THE ARCHITECTURAL REVIEW

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Luminaires used: Maxiwoody, design Mario Cucinella.

Better Light for a Better Life. iGuzzini

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AR AWARDS
FOR EMERGING ARCHITECTURE

2005



The world's leading awards for young architects

The world's leading awards for young architects

JURY

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Former Editor of The Architectural Review
Annette Gigon
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Sean Godsell Architects, Melbourne, Australia
Luis Mansilla
Mansilla & Tuñón, Madrid, Spain
Thom Mayne
Morphosis, California, USA
Paul Finch
Editor of The Architectural Review and Chairman of the Jury

ELIGIBILITY

1 Who can enter
Architects and people in other design professions whose qualifications are recognized by their local accreditation organization, provided that they are 45 or younger during the year 2005. 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 the work is that of the entrant(s).

2 Completed work
The AR Awards for Emerging Architecture celebrate excellence in completed work. Entries can be made for any building, interior, landscape, urban or product design.

3 Categories
Categories will not be chosen 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, furniture, cladding, and structural systems
- Street furniture – lights, bus stops, bollards, signs and postboxes
- 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 realise 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 four winners, three highly commended and eight commended entries in 2003; and five winners, three highly commended and 11 commended entries in 2004).

6 Publication
Winners and those highly commended by the Jury will be published in the December 2005 issue of The Architectural Review and on the website: www.arplus.com.

7 Prize-giving ceremony
The AR Awards prize-giving ceremony will be held in London in late autumn. The winners will be invited by The Architectural Review and Buro Happold to the event.

8 Lecture series
In spring 2006, 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 Exhibitions
Winning and other highly commended entries will be exhibited at the prize giving and at subsequent exhibitions (schedule to be confirmed). Winning boards may be reproduced to protect originals.

10 Other media
We 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 3 October. Entry will acknowledge that The Architectural Review has 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 or practice is five – with each entry showing only ONE scheme. As there is a new Jury, work entered for previous awards may be re-submitted on new boards. Incomplete work, unrealised schemes, projects, CD–ROMS, videos, transparencies, models, prototypes and multiple schemes entered on one board will NOT be accepted.

13 ENTRY FEES
ENTRY FEE FOR EACH PROJECT SUBMITTED IS £50 (US$100 or €75). The maximum number of projects that may be submitted is five. Payment can be made by cheque or banker's draft, made payable to 'The Architectural Review' and enclosed with your entry. If paying by credit card complete the details on the entry form.

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

15 Anonymity
To ensure anonymity in judg
names of entrants or collab
parties may appear on any
the board. On receipt, each
and entry form will be alloca
number, allowing identificati
extra security please include
international telephone num
the back of the board. Only
Jury has made its decisions
identity of the winners be re

16 Entry forms
Each submission must have
separate entry form. All entr
must be named in the subm
Please indicate whether the
name is an administrator or
the design team. Copy the e
form where necessary. Com
form clearly and enclose in a
envelope attached to one bc

17 Entry deadline
Deadline for receipt of entrie
Tuesday 13 September. To e
timely receipt, we recommer
using a carrier that guarante
delivery. All entries received
be acknowledged on our we
at www.arplus.com as soon
possible after the deadline.

DELIVERY AND COURIER

18 Send to:
Entries should be properly p
and clearly marked 'AR Awa
They should be sent to:
The Architectural Review
151 Rosebery Avenue
London EC1R 4GB
United Kingdom.

19 Documentation
Please ensure that entries ar
delivered by the closing date
posted on the closing date w
accepted but must be receiv
before 16 September.
VERY IMPORTANT:
Your entry must be marked
(no commercial value) on any
documentation. The organise
NOT accept any courier char
or taxes resulting from delive
Personal deliveries to the AR
editorial offices are accepted
normal working hours.

20 Return of entries
Entries will not be returned.
organisers assume no liabilit
loss or damage of entries.

AR AWARDS FOR EMERGING ARCHITECTURE 2005

ENTRY FORM
Deadline: 13 September 2005
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

phone number

fax number

email address

contact name for entry

names of the design team

1

2

3

project name

city

We will be sending information about all the winning entries to media worldwide. Please let us have your preferred choices of local relevant media:

1 architectural magazine

2 newspaper

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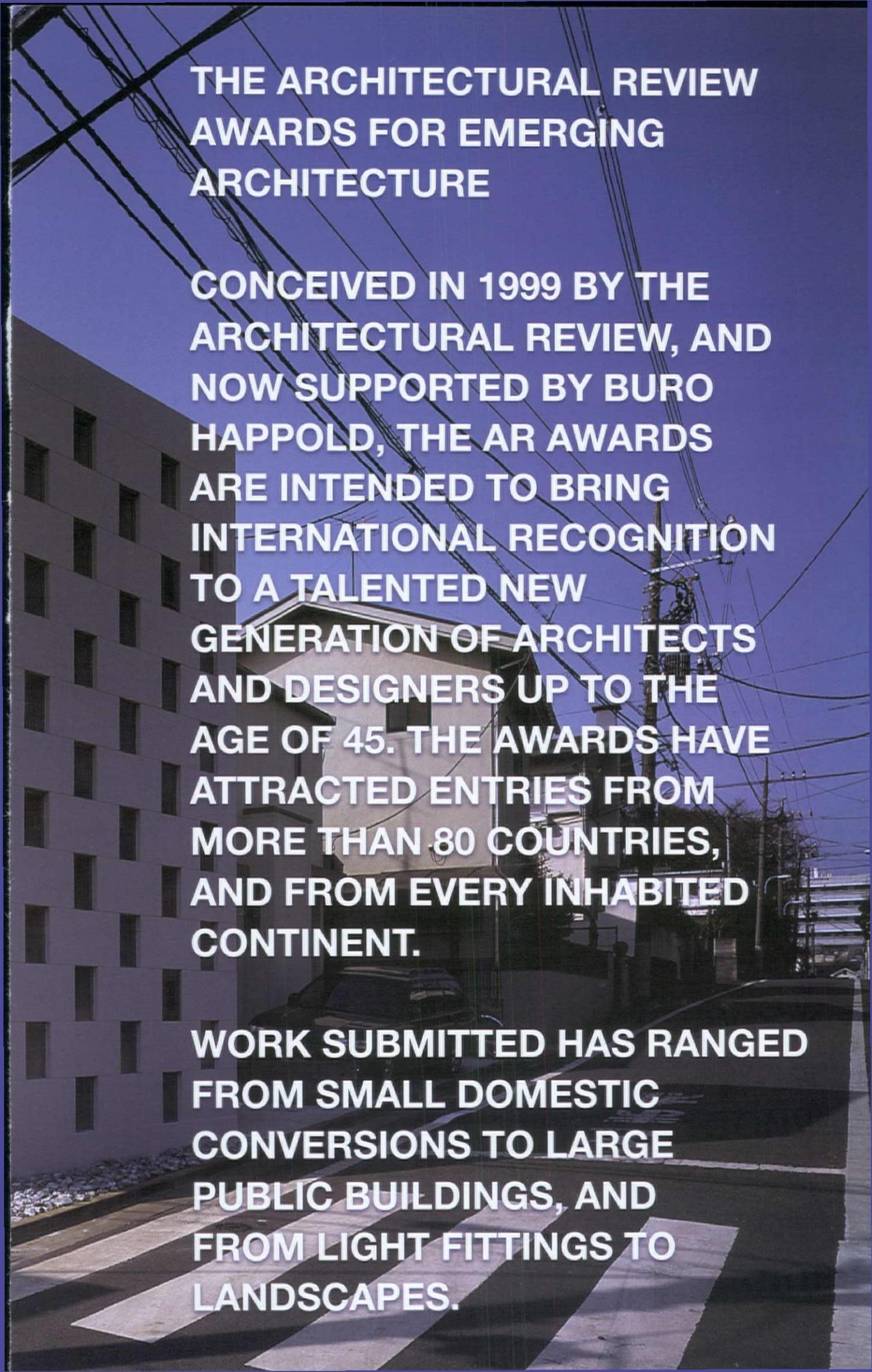
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CONCEIVED IN 1999 BY THE ARCHITECTURAL REVIEW, AND NOW SUPPORTED BY BURO HAPPOLD, THE AR AWARDS ARE INTENDED TO BRING INTERNATIONAL RECOGNITION TO A TALENTED NEW GENERATION OF ARCHITECTS AND DESIGNERS UP TO THE AGE OF 45. THE AWARDS HAVE ATTRACTED ENTRIES FROM MORE THAN 80 COUNTRIES, AND FROM EVERY INHABITED CONTINENT.

WORK SUBMITTED HAS RANGED FROM SMALL DOMESTIC CONVERSIONS TO LARGE PUBLIC BUILDINGS, AND FROM LIGHT FITTINGS TO LANDSCAPES.

THE ARCHITECTURAL
REVIEW

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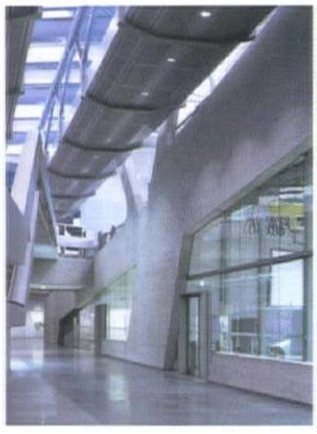
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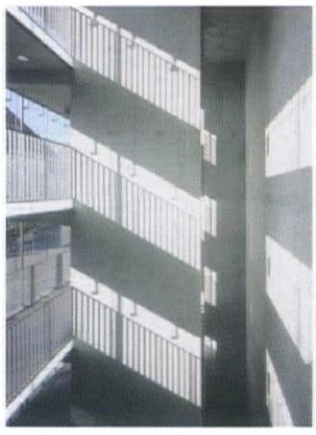
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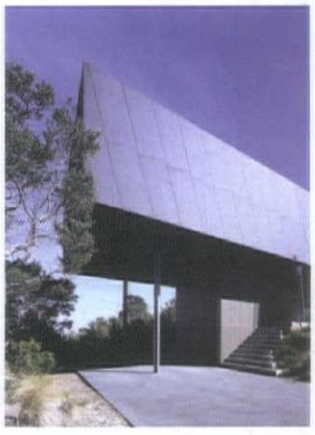
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emap communications


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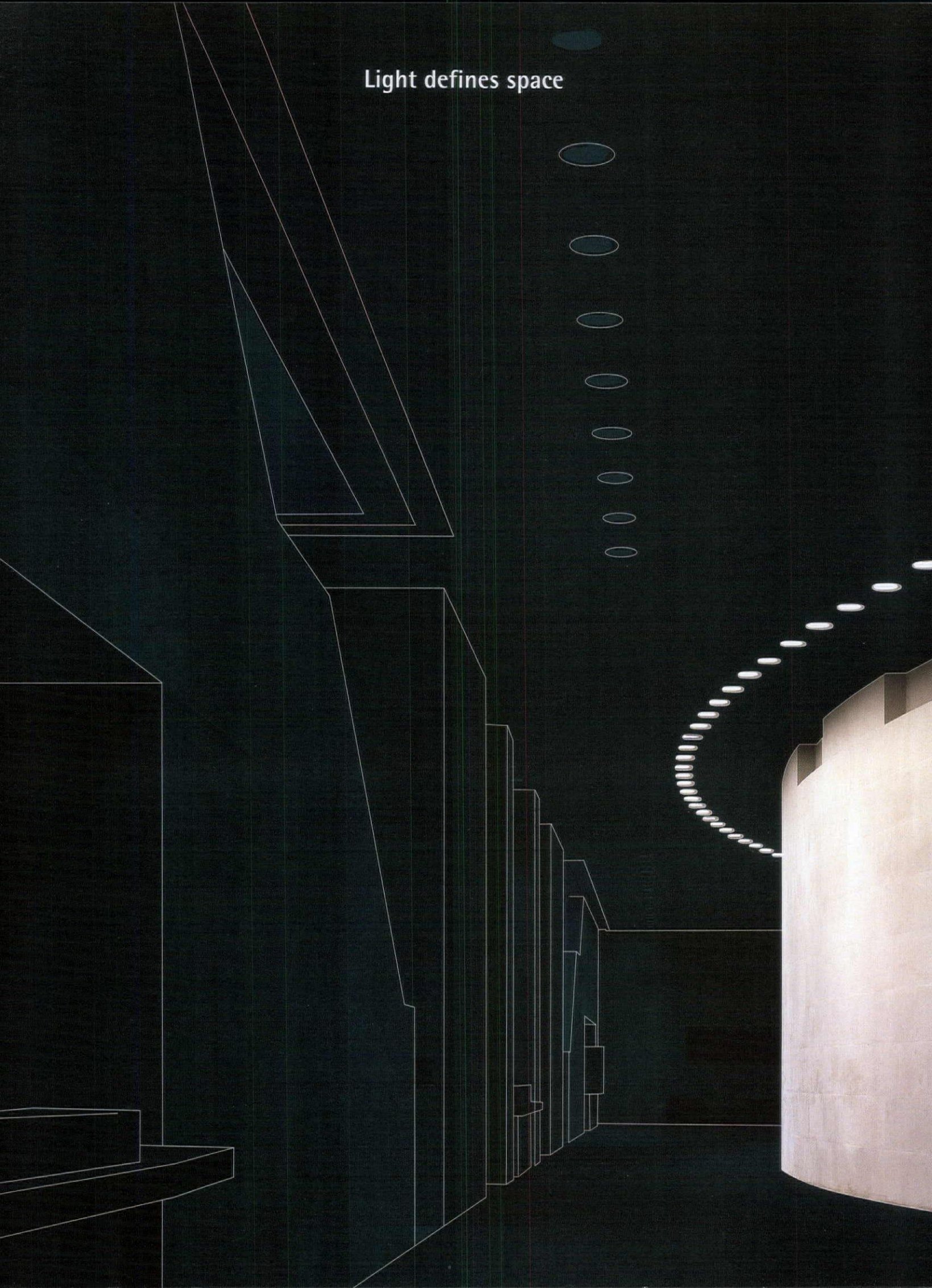
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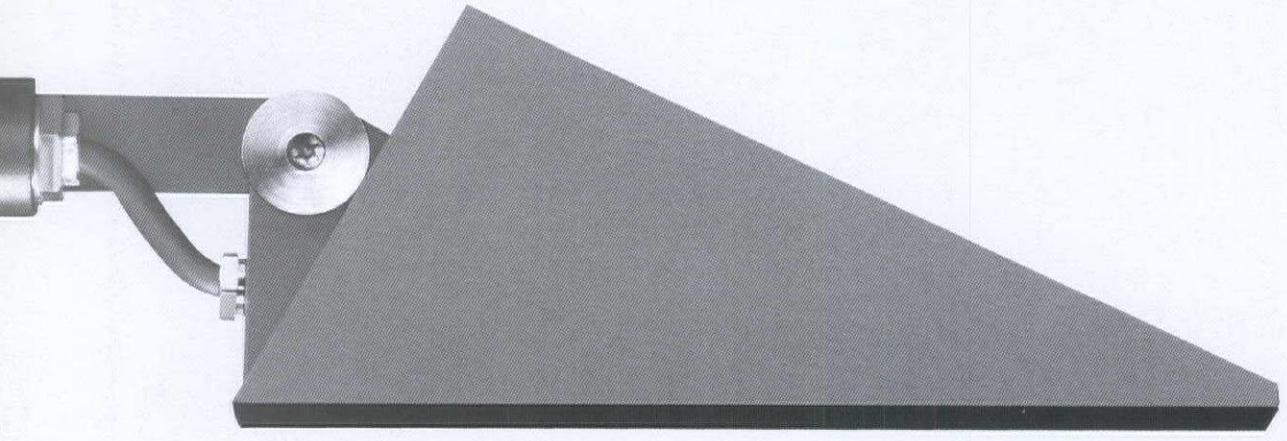

Light defines space

ERCO

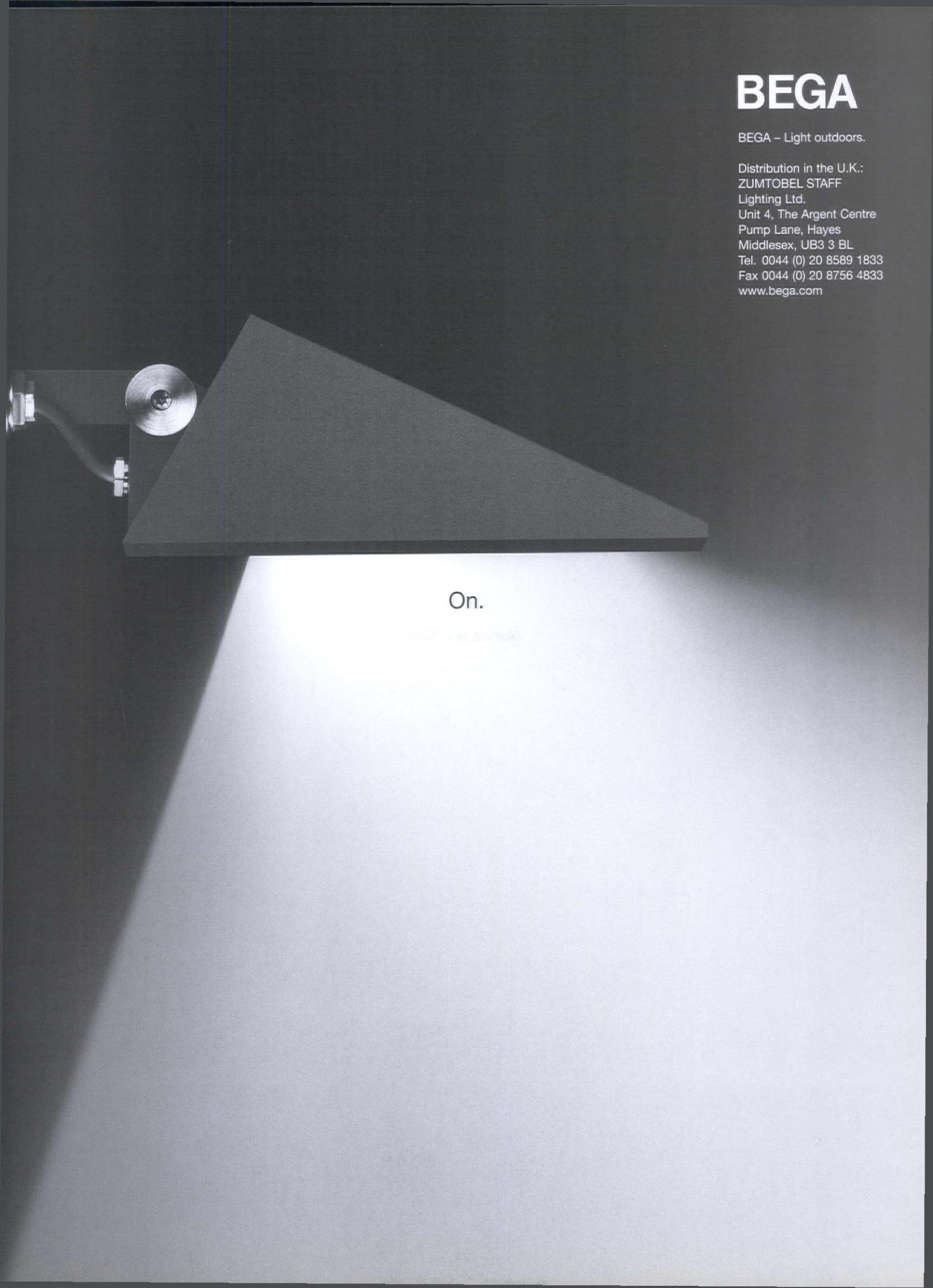
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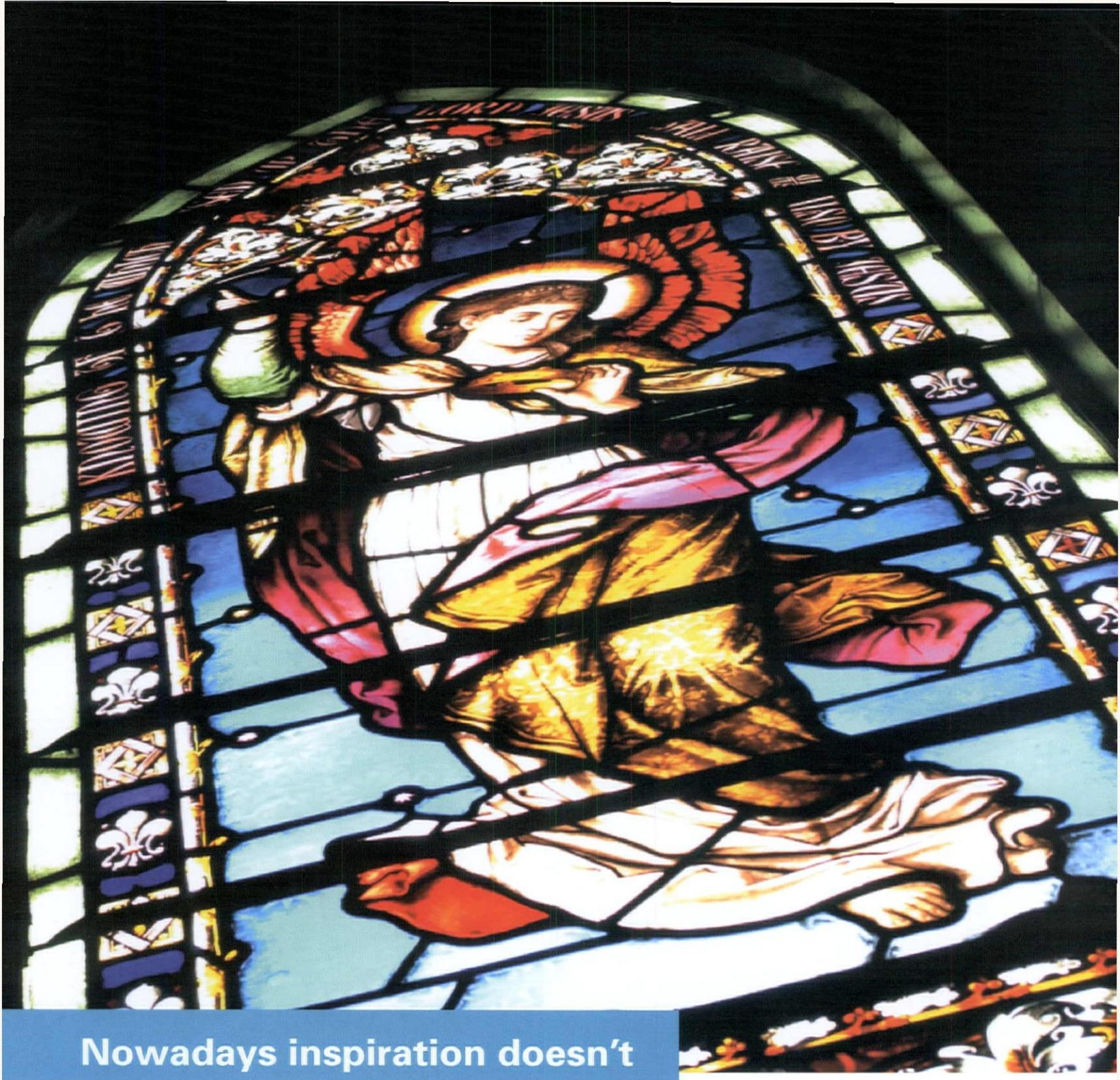
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light

of louis poulsen





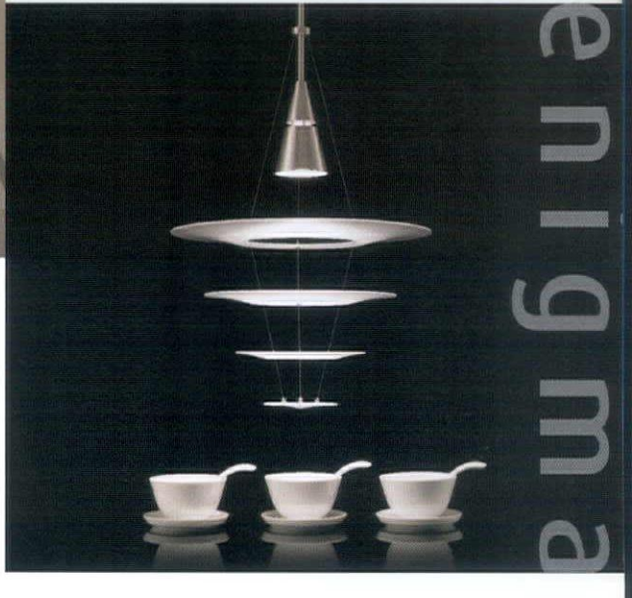


ph 3/2 pendant

Design: Poul Henningsen. Shades in mouth-blown white, opal glass with frame in chrome-plated brass. Diameter 290mm, height 242mm. Incandescent lamp max. 75W, E27, frosted.

campbell

Design: Louise Campbell. Outer and inner shades in mouth-blown clear glass with sandblasted stripes. Diameter 275mm, height 371mm. Incandescent lamp max. 75W reflector R80, E27.



if design award 2005 gold



enigma

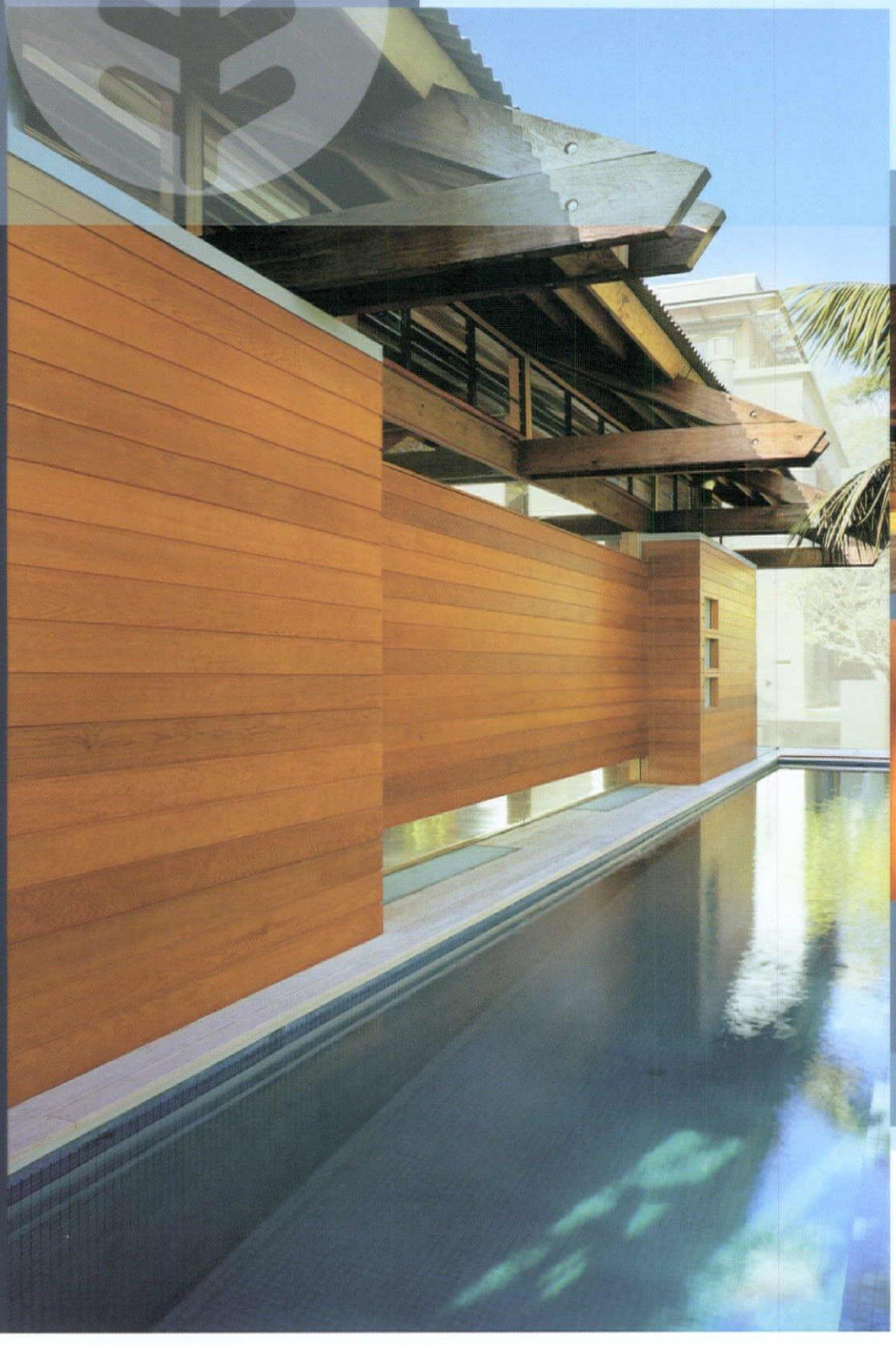
Design: Shoichi Uchiyama. Shades in matt-painted acrylic and cone in brushed aluminium. Diameter 422mm, height 740mm. Halogen reflector lamp (230V) max. 50W QR Gu10.

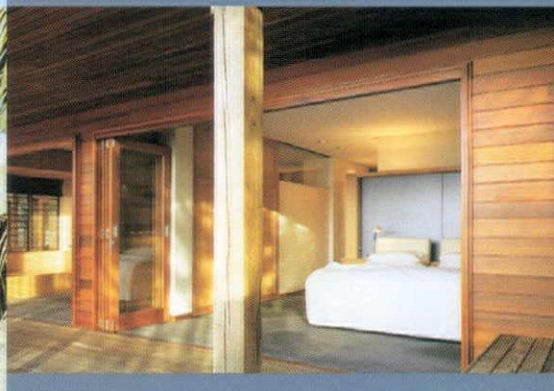
louis poulsen

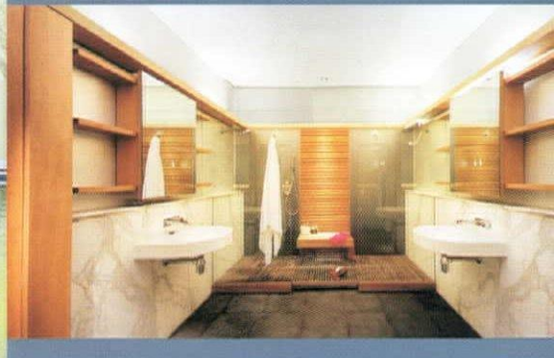
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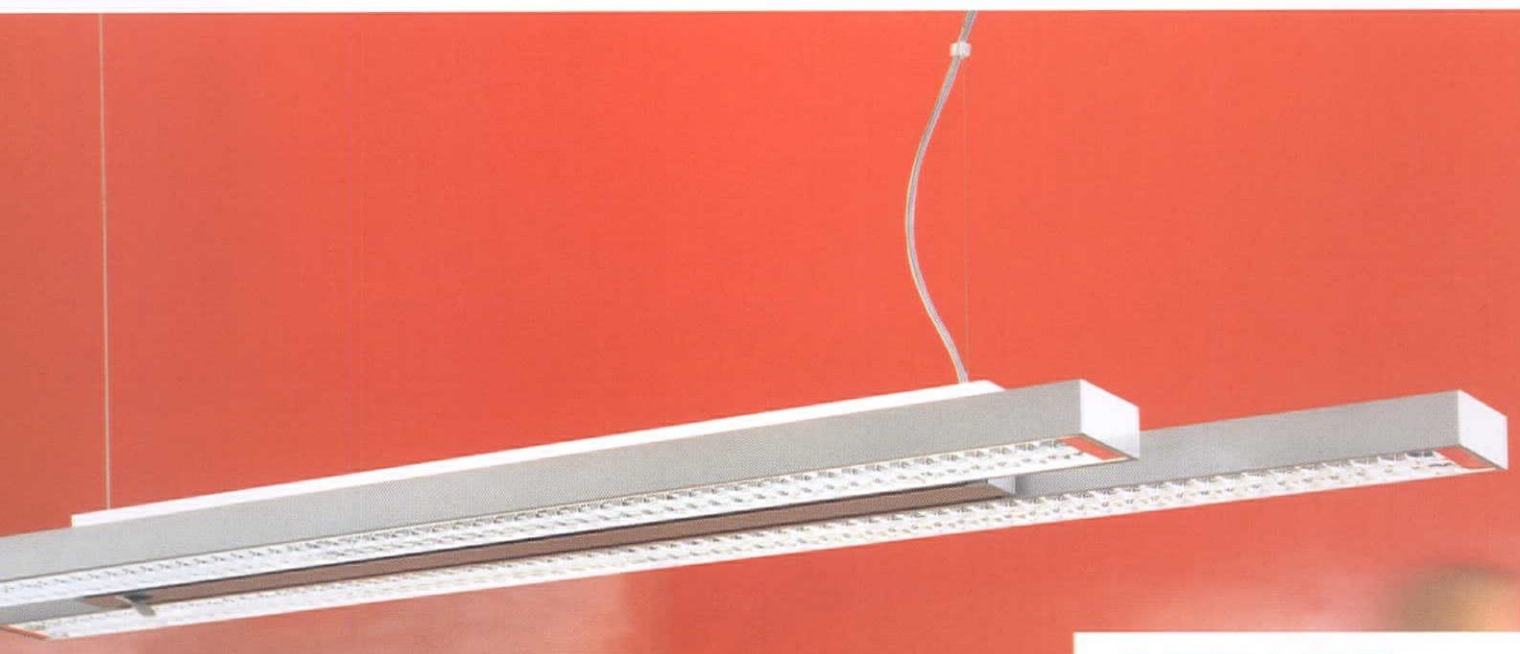
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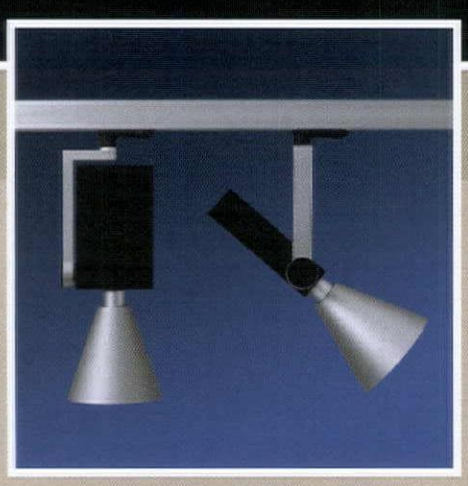
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"If I want to sell something, I must put it in the right light.
It is ideal if the light is selective and focusable."

Kurt Probst, shop fitter and booth builder, Erlen

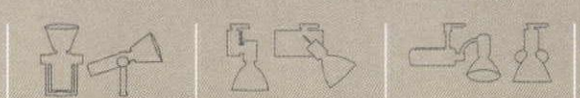


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REGENT Lighting

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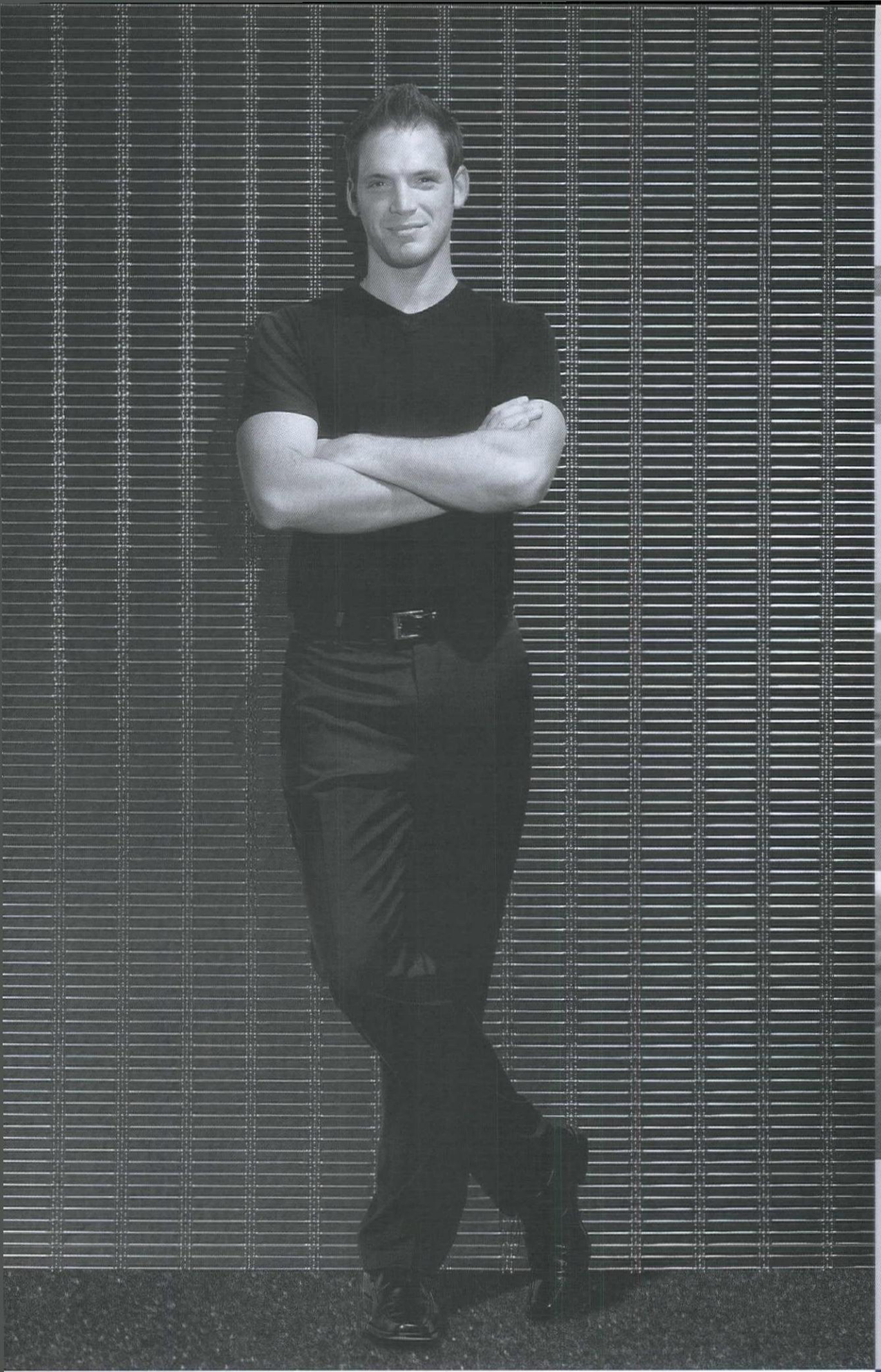
Ideal for shading large areas of floor-to-ceiling glass, the flexibility of this forthcoming system is seemingly endless.

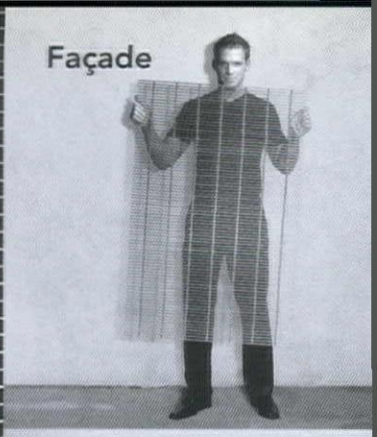
The story will unfold next month!

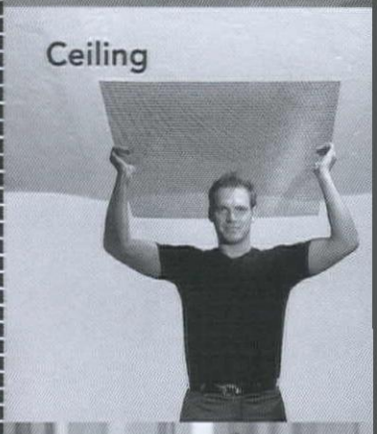
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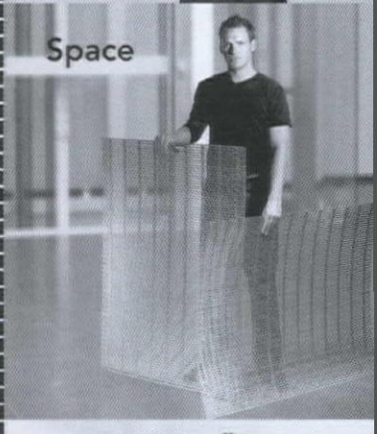
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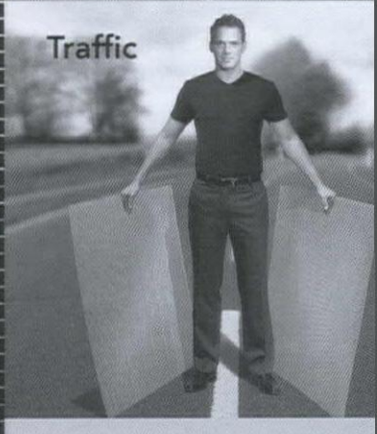
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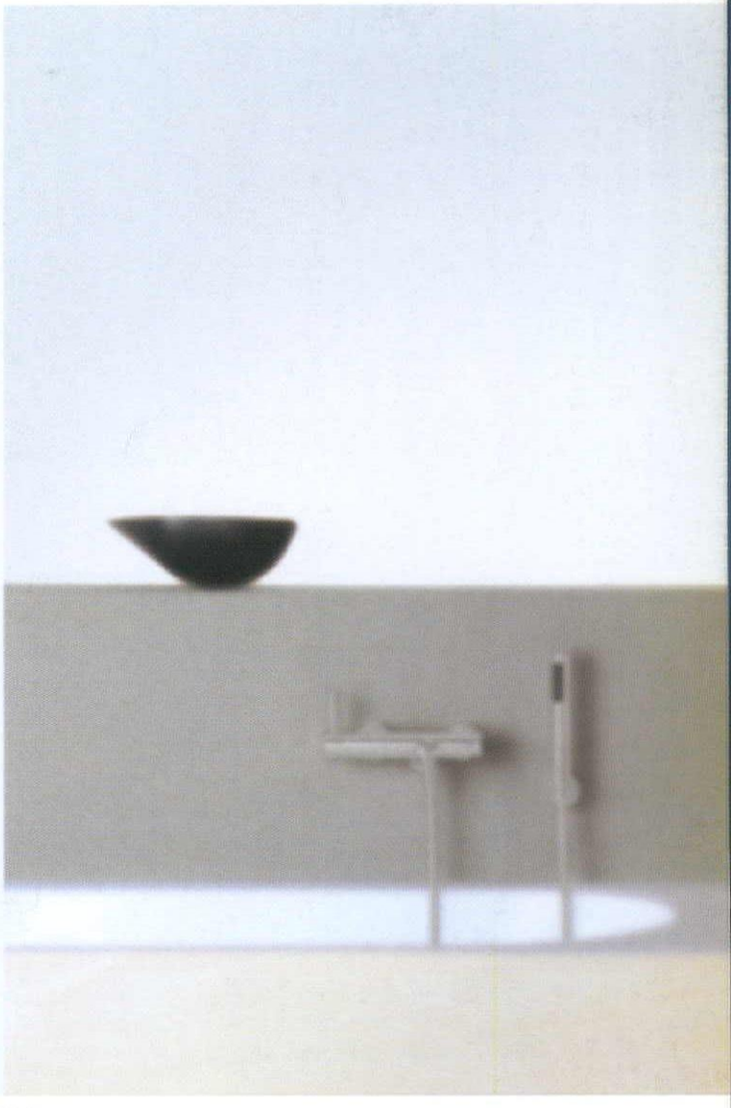
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Photo: Gira Esprit, 2-gang combination, cover frame black glass, insert aluminium colour







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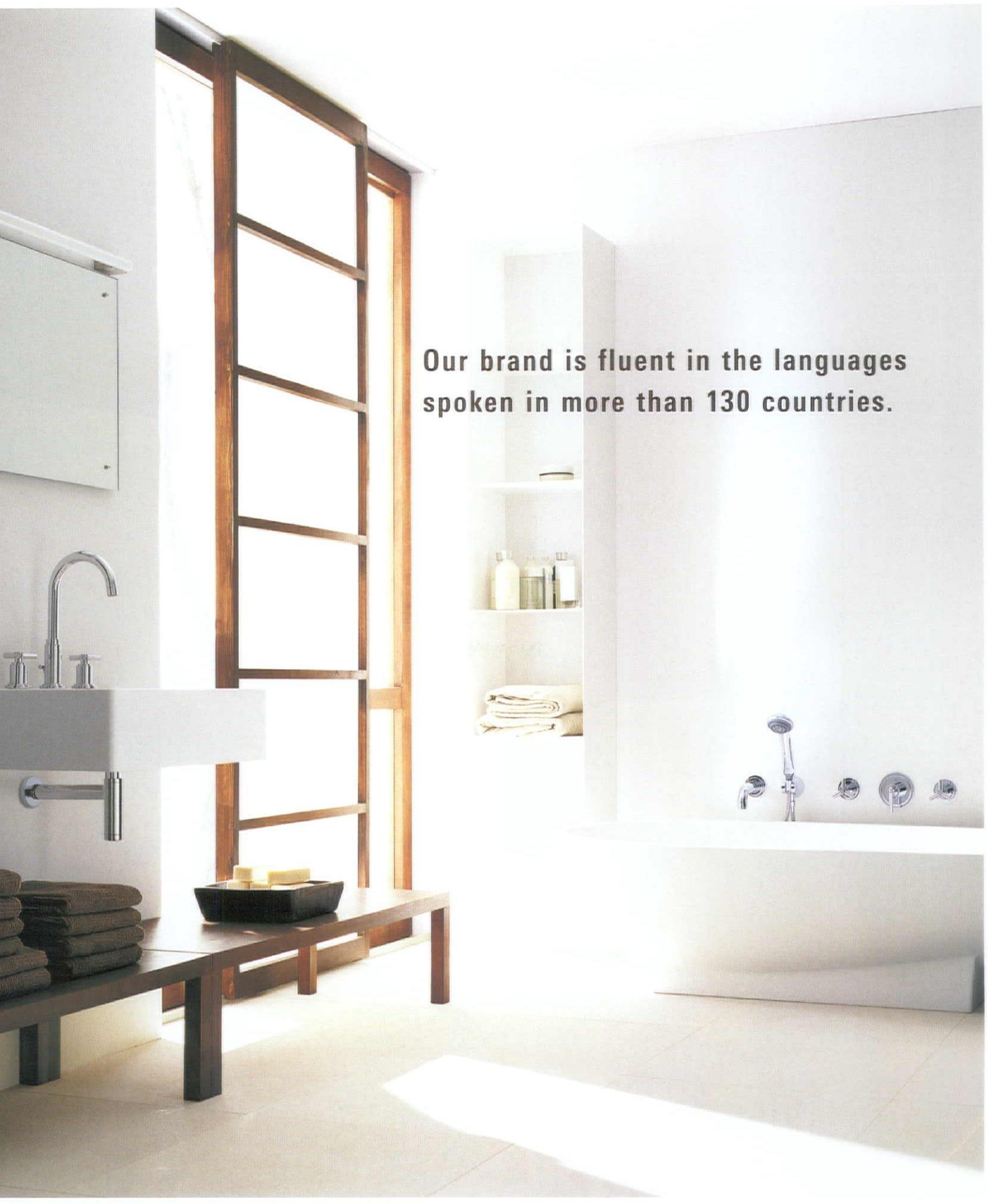
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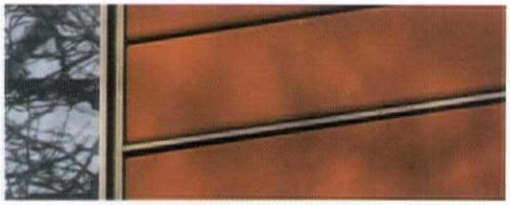
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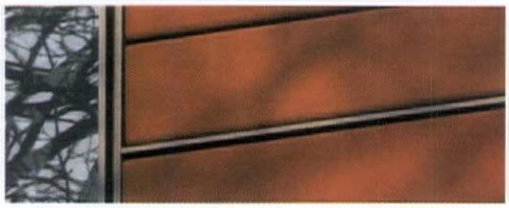
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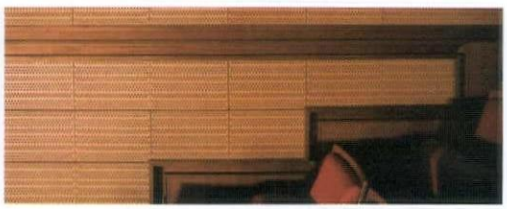
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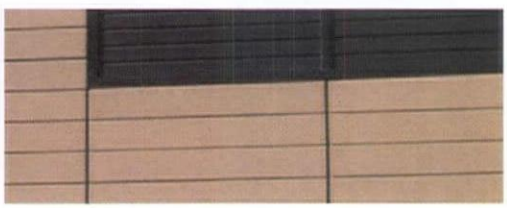


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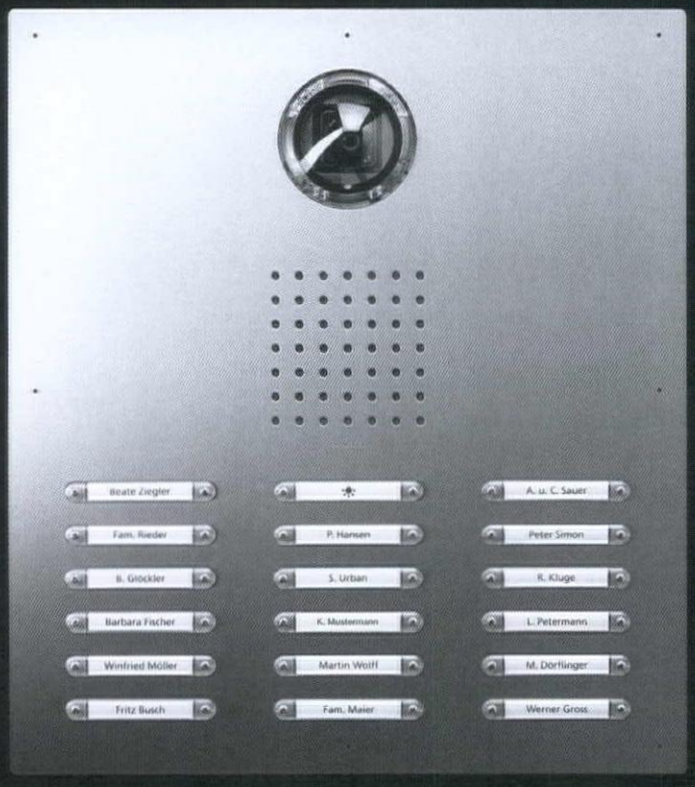


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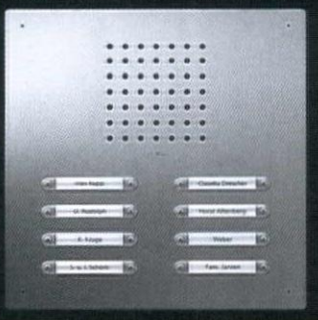


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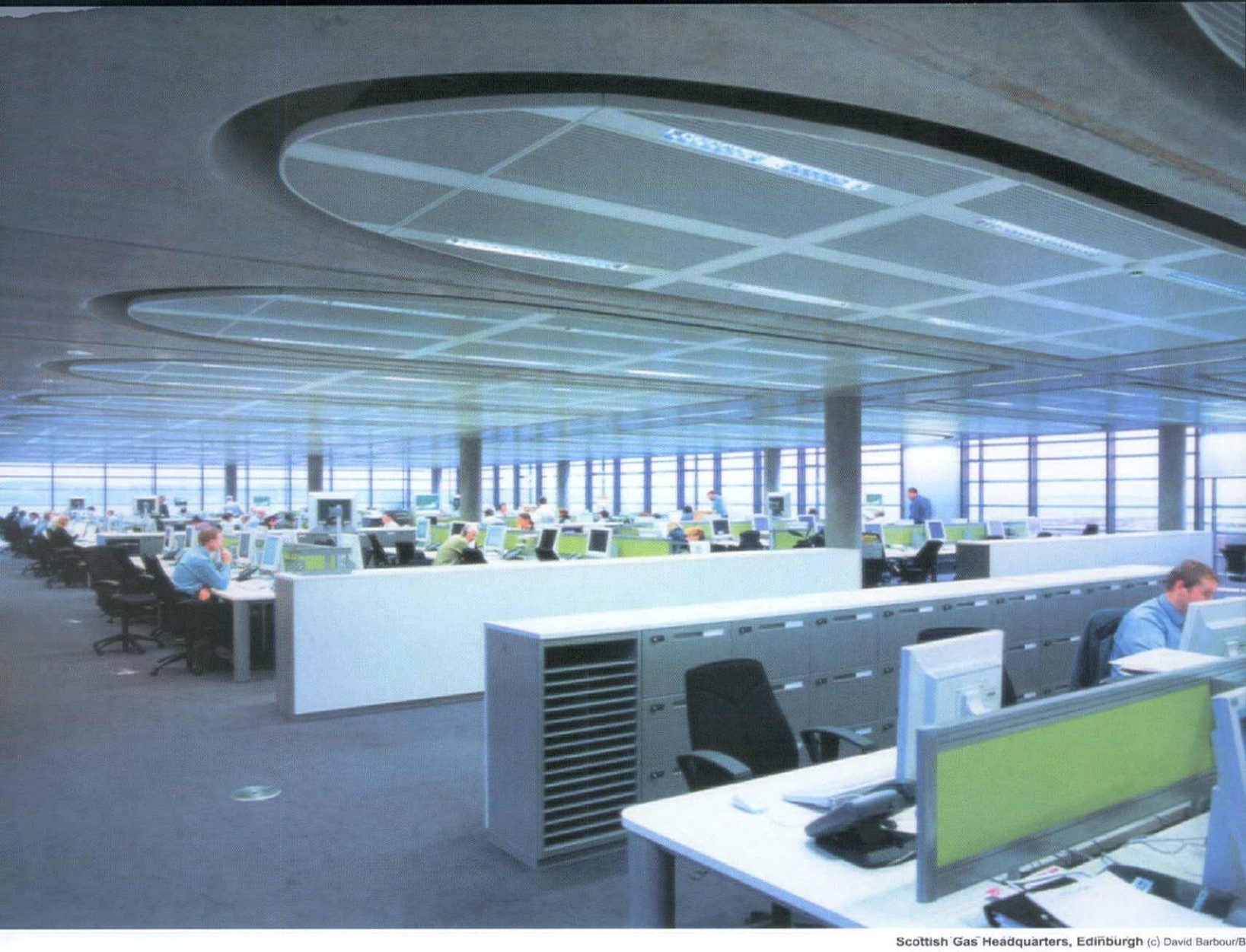




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Freie und Hansestadt Hamburg

Hamburg – Intellectual Metropolis
President of the HafenCity University Hamburg

The Senate of the Free and Hanseatic City of Hamburg is planning to found a new university for construction planning in accord with high international standards on January 1, 2006. For this purpose the areas

- architecture (currently at the University of Fine Arts and the University for Applied Sciences)
- urban development and planning (currently at the Technical University Hamburg-Harburg) as well as
- civil engineering and geomatics (both currently at the University for Applied Sciences)

will be incorporated. As a result the new university will have a stylistic/conceptual, an economic/sociological and a technical/construction-oriented focus. A large number of expected job vacancies due to retirement in the coming years will be used for establishing specializations and corporate profile.

The university is expected – in particular against the background of the Bologna process – to develop an autonomous interdisciplinary profile that distinguishes itself internationally both in terms of innovative career-oriented courses of study and in terms of excellent research and development. The university will offer openings for about 1,100 bachelor students and 400 master students and will have ca. 145 employees, among them 110 in the academic field. For the university an attractive new building intended to set accents in its surroundings is planned in the HafenCity, a focus of urban development of the Free and Hanseatic City Hamburg.

For this new university the position of the

founding president

is open for hiring as of January 1, 2006. The founding president will be selected by an internationally mixed appointment committee under the chairmanship of the Hamburg Senator for Science and Health. The president will:

- head the university
- integrate the members of the university originating from differing subject cultures
- bring in innovative ideas and in the process set new points of focus
- steer the necessary processes for establishing content profile and organizational structure
- appoint new professors as well as putting together a management team consisting of vice-presidents and chancellor
- act in behalf of the university in external relations, in particular establishing cooperation with industry and professional practice, building up international contacts as well as representing the university in the media and in public.

For the head office of the university a personality with intrinsic authority is being sought who will be able to influence the development of the university profile and thereby take on the above-named tasks with a combination of integration talent and decisiveness.

We therefore expect:

- leadership and management competency, capabilities for integration, moderation and dialog as well as representation
- experience in operative management, ideally in higher education, science or culture, as well as experience in the guidance of academic and/or technical personnel.

Desirable as an additional qualification would be an established professional competency in one of the thematic specialities of the university.

It is intended that the employment be in the status of a temporary public official with payment according to the salary class W3, augmented by a function-related bonus to be negotiated. The term of office is 6 years; re-election and repeated appointment are possible.

In the interest of occupational equality women are particularly encouraged to apply. Handicapped people will be preferentially employed in case of aptitude.

In case of inquiries Mr. Harald Datzer, member of the executive team of the Department for Higher Education, telephone number +49 (0)40/42863-2344, will gladly provide further information. Send your application documents by June 20, 2005 to:

Behörde für Wissenschaft und Gesundheit
Hochschulamt – Personalreferat / C3
Hamburger Str. 37 · 22083 Hamburg · Germany

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Building consultants

As the executive body of the European Patent Organisation, the European Patent Office is the patent granting authority for Europe with a strong global orientation. It has so far published more than one million patent applications and receives approximately 180 000 applications each year.

The European Patent Organisation currently has 30 member states; the official languages are English, French and German. With a budget of well over EUR 1bn and approximately 6 000 members of staff, the European Patent Office is one of the biggest international organisations in Europe. In addition to its headquarters in Munich, it has a branch in The Hague and sub-offices in Berlin and Vienna.

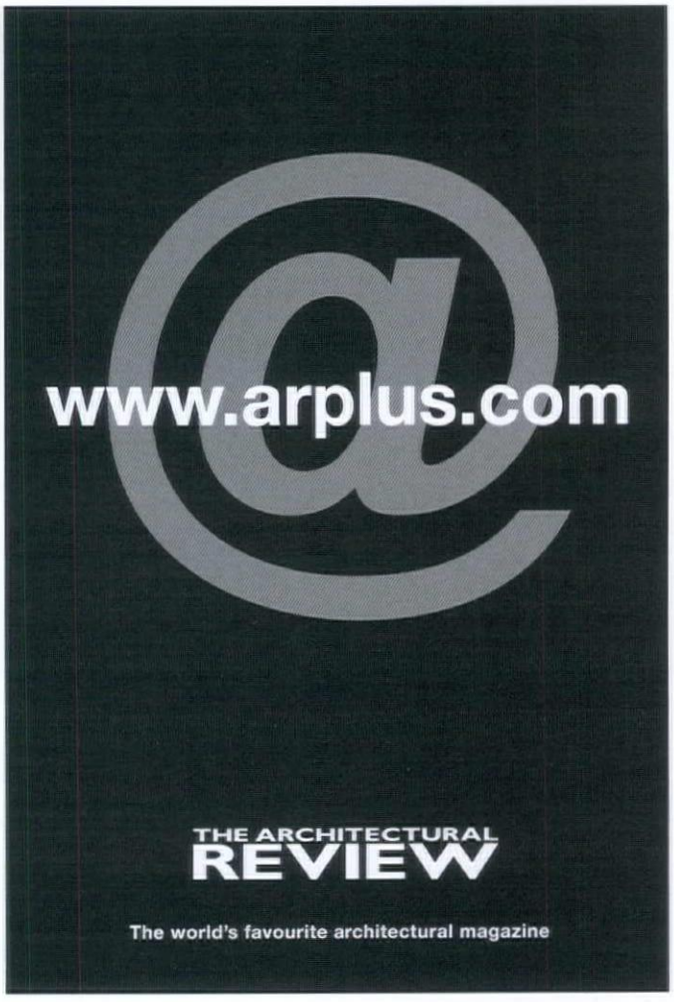
The European Patent Office is looking for consultants to advise its President on building matters. These experts will also be expected to report to the Budget and Finance Committee and, where necessary, to the Administrative Council of the European Patent Organisation.

A duly objective and professional expert assessment of the building issues requires that these consultants be completely independent of the firms instructed to carry out the relevant building measures.

Meetings of the expert building committee are held as and when required, as a rule for one to two days a year with two days for preparation before each meeting. Remuneration is paid in the form of reasonable daily rates plus a daily allowance and travel expenses.

Good knowledge of one of the three official languages (d, e, f) and the ability to understand the other two are essential.

Applications should be sent to:
European Patent Office
Procurement Department
Tender No. 1165
Erhardtstraße 27
80331 Munich
Germany
by: 30 June 2005



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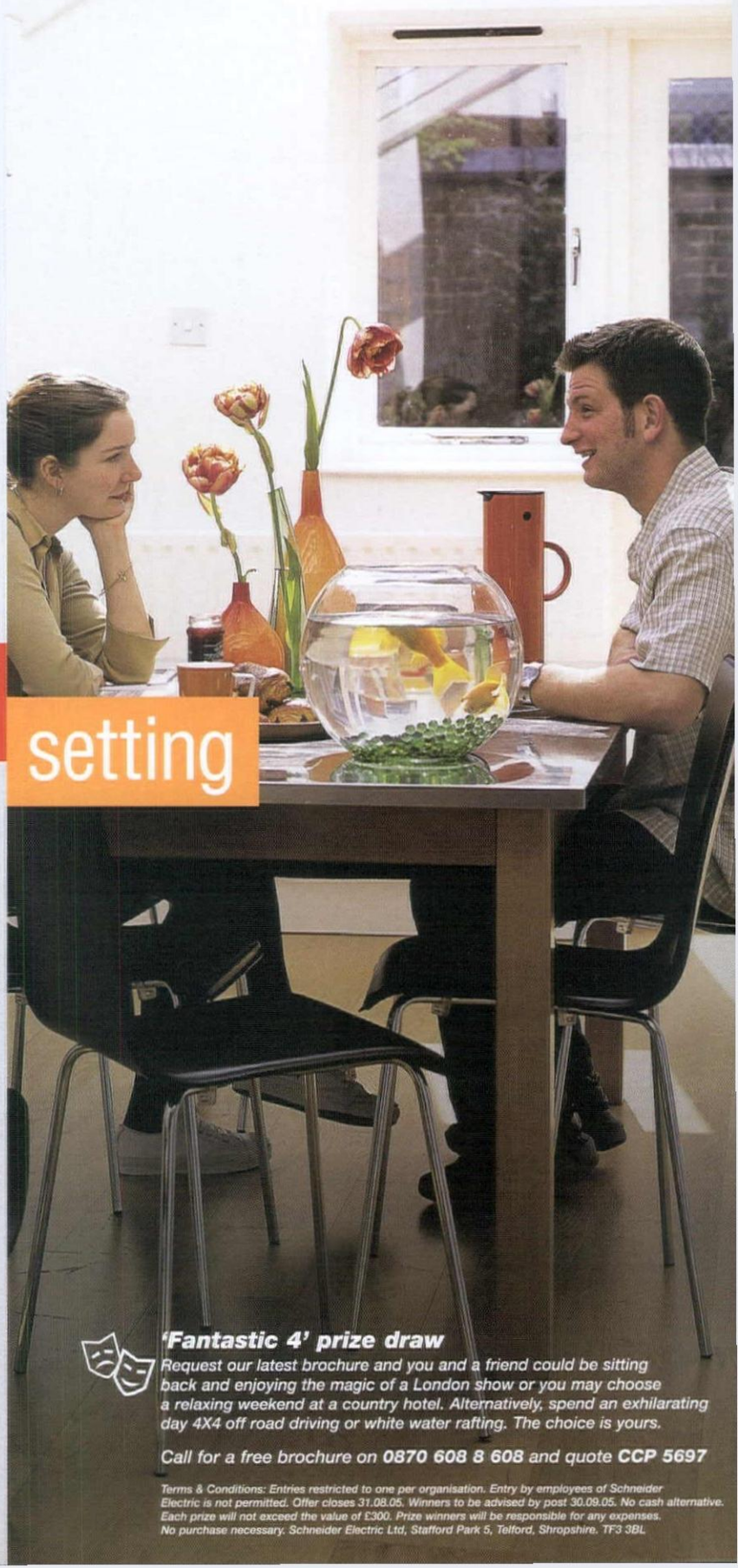
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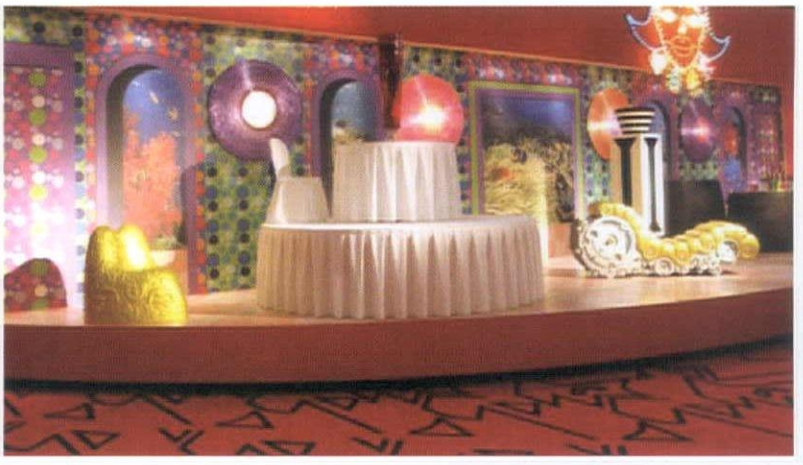
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Hotel Emotion - the Fair devoted to innovation in the hotel industry- is the central driving force of Host – the world leading **Professional Hospitality** Fair – an exhibition organised by EXPOCTS, which runs from **21 to 25 October in Milan at the new pavilions in Fiera Milano – New Exhibition Centre (Rho).**



tually, Hospitality and Hotel world is experiencing a riod of great optimism. The design hotel phenomenon d the growth signals emanating from countries such as ina, India and Russia and countries in the Middle East hlight this. As a result the Exhibition, confirming its tus as a "monitor of trends" has set up new rketing tools for this show. In addition to the ense targeted advertising programme by International dia Partners, the Buyer Team from Hotel Emotion is rking to involve the most experienced foreigner and ian buyers from a database of 60,000 contacts. It is only a way of constantly communicating with the most stigious hotel chains and 4 and 5 star hotels, but also h building companies, contractors, architects and signers. It is a new and useful tool to increase the eraction between supply and demand.

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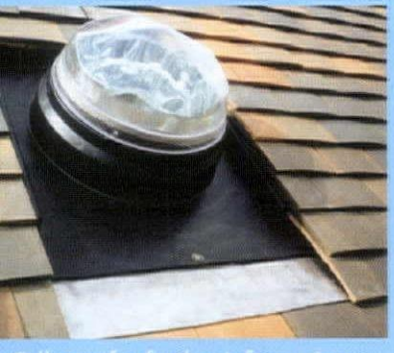
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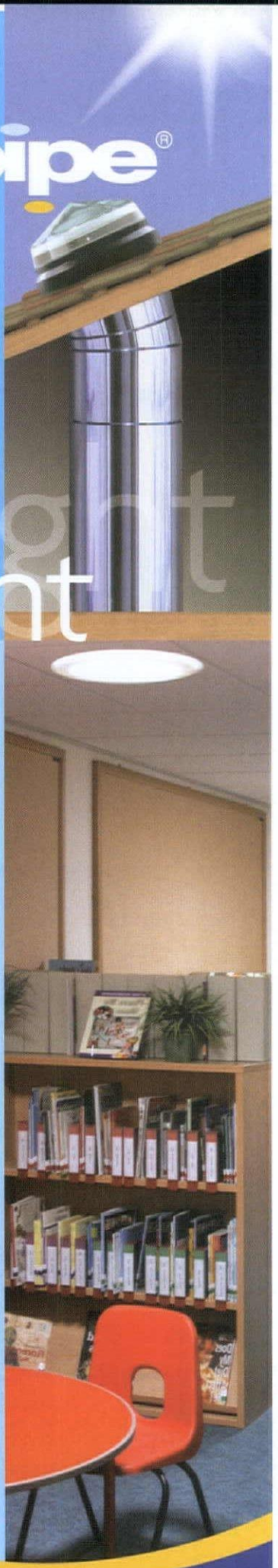
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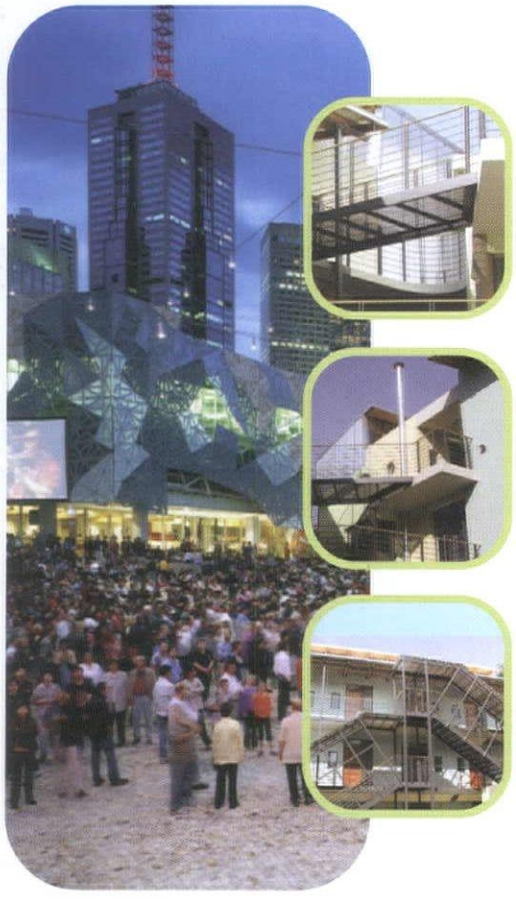
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Entries will be separated into Buildings (those already complete) and Projects (those incomplete or still on the drawing board), and judged on their contribution to world architectural culture, invention and imagination, respect for people, the planet, and context; environmental awareness; appropriateness.

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Candidates should submit two A3 boards with an entry form for each entry by **31 July 2005** to:
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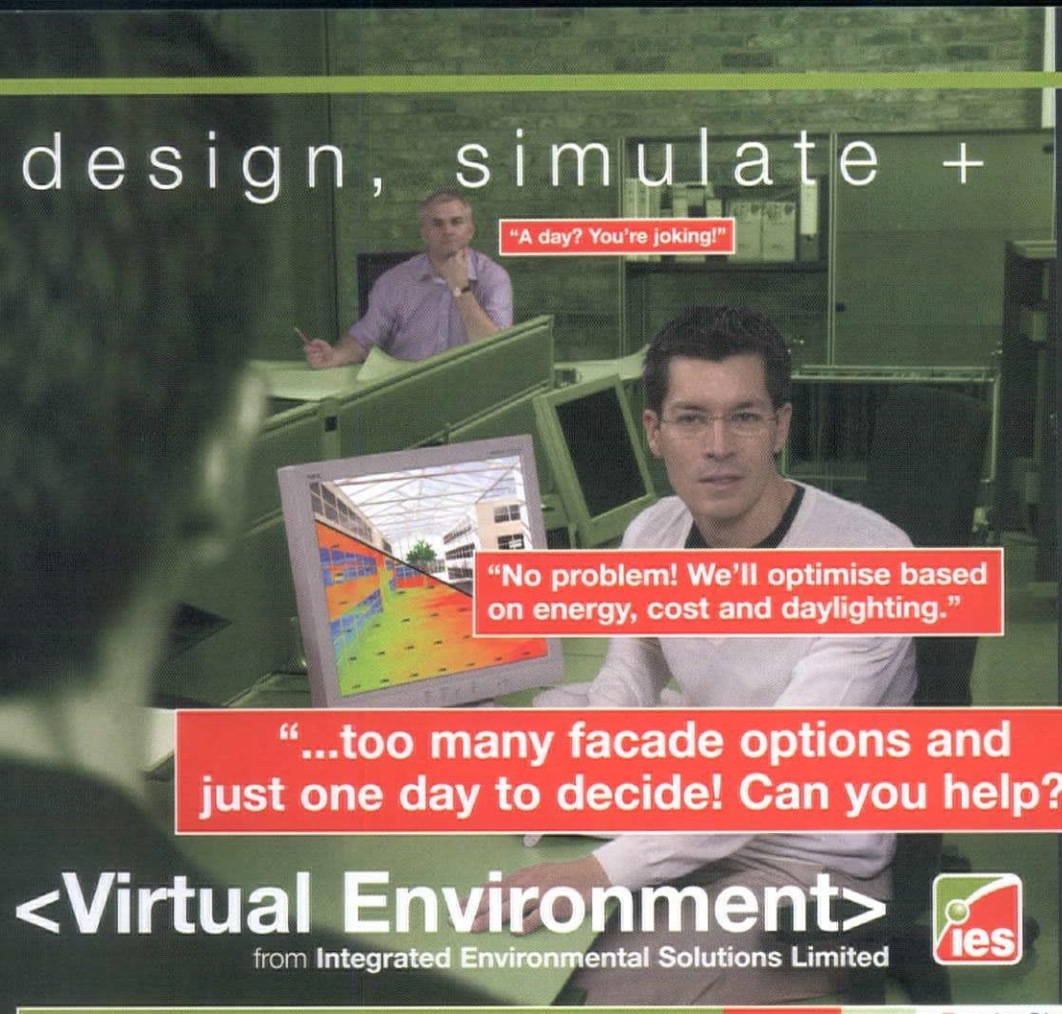


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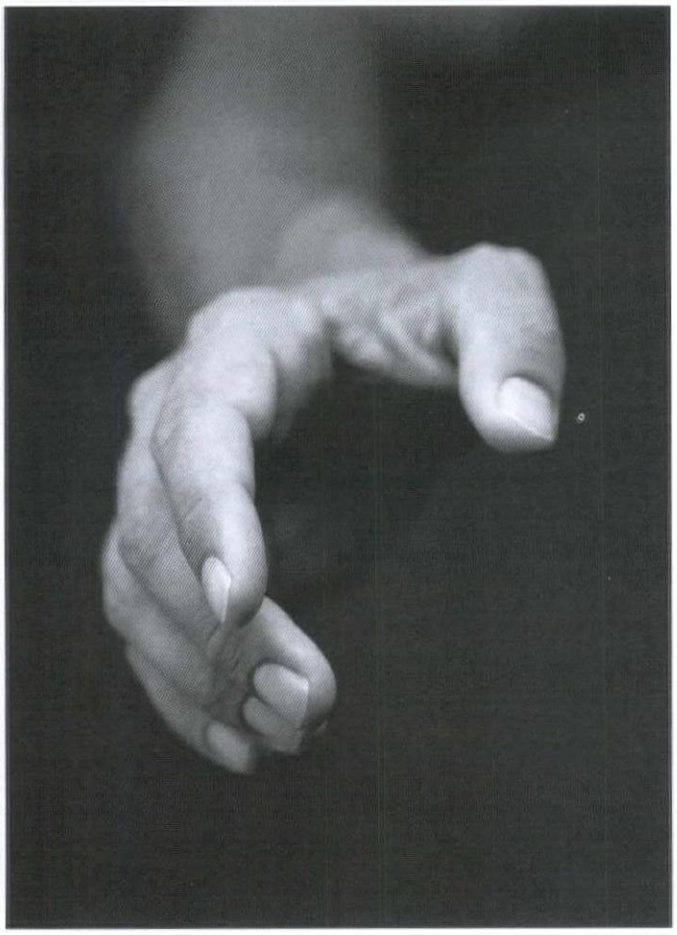
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view

AICHI 2005: JAPAN'S INTERNATIONAL EXPO REVIEWED; HERZOG & DE MEURON'S SIMPLE AND DRAMATIC NEW FOOTBALL STADIUM IN MUNICH; DANIEL LIBESKIND'S COMPETITION WIN FOR THE CREATIVE MEDIA CENTRE IN HONG KONG; THE LEGACY OF BRUCE GOFF'S VISIONARY CREATIONS ON SHOW IN OKLAHOMA.

WHAT PRICE ICONS IN A HERITAGE WORLD?

Are contemporary 'icon' buildings, particularly tall ones, to be excluded from the increasing number of cities with World Heritage Sites within them? A UNESCO conference, on the dilemmas created by the skyscraper manifestations of globalised commerce and culture, was triggered by the three-tower proposal for Vienna, the 'Wien-Mitte' project, two years ago; appropriately enough the conference took place in the same city last month (May), and addressed how, given demands for large new buildings of all types from users and investors alike, areas of historic interest and character can remain uncompromised. As a preamble document put it, 'What are the limits of acceptable change and what criteria should be applied for evaluation and assessment?'

This debate is particularly appropriate in the context of the continuing debate over the value of so-called icon buildings (they used to be called landmarks), fuelled by two new books from the critics Charles Jencks[1] and Deyan Sudjic[2]. Jencks argues that the desire for icon buildings is inevitable and that instead of resisting it, commissions should become the occasion for much more seriously considered artworks, related to a greater or lesser extent to underlying design principles and geometries found in nature. He has identified key icons which fit this bill, and analysed them in his usual provocative fashion, a cheerleader for a roll-call of many of the great and the good from the world of architecture. Sudjic is much more sceptical. In a brilliant opening chapter he reminds us of quite another roll-call – of eminent architects who lined up to work for Hitler, some of them doubling up with Stalin. The underlying proposition is the desire on the part of the rich and powerful to commemorate, celebrate and/or distort their achievements through architecture.

Architects generally find the prospect of building more appealing than not, reconciling conflicting demands of clients, planning authorities, heritage bodies, users and so on. However, this task cannot be undertaken in a vacuum where attitudes to the history and culture of place are unclear or non-existent. As ever, balance is required between new and old. Unesco's debate was timely, and not necessarily hostile to modernity. That is just as well. The underlying tradition of many cities is to build for their own time, sometimes as a result of political or military decisions we would find unacceptable today. If heritage is about more than built form, then the histories to which Sudjic refers need to be taken into account. PAUL FINCH

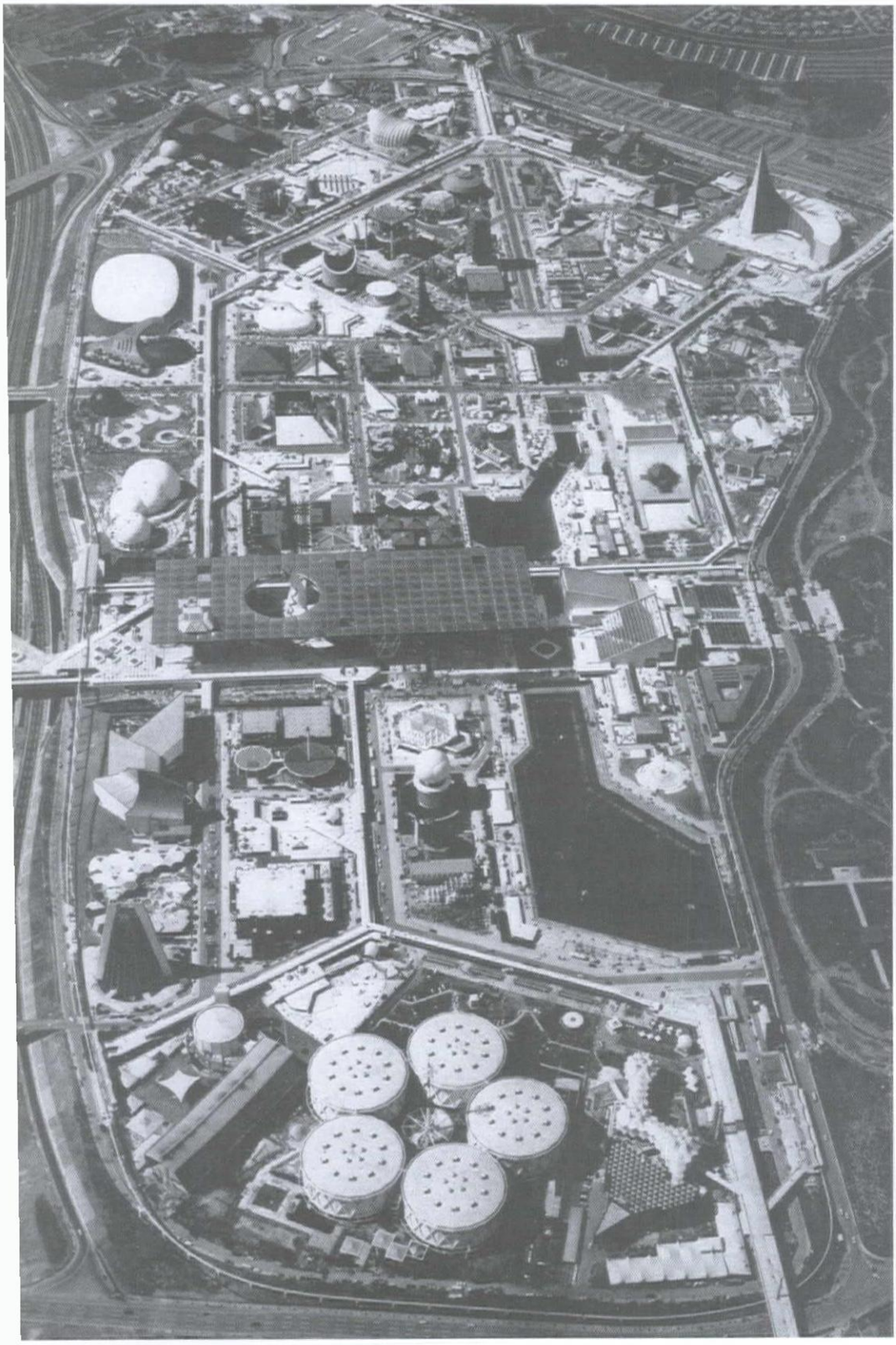
1 *Iconic Building: The Power of Enigma* (Frances Lincoln, 2005).

2 *The Edifice Complex* (Penguin/Allen Lane, 2005).

view

LOST IN TRANSLATION

Great exhibitions have long served as the laboratory of architectural experimentation, but is this still the case today? As ideas relating to the twenty-first century city emerge, with regeneration and urban stitching offering more appropriate strategies than those proposing a tabula rasa, does a masterplanned, purpose built, remote Expo site hold any relevance as a model for sustainable development? And as Architecture falls further behind the cutting edge of technical innovation, can Expos claim to hold any architectural significance? Aichi 2005, the first international Exposition of the twenty-first century, raises many complex questions.



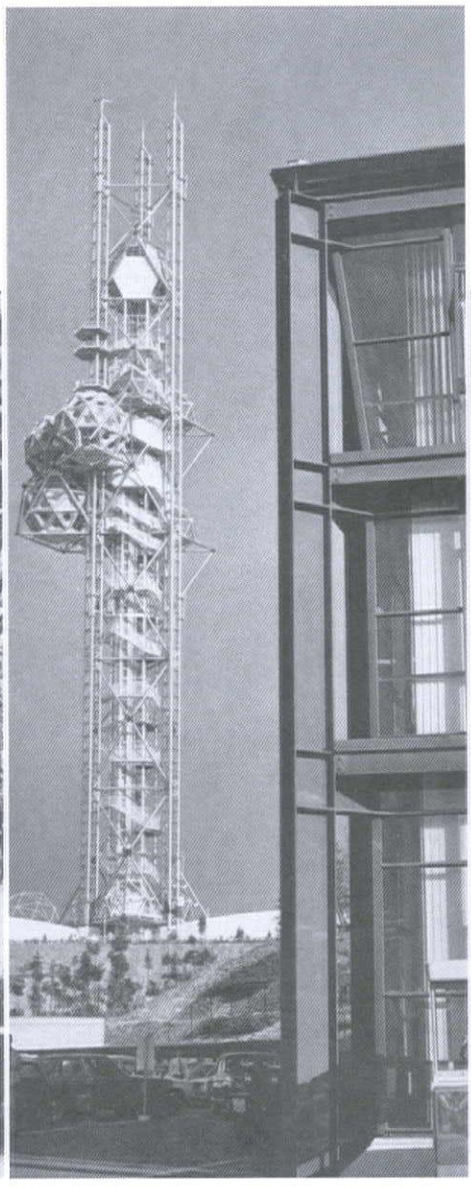
Osaka 70: heroic ambition, centred on Tange's Festival Plaza.

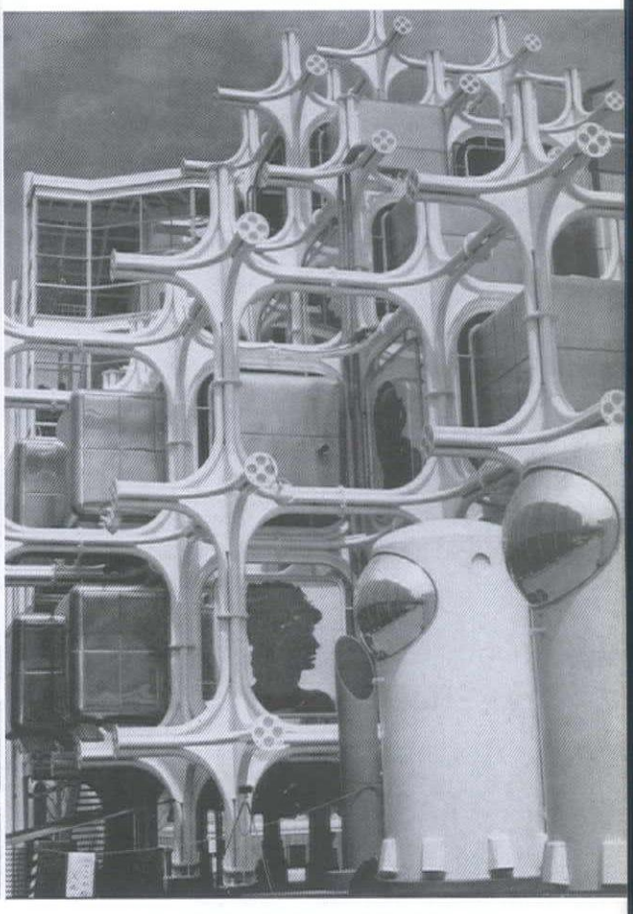
Osaka 1970 should have been the world's last Expo. At least that was the opinion of the AR editor J. M. Richards' editorial in the August 1970 edition devoted to Asia's first international exposition. Richards' criticism looked beyond the specific, to focus more generally on the emerging pattern of international expositions; a pattern that he said was becoming more and more pointless. Ambiguities were increasingly blurring the boundaries between trade show and cultural exposition, and serious contributions to architecture and exhibition design were, in his view, compromised by attention-seeking gimmickry. The rivalry of individual pavilions had smothered Osaka's slogan, 'Harmony for Mankind', with the exposition representing little more than a collection of buildings, 'each trying to shout louder than its neighbour'.

Despite Richard's criticism, however, which may have been premature, it should not be forgotten that Osaka 70 was Asia's first opportunity to stage a major international event, and was hugely successful. At a time when Japan did not have the global presence or cultural influence that it has today, Osaka 70 marked a critical moment in the nation's development, attracting an astonishing 64 million people in just six months.

Furthermore, with hindsight allowing us to place the event within a historic context, its architecture is now understood to have had a far more significant influence than Richards may ever have expected. Not only did it introduce the world to Japan's architectural godfathers – Tange, Kurokawa, and Kikutake (the original Metabolists who built structures that Archigram could only dream of) – but more significantly, perhaps, it inspired a home-grown generation to rise up and to demonstrate that the global influence of Japanese architecture would go well beyond the traditional motifs of bark roofs, tatami mats and shoji screens. So, while Europe (and Britain in particular) spent the subsequent two decades referencing Osaka's icons through the British High-Tech tradition (most apparent in the work of Nicholas Grimshaw – from early factories to his more recent inflatable space centre), the emerging Japanese generation led by Ando, Hasegawa, and Ito, took contemporary Japanese architecture in a wholly different direction; each with







Osaka 70 introduced over 64 million visitors to the futuristic vision of the original Metabolists, with Tange's Festival Plaza, Kikutake's 125m Expo Tower, and Kurokawa's Takara Pavilion.

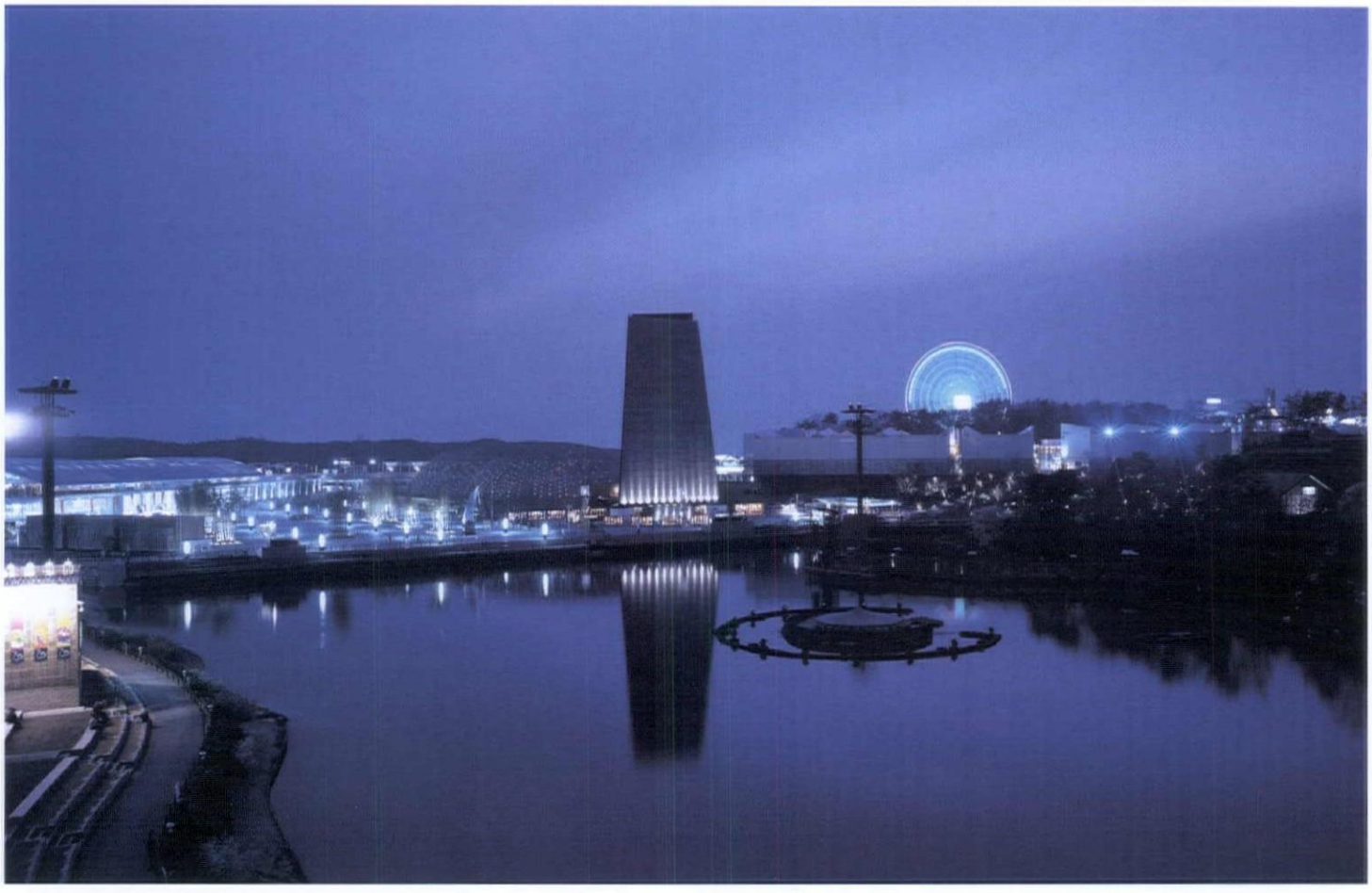
unique and distinctive work that firmly placed materials and techniques as servants to the poetics of space-making, unlike High-Tech that did the inverse.

So, this year, as Expo returns to Japan 35 years later, what could we have hoped to expect? Surely Aichi 2005 – heralded as the first Exposition of the twenty-first century – would offer an opportunity to do something equally heroic; to exhibit the work of its current generation and to take the opportunity to inspire the next? Would we see Ando, Hasegawa, and Ito leading the way as their predecessors had done before them? Or, would the next generation – the Sejimas, the Bans, or even the fledgling Bow-Wows – be given the chance to shine through? Apparently not. With political manoeuvring bypassing the potential input of Kuma and Kitagawara along the way, responsibility for the masterplan went back to Kikutake – the godfather and original architect of the 1970 Osaka Expo Tower. As a result, it seems the majority of Japan's leading contemporary architects lost interest. None of those interviewed seemed in the least bit engaged by the event, and those that didn't simply dismiss it out of hand were clearly disappointed and highly critical of it; both young and old alike.

Despite his personal success at Osaka 70, with his Takara Pavilion and the iconic Nakagin Capsule Tower that followed, Kurokawa is among the critics; those who are suggesting the Expo has become obsolete, and that in its current form, architecture cannot hope to match the expression of innovation that resides more profitably in the invisible world of information technology. As reiterated by Tadao Ando, since there have been relatively few significant advances in the material nature of architecture since Osaka, current architectural shifts are subtle, and do not easily translate into the language of today's funfair expositions.

Today, the most significant cultural shifts are led by virtual frameworks, not physical ones. And, with a real-time 24/7 Expo site growing on the web, accessible to all, it should come as no surprise that the physical environment of recent events has been skin-deep, billboard showmanship. The contribution to the city also seems to have suffered as expositions no longer present relevant models of planning. With the times of tabula-rasa planning long since past, in European and Asian cities alike, the argument for using an Expo as a regeneration catalyst has become less convincing, with both Seville and London's Greenwich peninsula remaining desolate years after their launch party events. At best today's Expos are good day-trip fodder, and at worst, oversized, impossible to digest, corporate trade fairs. So, how should we judge the architecture of Aichi 2005?

When describing his contribution to Aichi 2005, Kiyonori Kikutake displays an infectiously youthful enthusiasm, and is



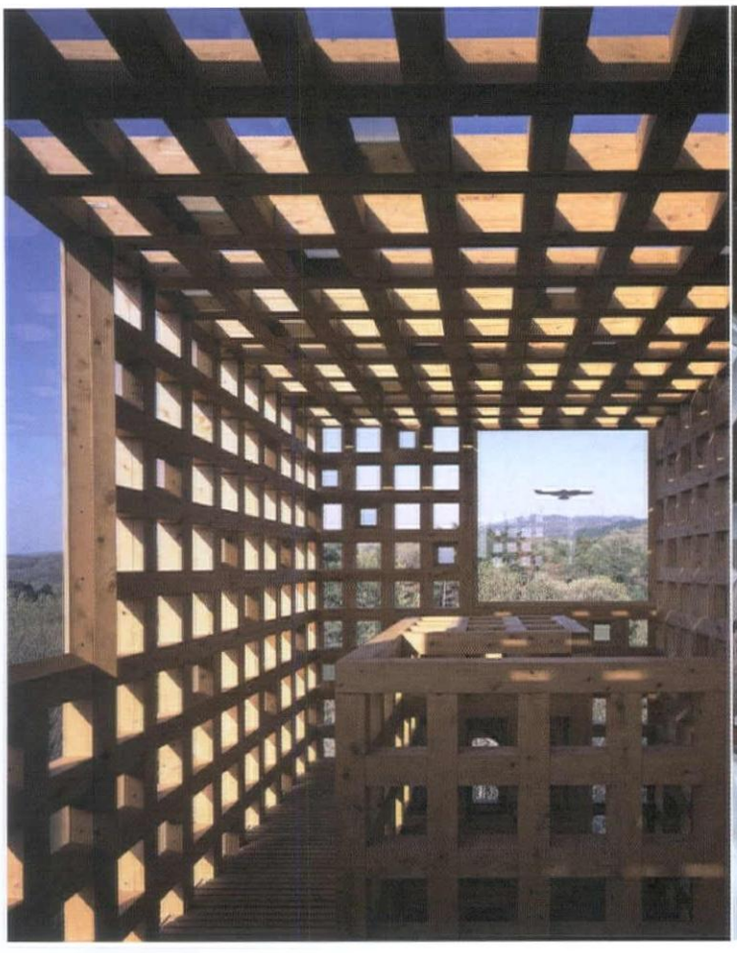
By contrast to the hard landscaped megastructure site of Osaka, Aichi 2005 chose a parkland setting, on a city fringe site, 20km east of Nagoya. But is it genuinely reversible?



The exposition at Aichi 2005 centres around Kikutake's Global Loop, an elevated boardwalk giving access to all areas, including the corporate world of Toyota, Hitachi et al.

clearly proud of his Global Loop; the elevated boardwalk that twists its way through the site. Eliminating topographical height differences, this sinuous spine acts as the principal point of orientation and gives visitors a foolproof route-plan. Pavilions are then grouped in six Global Commons around a central ocean – Asia, America, Mediterranean Europe, Europe, Africa, and Oceania and Souteast Asia – while a remote nature trail site nestles in a nearby forest, accessible by cable car. In response to Osaka's celebration of the mechanisms of the technology, Aichi offers a vision for the twenty-first century under a softer theme; 'Nature's Wisdom – building a new civilisation in harmony with the mechanisms of nature'. By addressing the consequences of scientific development and progress, and in response to changes in the economic and environmental climate, it focuses on pollution and sustainable development. As such the whole Expo site is intended to be reversible, so that once the festival period ends in September, the area can be returned to natural parkland; an idea that while being well intended is extremely hard to believe, particularly when the scale of the development and infrastructure is considered. Where will all the tarmac go? And, what purpose will the car parks and rail links serve for the future parkland?

This being said, however, this year's event is significantly less ambitious than its predecessor, with the organising committee expecting a relatively low target figure of 16 million visitors in six months. The architectural aspirations also are more modest, arguably in response to

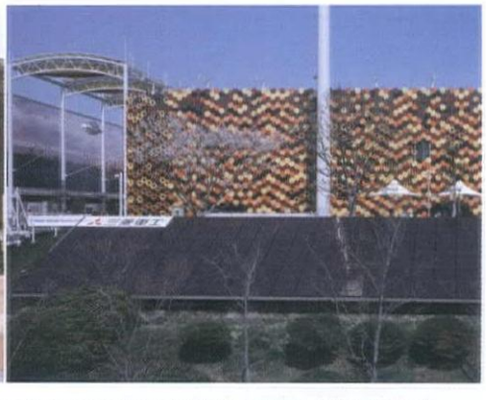




A few moments of delight, with Kitagawara's remote tower, which used no mechanical fixings, and Lithuania's spirited, informative and entertaining showreel installation.







With modular pavilions, there was little scope for architectural experimentation. As a result, attention focused on facades, such as Poland, the Czech Republic and Spain.

the desire to attract poorer countries that may not traditionally be able to attend. To this end, in the shadow of the usual array of vulgar corporate pavilions – such as those built by Hitachi and Toyota – individual pavilion sites were offered to guest nations in the form of prefabricated exhibition hall modules; a series of 18 x 18 x 9m units clustered in groups of six, and shared according to each nation's specific requirements. Again, while such an inclusive ideology is extremely well intended, this decision severely limited the opportunity for each country to engage in any form of serious architectural experimentation. Aichi 2005 may well go down in architectural history as the year of the billboard, and may be seen by some as the least significant event for many years. But times have changed. Perhaps Aichi 2005 fits well with the emerging hypothesis that, in terms of architecture at least, the Expos are no longer the place for the avant-garde? Expos seem now to be more about interpretation, narrative environments and the intellectualisation of exhibition design; so perhaps the focus of our criticism should shift? Certainly as any time spent in the cities of Japan will reveal, today architectural experimentation is alive and active on the street, not in the laboratory, led by an emerging generation of architects who are beginning the process of repair and renewal from the bottom up. ROB GREGORY

Aichi 2005 runs until 25 September 2005
For more information visit www.expo2005.or.jp
Colour photographs: Edmund Sumner/VIEW

PILLOW TALK



Stadium in the landscape, a marshmallow soft volume clad in ETFE pillows that reflect different coloured light.

On paper, it's a bad day for looking at buildings, but Herzog & de Meuron's new Munich stadium answers well to the drizzle, its translucent, ETFE duvet looming like a ghost on the agricultural motorway flatlands.

The planned entrance sequence isn't quite finished and there's a slightly puzzled La Villette feeling of expectation as you walk over the biggest car park in Europe (in true contemporary fashion, a landscaped hill, planted with sedum and tufts of native grass). This changes to reassurance as you are scooped up into the circulation spaces which run between stadium and ETFE skin.

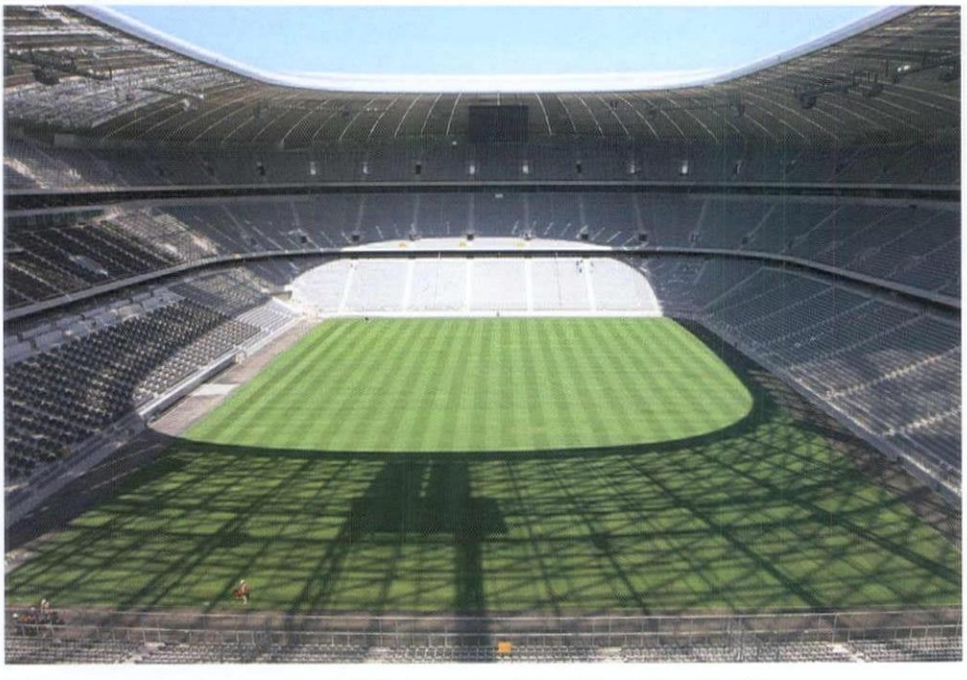
The stadium itself is about as simple and dramatic as it could be. 'Everything we did was about focusing on the pitch' says Jacques Herzog. This includes the lack of refining of details, the screening of the roof, the 'lens' aperture sized to get the best light on to the pitch and optimised sightlines. Every seat feels close to the pitch and there's not much sense of inevitable seating hierarchies. The pitch 'almost seems square'. It's designed 'almost optically', to give maximum exposure to the game.

The only exception to overt detail was in the seats, originally developed for Herzog & de Meuron's stadium in Basel, which are 'soft and pleasant to touch'. These are grey, because the stadium will be home to two teams, Bayern Munich and 1860 Munich, and team colours are deliberately stripped out of the building. Instead, lights behind the ETFE pillows mean the stadium can be illuminated red, white or blue, depending on who's playing; colours which will just filter as background to the pitch itself.

The neutrals continue right round the perimeter circulation, but the metallic silver walls explode into gold for the vast restaurant, its gold ring ceiling pitched somewhere between the Palast der Republik and Bavarian Rococo. Yet it is surprisingly practical and flexible – a 'flat chandelier', as Herzog calls it

There's a balance here between 'cooking up the atmosphere' on the pitch itself and the calmness of the circulation; what Herzog calls 'a peaceful strategy'. This is certainly not the usual stadium credo, as the current belief seems to be that architecture means masts. Instead, Herzog & de Meuron treat the stadium as a venerable and extraordinary building type with a history linking Greek theatres and the Coliseum to Anfield (Herzog's own favourite) and Wimbledon Centre Court. He says old English stadia – hugely devalued – are the best examples of the stadium type and takes their spatial conditions seriously, as architects. The Beijing Olympics will make a different kind of demand. That's why this firm – with their conceptual art approach (in their youth they paraded artworks in the Basel carnival in Joseph Beuys felt suits) – are now beginning to rival HOK as expert stadium designers, while continuing to be the major international curators' architect of choice.

KESTER RATTENBURY



Inside the new Allianz Arena – every seat feels close to the pitch and the gladiatorial action.

THE AR AWARDS 2005

The AR Awards for Emerging Architecture are entering their seventh cycle. Inaugurated in 1999, the awards are intended to bring wider international recognition to a talented generation of architects and designers under 45. Supported by Buro Happold, the international consulting engineers, it is the premier award for young architects in the world, and offers £10 000 prize money and the opportunity to participate in an associated exhibition and lecture series at the RIBA in London. The 2005 jury will be: Sean Godsell (Melbourne, winner in 2002), Thom Mayne (Morphosis, LA, winner of 2005 Pritzker Prize), Luis Mansilla (Mansilla & Tuñon, Madrid), Annette Gigon (Gigon/Guyer, Zurich), and Peter Davey (former editor of the AR). Paul Finch, the current editor, will chair the jury. Deadline for entries is 13 September. Entry fee is £50 (€75 or $100). Full details with conditions and entry form are at the front of this issue.

SAVING BRUCE GOFF

The familiar images of Oklahoma are rural: the land rush of 1889, Okies fleeing the Dust Bowl, and 'the wind comes sweeping down the plain' in the Rodgers and Hammerstein musical. But this prairie state, larger than England and Wales combined, was once a prime source of oil and, during its years of prosperity, it nurtured Bruce Goff (1904-82), one of America's most original architects. Inspired by natural forms and the example of Frank Lloyd Wright, this self-taught prodigy completed his first house at age 15, and designed a cathedral-like church in Tulsa seven years later. Through his long life, he moved from one mid-Western city to another, designing extraordinary houses, teaching, and painting. His last project was the Japanese Pavilion at the LA County Museum of Art, which was adapted and realised by his protégé, Bart Prince.

Part of Goff's archives are now enshrined in the Price Tower Arts Center in Bartlesville, a city bound up with the fortunes of Phillips Petroleum. In 1954, the Price Pipeline company commissioned Wright to design an angular 19-storey office tower – adapted from an unrealised project of 1927-31 for the Lower East Side of New York. Two years ago, it was sensitively converted into a stylish boutique hotel, with a two-storey wing of galleries, making it an ideal point of departure for an architectural pilgrimage. And Bartlesville might become an obligatory stop like Bilbao if funds can be raised to build the new arts centre that Zaha Hadid has designed to wrap around the base of the tower. Her daring horizontal geometries play off Wright's thrusting verticality and boldly cantilevered floors. As importantly, this skylit sweep of display spaces, linked by ramps, would renew a local tradition of experimentation, and focus public attention on the legacy that remains.

That heritage has been eroded by vandalism and neglect, and much of what's left is at risk. One of Goff's greatest houses was torched by persons unknown – a crime that was shamefully hushed up. Only charred fragments and the architect's fanciful renderings remain from Shin'enKan, which Joe Price Jr juxtaposed with his father's Wright house on the family estate in Bartlesville. Walls of gold-anodized aluminium and Kentucky coal, accented with blue and green glass cullet, sparkled in the sun. A hexagonal conversation pit was bathed in natural light diffused by goose feathers. Suspended strips of white plastic evoked a summer rain shower. Begun in 1954 as a bachelor pad, it was extended to accommodate a family and a burgeoning collection of Edo art, and it gave its name to the pavilion Price sponsored to house those scrolls and screens. On moving to California, he left the house in the care of the University of Oklahoma's School of Architecture, which failed to protect it.



Clockwise from left: Boston Avenue Methodist Church, Tulsa, Goff's early masterpiece; Comer House, Dewey (1957); Pollock House, Oklahoma City, dating from the same year. These buildings at least are clearly cherished.

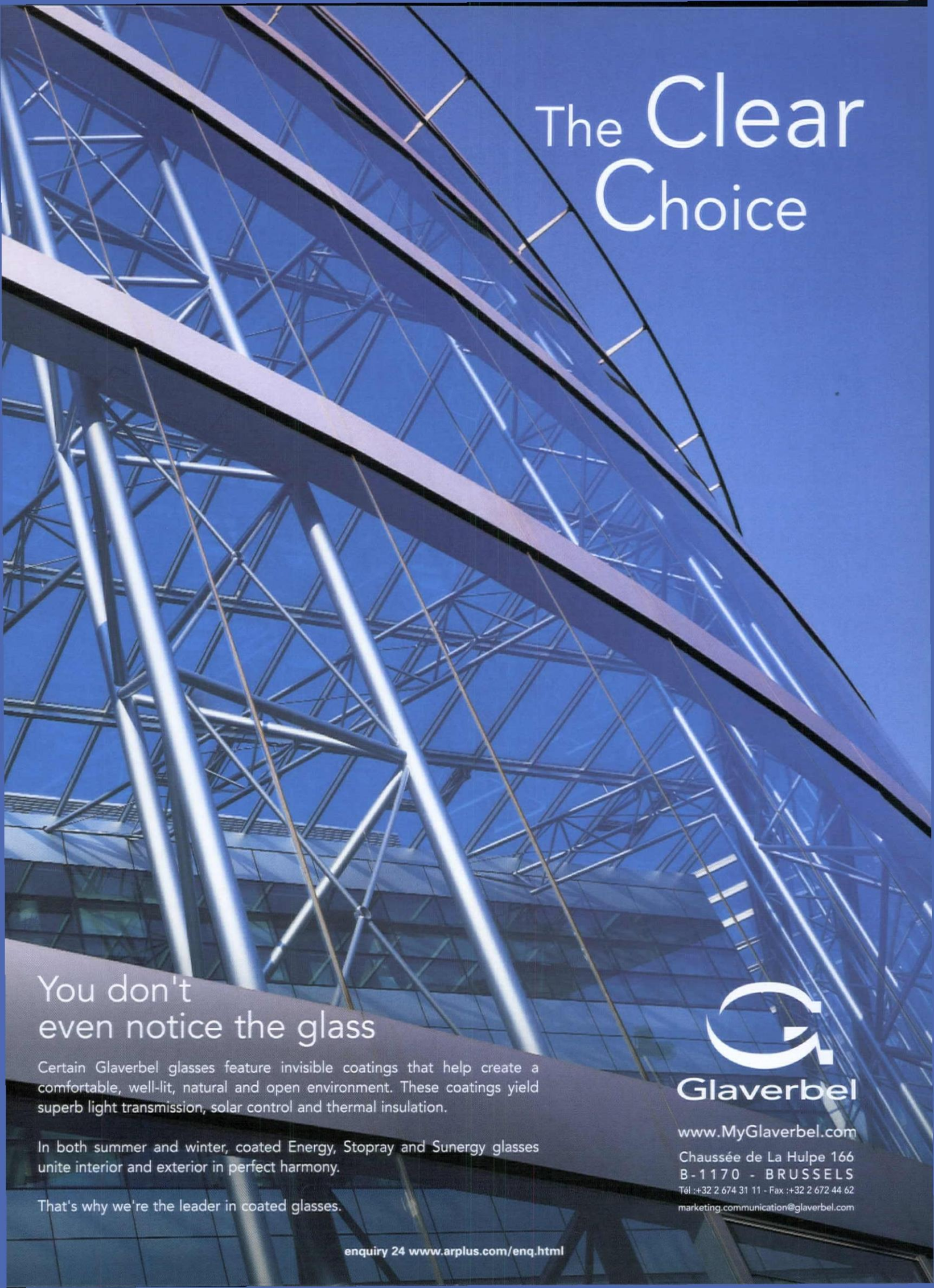
The Bavinger House (1950) outside Norman, where Goff taught at the university, has become as choked with vegetation as a lost temple in the jungle. It received the 25-Year Award from the American Institute of Architects in 1987, but today only the 'no trespassing' signs denote its presence – as a creeper-clad spiral of stone that can barely be glimpsed through the trees.

Who will save these houses and other unique creations, when their original owners are no longer there to care for them? They are too remote to excite the passion that a prosaic brownstone elicits in New York. Most preservationists are focused on traditional buildings, and popular sentiment favours familiar monuments and main streets, rarely the modern. The American heartland was settled by rugged individualists who struggled to make a living and, for better and worse, did what they pleased. Now, it's emptying out, as ambitious spirits head to the sunbelt in search of new opportunities. Industry and family farms have shrivelled, and those who remain are caught up in the tide of conformity and nostalgia for an idealised past that is hobbling architectural innovation all over America.

Perhaps it was always thus. Goff, like R. M. Schindler and John Lautner in southern California, depended on a handful of maverick clients to provide a trickle of commissions – as did Wright, their mentor, for much of his life. Only in these freshly settled places, where taste was still elastic, could a true original enjoy creative freedom. Back then there were no design review boards to enforce a sterile historicism, as is common today. The owners of one Goff house reproved gossiping neighbours by posting a sign, 'We don't like your house either'.

Happily, much of Goff's work survives and some of it is cherished. The Ledbetter House in Norman, which predates Bavinger by a few years, has been impeccably restored, outside and in. Two steel umbrellas are suspended from a jutting frame to shade the forecourt and side patio. A narrow glass slot illuminates the undulating stone wall to the rear of the long living room, and a curved ramp leads up to the bedrooms. In Dewey, just north of Bartlesville, the simple brick box of the Comer House (1957) is upstaged by a bright red Constructivist canopy. The Pollock House in Oklahoma City was built the same year, but is radically different in expression, comprising four shingled cubes pointing corner-up to enclose a cellular interior. A faceted fibreglass canopy shades the roof deck of the garage, and the owners are working to restore the house that Goff remodelled for them just before his death.

Boston Avenue Methodist Church, Goff's early masterwork, is still the grandest and best-preserved building in downtown Tulsa. Another act of renewal is occurring just over the horizon on North 178th Street. Goff's Hopewell Baptist Church (1948) is nicknamed 'the Teepee' for its feathered crown and its tapered steel trusses supporting a conical worship space. The congregation have defied the march of mega-mansions, jammed in such new developments as Blue Quail Ridge and Rose Creek, which sought to occupy the site, and are seeking funds for a major restoration by Rand Elliott Architects. They deserve support and their determination may inspire other efforts to preserve this architect's visionary creations. MICHAEL WEBB


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Familiar collision of volumes from Daniel Libeskind, this time in Hong Kong.

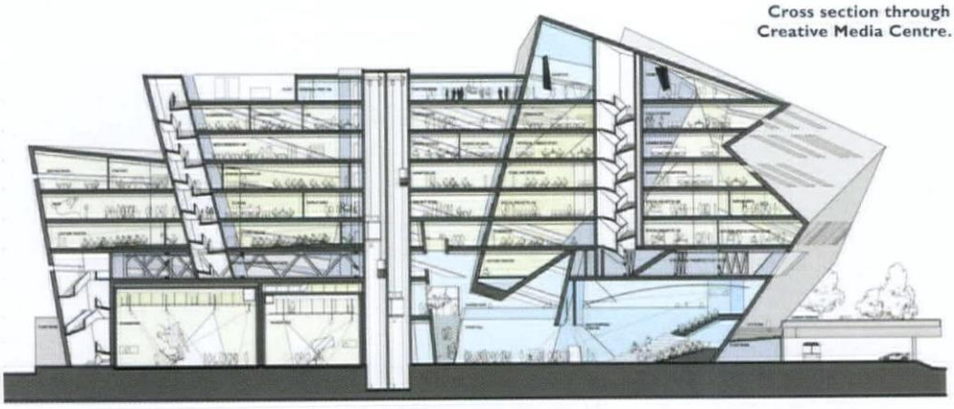
LIBESKIND HITS HONG KONG

Daniel Libeskind's first Chinese project, in Hong Kong, is to be 'a lighthouse for the creative industries'. Back in 2002, Hong Kong City University, one of the Special Administrative Region's four Universities, held an international architectural competition for a Creative Media Centre. After a two-stage selection process, Studio Libeskind's crystalline structure was chosen from a short list of five Hong Kong and international finalists. Detailed plans are now under review by Hong Kong's Town Planning Board.

In the wake of mainland China's rapid economic development, Hong Kong is exploring new fields in which to maintain an innovative edge over its big brother. Creative industries already account for 90 000 jobs, 4.5 per cent of service sector employment, in Hong Kong and demand is increasing for IT skills in the arts, communication, education and entertainment industries. City University's School of Creative Media was founded in 1998, combining courses in animation, documentary film-making, photography, computer graphics, interactive media, and related history and theory. The new complex will be Asia's first purpose-built media education establishment and help place Hong Kong at the forefront of a new core industry. The City University has already signed a joint networking agreement with Beijing's Film Academy and South California's University School of Cinema-Television. Now it is hoped that Libeskind's building will not only house academic departments and a public outreach agency, but also symbolise a rich new vein in Chinese contemporary culture.

The 7674sqm site is on Cornwall Street in Shek Kip Mei, Kowloon Tong. Centrally positioned on the Kowloon peninsula, and with its own MTR underground train station, it will form an extension to the City University's Tat Chee Avenue campus. The Academic Facility will have a multi-purpose theatre, teaching and study rooms, media and research laboratories, project areas and studios, backed up by faculty administration and technical services. Internal planning aims to connect areas in a continuous loop of volumes to encourage interaction and the serendipitous exchange of ideas. The public outreach suite will have its own exhibition hall, virtual reality centre, film theatre, programme and function rooms, and event organiser's office. Initial planning anticipates nine levels of construction, containing a total floor area of 30 600sqm, rising to a peak height of 135m. At the north of the site, a landscaped park will be accessible for both students and public. The building budget is made up of HK$550 million from the University Grants Committee and a further HK$200 million from private sponsorship for the public outreach agency.

Since the 1970s, Hong Kong has commissioned star architects, such as Norman Foster, Harry Seidler, Paul Rudolph, I. M. Pei, and Terry Farrell to boost the colony's global image. Even when Zaha Hadid was unable to build her Peak Club, the design attracted world interest. Locally-based architects, from Taoho, Palmer & Turner, Dennis Lau and Ng Chun Man, to Rocco Yim, have all helped Hong Kong develop a sophisticated and internationally comparable architecture which also helped raise their profile for mainland China projects. International headlines and innovative design attracts investment and business success. Architecture's symbiotic relationship with global economics makes the choice of Daniel Libeskind's design as much a politically as an aesthetically strategic move. LAYLA DAWSON



Cross section through Creative Media Centre.

ARCHITECTURE AND THE CAR

As the automobile evolved in tandem with modern architecture, it created myths, legends and new building types.

Gabriel Voison (1880-1973) gave up architectural studies to fly, and then to build aircraft for the French air force. After the First World War, Voison turned his hand to car manufacture, and, in partnership with his friend, the architect Noël Noël, planned to build inflatable aircraft hangars and prefabricated housing. Voison did build a sequence of fascinating, and rather expensive, lightweight, aluminium alloy-framed cars over the following fifteen years, although the low-cost aircraft hangars and prefab housing never quite got off the ground, or along the road.

Yet, they very nearly did. Between experimenting and womanising, Voison made friends with the ambitious young architect Charles-Edouard Jeanneret, Le Corbusier, who was, as his *Vers Une Architecture* confirms, utterly taken by the forms and technologies of aircraft and automobiles. For the young Le Corbusier, a house was a 'machine for living in', a kind of static car. In the future it would employ all the latest techniques and advances made in the world of Voison.

This aesthetic and social love affair was mutual. Voison became one of Le Corbusier's early patrons, paying, for example, for the Pavillon d'Esprit Nouveau at the 1925 Exposition Internationale des Arts Décoratifs held in Paris. Corbu's pavilion was one constructed module from his ideal Maisons Citrohan, a prefabricated apartment block that he envisaged being mass-produced across French and even global cities. The name Maisons Citrohan was a curious pun on Citroën, the car manufacturer which had yet to design and produce that architects' favourite, the 2CV, a masterpiece of low-cost prefabrication. Quite what Voison thought of the name Citrohan is anyone's guess, but the car maker was clearly unoffended as he lent Le Corbusier cars in succeeding years. Indeed, as Le Corbusier was only too careful to point out, the driveway of his seminal Villa Savoye (1929) at Poissy was laid out according to the turning circle of a 1929 model Voison. Voison cars, in fact, appeared in photographs of many early Le Corbusier buildings: Corbu's was, in its own way, as close a relationship with a car manufacturer as was Albert Kahn's with Ford.

In the same year Villa Savoye was completed, 5.3 million automobiles were made in Detroit, the foremost industrial centre in the United States. Le Corbusier, a Swiss craftsman turned Parisian journalist and polemical architect, might have talked in awe of the aesthetic of industrial enterprise, but Albert Kahn (1869-1942) was the incarnate spirit of industrial enterprise-made-architecture. Henry Ford, a virulent anti-semite and Albert Kahn, a German Jewish émigré from Westphalia, were, despite their differences, made for one another; their business relationship spanned thirty years, and revolutionised both automobile manufacture and architecture.

Kahn, whose practice continues in business today, started out as an errand boy for the Detroit firm, Mason and Rice, working his way up to become chief draughtsman, with no formal training whatsoever. His commercial genius, as he started up in business, was to pick up the kind of work that his Beaux-Arts trained contemporaries would have looked down on. Factories for Henry Ford? No chance. Leave those to Kahn. Kahn designed vast factories for Ford, originally for the manufacture of the ubiquitous Model-T, characterised by steel-trussed, saw-blade top-lit roofs, vast horizontal windows determined by the structural grid of the buildings and by tall chimney stacks.

The lure of mass production

While Le Corbusier (a craftsman by background and painter by adoption) and his radical European contemporaries talked about an architecture of mass-production influenced by the aircraft, the automobile and industrial design, Kahn built it. 'Architecture', said Kahn, who went on to build more than 600 factories for Stalin in the Soviet Union, 'is 90 per cent business and 10 per cent art.' And, he might have added, millions of identical, black Fords. During the Second World War, while Le Corbusier was musing in Vichy France, Kahn was producing some of the biggest and most effective factories ever built. His work with Henry Ford and his 'Tin Lizzie' led to the sensational factory at Willow Run, Michigan (1943) designed

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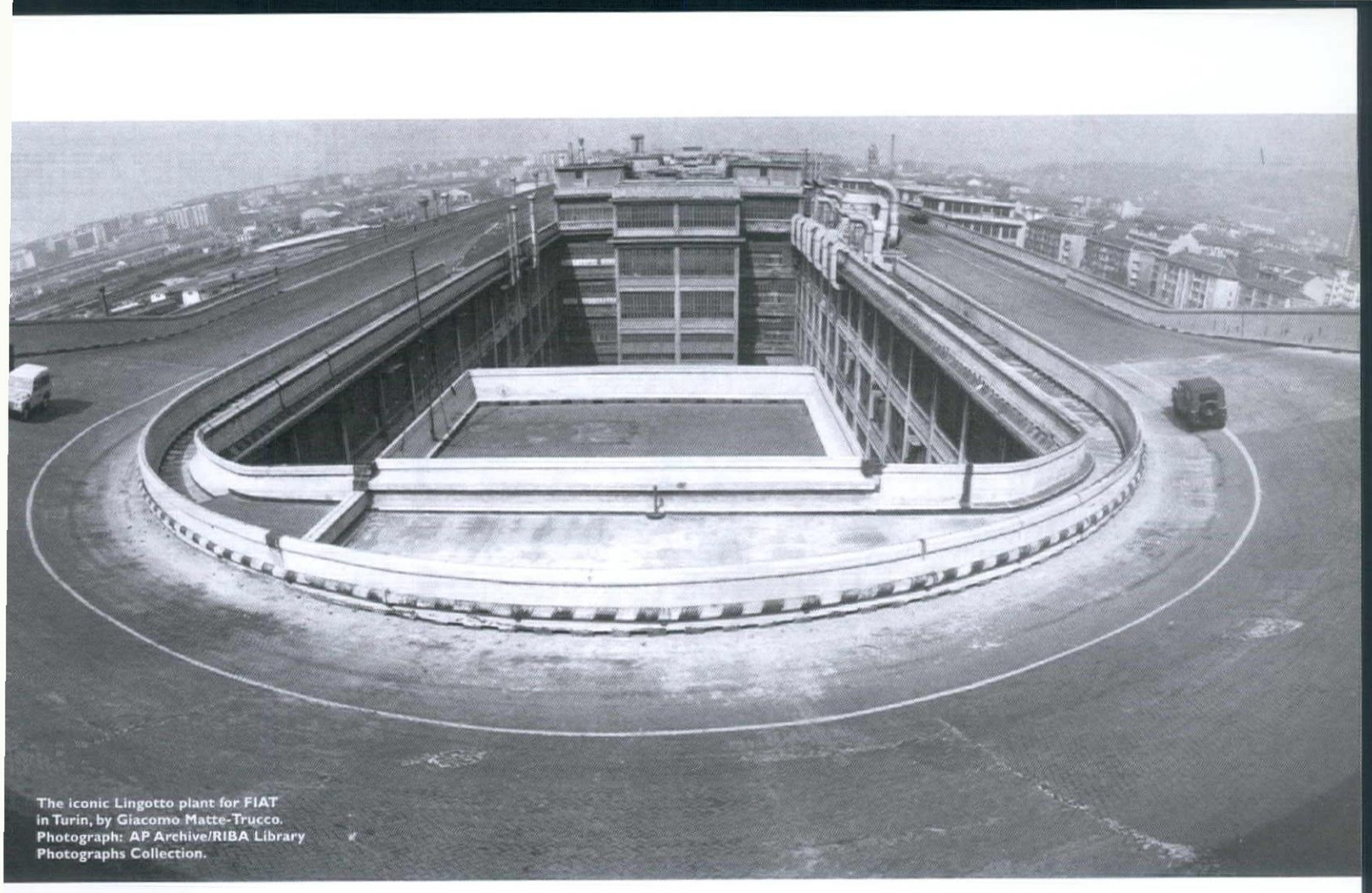




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The iconic Lingotto plant for FIAT in Turin, by Giacomo Matte-Trucco. Photograph: AP Archive/RIBA Library Photographs Collection.

for the construction of B-24 bombers. The factory was more than half a mile long (805m) and 1300ft (400m) wide. Such structures helped, hugely so, to end the war with Nazi Germany and Imperial Japan sooner rather than later. They were also a mile, and more, away in practical terms from the intellectual, aesthetic designs of Le Corbusier and most of his European contemporaries.

Fantasy, futurism and modern movements

Of course, there were exceptions, most notably Giacomo Matte-Trucco's factory (the Lingotto plant) for the Italian car giant, FIAT, on the edge of Turin. The Futurists claimed that 'Fiat Lingotto was the first built invention of Futurism', although Matte-Trucco (1869-1934) was a level-headed, if adventurous, structural engineer, much indebted to Albert Kahn, and very much not a Futurist. His famous reinforced-concrete factory boasting a test-bed race-track on the roof, and now remodelled as a civic, commercial and arts centre, by Renzo Piano (AR November 1996), was designed very much in line with Giovanni Agnelli's curt instruction: 'You will not be allowed to enter the Biennale Exhibition. You must have no aesthetic concerns. That's how you must work for industry.' Matte-Trucco did not question his FIAT boss. The result, in any case, was a masterpiece, a building that was all but mythical before it was completed.

Le Corbusier, meanwhile, was helping Voison to design bodies for his striking, lightweight cars, although there is, sadly, no clear proof (to date) of which particular models the architect gave shape to. And yet, for all the effort that Le Corbusier put into the shapes of Voisons, and Walter Gropius invested in a couple of contemporary Adlers, the early automobile itself was a rather clumsy machine. Despite the revolutionary work of Kahn in Detroit, they lacked the elan of the Villa Savoye and the futuristic ingenuity of the Lingotto plant. As Sergio Pininfarina, the great Italian car stylist, once said, 'In a certain sense, it [the car] was born old, let us say baroque or gothic'. As indeed it was, a thing of automotive industry flying buttresses, domes and fanciful decorative effects. It was not really until after the Second World War, and notably in the Pininfarina design of the lightweight Cisitalia coupé (1946), that we can recognise the all-of-a-piece form of the modern car.

For Le Corbusier, the design of the car might have been key to the design of contemporary, and future, houses; yet, in reality, his devotion to the car was more symbolic than practical. Kahn's was the real mass religion: the reality of automobile production working, piston-in-cylinder, with the automotive industry. Even so, there was an undoubtedly close connection between early Modern Movement architecture and the car. If the London Georgian terrace of the eighteenth century, for example, had been designed, unwittingly, as a kind of mirror image of the well-groomed contemporary pedestrian, and the elongated white stucco Regency terraces of John Nash around Regent's Park designed to reflect the stately, if faster, movement of horse-drawn traffic, determinedly horizontal white Modern Movement architecture surely reflected the speed of the passing car. So much so, that after the Second World War, whole towns and cities, from Los Angeles to Milton Keynes via Brasilia, were designed, and re-designed, to cope with and reflect the high-speed machinations of the automobile. In a purely abstract sense, this phenomenon advanced the curious beauty of the clover-leaf US freeway junction, concrete flyovers, spiral garage ramps and buildings that looked as if they were made for the car rather than for human beings.

Of course many architects were excited by the car; and by how cities could be animated in a way that had never been seen. Now, of course, architects everywhere talk of curbing the car, although some of the best of them continue to design, very successfully, for it. In this issue of AR, we see radical designs by Zaha Hadid for BMW (p50) and UN Studio for Mercedes (p74).

However, whether we like it or not, it was never really architects, like Le Corbusier, who trumpeted the design of the car, who connected it convincingly to architecture, but rather it was Albert Kahn, perhaps the most prolific architect of all time, the Model-T of the Mistress Art. JONATHAN GLANCEY

CAR PLANT, LEIPZIG, GERMANY
ARCHITECT
ZAHA HADID



1
Main entrance (for all plant workers), with the great glazed vitrine of the entrance hall beyond.



TOP GEAR

Zaha Hadid's new Central Building for BMW radically re-envisages the industrial workplace.



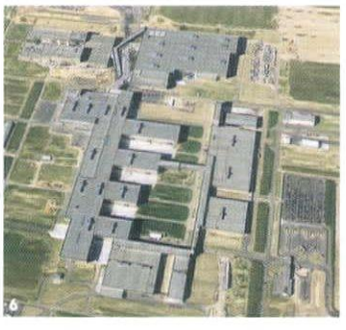




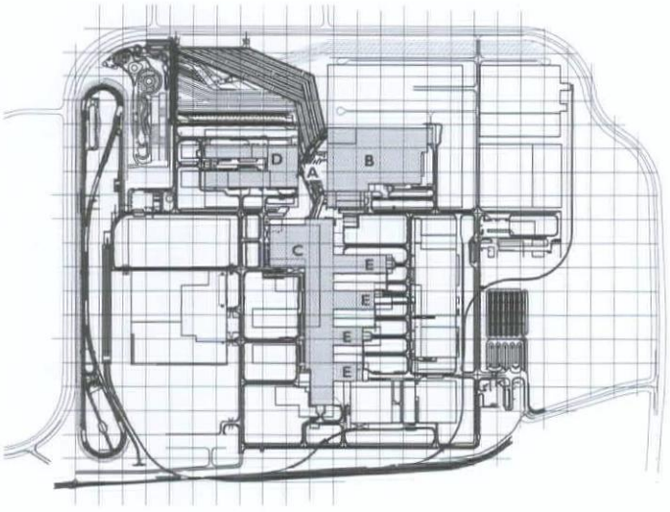


A windswept plain outside Leipzig is an unlikely place to find the latest cross fertilisation of serious architecture and luxury cars. Looming through the frost and fog of a Saxony winter, BMW's new manufacturing plant materialises as a sprawling agglomeration of impassive grey sheds surrounded by acres of workers' cars. From the autobahn, it looks like a nondescript shopping mall, rather than a carefully calibrated synthesis of manufacturing technology, superstar architecture, big bucks and branding. At its heart, or rather brain, is Zaha Hadid's Central Building, the formal, technical and social focus of the plant that keeps the entire operation running smoothly, capable of churning out 650 box-fresh Series 3 Beemers each day. It is a serious investment in architecture, and for Hadid, as car companies start to resemble the Medicis on wheels, a chance to build on an almost operatic scale and put her architectural ambitions to the test.

Officially opened in mid May by Chancellor Schröder, the new plant was one of Europe's largest construction projects. With an appropriately mammoth budget nudging £900 000 million (Hadid's building accounted for £37.1 million), it was seen as a reassuring commitment by BMW to the industry and economy of its native land. When the company first announced its intention to build a new manufacturing complex, expressions of interest came from all over Europe. Located almost exactly at the centre of Germany, Leipzig was chosen for its auspicious geography (easy connections with BMW's Munich nerve centre) and its skilled but languishing workforce (125 000 people applied for jobs at the plant). Historically, Saxony is car-making country, with connections dating back to 1904 when August Horch founded the firm that later became Audi in Zwickau near the German/Czech border. Today, along with Audi and BMW,

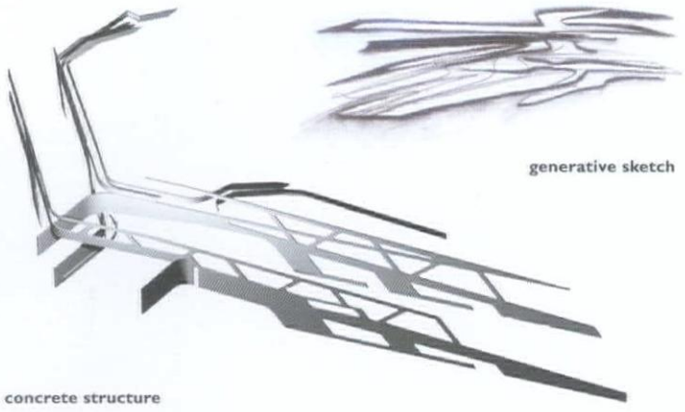


2
Central Building is surrounded by huge volume of the three production halls.
3
A whale-like volume nudges out to mark the entrance.
4
One of the courtyards between the Central Building and production halls.
5
The soaring entrance hall.
6
The Central Building (top left) in the context of the whole plant.
7
Looking out from the entrance hall.



site plan

A Central Building
B Body-in-White
C assembly
D paint shop
E supply centres



generative sketch

concrete structure

Porsche and Volkswagen also have plants in the region.

Though Leipzig has fared slightly better than other former GDR cities, unemployment is still around 20 per cent and since reunification its population has decreased by some 100 000 (nearly a fifth). The half hour drive out northwards from the centre of Leipzig to the plant on its brownfield site takes you through a carious, post-industrial landscape of derelict factories and deserted streets. Yet on the northern fringe there are stirrings of revival – a new airport, motorway, the Trade Fair complex dominated by Ian Ritchie's great glazed Messehalle (AR March 1996) and, of course, BMW, whose largesse and ambition has provided the area with 5500 new jobs.

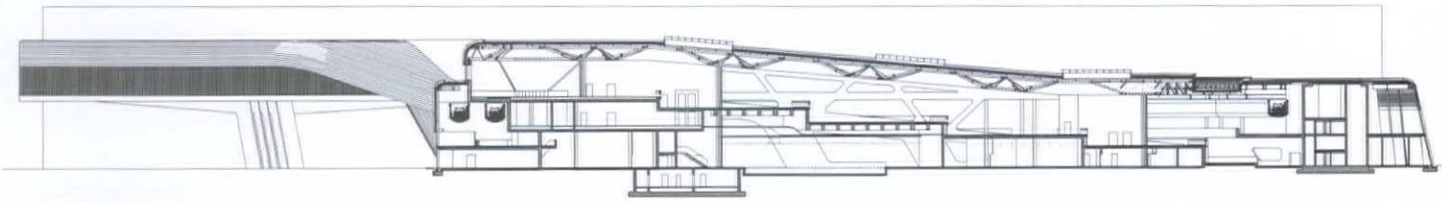
Programatically, the Central Building is a modern chimera – part showcase, part offices, part laboratory, part canteen. Drawing together these different aspects, it also mediates between factory floor and office, between white collar and blue collar, and between product and process. A key aim was organisational transparency, achieved by a fluid layering and interpenetration of space, so that people are aware of other kinds of activities going on around them. Most especially they are aware of overhead conveyors that snake around the building at ceiling height ferrying car bodies from one production department to another. As this regimented line of gleaming ghost cars glides silently past cascading terraces of open plan offices and the staff canteen (democratically shared by workers and management), there could be no more overt reminder of collective purpose.

Hemmed in between three huge production halls, the site, pre-allocated by BMW, offered particular challenges. Hadid's buildings are more used to being objects in a landscape, and Leipzig is clearly in the lineage of topographic, horizontal structures such as the Vitra fire station (AR June 1993) and Land Form One (AR June 1999).

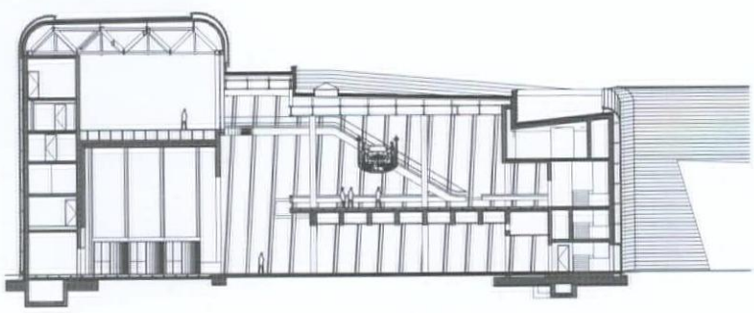
Here, however, the taut, muscular streak of the Central Building (no slip at 40 000sqm) is dwarfed by the grey hangars of industrial



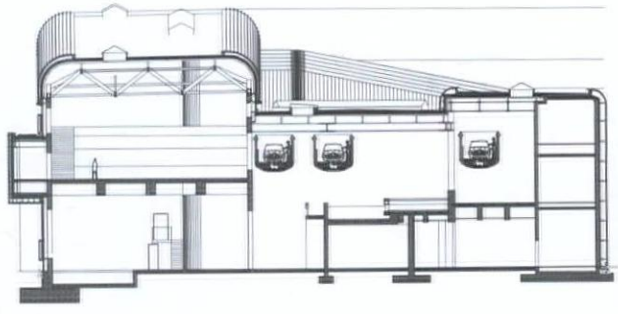
long section looking west



long section looking east



cross section through entrance hall



cross section through offices



Car plant, Leipzig, Germany
Architect
Zaha Hadid



8
Café in the entrance hall, with offices and production line above.

CAR PLANT, LEIPZIG, GERMANY
ARCHITECT
ZAHA HADID


P-Service

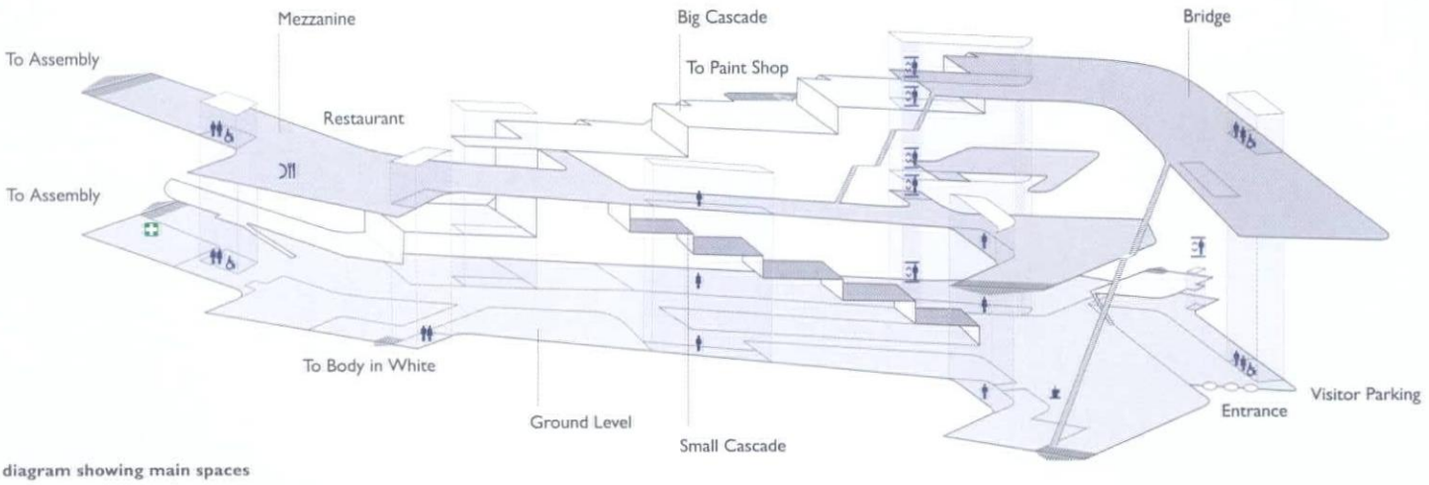
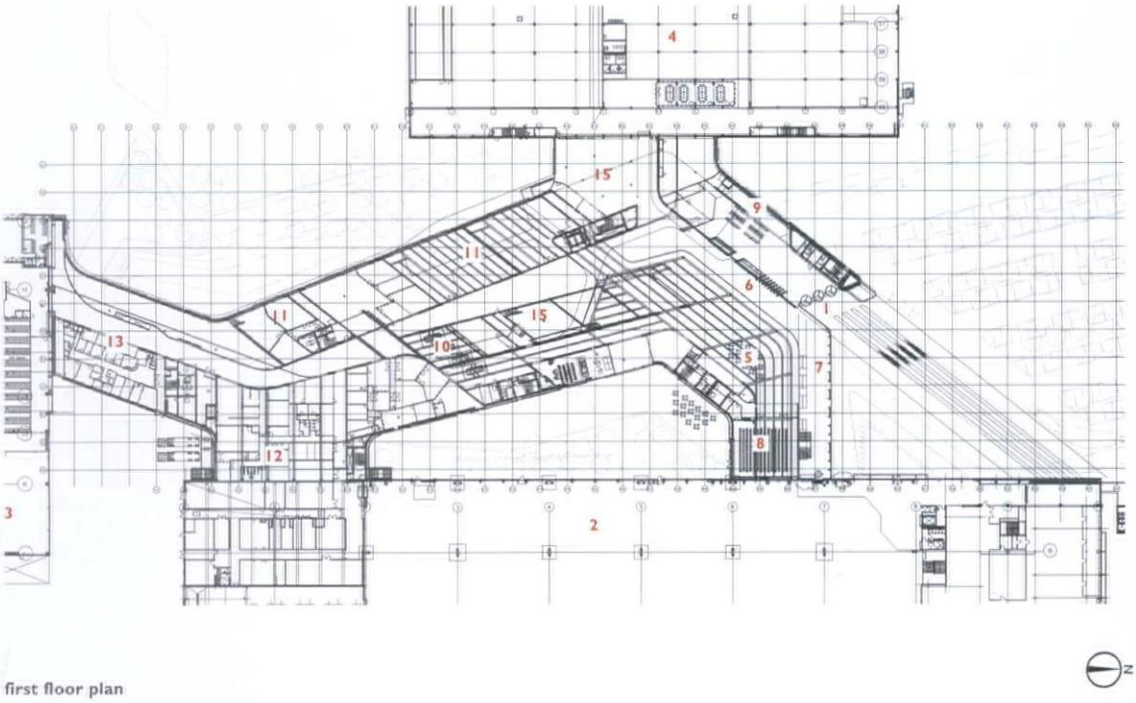
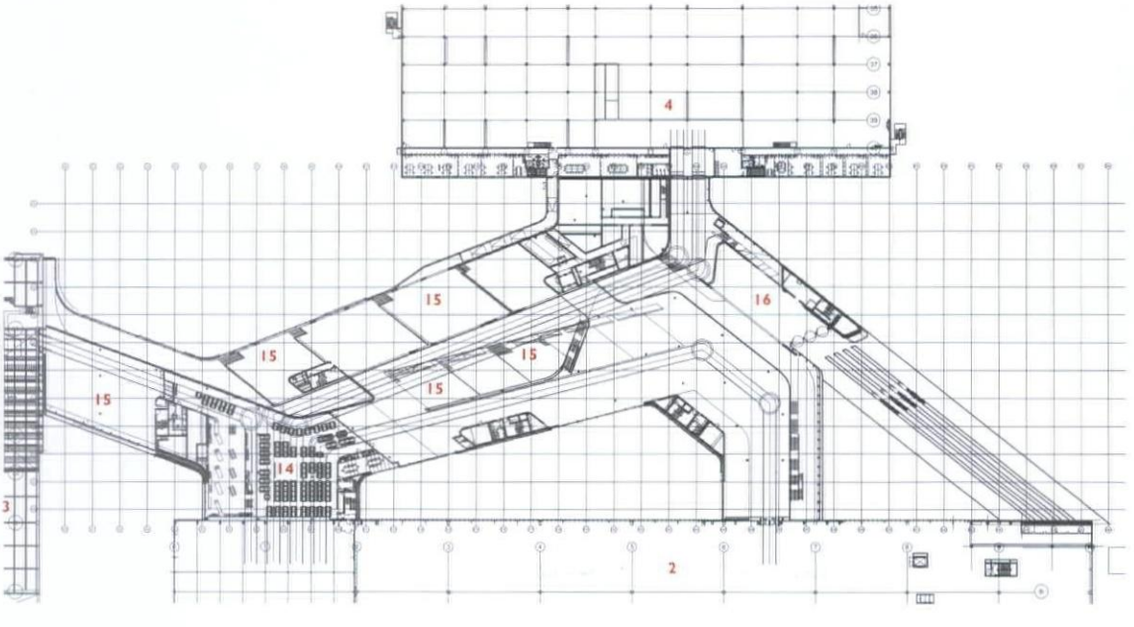


diagram showing main spaces

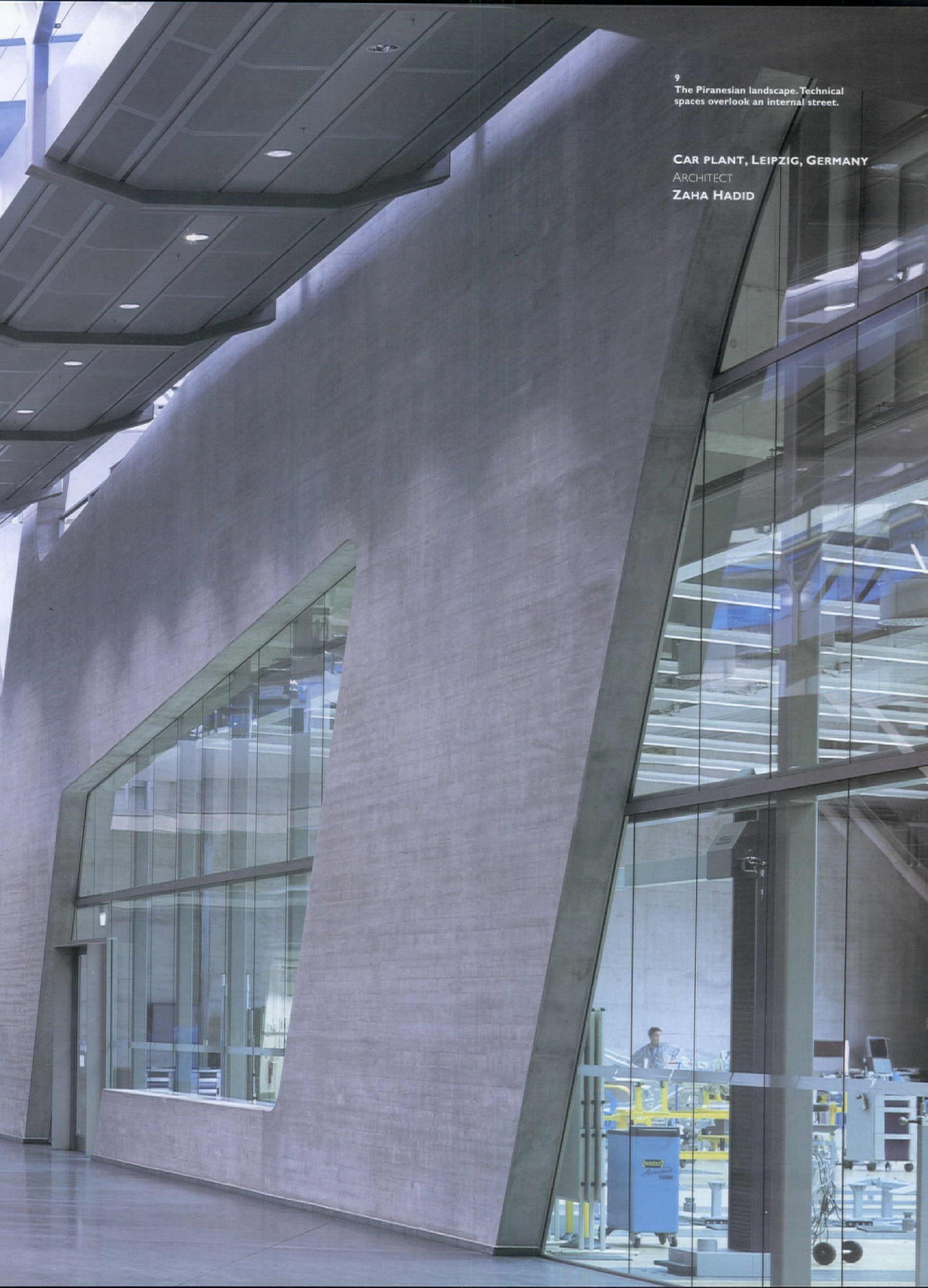


1 main entrance
2 Body in White (chassis manufacture)
3 assembly
4 paint shop
5 café
6 foyer
7 display area
8 auditorium
9 shop
10 quality control
11 laboratory
12 kitchen
13 infirmary
14 dining hall
15 offices
16 void above entrance hall

first floor plan



ground floor plan



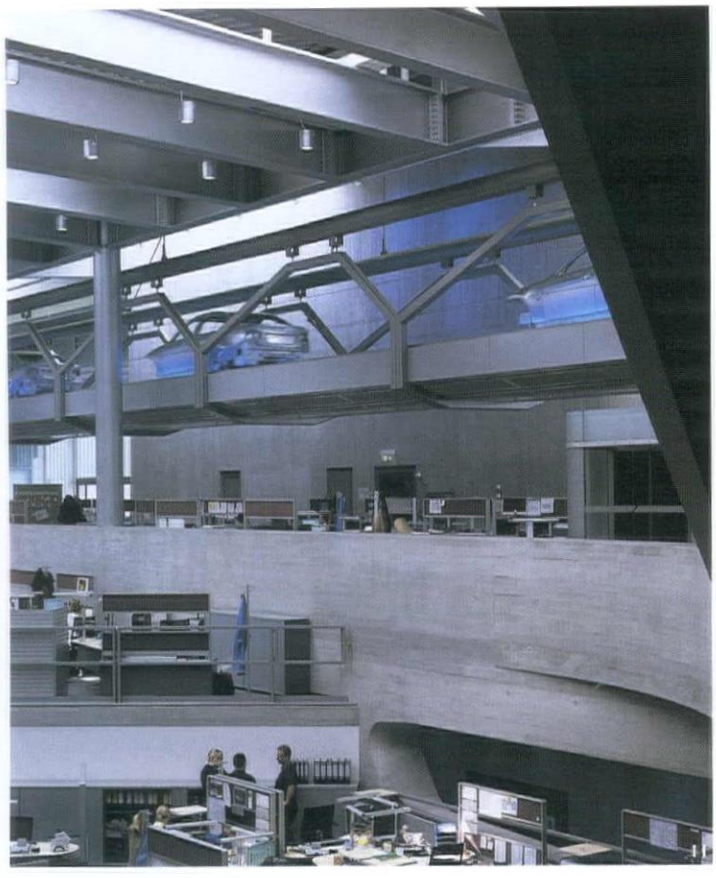
9
The Piranesian landscape. Technical spaces overlook an internal street.

CAR PLANT, LEIPZIG, GERMANY
ARCHITECT
ZAHA HADID



10
Layers of activities cohere into a dynamic organism.

CAR PLANT, LEIPZIG, GERMANY
ARCHITECT
ZAHA HADID





production, like burly minders clustering round a potentially temperamental film star. Inside, the production halls for body making, assembly and paint finishing (not designed by Hadid) are relatively light and airy, but their scale is mind-bogglingly vast. Staff use bicycles and scooters to get around the interiors, an endearingly Monsieur Hulot-esque touch amid all the robotic sophistication. Developed especially for Leipzig, BMW's hyper flexible work structures means that the plant can vary its operational times from 60 to 140 hours a week, depending on demand, with no loss of efficiency.

The Central Building is distinguished from its lumbering supporting players by Hadid's characteristically dynamic geometry – in plan, it resembles a lightning bolt, physically connecting (and metaphorically animating) the surrounding sheds. Interstitial spaces are landscaped to become contemplative courtyards. The building's sleek horizontality is emphasised by long slits of glazing cut into its flanks (Zaha's version of Go Faster stripes, perhaps). At its north end, a huge dark blue volume, like a whale or ship's prow, nudges out from behind the sheds to mark the main entrance.

Visitors, management and workers alike, since everyone uses the same entrance, are greeted by a soaring glazed lobby that acts as a giant vitrine for BMWs past and present, together with a café and the obligatory merchandise boutique. Overhead, the car skeletons (a raw steel chassis is known as a Body in White) slide soundlessly past, drenched in cool blue light. Here you also encounter the building's imposing concrete structure, its astonishing precision made possible by the miracle of self-compacting concrete (AR January 2004). It seems as though the technical capabilities of construction and the architectural potential of form-making, through computer visualisation, has at last caught up with and made manifest the outpourings of Hadid's imagination, for so long widely considered unbuildable.

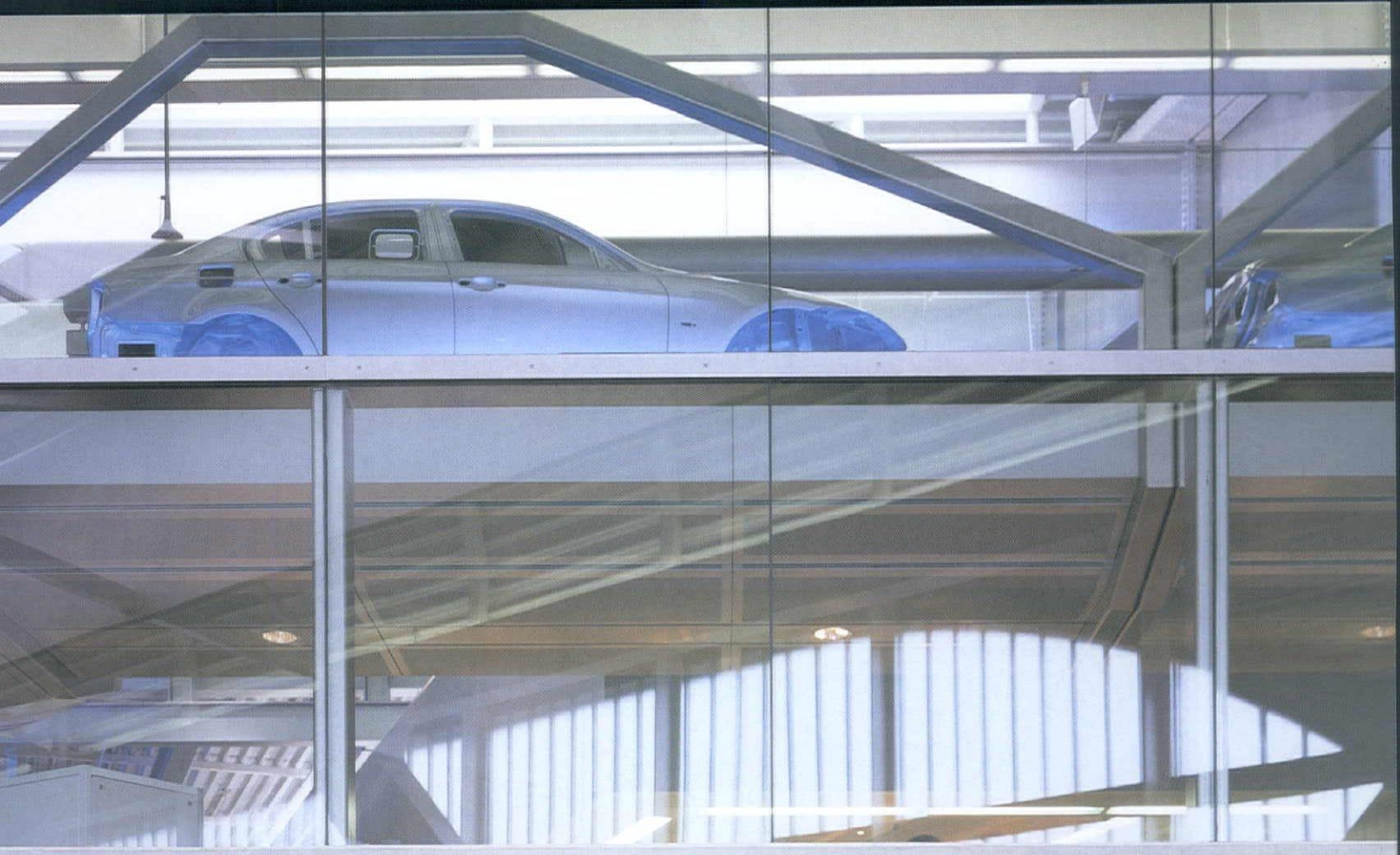
Beyond the entrance hall lies a modern Piranesian office landscape of terraces, ramps, plateaux and staircases. The building's primary organisational strategy is a scissors section that fuses ground and first floor into a continuous entity. Two terrace structures, like hanging gardens of Bürolandschaft, step up in opposite directions, along the north-south axis framing a long void in between. At the bottom of the void is the auditing area – every 50th car is pulled off the production line and taken to bits for quality control purposes.

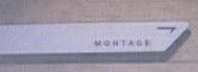
Experientially, individual workers are acutely conscious of being part of a larger enterprise. There are no hierarchies or management offices – each of the 740 Central Building employees, from trainee to CEO, has an identical, no-frills modular workstation. The only enclosed spaces are technical and testing areas on the ground floor and these have large glazed walls like shopfronts overlooking an internal street. 'Structure creates behaviour' proclaims BMW somewhat ominously, but within the elaborate contortions of the architecture there is a discernible sense of community, of space and placemaking.

From River Rouge to Lingotto, car factories, like cinemas, are a truly modern building type, shaped by the technological and commercial demands of the twentieth century. Of their time and for their time they manifested a kind of heroic industrial spirit, even romance in the case of FIAT's Lingotto plant in Turin with its whizzy rooftop test track. At their best, such buildings stretched architectural imagination to devise solutions that could put manufacturers ahead of their competitors and express brand supremacy. A recurring theme of this issue is the extraordinary lengths today's car manufacturers will go to in order to hijack architecture in the service of their products. With Hadid, however, you sense BMW have got something rather different – a genuinely radical building, both formally and spatially, that re-envisages the conventions, activities and hierarchies of the industrial workplace and recasts them as an efficient, flexible and dynamic organism. This really is Go Faster architecture. CATHERINE SLESSOR

Architect
Zaha Hadid Architects, London
Structural engineers
Anthony Hunt Associates
AGP Arge Gesamtplanung
Services engineer
AGP Arge Gesamtplanung
Landscape architect
Gross.Max
Photographs
Dennis Gilbert/VIEW except no. 6

11
Office terraces.
12
The plant dining hall, shared by workers and management.
13
Interiors have a hard-edged, industrial quality that reflects the building's complex programme.







Car plant, Leipzig, Germany
Architect
Zaha Hadid

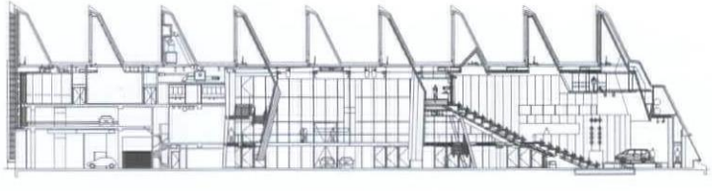
COMMUNICATIONS CENTRE,
BOULOGNE-BILLANCOURT,
FRANCE
ARCHITECT
JAKOB + MACFARLANE



IDEAS FACTORY

Renault's new communications centre is an inventive remodelling and recolonisation of a former car factory.

1
The remodelled factory, its huge volume incised with long rooflights. A new glazed galleria acts as an entrance.
2
The original interior, showing the stepped roof.
3
Rooflights form the starting point for the geometry of the new insertions.



cross section



In the relentlessly evolving world of car design, where the emphasis is on the new and the novel, Jakob + MacFarlane's communications centre for Renault is a rare example of reuse. The project upgrades and transforms an existing industrial building designed by Claude Vasconi in the early 1980s to house new exhibition, conference and office spaces for Renault's communications department. Barely 25 years old, Vasconi's building is the last remaining fragment of the huge Renault manufacturing plant at Boulogne-Billancourt, on the south-west edge of the Paris conurbation, before it was gradually decentralised. Jakob + Macfarlane won a competition in 2000 and the new centre opened earlier this year.

Working with existing buildings has become a consistent theme of Jakob + MacFarlane's work, from the Fanal Theatre in Saint Nazaire (AR April 2005), which reuses the shell of the city's defunct train station, to perhaps their best known project, the remodelling of the restaurant at the Pompidou Centre (AR July 2000). Though the metropolitan chic of Pompidou is worlds away from the grittier realities of Boulogne-Billancourt, Jakob + MacFarlane respond sympathetically to Vasconi's hulking industrial monument. Restructured and recolonised for Renault's white collar creatives,

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BOULOGNE-BILLANCOURT,
FRANCE
ARCHITECT
JAKOB + MACFARLANE



axonometric showing new insertions

4
Lightweight walls made from honeycomb aluminium hang in space.
5
The central exhibition space, now a gleaming shrine to Renault's wares.

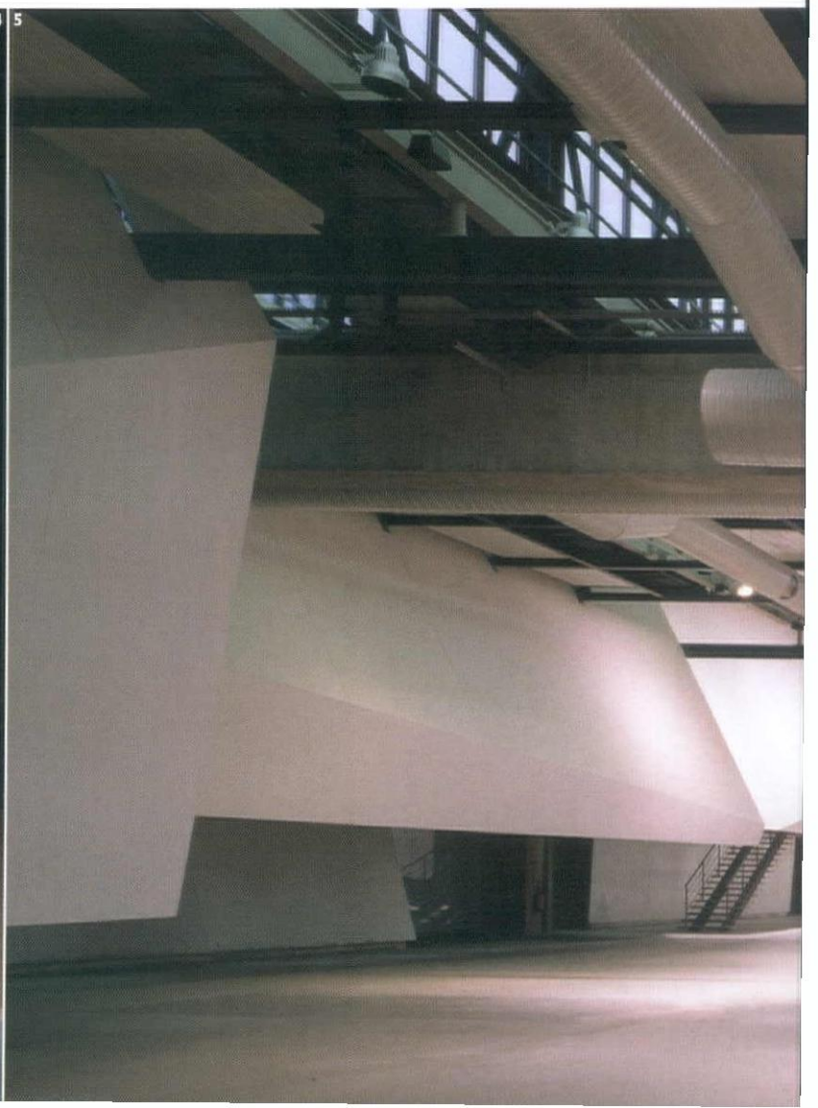
it forms an armature for a series of discernibly new insertions that engage in a lively dialogue with the original architecture.

Vasconi's building consisted of three conjoined shed-like volumes rising in height from 6m to 9m to 12m, together with an adjacent but physically discrete secondary structure. A stepped roof supported by a grid of concrete columns brought light into the classically deep industrial plan. In section, either by accident or design, the angular geometry of the rooflights coupled with the stepped profile of the roof recreated Renault's distinctive diamond-shaped logo.

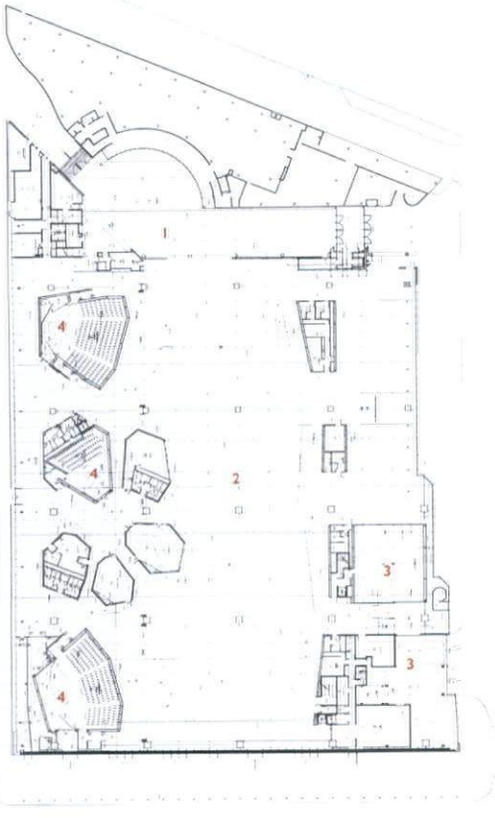
For Jakob + Macfarlane, the roof formed a point of departure for the new insertions which are conceived as a series of planes extruded downwards and then cranked and kinked to define new spaces. White wall planes demarcate spaces on an east-west axis, while secondary timber clad walls complete volumes along the opposing north-south spine. The white walls are made from honeycomb aluminium panels (more usually employed in aeronautics) selected for their lightness, flatness and large fabrication size. In places the walls do not meet the floor, but simply hang from the roof structure, like gigantic pieces of scenery, sculpting the internal landscape. Without the cars, you could almost be in an art museum.

At the heart of the complex is a cavernous exhibition hall full of Renault's gleaming wares, which runs the length of the building.

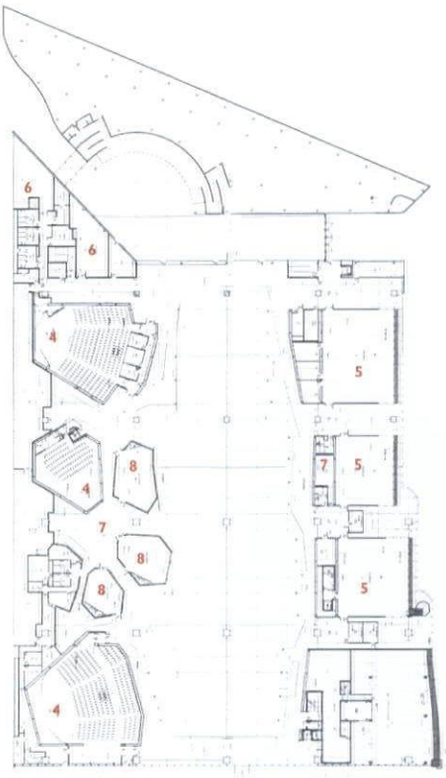








1 entrance galleria
2 main exhibition hall
3 car storage
4 auditoria
5 seminar rooms
6 offices
7 walkway
8 meeting rooms



ground floor plan (scale approx 1:1000)

first floor



COMMUNICATIONS CENTRE, BOULOGNE-BILLANCOURT, FRANCE
ARCHITECT
JAKOB + MACFARLANE



6



7

Arranged around the edge are a trio of auditoria, with capacities for 100, 300 and 500 people. Seminar rooms and offices are located at first floor level, accessed by a walkway that winds around and overlooks the central exhibition hall. Punctuated by spaces for informal interaction and casual encounter, the walkway is like an internal street, contracting and expanding as it circulates around the glittering shrine to the automobile below. Anchored and focused by this big, fixed nucleus, the rest of the internal arrangement can be more flexible and fluid, capable of accommodating different sorts of events, from press launches to public promotions. Hence the notion of the walls as fixed scenery, providing a neutral backdrop for changing choreographies of cars and people.

To articulate and emphasise the relationship between old and new, the original finishes of the steel roof structure and ceilings were carefully restored. A glass roof links the hitherto separate building with the main volumes to form a luminous entrance galleria. On the east side, a new steel and glass facade will connect with a proposed urban square, part of a wider ongoing redevelopment of the former industrial quarter by the Hauts-de-Seine regional authorities. Such recasting could be regarded as predictably emblematic of the triumph of the services sector over the messiness of making and manufacture. But at least Vasconi's inventively remodelled building has some link with Renault's past, while providing a forum and forcing house for the hard sell upon which its corporate future depends. C. S.

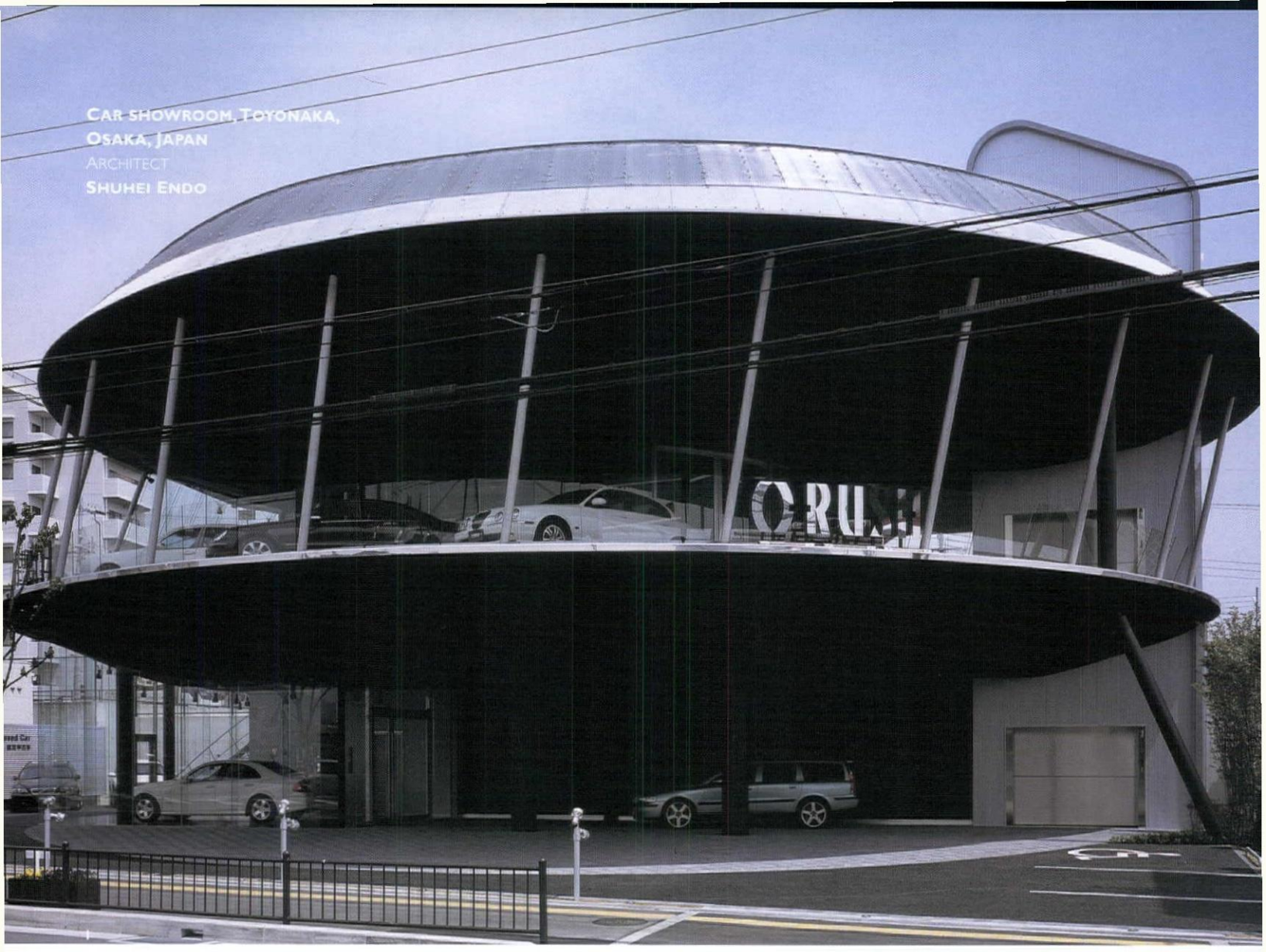


8

Architect
Jakob MacFarlane, Paris
Photographs
3, 4, 5, 6, 7, Jean-Marie Monthiers
2, 8, 9, Nicolas Borel

6
A walkway links offices at upper levels.
7
Typical meeting room.
8
New entrance galleria.
9
Sculpting the internal landscape.





CAR SHOWROOM, TOYONAKA, OSAKA, JAPAN
ARCHITECT
SHUHEI ENDO

CARCHITECTURE?

Shuhei Endo softens his curves with a new showroom in Toyonaka, Osaka.

Shuhei Endo is one of few contemporary architects who can truly claim to have invented their own highly distinctive architectural language. Having initially come to our attention in August 1997 with Transtation O, an early example of his sculptural use of galvanised corrugated steel, he went on to win an ar+d award in December 2000 for Springtecture H, perhaps the most well-known public lavatory of recent years. Since then he has developed this language to include many new 'tectures', seeking new forms of metallic expression with halftecture, skintecture, and rooftecture. His latest building, completed in April 2005, is less distinctive than his earlier work, but nevertheless continues this line of enquiry into sculptural forms and the use of profiled metal cladding.

Situated on a decidedly unromantic Romantic Avenue – a commercial artery on the outskirts of Osaka, flanked by discount stores and the all too ubiquitous *famiresu* (family oriented restaurants) – this showroom that specialises in imported used cars is larger and bulkier than its neighbours. With two levels of showrooms, and a rooftop valet and storage area, the building is simple in form, comprising three curved plans stacked eccentrically and pinned by a single car lift tower. With the lift tower formally expressed, conforming to a building-line established by the neighbouring buildings, the skewed and radial elevations protrude to become more prominent when seen in oblique. Open decks form the main showroom spaces, while simple glass enclosures contain administration, staff and sales rooms.

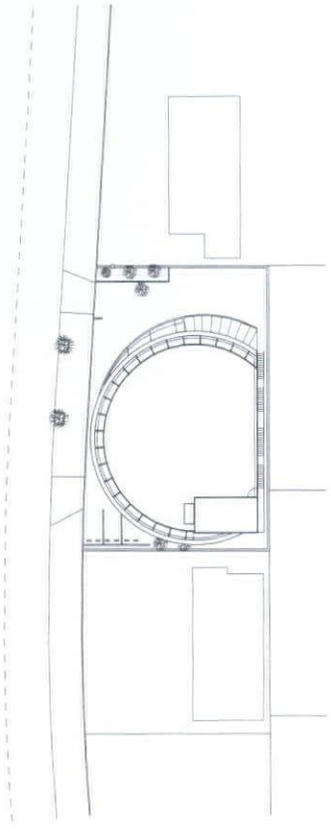
While this building is not one of Shuhei Endo's most rigorous, responding to a fairly limited brief, on a charmless site, it nevertheless brings a moment of interest to an otherwise banal strip of less convincing commercial shop fronts. Having discussed his next project for the same client, there is certainly more to come in this latest range of Shuhei Endo projects. ROB GREGORY

1
Endo's flying saucer has landed on Romantic Avenue ...
2
... providing a prominent showroom in an otherwise nondescript street.

Architect
Shuhei Endo, Osaka
Project architect
Kengo Sasamoto
Photographs
Edmund Sumner/VIEW

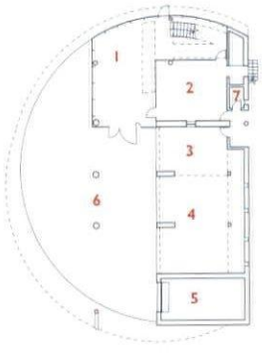


2

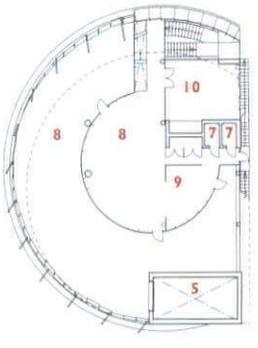


site plan

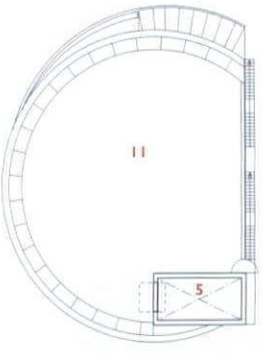
1 showroom
2 office
3 exhibition space
4 work space
5 car lift
6 outside exhibition space
7 lavatory
8 exhibition space
9 rest space
10 meeting room
11 parking



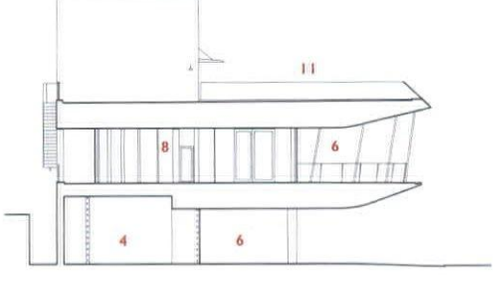
ground floor plan
(scale approx 1:1000)



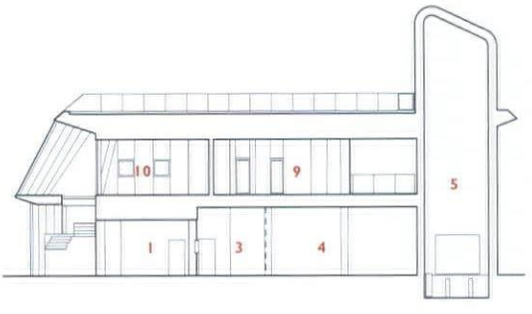
first floor plan



roof plan

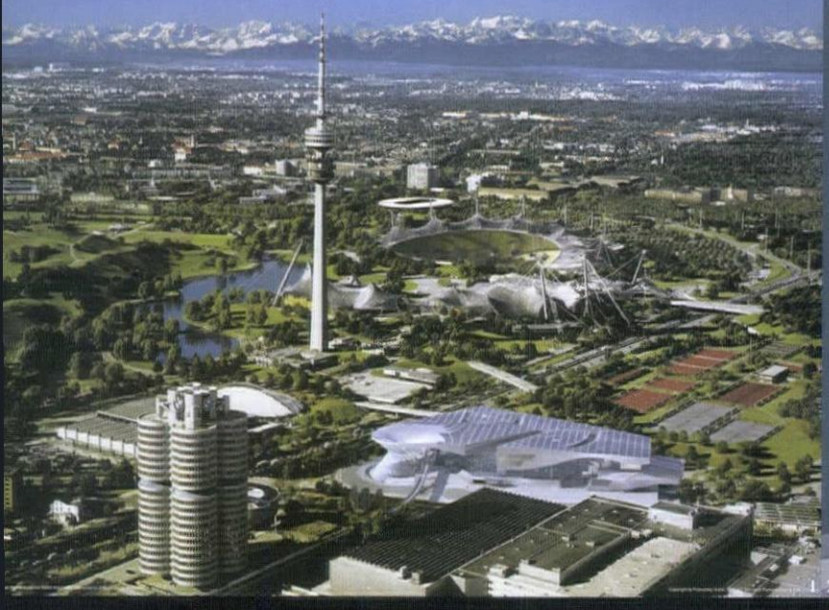


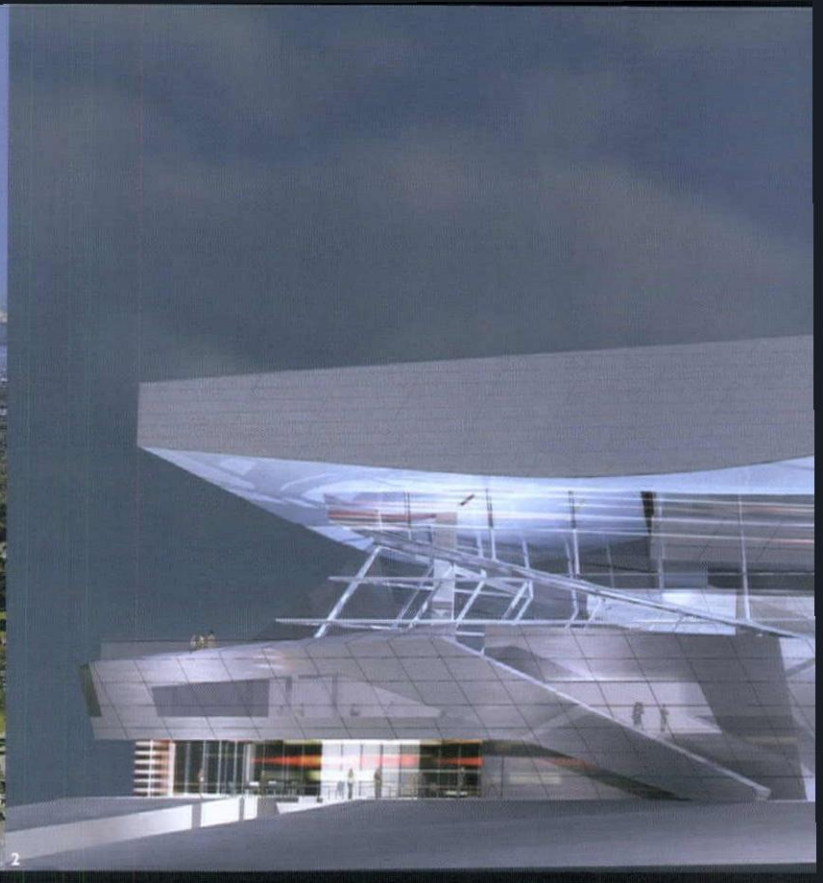
section east-west



section south-north

BMW SALES AND EVENT CENTRE, MUNICH, GERMANY
ARCHITECT
COOP HIMMELB(L)AU





1 2

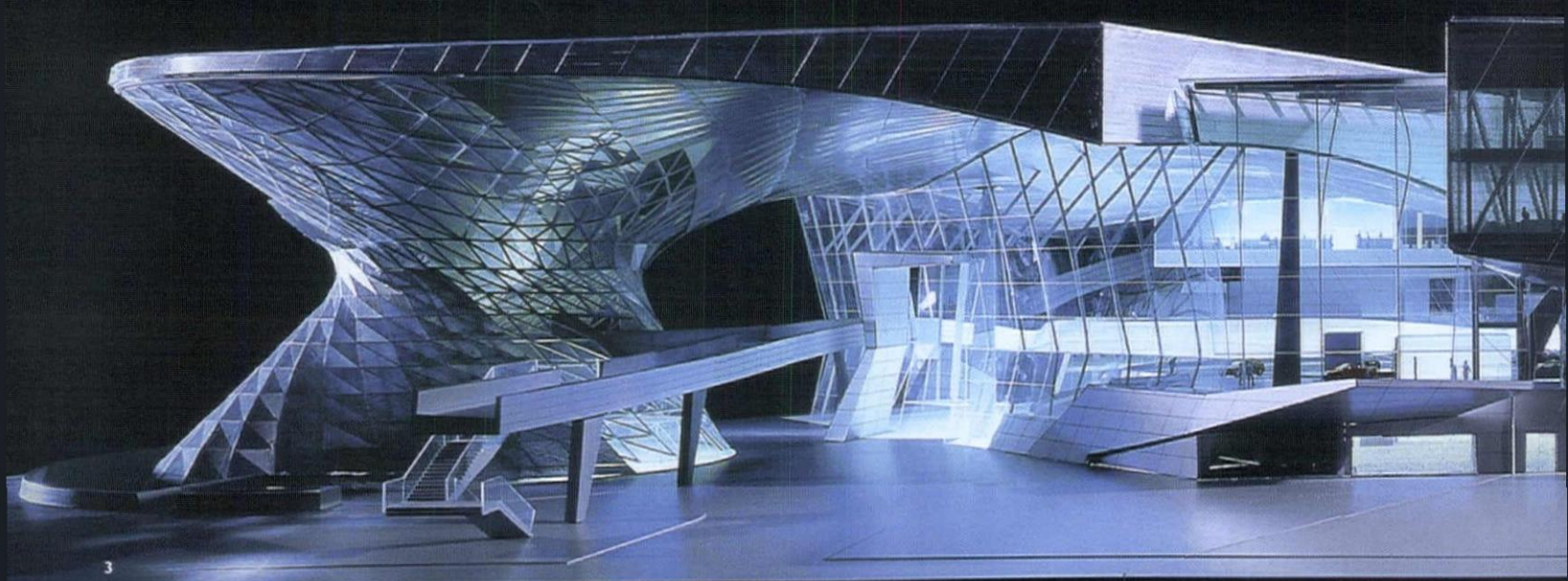
WORLD SERVICE

BMW's sales and events centre in Munich reflects an increasing urge for spectacle.

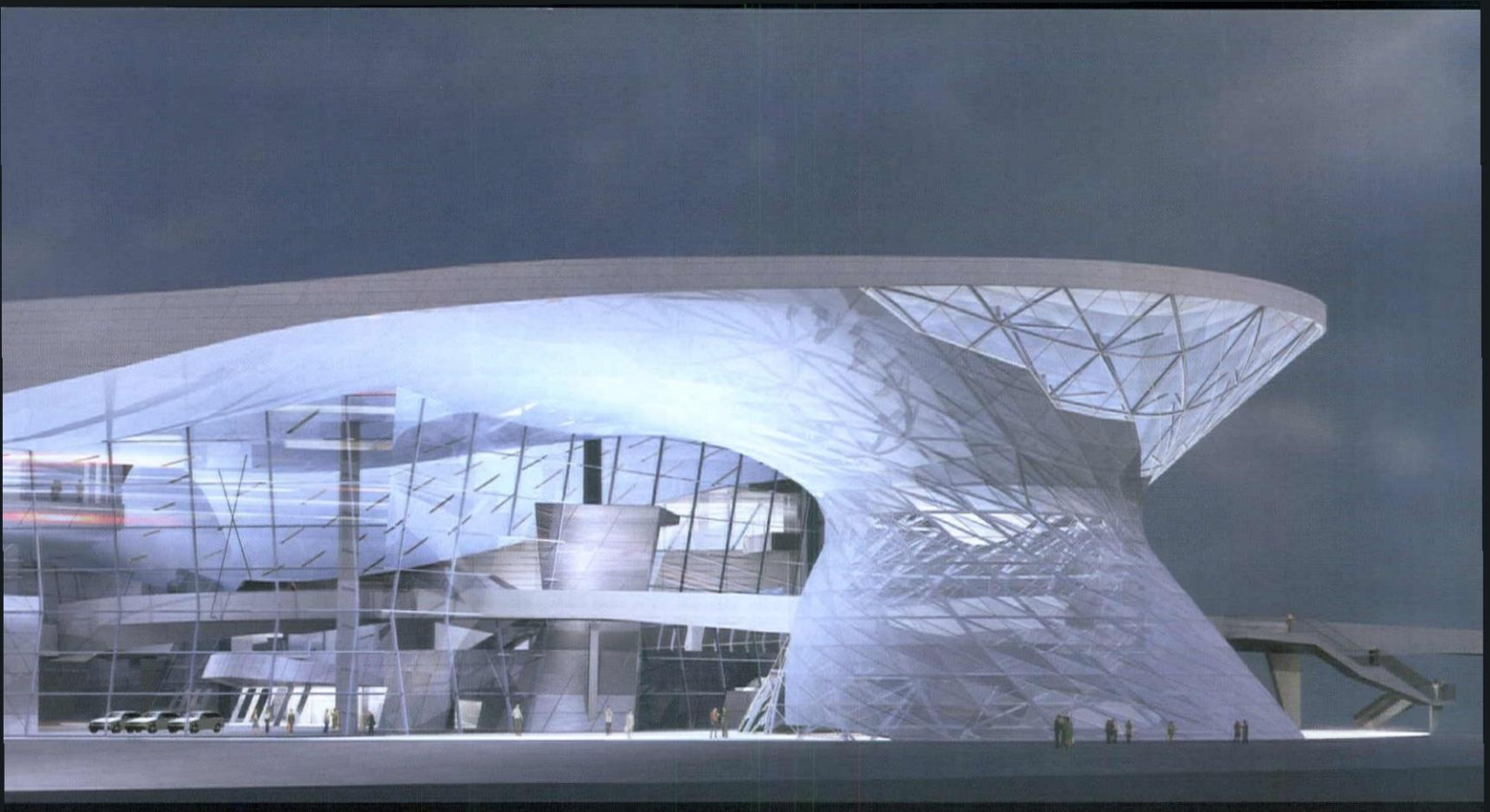
The hyper competitive world of the European car industry is forcing manufacturing companies to devise ever more elaborate events, spectacles and locations in order to sell their products. Next to Formula One racing, architecture has become a favourite means of promoting the right image. Over the last few years, many of Europe's leading car manufacturers have succumbed to the lure of buildings designed by superstar architects. The list includes Norman Foster for McLaren; Nicholas Grimshaw, Rolls-Royce; UN Studio for Mercedes-Benz (p74); Ron Arad, Maserati, and Zaha Hadid for VW and BMW (p50).

In Munich, at the site where the first BMW engines were assembled in 1917, the famous Bavarian motor company is currently building a huge, multi-functional car sales and event centre, appropriately entitled BMW Welt (BMW World). Cultivating an air of exclusivity, only cars and motorcycles by BMW will be shown here; there will be no vehicles from other BMW owned companies such as Mini or even Rolls-Royce.

In autumn 2001, 27 short-listed architects submitted their designs for the 73 000sqm building. Joint first prize winners were Coop Himmelb(l)au from Vienna and Sauerbruch Hutton



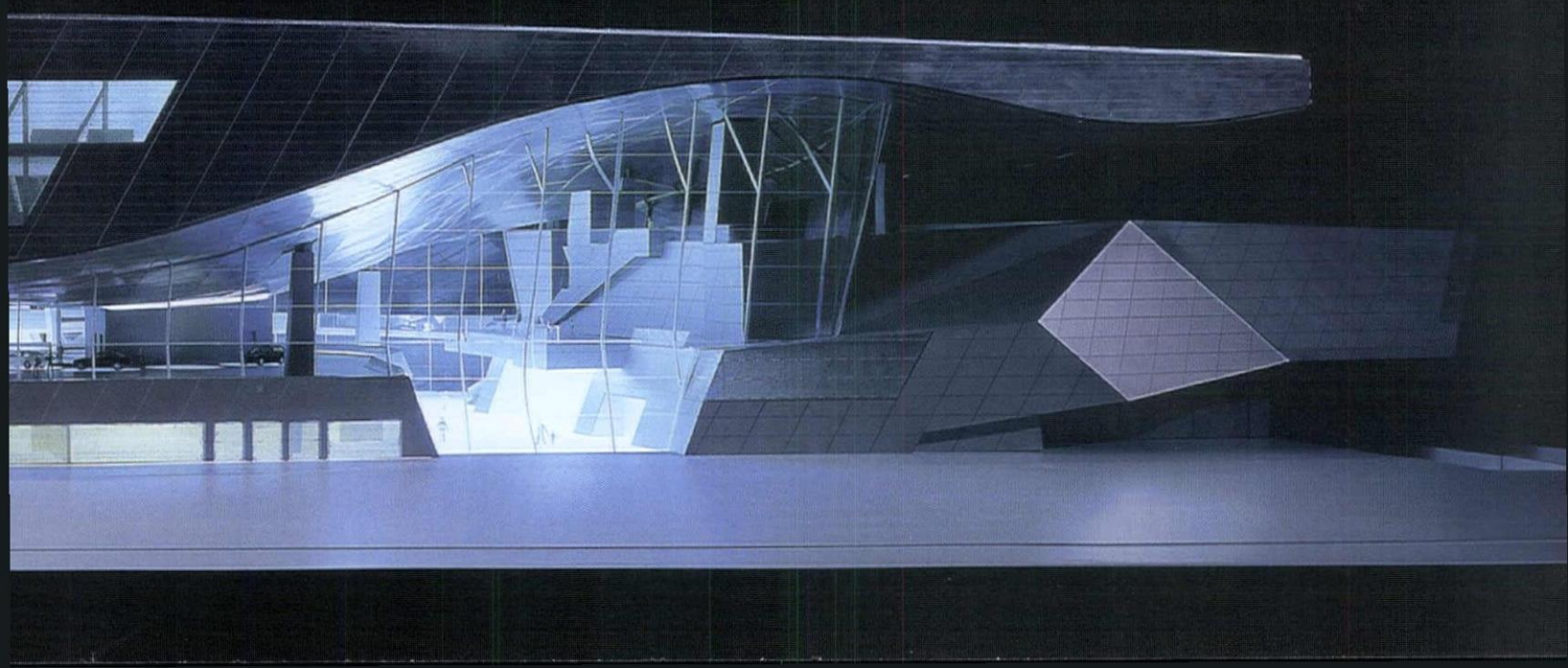
3



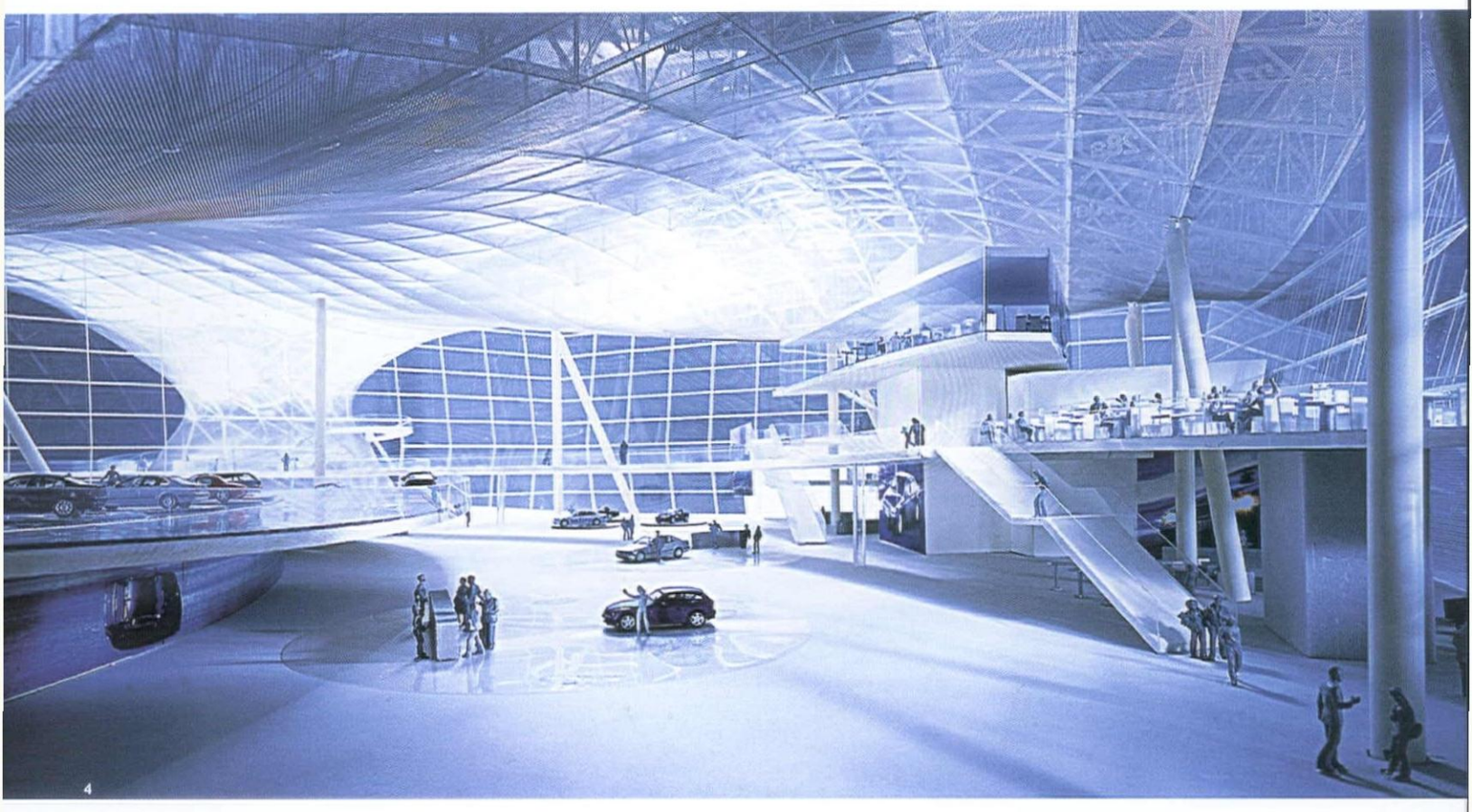
(Berlin), but in the end, the Viennese duo impressed the jury the most with their bold design. Lying opposite the Munich Olympic Park, the new building will occupy a site next to the famous 'quadruple cylinders' BMW company headquarters designed by Karl Schwanzer in the early 1970s.

According to BMW, the centre marks a new generation of communication buildings for the twenty-first century, and Coop Himmelb(l)au's design lives up to the client's extravagant expectations. The six-storey structure (with three storeys below ground for car storage) contains four separate buildings enveloped by a huge steel roof that resembles a billowing cloud. The Double Cone is a flexible event space; Premiere houses VIP lounges, administration, shops and restaurants; Forum is a 600 seat theatre; and the Hall functions as a lobby and shopping mall for visitors and car owners who will come

1
The new building in its Munich context with the existing BMW headquarters bottom left.
2, 3
Different elements are united by a great cloud-like glass roof that billows upwards from a double cone structure.

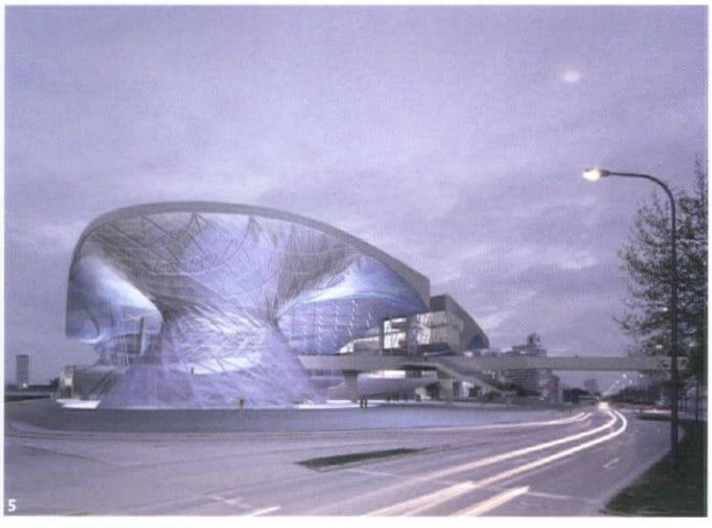


BMW SALES AND EVENT CENTRE, MUNICH, GERMANY
ARCHITECT
COOP HIMMELB(L)AU



4

4
Interior of model.
5
A new Munich landmark.



5

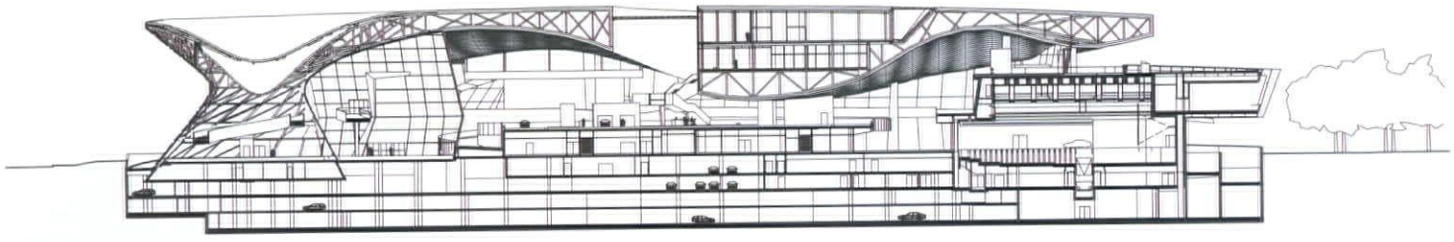
to collect their new vehicles. Each day a maximum of 250 customers will have the opportunity to watch their new car being delivered into BMW World.

A range of distractions, from restaurants, shops and VIP lounges, to driver briefing and training and special events, aims to keep prospective car owners in the building for between six and eight hours. Around 850 000 visitors are expected annually. Yet the visitor experience is only half the story. Below ground, in the caverns of the three-storey 'underworld', cars are lovingly conditioned for their big appearance. Up to 250 cars can be stored in a fully automated rack system. Prior to delivery, they undergo technical checks and finally are washed and spruced up for their new owners waiting upstairs.

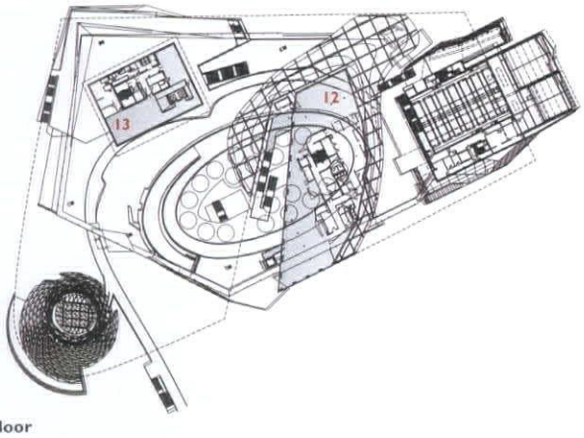
BMW World has been on site since August 2003 and is currently Munich's biggest building site now that the new Allianz Arena by Herzog & de Meuron for the 2006 World Cup is finally finished. (BMW World is scheduled to open next summer.) To cope with the complex site conditions and detailed design, Coop Himmelb(l)au are working with Munich-based engineers Schmitt Stumpf Frühauf & Partner and local architect Manfred Rudolf, who are supervising the building's progress. As the building evolves, it is passed by thousands of motorists every day, heralding the prospect of another major addition to the Munich scene.

CHRISTIAN BRENSING

Architect
Coop Himmelb(l)au, Vienna
Structural engineers
Bollinger & Grohmann,
Schmitt Stumpf Frühauf & Partner with architect Manfred Rudolf
Photographs
1, 2, 5, ISOCHROM; 3, Gerald Zugmann; 4, Marcel Weber



long section

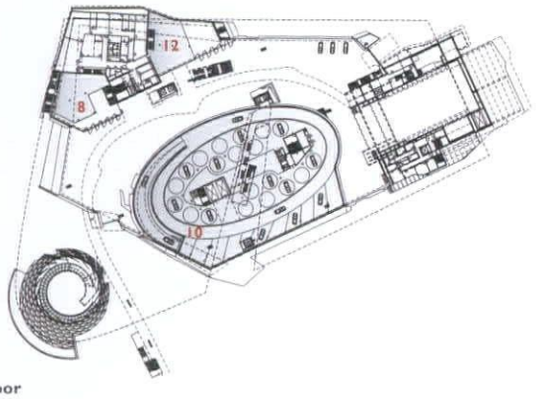


third floor

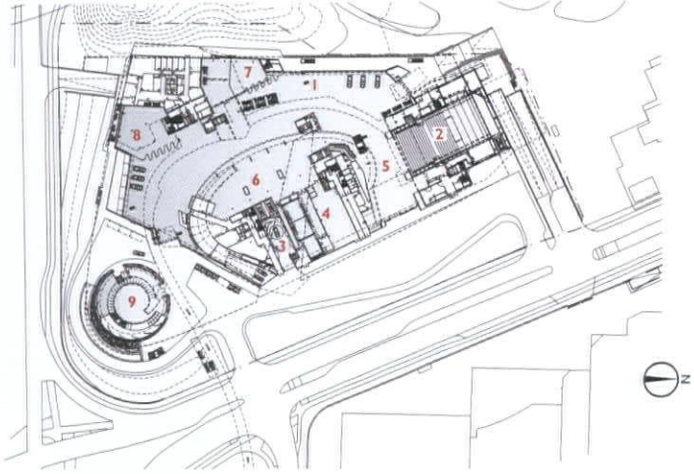
1 Hall
2 Forum
3 VIP car delivery
4 briefing centre
5 bistro
6 exhibition space
7 BMW Individual
8 shops
9 Double Cone (event space)
10 Premiere (car delivery)
11 children's area
12 lounge
13 restaurant



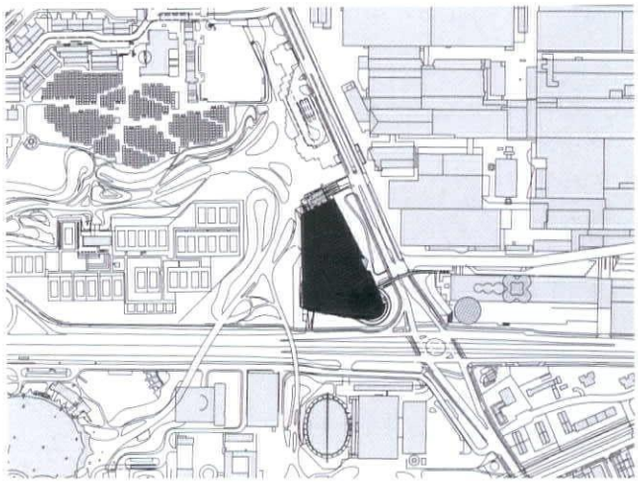
exploded axonometric



first floor



ground floor plan (scale 1:2000)



location plan

Just before Christmas 1900, a 35 horsepower automobile made by Daimler-Motoren-Gesellschaft was delivered to Emil Jellinek, a wealthy Austrian businessman who raced cars as a hobby. Named after his daughter Mercedes, it caused quite a stir, with its pressed-steel frame, high-performance engine and honeycomb radiator. Over a century later, the company started by Gottlieb Daimler and Karl Benz is now a towering global enterprise (merging with American giant Chrysler in 1998) and Mercedes one of the world's most famous car brands.

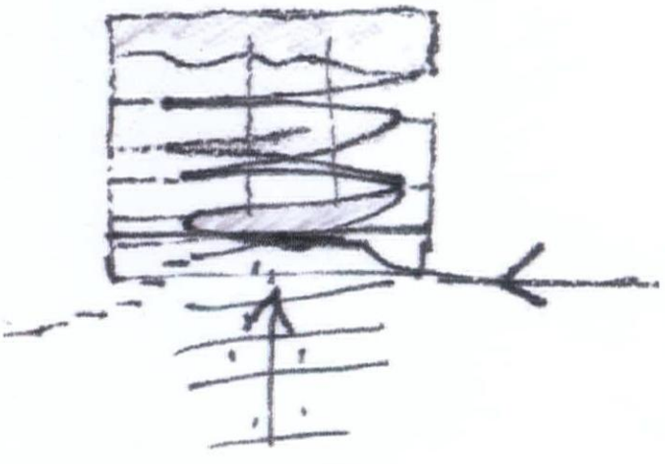
For the car maker that can lay claim to producing the first modern automobile, a sense of history is important. Since 1923, the Mercedes-Benz museum, with its collections of historic vehicles, racing cars and current models, has been a significant aspect of the company's activities. Attracting around 480 000 visitors annually it is, remarkably, the most popular museum in Stuttgart. The expanding collection and increasing visitor numbers put pressure on and eventually outgrew the original 1920s building, so in 2001 Daimler-Chrysler held a limited competion for the design of a new museum, won by Amsterdam-based UN Studio. The 25 000sqm project is now under construction and due to be completed in 2006.

The site lies next to the existing Daimler-Chrysler Untertürkheim plant on the edge of the Neckar river in Stuttgart's industrial north-west. The nomenclature of the surrounding streets (Mercedesstrasse, Benzstrasse, even a Gottlieb Daimler Stadion) decisively stakes out the territory. As the programme celebrates the kinetic allure of the automobile, the choice of architect seems especially germane, given UN-Studio's ongoing preoccupation with Moebius strips, new

STUTTGART SPIRAL

Currently under construction, a new museum for Mercedes-Benz connects with automobile history.

1
The sleek contours of the new Mercedes-Benz Museum loom over the highway.





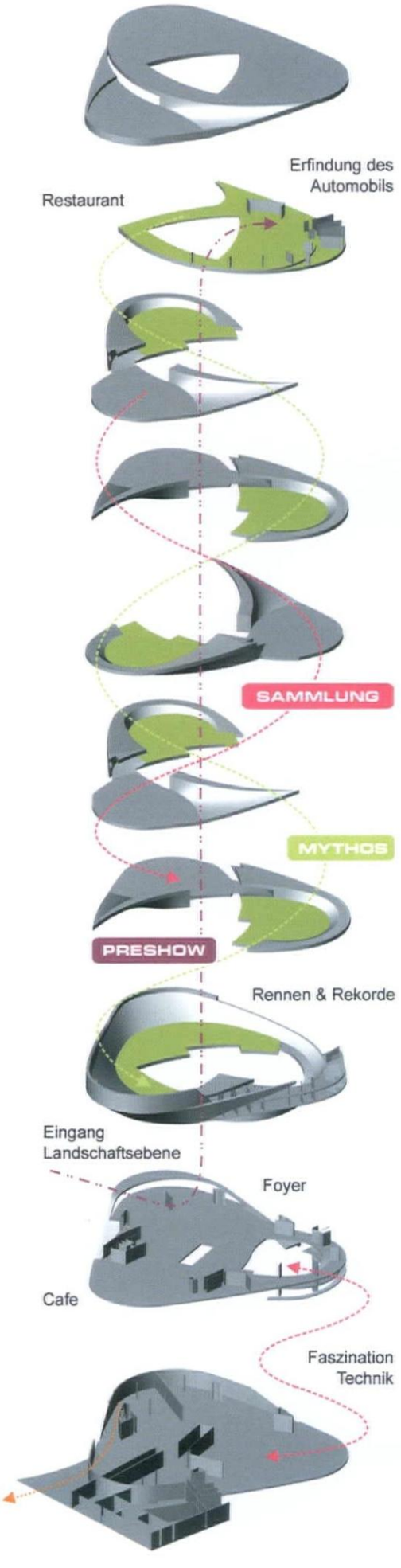
aerial view showing the new museum in its urban context

geometries and continuous, flowing space. And though the exhibits are static, building geometry and internal space contrive to express a sense of fluidity and movement, of visitors barrelling down the Mercedes highway of history with the wind in their hair.

The building is based on a trefoil-shaped footprint extruded upwards to create a bulbous, quasi-industrial form that echoes the curves of the oil and gas tanks along the river and the loops and swoops of the surrounding road system. The leaves of the trefoil rotate around a central stem-like atrium that brings light into the deep plan. In section, however, things are more dynamic, with two continuous ramps spiralling around each other in a double helix, connecting single- and double-height plateaus of exhibition space. Rather than a fixed, circuitous plod around the building, the aim is to generate a changing and surprising promenade, with shortcuts, through views, enclosed and open spaces, all continuing to add incident and variety to the visitor experience.

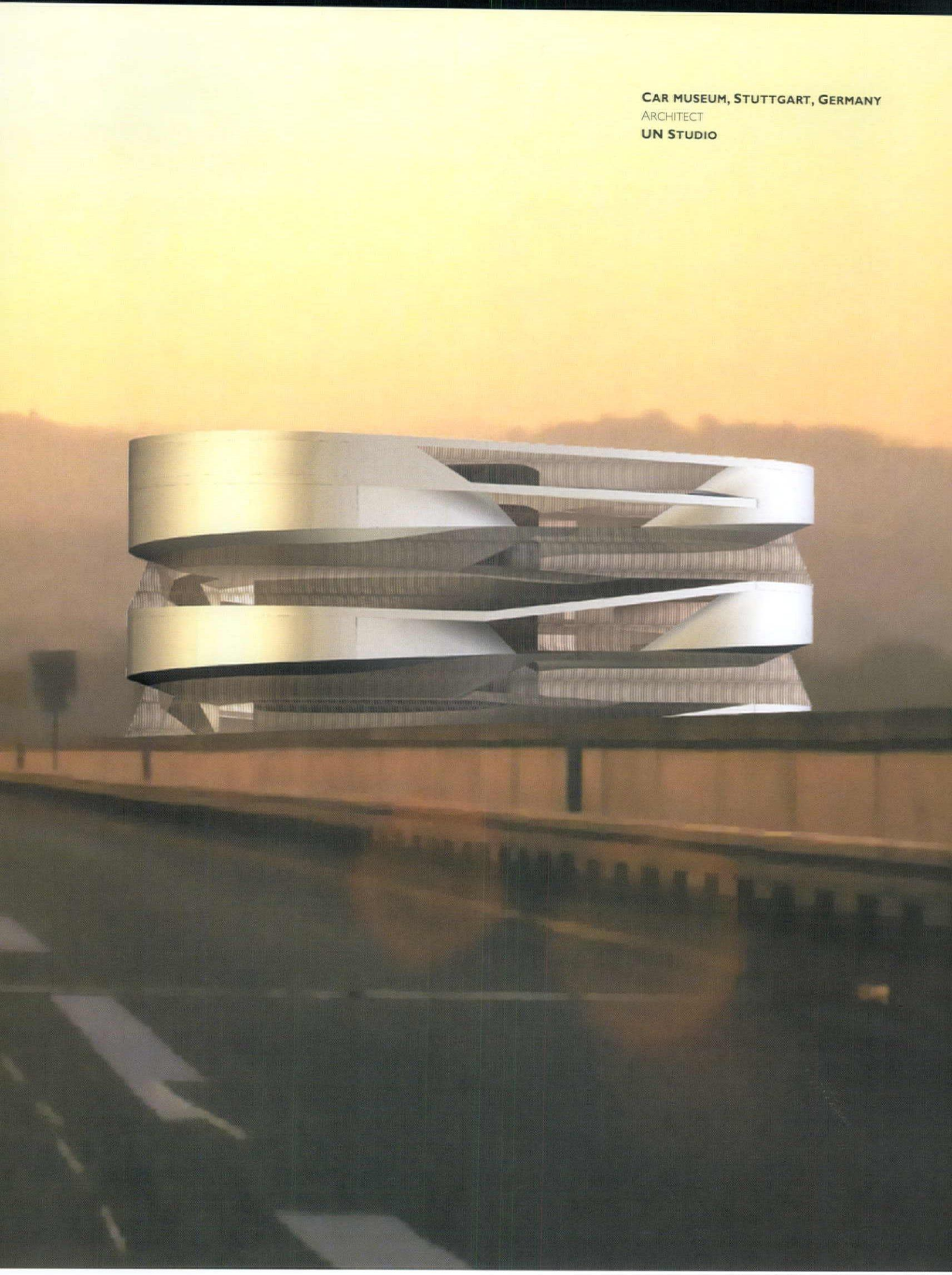
Circulation is from the top downwards, with visitors transported up through the atrium in a bank of lifts to the starting point of the exhibition route on the topmost floor. Museologically, displays are structured around two main themes, the chronological collection of cars and the wider history of Mercedes-Benz, each linked by a spiralling ramp. The two trajectories cross each other continuously, so visitors can change and vary their routes, and cross refer to the displays. At ground level is a children's museum together with shops and a restaurant housed in a large open plan space that connects the new building with the existing vehicle centre.

With a budget of €75 million, the new museum represents a serious investment for Daimler-Chrysler which, like other car manufacturers, is coming to see high profile architecture as an extension of its corporate image and a crafty, subliminal means of attracting discerning new customers. 'Oh Lord, won't you buy me a Mercedes-Benz', wailed Janis Joplin plaintively in the late '60s. Now she'd be spoilt for choice. CATHERINE SLESSOR

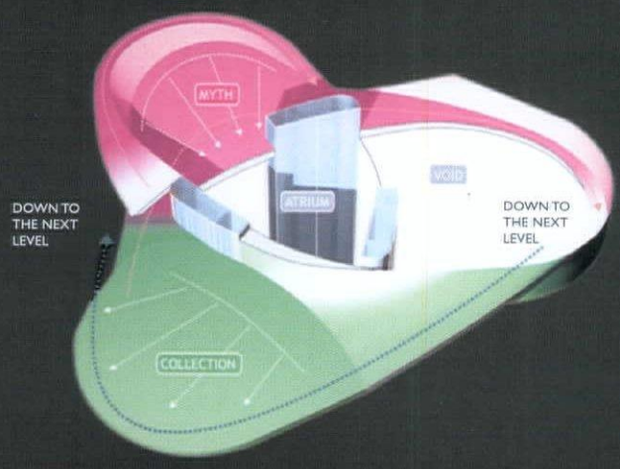


cutaway projection illustrating visitor trajectory

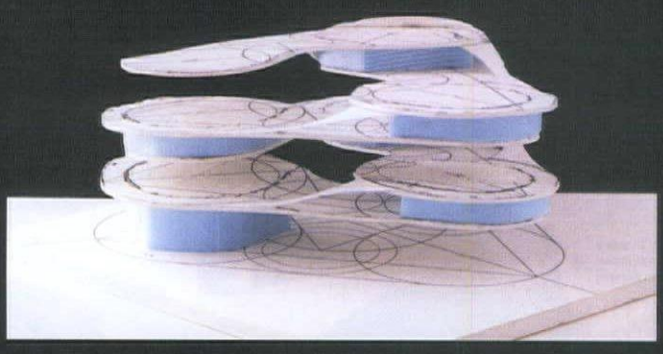
CAR MUSEUM, STUTTGART, GERMANY
ARCHITECT
UN STUDIO



CAR MUSEUM, STUTTGART, GERMANY
ARCHITECT
UN STUDIO



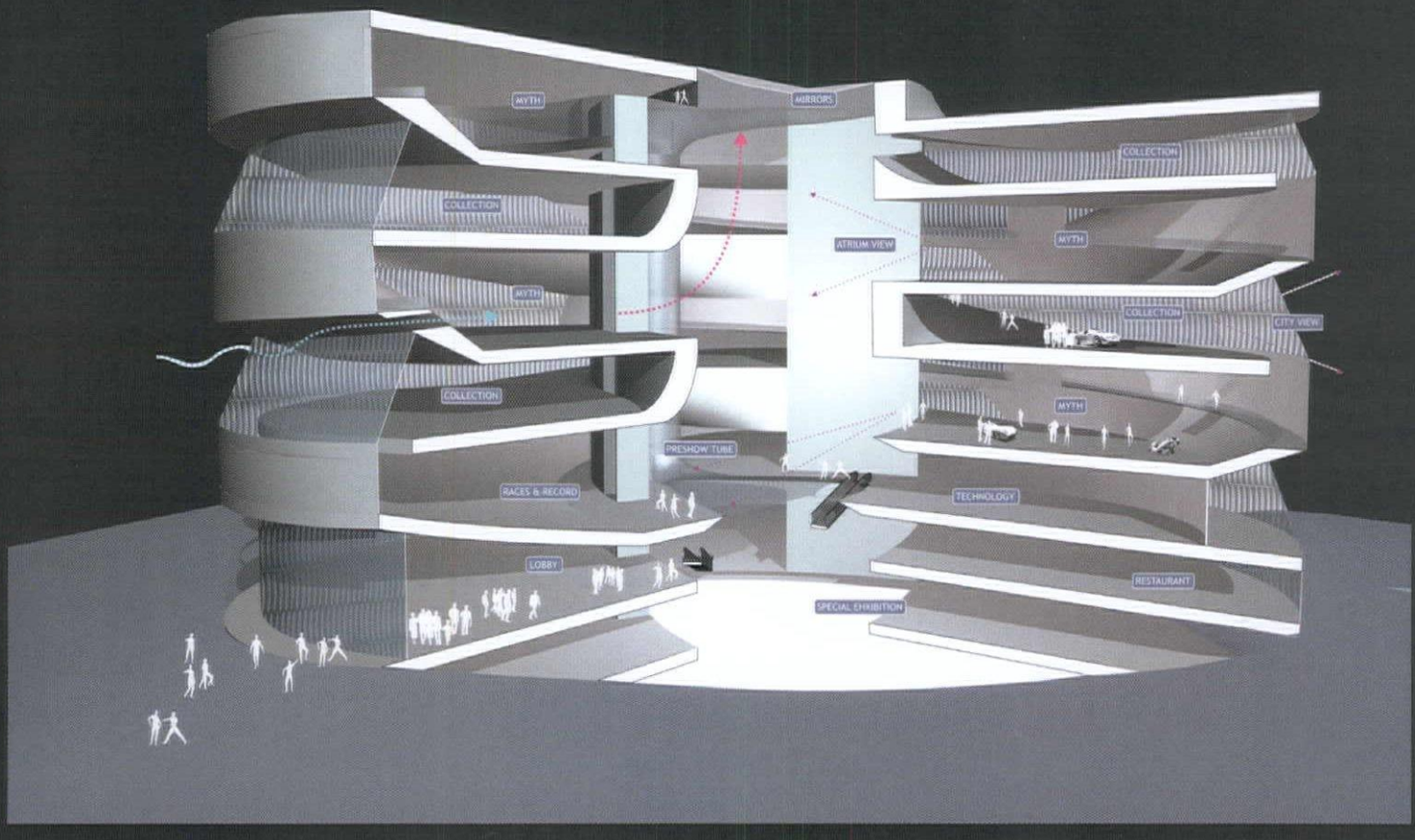
typical trefoil floorplate



exploratory model

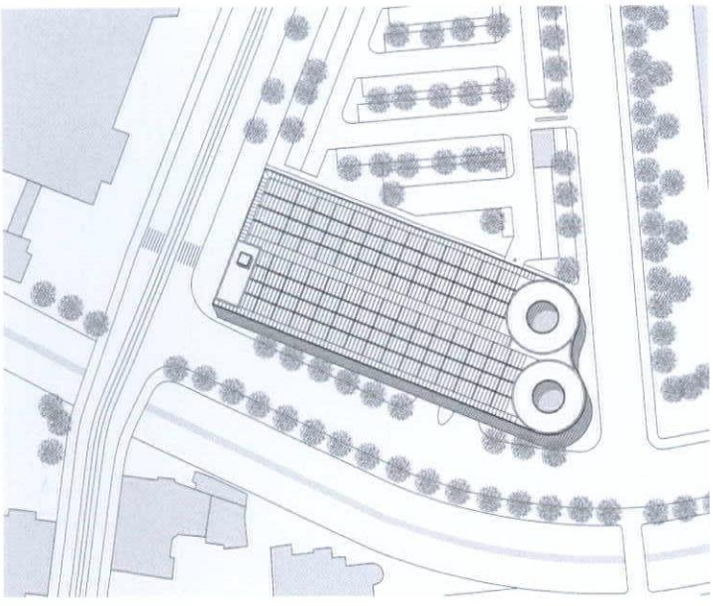


model interior



sectional perspective

CAR PARK, LEIPZIG, GERMANY
ARCHITECT
HENTRICH-PETSCHNIGG & PARTNER



site plan



1



2

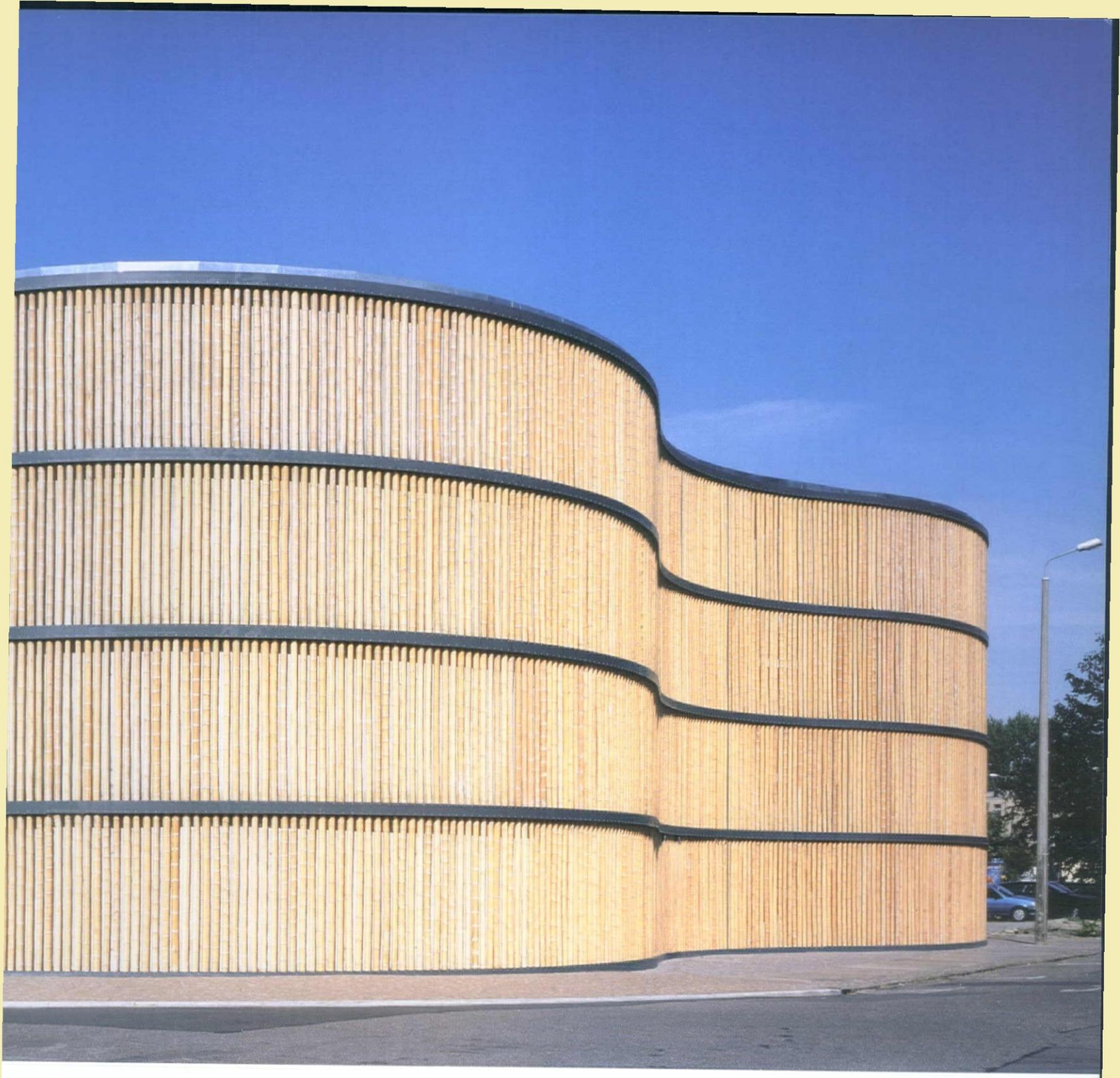
BAMBOO CAGE

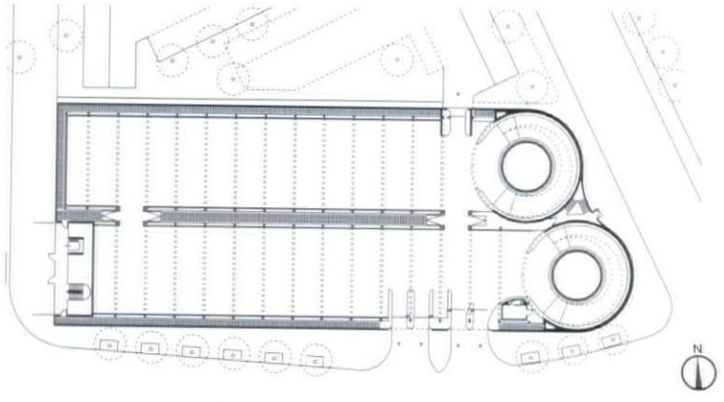
Enveloped in a skin of bamboo, this car park for Leipzig Zoo connects with nature.

Founded in 1878, Leipzig's zoo is one of the oldest and most important zoological gardens in Europe. As well as its work with threatened species, it is also a popular place for public recreation, being close to the city centre. The zoo needed a new car park to replace an existing one and wanted a building that would act as a landmark to the zoo gardens, yet also make the most of a modest budget. Local firm Hentrich-Petschnigg rose to the challenge, enveloping a five-storey structure in a lightweight skin of vertical bamboo poles that diffuse light, soften the building mass and express a literal and metaphoric connection with the natural world.

Car parks (as Peter Blundell Jones observes more trenchantly on p81) are a deeply maligned and malign building type, being little more than stacked floor plates, usually designed to lowest common denominator principles. Yet they are an inescapable aspect of modern life, as car use in cities continues to increase. In Leipzig car drivers can, for

1
Bamboo gives way to glazing around the car park's pedestrian entrance.
2
The bamboo clad walls ripple and warp, transforming the structure.





ground floor plan (scale approx 1:1250)

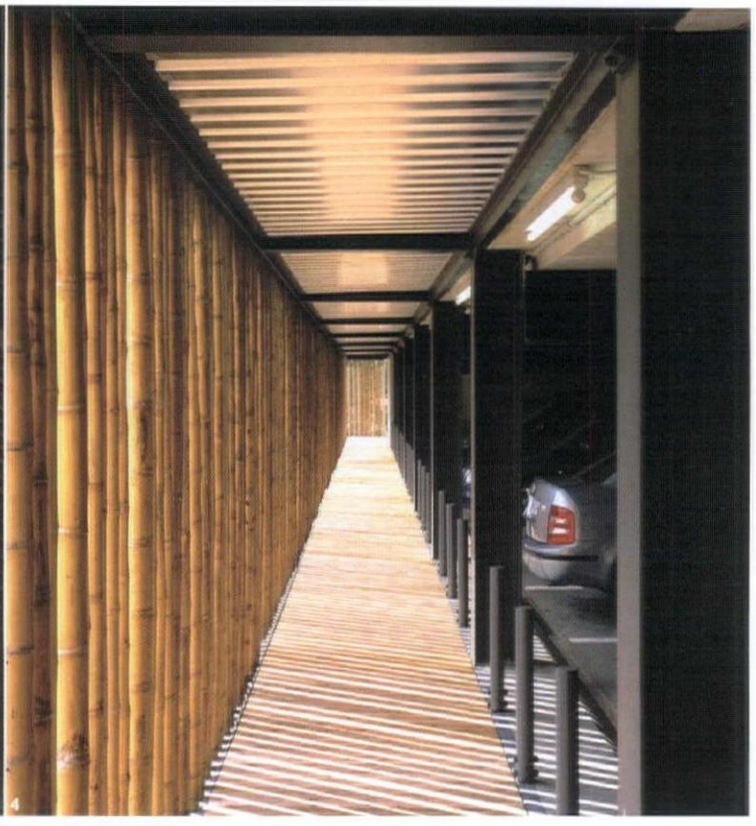


cross section

CAR PARK, LEIPZIG, GERMANY
ARCHITECT
HENTRICH-PETSCHNIGG & PARTNER

3
Void inside a spiralling access ramp.
4
Light is filtered and diffused by the bamboo walls.
5
Detail of external wall; the bamboo admits light and air but dampens sound.



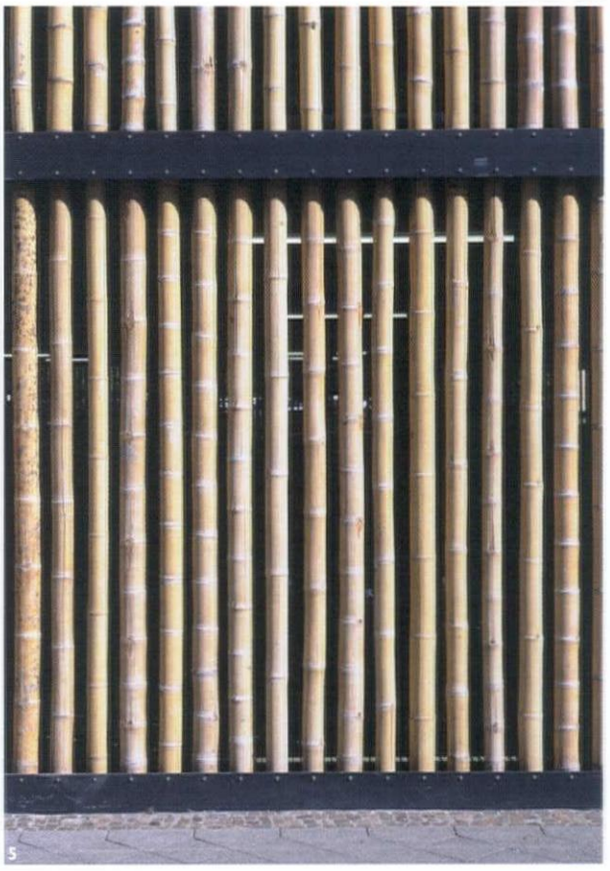


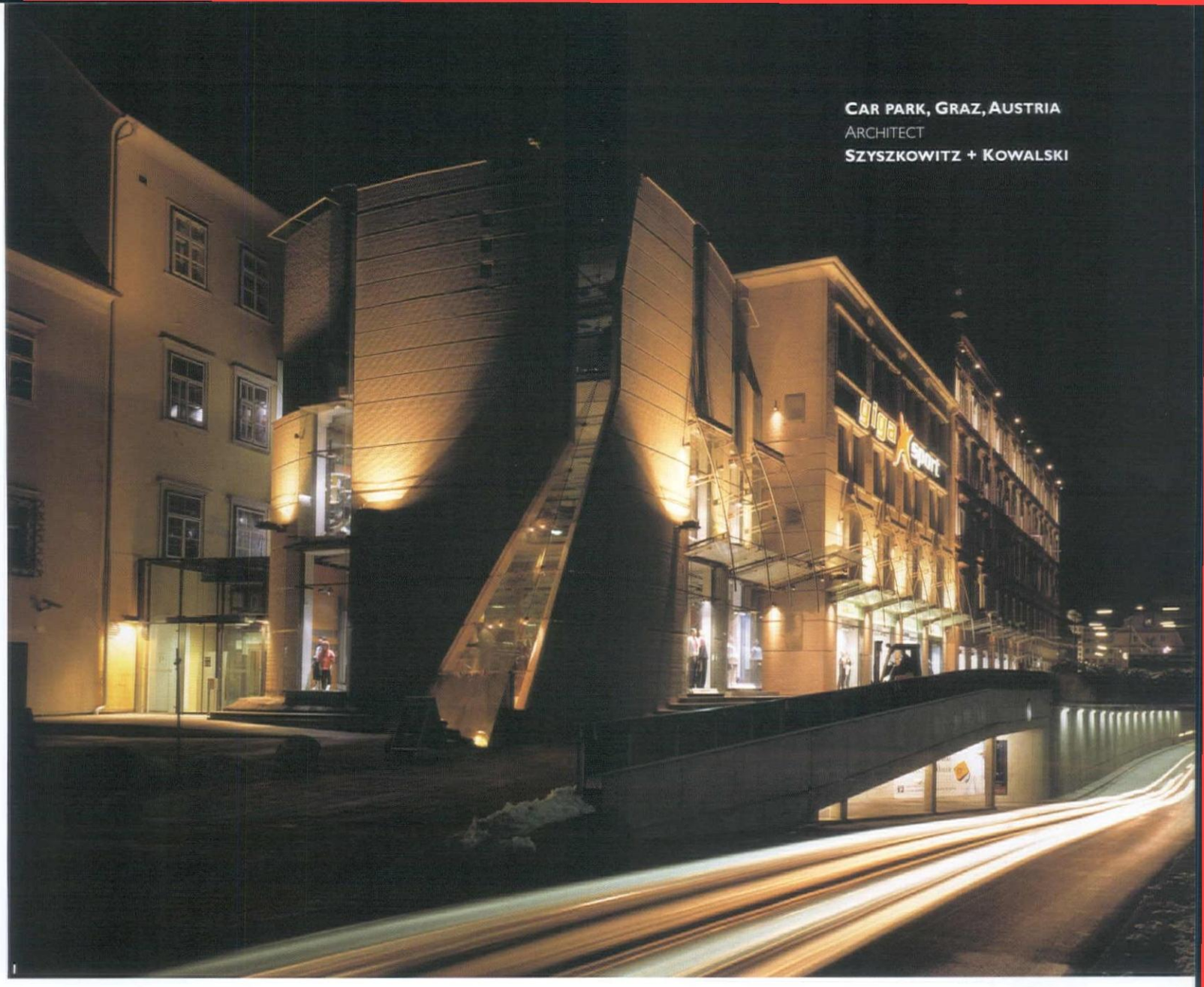
once, take heart. Five levels of parking (four above and one below ground), with spaces for 527 vehicles, are efficiently and elegantly housed in Hentrich-Petschnigg's bamboo-clad car cage. Around the two spiralling access ramps, walls wiggle and curve, like an Aalto vase, the slim bamboo poles rippling along the exterior. Construction is remarkably and necessarily simple, based on a 5m square modular steel grid, which had the dual advantages of speed and economy. The steel skeleton is stabilised by the spiralling ramps and by a concrete lift and stair tower on the west side overlooking the main entrance to the zoo. Here, the bamboo gives way to full-height glazing, revealing the vertical circulation. A secondary steel structure supports the bamboo facade and narrow timber pedestrian walkways that run around the perimeter of each floor.

Apart from its obvious ornamental qualities, the bamboo also functions as a protective railing and screen, admitting light and air, but reducing sound. Poles with a diameter of between 100 and 120mm were selected, leaving a 75mm gap. Each pole is fixed by an adjustable brace screwed to the flanges of the secondary steel structure. Set against the precisely engineered steel, the organic quality of the bamboo generates a delicious tension between nature and technology, casting flickering shadows around the parking floors. Though bamboo is rarely used in Europe, it does not look out of place here, seductively transforming this most mundane of building types.

CATHERINE SLESSOR

Architect
Hentrich-Petschnigg & Partner, Leipzig
Photographs
Hans-Christian Schink/PUNCTUM





CAR PARK, GRAZ, AUSTRIA
ARCHITECT
SZYSZKOWITZ + KOWALSKI

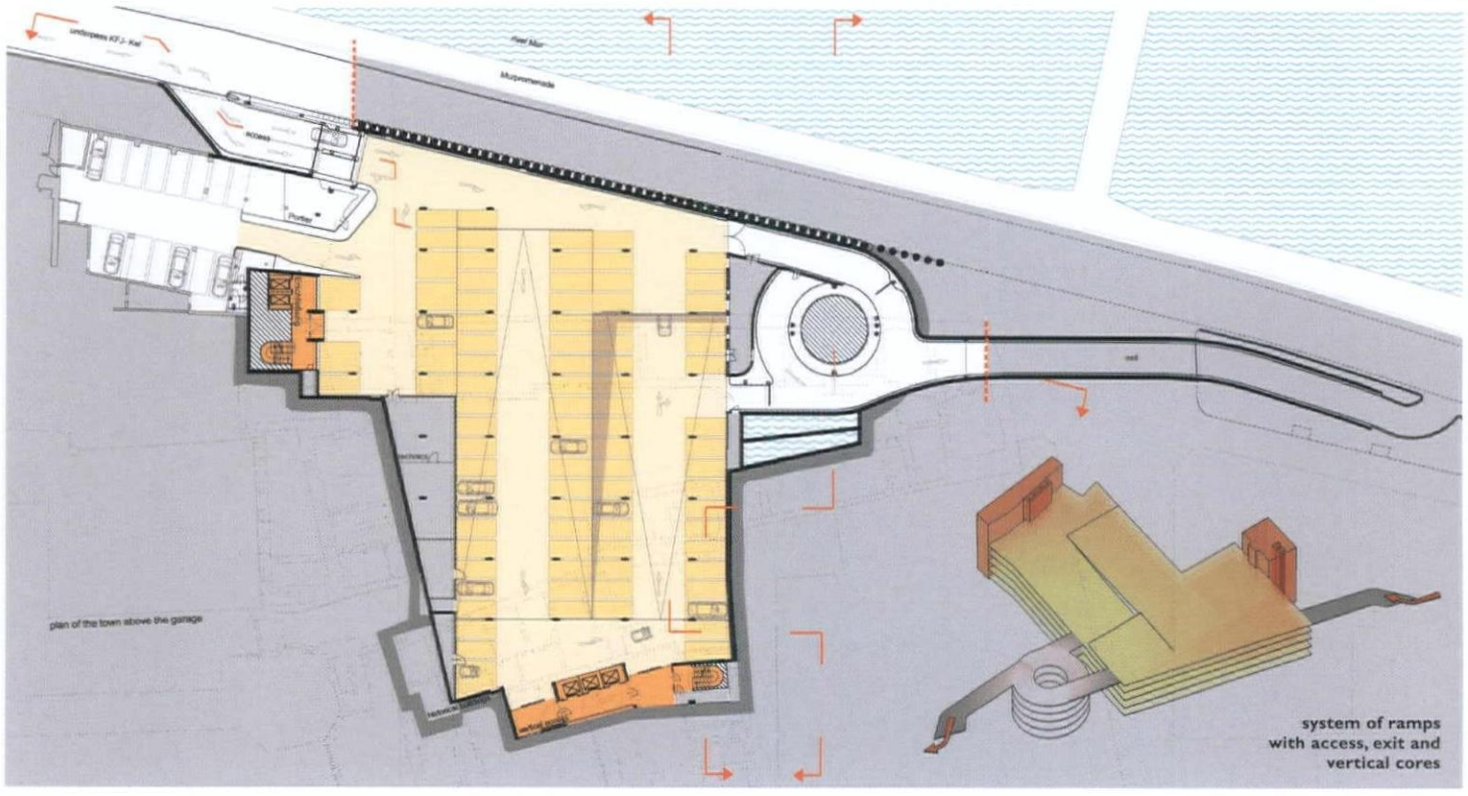
GOING UNDERGROUND

This subterranean car park in Graz goes against type to civilise urban parking.

Underground garages are a territory lost to architecture. Usually dark, damp and stained, with imagined muggers lurking in the shadows, they are claustrophobic places to escape from as fast as possible. You hold your nose as you enter the lift, and wonder if your car will be there when you return. Fabric and lighting are the meanest possible, the ceiling height is low, and you have to unravel a mental Ariadne's thread to assure your return. Because vehicle movement is the priority and people park in different places, passage from the car is hard to control or to celebrate in any way, and a sense



1
The subterranean car park serves the Graz department store Kastner and Öhler, as a means of enticing customers into town. Entrance is a wedge-shaped slot.
2
In a complex feat of engineering, existing historic buildings were propped up on temporary columns during excavations.



entrance level plan (scale approx 1:1250)



long section

of arrival is difficult to achieve. The brilliantly inventive Michael Szyszkowitz and Karla Kowalski have long been architects to the department store Kastner and Öhler in the centre of Graz, converting their old buildings and adding new ones (AR June 1995). To compete with out-of-town shopping, the store decided to woo customers with parking, and this could only be placed next to the river-bank under some ancient listed buildings, accessed from the bank-side traffic artery. Creating the five-storey basement with the old buildings in place was a structural headstand, for they had to be propped on temporary columns until the new structure was in place. There were also problems with water from the River Mur, and anchors were needed to prevent the whole structure rising out of the ground like a boat.

These technicalities solved, the architects set about making the garage pleasant and easy to use. Floors are sloping plates to allow continuous progression until a place is found, and to create a split section which is less box-like. On returning, you can drive off quickly via a dramatic spiral ramp set on one side and linked to each level. Those leaving their cars are drawn towards lifts and stairs in toplit voids behind glass walls, which appear invitingly like courtyards on the edge of the space. Very thick glass was needed to achieve fire regulations, but the transparency is fully effective. Glazed lifts make passage through the floors apparent, and you arrive between the store and external pavement with a clear sense of direction. Surfaces in the parking floors are painted in bright colours and kept clean with impervious finishes. Car bays are defined with blocks of colour rather than the usual bossy lines. Lamps are integrated into the ceiling and into the columns, bouncing light off the floor and the ceiling, and video cameras provide discreet security. It all seems much more of an interior than parking places usually are, and the cars look as if they are in a showroom.

PETER BLUNDELL JONES

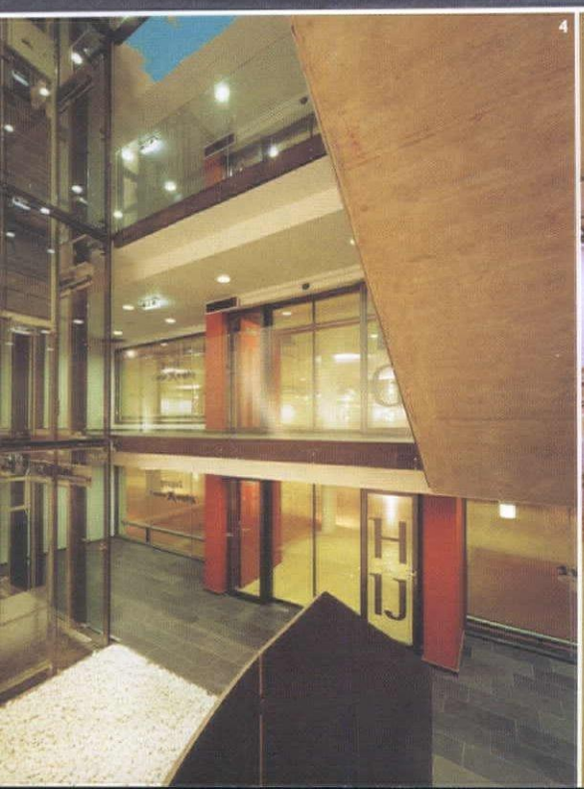
Architect
Szyszkowitz + Kowalski, Graz
Photographs
Angelo Kaunat

3
Spiralling access ramp.
4
Glazed lifts add a civilising touch.
5
Typical parking level, with lighting integrated into the columns.

Car park, Graz, Austria
Architect
Szyszkowitz + Kowalski



3



4



5



House and studio,
nr Melbourne, Australia
Architect
Denton Corker Marshall

ar house

Double Bass

This coastal retreat on the Bass Strait poetically responds to climate and views.

Architecture's endless quest for 'transparent' buildings can simply mean excessive use of glass. This then requires ingenious design to solve problems created by the designer. In many parts of the world, sunlight, far from being the essential ingredient of a health and efficiency type of architecture, is the key problem which has to be overcome. Nor do extreme daytime temperatures imply a clement night-time environment.

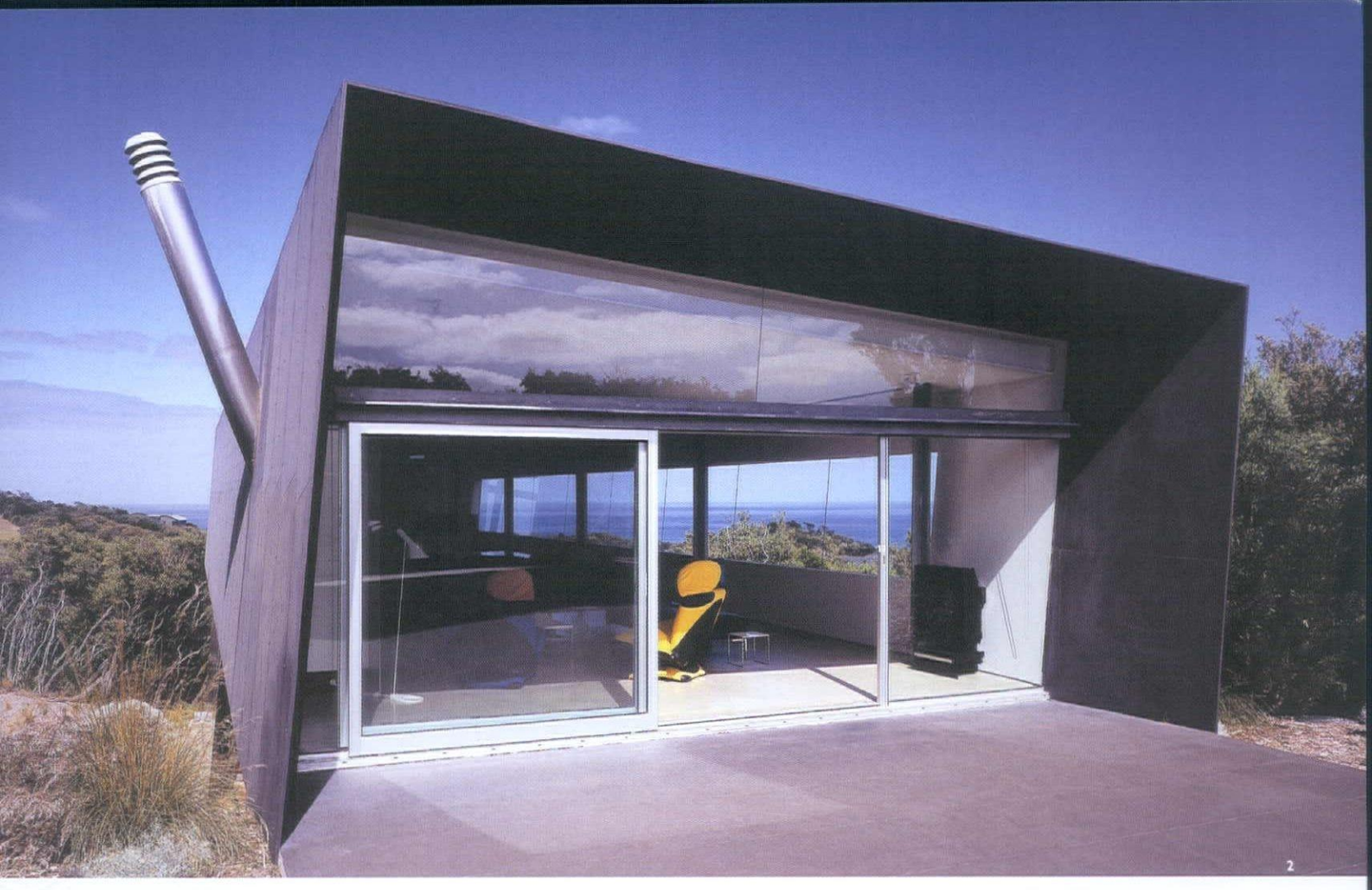
The Bass Strait in Australia, south of Melbourne, is a case in point. Climate comfort is more important than universal views, and this coastal retreat, a house and studio pavilion at Cape Schanck by Denton Corker Marshall, keeps glazing to an appropriately low level. That said, the house (which is located on a steep site in the middle of a golf course) is designed so it can enjoy ocean views, but does so in the context of a 'black box' steel structure clad in cement sheet, with a concrete ground slab and suspended floor.

It is not the black box approach which makes the house interesting, however; rather, it is the array of angled elements deriving from the twisting of the box tube in section. This leads to raked cladding, cranked lower windows, and a chimney which emerges from the wall at a faintly alarming angle. The desired impression was of a building which has rotated on its axis as the box lands on the site.

Not just one box, but two: one sitting atop the other and peeking out through the native ti-trees, entered via a glass-enclosed (but shaded) concrete stair beneath its belly. The top deck contains the living area



The project comprises a two-level house, courtyard and pavilion.



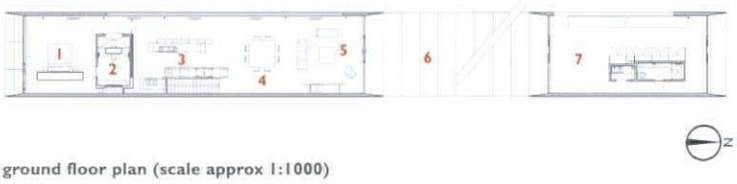
with a long narrow window that frames the view along the western elevation, and cruciform columns of hot dipped galvanised steel set into the box's volume. Living, eating and sleeping zones are located in free-standing maple timber veneer cubes within the body of the house, with the master bedroom and its bathroom separated by a concealed sliding door.

Glass ends in the house provide vistas to the landscape, and to the new studio across the north-facing courtyard separating the two buildings. The studio entrance is via glass sliding doors at either end of the box, with the interior space marked by an aluminium cube containing storage, kitchenette and bathroom. In all, a variety of materials, deployed to environmental and/or aesthetic advantage, has resulted in a piece of architecture where client delight and climatic considerations have been successfully reconciled.

PAUL FINCH

Architects
Denton Corker Marshall, Melbourne
Structural engineer
Burns Hamilton + Partners
Photographs
Shannon McGrath

2
The rectangular structures of house and studio twist in section, producing a roofline that follows the land to meet local planning requirements.
3, 4, 5
Interior views of living space, show internal timber cubes.
6
From studio looking back to house.

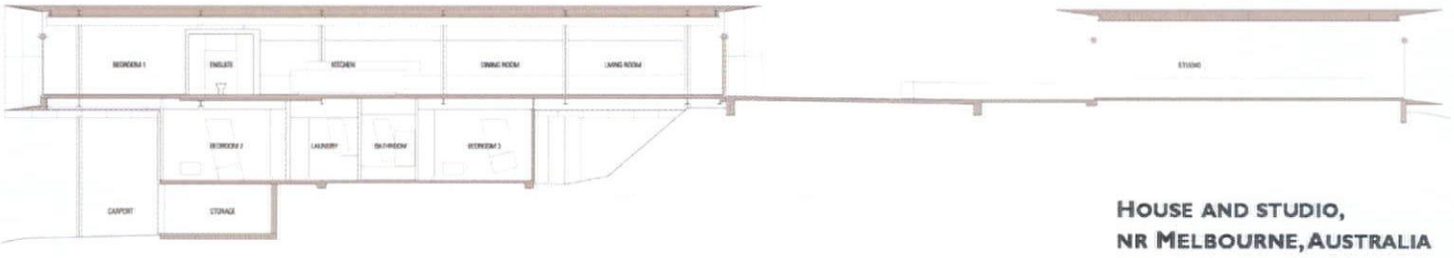


ground floor plan (scale approx 1:1000)

1 master bedroom
2 ensuite bathroom
3 kitchen
4 dining room
5 living room
6 courtyard
7 studio
8 bedroom
9 laundry



lower ground floor



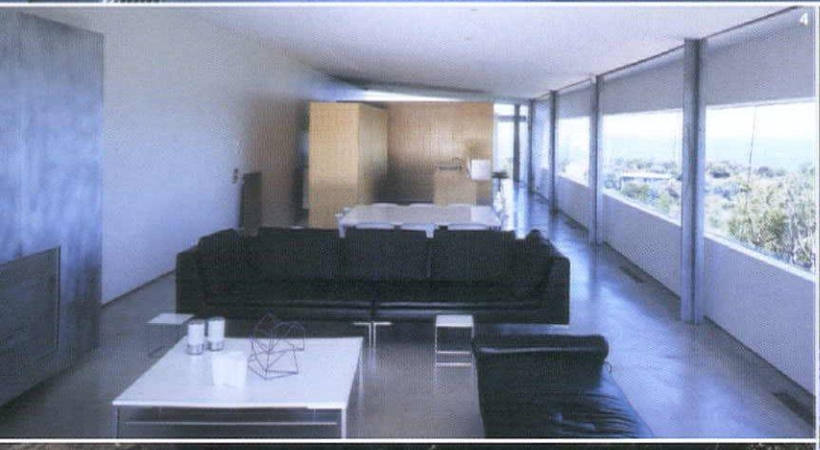
cross section: one house 'box' sits on another

HOUSE AND STUDIO, NR MELBOURNE, AUSTRALIA

ARCHITECT
DENTON CORKER MARSHALL



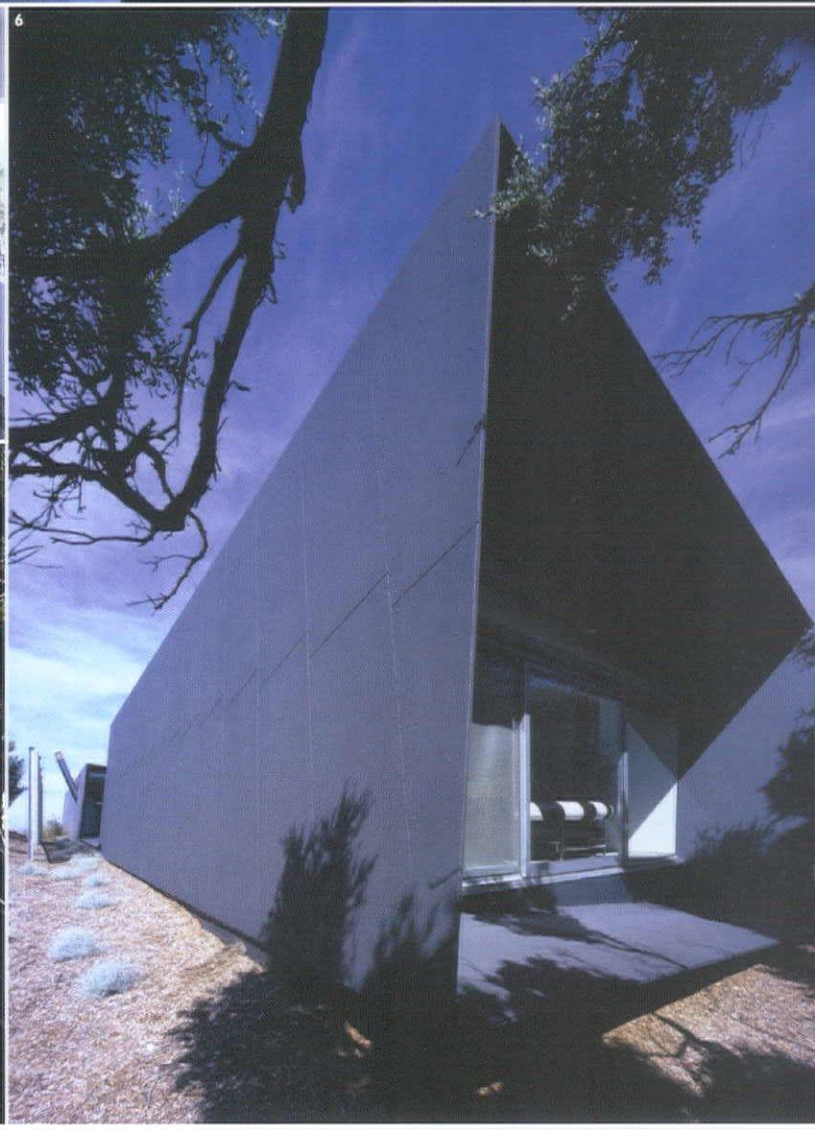
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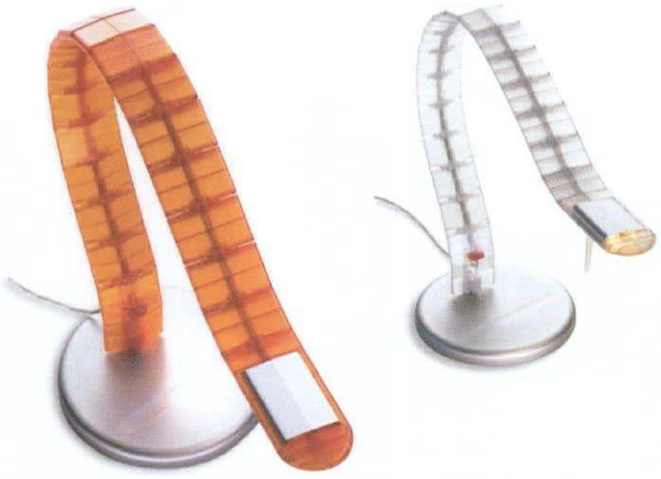
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6

product review

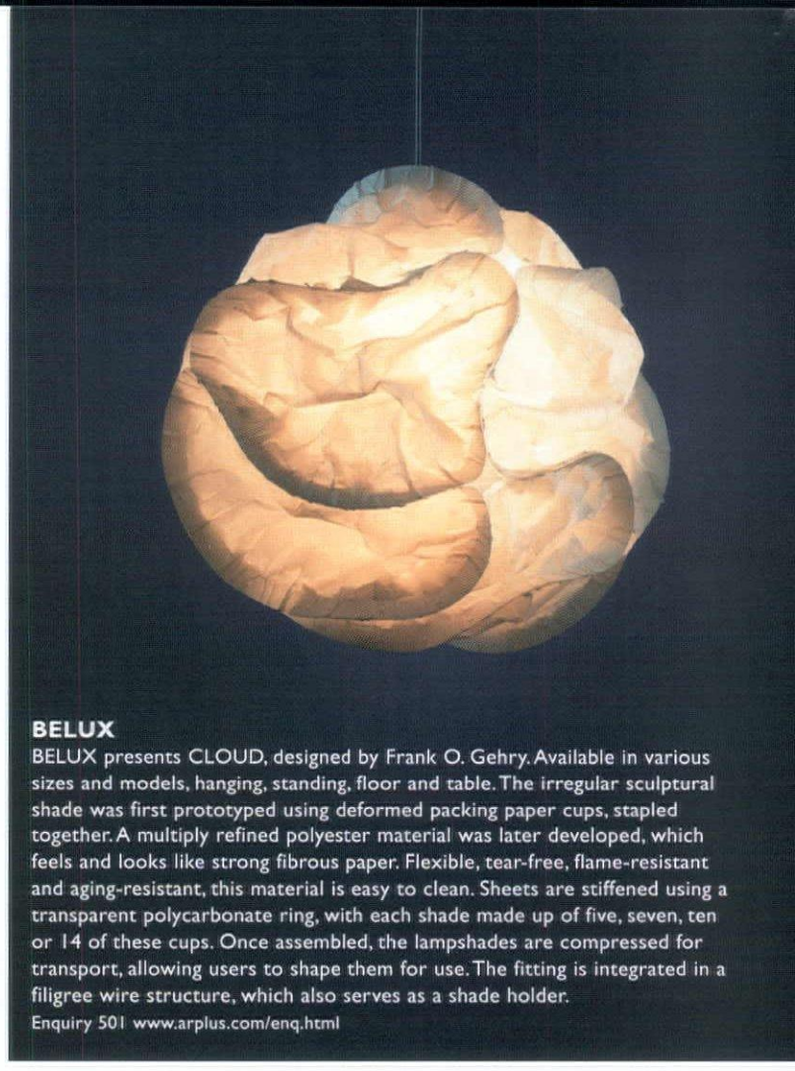
Rob Gregory lights up the products section.



TOBIAS GRAU

Soon by Tobias Grau comprises a number of identical moveable translucent parts that can be adjusted to suit individual lighting requirements. Two flat steel bands run through the spine of the lamp, which insulate power feeds and prevent the lamp from buckling. The transformer is integrated in the plug, and a two-stage switch allows for brightness control.

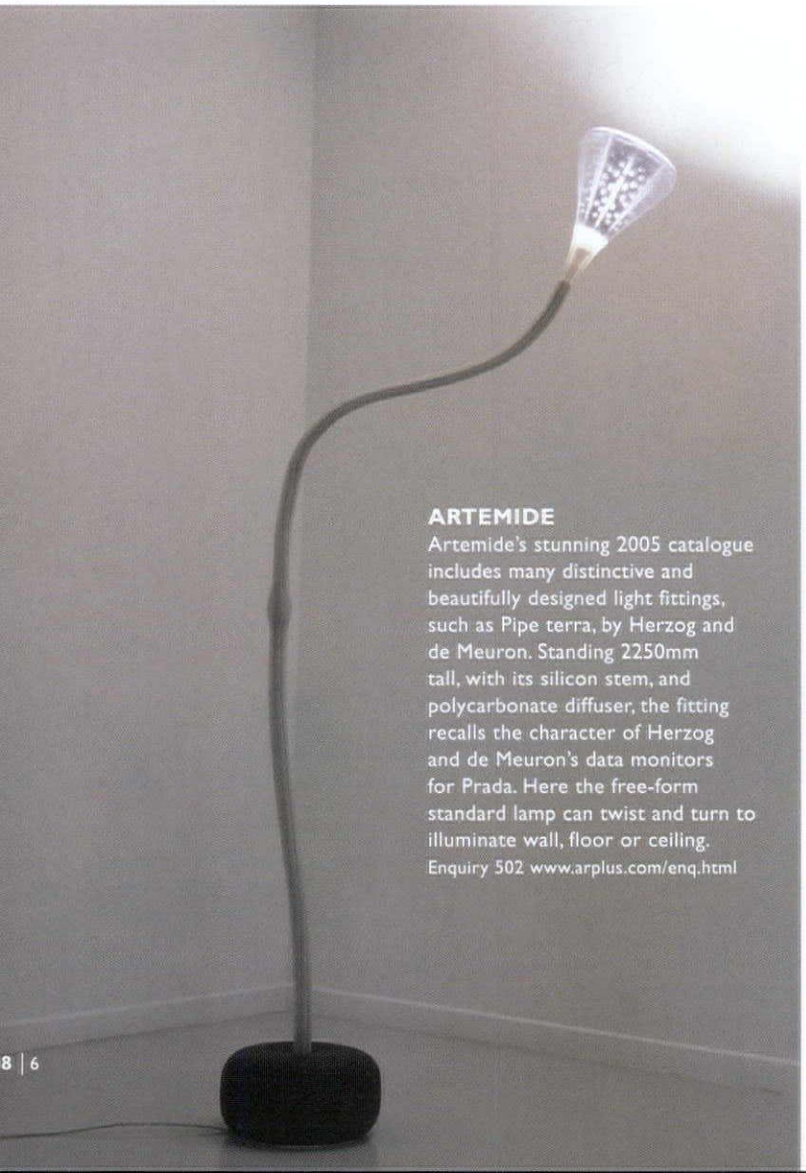
Enquiry 500 www.arplus.com/enq.html



BELUX

BELUX presents CLOUD, designed by Frank O. Gehry. Available in various sizes and models, hanging, standing, floor and table. The irregular sculptural shade was first prototyped using deformed packing paper cups, stapled together. A multiply refined polyester material was later developed, which feels and looks like strong fibrous paper. Flexible, tear-free, flame-resistant and aging-resistant, this material is easy to clean. Sheets are stiffened using a transparent polycarbonate ring, with each shade made up of five, seven, ten or 14 of these cups. Once assembled, the lampshades are compressed for transport, allowing users to shape them for use. The fitting is integrated in a filigree wire structure, which also serves as a shade holder.

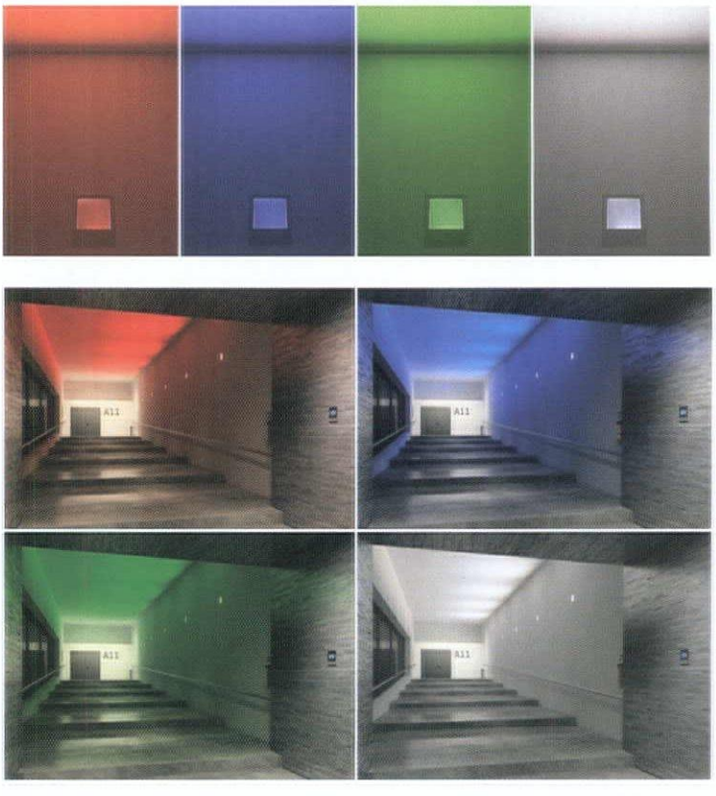
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ARTEMIDE

Artemide's stunning 2005 catalogue includes many distinctive and beautifully designed light fittings, such as Pipe terra, by Herzog and de Meuron. Standing 2250mm tall, with its silicon stem, and polycarbonate diffuser, the fitting recalls the character of Herzog and de Meuron's data monitors for Prada. Here the free-form standard lamp can twist and turn to illuminate wall, floor or ceiling.

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ERCO

Erco's new luminaire product group of uplights for wall installation are discreet and elegant. The three separately switchable, compact fluorescent lamps in red, green and blue, not only produce these primary colours, but also three secondary-colour pastel shades and one shade of white. Available in two housing sizes for tungsten halogen lamps, metal halide lamps or compact fluorescent lamps, the shallow recess depths of 80 and 96mm respectively enable problem-free installation in all usual cavity walls and interior design constructions.

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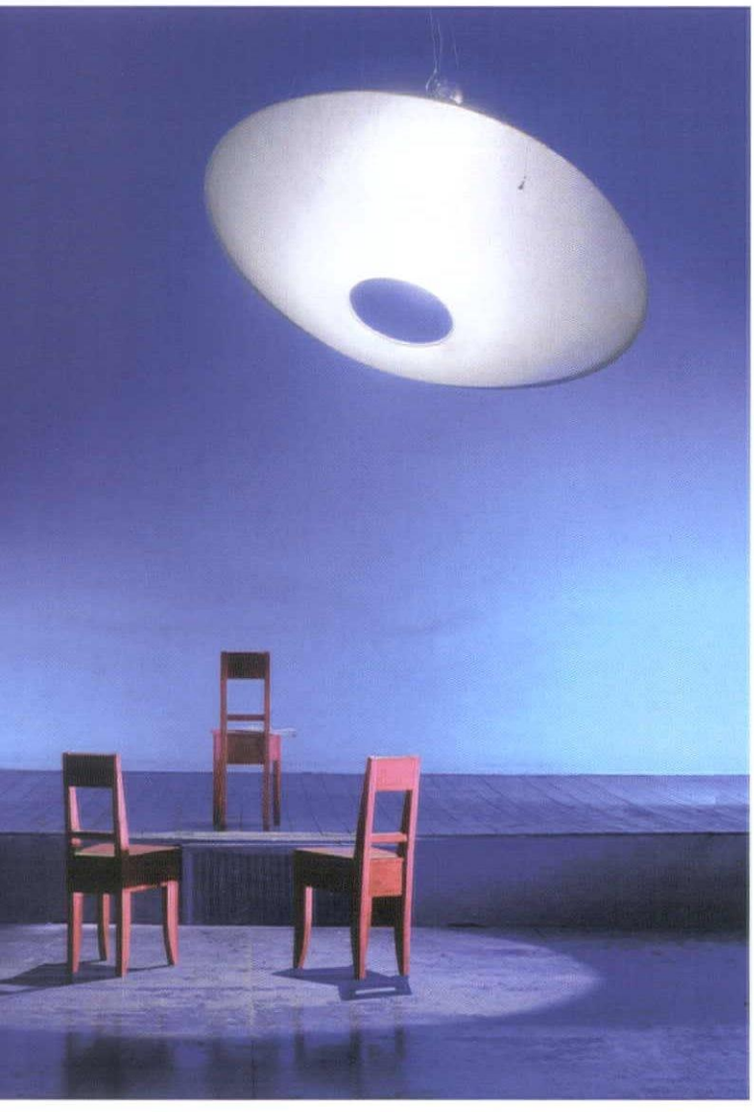


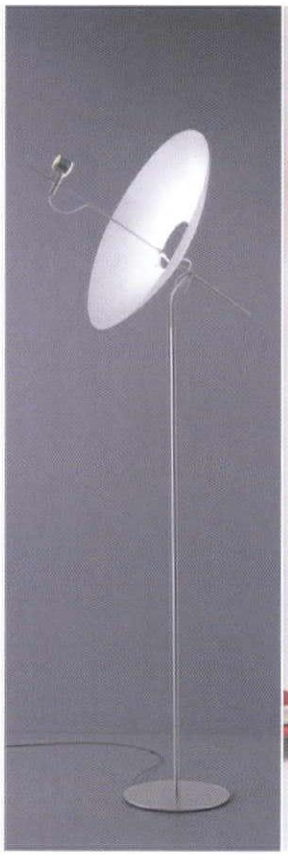


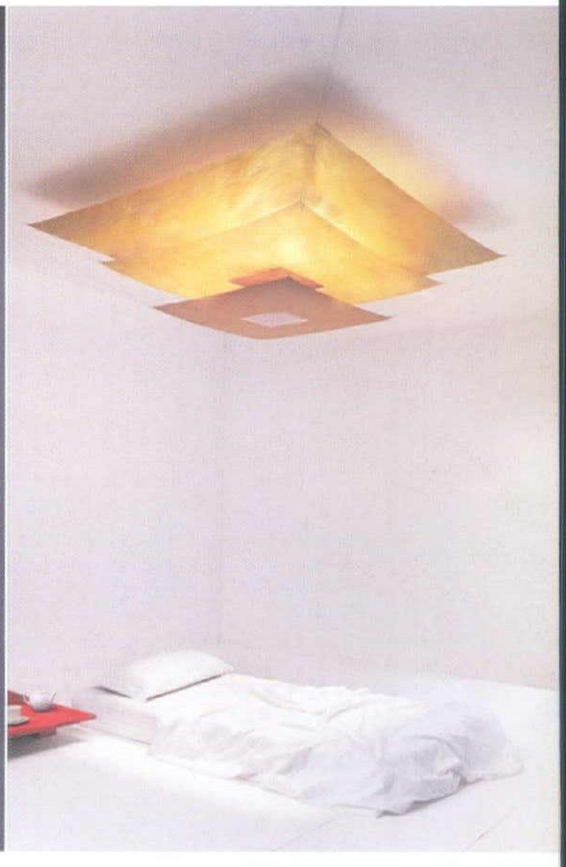
FOSCARINI

Among a new range of fittings, Foscarini present these three new models; Big Bang, an irregular and apparently random intersection of planes, available in white or two colour combinations (designed by Enrico Franzolini and Vicente Garcia Jimenez); Caboche, a contemporary chandelier that incorporates almost two hundred polymethylmethacrylate balls that multiply the brightness (designed by Patricia Urquiola and Eliana Gerotto); and Uto, a silicon rubber floor, ceiling or hook lamp that can be positioned freely as one wishes (designed by Lagranja Design).

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INGO MAURER

Ingo Maurer have three distinctive new products: two incorporating fibre-glass shading dishes: Big Dish with its 2400mm wide shade and 480mm central aperture, and Satel.light with an 800mm fibre-glass shade, both operable on a continuously variable dimmer. Luxury Pure offers a different aesthetic with three paper sails, lacquered in gold or silver, and penetrated by a central light hole.

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RAFAEL VIÑOLY ARCHITECTS

ARCHITECTURAL TRAINING AND RESEARCH PROGRAMS

An independent initiative to advance the craft of architecture through training and research

ARCHITECTURAL TRAINING

This course aims to develop the operational and intellectual instruments that are the basis of the professional practice of architecture. Without assuming the status of a formal architectural education, these classes are addressed to those involved in education, or those already in practice, who find a significant gap between the character of the formative instruction and the requirements of the professional field. The course is designed around the idea that architectural know-how is a conveyable body of knowledge rather than an intuitive ability that only develops with experience. The course starts in September 2005.
Tuition is free.

RESEARCH FELLOWSHIP

Rafael Viñoly Architects is offering fellowships to research ideas relevant to the practice of architecture within an environment not circumscribed by the realities of a particular architectural project. Topics should have the potential to advance the craft of architecture. In addition to financial support of up to $60,000, Rafael Viñoly Architects will provide space within the firm's New York office.

Fellows are to be resident at Rafael Viñoly Architects in New York City during their terms which may last from three to twelve months starting in or after September 2005.

Applications for both programs are due July 1, 2005.

For applications and more information, visit **www.rvatr.com**

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Washington University in St. Louis

St. Louis, Missouri, USA

DEAN
SAM FOX SCHOOL OF DESIGN & VISUAL ARTS

Washington University in St. Louis invites expressions of interest from, and nominations for, individuals to serve as the first Dean of the Sam Fox School of Design and Visual Arts.

The Sam Fox School, to be formally inaugurated July 2006, will include the current School of Architecture, the School of Art, and the Mildred Lane Kemper Art Museum, which is home to one of the best university art collections in the nation. The Sam Fox School is being established to foster collaboration and creativity in all fields of art and design and to enhance Washington University's position as a national and international leader in those fields.

The Dean of the Sam Fox School will provide academic and administrative leadership for a wide range of undergraduate and graduate programs in Art and Architecture and the Mildred Lane Kemper Art Museum. This person will be responsible for shaping the mission of the School and for promoting effective collaboration among educational units; for representing the School to a wide range of campus and professional constituencies, and for overseeing faculty and program development, budgets, resource allocation, and fundraising. The position reports directly to the Chancellor of the University and serves on the University Council of Deans and Vice Chancellors along with leaders of the six other schools constituting Washington University: Arts and Sciences, Business, Engineering, Law, Medicine, and Social Work.

The successful candidate must have:

- a creative vision for the future of design and the visual arts
- outstanding leadership, managerial and communication abilities
- a proven ability to motivate faculty, students, and staff around shared goals
- a record of significant experience and achievement, preferably in an established, high-profile academic, creative, and/or business environment
- experience with facilities, financial, human resource, and institutional management
- a thorough understanding of complex budget planning
- significant experience in strategic planning, with facilities planning and management
- a proven ability to work across all levels of the organization.

Nominations and applications will be accepted and evaluated as they are received. Please submit them to: **Jerry H. Baker, Baker-Parker, Inc., Five Concourse Parkway, Suite 2440, Atlanta, GA 30328-6111, jbaker@bpasearch.com.**

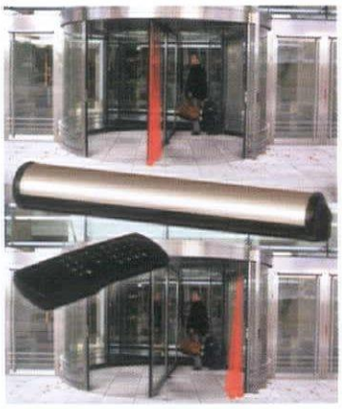
Washington University in St. Louis is an equal opportunity, affirmative action institution and encourages applications from, and nominations of, women and minority candidates.

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BEA

A safety sensor, designed to prevent anyone from being trapped or injured in automatic doors, has been launched by door-safety specialist BEA. The fail-safe and monitored 4Safe is an active infrared detector that measures distance by triangulation and conforms to BS 7036 (Safety at Powered Doors for Pedestrian Use). The 4Safe is unique among comparable sensors in possessing four separate detection spots. The 4Safe monitors both the full height and leading edge of the door.

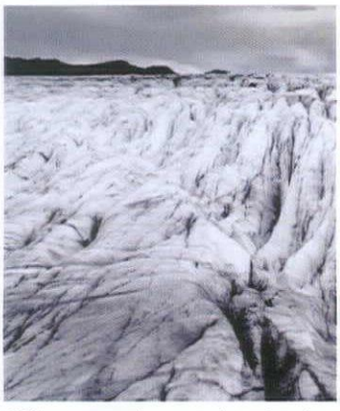
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Wright Style steel glazing systems are well suited to airport design. Our steel systems allow the architect to use glass in areas previously thought of as unsuitable for glazing. With our systems you can have larger spans of glass, with minimal sightlines, for both vertical and roof glazing applications, without the need for supporting substructures. Applications include: fire, blast and ballistic.

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Interface

Cool carpet is the industry's first climate neutral carpet that allows customers to buy with no negative impact to global climate change. Interface Europe calculates the total CO_2 emissions, including the extraction and processing of raw materials, internal manufacturing and transport, sales and administration functions, product installation and maintenance, and the ultimate return and reuse of each product. Knowing the emissions profile of any purchase means it is possible to offset or balance these emissions through investments in schemes and projects.

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Nova Metals

Nova Metals have introduced the range of Gagecast®, a cast metal wall surfacing available in stainless steel, aluminium, bronze and many other alloys. Suitable for a variety of interior architectural applications, patterns offer feature high lustre, relief, and durability. Twenty-eight designs are standard, however custom collaboration is encouraged. Gagecast® can be used in many installations such as corporate and hotel receptions, car showrooms, and many other exclusive architectural requirements.

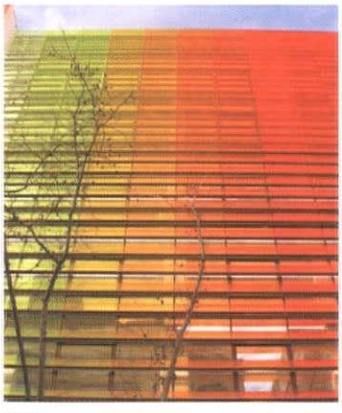
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Lucite International

Perspex® from Lucite® has been used to create a truly contemporary staircase as well as being used in several design features in the much celebrated Grade 2 listed Lymm Water Tower which has been called the 'Best House in Britain'. Perspex® from Lucite® features strongly in the house, having been used to create a wonderful staircase, designed and crafted by Glasgow based fabricators QD Plastics, the curved balustrades on the roof terrace and the windows at the top of the tower.

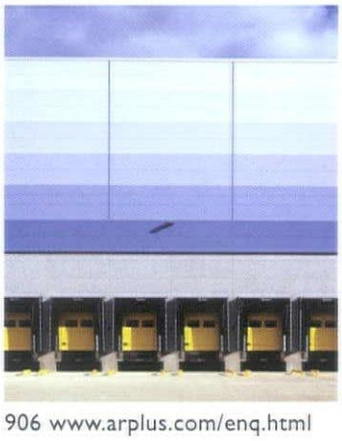
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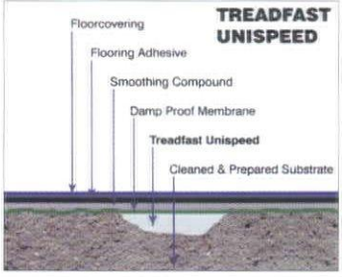
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Corus Colors

Colorcoat Prisma has made its debut on a 41,000m² distribution centre at Marsh Leys, Bedford. The building, known as Godzilla, is part of a 170 000m² speculative development programme. Due to the high profile location of the centre, Gazeley Properties wanted a colour solution that would make the structure as visually appealing as possible and offer superior durability and performance. Following discussions with Corus, a solution was developed using Colorcoat Prisma. Six bespoke complementary colours were specified for the Godzilla building.

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Tremco

The latest smoothing mortar from Tremco combines rapid strength, excellent adhesion, and all round flexibility. Treadfast Unispeed has been formulated as a blend of cement and modified polymers, mixed with graded aggregates, for a product suitable for building up levels on concrete or sand/cement screeds. Supplied in 75kg plastic lined sacks, the modified cement mortar can be premixed with clean aggregate to help level depressions of up to 75mm depth. The minimum thickness of application is 6mm.

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INTELLIGENCE RATING

INTELLIGENT BUILDINGS: DESIGN, MANAGEMENT AND OPERATION

Edited by Derek Clements-Croome. London: Thomas Telford Books. 2004. £49.50

INTELLIGENT SKINS

By Michael Wigginton, Jude Harris. Oxford: Elsevier. 2004. £38.99

The idea that buildings or major components might have some kind of intelligence conjures up an image of technical sophistication to rival the mechanisms of nature – buildings that can be programmed to provide a utopian setting for human activity, with minimal impact on the planet's resources. These two books, both of which have their roots in academia, show that no such clarity about the definition of building intelligence exists.

Intelligent Buildings, which comprises a series of lengthy essays and case-studies dense with cross-references to other books or papers, is a 400-page technical textbook that leaves the reader exhausted and confused. It seems that the realm of Intelligent Buildings not only embraces the expected – smart materials, mechanical louvres or computerised control systems – but also the unexpected in the form of design and project management, new working methods and, inevitably, sustainability. This lack of precision gives the impression that almost anything at the leading edge of today's design and construction industry constitutes an Intelligent Building.

By contrast, Wigginton and Harris provide some welcome focus in *Intelligent Skins*, with a narrow definition of intelligence based on the responsiveness of the external envelope. This allows them to concentrate on a series of 22 carefully selected case studies, with the intention of analysing them consistently for various aspects of their design and performance.

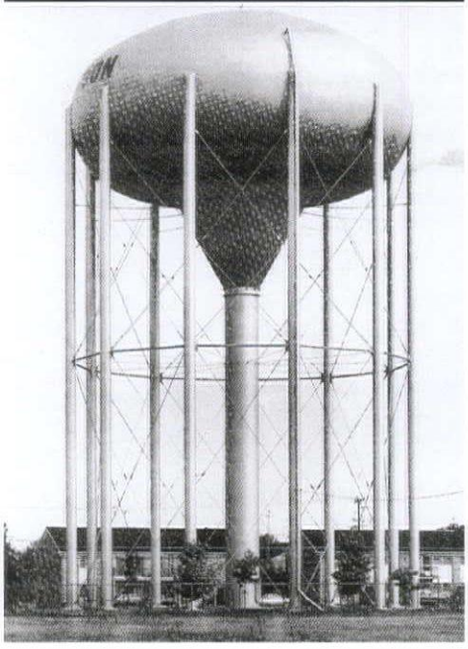
Despite the lack of consensus, there is a theme that unites the various authors, which is a concern for buildings that actually work for their users. This is hardly a definition of Intelligent Buildings unless the term is simply meant to distinguish between architecture that is flawed in its execution from that which is more thoughtful, or intelligent. Nevertheless, it is a noble topic, hugely neglected by many prominent designers (and publishers) who tend to favour imagery at the expense of function. Perhaps unwittingly, both books underline the size of the task facing those who seek more objectivity in the assessment of building performance, by revealing the absence of hard information from which architects, among others, can make their design decisions. Energy efficiency is one such example.

While the case-studies in *Intelligent Buildings* are interesting of their type, none goes as far as to assess proven energy performance, with the effect that the innovations demonstrated in the book have to be taken on trust. If they don't work, it is possible that readers will replicate any mistakes in future buildings. Although *Intelligent Skins* has a more rigorous checklist of assessment criteria, it is significant that only half of the case-study buildings were able to provide energy performance data, meaning that iconic buildings by Foster, Piano et al are published without the evidence to support their 'intelligent' claims. Of those that did provide data, it is evident that the figures needed further normalisation for comparisons to be meaningful.

Without supporting data, the whole subject of Intelligent Buildings remains aspirational at best and misleading at worst. Perhaps the lesson of these two books is that intelligent building is a process, not a product.

RAB BENNETTS

This alien-looking water tower in Oregon, Ohio is just one of the photographs by Bernd and Hilla Becher, in *Basic Forms of Industrial Buildings*, London, Thames & Hudson, 2005, £19.95. The slightly prosaic title matches the calm, enquiring gaze of the Bechers' lens that transmutes the structures of heavy industry, from grain elevators and gasometers, to lime kilns and blast furnaces, into monumental art objects.



STRAW POLL

BUILDING WITH STRAW

By Gernot Minke and Friedemann Mahlke. Basel: Birkhäuser. 2005. €39.50

How many of us must have larked around on haystacks as children and disturbed neatly stacked bales in order to make snug little houses? There is something very satisfying about building with bales, perhaps because the end result is so quickly achieved. However, there can be snags – as there always are with things that look simple – and one of the attractive qualities of this book is the frankness with which common problems and mistakes in straw building are discussed, not least errors made by the two authors themselves, both architects and lecturers at the Department of Architecture at Kassel University.

The book begins with a brief history of straw bale building, followed by a chapter on the basics of straw as a building material. The construction of walls, roofs and floors is fully described, with many alternatives clearly illustrated by line drawings and sequential photographs to explain the building process. Internal and external wall finishes are also covered in detail, mostly lime- and earth-based plasters. Whether one is a builder or an architect, all the salient facts seem to be here, and to conclude the book, there is a collection of case studies from around the world, including a few about buildings that didn't work. The range of examples is well chosen – geographically (from Australia to Russia, with many from the USA and Germany/Austria en route) and stylistically (from wood-butcher/Steiner to the cool rational). Some disguise the use of straw bale completely (so you wonder why it was used), others positively revel in the plastic qualities offered by bendy straw bales covered with lime or earth render.

The only hesitation I have is a general one about books written in English for a global readership but by non-English authors. Technical words and phrases are sometimes idiosyncratic to the point of being misleading, even incorrect. The short chapter about cost, insurance and planning permission hardly does justice to these issues, which must differ from country to country. But this quibble apart, the book is a concise and useful introduction to straw bale building wherever you are.

ADAM VOELCKER

CRITICS' CHOICE

10 x 10_2

London and New York: Phaidon. £45

In December 2000 I wrote here that 'scarcely anyone will buy' Phaidon's first *10 x 10*, an expensive, heavyweight, glossy compilation of 100 recent projects chosen by 10 critics, and I have to admit that I was wrong. That first volume has now appeared in paperback and has been translated into French and German, and those buying it have been, apparently, mainly non-architects; furthermore, its success encouraged Phaidon to bring out their stupendous *Atlas of Contemporary World Architecture*, which will eventually prove invaluable to architectural historians. What the publishers have thus twice demonstrated is that lively and professional presentation of contemporary architecture can be as appealing to a broad audience as are other,

more easily digested, branches of design. This second volume is a great deal better than the first. For one thing, the designer, Julia Hasting, has abandoned her irritatingly tiny vertical captions to the photographs and sobered up the format so that the great photographic displays, four pages per architect, are more easily legible. But more significantly, the anonymous editors have chosen a happier band of critics; it is interesting to note that one of these, Deyan Sudjic, was himself critical of the original volume, and both he and Alberto Campo Baeza seem to have taken the approach of choosing a broad range of work and explaining it clearly to a lay audience. This generosity pays off, for in general the work shown is of higher quality, too: much will be familiar to readers of the AR, and quite a lot testifies to the international appeal of the blobby stuff done at the AA at the moment, but there is also evidence that young architects everywhere – I estimate the average age here at around 45 – are finally developing a coherent new language for good ordinary buildings, the one goal that has too often eluded Modernism since the 1970s.

TIMOTHY BRITTAIN-CATLIN

GOING GREEN

THE ECO-DESIGN HANDBOOK

By Alastair Fuad-Luke. London: Thames & Hudson. 2005. £16.95

The second edition of *The Eco-Design Handbook* is a source book containing a broad spectrum of over 570 environmentally favourable products. The book is primarily related to product design, with additional chapters on transport, buildings, energy production and materials. The introduction gives an overview of the environmental design movement, culminating in a well thought out manifesto highlighting considerations for eco-aware designers. The book's three main themes: objects for living, objects for working, and materials are broken down into easy accessible chapters such as furniture, lighting, electronics. Each product has a short description and a small chart listing the designer, the manufacturer, materials used and the environmental benefits of the design. Most have photographs.

For a design to be included in the book it has to have filled one or more environmental criteria, including recyclability, sustainable and reduced material use and low energy consumption. A few items have been added due to their health and safety or ergonomic properties, for instance, Mimid, a land mine detector.

There are some truly innovative environmental concepts. These include the Compostable Keyboard, designed for disassembly using moulded fibrous pulp from carrots, spinach and celery bound with cornstarch for the keys. An 80 per cent reduction in materials compared to conventional design is achieved in the SL-Torch by putting the housing that holds the bulb onto the top of a battery, making the battery into a handle. Shigeru Ban's cardboard furniture is a good example of elevating the aesthetic value of a humble recyclable material into a highly desirable form. Drive On is an ingenuous prototype that generates electricity by traffic passing over pads, just proud of the road surface, and pushing a piston that drives a mini generator.

A few of the products have environmental qualities post-attributed to them, for instance, Cini Boeri and Tomu Katayanagi's Ghost chair. It is true that being manufactured from a single material increases ease of recycling, though there is little evidence to suggest that recyclability was a design consideration.

The book's easy accessibility and breadth of content will appeal to people working in many areas of design who are looking for either inspiration or eco-friendly specification.

PELHAM DAVEY



The Colorium in Dusseldorf, by Alsop Architects, a speculative office tower clad in a technicolour skin. One of the more decorative examples from *Skyscrapers Structure and Design* by Matthew Wells, London, Laurence King, 2005, £30. Wells, a talented structural engineer, looks at the historical quest to build high, which began with the Pharos of Alexandria, and how this still exercises the imagination of architects and engineers, through 29 case studies.

THE POLITICS OF PAN AM

THE PAN AM BUILDING AND THE SHATTERING OF THE MODERNIST DREAM

By Meredith Clausen. London: MIT Press. 2005. £29.95

In the early 1960s my father, a construction worker, would come home from work complaining about a moral quandary. He was making good money working on a building that he felt would diminish midtown New York. As a teenager, I knew little about what he was referring to. With the publication of Clausen's book about the Pan Am Building, now I do. As Clausen points out, it was a building few wanted yet was built: the triumph of unalloyed capitalism over the Modernist ideals of rationality and functionalism.

Clausen's discussion covers much in a clear, readable way: the history of Grand Central Station and the suggestions for its redevelopment, and the role of architects, developers, engineers, and clients who were instrumental in realising the Pan Am Building. Clausen covers the politics of the development process, the rise of Emery Roth, the role of Walter Gropius and Pietro Belluschi and the effects the final design had on their careers, the unique and difficult engineering and construction efforts that made the building possible and a detailed discussion of the final design and building itself.

Most critically, we learn about the political manoeuvering and manipulation crucial to the development process and the angry and anguished debate among architects and critics about the social, cultural and aesthetic advisability of such a large, imposing structure. These debates dealt broadly with everything from the social impacts of the design, the responsibilities of designers, the dangers of allowing market considerations to define the urban landscape, to discussions of the overall effect the building would have practically, formally and aesthetically. What a difference from today's debates about such projects as Ground Zero in New York where the discourse revolves around either puff pieces about the celebrity designers or politicians involved in the process, gossip about their infighting, or debates about formal and aesthetic issues alone.

Read Clausen to discover what architectural debates can and should address. But also read this excellent book because it is a most engaging informative narrative about how important projects, for better or for worse, come to fruition.

EDWARD ROBBINS

Book reviews from 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.

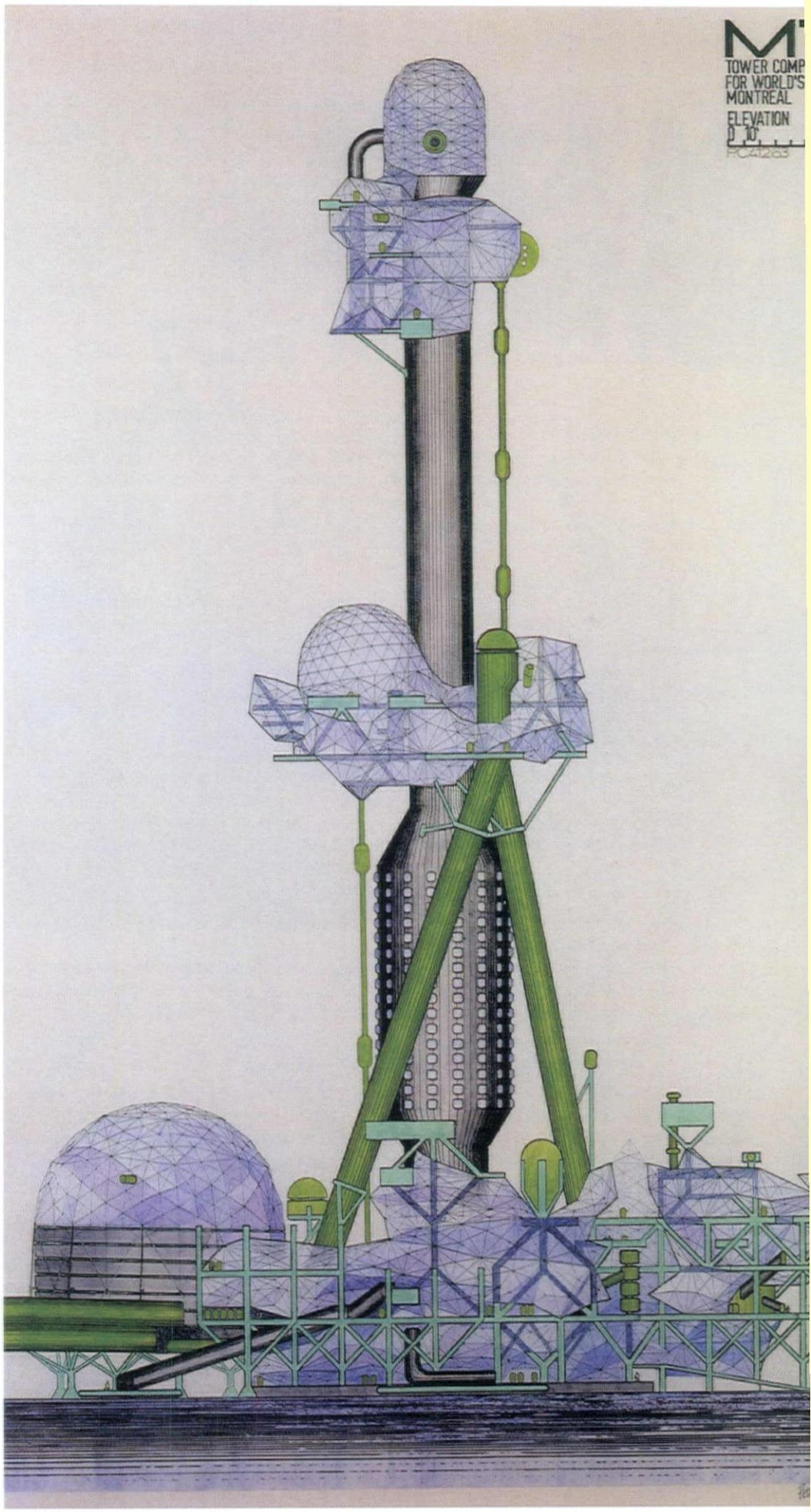
reviews

MONTREAL THINKS BIG

Compared with dowdy London in the 1960s or decaying New York, Montreal provided a vision of urban reconstruction inspired largely by CIAM principles. Currently showing at the Canadian Centre for Architecture, *The '60s: Montreal Thinks Big* argues that the central planning of highways, housing, parks and a new metro system brought architecture and engineering together in a way that clearly recalls *La Ville Radieuse*. Many ideas had their roots in the radical teaching of visionaries such as Peter Collins in the architecture and planning school at McGill University. And the often provocative agendas of students such as Moshe Safdie and practice professors such as John Bland found their way into Expo '67 and its aftermath. Accompanied by a book of the same name edited by the exhibition curator Andre Lortie, the exhibition presents fresh interpretations of this perhaps most difficult decade of twentieth-century architecture in North America.

The resolution of the tension between private gain and public investment is the first of six themes explored. Here, partnership was the order of the day generated by the sense that if private developers worked with the metropolitan authority, then benefits would flow to all stakeholders, especially the rising middle classes drawn to Montreal by expanding financial and educational institutions. From small beginnings the city expanded upwards and outwards. Big projects (second theme) were the result, such as Place Bonaventure designed by Ray Affleck and his team, whose massive scale and ambitious network of underground malls helped make Montreal one of the great metropolises of the Western world. Bigger projects were to follow, drawing in international talent such as Mies (at Westmont Square) and Nervi (at the Montreal Stock Exchange). The exhibition charts these projects from early sketch designs to development models and photographs of the final buildings. What is refreshing is the presence of so many drawings and models which show the process of designing and anticipating urban change; drawings which are pre-CAD and hence revealing in their graphic honesty.

The third theme explores the concept of standardisation. Prefabrication allows the ideas



Laboratory of ideas – Peter Cook's extraordinary drawing of a tower for the 1967 Montreal Expo.

of Safdie and Habitat '67 to enter into larger narratives. Here student projects – not least a wonderful ink and tracing paper drawing by Peter Cook (from his Archigram days) of a tower complex design for the Montreal Expo – bring a challenging edge to some of the corporate landscapes on show. Montreal was seen as a laboratory where ideas were to be tested and ultimately built.

Unusually, the exhibition also celebrates the making of urban highways. Architects were extensively involved in the design of the new freeways which criss-crossed downtown Montreal. Perspectives show these strivings for the ultimate urban freeway, which both characterised (and condemned) the age. Now such structures stand spalling, their serpentine lines spoiled by graffiti, but in their day they were objects worthy of the attention of Montreal's young architects.

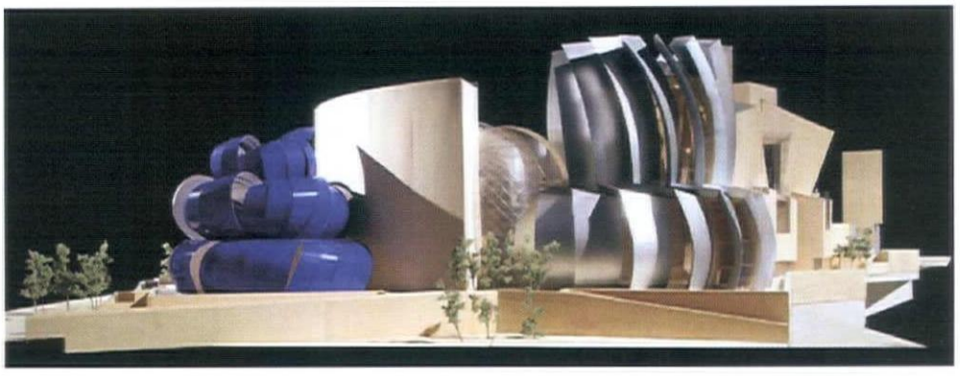
In tandem with the building of urban freeways there was a huge investment in the construction of the Montreal subway. With a scale at times not unlike the Moscow metro, new stations were integrated with massive developments above ground and a network of shopping malls below. Stations tended to be designed by the architects who left their mark above ground, giving a coherence not evident in most metro systems. The exhibition shows how the system of subterranean malls was planned using a coalition of public and private agencies.

The final theme is Expo '67, which is explored here with the attention to detail characteristic of cultural historians. The collection of Expo memorabilia among models, drawings and photographs of the last of the great World's Fairs recalls the optimism of Montreal in the '60s. There are views of Buckminster Fuller's geodesic dome, Frei Otto's tents and Basil Spence's fortress-like pavilion taken from the monorail which transported people around the Expo island site. This was society in motion, a vision of art and technology to which the whole of Montreal aspired.

Compared with the majority of North American cities, Montreal has much to teach Europe. The exhibition ends on the theme of 'Learning from Montreal' which can be seen as a riposte perhaps to Venturi's *Learning from Las Vegas*. If evidence is needed that Canada and the USA have quite different urban cultures in spite of superficial similarities, this exhibition provides both the material and the arguments. The '60s may be discredited today, but much social and economic capital was laid down in this heady decade.

BRIAN EDWARDS

At the Canadian Centre for Architecture until 11 September
www.cca.qc.ca



Model of Frank Gehry's controversial Museum of Tolerance due to be built in Jerusalem.

DEFINING JEWISH IDENTITY

Is there a definable Jewish identity in contemporary architecture? If so, is it as authentic when the architect is neither an Israeli, nor Jewish by faith? The German and Dutch art historians, publisher and rabbi, Angeli Sachs and Edward van Voolen, have assembled 26 projects by 12 architects in their exhibition 'Jewish Identity in Contemporary Architecture', originally showing at the Jewish Museum in Berlin and now travelling around Europe. Projects by Mario Botta, Ralph Appelbaum, Will Bruder, Frank Gehry, Claus en Kaan, Zvi Hecker, Adolf Krischanitz, Daniel Libeskind, Al Mansfeld, Moshe Safdie, Wandel Hoefer Lorch and Hirsch, and Mehrdad Yazdani, help visitors come to their own conclusions. On reviewing the assemblage, you might also wonder if all Jewish buildings, schools, museums, or community centres, have to camouflage themselves and fortify themselves with masonry and electronic surveillance. Sixty years after the capitulation of Nazi Germany the answer is, unfortunately, yes. A short walk away from Daniel Libeskind's Berlin Jewish Museum, which is itself featured in the exhibition, Peter Eisenman's recently completed Memorial for the Jewish Holocaust victims underlines this modern day reality.

Whatever their faiths or nationalities, all the architects have made use of one, or more, historical Jewish architectural elements. The tent of the Tabernacle, symbol for a nomadic culture, appears as a chain mail curtain around an inner sacred place in Dresden's synagogue. A token gesture to the massive walls of the Temple in Jerusalem, of which the Western Wall is the last vestige, appears on the entrance steps of Akiba Academy kindergarten, Los Angeles. When honey coloured Jerusalem stone is not available it is replaced by the equally substantial fair-faced concrete of Zvi Hecker's 'snakes and ladders' elementary school in Berlin (AR June 1996), or to construct the minimalist boxes of Adolf Krischanitz's Lauder Chabad and New World schools in Vienna. The wish to assimilate, in order not to attract unwelcome attention, is also evident in the use of Krischanitz's earth-coloured facades which disappear into the landscape. For the 'people of the Book' buildings unfold and tell stories, like the five pages of Hecker's Duisburg community centre (AR March 2000) which can also be read as the five books of the Torah, or five fingers of an open hand. Mario Botta shaped the ceiling of the Cymbalista synagogue like a wedding canopy and conjures up Solomon's Temple in two red Dolomite stone drum towers. Catacombs and labyrinths are journeys through a dangerous history with light at the end of a tunnel, most dramatically staged in Moshe Safdie's Yad Vashem Holocaust Museum, where the visitor is led to the brink of a cliff to view the Promised Land.

The unique wooden synagogues of Belarus, destroyed by arsonists during pogroms, inspired Frank Lloyd Wright, while the Prague and Krakow synagogues, of 1270 and 1407, used the camouflage of Christian churches in a vain attempt to disappear into the European mainstream. Even today, Will Bruder's Kol Ami worship and learning centre in Scottsdale, Arizona (AR November 1997) is a walled installation, a 'habitation in the desert' equally suitable for Israel today or the biblical Jews fleeing Egypt. The besieged mentality haunts many of these projects but attack can also come from within. Frank Gehry's Museum of Tolerance, for the Wiesenthal Center in Jerusalem, has become a source of conflict and intolerance in Israel because of its price ($150 million), its design, which is considered by some to have too much 'Bilbao effect', and its site in the 3000 year old city. In the exhibition guest book a visitor anonymously wrote, 'Don't let Frank Gehry build his intolerable museum in Jerusalem'. Another visitor demanded in German, 'Less symbolism, more architecture'. Given the history, is that possible? LAYLA DAWSON

Jewish Identity in Contemporary Architecture
22 June - 4 September 2005, Jewish Museum, Vienna
4 November 2005 - 5 February 2006, City Museum, Munich
16 April - 18 June 2006, Ben Uri Gallery, Jewish Museum, London

reviews

browser

Revenge of the Suth – Sutherland Lyall straps on his trusty light sabre in the pursuit of truth and justice in the cyber universe.

Images of England

Images of England's website says that it is a unique site. But not necessarily so. There is the oddly named View Buildings at *www.viewbuildings.com/app* which gives the lie to this. This site claims that only around 20 per cent of the work of EH's Images has been completed. So far View Buildings has field worked around a quarter of England although there isn't a real timetable for the rest. This project seems to be the responsibility of John Vigar, tour guide, lecturer and chief honcho of the Historical Appreciation Society. And it seems to be connected with, maybe even part of, the Digital Atlas of England at *www.digiatlas.net* whose aim is to produce a detailed digital photographic record of every pre-1900 building of architectural significance in England. One section of the site is devoted to a county-by-county study of which churches are not locked up and are viewable. Apparently a lot of churchwardens and vicars tell porkies about their churches being locked. And then there is Looking at Buildings at *www.lookingatbuildings.org.uk* which is being developed by the Pevsner Architectural Guides. I know we are supposed to provide readers with elucidations and clarity but all I can suggest is that you try them all, except that the English Heritage thing is not yet on line and the others will take years to complete. Maybe they should all get together and get it all done quite soon. Still, you may well say that the buildings have waited all this time, what's your big hurry now?

The light at the end

I usually grope for a useful answer when people ask for the name of a website designer they could hire. I tend to vaguely suggest Tomato Interactive co-founder, Joel Baumann, *http://www.tomato.co.uk/*. It's vaguely because he only does projects he is interested in, charges more than cheapskate rates, and is probably a tad too innovative for straight business sites. And he is anyway settled as new media prof at Kassel University in Germany. Then there is Matthew Jones doing a year out at *www.lts.co.uk* whose site he designed in exemplary fashion. But he will surely soon be lost to studenthood for the duration of his diploma. Yet there is hope in the form of bitedigital at *www.bitedigital.com*. I found the site via the very neat website the practice had designed for ACQ Architects, at *www.acq-architects.com*, which is restrained, fast, informative and unburdened with long useless texts. These are the characteristics of most of bitedesign's other site designs which are mostly all of the above and a pleasure to look at. Clients include the photographers Peter Cook, Niall McDiarmid and George Kavanagh. There are music people, artists, corporations, craftspeople as well as architects. Don't say I sent you but take a look at its work. Needless to say no inducements have been offered or received.

Eva the diva or little girl lost?

Bitedigital also did Eva Jiricna's site at *www.ejal.com*. The home page has a drawing of a steeply peaked and warped gridshell dome so, if you didn't know already, you have a pretty good clue to where this practice is coming from. On the next page which is the Selected Projects page, you, of course, click on About Eva Jiricna from the short section list over on the top right. Up comes an uncharacteristic, almost dopey mugshot of this immensely cool architect with a lot of plain CV-style text on the side. This is Jiricna at home in a grey T shirt – which, I suppose, sort of goes with the sparse and simple language, layout and organisation of the website – and the austerely wonderful quality of her design. Whatever, the selected projects zap up on your screen in a flash, they have admirably brief explanations and they are all so good that you want more. But that mugshot. Really. Oh, and its and it's need tidying up.



Get the nav-strip back

We don't often look at studenty websites, Matthew Jones always excepted and his is a grown up case. So it was with some trepidation that I took a look at the portfolio site of Wisconsin-Milwaukee university student Jonathan Goldstein at *www.uwm.edu/~jwg*. It is an interesting site because it contains the sort of extremely clever and imaginative design you expect from students these days all drawn immaculately. But navigation here is a bitch because Goldstein does away with menus across the top for all but the home page. And he has forgotten to provide a way out. Crime three in the web designer's blue book after non-adjustable text size and slowness is forgetting to have a Back button. Navigation to a page is partly by clicking on a heading but for the interesting bits, the designs, you are presented by a grid five boxes wide by eight deep. Click on various ways of organising the hidden material (erm, something odd there) and different groups of boxes are highlighted in several shades of blue. Naturally you hit on one which hasn't been highlighted and up comes a big explanatory doodle. Confused? Yup. OK, let's move on. You can hide the translucent navigation strip at the left. But when you do, you have to guess how to get it back again. Stop, you command, is all this not just nitpicking? You bet it is. Because if the navigation of a site is at all obscure, as this is, nobody except your mum is going to look at the images however good they are.

Sutherland Lyall is at sutherland.lyall@btinternet.com

letters

ARCHITECTURE AND TECHNOLOGY

SIR: I am always interested to read what Colin Davies, who knows something about architecture and technology, has to say about my work (AR May 2005, p94). However, when he writes that I am 'dazzled by big names', I have to correct him.

I do believe that what both Foster and Gehry are doing with computer-based production methods does have far reaching implications for architects and the construction industry generally, though in my view the stress in Foster's work on low-energy design makes it far more relevant to 'the future of the planet'. Should there be any doubt about my position, however, I recommend Davies, and anyone else, to read the concluding passages in the introduction I wrote to *Volume 4* of the Prestel monographs on Foster – to which, incidentally, Davies also contributed some essays – much of which is focused on the practice's work in Germany:

'While leading designers have never been more diverse or artistically creative, their impact on the great mass of building around the world, most of which is carried out without any significant participation by professionals, is negligible ... the hard truth is that architects alone, no matter how committed or technologically well equipped, will change little. The real lesson to be drawn from Germany is that political will, backed by social consensus and codified in the form



Architecture and technology – Foster's green giant, St Mary Axe, London. Photograph: Nick Guttridge/VIEW.

of regulations that positively encourage sustainable design, is essential to the wider growth of work such as Foster's.'
Yours etc
CHRIS ABEL
Sydney, Australia

GEOGRAPHY LESSON

SIR: My name is Inês Martins, and I'd like to say that in your last maganize, there is a mistake about the ARX PORTUGAL blood bank project (p74), Coimbra is a Portuguese city, not Spanish. Portugal is an independent country since 1640, Portugal and Spain, two independent countries form the Iberic peninsula.
Thanks for your attention.
Yours etc
INÊS MARTINS
São Paulo, Brazil

AP TO UTP

SIR: I refer to the article by Peter Blundell Jones in your excellent March issue.

I would like to make clear that the Hastings and Regan families did not sell the Architectural Press to Maxwell in 1987. We sold it to United Trade Press. It was they who unfortunately sold it later to Maxwell Communications.

In the mid-'80s the families found the business no longer tenable and with great sadness were forced to sell. It was not because they 'lost interest'.

I would like to congratulate Peter Davey on his long and successful tenure of the editorship of The Architectural Review and wish him well for the future.
Yours etc
SUSAN HETHERINGTON (nee Regan)
Bath, UK

OUTRAGEOUS DEMAGOGUERY

SIR: I have to complain about the publication of Jan Kaplicky's letter in the April issue of AR. He is not only unfair but outrageously demagogic. I do not need to defend Peter Davey. His contribution to our understanding of architecture as human endeavour for the betterment of our living environment is enormous and will remain a great testimony for time to come. I hope he will still write for the AR to the delight of his faithful readers. I wish him all the best.
Yours etc
ADAM MILCZYNSKI KAAS
Pamplona, Spain

diary

AR'S CHOICE OF INTERNATIONAL EXHIBITIONS AND EVENTS

FINLAND
IN ANOTHER WORLD
Until 21 August
Kiasma, Helsinki
International and Finnish Outsider Art, exploring the edges of contemporary art and idiosyncratic art outside the mainstream. Replete with amazing handiwork, exuberant fantasy, intellectual insight, humour and social criticism.
www.kiasma.fi

FRANCE
ROBERT MALLET-STEVENS
Until 29 August
Pompidou Centre, Paris
Timely retrospective of one of France's leading Modernists whose death just at the end of the Second World War ended a fertile and varied career as an architect, furniture designer, decorator and teacher.
www.centrepompidou.fr

GERMANY
FREI OTTO – THE RECONCILIATION OF NATURE AND TECHNOLOGY
Until 28 August
Pinakothek der Moderne, Munich
Major show of the work of structural engineer Frei Otto, best known for his pioneering work with lightweight structures. The exhibition marks Otto's 80th birthday and his notions of environmental compatibility and resource conservation are still very relevant.
www.pinakothek-der-moderne.de

UNITED KINGDOM
WRIGHT TO GEHRY: DRAWINGS FROM THE COLLECTION OF BARBARA PINE
Until 27 August
Sir John Soane's Museum, London
Exhibition featuring original works by leading twentieth-century architects, drawn from one of the world's finest private collections. The focus is on concept and process drawings and includes work by Frank Lloyd Wright, Mies van der Rohe, Meier, Graves, Botta, Siza, Kahn and Gehry.
www.soane.org

UNITED STATES
GUNTHER DOMENIG: STRUCTURES THAT FIT MY NATURE
Until 26 June
MAK Center for Art and Architecture LA Schindler House, Los Angeles
Focuses on two key projects by the leading Austrian architect: the Steinhaus (Stone House), Domenig's home, and the prize-winning Nuremberg Documentation Centre completed in 2001, a historical archive that transforms Albert Speer's monumental Nazi coliseum into a memorial.
www.makcenter.org

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MILLAU BRIDGE JOINS THE LINEAGE OF AWESOME EUROPEAN VIADUCTS.

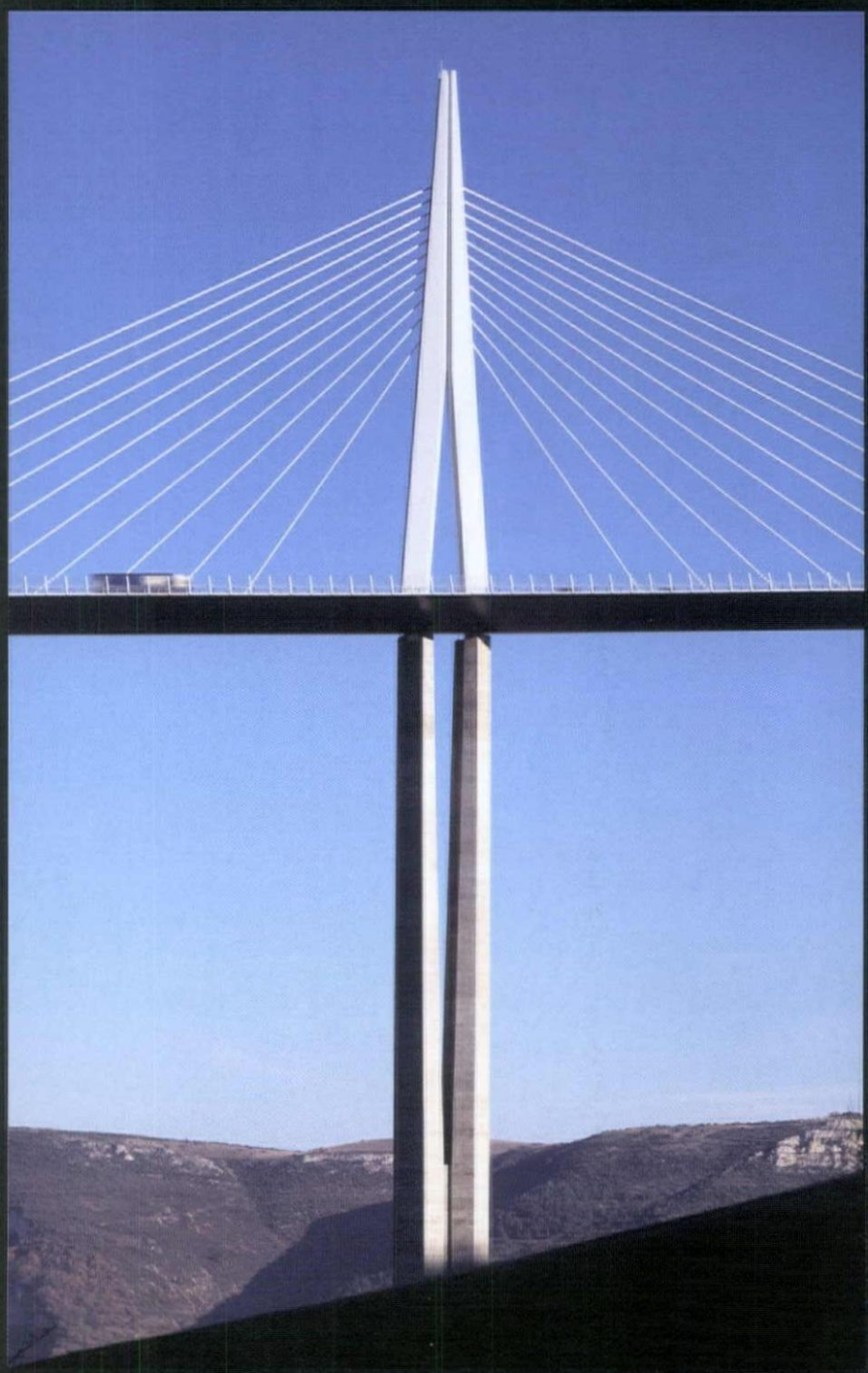
I remember very clearly the first time I saw a model of the Millau Viaduct. It was at the MIPIM property fair in Cannes four or five years ago, where there was a competition to guess the total length of the cables which, surprisingly, I won. It was, even as a model, incredibly impressive.

The six lane cable-stayed road viaduct sets a number of benchmarks. It is, for instance, the highest bridge in the world. The spans are an amazing 350m each and the maximum concrete pier height is 235m, with an additional 90m of steel mast above the isotropic steel box-girder deck. This deck is supported by an array of steel cables which fan out from the masts. Just to add to the superlatives, it is 2.5km long, curving across the Tarn Gorge on a new section of the A75, the route between Paris and Beziers in the south of France.

The viaduct is incredibly slender, the design an elegant combination of a brilliant engineering concept by Michel Virlogeux (the engineer who designed the amazing Pont de Normandie across the Seine at Le Havre) and inspired design by Foster and Partners, aided by a number of European engineering groups.

Construction was very complex. Among other advanced techniques, special tall temporary steel towers were erected between piers to assist in launching the road decks as cantilevers before connecting to one another. Millau is in the tradition of the great European viaducts by Robert Maillart and Christian Menn, but on an even larger scale. It is a triumph of modern technology and construction and an example of the best collaboration between engineering and architecture.

I'm visiting the south of France later this year and, though it will mean a detour from my usual route, it will be a thrill to see such an exciting example of engineering and architecture and then drive over it. TONY HUNT



Photographs: John MacLean/VIEW