THE ARCHITECTURAL REVIEW

WWW.ARPLUS.COM

UK £6.95/€12 USA/CAN $14.50 JULY 2003

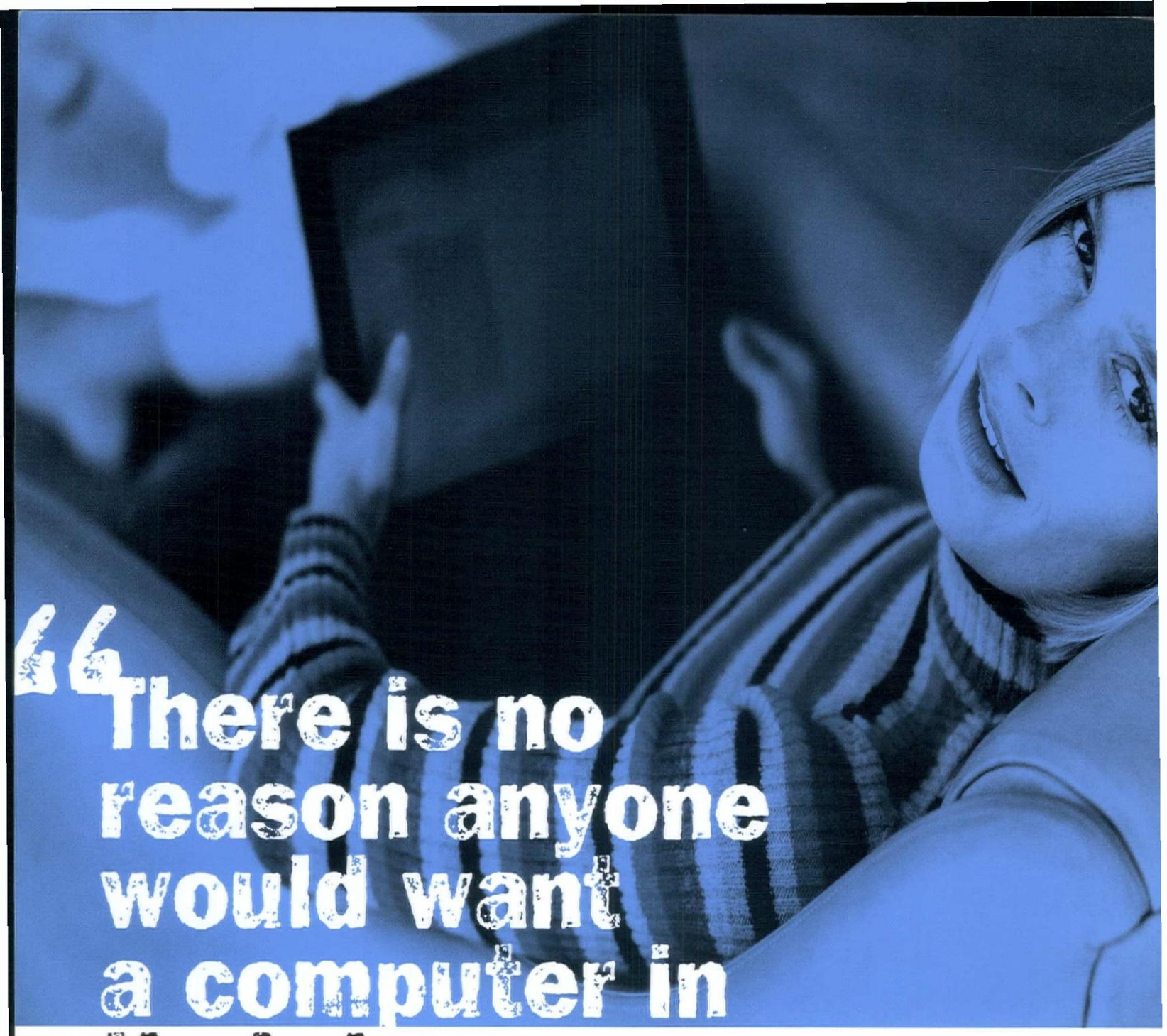


CULTURE

Hadid in Cincinnati

da in Graz

9 770003 861052



"There is no reason anyone would want a computer in their home."

– Ken Olson, Chairman and founder of Digital Equipment Corp., 1977.

How embarrassing. Yet people are making si
larly complacent and misguided predictions t
in the debate over floor coverings. Some pun
claim that hard floorings have won the argun
Unfortunately this belief overlooks the radical
innovations being made by the new wave of c
pet designers. You can now find carpets inspi
by such diverse materials as glass, metal, san
pearl, stone and paper. They'll destroy your pr
conceptions. So if you haven't seen recently w
freedom Antron® fibres can give designers, ca
01480 471 478 or check out our website today

www.antron.dupont.com.

ANTRON® FIBRE
ONLY BY DUPONT

DUPONT
Antron® Innova

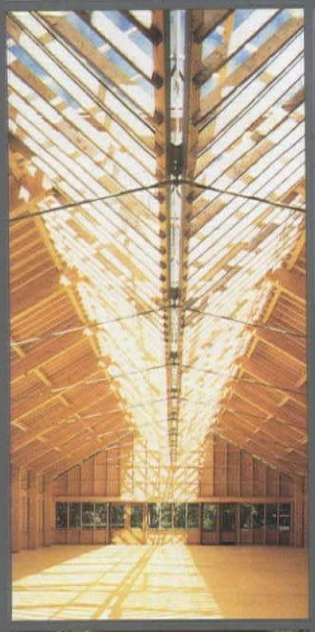
enquiry 6 www.arplus.com/enq.html



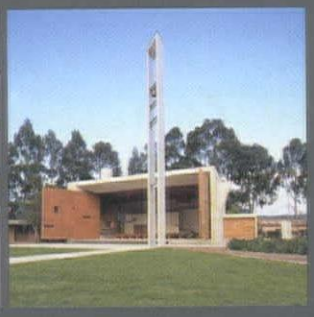




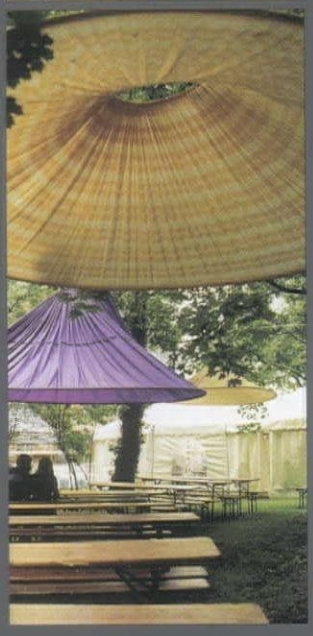












ar+d d line
Emerging Architecture



The world's leading emerging architecture award

JURY

The Jury will be:

SHIGERU BAN
Shigeru Ban Architects,
Tokyo, Japan

AHMED BUCHEERY
Gulf House Engineering,
Manama, Bahrain

FRANÇOISE-HÉLÈNE JOURDA
Jourda Architects, Paris, France

FARSHID MOUSSAVI
Foreign Office Architects,
London, England

MICHAEL SORKIN
Michael Sorkin Studio, New York, USA

PETER DAVEY
Editor of The Architectural Review

ELIGIBILITY

1 Who Can Enter

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

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

2 Completed Work

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

3 Categories

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

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

4 Age Restriction

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

WINNING ENTRIES

5 Prizes

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

6 Publication

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

7 Prize Giving Ceremony

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

8 Lecture Series

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

9 Worldwide Exhibition

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

10 Other Media

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

11 Providing Additional Materials for Publishing

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

ENTRY REQUIREMENTS

12 Entries

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

13 No Entry Fees

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

14 Boards

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

15 Anonymity

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

16 Entry Forms

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

17 Entry Deadline

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

DELIVERY AND COURIER

18 Send to:

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

19 Documentation

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

20 Return of Entries

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

www.arplus.com

ENTRY FORM

Deadline: 16 September 2003

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

FIRM/PRACTICE

ADDRESS

CITY/TOWN

POST/ZIP CODE

COUNTRY

TELEPHONE NUMBER

FAX NUMBER

EMAIL ADDRESS

CONTACT NAME FOR ENTRY

NAMES OF THE DESIGN TEAM

1

2

3

4

5

PROJECT NAME

CITY

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

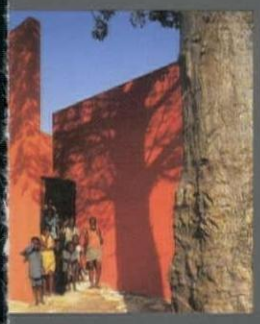
1 ARCHITECTURAL MAGAZINE .....

2 NEWSPAPER .....

supported by

Buro Happold

EMERGING ARCHITECTURE AWARD



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



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



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

SUBSCRIPTIONS & BACK ISSUES
To subscribe please use the card in this issue
Tel: +44 (0)1858 438 847
Fax: +44 (0)1858 461 739
Email: ARE@subscription.co.uk

UK	£69
UK student	£55
Europe	€115.50
Americas	$108
Rest of world	£105

American copies are air speeded to New York
For back issues:
Tel: +44 (0)20 7505 6622
Fax: +44 (0)20 7505 6606
Email: crc@construct.emap.com

NON DELIVERY OF ISSUES & CHANGES OF ADDRESS
Contact: Tower Publishing
Tel: +44 (0)1858 438 847
Fax: +44 (0)1858 461 739
Email: ARE@subscription.co.uk
You can also write to: AR subscriptions, Tower House, Sovereign Park, Market Harborough, LE16 9EF, UK
American subscribers – contact The Architectural Review, c/o PSMJ Resources Inc, PO Box 95120, Newton MA 02495, USA.
Tel: +1 617 965 0055 Fax: +1 617 965 5152

BOUND VOLUMES
Bound volumes (UK only): contact John Lawrence. Tel: 01234 346692

The Architectural Review (ISSN 0003-861X) is published monthly for $108 per year by EMAP, Architectural Review, c/o Mercury Airfreight International Ltd, 365 Blair Road, Avenel, NJ 07001. Periodicals postage paid at Rahway, NJ. Postmaster: send address changes to The Architectural Review, c/o PSMJ Resources Inc., PO Box 95120, Newton, MA 02495.

THE ARCHITECTURAL REVIEW

www.arplus.com

FOUNDED 1896
Published monthly
Emap Construct, 151 Rosebery Avenue, London, EC1R 4GB, England.
Email: lynne.jackson@ebc.emap.com
Fax: 020 7505 6701

EDITORIAL
Editorial Director and Editor
PETER DAVEY 020 7505 6725
Managing Editor
CATHERINE SLESSOR 020 7505 6726
Art Editor
MICHAEL HARDAKER 020 7505 6727
Assistant Editor
ROB GREGORY 020 7505 6728
Production Editor
JULIA DAWSON 020 7505 6729
Editorial Co-ordinator
LYNNE JACKSON 020 7505 6725

ADVERTISING
Sales Manager
Stephanie Rauscher +44 (0)20 7505 6859
Senior Account Executive
James Hutchinson +44 (0)20 7505 6742
Italian Advertising Sales, Milan
Carlo Fiorucci
Tel: +39 (0)2 58310219; fax: +39 (0)2 58315710
US Advertising Sales, New York
Kate Buckley
Tel: +1 212 223 4996
Email: buckley@moveworld.com
Production Manager
Nicola Ozpembe 020 7505 6762
Marketing Manager
Zoe Phillips 020 7505 6615
Sales Director
Andrew Knight
Publisher
Jonathan Stock
Group Editorial Director
Paul Finch
Managing Director
Graham Harman
List rental: Anita Johnson, Qbase
Tel: +44 (0)1925 644800
Fax: +44 (0)1925 644801
Email: anita@qbase.net

ABC circulation 23 925 (audit issue May 2002)
© Emap Construct 2003

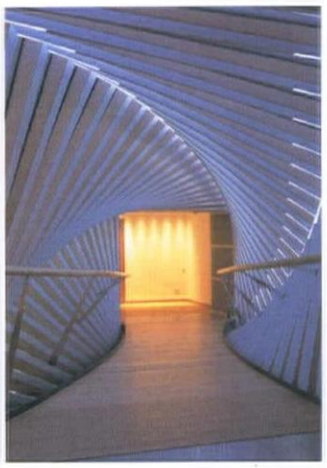
emap communications



Theatre by Gehry Partners (p30)



Gallery by Zaha Hadid (p38)



Dancing bridge by Wilkinson Eyre (p62)

CULTURE

VIEW
16 Hamburg's Architecture Summer festival; Philip Powell obituary; Browser; riposte to Jencks

VIEW FROM LISBON
22 By Timothy Brittain-Catlin

DESIGN REVIEW
24 AR/Spectrum Awards for Excellence: products premiated by the jury

COMMENT
28 Pop and posh

THEME: CULTURE
30 Performing arts centre, Annandale-on-Hudson, New York, USA GEHRY PARTNERS
38 Contemporary art museum, Cincinnati, USA ZAHA HADID
45 Photography museum, Oslo, Norway SVERRE FEHN
50 Multi-purpose complex, Graz, Austria KLAUS KADA
54 Concert hall, Breda, the Netherlands ERICK VAN EGERAAT
58 Centre for Contemporary Art, Melbourne, Australia WOOD MARSH
62 Bridge, Royal Opera House, London WILKINSON EYRE

PROCESS
66 Engineering enlightenment: the pursuit of passive daylit solutions in galleries

INTERIOR DESIGN
69 Music centre, Brussels, Belgium SAMYN & PARTNERS / VAN RANST / WACHTELAER

HOUSE
72 House, Guerrero, Mexico LCM / FERNANDO ROMERO

PRODUCT REVIEW
76 External furniture and lighting products

BOOKS
80 F. R. S. Yorke; order of ornament; eskimo architecture; Eero Saarinen; ephemeral of real

DELIGHT
82 Animal reflections KARLA KOWALSKI

COVER
38 Contemporary art museum, Cincinnati, USA ZAHA HADID Photograph by John E. Linden

www.tecu.com/news

TECU® Brass

A real alternative building material made of brass, a copper-zinc alloy with a reddish golden surface, featuring all the familiar technical and economical advantages of copper.

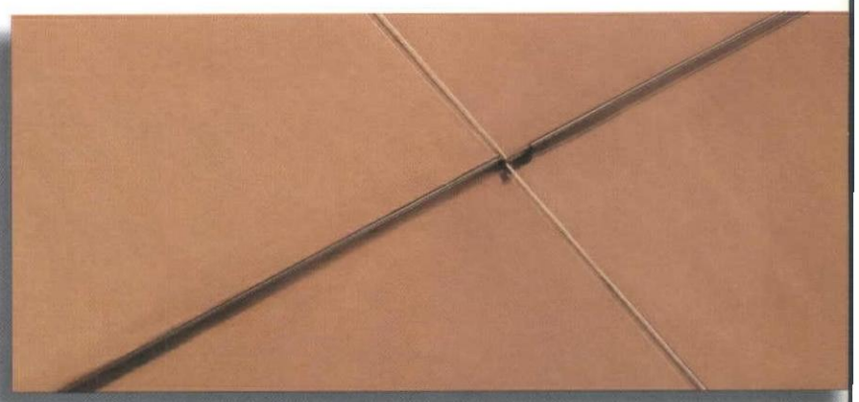
TECU® Bronze

A special copper-tin alloy with a pleasantly warm, reddish brown surface for countless façade cladding applications.

® = registered trademark

KME





TECU® brand name copper is available as:
TECU® Classic, TECU® Oxid, TECU® Patina,
TECU® Zinn, TECU® Brass, TECU® Bronze.
For further information, please contact:

TECU® Technical Consulting Office
Tel. +44 (0) 19 05/75 18 17
Fax +44 (0) 19 05/75 18 01
info-uk@kme.com, www.kme.com

TECU® is a brand name
of the KM Europa Metal AG
SMI Group

TECU®
Copper designs.

enquiry 2 www.arplus.com/enq.html

affordable aluminium.

Aluminium panels.
Aluminium lock.
Aluminium doors.
Top pivoted in
aluminium headrail.
Bottom pivoted in
aluminium foot.
icon aluminium.
At a price that
allows you to put
quality cubicles into
all types of building.



Door formed from 0.7mm anodised aluminium, factory folded on leading edges and bonded to a 25mm core.



Anodised aluminium lock, locates in continuous aluminium receiver for strength and durability.



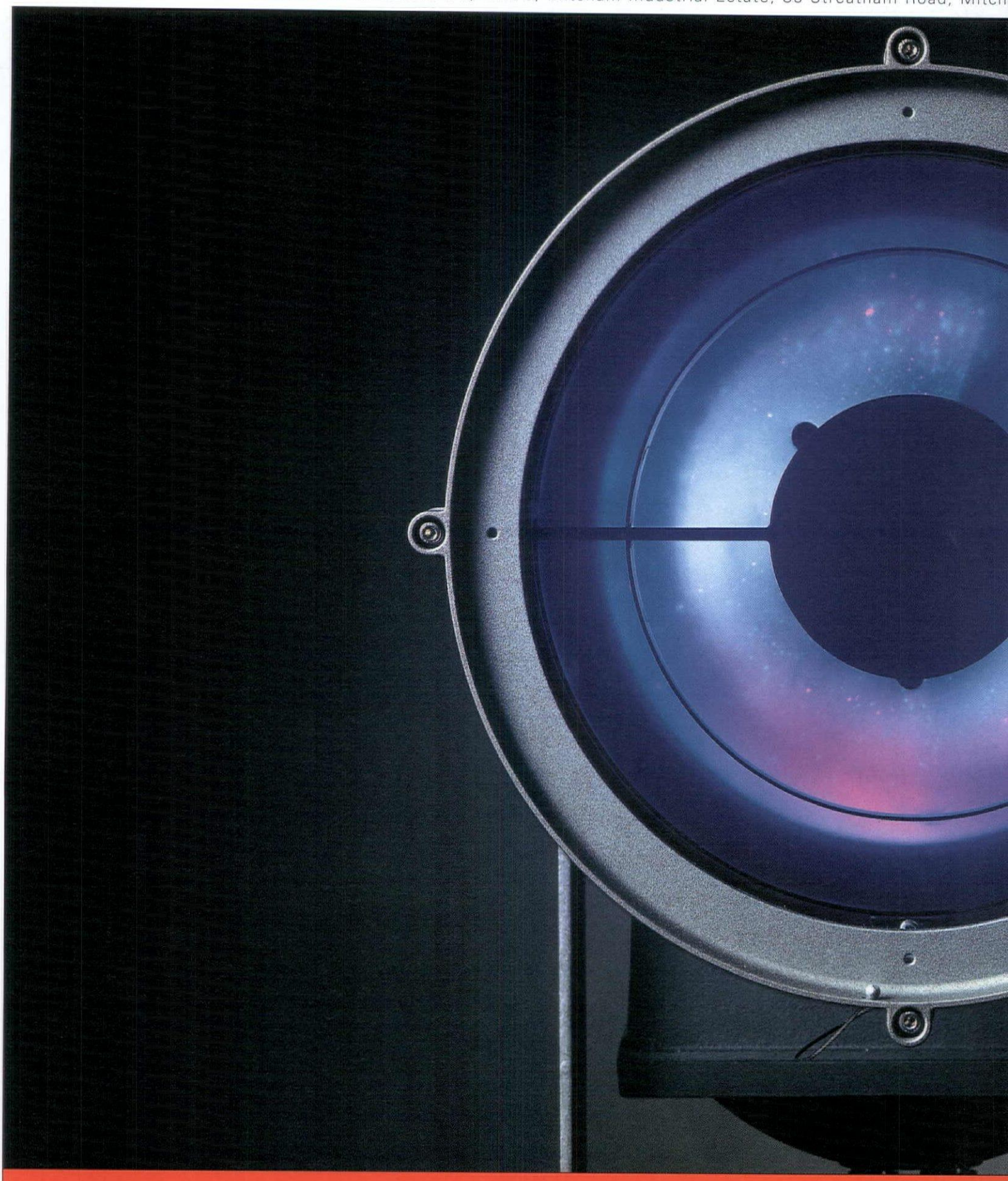
Engineered aluminium foot, concealed spring loaded open or closing mechanism.



thrislington cubicles

Product: icon	**Contact:** t +44 (0)1244 520 677
Scale: nts	w www.thrislingtoncubicles.com
	e info@thrislingtoncubicles.com

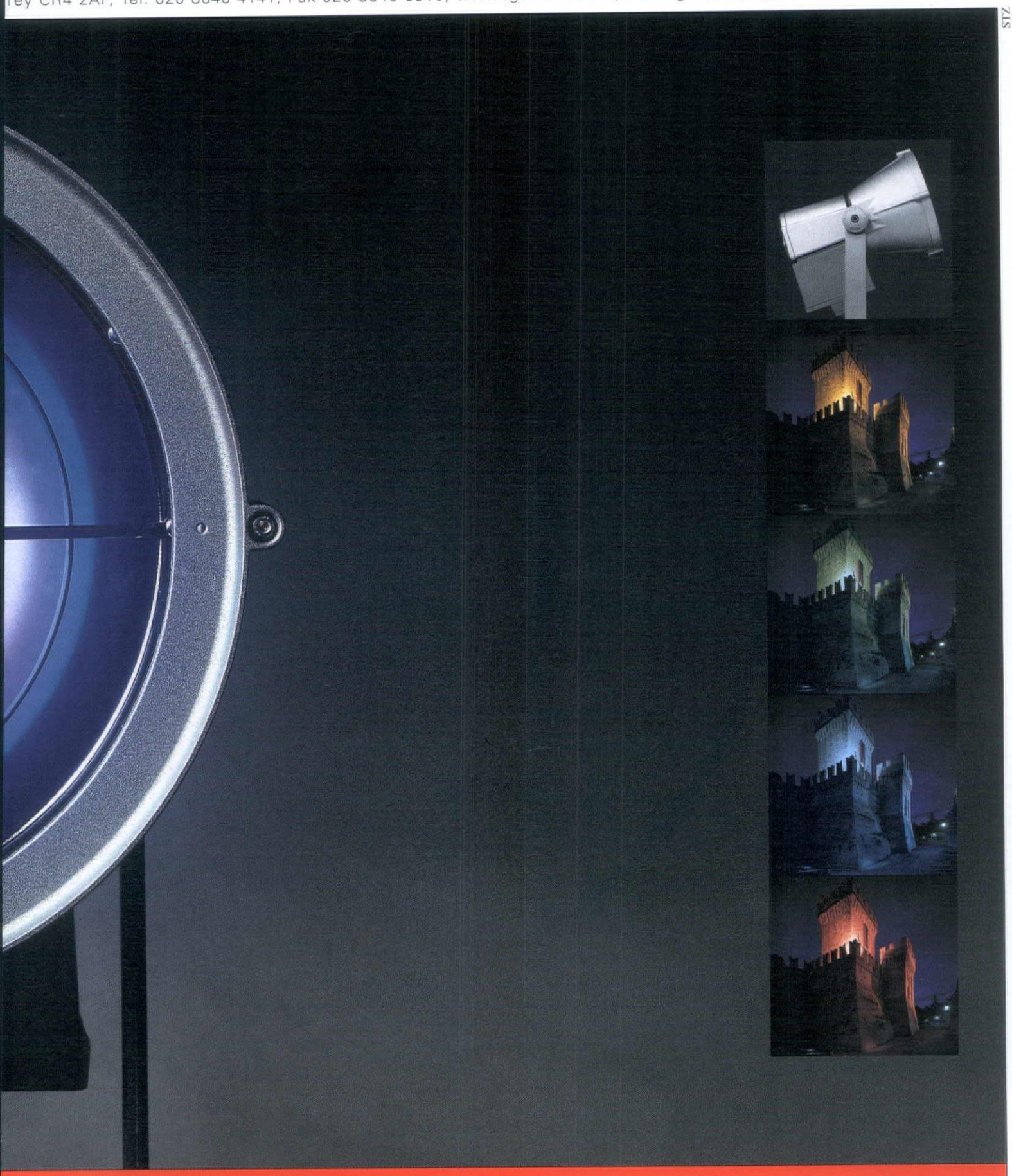
enquiry 17 www.arplus.com/enq.html



ColorWoody, design by Mario Cucinella. A new projector from iGuzzini designed not only to illuminate large surfaces – such as public buildings, squares, monuments, shopping precincts, industrial facilities – but to wash them with colour as well.

ColorWoody projects either normal or coloured light, so lighting schemes can be tailored to each individual site or occasion. The type of light emitted can be changed as required while light shows too can be created, using automated mixers or remote controls. www.iguzzini.co.uk

rey CR4 2AP, Tel. 020 8646 4141, Fax 020 8640 6910, www.iguzzini.co.uk, info@iguzzini.co.uk

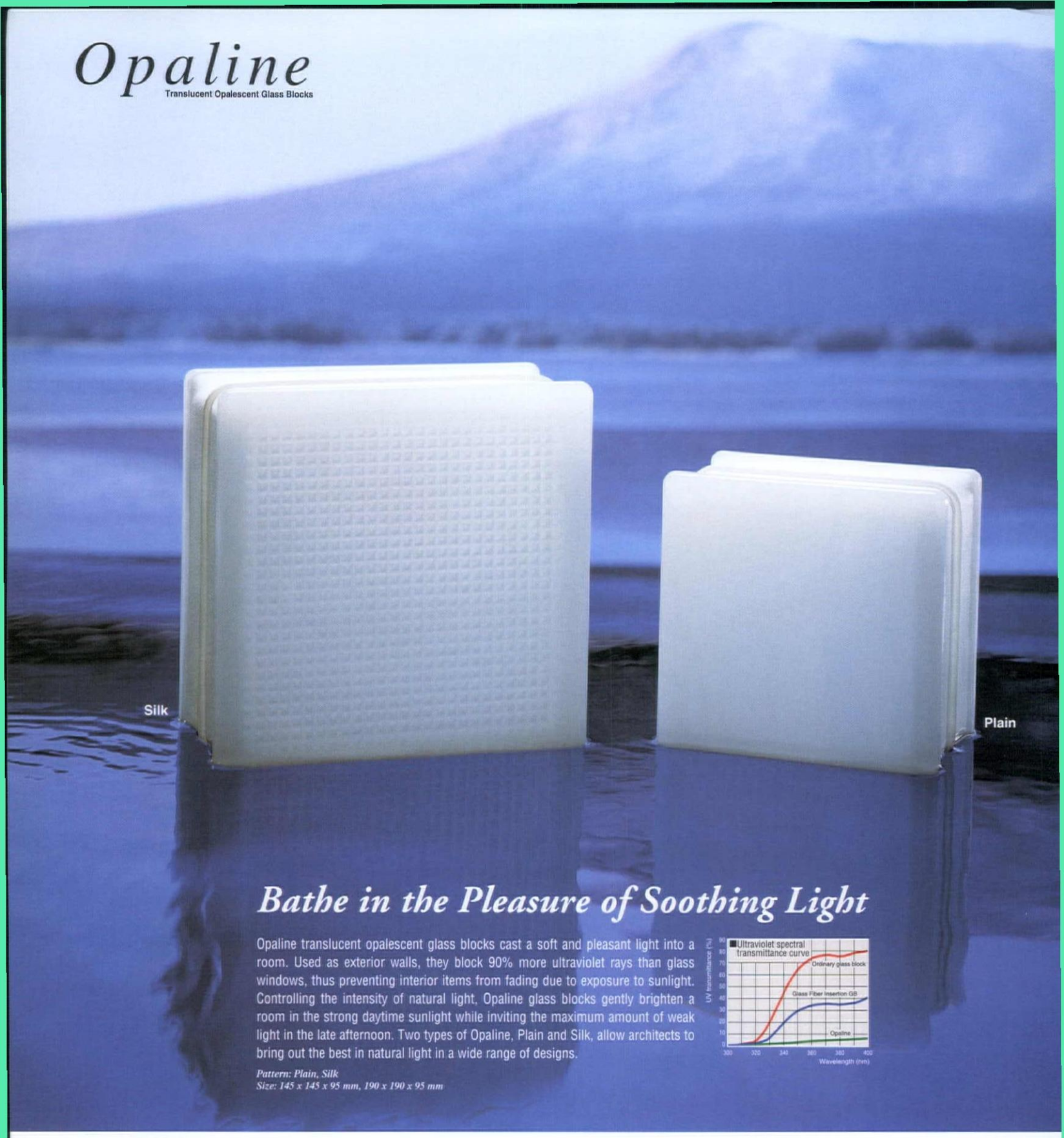


Better Light for a Better Life. iGuzzini

enquiry 16 www.arplus.com/enq.html

Opaline

Translucent Opalescent Glass Blocks



Bathe in the Pleasure of Soothing Light

Opaline translucent opalescent glass blocks cast a soft and pleasant light into a room. Used as exterior walls, they block 90% more ultraviolet rays than glass windows, thus preventing interior items from fading due to exposure to sunlight. Controlling the intensity of natural light, Opaline glass blocks gently brighten a room in the strong daytime sunlight while inviting the maximum amount of weak light in the late afternoon. Two types of Opaline, Plain and Silk, allow architects to bring out the best in natural light in a wide range of designs.

Pattern: Plain, Silk
Size: 145 x 145 x 95 mm, 190 x 190 x 95 mm

Nippon Electric Glass Co.,Ltd.

Building Material Division, 1-14, Miyahara 4-chome, Yodogawa-ku, Osaka 532-0003, Japan
Tel (International) 81-6-6399-2728 Fax (International) 81-6-6399-2740

www.neg.co.jp/arch/

Representatives

Euro-Glashaus, S.L.
Av. Les Roquetes, 13 Nave 2,
08812 Les Roquetes del Garraf,
Barcelona, Spain
Tel: 34-93-811-5666
Fax: 34-93-814-1169
E-mail: info@euro-glashaus.com

TI Tiles International
Glasgow Head Office
Napier House, 7 Napier Road,
Cumbernauld G68 0EF, UK
Tel: 44-1236-787300
Fax: 44-1236-787318
E-mail: sales@tilesint.co.uk

TI Tiles International London Office
Barley Mow Centre, 10 Barley Mow Passage,
Chiswick, London W4 4PH
Tel: 44-2084-006168
Fax: 44-2084-006169
E-mail: sales@tilesint.co.uk

Kowa Europe GmbH
Immermannstrasse 65A
40210 Düsseldorf, F.R. Germany
Tel: 49-211-353444
Fax: 49-211-161952
E-mail: t-tsukamoto@kowaeurope.de

Nippon Electric Glass America, Inc.
Dallas Office
2604 West Marshall Dr., Ste. 102
Grand Prairie, TX 75050
Tel: 1-972-602-1740
Fax: 1-972-602-1760
E-mail: neoparie@aol.com

enquiry 14 www.arplus.com/enq.html

Outdoor luminaire: Focalflood



ERCO

www.erco.com

It lasts longer than most promises.



enquiry 9 www.arplus.com/enq.html

Ceramic Tiles of Italy

www.italiatiles.com

For more information, please contact:

Assopiastrelle – viale Monte Santo, 40 – 41049 Sassuolo (MO) – Italy – tel. +39 0536 818111 – fax +39 0536 807935 – www.italiatiles.com – info@italiatiles.com

Ceramic Tiles of Italy, promoted by Assopiastrelle (Association of Italian Ceramic Tile and Refractories Manufacturers), is a registered trademark of Edi.Cer. Spa, the organizer of CERSAIE the world's largest International Exhibition of Ceramics for the Building Industry and Bathroom Furnishings – Bologna, Italy, September 30 – October 5, 2003. www.cersaie.it

Ceramic Tiles of Italy is a partner of the project Italia Lifeinstyle

i c o n m i n i




Icon Mini Basic


Icon Mini Opal

Icon Mini

Design Mads Odgaard

louis poulsen

Denmark +45 33 14 14 14 · Germany +49 2103 940 0 · Finland +358 9 6226 760 · Sweden +46 8 446 48 00
Norway +47 22 50 20 20 · France +33 1 49 59 68 68 · Netherlands +31 23 56 50 030 · Switzerland +41 1 733 70 40
USA +1 954 349 2525 · Japan +81 3 3586 5341 · UK +44 1372 848 800 · Direct Export +45 33 31 11 66

enquiry 4 www.arplus.com/enq.html



enquiry 15 www.arplus.com/enq.html

ÉCOLE POLYTECHNIQUE
FÉDÉRALE DE LAUSANNE

Faculty Position in Urban and Regional Planning & Design

at the Swiss Federal Institute of Technology Lausanne (EPFL)

The EPFL plans a substantial strengthening of its School of Architecture, Civil and Environmental Engineering.

As part of this broad program, we anticipate several professor positions over the next few years at the tenure and tenure track levels. We seek highly qualified individuals committed to a career in research and teaching, with an interdisciplinary vision and a strong record of accomplishments.

The current opening is in the field of:

Urban and Regional Planning & Design

The appointee will initiate independent, creative research programs and participate in undergraduate and graduate teaching. Start-up resources will be available.

We offer internationally competitive salaries and benefits.

Applications with curriculum vitae, publication list, concise statement of research and teaching interests as well as the names and addresses (including e-mail) of at least five references should be sent by August 31, 2003, to



Professor Laurent Vulliet, Dean
School of Architecture
Civil and Environmental Engineering - EPFL
CH-1015 Lausanne, Switzerland

For additional information on the EPFL, please consult:
http://www.epfl.ch or http://enac.epfl.ch
The EPFL is an equal opportunity employer

enquiry 17 www.arplus.com/enq.html








GASELL PRODUCTS

Unlimited Design freedom

Gasell manufactures a wide range of roofing, cladding and decking products which are proven in use worldwide, on projects of all sizes. Many are unique including Gasell APX long strip special steel roofing which easily accommodates intricate shapes. When coated in Gasell SHINE some of the colours imitate the patina of copper and lead. Gasell Kassetts are high precision, affordable Rainscreen Systems which are quick and easy to install. Also available is a very wide selection of trapezoidal, sinusoidal and half-round profiles in steel and aluminium for roofing, cladding and decking.

Gasell

BUILDING

Gasell Profil AB

Box 7, 231 08 Anderslöv. Landsvägen 68. Sweden
Phone: +46 410 214 00 Fax: +46 410 216 30 www.gasell.com

enquiry 11 www.arplus.com/enq.html

EPFL
ÉCOLE POLYTECHNIQUE
FÉDÉRALE DE LAUSANNE

Faculty Position in History of Architecture

at the Swiss Federal Institute of Technology Lausanne (EPFL)

The EPFL plans a substantial strengthening of its School of Architecture, Civil and Environmental Engineering.

As part of this broad program, we are searching for a Professor of History of Architecture and Building Sciences (full, associate or tenure track assistant professor). We seek highly qualified individuals committed to a career in research and teaching, with an interdisciplinary vision and a strong record of accomplishments.

The candidate will develop a high-quality teaching and research program. He/she will demonstrate competence at international level through recognized publications. This position requires expert knowledge of the history of modern and contemporary architecture and an active interest in the relationship between the history of architecture, architectural design and construction techniques.

The appointee will initiate independent, creative research programs and participate in undergraduate and graduate teaching. Start-up resources will be available. We offer internationally competitive salaries and benefits.

Applications, with curriculum vitae, publications list, a concise statement of research and teaching interests as well as the names and addresses (including e-mail) of at least five referees, should be sent by **September 30, 2003** to:

Professor L. Vulliet
Dean, School of Architecture,
Civil and Environmental Engineering
Swiss Federal Institute of Technology (EPFL)
CH-1015 Lausanne, Switzerland

Additional information about the EPFL is available at http://www.epfl.ch and http://enac.epfl.ch

The EPFL is an equal opportunity employer.

enquiry 13 www.arplus.com/enq.html

view

HAMBURG CELEBRATES ITS WEALTH OF ARCHITECTURAL TALENT; OBITUARY, PHILIP POWELL, ONE OF ENGLAND'S MOST DARING AND CHARMING ARCHITECTS; LISBON, HOW TO BUILD AN EXPO THAT MAKES A LASTING, ENJOYABLE AND STYLISH CONTRIBUTION TO THE CITY; IS ARCHITECTURAL EDUCATION STUCK IN AN OUTDATED PARADIGM?

HAMBURG SUMMER

Hamburg's Architecture Summer is a festival of the built environment whose expansion reflects the city's increasing diversity and design exuberance.

From 30 exhibitions in 1994, Hamburg's triennial Architecture Summer has now grown to over 200 happenings held in museums, cafés, shopping arcades, and even under open skies – weather permitting – between May and November. Perhaps due to Hamburg's recent disappointment in failing to become Germany's candidate for the 2012 Olympics, this year's Architecture Summer had a profile-raising grand opening at the Rathaus. The government dedicated itself to development on both sides of the Elbe, including low income and immigrant areas, and architect Jürgen Böde took the opportunity to demand a Hamburg Building Academy, in which architectural training, now spread between several institutions, could be rationalized.

Hamburg's former building director, Egbert Kossak, tolerated no architectural fireworks in his restoration of a war-damaged metropolis, but today, according to Ullrich Schwarz of Hamburg's Chamber of Architects, 'Every style and trend has arrived in the city, albeit in modest form'.

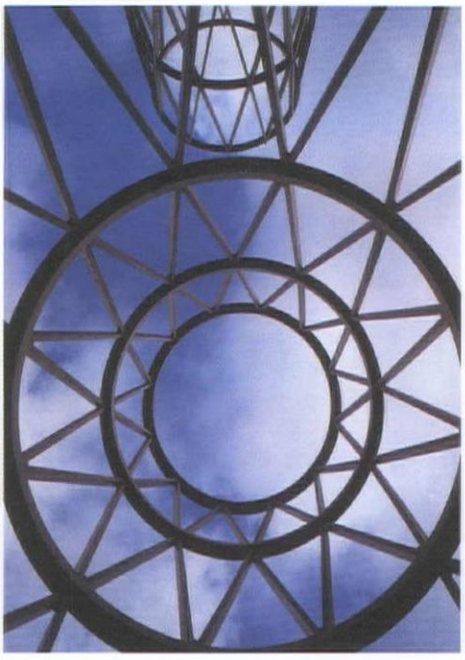
In choosing the umbrella title 'Modern Ways' for its fourth *fête d'été*, Hamburg celebrates the fact that there is no longer a single vision of architecture, borne out by its own evolution over the last decade. The city has developed far beyond Fritz Schumacher's brick facades – Foster, Miralles, Fuksas, Alsop, Citterio, and Atelier 5 are among those who have made recent contributions.

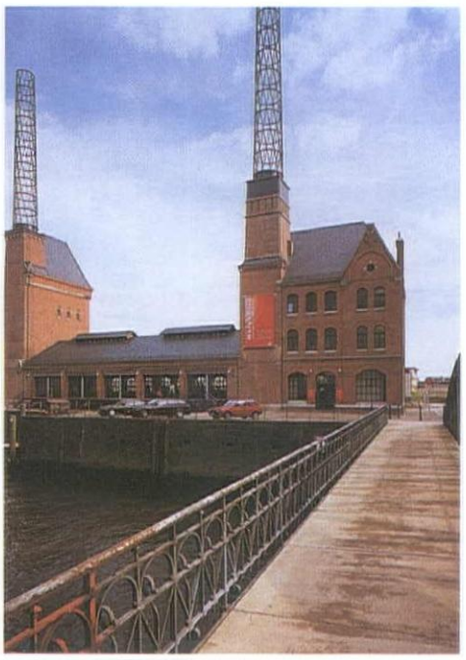
Hamburg's HafenCity alone is the focus of 14 art and architecture events. At the heart of this customs warehouse and port area, the Kesselhaus (Boilerhouse) InfoCenter is showing works in progress. Hamburg is both land and water and its position on the Elbe is explored with national competition entries for a moveable bridge, a historical survey of cities on the sea (with Le Corbusier sketches and a digital view of Shanghai), and a social chronicle of harbour working conditions. There is even a tour of building sites with live music accompaniment. On the less privileged south bank, the revitalization of Harburg's canals is featured in an exhibition of live projects and Stefan Behnisch presents his work at an art gallery in Harburg's railway station.

The well-received Arne Jacobsen retrospective, Absolute Modern, held to mark his centenary, comes direct from Denmark's Louisiana Museum. Along with a comprehensive overview of Jacobsen's architecture, furniture, paintings, photography, textiles, posters, and landscaping, there is also a full-scale reconstruction of a room from the SAS hotel. Hamburg itself boasts some examples of the master's work; the HEW offices (1969), and the Christianeum high school (1971).

Fritz Höger's Chile Haus, Hamburg's best known architectural landmark, was the inspiration for the Architecture Summer logo and another aspect of Höger's work is revealed in the new exhibition, *The Other Moderns of Fritz Höger*, with some 200 exhibits that have never been shown before. Generally, the programme of exhibitions strikes a good balance between the historical and contemporary, with German and Hamburg architects prominently represented. They include *A Reflective Modernism* (first shown at last year's Berlin UIA conference), *25 Years Building in Democracy* and *Made in Hamburg*. One of the few German architects with an international profile, Hamburg-based von Gerkan Marg und Partner present a show of an astonishing 70 projects in China, of which 14 are already built or under construction.

The diversity of subject matter is impressive. Photographs of Venetian Palaces by Carlo Ponti and the nineteenth-century landscaping of Joseph Ramée rub shoulders with nomads' tents and megacity Bombay. Even a feng shui consultant has found a niche to soothe troubled speculators. (Criteria for inclusion are, admittedly, sometimes mystifying.) Though the bandwagon sometimes tends to be weighed down by obscure installations masquerading as architecture and architecture as art, does it matter? Taking part is everything and Hamburg's summer festival is still welcomingly inclusive, allowing everyone a chance to perform. LAYLA DAWSON

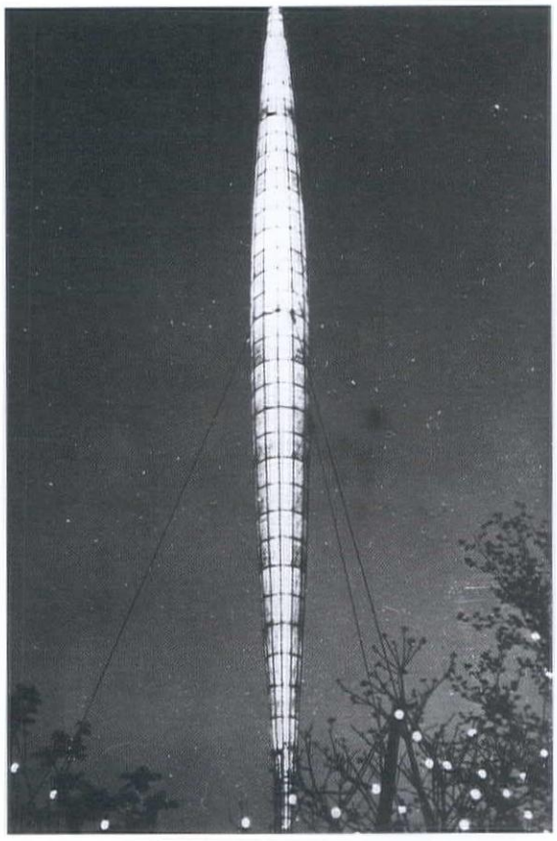




Kesselhaus, Hamburg-Speicherstadt by von Gerkan, Marg und Partner revitalized in Hamburg's HafenCity: the Boilerhouse, which shows the most exciting projects in the city, with new abstracted chimney landmarks.

For more information: www.architektursommer.de





Powell & Moya's Churchill Gardens in Pimlico, left: the Civic Trust's 40th anniversary award-winning project (1950); and, right, the Skylon at the Festival of Britain (1951).

obituary

PHILIP POWELL 1921-2003

'Not all geniuses were as likeable as Philip.'

Philip Powell, who died on 5 May, was one of the masters of British postwar Modernism; as an architect of unrivalled popularity, together with his lifelong partner Jacko Moya, he brought refinement to Modernism where others imposed Brutalism. Within a prolific partnership that spanned more than 45 years, Powell & Moya produced work that was not only socially charged – setting new standards in housing, healthcare and education – but which also led a generation by producing inspirational icons such as the Skylon and their British Pavilion at the Osaka Expo in 1970.

Having completed buildings throughout Oxford and Cambridge during the late '60s and early '70s, the quality of their work was duly recognized with the first partnership award of the RIBA Gold Medal in 1974; followed more recently when their very first commission – Churchill Gardens in Pimlico, London – received the Civic Trust's 40th Anniversary Award in 2000 for the most outstanding of all winning schemes.

He was a part of a highly motivated and optimistic generation of British architects for whom innovation and regeneration were key concerns. Attitudes that remained with him throughout his career right through to his more recent personal contribution to the Festival of Britain's 50th anniversary celebrations in 2001.

In this extract from his recent tribute speech, Leonard Manasseh speaks personally and fondly of one of Britain's most respected postwar architects, Philip Powell (15 March 1921 - 5 May 2003).

'Not all geniuses were as likeable as Philip. Philip was one of the cleverest people I have come across in my life – clever in every way and profoundly knowledgeable: a latter-day Renaissance man. (But the Renaissance does not come to mind as being particularly funny, though the Borgias were a bit bizarre.) Philip on the other hand had a wonderful, hilarious and irreverent sense of humour.

'As an architect and admiring observer I will touch briefly on Philip's architectural partnership with Hidalgo Moya. Theirs was an amazing practice: I shall not dwell on their work, which is known to most of us; the wonderful hospitals, for instance, like the great landmark looming in the landscape near Swindon.

'I can't remember precisely when I first met Philip; it could have been at the AA, before or during the Second World War, when the Architectural Association was evacuated to Mount House on Hadley Common between Barnet and Potters Bar. What I do know is that Philip and Jacko Moya were involved in the Festival of Britain as was I. Comparisons, I know, are odious, but while I was designing the '51 BAR and the upstream Loos, they were designing miracles like the Skylon. Philip generously ascribes it mostly to Jacko but knowing them both it could only have been a joint effort.

'Felix Samuely, the famous engineer working with them, is reported to have said about the Skylon that all he had to do was to check their calculations. Knowing Philip and Jacko and Samuely that rings true to me: it would have been an achievement for a brilliant engineer, let alone a couple of young architects. It was, quite simply, genius.

'I shall never forget the Skylon. It was brilliant and beautiful but, like so many beautiful things, destroyed by political rivalry. The Festival of Britain was a Labour concept and when the Conservatives won the next election, they destroyed or removed everything except the Festival Hall. The beautiful, wonderful Skylon which truly should have been kept was removed. The London Eye near County Hall is wonderful but Philip and Jacko's Skylon would have looked magical. My Loos would have been useful too.

'As an RA [Royal Academician], at general assemblies and as treasurer, whenever he spoke it was precise, often very funny and always pungently to the point. Philip was kind and courteous, and like many great men, absurdly modest. Like some, not all, he tried ceaselessly – but fruitlessly I am happy to say – to conceal his own brilliance.

'I am not related to Philip's family in any way. You can almost hear Philippa, Dido and Ben whispering, 'thank goodness for that', echoed by Philip wherever he is. But I am privileged and proud to have known Philip and to have been, I hope, a friend. This is an inadequate tribute to a remarkable man. The broadsheets, I know, have ranged widely and in detail over his achievements, but none I think has touched on his Humanity. I wish his fine family well – Philippa, Dido, Ben, the grandchildren and others that I may not know. As for Philip, I can say – with all my heart – that I shall miss him.'


As a guarantee of the inimitable quality of the Original, each STRASS® cut crystal component carries the laser-engraved quality signature, indelibly etched into the body of the crystal.
STRASS® Crystal Fairy Wing
Swarovski Crystal, the perfect cut, trend inspired interpretation.
And your lighting design comes alive.
STRASS® Swarovski Components The Brilliance of Lighting
For further information please contact your lighting manufacturer or:
Swarovski Aktiengesellschaft
Dröschistrasse 15, Postfach 567
FL-9495 TRIESEN
Tel. 00423/399 5511, Fax 00423/399 5010
www.swarovski.com
The Original • Made in Austria/Europe •
STRASS
SWAROVSKI
COMPONENTS
enquiry 3 www.arplus.com/enq.html



Philippe Starck has never avoided the obvious, particularly in his new first-class lounges for the Eurostar trains going under the English Channel. Left is London, with chandelier posed against Grimshaw's High-Tech. Right, sub Barbarella, Paris.

browser

Soaring on his eagle-like electronic wings, Sutherland Lyall surveys the wonderful web.

Sliced toast

The Adam brothers came down to London to make their fortune, and so did a lot of writers and engineers and politicians – and such later architects as Charles Rennie Mackintosh. A lot of good it did him. Despite the regular grumbles of one contemporary Edinburgh architect (with an Irish name, Richard Murphy, who actually hails from Cheshire), Scots architects do get quite a lot of work in their home country – and do it rather well. We in the fleshpots of the wicked South might not have been much aware of all this had it not been for architect Adrian Welch who runs two major websites: *www.edinburgharchitecture.co.uk* and *www.glasgowarchitecture.co.uk*. The marginally better (and elder) of the two is Edinburgh and it's very good indeed.

The index page is 14 thumbnails long and covers such things as maps, tours, news, interiors, dining, unbuilt design, links and a search page. No, since you were going to ask, there's no Callicrates or Ictinus which is just as well since this is about contemporary Edinburgh architecture and not the old stuff.

There are a few slow loading passages and a few rough edges in terms of spelling and writing, but Welch is an architect – not a hack. I don't want to get too carried away about sites based in the land of my great grandfathers but this is the work of one bloke with a bit of financial support from far too few Scots practices and some sponsorship. He updates it daily, fills even the louche Southern web browser with wild admiration and does far more for the idea of architecture in Scotland than the panjandrums of the old Corporation of Scottish Whatsits could ever imagine possible. Extraordinary, especially when he also runs a similar website for Glasgow architecture.

Institutional excitement. Not

All right, let's be fair to the Royal Incorporation of Architects in Scotland (as they are more accurately and quaintly known – though not as quaint, as this column has pointed out before, as Republic of Ireland architects being members of the Royal Institute of Irish Architects, of which country more in a minute). But for all its good intentions, the RIAS site is an unimaginative old thing. The designers have done things like using identical pictures to illustrate different pages – more likely, you think, they couldn't be bothered to get around to making each page fresh and interesting and … Anyway it's at *www.rias.org.uk*. When last sighted the second lead news story was 'New £5000 powder coating award launched' and the front-page picture seemed to be a truncated three-dimensional grid of rooms squeezed through the middle of a big curved blank wall in the shape of a 1950s boomerang table leg.

Not the Irish Institute

Still on our British Isles tour, the relatively new Irish site Archeire, aka Irish Architecture Online at *www.irish-architecture.com* (although it may now be *archeire.com*), spawned Archiseek at *www.archiseek.com* which we reviewed briefly three years ago. This is not a global architecture search engine but, more interestingly, seeks to 'create discussion on architecture between architects and the public'. And there it is in the site's chatrooms whose topics range from Irish, world and Portuguese architecture, to jobs, student issues, and so on. There is a planning news section, competition announcements, events, online polls, book reviews and things like that. The site's growth zone seems to be its architectural guides – though so far these are to places such as Winnipeg, Inde-et-Loire and Edinburgh. Still, put it in your Maybe file in Favourites and watch it develop slowly. Recently Archeire had a lot of construction shots of Ian Ritchie's 120m steel spire in Dublin, built to replace the Nelson Pillar which some sad people blew up in 1966. Archeire is not, incidentally, the Irish institute's site. It's at *www.riai.ie*.

Cool clean makeover

A couple of years ago Richard Meier's website was offhand to a degree – as we described it then, 'infrequently tended'. Now it has been revamped with quite a lot of changing and zooming images, elegantly arranged text, lots of white, like the architecture, and utterly simple and accessible. Projects can be checked out alphabetically or by date or type. Click on 66 and, following a brief period, measured by a horizontally sliding bar mapping loading time, up pops a Golden Section box with a square image of this New York restaurant on the left and the explanatory text in sans serif on the right. You can view two more images of the same place, deploy an unobtrusively dotted grey-on-white slider to read more text – and, where the previous text was a tad florid, this is pretty much plain and descriptive. You can also click on a bibliography to see where to read reviews. Michael Palladino runs the West Coast office. If only his parents had left off the n and called him Andy. But then he might have become a dentist.

Local girl makes good

Bit local this, but it's billed as America's only – and first – design and architecture radio show. Despite the inherent difficulties of sensibly discussing visual arts in words-only, it apparently runs for half an hour at 2.30 on the first and third Tuesday of the month. Work out your own local times. But do listen. Los Angelenos can tune in to DnA (Design 'n Architecture) at 89.9 FM KCRW and others around the world can use their web browser to access the broadcasts at *www.kcrw.com*. There's a nice and even more local twist: DnA is run by *New York Times* stringer Frances Anderton, who until not that long ago was pounding the keyboards as assistant editor on this very organ.

Sutherland Lyall is at sutherland.lyall@btinternet.com

letters

CENTRE ON ARTISTIC MAN: RELAX

SIR: With my February 2003 issue lost to the local postal system, I have only just seen Charles Jencks' New Paradigm article. There is something new going on, but it is not right to say the new stuff is better than the 'boring incessant repetition' of the old. Just as soon as the world is full of twisty stiff pseudo-nature, the Casa del Fascio will appear and dazzle us like we are apemen. The new work can be placed between partitions, but in the spirit of Chaos theory it all iterates from simple base rules. Architecture is a resolution of reason-rationality and emotion-artistry, in Classicism the rhythm of the Orders versus the material and carving of them, but in the Modernist period the order versus nothing, often. It's not all been bad, but this legacy, the need to rationalize ALL aspects of design, has been a problem. To try to return to making compelling 'artistic' architecture, we have all been burdened by the need to justify it. Some of what's been called 'critical regionalism' does not look too different (eg Pietila) from the current work, but the explanation, necessary for the critics at least, is there in the title applied to the movement.

Fractal geometries may be merely the latest justification for a way to 'decorate' and elaborate our architecture, and if it works and the results are great, then fine. But it is wrong to think that this is different from the post-war morality that said new buildings must be (spiritually) clean and white (where 'nothing' IS something), or, later, should for example reflect a deconstructivist view of the world. Just styles. So we choose, and computers, new materials, new techniques, enable us to build things we could not before. It is wrong to imply that because there is a new scientific story of the world we are inevitably bound to follow it, or that we are duty bound to try to follow it. This is historicism, and sits comfortably in the old modernist 'hegemony' Jencks thinks this is beyond.

Robert May, a pioneer of chaos theory, takes the view that it has no insight for innately complicated systems, just that extremely simple rules can lead to apparently very complex results (though I'm sure Michael Crichton exaggerates the abilities of the self-replicating nanobots in his new novel – if not then buildings will one day be made this way). Buildings are complicated; they have things to do and functions to fulfil. The theory does not apply. But the 'new' scientific view of the world depends on other theories, quantum theory certainly, and games theory. There are lessons here, specifically on the limits of simple logic. In games theory, especially in the famous 'Prisoner's Dilemma', the startling observation was that the only rational choice might not be the right one. The whole environment must be considered, and the long-term involvement in it.

Quantum theory destroyed the notion of simple determinism: if this, then that. In Michael Frayn's play 'Copenhagen' there is a great speech by the Niels Bohr character describing man's position through history, first tiny unknowing figures under God, then the measure of all things in the Renaissance, before being sidelined again by classical mechanistic physics. Then the world is turned inside out by quantum physics, and Man is placed back at the centre of universe – as so much of what is real depends on his point of view. The lesson to be taken from all of this science and theory is that man the creative artist can stand again at the centre; relax, be creative, it's OK. This is what we see now, and if some rely on computer generated patterns, so be it, but it may be a weakness, not a strength. Fractals can help teach us why we find natural materials attractive, but a house is not a tree. It is interesting to consider whether the work of Libeskind, who also relies on 'external' generators, is thereby constrained compared to the freer but traditionally developed designs of Gehry. There is the rational stuff, there is the artistic stuff; the latter can but does not need to lean on the former.

Yours etc
MICHAEL GREVILLE
Kuala Lumpur, Malaysia

IRREVERSIBILITY, THE DOWNFALL

SIR: Ayssar Arida is to be commended on his letter drawing our attention to the new paradigm. It is, of course, not confined to architecture and the paradigm shift already goes by several names, the most helpful being that of the transition from Mode 1 to Mode 2 as described by Gibbons et al in their book *The New Production of Knowledge*. Mode 1 is the old, hard-edged Cartesian paradigm. Mode 2 is the new paradigm dominated by contextual relationships, by its softness and by its scorn for theory. It is largely skills-based, and therefore another statement of the paradigm shift is that of the invagination of the relationship between skills and knowledge. Everyone reading this letter will have acquired their skills as incidentals to their knowledge base. Our successors (starting now) will acquire their knowledge as incidental to their skills. A 180 degree turn no less. This indeed is a remarkable time to be alive.

Ayssar Arida may nevertheless be optimistic in his time scales. It has taken more than three hundred years to establish the Cartesian paradigm (Mode 1) and against minimal opposition. It may take longer to replace it with its successor (Mode 2), the greatest obstacle being the present practitioners and, not least, the professors of architecture whose current status is only justified by their adherence to the old paradigm.

Regrettably, we are never in a position to wipe clean the slate of established wisdom. Irreversibility may be the downfall of all civilizations at all levels simply because the cost of changing course can easily exceed the cost of continuing the status quo. The new Scottish Parliament building springs to mind.

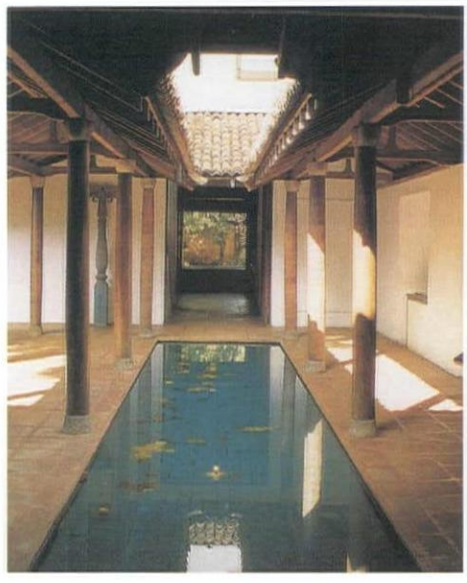
I hope that nevertheless the architectural profession will at least embrace the arguments even if, in the end, they and we cannot yet make the leap into the future described by Ayssar Arida.

Yours etc
GRAHAM HILLS
Edinburgh, Scotland

FLAGGING UP THE BAWA SHOW

SIR: There are – as Michael Brawne writes in his review of the book about Geoffrey Bawa (AR June, p96) – not three but perhaps four essential steps: to buy the book, get a ticket to Sri Lanka, look at Bawa's buildings – or visit the exhibition on Bawa in the German Architecture Museum DAM. It opens on 23 July (until 16 October) 2004.

Yours etc
INGEBORG FLAGGE
Director, German Architecture Museum, Frankfurt, Germany



Bawa's house for Dr Bartholomeusz, in Colombo, 1961-1963: local and Modernist elements intermingle.

CEILING SYSTEMS

[Between us, ideas become reality.]

Armstrong raises its voice...



...and offers the widest range of acoustical solutions

The ultimate control of acoustics requires **sound absorption, sound attenuation,** and even **sound masking...**
Armstrong provides the widest range of acoustical solutions in a variety of textures and materials: mineral (including soft fibre), metal and wood.

FREEFONE 0800 371849 (UK)
FREEFONE 1800 409002 (ROI)

www.armstrong-ceilings.co.uk
sales-support@armstrong.com

Armstrong

enquiry 5 www.arplus.com/enq.html



Lisbon's relation to the Tagus and the sea is essential, and has informed the culture from earliest times.



In the city's great square, the Praça do Commercio, the government looks out towards the sea.



The village of Óbidos was winner of this year's Stone Architecture Award, with ...



... beautifully crafted landscaping linking all major places in a tight network.

View from Lisbon

In Portugal, traditions of craftsmanship and urbanity are translated for the modern world by a masterly group of architects working in stone and concrete.

I have been in Lisbon for Tektónika, the annual Portuguese international building and construction fair, which is held in the four spacious pavilions lined up along the Tagus built as part of the Expo 98 development (AR July 1998). I had imagined that an Expo site five years on would have the look of a declining funfair, something like poor Margate's Dreamland. Far from it: now renamed Parque das Nações, it has become a popular site for Lisboners, and they swarm not only into the Vasco da Gama shopping centre but also to the aquarium, the restaurants, the gardens, and the cable car. At the time of my visit a military ceremony of some kind was going on in Álvaro Siza's Portuguese Pavilion. Squadrons of soldiers, sailors, airmen, and policemen in dress uniform were lined up under its great swooping canopy while a band improbably played Eurotrash lift music. The river glittered behind. It was like a modern version of the Field of the Cloth of Gold: Siza's roof providing a huge tent, the most splendid in the world.





Sintra, one of the most delicious places in the world, threatened by global companies and excessive tourist mobility.

The Tektónika fair was altogether a more enjoyable business than our own dear Ideal Home Exhibition, and not just because one leaves to the Tagus, rather than to the Earls Court Road. Although all the big European names were there, the tremendous displays of local marbles and ceramics, the country's principal building exports, gave some pavilions a Portuguese flavour. While the fair was in progress, the Portuguese architects' institute held an international congress on natural stone architecture and construction, which culminated in a ceremony for the winners of the 'Stone Architecture Award', an annual architects' prize for a scheme making the most original, most sensitive, and most technologically appropriate use of stone.

This year's winner was a scheme by José Lamas and Associates for a landscaping project adjacent to the ancient castle in the village of Óbidos, near the coast approximately 70km north of Lisbon towards the Atlantic. This is a picture-postcard mediaeval walled village, with a fortress towards its northernmost point. The fortress itself was originally established during the period of Moorish occupation, and its keep dates from the fourteenth century; it has long been in use as the first, and perhaps the most romantic, *pousada*, a state-owned guest house. The small triangle of land enclosed by the village walls to the north of the castle, high above the plain (and the railway station), was until recently an almost barren outcrop.

Lamas' plan, which was the winner of a public ideas competition in 1991, transforms this area into a tight network of small open public spaces, including an amphitheatre, green areas and pathways, and a place for open-air events for which the surrounding landscape provides a wonderful backdrop. The architect has incorporated both stone and concrete into a landscape installation that both complements and highlights the medieval work that surrounds it. The final stage of the project, due for completion next year, will incorporate a funicular railway that climbs the castle ramparts from the north, and a serpentine landscaped path down to a tiny extramural chapel that has its origins in a Roman temple of Jupiter.

Lamas' clients were the local town council and the Portuguese Institute of Cultural Heritage: João Regal, of the architects' institute, tells me that in choosing this scheme and in supporting it through what turned out to be a difficult process of planning approval and detailed design, the public authorities chose to take a risk: Lamas' scheme is bold, 'modern' in the old-fashioned sense; and entirely devoid of sycophantic references to historic architecture. Further inspection shows that both runners-up to the Stone Architecture Award also enjoyed

the unqualified support of public bodies. The second prize went to the well-known practice of Eduardo Souto de Moura, for the reshaping of the sea promenade at Matosinhos, just north of Oporto; and the third to Manuel Maia Gomes, for work including additions to and refurbishment of the town hall at Vila do Conde. The casual visitor cannot easily determine to what extent Portugal still has a buoyant and imaginative public sector, relative to other European countries; but many urban projects evidently carry the stamp of public interest and public gain. An extension to Lisbon's metro will soon connect Santa Apolónia, the city's principal railway station, to the Baixa-Chiado area, and Chiado itself is so well restored following the fire of 1988 that the seams between old and new would be undetectable, were it not for the superb workmanship of some of the latter. Siza is still at work here as *projectista*, as at least one enormous building site nameboard on the Rua do Alecrim makes clear.

Here and there are the familiar signs that public interests have fallen into the hands of the private sector. On leaving the railway station at Sintra, of all places, I was surprised to find myself confronted with a bus stop decorated with a horribly familiar-looking logo. Although the company identified with that logo sold out a couple of years ago, the new operator has not yet repainted its fleet; so for the time being the languorous tall conic chimneys, the domes and the terraces of the Palácio National, that stretch into the sky and preside over the beautiful landscape of vines, exotic gardens and orange groves that once attracted Beckford and Byron, must share tourists' photographs with the hideous red, orange, white and blue livery of the brash British bus company 'Stagecoach'.

This at least prepared me for the journey home. On returning to London, I found that the lobbies around the council chamber in London's County Hall have been converted into Saatchi's private art gallery. You can now pay the staggering sum of £8.50 to pass thuggish security officers to see some formerly sensational artworks pinned tackily onto walls; the former municipal palace, once the engine of London's local government, is now reduced to housing a commercial freak show as well as a Chinese restaurant and a burger bar. Would this have happened in Lisbon?

TIMOTHY BRITTAIN-CATLIN



In Lisbon: the grave detailing of the nineteenth-century city buildings ...



... contrasts with the filigree of Calatrava's station for the Expo site ...



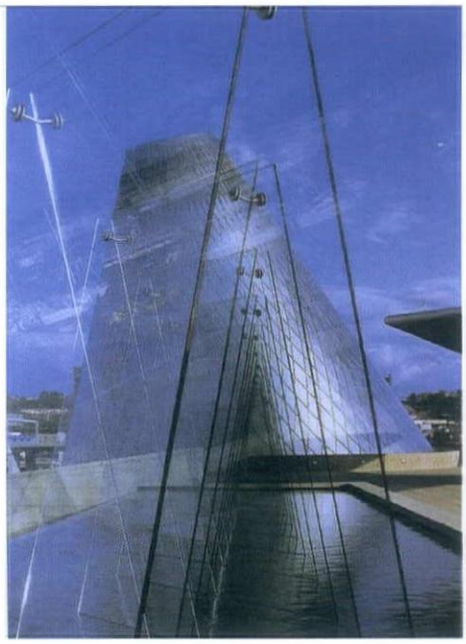
... where Siza's Portuguese pavilion is still a marvel of elegance ...



... set within splendidly maintained gardens. For once, an Expo that worked.

August

The August issue of The Architectural Review is concerned with those essential ingredients of architecture, particularly important in the last two centuries: transparency and the penetration of light. Light transmitting technologies are perhaps changing faster than any others in building, offering many remarkable possibilities to architects, who are themselves responding with wit and innovation. We shall look at Schneider & Schumacher's new offices for Erco, the distinguished lighting company at Lüdenscheid in Germany, Herzog & de Meuron's Prada store in Tokyo and the pharmaceutical factory at Biberach in Germany by Sauerbruch Hutton, the masters of colour in glazing. Also in the issue are Arthur Erickson's spectacular and entertaining glass museum at Tacoma, Washington State. Again in the USA is Tadao Ando's latest adventure into museum design which complements Kahn's Kimbell at Fort Worth. Fumio Toki's satellite building for Japan's national library in the middle of the Kyoto countryside at Kansai's science campus, is a remarkable exercise in the qualities of translucency, made possible by modern technology used with great restraint. And we shall have the usual stimulating mixture of Interior Design (including Boris Podrecca's refurbishment of the Ca'Pesaro in Venice), Delight and our lively View pages. In August, the Design Review section will be devoted to Niall McLaughlin's inventive digital studio workspace for Oxford Brookes University. Buy this and 11 other issues by completing the enclosed subscription form or click on our ever expanding website: **www.arplus.com**





Innovation C from Inform Furniture: joint winner



Innovation C from Inform Furniture: joint winner



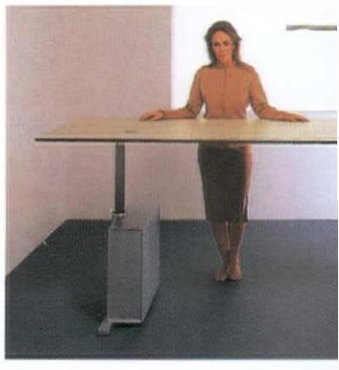
Sting from Inform Furniture: highly commended

Now a regular fixture of Spectrum, the annual international furniture and interior design fair held at the Commonwealth Institute in London, the AR Awards for Excellence attracted an encouraging diversity of entries (previewed AR May 2003). Awards are made for the best new products in the show, and this year's judges were Clare Wright, of Wright & Wright Architects, Niall McLaughlin, of Niall McLaughlin Architects and me, the AR Managing Editor. Judges were looking for qualities such as inventiveness, originality, elegance and fitness for purpose. After a thorough survey of the stands and some lively debate, they singled out two joint winners and five highly commended entries.

First joint winner was Innovation C, a multi-functional swivel seat designed by Swedish designer Fredrik Mattson and distributed by Inform Furniture. Shaped like the letter C, this innovative sculptural seat allows the occupant to sit forwards, backwards and sideways, depending on use. Upholstery options include fabric, leather and even rubber (the black rubber number particularly impressed the judges). They also liked its sinuous form, versatility and, after a day spent trying out an assortment of designer chairs, were struck by how comfortable it was. Second joint winner was Feltro Color, a wall and

Spectrum of talent

The AR's Awards for Excellence are an established and popular feature of London's Spectrum annual design show. Here we review the products premiated by the jury.



T60 from Munch: highly commended



Feltro Color from Natural Elements: joint winner



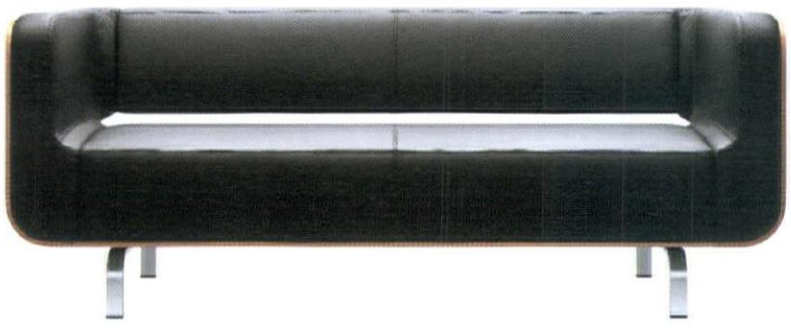
Bloob from Roneo: highly commended

floorcovering system using Ruckstuhl felt carpets and distributed by Natural Elements. Available in seven colours, the density of the felt gives it excellent resistance to wear and tear and staining (impressively proved in hands-on demonstration). The judges liked this new take on a traditional material and were seduced by the tactility, colour and robustness of the felt panels.

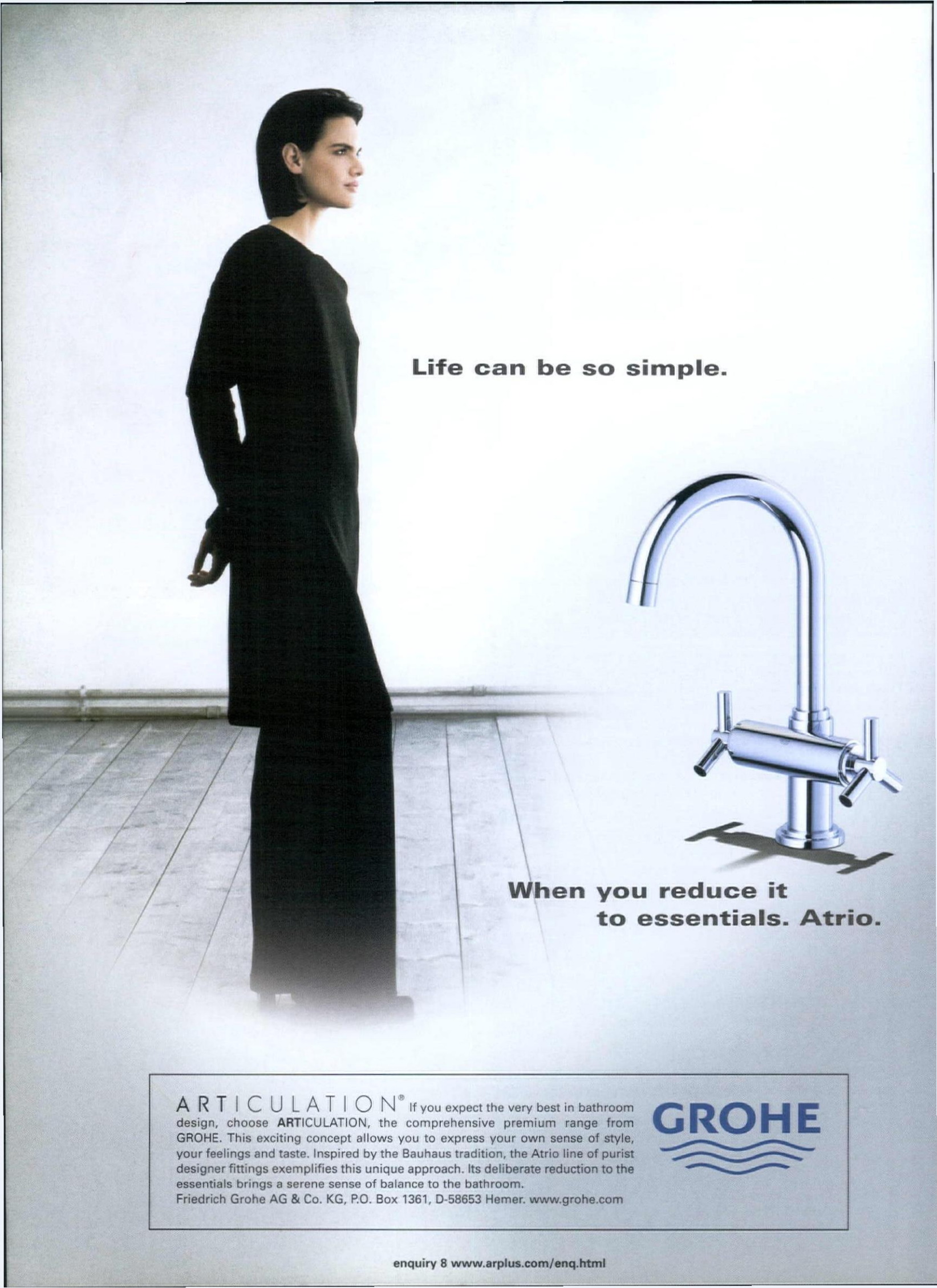
Highly commended awards were made to Bloob, a flexible sofa seat resembling a giant bean bag, designed by Antidiva and distributed by Roneo; Program 4000 Sofa, designed by Jehs & Laub and distributed by Thonet; Sting, a wonderfully minimal aluminium and stainless-steel chair designed by Fredrik Mattson & Stefan Borselius and distributed by Inform Furniture; and T60, an ingenious adjustable table designed by Justus Kolberg & Erik Simonsen and distributed by Munch. The final highly commended award went to Genus, a stacking chair designed by Komplot Design from Denmark and distributed by Howe. This was singled out for its simplicity, elegance and thoughtfulness to cleaners (its distinctive squiggly arms allow it to be effortlessly suspended from tables for cleaning around), thus elevating and transforming a mundane aspect of daily life, surely one of the cardinal aims of all good design. CATHERINE SLESSOR



Genus from Howe: highly commended



Program 4000 sofa from Thonet: highly commended



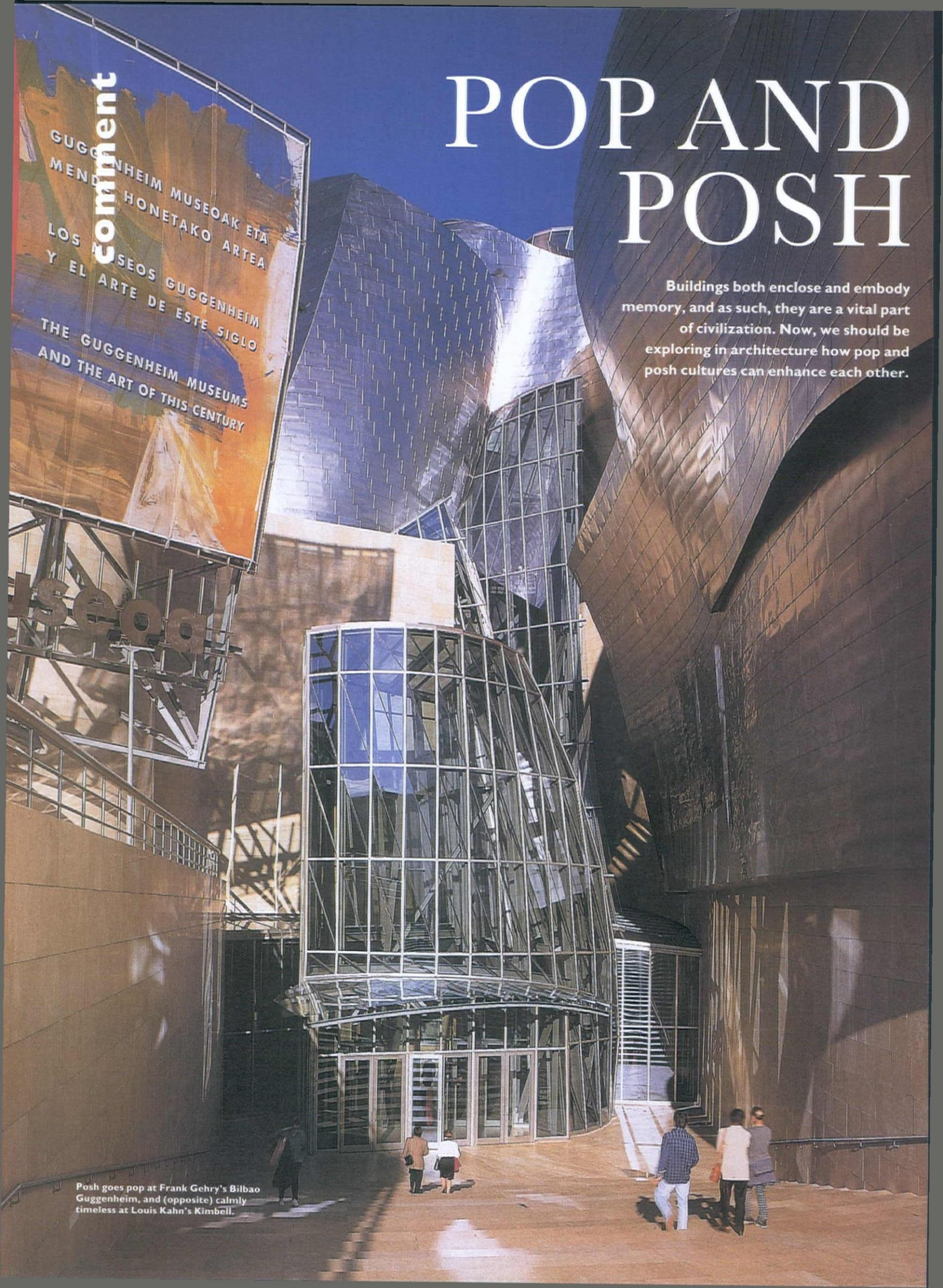
ARTICULATION® If you expect the very best in bathroom design, choose **ART**ICULATION, the comprehensive premium range from GROHE. This exciting concept allows you to express your own sense of style, your feelings and taste. Inspired by the Bauhaus tradition, the Atrio line of purist designer fittings exemplifies this unique approach. Its deliberate reduction to the essentials brings a serene sense of balance to the bathroom.
Friedrich Grohe AG & Co. KG, P.O. Box 1361, D-58653 Hemer. www.grohe.com

GROHE

enquiry 8 www.arplus.com/enq.html

POP AND POSH

Buildings both enclose and embody memory, and as such, they are a vital part of civilization. Now, we should be exploring in architecture how pop and posh cultures can enhance each other.



Posh goes pop at Frank Gehry's Bilbao Guggenheim, and (opposite) calmly timeless at Louis Kahn's Kimbell.

www.arplus.com

The Architectural Review website: online inspiration

- Up-to-date information on architectural and design exhibitions, competitions and events
- Directories of architects, organizations, websites and photographers. Selected articles from the magazine, book reviews and jobs
- News on the ar+d competition
- Subscription information and application forms

Be inspired – log on today

THE ARCHITECTURAL REVIEW

architects' aj
working details 9

Architects' Working Details Volume 9 is a selection of details published in the Architects' Journal between 2000 and 2001. Covering buildings that range from large office buildings and visitor centres to small domestic extensions and conservatories, it provides a practical resource of building details for working architects, designers and students.
This ninth volume has a total of 43 details, on:

- External walls and windows
- Roofs and canopies
- Staircases
- Small buildings, extensions and conservatories
- Balconies, screens and shutters
- Interiors



architects'
working details
1 2 3 4 5 6 7 8 9 the series

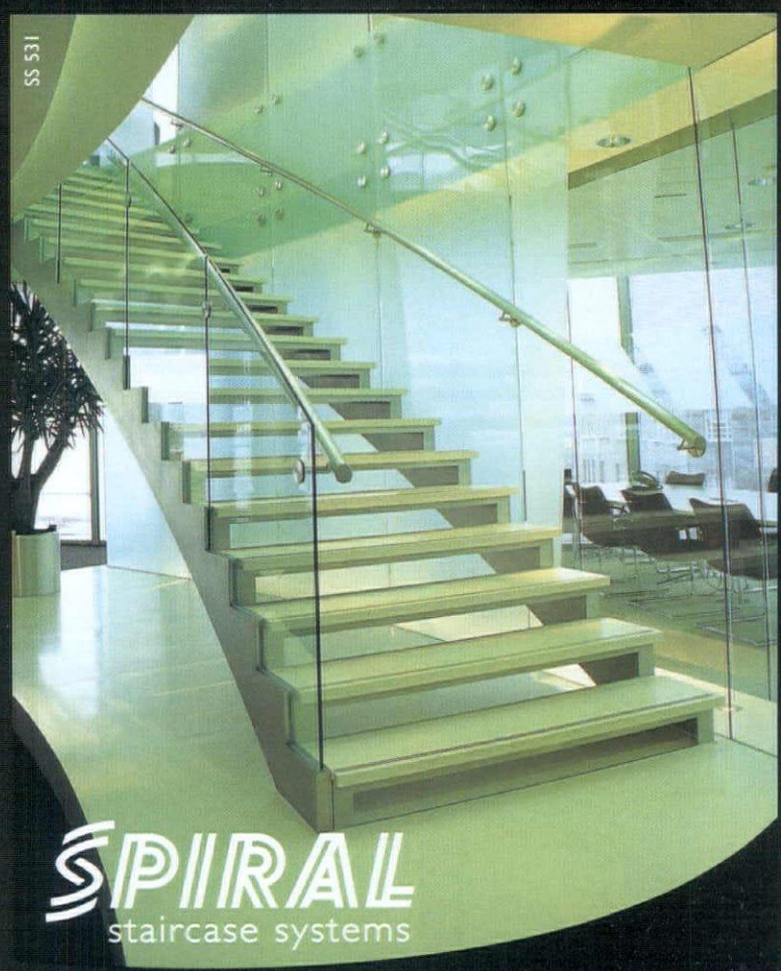
If you are searching for inspiration or want to see how new materials and components are being handled by other designers, then the Architects' Working Details series is the place to look. It could save you reinventing the wheel, or you may just be curious – you saw the building in the AJ and want to know how they did it.

When you buy Architects' Working Details Volume 9 priced £18.99, get volumes 1-8 for just £9.99 each.

To order, please call **0207 505 6622**
or e-mail **brebookshop@emap.com**

DESIGNED FOR LIVING





SPIRAL
staircase systems

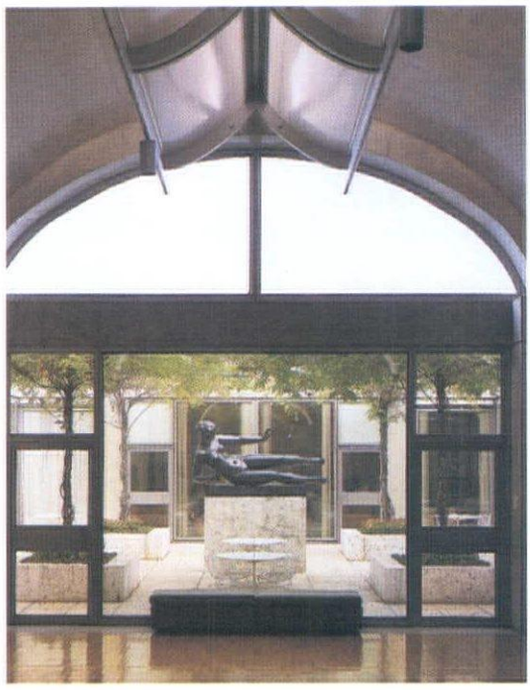
01273 858 341

E-mail: info@spiralstairs.co.uk www.spiralstairs.co.uk
Spiral Staircase Systems, The Mill, Glynde, East Sussex BN8 6SS

enquiry 12 www.arplus.com/enq.html

Cultures are what we all do; they are the sum of our activities and values. In Western countries, these include sports, junk food and traffic jams as much as the fine arts, philosophy and science. We tend to divide culture into the pop and posh. Pop is largely funded by private enterprise and, on the whole, profitable (sometimes enormously so) to those who provide it. Posh is made with the help of the state, or (particularly in the US) the state-assisted philanthropy of the rich. Distinctions between the two kinds of culture are arbitrary and fluctuating and are caused by the ways in which they are funded, as much as by the kinds of people who are principally involved in them.

Differences between the two forms of culture go back as far as civilization itself (though there are myths from all over the world of primeval societies in which everyone shared the same ideals and values). But from earliest recorded times, there have been distinctions between the knowledge and values of the mass of people and those of the elites: priesthood and nobility, or just simply rich. (Though the myth of unified culture lingered into classical antiquity, when athletics were still integral to religion, the arts and politics in the Olympic Games.) One of the key measures of the pace of the very slow development of modern democracy has been the extent to which the knowledge of the elites has been disseminated to the rest of the population.



At the same time, there have been reverse influences: for instance a century ago, the elite took little or no interest in popular sports like soccer or even baseball, nor much in popular entertainment. Now, the extraordinary possibilities of penetration of our psyches by the electronic media have enabled those that control them (increasingly, a smaller and smaller group of ever richer people) to promote forms of cultural expression that are globally popular – and profitable. It is impossible for a teenager almost anywhere in the world not to know the latest global musical hits, or football. Even in the remotest parts of the planet (except in the US) you are often required to discuss the state of Manchester United or Real Madrid. Many European countries have appointed ministers to represent both culture and sport. But you don't get back to the much more unitary culture of the original Olympics by appointing a functionary to unite disparate forms of human endeavour.

Sight-bites

Recently, there have been efforts by visual artists to make the arts as powerful in general imagination as pop songs. In Britain particularly, a whole generation of artists with remarkably little talent, except for public relations and the ability to produce saleable, strident banality, has been promoted by a combination of advertising techniques and the thrusting vanity of gallery directors. Architecture has tried the same sort of tricks. PoMo was an attempt to make a headline-hitting universally acceptable form of architectural expression, to be attained by exterior decoration of internally conventional and dull buildings. But where is it now? In the West at least, it has become tatty, shabby and discredited, though it roars on larger and larger, more and more monstrously vast, in China and elsewhere in the Far East, earning huge fees for its practitioners who have long outgrown their role in the '80s US avant-garde.

Contemporary architectural attempts at an avant-garde are, like Brit-Art, concerned to make striking one-liners: sight-bites that can leap for a moment from the page or screen, as the Frankenstein work of the children of people like Koolhaas, Eisenman and Coop Himmelb(l)au begins to emerge. This instant flash-fash architecture will doubtless soon seem as dusty and dated as PoMo. Such is the nature of pop culture.

Yet culture is as much about memory as about instant popular sensation. Without memory, there can be no civilization. Dictatorships invariably try to suppress and distort memory – Nazi book bonfires were the most dramatic recent instances of memory suppression, with their triumphal images of history being destroyed in mass orgasmic rituals, carefully recorded in sound and sight bites. But all authoritarian governments try to force culture into approved channels by censorship and force. Decent societies explore memory as a means of understanding present and future predicaments, giving us perspective of ourselves in space and time.

Memory

Architecture is a medium of memory: it is inherently on the posh side of culture. We understand the ancestors as much by their buildings (however fragmentary) as by what remains of their literature. Architecture is in itself a repository of memory, and buildings can of course be repositories of culture (these are the ones shown in this issue). Medieval cathedrals and mosques were built texts, which could help bring religious truths directly to even the poor and disadvantaged. Some of the wilder remarks of the early Modern Movement, that power stations are the cathedrals of the future, were completely ridiculous. But some of the people who argued in the '80s that galleries, theatres, cinemas and museums are today's cathedrals made a bit more sense, though they were wildly exaggerating. Yet, such buildings can embody and enclose memory, and in so doing sew seams between past, present and future.

Today, in Europe (and to a lesser extent in the US) there are attempts to revivify cities by implanting posh cultural buildings. They can be quite spectacularly successful like Frank Gehry's Guggenheim museum in Bilbao (AR December 1997), which has measurably added to the prosperity of the city by increasing tourism and spurring on local initiative. But such efforts do not always work. For instance the government-backed Museum of Popular Music in Sheffield, England by Branson Coates folded almost as soon as it opened. In Glasgow, which was the City of European Culture in 1990, European Community and British government investment engendered a number of sparkling buildings devoted to both pop and posh culture in the city centre. These are something of a tourist attraction, but as soon as you step out of the centre, you are transplanted to run-down, grimy streets of one of the most poverty-stricken cities in Europe; they seem to have changed little for 50 years, except for the worse. Most citizens needed radical improvement of infrastructure and housing – to them, the cultural bit is either irrelevant or beyond their means.

Even if creation of swanky buildings specifically devoted to culture, either pop or posh, will not solve urban ills, they can help, as Bilbao, Barcelona, Sydney and Seattle are showing. In democratic societies, it should be possible to imagine how pop and posh cultures can enhance each other. In such endeavour, architecture, with its permanence and evocation of memory, has a vastly important part to play in generating counterpoint to the ephemeral values of the electronic media. P.D.

FOIL TO NATURE

Frank Gehry's first building on a rural site is a model performance complex clad in swishing, sensuous steel drapery that animates its Arcadian campus setting.

The Hudson River enjoys mythical status as the boundary between New York City and the rest of the republic, as the first of the mighty American streams that the European settlers had to ford, and, most of all, for the eponymous school of nineteenth-century landscape painters. When Frank Gehry first proposed his steel-wrapped performing arts centre for a site near those sacred banks where legendary artists once sketched, it provoked an outcry and charges of desecration. Luckily, Bard College has a 540-acre campus, and was able to offer a more spacious site, equally pastoral but free from entangling associations. Named after college trustee and benefactor Richard B. Fisher, it is Gehry's first institutional building to occupy a rural setting, and initially it's a shock to see forms and materials more usually associated with the gritty streets of Cleveland and Los Angeles climbing a grassy slope and screened by trees. And yet the steel seems entirely at home in this landscape, changing colour through the day, mirroring shifts of light, and serving as a foil to bare branches or lush greenery.

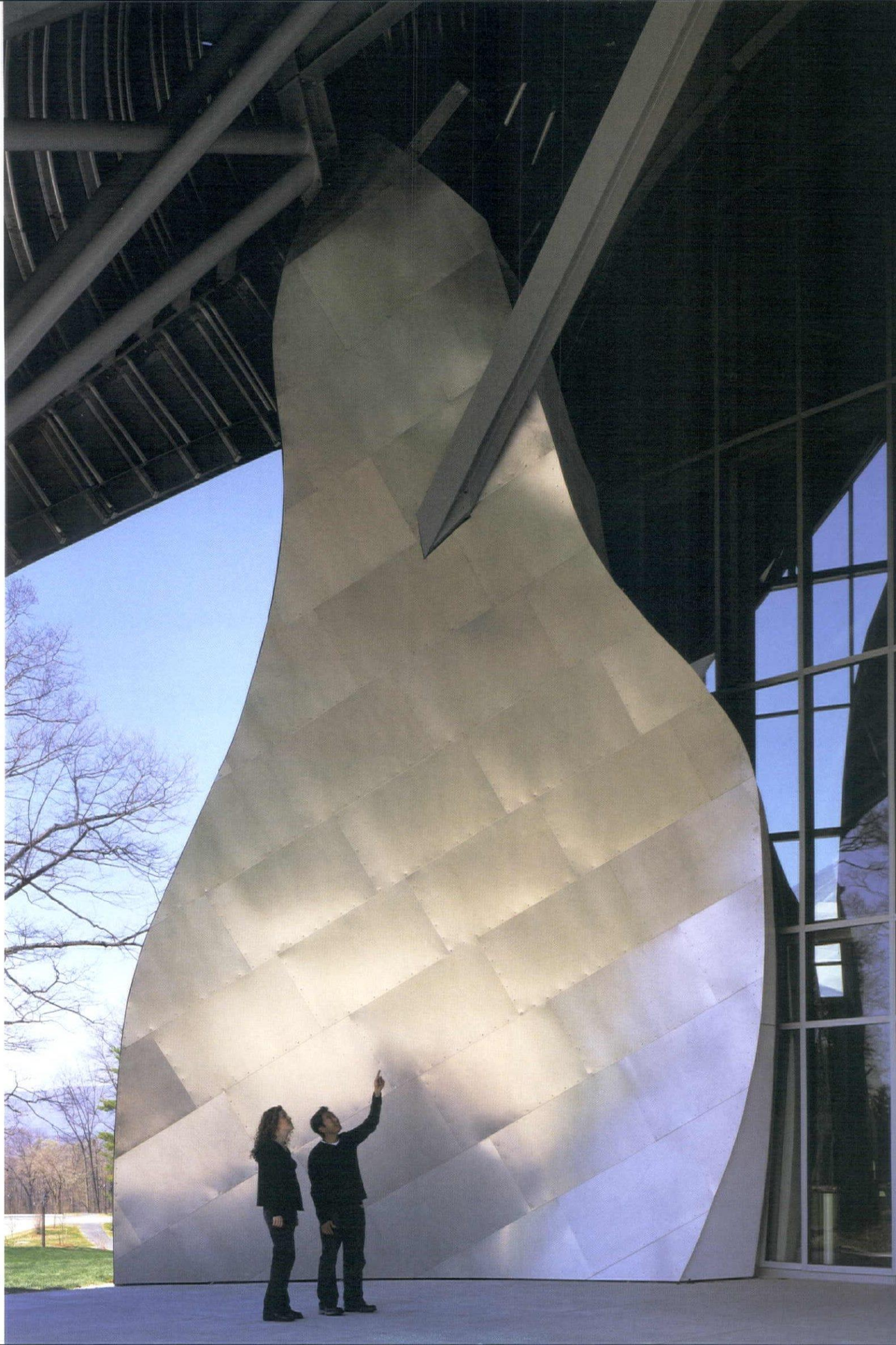
Located 90 miles north of New York City, Bard College has evolved from a nineteenth-century Episcopalian foundation into a prestigious liberal arts university. Leo Botstein, Bard's president, who also conducts the American Symphony Orchestra, wanted a symbol of the college's commitment to the arts that would also provide an ideal performance space for the summer music festival and for leading soloists and ensembles year-round. The original plan was to augment the existing performing arts department. When the project was relocated and the



1

1
From a distance, the steel carapace ripples and flows like fabric.
2
The oversailing entrance canopy acts as a generous covered porch for enjoying the surroundings.

PERFORMING ARTS CENTRE,
ANNANDALE-ON-HUDSON,
NEW YORK, USA
ARCHITECT
GEHRY PARTNERS

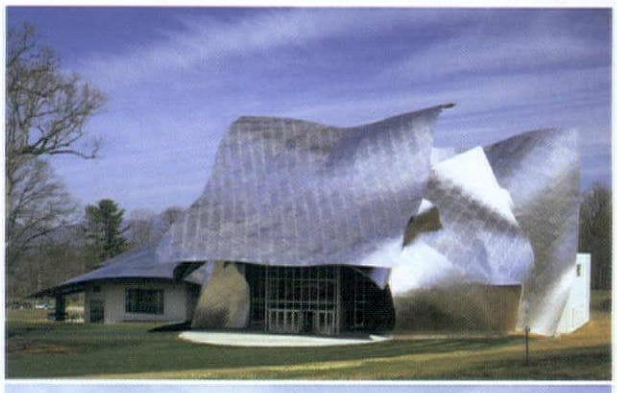


adjacencies were lost, the programme expanded from 6000 square metres to 10 760, incorporating large rehearsal rooms for drama and dance, and a fully equipped black-box theatre seating up to 250, in addition to the 930-seat Sosnoff Theater.

Like Walt Disney Concert Hall, the complex was designed from the inside out, with the main performance space as the overriding priority. The challenge – here, as in California – was to tie together a cluster of boxy volumes and give them an appropriately theatrical expression. Disney doubles as a civic monument, that should – like the Guggenheim, or the Sydney Opera House – become a symbol of the city, and its sleek curved planes of stainless steel are folded and composed with the mastery of a vintage Balenciaga gown. Fisher aspires to greatness as a performance space, but it forms part of a college campus and its bias-cut steel is draped as loosely, and cut away as daringly as a Yohji Yamamoto dress. As you ascend the path to the main entrance, the angled plates of brushed stainless steel swirl and flow like flying skirts on a runway, concealing and revealing the concrete and plaster volumes below, flaring up to form an entry canopy and subsiding to wrap the front of house. Gehry describes this canopy as a covered porch where people can gather outdoors on a fine evening in mounting anticipation of what is to come. To the rear, the boxy volumes are exposed, in a literal expression of backstage.

Diehard Modernists may object to this disconnection between skin and body, front and back, seeing it as a subversive attempt to reintroduce surface ornament on rational structures, but in the Fisher there is no deception. The carapace is as airborne and dynamic as a dancer on stage, and the supporting trusses and braces are fully revealed beneath the canopy and within the three-level lobby with its steel-framed stairs and stacked concourses. Natural light flows in from tall side windows and openings between the steel wrappers. Bard stands for freedom of expression – the opening gala was briefly interrupted by a ragtag bunch of student protestors and one nude woman bearing a sign 'Drop Tuition Not Foil' – and the Center captures that anarchic spirit.

The Sosnoff auditorium is designed for performances of orchestral music, opera, dance, and drama. 'Multipurpose rooms are difficult to make,' says Gehry, and many architects and acousticians have failed to achieve a good balance between the competing demands of orchestral



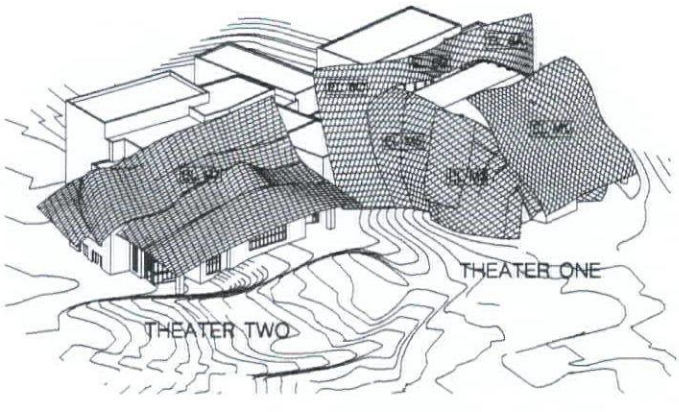
3



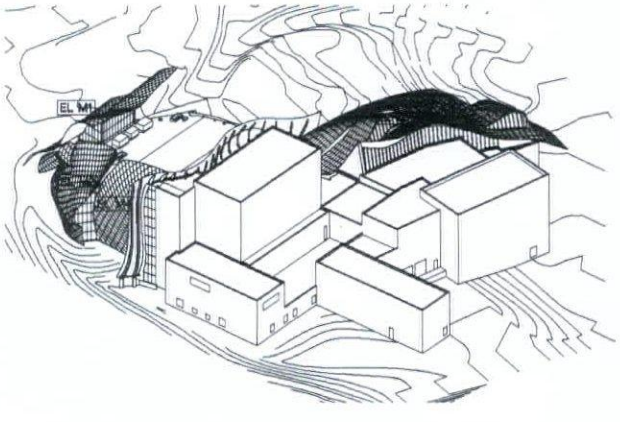
4

3
The building has two distinct faces – the shiny, seductive front of house ...
4
... and the plain, boxy backstage, where no attempt is made to embellish the rational structure.
5, 6
The corset-like constructions that support the flying steel carapace are honestly exposed and expressed.
7
The campus landscape; it is Gehry's first building in a rural setting.

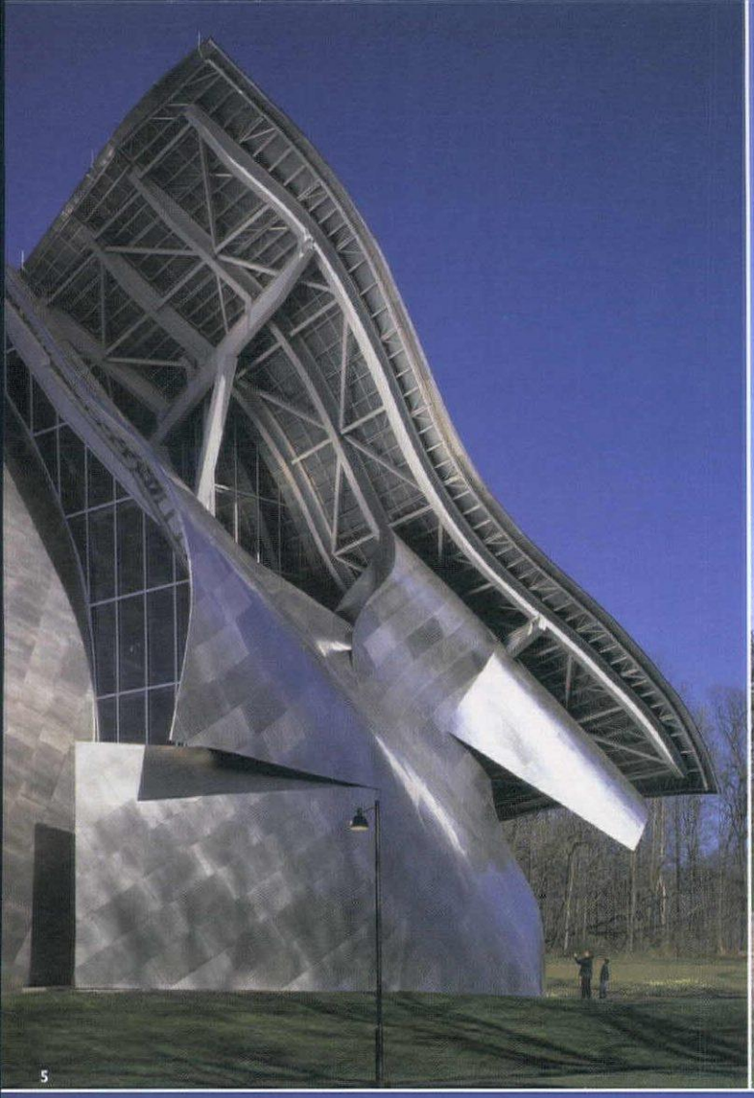
PERFORMING ARTS CENTRE,
ANNANDALE-ON-HUDSON,
NEW YORK, USA
ARCHITECT
GEHRY PARTNERS



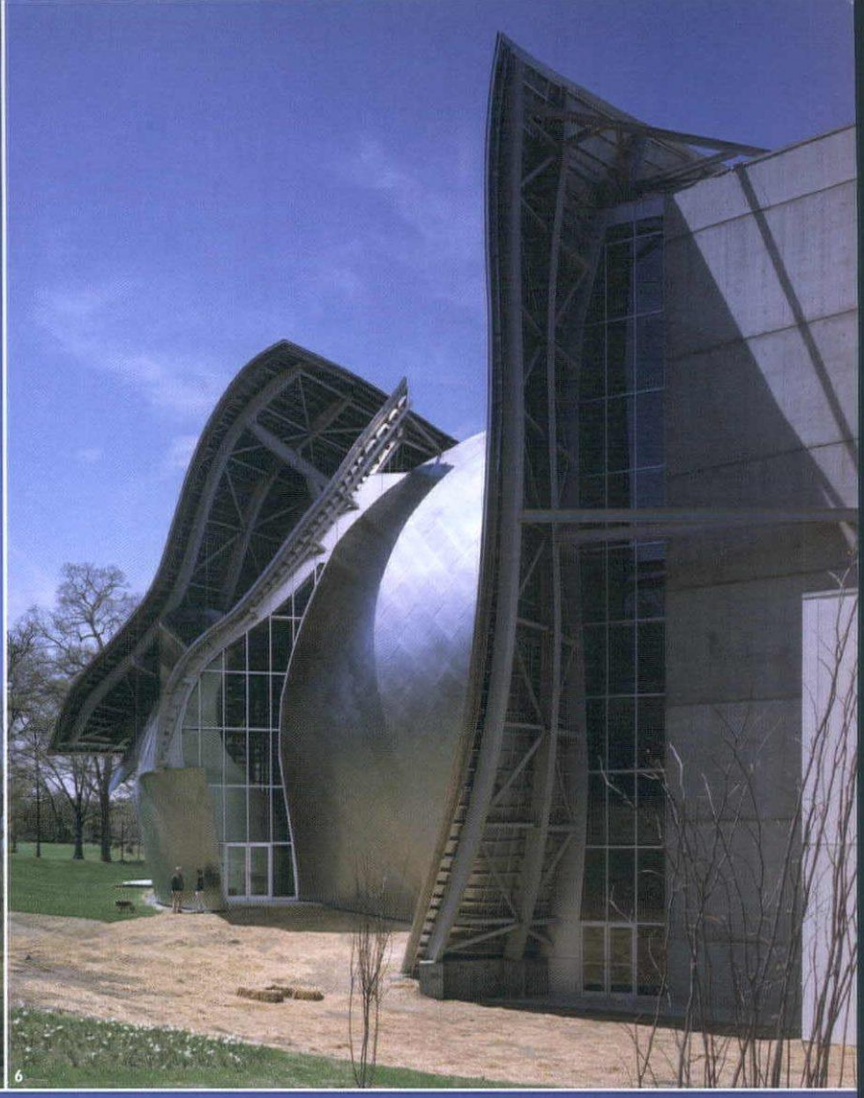
7 **geometry of building elements in relation to landscape: south elevation**



geometry of building elements in relation to landscape: north elevation



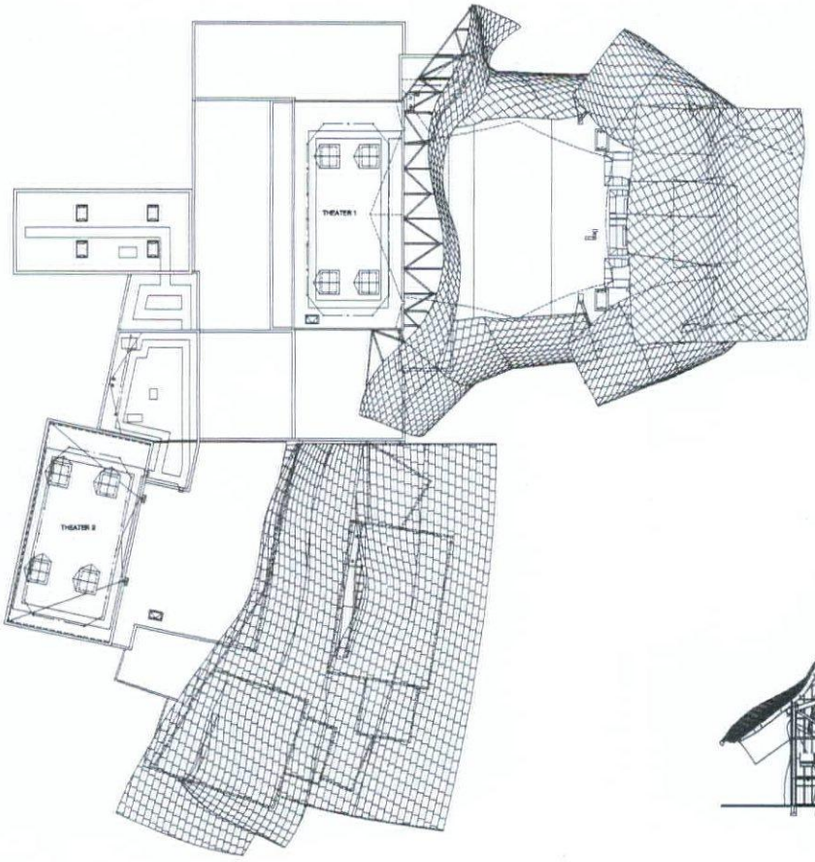
5



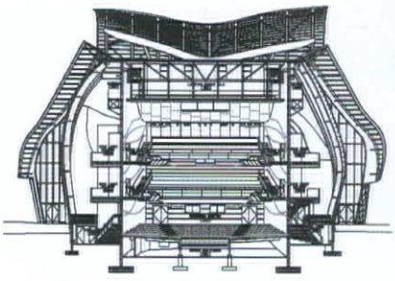
6



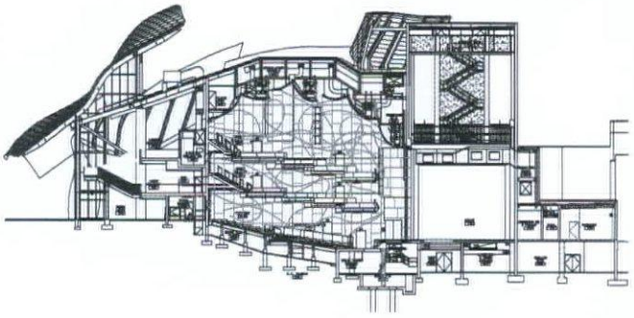
7



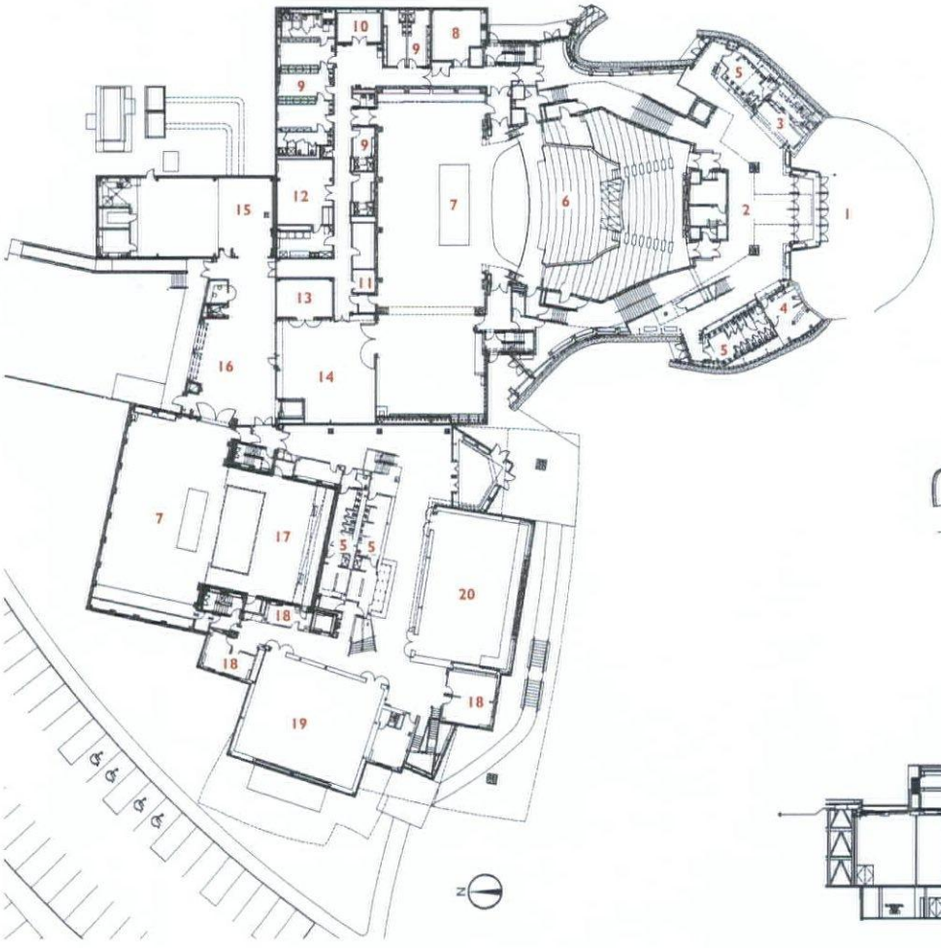
composite roof level plan



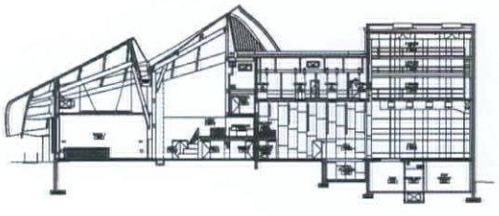
cross section through Sosnoff auditorium



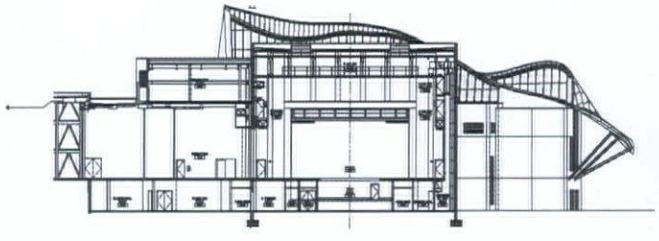
long section through Sosnoff auditorium



1 entrance
2 foyer
3 concessions
4 box office
5 wcs
6 Sosnoff Theater
7 stage
8 green room
9 dressing rooms
10 practice room
11 stage manager
12 costume shop
13 instrument store
14 store
15 scenery workshop
16 loading dock
17 black box theatre
18 offices
19 drama studio
20 dance studio



long section through black box theatre



cross section through black box theatre

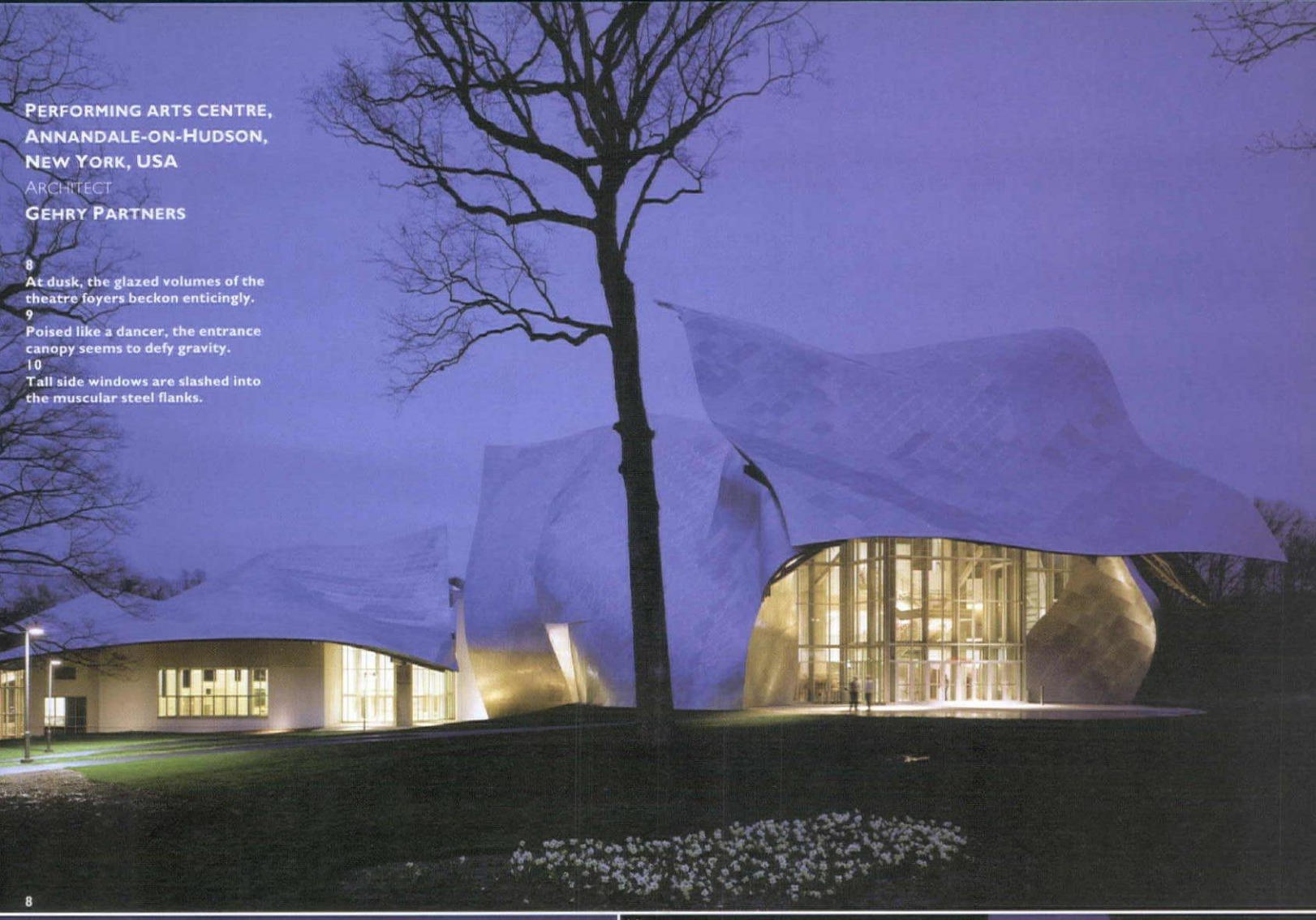
composite stage level plan (scale approx 1:1000)

Performing arts centre, Annandale-on-Hudson, New York, USA

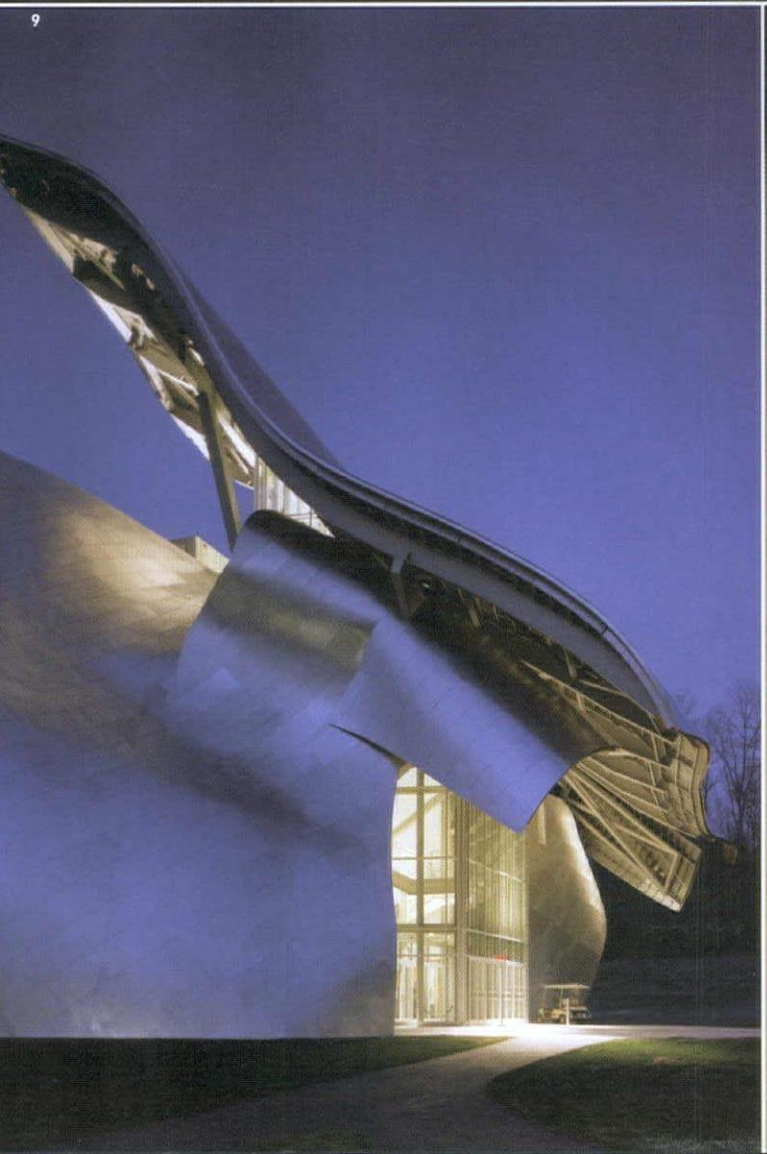
Architect

Gehry Partners

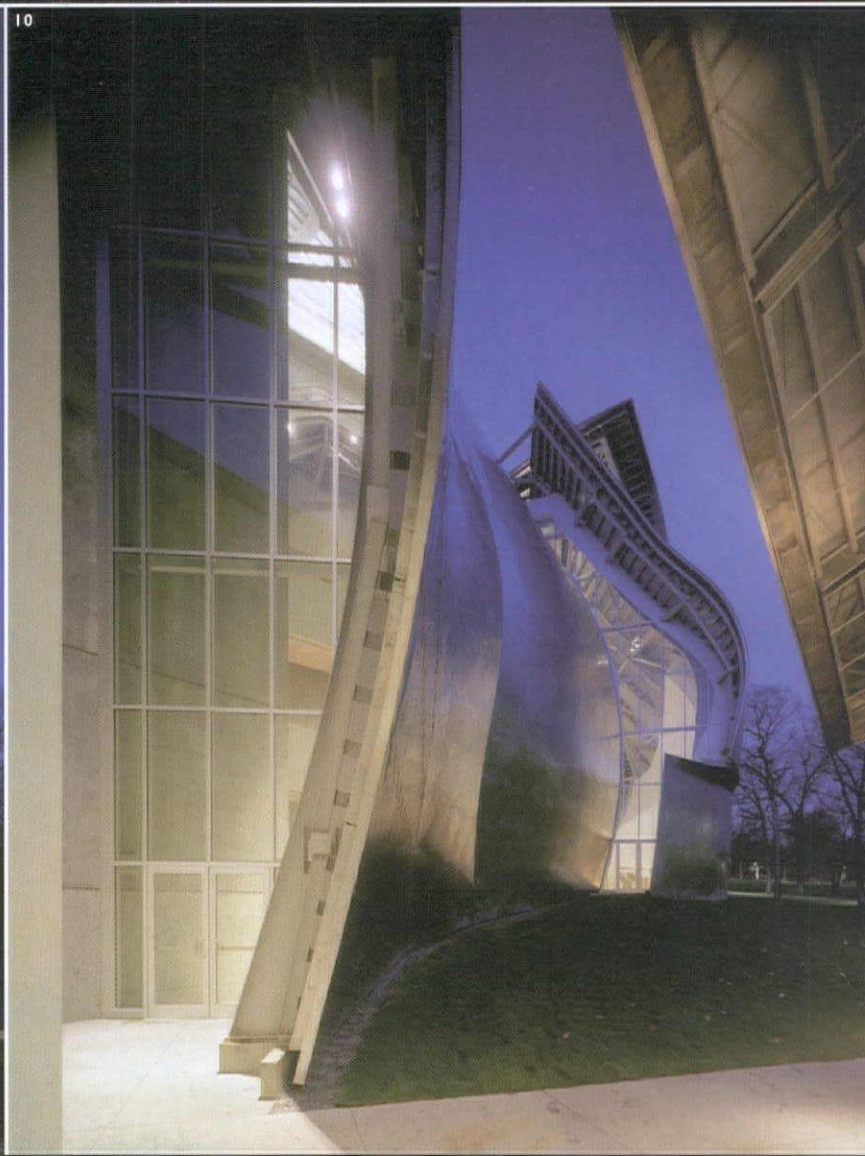
8
At dusk, the glazed volumes of the theatre foyers beckon enticingly.
9
Poised like a dancer, the entrance canopy seems to defy gravity.
10
Tall side windows are slashed into the muscular steel flanks.



8



9

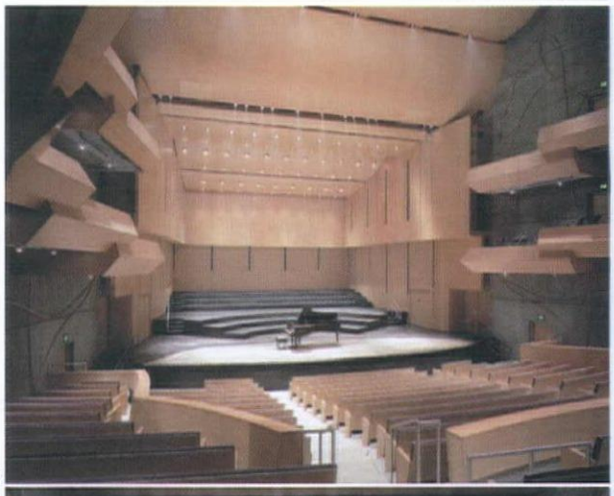


10

music and the spoken word. Disney Hall has only to satisfy the first of those roles, and Yasuhisa Toyota, the acoustician who collaborated with Gehry on both projects, made his reputation on single-purpose concert halls in his native Japan. He emerged beaming at the clarity of sound after the opening-night performance of Mahler's grandiose Third Symphony, but the real test is yet to come. As project designer Craig Webb points out, you need a large volume and a high ceiling for symphonies, and a lower ceiling and shorter reverberation times to preserve the clarity of speech. In Sosnoff, the side walls of the hexagonal auditorium are slightly bowed, and the acid-washed concrete is overlaid with spaghetti loops of fir battens to diffuse sound. The billowing ceiling of Douglas fir rises to a peak at the centre but is pulled down at front and back. Angled side balconies at both upper levels, and a low divide within the main tier of seating, provide additional sound reflectors. A wooden acoustic shell, comprising eight side towers that are as dense and reverberant as concrete, and suspended ceiling panels that are stored in the flies, can be assembled on stage to enhance orchestral sound for audience and musicians. Lifts allow the stage to be reconfigured for different uses, and acoustic banners can be extended to dampen reverberations.

The black box also has a scenery tower, a lofty volume and sophisticated lighting, and it can be reconfigured more radically, with movable seats or bleachers grouped around different types of stage. The two principal rehearsal rooms are naturally lit from windows that frame the landscape or can be blacked out when stage lighting is required.

'We had to decide how much architecture to put into the interiors,' says Webb. 'It's a size and type of theatre we haven't done before, and we decided to make the big statements in the canopy and lobby, and keep the rooms somewhat quiet. In both theatres, the focus is on the performers and the stage.' That concern extended to the structure itself. As Yasuhisa Toyota notes, the steel was elevated on supports above the subroofing layer and insulated with neoprene to muffle the sound of raindrops falling on the roof. Despite the frugality of the finishes, the pursuit of functional excellence and professional equipment pushed the cost of the project up to $62 million. MICHAEL WEBB



12



13

11
Lobbies and foyer spaces wrap around the two concert halls.
12
The main Sosnoff auditorium seats 930. There is also a smaller black box theatre with a capacity of 250.
13
Spaghetti loops of fir battens help to diffuse the sound.
14
Promenading in the main foyer.

PERFORMING ARTS CENTRE,
ANNANDALE-ON-HUDSON,
NEW YORK, USA
ARCHITECT
GEHRY PARTNERS

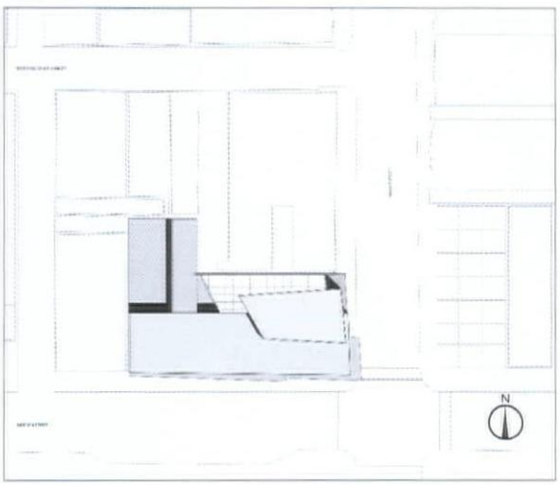


11

Architect
Gehry Partners, Los Angeles
Structural engineer
DeSimone Consulting Engineer
Services engineer
Cosentini Associates
Acoustic design
Nagata Acoustics with Robert F. Mahoney & Associates
Theatre design
Theatre Projects Consultants
Photographs
Peter Aaron/Esto


FISHER
CENTER

CONTEMPORARY ART MUSEUM, CINCINNATI, USA
ARCHITECT
ZAHA HADID



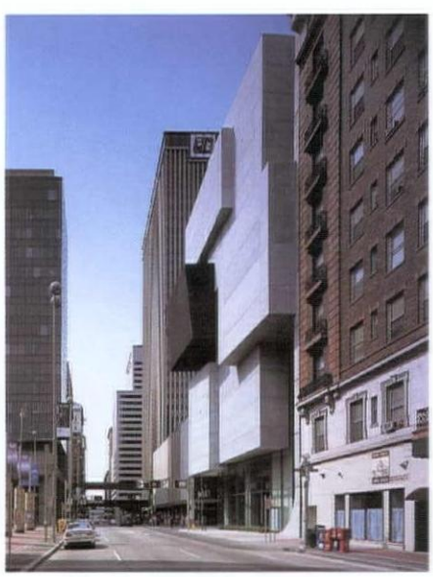
site plan

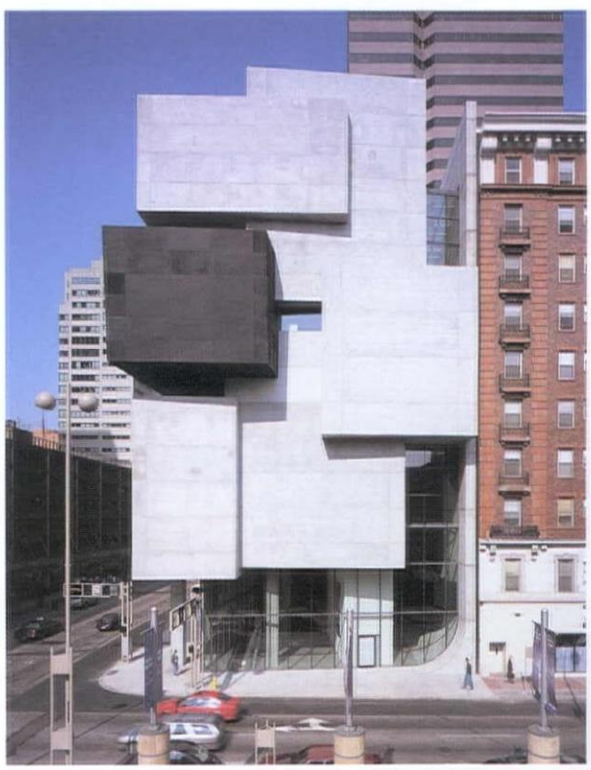
Zaha Hadid's new Contemporary Arts Center in Cincinnati is her debut in the United States, her first museum (a similar institution in Rome is now under construction), and her first to occupy a traditional urban site. It will astonish admirers and detractors who have viewed her previous work as shards of light travelling at warp speed, transforming mass into energy, and putting everything into motion. Here, the energy is pent-up, the motion arrested. The CAC is designed from the inside out, as a three-dimensional jigsaw puzzle of galleries and offices on six levels above the street, which manages to stand out from and fit into the urban grain. It is one-of-a-kind and a good citizen, just as this remarkable institution has been since its founding, in 1939.

Established (like the Museum of Modern Art in New York) by three society women, the Modern Art Society was the first American institution west of the Hudson to exhibit the avant-garde. Its first permanent home was in the basement of the sternly Neo-Classical Cincinnati Art Museum – no thanks to the then director, who declared: 'Anyone who likes modern art must have a hole in his head'. It acquired a new name and its own second-floor space downtown, and, in 1990, it famously fought a landmark court battle to stage an exhibition of Robert Mapplethorpe photographs, which a judge had declared obscene. Buoyed by its victory over the puritans, it sought a new, expanded presence at the heart of this conservative city. 'The building itself would be a sign, proclaiming to the city, to visitors and the world: "here is a place that values experiment, innovation, and diversity",' wrote director Charles Desmarais.

OUT OF THE BOX

Zaha Hadid's urbane complex of galleries and gathering places reshapes the public's perceptions of challenging works of art.

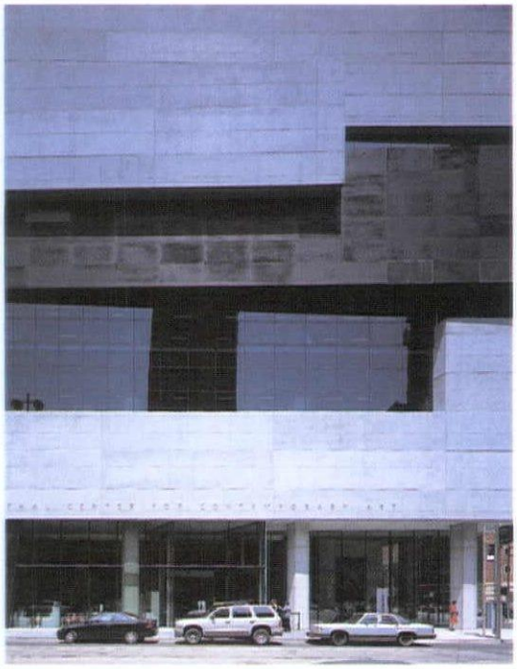




2

1
Expanding its presence, the CAC occupies a prominent corner site.
2
The city grid is subtly fractured by the new intervention.
3
Galleries are expressed as stacked bars of concrete and aluminium.


DO NOT BLOCK INTERSECTION
NO TURN ON RED
ONE WAY
751-ROLL
GUNNETT



4

4
The boldly articulated mass appears to hover over the recessed glazing that envelops the ground floor.
5
The entrance hall is intended as a lively extension of the street.
6, 7
Galleries are linked by escalators streaking through a narrow void.

CONTEMPORARY ART MUSEUM, CINCINNATI, USA

ARCHITECT

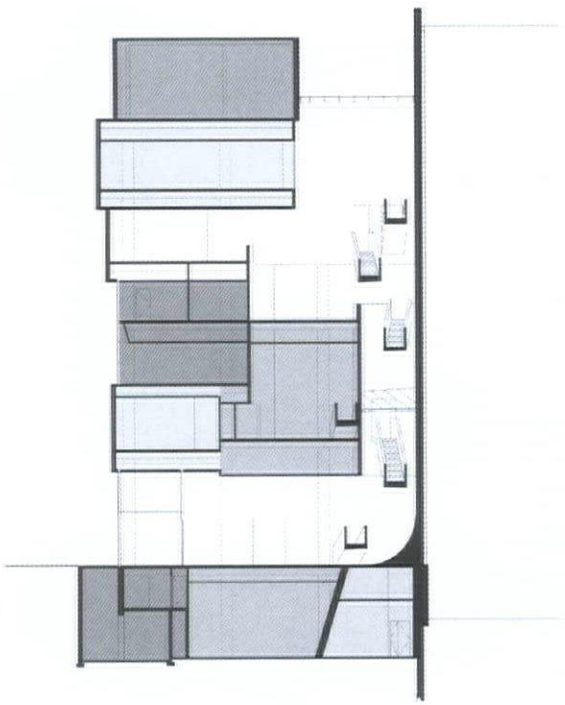
ZAHA HADID

The CAC conducted lengthy public discussions on how architecture could best express its mission, and drew up a detailed programme, before narrowing the choice from 97 contenders to three. Daniel Libeskind and Bernard Tschumi presented designs that indicated a determination to go their own ways; Hadid was selected for her openness to dialogue and the relevance of her ideas. 'How can you begin to release the site from the requirements of the box?' she asked the committee. 'All American cities are about the grid. This needs a forceful subtlety – breaking the grid but not necessarily in a vulgar way.' Unpredictability was part of the mandate. 'Neutral space is a wishful oxymoron,' she declared.

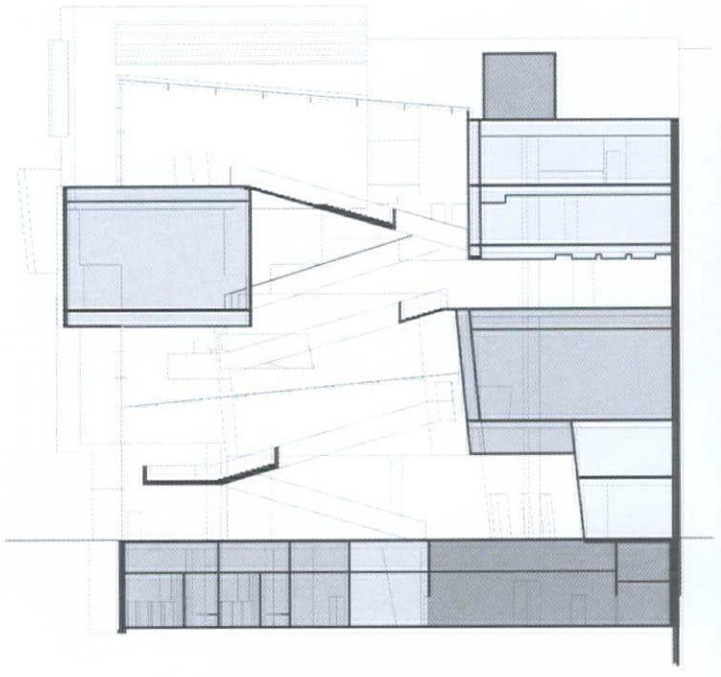
'All space is coloured by individual memory and experience. We propose that the new Center should reflect the variety of contemporary art in the way the building articulates its settings and spaces ... multiple perceptions and distant views should create a richer, more perplexing experience, taking your body through a journey of compression, release, and reflection.'

These concepts are brilliantly realized in the completed building, which occupies a corner site across from Cesar Pelli's Aronoff Center for the Arts. The keynote is, as Hadid anticipated, 'forceful subtlety'. On the long, south facade, galleries are expressed as stacked bars of concrete and blackened aluminium, bracketing the blue-tinted band of windows that light two levels of staff offices, and projecting out to the east as a windowless, geometric relief. The black metal absorbs light while the pale concrete reflects it, adding depth to the facades. This boldly articulated mass appears to float above the recessed glazing that wraps the open ground floor. The concrete pavement, lit with fibre-optic channels, extends through the glass and curves up at the rear of the building to establish a connection between the street and the galleries – a feature Hadid calls the 'Urban Carpet'. Silhouetted against the poured concrete wall are skylit staircases with polished aluminium treads and lighted handrails that are contained within black steel box beams, forming shallow Xs as austere and assertive as anything by Donald Judd.

Hadid has put 8700 square metres of usable space on an 1100-square-metre site, but the interiors have an amplitude that belies the



cross section



long section



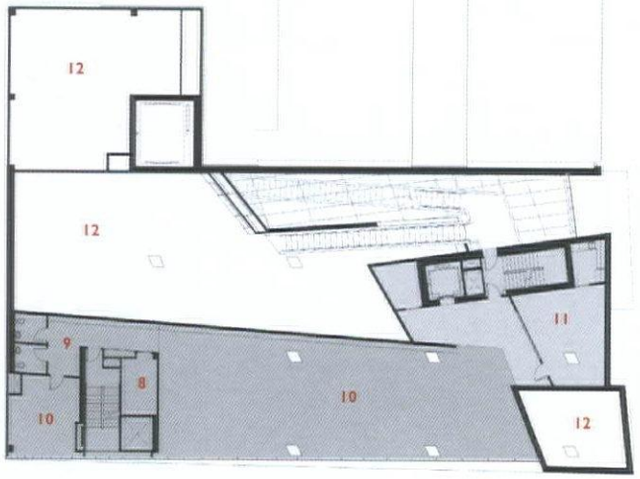
5



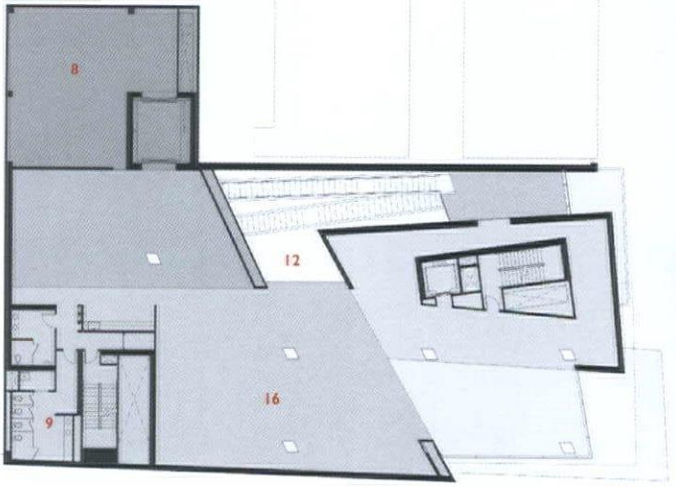
6



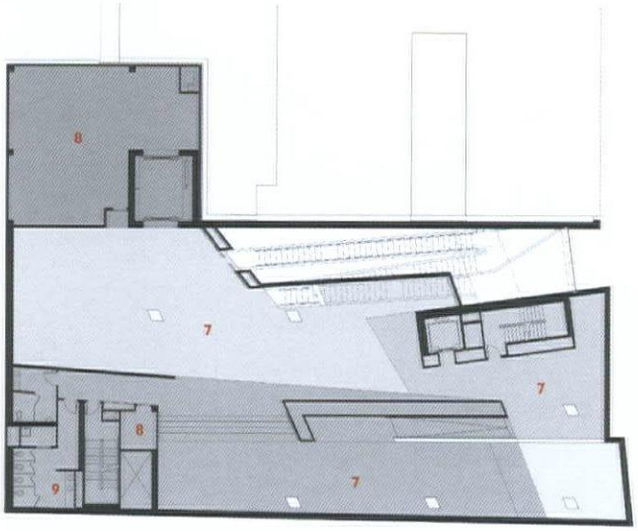
7



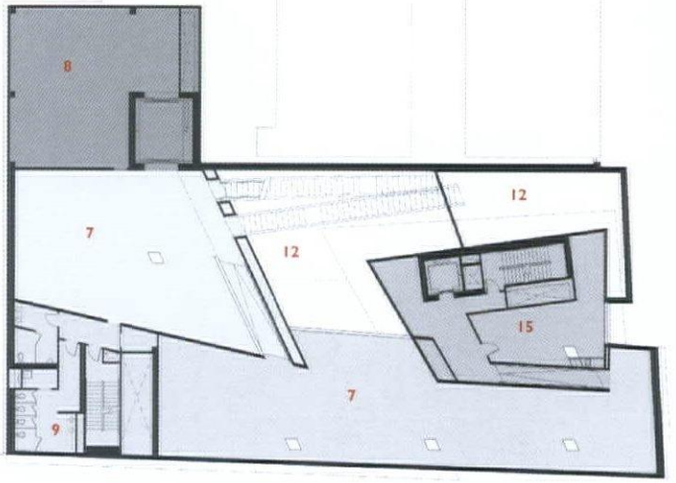
third floor



sixth floor



second floor



fifth floor

1 entrance
2 loading
3 receiving
4 cloakroom
5 lobby
6 shop
7 gallery
8 store
9 wcs
10 offices
11 staff lounge
12 void
13 boardroom
14 terrace
15 members lounge
16 Un-museum





fourth floor

 ground floor plan (scale approx 1:500)

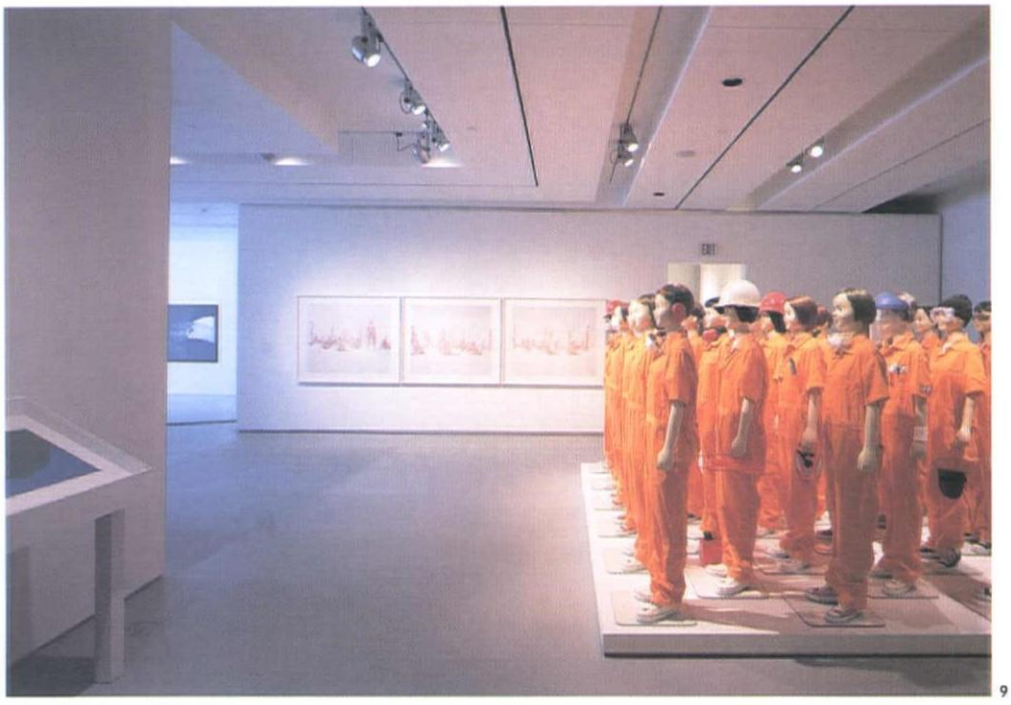


Contemporary art museum, Cincinnati, USA

Architect

Zaha Hadid

8
The Piranesian escalator void at the rear of the building is dramatically pierced by shafts of daylight.



9

9
Typical gallery space, an elegant neutral container for the vagaries of contemporary art.
10
The labyrinthine interior is a stimulating voyage of discovery.
11
Varied spaces challenge artists, curators and visitors.



10



11

CONTEMPORARY ART MUSEUM, CINCINNATI, USA
ARCHITECT
ZAHA HADID

physical constraints. She describes the open-plan, split-level lobby as an indoor park, drawing in passers-by to use the sales area and café, attend a reception or descend to a performance in the basement black box. It's a gift to the city that reinforces the CAC's bid for a broader audience. Cuts in the floor provide visual links between the two levels, and the galleries seem to defy gravity, hovering within this lofty, luminous volume. Hadid likens this illusion to the rock suspended in mid-air in the painting by René Magritte. Galleries occupy most of the second, fourth and fifth floors; the sixth is a children's educational area called the 'Un-Museum' and will be used for interactive exhibits. Balconies open onto the skylit void to the rear, allowing visitors to look down and across, and to enjoy the same sense of connectedness they share on the spiral ramp of the New York Guggenheim. However, in contrast to the relentless unwinding of that glorious vortex, which can be encompassed from a single vantage point, the CAC is a voyage of discovery.

Desmarais expressed a wish for 'a spatial and formal experience that is dynamic rather than merely useful: that announces to all who enter that this is a place for experiment, a place to leave behind assumptions and conventions, a place that lays us open to the surprises and challenges that are necessarily presented by new art'. Hadid has come through for her client. The constant alternation of enclosure and void, the shifts of angle and level, the cutaways that reveal unexpected vistas, and the openings in the fifth-floor members room that reconnect you with the city, all contribute to a feeling of exhilaration few art museums can match. The varied spaces will challenge artists and curators to respond to them, as much as their work will test visitors' appetites. MICHAEL WEBB

Architect
Zaha Hadid Architects, London
Project architect
Markus Dochantschi
Associated architect
KZF Design
Structural engineer
THP
Photographs
John E. Linden

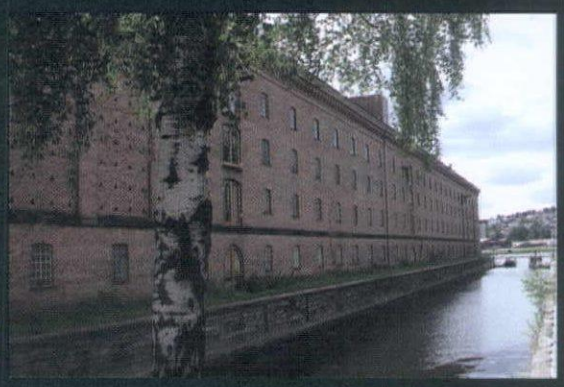
PHOTOGRAPHY MUSEUM,
OSLO, NORWAY
ARCHITECT
SVERRE FEHN

1

PHOTO FINISH

Carefully inserted into a historic naval warehouse, this

Sverre Fehn's career has been punctuated by distinguished and thoughtful museums. The archaelogical museum at Hamar (also known as the Cathedral Museum) was perhaps the first building to bring him to international attention; it was a series of bold yet sensitive concrete interventions into the stone mediaeval ruins to allow modern visitors to interpret them. More recently, Fehn's glacier museum at Fjærdal (AR April 1993), and his memorial museum for the great Norwegian philologist Ivar Aasen at Ørsta (AR September



2

1
Central axis of library and muscular rhythm of brick vaults ...
2



PHOTOGRAPHY MUSEUM, OSLO, NORWAY
ARCHITECT
SVERRE FEHN

2001) have, in their different ways, been major contributions to museum design, both responding to the landscapes in which they are set with poetic imagination and understanding.

Fehn's latest museum, which houses Norway's national photographic collection and the Preus Fotomuseum, is on the top floor of a naval warehouse at Karljohansvern in Horten on the fjord south of Oslo (other floors are for the marine museum). As in most other countries, the navy has reorganized, leaving magnificent solid nineteenth-century buildings, to find new quarters more suitable for today's less ponderous and rapidly changing equipment.

At Karljohansvern, the four-storey brick rectangular structure (one of a pair on a central supply dock) is vaulted throughout on a regular 4x5m grid. Originally, the roof was covered in earth and rocks to protect it from bombardment, but later in the nineteenth century that protective layer was replaced by a conventional timber-structured pitched roof. Internally, the structure is massive and elegant, almost Romanesque in its austerity and solidity – the top floor was designed to take the loads of very heavy moving canons, and even at that level, external walls are over half a metre thick. All is protected by the historic building authorities, and luckily, the Norwegian navy had looked after its inheritance very carefully.

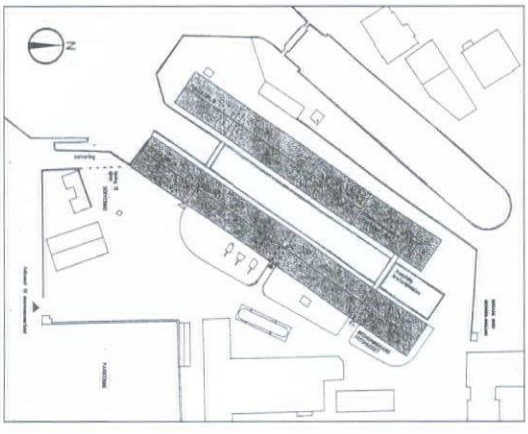
So Fehn was faced with an interior design project. He came to it with the reverence for existing place he has always shown. Throughout, he has followed the approach first articulated in late nineteenth-century Britain by William Morris and the Society for the Protection of Ancient Buildings (SPAB): that the old should be old and the new, new; in other words, you work with what you've got.

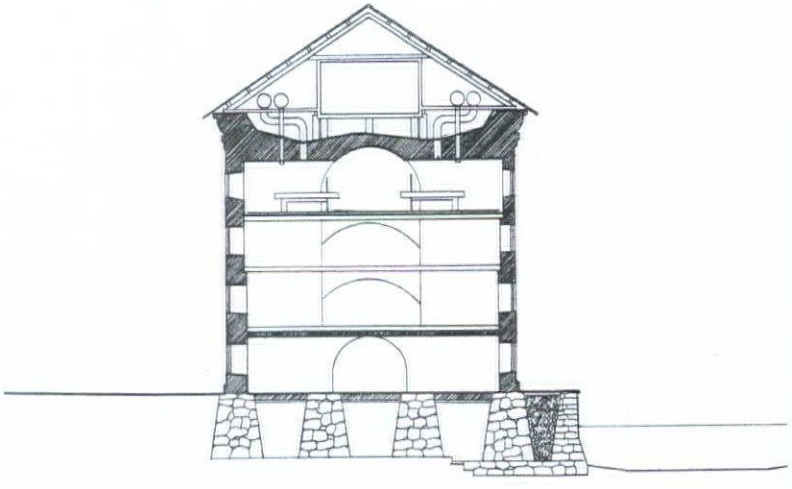
There should be no effort to reinstate the old to some imaginary previous state, nor should there be any attempt to achieve some sort of compromise in new insertions. Fehn's distinction between old and new continues to be as clear as it was at Hamar, though of course the naval building was in a better state of preservation than the medieval ruins.

Fehn's only major insertion has been the lift shaft near the main stair in the middle of the block. You arrive at the top floor to find yourself in a glistening lobby. Fehn has lined the vaults with white glazed tiles, and the effect would be lavatorial were it not for detailing. None of the square tiles has been cut. At the arrises of the vaults, where the ceramic grid meets the three-dimensional curves, the tiles stop and the irregular gap between the two geometries is taken up with grey render flush with the tile surface, creating fretted edges emphasizing the curves. On the lobby floor are slabs of bluish grey limestone, the only time this material is used in the building.

Looking left to the library and right to the galleries through the lobby's glass walls, the main impression is of warm brick and oak. Floors and furniture are of oiled solid timber. The original brickwork has been carefully cleaned down, repointed where necessary and left untouched as far as possible. One of the problems of dealing with such an intact and strong existing structure is the insertion of modern services. At Karljohansvern, Fehn has put all air-handling equipment in the loft over the vault and under the pitched roof. All you see of the system are a few discreet grilles in the soffits of the vaults. Electrical, lighting and sprinkler services are accommodated in V-shaped steel conduits hung down the centre of the vaults.

3
Long sheds enclose central supply dock.
4
Library entrance, with blue limestone floor and vaults lined with white tiles.
5
Entrance to darkroom.
6, 7
Display cases supported by folded steel plates, making a clear distinction between old and new.
8
Detail of display case.
9
Young users getting hands-on with the educational installations.



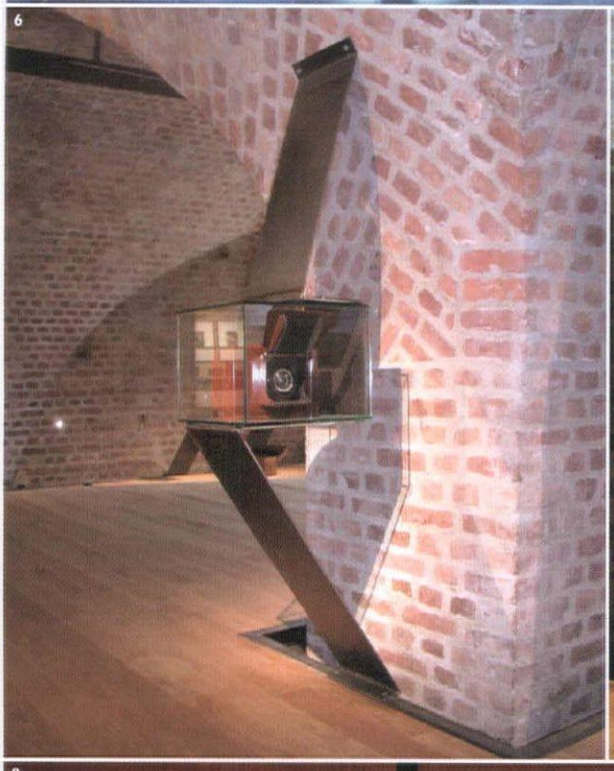




4



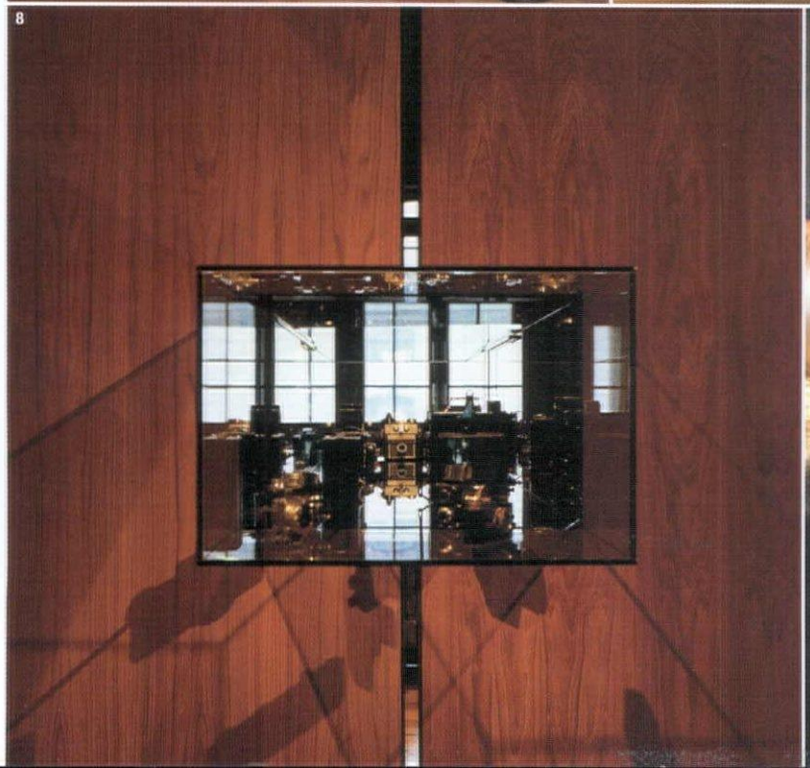
5



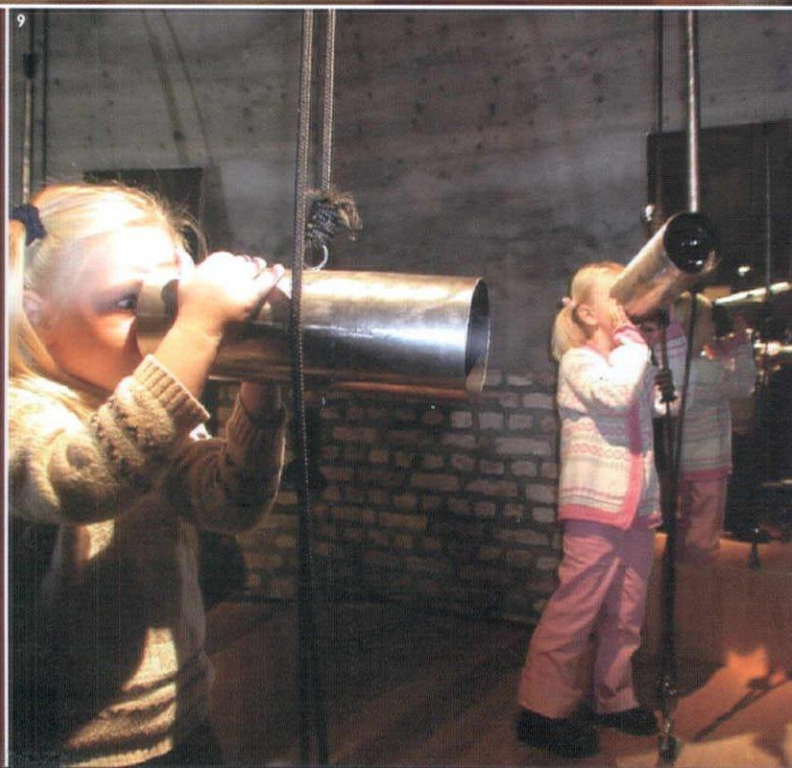
6



7



8



9

In the library, administration area and the gallery for the permanent collection, Fehn has formed bays on each side of the central internal street, following the plan geometry of the vaults; he has left the brickwork untreated. The galleries for temporary exhibitions are unpartitioned, with space articulated by the massive brick piers that support the vaults. Here, brickwork is whitewashed to make a neutral background for visiting photographs.

One of Fehn's principal problems has been to reconcile the Romanesque scale of the structure with that of delicate optical apparatus. He has done so with subtlety and elegance. Round the edges of the raised oak floors is what might be called a SPAB joint, a gap edged by steel channels and, while the resulting slot may cause cleaning problems (not too bad with vacuum apparatus), it does clearly define the difference between new and old. The steel channels provide stable fixings for many of the exhibition cases. Many of these are supported on folded steel plates which, like all the other visible steel in the building, have been oil quenched. The cases, invariably at the right height for examining the objects they contain, are of the blackish, silver grey steel, glued glass and sometimes wood, materials resonating with the old and beautiful exhibits. On two occasions, cases project into the central street, like abstractions of antique bellows cameras. There is a children's museum with a camera obscura and similar optical delights, and display techniques in other bays are thoroughly and precisely adjusted to the scale of the objects shown in them.

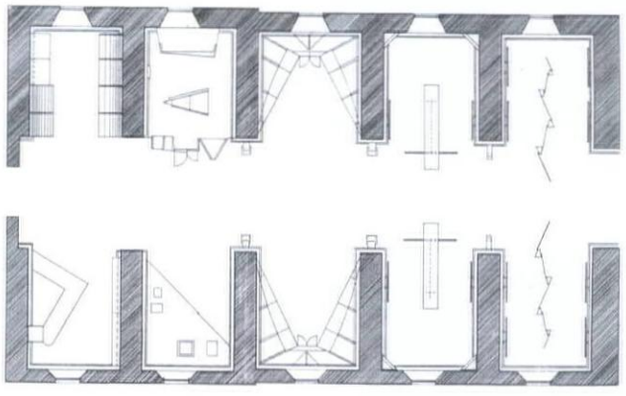
Fehn has conjured great variety out of a repetitive and not very large space: the result can be compared only to the work of Carlo Scarpa. HENRY MILES

Architect
Sverre Fehn
Project team
Henrik Hille, Ervin Strandskogen, Baard Erlend Hoff
Lighting
Erco, Sill
Photographs
Guy Fehn, Henrik Hille, Astrid Roberg

10, 11
The precise refinement of the steel and glass display cases forms a potent contrast with the brick.
12
Floor-mounted display case.
13
The library.
14, 15
Gallery spaces. Huge photographic prints float against simple white walls.



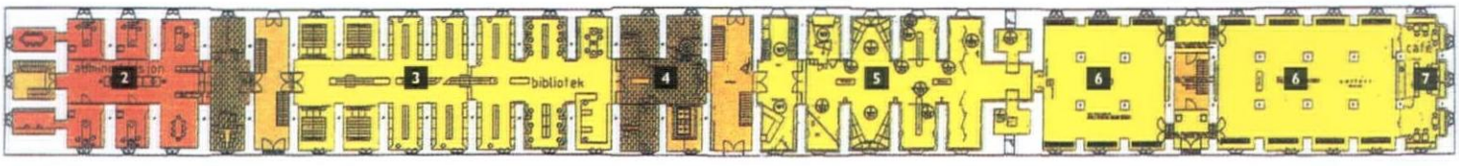
long section through exhibition space



plan of exhibition space (scale approx 1:250)

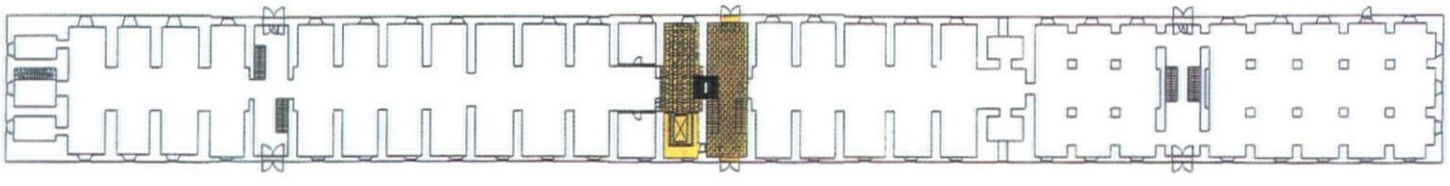
PHOTOGRAPHY MUSEUM, OSLO, NORWAY

ARCHITECT
SVERRE FEHN



third floor (museum) plan

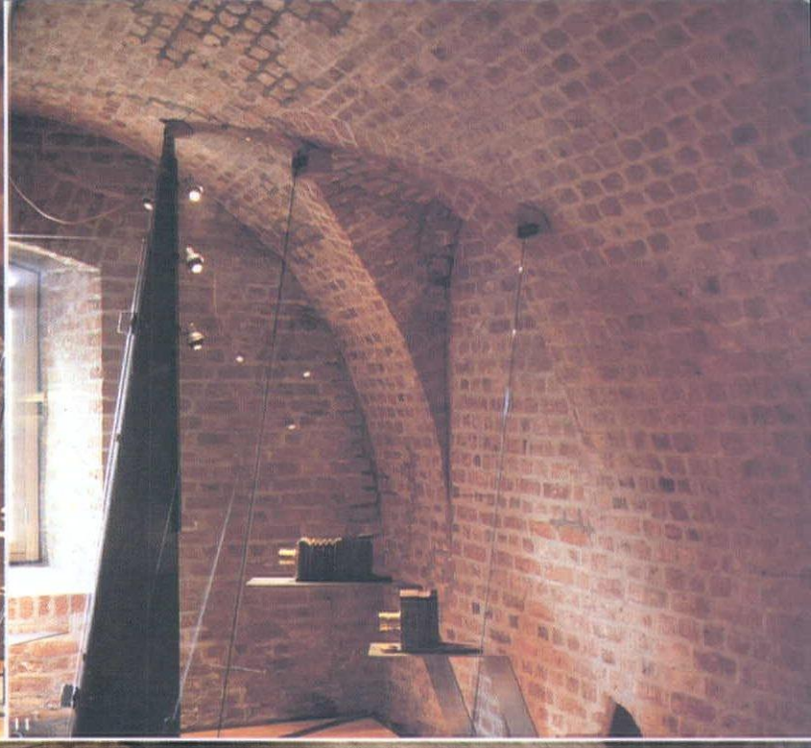
1 ground floor entrance
2 administration
3 library
4 museum entrance
5 exhibition space
6 gallery
7 café



ground floor plan (scale approx 1:600)



10



11



12



13



14



15



CULTURAL CROSSROADS

A dramatic new entrance to the Graz exhibition grounds houses a multi-cultural space suitable for all seasons.

As Austria's second city and one of few large, urban centres in a generally mountainous country, Graz has for centuries been the site of an important fair. Its twentieth-century fairground lies in the southern suburbs alongside one of the original main roads that radiate from the Schlossberg. This year, Graz is European City of Culture, celebrated among other things by a handful of building projects. The most important of these are the yet unfinished Kunsthaus by Peter Cook and Colin Fournier, and Klaus Kada's Stadthalle, both the result of architectural competitions.

The Stadthalle is a multi-purpose hall and conference centre, but it also serves as the new grand entrance to Graz's fairground. The greater part of it is a single volume 95m by 70m in plan and 15m high with variable seating. It can serve as an exhibition hall, a sports arena, a pop-concert venue or whatever. This set the scale for the whole, prioritized the need for a wide-span structure and could easily have resulted in a rather inhuman and overwhelming building. At the same time, the demand for flexibility made it difficult to give this main room any definitive character. Kada solved these problems by skilful response to the context, allowing ancillary parts to break the symmetry and to mediate the scale between the vast and the intimate.

Unlike Mies's famous project for a congress hall in Chicago, a big regular box largely concerned with showing off the discipline of its steel structure and bracing, Kada has remained much more ambiguous about spatial boundaries, even putting main columns outside the space of the main hall. While Mies suppressed the roof, at least from the outside, Kada stresses it as the primary element and plays down the visible structural effort.

The main idea is a big roof supported on only four columns. The space embraced by them is almost square, but the covered area is more than doubled in length by huge cantilevers to east and west. These are supported by steel trusses that taper with reducing stress, leaving a rising soffit that diminishes to a pointed edge. Since the building is hemmed in at the sides and visible only from front and back, this successfully conceals a structural depth in the roof space of about 6m, while the biggest elements of horizontal structure, the steel trusses linking north and south columns, are silently absorbed. The roof space is largely filled with equipment and service ducts, including the usual air-handling plant, as well as huge venting machines to clear smoke quickly in case of fire.

The main hall takes up most of the central span and the space under the east cantilever, while the one to the west projects out over the street to provide an entrance portico and foyer. To disrupt the boxiness of the hall and replicate something of the portico on the other side, Kada has made the side and end walls openable with a long series of electrically driven swing doors. When open, they make the point that the building is not a free-standing entity, but rather the entry point to the whole fairground behind, and the effect should work well when the main space is used as an exhibition hall in warm weather. A great window to the foyer on the west side gives the hall daylight and a sense of direction, although initial plans for strips of daylighting through the roof were dropped. A flat floor and a variable seating system allow for many configurations, and a suspended lighting grid marks the potential stage to the east.

The conference centre is treated as an ancillary building that both adjoins and invades the space defined by the primary structure. It embraces the hall to the north and west in an L-shaped arrangement at first floor level, its west part tucked under the main roof and its north part free-standing. The north-west corner ends in a nine-storey block of offices reaching out to the normal building line. Its outwardly splayed north edge set against its concrete escape tower provides a vertical accent to balance the dominant horizontal.

Also crucial to the whole composition is placing the conference plenary auditorium as a projecting box under the main roof, half in and half out of the foyer. In this position, it mediates between the scale of the other parts but provides a recognizable climax for people who use only the front part of the complex.

Other conference rooms are placed at the back of the foyer and in a separate wing along the north side, and the whole conference suite culminates in a two-level bar/restaurant at the north-west

Multi-purpose complex, Graz, Austria

Architect

Klaus Kada

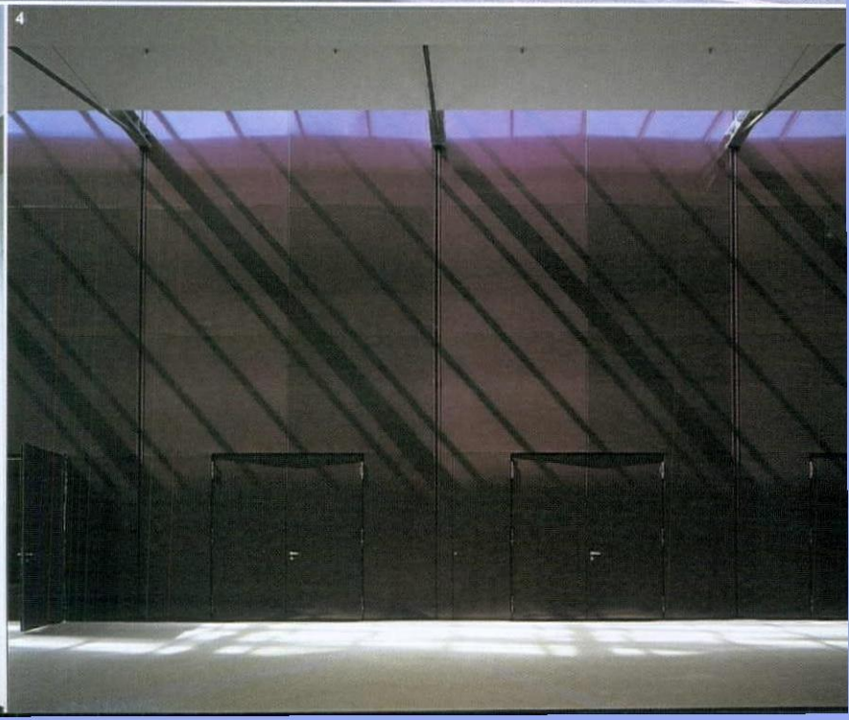
1
Graz's undistinguished exhibition fairground has a new, grand entrance. Left is a nine-storey administrative building.
2
The entrance has nobility and generosity. The main conference plenary auditorium projects under roof (left).
3, 4
Foyer spaces have qualities of brightly lit internal streets.



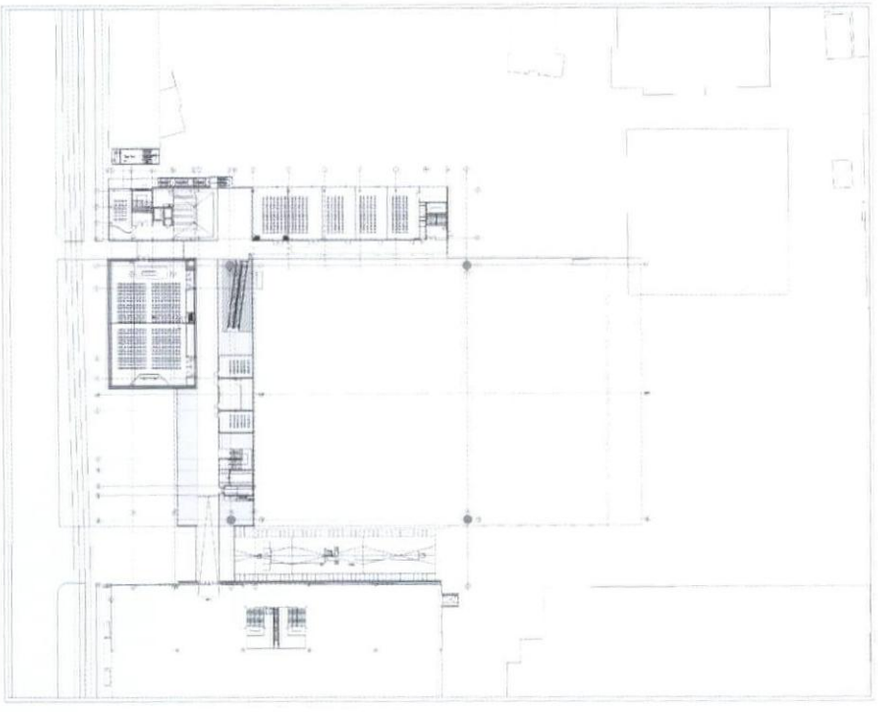
2



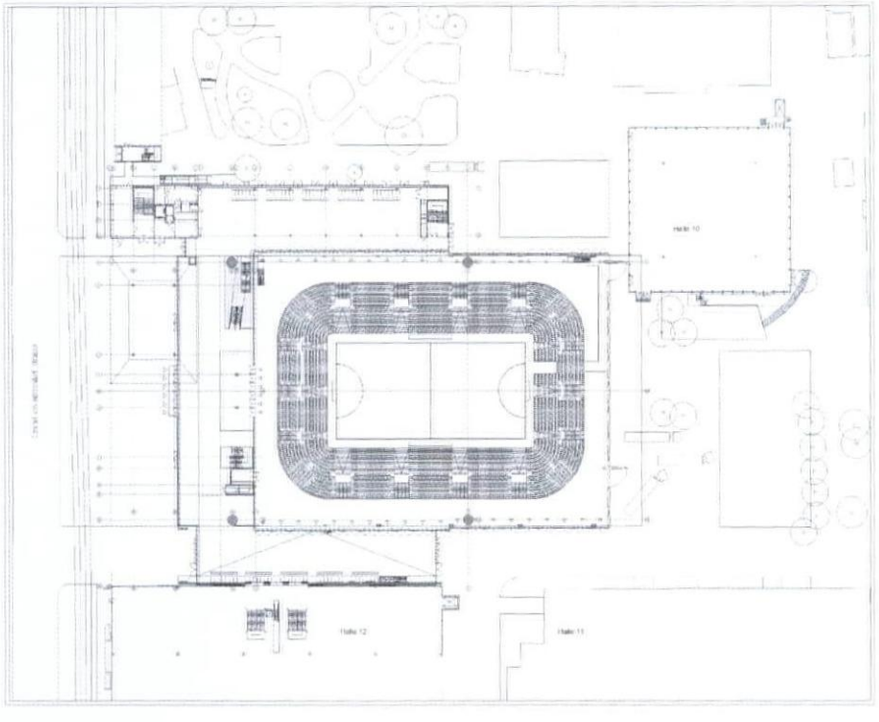
3



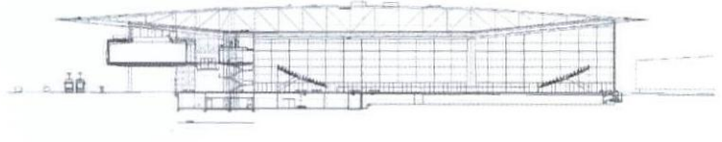
4



upper floor



entrance level (scale approx 1:2000)



long section



cross section

corner next to the main escalators with views down to the entrance.

As in earlier buildings (ARs November 1989, April 1990, February 1992, November 1993, June 1997, May 1998, March 2000), Kada has glazed gaps between the building parts to emphasize their separate structures and their in-between-ness, providing top and clerestory lighting, so the foyer spaces have become a series of brightly lit internal streets. The main plenary conference halls also have strip windows, giving views onto the street, and there is even a high-level external balcony tucked in above it yet still under the main roof, with views across the city to the mountains beyond.

The structural and servicing provision of this building must have been taxing, and much of it is unthinkable without modern technology, yet the technology itself is not fetishized, the drama being rather in the spaces it has allowed Kada to create. Where there are glass roofs, the structure appears, thin and elegant as usual, and glass screen walls are made with the least fuss. Twice in the foyer, twice in the hall, those elephantine concrete columns appear as a quiet reminder of the hugeness of the whole, and the louvred edge of the roof void reveals its hollowness.

Elsewhere, everyday materials are used well: painted concrete and boarding predominantly in aubergine, plasterboard soffits, standard fittings. One is reminded that this is not an expensive building for its size. It fits its street well, with the projecting canopy visible from a considerable distance and the office block providing a corner for the entry space. The potential problem of scale, so infamously evident in a building like Berlin's International Congress Centre, just does not occur. The hall absorbs the crowd but is not overwhelming for a smaller audience, and it belongs to its site.

PETER BLUNDELL JONES

Architect
Klaus Kada
Photographs
Peter Blundell Jones

5, 6
The main hall can adopt many configurations, ranging from spaces suitable for quiet music to ones for raucous sports events.



5



6

TOP OF THE POPS

This arrestingly amoebic new concert hall in Breda exploits the tension between old and new elements.

As part of an urban development masterplan for a now abandoned military barracks in Breda (overseen by the ubiquitous OMA), a former officer-cadets' mess hall has undergone a remarkable metamorphosis, transformed into a venue for pop and rock concerts. Erick van Egeraat was commissioned to remodel and extend the stolid late nineteenth-century building and has done so with his customary brio, orchestrating provocative tensions between old and new that recall previous projects such as his intervention at the Crawford Municipal Art Gallery in Cork (AR August 2000), where a new volume clad in a rippling brick skin was inserted into an existing historic structure, and the ING Bank in Budapest (AR July 1995), where a bulbous interloper spectacularly ruptured the roof of a conventional courtyard block.

Here, unlike Cork and Budapest which were tight urban sites, there is more scope to make an object building in the generous open spaces of the former military campus, but the architectural outcome still feeds on notions of duality, otherness and surprise. Fastened like a parasitical growth on to the sober, rectangular volume of the mess hall is an extraordinary warped cocoon structure clad in a voluptuously ribbed skin of unpatinated copper. The tautly stretched and distorted contours suggest that some grotesque life form is about to burst out of its cuprous chrysalis and engulf the scrubbed, trim block of the renovated mess hall.

The relationship between host and parasite is essentially symbiotic. Served by the mess building, now reconfigured to house a café, bar, foyers and wcs, the cocoon contains a 650 capacity concert hall, split over a ground floor and dress circle mezzanine level. The main entrance is cleft into the intersection of the competing chalk-and-cheese forms, where the teasing curve of the copper carapace meets the ramrod straight edge of the brick wall. Out of concert hours, the entrance is sealed up to become a seamless part of the metal membrane (though there is secondary access through the mess hall). Apart from some gill-like ventilation slots incised into its flanks, the chrysalis is perplexingly impervious, with no clues as to its function. Only during concerts, when the entrances are exposed to ingest the public, and a huge loading dock door swings open like the maw of a ferry, does the building reveal its hand.

To provide much needed acoustic protection, the auditorium is enclosed in a secondary shell, so the two containers – copper outer chrysalis and inner auditorium – are rather like Russian dolls, though the auditorium has its own distinctive amoebic form that does not precisely follow the contours of the external casing. Clad in layers of insulation material and faced in horizontal strips of wood to modulate sound, the auditorium shell is suspended from the outer carapace, itself a layered composite structure of steel and concrete, finished with a 100mm thick coating of in-situ concrete underneath the copper epidermis.

The void between the two shells varies in width, providing access to dressing rooms and backstage storage areas as well as creating an acoustic airlock around the auditorium. Fluorescent lighting illuminates the white underside of the outer



site plan

CONCERT HALL, BREDA, THE NETHERLANDS
ARCHITECT
ERICK VAN EGERAAT

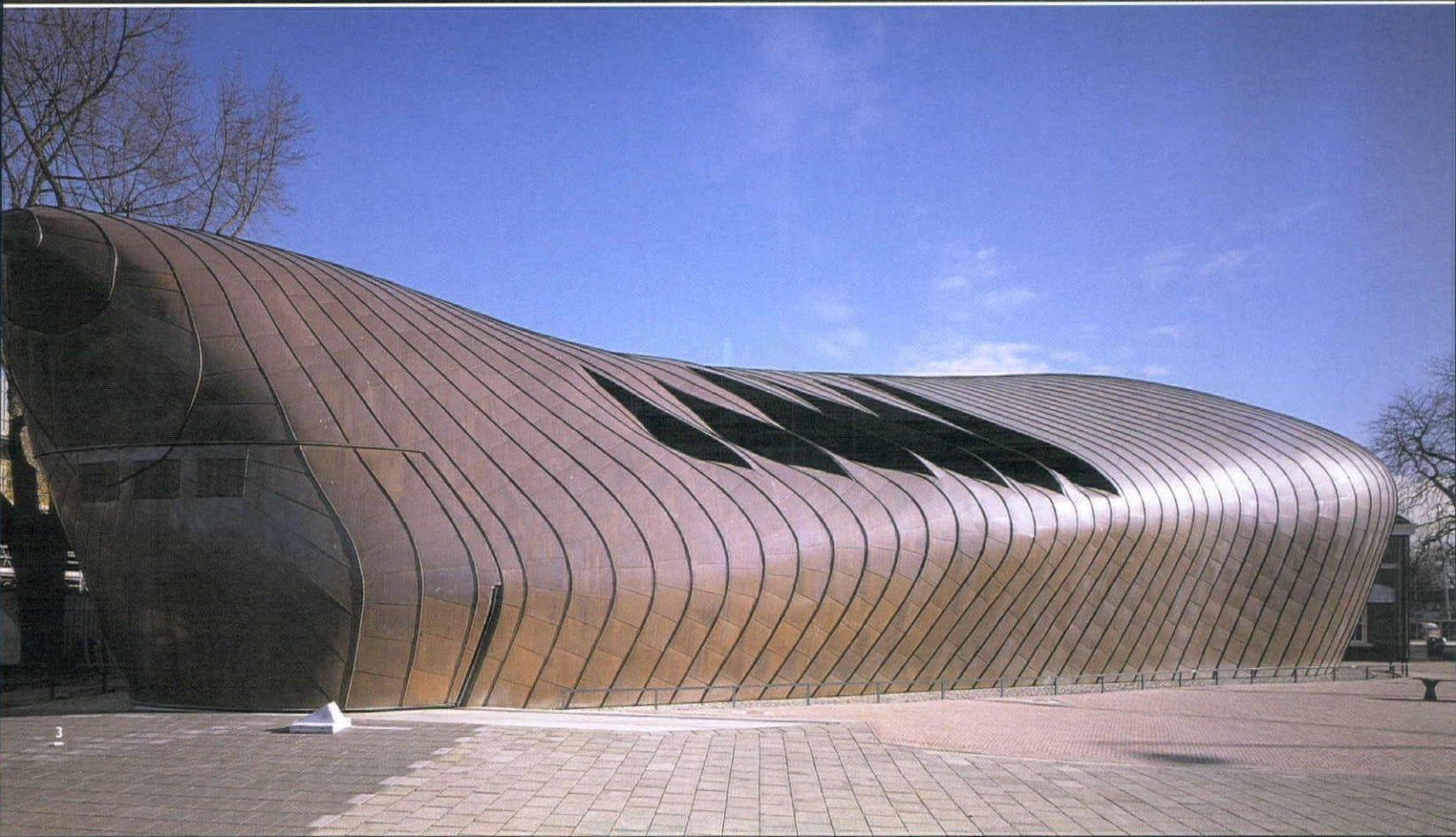


1

1
Main entrance where the new building nuzzles up to the old. Doors tilt down to form a seamless skin.
2, 3
The chrysalis-like form is clad in a sensuously ribbed casing of copper.



2

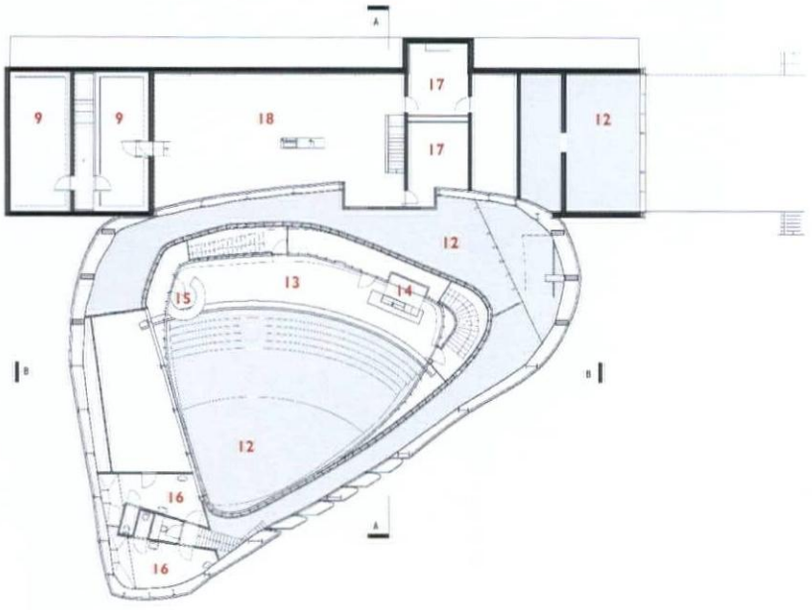


3

CONCERT HALL, BREDA, THE NETHERLANDS

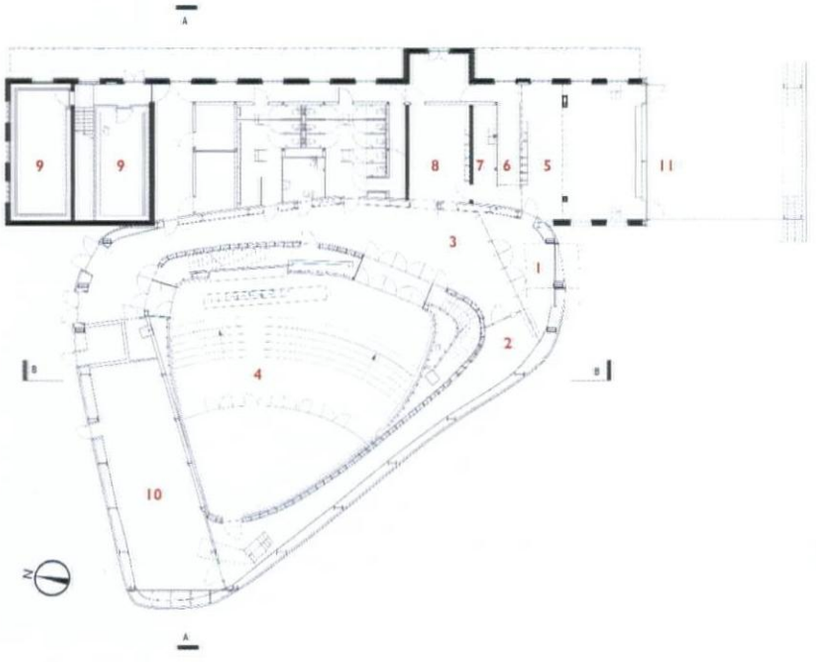
ARCHITECT

ERICK VAN EGERAAT



first floor plan

1 entrance
2 tickets
3 foyer
4 auditorium
5 café
6 bar
7 kitchen
8 cloakroom
9 rehearsal rooms
10 backstage area
11 terrace
12 void
13 mezzanine
14 bar
15 DJ
16 dressing rooms
17 meeting rooms
18 offices



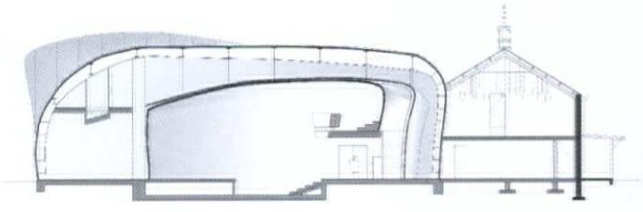
ground floor plan (scale approx 1:500)

shell generating a soft iridescence that evokes the mystery of a subterranean grotto, with the cave-like auditorium at its heart.

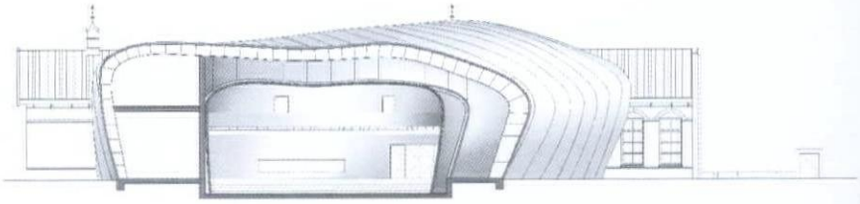
Clearly the product of increasingly sophisticated computer generation, which in turn forces a kind of inventiveness with materials and construction (somehow the thing has to morph from screen fantasy to buildable reality), van Egeraat's concert hall adds to his repertoire of provocative blobs; indeed the carefully choreographed relationship between old (orthogonal, logical) and new (freeform, indulgent) embodies a neat, if slightly ironic, snapshot of certain aspects of the Dutch architectural scene. Perhaps, given the nature of the programme, it isn't quite provocative enough – what might seem edgy to Budapest bankers might not have the same impact on Breda's youthful pop-pickers. Yet apparently the building is popular and, despite its formal pretensions, seems laid back enough to go with the flow.

CONNIE VAN CLEEF

Architect
Erick van Egeraat Associated Architects, Rotterdam
Structural engineers
Pieters Bouwtechniek, Ove Arup & Partners
Acoustic consultants
Ove Arup & Partners
Copper cladding
KME
Photographs
Christian Richters

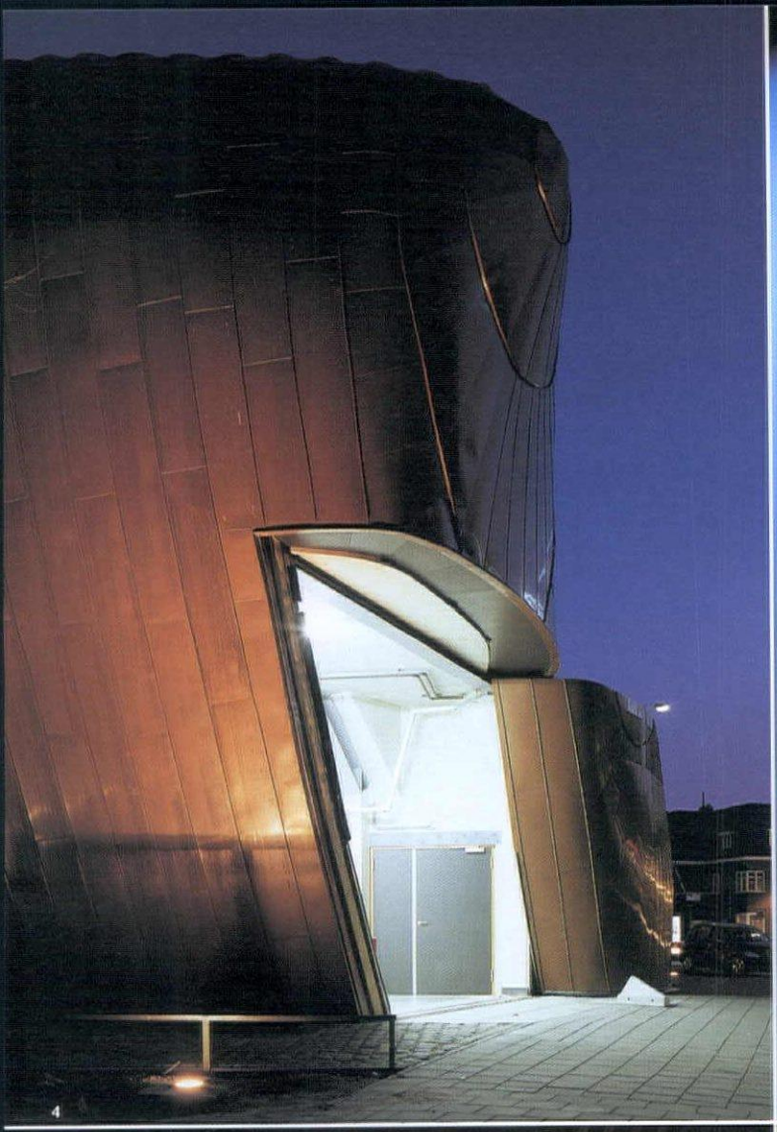


cross section AA



cross section BB

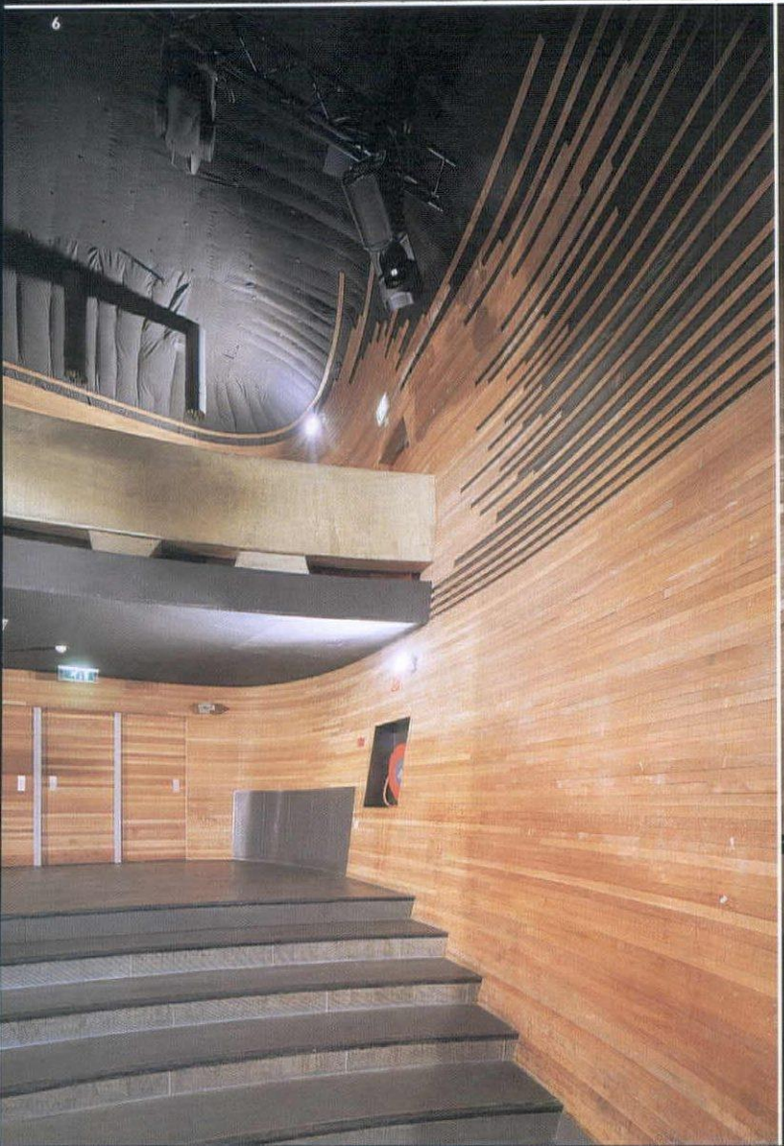
4
The open maw of the loading dock which services the stage.
5
Interstitial zone between the auditorium and the outer structure forms an acoustic airlock.
6
Timber-lined auditorium, the cave at the heart of the building.
7
Upper mezzanine level.



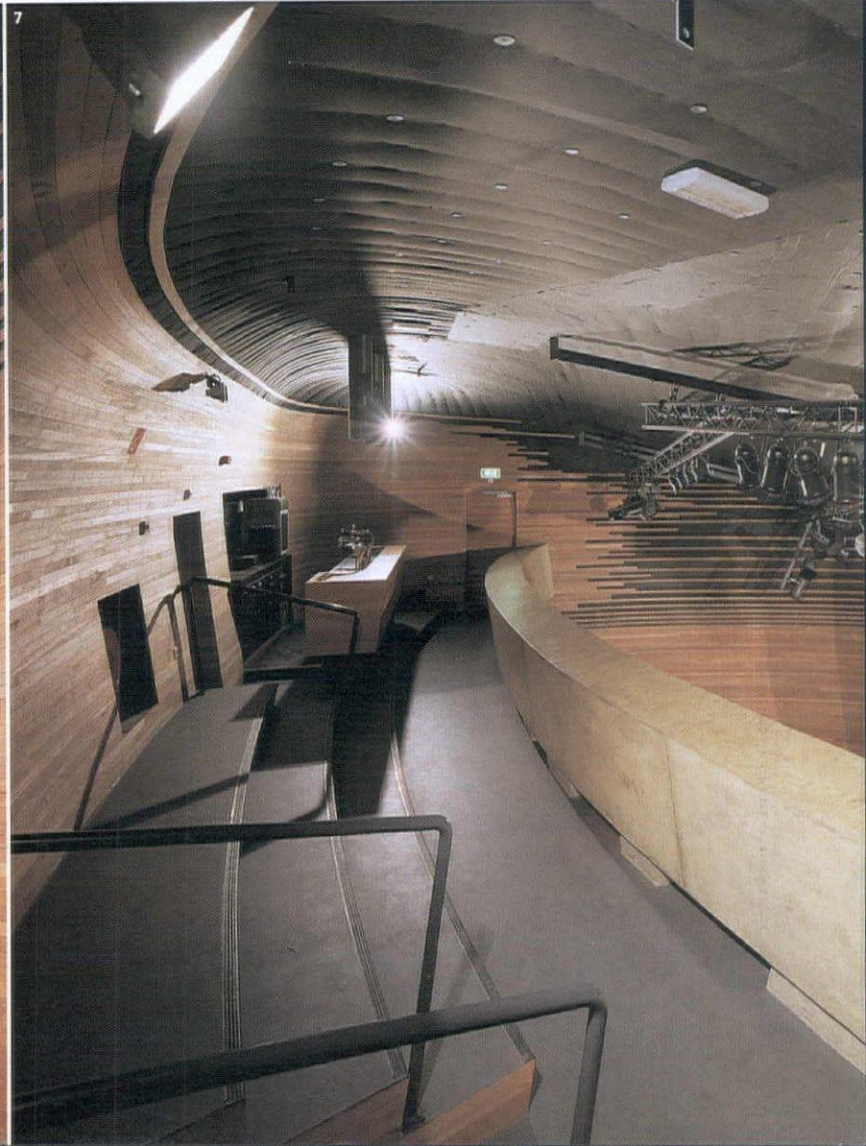
4



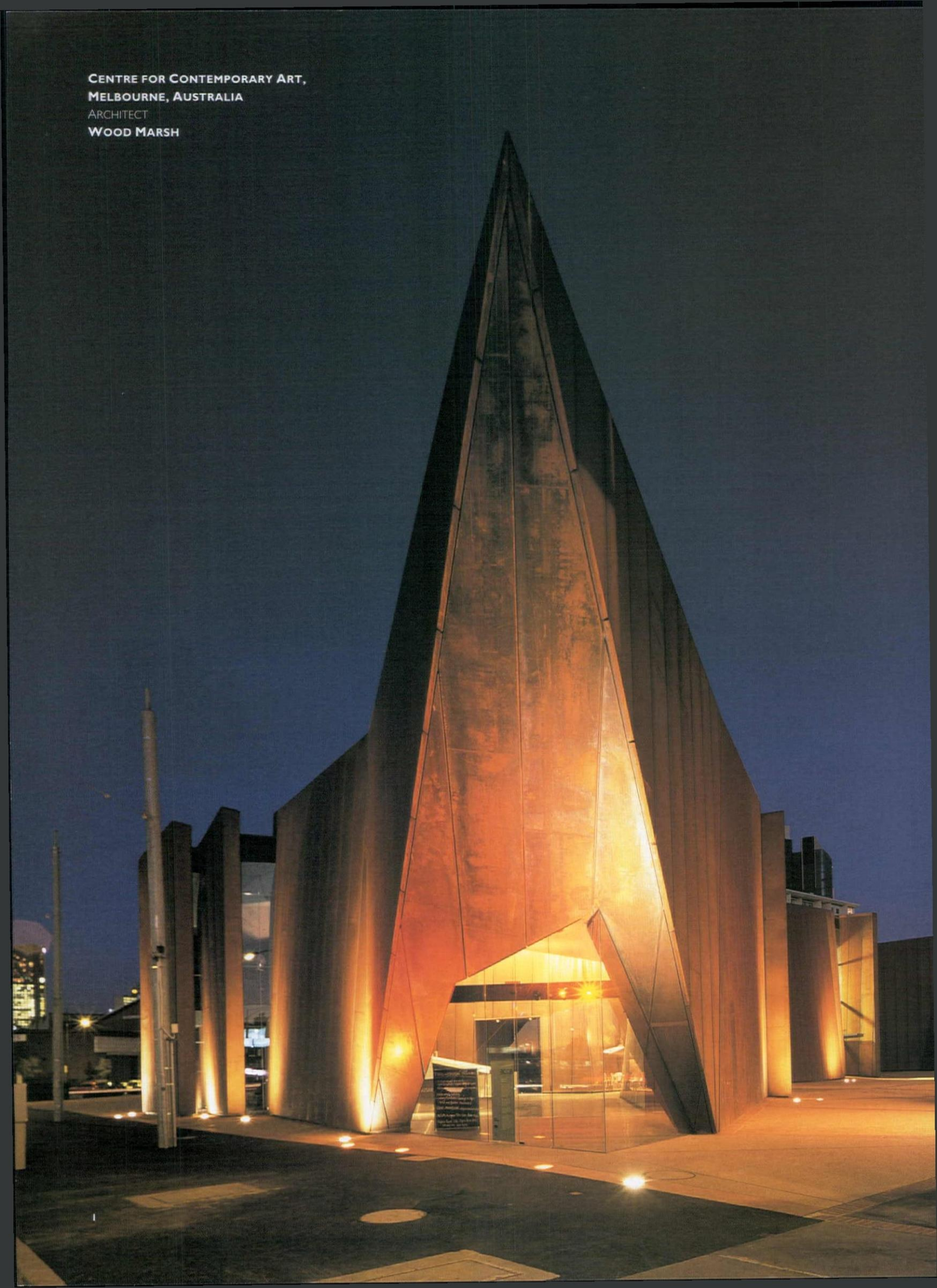
5



6



7



Centre for Contemporary Art,
Melbourne, Australia
Architect
Wood Marsh

ART OUTCROP

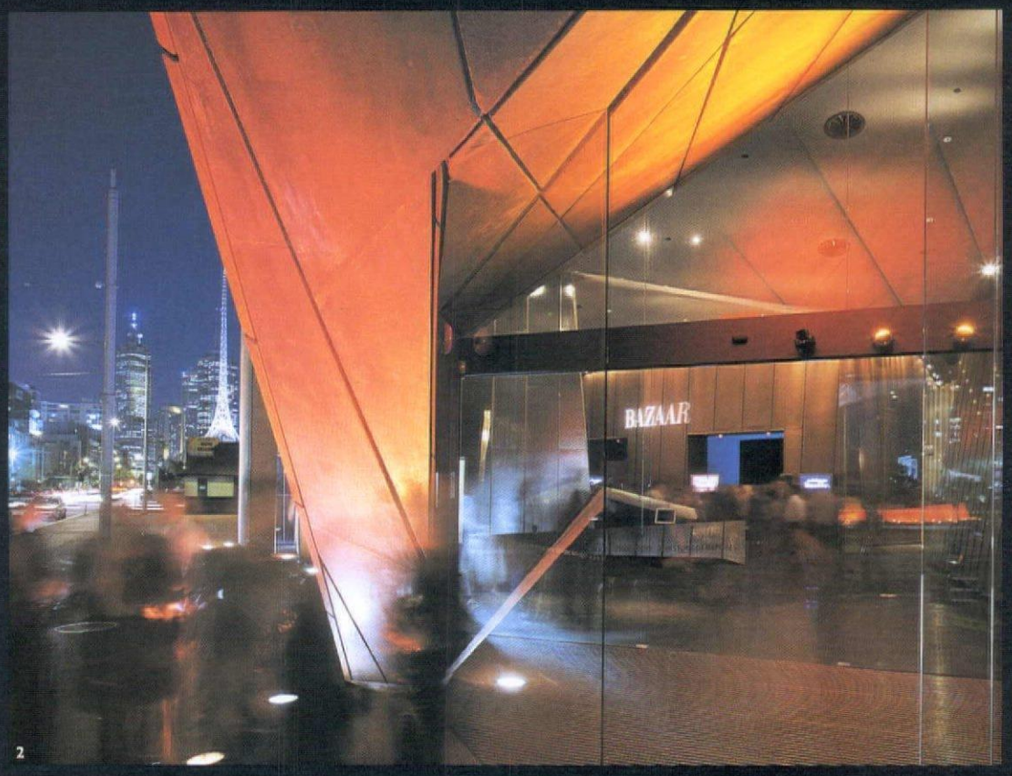
A strange abstracted intrusion of the outback enriches and completes (for now) Melbourne's adventurous Arts Precinct.

The Australian Centre for Contemporary Art (ACCA) lies at one end of Melbourne's Arts Precinct, a necklace of galleries and performance buildings that stretches through the city to Federation Square, the controversial new cultural piazza next to Flinders Street station (AR May 2003). ACCA adjoins the Malthouse, a nineteenth-century brewery converted into the Playbox Theatre.

Though the art centre is much smaller than Federation Square, the two have several things in common: the new square is slung over railway tracks; ACCA's site is half on top of the City Link urban motorway tunnel (the ventilation stack of which forms a landmark post for the complex). Both projects relate carefully to context and, though both have arcane Melbournian geometries, they do generate proper and amiable urban spaces. From down the street, or from the motorway, the ACCA seems remarkably un-urban, a striking cross between a vast and strange prehistoric beast, a prominent geological outcrop and a huge rusting agricultural shed. It contrasts dramatically with the surrounding slightly shabby context of century-old warehouses and modern Americo inner-city tat.

Nearer, on Sturt Street, the centre beaks out over the thoroughfare, calling attention to the rather maw-like main entrance, almost the only obvious opening in its otherwise nearly impervious brown Corten steel skin – a conjunction of rusted steel, abstracted figuration and progression that curiously recalls Massimiliano Fuksas's entrance to the Neolithic caves at Niaux in France (AR August 1995). Art gallery and its companion, the big set-construction shed for the Playbox, are arranged against the Malthouse so that a courtyard is created between them protected from traffic noise and pollution. Here is the theatre café, and the space can be used for open-air performances, as well as exhibition of weatherproof art works.

The architects, Wood Marsh, have worked on night clubs, and Victorian (in both senses) exuberance radiates from the foyer even before you go in. Wall and roof planes – opaque, translucent and transparent – incline and collide to form a space that might almost be by Libeskind, if ever he could be persuaded to make anything as unportentous, wacky and fun. Past the ticket desk and offices on the left and the bar on the right are the two big portals to the four main galleries. These are for the most part simple and orthodox, with white vertical walls modestly waiting to set off ever changing exhibitions.

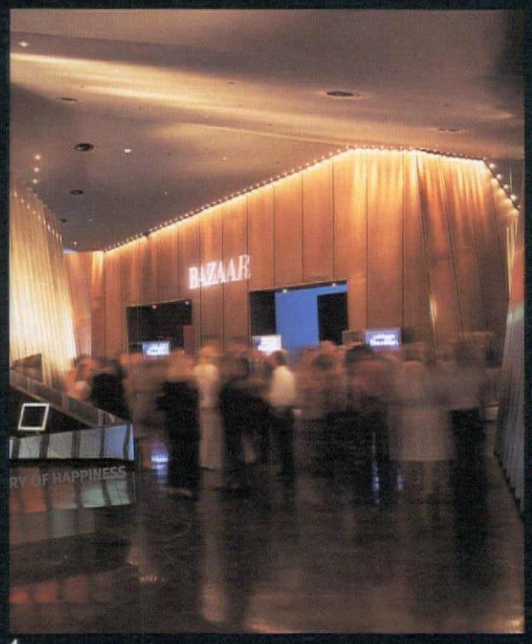


2



3

1, 2
Main entrance: maw of prehistoric beast or night club invitation to delights inside? ACCA court right.
3
Urban motorway goes under half site. Tower, which signals ACCA from distance, is tunnel's ventilation shaft.



4

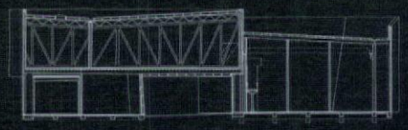
Centre for Contemporary Art, Melbourne, Australia

Architect
Wood Marsh

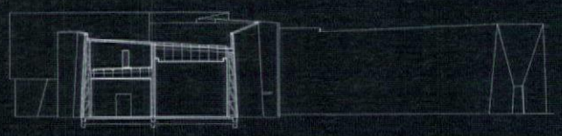
Lift and stairs at the east end of the block take visitors to top-lit, ply-lined rehearsal studios for the Chunky Move dance company. Seen from outside, the studios form a box that spans from the gallery block to the big set-building shed. A sheltered entrance to the court is created that enhances its semi-private nature, but the court is connected to the whole site by a reticulated paving pattern that reflects the browns and pinks of the earth of the Australian deserts, out of which, metaphorically, the angular geological outcrop emerges so surprisingly in the middle of the city. C. PETERSON

Architect
Wood Marsh P/L Architecture
with Pels Innes Neilson Kosloff
Structural engineer
John Mullen & Partners
Photographs
Derek Swalwell Photography

4
Animated foyer, with gallery entrances at back.
5, 6
Court enclosed by new and old buildings and by warm rusty pelt of geological beast.
7
Dance studios at first floor form a box bridge connecting gallery complex (right) to set-construction shop (left).
8
Galleries are reticent, white, waiting.
9
Dance studios are clerestorey lit and warm in contrast to cool galleries.



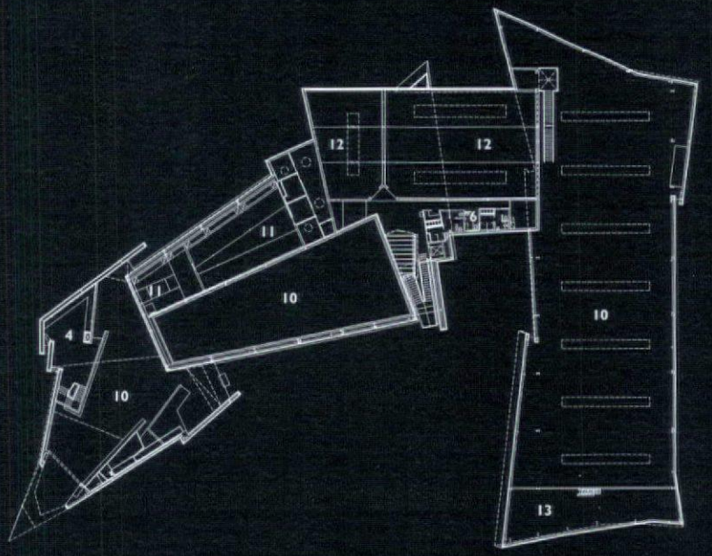
section through dance studios



section through galleries

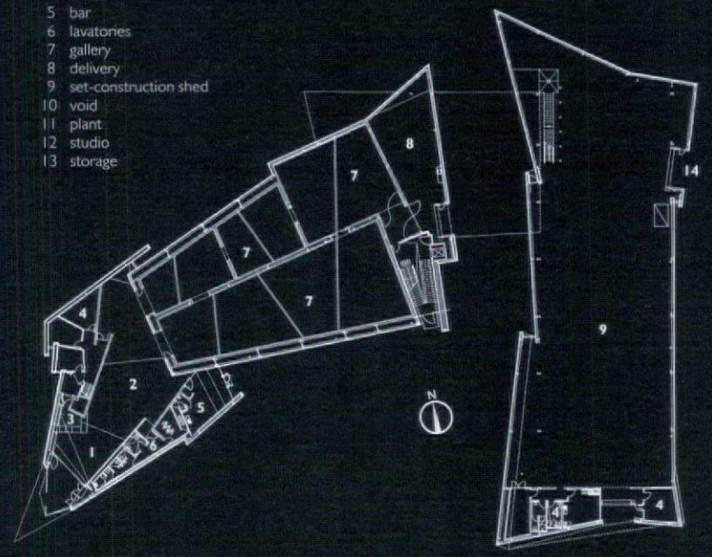


site plan



1 entrance
2 foyer
3 reception
4 office
5 bar
6 lavatories
7 gallery
8 delivery
9 set-construction shed
10 void
11 plant
12 studio
13 storage

upper floor



ground floor (scale approx 1:1200)



1

DANCING BRIDGE

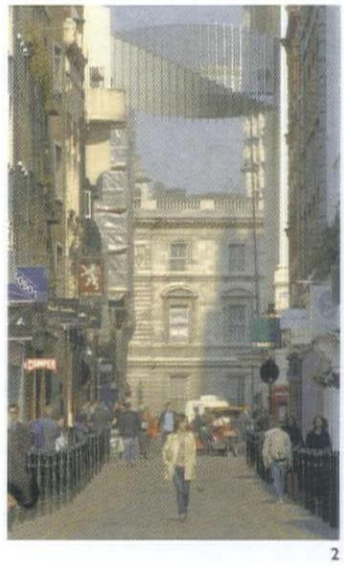
An ingenious intervention into London's ballet complex adds unexpected richness to a humdrum street.

Floral Street is a tall narrow thoroughfare in London's Covent Garden in which the massive white neo-renaissance bulk of the Royal Opera House suddenly obtrudes into a small-scale streetscape of pubs and little shops. Most people do not look up as they hurry down the street or loaf along window shopping. But the few who do, glimpse a magical phenomenon: a crystal that twists and shimmers across the street against the sky.

This is the new bridge between the Royal Ballet School and the Opera House, created so that dancers can go from the practice rooms in the school to the Opera House without having to rush across the road in the rain. The twisted geometry is necessary because the school level from which the structure sets out is higher than the opening in the huge blind wall of the Opera House, and it is a small distance to the east. The Opera House is a Grade I-listed historic building which the architects were bound to change as little as possible, so one of E.M.Barry's blank attic windows became the point of entry. The ballet school to the north is a much less distinguished building, recently constructed under one of the new forms of government procurement that more or less guarantees mediocrity, but internal planning necessitated only one location for the spring point of the bridge on that side.

The spring points meant the bridge had to be gently ramped and skewed away from the orthogonal. A simple long glass box would not do, so Jim Eyre evolved a proposal that involved creating a tube out of square portal frames that are rotated, ensuring that at each end the bridge is level and square to the façade it addresses. Each frame is rotated by three degrees in relation to its neighbour and is slightly different in height. Glazing is held between each pair of frames. As a result of pursuing these simple rules, a wonderfully complex object has been created. Both from inside and out, the object alters with every movement you make.

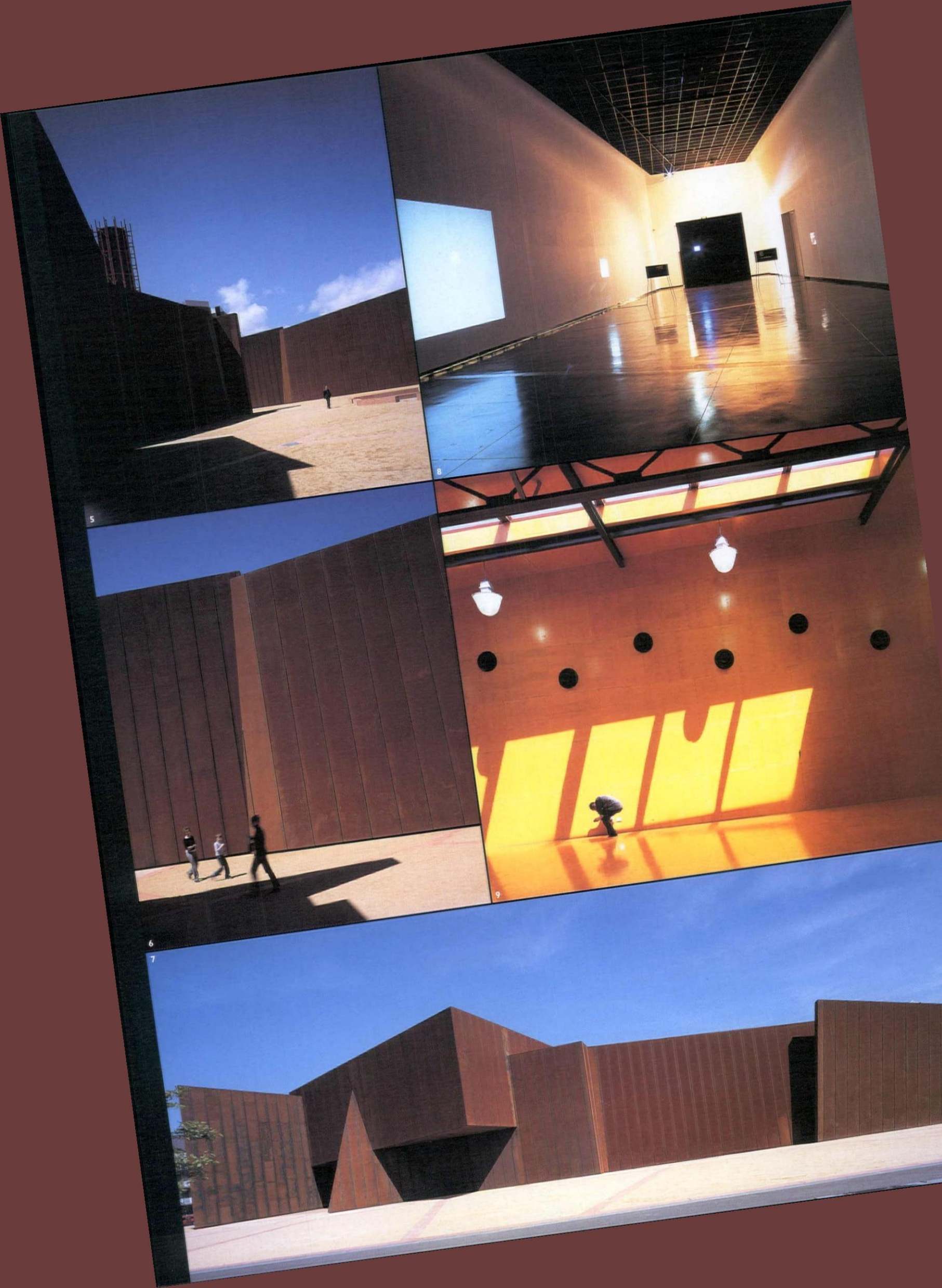
Structurally, the essential proposition is simple: a welded and bolted aluminium box beam spans simply from one building to the other; its section changes according to stresses and the geometry of the frames. At the Opera House end, the beam has a sliding bearing to allow for thermal movement and, as a result, loads at that end always bear vertically down on Barry's wall. The aluminium portals are supported on the primary beam

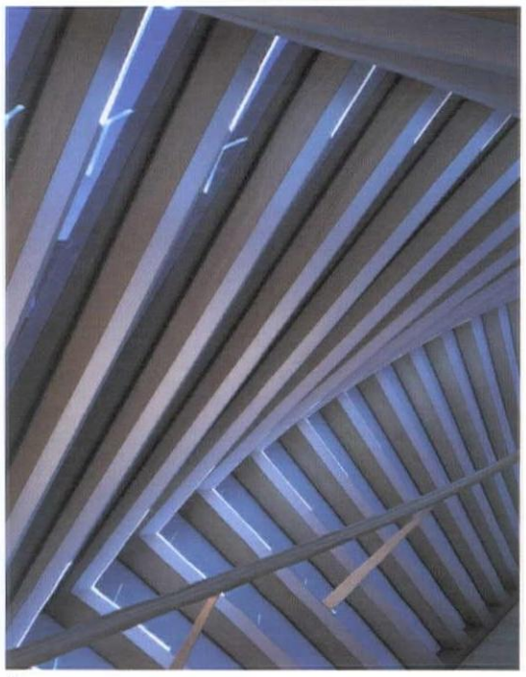


2

1
The bridge constantly changes in appearance as you move past it.
2
Hovering over its narrow street, the surprising bridge will not be noticed by many passers-by.
3
The bridge twists towards the Opera House.

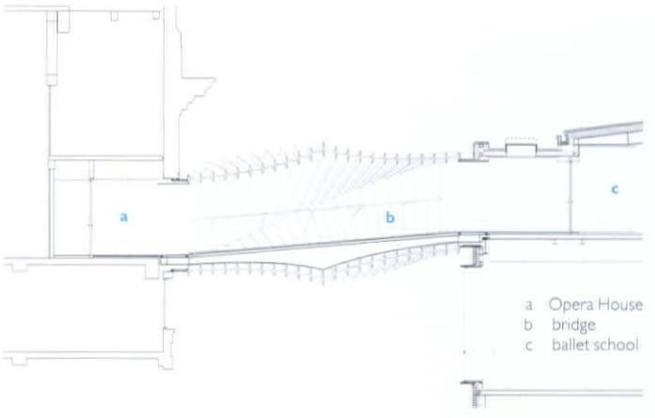
BRIDGE, ROYAL OPERA HOUSE, LONDON
ARCHITECT
WILKINSON EYRE


5
8
6
9
7



4

perspective: school on left and Opera House, right



long section

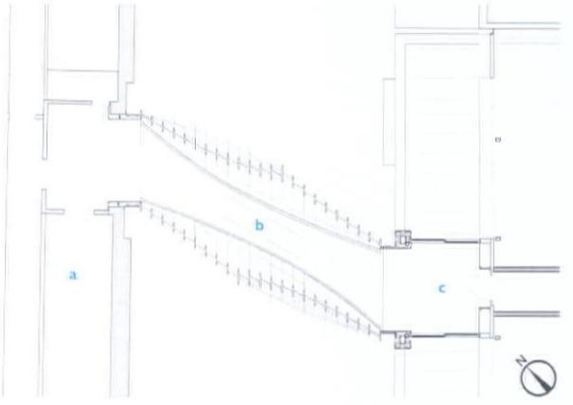
BRIDGE, ROYAL OPERA HOUSE, LONDON

ARCHITECT

WILKINSON EYRE

and have oak slats on each side of their webs so that the glazing can be fixed with the necessary degree of stiffness. As much prefabrication as possible was used to minimise disruption to the street, and to reduce working at high level. The beam with the portals erected and the central part glazed was rapidly set in place by crane, after which the final glazing panels were fitted and the abutments finished.

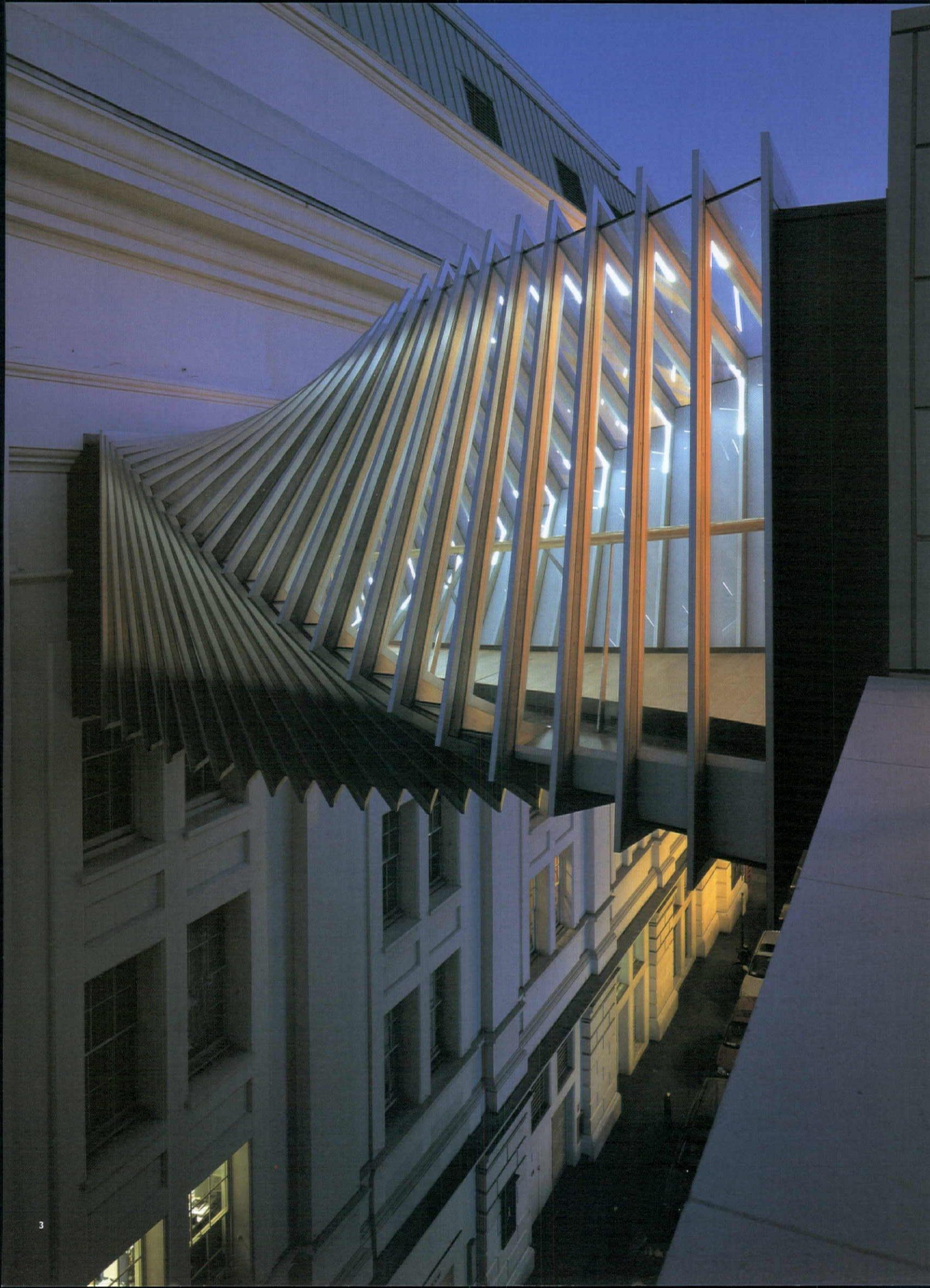
Glazing is both transparent and translucent. Translucency is used to prevent overlooking the terrace of the neighbouring house to the west, and to give people on the bridge a degree of privacy as they go over the road. Contrast between transparent and translucent adds to the visual complexity of the object. Internally from some angles, the walls appear almost opaque, as the frames crowd together in perspective and seem mostly to be made of oak. Move a few feet further and the wall suddenly becomes full of light, or transparent (with the aluminium frames exposed full on), offering dramatic views up and down Floral Street. Externally, the bridge alters in a similar way from semi-opaque to transparent as your angle of view changes. In the last century, most of the incidental additions to London's streets have been coarse and clumsy: here at last is an addition that shows how contemporary technology and architectural invention can rival the elegance and dignity of anything the Victorians did – and be much lighter too. P.D.



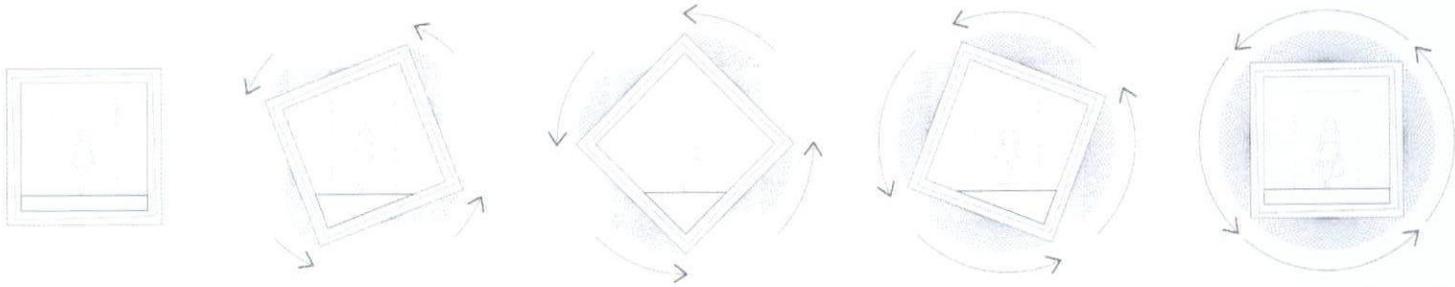
plan (scale approx 1:250)

Architect
Wilkinson Eyre
Design team
Jim Eyre, Annette von Hagen, Martin Knight
Structural engineer
Flint & Neill Partnership
Photographs
All by Nick Wood except 4, which is by Edmund Sumner. Copyright Wilkinson Eyre

4
Oak slats secretly bolted to webs of aluminium portal frame members hold the glass in place.
5
The bridge dances from opacity through translucency to transparency.



5



principles of rotating section



1

Engineering enlightenment

While working with some of the world's leading contemporary museum and gallery designers, London-based Arup Lighting have identified two distinct streams in the pursuit of passive daylit solutions.

process



2

'Daylight is of decisive importance when experiencing architecture. It is constantly changing. While an architect can fix the dimensions of solids and cavities, designate the orientation of a building, specify the materials and the way they are detailed, and describe precisely the quantities and qualities of a building before a stone has been laid, daylight alone is beyond their control. So how is it possible to work with such a capricious factor, and how can it be utilized artistically?'
Steen Eiler Rasmussen, *Experiencing Architecture* – an edited extract

The first public galleries and museums to be purpose built date from the early nineteenth century, and were entirely dependent on daylight. More often than not, they were based on classical models – temples and palaces – and were large, lofty and symmetrical. Today things are no longer as formulaic.

As contemporary exhibition spaces break these established models – as the art-space is replacing the gallery – in seeking to manipulate daylight to meet the specific and onerous technical targets that the modern exhibition space demands, it is becoming increasingly necessary for architects to consult engineers to accurately simulate a wide range of daylight conditions. But when working with people as different as Renzo Piano with his inventive component trickery, and Daniel Libeskind with his highly specific fractured geometries, how are their skills best integrated into the design process?

Arup Lighting have collaborated with a wide range of architects including Piano and Libeskind, and Director Andrew Sedgwick describes their role as a response to either known or found conditions. As a known condition, at the outset of a project with Piano for example, an attitude to light will be prescribed, which when resolved by a component helps to inform the identity of his architecture (as at the Beyeler Institute). On the other hand, Libeskind manipulates light as if it were a physical material, giving the engineers highly specific found conditions to respond to. So while with Piano they know the condition they are seeking to create and use their expertise to help refine the performance of a component or a piece, with Libeskind they are given a daylit scene to analyse in order to quantify its performance and appropriateness as an exhibition space, making recommendations where necessary.

Piano

When considering the two principal gallery spaces at the High Museum of Art in Atlanta, Georgia, Piano's aspirations were clear. Within a four foot grid, using a repetitive passive lighting component, Piano wanted to optimize the amount of diffuse daylight that entered the spaces. He wanted uninterrupted views to the sky, and of critical importance to the conservation of exhibits, all direct sunlight had to be excluded. So within this known brief the design team began to model, simulate and refine the composition of the skylight components: a static element that comprised a precast cylinder know as a 'Cannon' (incorporating collapsible interstitial dim-out and black-out shading layers), a clear glass envelope, and a sculptural GRP shading cowl. While early computer models and seasonal animations demonstrated that the final composition met both the architect's visual criteria and the technical lighting specification, when the architect started to distort the perimeter shading cowls to integrate them with the cladding on the elevation, a second condition was highlighted that needed further analysis. This resulted in an area of fritting being added to the glazed lid of the cannons to resolve an unacceptable condition that was made apparent from simulations and the construction of a full-scale mock-up. Despite huge advances in simulation techniques, a full-size mock-up is still considered to be an essential part of the design process. Not only does it serve as a useful model to test the effect of light on internal finishes, but, more critically it gives the architect and the exhibition curators the opportunity to truly experience the nature and quality of the space that is never adequately sensed in virtual reality. Refinements can then return to complete the feedback loop, with adjustments being re-tested digitally before final decisions are made. The mock-up also enables more subjective decisions to be made, such as to what degree secondary reflections are acceptable, as was the case with the diagonal striations seen on the walls beneath the soffit; subtleties that until experienced could not be adequately understood.

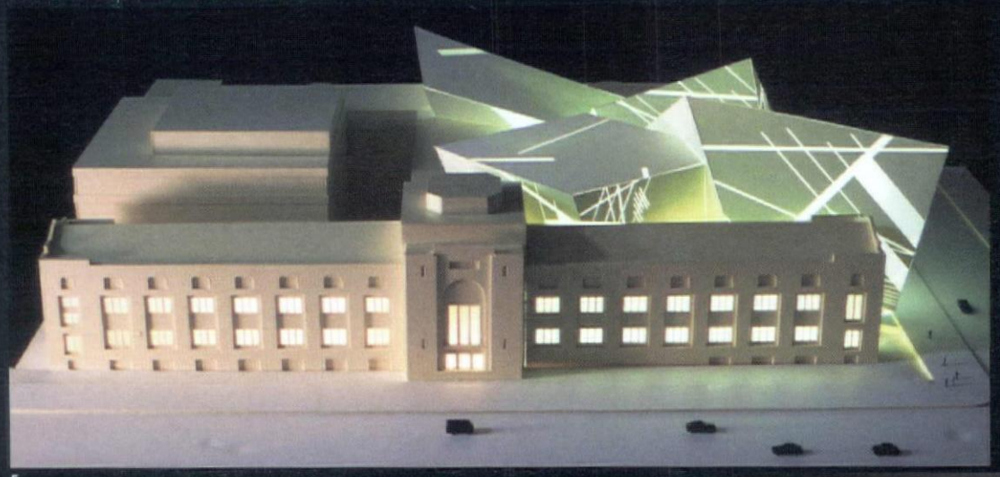


3



4

1, 2
When refining the composition of the wall and roof components in collaboration with Renzo Piano, Arup Lighting sought a solution that would maximize diffuse daylight, give clear views to the sky and eliminate direct sunlight penetration ...
3, 4
... and by building a full-scale mock-up, the effects of subtle secondary reflections were considered by members of the client and design teams before details were finalized.



5



6

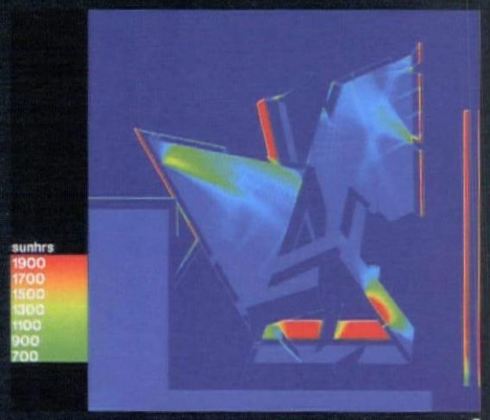
Libeskind

In contrast to the iterative process of working with Piano, Arup Lighting's role when working with Daniel Libeskind may initially seem more peripheral. With geometries set by the architect, fundamental changes are rarely made, and arguably their input has less of a direct impact on the resultant form of the architecture. Yet, when dramatic spaces such as those created by Libeskind are needed to perform a practical role for exhibitions, it is essential that exhibition designers know where the daylight is throughout the year. So, by calculating the sunlight hours and annual exposure to daylight, the exhibition designers and curators can be more informed in developing their distribution strategy. For, while Libeskind would inevitably have tested his compositions himself to understand the visual effect of light falling on internal surfaces (a process which physical models are perfect for as light is scaleless), a more sophisticated animation technique is required for more quantifiable analysis before the lighting consultants can make recommendations to introduce controls where necessary (especially in spaces where the contrasts between low daylight factors and dramatic shafts of direct sunlight are common).

Throughout their work, Arup Lighting try to balance the architectural aspirations of designers with the practical requirements of the curators. The success of their input often relies on the ability to resolve the conflicts that arise, such as spatial flexibility versus spatial composition. But, it would seem that there is a shift in the current market that recognizes the need to return to natural lighting solutions, and in a number of cases passive control techniques. Instead of pursuing the black-box track and spotlight technique, which until recently has dominated American institutions, naturally daylit exhibition spaces are having a renaissance. With better colour rendering than artificial light, and with the dynamic ever-changing nature of daylight and the environmental bonus of energy efficiency, the benefits are clear. Despite technological advantages, the human eye will always have the ability to perceive the subtle qualities of a light source. Daylight is impossible to simulate in any convincing manner. So, the move to exploit ambient natural lighting and to reduce the reliance on artificial light should be welcomed, which in turn will increase the necessary input from enlightened engineers.

ROB GREGORY

Architects
Renzo Piano Building Workshop
Studio Daniel Libeskind
Lighting Consultants
Arup Lighting; Andrew Sedgwick, Arfon Davies, Florence Lam, Tim Hanson



7

5
Daniel Libeskind's proposals for the ROM Renaissance Museum in Toronto.
6
While physical models are useful tools to test lighting scenes ...
7
... Arup Lighting's animations accurately quantified the sunlight hours anticipated.

Musical variations

A fine 1930s broadcasting building has been rescued from decay and transformed into an urban music centre.

MUSIC CENTRE, BRUSSELS, BELGIUM
ARCHITECT
SAMYN & PARTNERS – VAN RANST – WACHTELAER

The headquarters of the Belgian National Institute for Radio Broadcasting in Flagey Square, Brussels was the subject of a 1933 competition set up to bring together all the functions of the state broadcasting system. It was won by Joseph Diongre with a stylish, austere functionalist building finished in 1938. Less than four decades later, in 1974, the building was completely out of date, because television demanded much more studio space than radio, and broadcasting had to move to new premises in the suburbs, leaving the *usine à sons* without a proper function.

The broadcasters finally shut the building down in 1995. Decay set in, until the building was listed by UNESCO as a world heritage building at risk in 1998. A group – financed from both public and private sectors – the Maison de la Radio Flagey, got hold of the place with the aim of turning it into a music centre. A consortium of Samyn & Partners and Storme van Ranst – Wachtelaer was asked to convert it.

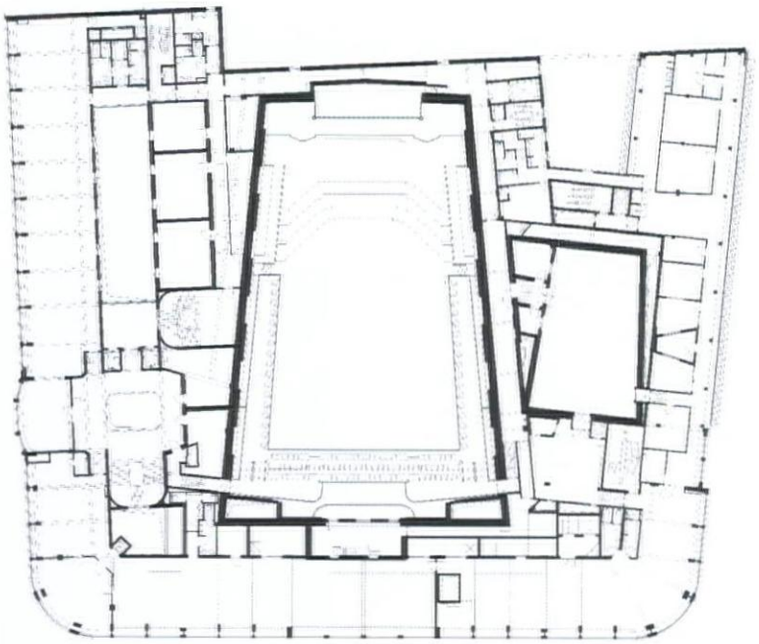
They were concerned to preserve the still fresh and optimistic qualities of the Diongre building, while making it accessible to a larger and wider audience than the state



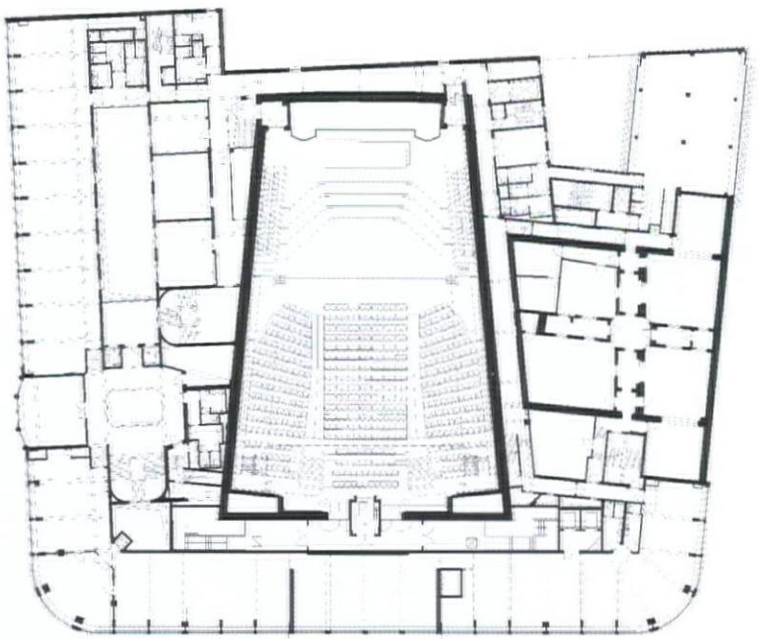
1

1
Shops inserted at ground floor make building part of city conversations.
2
The main recording studios have been converted into a concert hall with the addition of 500 new seats.

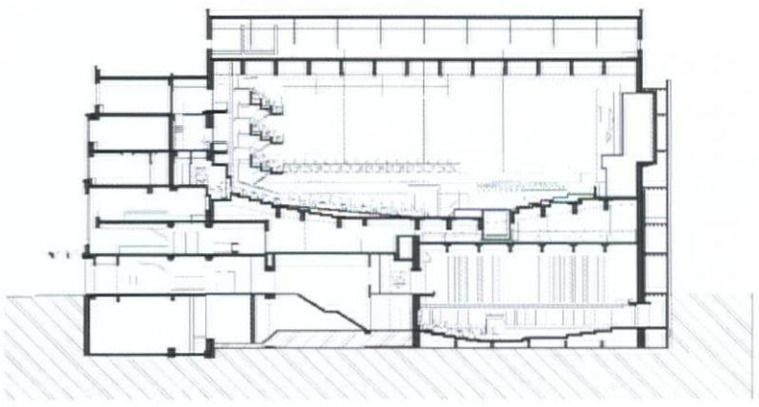




plan at balcony (third) level



plan at orchestra (second) level (scale approx 1:800)



long section through main auditorium

broadcasting organization had ever imagined. New lifts, fire escapes and disabled access were required. Recording studios had to be transformed into concert halls, large and small. Shops and a big café were created on the ground floor, making the place part of local urban conversations.

The main studio has been re-jigged to increase its potential audience from some 400 seats to 900. Three new balconies have been added at the end opposite the orchestra, and so have two along the sides. The new work is suspended from beams in the roof space by 600mm steel rods, and the whole operation respects the excellent reversibility principle, under which whatever changes we may make in our own time can be changed back by our successors to the original state inherited from our ancestors. All Diongre's wood panelling has been preserved.

Acoustics of the main hall are alterable from an environment suitable for a full symphony orchestra to one in which a chamber group will feel at home by mechanically altering the sound absorption of the space. Other activities are made possible, for instance films and conferences. Surrounded by its new fringe of locally friendly activities, the Maison de la Radio Flagey looks as if it will be a real and lively part of the city. E. M.

Architect
A. M. A. Samyn – Van Ranst – Wachtelaer
Project team
Samyn & Partners, Brussels: Ph. Samyn, M. Vandeput, D. Mélotte, B. Calcagno, B. Counson, I. Delattre, J. Duplat, L. Finet, Ph. Gaube, P. Hendrix, V. Ilardo, A. Khoei, J. Quirynen, M. Ruelle, C. Stalmans, Q. Steyaert, G. vander Vaeren, L. Van de Velde, M. van Raemdonck
Architektenburo Storme Van Ranst, Antwerp: J. Van Ranst, Ph. Van Goethem, R. Chevalier, R. Verspreeuwen, T. Bracke, K. Voet, I. Lemmens, G. Aertssen, T. Baetens, S. Mesdagh, S. Bil, M. Montanari
Acoustic consultant
Artec Consultants Inc
Photographs
Ch Bastin, J. Evrard

3, 4
Three new balconies were inserted at end opposite orchestra and two along sides. All hung from roof.
5
Whole conversion respects reversibility principle.



3



4



5



1

Marine curves

Using the traditional materials of the surrounding neo-vernacular seaside resort, this holiday house explores memories of the German Organic and geological time.

HOUSE, GUERRERO, MEXICO
ARCHITECT
LCM/FERNANDO ROMERO

Ixtapa is in the state of Guerrero, some 250km up the coast from Acapulco, on the Pacific coast of Mexico. Its traditional name means 'the white sand place', and its climate ranges from humid, with heavy tropical rains on summer nights, when temperatures can reach 32C, to relatively dry in winter, when the average temperature is 26C. Almost every day of the year enjoys cloudless sunshine during daylight hours.

The resort, which has grown up over the past 30 years, has been planned with some care to take advantage of the idyllic climate. It has strong urban design (or at least appearance) rules, which include insistence on using natural materials and *palapa* (tropical thatch),* or at least *tejado* (tiled) roofs. The clients for Fernando Romero's house wanted a place for family reunions, where everyone could enjoy the amazing site and sun.

Romero's basic strategy was to make the ground floor into the general or public area, while the upper one is devoted to bedrooms for visiting family members. The tour de force is the very large living room that looks out over the evergreen garden, beach pool and sea through a huge, unglazed opening, made possible by the climate. The curving plan creates a diagram that seems to have the pattern of a rather complicated cell seen under a microscope. The great room opens to the south under a covered terrace. To the north are the more utilitarian service rooms and the master bedroom, the latter positioned so that the place can become a flat when no visitors are staying. In three dimensions,

1
Entrance side, looking through the great room to pool and sea.
2, 3
The generous wall-less room resembles a cave overlooking the sea.



2

3



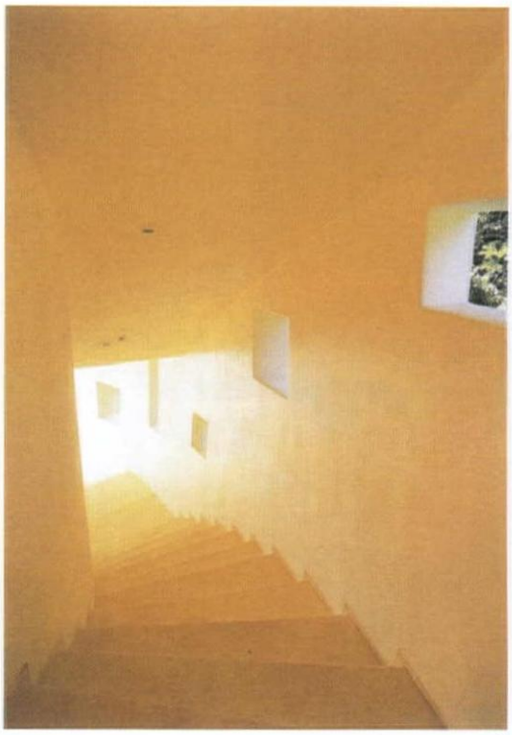
the space resembles a cave, gradually carved out from a massive boulder by the action of the sea.

As the resort's rules demand, walls are sculpted out of white rendered masonry, and there is a shallow thatched roof. The big span of the public area and the long cantilevers are, of course, generated by using an inner concrete structure that is masked by the flowing white masonry. The place is an evocative echo of the Einstein-Türm school of organic architecture strangely translated to the tropics. CRISPIN HEWS

* Traditionally, a *palapa* is an open-sided dwelling with a thatched roof made of dried palm leaves: or any structure that is open-sided and thatched with palm leaves.

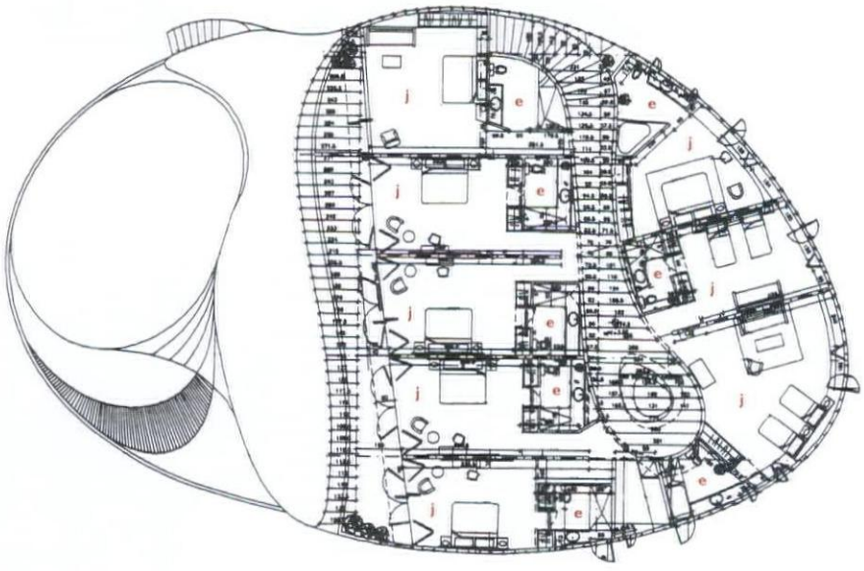
Architect
LCM/Fernando Romero
Job architect: Alfonso Salem
Design team: Fernando Romero, Juan Pablo Maza, Mark Seligson, Tatiana Bilbao, Ernesto Gadea, Jacinta Garatachia, Mauricio Rodriguez, Victor Jaime, Aaron Hernandez
Structural engineer
Fernando Carrillo

HOUSE, GUERRERO, MEXICO
ARCHITECT
LCM/FERNANDO ROMERO

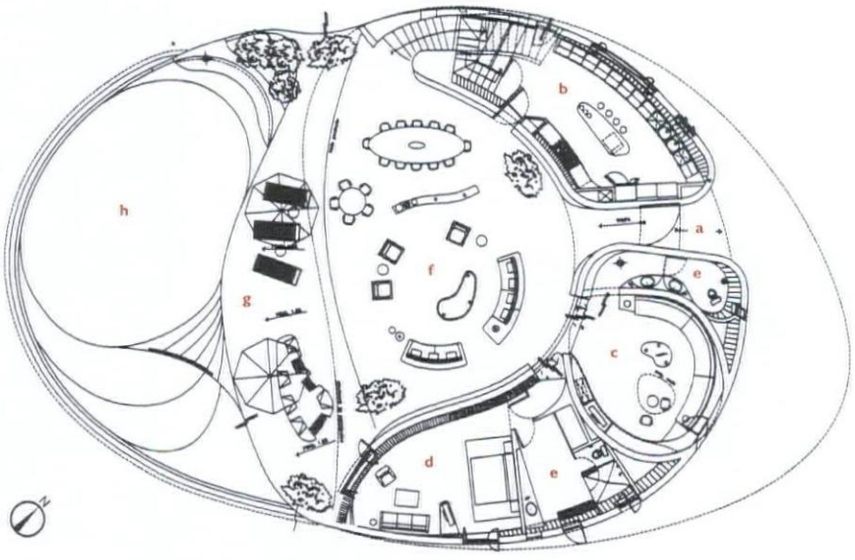


4

4
The staircase follows the continuous curve of the wall.
5
The television room is a cave within a cave.



first floor



a entrance
b kitchen
c television
d master bedroom
e bath
f public space
g terrace
h pool
j bedroom

ground floor (scale approx 1:200)

Rob Gregory reviews the latest external furniture and lighting products.

501



502



502



503 GARPA

With over 24 years experience, to complement their diverse collection of traditional teak products, Garpa now offer an alternative 'feather light' aluminium and stainless-steel range available with either taut strap weave or warm teak slats.

Enquiry 503 www.arplus.com/enq.html

501, 502 EXTREMIS

Across a wide range of distinctive external furniture products, EXTREMIS seeks above all else to promote sustainability through production, and social interaction through use. With adjustable seat heights, the circular table Gargantua **(502)** operates in two modes; either as an eight seat table with the benches lowered, or with the benches raised to form a larger 12-person table. Fabricated with a galvanized steel frame, teak seats and a teak and stainless-steel tabletop, Gargantua is a distinctive blend of durability and refinement. PicNik **(501)** breathes new life into alfresco eating. Pressed from a single sheet of aluminium, bent into a futuristic sculptural form, PicNik is available in five distinctive colours, and is stackable for commercial applications. A junior version has been produced for children, and for true furniture enthusiasts a 1:10 scale model is also available.

Enquiries 501, 502 www.arplus.com/enq.html

503



504



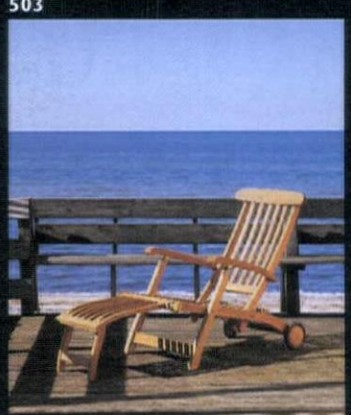
505



506



503



504, 505, 506, 507 WOODHOUSE

Rotterdam **(504)**, from the Light Stack range, is an elegant 4m high stainless-steel external luminaire. With a 100-watt metal halide lamp, the fitting provides excellent uniform light distribution.

The Geo litter bin **(505)** has a stainless-steel cylindrical body with a polythene liner providing a capacity of up to 70 litres. Available in single, twin or triple configurations, the bin can also be attached to Geo lighting columns to reduce pavement clutter.

Oblique **(506)** is an indirect luminaire, made in die-cast aluminium and fibreglass reinforced polyester resin, mounted on a 4m painted steel, stainless-steel, or an aluminium tapering pole.

The Escofet BS3 bench **(507)** made from reinforced cast stone is available in granite, grey or beige and incorporates three stainless-steel bands which not only articulate the bench's composition, but also serve to deter skateboarders.

Enquiries 504, 505, 506, 507 www.arplus.com/enq.html

507



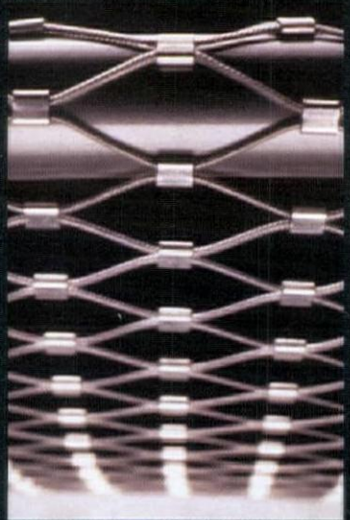


508 CARL STAHL

X-Tend stainless-steel cord netting by Carl Stahl offers designers new alternatives when resolving challenging landscape and architectural metalwork details. Whether cladding a landmark tower, or providing a supporting framework for a landscaped green facade, the system can be used in lengths of up to 30m, and being pre-assembled in the factory is easily installed on site when combined with the I-SYS range of stainless steel components.

Enquiry 508 www.arplus.com/enq.html

508



509



510



511



509, 510, 511 STREETLIFE

The Wait&See external seating system from StreetLife offers flexible solutions for public spaces. As a modular system it provides numerous configuration options, supported by a wide range of accessories, which include armrests, backrests, and tables. Fabricated with durable components, the system requires little maintenance and is available in a number of finishes. The timber options (**510**) include Robinia and Sapupira – both of which are sustainably sourced hardwoods from Eastern Europe and Brazil – while the SMC range (**509, 511**) reinforces StreetLife's sustainability credentials by using recycled plastic to fabricate the seats with a sheet moulded coating, available in grey and blue finishes. All other components are fabricated using high-grade stainless steel.

Enquiries 509, 510, 511 www.arplus.com/enq.html

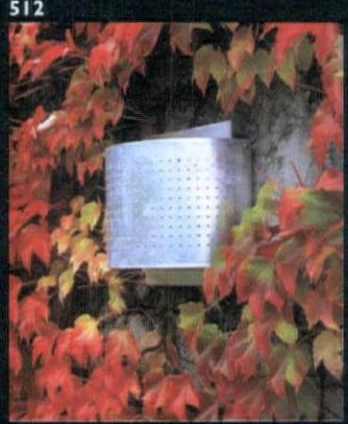
512, 513 VEKSØ

The Nimbus (**512**) is one of a range of wall-mounted bulkhead lights designed by Tom Stepp and manufactured by Veksø in Denmark. Made from heavy gauge galvanized steel it is available in the raw finish or a powder-coated variety of RAL colours. Various lamp types are available including incandescent and fluorescent with conventional or electronic ballasts in 18W and 26W, while high-pressure mercury and high-pressure sodium are available in 50W.

The SHL 1000 (**513**) is a bench made from heavy gauge steel and oil treated mahogany or ash, and is designed by MAA Schmidt, Hammer & Lassen K/S architects in Denmark. While the SHL 1000 is surface-mounted, the SHL 1002 incorporates extended legs, with a choice of galvanized steel or powder-coated finishes. The SHL 1000 is part of the SHL range including a bollard, a bicycle stand and a bin, which share the same simple and clean design.

Enquiries 512, 513 www.arplus.com/enq.html

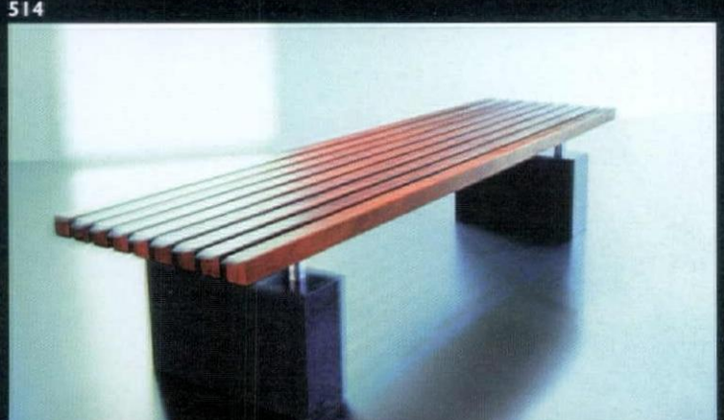
512



513



514



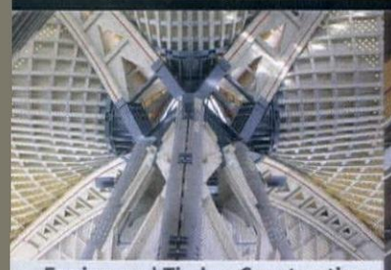
515



514, 515 RUNGE

Runge offers a comprehensive selection of outdoor furniture from Germany across two ranges; while urban basics® (**514**) includes the more basic and well-established range of robust outdoor furniture, urban selection® (**515**) places its emphasis on modern design with pieces manufactured with high quality material such as electro-polished high grade steel and low maintenance hardwoods, all of which are sourced from FSC certified suppliers.

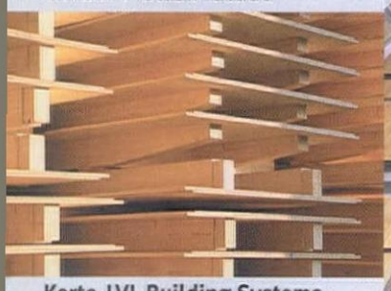
Enquiries 514, 515 www.arplus.com/enq.html



Engineered Timber Construction



Timber + Glass Facade



Kerto-LVL Building Systems



SONO-Sound Insulation Walls



LENO® Solid Timber Elements



Leisure and Sport Facilities



Sheffield Winter Garden, Pringle Richards Sharratt Architects/Buro Happold Leeds, Picture by www.builtvisio

MERK

MERK HOLZBAU GmbH & Co KG
Industriestrasse 2
86551 Aichach
Germany
phone: +49 8251 908-0
fax: +49 8251 6005
e-mail: ukenquiries@merk.de
web: www.merk.de

Tradition, Experience, Innovation in Timber ...

... MERK brings out the be

enquiry 10 www.arplus.com/enq.html

Advertisers wishing to promote their products on this page should contact Mike McSweeney on 020 7505 6816
enquiries on card or at www.arplus.com/enq.html

Specifier's Information



Wright Style

A new door and frame system from Wright Style, the advanced steel glazing system specialist, has successfully completed stringent fire tests in Singapore on the performance of fully glazed doors.
The single action doors were tested to 60 minutes integrity, underlining the inherent strength and fire safety characteristics of the Wright Style system internationally. Wright Style is a leading steel glazing specialist, supplying a comprehensive range of glazing systems worldwide through a network of licensed fabricators.

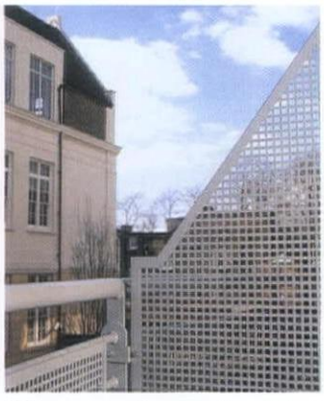
900 www.arplus.com/enq.html



Future Designs

Future Designs has produced the DFL Range of modular luminaires. When used in the correct configuration, a fully compliant installation with the CIBSE LG3 amendment is assured. The luminaire has also been tested to confirm that the suspended element will not interfere with the air-conditioning flow and, therefore, avoids the Coanda effect. The luminaire has four lamps located around the perimeter of the luminaire with asymmetric reflectors designed to control its performance.

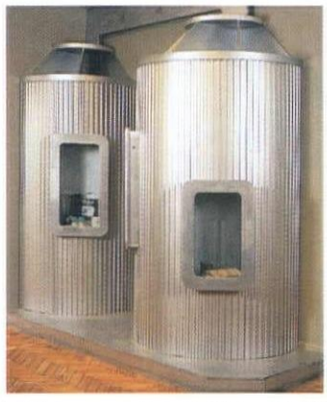
901 www.arplus.com/enq.html



Gooding Aluminium

Gooding Aluminium's robust perforated squeeze frame panels have recently been used in balcony installations in central London. Offering security and privacy, the aluminium panels provide a versatile low maintenance solution. The square perforated balustrade infill panels and balcony divider screens were chosen from GA's extensive selection of stock patterns, and were all finished in GA Spectra Bond powder coat. Apply now for *The Really Useful GA Handbook* with everything 'Exclusively Aluminium' for the specifier, visit www.goodingalum.com or fax 020 8694 2004.

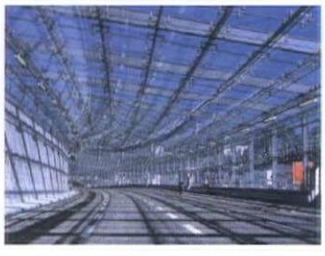
902 www.arplus.com/enq.html



Gooding Aluminium

GA's Anolight range of ribbed decorative panels was used to create these futuristic cylindrical showcases for a chemical industry exhibition at the Dorman Museum, Middlesbrough. Anolight is available with a brilliant mirror reflective surface, in flat top or curved ribbed profiles applied both vertically and horizontally – making it an ideal choice for exhibitions, retail and leisure related projects. For more information apply for *The Really Useful GA Handbook*, the 160 page selector and design guide, visit www.goodingalum.com or fax 020 8694 2004.

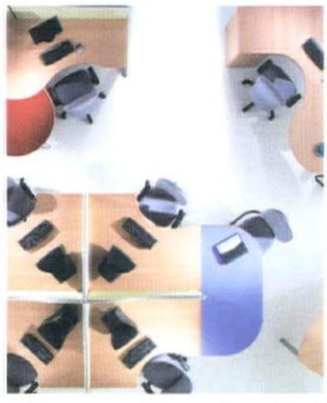
903 www.arplus.com/enq.html



Vetrotech Saint-Gobain

Vetrotech Saint-Gobain, the world's leading manufacturer of fire resisting glass, has completed a glass road tunnel in Munich, Germany – the first of its kind to use a point-fixing spider system. The 280m tunnel was built as a noise enclosure to protect neighbouring residential buildings, and comprises 3500 sq metres of 29mm or 37mm thick units. The advanced fire-resisting properties of SGG Vetroflam was of particular significance to the Munich fire department, following a number of high profile fires in European tunnels in recent years.

904 www.arplus.com/enq.html



Farrell

Air is a new range for the modern workplace to suit all levels of offices, comprising AirFORM worksurfaces, AirFRAME supports, AirSPACE conference and meeting systems, AirBUBBLE call centre systems and AirPORTS storage systems – all complemented by Farrell's unique and patented slim-profile screens. With AIR, Farrell now have a complete product portfolio which features specific design responses to market led demands, with new shapes, colours and finishes. Farrell's website (www.farrelloffice.com) has details of all Farrell office furniture ranges.

905 www.arplus.com/enq.html



Dorma

Seven of DORMA'S Horizontal Sliding Glass Walls (HSW-G) have recently been installed in the new, state-of-the-art London head office of Pentland Group – the UK's leading sports and fashion brand management group. HSW-G is a frameless glass system consisting of sliding panels that can be rolled away at will. Being ceiling mounted, there are no guides or channels in the floor, and therefore no obstacles for visitors to trip over, no floor tracks to collect dust and dirt, and floor finishes can be laid without interruption.

906 www.arplus.com/enq.html



Reynaers

Reynaers Aluminium will be presenting a unique award in 2003 to one successful Belgian graduate in architecture. The prize will include a six-month internship at Foster and Partners in London. The Reynaers Institute, located near to Reynaers' head office in Duffel, aims to create a training framework for its partners within the construction industry. The award, which will be presented every year, will enable young architects to expand their knowledge and experience, allowing them to become more familiar with all aspects of the profession.

907 www.arplus.com/enq.html

NETWORKING FOR MODERNISM

F. R. S. YORKE AND THE EVOLUTION OF ENGLISH MODERNISM

By Jeremy Melvin. Chichester: John Wiley & Sons. 2003. £29.95

The familiar photograph of F. R. S. Yorke that prefaces this slim but nicely produced study presents the image of a rubicund tea-drinking tweedy Englishman – the epitome of the trusty professional whose name is synonymous with the non-ideological no-nonsense technically solid strain of modern architecture that gathered pace during the later 1930s and reached its apogee in the first wave of post-war national reconstruction. But the text itself reveals another and rather less agreeable portrait of Yorke as an impecunious chancer whose fabled technical competence is recurrently disproved and whose modest architectural talent was compensated for by constant networking and creative dependency on others.

Melvin examines his subject through five short essays covering in turn Yorke's publishing activities, his practical ventures, his clients, his position in the development of modern planning and the genesis of the firm YRM that converted the precarious pre-war gains into the successful mainstream architectural business of the post-war years. A sixth essay by Yorke's erstwhile partner David Allford provides a personal memoir that conveys the man's character as a work colleague with freshness and candour. The illustrations are good quality, if generally familiar, all black and white, and include at least as many buildings by others as by Yorke himself. The drawings are, however, a disappointment, with insufficient annotation, and curiously reticent on Yorke's supposed engagement with construction.

Melvin demonstrates that Yorke's most convincing achievement was his book *The Modern House* (1934) – a milestone in architectural publishing – the research for which propelled him rapidly up the learning curve of continental Modernism and furnished him with valuable contacts for his later career. Its function as a practical manual and rallying call for other aspiring Modernists was also crucial, if also unquantifiable. This pre-eminence as a writer, or more specifically compiler, rather than practitioner, is duly confirmed by his own building endeavours which were few in number and quickly dumbed down from the Czech-inspired white cuboids of Torilla and Shangri-La into a workaday bricky pragmatism of quite stunning banality, with flat roofs that began leaking soon after completion. The better known pre-war works bearing Yorke's name – the house at Angmering or the ambitious Concrete Garden City project – turn out to be largely attributable to his transient and vastly more talented partner Marcel Breuer.

Melvin attributes Yorke's non-ideological brand of Modernism to a mixture of Middle-England family background, his education in Chipping Camden with its Arts and Crafts ethos and a resulting predisposition to regard architecture as the fortuitous by-product of appropriate component assembly. Although this logically led him to champion the ideal of efficient industrialized modular construction, his own brief foray into the genre, a pair of Braithwaite houses on the LCC Watling Street Estate at Burnt Oak, was a labour-intensive failure, the building itself shortly being destroyed by a nearby flying bomb. In similar somewhat contradictory vein, while promoting the importance of town planning in delivering a coherent modern environment, Yorke curiously declined Donald Gibson's invitation to join him in rebuilding Coventry and eschewed the part in the post-war New Towns programme which his networking skills could surely have secured him.

Thus the somewhat threadbare achievements recorded in the biographical content of Melvin's study make his subtitle – 'the evolution of English Modernism', and by implication Yorke's role in it – feel more a matter of assertion than proof. His status as a 'key figure' seems to have emerged less from any exemplary accomplishment (save perhaps the book) than from his ubiquitous and affable presence. A trencherman of apparently awesome alcoholic capacity, Yorke was at least as devoted to 'the good life' as to any architectural agenda and accordingly was happy to delegate much of the work in his share of YRM to younger and more able assistants. And perhaps paradoxically it is this personality trait that preserves his place in history, in providing the vital human glue that bound together the partnership, which in turn proved to be his most substantial legacy.

JOHN ALLAN

DEFINING ORNAMENT

THE ORDER OF ORNAMENT, THE STRUCTURE OF STYLE: THEORETICAL FOUNDATIONS OF MODERN ART AND ARCHITECTURE

By Debra Schafter. Cambridge: Cambridge University Press. 2003. £60

Debra Schafter, Assistant Professor in the Visual Arts and Technology Department of San Antonio College in Texas, has written a short and intensive survey of some aspects of the decorative arts in architecture from Pugin to the outbreak of the First World War. She concentrates specifically on Ruskin, Owen Jones, Semper and Riegl, and in general builds a parallel between the reference to ornament by architectural writers, and the development of modern linguistics. So she uses the terminology of the latter to define the former, in terms of emblem, symbol, sign or signifier; or, later, of mimesis, analogy and emulation.

As academic attitudes to language structure and origins shifted throughout the nineteenth century, architectural analysis followed suit; and Shafter compares the two: Jones, for example, thought that ornament represented natural forms, in the way that word use represents natural needs; whereas Semper saw it as part of a primal expression of human creativity. In general, as the search for the underlying sources of language went back beyond the Greek and the Latin, so designers reached back to earlier civilizations in their search for an elementary architectural style; and as architecture 'conquered' the applied arts, so ornament began to be limited to an imitation of geometrical forms. Shafter illustrates her ideas with some well-chosen examples, particularly from the work of Klimt and Otto Wagner, and is at her most interesting when concerned with the truly architectural phenomenon where ornament defines and determines form, rather than being applied to it.

This book originated in Schafter's doctoral dissertation at the University of Texas, and has that dense quality associated with academic theses. The themes are analysed by investigating the reaction of her four heroes to them, one by one, in the same order, over and over again; and various complex related issues, such as the development of comparative linguistics contemporary to her period, are pressed into service in an extremely concentrated fashion. A more relaxed style might have resulted in a more useful publication, but there is no doubt that *The Order of Ornament* marks the debut of a thoughtful and capable historian.

TIMOTHY BRITTAIN-CATLIN

SUBTLETY UP NORTH

ESKIMO ARCHITECTURE: DWELLING AND STRUCTURE IN THE EARLY HISTORIC PERIOD

Molly Lee and Gregory Reinhardt. Fairbanks: University of Alaska Press. 2003. $45 (£30)

The Eskimo realm comprises an area mostly north of 60 degrees latitude, from the extreme east of Siberia through coastal Alaska, the Mackenzie Delta to Baffin Island and coastal Greenland, south to the north Labrador coast and northern Quebec. The area has annual temperatures averaging -30 deg C to +10 deg C, and 70-100 winter days during which sunshine is absent. During this period, however,

the brilliance of the moon and stars, and the reflected light of the sun from below the horizon confer twilight, not darkness, to the region. In addition to these hardships, the Eskimo diet is severely restricted, consisting almost entirely of animal protein and fat. Their buildings respond to all of these conditions.

Early in the book, the authors justify their use of the currently politically incorrect term 'Eskimo', emphasizing that 'Inuit' (the politically acceptable term) describes only a subgroup of Canadian Eskimos, and is irrelevant for most Siberian, Alaskan and Greenland Eskimos.

Aesthetic considerations have hardly been at the forefront of Eskimo dwelling construction (and the authors' employment of the term 'architecture' has to be questioned), but buildings described have both charm and fascination for anyone with an interest in ecological anthropology, tribal sociology, ethnology and human geography. A systematic and historical analysis of Eskimo dwellings in Greenland, the Central Arctic, Bering Strait and south-west Alaska/Siberia dispels the classical image of the igloo, the house comprised of blocks of snow, as the sole type of Eskimo dwelling. While the igloo remains important, it is the alternation of summer and winter housing, or at least summer/winter entrances to houses that characterizes Eskimo buildings.

This thoroughly researched, and well-illustrated, book includes many excellent and intriguing archival photographs. Straddling with a good measure of success the gap between specialization and popularization, and being very decently priced, it could for some lead to a healthy, wider fascination with Eskimos and their climatically appropriate ways of building. ANDREW POLASZEK

RISK TAKER

EERO SAARINEN: AN ARCHITECTURE OF MULTIPLICITY

By Antonio Román. London: Laurence King. 2003. £40

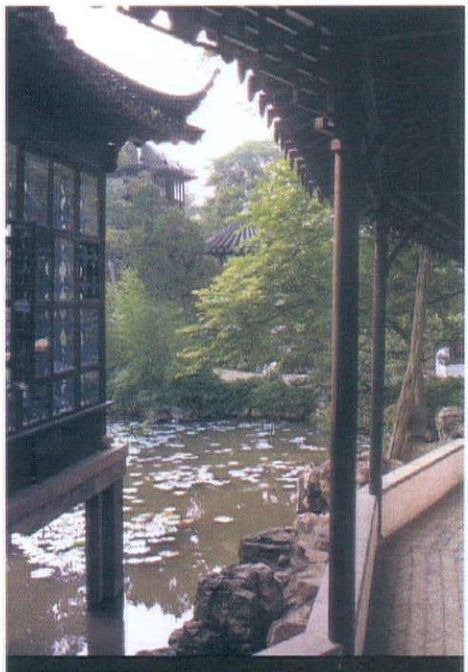
Eero Saarinen died, at the height of his powers, in 1961. His best buildings are now some fifty years old. This must put him near the low point in the pendulum of architectural fashion. His name, once universally respected, rarely comes into architectural debate at present.

Yet his achievements remain significant. The General Motors Technical Center, outside Detroit, is the place where the Modern Movement dream of the machine-made, machine-serviced, environment was achieved for the first time. Its inventions and achievements are many – the first neoprene gaskets, the first office grid with lighting and ventilation available in each grid square, the curtain wall with metal faced sandwich panels – all these are the stock-in-trade of a thousand office buildings built since. But, unlike succeeding buildings, the G. M. Tech Center has glamour; it has staircases and public areas that can still startle.

Saarinen rejected the notion that architecture was a 'formula to be found' and considered that each architectural project should 'have its own solution'. He was a risk taker. So, among the successes are some grim failures, and some designs that do not come off, like the US Embassy in London. Let us be generous, and judge him by the best. CBS is still the best New York office tower post-Seagram; Dulles, with its mobile lounges, really did bring new thinking to airport design; the Jefferson Arch at St Louis is one of the few great monumental structures of the twentieth century.

With the TWA Terminal at Idlewild threatened with redundancy, it may be time to reassess Saarinen. This book gives sound illustrations and a thoughtful text, but by only using black and white photographs, it tends to look dated. The 1950s cars in those photographs reinforce the feeling that this book is a survivor from an earlier era, not an attempt to see Saarinen from a contemporary viewpoint.

JOHN WINTER



Zuho Zheng Yuan garden, Suzhou looking towards Coolie-hat Pavilion from beside Hall of Thirty-Six Mandarin Ducks. The 'Artless Administrator's Garden' is one of the triumphs of Chinese gardening discussed with insight and sensitivity in *The Chinese Garden, History Art and Architecture*, by Maggie Keswick, Frances Lincoln, London, 2003, £35. A perceptively revised edition (by Alison Hardie) of the inspiring and innovative first edition. No one with an interest in garden design should be without it.

FINDING THE PLOT

THE EPHEMERAL OF REAL: AN ARCHITECTURAL NOVELETTE

By Chris Thurlbourne. Aarhus: Arkitektskolens Forlag. 2003. €32 (£21)

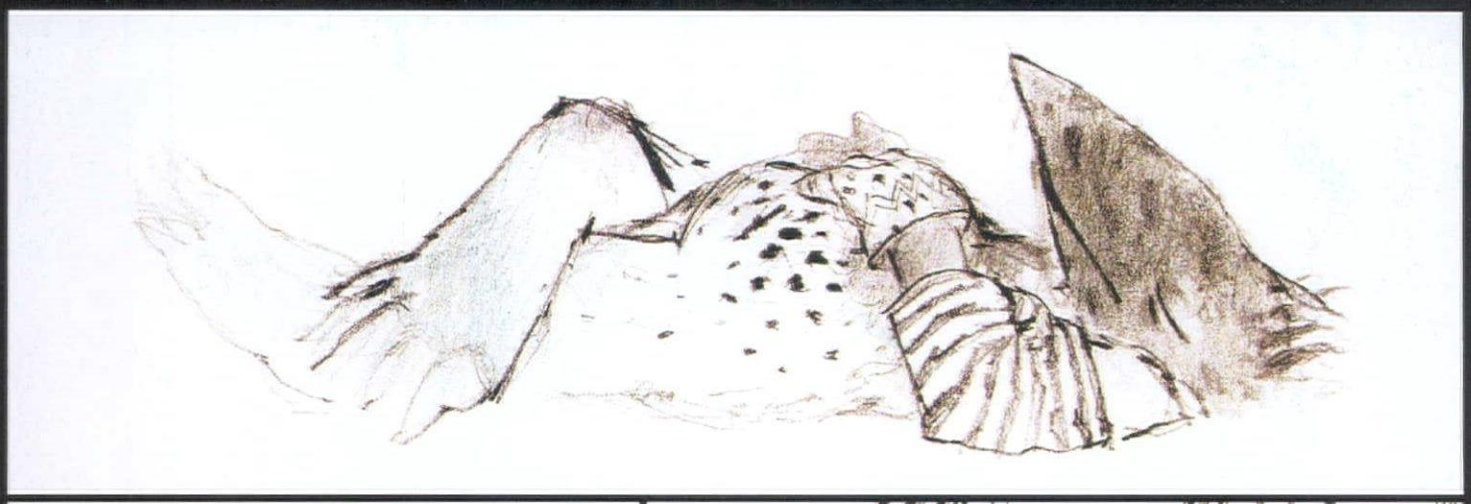
Author Chris Thurlbourne has impressive credentials: Associate Professor at Aarhus School of Architecture in Denmark, former winner of the RIBA Silver Medal, and founder of practice Alt.itude, following work with Hopkins and Partners. One is therefore expecting a lot from his *Architectural Novelette*, and in a sense that's exactly what one gets: a lot, some of which is interesting, much of which is impossible to follow, parts of which are beautiful, even poetic, but at the same time frustrating. I shall attempt to explain.

The narrative is largely based around four conceptual characters: Decadence ('the body of creation'), The Learner ('the infant of knowledge, the sponge soaking in everything'), The Shadow ('the keeper ... creator of boundaries'), and a fourth character which takes the form of an obscure unpronounceable squiggle, representing 'a creature existing and inhabiting the text ... an informer if you like, choosing the moments to unfold from the body of information, the internal world of the imaginary ... (etc)'. These metaphorical characters take the reader through a very personal presentation of what constitutes architecture. At its best, this involves consideration of the five human senses, and the impact that the dimension of time has on architectural experience. At its most conceptual it involves highly abstract, subjective descriptions of veils, models and laminations, presented in various text forms: poetry, pure description, prose.

Within all of this are a seemingly inexhaustible number of ideas, some of which have parallels with the writing style of James Joyce, or Libeskind's early essays. I really liked the reading of Asplund's Gothenburg Law Court building, and the tangible descriptions of materials like stone, timber and mud. But much of the conceptual writing is hampered by spelling and grammatical errors which, frankly, take the enjoyment out of reading already difficult text. As Thurlbourne himself writes: 'Maybe it will grow to a greater understanding of physicality, to a new way The Learner can see and perceive space and the boundaries that make space. Maybe.' Exactly. Maybe. BOBBY OPEN

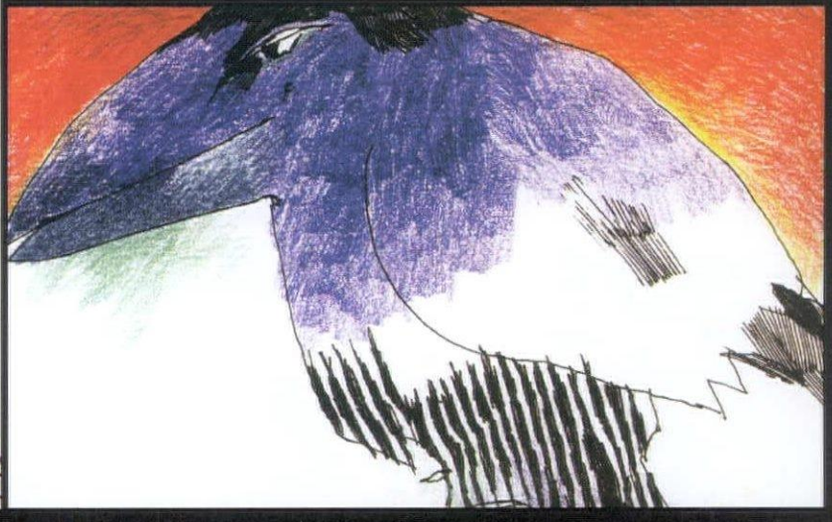
Book reviews from this and recent issues of The Architectural Review can now be seen on our website at www.arplus.com and the books can be ordered online, many at special discount.

delight









KARLA KOWALSKI, FOUNDING PARTNER OF SZYSZKOWITZ+KOWALSKI, THE IMMENSELY INVENTIVE ORGANIC FIRM FROM GRAZ, HAS A PENETRATING EYE ON THE CHARACTERS OF HER COLLEAGUES.

Karla Kowalski of Szyszkowitz+Kowalski recently resigned after 15 years as professor at Stuttgart's Technical University. As part of the leaving festivities, she privately published and presented to her colleagues a book of sketches and doodles made during the many faculty meetings she was obliged to attend. Some are abstract graphic compositions, others landscapes, but the strongest impression comes from a series of animal figures like those that she also models in plaster (AR January 1997). They have particular stances and expressions, and they also wear striped or patterned garments as an extension of their natural plumage. Are some of them caricatures of colleagues at the meetings? Cryptic notes in the corners sometimes suggest it. PETER BLUNDELL JONES