

THE ARCHITECTURAL REVIEW

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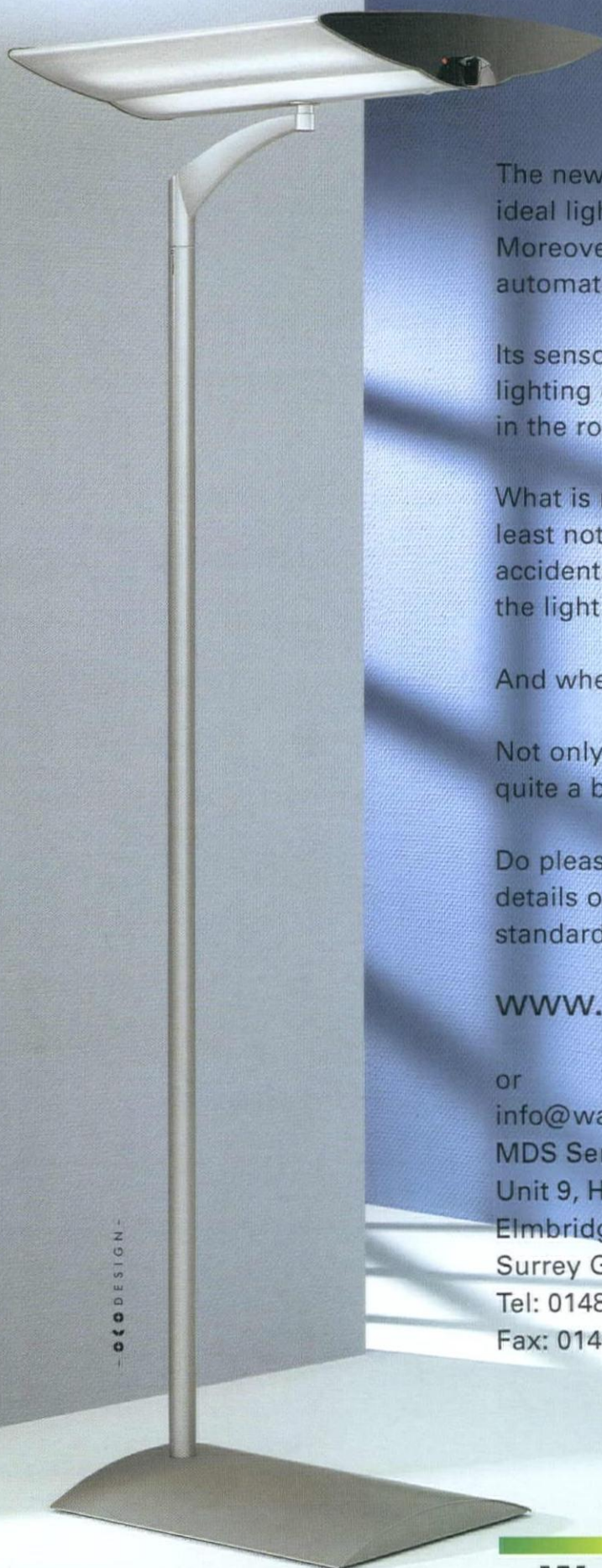


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MATERIALITY

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call for entries



ar+d²⁰⁰⁰
Emerging Architecture

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architecture award**

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The world's leading emerging architecture award

JURY

The Jury will be:

ODILE DECQ

Odile Decq Benoît Comette,
Paris, France

WILL BRUDER

William P. Bruder Associates,
Arizona, USA

CHRISTOPH INGENHOVEN

Ingenhoven Overdiek & Partner,
Düsseldorf, Germany

ERICK VAN EGERAAT

Erick van Egeraat Associated Architects,
Rotterdam, The Netherlands

ADALBERTO DIAS

Adalberto Dias Architect Ltd,
Oporto, Portugal

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 2000.

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 the 1999 award 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

4 Age Restriction

The age limit 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 with the overall winner receiving £5000. The Jury may choose a number of other winners and highly commended entries (there were 20 winners in 1999).

6 Publication

Winners of the ar+d emerging architecture awards and others highly commended by the Jury will be published in the December 2000 issue of The Architectural Review and on the ar+d Internet site, www.arplusd.com.

7 Prize Giving Ceremony

The ar+d emerging architecture prize giving will be held at the new Danish Design Centre in Copenhagen on 26 October. The overall winner will receive a trophy designed by Knud Holscher, and will be invited by The Architectural Review and *d line[™] international* as to the event.

8 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.

9 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.

10 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 1 October. Entry will acknowledge that The Architectural Review and *d line[™] international* 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

11 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 1999 award 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.

12 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.

13 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 (portrait) is 420mm x 594mm or approximately 16.5in x 23.4in – preferably lightweight art board or equivalent.

14 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.

15 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 forms clearly and enclose in a sealed envelope attached to the board.

16 Entry Deadline

Deadline for receipt of entries is 12 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

17 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.

18 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 15 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.

19 Return of Entries

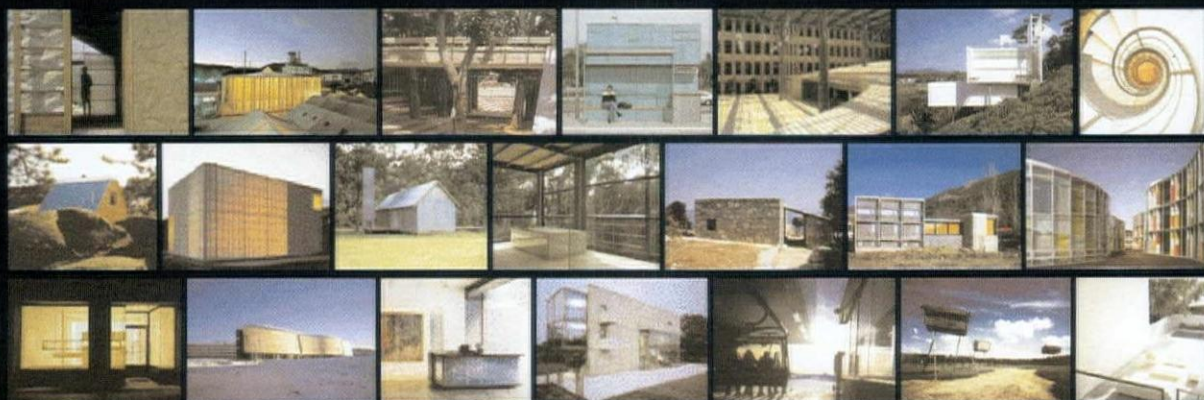
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EMERGING ARCHITECTURE AWARD

Inaugurated in 1999, the ar+d award was conceived by The Architectural Review and d line™ *international as*, the distinguished Danish architectural design firm. Intended to bring wider international recognition to a talented new generation of architects and designers under 45, it attracted entries from over 50 countries, representing every continent. Work submitted ranged from small domestic conversions to large public buildings, light fittings to landscapes.

WINNING ENTRIES 1999





ENTRY FORM Deadline: 12 September 2000

Please complete this entry form as clearly as possible.

Photocopies of this form may be used. Complete in capital letters.

CONTACT NAME FOR ENTRY

TITLE FIRST NAME

LAST NAME

FIRM/PRACTICE

ADDRESS

CITY/TOWN

POST/ZIP CODE

COUNTRY

PHONE NUMBER

FAX NUMBER

EMAIL ADDRESS

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 on your local relevant media:

1 ARCHITECTURAL MAGAZINE

2 NEWSPAPER

code 1000

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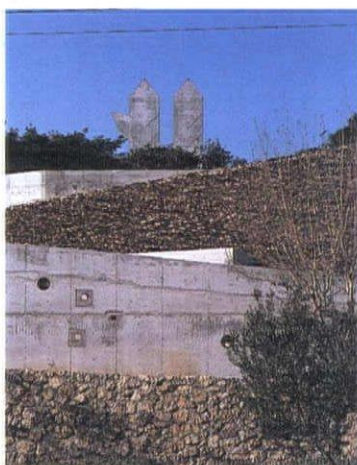
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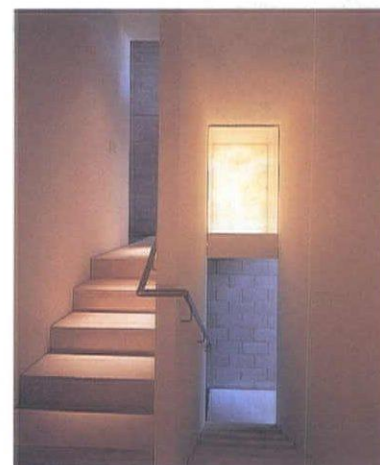
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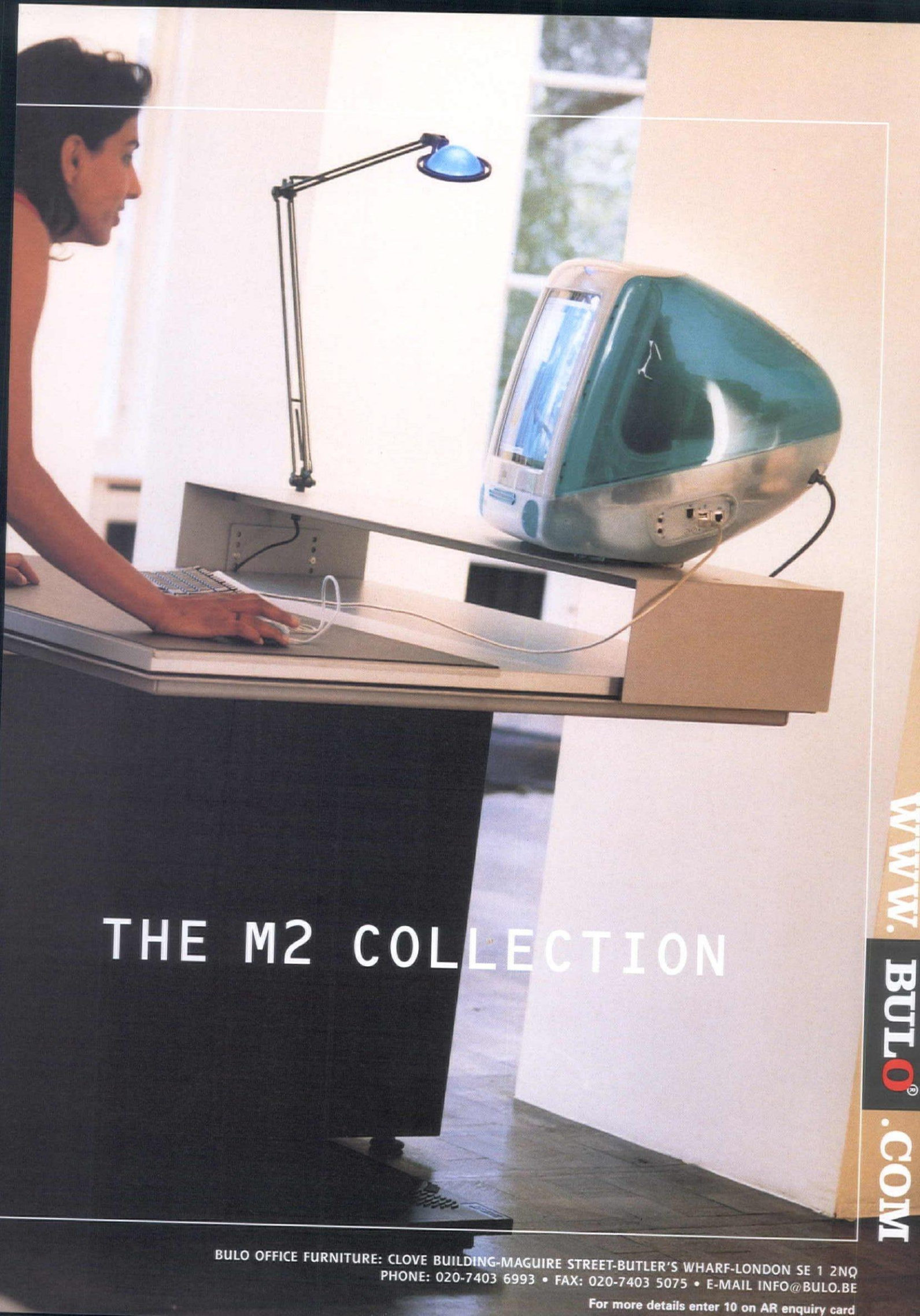
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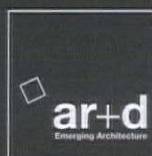
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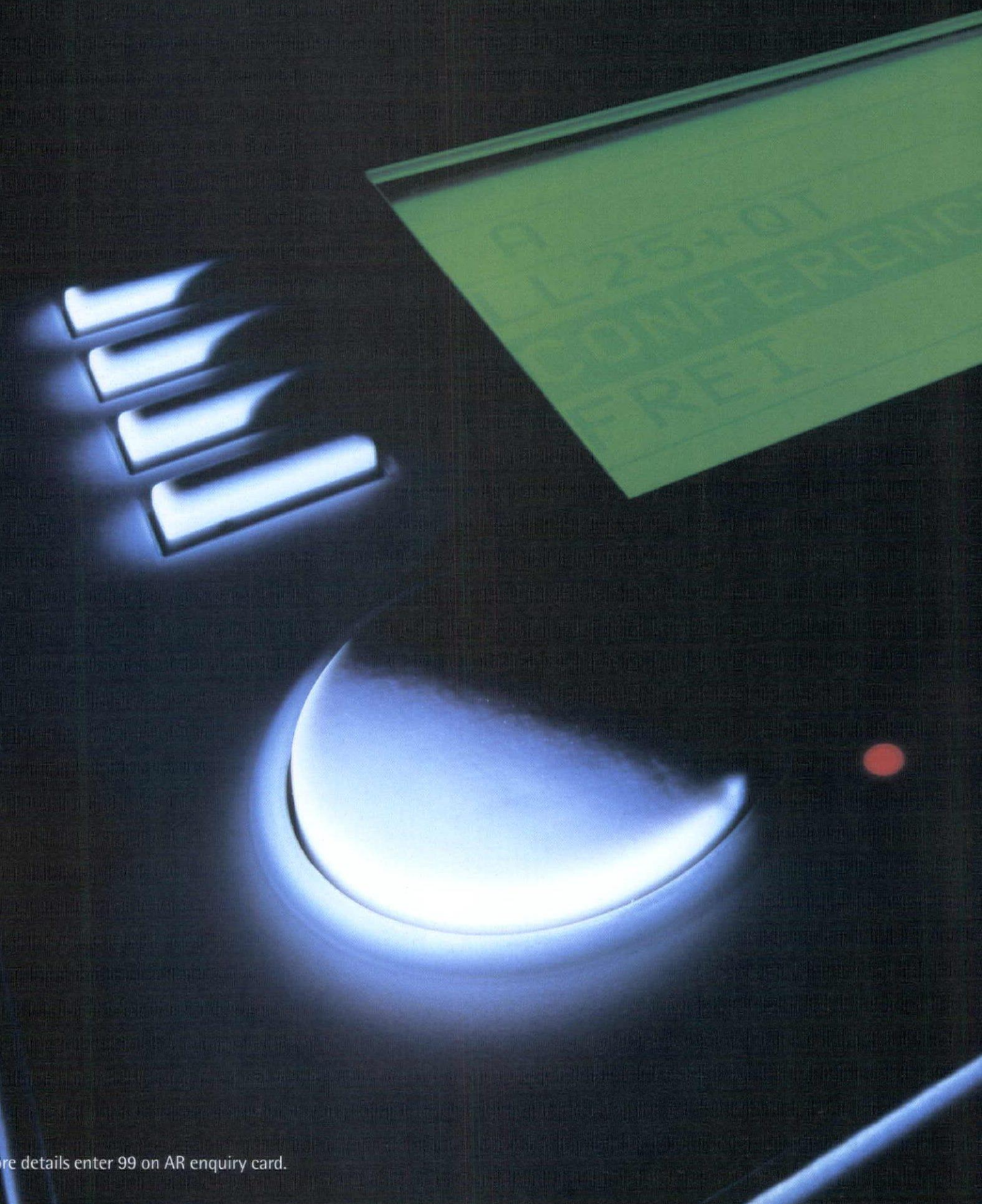
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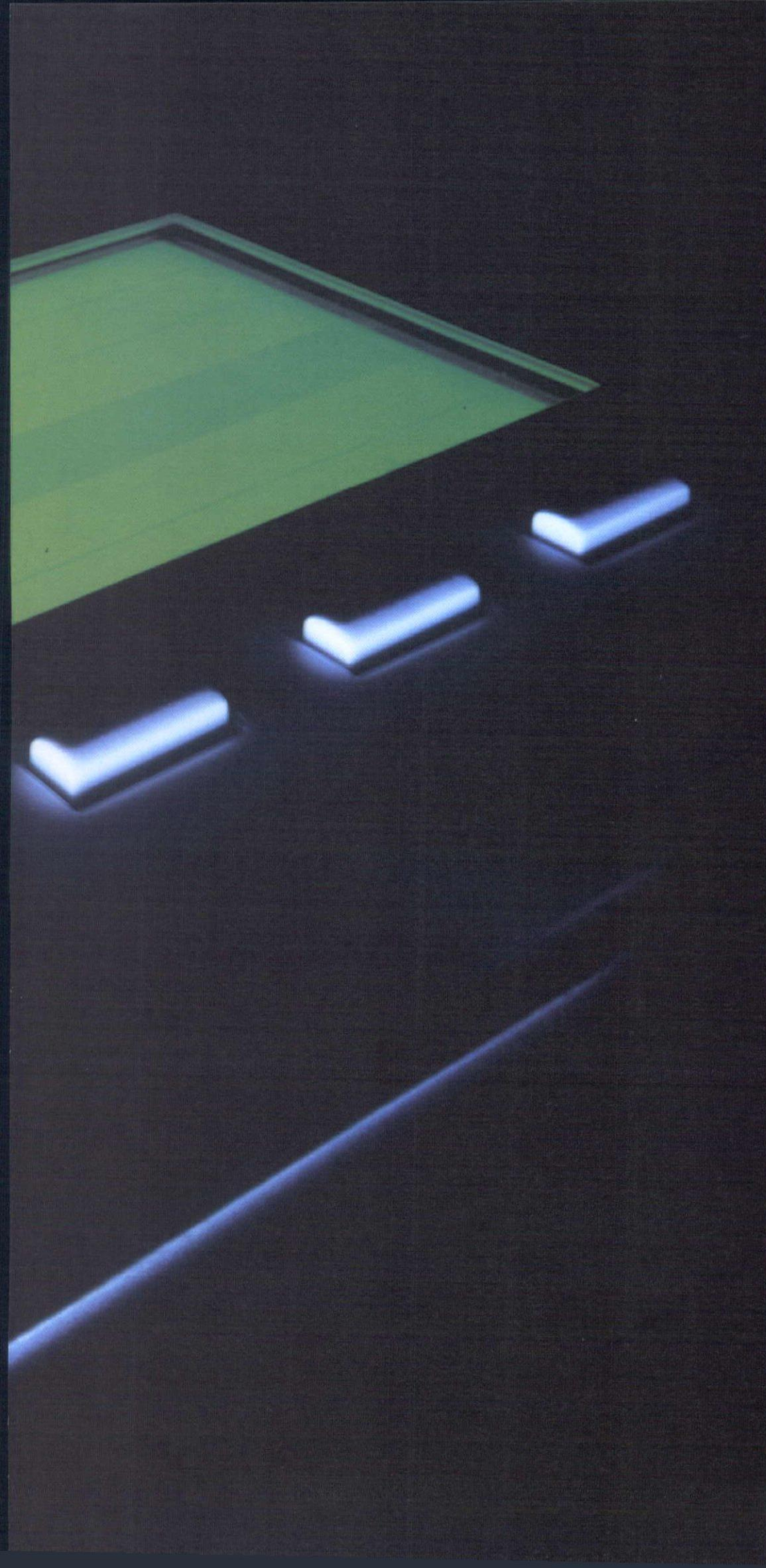
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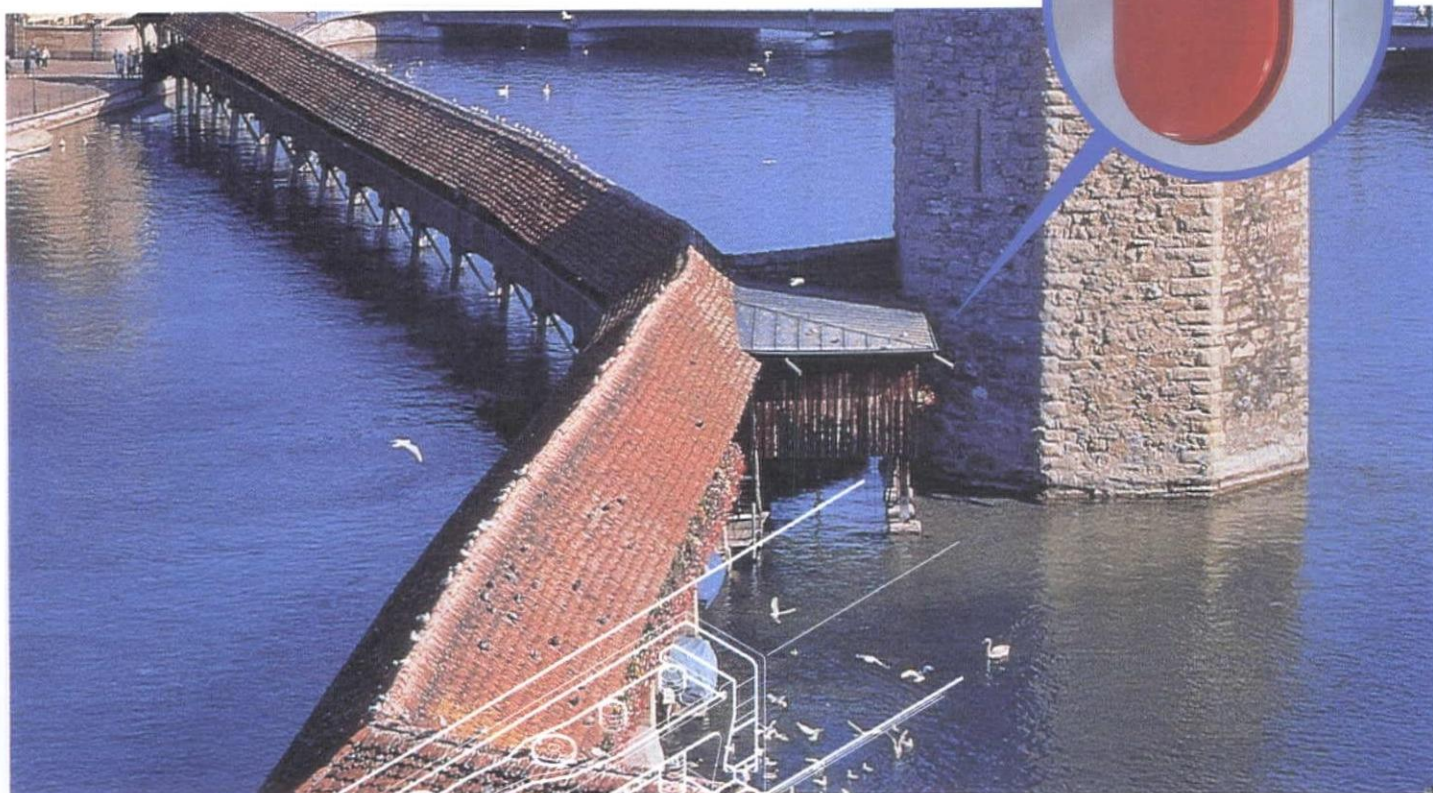
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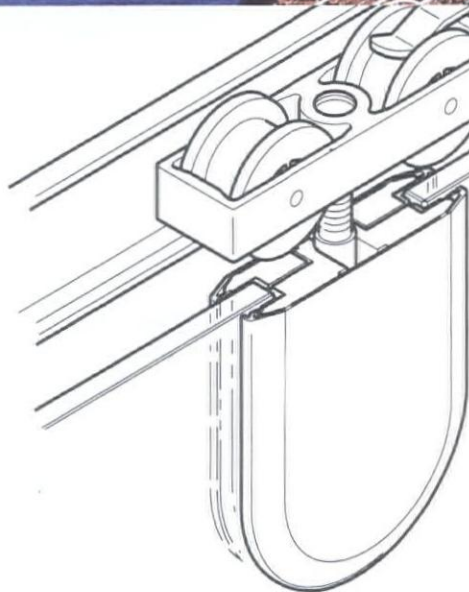
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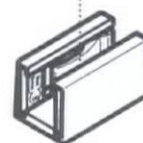
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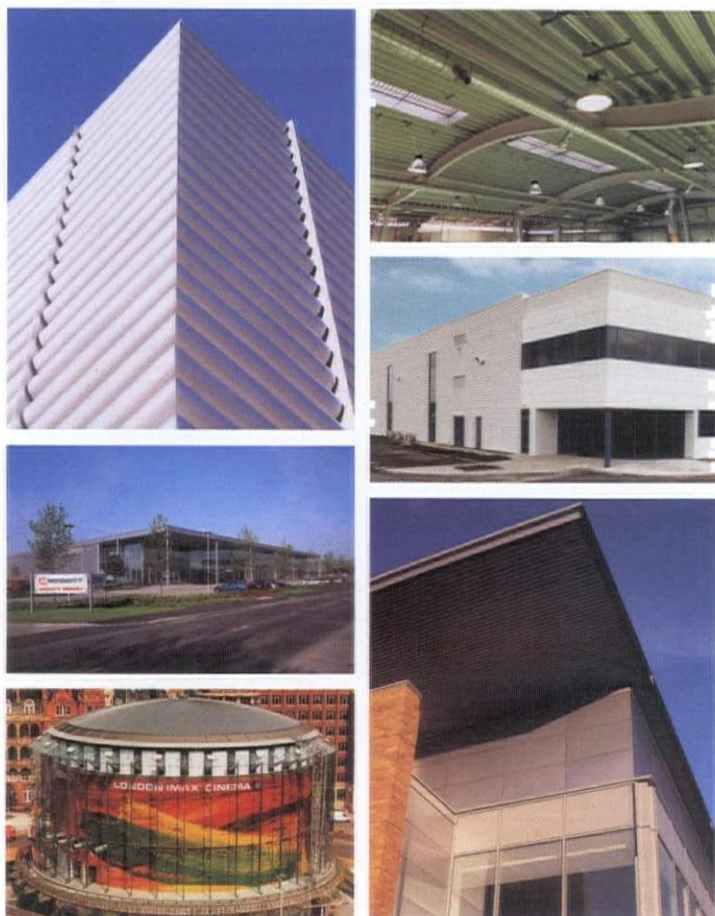
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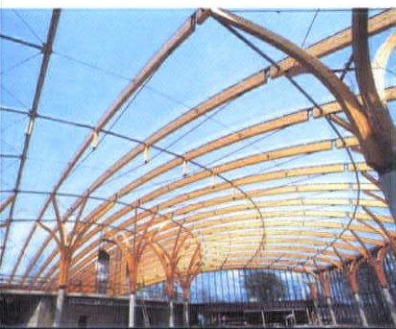
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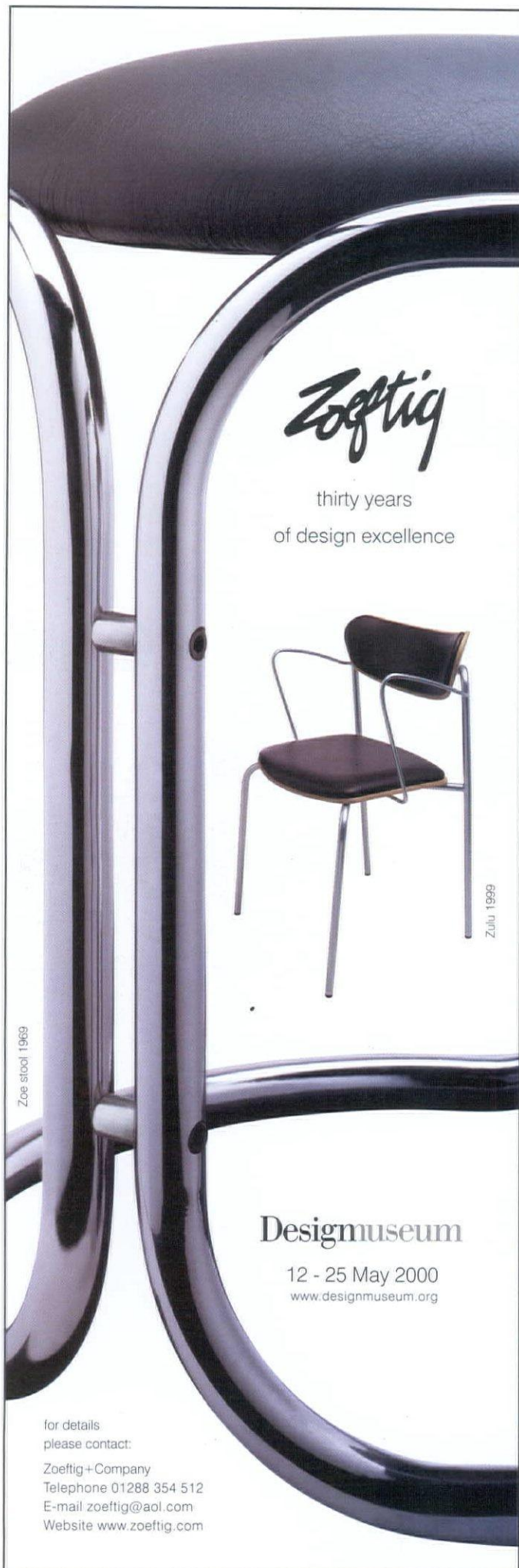
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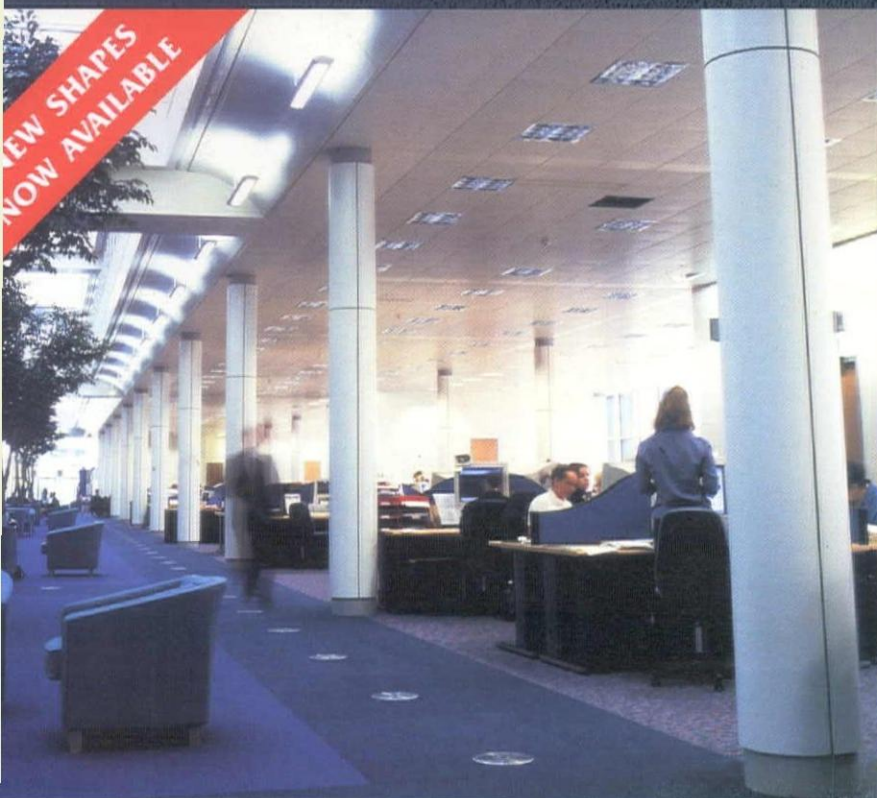


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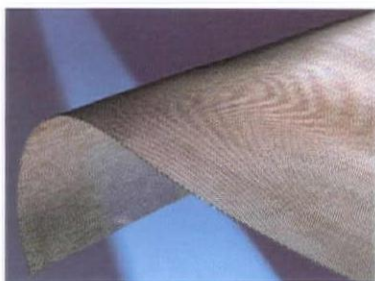
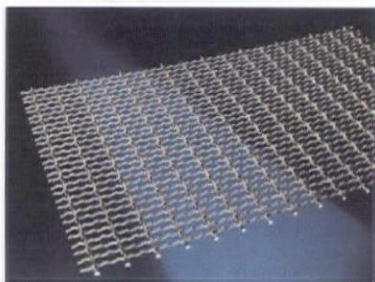
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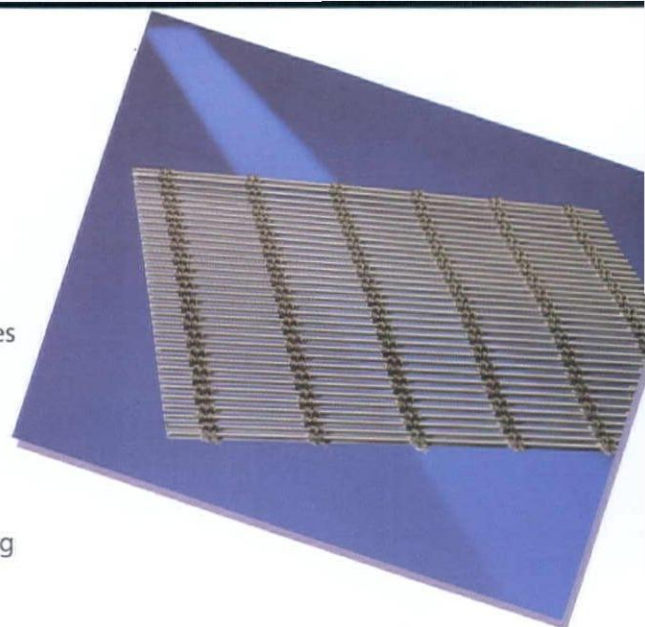
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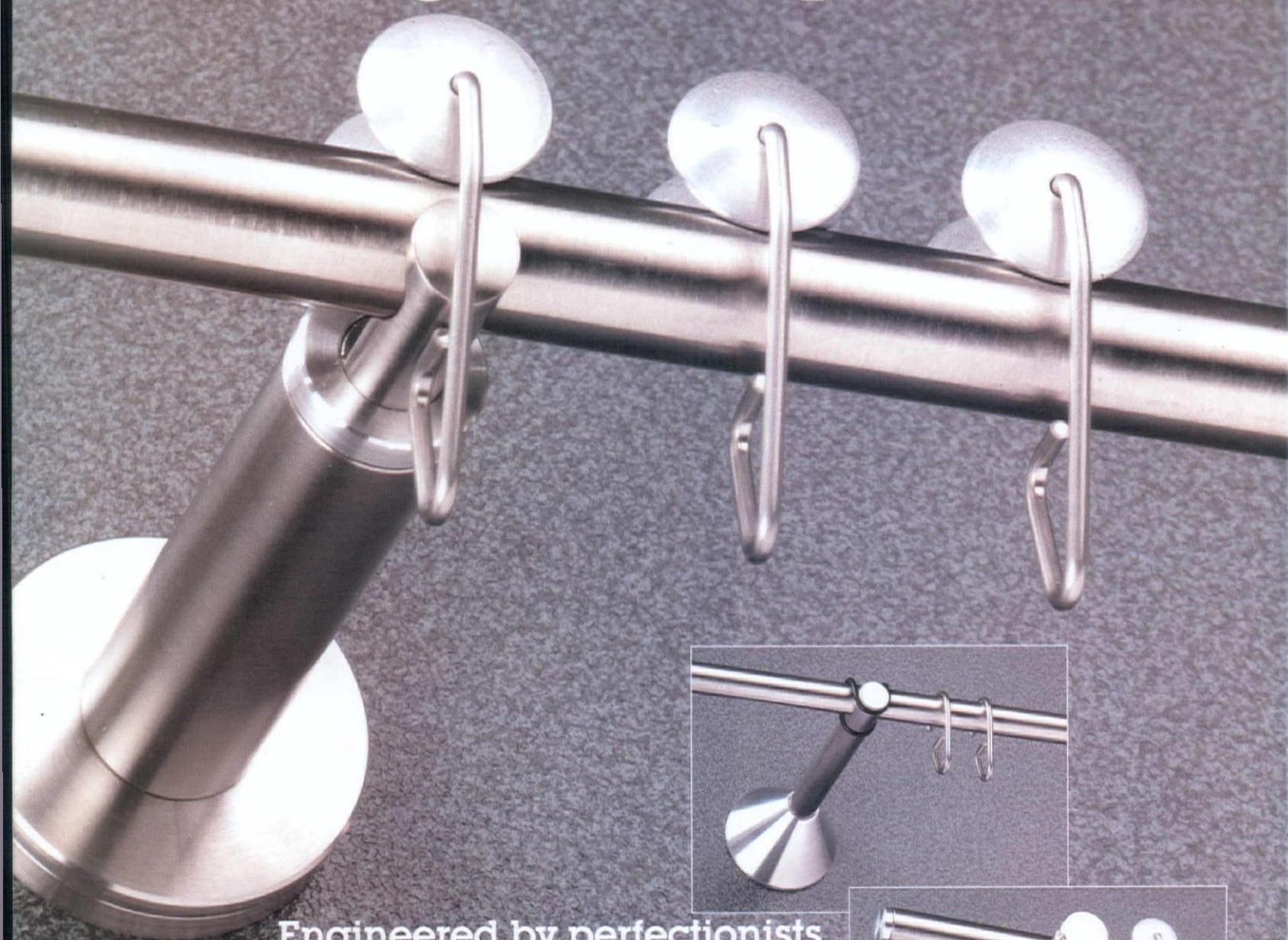
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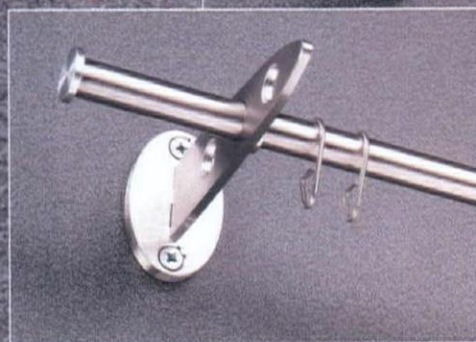
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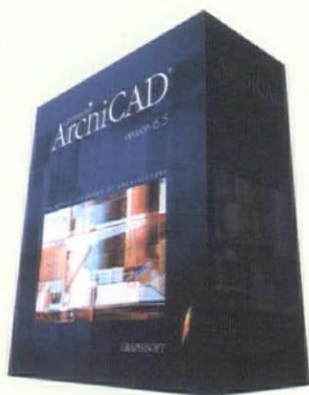
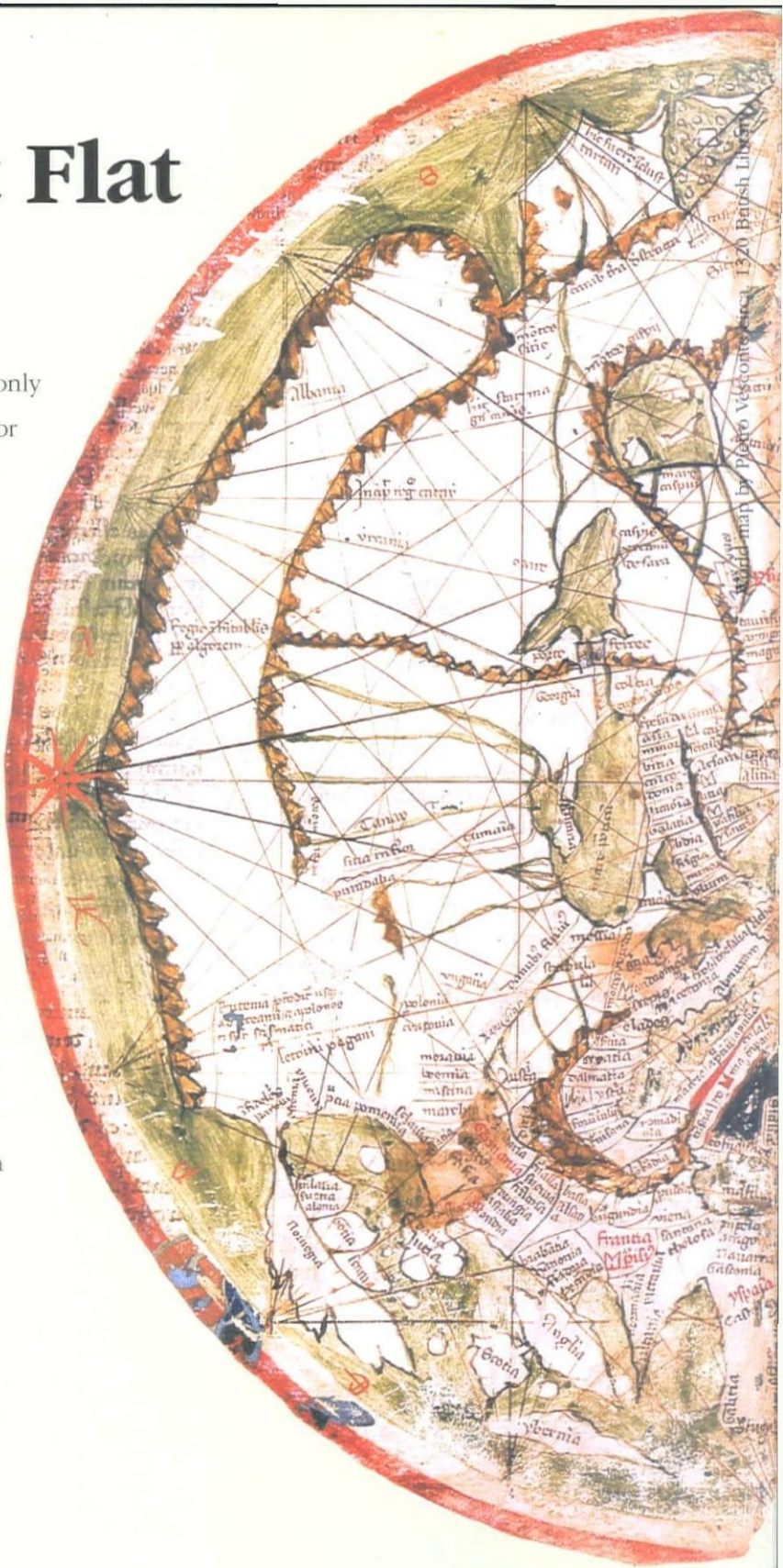
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view

CHRISTIAN DE PORTZAMPARC'S NEW SKYSCRAPER IN MANHATTAN ANIMATES THE CITY SKYLINE, A MAJOR NEW EXHIBITION OF TWENTIETH-CENTURY GERMAN ARCHITECTURE OPENS AT FRANKFURT'S DAM, THE LOSS OF A GREAT ENGLISH CRAFT TRADITION IS LAMENTED IN OUTRAGE AND ANA LUIZA NOBRE GIVES A FASCINATING VIEW FROM RIO.

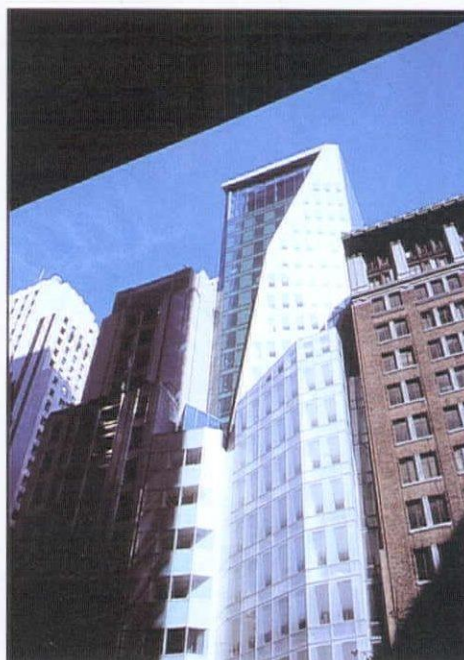
PORTZAMPARC TAKES MANHATTAN

Inspired by the glamour and gaudiness of New York, Christian de Portzamparc has completed a new crystalline skyscraper in mid-town Manhattan.

In the same way that Alexis de Tocqueville's perceptive view of America in the early nineteenth century got to the heart of the national character, French architect Christian de Portzamparc has cut through the red tape of zoning restrictions in New York with a building that speaks volumes about Manhattan glamour.

Like a rock crystal meteor zoomed in from outer space, his new 24-storey tower for the luxury goods group LVMH Moët Hennessy Louis Vuitton (purveyors of Christian Dior, Guerlain, Christian Lacroix et al.) is wedged between two sedate buildings on East 57th Street at the crossroads of the high fashion world. While the concept for a signature tower was hatched in Paris, Portzamparc, relying on his earlier impressions of jazzy New York night life during a sabbatical from the Ecole des Beaux-Arts, has succeeded in inventing a sculptural form that nevertheless imaginatively conforms to the reality of its urban context.

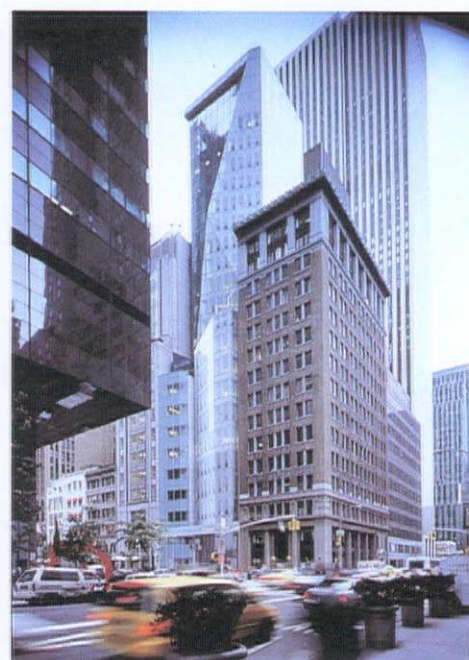
Instead of designing a typical New York zig-zagur setback, the architect made a daring reinterpretation of the old sunshine-and-shadow regulations by fracturing the glass facade into what are best described as origami folds. Faced with the monolithic IBM tower of dark green granite across the street, he was determined to deflect its sombre image. Split vertically, half of the angular facade is clad in ultra-white glass sandblasted with wedgelike patterns and thin



Elevations have a delicate folded quality, like origami.

horizontal bands that diffuse a more radiant light into the interior; the other half is clad in a bluish green glass, some of it opaque and some transparent. A faceted box of clear blue glass perched on the tenth floor setback gleams like a star sapphire set in the centre of this crystalline brooch of a building. Since none of the sharp angles protrude beyond the adjacent facades, the tower maintains a mannerly appearance on the streetscape with a discreet entrance flanked by the Christian Dior boutique. Defined by the prismatic exterior, interior spaces appear intimate and personal with nooks and crannies for small offices, meeting rooms, showrooms and corridors displaying antique and contemporary perfume bottles.

With the additional floor space generated by the setback configuration, Portzamparc has created a remarkable room at the top that outshines any other like it in New York. It lives up to its billing as the 'Magic Room'. An empty space with a thirty-foot-high ceiling and clear glass walls on three sides, this is the ultimate party room with views of the decorative architectural motifs crowning neighbouring towers as well as of the Hudson River and an enticing sliver of Central Park. At night, it looks out on a fairyland of Manhattan's glittering lights.



New tower in its Manhattan context.

This is pure theatre with a staircase spiralling down from an upper balcony where guests or fashion models can make a grand entrance à la Ziegfeld Follies.

In tandem with the building's opening last December, the Municipal Art Society mounted an impressive exhibition at the Urban Center surveying Portzamparc's work. It made the point about the great variety of his solutions: his approach to contextual architecture is to treat buildings – like the Cité de la Musique in Paris (AR July 1995) – as urban islands. In the series of study models for the LVMH Tower, progress could be followed from the original theme of stack boxes to the unified curved volumes permitted by the latitude of a third property acquired on the site.

As solid and massive as are his TGV rail station in Lille or the Law Courts in Grasse, he has an imaginative eye for colour as an ephemeral component of space, inherited perhaps from his early admiration for Le Corbusier's chapel at Ronchamp. Having already experimented with washing the facade of the Bandai Tower in Tokyo with a sequential rainbow spectrum of coloured lights, he stripped neon tubes into the vertical creases of the LVMH facade for a subtle light show after dark



Portzamparc's generative sketches.

that spreads across the glass with a luminous glow of green, pink, lavender or blue – shades of the razzmatazz of Times Square. At night, when the angular glass planes also radiate a liquid golden light from within, the tower curiously resembles a faceted crystalline flacon of perfume with the magic room the clear glass stopper at the top. It is only a matter of time before Guerlain or Dior perceive this as well, and a new perfume, 'Manhattan' perhaps, will be marketed in an equally handsome elongated prismatic bottle. PAULA DIETZ

THE GERMAN CENTURY

A major exhibition of twentieth-century German architecture opened at Frankfurt's DAM, the latest in the series devoted to European architecture.

How to appreciate architecture without experiencing it first hand is the dilemma of architecture museums. Academics and professionals may be satisfied with technical drawings but a lay public, on which museums depend, need models, virtual reality tours, or, at least, photography. Techniques beyond the pocket of most exhibitions.

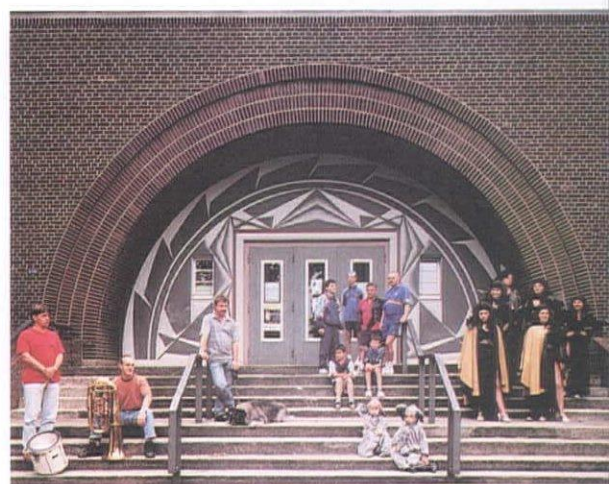
In May Wilfried Wang ends his five year tenure as director of the Deutsches Architektur-Museum having laboured against the odds, a leaking roof and the need to beg for commercial sponsorship all while under fire from a culture media which expected objective quality without independent financial support. *Architecture in the 20th century: Germany*, is one of his last, and arguably his most controversial, exhibitions.

Germany had already been examined, using original drawings and text, in *Modern Architecture in Germany 1900-1950*, a trilogy shown between 1992 and 1998. The overwhelming quantity of material was fascinating but a dry academic experience for non-architects. In the context of the European twentieth century series the curators looked for a more exciting presentation, one which would bring building users into the frame. They chose eleven non-architectural photographers to record over 100 projects in their present state and with their present users. Poster pictures, in the pseudo reality style of today's magazines, show workers, executives, civil servants and residents against weathered concrete and building finishes less glossy than when first captured for the architectural press. User appreciation or indifference is revealed in the chintzy interiors of Modernist icons, such as Pieter Oud's Weissenhof Siedlung housing (1927), the bald lawns surrounding satellite slab blocks in Trabant towns and an irreverent, but more

interesting, spin-off use of Gropius's Neue Galerie podium as a skateboarding arena. This survey is not an architectural shopping catalogue or national homage but a warts-and-all panorama only made possible by non-commercial sponsorship.

Fourteen categories preclude the usual architectural tourist guide approach. Under 'My home is my castle' the English country house ideal of Muthesius (Haus Freudenberg, 1908) stands next to Thut's private ecological paradise for those of more modest means (Terraces, Munich 1978) and Scharoun's one-off Modernism (Haus Baensch, 1935) rubs up against Everyman's urban flat of the late nineties (Kollhof/Timmermann, Berlin flats, 1994). 'Divide and manage' shows the reality of a good theory, such as *Bürolandschaft*, in the present German automobile association offices (ADAC Munich 1992) compared with the disciplined Classicism of Behrens' 1912 Mannesmann's Düsseldorf headquarters or his Expressionist glazed brickwork patterns in the Frankfurt Höchst administration building. At the other end of the spectrum the employment exchange buildings programme, instigated by the Weimar Republic (Hahn and Schroeder in Kiel, 1929), attempted a similar grand order in the management of the unemployed themselves. Can an architecture lose its original aura or is Sagebiel's Berlin Air Ministry (Reichsluftfahrtministerium, 1936) with its marble halls and over-dimensioned expanses of column-free space, less intimidating now it is refurbished and fitted out with twenty-first century workspaces for a democratic government? As the home of the first motorway and corollary motorway bridges, cited by Abercrombie as a positive development in his Greater London Plan 1944, the section Getting Around shows propaganda photography of an Autobahn service station (Fürstenwalde 1937) with state of the art reinforced concrete flat canopy, the viaduct bridges of Bonatz (1938-40) and Leipzig's (Lossow/Kühne, 1915) cathedral to rail transport as against Dortmund's planned flying saucer (BRT Architects, 1999).

Investigating architecture's roles, as opposed to starting from the end product created by star architects, is a better dipstick for evaluating economic and political agendas. West Germany's post-1945 social pact between the generations and East Germany's caring state programme are placed in context as are the concentration camps (Sachsenhausen, Bernhard Kuiper/SS architectural office, 1936-44), industrial workers towns (VW Wolfsburg) and high security prisons of more recent terrorist history. Exceptional texts in the exhibition and accompanying book are impressive excavations of the many layered meanings of built form by



Alfred Fischer's 1920 Volkshaus in Gelsenkirchen.

historians, critics, a political theorist, a psychoanalyst, structural engineer and sociologist.

This retrospective makes clear what the previous seven exhibitions in this series fudged with impressive images: that is the increasing regimentation of European society aided by architecture and planning; the industrialization of form and process, planned and regimented holiday experiences, repetitive cell offices and conveyor belt administration. Although this tendency is clearer in a country which so efficiently processed human material it does not place other Europeans on any morally higher plane. Architectural materials, High-tech, Po-Mo, Eco, are all taxis for hire, regardless of national boundaries. Gelsenkirchen-Feldmark prison (Bohm, 1998) looks perhaps better than a modern college campus with its steel clad sports dome, stone stepped tribune and landscaped exercise yard. Architectural differences between voluntary or legal incarceration are sometimes hard to discern.

Critics were puzzled. The contemporary norm of privately sponsored knowledge has led vested interests to expect uncritical public relations exercises in support of their import-export trade. For some the exhibition lacked glamour. Others saw a missed opportunity for the pillorying of political ideologies. Curators were questioned as to whether they had given enough weight to GDR architecture. Another took exception at what he thought was an attempt to lay open the German psyche. Wilfried Wang, when asked which part of the exhibition he thought most revealing answered, 'The section "Adaptation and segregation" which includes old people's homes, hospitals, prisons and concentration camps, because how a society treats its minorities, weak, sick or unwanted, is a measure of its civilization.'

Architektur im 20. Jahrhundert: Deutschland is at the Deutsches Architektur-Museum, Frankfurt am Main, until 25 June. The catalogue is published by Prestel, Munich.

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outrage



Photograph Ian Parry

Row upon row of old wooden blocks – some dating from the eighteenth century – were stored neatly labelled in a dim cellar.

We lament the tragic – and it seems, quite unnecessary – closure of Britain's last hand-printed wallpaper manufacturer. John Perry's factory, in Islington, north London, was an extraordinary repository of knowledge, craft and old-fashioned pride. For over three centuries, the business successfully produced hand-printed wallpaper from an unparalleled archive of blocks that date from the 1700s; still pressed into service on 19th-century machinery, in surroundings that remained unchanged since the day the firm was founded in 1875.

Perry, the founder, was an entrepreneur and inventor of a new wallpaper coating and coating machine. He sold his papers to the big manufacturers of the day (Sanderson, Woolams, Scott) who used them as backgrounds for their prints. From the 1880s onwards, he was building up his own collection of blocks bought from printers put out of business by the invention of new machinery. After his death in 1941, the firm was sold to Arthur Cole, a wallpaper merchant interested in traditional hand-printing methods. He already owned a vast collection of important blocks, including ones designed by Pugin and chosen for the restoration of the Houses of Parliament carried out between 1840 and 1850. Cole's blocks were added to Perry's collection which continued to grow throughout the firm's existence.

John Perry's wallpapers decorate the walls

of the Palace of Westminster and Buckingham Palace; they were used in the redecoration of Thomas Jefferson's house, Monticello in Charlottesville, USA, of the White House, and of the Royal Pavilion in Brighton. They provided the background to numerous historical dramas put on over the years by the BBC – the millions of addicts of *Middlemarch* were frequently gazing at John Perry wallpaper.

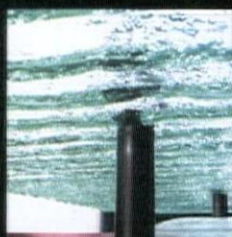
A visit to the factory to watch the craftsmen wielding their cumbersome Heath Robinson-like machines with precision and delicacy was a poignant experience. You were shown down a rickety ladder, to find yourself in a dim cellar with some 4000 wooden blocks ranged row upon row, one above the other, neatly labelled, and carved into every conceivable style – Neo Gothic and Rococo, Neo Classical and Chinoiserie. Quite rightly considered precious works of art, these blocks were hidden for safekeeping during the Second World War.

But this historical treasure has been dismantled by the new owners of the business, the large textile conglomerate Walker Greenbank plc. The firm was making a profit but apparently not enough of a profit. At the same time, its French equivalent, Zuber, has been declared a national monument. From English Heritage and the various conservation bodies, there has been a resounding silence. But surely it cannot be too late to find a solution. P.M.

With acknowledgements to Lucinda Lambton

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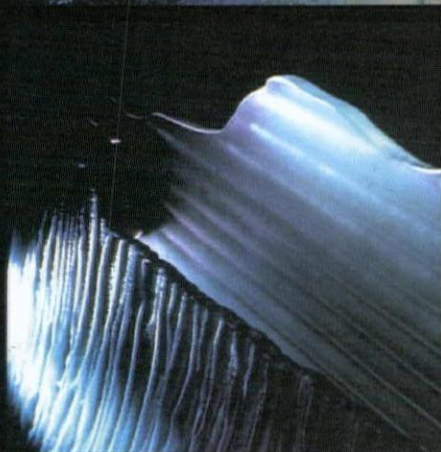
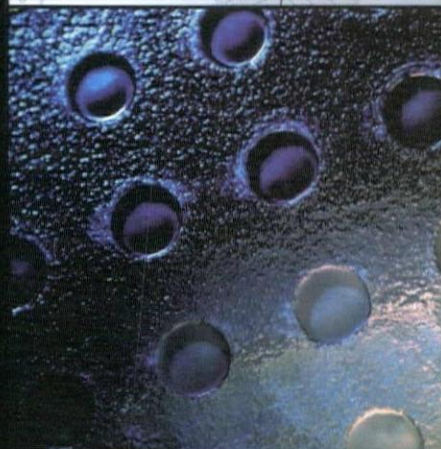
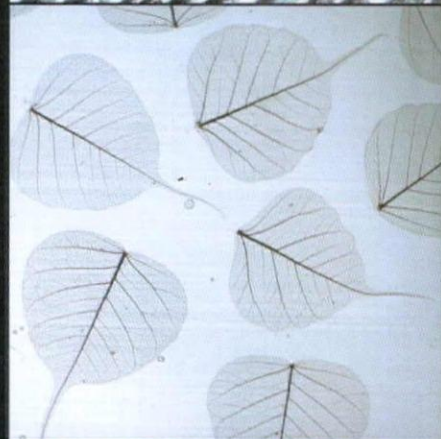
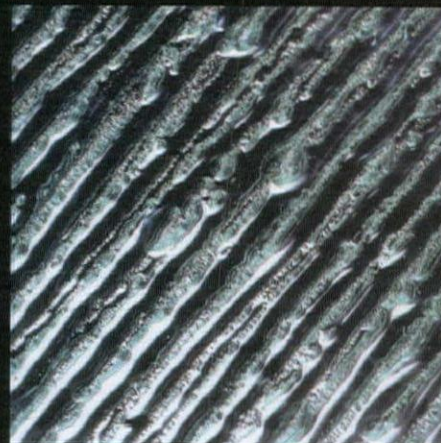
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Ian Ritchie's winning design for a light installation in Milan; two tubes support a sparkling web of fibre optic cables.

competitions

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The seventh annual Graphisoft Prize promotes innovative use of CAD software in architecture. The competition asks entrants to create imaginary architectural works from a list of cultural references. This year's selection includes The Ministry of Truth from George Orwell's novel *1984* and The Cotton Club from Francis Coppola's film.

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letters

CULLEN NEGLECTED

SIR: I was somewhat bemused to see references to Gordon Cullen in both the October 1999 and January 2000 issues of the Review. In your October issue, Adrian Monk of Brussels celebrated his 'much treasured copies from the 60s' and lamented the fact that there was no successor to Gordon Cullen. You replied that 'Cullen was perhaps a genius and can't be replaced.' In the United States, there are many ardent followers of Cullen's philosophy among students in schools of architecture and his ideas continue to develop.

In the January issue, the 1951 South Bank exhibition was celebrated by Robert Gregory who suggested that Cullen's 1949 study for the site was the precursor of the whole theme of the exhibition. Yet the credit seems to apply to Hugh Casson, with his team of brilliant young architects. Though the South Bank exhibition was the epitome of Townscape Theory, Casson and his colleagues gave scant acknowledgement to the influence of Cullen and parsimoniously awarded him a contract to design a tiny pocket garden in 1951.

It seems remarkable that the Review should neglects its own halcyon days from November 1947 to November 1958, when Cullen's distinguished colleagues included J. M. Richards, Nikolaus Pevsner, Osbert Lancaster and H. de C. Hastings.

Ironically, the Review totally ignored my own book, *Gordon Cullen: Visions of Urban Design*, published by Academy Editions in 1996. It received an American Institute of Architects Honor Award in 1997. Perhaps my American peers regard Gordon Cullen as a more significant twentieth century theorist than the current editors of the Review.

As Sir Norman Foster said in the foreword to my book, 'Gordon Cullen inspired generations of architects, designers and illustrators.' The book was reviewed across the world, including in your former sister magazine, *The Architects' Journal*, as well as in *The Journal of Urban Design*, *The Royal Society of Arts Journal*, *Planning Week*, *The Twentieth Century Society*, *The Journal of Architectural Conservation* and many other journals in other countries. Yet The Architectural Review chose to ignore it entirely.

Gordon Cullen, more than any other writer, elevated the Review to a world-class architectural magazine, and it begs the question whether the Review would have survived without his input. Think about it.

Yours etc

DAVID GOSLING

University of Cincinnati, Ohio, USA

DUTCH DISCIPLINE

SIR: I'd like to reinforce Henri Labonne's letter (AR January p24). Why is Dutch urbanism and housing supposed to be so wonderful? In reality (once in use and after the flashy photos have been taken), large areas of the new housing are unforgiving and unwelcoming. It's possible to praise the government's intention and the continuing determination to build a public realm, but it seems that only a nation as disciplined and unified as the Dutch can possibly do justice to the results.

Yours etc

WILHELM KNOPF

Cologne

postscript

ar+d GEARS UP

Entries are already starting to arrive for this year's ar+d Award for Emerging Architecture. Now in its second year, the award is made for built work of any description by architects under 45. The jury for this year includes Will Bruder, Odile Decq, Christoph Ingenhoven, Adalberto Dias, Erick van Egeraat and Peter Davey. Further details: www.arplusd.com

INTERBUILD EXPANDS

The international strength of Interbuild, the British building exhibition, grows apace. Relunched to rival its great Continental contemporaries like Bâtiment in Paris and Bau in Munich, Interbuild is run as a joint venture between the AR's owners, Emap Business Communications, and the Montgomery Group, the founders of the century-old show.

To be held in Birmingham's National Exhibition Centre between 21 and 25 May this year, a major effort has been made to attract leading international firms. A new feature will be the IT for Construction show, which will feature a very wide range of the latest hardware and software products and services including CAD, web working, two- and three-dimensional modelling and cost and facilities management programmes. Further information available from: www.interbuild.com

WING TOWER CLARIFICATION

On p25 of the supplement published by The Architectural Review in November 1999, an image was reproduced of the Wing Tower, a focal point of the new Glasgow Science Centre. We are happy to confirm that the original architects for this project and owners of the original copyright are Richard Horden Associates.



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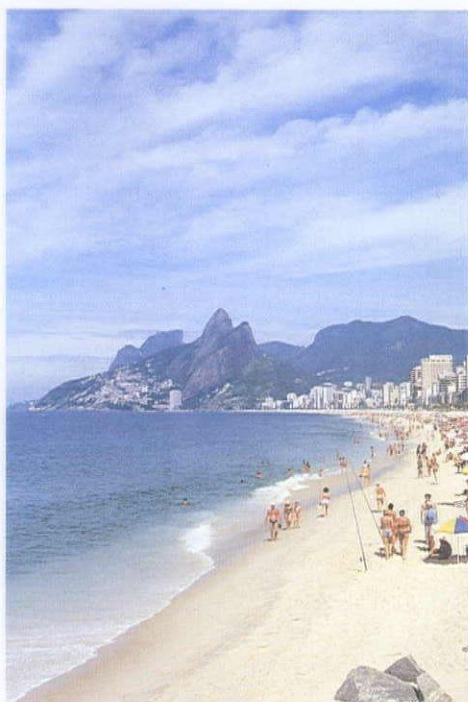
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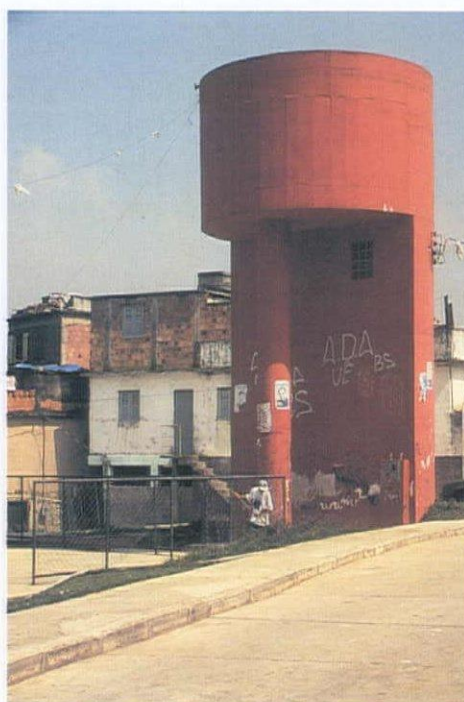
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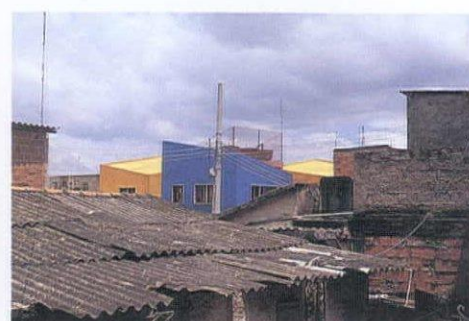
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3

1
Textbook Rio – sun, sea and sand on the wealthy coast of Ipanema-Leblon, overlooked by the hillside favela of Vidigal, on the far left.

2
Watertower by architects Fábrica in a Favela-Bairro, or 'Slum-Neighbourhood'.

3
Jorge Mário Jáuregui's vividly coloured daycare centre built in the heart of the Fubá-Campinho favela.

Letter from Rio

Rio's reputation as a city of extremes is well deserved, but within this teeming tropical metropolis inventive and pragmatic solutions are gradually being developed to address the needs of the huge dispossessed populace and bring a measure of much-needed social and civic equilibrium to the urban realm.

No wonder Rio de Janeiro is called the 'Wonderful City'; the geography is gorgeous, the sun shines all year round and it is a blessing to stroll along its beaches, from Leblon to Copacabana. Sooner or later, however, you come to realize it is also a place of extreme contrasts. Rio is the second largest city of Brazil, with a population of around 5.5 million. Besides its national importance in the development of tertiary activities and tourism, the city has also become a focus of attention for those seeking solutions to difficult social and urban problems. Today, close to a fifth of its population lives in slums, the so-called *favelas*, illegal and uncharted low-income areas which, along with irregular land developments, are responsible for a third of all housing in Rio.

A combination of factors, such as Brazil's postwar economic transformation, the impact of industrialization and uncontrolled migration, has led to Rio's chaotic expansion. Between 1920 and 1940, the city's population doubled. From north to south, in central and peripheral areas, *favelas* sprang up everywhere. The census of 1940 revealed that approxi-

mately 140 000 people lived in 105 *favelas*, enduring unspeakable overcrowding and hygiene. By the early '80s, the first official survey in Rio revealed some shameful statistics: out of a total of 364 *favelas*, 69 per cent had no light, 94 per cent no water and 99 per cent no sewage system.

Almost two decades later, it is still hard to quantify such settlements, as the city's topography accentuates their heterogeneous character and formal diversity. However, after a century in which official attitudes have ranged from negligence to the violent removal of illegal settlements during the darkest years of dictatorship during the '60s and '70s, there has been a significant and welcome shift of attitude from elimination to urbanization.

Since 1993, the notion of integration has become the guiding principle of the city's municipal housing authorities. The issue is now considered a political priority and it is assumed that these dense spontaneous slum settlements are no longer temporary, but permanent. Moreover, it is understood that the *favelas* represent a solution, however partial or low quality, to a problem which has so far proved incapable of being solved by more conventional institutional means.

Signs of such a significant shift in attitude and policy are borne out by a series of recent programmes implemented by the Housing Secretariat headed by architect Sergio Magalhães. One of the most interesting initiatives is the so-called Favela-Bairro ('Slum-Neighbourhood') programme, which began at the start of 1994 to assist medium-size *favelas*, i.e. those

consisting of between 500 and 2500 dwellings. The main challenge is to transform these areas into low-income neighbourhoods.

Following approval of the US\$300 million project by the Bank for Inter-American Development, basic infrastructure works are being carried out in around 60 of Rio's slums, to allow implementation and maintenance of services such as water supply, sewage, pluvial water drainage, lighting, garbage collection, paving etc.

Access is improved and streets are linked to the city network. Leisure and social facilities such as community centres, sports fields and public gardens are integrated as much as possible in order to support community demands. Dwellings on unsuitable sites or in areas required for general development are removed and inhabitants rehoused in new residential buildings. Finally, streets are named, and houses and buildings are numbered.

The *favelas* are converted into 'Areas of Special Social Interest', a new form of urban zoning introduced by the City Master Plan in 1992, which guarantees and safeguards land ownership. New planning policies also impose restrictions and limitations to help regulate and improve spaces previously condemned as locations for drug dealing.

It is, of course, too early to make a full critical evaluation of this unique operation, but it certainly marks a turning point for architects in the city. Rooted as it is in the French tradition, the once influential Brazilian architecture has at last found a distinct means of expression and this has to be regarded as a worthwhile contri-

Ahrend, Akaba, Alcantara, Allermuir, Amat, Ambience, Artifort, Artemide, Astrodesigns, Avarte, Bene Inventiv, Bent Krogh, Bisley, Bogesunds, Boss, Byproduct, Cale Associates, Casala, Colebrook Bosson Saunders, Colour Light Company, D-Line, Dauphin, Davison Highley, De Ploeg, Design Division, Domus, Dorma, DPG, Ercol, Ergonom, FSB@Allgood, Fantoni, Forza, Fredericia, Frezza, Fritz Hansen, Gabriel, Girsberger, Hansen & Sorensen, HAF (Handles & Fittings), Herman Miller, HB Sign Company, Howe UK, Humanscale, IB Office, Indecasa, Intercraft, Interface Europe, Interface Fabrics, JGH Design, JHT/Expona, John Coleman, Kanvas (Ergonomic Workstations), K+N, KI(UK), Klöber, Knoll International, Kron, Kusch, Kvadrat, Lamb Macintosh, Lensvelt, Lesco, Luke Hughes+Co, Magpie, Maine, Marks Pelle Vavare, Martin Stoll, Mauser, Milliken, Morgan, Neil Rogers, Ness, Nicholas Dyson, Opus Magnum, Race, Randers, RDS Solutions, Ronald Schmitt, Ryan, S.21, Samas, Scandia, Sedus, SCP, Shopkit Design, Signbox, Spacesaver, Spinneybeck, System B8, Thonet, Tracy Hillier, Trevira, Toby Winteringham, Vitra, Wales+Wales, Westbond, Wilkhahn, Wittmann, Zoefftig, Zumtobel + + +

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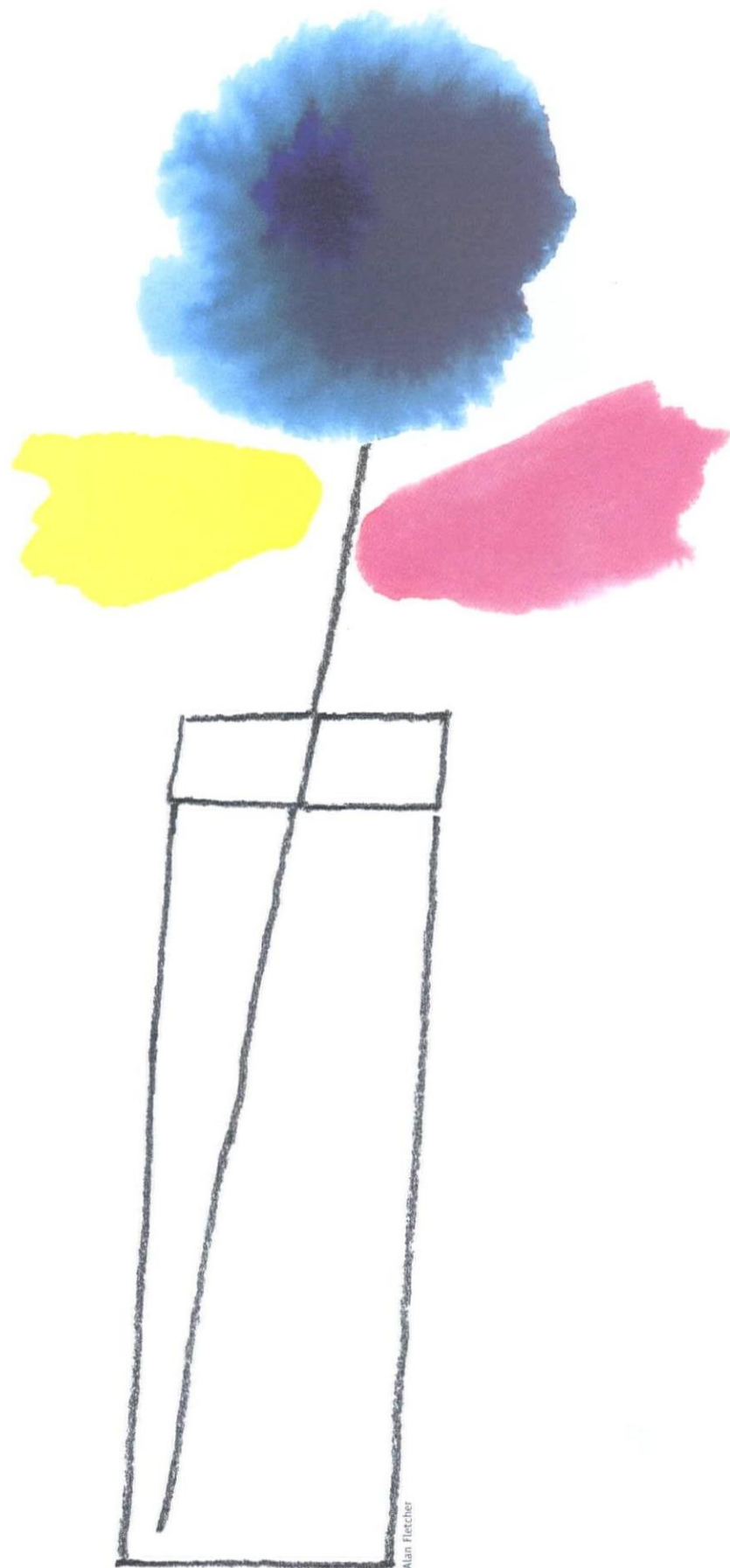
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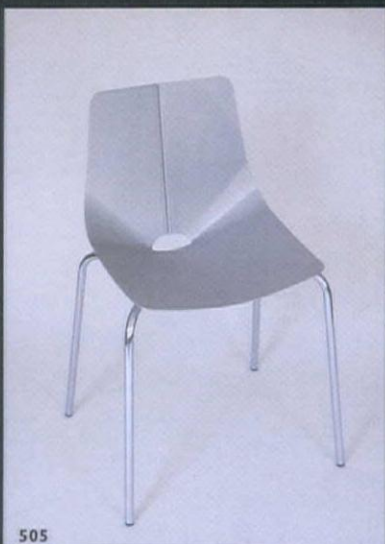
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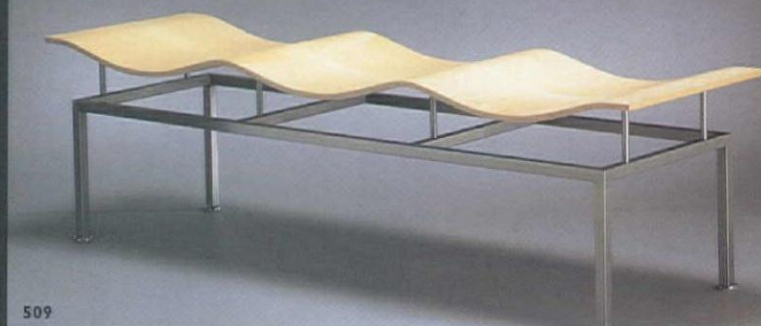
List correct at 20 March 2000



Alan Fletcher



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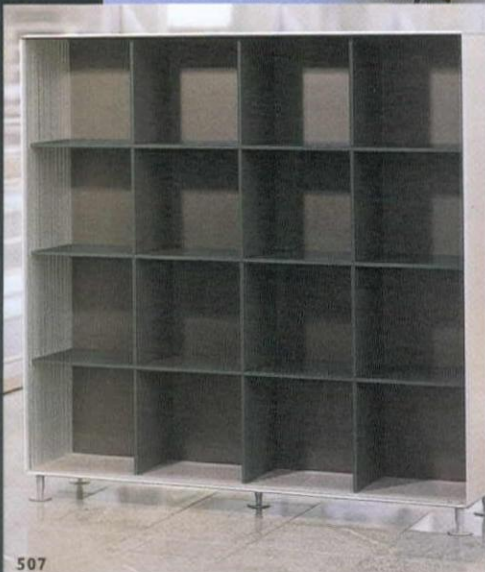
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507

505 JGH DESIGN

70:50: simple stacking chair, inspired by origami, made from a single sheet of aluminium.
Tel/fax: +44 020 7371 9845.

506 LAMB MACINTOSH

Abacat: flexible pedestal for changing work practices and an addition to Abacus desking. Designed by Royston Burrows and Dominic Cleary.
Tel: +44 01753 522369. Fax: +44 01753 517216.

507 BENE INVENTIV

AL Group: range of aluminium framed, mobile storage units, by Johannes Karl and Kai Stania.
Tel: +44 020 7689 1234. Fax: +44 020 7689 1250.

508 DAUPHIN

Mille Miglia: range of swivelling, tilting and cantilevered office chairs, by Kerstin Hagge and Alfred Puchta.
Tel: +44 01254 52220. Fax: +44 01254 680401.



511

509 ALLERUIR

Wave: bench in Canadian rock maple veneer and stainless steel frame, by Jens Bredsdorff and Carsten Schmidt.
Tel: +44 01254 682421. Fax: +44 01254 673793.

510 KUSCH + CO

Grappa Series 1050: bistro and restaurant chairs, benches and bar stools and tables in beech, by Justus Kolberg.
Tel: +44 020 7336 7561. Fax: +44 020 7336 7562.

511 KNOLL INTERNATIONAL

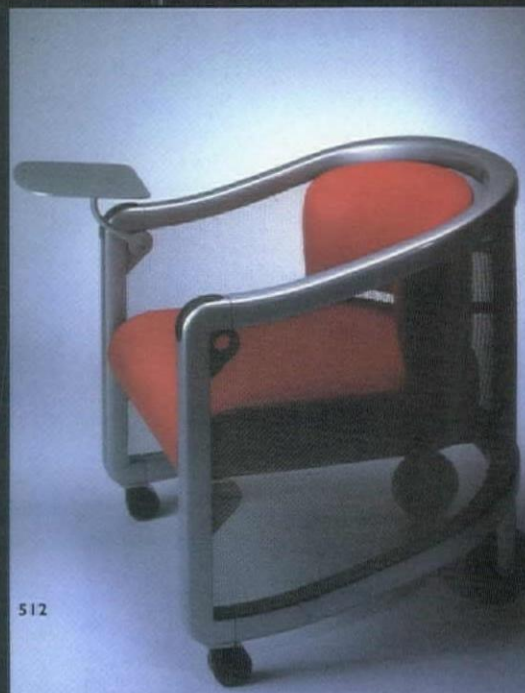
Fog: cast aluminium stacking chair by Frank Gehry.
Tel: +44 020 7236 6655. Fax: +44 020 7248 1744.

512 KNOLL INTERNATIONAL

Neil Frankel Collection: chair and mobile table for meeting spaces and public areas. Designed by Neil Frankel and Cindy Coleman.
Tel: +44 020 7236 6655. Fax: +44 020 7248 1744.



508

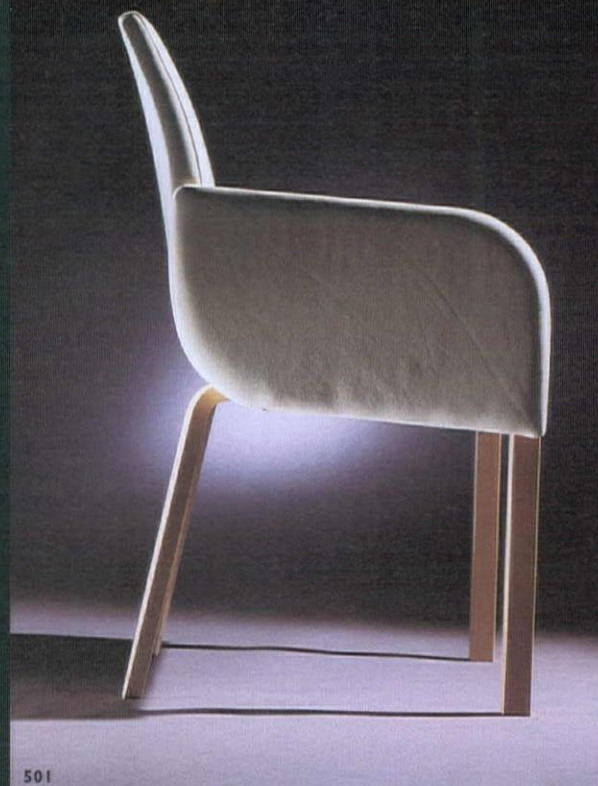


512

design review

Spectrum 2000, the annual furniture and design fair, will be taking place 17-20 May in the Commonwealth Institute on Kensington High Street. With the release of the whole top level of the Commonwealth Galleries, the event will be the largest yet, including 20 new companies and bringing the number of exhibitors up to 130. As in previous years, the AR will be giving an Award for Excellence to the product new to the UK and judged the most worthy by an eminent panel of judges, including Rick Mather of Rick Mather Architects, Perry King of King and Miranda, Dinah Casson of Casson Mann and Penny McGuire, AR's senior editor.

This year, the restaurant will be designed by Gregor Seeger for Vitra. It will be furnished with a new polypropylene version of the classic Eames Plastic (EPS) chairs from the Vitra Standards collection, and Ron Arad's Tom Vac chairs, which are now available with a powder-coated finish and can be used outside. The exhibition will be open from Wednesday to Friday 10am-9pm, and on Saturday 10am-6pm when there will be a children's club for visiting families. Pre-registration can be arranged from now onwards: tel: 0870 7511 479. Information about special hotel and travel discounts - tel: 0207 372 2001. Spectrum web-site: www.spectrumexhibition.co.uk



501



502



503



504

501 WALES + WALES

Chair: upholstered conference/desk chair, designed by the firm.
Tel: +44 01825 872764. Fax: +44 01825 873197.

502 FREDERICA FURNITURE

Model No. 2214: upholstered two-seater sofa by Børge Mogensen.
Tel: +45 75 92 33 44. Fax: +45 75 92 38 76.

503 AMAT-3

Splash: armchair with anodized aluminium frame, seat support in injected aluminium and seat in recyclable polypropylene.
Tel: +34 93 775 5651. Fax: +34 93 775 3454.

504 R. RANDERS

Sala: ergonomic chair by Hans Thyge Raunkjaer. Curving sprung back supports spine and shoulders.
Tel: +45 87 80 2222. Fax: +45 87 80 2244.

bution to contemporary culture. Among the interventions carried out by interdisciplinary teams, involving several local architectural offices, those undertaken by Jorge Mário Jáuregui are currently in line for the Mies van der Rohe Foundation Prize for Latin-American Architecture. Jáuregui's work was also honoured at the Architecture Biennial in São Paulo last year.

Unpretentious as they may be, the current regeneration programmes must be seen as a first effective step in breaking down urban and symbolic borders between the legal and the illegal city. They also form part of a wider urban strategy, closing a century in which Rio has been the focus of radical interventions and general plans, from the major surgery inspired by Haussmann to the proposals of Alfred Agache, Le Corbusier and Doxiadis, all of whom attempted to bring European Modernism to the urban core of the tropics.

It is true that the Old Continent remains as a

model, yet today its rules are assumed to be more methodological than stylistic. Following the example of Barcelona, greater emphasis is now given to public spaces. The vision of the city as the sum of its neighbourhoods (basic criteria in the reconstruction of the Catalan capital), has given rise to a controversial urban renewal programme called 'Rio-Cidade'. Implemented in two phases (beginning with a public competition held in 1995), the programme seeks to 'reassert the crucial significance of streets for a well-balanced social life in the city, to invigorate the identity of each neighbourhood, to enhance their self-esteem and the roots of local communities'.

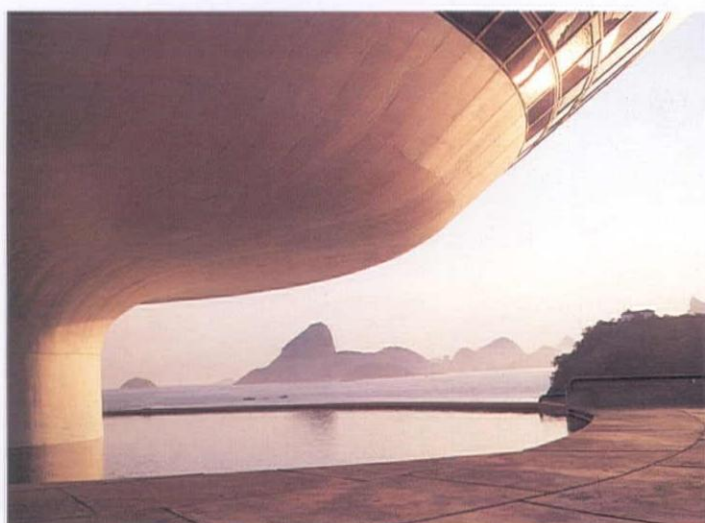
The first responses to these priorities were a sort of 'design fever' – suddenly Rio was awash with fancy benches, street signs, sidewalks, obelisks (!) and bus stops, most so useless and uncomfortable that they cry out for replacement. Nonetheless, the programme has succeeded in bringing pedestrians back to the

streets, as well as restoring a lost sense of citizenship to the city's inhabitants.

Meanwhile, there are a whole set of separate interventions not subject to architectural competitions, which may or may not be realized. The renovation of the city centre waterfront is being undertaken by Oriol Bohigas and Nuno Portas (officially invited as consultants) and Sergio Bernardes was asked to transform the crumbling shell of the pavilion he originally designed in the late '50s into a modern arena. And after the successful Museum of Contemporary Arts, just across the bay in Niterói (AR April 1999), Oscar Niemeyer was finally invited to design a large convention centre for the amazing neighbourhood of Barra da Tijuca – a local, but much worse, version of a North-American edge-city. All these plans and proposals suggest that Rio may be in for an encouraging new millennium.

ANA LUIZA NOBRE

Ana Luiza Nobre is an architectural historian and critic in Rio de Janeiro.



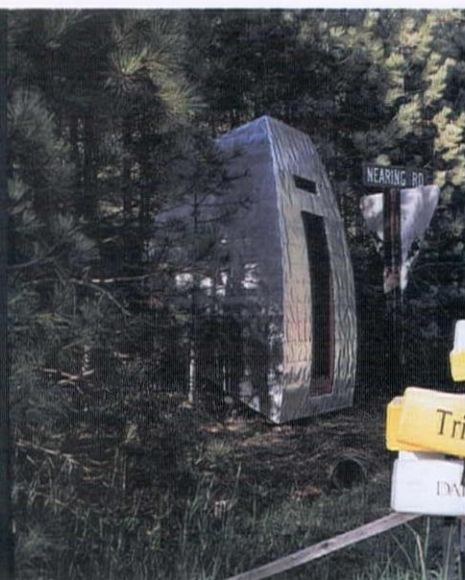
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4 Oscar Niemeyer's Museum of Contemporary Art in Niterói overlooking Guanabara Bay. Niemeyer is currently designing a convention centre for the Barra da Tijuca that will hopefully act as a spur to further development.

5 Public lighting by Pedro Paulino Guimarães in the suburb of Penha. Part of an urban renewal programme implemented by the Urban Development Secretariat. Barcelona is the model.



June

Our June issue examines the subject of transport buildings. All cities and communities, no matter how dispersed, need transport interchanges for the movement of people and things. Historically, the importance of transport buildings has always been celebrated by grand figures in urban life, from medieval coaching inns to the great railway stations of the nineteenth century and more recently by a new generation of airports. We look at an array of transport buildings that not only respond to the persistent romance of travel, but provide lucid, functional enclosures for a wide range of human experiences. In Berlin,

von Gerkan Marg's new Spandau railway station forms a major element in the city's reconstruction. In Walsall, Allford Hall Monaghan Morris' new bus station brings dignity and delight to a provincial English town. In Tokyo, Klein Dytham's garage for a car collector is a crisply contemporary urban insertion. And we revisit the Jubilee Line, to consider the second phase of stations that have played such a memorable part in revitalizing public transport in London. Plus the new Royal Court Theatre and Henning Larsen's Danish Design Centre in Interiors. Obtain this plus eleven other pulsating issues by completing the enclosed subscription form. Or visit our website:

www.arplus.com

design review

513 SCANDIA

Zebra: conference/meeting chair with slatted back and upholstered seat. Designed by Rud Thygesen and Johnny Sørensen.
Tel: +44 01844 237561. Fax: +44 01844 238181.



513

514 GEBRÜDER THONET

Programm 5900: range of stackable chairs with aluminium alloy frames. Recyclable components. Designed by Foster & Partners. From Hemsley Associates.
Tel: +44 020 8998 4806. Fax: +44 020 8240 4326.



514

515 HERMAN MILLER

Abak: desking system by the firm's design team.
Tel/fax: +44 020 7388 7331.

516 GIRSBERGER

Zampano: ergonomic seating by Dieter Stierli and the Girsberger Team.
Tel: +44 020 7490 3223. Fax: +44 020 7490 5665.

517 KLOBER

Canos: swivelling chair with aluminium base; flexible, weight adjustable or fixed arms. Designed by Burkhard Vogtherr. From Neil Rogers Interiors.
Tel: +44 01664 464000. Fax: +44 01664 464111.

518 JGH DESIGN

Butterfly: wall mounted public seating system with cantilevered stainless-steel shell, designed by Jonathan Harvey.
Tel/fax: +44 020 7371 9845.

519 SAMAS SYSTEMS FURNITURE

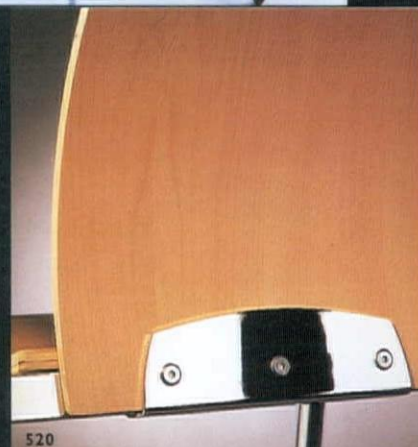
Milea 21: adaptable furniture system designed by Clément Rousseau.
Tel: +44 01322 223477. Fax: +44 01322 222890.



519

520 NESS FURNITURE

Ascani: seating range by Trevor Bloxham. Chairs can be linked and stacked, fitted with armrests and numbers, and can be upholstered.
Tel: +44 01388 816109. Fax: +44 01388 818683.



520



521

521 HUMANSCALE

Freedom: ergonomic seating by Niels Diffrient.
Tel: +44 01675 467166. Fax: +44 01675 467199.

522 DESIGN DIVISION

Wing: chair with moulded plywood and upholstered seat by Alex Palmer.
Tel: +44 01902 574129. Fax: +44 01902 353185.



522

523 FANTONI

Cherry Range: tables with glass or wood tops and tapered metal legs, by Mario Broggi and Michael Burckhardt. The range includes mobile desks and storage units.
Tel: +44 01483 894090. Fax: +44 01483 890203.



523

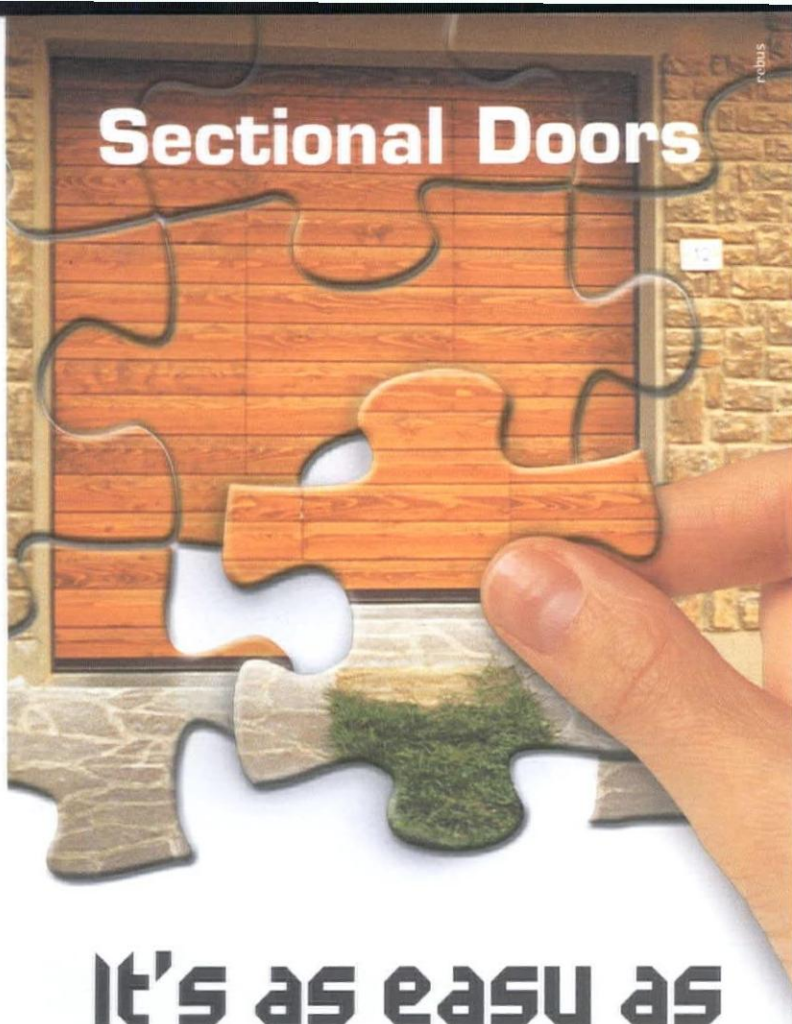


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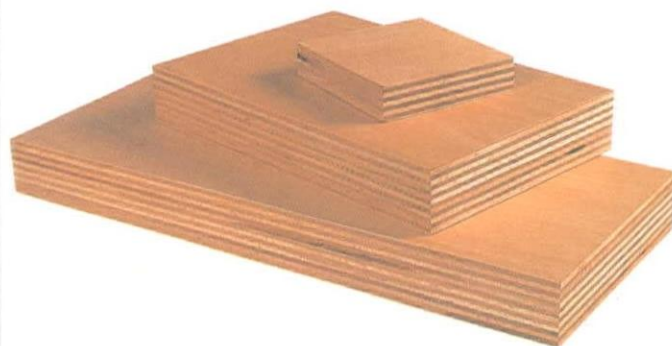
The invitation to participate in this open worldwide two-phase competition is extended to interdisciplinary teams uniting architects, interface designers and communication researchers as well as to researchers in teaching methods, artists, computer scientists, marketing experts, film and theater directors, sociologists and IT-companies.

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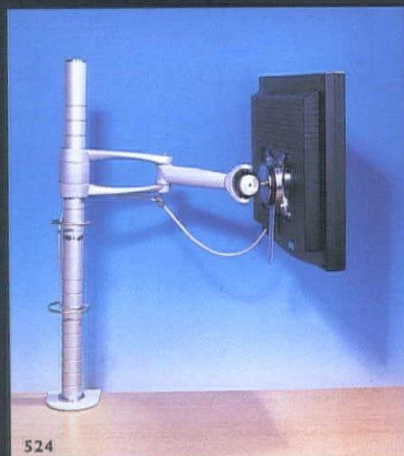
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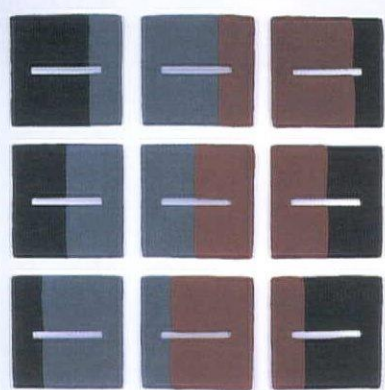
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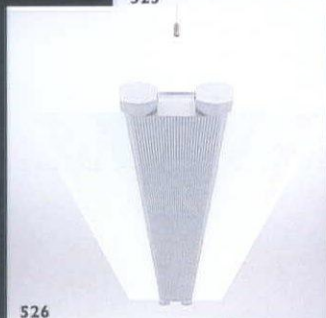
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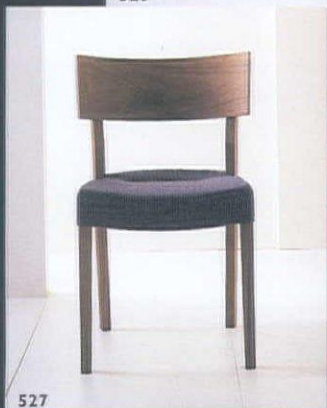
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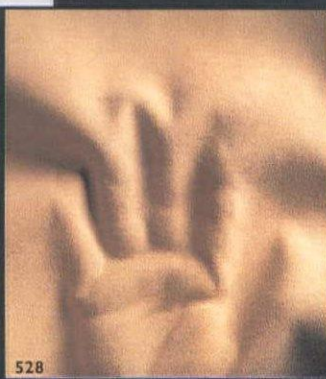
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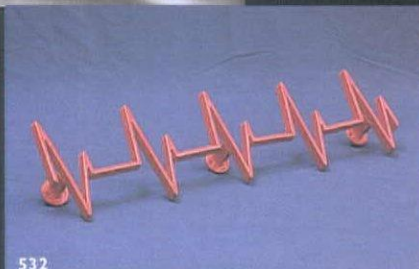
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529 BYPRODUCT

Comb: a modular screen in two heights with flexible footprint. Designed by Rob Melville and James Cannon. Tel/fax: +44 020 7923 3430.

530 DORMA OGRO

Ships Screw: by Hans-Ulrich Bitsch + Ulrich Nether. Tel: +44 020 8558 8411. Fax: +44 020 8539 6724.

531 DAVISON HIGHLEY

Snowdrop: sculptural tub chair, upholstered in leather and fabric. Designed by Barry Davison and Caroline Wood. Tel: +44 01494 881912. Fax: +44 01494 881572.

524 COLEBROOK BOSSON SAUNDERS

Wishbone: flat screen arm for dealing desks. Tel: +44 7587 5283. Fax: +44 7587 5275.

525 TRACY HILLIER

Kinematic: hand tufted wallhanging with brushed aluminium inserts. From the Modular Collection. Tel: +44 020 7242 6344. Fax: +44 7837 2999.

526 ZUMTOBEL STAFF LIGHTING

Orea: suspended luminaire. Designed by Bea Frois. Tel: +44 020 8573 3556. Fax: +44 020 8573 3560.

527 LUKE HUGHES + COMPANY

Napoleon: upholstered wooden-framed chair by Jane Dillon and Michael Waller. Tel: +44 020 7404 5995. Fax: +44 020 7405 1839.

528 KVADRAT

Glove: simulated suede upholstery fabric. Tel: +44 020 7229 9969. Fax: +44 020 7229 1543.

532 SPONGE DESIGNS

Heartbeat: coathanger injection moulded in clear polycarbonate supporting up to 10 coats. Tel/fax: +44 020 7498 7226.

533 FSB @ ALLGOOD

The Golden Section: three new lever handles. Designed by Jürgen Braun. Tel/fax: +44 020 7387 9951.

534 TREVIRA

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536 ERGONOMIC WORKSTATIONS

Tel: +44 020 7613 4666. Fax: +44 020 7613 4653.

537 BOSS DESIGN

Tel: +44 01384 455570. Fax: +44 01384 241628.

538 K+N INTERNATIONAL

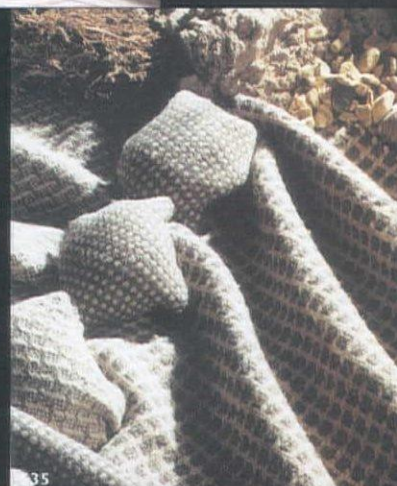
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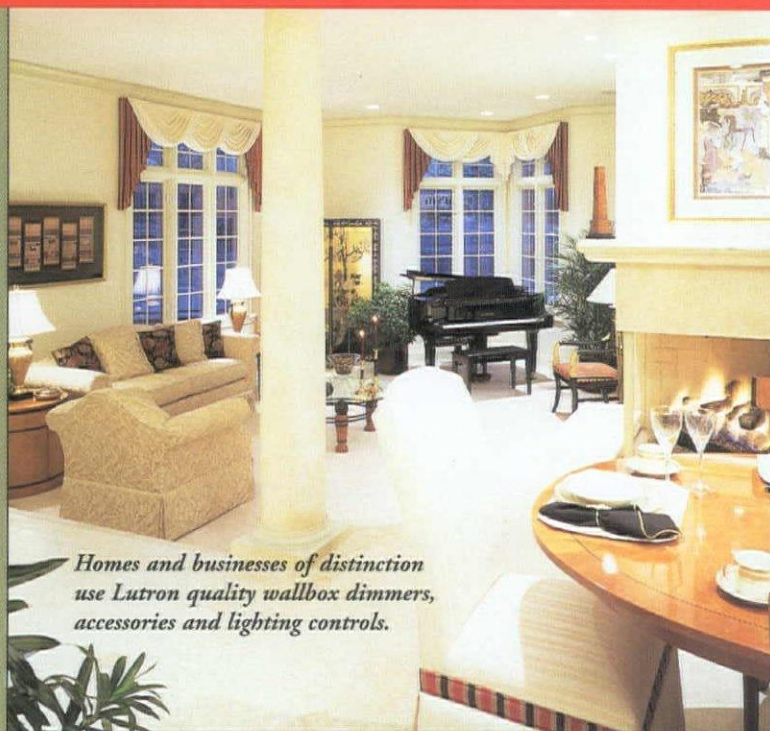
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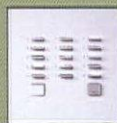
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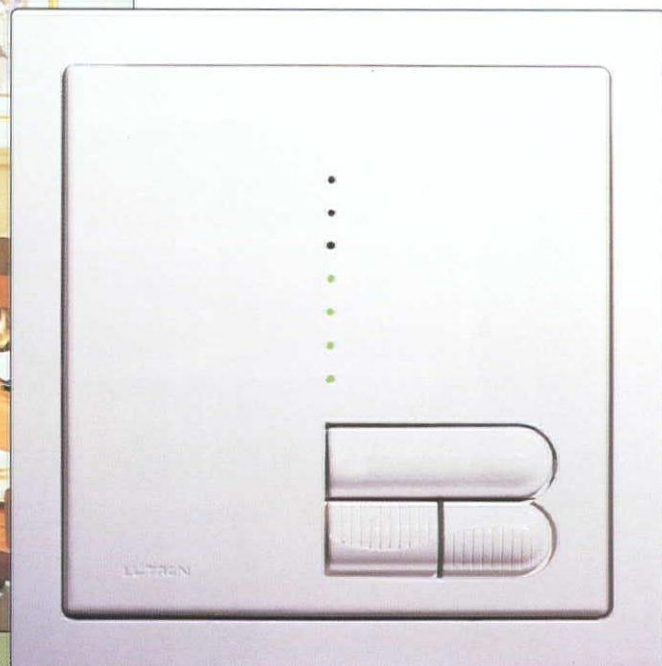


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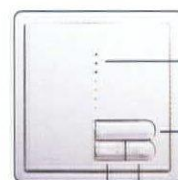


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RANDERS



Main picture: Walsall Art Gallery by Caruso St John (photograph Hélène Binet). Insets (left to right) Meili & Peter's timber, gabion cages by Edouard François, Moneo's translucent Kursaal and Zvi Hecker's limestone.

MATERIAL WITNESSES

Architecture's relationship with materials is complex and immemorial. Historically structured by technical advances and invention, it is also dependent on sensory qualities and how these colour human perception.

Viewed as servants of form and allies of structure, materials have received only cursory attention in the history of architecture. True to Platonic precepts of matter's inferiority to form, this history is traditionally recorded as a primer of signs, geometry, proportion and decoration. For the most part, materials remain silent witnesses, occasionally lined up for prosaic dissection in construction textbooks. Yet from wattle to neoprene, the history of architecture is also the history of material invention. Discovery of new materials, or new ways of working or combining existing ones, have marked hinge points in architecture's evolution, suggesting new possibilities and the generation of new forms.

Before global industrialisation, limitations of transport, labour and technology ensured the continuity of a vernacular architecture based on local materials taken from or made in the immediate vicinity. Timber was felled from the nearby forest, bricks baked using local clay, stone cut from a convenient quarry, sustaining a building culture with an umbilical connection to place. This link between artefact and the earth from which it grew was not merely an economic imperative, but also satisfying at a psychological level.

As increased industrial efficiency drove down production costs, interest in developing new and more widely available materials was aroused. The first iron bridge at Coalbrookdale was built at exorbitant cost, but proved the harbinger of iron as a cheap and universal building material. At the beginning of the century, aluminium was extracted by chemical means and was more costly to produce than gold. The discovery of coke-based smelting for iron, electrolytic extraction for aluminium and the float glass method of manufacturing plate glass all reduced the cost of producing such materials to acceptable levels. Allied to the growth of mass transportation, this meant that many different sorts of non-indigenous materials could be easily moved around, so severing geographical and psychological links between locality and building.

Now both the technology and the will exist to transcend, often bizarrely, the innate properties of most building materials. Metal is deformed into increasingly curious and convoluted shapes, glass is used in compression, stone exploited in tension. Through investigation in the fields of biology, aerospace and automotive engineering, the wonder and sophistication of natural forms is being revealed, with consequent effects on the demands made of materials. Recent research has also given rise to notions of 'biomimicry': of buildings that are not just static enclosures of space, but attempt to emulate the responsiveness of living organisms.

It is safe to predict that we will continue to unravel the technical qualities and capacities of materials, but our own responses to them are perhaps more complex, deeply rooted and difficult to divine. Materials embody both a physical and perceptual alchemy. In physical terms, raw matter is transformed by the effect of heat, chemicals or other generative processes. In experiential terms, materials are endowed with meaning, and can evoke feelings, trigger connotations and address the deeper levels of our understanding. A material can become the scapegoat of unpopular architecture, as concrete, for instance, is now invariably associated with the physical and social failings of Modernism. Conversely, it can also be used to legitimise buildings of dubious distinction, such as the thin veneer of stone used

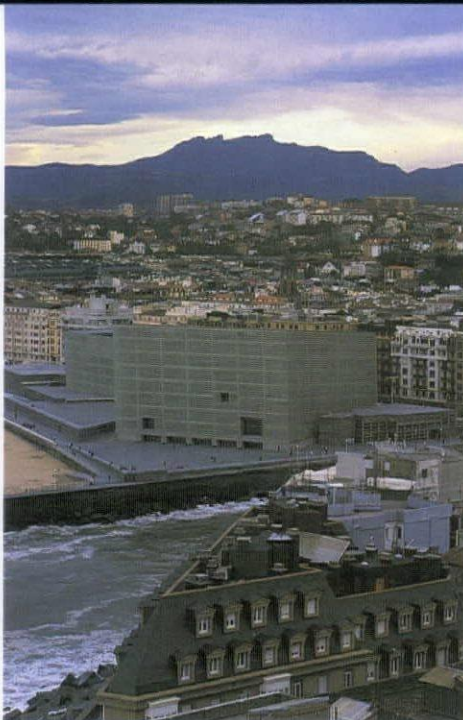
to clad banal office blocks for the purposes of crude capitalistic aggrandisement. Applied in such a mendacious way, the material is effectively robbed of authenticity and meaning.

To build quickly or formulaically generally entails the debasement of materials, with a resulting sensory impoverishment. Materials have particular qualities and buildings often take years to make. Both are profoundly altered by the passing of time. As Juhani Pallasmaa postulates in his densely argued discourse for a tactile, multi-sensory architecture (p78), this slowness and mutability is fundamentally at odds with the increasing ephemerality and transience of an information and sense-saturated world. Immaculately choreographed images of architecture perfected and frozen at the moment of its creation exist in a necessarily timeless vacuum. The impact of the subsequent processes of ageing, weathering and traces of use are regarded as inherently negative. As Pallasmaa makes clear, materials can speak evocatively and even pleasurably of the passing of time – stone of its geological origins, brick of fire and earth and ageless construction traditions, metals of ancient casting processes and the patina of age, timber as a once-living tree.

Pallasmaa's arguments for hapticity and slowness might seem optimistically at variance with the fast, superficial way most buildings are made these days, but they do strike a much-needed, elemental chord. Some of Pallasmaa's tenets are embodied in the recent work of Peter Zumthor, whose artisanal origins have nurtured a deep understanding of the nature and language of materials. Zumthor's reflections are also tempered by sensuous experience of the world – by sight, touch and smell. 'I see the rusty metal of the door, the blue of the hills in the background, the shimmer of the air over the asphalt... Everything I see, the cement slabs that hold the earth, the wires of the trellis, the chiseled balusters on the terrace, the plastered arch over the passageway – they all show traces of wear, of use and of dwelling. And when I look more carefully, the things I see start to tell me something about why, how and for what purpose they were made. All this comes to light, or is concealed, within their form or presence... I like the idea that the house I build contributes to the atmospheric density of a place, a place which its inhabitants and passers-by will remember with pleasure'.*

Putting materials to best use involves an appreciation of their innate sensory qualities as well as their technical potential. The buildings in this issue attempt to demonstrate this investigation and invention. Rafael Moneo's Kursaal auditorium in San Sebastián (p44) has a translucent glass skin which changes and shimmers like a chameleon in different climatic conditions. Zvi Hecker's Palmach Museum in Tel Aviv (p50) uses lowly limestone dug from site to forge a resonant geological connection with building and place. Meili & Peter's college for Swiss woodworkers (p67) ingeniously confounds traditional expectations of timber buildings and Caruso St John's new Walsall Art Gallery (p62) embodies a heightened awareness of the nuances of materials used simply yet rigorously. Such explorations provide some hope of being able to create architecture that is not only sensuously and psychologically rewarding in itself, but which retains some authenticity and 'atmospheric density' in a world of increasingly manipulative fictions and insubstantiality. C.S.

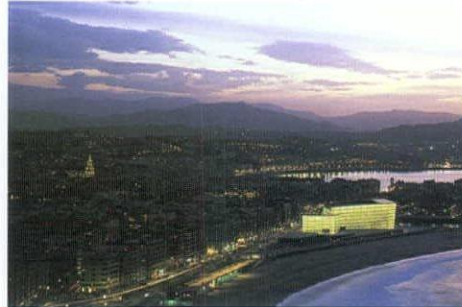
* *Peter Zumthor Works*, Lars Müller Publishers, Baden, 1998, p8.



1

TOPOGRAPHIC TRANSLUCENCE

Clad in a delicate glass membrane that changes like a chameleon's skin, Rafael Moneo's Kursaal auditorium forms a new icon for San Sebastián.



2

CONCERT HALL AND CONFERENCE CENTRE, SAN SEBASTIAN, SPAIN

ARCHITECT

RAFAEL MONEO



3

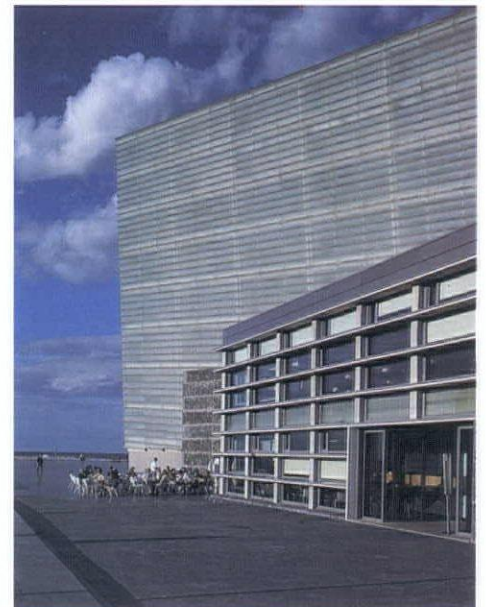
Where the river Urumea meets the ocean in San Sebastián, two sharp limpid boxes mark the presence of the new Kursaal concert hall and conference centre designed by Madrid-based Rafael Moneo. Embedded in a low, almost geological podium of slate shards, glass and grey aluminium, the canted parallelepipeds are constructed almost entirely of contiguous glass elements held in place by a skeletal steel frame.

The building operates at various scales. Its primary move is topographical: it can be interpreted as two pristine boulders shaped like those found alongside the river outside. Both foggy white boxes contain one sealed inner box, flowing interstitial foyer space and, as finale, a single punctured window aligned with one or other of the adjacent hills that cradle San Sebastián.

Inland towards the city, the Kursaal's podium contains shops, a café and a mezzanine-level restaurant as well as the necessary entrances for pedestrians, motorists and service vehicles. Towards the beach and rivermouth, it ramps up and about the two primary forms as a new civic terrace. The building's theme of in-betweenness is also expressed in the skin construction of both principal masses. This comprises two double layers of glass – the outermost layer made of curved panels to produce a scalloped effect – with dramatic maintenance walkways in the interstitial voids.

This new Kursaal is the product of a competition held in 1990, one year before that for the spectacularly successful Guggenheim Museum along the coast in Bilbao (AR December 1997). The name Kursaal is the legacy of a previous San Sebastián institution, an entertainment and casino pavilion dating from the end of the nineteenth century. This new Kursaal revives that Belle Epoque tradition of large seaside buildings and although a fraction of the cost of the Guggenheim, similarly aims to become an icon for its host city. When visiting, it is particularly important to spend time in and about the building as the maritime atmosphere of the Bay of Biscay is susceptible to rapid changes in weather conditions. Especially at night, the glazed forms of the Kursaal function as beacons at a grand scale. They slip into view as you stroll about the city, electrified, elegant and mysterious. From the sea or air, they must be even more beautiful.

The larger of the two translucent forms shelters a 1828-seat concert hall. It is equipped with the necessarily flexible stage floor, sides and overhead elements so that the full spectrum of events, from poetry recitals to grand opera, can be easily accommodated. The smaller form encloses a 624-seat auditorium, more intimate and less intensely serviced, intended primarily for conferences. Where the larger auditorium



4

1 The two translucent volumes of the Kursaal form a new icon for the city on the edge of the sea.

2 At night the building appears radiant and mysterious, a beacon on the bay.

3 Mass is dissolved by an inscrutable glass skin that changes with the light.

4 South-west end of the complex shelters an open-air café terrace.

5 Platform between the two volumes overlooks the bay; an abstract composition of glass skin, sea and sky.

6 Curved cladding panels generate a scalloped effect that gently subverts the building's linearity.





7

CONCERT HALL AND CONFERENCE CENTRE, SAN SEBASTIAN, SPAIN

ARCHITECT

RAFAEL MONEO



8



9

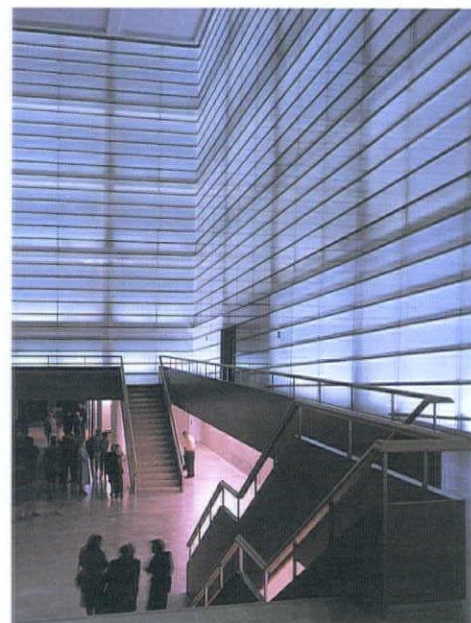
sits asymmetrically within its enclosure and reaches up to touch that soffit, the smaller is positioned symmetrically on plan but floats free of the roof above. The larger chamber is luxuriously furnished with finely panelled sides canted for acoustic performance; the smaller is lined in a paler pine and has double banks of interpreter booths. Both volumes rely on seat upholstery for sound absorption. Ceiling panels drop downwards to allow light fittings, for example, to illuminate the stage while being tactfully screened from the view of the audience.

The base on which these two volumes sit is remarkably low. More like another stratum of the earth's crust than any typical institutional facade, the entrance side faces south alongside the Avenida de la Zurriola with luxury shops and office foyers beneath a shared datum. The building line recedes behind this linear parapet at the Kursaal's centre to create a deep sheltered space likened by the architects to the traditional Spanish *zaguán* (entrance) porch. This is where entry to both principal spaces, ticket booths and pedestrian connection to the 500-car underground parking structure are found. It feels like a natural place to meet, a widening of the pavement promenade. (It is intended to position a giant letter 'K', designed by New York-based Massimo Vignelli, here in the near future.) In fact, the Kursaal is arranged with partition walls and

multiple entryways so that its various constituent spaces can be used simultaneously or individually. From beneath the low streetside datum, the visitor proceeds naturally to the expansive volumes held within the two glazed forms. Especially about the concert hall, a free-form family of open stairways and viewing platforms invite the users of the Kursaal to ascend with some real spatial excitement to the various levels, to explore the plastic entirety of the project, and then savour a single focused view back to the hillside and seascape outside.

At the lower levels, there are typically viewing windows to the public realm so that even deep inside the building there are kinetic glimpses of the outside world as skateboarders and strollers pass by. The main concert hall floor is sunk to basement level, allowing performance artists and maintenance personnel unlimited access about its periphery. Within the plinth, there are also smaller meeting rooms with complementary batteries of interpreter facilities. It is disappointing, however, that the vast function room/restaurant has no visual link back towards the ocean.

One of Rafael Moneo's first solo projects from the 1960s is also in San Sebastián, a seven-storey apartment building just one block from the Kursaal. It exhibits the typological and perhaps even the formal influences Moneo was exposed to during a



10

7 Foyer spaces weave around the volume of the concert hall.

8, 9 Free-form staircases hurtle vertiginously through the tall spaces, creating a dramatic promenade to upper levels.

10 Translucent skin diffuses light into the foyer.

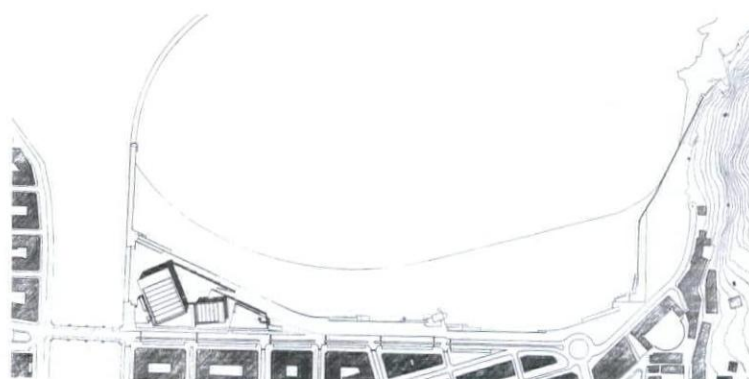
11 Openings cut into the wall reveal glimpses of the human animation inside.



**CONCERT HALL AND CONFERENCE
CENTRE, SAN SEBASTIAN, SPAIN**

ARCHITECT

RAFAEL MONEO



location plan

- 1 concert hall
- 2 dressing room
- 3 storage
- 4 rehearsal room
- 5 truck entrance
- 6 loading dock
- 7 meeting room
- 8 foyer
- 9 kitchen
- 10 banqueting hall
- 11 car park entrance
- 12 car park exit
- 13 congress hall
- 14 entrance
- 15 exhibition space
- 16 café
- 17 shops
- 18 offices
- 19 cloakroom
- 20 platform
- 21 seafront

12

Foyer space around the smaller congress hall.

13

Main concert hall, equipped with canted sides to assist acoustic performance.



12

sojourn in Rome between 1963 and 1965. If architecture is interpreted in strictly biographical terms, the Kursaal – as a special fragment in the city – is clearly indebted to Moneo's pre-Roman experience, to the two years he spent working for the Danish master Jørn Utzon. The tectonics of the Kursaal are orthogonal, the materiality and colours varied (some blue highlights hint at a sub-aquatic theme), but there is nevertheless here on the Bay of Biscay a sophisticated echo of the Opera House in Sydney. It's an exercise in realizing monumentality in the early twenty-first century, using materials and textures effectively, and integrating fluidly the comings and goings of conference attendees, theatre folk and the normal urban life of the contemporary city.

RAYMUND RYAN

Architect

Rafael Moneo, Madrid

Project team

Rafael Moeno, Luis Rojo, Jeff Inaba, Andrew Borges, Barry Price, Ezra Gould, Collette Creppell, Nancy Chen, Albert Ho, Ignacio Quemada, Eduardo Belzunce, Fernando Iznaola, Jan Kleihues, Luis Diaz Maurino, Adolfo Zanetti, Robert Robinowitz, Juan Beldarrain, Pedro Elcuaz, Imanol Iturría

Structural engineer,

Javier Manterola, Hugo Corres & Associates,
Jesús Jiménez Cañas

Mechanical engineer

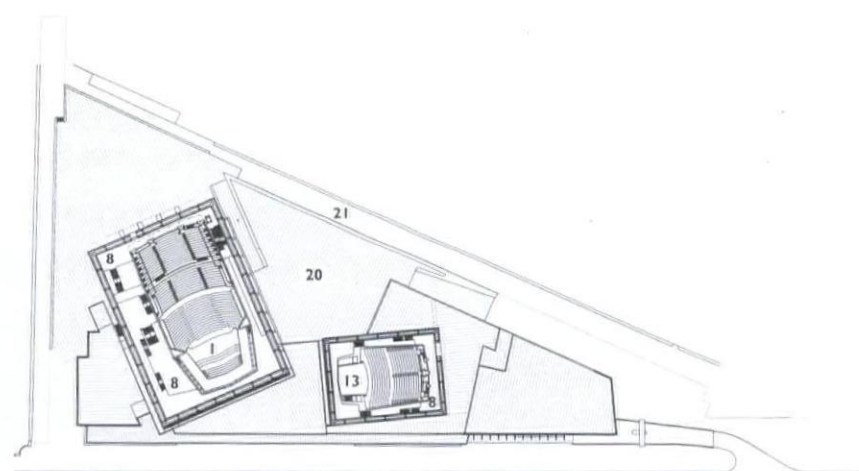
J. G. Asociados

Acoustic consultant

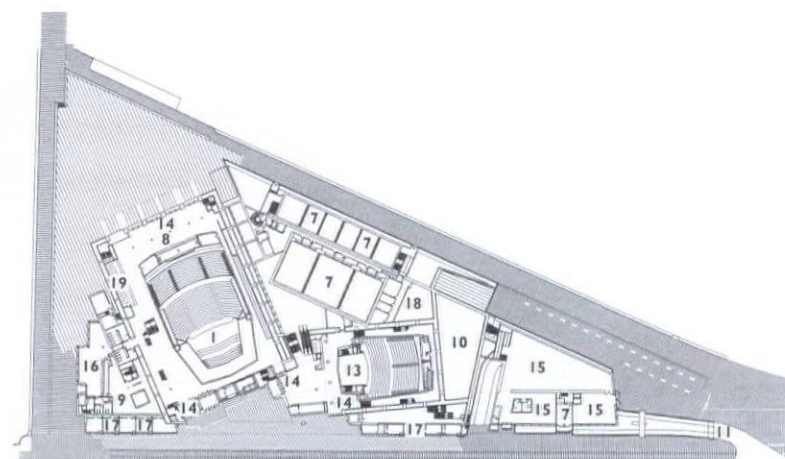
Higini Arau

Photographs

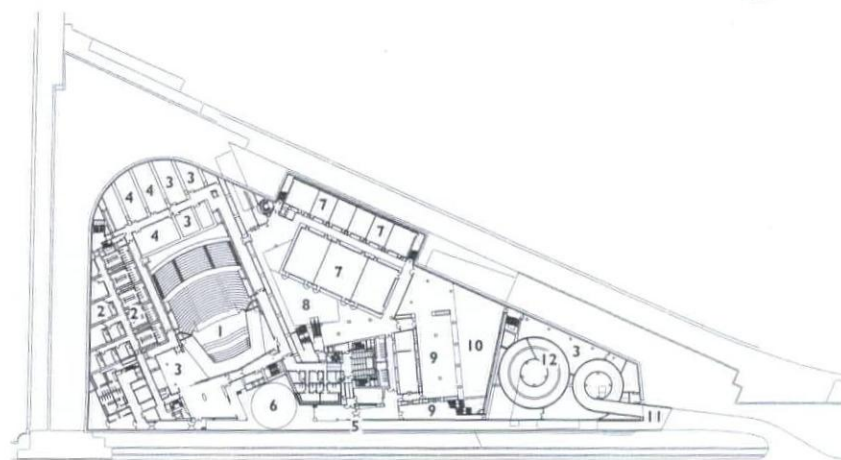
Duccio Malagamba



first floor plan



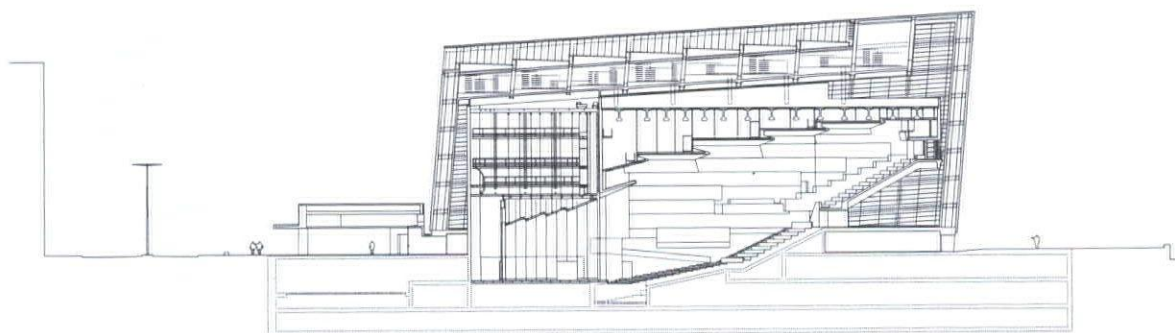
ground floor plan (scale approx 1:2500)



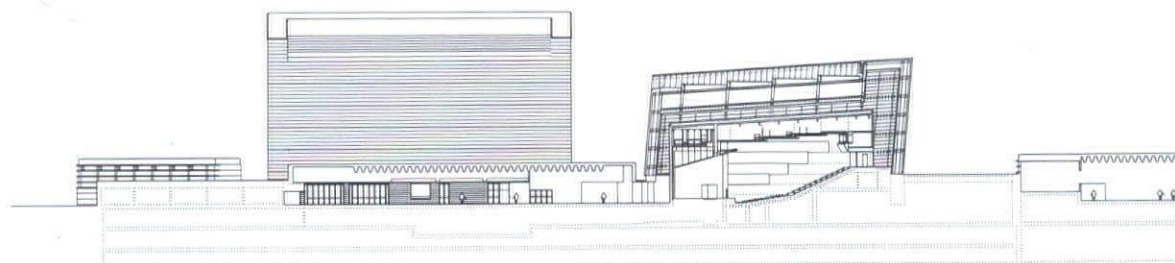
basement plan



13



longitudinal section through concert hall

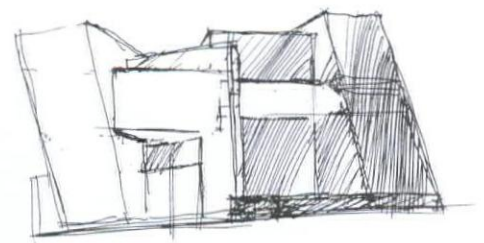


longitudinal section through congress hall

VETERANS' MEMORIAL CENTRE,
TEL AVIV, ISRAEL
ARCHITECT
ZVI HECKER

GEOLOGICAL FORMATION

Part memorial centre part museum, Zvi Hecker's Palmach House in Tel Aviv roots itself to its site with an almost geological intensity through the use of excavated local limestone.



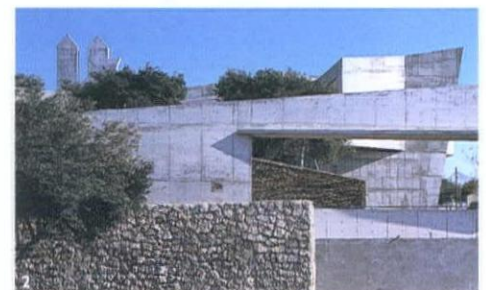
Designed by Zvi Hecker with his partner Rafi Segal, the Palmach House is located on the edge of Tel Aviv University. The campus is characterized by object buildings, each intent on drawing attention to itself as well as often commemorating a benefactor and their family. Pressed up against the street, the Palmach House, by contrast, is the opposite to a free-standing object. It is difficult to work out what is space, what is wall and what is landscape. It has no formal entrance. On approaching you are drawn into the complex, not knowing where it begins or ends.

The Palmach House was commissioned by an association representing the veterans of the Palmach, a military unit set up during the 1940s in opposition to the British Mandate government in former Palestine. After 1948 it was merged with the new Israeli army. It was considered a prestigious unit: its young commanders, among them Yitschak Rabin, heroically kept the road open to Jerusalem in the face of the Arab invasion that followed Israel's declaration of independence. In 1992, Hecker's office won a competition for a veterans' memorial centre. In a country spoilt for public buildings, the exact role of this one is perhaps unclear, but it will eventually include a theatre, a library and a memorial room in addition to the classrooms, offices and museum along the street side that have so far been realized. Funding is still needed to complete the rear part, a concrete shell as yet unclad. The

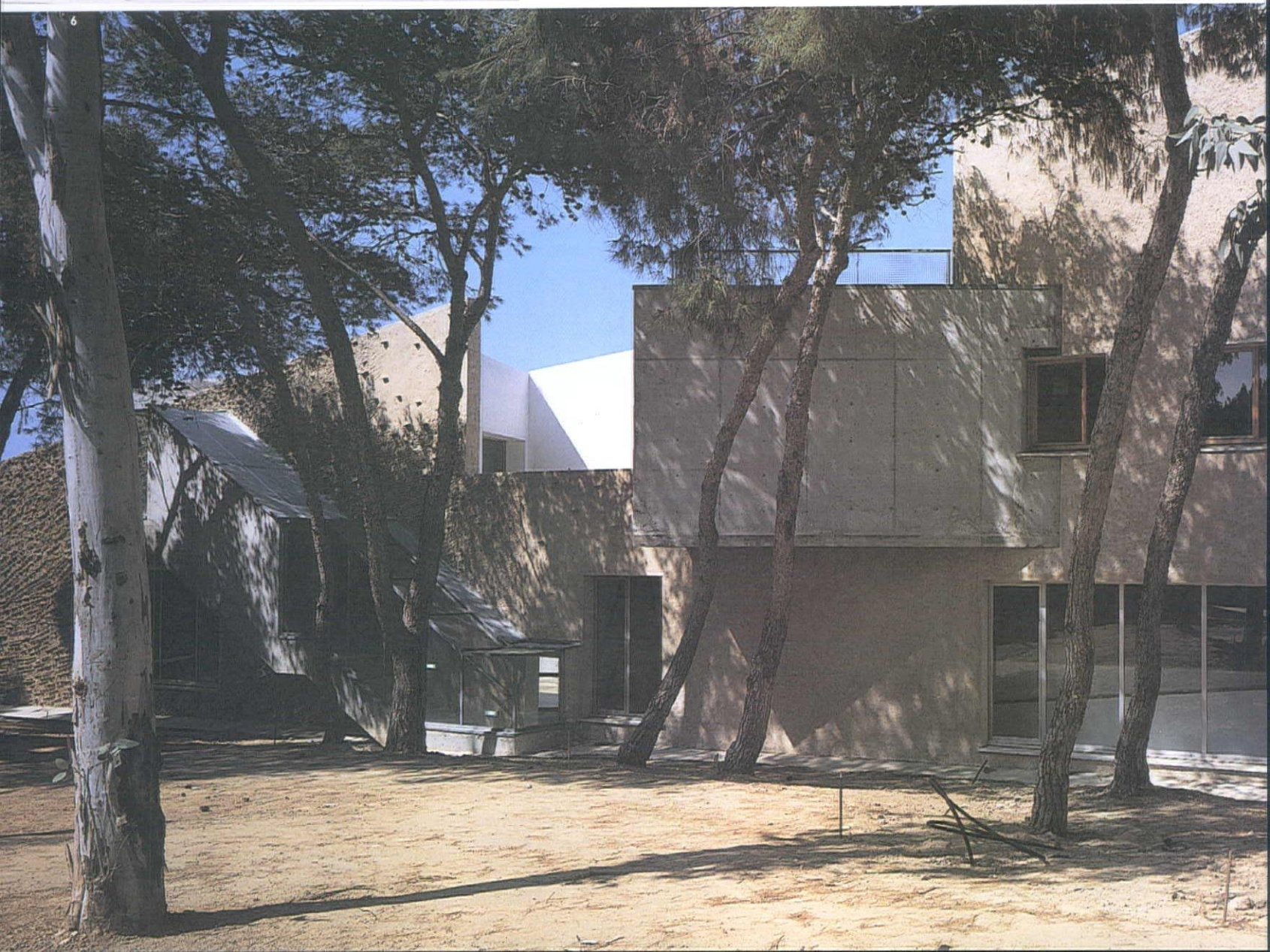
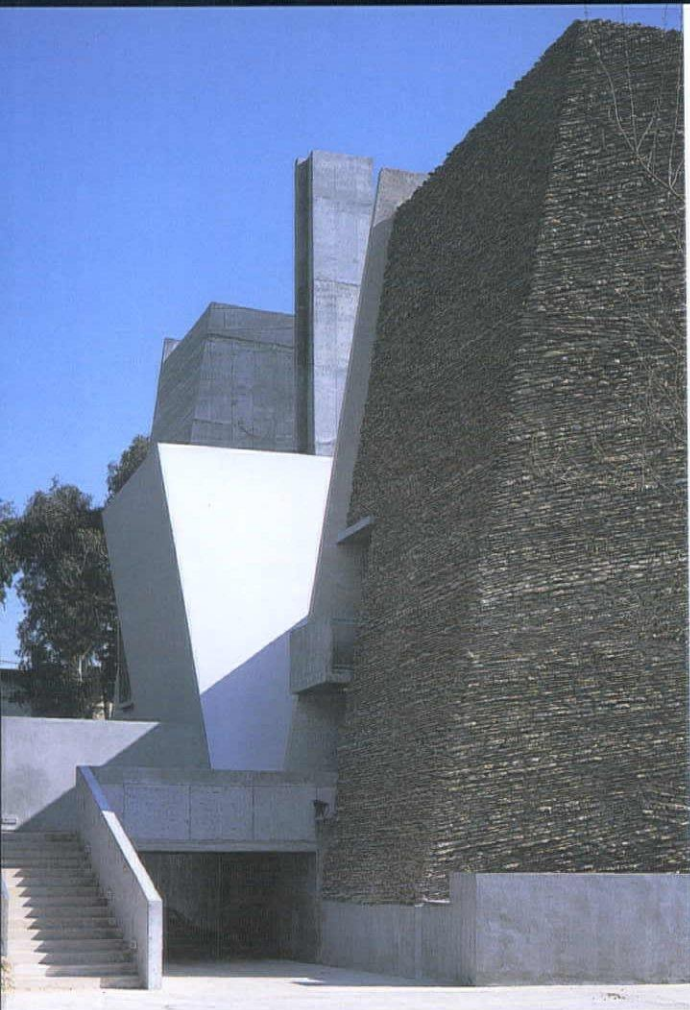
interior fitting-out of the museum in the basement, described as an Experience, is not the work of the building's architects.

At the centre of the building is a courtyard; in fact, the original patch of trees, rocks and earth that was here from the very start. During construction it was shored up with piles and the new building built around it. Hecker, Segal and their team stood on site while walls were being finished, and supervised the textures of the stone and plaster. These on-site decisions changed the look of things. The inner courtyard wall of *kurkar* (local limestone)* has a different pattern from that on the outside, and it alters in texture as the wall progresses upwards. At one point the stone disappears altogether and is replaced by various rendered finishes that blend with the natural colour of the stone. The excavations around the courtyard demanded great care, and as a result, a large amount of *kurkar* was recovered. The idea of applying found material from the site to the building appealed to Hecker, since it powerfully encompasses the nature of the Palmach ideology and its umbilical relationship with the ground soil of Israel.

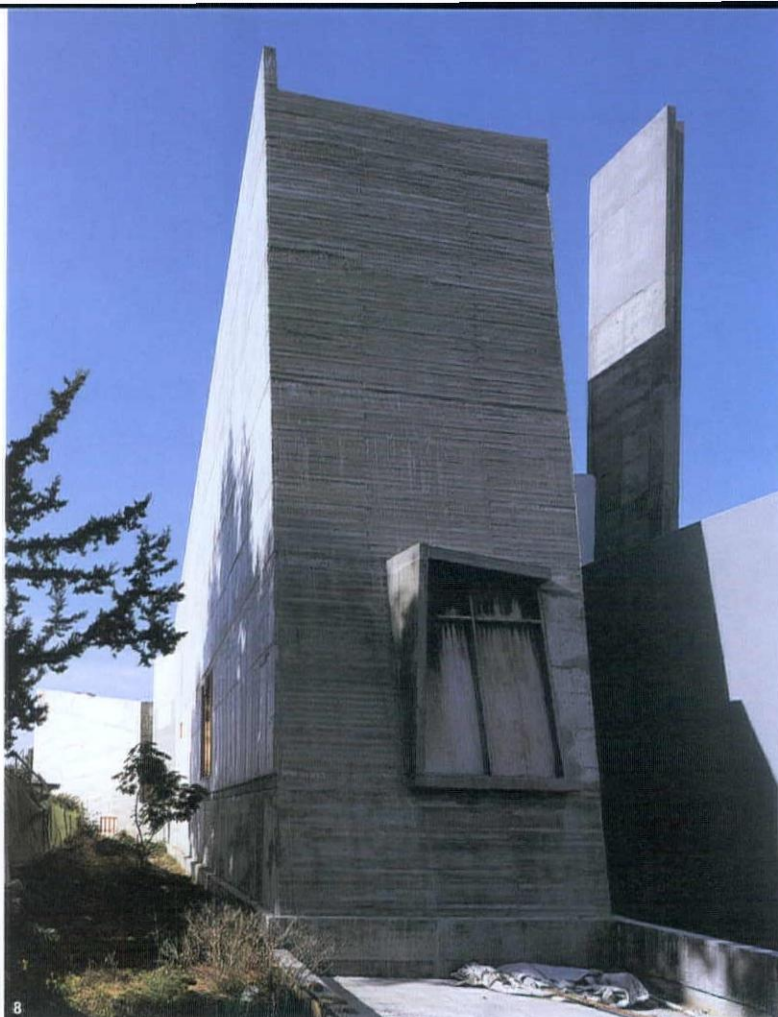
The stone face to the front of the building is altogether more geological. Look into the hole dug into the earth for a future car park nearby and you will see that the street elevation is derived from the natural, shattered, fragmented pattern of the rock in



- 1 The building has a strong geological presence that roots it to the site.
- 2 Planes of raw concrete combine with massive stone walls.
- 3 Part of the internal courtyard, where the scale is modest and almost domestic.
- 4 Walls of local *kurkar* limestone laid in narrow layers mimic the stone's natural condition and emphasize the building's geological character.
- 5, 6 The building evolved around a courtyard, which was carefully protected during construction. Existing trees form a shady landscape.



**VETERANS' MEMORIAL CENTRE,
TEL AVIV, ISRAEL**
ARCHITECT
ZVI HECKER



the earth. The finesse of the work here is staggering. The limestone pieces are flat like pittas, and scarcely eight inches deep, and yet the frequency and intensity of their placing seems entirely consistent. In front of this stone wall is a smooth concrete balustrade decorated with metal caps used in the construction of the piles.

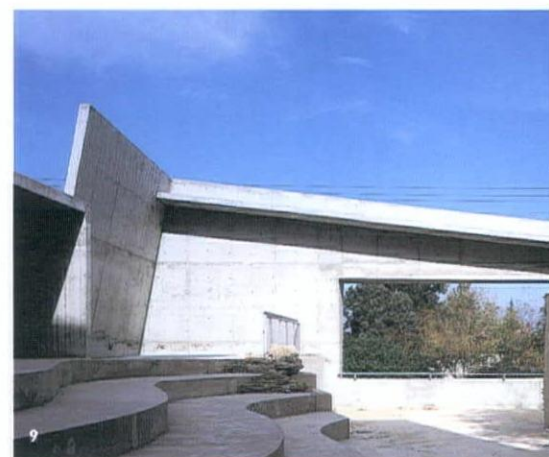
On the nearby campus, object buildings such as Louis Kahn's engineering faculty and Mario Botta's synagogue (AR March 2000) are rather like unexploded mines landed on site from outside. Each defines a closed zone around them and is still, as it were, ticking away. Hecker and Segal's Palmach House does something entirely different. Searing through the landscape, it is the bomb that has already gone off, twisting and pulling at the stone bed. But, extraordinarily, it has left a trail of nature behind it, in the form of a line of trees that runs uninterrupted through the complex, and an untouched grove of pine and eucalyptus. It is thus both the realization of heroic pioneering Zionism, pre-1948, with its life or death improvisations, its astonishing bravura and its reluctance to concede, and at the same time a tragic imprint of the futility of all human endeavours, reduced at best to a perfunctory smudge across a landscape.

Israel makes few concessions for the tourist. The dusty, rather dowdy country of cacti and kibbutzes presented to visitors through the official publications of the

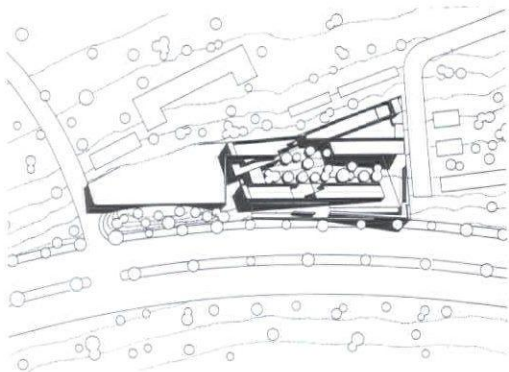
tourism ministry leaves no clue as to the vibrancy, the oddness, the intensity of the place. The Palmach House sits on the edge of the army orchestra's barracks; their parade ground will eventually spill over onto its car park roof. Park your car in this gloomy catacomb and you will hear thumping and trombones above your head. When I last visited the building a bunch of army officers came spilling out of the Experience in the basement. Clad in designer sunglasses and natty purple berets, they leaned across the concrete balustrades sunning themselves before being taken off for some other experience elsewhere, perhaps on the northern front, perhaps in a Tel Aviv nightclub. If you have forgotten what romance there is in Brutalism, you should come here. TIMOTHY BRITTAIN-CATLIN

*In fact *kurkar* is formed from layers of fragile sandy shale transmuted to stone over millions of years. It has never been used before as a building material, only as a load-bearing sub layer in the construction of road surfaces and highways.

Architect
Zvi Hecker Architect, Berlin
Project team
Zvi Hecker, Rafi Segal, Micha Peri
Structural engineer
Waintraub-Naginski-Zeldin
Landscape architect
Tichnun Nof
Photographs
Michael Krüger

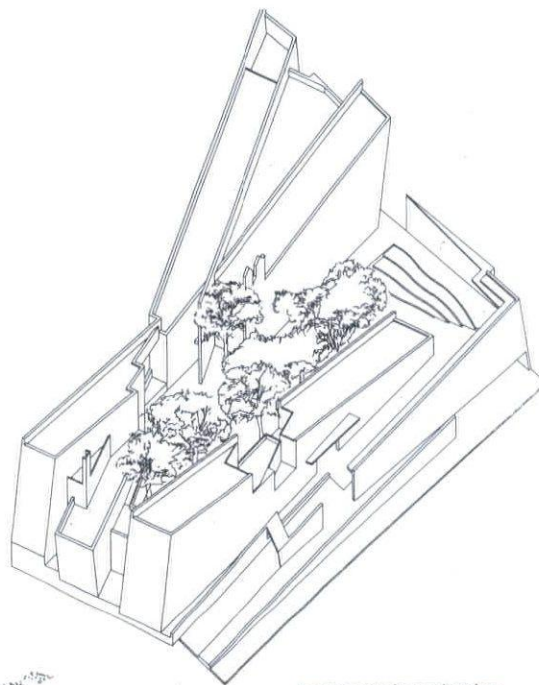


- 7
Rear of the complex is a raw concrete wall, awaiting future additions.
8
Formwork patterns animate the concrete surface, giving rise to a stark monumentality.
9
Courtyard terminates in tiers of wavelike steps, framed by perforated concrete walls.

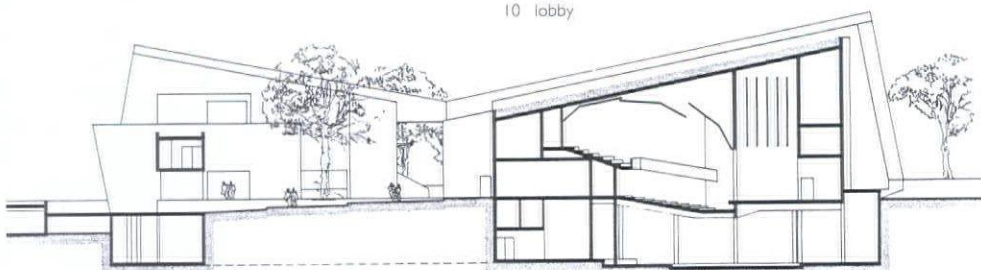


site plan

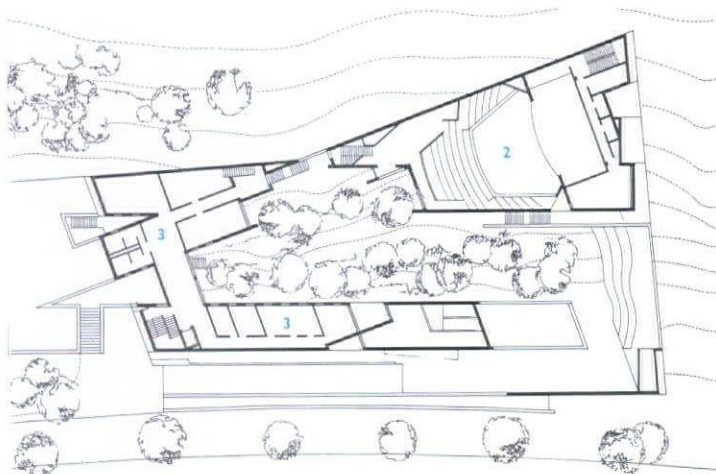
- 1 exhibition space
- 2 auditorium
- 3 administration
- 4 reception
- 5 entrance
- 6 courtyard
- 7 canteen
- 8 memorial space
- 9 stage
- 10 lobby



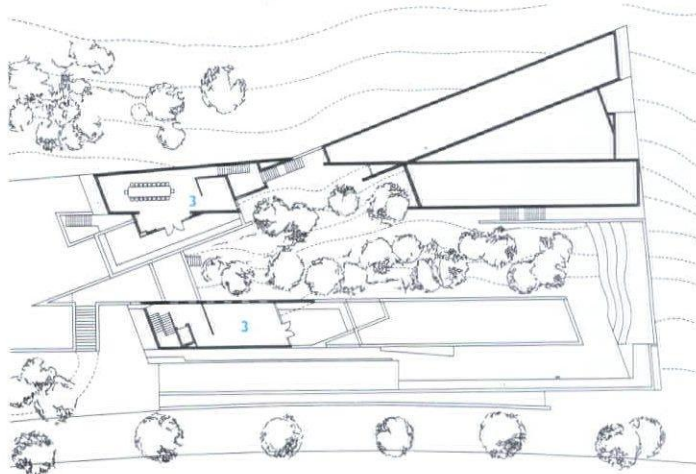
axonometric projection



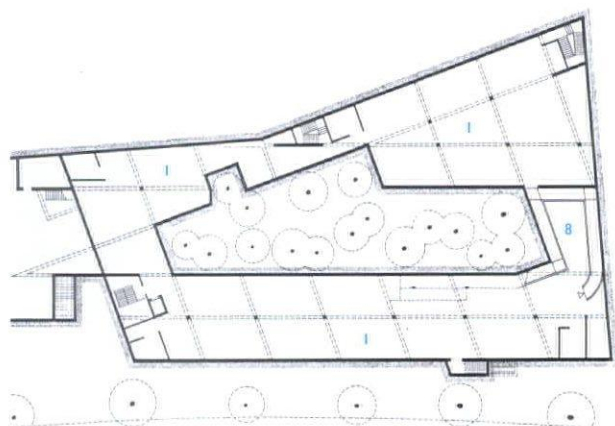
longitudinal section



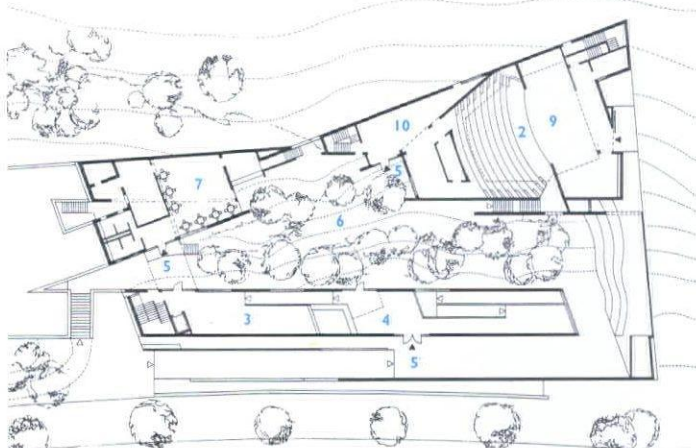
first floor plan



second floor plan



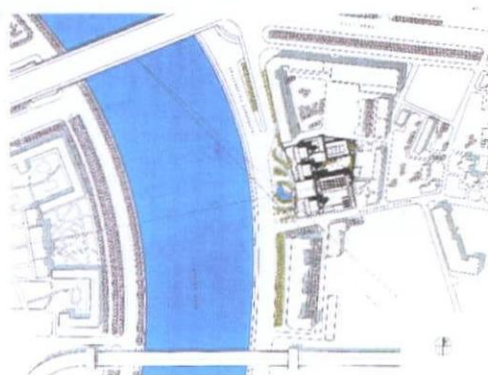
lower ground floor plan



ground floor plan (scale approx 1:800)

ENGLISHMEN ABROAD

Occupying a prominent site in central Moscow, the new British Embassy is a multi-layered complex of different public and private functions unified by thoughtful space and placemaking and considered use of materials.



location plan

1
Set on the edge of Smolenskaya Embankment and surrounded by landmarks of Russian political power, the new embassy occupies an important site in the heart of Moscow.

A new building by Ahrends, Burton & Koralek is a significant event. For 40 years, ABK has been producing innovative, inventive and memorable modern buildings, eschewing passing fads in search of a contextual Modernism underwritten by a strong sense of social and environmental purpose. The recent completion of ABK's British Embassy in Moscow is a particular cause for celebration. Indeed it seems slightly extraordinary that such a bunch of radicals (for all the advancing years of Messrs Ahrends, Burton and Koralek themselves) should be selected to present the public face of the British state in one of the key diplomatic postings in the world (beating off competition from Norman Foster and Arup Associates). Yet the commission reflects a new resolve on the part of the Foreign Office (reflected equally in new embassies for Berlin and Dublin, AR April 1996) to improve the architectural image of Britain abroad.

Even more surprising is the fact that the commission came to ABK in 1988, in the immediate aftermath of the National Gallery debacle and at the height of Thatcherism. The basic diagram of the first scheme for the site on Smolenskaya Embankment is still recognizable in the completed building, but the priorities in the '80s were still security and secrecy – the embassy as then was conceived and focused on an enclosed central atrium. The redesign, begun in 1992 (the building started on site in 1996 and remains a product of the Tory era) has halved the cost and produced something altogether more varied, open and welcoming.

For 70 years, British diplomats worked from the opulent surroundings of the Kharitonenko Mansion, a former aristocratic palace close to the Kremlin, which was ceded to Britain in 1931. This housed both the ambassadorial residence and the chancery, with staff working in very overcrowded conditions. The Smolenskaya site was earmarked as early as the 1960s. Even in the 1990s, with the Cold War over, building in Moscow involved tortuous planning negotiations during which Richard Burton's Russian roots proved useful.

The site had been a timber market, a memory of the days when Moscow – unlike westernized St Petersburg – was a city built largely of wood. On either side stood monumental apartment blocks of the Stalin era, with a typically banal 1990s PoMo development intruding to the north. Nothing, however, could compromise the splendour of the setting on a curve of the Moscow River. The views were magnificent and the location, near to the seat of power in the White House, the Russian Foreign Ministry and US Embassy, excellent.

ABK's building – or rather group of buildings – is a response to this context. In place of the defensive enclosure envisaged in the '80s, there are four separate blocks along the riverfront. Three are residential (there are 31 staff apartments), the fourth (distinguished by a prominent roof canopy and an enigmatic cupola) contains the offices. A 'long gallery', the backbone of the embassy, connects all four blocks at podium level, with the suggestion of bridge links at roof level. Behind are the lower blocks which contain the commercial and visa sections, guardhouse, and some of the recreation facilities –



**BRITISH EMBASSY, MOSCOW,
RUSSIA**

ARCHITECT

**AHRENDT BURTON &
KORALEK**

2

From the riverside walk, the component parts of the complex are clearly discernible.

3

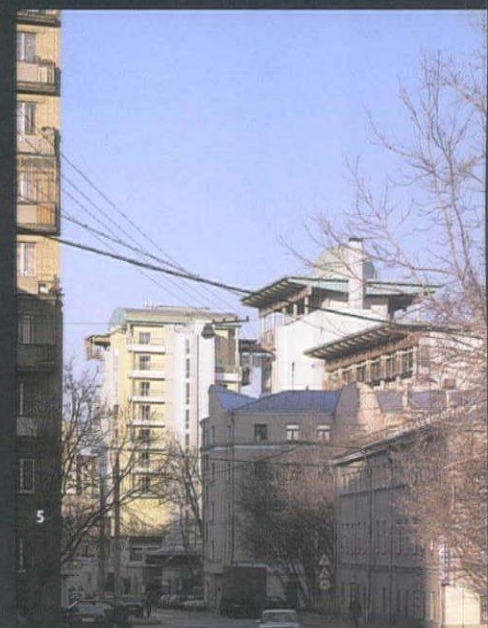
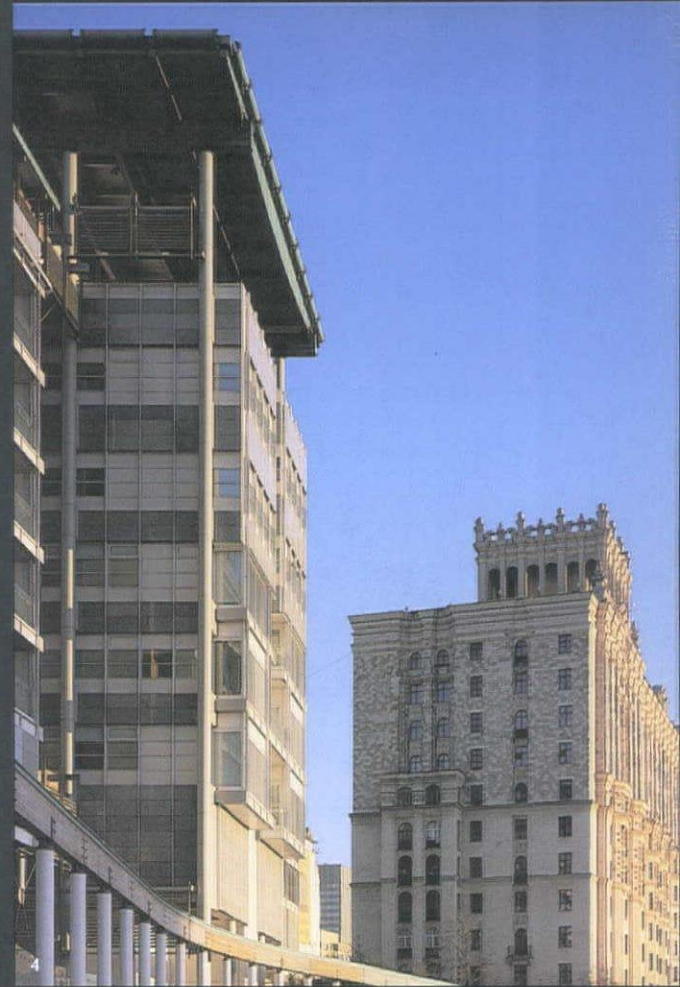
Internal courtyard on the Protochny Street elevation leads to low-rise block housing office spaces.

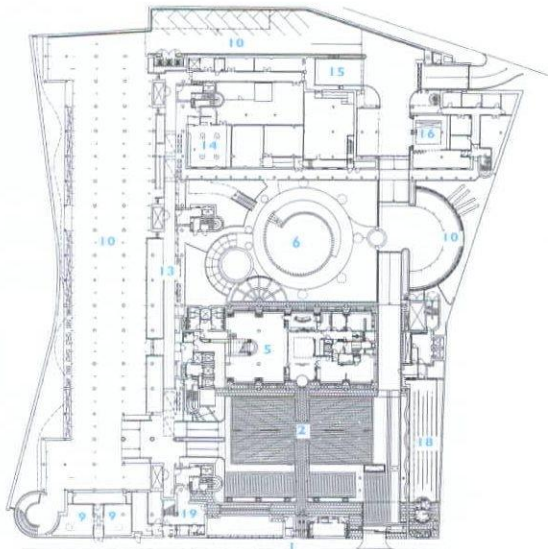
4

New blocks respond to the scale of their surroundings.

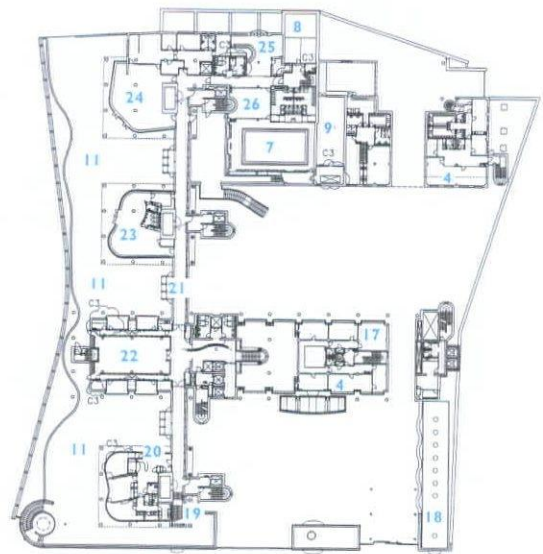
5

Protochny Street context. The embassy's articulated roofscape is a lively addition to the Moscow skyline.



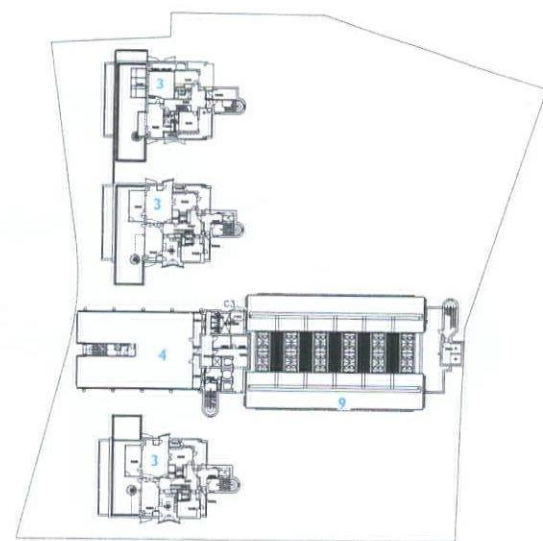


ground floor plan (scale approx 1:2000)

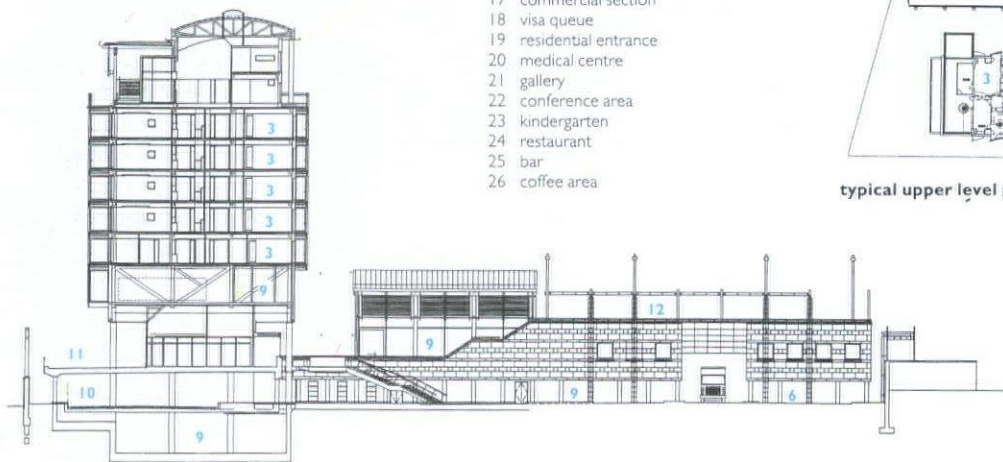


first floor plan

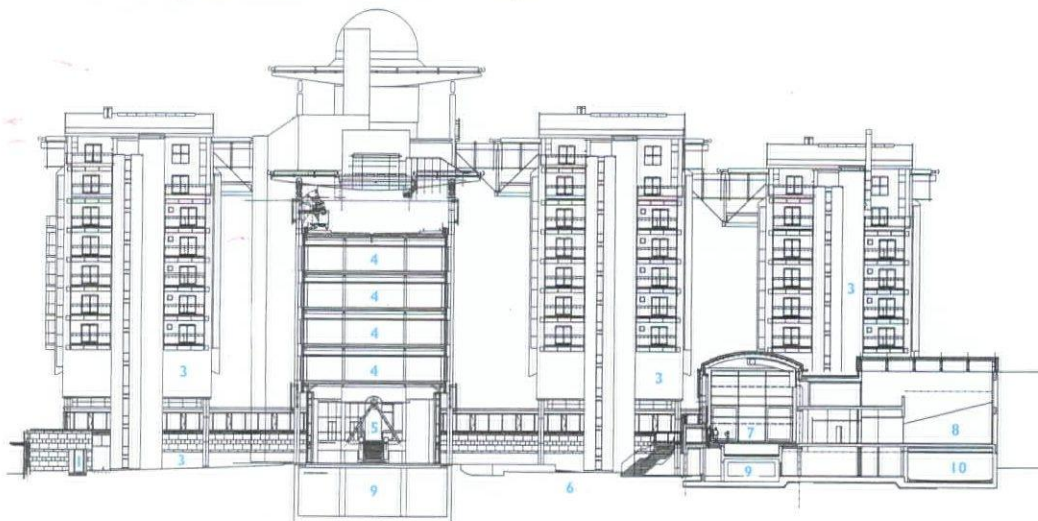
- 1 main entrance
- 2 forecourt/courtyard
- 3 apartments
- 4 offices
- 5 reception/exhibition hall
- 6 garden
- 7 swimming pool
- 8 squash court
- 9 plant
- 10 car park
- 11 podium
- 12 tennis court
- 13 ambulatory
- 14 commissariat
- 15 unloading
- 16 garage
- 17 commercial section
- 18 visa queue
- 19 residential entrance
- 20 medical centre
- 21 gallery
- 22 conference area
- 23 kindergarten
- 24 restaurant
- 25 bar
- 26 coffee area



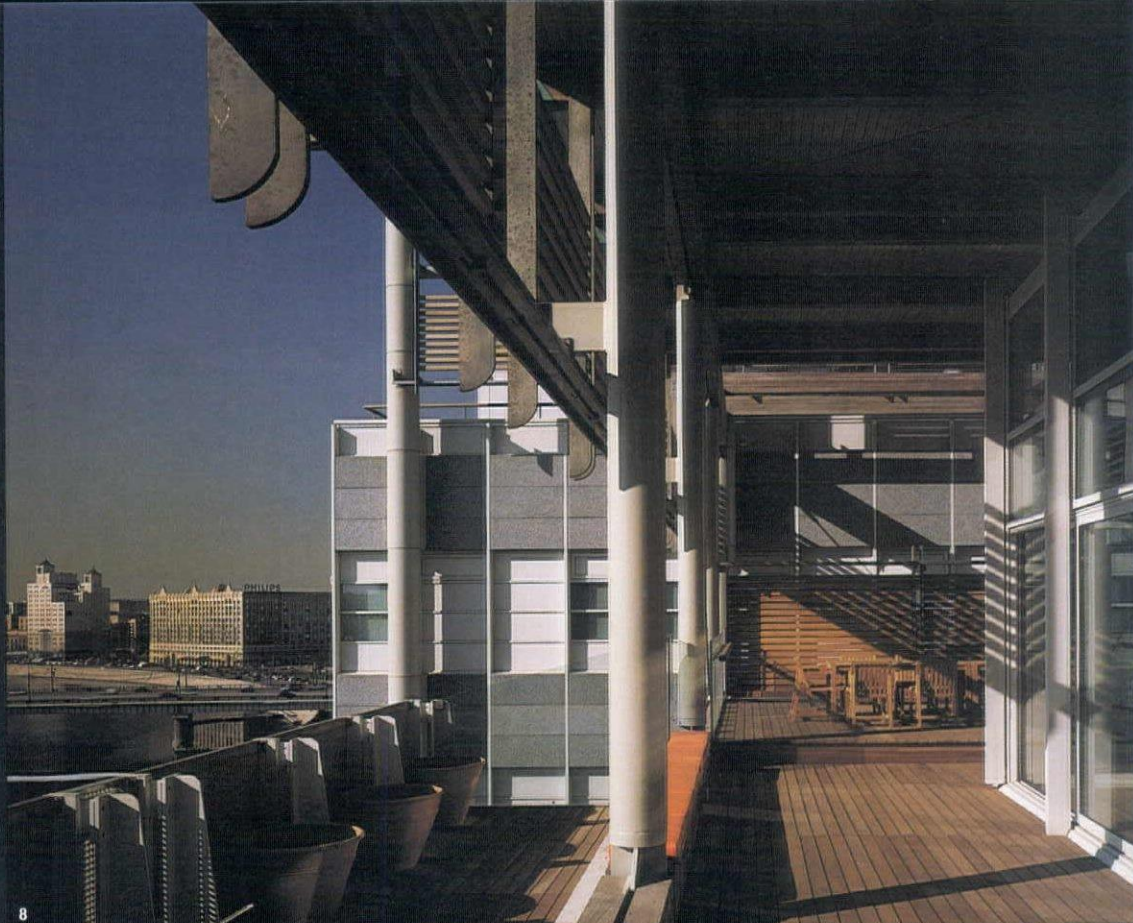
typical upper level plan



cross section through residential block and entrance courtyard



cross section through office block and recreational facilities



**BRITISH EMBASSY, MOSCOW,
RUSSIA**
ARCHITECT
**AHRENDTS BURTON &
KORALEK**



6
Corner of one of the apartment blocks overlooking Protocny Street.
7
Typically yellow Muscovite render is used on the residential blocks, joining a diverse palette of materials used with great finesse.
8
Flats overlooking the river have invigorating views.
9, 10
The reception hall, which also can be used for exhibitions or parties.



**BRITISH EMBASSY, MOSCOW,
RUSSIA**

ARCHITECT

**AHRENDT BURTON &
KORALEK**

there is a kindergarten and medical centre as well as swimming pool, gym and social club. In traditional Moscow fashion, the complex is entered through an open courtyard from Protychny Street, not from the Embankment. Visitors enter a large reception hall, suitable for exhibitions or parties, and can then ascend a flight of stairs (another traditional reference) to the podium level, where the main conference hall, with views over the river, is located. It is in these formal areas that much of the ambitious public art programme has been concentrated, including paving by Tess Jaray and major works by Alexander Beleschenko, Norman Ackroyd and Michael Craig-Martin, just a few of the 40 artists and craftspeople involved. The role of the embassy as a showcase for 'creative Britain' is perhaps a little forced, but the excellence of internal finishes in timber, stone, metal and glass and the high quality of furnishings reflects the level of detailed supervision maintained by the architects.

This is a significant building which will be seen as a symbol of Britain, yet it declines to wave the flag. Richard Burton sees elements in the scheme as a form of cultural bridging – the timber roof structures, copper cladding, and cedar sun screens are a nod to local tradition. Typically Muscovite yellow render is used extensively on the residential blocks, while the chancery is clad in stone and glass. Poetic texts, in both Russian and English, along the street facades of the building are calculated to appeal in a country where literature resounds in the popular consciousness. A modern embassy has to function as efficiently as a commercial office, so the Moscow building is designed for a high degree of flexibility. Even the 120 000 Russians who annually visit the embassy to apply for a visa (20 times as many as in 1988 and rising steadily) can enjoy dignified and comfortable surroundings. Far fewer will enjoy the light-filled and often surprisingly colourful private interiors, a clear riposte to the legendary greyness of Moscow.

The overriding impression of the Moscow embassy is one of lightness, elegance, and controlled richness; not the richness of mere display but that of good materials used with integrity. For all the opulence of its ruling elite, Moscow is still, by Western standards, a city of poor people, many of whom have yet to be convinced that democracy works. It is reassuring – indeed, almost miraculous – that Britain's new embassy provides a striking and deeply-felt example of modern architecture which sets out not to condescend or overawe but to be enjoyable, welcoming and truly international. KENNETH POWELL

Architect

Ahrendt Burton & Koralek, London

Structural engineer

Ove Arup & Partners

Services engineer

TME Engineers

Quantity surveyor

Hanscomb

Landscape consultant

Landesign

Photographs

Peter Cook/VIEW

11

Swimming pool forms part of the recreation facilities.

12

Visa section. Designed to accommodate large queues, but nonetheless a dignified space.

13

Upper level of reception hall, with specially commissioned glass panels by Alexander Beleschenko. Formal areas are the subject of a major public arts programme involving contemporary British artists.



Attempting to invest speculative housing with a measure of formal invention is generally a thankless enterprise. Yet on an unremarkable housing estate in Montpellier, Edouard François has designed a new apartment block that uninhibitedly explores and celebrates materials and nature. The brief from a property development company was for 64 flats and 47 parking spaces on a tight budget of FF6500 per sqm. François's

proposal followed a familiar and logical pattern based on making the most economic use of the site and exploiting techniques of prefabrication. The plan is simple and straightforward. Flats for the most part are single-oriented either to the east or west, entered from a spinal central corridor. The curved block inscribes a gentle arc in the landscape and gradually steps up from three to six storeys along its length, terminating

in a prow at the south end.

The most radical aspect of the scheme is the treatment of the exterior as a massive rock face that will eventually bloom into a spectacular vertical garden. Moored on a solid stone base, the walls are formed from a series of prefabricated concrete panels measuring 2.77m x 1.35m. The external face of each panel is clad in a layer of steel wire cages, containing loosely compacted stones. The model is

clearly the gabion cage, typically employed in river and highway engineering as a retaining element. Architectural interest in these basic yet adaptable structures is growing – Herzog and de Meuron's Napa Valley winery (AR October 1998) appropriated gabion cages to construct external walls, with different grades of stone used to filter light and air. Here the caged stone is simply a uniform external layer, but its monolithic

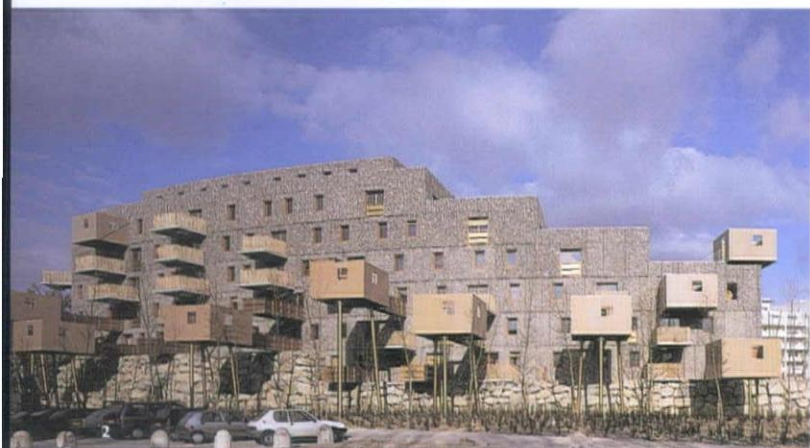
HOUSING, MONTPELLIER, FRANCE

ARCHITECT

EDOUARD FRANÇOIS

ROCK GARDEN

A speculative housing block in Montpellier has been transformed by the treatment of its external walls.

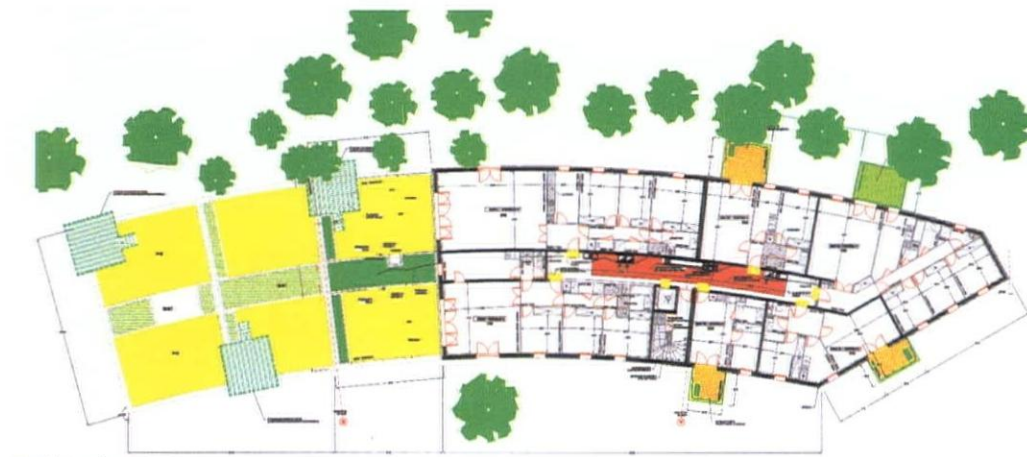


1 The curved housing block inscribes a gentle arc in the landscape.

2 Large balconies, some enclosed like outdoor rooms, articulate the mass of the stone walls.

3 External face of prefabricated wall panels consists of steel gabion cages, adapted to form cladding. The effect is dauntingly geological, but walls will eventually be softened and animated by planting.





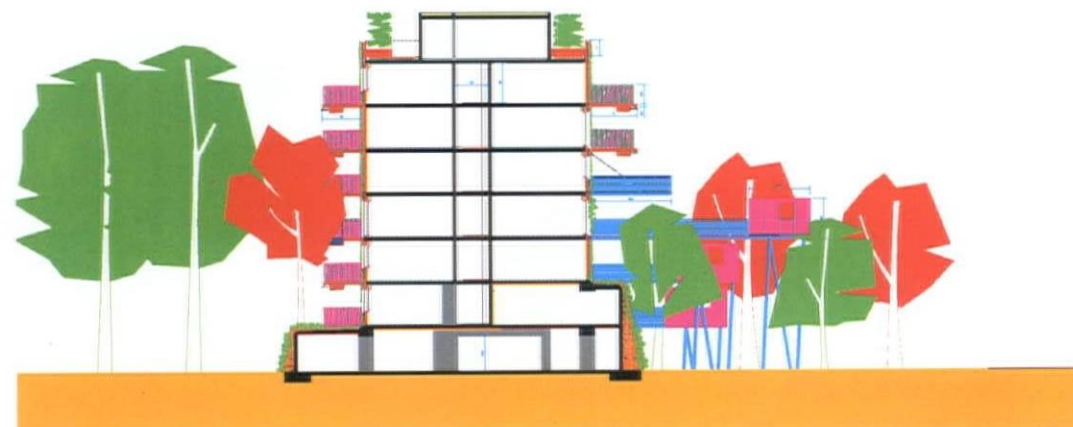
top floor plan



typical intermediate level plan



first floor plan (scale approx 1:500)



cross section

appearance will be eventually transformed by vegetation implanted within it.

Panels were assembled in several stages. The steel cages were set within steel formwork and studded with a double layer of frost-resistant pebbles. A layer of sand followed, then seeds of rock plants contained in grow bags. The ends of the cages are set within a layer of concrete that forms the inner face of the panel. On removing the



formwork, the sand was gently shaken out, leaving the soil and seeds. Cast-in lifting hooks enable the panels to be easily lifted into position and fixed onto the structural frame. A watering system installed between the joints of the panels will nurture the emerging plants.

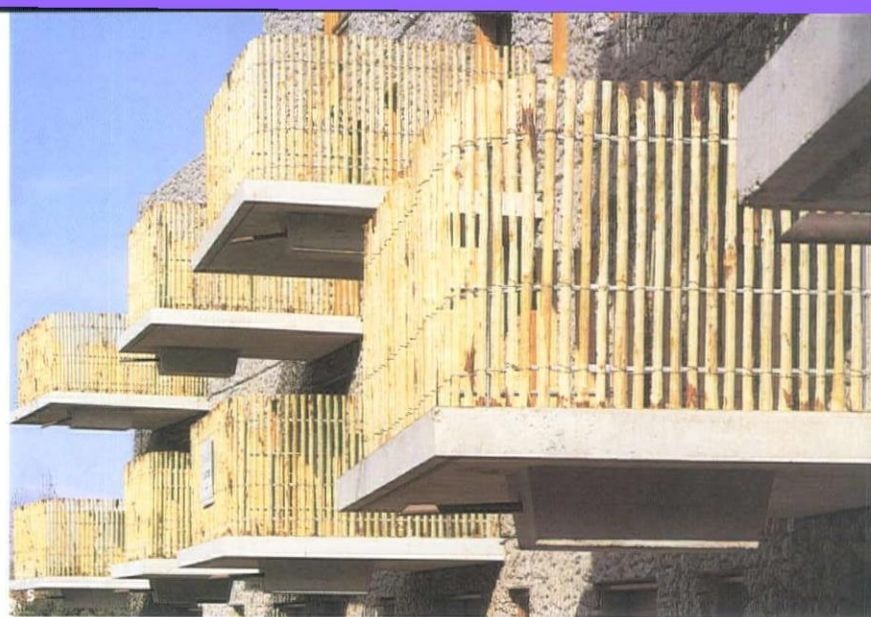
The elevations are also articulated by various types of balconies, some enclosed by rustic wooden fencing, others by timber panels. Larger enclosed

cabin-style balconies on the east side are supported on angled steel tripods and connected to individual flats by narrow walkways. Despite the building's unorthodox appearance, flats were quickly snapped up by adventurous buyers. The stone cages have a curiously sensual, primeval quality, like the ancient dry stone walls in fields. It will be fascinating to witness their slow metamorphosis into a modern hanging garden. C. S.

4
Detail of stone cage. Frost-resistant pebbles are loosely compacted in a steel mesh basket.

5
Rustic balcony terraces.

6, 7
Larger enclosed balconies are supported by curious tripod legs, and walkways link balconies with flats, creating an aerial external realm.



Architect

Edouard François, Paris

Project team

Edouard François, Valentine Chanut,

Sébastien Duron, Hervé Potin,

Cédric Martenot, Daphne Bouvard,

John Aubert

Photographs

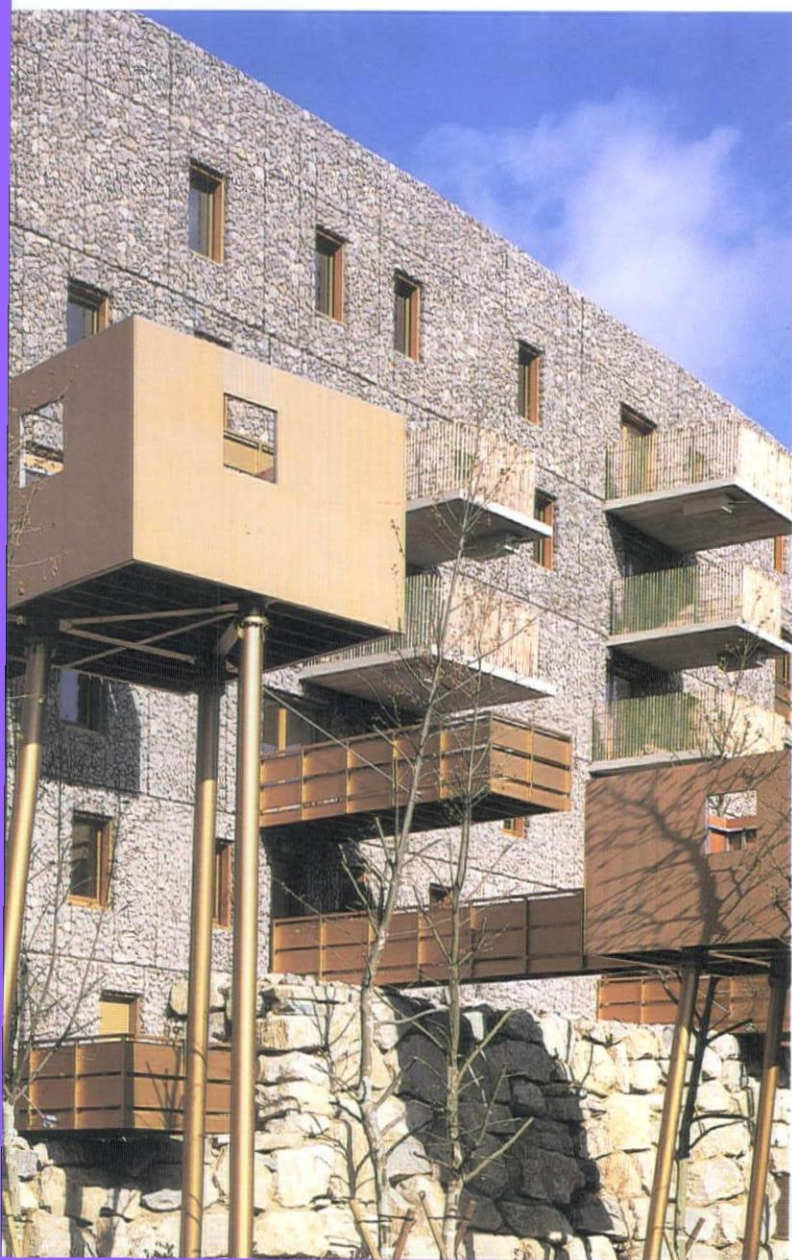
Paul Raftery

HOUSING, MONTPELLIER,

FRANCE

ARCHITECT

EDOUARD FRANÇOIS



SOLID CITIZEN

The small English town of Walsall now has a beautifully and meticulously built new gallery to house a cherished local art collection. The building transcends its modest origins to create a dignified and accessible civic institution.

Such a lofty magnificence! And built with stone, upon a hill! One of the proudest piles I ever beheld! George Byng, after visiting Hardwick Hall in 1789.¹

At first glance Walsall seems an unremarkable town sitting in the shadow of Birmingham. Having received its first charter in 1159 it became a centre of leather working and subsequently grew during the Industrial Revolution before being affected by changing patterns of manufacturing and business. Selected as the winner of an open international competition in 1996 (by a jury that included Jeremy Dixon and David Chipperfield) and subsequently funded from the national Arts Lottery, its New Art Gallery opened this year. It is an

inspiring and rare example of enlightened public patronage of the arts, urban regeneration and architecture.

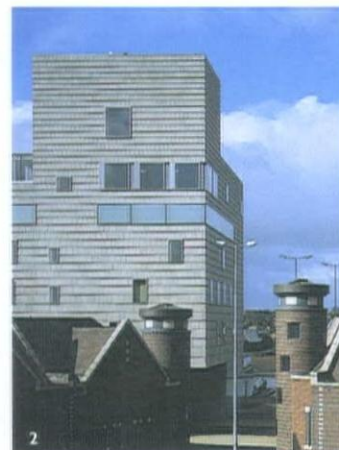
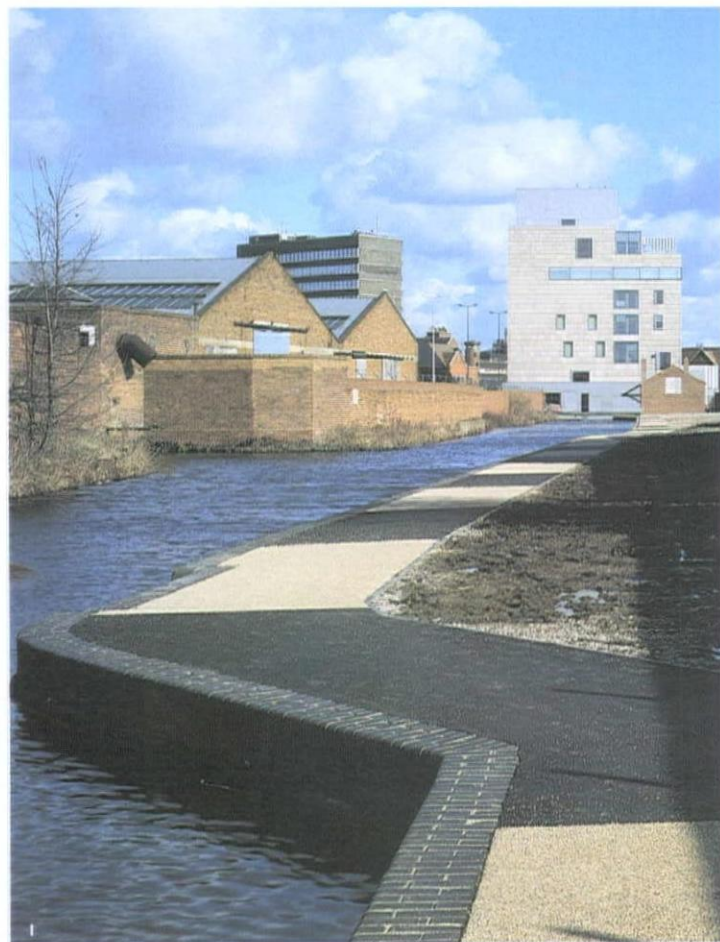
Commissioned by Walsall Metropolitan Borough Council and planned for a site between the high street and a Victorian canal, the building houses the Garman Ryan Collection. Lady Kathleen Garman, a local resident and wife of the sculptor Jacob Epstein, assembled the collection with the artist Sally Ryan and presented it to the town in 1973. By combining it with galleries for temporary exhibitions, a shop, restaurant and generous educational facilities for the community, this new building realizes the extraordinary value of that gift.

The collection includes drawings, paintings and sculpture

by Dürer, Rembrandt, Monet, Constable, Van Gogh, Epstein, Modigliani and others. Its particular history prompted the architects to reconsider the gallery as a type and study its origins in the domestic spaces of the English house – studies which articulated alternatives to the detached monumentalism and institutional character typical of many modern galleries. Robert Smythson's Hardwick Hall, completed in 1597, with its distinctive silhouette, delight in pattern making, European references and particular domesticity, inspired Caruso St John. By adopting a cross hall plan for the new building that recalls Smythson's, they have devised an organization which is legible and creates public spaces which clearly serve the galleries.

Like Hardwick, this building is compact and tall with a series of staircases threaded informally through six floors. Planned to offer long views that orientate and glimpses that surprise, these staircases are generous in their dimension and detail, yet clearly derived from the domestic.

The Garman Ryan Collection is located on the first floor in 13 rooms grouped around a double-height hall. Kahn spoke of his Mellon Gallery 'as an English hall' that 'introduced you to the whole house'² and Caruso St John have created such a space at the heart of this building that speaks for the whole. It connects a series of rooms which are modest in size and planned with windows to make reference to the character and quality of a private collection



- 1 Calmly monumental, Walsall's new gallery terminates a canal vista.
- 2 The building's boxy solidity is perforated by differently-sized windows.
- 3 Stainless-steel panels at street level form a modern rusticated base. Above, the building is wrapped in a skin of grey terracotta shingles.
- 4 Views of the canal and town are framed like a painting in a gallery wall.
- 5 Part of the entrance hall at ground floor level. The concrete clearly bears the marks of its fabrication.



ART GALLERY, WALSALL
ARCHITECTS
CARUSO ST JOHN ARCHITECTS

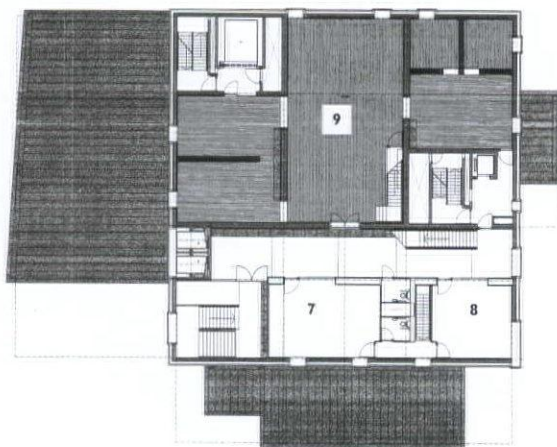




second floor plan



fourth floor plan

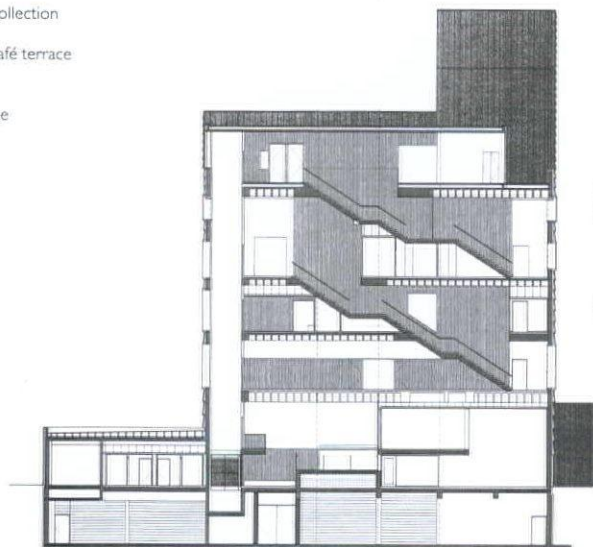


first floor plan

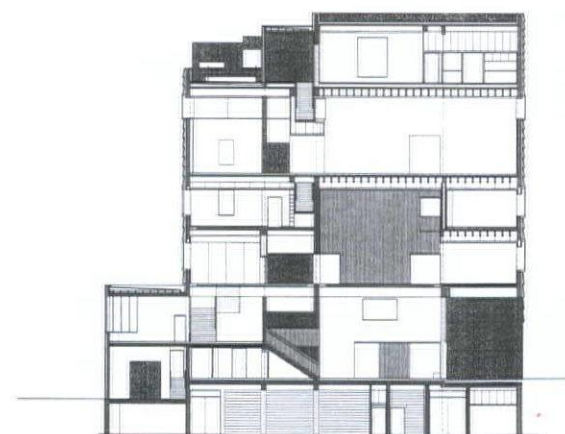
- 1 entrance lobby
- 2 foyer
- 3 main stairs/lifts
- 4 bookshop/café
- 5 Discovery Gallery
- 6 loading bay
- 7 education
- 8 artist's studio
- 9 Garman Ryan Collection
- 10 staff offices
- 11 winter garden/café terrace
- 12 restaurant
- 13 kitchen
- 14 conference space



ground floor plan (scale approx 1:350)



east-west cross section through circulation core



north-south cross section through galleries

ART GALLERY, WALSALL
ARCHITECTS
CARUSO ST JOHN ARCHITECTS

6
Womb-like gallery space lined with strips of Douglas fir. Detailing is fastidious but not fetishistically so. A limited palette of materials is explored to great effect.



made public and to connect it to the town.

In sharp contrast, a gallery for changing exhibitions, located close to the main entrance, takes on the shape and proportion of a shop window to connect to the high street across a newly made square, while a series of large open galleries on the third floor provides naturally lit, loft-like spaces for temporary exhibitions. Above these temporary galleries the rooftop has been assertively dedicated to public use. Planned with meeting rooms, a restaurant and a public terrace, it recalls Smythson's readings of roof as new ground to create a lookout over the town – a civic gesture that inspires and exhilarates.

While there is clearly an effort to encourage social transparency in this project, Walsall's Gallery is not 'more glass than wall'. Its

boxy form is conspicuously solid. Clad externally in stainless steel panels at the street and a silver grey terracotta shingled rainscreen above, the windows vary in size. Each is framed in stainless steel and detailed flush with the cladding. This exploration of pattern, surface and materiality also brings to mind Kahn's Mellon Gallery and his prediction that 'on a grey day it will look like a moth; on a sunny day like a butterfly'.³ Designed to acknowledge the immediate surroundings – modest buildings with carefully composed windows in masonry facades aggregated with squat '60s towers into an informal but distinctive fabric – Walsall's Gallery avoids parody. It becomes both good neighbour and distinctive figure with a lofty magnificence that defines the 'proudest of piles'.

The New Art Gallery is built from a limited palette and meticulously detailed yet without fetishizing the detail. The in-situ concrete structure is exposed internally and the pattern of narrow vertical shuttering boards made clearly legible. As if to recall the ancient house, this structure is lined with Douglas fir floors and wainscoting in spaces which require special recognition. Detailed with the same dimension and orientation as the shuttering of the concrete, these linings make reference to the conspicuous layering of construction, to time and the sequence of making.

Caruso St John's frequently declared interest in 'amplifying what is there' confirms their preoccupation with time. It is a preoccupation that has enabled them to benefit here from the

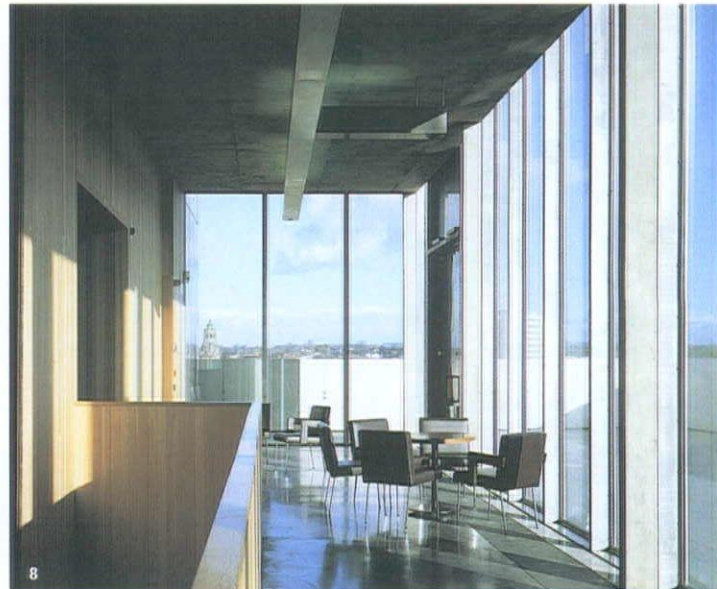
experimentation of the first Elizabethan age and engage Smythson's Hardwick Hall (designated by Sacheverell Sitwell as 'the lesson and precursor of much modern architecture')⁴ with Walsall's everyday to re-view Modernism through the design of this outstanding new work of architecture. BRIAN CARTER

1 George Byng (later Viscount Torrington) 1789. *The Torrington Diaries*, ed. C. Bruyn Andrews, 1935 II, p30.

2 Louis Kahn, quoted by Susan Braudy, *New York Times Magazine*, 15 November 1970, p96.

3 Louis Kahn, quoted in Jules David Prown, *The Architecture of the Yale Center for British Art*, 2nd ed. New Haven University, 1982, p43.

4 Sacheverell Sitwell, *English Architects and Craftsmen*, 1945, p26.



7
A lofty double-height restaurant at the top of the building both surveys and connects with the town below.

8
Rooftop terrace, for public use.

Architect
Caruso St John Architects, London
Project team
Laurie Hallows, Alun Jones, Martin Bradley, Adam Caruso, Andrés Martínez, Peter St John, Silvia Ullmayer
Structural and services engineer
Ove Arup & Partners
Artists
Richard Wentworth, Catherine Yass
Photographs
Hélène Binet



ENGINEERING SCHOOL, BIEL-BIENNE, SWITZERLAND

ARCHITECT

MEILI & PETER

1

The sharply faceted volume of the new wood engineering school rises above its mundane edge-of-town surroundings.

2

Heroic scale, large openings and extensive prefabrication combine to redefine conventional, cosy, vernacular expectations of timber architecture.

SWISS WOODWORK

Meili & Peter's new building for a Swiss timber engineering school in Biel challenges preconceptions of wood architecture through its large scale, abstract language and extensive employment of prefabricated elements.

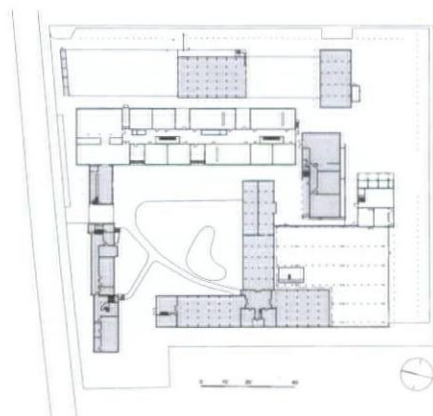


The inherent capacity of timber to create architecture with a recognizable language and scale coupled with the growing importance of sustainability increasingly serves to confirm that wood is good. In Switzerland especially, it has also encouraged new approaches. With a major addition to the Swiss School of Engineering for the Wood Industry in Biel-Bienne, Meili & Peter challenge preconceptions of this important building material and explore notions of what a contemporary wood architecture might be.

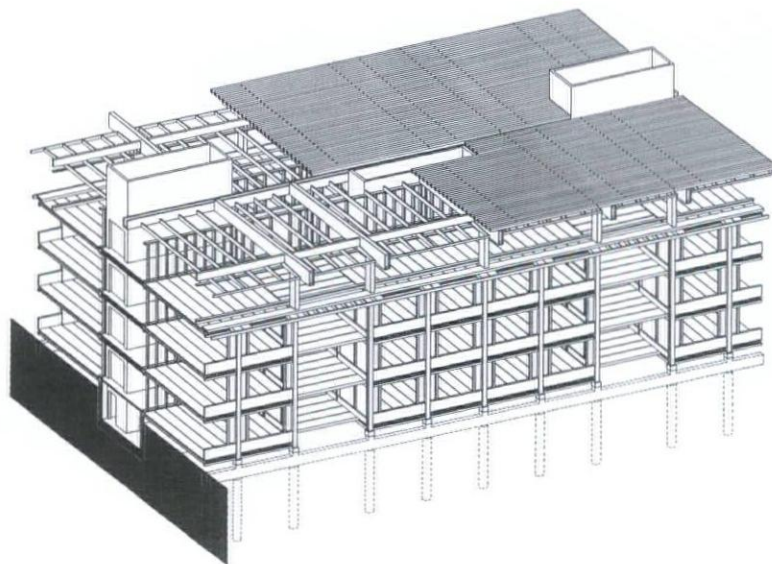
Although clad in timber, the new addition strikingly ignores much of what is expected from a wood building: too long (at 93m), too tall (at four storeys), the windows and openings too large, the architectural language too abstract. And it imperiously slides by or ignores the site's endearing, 50-year old single-storey sheds which are immediately recognizable as wood buildings. For it is exactly their cosiness and handcraftedness that the architects felt did not provide an appropriate language for such an important new building. The school educates engineers and trains technicians in timber construction and carries out applied research and development. The architects' initial decision to put construction at the service of space and volume, as in a concrete building, for instance, was a radical rejection of conventional timber architecture.

Likewise, the larger context called for a fresh approach. On the periphery of a dense city with an industrial history of watch-making, the site is an unromantic edge condition. The building's dissonant proportion and mass, and its adoption of a classic tripartite division (though by being floated above the ground like an object, the

**ENGINEERING SCHOOL, BIEL-BIENNE,
SWITZERLAND**
ARCHITECT
MEILI & PETER



site plan



isometric projection showing structural elements

base becomes a shadow) further sets it apart from the existing utilitarian sheds and their comfortable relationship to the landscape.

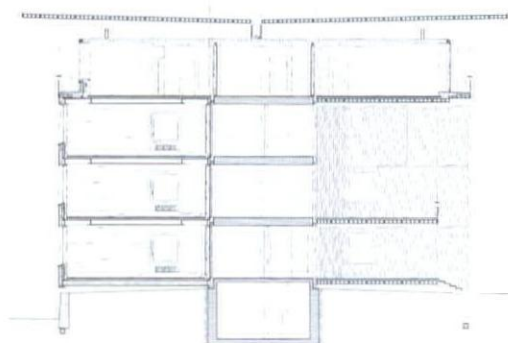
The scheme is composed of six independent blocks. Each is an independent structural entity, its skeletal frame made up of largely prefabricated elements. The substantial shear and lateral forces generated by such large windows is taken up by solid panels between the frames, creating a U-shaped element like a post and lintel turned upside down. Floors are hung rather than being built up as platforms and are made of hollow, glued timber beams laid edge to edge. These form an uninterrupted surface for the finished floor and preclude the use of lintels. Lateral walls dividing each floor plate are not structural and so can be placed according to the required room size. At the north end is a foyer and exhibition hall housed in a three-storey volume. This has fewer large windows and a blank north wall, devices that help dissipate its structural forces. Lit from above, the 11m high pine-clad space is breathtakingly warm, spacious and peaceful.

The central corridor containing vertical circulation and services is constructed of prestressed, in-situ concrete. As it is independent both structurally and programmatically, so it is defined as such materially. The marks of the plywood formwork on the concrete surface subtly evoke the presence of wood. Stairwells were left unfinished, with the corridors equally raw or sheathed in sheet metal panels.

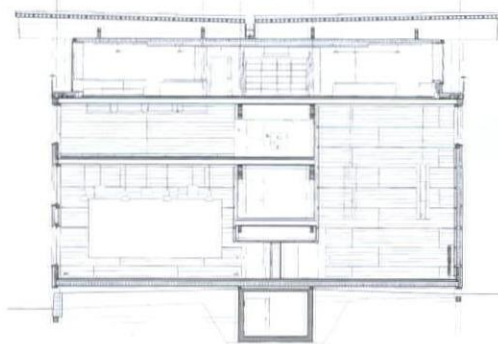
The roof's large overhanging eaves unite the various elements below. Yet with only the roof load to carry, the horizontal and vertical roof structure (made up of hollow

box beams) can skip along the elevations to define centres and voids, gently contradicting its unifying role. A meticulously crafted skin of unfinished Swiss oak further consolidates the building and on the main elevation alludes to the structural system. Hung in demountable panels, its fine lines and texture stand in contrast to the large voids and the blankness of the windows.

The architects' challenge to preconceptions of what constitutes wood architecture is most brazenly expressed on the site's eastern corner, where an extension wraps around one of the existing sheds. In this hall you literally see how structural forces are dissipated, and recognize the familiar language and scale of wood architecture. But contiguous to it, without so much as a threshold, are the long spans, large volumes, generous levels of daylight, composite structure and flat roof of the addition. STEVEN SPIER



cross section through classrooms



cross section through foyer and exhibition space

Architect

Meili & Peter, Zurich

Project team

Marcel Meili, Markus Peter, Zeno Vogel, Andreas Schmidt, Thomas Schnabel, Othmar Villiger, Thomas Kühne, Urs Schönenberger, Marc Loeliger

Structural engineer

Conzett, Bronzini, Gartmann

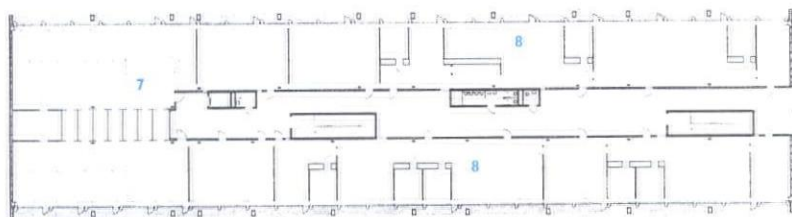
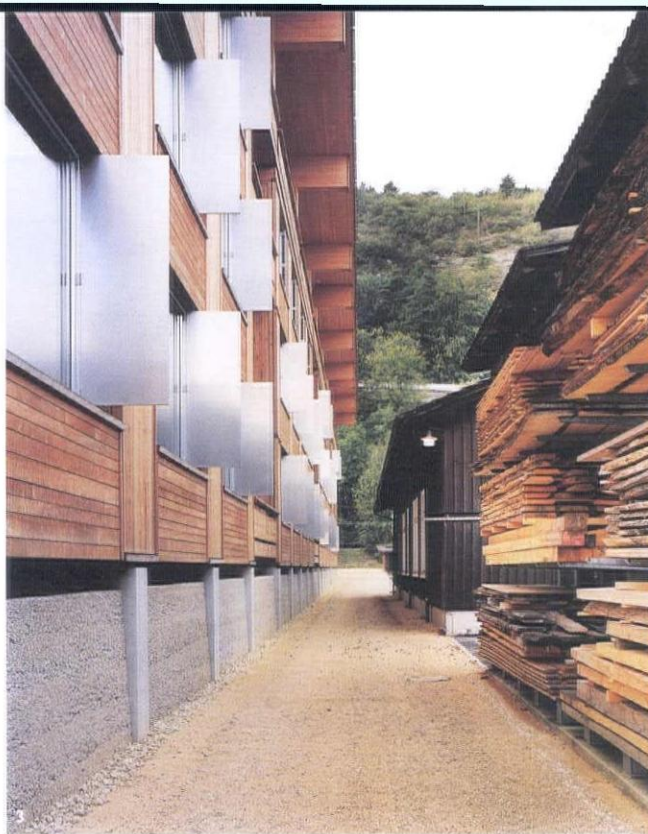
Artist

Jean Pfaff

Photographs

George Aerni

- 1 entrance
- 2 classrooms
- 3 seminar rooms
- 4 foyer/exhibition space
- 5 lecture hall
- 6 refectory
- 7 library
- 8 workshops



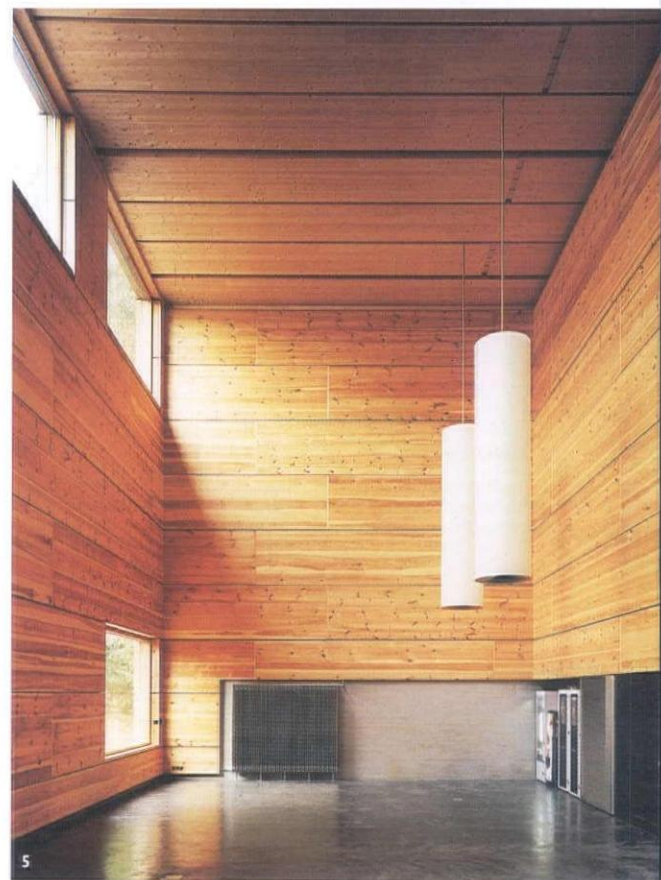
top floor plan (attic storey)



first floor plan



ground floor plan (scale approx 1:800)



3 Raw materials and rustic single-storey timber sheds contrast in the adjacent yard with Meili & Peter's precisely honed skin of unfinished Swiss oak.

4 Large balconies open up the elevations, bringing light into the classrooms.

5 Tall foyer space lined with pine has a calm, sensuous resonance.

CULTURAL CENTRE, RIO DE JANEIRO, BRAZIL

ARCHITECT

ERNANI FREIRE ARQUITETOS ASSOCIADOS

GHOSTLY ELEGANCE

In Rio de Janeiro, the rescue of a ruined mansion as part of a cultural centre for music and art restores the building's dignity and commemorates history.

The major enchantment of a ruin relies on the fact that although being man-made it seems to be a gift of Nature.

George Simmel (1858-1918)

The *bairro* of Santa Teresa clings to the slopes of a steep hill, to the south-west of Rio de Janeiro. Situation has preserved it and throughout its history it has escaped the depredations visited by planners on the rest of the city. It is a picturesque leafy enclave threaded by narrow cobbled streets and an ancient tramway, with close-packed houses, early nineteenth-century mansions and walled gardens.

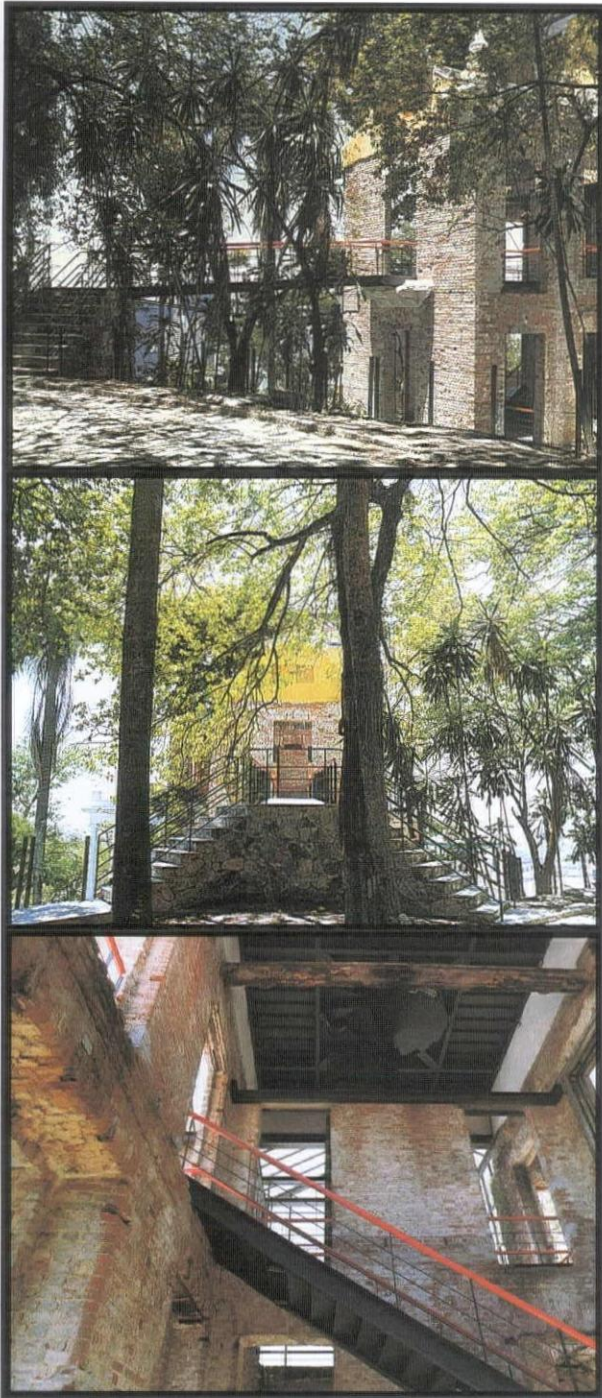
There are several museums up here. Among them the Chácara do Céu, an impressive collection of early modern and Oriental works housed in a listed '50s building, designed by Vladimir Alves de Souza and surrounded by Burle Marx lush gardens. Next to the museum, and loosely attached to it, is one of Rio's most romantic treasures, the Parque das Ruínas.

The Parque surrounds the shell of a mansion that once belonged to Elegance Marshal – soubriquet of Laurinda Santos Lobo – a great patron of literature, music and the arts and society hostess of the '30s. Her parties attended by artists and writers of the period were famous. After her death in 1946, the abandoned house fell into ruin. In 1993, through the persistence of writer Rachel

Jardim, the city's mayor was persuaded that the house and garden should be rehabilitated as an important part of the district's history and in memory of an extraordinary spirit. Freire and Lopes, who had experience of working with old buildings were appointed as architects. From the first, they treated the building as a ruin, the focus of a new cultural centre for music and art which would be linked to the Chácara do Céu. It was thought the association would confer prestige on the new centre and benefit both institutions.

Elegance Marshal's house, cruciform on plan, was built at the end of the nineteenth century on the edge of a hill tumbling away from the north-east to the city and sea. The main body of the house was two storeys high, with a central tower adding a third level. In preserving the ruin, the architects wanted to keep the essential spirit of the house, to nourish its ghosts.

The structure was divested of questionable additions and stripped of rotten ceiling and floors. Windows and doors were rendered simple openings devoid of shutters and frames. The result was a graceful shell of weathered brick, rose-coloured with tall, symmetrically disposed openings on each side. Having repaired, pinned and tied the structure, the building was fitted



1 East side and entrance from higher level of neighbouring museum.

2 Entrance and building framed by tropical garden.

3 Metal stairs and platforms from base to top of building.

4 Worn rose-coloured brick frames openings devoid of frames and shutters under glass roof.

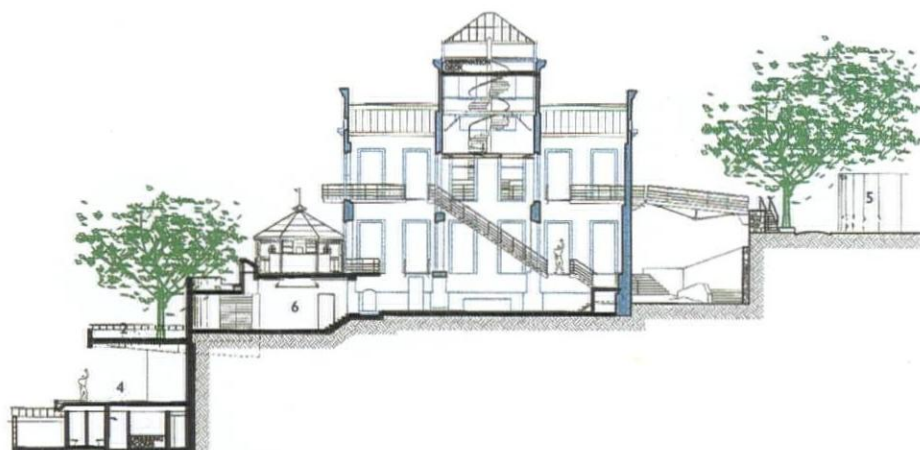




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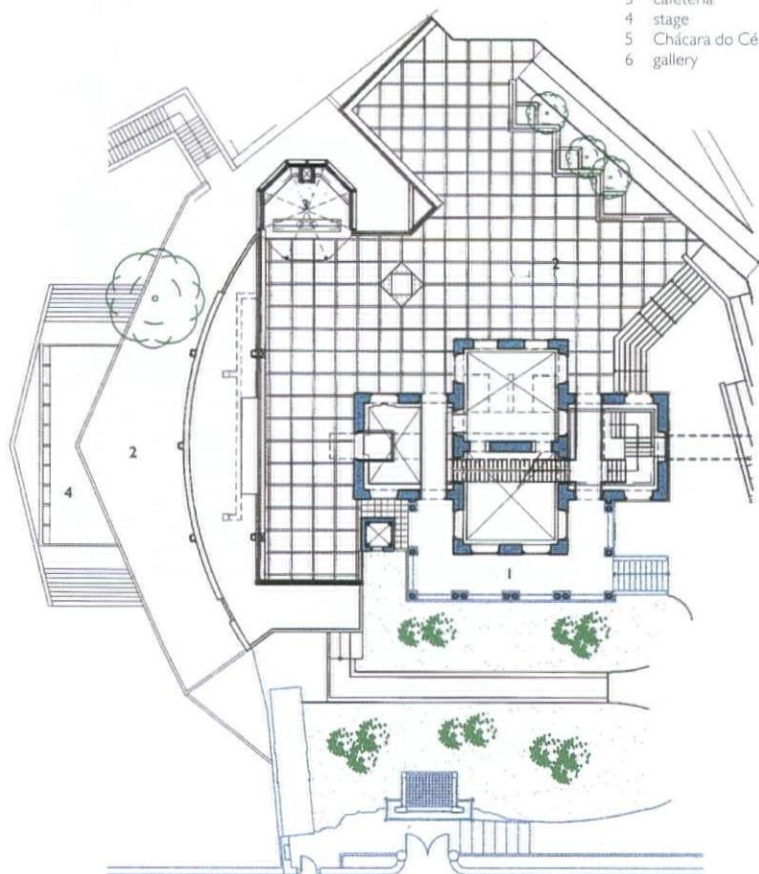
**CULTURAL CENTRE, RIO DE
JANEIRO, BRAZIL**
ARCHITECT
**ERNANI FREIRE ARQUITETOS
ASSOCIADOS**

5
Observation deck at top of tower.



west-east section

- 1 main porticoed entrance
- 2 terrace
- 3 cafeteria
- 4 stage
- 5 Chácara do Céu
- 6 gallery



with a glass and steel roof to maintain transparency. Beneath it, architects constructed flights of metal stairs and walkways, a vertical procession through the interior from the base to the top of the tower.

Entering from the higher level of the Chácara do Céu, you cross a metal bridge into the first floor of the ruin. From here, stairs lead up, or down to the ground floor which flows into the main porticoed entrance on the north, and onto a terrace on the south where a summer house has been made into a café. Beneath the terrace, where the ground falls away in a series of terraces, the architects have created a luminous gallery for temporary exhibitions and an auditorium at lower ground level, below this is a small park with an outdoor stage.

In ascending from the first floor, you are aware of space above and below you. On every side the big openings frame images of city and bay and of encroaching vegetation. At the top of the tower, where views are stupendous, is an observation deck and the building seems poised in air. Skeletons are always eloquent of life, and this one with its worn brick, framed by tropical greenery, is redolent with ghosts. P. M.

Architect
Ernani Freire Arquitetos Associados
Project architects
Ernani Freire, Sonia Lopes
Photographs
Celso Brando



DESIGN STUDIO, SCOTTSDALE, ARIZONA, USA

ARCHITECT

WENDELL BURNETTE

CONCRETE ATELIER

Stark geometry and inventive use of raw materials characterize this modest office for an interior design firm in Arizona.

I
At the north end, the building wraps around a patio courtyard dominated by a huge native Mesquite tree.

Like Will Bruder for whom he used to work, Wendell Burnette creates taut, distilled architecture inflected by the austere beauty of the Arizona landscape. Frugal geometry and expressive use of functional raw materials characterize his stark, monolithic structures, notably a series of houses (AR November

1997) and more recently a studio for David Michael Miller Associates, an interior design firm based in Scottsdale.

Locked between two streets in an urban grid, the site is a narrow, south-facing lot. Two mature native Arizona Mesquite trees are its sole distinguishing feature. Oriented on a north-



Architect

Wendell Burnette Architects, Phoenix

Project team

Wendell Burnette, Michael Le Blanc,
Christopher Alt

Interior design

David Michael Miller Associates

Structural engineer

Rudow and Berry

Electrical engineer

C. A. Energy Designs

Mechanical engineer

Technica

Landscape design

Ten Eyck Landscape Architects

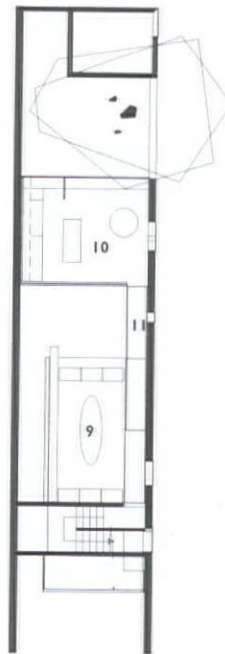
Photographs

Timothy Hursley

- 1 entrance
- 2 reception
- 3 wc
- 4 workstations
- 5 service tower
- 6 patio courtyard
- 7 parking
- 8 garden
- 9 conference/library
- 10 principal's office
- 11 bridge



ground floor plan (scale approx 1:350)



first floor plan

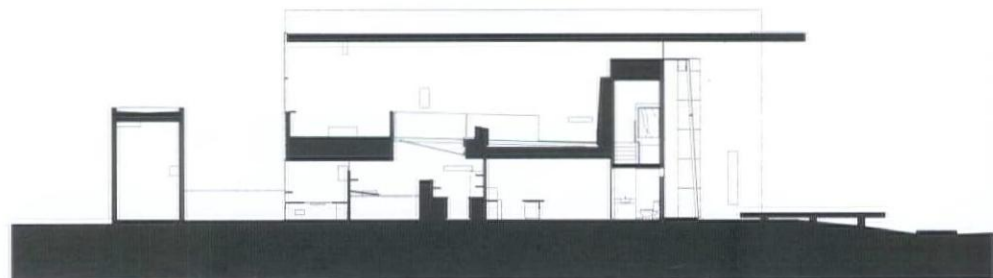
south axis, the new building is a long, linear block placed hard up against the west edge of the site, abutting its neighbour. At the north end, a small service block wraps around a walled garden courtyard to enclose the largest Mesquite tree. This gentle interaction of nature and artifice is the dominant theme of the building, which seems to emerge from the landscape, rather than abruptly graft itself onto it. On the east side, a linear garden of native shrubs, cacti and succulents extends along the length of the building, softening both its mass and the impact of the inevitable car parking.

The strong simple form recalls the powerful contours of the Southwest's vernacular walled architecture, the concrete block walls a modern version of massive adobe structures. An extremely basic yet surprisingly adaptable material, the grey blocks combine structural, insulation and fire resistance properties in a single skin 12in (300mm) thick. Small green tinted windows randomly punctuate the east flank, like rhinestones, while on the west side, slivers of clear plexiglass set between vertical joints in the thick block wall admit thin shafts of light that animate the softly luminous interior.

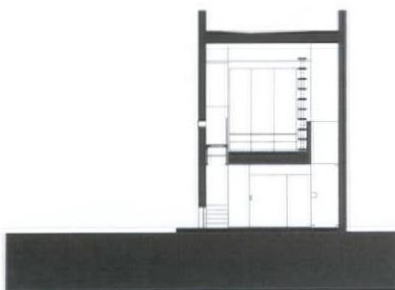
At the main south end, the two long flank walls project beyond the building line to enclose an external room, sheltered and shaded by a cantilevered roof. The south

wall is fully glazed, like a tall shop window, revealing glimpses of the inner realm. At ground floor level, a spine of circulation along the west wall anchors groups of workstations and the reception space. A vertical service tower near the main entrance conceals storage, lavatories and a staircase that twists up to the first floor. Morning light streams in through a thinly sliced piece of Indian onyx set in the east wall, in the unrendered concrete carapace. At the top of the stair a steel bridge runs longitudinally past a library and conference room to the principal's office set at the north end of the building. This spans the width of the plan, like a choir loft in a Mexican chapel, with a privileged view of the Mesquite tree in the courtyard patio below.

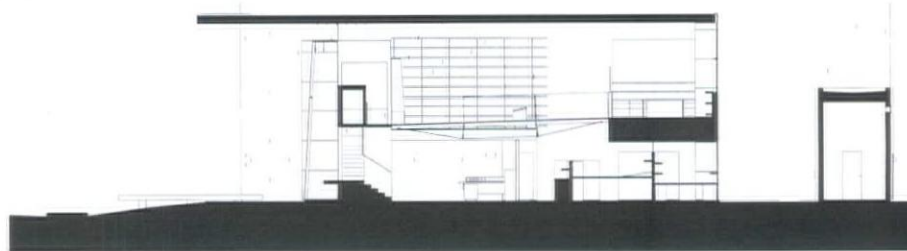
Set against the nondescript small town landscape, the compact building has a powerful presence that conceals an intimate, workmanlike atelier designed in collaboration with David Miller, the client. Furniture, paintings and artefacts provide an eloquent contrast with the big wall planes of grey concrete, like rough hands cradling precious stones. With this building, Burnette extends his convincing contemporary interpretation of Modernist values of spatial interpenetration and structural expression, but also demonstrates a capacity for material invention and celebration. C. S.



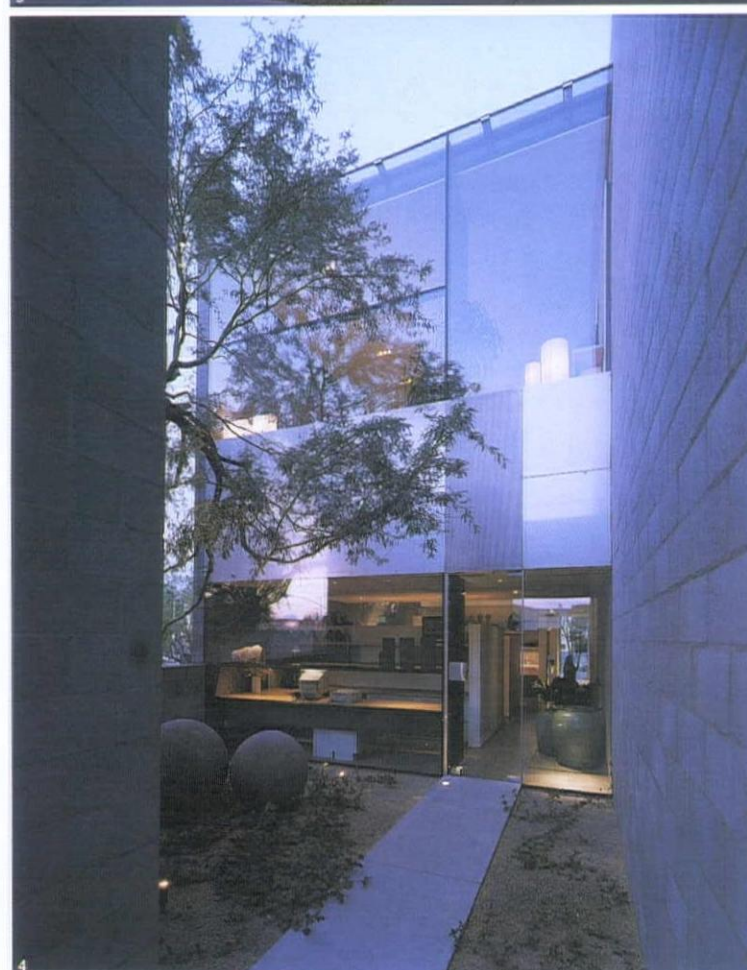
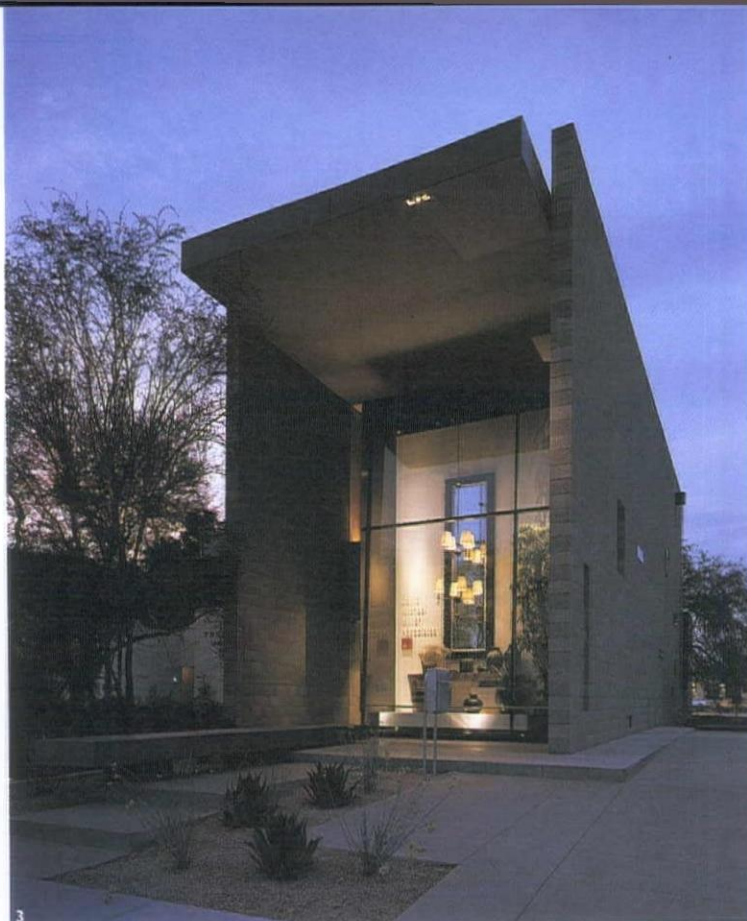
longitudinal section looking east



cross section looking south



longitudinal section looking west



2 North end terminates in a small service block that also defines an external courtyard or patio.

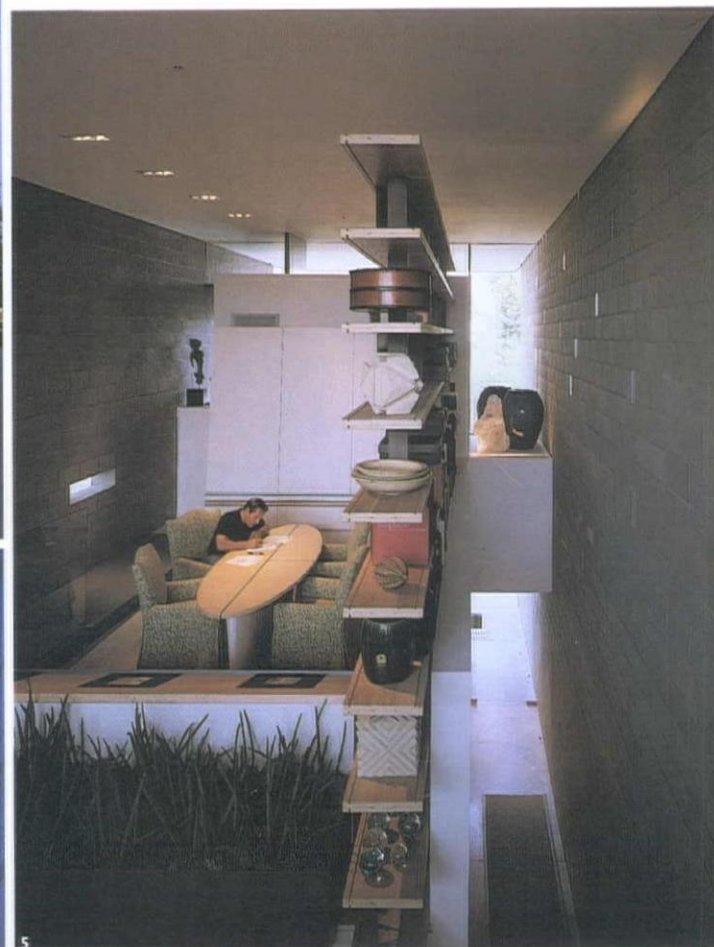
3 South end is a tall glass wall enclosed by massive planes of grey concrete blocks which extend to form an outdoor room.

4 Glazed north end overlooks the patio, a traditional form reinterpreted.

DESIGN STUDIO, SCOTTSDALE, ARIZONA, USA

ARCHITECT

WENDELL BURNETTE



5 Conference area at first floor level overlooking the spinal corridor below. Light is diffused through the glazed ends and also percolates through slivers of plexiglass set in the west wall (right).

6 Elegant furniture and artefacts contrast with the rawness of the blockwork skin.

**MONUMENT, OULART HILL, COUNTY
WEXFORD, IRELAND**

ARCHITECT

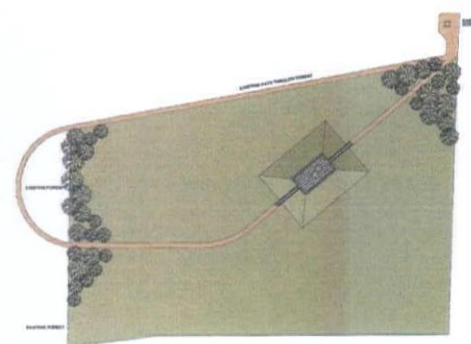
SCOTT TALLON WALKER ARCHITECTS



1



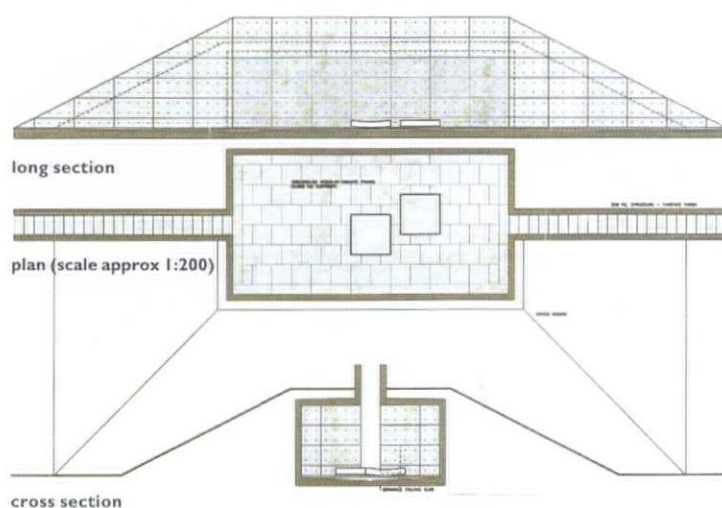
2



site plan

TULACH A' tSOLAIS

An austere monument in pastoral Wexford landscape commemorates history and proffers hope for the future.



cross section

- 1 Grass mound bisected by deep passage.
- 2 Passage running east-west to frame Vinegar Hill.
- 3 Double-cubed chamber paved with granite slabs and set with Michael Warren's sculptures of Irish oak.

Architect
Scott Tallon Walker Architects,
Dublin
Concept
Ronald Tallon, Michael Warren
Project architect
Brian Foley
Structural engineer
Ove Arup & Partners
Landscape architect
Charles Funke Associates
Photographs
Peter Cook/VIEW

Oulart Hill is the site of a new monument in County Wexford designed by Ronald Tallon of Scott Tallon Walker Architects, in collaboration with sculptor Michael Warren. The monument commemorates the bicentenary of the 1798 rebellion against English rule, a precious moment when Irish liberty seemed possible, for it was a time in the latter part of the eighteenth century, and in the aftermath of the French Revolution, when revolutionary influences from France and North America were being felt in Ireland. One consequence of the uprising was the establishment of the Wexford Republic which lasted three weeks before nationalist defeat at Vinegar Hill, 12km to the west on the far side of a valley.

Placed at the top of rising ground, at the end of a long walk (for there is no road), the monument is a grassy mound bisected by a deep passage open to the sky. Measuring 900mm in width (the scheme conforms to a basic 900 x 900mm module), the passage traces a line between Oulart and Vinegar Hills, running four degrees off the cardinal east-west points of the compass. Sheer flanking walls frame Vinegar Hill on the west, and the rays of the rising and setting sun.

On either side, the austere passage leads to a chamber. This is a double cube paved with granite slabs, lined with concrete panels (the pattern of bolt holes being the only decoration), and split by the great chasm of light. Inside the chamber are two horizontal sculptures by Warren, curving planes of 200 year old Irish oak placed in deference to the Golden Mean.

In the soft pastoral landscape, the grave and abstract simplicity of the monument is powerful. The monument commemorates courage; and a moment when people of different denominations in Ireland were united. In respecting the past, it holds out hope for the future. Tulach a' tSolais, meaning the Mound of Light, is intended as a symbol of enlightenment.



HAPTICITY AND TIME

notes on fragile architecture

Materials and surfaces have a richly complex language of their own that evolves and changes over time. In this major essay, Juhani Pallasmaa puts the case for haptic, sensuous architecture.



1



2

Modern consciousness and sensory reality have gradually developed towards the unrivalled dominance of the sense of vision. This thought-provoking development has been observed and analyzed by a number of philosophers in recent years.¹ David Michael Levin, one of today's thinkers concerned with the hegemony of vision, motivates the philosophical critique of the visual bias in the following words: 'I think it is appropriate to challenge the hegemony of vision in the ocularcentrism of our culture. And I think we need to examine very critically the character of vision that predominates today in our world. We urgently need a diagnosis of the psychosocial pathology of everyday seeing – and a critical understanding of ourselves, as visionary beings'.²

I believe likewise that many aspects of the pathology of today's architecture can also be understood through a critique of the ocular bias of our culture. As a consequence of the power of the eye over the other sensory realms, architecture has turned into an art form of instant visual image. Instead of creating existential microcosms, embodied representations of the world, architecture projects retinal images for the purpose of immediate persuasion. Flatness of surfaces and materials, uniformity of illumination, as well as the elimination of micro-climatic differences, further reinforce the tiresome and soporific uniformity of experience. All in all, the tendency of technological culture to standardize environmental conditions and make the environment entirely predictable is causing a serious sensory impoverishment. Our buildings have lost their opacity and depth, sensory invitation and discovery, mystery and shadow.

Multi-sensory experience: the significance of touch

Every significant experience of architecture is multi-sensory; qualities of matter, space and scale are measured by the eye, ear, nose, skin, tongue, skeleton and muscle. Maurice Merleau-Ponty emphasizes this simultaneity of experience and sensory interaction as follows: 'My perception is [therefore] not a sum of visual, tactile, and audible givens: I perceive in a total way with my whole being: I grasp a unique structure of the thing, a unique way of being, which speaks to all my senses at once'.³

Even the eye collaborates with the other senses. All the senses, including vision, are extensions of the sense of touch: the senses are specializations of the skin, and all sensory experiences are related to

tactility. Ashley Montagu's view, based on medical evidence, confirms the primacy of the tactile realm: '[The skin] is the oldest and the most sensitive of our organs, our first medium of communication, and our most efficient protector [...]. Even the transparent cornea of the eye is overlain by a layer of modified skin [...]. Touch is the parent of our eyes, ears, nose, and mouth. It is the sense which became differentiated into the others, a fact that seems to be recognized in the age-old evaluation of touch as 'the mother of the senses'.⁴ Touch is the sensory mode which integrates our experience of the world and of ourselves. Even visual perceptions are united and integrated into the haptic continuity of the self; my body remembers who I am and where I am placed in the world. In the opening chapter of *Combray*, Marcel Proust describes how the protagonist wakes up in his bed and gradually reconstructs his world on the basis of 'the memory of the sides, knees and shoulders'.⁵

The task of architecture is to make visible 'how the world touches us',⁶ as Maurice Merleau-Ponty wrote of the paintings of Paul Cézanne. Paraphrasing another notion of Merleau-Ponty's: architecture concretizes and frames human existence in the 'flesh of the world'.⁷ In developing Goethe's notion of 'life-enhancing' in the 1890s, Bernard Berenson suggested that when experiencing an artistic work we imagine a genuine physical encounter through 'ideated sensations'. The most important of these Berenson called 'tactile values'. In his view, the work of authentic art stimulates our ideated sensations of touch, and this stimulation is life-enhancing.⁸ Genuine architectural works, in my view, also evoke similar ideated tactile sensations which enhance our experience of ourselves.

The retinal-biased architecture of our time is clearly giving rise to a quest for a haptic architecture. Ashley Montagu sees a wider change taking place in Western consciousness: 'We in the Western world are beginning to discover our neglected senses. This growing awareness represents something of an overdue insurgency against the painful deprivation of sensory experience we have suffered in our technologized world'.⁹ Our culture of control and speed has favoured the architecture of the eye, with its instantaneous imagery and distant impact, whereas haptic architecture promotes slowness and intimacy, appreciated and comprehended gradually as images of the body and the skin. The architecture of the eye detaches and controls, whereas haptic architecture engages and unites. Tactile



3



4



5



6

- 1 Fragile architecture – Scarpa's entrance to the Architectural Faculty of Venice University.
- 2 Pathology of the eye – still from Buñuel and Dalí's *Un Chien Andalou*.
- 3 Significance of skin – Bonnard's scintillating *Nude in a Bathtub*.

- 4 Architecture of the muscles – steps at the Heian Shrine Garden, Tokyo.
- 5 Architecture and time – detail of Aalto's iconic Villa Mairea.
- 6 Multi-sensory experience – the town of Casares in southern Spain.

sensibility replaces distancing visual imagery by enhanced materiality, nearness and intimacy.

We are not usually aware that an unconscious element of touch is unavoidably concealed in vision; as we look, the eye touches, and before we even see an object we have already touched it. 'Through vision, we touch the stars and the sun',¹⁰ as Merleau-Ponty writes. Touch is the unconsciousness of vision, and this hidden tactile experience determines the sensuous quality of the perceived object, and mediates messages of invitation or rejection, courtesy or hostility.

Matter and time

'Architecture is not only about domesticating space', writes Karsten Harries, Professor of Philosophy at Yale University, 'It is also a deep defence against the terror of time. The language of beauty is essentially the language of timeless reality.'¹¹ Architecture's task to provide us with our domicile in space is recognized by most architects, but its second task in mediating our relation with the frighteningly ephemeral dimension of time is usually disregarded.

In its quest for the perfectly articulated autonomous artefact, the main line of Modernist architecture has preferred materials and surfaces that seek the effect of flatness, immaterial abstractness and timelessness. Whiteness, in Le Corbusier's words, serves 'the eye of truth',¹² mediating thus moral and objective values. The Modernist surface is treated as an abstracted boundary of volume, and has a conceptual rather than a sensory essence. These surfaces tend to remain mute, as shape and volume are given priority; form is vocal, whereas matter remains mute. The aspiration for geometric purity and reductive aesthetics further weakens the presence of matter, in the same way that a strong figure and contour reading diminishes the interaction of colour in the art of painting; all real colourists in painting use a weak Gestalt in order to maximize colour interaction. Abstraction and perfection transport us into the world of ideas, whereas matter, weathering and decay strengthen the experience of time, causality and reality.

As a consequence of its formal ideals, the architecture of our time is usually creating settings for the eye which seem to originate in a single moment of time and evoke the experience of flattened temporality. Vision places us in the present tense, whereas haptic experience evokes the experience of a temporal continuum. The inevitable

processes of ageing, weathering and wear are not usually considered as conscious and positive elements in design; the architectural artefact exists in a timeless space, an artificial condition separated from the reality of time.¹³ The architecture of the modern era aspires to evoke an air of ageless youth and of a perpetual present. The ideals of perfection and completeness further detach the architectural object from the reality of time and the traces of use. Consequently, our buildings have become vulnerable to the effect of time, the revenge of time. Instead of offering positive qualities of vintage and authority, time and use attack our buildings destructively.

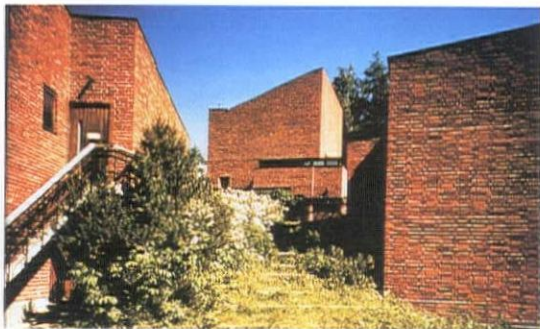
A particularly thought-provoking example of the human need to experience and read time through architecture is the tradition of designed and built ruins, a fashion that became a mania in eighteenth-century England and Germany. While engaged in the construction of his own house in Lincoln's Inn Fields – which, by the way, incorporated images of ruins – John Soane imagined his structure as a ruin by writing a fictitious study of a future antiquarian.¹⁴

There are architects in our time, however, who evoke healing experiences of time. The architecture of Sigurd Lewerentz, for instance, connects us with deep time; his works obtain their unique emotive power from images of matter which speak of opaque depth and mystery, dimness and shadow, metaphysical enigma and death. Death turns into a mirror image of life; Lewerentz enables us to see ourselves dead without fear, and placed in the continuum of timeless duration, the 'womb of time', to use an expression of Shakespeare's from *Othello*. These are dreams of the fired clay brick in the same way that Michelangelo's sculptures and buildings are dreams of marble; the observer is permitted to enter the unconsciousness of stone.

The language of matter

Materials and surfaces have a language of their own. Stone speaks of its distant geological origins, its durability and inherent symbolism of permanence; brick makes one think of earth and fire, gravity and the ageless traditions of construction; bronze evokes the extreme heat of its manufacture, the ancient processes of casting and the passage of time as measured in its patina. Wood speaks of its two existences and time scales; its first life as a growing tree and the second as a human artefact made by the caring hand of a carpenter or cabinetmaker. These are all materials and surfaces that speak pleasurably of time.

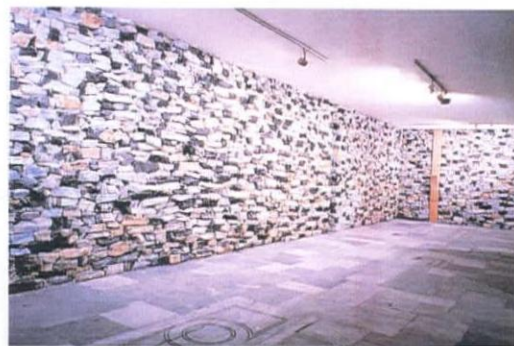
- 7
Image of brick – Säynätsalo Town
Hall by Alvar Aalto.
8
A dream of stone – tomb of Giuliano
de Medici by Michelangelo.
9
Image of memory and matter –
Athens Wall, installation by Yannis
Kounellis.
10
Imagination of form – Ledoux's
Spherical House for a Bailiff.



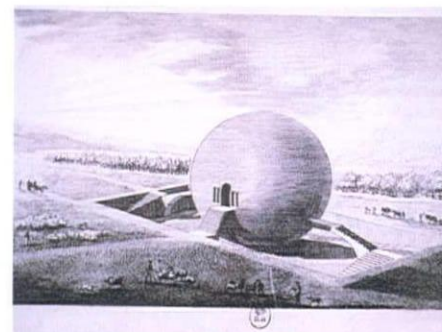
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As a reaction to the loss of materiality and temporal experience, we again appear to becoming sensitive to messages of matter, as well as to scenes of erosion and decay. Materiality, erosion and ruins have been favoured subject matters of contemporary art from Arte Povera and Gordon Matta-Clark to Anselm Kiefer and the films of Andrei Tarkovsky. The art of Jannis Kounellis expresses dreams and memories of matter, whereas Richard Serra's and Eduardo Chillida's uniquely authoritative masses of forged iron awaken bodily experiences of weight and gravity. These works directly address our skeletal and muscular system: they are communications from the muscles of the sculptor to those of the viewer. Contemporary art and architecture are again recognizing the sensuality and eroticism of matter. The popularity of earth as a subject and medium of artistic expression is another example of this growing interest in images of matter. The imagery of Mother Earth suggests that after the utopian journey towards autonomy, immateriality, weightlessness and abstraction, art and architecture are moving back towards primordial female images of interiority, intimacy and belonging.

Collage and assemblage are favoured techniques of artistic representation in our time; these media enable an archaeological density and a non-linear narrative through the juxtaposition of fragmented images deriving from irreconcilable origins. Collage invigorates the experience of tactility and time. Collage and film are the most characteristic art forms of our century, and have penetrated into all other forms of art, including architecture.

Material imagination

In his phenomenological investigation of poetic imagery, Gaston Bachelard makes a distinction between 'formal imagination' and 'material imagination'.¹⁵ He considers images arising from matter project deeper and more profound experiences than images of form. Matter evokes unconscious images and emotions, but modernity at large has been primarily concerned with form. However, engagement with material imagination seems to characterize the entire 'Second Tradition' of modernity, to use the title of Colin St. John Wilson's recent book.¹⁶

In his development away from the retinality of the Modern Movement towards a multi-sensory engagement, Alvar Aalto made

a distinct step towards 'images of matter'. Significantly, at the same time, he rejected the universalist ideal of modernity in favour of a regionalist, organic, historic and romantic aspiration. In his episodic architecture, Aalto suppresses the dominance of a singular visual image. This is an architecture that is not dictated by a dominant conceptual idea right down to the last detail; it grows through separate architectural scenes, episodes, and detail elaborations. Instead of an overpowering intellectual concept, the whole is held together by the constancy of an emotional atmosphere, an architectural key, as it were.

In the mid-1930s Erik Gunnar Asplund, Erik Bryggman and Alvar Aalto made remarkably parallel moves away from the Functionalist aesthetics of reduction towards a layered and multi-sensory architecture. Asplund described this change of ideals in a 1936 lecture: 'The idea that only design, which is comprehended visually, can be art is a narrow conception. No, everything grasped by our other senses through our whole human consciousness and which has the capacity to communicate desire, pleasure, or emotions can also be art'.¹⁷

This transition implies a departure from the predominantly visual and masculine air of modern architecture towards a tactile and feminine sensibility. The feeling of external control and visual effect is replaced by a heightened sense of interiority and tactile intimacy. Sensuous materiality and the sense of tradition evoke a benevolent experience of natural duration and temporal continuum. Whereas the architecture of geometry attempts to build dams to halt the flow of time, haptic and multi-sensory architecture makes the experience of time healing and pleasurable. This architecture does not struggle against time, it concretizes the course of time and makes it acceptable. It seeks to accommodate rather than impress, evoke domesticity and comfort rather than admiration and awe.

The architecture of experiential events

Whereas the usual design process proceeds from a guiding conceptual image down to the detail, this architecture develops from real experiential situations towards an architectural form. As drawings, in fact, these buildings might sometimes appear vague, fragmentary or incomplete, as the design aims solely at qualities arising in the lived experiential situation. This is an architecture of sensory real-



11



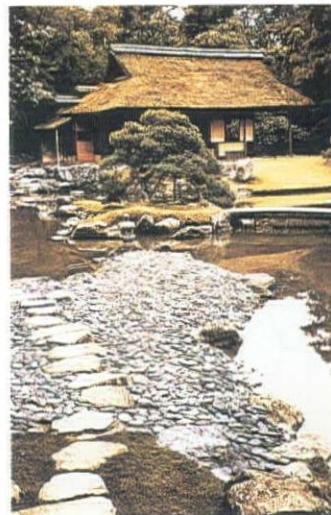
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11
Imagination of matter – sensuous Islamic fountain.

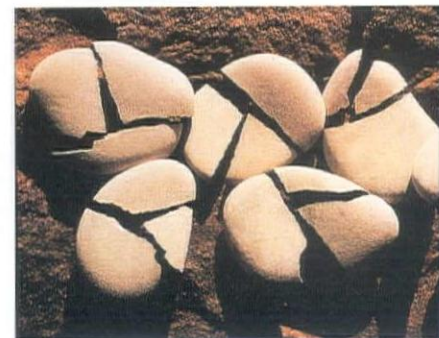
12
Architecture of strong image – Lethbridge University in Alberta by Arthur Erickson.

13
Architecture of fragile image – garden of Katsura Detached Palace.

14
Fragile art – Broken Stones Scratched White, by Andy Goldsworthy.



13



14

ism in opposition to conceptual idealism. Speaking of his cultural realism, Aalto writes: 'Realism usually provides the strongest impulses [also] for my imagination'.¹⁸

Architecture is usually understood as a visual syntax, but it can also be conceived through a sequence of human situations and encounters. Authentic architectural experiences derive from real or ideated bodily confrontations rather than visually observed entities. Authentic architectural experiences have more the essence of a verb than a noun. The visual image of a door is not an architectural image, for instance, whereas entering and exiting through a door are architectural experiences. Similarly, the window frame is not an architectural unit, whereas looking out through the window or daylight coming through it, are authentic architectural encounters.

In his description of the design process of the Paimio Sanatorium, Aalto formulates a design philosophy progressing from the identification and articulation of experiential situations: '[...] a building has to be conceived from inside outwards, that is, the small units and details with which a person is engaged form a kind of framework, a system of cells, which eventually turns into the entity of the building. At the same time as the architect develops a synthesis from the smallest cells onwards, the opposite process exists and the architect keeps the entity in his mind'.¹⁹

Using this method of analyzing experiential situations, Aalto conceived the sanatorium as a carefully and empathetically studied instrument of healing for the benefit of human beings at their weakest, 'the horizontal human being',²⁰ as Aalto calls his hospitalized client. Aalto's sanatorium could well be the one building in the history of modernity that contains the highest concentration of technical innovations, yet it is firmly rooted in human experiential reality.

Fragile architecture

Our culture aspires to power and domination and this quest characterizes Western architecture as well; architecture seeks a powerful image and impact. Referring to a way of philosophizing that does not aspire to totalize the multitude of human discourses into a single system, the Italian philosopher Gianni Vattimo introduced the notions of 'weak ontology' and 'fragile thought', *il pensiero debole*.²¹ Vattimo's idea, which has aroused world-wide interest since the early

1980s, seems to be interestingly parallel to Goethe's method of 'Delicate Empiricism' (*Zarte Empirie*), an effort 'to understand a thing's meaning through prolonged empathetic looking and understanding it grounded in direct experience'.²² In accordance with Vattimo's notions, we can speak of a 'weak' or 'fragile' architecture, or perhaps, more precisely, of an 'architecture of weak structure and image', as opposed to an 'architecture of strong structure and image'. Whereas the latter desires to impress through an outstanding singular image and consistent articulation of form, the architecture of weak image is contextual and responsive. It is concerned with real sensory interaction instead of idealized and conceptual manifestations. This architecture grows and opens up, instead of the reverse process of closing down from the concept to the detail.²³ Because of the negative connotations of the word 'weak', we should, perhaps, use the notion 'fragile architecture'.

The idea of 'weakness' as an architectural principle has emerged simultaneously in various writings. As I was developing my own views of fragile architecture, I came across an essay entitled 'Weak Architecture' (1987) by the Spanish architect and theoretician Ignasi de Solà-Morales.²⁴ Also Peter Eisenman has used the notion of weak architecture in his writings.²⁵ Solà-Morales projects Vattimo's ideas on the reality of architecture somewhat differently from my interpretation. 'In the field of aesthetics, literary, pictorial and architectonic experience can no longer be founded on the basis of a system: not a closed, economic system such as that of the classical age [...] the present-day artistic universe is perceived from experiences that are produced at discrete points, diverse, heterogeneous to the highest degree, and consequently our approximation to the aesthetic is produced in a weak, fragmentary, peripheral fashion, denying at every turn the possibility that it might ultimately be transformed definitively into a central experience',²⁶ Solà-Morales writes. He defines 'event' as the fundamental ingredient of architecture and concludes as follows: 'This is the strength of weakness; that strength which art and architecture are capable of producing precisely when they adopt a posture that is not aggressive and dominating, but tangential and weak'.²⁷

A recent issue of *Daidalos*²⁸ devoted to urban strategies, refers to Solà-Morales's essay and develops the ideas of 'weak urbanism'. The

dominant trends of town planning have also been based on strong strategies and strong urban form, whereas the medieval townscape as well as the urban settings of traditional communities have grown on the bases of weak principles. Strong strategies are reinforced by the eye, the sense of distant control, whereas weak principles give rise to the haptic townscape of intimacy and participation.

A similar weak structure has also emerged in literature and cinema. The new French novel, *nouvelle roman*, deliberately fragments the linear progression of the story and opens it up to alternative interpretations. The films of Michelangelo Antonioni and Andrei Tarkovsky, on the other hand, exemplify a weak cinematic narrative,²⁹ which is based on improvisation, and creates a deliberate distance between the image and the narrative with the intention of weakening the logic of the story and thus creating an associative field of clustered images. Instead of being an external spectator of the narrative event, the reader/viewer is made a participant who accepts a moral responsibility for the progression of the events.

The power of weakness

The idea of fragility suggests listening and dialogue. In the early 1980s, the Finnish painter Juhana Blomstedt entitled a series of his paintings 'The Listening Eye'.³⁰ This notion suggests a humbled gaze liberated from the desire for patriarchal domination. Perhaps, we should also conceive architecture through a listening eye. Geometry and formal reduction serve the heroic and utopian line of architecture that rejects time, whereas materiality and fragile form evoke a sense of humility and duration.

The idea of weak image in architecture seems to run parallel with the idea of 'weak force' in physics, as well as the weak processes of nature when compared to the use of excessive physical violence in our technological processes.³¹ Besides, architecture is an art form of inherently weak impact compared, for instance, with the flood of emotions mobilized by theatrical, cinematic and musical experiences. The strength of architectural impact derives from its unavoidable presence as the perpetual unconscious pre-understanding of our existential condition. A distinct 'weakening' of the architectural image takes place through the processes of weathering and ruination. Erosion wipes away the layers of utility, rational logic and detail articulation, and pushes the structure into the realm of uselessness, nostalgia and melancholy. The language of matter takes over from the visual and formal effect, and the structure attains a heightened intimacy. The arrogance of perfection is replaced by a humanizing vulnerability. This is why artists, photographers, filmmakers and theatre directors tend to utilize images of eroded and abandoned architecture to evoke a subtle emotional atmosphere.

In his essay on Peter Brook's manipulation of the architectural space through destruction for theatrical purposes,³² Andrew Todd writes: 'The walls engage time in a complex way. There is an after-echo of the original bourgeois music hall form, and this is rendered profound, even tragic, by the opening up of the layers of time on the walls. The top skin which seals the imagination at a specific style or period has been scorched away, so the walls exist in an indeterminate time, part way between cultural definition and eschatological dissolution. But this is no dead ruin: Brook has not been afraid to bash the place around a little more, breaking holes, putting in doors [...]. One can also speak of another virtual patina the walls have acquired through the accruing memory of Brook's work in there'.³³ This description evokes Rainer Maria Rilke's stunning chapter in *The Notebooks of Malte Laurids Brigge*, where the protagonist reads the life that has been lived in an already demolished house through the traces it has left on the end wall of the neighbouring building; in fact these are signs by which the young man reconstructs essential aspects

of his childhood and self.³⁴ A similar weakening of architectural logic also takes place in reuse and renovation. The insertion of new functional and symbolic structures short-circuits the initial architectural logic and opens up the emotional and expressive range. It is indeed thought-provoking, that architectural settings which layer contradictory ingredients project a special charm. Often the most enjoyable museum, office or residential space is that which is fitted into a recycled building.

The ecological approach also favours an adaptive image, parallel to the inherent weakness of ecologically adapted processes. This ecological fragility is reflected in today's art, as, for instance, in the poetic works of Richard Long, Hamish Fulton, Wolfgang Leib, Andy Goldsworthy and Nils-Udo, all set in a subtle dialogue with nature. Here again, artists set an example for architects.

The art of gardening is an art form which is inherently engaged with time, change and fragile image. On the other hand, the geometric garden exemplifies the attempt to domesticate nature into patterns of man-made geometry. It is evident that the tradition of landscape and garden architecture can provide inspiration for an architecture liberated from the constraints of geometric and strong image. The biological models, bio-mimicry, have already entered various fields of science, medicine and engineering. Why should they not be valid in architecture? It seems to me that the more subtle line of high-tech architecture is already heading in that direction.

Images of fragile architecture

The architecture of the Japanese garden, with its multitude of parallel, intertwining themes fused with nature, and its subtle juxtaposition of natural and man-made morphologies, is an inspiring example of the aesthetic power of weak form. The remarkably sensitive architecture of Dimitris Pikionis in the footpaths leading to the Acropolis in Athens, the reassuringly abstracted waterfall of Lawrence Halprin's *Ira's Fountain* in Portland, Oregon, and Carlo Scarpa's meticulously crafted architectural settings, are contemporary examples of an architecture that places us in a different relation to space and time than the architecture of eternal geometry. These are examples of an architecture whose full power does not rely on a singular concept or image. The work of Pikionis is a dense conversation with time and history to the degree that the design appears as a product of anonymous tradition without drawing attention to the individual creator. Halprin's designs explore the threshold between architecture and nature; they have the relaxed naturalness of scenes of nature, yet they read as a man-made counterpoint to the geological and organic world. Scarpa's architecture creates a dialogue between concept and making, visibility and tactility, artistic invention and tradition. Although his projects often seem to lack an overall guiding idea, they project an impressive experience of architectural discovery and courtesy.

Alvar Aalto's Villa Mairea³⁵ is, of course, an early masterpiece of the episodic architecture of fragile formal structure; it is made from a sequence of architectural parts or acts in the same way as a theatrical play consists of acts and a piece of music of movements. The composition aims at a specific ambience, a receptive emotional state, rather than the authority of form. This architecture obscures the categories of foreground and background, object and context, and evokes a liberated sense of natural duration. An architecture of courtesy and attention, it invites us to be humble, receptive and patient observers. This philosophy of compliance aspires to fulfil the humane reconciliatory task of the art of architecture.

Perspectival space and peripheral vision

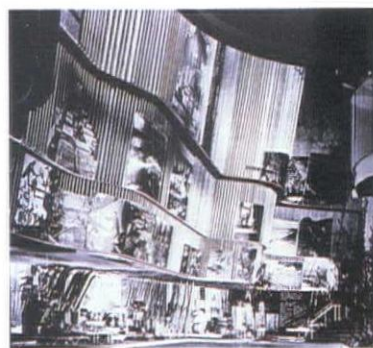
The historic development of the representational techniques of space is closely tied to the development of architecture itself. The perspec-



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Landscaping for Acropolis in Athens, by
Dimitris Pikionis.
- 16
Appropriateness and humility of design – a
Finnish seal hunter's lunchbox. The boatlike
object can float on bilgewater.
- 17
Architecture engaging peripheral vision –
Aalto's Finnish Pavilion for 1939 New York
World's Fair.
- 18
The strength of fragility – *Pollen from
Hazelnut*, installation by Wolfgang Laib.

tival understanding of space gave rise to an architecture of vision, whereas the quest to liberate the eye from its perspectival fixation has enabled the conception of multi-perspectival and simultaneous space. Perspectival space leaves us as outside observers, whereas simultaneous space encloses and enfolds us in its embrace. This is the perceptual and psychological essence of Impressionist and Cubist space; we are pulled into the space and made to experience it as a fully embodied sensation. The special reality of a Cézanne landscape, as well as of fragile architecture, derives from the way they engage our perceptual and psychological mechanisms.

While the hectic eye of the camera captures a momentary situation, a passing condition of light or an isolated, carefully framed and focused fragment, the experience of architectural reality depends fundamentally on peripheral and anticipated vision; the mere experience of interiority implies peripheral perception. The perceptual realm that we sense beyond the sphere of focused vision is as important as the focused image that can be frozen by the camera. This assumption suggests that one reason why contemporary spaces often alienate us – compared with historical and natural settings that elicit powerful emotional engagement – has to do with the poverty of peripheral vision. Focused vision makes us mere outside observers; peripheral perception transforms retinal images into a spatial and bodily involvement and encourages participation. That is why a photographic image is usually an unreliable witness of true architectural quality; architects would do better if they were less concerned with the photogenic qualities of their works.

Even creative activity calls for an unfocused and undifferentiated subconscious mode of vision,³⁶ which is fused with integrating tactile experience. The object of a creative act is not only enfolded by the eye and the touch, it has to be introjected, identified with one's own body and existential experience. In deep thought, focused vision is blocked; thoughts travel with an absent-minded gaze. In creative work, the scientist and the artist are directly engaged with their body and existential experience rather than an external logistic problem.

The margin for tolerance and error

The ideal of strong image aspires to the perfectly articulated and final artefact. This is the Albertian aesthetic ideal of a work of art 'to which nothing can be added or subtracted'. By definition, a strong

image has minimal tolerance to change and consequently it contains an inherent aesthetic vulnerability in relation to the forces of time. A weak Gestalt, on the contrary, allows additions and alterations; a fragile form possesses aesthetic tolerance, a margin for change. The criteria of tolerance also takes place on a psychological level; contemporary designs are often so constrained in their exclusive aesthetics that they create a hermetic and arrogant sense of isolation and autism, whereas a fragile structure projects a welcoming open-endedness and a sense of aesthetic relaxation.

Strong image is obliged to simplify and reduce the multiplicity of problems and practicalities to condense the shapeless diversity of the task into a powerful singular image. Strong image is often reached by means of severe censoring and suppression; the clarity of image frequently contains hidden repression. Here I would like to stress that I am not condemning the architecture of formal strength; I am merely critical of visually formalist architecture, and suggest an alternative to the prevalent reductive aesthetics of Western architectural thought. Besides, there are architects today who combine conceptual strength with sensual subtlety, like Peter Zumthor and Steven Holl. Also in the case of Luis Barragán an apparently strong image glides into the elusive world of dreams.

It was John Ruskin's view that: 'Imperfection is in some sort essential to all that we know of life. It is the sign of life in a mortal body, that is to say, of a state of process and change. Nothing that lives is, or can be, rigidly perfect; part of it is decaying, part nascent [...]. And in all things that live there are certain irregularities and deficiencies, which are not only signs of life but sources of beauty'.³⁷

Aalto elaborated Ruskin's idea when speaking about 'the human error'³⁸ and criticizing the quest for absolute truth and perfection: 'We can say that architecture always contains a human error, and in a deeper view, it is necessary; without it the richness of life and its positive qualities cannot be expressed'.³⁹ Architectural design usually aspires to a continuity of ideas and articulation, whereas fragile architecture seeks deliberate discontinuities. The design process of Aalto, for instance, seeks differences and discontinuities instead of a unifying logic. Elaborating an idea of Michel Foucault's, Demetri Porphyrios identified Aalto's thinking as heterotopic in opposition to the usual Modernist homotopic manner of thought.⁴⁰ Referring to discontinuities in design logic, Aalto uses the expres-

sion 'sympathetic error'.⁴¹ He was himself a master of turning last minute design alterations or on-site mistakes into brilliant detail improvisations.

Aestheticization: beauty as a preconception

Traditional architectural environments rarely read as outstanding singular aesthetic objects; they present variations on the unselfconscious themes of tradition. Even aesthetically awkward units add up to attractive environments. The pleasurable experience of vernacular settings arises from a relaxed sense of appropriateness, causality and contextuality rather than any deliberate aspiration for preconceived beauty. In our culture of material abundance, lost in a spiritual desert, architecture has become an endangered art form. It is threatened by quasi-rational, techno-economic instrumentalization, on one hand, and the processes of commodification and aestheticization on the other. Paradoxically, architecture is simultaneously turned into objects of vulgar utility and objects of shrewd seduction.

The architecture of modernity – and particularly of our consumerist era – has become too consciously engaged with aesthetic effects and qualities. Our culture has aestheticized politics as well as war, and aestheticization now also threatens the art of architecture. Joseph Brodsky ventures to criticize Ezra Pound for his too direct engagement with beauty: 'The Cantos, too, left me cold; the main error was an old one: questing after beauty. For someone with such a long record of residence in Italy, it was odd that he hadn't realized that beauty can't be targeted, that it is always a by-product of other, often very ordinary pursuits'.⁴²

'We should understand that beauty is not a mysterious veil thrown over a building but a logical result of having everything in the right place',⁴³ wrote Erik Bryggman wisely already in the early 1920s.

Focused on visual imagery and detached from social and contextual considerations, the celebrated architecture of our time – and the publicity that attempts to convince us of its genius – too often has an air of self-satisfaction and omnipotence. Buildings attempt to conquer the foreground instead of creating a supportive background for human activities and perceptions. Architectural projects of our day are often impudent and arrogant, and our age seems to have lost the virtue of architectural neutrality, restraint, and modesty. Authentic works of art, however, always remain suspended between certainty and uncertainty, faith and doubt. The task of responsible architects is to provide resistance to current cultural erosion and to replant buildings and cities in an authentic existential and experiential soil. At the beginning of the new millennium, architectural culture would do well to nurture productive tensions between cultural realism and artistic idealism, determination and discretion, ambition and humility.

JUHANI PALLASMAA

This text was originally delivered by Juhani Pallasmaa for the 1999 RIBA Discourse Lecture. It was illustrated by 130 paired slides to create a counterpoint of words and images. The illustrations are a selection of the slides.

1 For instance; Martin Jay, *Downcast Eyes – The Denigration of Vision in Twentieth Century French Thought*, University of California Press, Berkeley and Los Angeles, 1994.

David Michael Levin, *Modernity and the Hegemony of Vision*, University of California Press, Berkeley and Los Angeles, California, 1993.

2 Levin, p205.

3 Maurice Merleau-Ponty, 'The Film and the New Psychology'. In Maurice Merleau-Ponty, *Sense and Non-Sense*, Northwestern University Press, Evanston 1964, p48.

4 Ashley Montagu, *Touching: The Human Significance of the Skin*, Harper & Row, New York, 1986 (1971), p3.

5 Marcel Proust, *Kadonnutta aikaa etsimässä (Remembrance of Things Past)*, Otava, Helsinki, 1968, p8.

6 Maurice Merleau-Ponty, 'Cézanne's Doubt', in Maurice Merleau-Ponty, *Sense and Non-Sense*, Northwestern University Press, Evanston 1964, p19.

7 The notion derives from Merleau-Ponty's dialectical principle of the intertwining of the world

and the self. He also speaks of an 'ontology of the flesh' as the ultimate conclusion of his initial phenomenology of perception. This ontology implies that meaning is both within and without, subjective and objective, spiritual and material. See Richard Kearney, 'Maurice Merleau-Ponty', *Modern Movements in European Philosophy*, Manchester University Press, Manchester and New York 1994, pp73-90.

8 Montagu, pp308-309.

9 Montagu, pXIII.

10 As quoted in *Modernity and the Hegemony of Vision*, p14.

11 Karsten Harries, 'Building and the Terror of Time', *Perspecta: The Yale Architectural Journal*, 19, New Haven, 1982, pp59-69.

12 As quoted in Mohsen Mostafavi and David Leatherbarrow, *On Weathering*, The MIT Press, Cambridge, Mass., 1993, p76.

13 See *On Weathering*.

14 See John Soane, 'Crude Hints' republished in *Visions of Ruin: Architectural Fantasies & Designs for Garden Follies*, John Soane Museum, London, 1999.

15 Gaston Bachelard, 'Introduction', *Water and Dreams: An Essay On the Imagination of Matter* (1942), Dallas Institute, Texas, 1983.

16 Colin St John Wilson, *The Other Tradition of Modern Architecture*, Academy Editions, London, 1995.

17 Erik Gunnar Asplund, 'Konst och Teknik' (Art and Technology), Byggmästaren, 1936.

As quoted in Stuart Wrede, *The Architecture of Erik Gunnar Asplund*, MIT Press, Cambridge, Mass., 1980, p153.

18 Alvar Aalto, untitled manuscript for a lecture held in Turin, Milan, Genoa and Rome in 1956. Published partly in Italian in Alvar Aalto, 'Problemi di architettura', *Quaderni ACI*, Edizione Associazione Culturale Italiana, Turin, 1956.

19 *Ibid*, p3.

20 *Ibid*, p4.

21 Vattimo introduced the notion in the late 1970s. The idea was developed in a volume of essays entitled *Il pensiero debole* edited by Vattimo in collaboration with Pier Aldo Rovatti. Vattimo also discusses the notion in his seminal *The End of Modernity* (1985), John Hopkins University Press, Baltimore, 1991.

22 'There is a delicate empiricism which makes itself utterly identical with the object, thereby becoming true theory'. Goethe, *Goethe: Scientific Studies*, Princeton University Press, 1934, p307. As quoted in David Seamon, 'Goethe, Nature and Phenomenology: An Introduction', David Seamon and Arthur Zajonc, *Goethe's Way of Science*, State University of New York Press, Albany, 1998, p2.

23 Distinguishing between opening and closing design strategies and artistic structures, Lawrence Halprin speaks of 'open and closed scores'.

24 Ignasi de Solà-Morales, *Differences: Topographics of Contemporary Architecture* (1987), MIT Press, Cambridge, Mass., 1997, pp57-70.

25 In his recent prize-winning scheme for the Cultural City of Galicia in Spain, Eisenman generated the architectural structure semi-automatically by the traditional street pattern of the historic centre of the adjacent pilgrimage town of Santiago de Compostela and the imagery of a natural mountain top. The formal language is consequently the result of a generative process rather than distinct formal intention.

26 Solà-Morales, pp58 and 60.

27 Solà-Morales, p70.

28 Simon Hubacker, 'Weak Urbanism', *Daidalos*, 72, Berlin, 1999, pp10-17.

29 See Juhani Pallasmaa, *The Architecture of Image: Existential Space in Cinema*, Unpublished book manuscript, 1999.

30 Harald Arnkil, *Juhana Blomstedt*, Weilin+Göös, Helsinki 1989.

31 'The power of a weak force in nature can be illustrated by comparing the toughest known material of nature with that of ours. None of the man-made metals or high-strength fibres of today can come even close to the combined strength and energy-absorbing elasticity of spider dragline. The line spun by the spider is five times stronger than steel, and much tougher than polyaramid Kevlar, the material used in bullet-proof vests and facial masks; it can absorb five times the impact force of Kevlar without breaking. According to an article in *Science News*, 21 January 1995, a web resembling a normal fishing net in its thickness of thread and the scale of the mesh could catch a passenger plane in flight. The spider line is produced with low energy at spider body temperature whereas in the production of Kevlar petroleum-derived molecules are poured into a pressurized vat of concentrated sulphuric acid and boiled at several hundred degrees Fahrenheit to force it into a liquid crystal form. The energy input is very high and there are problematic toxic by-products. Janine M. Benyus, *Biomimicry*, William Morrow, New York, 1998, pp132, 135.

32 Andrew Todd, 'Learning From Peter Brook's Work on Theatre Space', Unpublished manuscript, 25 September 1999.

33 *Ibid*, p4.

34 Rainer Maria Rilke, *The Notebooks of Malte Laurids Brigge*, W.W. Norton & Co, New York and London, 1992, pp47-48.

35 See Juhani Pallasmaa (editor), *Alvar Aalto: Villa Mairea 1938-39*, Alvar Aalto Foundation and Mairea Foundation, Helsinki, 1998.

36 For the role of unconscious vision, see Anton Ehrenzweig, *The Hidden Order of Art* (1967), Paladin, London, 1973.

37 As quoted in Gary J. Coates, *Erik Asmussen, architect*, Bygglärolaget, Stockholm, 1997, p230.

38 Alvar Aalto, 'Inhimillinen virhe' (The Human Error), Göran Schildt, editor, *Näin puhui Alvar Aalto (Thus Spoke Alvar Aalto)*, Otava, Helsinki, 1997.

39 *Ibid*, p282.

40 Demetri Porphyrios, *Sources of Modern Eclecticism*, Academy Editions, London, 1982.

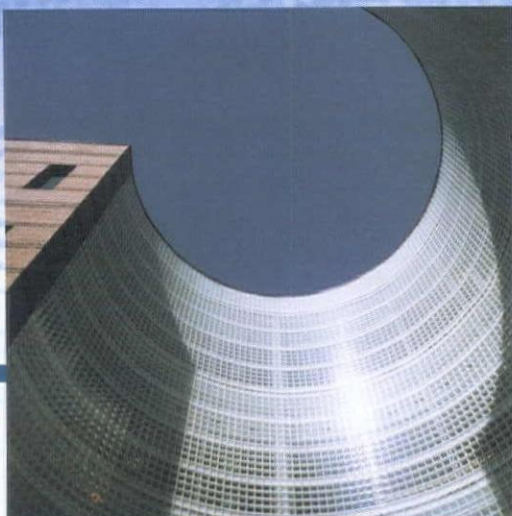
41 Alvar Aalto, 'Speech at the Centennial Celebration of the Faculty of Architecture', Helsinki University of Technology, 5.12.1972. Schildt, p283.

42 Joseph Brodsky, *Watermark*, Penguin Books, London, 1992, p70.

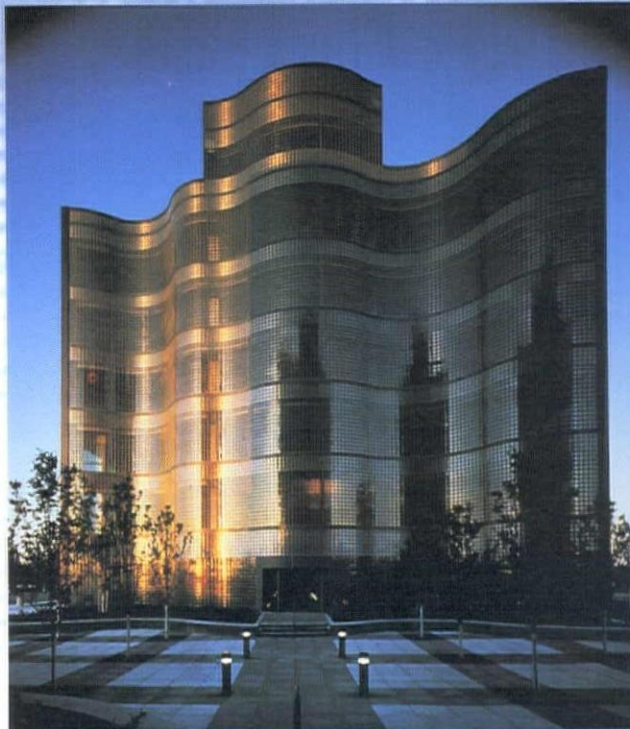
43 Erik Bryggman, 'Rural Architecture', Riitta Nikula (editor), *Erik Bryggman 1891-1955, Architect*, Museum of Finnish Architecture, Helsinki, 1991, p279.



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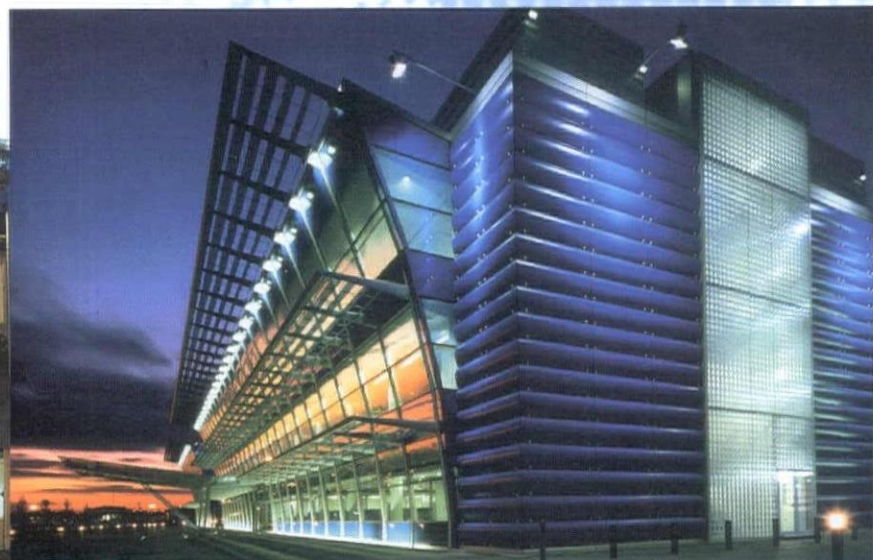
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Tuscan delicacy

An archaeological museum in a cathedral annex on the west coast of Italy pays tribute to the rich and ancient history of the area.

The Tuscan seaport of Piombino, at the south end of a peninsula in the Ligurian Sea, is the nearest point on the mainland to Elba. Due to proximity to Elba's iron and steel mines, the town has from ancient times been associated with heavy industry and today is dominated by metal works. Piombino does not figure largely in guidebooks, except as ferry port for the island, but as a coastal base and industrial centre, it has had a lively history and close connection with the archaeological riches of the area. Nearby, at the north end of the peninsula are the Etruscan remains of the settlement and necropolis of Populonia.

In celebration of the rich and diverse history of the peninsula, Piombino has created a new archaeological museum and named it after Andrea Guardi, the fifteenth-century architect responsible for much of the town's Renaissance fabric. Designed by Antonello Boschi, the museum has been inserted into an annexe of the fourteenth-century San Antimo cathedral; on the west, the museum spills into a cathedral cloister, and on the east, into new gardens.

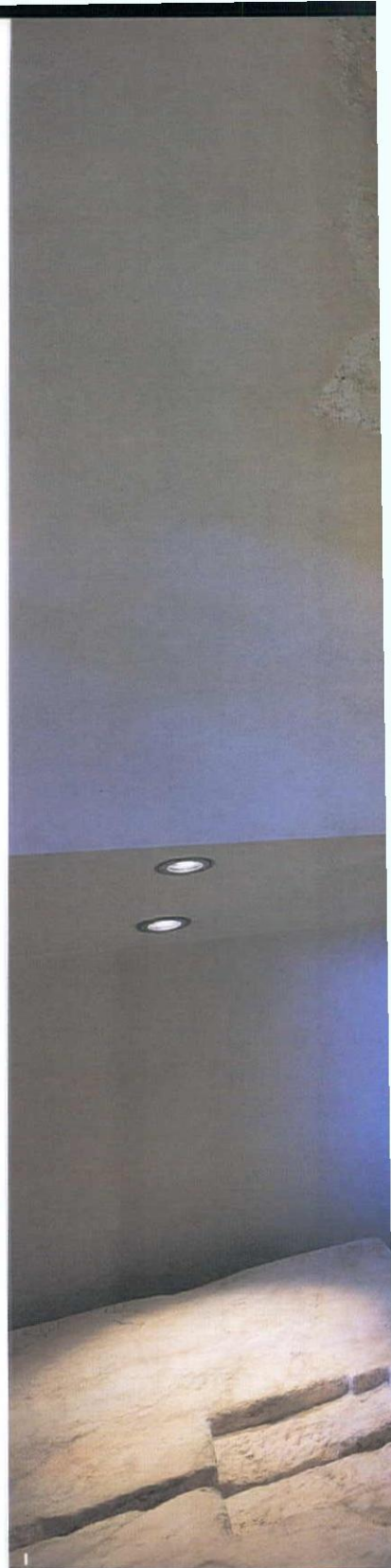
Boschi conceived the complex of annexe, gardens and cloisters as a single articulated entity; and in converting it into a coherent museum, his hand has been light and his interventions modest. The buildings have been left to speak for themselves, their dignity enhanced by the simplicity of green lawn and stone paving, and by the exquisite detritus of the past. The annexe, which had been used by the clergy for stores and as a

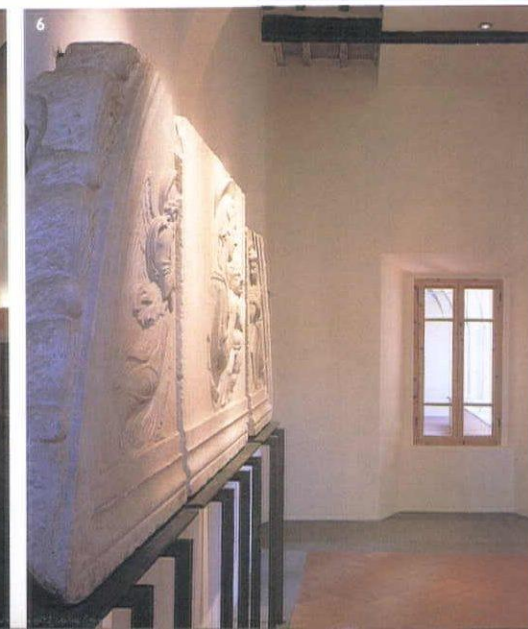
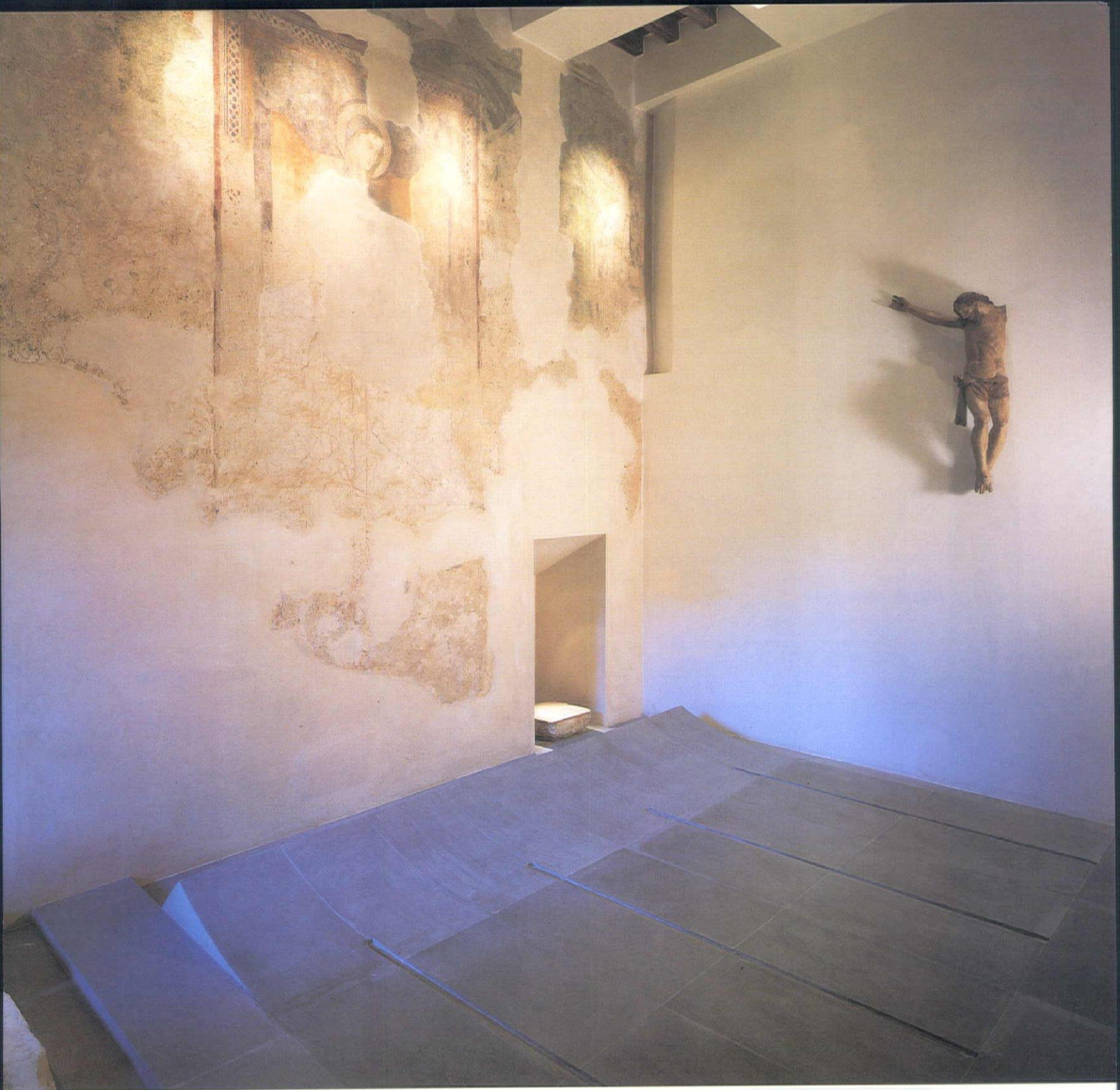
ARCHAEOLOGICAL MUSEUM, PIOMBINO, ITALY

ARCHITECT

ANTONELLO BOSCHI
ARCHITETTO

- 1 Fresco hall with stone incline separating visitors from the fresco.
- 2 Entrance to museum with apse and bell tower of San Antimo cathedral.
- 3 Paved forecourt with marble architrave by Andrea Guardi.
- 4 Primitives hall with Populonian font and lion's head.
- 5 Stone passage to Fresco hall.
- 6 Guardi hall and bas relief of Madonna and Child supported on minimal metal stand.





pantry, was restored and replastered – apart from the north wall where remain the delicate traces of a Renaissance fresco of Virgin and Child (dating from the second half of the fifteenth century). New doors were installed, inside and at the entrance, austere and made of cypress and stainless steel; in the cloisters, masonry was restored, inner walls replastered and a lawn planted and bordered with lavender. Entrance to the museum is off the Via del Coro, which leads upwards from city to castle and from which you pass through a new wall of soft grey limestone into the garden, shaded by cypress and laid down on the site of an old cemetery. The same grey limestone paves a forecourt which is set with benches and some of the more architectural exhibits like Guardi's stone architrave.

Internally, the museum is divided into three halls: the central one, which you enter first, is devoted to Primitives and contains such objects as a Populonian font. It is flanked on right and left respectively by the Fresco and Guardi halls. Boschi's carefully created enfilade weaves together the drama of space and objects and allows views

from one space into another – for example, a slot cut into the dividing wall between Primitives and Fresco halls gives a glimpse of the fresco when you enter the museum – and of the gardens and cloisters outside. Halls are linked by a stone path along the building's west wall. It widens as it approaches the Fresco hall, creating a false perspective and drawing you down its length. Arriving in front of the Virgin and Child, visitors are kept at a distance by an incline in the stone path.

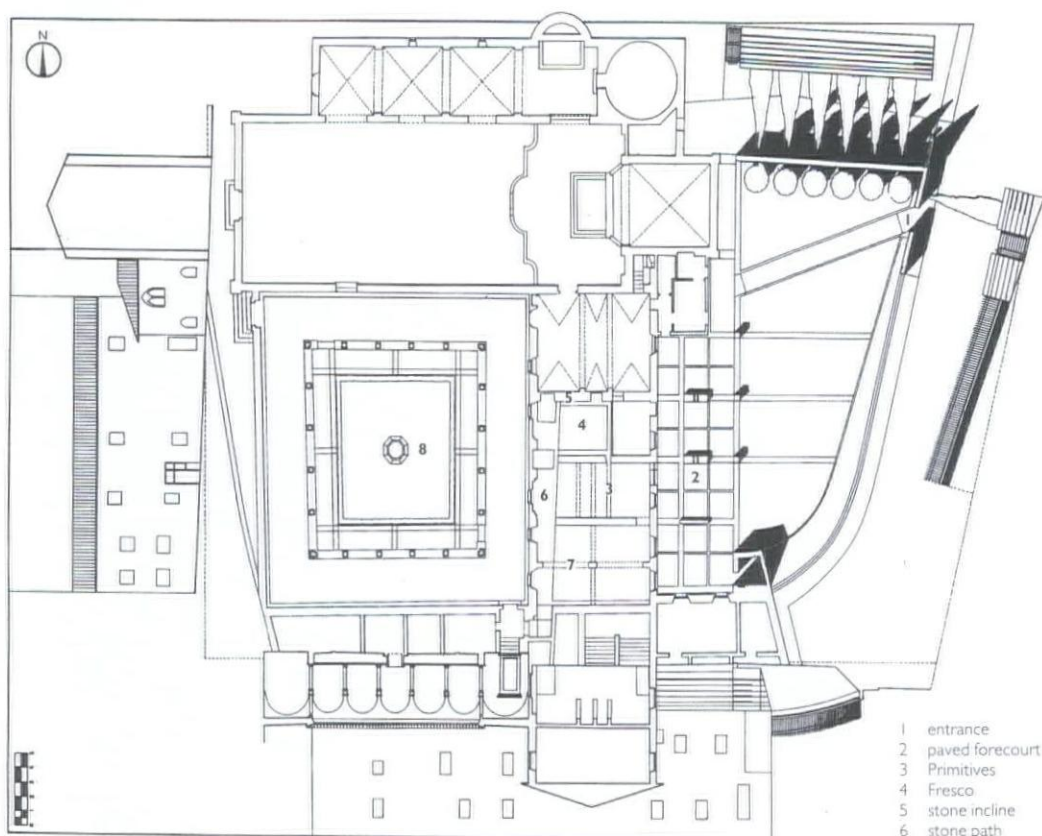
Objects in this exhibition are disposed with great care. Each has been given space, so that they can be contemplated in isolation, but is related to its neighbour, and its disposition is designed to focus the eye as you turn in space. Lighting increases the drama. Set in the luminous halls, each object is moulded by luminance emitted by optic fibres incorporated into austere and reticent stands.

Architect

Antonello Boschi Architetto

Photographs

Alessandro Ciampi



plan

7

Cloister with stone objects supported by metal shelves and brackets.

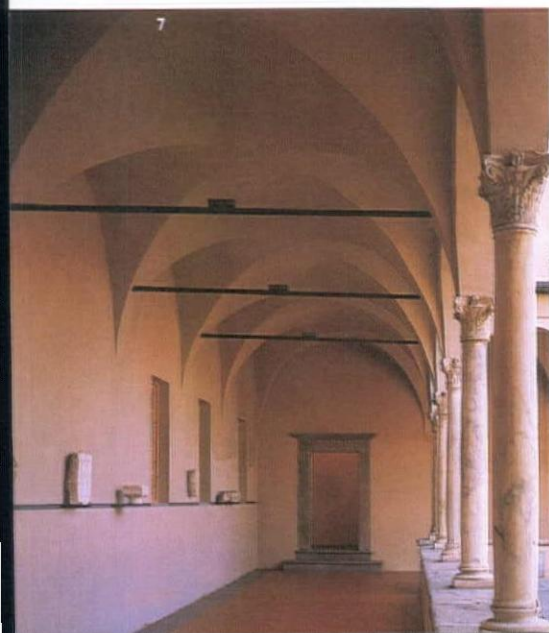
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Cloister, newly plastered and repaired with halls behind.

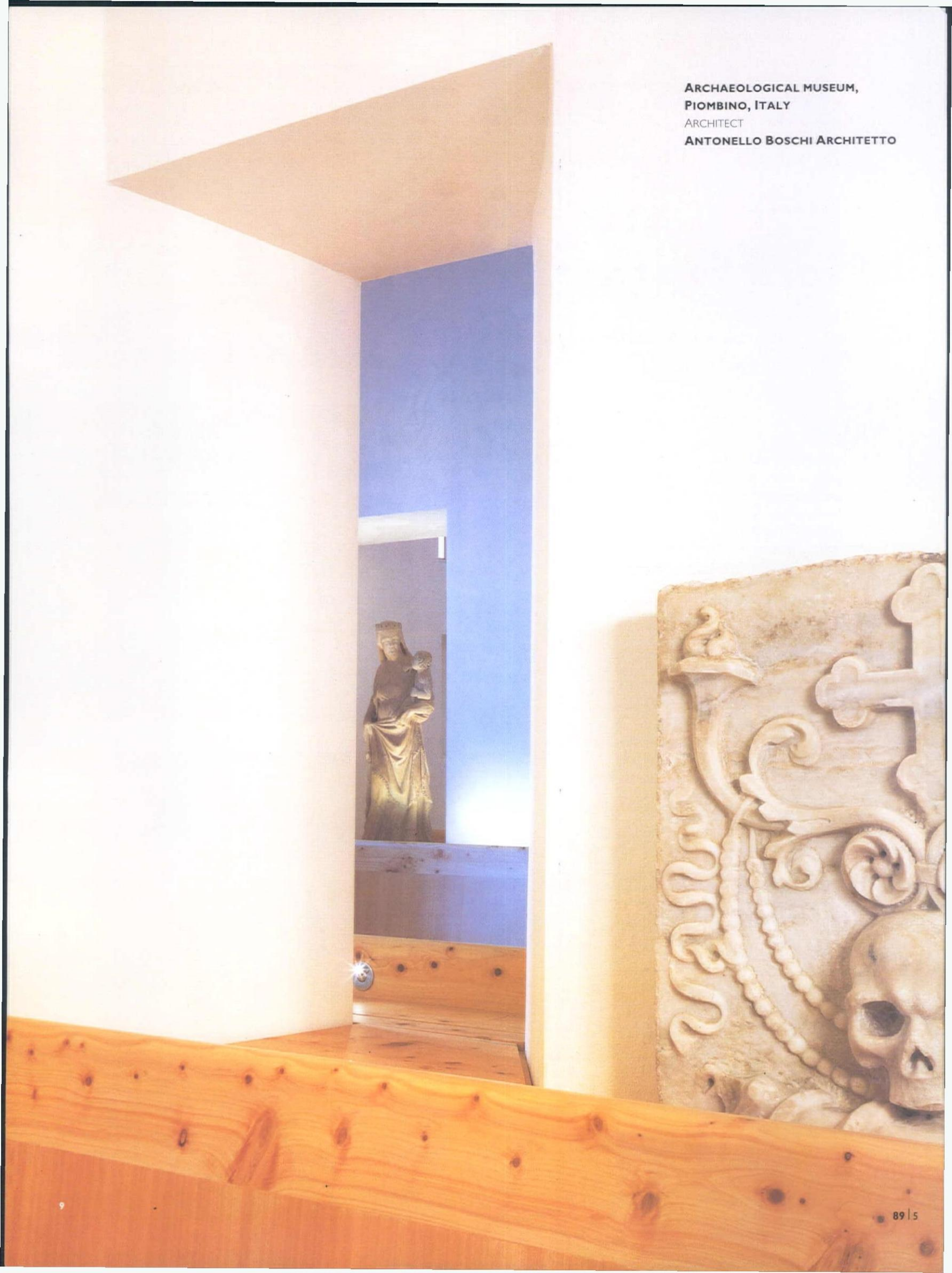
9

Slot cut into dividing wall permits view of fresco on entering museum.

- 1 entrance
- 2 paved forecourt
- 3 Primitives
- 4 Fresco
- 5 stone incline
- 6 stone path
- 7 Guardi
- 8 cloisters



ARCHAEOLOGICAL MUSEUM,
PIOMBINO, ITALY
ARCHITECT
ANTONELLO BOSCHI ARCHITETTO



Light fantastic

A clothes shop in London's West End provides an airy, luminous space and adds to the glamour of the street.

Stanton Williams' new shop for Issey Miyake, at the corner of Conduit Street and Savile Row, is a fluid and luminous space capable of adapting to Miyake's changing vision. The clarity and restraint of the design, informed by supple architectural intelligence, is characteristic of this practice responsible for, among other things, the quiet improvement of the National Theatre's public spaces.

The original premises on ground floor and basement were stripped down to the shell and structural columns. Wooden framed windows and doors were replaced by a glazed entrance, which cuts across the corner, and big shop windows, 3.5m high, giving onto Conduit Street and Savile Row and flooding the interior with daylight. Dissolution of the barrier between inside and out is reinforced by deep stone cills continuing the stone face of the building.

Running along the east side of the shop is what the architects call an 'inhabited wall' which acts as a backdrop to an otherwise open and lofty volume. It conceals structural columns and services, and accommodates an elegant sales desk, with illuminated glass counter, and shelving, the openings seeming to have been carved out of the solid. Throughout, detailing – like the glass and steel staircase admitting daylight to basement, hanging rails and display system – is refined and spare, adding to the pleasure of the place.

Finishes intensify luminosity. Walls are covered in marmarino,

plaster mixed with crushed marble, made smooth and glossy or textured depending on direction. Surfaces reflect light in different ways and catch the jewel-like colours of clothes. Suspended above your head, Ingo Maurer's dream-like creation floats in space. It is made of fine silvery mesh to which are attached hundreds of silver leaves. They move with the wind from gold fans encased in the mesh body and cast drifting shadows over the inner wall.

At the back of the shop, colour has been used to articulate and make sense of a twist in the building's geometry, and to mark off a changing area. The pale grey concrete floor changes here to dark blue and cubicles are hidden behind a screen of brilliant pink plaster, stretched to infinity by a mirrored wall.

Architect

Stanton Williams, London

Lighting

Ingo Maurer, Concord Lighting

Decorative plaster

Perucchetti Associates, Davies Keeling

Townbridge

Photographs

Peter Cook/VIEW

1 Entrance and shop window onto Savile Row.

2 Ground floor, with glass and steel stairs, and translucent bridge admitting daylight to basement.

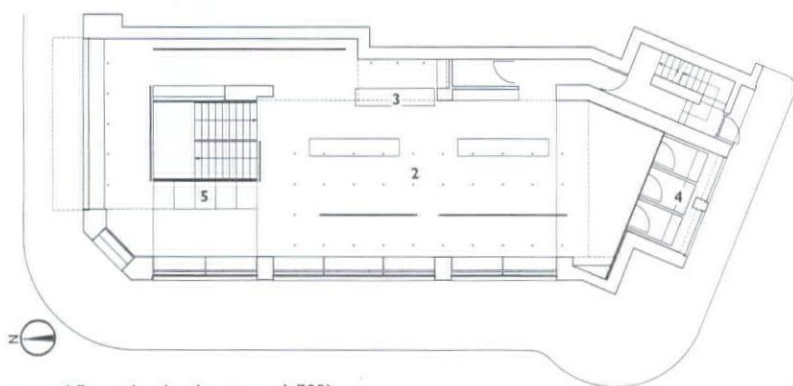
3 From sales desk to Conduit Street window. Stairs lead to menswear in the basement of the shop.

4 Sales desk, tables for displaying clothes, and simple clothes rails. At the back, pink plastered screen in front of changing cubicles.

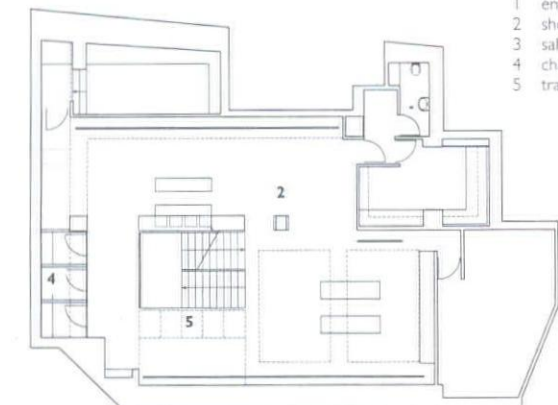




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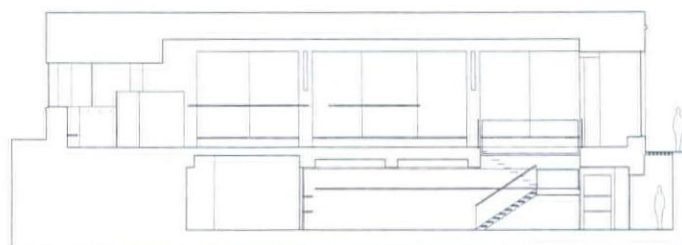
ground floor plan (scale approx 1:700)



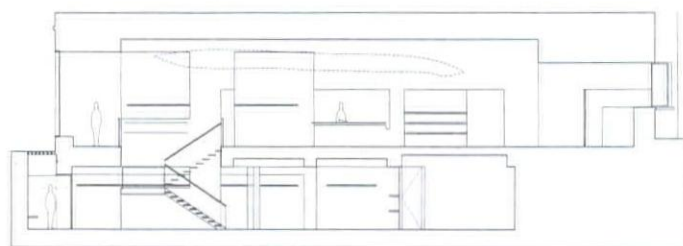
basement plan

- 1 entrance
- 2 showroom
- 3 sales desk
- 4 changing cubicles
- 5 translucent glass bridge

**SHOP, CONDUIT STREET,
LONDON**
ARCHITECT
STANTON WILLIAMS



south-north long section



north-south long section

Pulsar 135



Pulsar 172



Pulsar

Design: Alfred Homann

Light in Detail

**louis
poulsen**

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ar house

HOUSE, LONDON

ARCHITECT

JOHN PAWSON

John Pawson's house for himself and his family is in a leafy enclave of west London. The street face is a pleasant Victorian terrace looking east on to neighbouring terraces and gardens. On the west, the house gives on to a large communal garden, so that in front and at the back the outlook is of sky, trees and lawns.

As with his previous house Pawson has restored the shell but here he has completely gutted the interior so that nothing of the original remains. In replacing it, he has transformed the generic London terraced house, tempering the verticality of the standard plan – with L-shaped stairwell

and stacked up rooms – by introducing strong horizontal emphases. On the lower floors, rooms run from front to back and flow into terraces, the linearity of the spaces reinforced by a long stone bench or kitchen counter stretching the length of the house and beyond into the garden courtyard.

If you consider the house plan in abstraction, you can see that the horizontal is held in tension with the vertical by means of a vertiginous chasm on the south side. It contains a narrow stone stairway that rises in a single flight from the ground floor to the top of the building. Within the same plane, a second flight descends to the basement.

PLAIN PAWSON

Within the original Victorian shell the stacked interior of a standard London house has been transformed by different geometries

1
West back face of house with glazed ground floor wall and first floor terrace. Courtyard paved in limestone and extension of stone kitchen counter.

2
Stone stairs rising to top floor under slot of light.



HOUSE, LONDON

ARCHITECT

JOHN PAWSON

Architect

John Pawson

Project architects

Vishwa Kaushali, Enzo Stefano Manola,
Simon Dance, Jonathan Bell, Alejandro
Fernandez, Lorenza Marengo, Stephane
Orsolini, Stephen Gilmore, Mansel
Fletcher, Charlotte Williams, Andre Fu

Executive architect

Denton Corker Marshall

Lighting design

Isometrix Lighting and Design

Photographs

Richard Glover

In previous schemes (AR July 1996) Pawson has rendered stairways almost mystical places, ideally unadorned and illuminated by a single shaft of light. But this is his most extreme expression of passage yet. On entering you are confronted by the corrugated stone underside of the ascending flight, the inverse of the other flight descending in front of you. If the stairway is narrow, it is made to seem narrower still by steepness and height. From the foot of the tall ascending flight, which turns the corner at the top under a slot of light, you have the impression of a church tower.

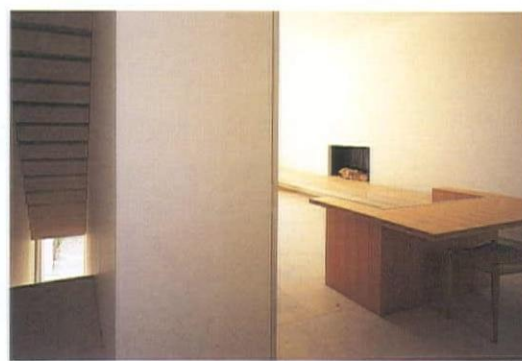
More prosaically, reorganisation of the stairway opened up the plan of this long thin

house, leaving a four metre wide band of unencumbered space on each floor. It was decided that the basement, giving access to private and communal gardens, should be extended at the back and made into a kitchen and dining room; the ground floor would then become a sitting room flowing out on to a rooftop terrace. The first floor, with views across gardens on both sides, was reserved for the main bedroom and bathroom and the top floor for the children.

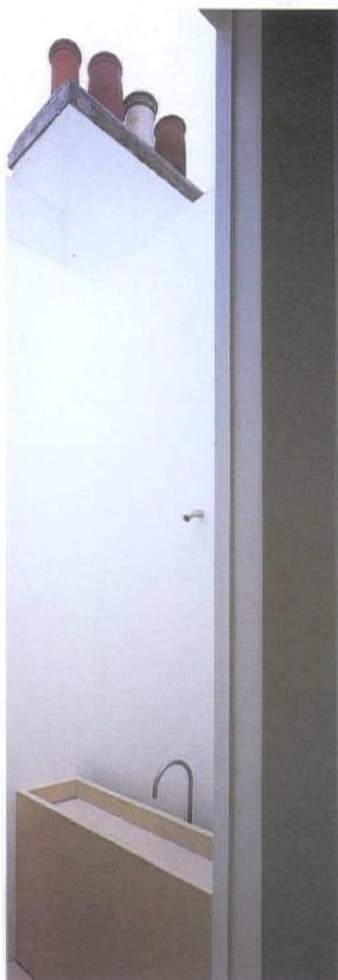
Stone is the predominant material in this house. It is a material for which Pawson feels an affinity, which appeals to his austere sensibilities and satisfies an evident preoccupation with the elemental.



3

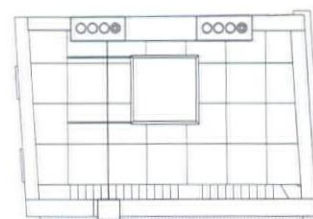


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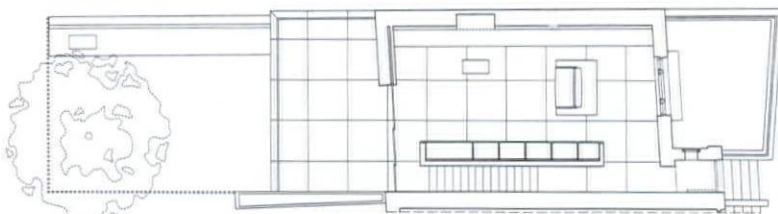
- 1 entrance
- 2 living room
- 3 terrace
- 4 kitchen
- 5 courtyard
- 6 void
- 7 bedroom
- 8 shower/lavatory
- 9 stone worktop



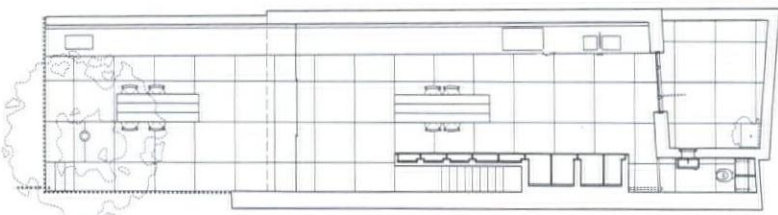
roof level plan



second floor plan



first floor plan



ground floor plan (scale approx 1:280)

The preoccupation can be carried to eccentric lengths. In this building, huge limestone slabs pave all the floors both inside and out; stone has been used for the living room bench, for the children's worktop and for the immense length of kitchen counter which continues through a glass wall to become an external kitchen. Stairs are of stone blocks, and a monumental stone trough provides a bath big enough for eight people. In order to support the weight (and rectify subsidence) Pawson had first to underpin the building before constructing a concrete frame with massive floor slabs inside the shell.

To this adamant simplicity are added

the effects of light in this house. Daylight filtering through windows veiled in white mesh and through glass walls at the back works in combination with stone surfaces to produce honeyed luminance. Artificial light washing over white walls is concealed in peripheral slots around ceilings or behind stone fittings.

The absorption of the exterior into the design of this house is expressed in the detailing of external courtyards which become external rooms. At the top of the building, the glass roof of the children's shower can be opened at the touch of a switch for open-air ablutions or access to a rooftop terrace.

3 North side of kitchen/dining room with Obumex kitchen by Pawson. Stone worktop lines wall and extends into back courtyard.

4 Living room with stone bench, fireplace and sofa/desk by Pawson.

5 Open-air shower between children's rooms. Electrically operated glass skylight leads to roof terrace.

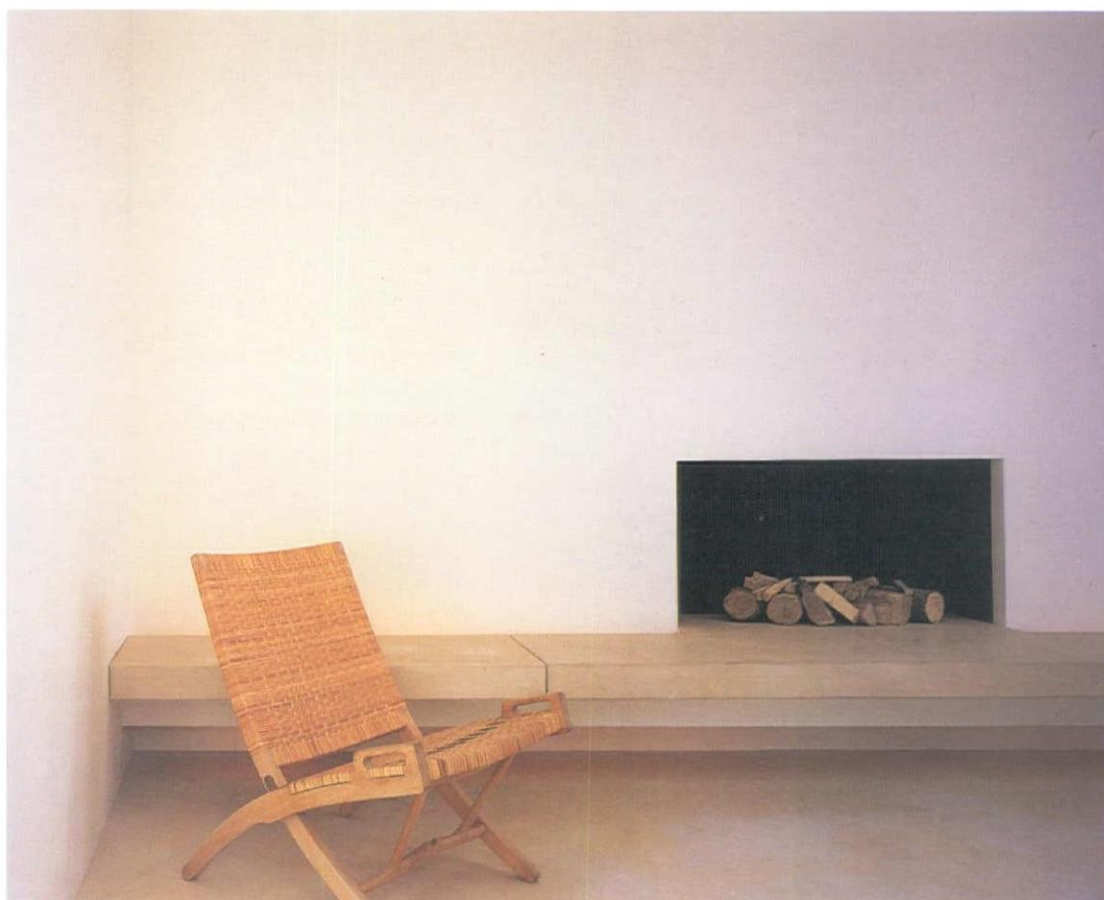
6 Sitting room with fireplace and stone bench giving on to terrace.

7 Kitchen from front courtyard with cupboards lining south wall.

8 Master bedroom (left) and bathroom (right) with stone bath.



6



7



8



HIGH EXPECTATIONS

THE GREEN SKYSCRAPER

By Ken Yeang. Munich: Prestel. 1999. £15.95

The skyscraper simply exists, the perfect example of a solution in search of a problem. To an old-fashioned rationalist like me it is somewhat irritating to have to acknowledge that the skyscraper, with surprisingly little dissent, has won the status of a universally recognizable and acceptable phenomenon. For a hundred years the skyscraper has been the strongest of brands. Doubtless it has had little or no impact on architects, most of whom seem to have assumed that God put them here to erect the tallest skyscraper, the most intelligent skyscraper, or, in the case of Ken Yeang, the greenest skyscraper.

Not that I am against building high *per se*. There are cultures, economies, locations, climates and purposes for which skyscrapers may make perfect sense today. Hong Kong, with its unusual history and spectacular topography, is one example. However, it is clear that something very much like the reverse is the case in Stockholm. Arguments for and against the skyscraper are usually over-simplified. The architectural profession's own collective, century long, love affair with the skyscraper has generally over weighted the importance of form over function. Perhaps, we have also allowed a particular kind of financing to dominate our thinking about form and function. 'Ours not to reason why', has too often been the architectural norm, not least in the face of developers' greed.

Given this background of shaky assumptions, Yeang has done an excellent job of making a sustainable argument for reinventing the skyscraper as something green, unhermetic and user friendly. He has the huge advantage of speaking as an architect who has already many, highly original, practical – and very striking – tall buildings to his credit. His case for the skyscraper is fundamentally ecological. Low-density buildings waste precious land. Conventional ways of designing the environmental systems of tall buildings, both external and internal, squander precious energy. Strong at the macro scale of environmental economics, Yeang is rather less successful in marshalling arguments that contradict the chronic short-termism of conventional developmental appraisal. His understanding of the micro scale of detailed design options is more impressive than his ability to take advantage of sociologically based arguments for change, now more and more related to new ways of working and to emerging user expectations.

Despite Yeang's Martin Centre-influenced way of expounding his ideas, his vision of a permeable, green, self-sustaining environment is as romantic as technocratic – a new Malaysian ver-



Bamboo filled courtyard at the heart of the Faculty of Economics and Management at Utrecht University by Mecanoo. From *Mecanoo Michigan Architecture Papers 6*, an elegantly designed and lucid critique of selected projects by the Dutch practice. Founded in 1983 by a group of architecture students, Mecanoo have emerged as one of the most radical of a generation of Dutch architects and are now consolidating their reputation through a diverse range of work.

nacular, updated, rethought and well above the new highways and the trees. And that is the best thing about Yeang's work. Not only is it rational and original but it is being achieved in a part of the world where it is far too common for conventional skyscraper designs, the sweepings of an exhausted and extravagant North American design tradition, to be replicated without any strategic thought.

FRANCIS DUFFY

MUSEUMS OF ARCHITECTURE

MUSEUMS FOR A NEW MILLENNIUM: CONCEPTS, PROJECTS, BUILDINGS

By Vittorio Magnago Lampugnani & Angeli Sachs. Munich: Prestel. 1999. £39.95

That there should be a coupling of museums and the millennium is hardly surprising; after all, a great many museums have dealt with previous millennia for at least three hundred years. The implication of the title, however, suggests that museums in the third millennium will have new and different qualities.

The book consists of an introduction by Lampugnani and an essay by von Moos, followed by statements from three artists which are in some ways the most revealing part of the discussion. This text is intended to set the scene for the pictorial section of the book consisting of 25 museums of art illustrated through photographs, architectural drawings, and accompanied by a description and occasionally an analytical text, each by a different author. The museums are arranged in chronological order of the inception of the design, from Norman Foster's Carré d'Art in Nîmes of 1984 to Zaha Hadid's project for a Contemporary Art Centre in Cincinnati, Ohio, of 1998. The selection implies that these are the architecturally most significant museums of the last decade.

As neither the introduction nor the individual descriptions suggest an observable trend, it is difficult to decide whether this set of buildings is indicative of the future or merely a record of the most recent designs. It might be argued that as long as art is consciously made

to be displayed and viewed, there may not be any dramatic changes in the spaces that house it. The same could not be said about museums showing dinosaurs or space capsules.

To look into the future would require speculation or extrapolation. It might also need consultation with museum directors, and a wider range of artists than the three whose short contributions appear in this volume. So it is not surprising that the most discernible theme is the argument as to how subdued architecture should be in relation to the art on display. This seems certain to be as inconclusive as the debate whether words or music should have supremacy in opera. Perhaps the wisest words in the book are by Ulrich Maximilian Schumann in his piece on Ungers's Gallery of Contemporary Art in Hamburg: 'Briefly put, a museum is always a museum of architecture as well'.

MICHAEL BRAWNE

BIG ISSUES

MASTER PLANNING FOR ARCHITECTURE: THEORY AND PRACTICE OF DESIGNING BUILDINGS AS DEVELOPMENT FRAMEWORKS

By Keith Billings. London: John Wiley. 1997. £50

This is a curious book. Its subject is the design of large building complexes and it purports to offer a theoretical basis for the execution of this task in practice. At face value, this seems a worthwhile project at a time when so much of contemporary life is enacted in such places as shopping centres, large hospitals, airports, industrial parks, theme parks, even holiday complexes. But the problem is that its concentration on a particular view of 'theory' renders it almost irrelevant to the problems of contemporary development.

Almost 40 years ago the schools of architecture embarked upon the development of research as the necessary foundation of the academic discipline of architecture. In the United Kingdom some of the most significant work was done at the Bartlett and at Cambridge. At that time Prime Minister Harold Wilson had won a general election on the

promise of fuelling 'the white heat of the technological revolution', and the welfare state was promoting extensive programmes of construction of housing, hospitals, new universities and so on. In this context much of the new research was, not surprisingly, placed upon the development of logical models and systematic methods for structuring the statement of the problem and shaping the solution in the realization of these projects. The literature derived from this research constitutes the core of Billings's theory. The problem is that this kind of theory is always provisional, never absolute. It must be subjected to and respond to the test of application. No attempt is made here to do this. The examples of practice are outdated and superficially presented. Why is there no reference to, for example, Kansai Airport or Potsdamer Platz? What 'theory' informed their design? Why is there no real discussion of the implications and potential of computer systems in the process of master planning, or any reference to the spatial implications of the Internet? And how can we discuss the nature of development in this century without any substantial reference to sustainability? Without any of this the book is sadly irrelevant. DEAN HAWKES

DUTCH CARTOGRAPHY

20TH CENTURY URBAN DESIGN IN THE NETHERLANDS

By Hans Ibelings. Rotterdam: NAI. 1999. Hfl79,50

This lavishly illustrated book is intended to complement Hans Ibelings' earlier volume devoted to architecture, published in 1995. It fails to do so. The author's concentration on what he calls the 'concrete street-level picture' rather than the 'abstract, cartographic picture' produces a picture-book of architectural scenery. As in the first book, most illustrations are photographs of buildings, and the few plans included seldom relate to photos. Holland's important contribution to spatial planning, which would require carefully designed maps and plans, is barely mentioned. Postwar achievements like the proposal to conserve a 'Green Heart' at the centre of the Randstad (perimeter city) incorporating the major urban centres are neglected. Another omission is the work of W. de Bruyn at Leidschendam and Zeist in the 1950s and 1960s, which anticipated by a few years Martin and March's 'Land Use and Built Form' theory, and moreover got built.

The format and arrangement by decade are identical in both Ibelings' books, but whereas, in the first, one was struck by the inexhaustible variety and profusion of talent, the sequel leaves one with a feeling of letdown. As each decade succeeds the last, the conviction grows that since the pre-war period, when such humane designers as

Berlage, Granpre Molire, Dudok, Wijdeveld and De Klerk were working, Dutch architecture has been in accelerated decline. Perhaps; but I suspect the author's bizarre selection is partly responsible. Why does the Netherlands Architecture Institute consider this superficial coffee-table book worth publishing in English, while more profound and internationally relevant studies, such as L.J.M. and J.M. Tummers' *Het Land in de Stad* (1997), remain sadly restricted to Dutch readers? RICHARD PADOVAN

TEL AVIV ROMANCE

TEL AVIV: FROM DREAM TO CITY

By Joachim Schlör. London: Reaktion Books. 1999. £19.95

Lord Melchett described the history of Tel Aviv as 'the most romantic story in urban development that perhaps has ever been told'; just as the persecuted European Jew will, in Israel, develop into a 'strong, erect and fine specimen of manhood, so will the city of Tel Aviv acquire beauty'. If the results are 'incongruous, ugly, passionate', as Hector Bolitho wrote in 1933, it

is because of the strange way that this new city enters into the depths of soul; an 'expression of an ecstasy' devoid of great public monuments but adored by its inhabitants.

Joachim Schlör is a cultural historian based in Potsdam, and his sources are nearly all German, with no reference to untranslated Hebrew material. But this German viewpoint, following the humiliated immigrants of the '30s as they rebuild their lives from nothing, and the process whereby Tel Aviv recreated Jewish life in Berlin when the original no longer existed, is central to understanding the place. This is not an architecture book – it has no plans and very few photographs – but with its broad cultural, social and political canvas it is most definitely a book for architects and planners. I have seen no other book that describes this extraordinary city so well. TIMOTHY BRITAIN-CATLIN

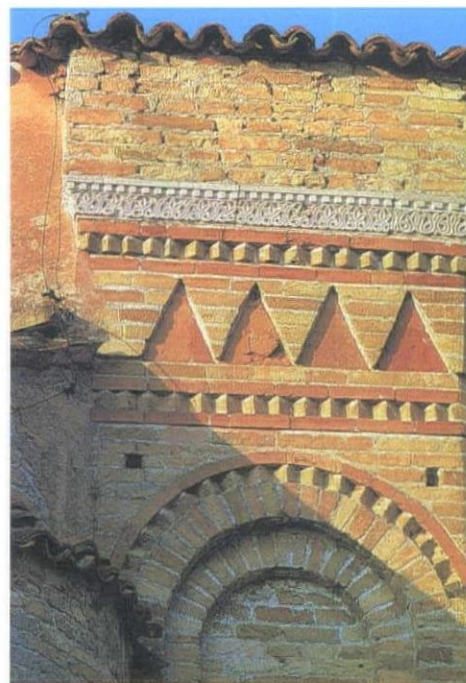
GREEN TALK

ON COMMUNITY AND ENVIRONMENT

Foreword by Peter Hall. Aldershot: Gower. 2000. £35

Here is an anonymously edited abridgement of 16 lectures given under various auspices at the Royal Society of Arts in London. Most of them have implications for architects, not always on the criteria that first come to mind. Sue Clifford, for example, stresses the obligation to respect local distinctiveness, and Richard Best shows that the housing standards involved in the concept of Lifetime Homes are a long-term economy. In his foreword, Peter Hall points to the message that, 'We've got our economics upside down, and need to turn it the right way up: instead of economizing on people and putting them on the unemployment scrapheap, we need to economize on resources'. Illustrating this point in his contribution, Amory Lovins cites the Queen's Building at De Montfort University, 'made of brick – partly because there were a lot of highly skilled, out-of-work bricklayers in Leicester'. He also cites its merits in daylighting and passive air movement and cooling. But of course the same virtue of using people as a resource with low-energy technology is true of Segal-type self-build.

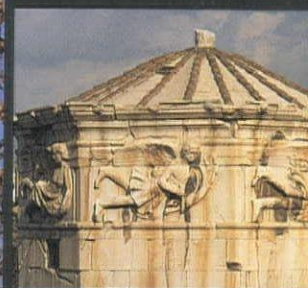
Paul Ekins, as an environmental economist, warns us that 'we can't be serious about sustainable development in a market economy like ours until it is financially rational as well as environmentally beneficial and morally right.' Discuss. COLIN WARD



A splendid example of ornamental brick from Torcello in Italy, featuring a dog's tooth label course and a moulded terracotta cornice. (Dog's tooth is a variation on Flemish bond, with projecting headers.) Interest in brick decoration reached its peak during the eighteenth century, as bricklayers energetically competed with stonemasons to elevate their craft. The revealing history of this universal building material, from Babylonian ziggurats to Manhattan skyscrapers, is traced in *Brickwork Architecture and Design* by Andrew Plumridge and Wim Meulenkamp. Seven Dials. 2000. £14.99, now reissued in paperback.

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



Photographs: Mihail Moldoveanu

WHILE THE ORIGINS OF THE TOWER OF WINDS AT THE FOOT OF THE ACROPOLIS IN ATHENS ARE OBSCURE, THE GRACE AND STRIKING BEAUTY OF THE STRUCTURE HAVE DELIGHTED TRAVELLERS FROM ANCIENT TIMES.

The Tower of Winds stands in the shadow of the Erechtheum at the foot of the Acropolis in Athens. Little is known about its origins in spite of its prominent site in the middle of the Plaka, the most lively part of the city, of its (relatively) good state of preservation and of the structure's striking beauty. Throughout its history many distinguished travellers, including Vitruvius, have recorded their admiration for the building.

The tower in the Roman agora is Hellenistic, probably constructed around the middle of the first century BC. Seen for the first time, the structure is an oddity. Octagonal in plan, it is 12.80m high, and each of its eight sides is 3.20m wide. You are struck as much by the harmony and elegance of its proportions, as by the astonishing sculptures which float around the upper part of the building.

It is surprising to realize how sophisticated a piece of design this is; in which form arises from the function assigned it. The tower was once surmounted by a weathervane which, responding to the prevailing wind, indicated one of eight winds, each represented by a winged spirit adorning one of the tower's eight sides. Floating

gracefully through time across the exterior of the building, they are magnificent: Borea, the bitter north wind, Skiron from the north-west, gentle Zephyros from the west, Lips from the south-west, Notos from the south, Euros from the south-east, Apeliotes from the east and Kaikas from the north-east.

Early mention of the tower refers to the Clock of Andronikos for, at the same time as serving as a wind tower, it sheltered a hydraulic clock. Recognizable are the remains of a water reservoir, fed it is believed by water from the Clepsydra spring, harnessed from the north side of the Acropolis. The cylinder which contained the water has long since disappeared, but its supporting structure of local marble indicates the form of the reservoir – a rare find in buildings of this antiquity.

During the sixth century, the tower was converted into a Christian chapel, and subsequently under the Turks became a Muslim prayer house. But ultimately, the tower was – and is – impregnable, built with wit and sophistication, and invested by winged spirits with heavenly grace.

MIHAIL MOLDOVEANU