aid wider success.

CATHERINE CROFT

*The practice's work to date is described in *ARO: architecture research office* by Stephen Cassell and Adam Yarinsky, Princeton Architectural Press, March 2003

Architect
ARO (Architecture Research Office)
Project team
Adam Yarinsky, Stephen Cassell, Elizabeth Huck, Scott Abrahams, Josh Pulver
Mechanical and Structural Engineer
Allan Klein
Photographs
Paul Warchol Photography



4



5

2
The house is planned as two rectangles slipped against each other to take advantage of the views.
3
Low level ventilators. Cross ventilation is encouraged, but the house can be air conditioned.
4
Detailing is simple, construction well controlled.
5
Aim was to relate interior to forest.

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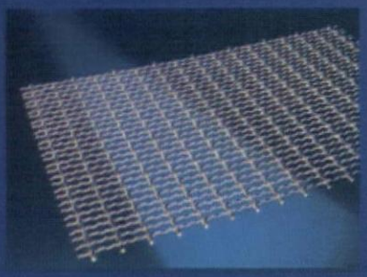


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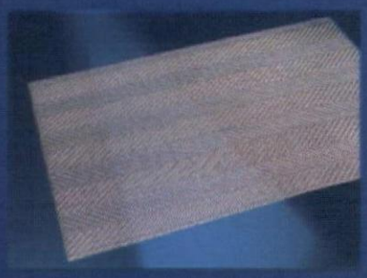
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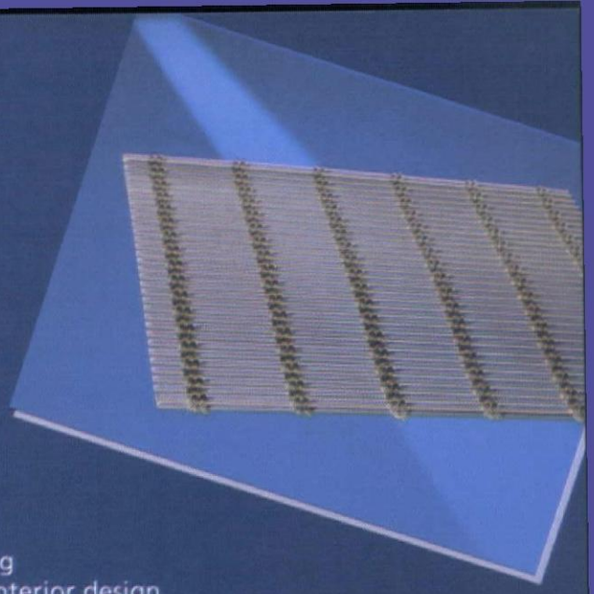




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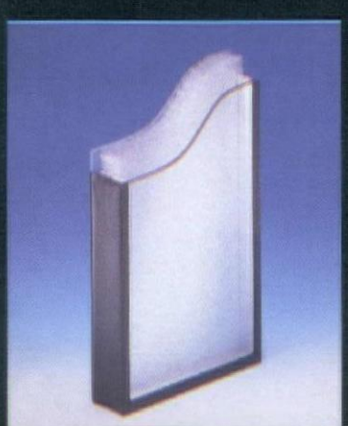
506

505, 506 HARAN GLASS

Haran Glass have recently designed and installed the glass roof to the dramatic glass enclosure of the Winter Garden within the heart of Sheffield (**505**). As a focused collaboration with the architect Pringle Richards Sharratt, and the contractor Interserve, Haran Glass helped to complete the 67.5m long by 22m wide, 2.5ha enclosure on time and on budget. As the largest temperate glasshouse to be built in the UK, the structure features 1400 single-glazed vitral roof panels, supported by a composite structure of laminated timber and stainless-steel connectors.

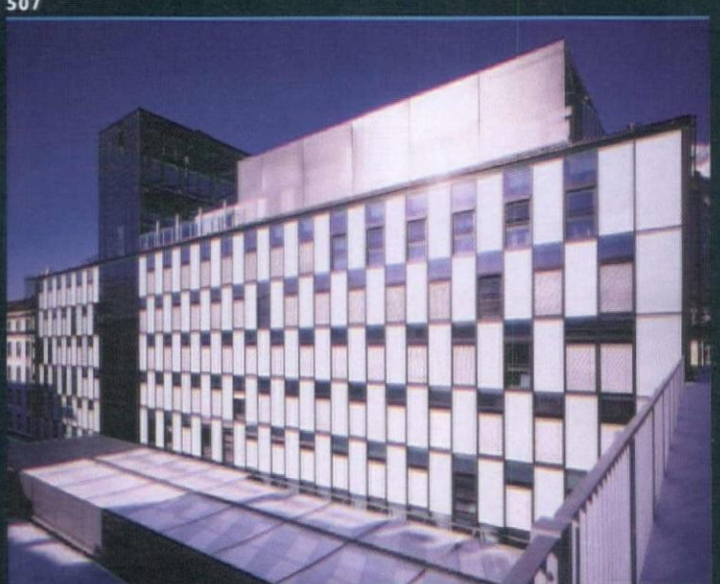
In collaboration with Arup Associates and contractors Schal International Management, Haran Glass have recently completed works to 4 The Square, Stockley Park (**506**). As part of a double skin facade, Haran Glass designed, tested, manufactured and installed the outer skin. Made as a shiplap rain screen, the 2500m^2 breathing skin was tested to ensure structural integrity and to quantify the volume of air and water that would come through the gaps between the panels. The glass panels were manufactured from toughened and heat-soaked Optifloat clear glass and held with purpose manufactured cast grade 316 stainless-steel brackets bolted to the building structure. As a rain screen, the outer skin creates an environmental buffer zone outside the inner envelope which controls the environmental condition of the internal spaces.

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507

507



507 OKALUX

KAPILUX, by OKALUX, has recently been used by Dominique Perrault and his Munich partner Reichert Pranschke Maluche in their recent collaboration at the Town Hall Galleries in Innsbruck – a mixed-use office, retail and hotel development. Over 3000 square metres of insulated glazing, with countless small capillary tubes, break up the light and scatter it softly into the rooms. The panels act as screens to offices and hotel rooms, while still allowing a partial view outside.

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508

508 OZONE

Ozone has recently been involved with a number of high profile projects including the refurbishment of the foyer area of the famous Euston Tower on Euston Road, London. Working closely with architects Hawkins Brown and lighting consultants, Minds Eye, Ozone created a dramatic new 3m x 7m centrepiece in the foyer. In sympathy with the diverse range of tenants, the brief was to create a bold, contemporary installation which was not to be over-designed or self conscious. The solution was a dramatic glass light box placed centrally in the entrance which, comprising large floor to ceiling space-dividing screen, incorporates Ozone Cracklezone laminated glass and colour change lighting. Approaching visitors first see their own reflection, but as they draw closer to the great box the viewing angle shifts and the nature of the piece changes, exposing a bold wall of coloured veins that change colour through the spectrum on a slow cycle.

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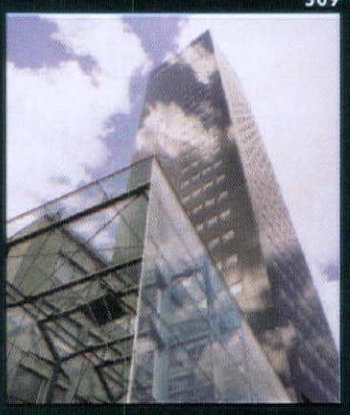
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For every curtain wall, there is a cleaning rail, a cradle and a weighty CDM health and safety manual. Now, however, Low-M offers low-maintenance easy to clean glass. The ClearShield Glass product is part of a new range of enhanced formulations specially created to increase the stain-resistant properties of ClearShield 'Non-Stick' Glass, suitable for all applications from domestic to large-scale commercial developments.

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AR
MIPIM

MIPIM ARCHITECTURAL REVIEW FUTURE PROJECT AWARDS 2004

MIPIM, the international property market, attracts over 16 000 delegates, the elite of the property world, to Cannes every March. For the 15th anniversary of MIPIM, the MIPIM Awards are divided into two branches: the long-running MIPIM Awards for completed projects, and new AR awards for unbuilt work. The Architectural Review Future Project Awards are in six categories: retail, hotel and leisure; offices; residential; regeneration and sustainability; urban masterplanning; tall buildings over thirty storeys.

There will also be a Best of Show Award.

Selected commended entries will be reviewed by international panels at Cannes. Since its inception in the nineteenth century, The Architectural Review has always been devoted to excellence in architecture and environmental design and now invites entries to the MIPIM Architectural Review Future Project Awards. All submissions will be displayed at MIPIM and will be published in a catalogue which will be given to all delegates.

The MIPIM/AR Future Project Awards are organized in partnership with Immobilien Zeitung and Directions Immobilières.

Closing date for entries to the Architectural Review Future Project Awards is **6 December 2003**. For further information and an entry form see The Architectural Review website at www.arplus.com and www.mipim.com. Email enquiries to TimBattle@btconnect.com

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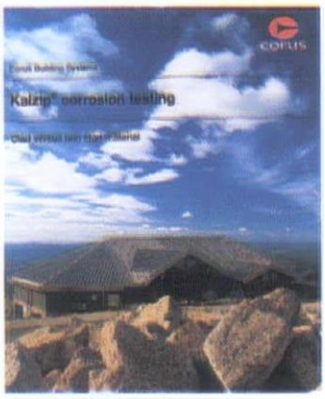
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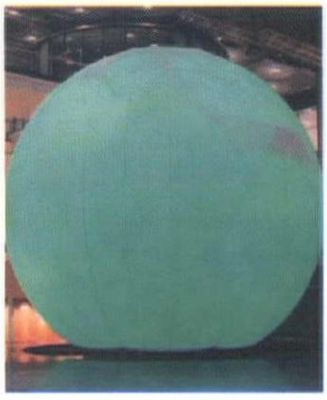
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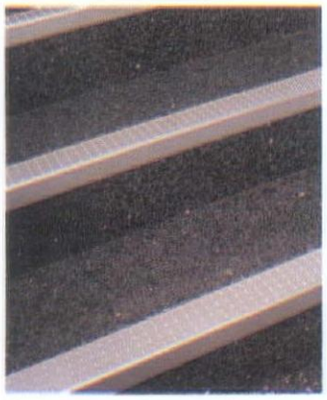
Once again, Kalzip proves the durability of its unique alloy. Building on the BAM report published in 1993, Kalzip has re-tested its alloys to prove their performance. A high proportion of Kalzip exists in aggressive environments in terms of corrosion risk – city centres, industrial zones, airports and exposed marine environments. Through its history, Kalzip has been inspected and independently tested to assess the effects of long term exposure to pollution and climatic effects. For copies of the recently published report please contact Marketing on 01925 825 100.



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Schott

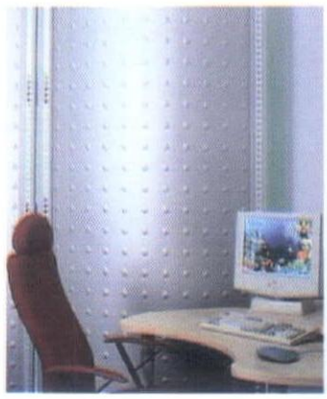
Glass fibre-optic lighting from SCHOTT has been used to light the gigantic spherical centrepiece in Volkswagen's new factory visitors' centre in Dresden, Germany. Standing 12m high, the sphere constantly changes colour with 240 light scources illuminating 640 individual light panels. As part of a concept to turn the factory into an interactive information centre and meeting place, the sphere dominates the entrance foyer, which also houses a multimedia centre providing information about the latest trends in art, culture, and business – a concept that SCHOTT was able to help realize.



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Gooding Aluminium

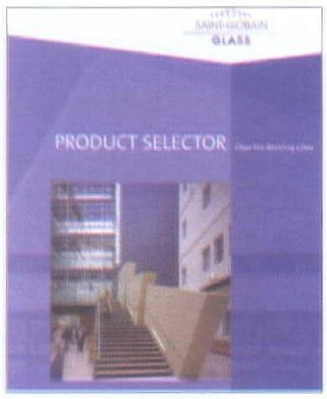
GA steps to the top of the class: GA versatility Step-Up Stair Trims have scored full marks at Uxbridge College. Able to withstand the constant wear and tear of busy college life, the innovative product was chosen as it combined durability with a contemporary high tech look – blending perfectly with contrasting materials, and offering a striking alternative to conventional composite or pvc products. For more information apply for *The Really Useful GA Handbook*, the 160 page selector and design guide, visit www.goodingalum.com or fax 020 8694 2004.



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Gooding Aluminium

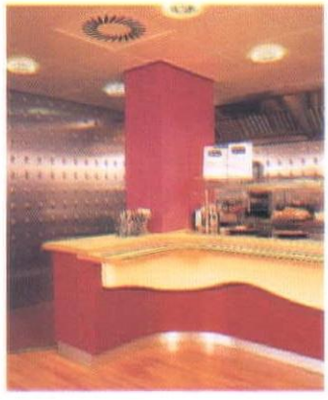
Gooding Aluminium makes a really big impression: Impressional decorative cladding has been used by Orange to display products at the recent Comet Roadshow. A 65mm dome-shaped pattern was used to create the high-tech look of the cladding panels and fixed on-site to a bespoke frame system. To create your own unique pattern fax 020 8694 2004 or visit www.goodingalum.com



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Vetrotech Saint-Gobain

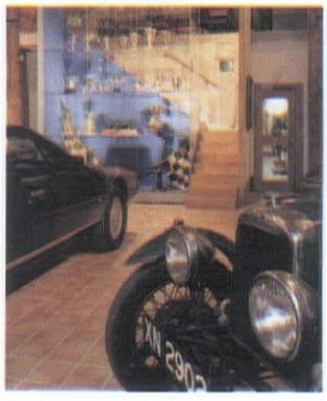
Vetrotech Saint-Gobain, the world's leading manufacturer of fire resisting glass, has published its 2003 product selector. As a valuable guide it helps specifiers to choose the right glass for any application, as well as being a comprehensive source of information on all Vetrotech-Saint-Gobain Class A fire resisting glasses. The product selector provides detailed fire-test certification summaries for fire resisting timber doors and screens, steel and aluminium clad systems, and smoke controlling glazing systems. For a copy tel: 0133 239 1500, fax: 0133 239 1511, or email: infovsguk@vetrotech.co.uk



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Gooding Aluminium

GA's versatile and imaginative range of Impressional decorative cladding has made a strong visual statement for Lloyds TSB in Birmingham, with mill finish aluminium with its satin sheen being used extensively throughout the staff restaurant area. Lloyds TSB chose the recently introduced 'impressive' 65 range to provide a light, contemporary style to the new facility. Due to GA's press-forming method the material is durable and damage resistant, and is available in matt anodised and powder coated finishes. Gooding Aluminium: www.goodingalum.com Fax: 020 8694 2004.



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Oval 316

Oval 316 tubing has been installed in the recently restored fourteenth-century Haseley Barn, which now houses the Aston Martin Owners Club offices, the Aston Martin Heritage Trust's Library, Museum and a selection of their historic cars. As part of a new mezzanine floor, 86mm x 58mm tubing has been used for handrails and ballustrading, which combine with glass panels to complement the modern square lines of the new glazed trophy cabinet, all of which sits as a contemporary insertion within the traditional beauty of the timber interior.



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Ansorg

Maxx comprises a range of luminaries of uniform formal design for a wide variety of lighting requirements. Due to their innovative reflector technology, Maxx downlights are ideal for applications in office environments with PC workstations. Recessed, semi-recessed, semi-surface mounted and pendant versions are available and can be equipped with metal halide and compact fluorescent lamps. Two reflector sizes with ceiling cut-out of 130mm and 185mm diameter with a choice of three angles of beam of 40°, 60° and 80°, allow purposeful lighting design for a variety of applications.

CIVIC DIMENSIONS

PUBLIC PLACES, URBAN SPACES: THE DIMENSIONS OF URBAN DESIGN

By Matthew Carmona, Tim Heath, Taner Oc and Steve Tiesdell. Oxford: Architectural Press. 2003. £24.99

This is a textbook. Its intention is to collect and organize an enormous volume of information, of history, theory and practice, that defines, describes and informs the nature and processes that currently constitute the field of 'urban design'. This is not a simple task and, in many ways, the job is very well done. I am certain that the book will occupy a useful place on the reading lists of undergraduate courses and should prove valuable for many practitioners.

The core of the book is found in its bibliography. Just to give a flavour of the scope of this let me cite the following names: Alexander, Arendt, Barthes, Baudrillard, Cullen, Duffy, Eco, Galbraith, Giddens – of the third way, Giedion, Habermas, Hall, Heidegger, Hillier, Holford, Jane Jacobs, the Krier brothers, Le Corbusier, Lynch, McHarg, William Mitchell, Mumford, Norberg-Schulz, Popper, Rogers, Rossi, Rowe, Sennett, Sitte, Smithson, Unwin and Venturi. This litany is only a tiny selection, but, I hope, conveys the breadth and depth of the book's foundations. In addition to the works of these luminaries there are numerous references to the current academic and professional literature.

All of this material, which is predominantly drawn from and refers to European and North American experience, is structured on an implicit two-dimensional matrix. This has, on one axis, four 'contexts' for urban design – local, global, market and regulatory – and on the other, six 'dimensions' – morphological, perceptual, social, visual, functional and temporal. These are applied effectively and, in general, present the inherent complexity of the material with clarity. The whole is rounded off with a straightforward, if rather dry, section on 'Implementing Urban Design'.

The manner of the book, as probably befits a textbook, is impartial. Terms like 'nevertheless' and 'on the other hand' characterize the narrative; it is objective, descriptive and analytical and, therefore, useful. But cities have other dimensions that defy the calm logic and systematization of this approach. In addition to objectivity, description and analysis, it is vital to be speculative, critical and interpretive. In their very different ways many of the authors listed above offer ideas and insights that are essential to a deeper, maybe in some cases dangerous, understanding of the essence of the city. For example, in concluding *The City in History*, Lewis Mumford wrote, '[the] magnification of all the dimensions of life, through emotional communion, technological mastery, and above all, dramatic representation, has been the supreme office of the city in history. And it remains the chief reason for the city's continued existence.'

DEAN HAWKES

TRANSPARENT PROBLEMS

THE GLASS STATE: THE TECHNOLOGY OF THE SPECTACLE, PARIS 1981-1998.

By Annette Fierro. London: MIT. 2003. £29.95

Annette Fierro is Assistant Professor of Architecture at the University of Pennsylvania and the stated topic of her book is 'the monumental glass buildings of contemporary Paris, most of which are in the program for the Grands Projets of François Mitterrand, president of France between 1981 and 1993' (she means 1995).

What interests Fierro are instances where, 'glittering in their glass skins and technological garb, Mitterrand's insistently transparent monuments present the beguiling desire to disappear, rather than to assert France's mythic presence'. Perhaps for that reason, the majority of Mitterrand's Parisian Grands Projets get very short shrift, while the glazed pavilions at Parc André Citroën (a City of Paris undertaking) are wrongly ascribed to him and much cited.

Buried deep in the text are the germs of what might have become an interesting study on the uses made of glass at the Cartier Foundation and the Institute of the Arab World by Jean Nouvel and the various contributions made to architecture in Paris by Rice-Francis-Ritchie and the late Peter Rice. Sadly, the author is so distracted by headier ambitions that basic facts are frequently ignored, misconstrued or scrambled. In discussing the Cité des Sciences at La Villette, for example, Fierro fails to appreciate that the project entailed the re-use of a redundant building nearly four times the size of the Pompidou Centre – a factor far from irrelevant to the nature of RFR's interventions there.

But if the book falls short of its primary goal – 'the formation of a discourse of detail, where detail assumes a status typically accorded to other conventionally primary aspects ... in describing the entity of the architectural work', it does offer some surprises, not least Fierro's suggestion that Bernard Tschumi 'shares a cultural legacy and generational affinity with Piano and Rogers' – a notion that may well be entirely new to all three protagonists.

CHARLOTTE ELLIS

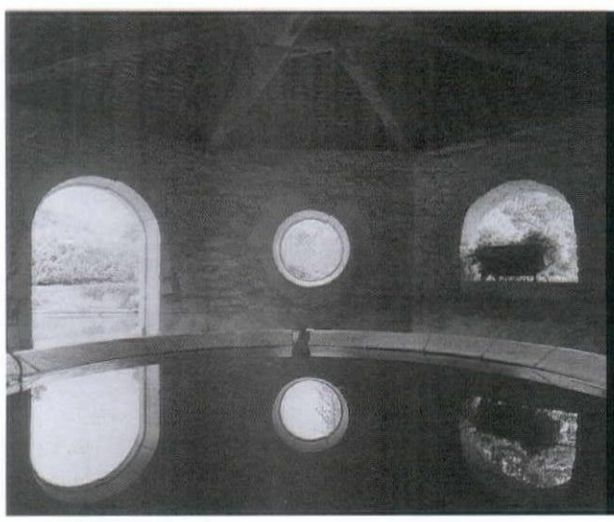
ROWE'S RENAISSANCE

ITALIAN ARCHITECTURE OF THE 16TH CENTURY

By Colin Rowe and Leon Satkowski. New York: Princeton Architectural Press. 2002. £24.95

Colin Rowe (1920-1999) may be best known to readers of The Architectural Review for *The Mathematics of the Ideal Villa*, first published in this journal in 1947, in which he compared Palladio's Villa Malcontenta with Corbusier's Villa Stein at Garches. He sought to make international modern architecture acceptable by investing it with a historical legitimacy, rather as Pevsner claimed Voysey as a precursor of the Bauhaus. But Rowe came to regret his support of Modernism so that the present book is prefaced by his confession in 1998 that he found looking at Renaissance buildings 'gratifying and refreshing as the spectacle of Modern Architecture becomes more depressing'.

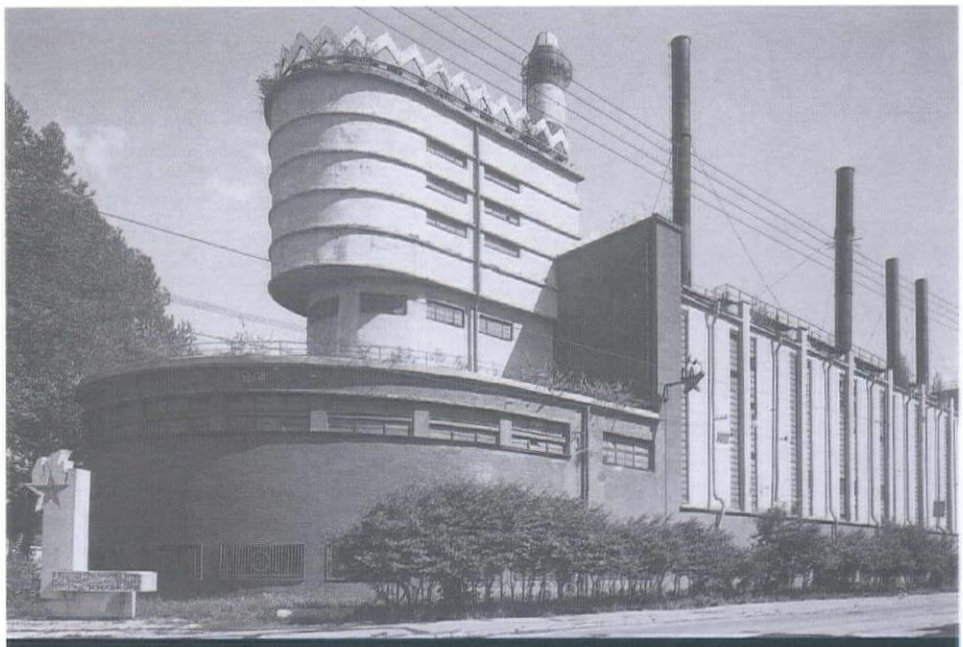
Studying at the Warburg Institute, Rowe was influenced by Wittkower and especially by Gombrich from whom he derived his hostility to the Zeitgeist interpretations and historical determinism of critics such as Pevsner. He thus aimed to 'avoid terms like Renaissance or Mannerism because they obscure the stylistic diversity of sixteenth-century architecture'. Regarding technique and tradition as important as style, he argued that it was 'all too easy to accept the kind



Fontaines, Saône-et-Loire from *Lavoirs: Washhouses of Rural France* by Mireille Roddier, Princeton Architectural Press, New York, 2003, €29. Functions are superseded now, but Roddier's evocative pictures of these marvellous spaces induce, as Billie Tsien says in her introduction, 'a kind of imagined body memory and a sense of loss ... the shells of common labor, now able to be seen as beautiful ... They have a grandeur and monumentality. People have disappeared. The work itself has disappeared. The water continues to flow.'

of inevitable stylistic development that was first postulated by Vasari and continued by the architectural historians of the twentieth century'.

This book is based on his 28 year tenure at Cornell University where his courses on Renaissance architecture became legendary. I recall attending his compellingly subversive lectures at the Cambridge School of Architecture in the 1960s where, in his mannered, hissing voice, he described Michelangelo's Laurentian Library vestibule as boasting 'a staircase which impedes assent'. Unfortunately, there is no description of this in the present book but it does include his surprising interpretation of Raphael's Villa Madama as a folly like Strawberry Hill or Fonthill. His argument that, with its 'origins in literature and archaeology, it seems to anticipate the eighteenth-century revival of styles based on historical sentiment', well gives the flavour of this stimulating book. DAVID WATKIN



Erich Mendelsohn in St Petersburg: this little remembered power station for the Red Banner Knitwear Factory is the only work by a distinguished foreign architect built in the city between the Revolution and the death of Stalin. One of the many surprises from *The Unknown St Petersburg: Architecture from 1917 to 1956* by Andreas Trier Mørch with Juri Nikitin, Royal Danish Academy of Fine Arts, 2003, Dkr298, which charts a course from revolutionary excitement to increasingly stiff Neo-Classicism.

POWER OF THE SURVEY

MAPPING IN THE AGE OF DIGITAL MEDIA

By Mike Silver and Diana Balmori. Chichester: John Wiley. 2003. £24.95

'Mapping' has become so hackneyed a term that it is easy to overlook its pervasive and enduring influence in our lives. The value of this collection of essays, which documents the Symposium on Digital Mapping at Yale School of Architecture in April 2002, is its multidisciplinary reach. The essays – grouped under the headings of surfaces, below the surface and mapping in time – include contributions from the fields of art, geography, geology, chemistry, physics, music theory and dance as well as architecture, landscape architecture and planning.

Among the themes that emerge from this broad-ranging foray is that centralized control as exemplified by the Benthamite Panopticon is being subsumed by networks of data gathering and management, which the volume's editors Mike Silver and Diana Balmori characterize as 'multifarious eyes that exist everywhere and nowhere simultaneously'. This is evident, they suggest, not only in overt surveillance technologies, but in the many global digital networks that are undermining traditional centres of political and economic power. From the use of MRI medical scanners in the production of art to the utilization of seismic reflection data in prospecting for oil, this volume provides a useful and thought-provoking introduction to the applications of digital mapping technologies. The relationship between real and simulacrum emerges in a number of contributions. James Glymph of Gehry Partners observes that digital simulations do not replace material understanding and that, in Gehry's work, the difficulty is not in reproducing the form but in capturing the energy of the generative physical model. Similarly, Julie Dorsey, professor of computer science at Yale, admits that her 'too perfect' digital simulations of opera lighting and projection effects have none of the power of the scene on stage. The concluding essay by geographer Denis Cosgrove provides a valuable historical perspective. In arguing that mapping can never be totally scientific and objective but – even with the most sophisticated instrumentation – is always influenced by the subjective eye, Cosgrove offers evidence of the ideological power of maps to define physical, social and moral territory. Concluding that the map is 'at once empirically rooted and imaginatively liberated and liberating', he makes the case for the map as a prosthetic extension of the human body, highlighting the significance of digital mapping technologies not as new, but as the continuation of an important thread of architectural discourse.

ANNETTE LECUYER

WONDERFUL WOOD

WOOD – MATERIALS FOR INSPIRATIONAL DESIGN

By Chris Lefteri. Hove: RotoVision. 2003. £27.50

This is a lovely book. The author invites you to 'browse, tuck in and enjoy' it, and you certainly will. It is high on image and light on facts, but it does tell you where the facts can be found.

There are images of wood moulded into organic shapes, wood extruded, wood made flexible, wood re-formed so that it behaves more like plastic, wood re-formatted so that it increases in strength while retaining workability and so on. To extend the mind, to enlarge one's vision of what wood can do, this book is great.

During the High-Tech years wood has not been a key material. How odd that car manufacturers, working in a genuinely high-tech industry, feel the urge to give their products a sense of quality by putting wood on the dashboard. Perhaps we should learn from this; much of our architecture could do with a splash of luxury.

In addition to the pages on inspiration, on craftsmanship and on technology, the book illustrates and describes an amazing range of timbers. They are grouped as hardwoods, softwoods and derivatives; the latter being the man-made materials that the industry is now producing in such profusion, and where much of the future of timber may lie.

The author is very concerned with ecological issues, and the pages on 'how to buy wood' give good common sense advice on how to be reasonably sure that the timber you specify has not come from a source involved in illegal logging. As we all come to share in the ecological imperative, so timber is likely to be a major player in twenty-first century architecture. This book may persuade you that that is quite an encouraging prospect. 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.

delight









CHRISTOPHER BRADLEY-HOLE'S WINNING DESIGN AT THE CHELSEA FLOWER SHOW ENCAPSULATES THE VISION THAT SAW THE BARREN LAND OF THE UAE TRANSFORMED INTO AN ECOLOGICALLY RICH AND DIVERSE ENVIRONMENT.

As the main constituent of Glass, the changing state of sand was one of many themes explored in this year's Chelsea Flower Show winning garden, *The Garden from the Desert*, designed by Christopher Bradley-Hole for H. H. Sheikh Zayed. With trees and water courses recalling the Sheikh's commitment to bring water and plants back to the desert (a long term initiative that has seen the number of trees in the UAE rise to over 150 million and helped the country produce enough fruit and vegetables to make it self-sufficient), traditional material and spatial motifs are also represented throughout the miniature desert scene. Within red rendered perimeter walls pigmented by sand from Al Ain, and on a bed of white sand from Abu Dhabi – from which grow salt and drought tolerant desert plants such as Date Palms – a glass pavilion creates the principal spatial fulcrum within a highly ordered sequence of external spaces. With staggered cantilevered glass panels allowing cross ventilation and with vertical fritting accentuating the illusion of shimmering desert light, its form represents the cubic structure of the salt molecule – and so is a symbol of the life-giving process of desalination. The glazed sanctuary is then further screened and sheltered by walls within walls – a traditional feature of vernacular architecture from Abu Dhabi – which use sandstone in a contemporary mix of sawn and dry stone walling techniques. ROB GREGORY