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BUILDING WITH LIGHT

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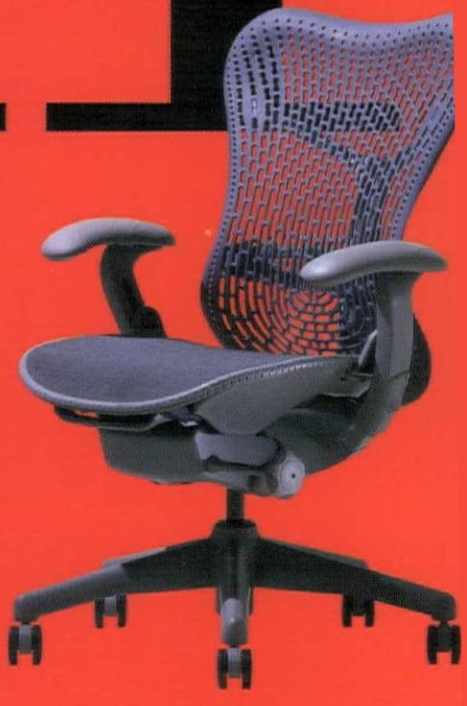
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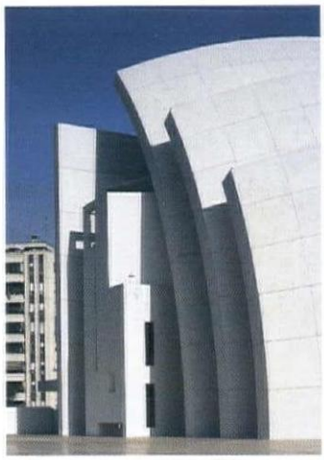
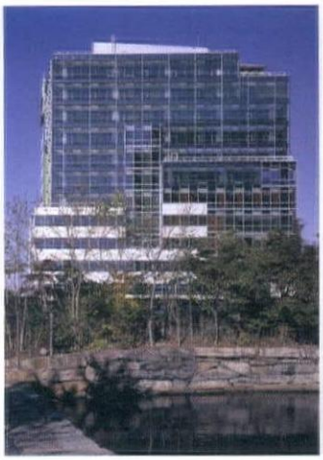
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Photograph: David Grandorge

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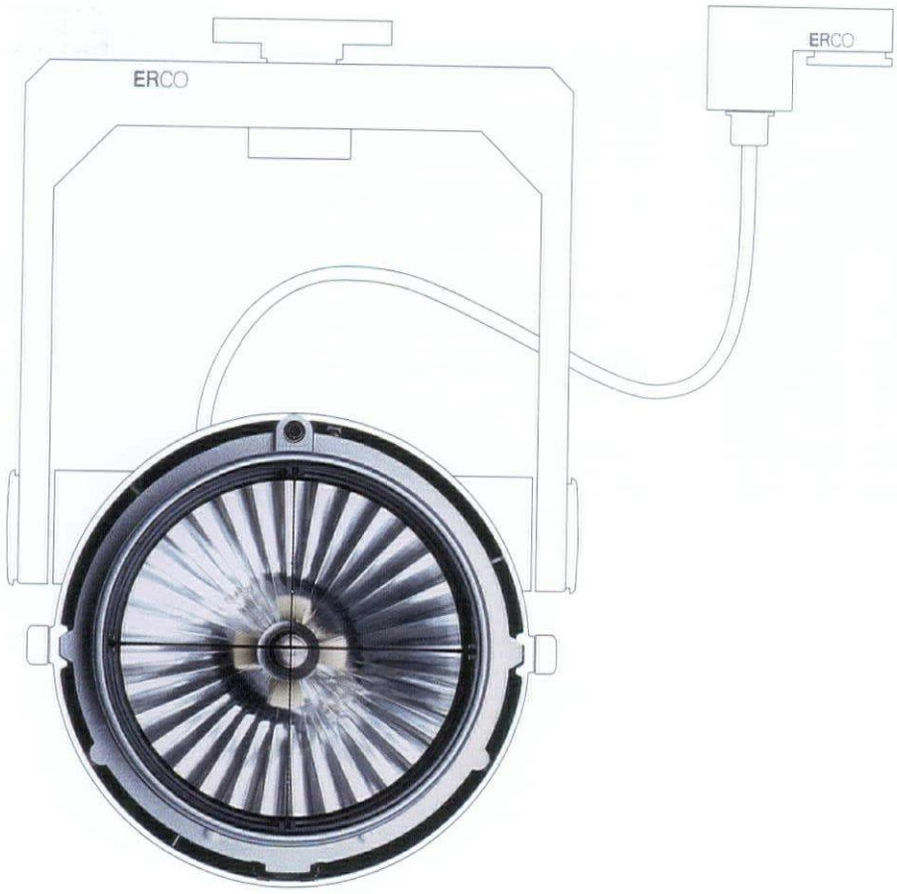
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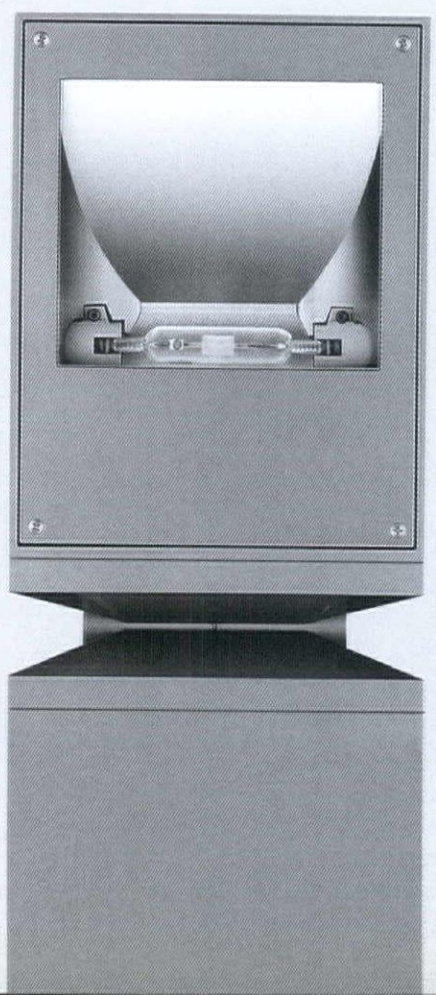








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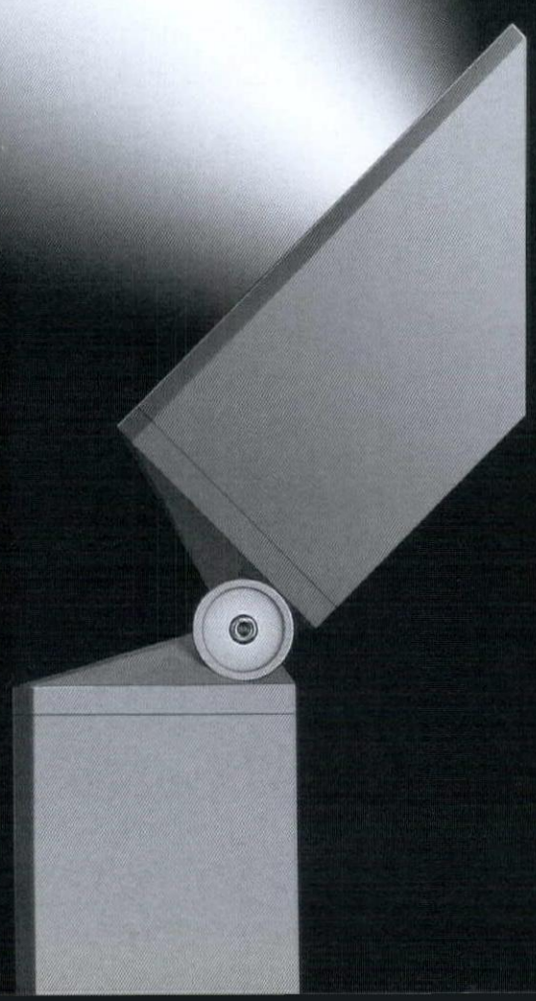


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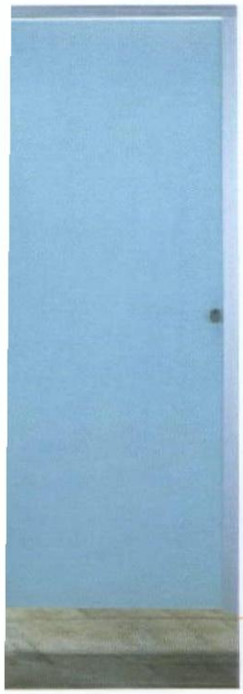




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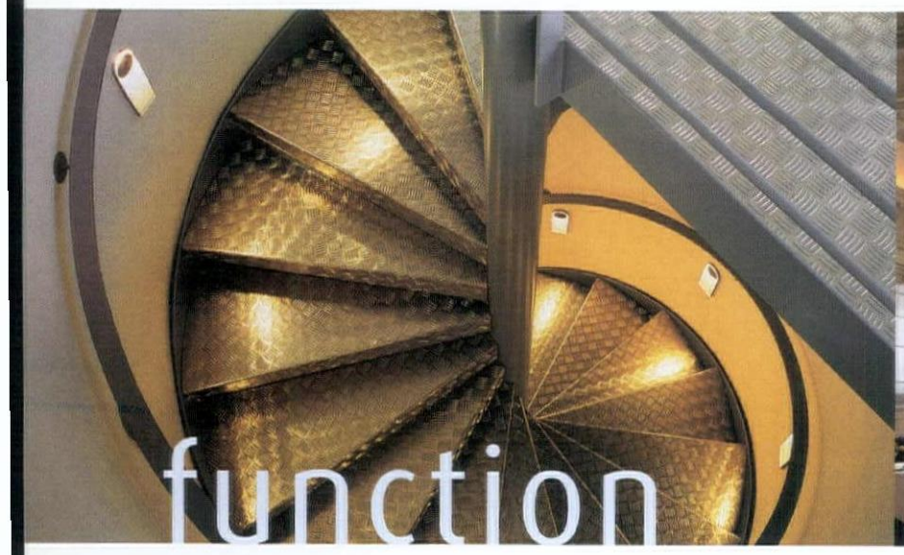


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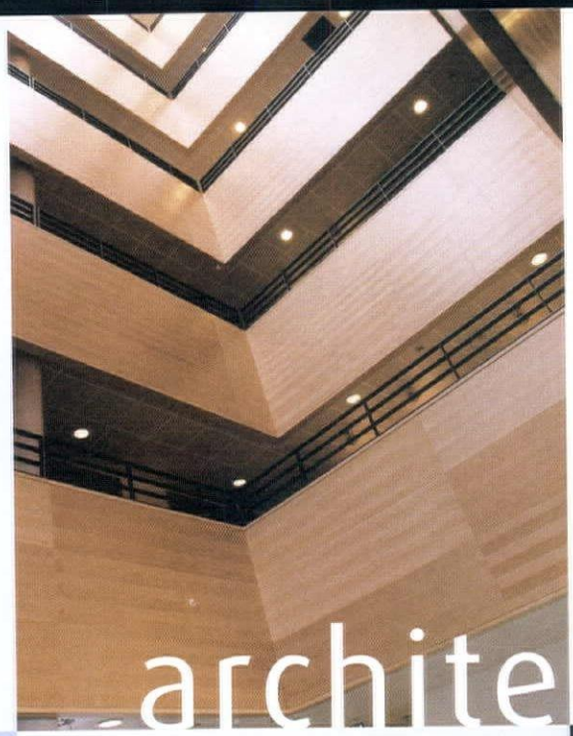
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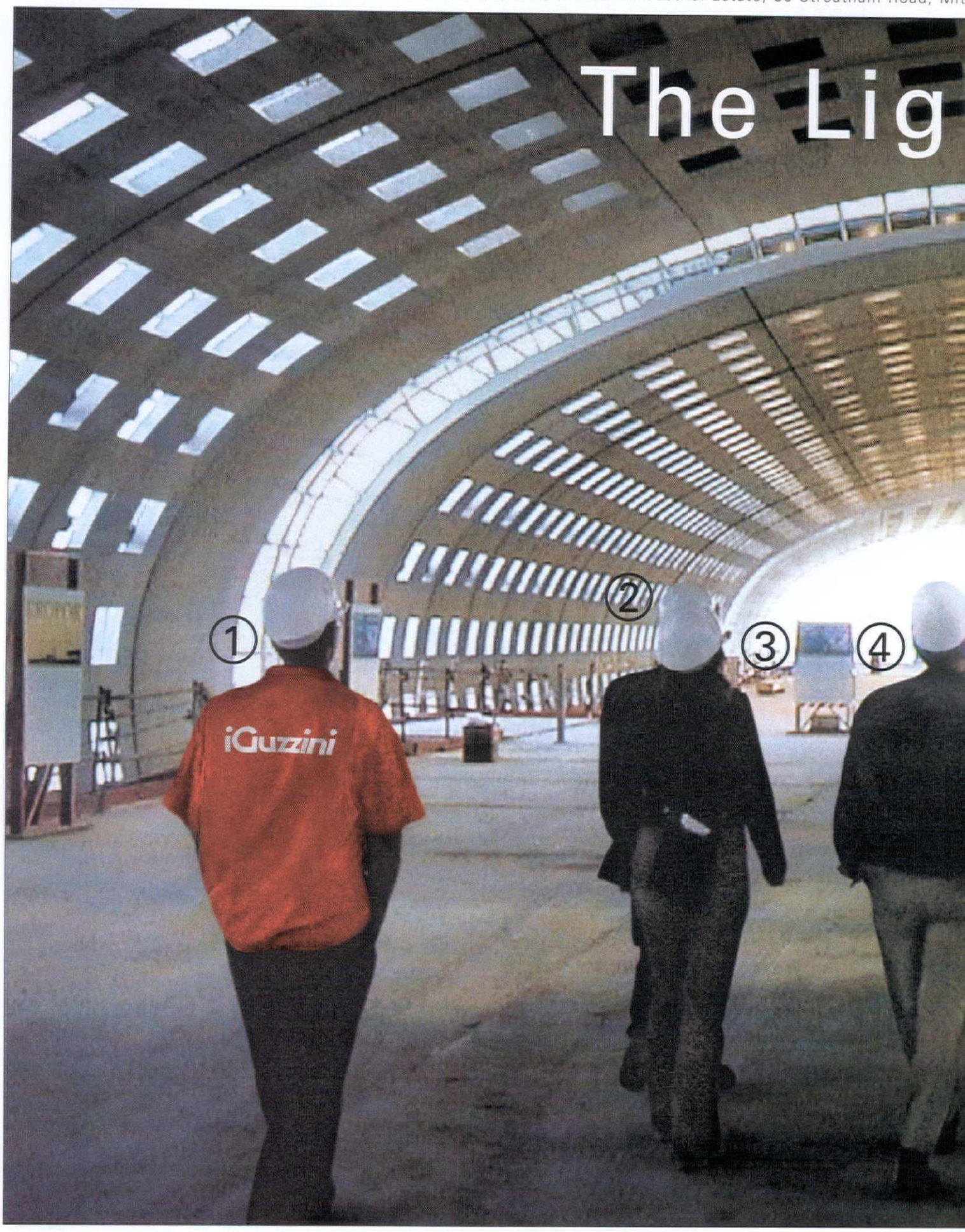
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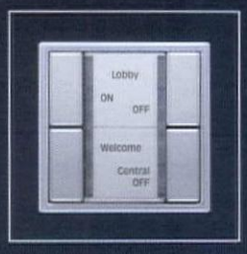
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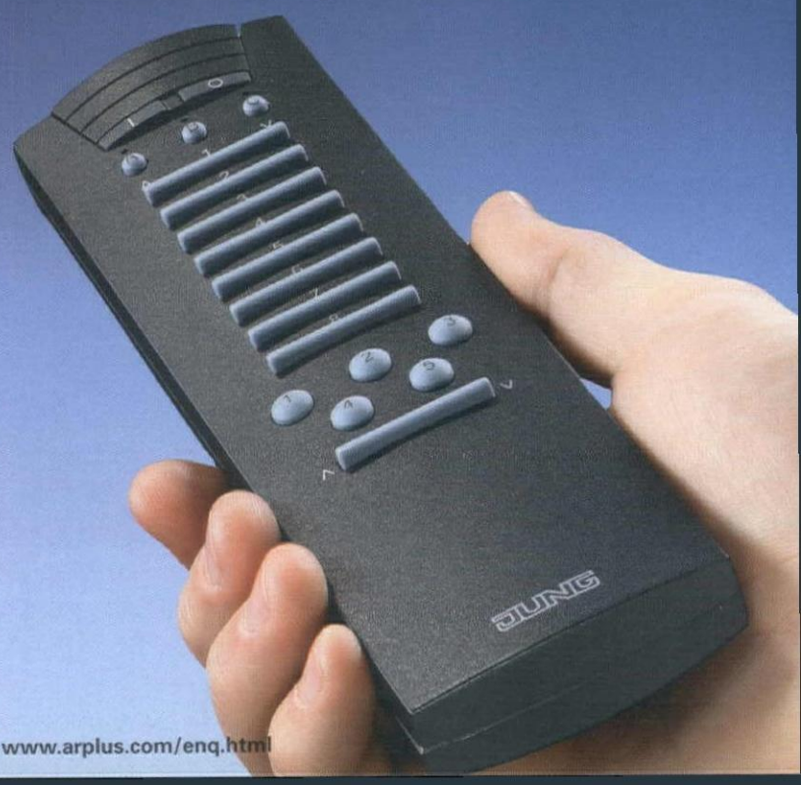






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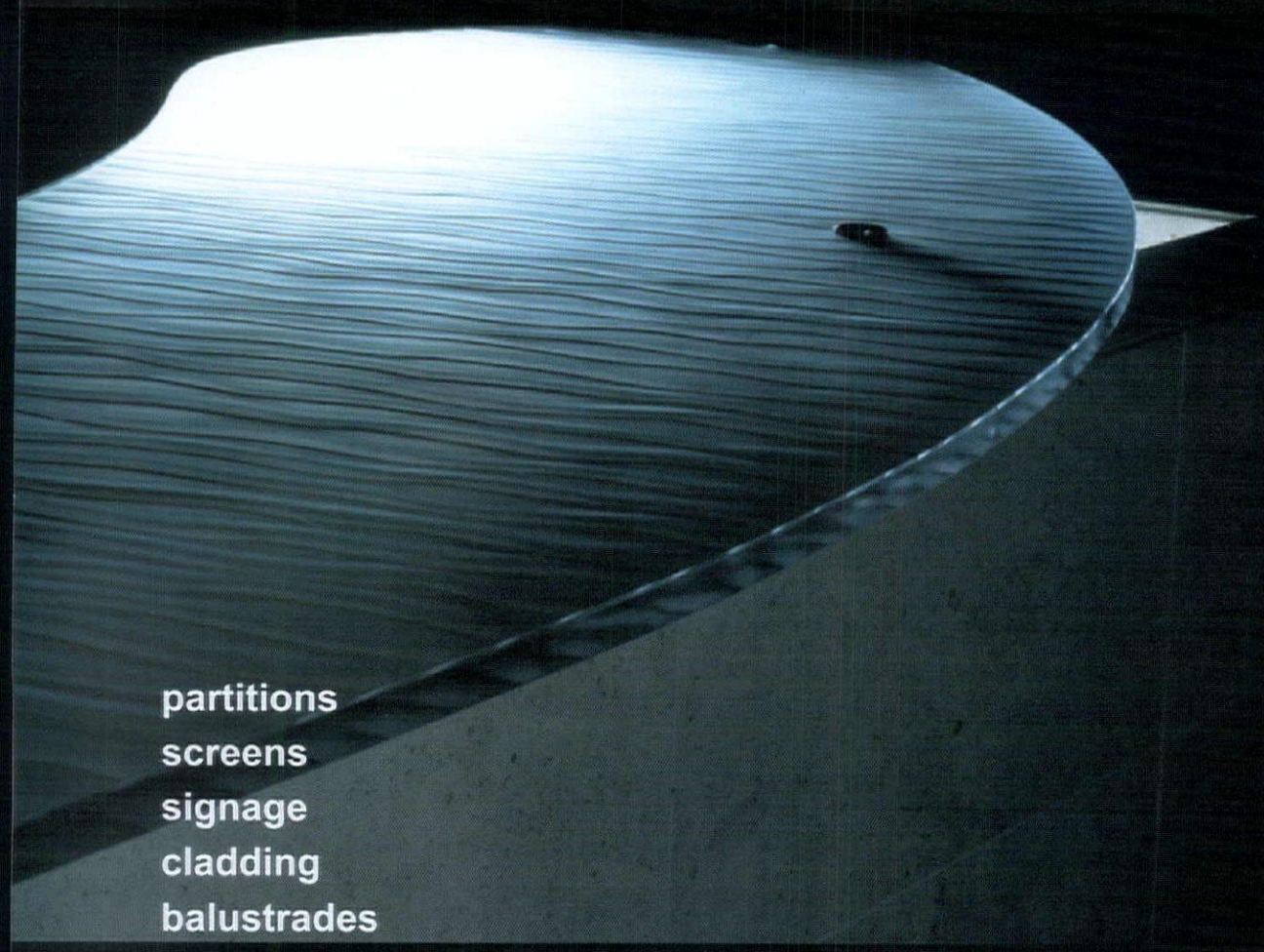
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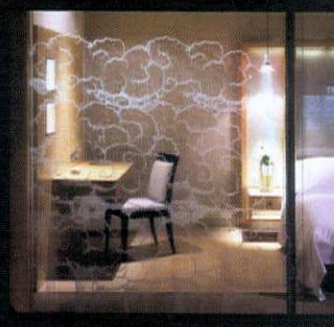
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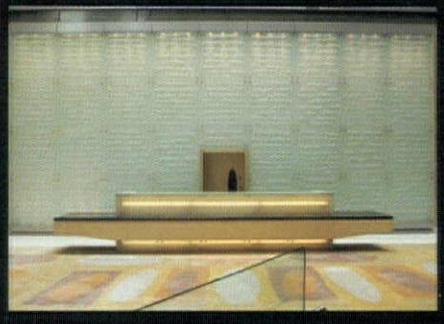






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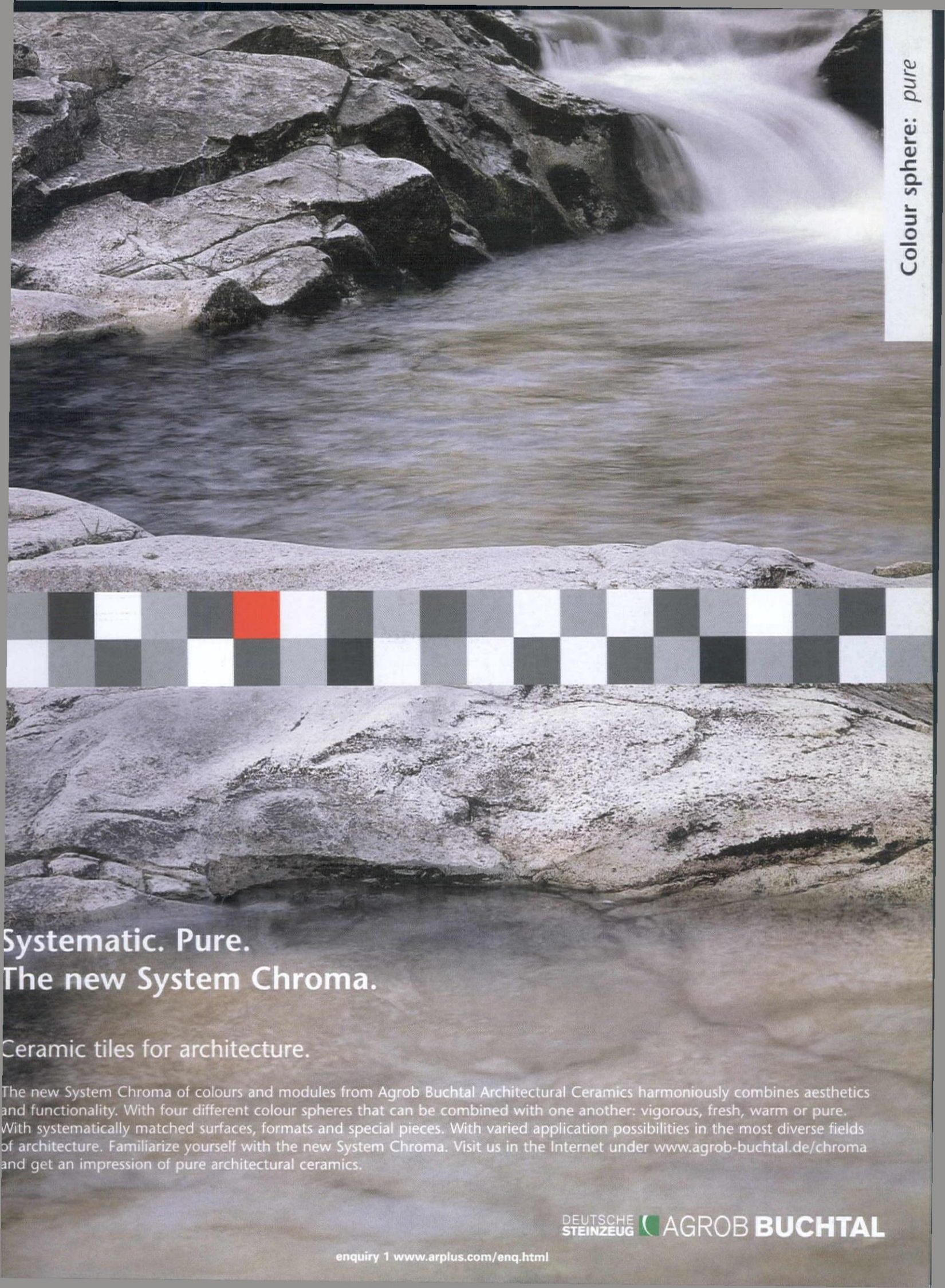
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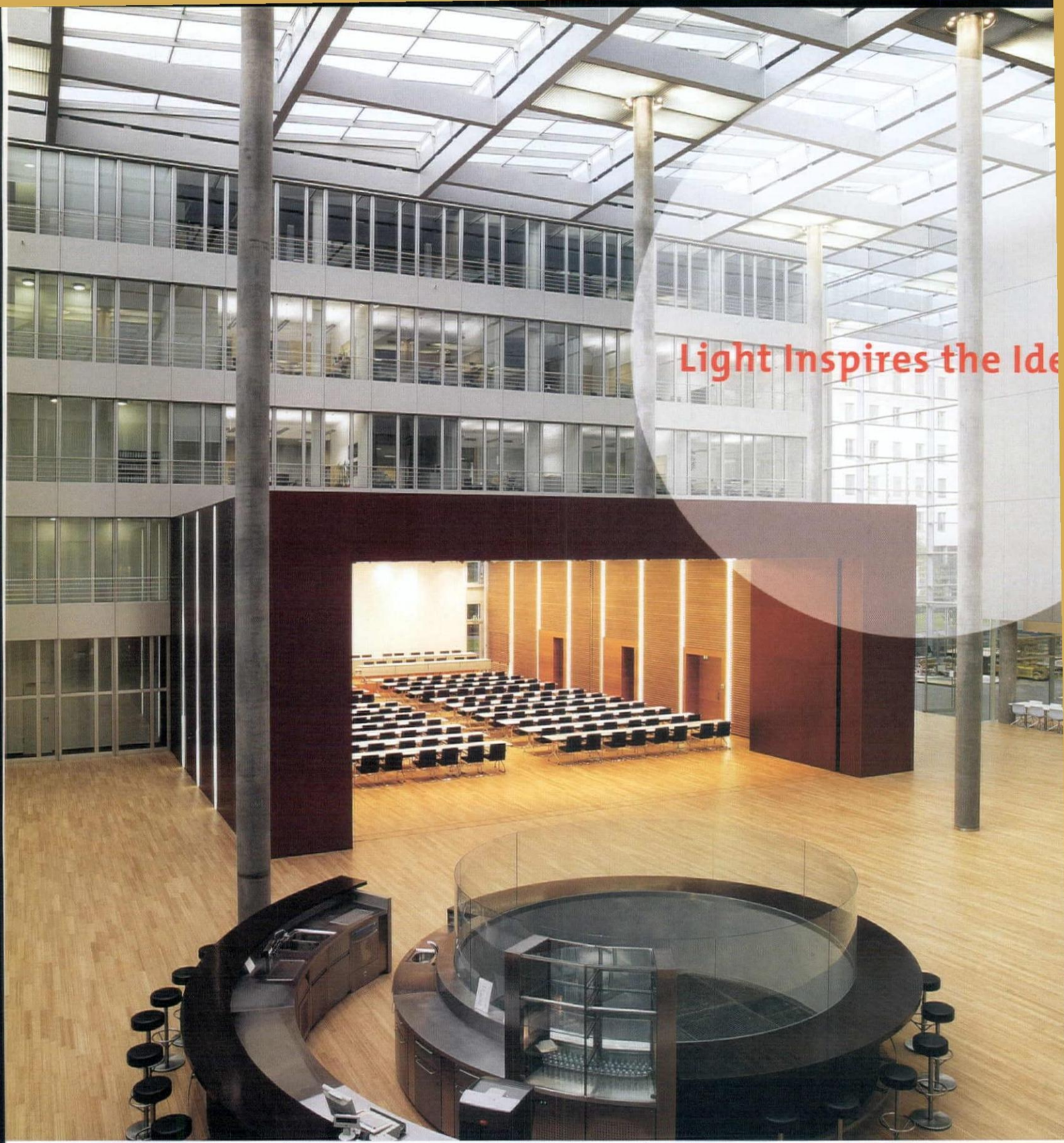


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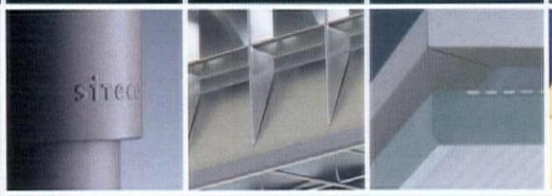
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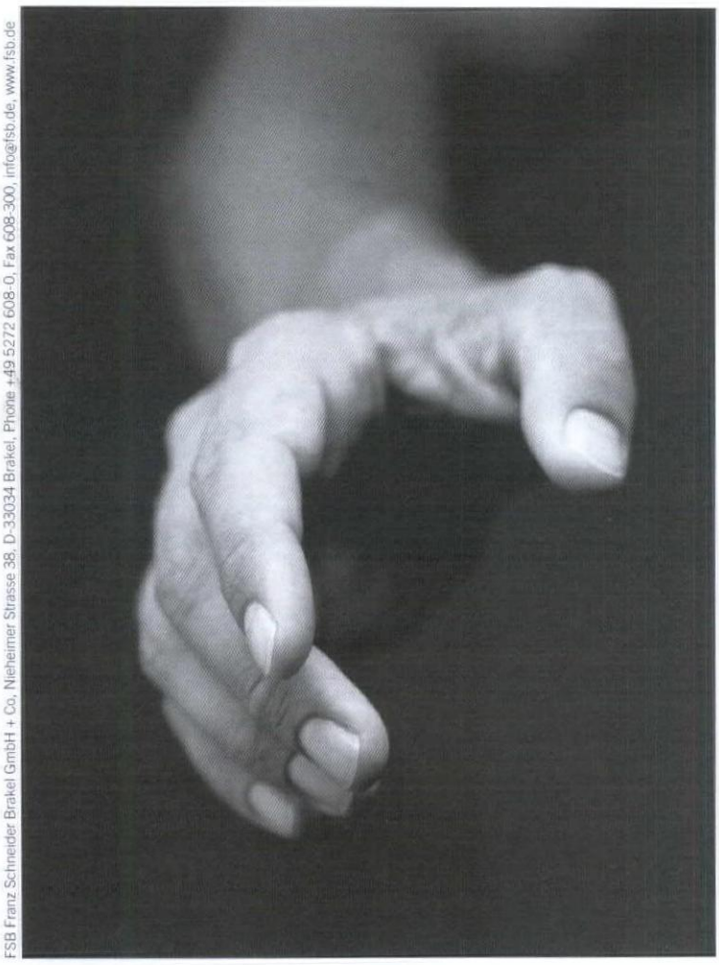
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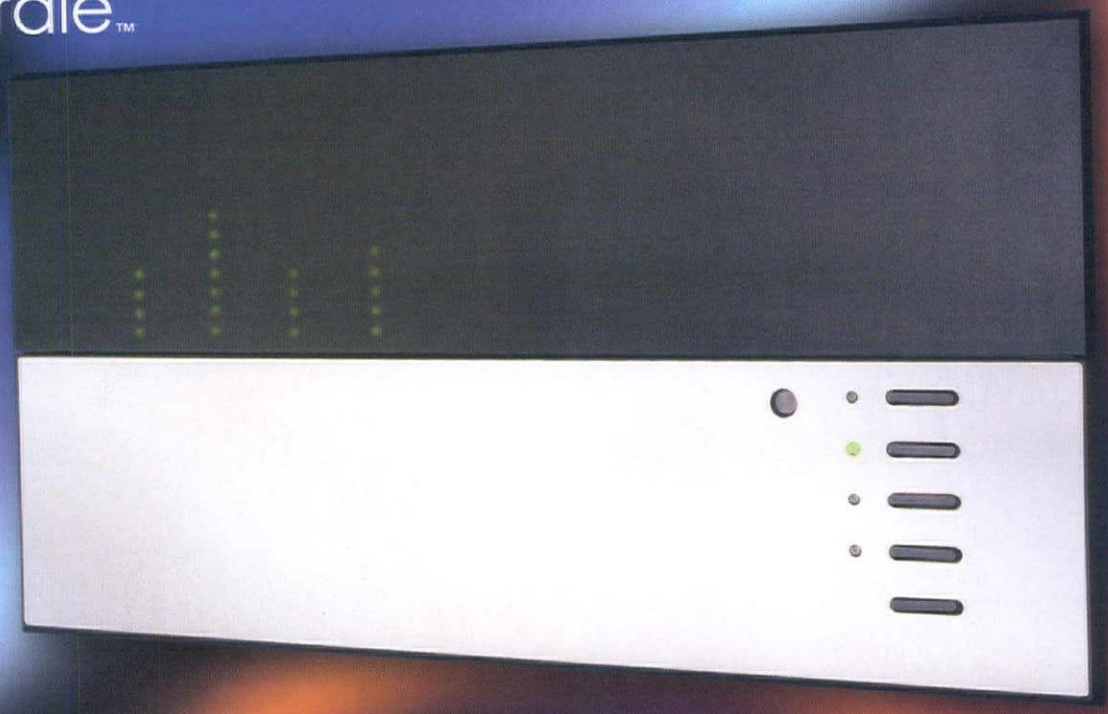
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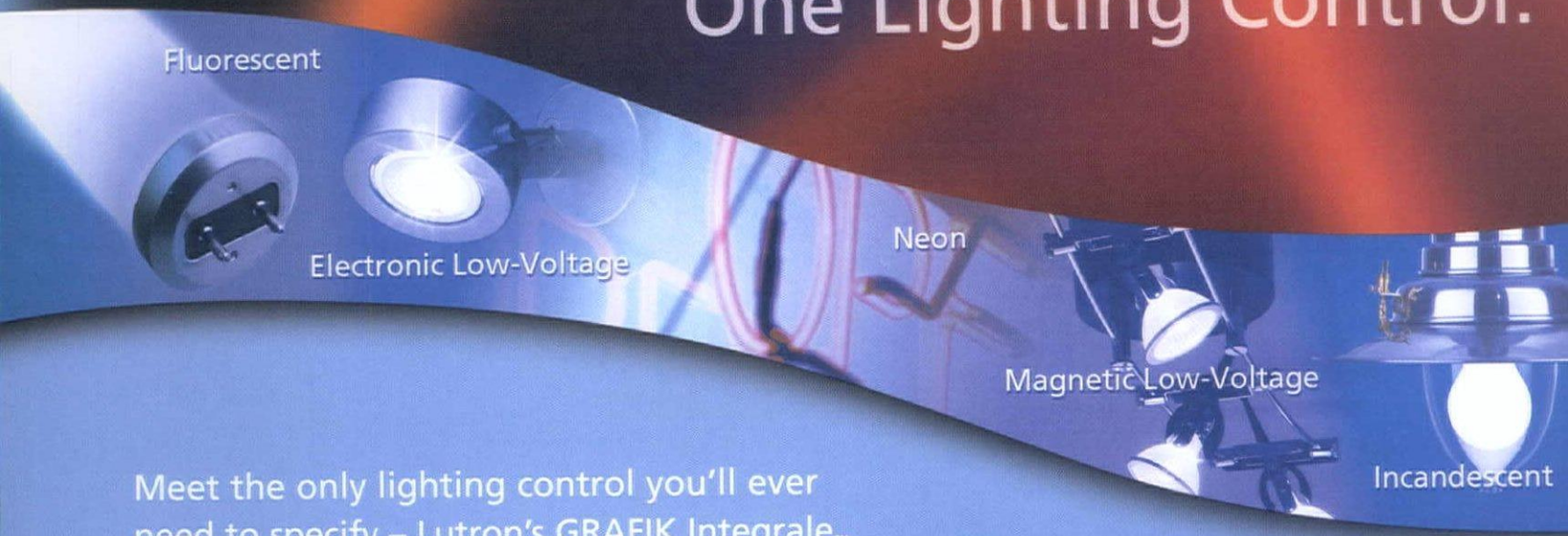
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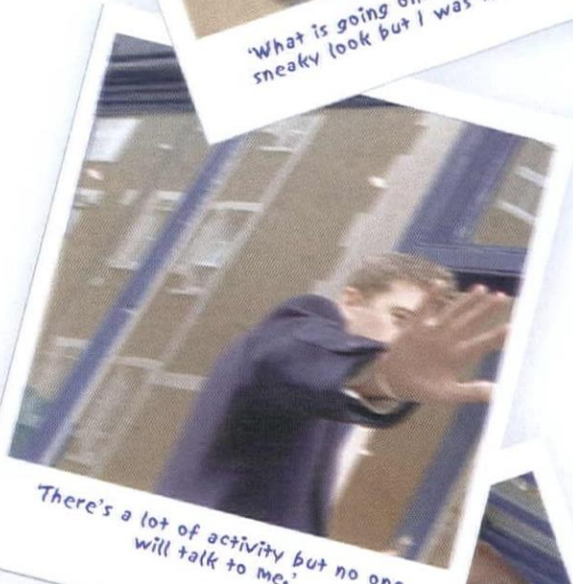
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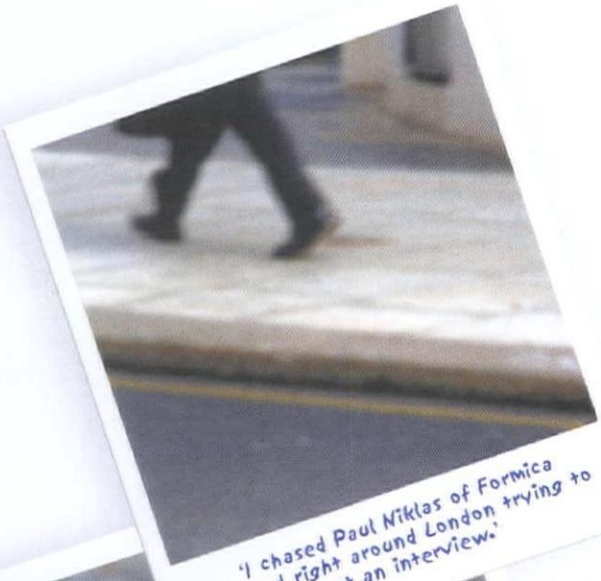
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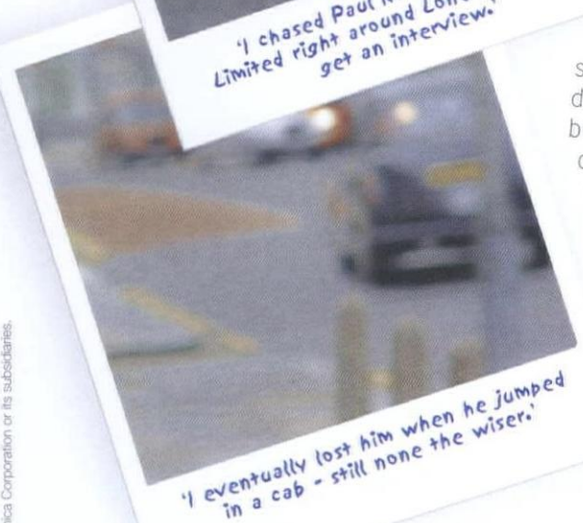


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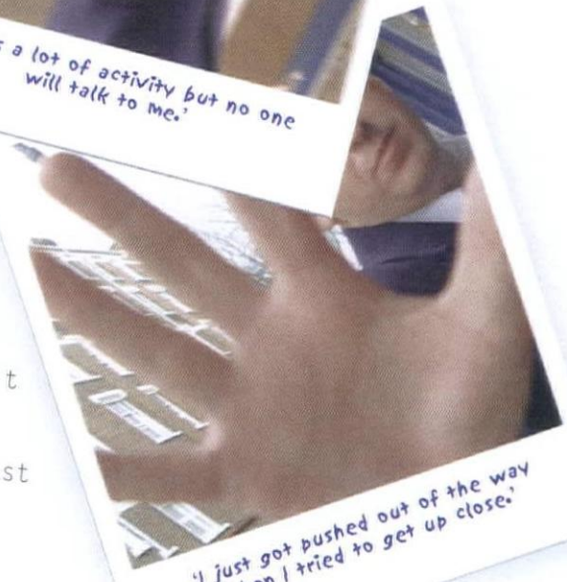


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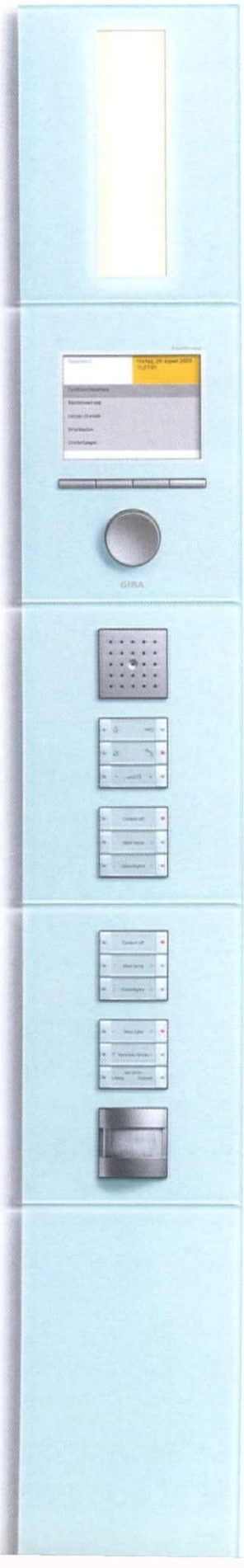
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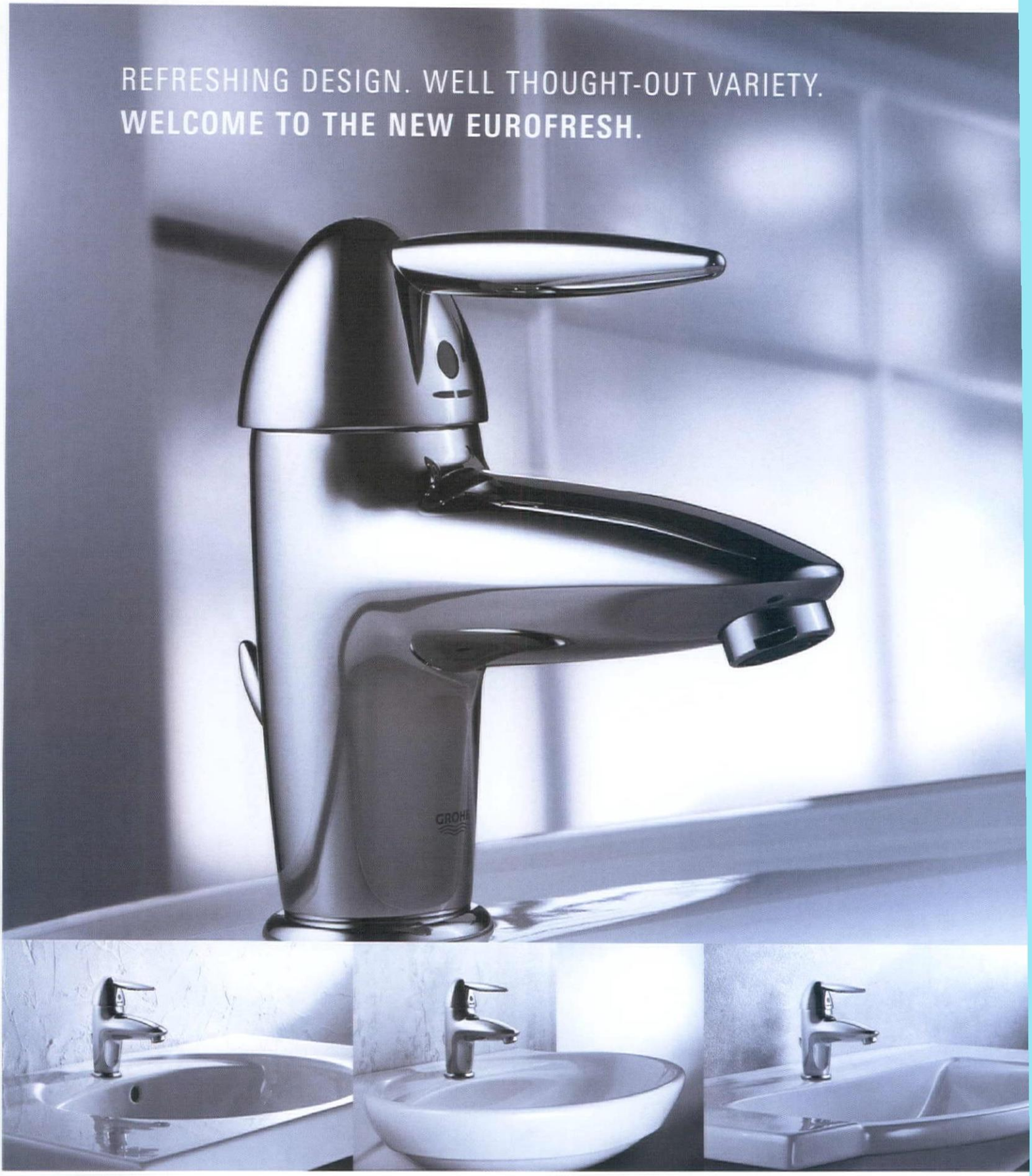
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view

THE RESULTS OF A COMPETITION FOR THE NEW EUROPEAN CENTRAL BANK HEADQUARTERS GIVE A FLAVOUR OF THE CURRENT ARCHITECTURAL *ZEITGEIST*; PHOTOGRAPHIC SURVEY OF THE BUILDING OF BATH SPA; AR HOSTS A LIVELY CONFERENCE ON INTERVENING IN EUROPEAN CITIES; VIEW FROM MUNICH; BROWSER; JIM ANTONIOU REMEMBERED.



First-placed design for the new ECB headquarters by Coop Himmelb(l)au – one of a trio of finalists from which a final winner will be selected later this year.

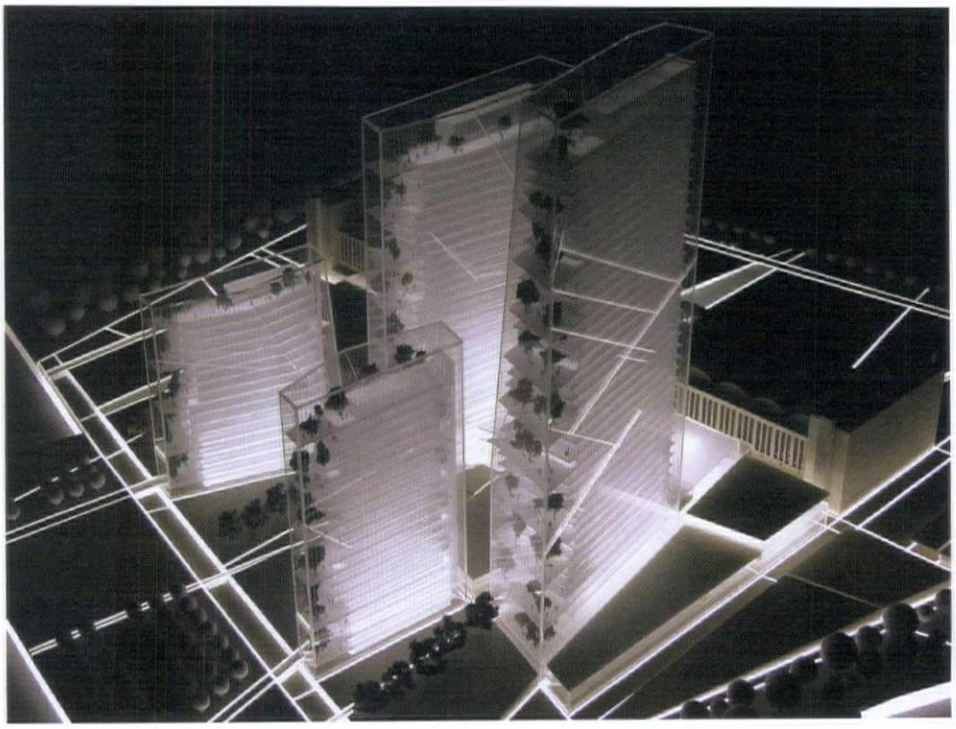
BANKING ON ARCHITECTURE

A recent major competition for the new European Central Bank in Frankfurt provided an intriguing snapshot of current architectural preoccupations.

In February, the European Central Bank (ECB) announced three architects as the winners of a worldwide open architectural competition for the new ECB premises in Frankfurt am Main. The brief stipulated offices for 2500 employees, creating 100 000m² of usable floor space (with the option of extension), located on a former 120 000m² industrial site in the east of Frankfurt. The historical and listed Grossmarkthalle, a trade market designed in the late 1920s by Martin Elsässer, had to be fully integrated into any new design. Notwithstanding the huge scale of the enterprise, the challenge was to design a building which met the requirements of a modern central bank in the twenty-first century servicing a rapidly expanding Euro zone.

From a shortlist of a dozen firms, Coop Himmelb(l)au (Vienna) were awarded first prize, with ASP Schweger (Berlin) and 54f architekten/Hamzah & Yeang (Darmstadt/Selangor) placed second and third. All three are currently reviewing their designs to take account of client comments and requirements, and once this revision phase is complete (probably this autumn), the ECB will appoint a final winner.

Revealing some remarkable findings about the state of contemporary architecture, the competition entries were assembled by the Deutsches Architektur Museum (DAM) in Frankfurt in a special exhibition which meticulously documented all 71 proposals and followed the design development of the 12 practices that made it into the final round. Entries came from 31 countries and seven continents. Such a strong international resonance must have reminded the jury (among them Messrs Wilford, Christiaanse, and Fuksas) of an equally Herculean selection effort for the Reichstag and Potsdamer Platz redevelopments exactly a decade ago, but it also presented an intriguing opportunity to evaluate a broad cross-section of the best current international architecture.



A quartet of different-sized towers with sky gardens forms the basis of the third-placed scheme by 54f/Hamzah & Yeang.



ASP Schweger's second-placed proposal of glass towers linked by horizontal bridges – the most obviously 'corporate' of the winning trio.

Herein lies the real value of the DAM show. Peter Chachola-Schmal and ANP, its curators, did not attempt to structure the exhibition according to region, design traits or similar criteria. Instead, it unpretentiously revealed what contemporary architecture is (or is not) capable of, in terms of urban design, sustainability and form making. Design manoeuvres ranged from reminiscences of Brasilia to the latest manifestations of blob-architecture. Individual schemes celebrated the tower(s), the (im)penetrable wall, the massive beam (straddling the Grossmarkthalle), the flat, closely-knit landscape-carpet, and any number of other geometrical mega-forms (the pyramid or ball) or the informal blob. At least one of each of these variations made it through into the final dozen.



Sinuous moves from Morphosis, one of the 12 finalists.



Gehry's fragmented low-rise 'European village'.

Surprisingly, some notable names did not reach the second phase. These included the fashionable Superdutch contingent OMA (who boldly topped the Grossmarkthalle with three pyramidical structures reminiscent of Giza or the Swiss alps), and UN Studio, who proposed a monolithic capsule more suited to a sci-fi film. SOM abandoned their high-rise tradition and covered most of the site in a thick carpet of buildings which even swallowed the nine-storey high Grossmarkthalle. And finally, Behnisch & Behnisch sculpted a block worthy of Henry Moore or Barbara Hepworth.

Of the 12 finalists, Helmut Jahn scored highest in the backpedalling stakes by performing a complete volte-face on his first phase design, retreating to the safe haven of past schemes. Instead of the concave arrangement of two towers (as in his recent Deutsche Post building in Bonn, AR August 2003), here Jahn opted for a convex order. The jury commented dryly that this would 'not create a unique building for the ECB'.

Frank Gehry's liberal interpretation of what might be described as a 'European village' took the form of a riot of low-level buildings and disparate masses which ultimately got lost in a confusion of uncoordinated surfaces. The young partnership of Barkow Leibinger took a different approach with their perforated high-rise running parallel to the Grossmarkthalle. This modular ensemble of alternating sky gardens and office blocks is a lively concept with an interesting future.

The three prizewinners' schemes were all very different. Schweger (placed second) appears the most 'corporate', with its simple verticality and horizontal bridges between the towers. Though functional, it may be considered too tame and measured to win. Ken Yeang's joint venture with Johann Eisele of 54f architekten proved constructive and intriguing, addressing issues of sustainability, but did not have the formal punch of the winning Coop Himmelb(l)au design.

Wolf Prix's team (in collaboration with structural engineer Klaus Bollinger and services engineer Brian Cody from Arup Berlin) has so far convinced the ECB with its integrated and interesting play of volumes. A groundscraper runs between the skyscraper and the Grossmarkthalle linking the ensemble in a way that is more than simply symbolic. Naturally ventilated offices and an atrium round off the structure. Yet though Coop Himmelb(l)au won on the merits of their bold form and engagement with energy conservation, it remains to be seen whether the Viennese *provocateurs* will be able to sustain a sufficient level of innovation to finally secure the ECB appointment later this year.

CHRISTIAN BRENSING

NAKED TRUTH

As we await the delayed opening of Bath Spa (AR September 2003) – following an ongoing contractual dispute over defective paint – Bristol's Architecture Centre has recently exhibited a selection of photographs by photographer in residence, Carlo Chinca.

Over the three-year construction period, Chinca documented the construction of Nicholas Grimshaw and Partners' new spa complex following a commission by Paul Simons, director of the Bath Spa Project. While the brief was left open, Simons wanted Chinca to create a black and white archive of the project – arguably the most significant and sensitive new project in Bath's recent history. Seeking to record the key moments in the building's progress, Chinca paid particular attention to everyday processes of construction seeking where possible to capture the character of the site and the workers.

Including vertiginous tower crane views, this unique catalogue of photographs uncovers the reality of how highly polished buildings begin their life. Much more than a collection of beautiful photographs, when exhibited in public galleries such as Bristol's Architecture Centre, with a commitment to education and exhibition work, the images wonderfully describe in frozen and silent form the dynamic and noisy drama of construction. All that remains now is for Chinca to return to photograph the building in use. ROB GREGORY

For more information visit www.arch-centre.demon.co.uk and www.carlochinca.com



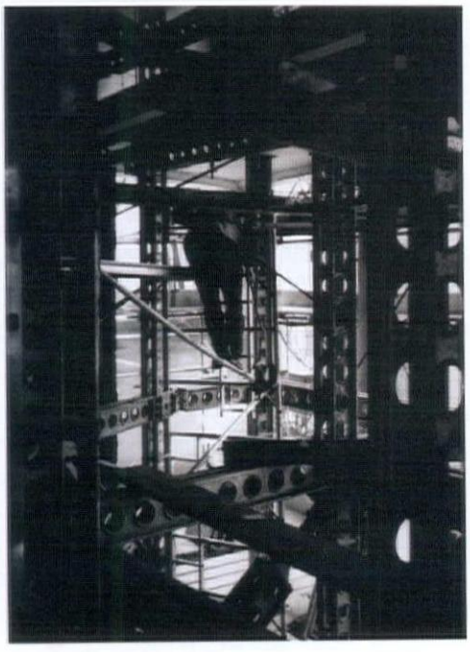
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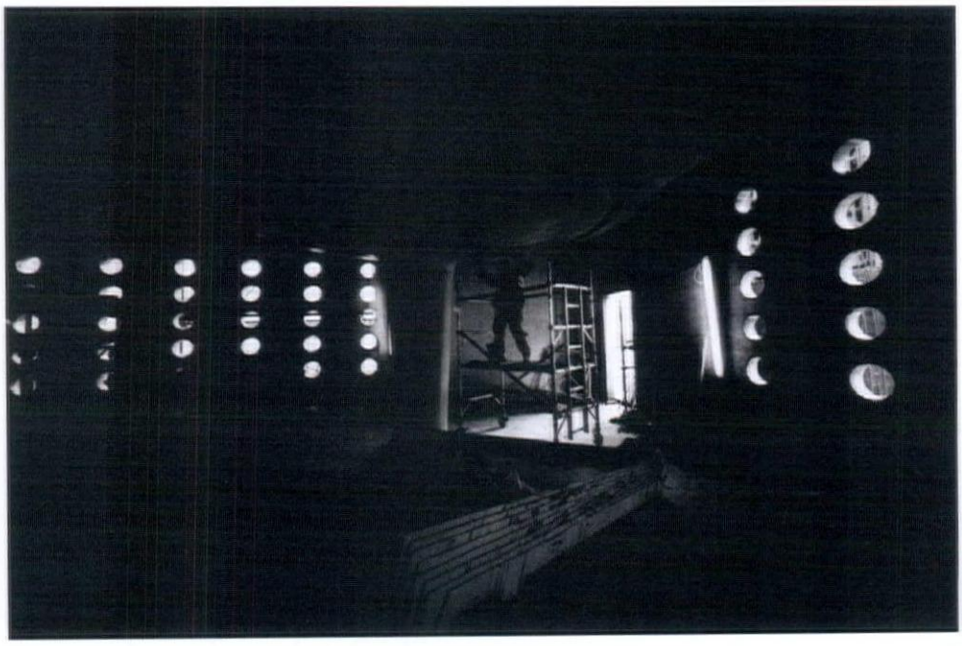
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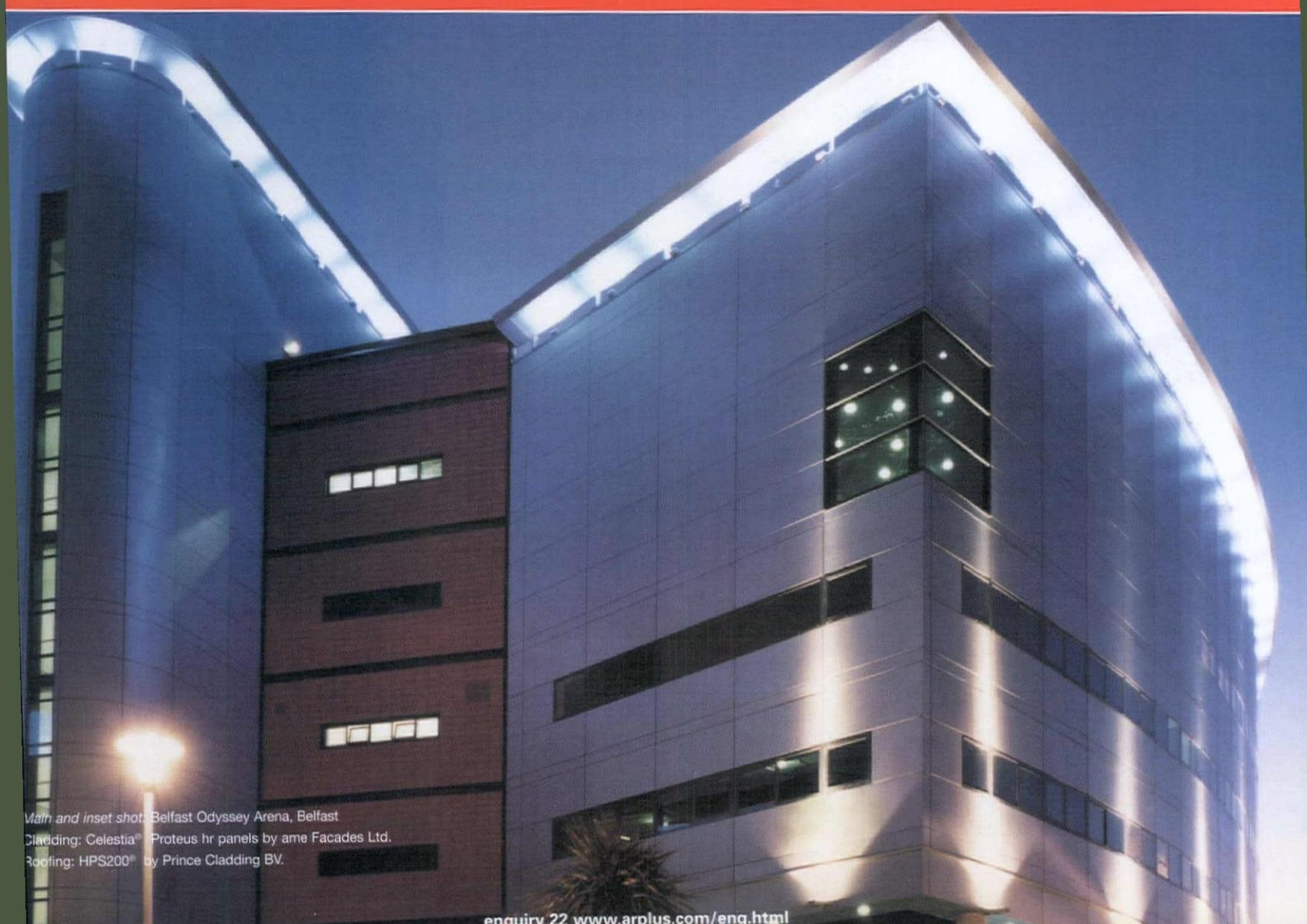
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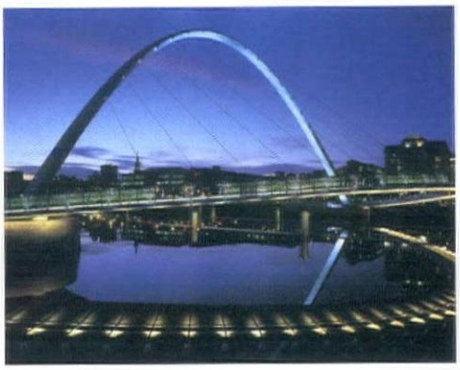


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INTERVENING IN EUROPE

'Intervening in the European City', Architectural Review's conference, 16 March 2004, at the RIBA London. Generously sponsored by Zumtobel Staff. Sutherland Lyall reports.



Wilkinson Eyre's Gateshead bow of hope.



Massimiliano Fuksas' Archaeological Museum, Frascati.

You assemble an all-star cast: Chris Wilkinson, Mecanoo's Francine Houben, Norwegian star Ole Wiig, the ebullient Massimilano Fuksas, Peter Archigram Cook, Ireland's Valerie Mulvin and Holland's Hubert-Jan Henket – all familiar to readers of this organ. You already have an excellent and important topic: Intervening in the European City. And what do most of them do? They pay brief lip service to the topic and then talk at length to PowerPoint images of their own work.

I suppose any seasoned architectural conference-goer should know the score: the official theme could be about deep freezing tundra foundations in Upper Silesia and all the speakers would still turn up with several carousel trays of their latest design work. As here, wily conference devisers make sure that the speakers and their works are going to be interesting so that everyone has a good time even if the topic gets only a token airing.

The problem is that you feel that an unspoken agreement has, without your permission, been made between you and the speakers. It is that they, the good guys, don't really need to explain too much why or how their buildings represent interventions. The only speaker to raise the issue was Peter Cook, still basking in the universal applause awarded his and Colin Fournier's Kunsthaus, Graz. He made the point that there is a difference between making an intervention and simply doing a building in the city: it was, he said, the difference between 'sneaking something into the fabric of an old city and putting something in because someone asked you to'. You felt that quite a lot of the others had been quite heavily involved in the latter process. The deceptively tentative Cook was persuasive, not least because he spoke about only one brilliant project and because he spent maybe a quarter of his time talking affectionately about Graz, about the Grazer Schule and its silkily back-stabbing architectural fraternity, how everybody in restaurants stood up respectfully when an ecclesiastic came in, and how it pretended to be a nice little Baroque city when it was really a town on a fast-moving mountain stream which makes most of its money from car parking and students at the two local universities. You felt he knew Graz pretty well before snuggling the Kunsthaus into its site on the wrong side of the river.

There were two themes running through the speeches. One was Blob, not surprising given the presence of Cook, Fuksas and Wilkinson who was showing a giant blob on legs striding along the ridge beside the Crystal Palace transmission mast in south London. Chairman and revered Review editor, Peter Davey, got in a few shafts about (inappropriate) blobs in places such as Birmingham. The designers were bewildered at being tagged Blobistes but we've all heard that sort of thing over the years. The other four architects, orthogonalists all, were too courteous to comment although the still-debonair Hubert-Jan Henket wheeled out, with more than usual vehemence, that even-handed line on the extremism of the old Modernists wanting to destroy in order to replace. He blew his position by wandering severely off topic with a bit about a Docomomo project which was located, er, in the countryside. Henket's position on intervention was however unassailable because nobody builds anything in that de facto city, Schiphol Airport, without his say-so.

The other theme was the 'conservation fundamentalists' who, said Ole Wiig, 'will always find some reason to preserve existing buildings'. Wiig had worked in Britain and found the Oslo preservationists just as painful. But the words 'conservation fundamentalist' had caught on and were to find their way into subsequent presentations. In the audience some remembered that Docomomo's work could very easily be categorized as conservation fundamentalism. Wiig thought the way to cope with the common enemy was dialogue and the patently high quality of his design proposals. None of the speakers would disagree with that. But you began to feel that the nub of city intervention might have something to do with powers of persuasion even more than architecture.

McCullough Mulvin's Valerie Mulvin from, according to chairman Davey 'another small Catholic country' like Ireland, spoke seamlessly and with perhaps too much detail about her practice's immaculate small-scale work around the Eire county towns – and at Trinity College Dublin. In an unusually muted presentation, Francine Houben had the balance of description right but had the lights turned off which made it difficult for scribes to take readable notes. In the slot earlier, the prolific Ole Wiig had followed the Mulvin line, alternating between locations, lots of them, in Oslo and Trondheim. He laid down a set of headings (The City as a House, Urban Insertions and Extensions and Reusing Lost Space among them) which were an aid to understanding his text but left unanswered the conundrum of why the work illustrated constituted intervention. Doubtless much was but you were left wanting further and better particulars.

It was Chris Wilkinson, that afternoon about to fly off to Harvard graduate school for a teaching stint, who opened the proceedings with a carefully measured preliminary analysis: half the world lives in cities, each generation has different requirements of the city, the city of today, by dint of the people who now make it up, is a new thing, however much it looks like the traditional city. The architect has in his and her armouries such things as beauty, the bizarre, the shock of the new and spectacle. This was probably not spectacle in the Situationist sense, rather the straightforward and wonderful spectacle of the Gateshead bridge opening and closing, or your shock of delight at noticing that twisting bridge at high level across Floral Street between two Royal Opera House buildings. His had been, in chairman Davey's words, an elegant beginning.

The bouncy Massimiliano Fuksas could afford to be ebullient because, now settled in Rome, and with four offices around Europe, the sheer quantity of his current completed and about-to-be-completed output is on the far side of prodigious. And he took us on a rollicking ride among it. Amid a lot of glass office buildings, it includes a magical swooping and diving glass and steel roof for the Milan Trade Fair ground. The physical manifestation of (possibly) a complex mathematical formula snaking along a computer screen, it is 1.5 kilometres long and it's almost finished. This was not intervention but INTERVENTION. Everyone in the RIBA's Florence Hall seethed with envy.

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You might think that this all adds up to an achievement that the Swiss could justifiably shout about. But then, that wouldn't be very Swiss, would it?

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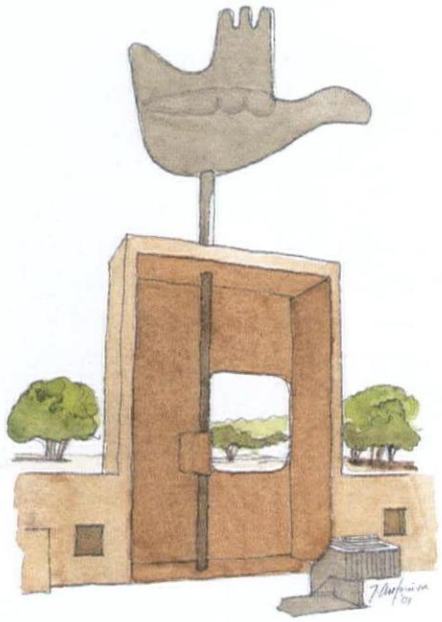
Obituary

JIM ANTONIOU

Jim Antoniou, who died suddenly aged 66 in January, was a valued contributor to The Architectural Review, particularly on urban matters. Born in Athens, he trained as an architect and planner at the London Polytechnic and worked for Lyons Israel & Ellis before joining Constantinos Doxiadis in the Ekistiks planning team.

Setting up on his own, he developed an international consultancy and research practice, focusing principally, but not exclusively, on issues concerned with developing countries. His clients included the World Bank, UNDP, UNHCR, UNESCO, the European Commission, and the British Department for International Development, for all of whom he travelled extensively throughout the world, often in difficult conditions (he was hijacked at least once). He lectured at many professional and academic institutions world-wide. As writer and journalist, he contributed prolifically to professional and lay publications as well as the AR. Among his books were *Historic Cairo* and *Plaka* (the old village round the Acropolis rock in Athens). Both described perambulations through the urban fabric, and were extensively illustrated with his incisive and illuminating sketches and drawings. So were the most recent articles he wrote for the AR, which included urban analyses of Chandigarh (AR March 2003), Beijing (AR April 2001) and Cartagena, Colombia (AR October 1999).

Jim's humorous, helpful, courteous, knowledgeable (but never knowing) personality is greatly missed by all who knew him. Later this year, the AR hopes to publish his last article (on Athens), on which he was working when he died. P.D.



Jim Antoniou at Chandigarh.

browser

Sutherland Lyall indefatiguably forages and ferrets for cyber fodder.

On site at last

Pritzker Prize laureate Jørn Utzon has recently lived a quiet, blameless and mainly website-less life, latterly in Majorca. Now with his renewed involvement, admittedly at a distance, with the icon of Australia, there's a new site about Utzon Associates at *www.utzon.dk* and by the time you read this it will hopefully be a bit more developed that it was last month. You thought it was just Jørn. But no, there's the late Aage, the naval architect dad, sons Jan and Kim, daughter Lin, grandchildren Jeppe and Kickan – all architects and whose brief biographies are on the site together with images and, in some cases, brief descriptions of the Utzon office oeuvre. Needless to say the Sydney Opera House is first on the list. In the References section only one book is mentioned, by Welsh School of Architecture's Richard Weston. Its price is listed as 1000 Kroner which according to my currency converter website (at *www.xe.com*) is around €134. No mention of Peter Murray's recent *The Saga of the Sydney Opera House* which is based on Arup archives. But hey, why run a site and bark at yourself?

Plymouth Ho. Hum.

An evangelist of plain and simple usability in architectural websites, I find myself in the odd position of being enchanted with sites which don't necessary follow the puritan form-function, economy of means, clarity-not-obscurity position which seems to be essential for marketing websites – which is to say the normal architectural site. So I'm only half hesitant in suggesting you look at *www.arch-os.com* the site of Arch-OS – or is it I-DAT, either of which belongs to the University of Plymouth. According to the blurb, 'Arch-OS represents an evolution in intelligent architecture, interactive art and ubiquitous computing'. For the record, the latter is an idea formulated by Mark Weiser at Xerox PARC in 1988 which is sometimes associated with wearable and mobile computing and more certainly with the idea of the dissolution of the high-tech high status computer gizmo in favour of calm technology – which, er, maybe means unobtrusive computer technology everywhere. People who cut big holes in the sides of their computer cases, stuff them with flashing lights and coloured cables and use fan-cooled water-based radiators to keep the temperature of their overclocked processors at an even level, are probably not very sympathetic to the idea. Whatever, the whole U of Plymouth site is a series of rambles through less and more (in)coherent propositions about architecture and design, illustrated by recent projects. One such is Flock, which uses Arch-OS vision and sound tools to create a flock of birds high in an atrium of a university building which wheel around making cries – all depending on the movement and numbers of people in the atrium. There's a whole lot more of this kind of thing around the site and, although much of it is architectonic rather than specifically architectural, it is quite often great fun. You are not entirely sure that its attractions are due to the nice ideas or the slightly mad language adopted in an effort to avoid discussing anything concrete and therefore banal. Take cybrids, those hybrids of physical and electronic … But look, just try it out and see what you think.

Cool dude

Guy Nordenson is a wizard New York structural engineer in the architect-friendly mould of British engineers such as Matthew Wells, Chris Wise and Tim MacFarlane. If that sounds a tad smug and parochial it's partly because it is and partly because Nordenson is a sort of former honorary Brit: he founded the New York outpost of the mighty Arup machine and ran it for a decade until he set up on his own in 1997. His site is at *www.nordenson.com* and has one of those horizontal moving rows of recent projects which on some sites seem designed merely to irritate. This one is inoffensive but when you click on the travelling image of, say, Richard Meier's Church of the Year 2000 in Rome, you merely get the same moving slide show, this time vertically and with some basic details on the side. Catching and clicking on the image here produces a page with nine expandable thumbnails and a piece of well-written, jargon-free descriptive text. It would be nice to be able to scroll it at will but you have to click on an up or down scroll arrow at the bottom. It's all a bit measured and denies you the right, which should be inalienable for surfers, to scoot through a site at your own fast pace. Otherwise this is an exemplary and modest site from which you come away with kindly thoughts.

In the website desert

The aforesaid Arup has a commercial software house, Oasys at *www.oasys-software.com* . It recently clocked up a runner-up gong from the UK Department for Education and Skills (DES). It was for its site's accessibility: 'good balance of usability and quality design' ran the



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Diary

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AUSTRIA

THE AUSTRIAN PHENOMENON: Concepts, Experiments – Vienna, Graz 1958-1973
Until 12 July
Architekturzentrum
Vienna

Show devoted to architecture in Vienna and Graz 1958-1973, including work by Raimund Abraham, Domenig/Huth, Coop Himmelb(l)au, Bernhard Hafner, Hans Hollein, Missing Link and Zünd up. Presented in original form, from sketches to happenings, these illustrate an impressive breadth of working methods still influential today.
www.azw.at

DENMARK

JØRN UTZON
Until 29 August
Louisiana Museum of Modern Art
Humlebaek

Curated by Utzøn and son Jan, this major retrospective examines his considerable oeuvre and sources of inspiration with models, photos, drawings and sketches.
www.louisiana.dk

FINLAND

GILLIAN WEARING: TWO WORKS
Until 25 April
Kiasma Museum for Contemporary Art
Helsinki

Turner Prize winning Wearing's curious and often disturbing photographic and video works evoke complexity and banality of human relationships.
www.kiasma.fi

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ARCHIGRAM
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Design Museum
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www.designmuseum.org

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view

encomium. Sadly the chief judge complained generally about 'a worrying proportion of the nominated websites [which] failed to meet the most basic requirements for accessibility [including] contrast between text and background. I did a trawl of Oasys for standard evils and came up with at least one 'it's' for 'its', embarrassingly in the Press section. There were several gratuitous PDF files (I accidentally clicked one and had to wait the standard half hour for Acrobat Reader to deign to open it) but, joy of joys, the text size can be varied by the user. It's not a very interesting site but the topic of software is rarely a bundle of laughs and it does the job it sets out to do.

Lost in space

And finally a site to die for. At least that's what it nearly did for the people to whom I gave the url. Died laughing, that is. It's the site of Space Hijackers Architectural Design Ltd at www.spacehijackers.co.uk/architects. Show it to your web designers too. Especially your web designers.

Sutherland Lyall is at sutherland.lyall@btinternet.com

Letters

SINGAPORE MODERNISM

SIR: I have read a number of articles (sometimes the same article) in various magazines written by Robert Powell. The most recent being February's one titled 'Tropical Rigour' in the AR where he reviews WOHA Architects' Singapore House.

Here he writes in conclusion: 'For this critic, it is an evolving transcultural language that effortlessly integrates the principles of modernism with traditional responses to a tropical climate.'

Koolhaas in his seminal 1995 essay on Singapore architecture writes of a modernity stripped of ideology when reviewing the public housing stock that covers the majority of the housing needs of the island's population. As the Singapore House reviewed by Powell shows, the architectural aesthetic there has now moved far beyond what Koolhaas was commenting on almost a decade earlier.

Although, particularly after experiencing first hand the construction industries' almost total reliance and treatment of imported unskilled and uneducated labour, I can't help but think that when defining the term modernism in relationship to architecture in Singapore the critic and architects are still missing a proper understanding of the word.

Yours etc
STEPHEN SARGENT
Wellington, New Zealand

WHY THE DIFFERENTIATION?

SIR: I wonder if any of your readers noticed the remarkable similarity between the Graz Art Museum, 'a spunky modern interloper that adds both to the life of the city and to its historic fabric', and the Birmingham Selfridges, 'a blue blancmange with chicken pox ... scaleless, uninviting and completely out of sympathy with its surroundings' (AR Oct 2003). Has the fashion changed so radically in six months that 'blob architecture' is now no longer 'passé'? I think we should be told.

Yours etc
LOUIS HELLMAN
www.louishellman.co.uk

FURTHER BLOB CONFUSION

SIR: I am confused about blobs – and you seem to be too. Why is the AR so keen on the Kunsthaus in Graz by Cook and Fournier (last month), and so opposed to the department store in Birmingham by Future Systems (AR October 2003)? You attack the Birmingham building as a 'blue blancmange with chicken pox'. I tend to agree, though I'd liken it to a pustulous slug.

So why the praise for the Graz building, which seems to me from your photographs to be just as indifferent to its surroundings, and just as much like a huge blow-up of something found under stones, though smoothly (slimily?) glistening this time, rather than poxed?

We expect the Review to show some semblance of critical standards. Can you explain yourself?

Yours etc
JAMES ANSTRUTHER
Los Angeles, USA

The Editor replies:

Though similar in some respects, the two building are very different in crucial ways.

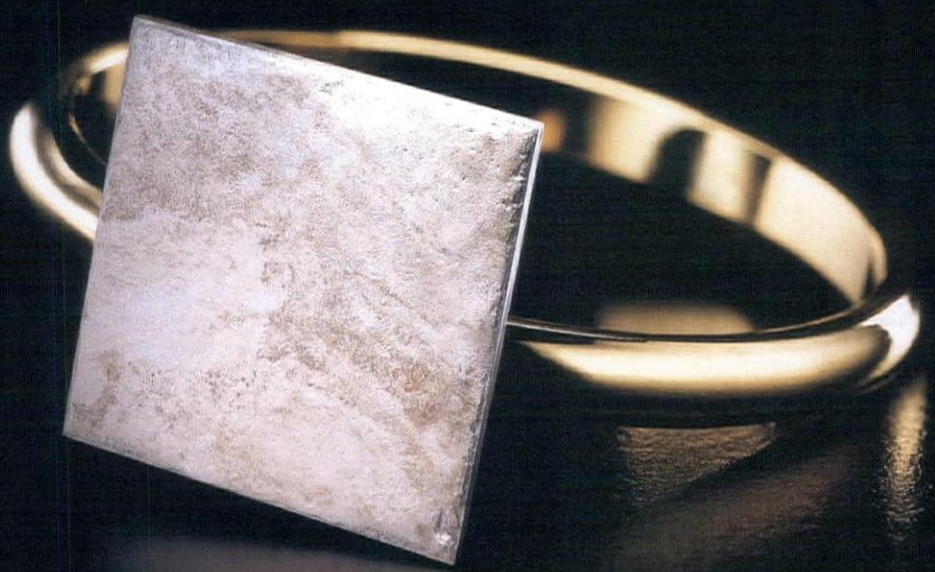
The Graz building has a conversation with the street at ground level, with the café and media lounge welcoming the public into the building. In Birmingham, the maw of the beast seems to suck people in, particularly at the upper level.

While the Kunsthaus, for all its strange shapes, is carefully fitted into the existing delicate fabric, the department store ignores its neighbours – admittedly they are not distinguished, nor deserving of much affection, but they surely should be treated with at least decent manners.

The skins of both blobs are experimental, but while the Kunsthaus will be easy to clean, and comes from the tested pattern of rain-screen and inner wall, the Birmingham building seems to fly in the face of conventional construction, with extremely complicated cleaning problems. How will it weather? P. D.

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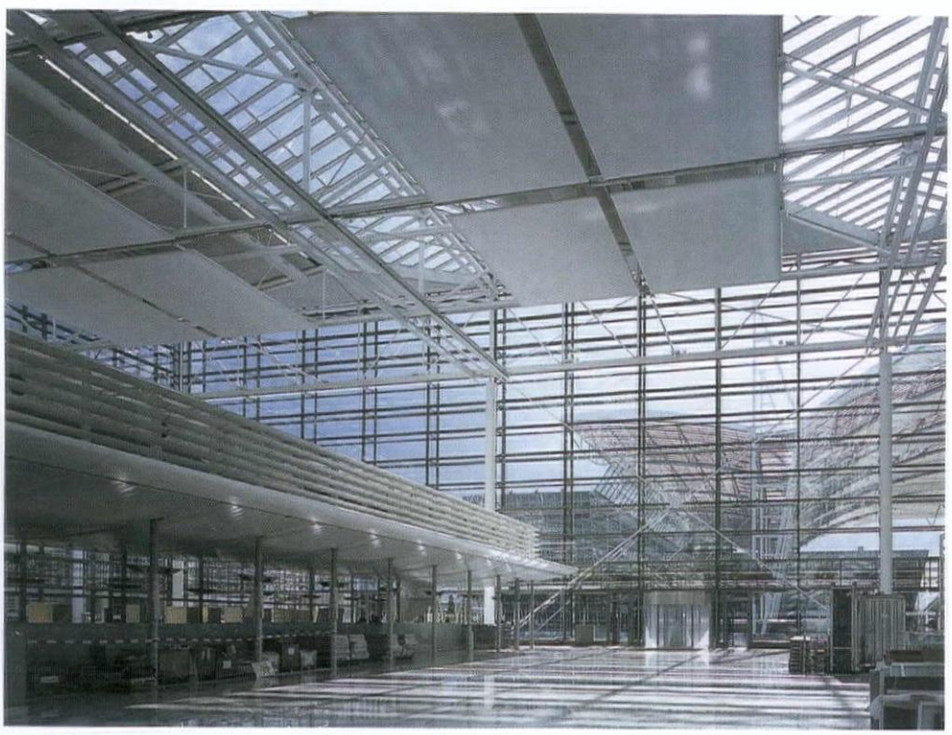
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Koch+Partner's new Terminal 2 building at Munich's Franz-Josef Strauss airport.



Inside the new terminal building. Lufthansa preferred Munich to Berlin for its second international hub.

View from Munich

Munich's economic success, popular appeal and an ambitious programme of building continue to fuel its civic rivalry with Berlin.

After German unification in 1990, there was great scepticism as to whether Munich would still continue to boast the title of Germany's 'secret capital'. Would Munich be able to defend its position as one of the top German economic centres against the rising star of Berlin? Thirteen years later the comparison could not be more stark: the state of Bavaria has the second lowest unemployment rate and the highest level of foreign investments of all the German *Länder*. In particular, Munich attracts foreign capital like no other Bavarian city. While in Berlin, a flailing Chancellor tries to cure the German welfare state, Bavaria – under its leader Edmund Stoiber – steams ahead towards political stability (last autumn Stoiber was re-elected with a record-breaking 62 per cent of the vote) and economic prosperity. Last year's Oktoberfest (with 6.3 million visitors) and the real estate fair Expo Real (now bigger than MIPIM), underline Munich's popular appeal and economic success.

The city's growing reputation is inextricably linked with an ambitious approach to architecture. Over the past ten years, Munich's development boom can boast contributions from some of Germany's best architects as well as those from Bavaria's neighbours, Switzerland and Austria.

The gateway to Munich is Franz-Josef Strauss airport which was initially opened in 1990 right outside the city boundaries. Last summer saw the completion of Terminal 2 by Munich based Koch+Partner, commissioned after Lufthansa's decision to establish their second international hub (after Frankfurt am Main) in the Bavarian capital instead of Berlin. Built in a record construction time of two years, the new terminal follows on from where Hans Busso von Busse and Helmut Jahn left off during the early 1990s.

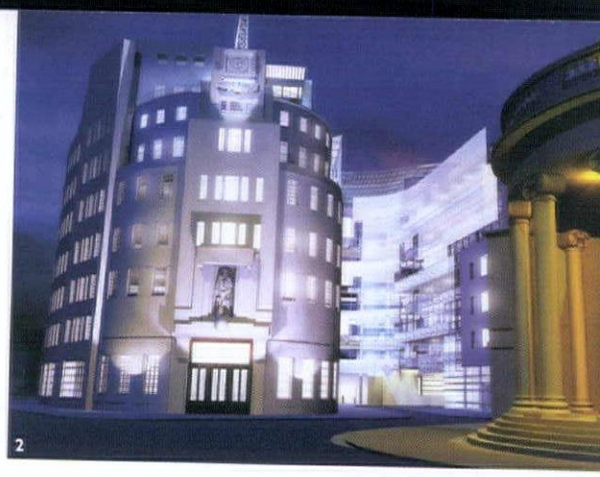
Even if you arrive in Munich by plane, you are more than likely to take the train into the city's main railway station. Yet what is now an hour's ride could be a matter of minutes in the not too distant future. Transrapid, Germany's magnetic highspeed rail link, is destined to arrive at a new railway terminal building next to a refurbished Station Hotel (by local practice Angerer Hadler) which is now part of the Dorint hotel chain. (The old railway station is currently the subject of an invited architectural competition.) The Transrapid is the latest manifestation of Munich's evolution into Germany's leading centre of high technology. The system faces its first commercial test in Shanghai's airport city link powered by Siemens technology from Munich, while Munich-based engineers CBP designed the raised reinforced concrete track.

Getting into Munich is more straightforward for motorists who barrel straight down the A9 motorway and connect with the orbital Mittlerer Ring. In terms of city planning, Mittlerer Ring forms the periphery of an urban high-rise development plan which actively encourages high-rise projects outside the confines of the inner city. The A9's merging with the ringroad is marked by two not yet fully completed towers: Allmann Sattler Wappner's Münchner Tor for owner-occupier Münchner Rück and Helmut Jahn's speculative Highlight for developer Köllmann. Both developments significantly redefine this motorway junction from an architectural and urban point of view.

Driving around the ring gives a broad flavour of Munich's recent architectural developments. Next to the historically famous 'four cylinder' tower for BMW, Coop Himmelb(l)au are designing the company's new visitors' centre. Nearby, just off the ring, Christoph Ingenhoven's 40-plus storey tower (for developer Hines) will grace the skyline when completed later this year. A bare mile further down is Lanz's newly finished all glass-clad tower housing Daimler-Chrysler showrooms. Near the

Light house news

Richard MacCormac explains his approach to creating a new glass building next to a well-loved stone one.



2

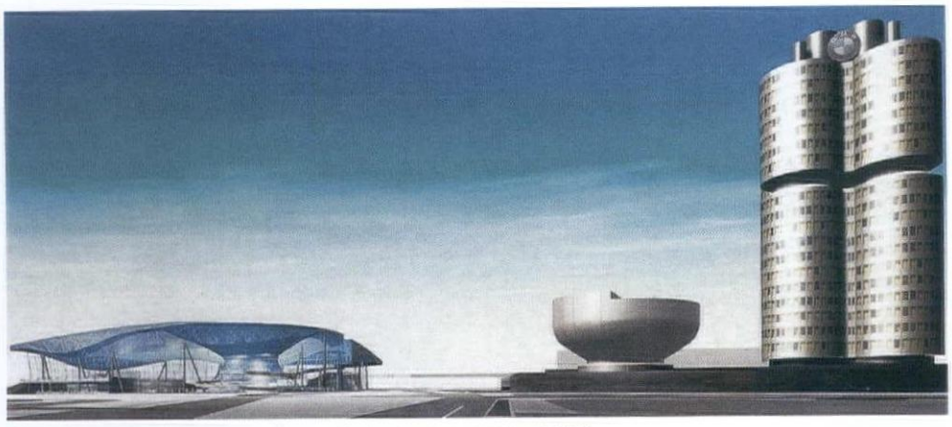


1

BROADCASTING HOUSE,
LONDON, ENGLAND
ARCHITECT
MACCORMAC JAMIESON PRICHARD



Clad in a chameleon-like skin, Herzog & de Meuron's Allianz-Arena will form the showpiece of Germany's 2006 World Cup tournament.



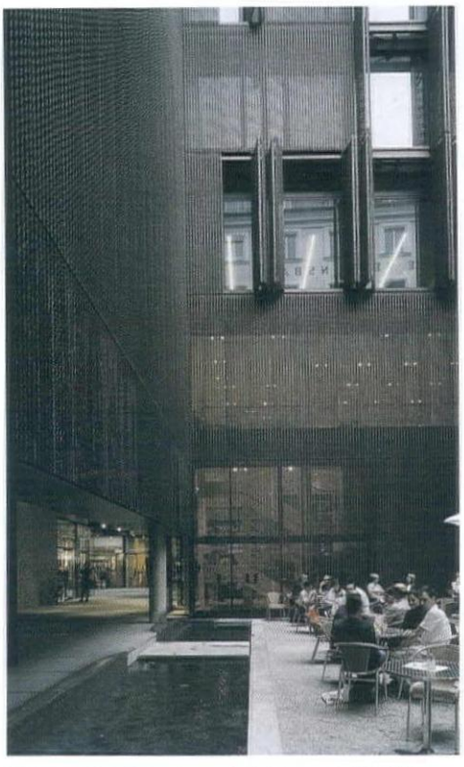
Coop Himmelb(l)au's new visitors' centre for local corporate giants BMW.



Allmann Sattler Wappner's Münchner Tor.



Proposed Transrapid terminal and refurbished Station Hotel.

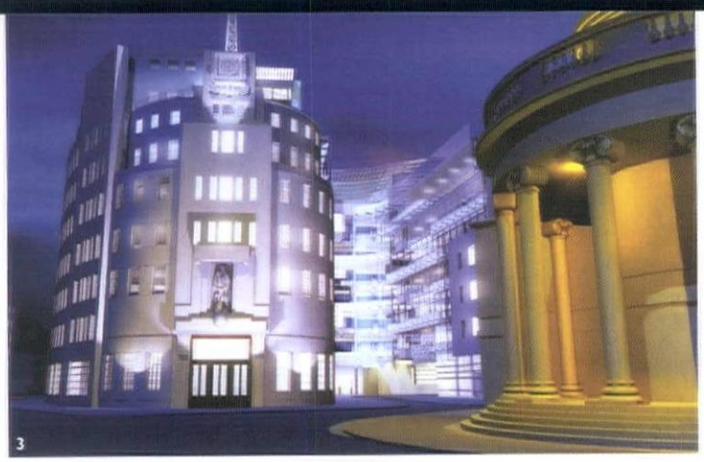


Kaffee und Kuchen in Herzog & de Meuron's Fünf Höfe.

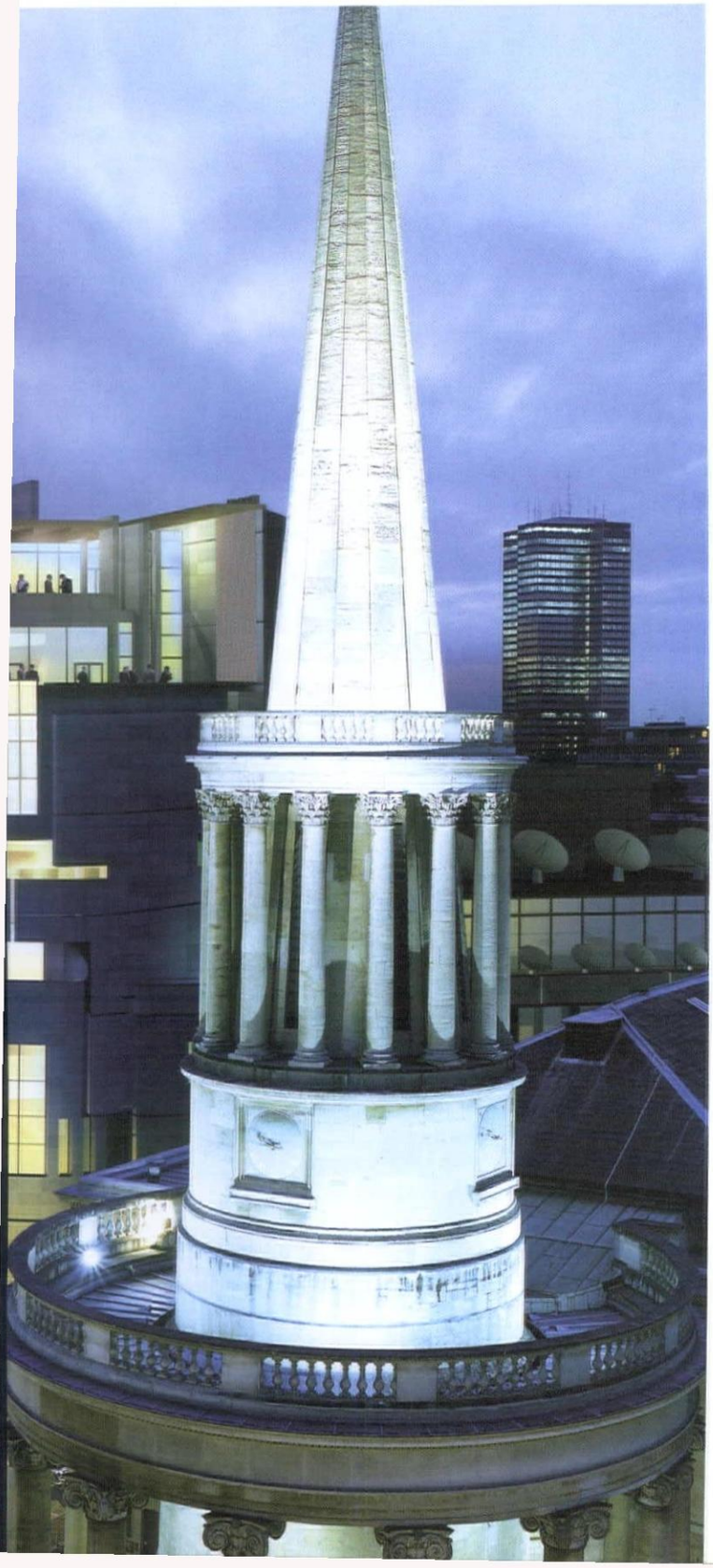
main railway lines is the old container shunting area which will eventually set the scene for Arnulf-Park, Munich's largest inner-city development. German developer Vivico is ambitiously marketing this 18 hectare site which by 2012 will form an 8km long business park for up to 4500 employees.

While such developments depend on putting faith in Munich's currently struggling housing and office market, the heart of the city has already undergone a massive injection in terms of lettable space: Herzog & de Meuron's spectacular Fünf Höfe shopping mall could find an architectural rival in the not quite yet completed Maximilian Höfe by Berlin-based architects Gewers Kühn & Kühn. Their prime site on the upmarket Maximilianstrasse, directly behind Munich's Opera House, reconciles the past by reconstructing a Neo-Classical building lost during the War, and the future in the form of an elegantly curved seamless metal clad facade. Only a stone's throw away, local architects Hilmer & Sattler redefined the city scape with their recently completed Hofgarten Palais which opened last summer, an imposing terracotta-clad block designed on behalf of developer Bayerische Immobilen.

Any itinerary of Munich's recent development should also include projects for culture and recreation. Here, Stephan Braunfels' Pinakothek der Moderne is in a class of its own. Slender reinforced-concrete columns guard the entrance to four major art, design and architectural collections which have already become the envy of many German cities, not to mention Berlin. However, the really big sensation will be the new Allianz-Arena, a 66 000 seater sports stadium for Munich's two Bundesliga football clubs. Designed by Herzog & de Meuron with Arup Sport, the stadium is clad in a chameleon-like skin of rhomboidal ETFE cushions that can change colour when hosting different events. In 2006 the football World Cup will kick off here, while the final will take place in Berlin's refurbished Olympic Stadium – a more than appropriate expression of the historic struggle between Germany's two dialectic capitals. CHRISTIAN BRENSING







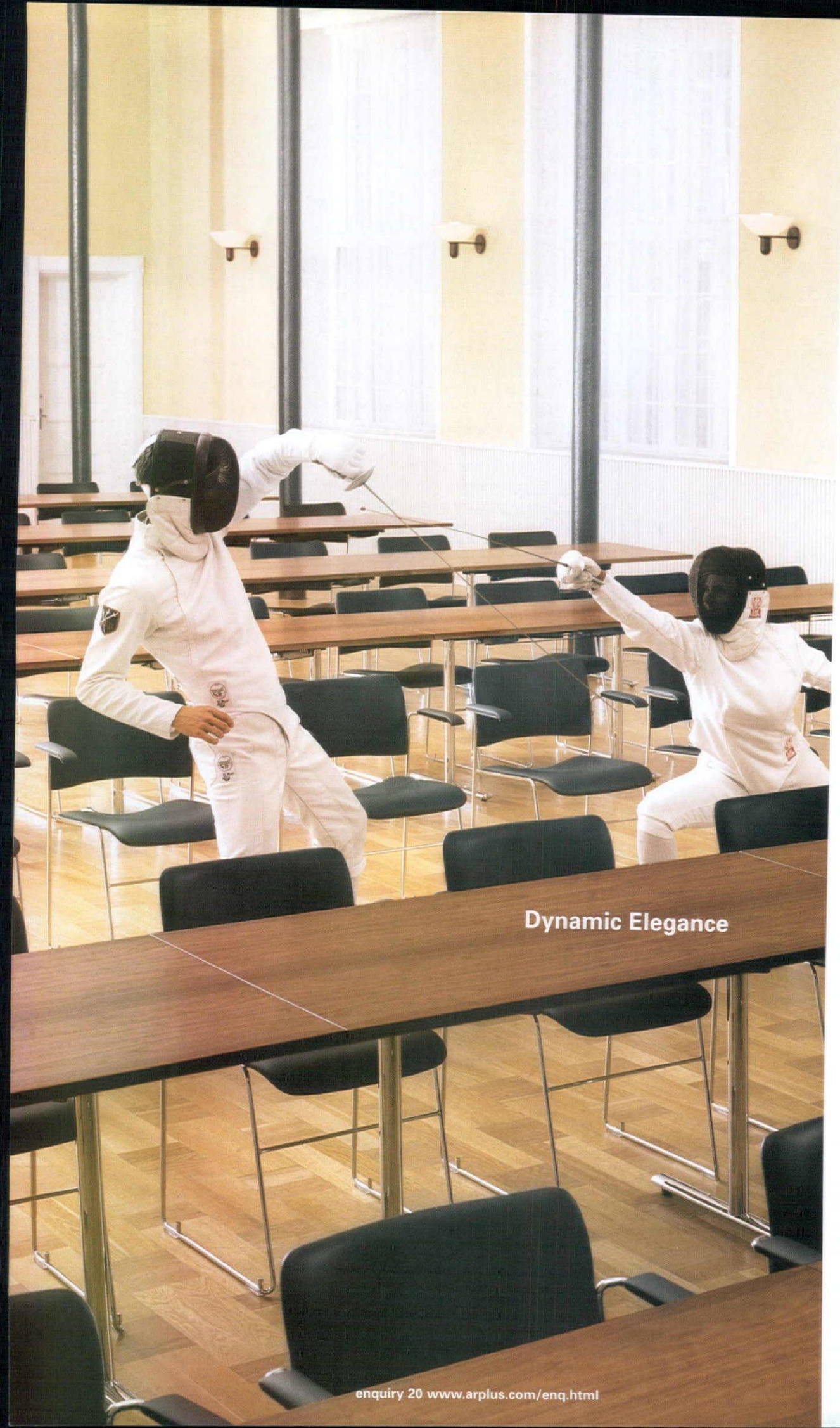
The idea for a glass facade emerged from the necessity of replacing the slate roof which formed a mansard on the east side of Broadcasting House [by G. Val Myers, 1931] with a superstructure of equivalent weight, rather than the Portland Stone originally envisaged. The design of a light glazed attic led to the idea of a concave glass facade to terminate the axis of Regent Street, directly behind the spire of All Souls Langham Place – a kind of urban cyclorama. A polarity is set up between the assertive convex solidity of Broadcasting House and the receptive concavity and lightness of the suspended facade.

Solar control is achieved by an outer glass screen 1200mm out from the building envelope which also has a high thermal performance. The screen has been the subject of an extensive development programme to achieve solar protection and to create the appropriate daytime and night-time backdrop to the church and relationship with the stone facade of Broadcasting House.

The solar screen of laminated glass is etched in a pattern of vertical strips on the outer face and ceramic frit on the outward-facing surface of the inner laminate, with a grid of small squares on the same horizontal module as the etched strips. The ceramic frit is chromatically and tonally matched to the Portland Stone facade at the north-east corner of Broadcasting House. During daylight, the patterned areas of the screen will appear relatively opaque and comparable to the Portland Stone of Broadcasting House. At twilight, the facade behaves like a theatre scrim becoming relatively transparent as interior light levels exceed the level of daylight. The transparency can be reversed or varied by external floodlighting or by images projected on the facade.

To understand and verify this concept, modelling exercises were carried out with the lighting designer and consultant Rogier van der Heide using his laboratory in Amsterdam. The first exercise measured the transmittance and transparency of a range of opacity in glass samples under various internal/external light conditions. Using the glass sample with the best balance between opacity under daylight conditions and transparency under night-time conditions, the second exercise involved more specific observations of the night-time visibility of floors, ceilings, stairs and furniture at various internal light levels. In particular, the model investigated how transparent the facade would be if light levels on working surfaces in the circulation and break-out areas were reduced to 180 lux so as to ascertain the impact of internal lighting behind All Souls. The third exercise included the spire of All Souls to test various lighting relationships between the two extremes of strongly illuminating the spire against a low level of facade lighting, and setting the spire in unlit silhouette against a high level of facade lighting. The broader context for these ideas includes the floodlighting of the south front of Broadcasting House and its symbolic Radio Mast. R.M.

1
Existing Broadcasting House, left, with spire of Nash's All Souls in foreground.
2, 3
A 'theatre scrim' that changes according to balance of external and internal light.
4
Scrim detail.

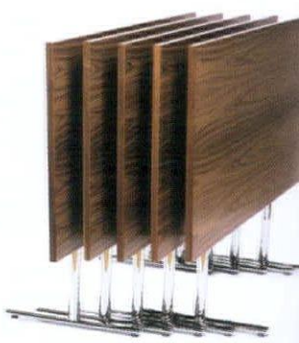


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LIGHT AND DARK

Ironically, at a time when light of all kinds is more abundant than ever before, and means of manipulating it are ever more sophisticated, there is a general lack of imagination about illuminating buildings.

The atrium of Behnisch, Behnisch & Partner's Genzyme Center which imaginatively uses new techniques for manipulating natural and artificial light (see p59).

Never has humankind had more light. From transparent walls to almost universal provision of electric illumination, we can be bathed in light both day and night, so, because light is essential for life, we should be the happiest people that ever lived. No Roman emperor or Renaissance monarch had so much light as some of the poorest people have today. It is through light that we mainly experience the sensations of our bodies in space. Though the senses of touch and hearing, scent (to a lesser degree) and even (in extremis) taste are helpful in orientating ourselves three dimensionally, sight (for those blessed to have it) is quite the most important sense in understanding our relationship to the physical world. Without light, form and space have little meaning to most of us.

Corbusier said that 'Architecture is the masterly, correct and magnificent play of masses brought together in light'.[1] He was of course a young and rather wild polemicist when he made the remark in 1923, one that could dismiss a Gothic cathedral as 'not a plastic work; it is a drama; a fight against the force of gravity, which is a sensation of a sentimental nature',[2] – the time-honed argument of the neo-Classicist against the Gothic. The architect of Ronchamps changed his mind as he grew up and began to be a master of space as well as form. But he rarely seemed satisfactorily to grasp the incredibly complex process of introducing natural light into his interior spaces (for instance, he often had serious problems with glare). Nor was he very thoughtful about how electric lighting could be used creatively.

The sounds of space

Louis Kahn was much more sensitive about light and space. 'How', he asked, 'can anyone imagine a building of spaces not seen in natural light? Schools are being built [in 1970] with little or no natural light, supposedly to save on maintenance costs and to ensure teachers of their pupils' undivided attention. The most wonderful aspects of the indoors are the moods that light gives to space. The electric bulb fights the sun.'[3] Schools may be more permeable by daylight these days, but the mighty floor plates of the great office buildings of North America and Asia create similar conditions for workers who were educated in the schools of which Kahn was so critical.

Of course in the end, he understood how to manipulate electric and sunlight better than almost anyone else in the twentieth century (apart perhaps from Aalto). Kahn's Kimbell Art Museum at Fort Worth has a masterly combination of natural and artificial light, modulated by the building, and perfectly adjusted to the pictures it houses; it has been one of the most influential patterns for gallery lighting in the last four decades.

Kahn's imagination and sensitivity were wonderful. 'I feel fusion of the senses', he said, 'To hear a sound is to see its space. Space has tonality, and I imagine myself composing a space, lofty, vaulted or under a dome, attributing to it a sound character alternating with the tones of the space, narrow and high, with graduating silver, light to darkness. The spaces of architecture in their light make me want to compose a kind of music, imagining a truth from the sense of a fusion of the disciplines and their orders'.[4] (Does anyone teach like that anymore? And, if they do, does anyone listen?)

Kahn believed that great architecture is formed from continuous interaction of structure and light. For him, shade was as important as daylight: 'Structure is the maker of light. A column and a column bring light between them. It is darkness-light, darkness-light, darkness-light, darkness-light'.[5] And he was fascinated by the way in which daylight changes constantly. 'Even a room which must be dark needs a crack of light to know how dark it is. But architects in planning rooms today have forgotten their faith in natural light. Depending on the touch of a finger to a switch, they are satisfied with static light and forget the endlessly changing qualities of natural light, in which a room is a different room every second of the day.'[6]

Writing in the early 1930s, the Japanese novelist Jun'ichiro Tanizaki brought another but similar sensibility to the nature of light and darkness in buildings when he talked about 'the magic of shadows' in traditional Japanese architecture. 'Our ancestors…by cutting off the light…imparted to the world of shadows…a quality of mystery and depth superior to any wall painting or ornament.'[7] Tanizaki's sensitivity was extremely subtle in ways that are practically incomprehensible to most westerners (and perhaps to most present-day Japanese too). 'Sometimes a superb piece of black laquer-ware, decorated perhaps with flecks of silver and gold – a box or…a set of shelves – will seem to me unsettlingly garish and altogether vulgar. But render pitch black the void in which they stand, and light them not with the rays of the sun or electricity but rather a single lantern or candle: suddenly those garish objects turn somber, refined, dignified.'[8] The lavish use of gold in Japanese temple interiors must, thought Tanizaki, have come from their builders' understanding of how 'it gleams forth out of the darkness and reflects the lamplight'.[9]

Too much light?

Not unnaturally, Tanizaki did not like electric light, though, like Kahn, he could understand its utility. 'In most recent Western-style buildings, the ceilings are so low that one feels as if balls of fire were blazing directly above one's head… One of these balls of fire alone would suffice to light the place, yet three or four blaze down from the ceiling, and there are smaller versions on the walls and pillars, serving no function but to eradicate every trace of shadow.'[10]

Tanizaki wrote seven decades ago, at a time when interiors were in general much less strongly illuminated than they are today. But his feelings still have relevance. Perhaps we have too much light and not enough shadows. It is ironical that we generally continue to pursue quantity at the expense of quality in illumination when technological development is offering so many new opportunities. Daylight can be manipulated with such devices as electro-and phototropic glass, automated louvers and blinds, and reflective and prismatic techniques such as are used by Behnisch, Behnisch & Partner in Cambridge, Mass. (opposite and p59). New possibilities for manipulation of artificial light are endless as control systems become ever more sophisticated, and new sources of illumination in buildings such as LEDs, new fluorescents and high temperature plasma are developed.

But so far, imaginative response to such technical advances has been pretty unimpressive (except perhaps in show-business). Indeed, imaginative response to electric light has been far from exciting. Not surprising perhaps, for day and sunlight have been around since the beginning of time, and universal, abundant and affordable artificial light has been developed only within the last 100 years. Yet it is surely time for new approaches to be developed rather than the wasteful, polluting[11] bureaucratic requirements of standard levels of luminance on every work-surface. We should also be able to combine natural and artificial light in creative ways. A few exciting and innovative examples (such as the one opposite) begin to show what can be done. They should be studied and built on. Bring back variety – and shadows. P.D.

1 Le Corbusier, *Towards a New Architecture*, (Trs Frederick Etchells), Architectural Press, London, 1946, p 31.
2 *Ibid*, p32.
3 Kahn, Louis, *Architecture: Silence and Light*, 1970, reprinted in Louis I. Kahn, *Writings, Lectures, Interviews*, ed Allesandra Latour, Rizzoli, New York, 1991, p252.
4 Kahn, quoted in Latour, *ibid*, from Space and Inspirations, *L'architecture d'aujourd'hui*, Feb-March, 1969.
5 *Silence and Light*, *Op cit*.
6 *Idem*.
7 Tanizaki, Jun'ichiro, *In Praise of Shadows*, trs Thomas Harper and Edward Seidensticker, Jonathan Cape, London, 1977, p34.
8 *Ibid*, p25
9 *Ibid* p26
10 *Ibid*, P55.
11 Polluting not only because they waste electricity and therefore cause unnecessary consumption of fossil fuels and production of greenhouse gasses, but because unnecessary light pollutes our senses. From Los Angeles to Lahore, it is increasingly difficult to see the sky at night.



INSTRUMENT OF LIGHT

Richard Meier's long awaited church in Rome is a beautifully honed giver and receiver of light.

Richard Meier's Rome church is one event originally planned to mark the celebrations of the Jubilee of AD 2000. This was initiated by the Pope in 1994 when he called for a Special Consistory to prepare for the Great Jubilee at the starting point of the third millennium involving the Catholic world as a whole. Meier's project is the 50th church to be inaugurated in the Vatican's Millennium Project. Each church has a community centre and they are built in various parish districts throughout Rome.

The Jubilee Church commission was the result of an international competition, and the Vatican's shortlist included Meier, Gehry, Behnisch, Calatrava, Eisenman and Ando. The award of the project to Meier was controversial from the outset, in that Meier as a Jew would be working with the foremost Catholic client – the Vatican itself. However, the relationship and the resultant complex are a triumph of this collaboration, and entirely successful in architecture of outstanding optimism.

The church, named Dio Padre Misericordioso (God our Merciful Father) by Pope John Paul II, was consecrated and inaugurated on 26 October 2003 by Cardinal Camillo Ruini in a four-hour service of celebration, music and ritual. This was attended by a huge congregation both within the church itself and externally on the church piazza.

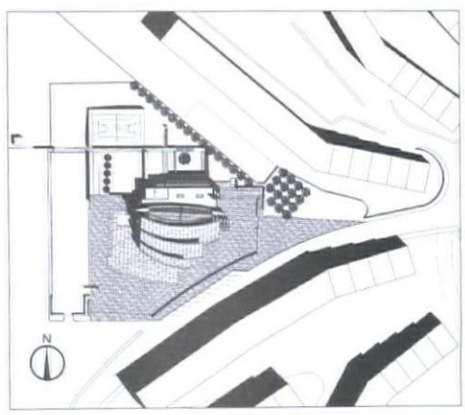
The church is in an ordinary 1970s 10-storey housing quarter at Tor Tre Teste, a suburb at some distance from the centre of the city. Taken together, church and community centre form a spectacular new focus in an otherwise low-key suburban environment, and define both a religious precinct and a heartening sense of place. Meier has said that '... expression of aspiration, hope and belief, as well as openness and transparency are all aspects of the ideas behind the design of this church'. It is a wonderful gift to the whole community of more than 25 000 people.

The fan-shaped site is approached directly from the east across a travertine paved entrance piazza (*sagrato*), which extends as a base to the church on the south and west of the precinct. The entrance is marked by several external features including a silver cross, and a campanile with exposed bells – the tower marking out both the church to the south and the community centre to the north. The generous entrance hall, defined by a travertine screen wall, is partly enclosed within by a raised organ loft. Once in the nave, the main altar is immediately visible at the west end. Although unconventional, this position is a logical result of the frontal eastern entrance.

Plan-form and section are extremely clear. Three circles of equal radius create three concrete shells to the south and together with a thick spine wall to the north, the main space of the church nave is contained. In a contrasting, plain L plan around a sunken courtyard, is the community centre, on four levels. The centre is separated from the main church by a linear top-lit atrium.

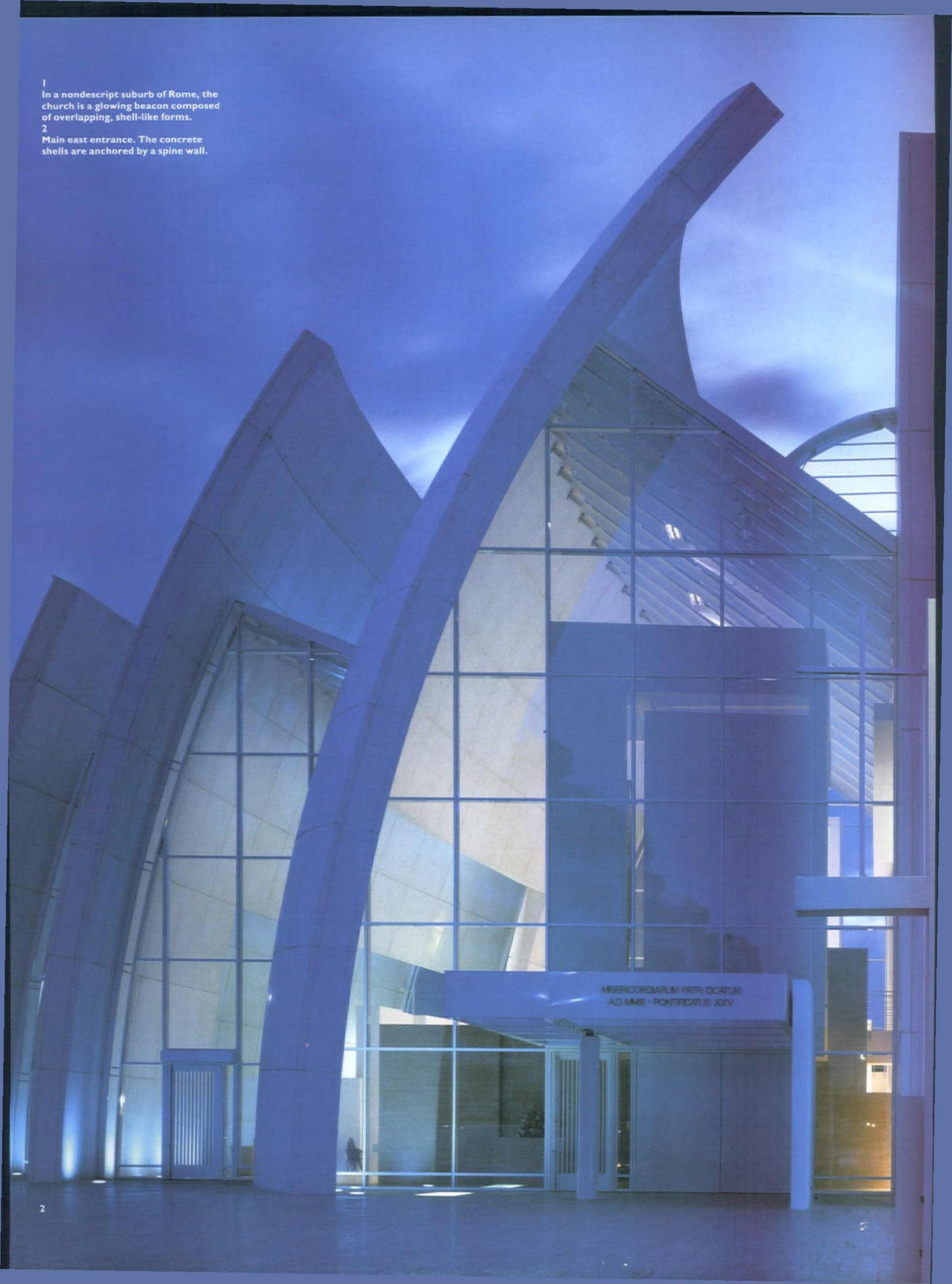
The plan of the church is essentially traditional with nave, altar, side chapel and confessional booths. Introduction of the three shells transforms the project and implies the Holy Trinity. Natural light is the major theme, with skylights between each shell and over the main space, creating ever changing patterns within. Meier has referred to this as '... a luminous spatial experience ... the rays of sunlight serve as a mystic metaphor of the presence of God'.

Curving in both plan and in section, the three shell wall planes are the real tour de force in the whole project. They are sweeping vertical cantilevers formed with panels of beautiful white concrete with a finish so fine that it resembles marble. Meier's description of the engineering effort involved in erecting the shells as

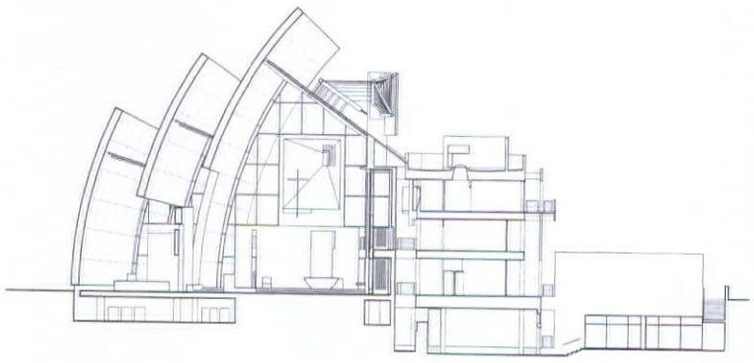


site plan

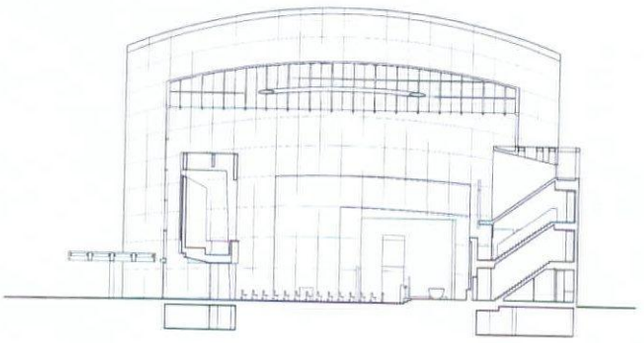
CHURCH, ROME, ITALY
ARCHITECT
RICHARD MEIER



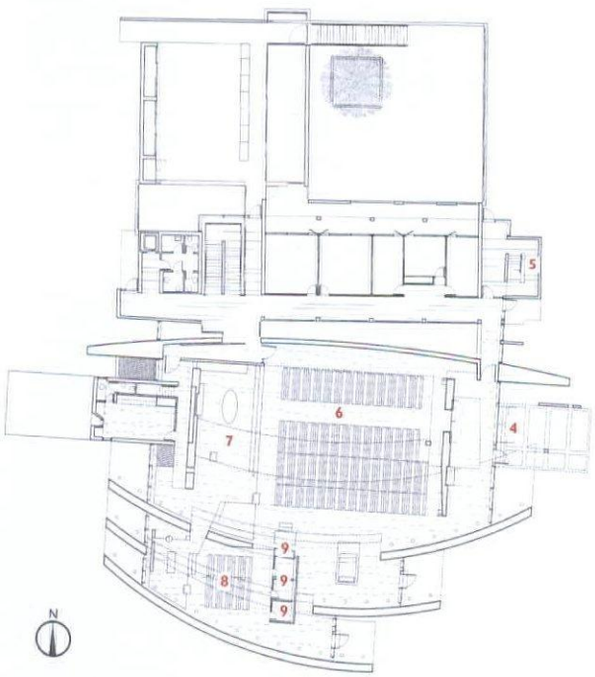
1
In a nondescript suburb of Rome, the church is a glowing beacon composed of overlapping, shell-like forms.
2
Main east entrance. The concrete shells are anchored by a spine wall.



cross section

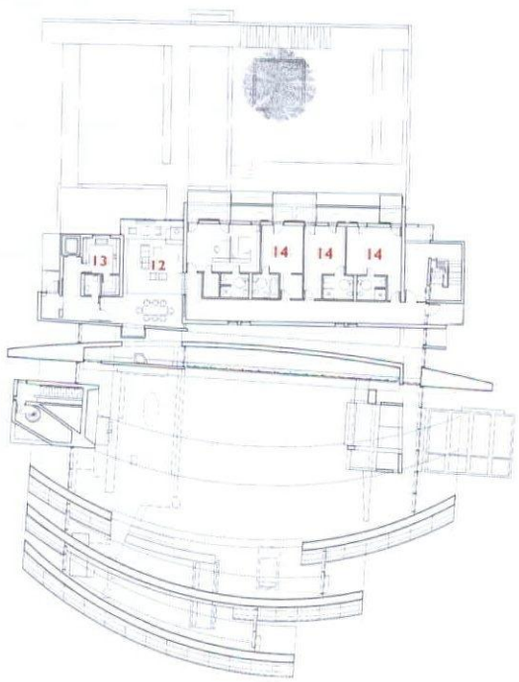


longitudinal section

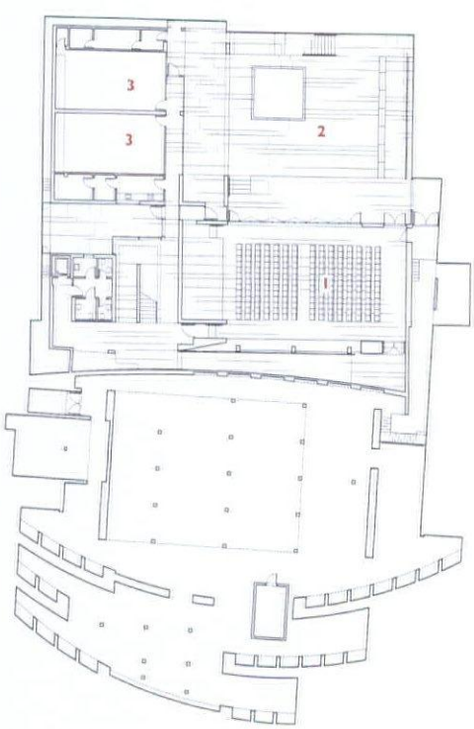


ground floor plan (scale approx 1:500)

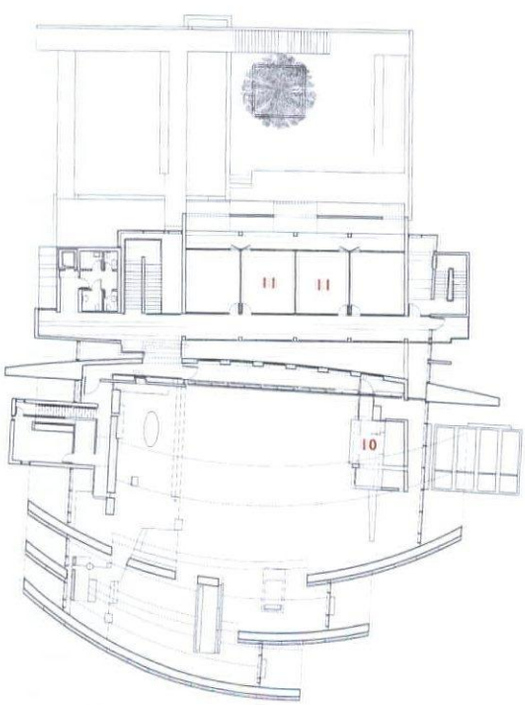
1 meeting room
2 courtyard
3 community centre
4 main (east) entrance
5 campanile
6 nave
7 altar
8 side chapel
9 confessionals
10 organ loft
11 priest's offices
12 pastoral residence
13 kitchen
14 bedrooms



second floor



basement



first floor



3
The calm, luminous interior. The limited palette of materials (white concrete, travertine and timber) and studied absence of ornamentation enhances the air of serenity.

'Herculean', underlines the task involved in the achievement of the cantilevers. (They are prefabricated post-tensioned concrete panels.)

The three shells, or arcs, form a massive instrument of light – the most monumental gesture of Meier's whole repertoire – and embody the sacred space at the heart of the church. In contemplating the design, Meier has referred to both Le Corbusier at Ronchamp and especially to Aalto and the Church of the Three Crosses in Finland. Aalto's church at Riola, near Bologna, came to mind in visiting the Jubilee Church.

The interior space and materiality of the main nave and side-chapel are serene and beautifully crafted. The limited range of materials – travertine, white concrete and light wood – predominates and there is currently an absence of any decoration. The white concrete shells contrast with the travertine and slatted wood of the spine wall; otherwise the nave is occupied only by the simple ranges of wooden pews. The white stucco organ loft with its silver clusters of pipes, and the sculpted white altar, form counterpoints at the two ends.

The altar plinths and furniture are all formed in the same travertine as the nave floor. Each element of the furniture is exemplary, and some items such as the casket for communion wafers (a gold box in the side chapel) are quite exquisite. The only concession to tradition is a nineteenth-century cross above the main altar.

At night, the whole church is a giver of light to the outer world and again the three shells, and the transparent ends of the church, give a spectacular signal of a sacred entity within the community.

The community centre has its main approach from the eastern church *sagrato* through the central linear atrium. Secondary entrances are provided from two courtyards. The basement holds the major meeting hall (Sale di Riunione) adjacent to the sunken courtyard. Both courts are intended for staging community events associated with the church.

Upper levels include the parish priest's offices and catechism rooms. The second floor houses the pastor's residence and the kitchen. The residence incorporates a splendid living room with a raised ceiling and top light, and includes a brick hearth and fireplace. It has fine views of the parish: housing and the community at large.

The western half of the site includes discreetly placed parking and a landscaped area, within rising walled ground, planted with olive trees. The whole of the secular precinct and the community centre is in white stucco, with the north elevation enlivened by balconies. The minimal nature of the centre is an appropriate contrast to the exuberance of the main church.

Although this is Meier's first church, the parti of the plan and section are unique within his work, and the beautiful white precast concrete walls of the shells a resounding success in the use of materials and structure. This church is truly part of the twenty-first century – a new landmark and place of pilgrimage for the faithful.

IVOR RICHARDS

Architect
Richard Meier & Partners, New York
Structural engineers
Ove Arup and Partners, Italcementi
Mechanical engineers
Ove Arup and Partners, Luigi Dell'Aquila
Lighting consultants
FMRS, Erco
Photographs
Edmund Sumner/VIEW

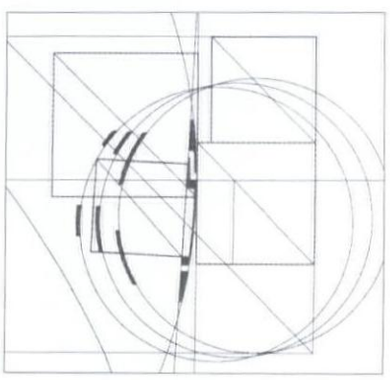


4

4
Detail of organ loft.
5
Both literally and metaphorically, the church is a giver and receiver of light.

CHURCH, ROME, ITALY

ARCHITECT
RICHARD MEIER



origin of plan geometry



axonometric projection



Visitors' centre, Garden Grove, California, USA
Architect
Richard Meier & Partners



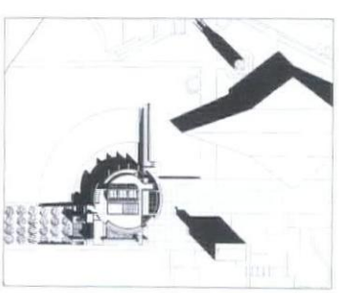


THE ART OF THE POSSIBLE

A new visitors' centre for the Crystal Cathedral complex not only unifies a set of disparate buildings, but also uses light to evoke a powerful sense of the numinous.

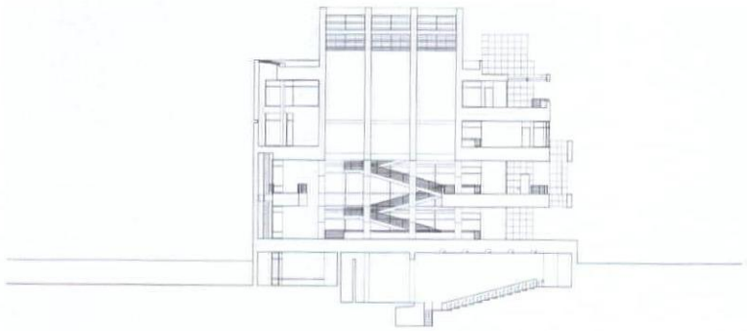
Orange County is a featureless suburban wasteland that occupies much of the arid plain between Los Angeles and San Diego. Everything there is themed, from Disneyland to the meanest mall, and developers have fought, with striking success, to make this an architecture-free zone. And yet, as everywhere in southern California, surprises lurk, and one of the more remarkable is a Modernist oasis in Garden Grove, an hour's drive south of LA. Evangelist Robert H. Schuller launched his ministry in a drive-in theatre, but his architectural ambition matched that of a Renaissance Pope. In 1962 he turned to Richard Neutra to create a structurally daring church that opened down one side, and Neutra later added the 15-storey Tower of Hope. In 1980, he commissioned Philip Johnson and John Burgee to design the Crystal Cathedral (AR January 1981), a soaring, star-shaped glass shed, with a roll-away wall that unites the congregation of walk-in and drive-up parishioners. Johnson returned in 1990 to do a shiny, shard-like campanile.

Each of these structures has a strong presence, but they didn't relate well to each other, and the complex – which draws thousands of worshippers and tourists every week – lacked a core. Schuller took his problem to Richard Meier and his partner, Michael Palladino, who were then polishing their design for the Getty Center (AR February 1998). The preacher spoke, the architects sketched, and they quickly agreed on a cylindrical visitors' centre that would open up in every direction, play off the sharp angles of the existing buildings, and engage them in a dialogue. The rotunda was to be clad in anodized aluminium and clear glass to contrast with Neutra's concrete and Johnson's reflective surfaces, but the client was persuaded to raise additional funds for embossed stainless steel, a more handsome and more durable facing material. This is a first for Meier, whose signature has long been white-enamelled steel panels, and it achieves its goal of absorbing and softening the

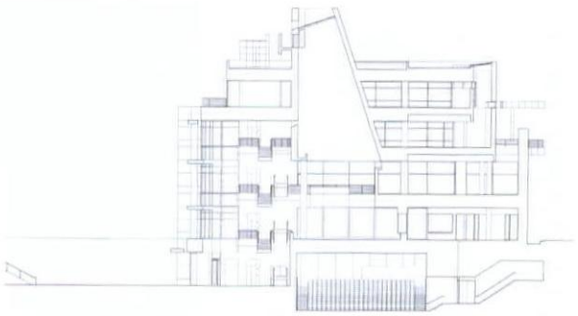


site plan

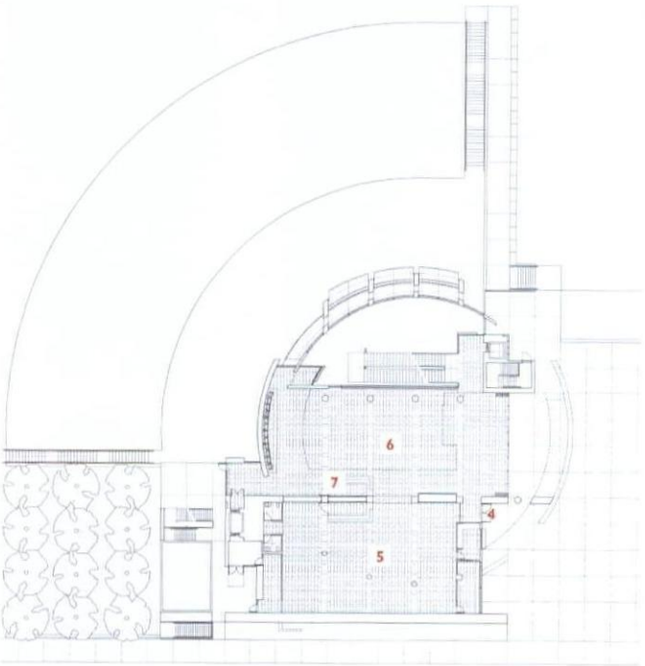
1
The fractured drum of Meier's new building both unites and plays off the existing elements.
2
Johnson's Crystal Cathedral (far right) and campanile frame the new visitors' centre.



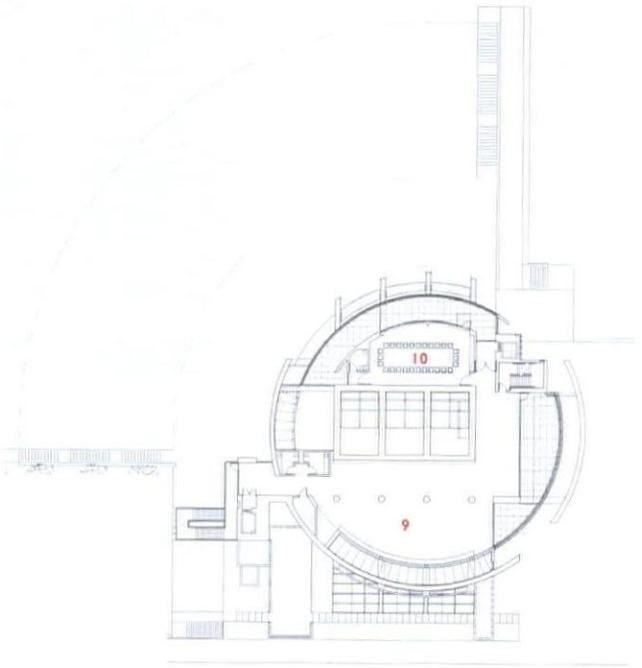
cross section looking north



cross section looking west



ground floor (entrance level) plan, scale approx 1:750



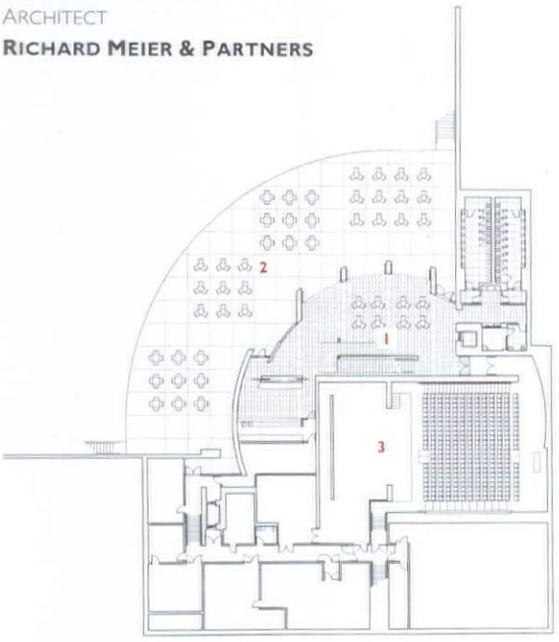
third floor

VISITORS' CENTRE, GARDEN GROVE, CALIFORNIA, USA

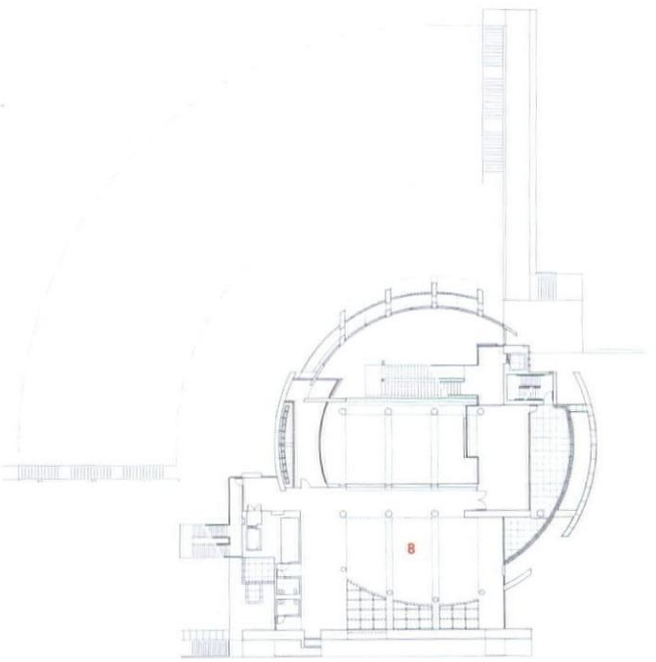
ARCHITECT

RICHARD MEIER & PARTNERS

1 café
2 piazza
3 auditorium
4 entrance
5 shop
6 foyer
7 information
8 exhibition space
9 library
10 meeting room

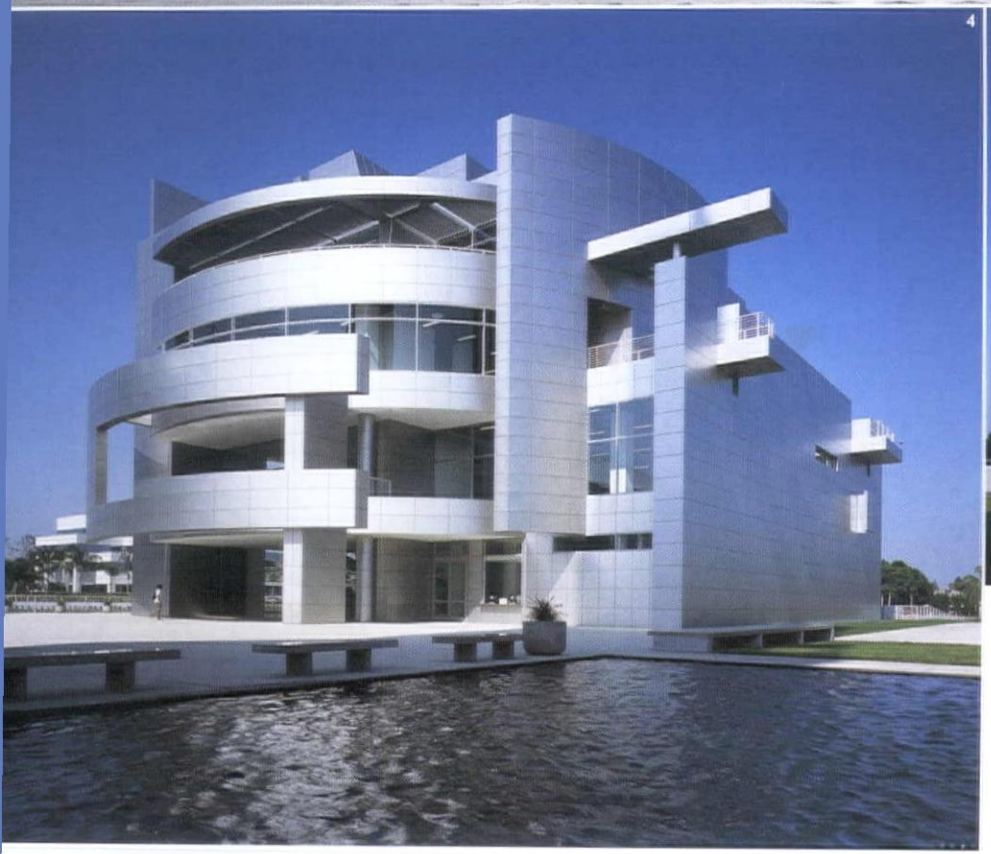


lower ground floor



first floor







3
Entrance level. The building acts as a civic hub, energizing the formerly vacant space.
4
Stainless-steel cladding (a first for Meier) absorbs and softens the harsh glare of the sun.
5
A sunken piazza adjoins an auditorium and café at lower level.

harsh glare of the Californian sun. Polished, integral-coloured concrete floors and an exposed aggregate piazza unify the indoor and outdoor spaces and create a visual link to the existing Neutra buildings.

The programme, which evolved in discussion, is remarkably similar to that of the Stadthaus in Ulm (AR June 1995). There, too, Meier was asked to create a civic hub that would energize vacant space and focus attention on a cathedral. In Garden Grove, a 300-seat auditorium and a café open into a sunken piazza at the lower level. An information desk and a gift shop on the entrance level lead out of a lofty skylit atrium. Two storeys of galleries containing exhibits on the history of the ministry and an upper-level library, wrap around this central void. An open staircase, which evokes the projecting escape stairs on the Tower of Hope, is backed by an arc of glass that feels as though it is suspended in light. As in the cathedral, the emphasis is on natural ventilation to minimize the use of air conditioning through the hot summers. The north wall opens up to the sunken courtyard to draw in cool air, and the tapered lanterns serve as thermal chimneys, with openable louvres to evacuate hot air.

Here, as in all of Meier's best buildings, sheer planes are cut away to layer the space and diffuse the light, achieving depth and complexity with minimal means. The cool white interior walls are a foil to the stainless baffles that shade expanses of glass. Three lanterns over the atrium frame pieces of sky like a James Turrell light sculpture. Bars of sunlight move around the straight and canted sides of these deep white boxes, drawing your eyes upwards and achieving a sense of spirituality. Gazing up to heaven was not part of the mandate, but this central space is more numinous than Neutra's church or Johnson's cathedral – which, for all its transparency and drama, resembles a convention centre in its relentless symmetry.

As in Moneo's Cathedral of our Lady of the Angels in downtown LA (AR March 2003), the architecture is compromised by the client's urge to clutter noble spaces with pious kitsch. The lobby furnishings are suffocatingly genteel, and as pedestrian in their arrangement as those in a Marriott hotel lobby. Evelyn Waugh would have great sport with the 'International Center for Possibility Thinking' (as the building has been named), and would revel in the oversized garden gnomes masquerading as inspirational 'artworks', which line the surrounding walkways. By contrast, the grounds of Forest Lawn seem tasteful and restrained. MICHAEL WEBB

Architect
Richard Meier & Partners, Los Angeles
Photographs
John E. Linden/Arcaid

6
The open staircase.
7
Planes are cut away to layer the space and admit light.

VISITORS' CENTRE, GARDEN GROVE, CALIFORNIA, USA
ARCHITECT
RICHARD MEIER & PARTNERS



6



7

HEADQUARTERS BUILDING, CAMBRIDGE, MASSACHUSETTS, USA
ARCHITECT
BEHNISCH, BEHNISCH & PARTNER



LUMINOUS PARADIGM

The Genzyme Center brings transforming imagination to US office design, adding environmental and human dimensions.



1
Externally, the Genzyme Center conforms to a rigorous masterplan and does not seem revolutionary.
2
Glazed curtain walls have tracts of openable windows and deep cavities with various blinds and curtains.

Seen in passing, the Genzyme Center in Cambridge, Massachusetts does not seem particularly revolutionary. It looks very much like another glass-clad corporate headquarters, even if its profile and massing are slightly unusual, and its cladding is strangely varied. On the edge of the city near Longfellow Bridge and Broad Canal, it forms part of a new development on an abandoned industrial site. Genzyme is one of the first of seven new buildings being built to a masterplan by Urban Strategies of Toronto that determined overall envelope and massing.

Behnisch, Behnisch & Partner of Stuttgart, and of Venice, California are the architects of the Genzyme Center. Their proposal was selected in competition, yet the development of the USA's first large environmentally aware office block was created in intimate collaboration with the developer client, Lyme Properties LLC and tenants, the Genzyme Corporation. Dan Winny of Lyme explains that, at competition stage, they did not select the Behnisch practice because the developers wanted to make a green building, but because they were attracted to 'the quality and freshness of the European design work'. During the competition, in which the by then probable tenants Genzyme were involved on the jury, it became clear that the Behnisch proposal was what Winny calls 'a concept for a radically different type of innovative building based on principles of responsible energy use ... maximizing the environmental quality of the workplace'. In other words, the Center was to be built to principles now commonly accepted in the German-speaking lands and Scandinavia.

But the Behnisch building is far more than a conventional transfer of European values across the Atlantic. Its central atrium is literally breathtaking, a joyous paean of luminous space, with which the office floors engage in terraces, balconies and platforms. The complex social life of the office is revealed as you look up, with open-plan offices (American style but involving low cubicles) mingled with private (though usually transparently walled) individual rooms, open stairs linking particular floors to encourage formation of vertical as well as horizontal forms of local office communities. The architects' aim is to create vertical urbanity, with public and private spaces, conference rooms, a cafeteria, and library and internal gardens to clean and oxygenate the air. It is too early yet to see whether all these measures will work, and particularly whether they will work together. But early evidence is promising. In its optimism, the space is highly reminiscent of Hertzberger's Centraal Beheer when it first opened as a brilliant and radical experiment in organizing offices that respect individuals and small groups as well as the organization.

As far as possible, all workplaces receive daylight, either from the perimeter or from the atrium. On clear days, the void is filled with daylight that is transmitted down through the ceiling prism elements. A system designed by the Austrian firm Bartenbach Lichtlabor involves seven solar-tracking mirrors on the roof at the north side of the atrium that reflect light to fixed mirrors on the south side, from where the sun's rays are deflected downwards to the pools at entrance level, whence they shimmer upwards. (The system is not dissimilar to the one used by Foster in the Hong Kong Bank, AR April 1986). On the way down, sunlight is intercepted and deflected by the multiple moving prism plates of roof-hung chandeliers. According to the angle at which sunlight hits them, the plates reflect or transmit, distributing sunshine into surrounding office spaces. The devices, with their ever-changing patterns of sunlight, are one of the reasons why the space is so breathtaking when you first see it. Its luminosity is further enhanced by reflective balustrades and a lamellar wall on the south side of the atrium: the vertical lamellae are moved to change the wall's reflectivity according to the angle of the sun and the nature of the sky.

Artificial and natural lighting are related by sensor systems that slowly dim overhead lights when the atrium's total luminosity is appropriate. All workplaces have low-energy task-lights, which both allow people to control their immediate environments and add to the feeling that the building is a congregation of individual places.

HEADQUARTERS BUILDING, CAMBRIDGE, MASSACHUSETTS, USA

ARCHITECT

BEHNISCH, BEHNISCH & PARTNER

3
Foyer with Behnisch trademark grand stair. Light enters from top and sides and is reflected by chandeliers and pools.



site plan



section through entrance

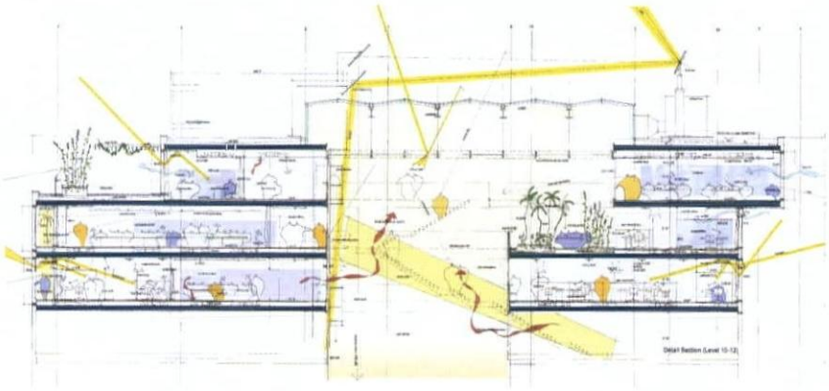


HEADQUARTERS BUILDING, CAMBRIDGE, MASSACHUSETTS, USA

ARCHITECT

BEHNISCH, BEHNISCH & PARTNER

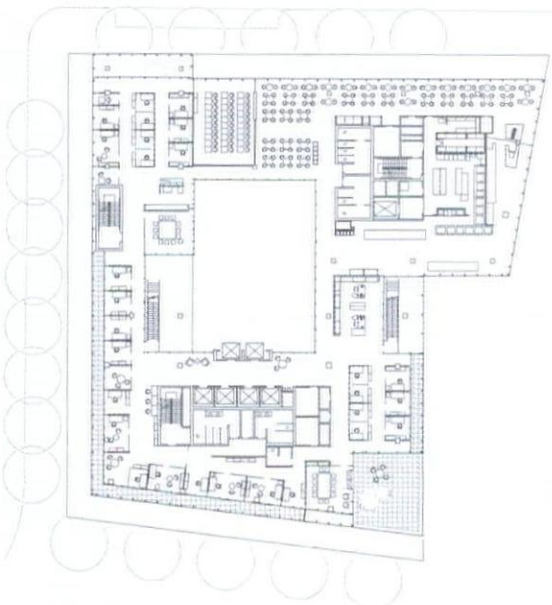
4
Every effort is taken to increase daylight penetration of office areas with prismatic squares of chandeliers, ceiling reflectors and reflective balustrades.



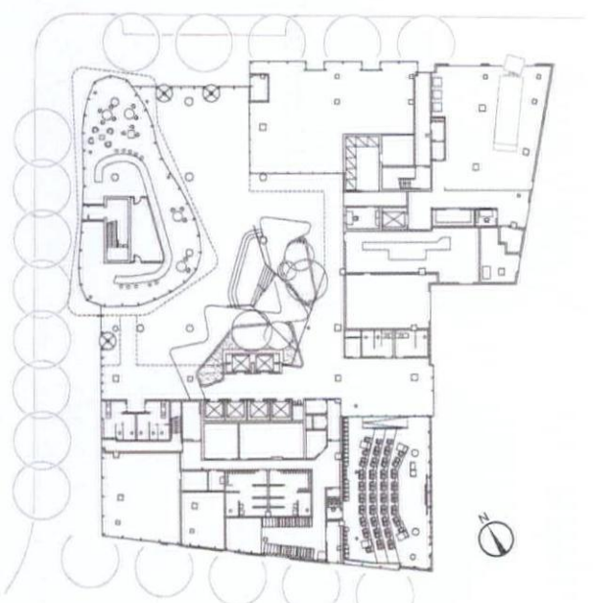
principles of day- and sunlight penetration to atrium and offices



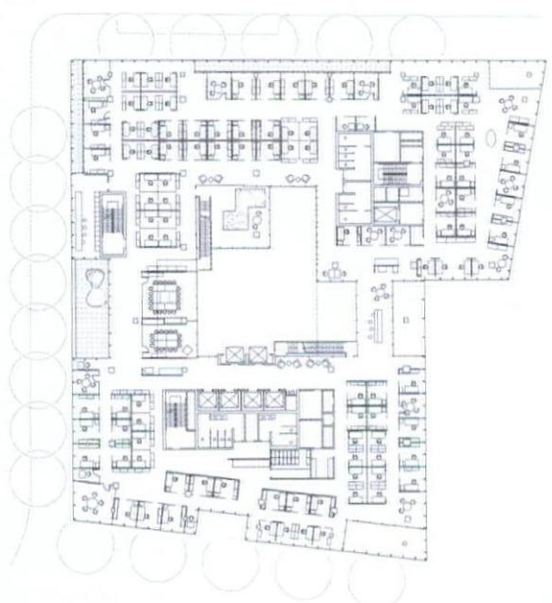
first floor



11th floor



ground floor (scale approx 1:900)



4th floor





As well as being a great light-chute, the atrium is the central element in the building's climate control system. It forms a huge waste-air chimney. Fresh air reaches occupied areas from ceiling grilles, or through the openable parts of the perimeter walls. Pressure differentiation drives used air to the atrium, where it ascends to be expelled at roof level. Energy for the heating and cooling system is provided by steam from a small local power station two blocks away from the site. In summer, the steam drives absorption chillers; in winter, its heat is exchanged into heating for the building. Buro Happold, who designed the climate control system, claim that there are no distribution losses in this energy system, and that its emissions are reduced by filters at the power plant. Energy-saving considerations go even as far as rainwater handling: some of it is used to supplement supplies to the cooling towers (saving city supplies) and some feeds the landscaped roof.

Curtain walls wrap the perimeter (designed in conjunction with Happold's and Bartenbach Lichtlabor). Over all 12 floors, they have openable windows that are linked to the building management system that automatically opens them on cool summer nights to reduce the temperature of the building. Over 30 per cent of the external envelope is a ventilated double facade with a 4ft (1.22m) interstitial space that acts as climate buffer. In winter, the voids capture solar gains and re-radiate them to the interior. In summer, various shading devices including adjustable sun protecting blinds and coloured curtains reduce insolation. As the opening of windows and the adjustment of the blinds are controlled by individuals, the building's appearance constantly changes in detail.

This external indication that users are valued and have some control over their individual working conditions is echoed in sensitive detailed handling of interior finishes and choice of furniture. The bits you can touch are welcoming – cloth or wood, rather than plastic. Cubicle walls are capable of much flexibility, not just for management re-arrangements, but so that individuals can make their own work spaces particular.

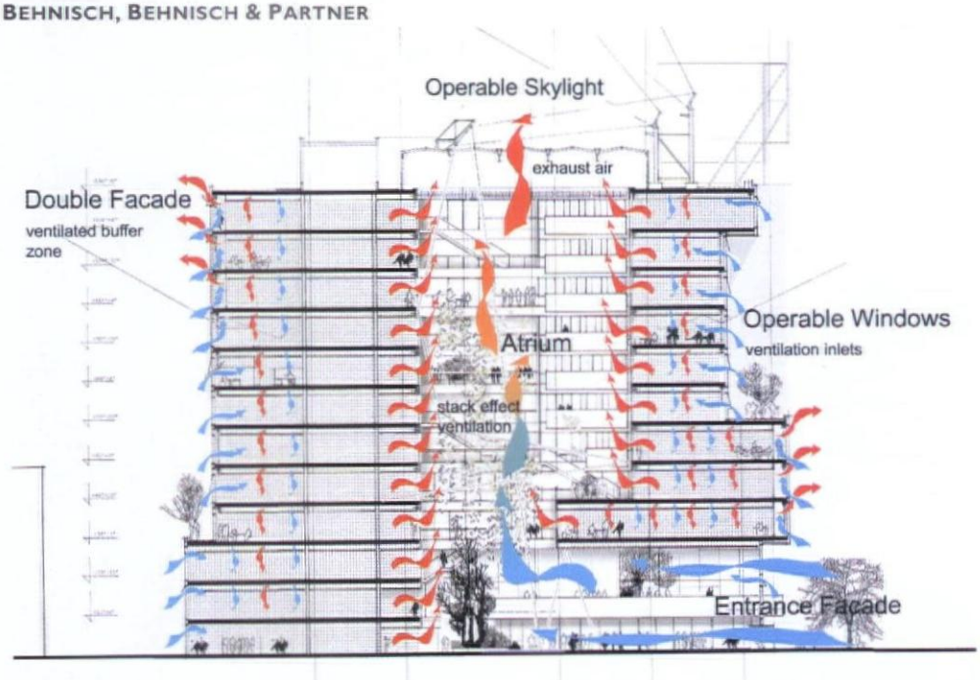
The Genzyme Center is a truly brave building. Its realization of the inspiring belief that North American offices can be made more decent to work in than the usual dreary deep indoor prairies needed great and unusual trust and vision between developer, tenant, architect and all consultants. So did the notion that an environmentally friendly building that costs more initially than its conventional equivalent will eventually provide handsome paybacks for its developers, tenants and occupants alike. It is an inspiring shift in the evolution of the office building type, more inventive and integrated than almost anything yet built, even in Europe. Every aspect of its performance should be measured, and luckily there are lots of local academics just up the road who are capable of doing the job.

The Genzyme Center is almost the complete opposite of normal US office block produced by core-and-shell development, where architectural efforts are so often perforce confined to decorating exteriors. Here, an immense amount of creative energy has been poured into the interior. Externally, the building is constrained by a rather dumb masterplan. What could the Behnisch team have done with it had they been given a freer hand? P. D.

HEADQUARTERS BUILDING, CAMBRIDGE, MASSACHUSETTS, USA

ARCHITECT

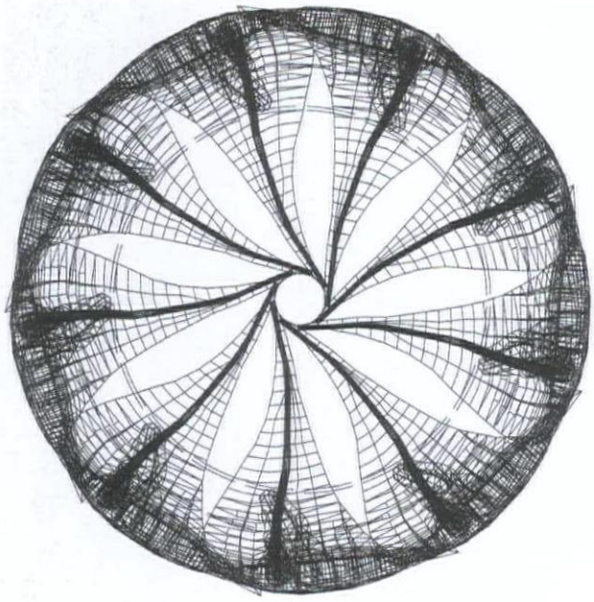
BEHNISCH, BEHNISCH & PARTNER



Architect
Behnisch, Behnisch & Partner
Project team
Stefan Behnisch, Christof Jantzen, Günther Schaller, Martin Werminghausen, Maik Neumann
Executive architects
House & Robertson, Los Angeles: Douglas Robertson, Nick Gillock, Patricia Schneider
Next Phase Studios, Boston: Richard Ames, Scott Payette
Masterplanning
Ken Greenberg
Environmental consultancy, structural and M/E/P/engineers
Buro Happold
Green building consultant
Natural Logic: Bill Reid
Planting interior gardens
Log ID
Natural and artificial lighting
Bartenbach Lichtlabor
Workspace design
DEGW: Frank Duffy
Photographs
Roland Halbe

5, 6
Trays and terraces of office accommodation linked by open stairs are intended to foster feelings of a community of small groups.





steel structure from top (scale approx 1:400)

Beacon of faith

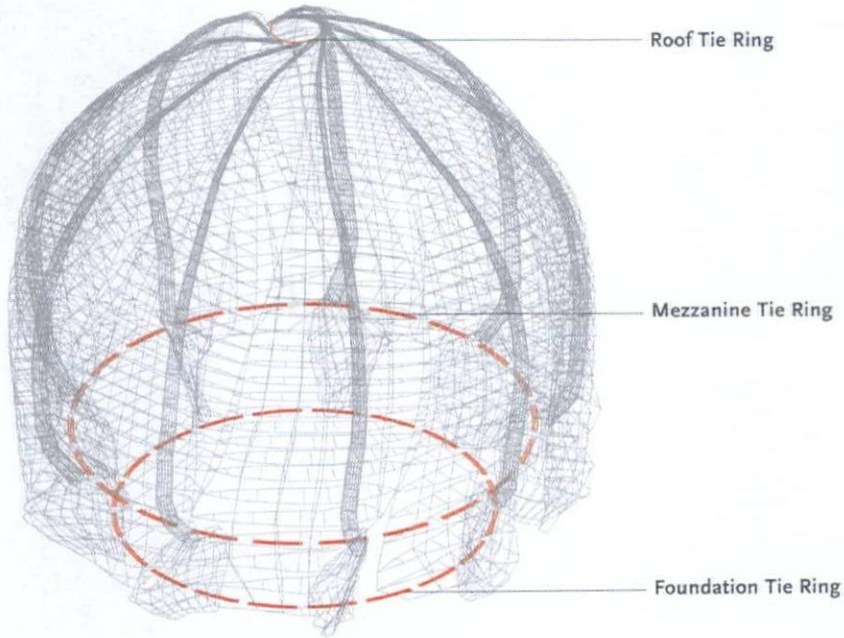
A beacon of faith in South America will glow at night and focus natural light in daytime.

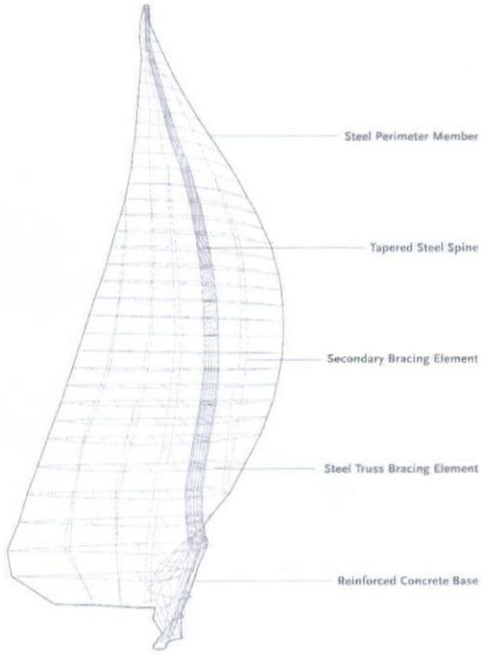
TEMPLE, SANTIAGO, CHILE
ARCHITECT
HARIRI PONTARINI ARCHITECTS

When it is finished in 2007, the Bahá'í Temple proposed for a site near Santiago in Chile will ensure that the faith will have a Mother Temple on all continents. Hariri Pontarini of Toronto were winners of the 185-entry design competition, which was based on a brief that expresses some of the essential tenets of the Bahá'í faith. Founded in mid-nineteenth century Persia by the prophet Bahá'u'lláh, the religion teaches that divine revelation is continuous and progressive, and that all the great religions of the world are fundamentally in harmony. There is no priesthood, and followers are equal, regardless of sex, income and race; they are all enjoined to work for world peace and unity.

The new temple had to act both as a symbolic lantern and a demonstration of the faith. So the programme called for a centrally focused domical building with nine equal entrances disposed symbolically to welcome people from all directions to prayer and meditation. In response, the architects have proposed a major central space (30m high and wide) for a congregation of 600. A gallery surrounds the volume and, under it, there are nine intimate and luminous chapels.

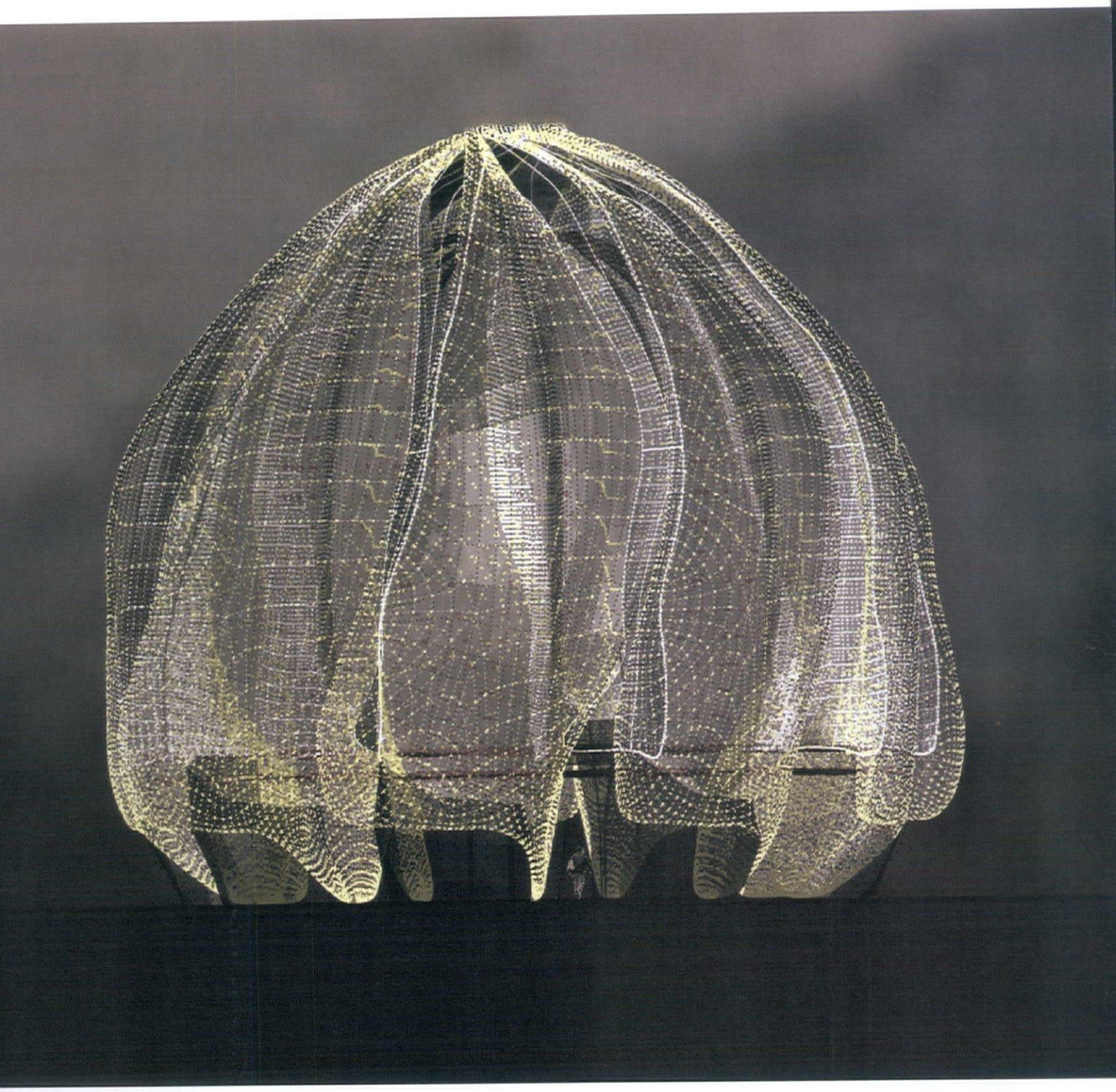
Wrapping round and defining the volume are nine huge leaves made of translucent white marble. Between these elegantly curving surfaces are glass membranes; within them is a





leaf abstracted from natural form

1
The timber filigree inner shell that will be suspended from the steel structure of the stone leaves.





site section

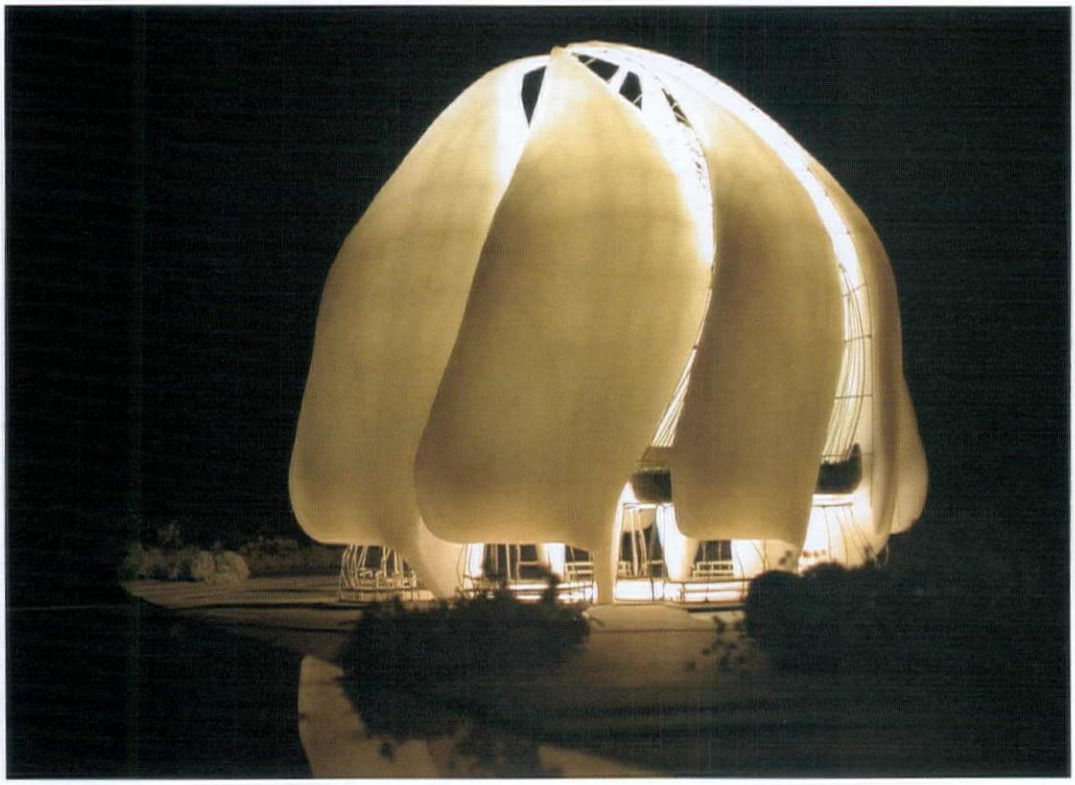
TEMPLE, SANTIAGO, CHILE
ARCHITECT
HARIRI PONTARINI ARCHITECTS

delicate timber tracery that plays with the daylight that fills the space transmuted through the glass and stone skins. Each stone leaf has a tapered and curved central steel stem, assisted by other vertical bracing elements. Connecting them, and forming the basis of the curved surface, are thin horizontal steel trusses: clearly, the basic structure does resemble that of a leaf, but the pattern has been altered and abstracted to translate it to a form that can be built.

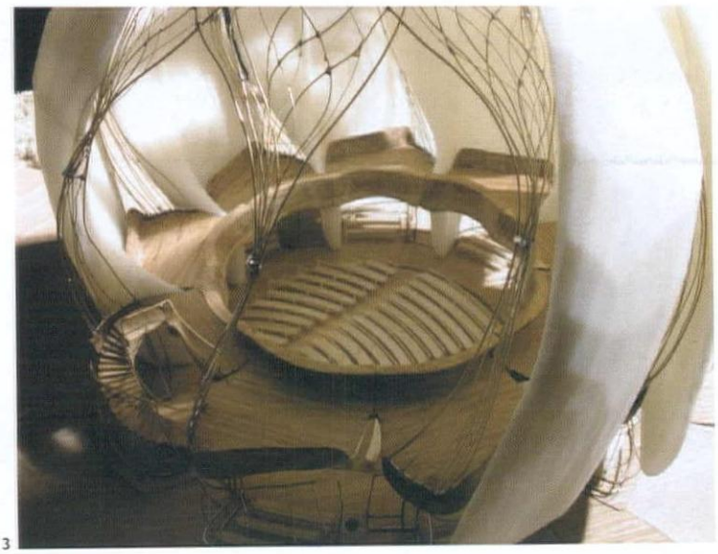
Leaves overlap at the apex of the dome, where their stems are connected by a tie ring. A further tie ring is at gallery level, and the concrete foundations form another. Because Santiago is prone to earthquakes, the whole structure had to be designed to accommodate ground movement and flex under lateral loads. The inner timber tracery is carried by the steel structure and will flex with the steel stems.

Round the temple will be nine quiet prayer gardens and a lily pool in which the great white leaves and the sky will be reflected. Inside, focus of the space will be on the centre, emphasized by light from the oculus contained by the upper tie ring. Light will be modified by the wooden tracery and will alter constantly as the sun moves round. At night, the stone shells will glow softly and the inner volume will be revealed between them. It should become a gentle and welcoming beacon to the whole of South America. E. P.

Architects
Hariri Pontarini Architects, Toronto
Structural engineer
Carruthers and Wallace Ltd Consulting Engineers



2



3

2
At night, the stone leaves will glow softly.
3
Cut-away model showing spatial organization.

MONASTERY, NOVY DVUR,
CZECH REPUBLIC
ARCHITECT
JOHN PAWSON ARCHITECTS



Nový Dvůr, the existing site, 1999.

'Even in ruins it is very beautiful –
it has soul, it is true'.
Br M. – Patrick Olive, Abbot of Sep-Fons





ETERNAL LIFE

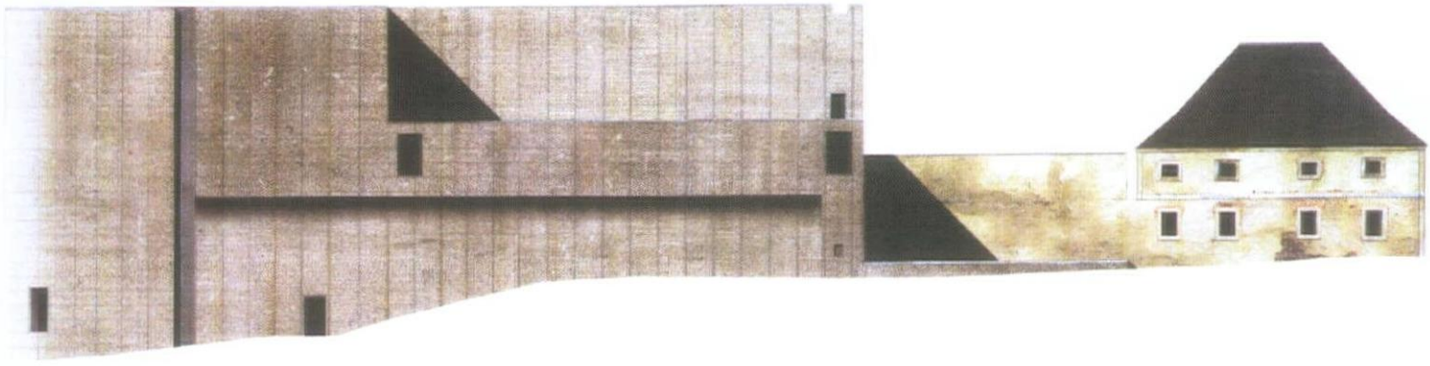
Having established his reputation applying monastic architectural principles to the home and the high street, Minimalism comes full circle with John Pawson's design for a new monastery in the Czech Republic.

While the story of a group of monks stumbling, lost, into Calvin Klein's flagship Manhattan store is an intriguing one, it is sadly not entirely true. What is true, however, is that after years of being inspired by the principles of Cistercian architecture, it was John Pawson's luxurious Madison Avenue interior that inspired the abbot of the Cistercian abbey of Sep-Fonts in Burgundy to invite him to create a new home for an emerging community of monks. Through the publication of his design canon, *Minimum*, the monks had discovered a contemporary form of architecture that was felt to be appropriate for their new monastery, and Pawson had received 'the commission of a lifetime': an opportunity to create a place where architecture's completeness could be expressed in emptiness; where space, proportion, light and materials could dominate, and where the richness of poverty need not be contrived. Nový Dvůr could be the fulfilment of *Minimum*, serving as an opportunity for Pawson to address critical observations that his work was appropriate for, and in response to, little more than extravagant aristocratic tastes.

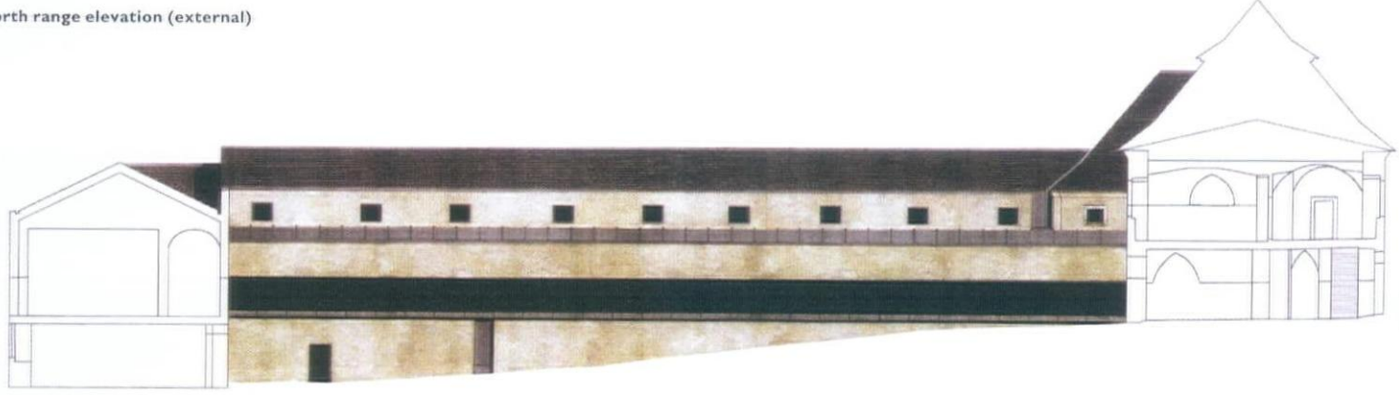
Despite the success of his trademark interiors, until now, Pawson has had little opportunity to build anything as substantial as the buildings that originally inspired him. His shop fit-outs were not timeless or permanent, and, for purists, they represented an uncomfortable contradiction, applying monastic scenography to sell excess: rich cakes and fine clothes. But this cannot be said at Nový Dvůr, which is a consolidation of his more substantial and respected domestic work. Living in a family home that even the monks considered too austere, Pawson's domestic designs create spaces that elevate day to day acts of sleeping, eating, bathing and dressing, and give potency to even the simplest of tasks.

With this commission – seen as an essentially domestic typology providing a home for up to forty monks – the success of Pawson's contribution to monastic architecture would ultimately rest on how he could make a place where they could seamlessly integrate rituals of life and religion. And, while influences for *Minimum* were broad – from Japanese concepts of Zen, to the Quakers and Shakers – the adaptation of St Bernard's twelfth-century architectural model for the Cistercian order remained the obvious precedent, celebrating the long-standing and profound relationship between architecture and theology, through light, proportion, detail and the spatial order of the cloister. But, before detailed design began, Pawson was invited to stay with the monks in the mother monastery in Burgundy. Sharing the rhythm of their lives, he woke before dawn to attend the first of seven daily offices, and took his meals in silence – an experience that gave him a unique insight as he recalled the attraction of the monks' quiet life – a life constructed around simple rituals, repetition and an absence of what is not necessary. With these experiences he was better equipped to set about creating their home, which for many will be the place where they spend their entire lives, without leaving.

When Pawson first visited the site five years ago, it comprised a derelict Baroque manor house with ranges of agricultural buildings that framed a large courtyard. Despite its melancholy beauty, no amount of pleasing decay could hide the serious condition of the structures. So, with buildings in need of demolition, or almost complete restoration, only the manor house was kept, giving Pawson the challenge of how to create a contemporary cloister and find the correct form for new structures that would be free from pastiche and charged with poetry.



north range elevation (external)

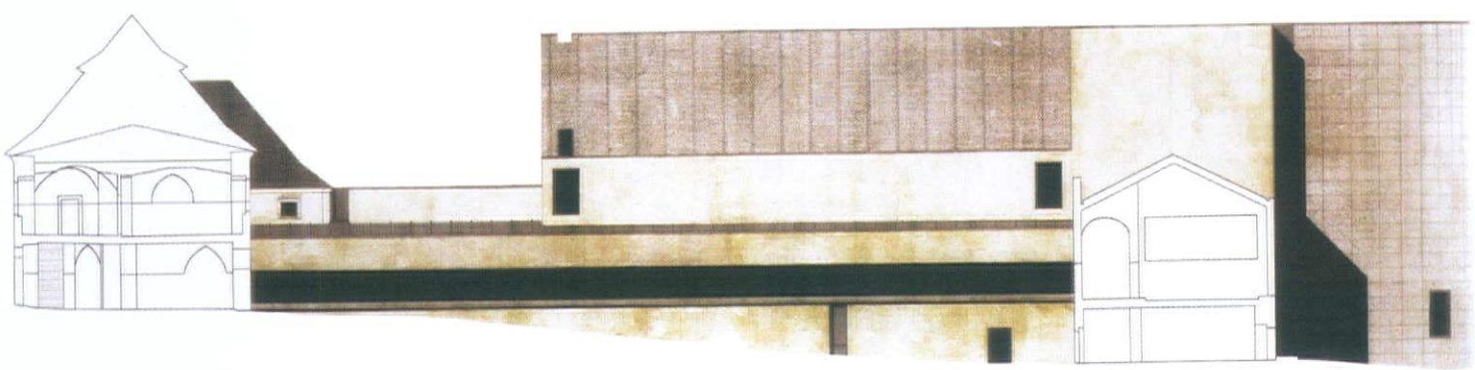


 south range elevation (internal)

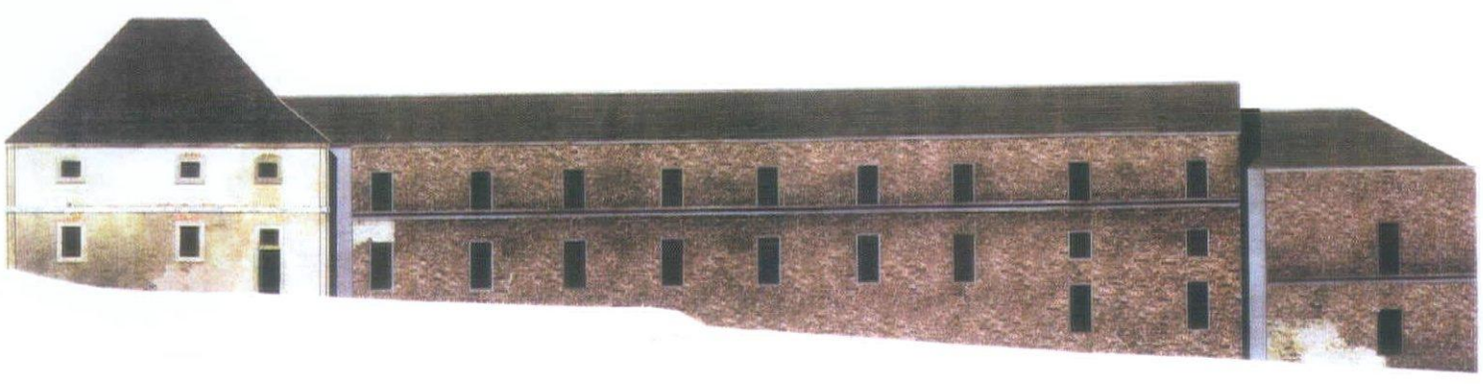


1
New and old. South cloister and partially restored manor house.

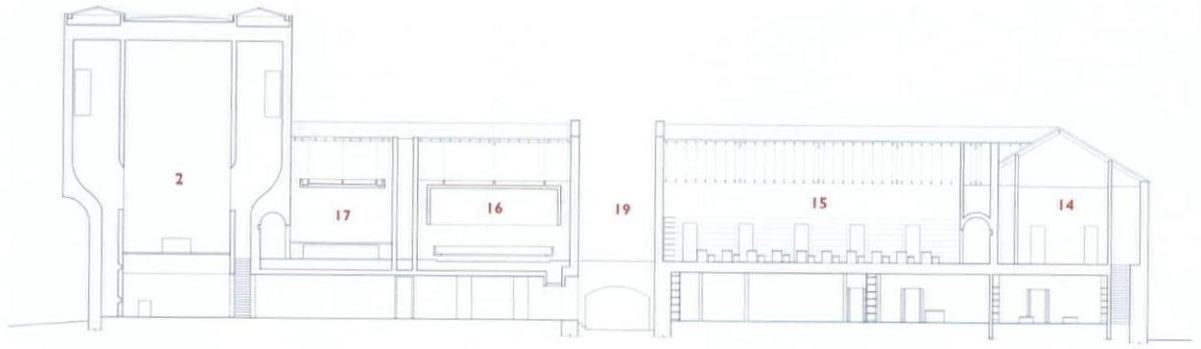
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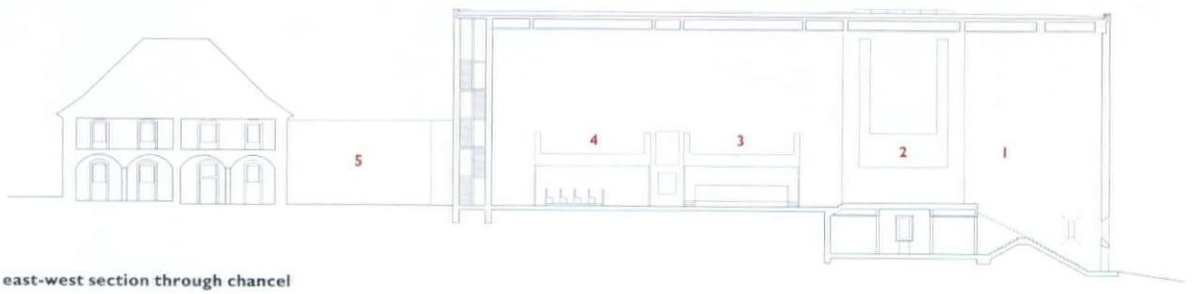
north range elevation (internal)



south range elevation (external)



north-south section through chancel



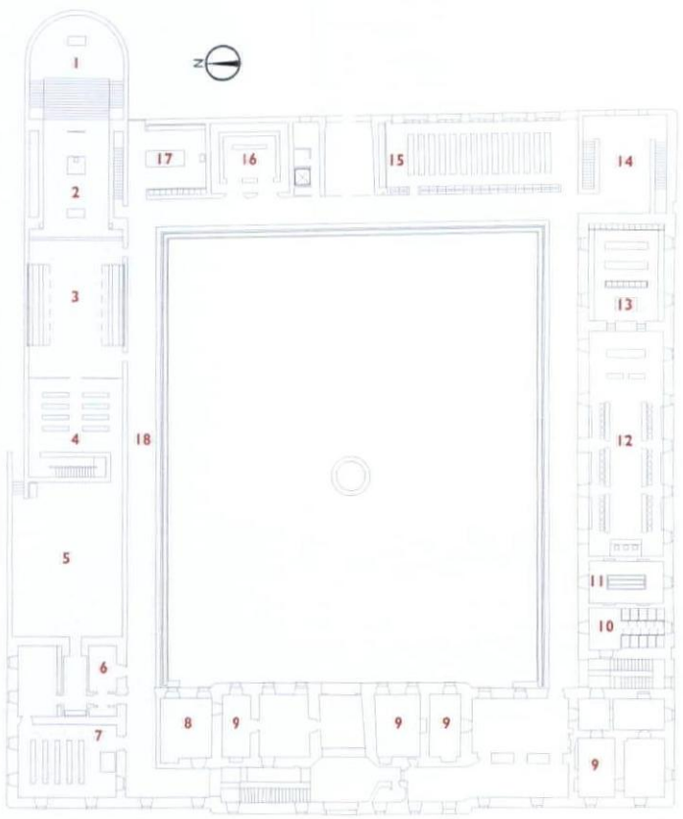
east-west section through chancel

1 presbytery
2 chancel
3 monks' choir
4 lay people
5 courtyard
6 chapel
7 conference room
8 secretary
9 offices
10 wc
11 lavatorium
12 refectory
13 kitchen
14 cowl room
15 scriptorium
16 chapter house
17 sacristy
18 cloister
19 view canyon

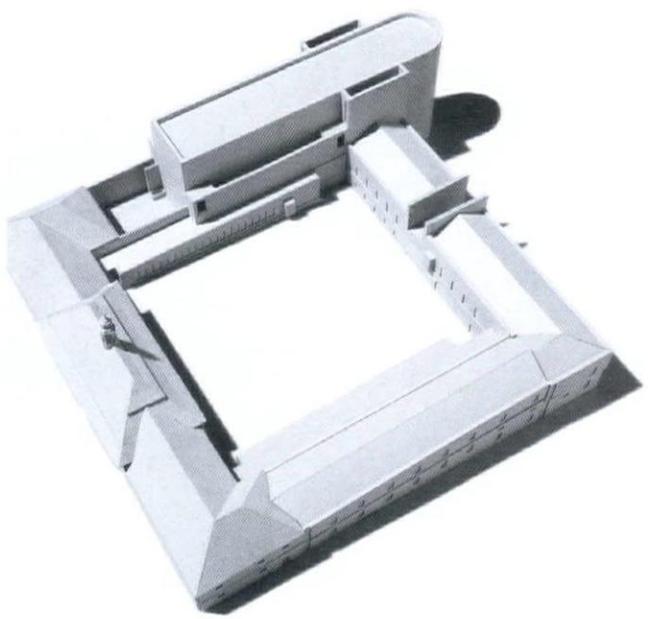
MONASTERY, NOVY DVUR, CZECH REPUBLIC

ARCHITECT

JOHN PAWSON ARCHITECTS



plan at cloister level (scale approx 1:825)



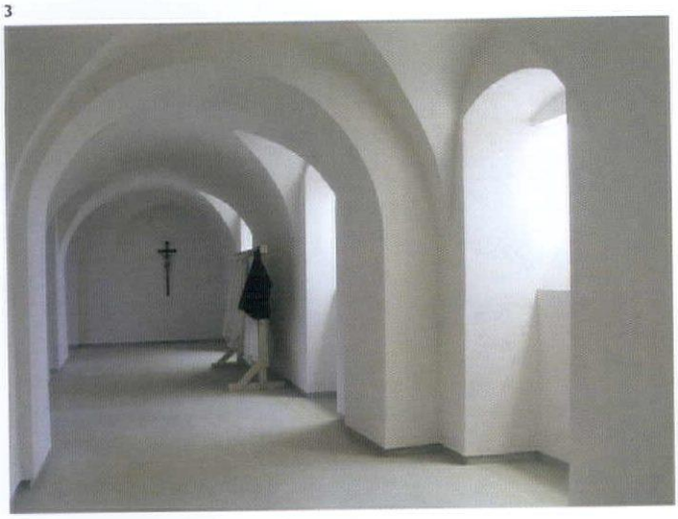
early massing model

2
Hallway in restored manor house.
3
Temporary cowl room in restored manor house hallway.
4
Wash cubicles in upper floor of restored manor house.
5
New stair to living quarters in rebuilt south wing.

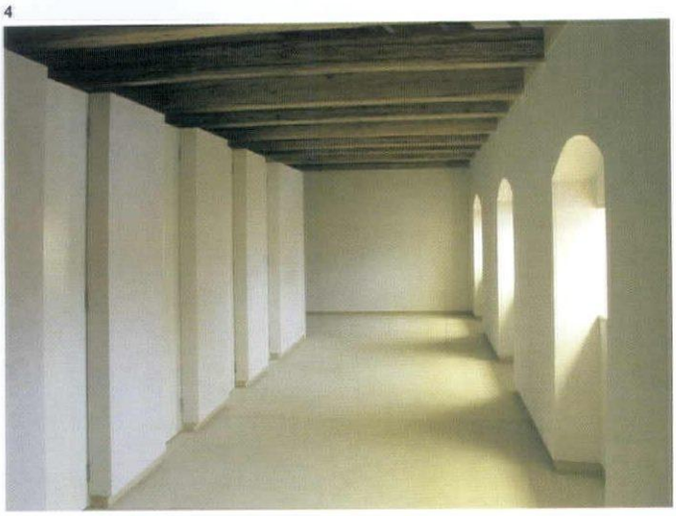


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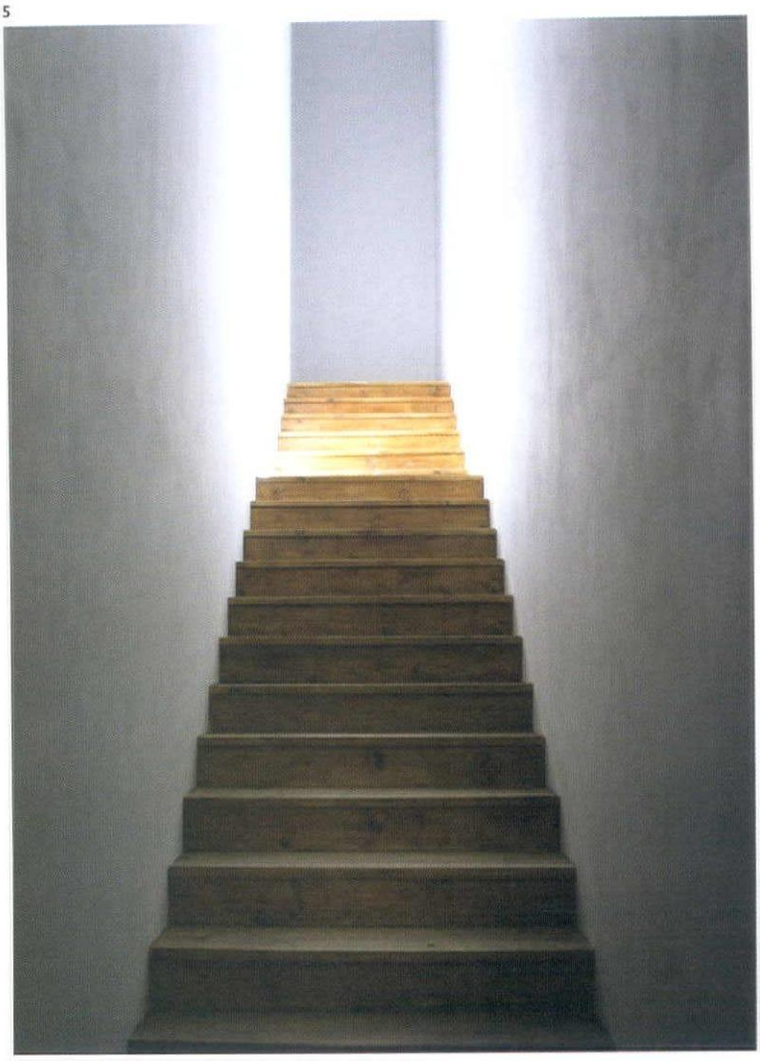
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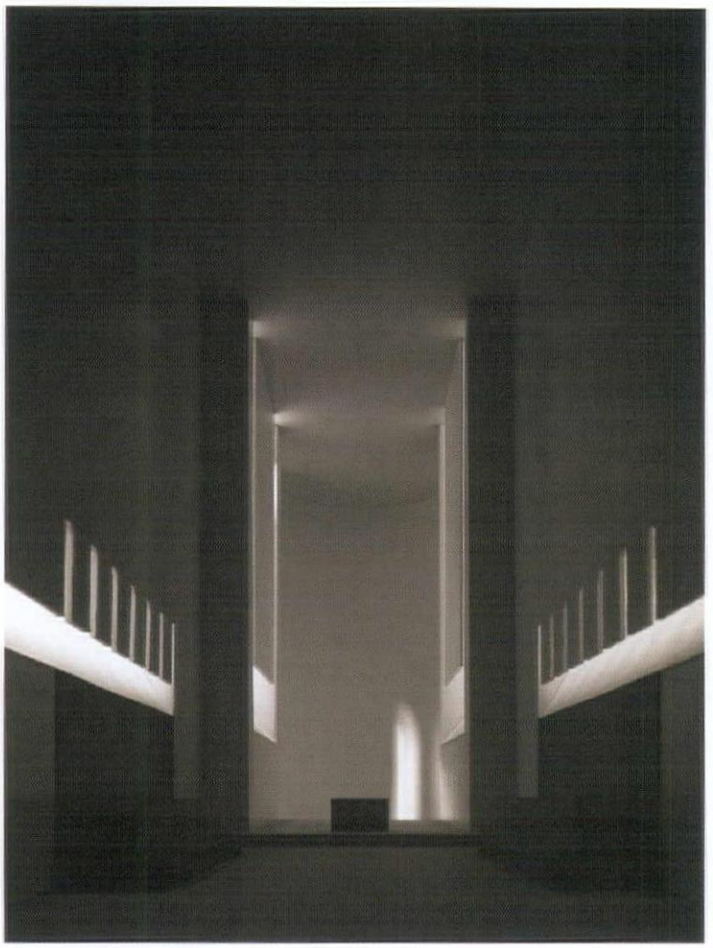


4



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6

MONASTERY, NOVY DVUR, CZECH REPUBLIC
ARCHITECT
JOHN PAWSON ARCHITECTS

Following St Bernard's model, set within new ranges with simple pared down vernacular elevations, the cloister is the principal organizational device, linking all spaces and enclosing a steeply sloping and closely cropped lawn. Added to this are one or two familiar Pawson motifs that have been reapplied, such as a roof canyon opposite the entrance giving views through the east range, reminiscent of the Neuendorf house, and his trademark narrow timber stairs that having been seen just about everywhere demonstrate that reinvention is not Pawson's passion. Choosing his moments carefully therefore, aside from the dramatic new church that nears completion on site, the key creative element is the form of the cloister itself.

With no literal precedent in Cistercian architectural history, and in opposition to Corb's cloister at La Tourette – that played with the vertical modulation, proportion and interval as devices to pace the ceremonial route – here Pawson saw columns as superfluous. By reducing the complexity of traditional intersecting rib vaults, he proposed a pure barrel form, cantilevered above a glazed screen. Distinctions between wall and ceiling are diminished, as in the white work of Anish Kapoor, so the eye is incapable of focusing on any point of detail, strengthening the cloister's direct visual relationship with the courtyard.

Set within 100 acres (40 hectares) of land, 150 kilometres west of Prague, work began on site in the winter of 2000, and is due for completion in September 2004. For a project that curiously began with Calvin Klein, it seemed appropriate for the America fashion designer to make a short visit to the site, after which, instead of donating money, he offered his own design input. So, not only will the Monks be living in the first monastery of the new millennium, but following the examples set by Barragán and Matisse, they may also have designer robes. Meanwhile, for Pawson, this circle is now complete. With this ambition fulfilled, where will he go from here? Will his recent work on the M&S Lifestore concept really change how lay people live their lives, or as some fear, will it be soon be forgotten as a short-term lifestyle fad? Who knows? But perhaps, following the many prayers read by the monks before each design presentation, he now has God on his side. ROB GREGORY

Architect
John Pawson Architects, London
Project team
Vishwa Kaushal, Pierre Saalburg, Stephane Orsolini
Executive architect
Jan Soukup
Site engineer
Antonin Svehla
Photographs
John Pawson,
Stepan Bartos,
Richard Davies

7

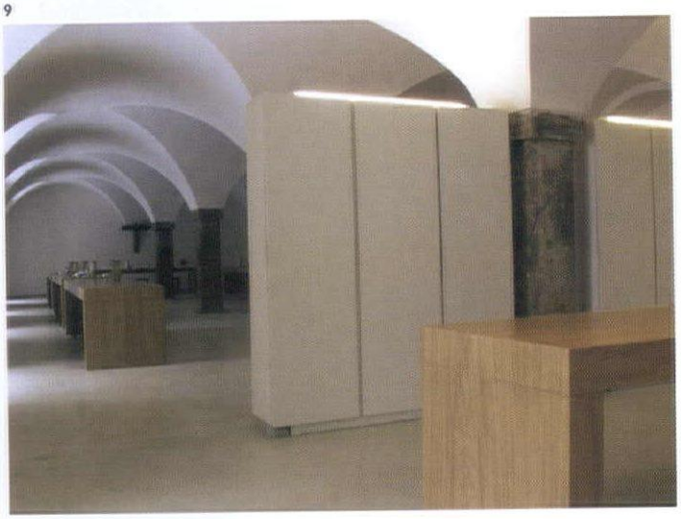


6
Model photograph of church lighting.
7
Easter 2003 Mass within church shell. Concrete walls to be lime-wash rendered.
8
Refectory within rebuilt south range.
9
Refectory with recently installed Pawson furniture.
10
Model photograph showing chapter house lighting.
11
Niche within restored manor house.

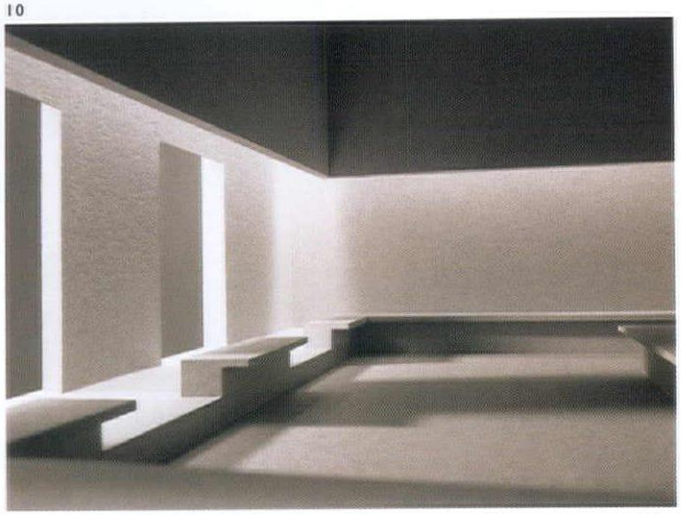


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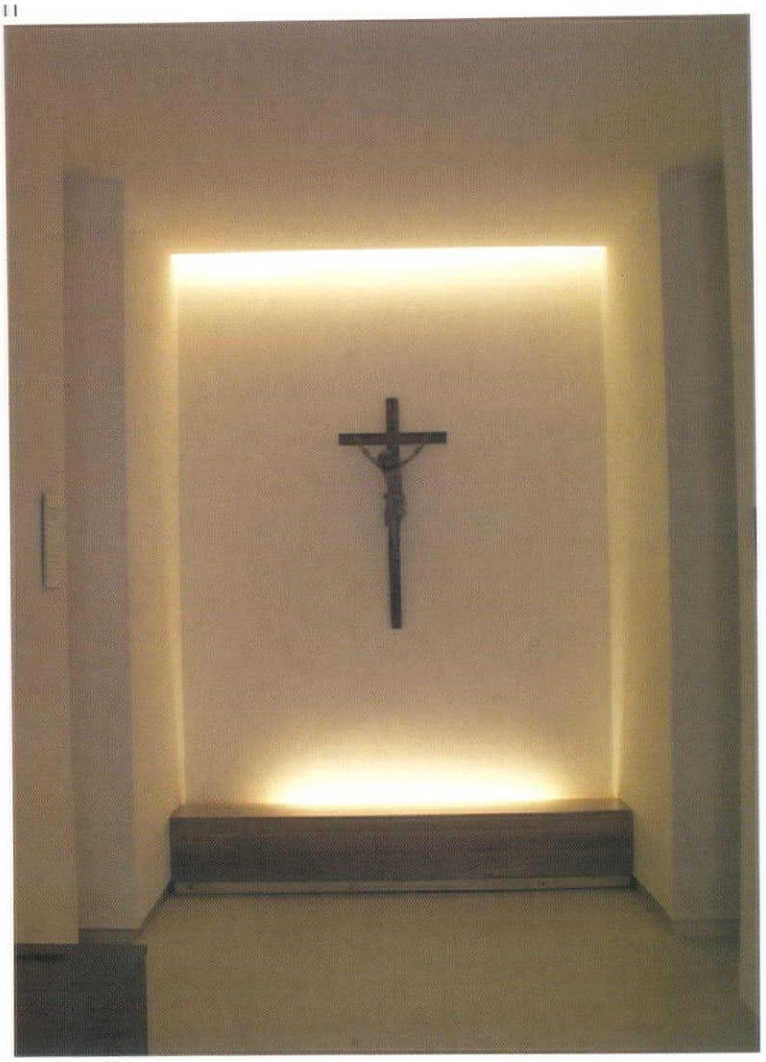
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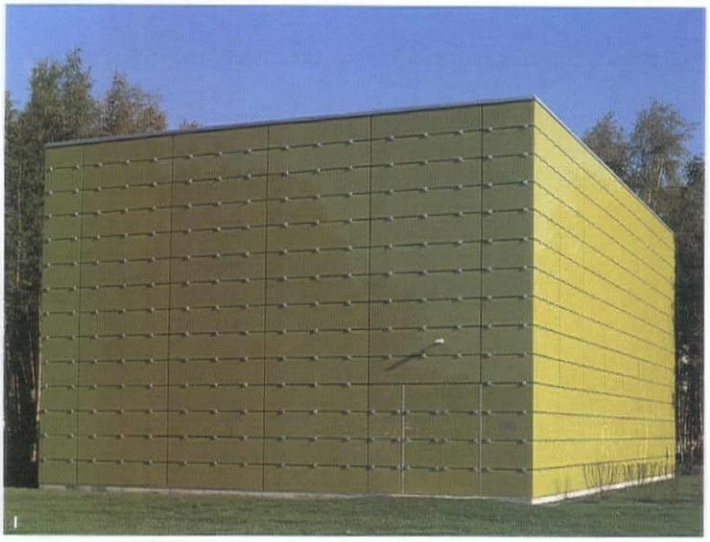


10



11





NORTHERN EXPOSURE

A multi-purpose centre brings urbanity and an understanding of nature to Alaskan suburbs.

COMMUNITY CENTRE, ANCHORAGE, ALASKA, USA
ARCHITECTS
KOONCE PFEFFER BETTIS

At one of the remotest northern boundaries of the American continent and on the outskirts of a rapidly growing city, this recently completed building in Alaska seeks to create a new physical and social centre. Planned to nurture the communal life of an isolated settlement and respect the spectacular natural landscape of its physical setting, the bp (British Petroleum) Energy Centre is an inspired response to a demanding programme.

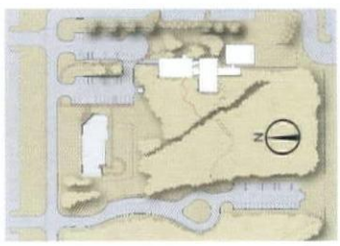
This new building is sited within an enveloping low-density sprawl characteristic of most world cities. Anchorage is no exception and though relatively young, it is the largest city in Alaska with a population of about 260 000 made up of a diverse group of people including the indigenous Inuit and established settlers as well as significant yet often nomadic communities from international business and strategic services. First developed as a result of the Gold Rush, the city is now a major distribution centre and has grown rapidly as a result of the discovery of rich natural resources, the construction of the Alaska Pipeline and tourism. Lying within the circumpolar region, between the ocean and spectacular mountain ranges, its long dark winters are offset by plentiful hours of summer daylight.

As a part of the community and anxious to play a constructive role in its evolution, bp discovered a shortage of spaces for various local non-profit community groups, neighbourhood associations and educational institutions. So the centre provides different types and sizes of spaces and amenities including meeting rooms, social spaces, exhibition areas and a business centre that can accommodate many uses. The exhibition space is an integral part of the community development agenda for as well as being available for changing exhibitions and receptions, it also incorporates a permanent display devoted to the region's natural resources, the culture of its indigenous people and their relationship with this place of extremes. The building entrance lies at the end of a pedestrian path threaded between the dense forest of silver birches and across a creek on a small wooden bridge. This creates a distinct separation between the centre, the forest and the anonymous built landscapes beyond, imparting a palpable sense of calm. The meandering route is emphasized by a specially designed sign in the form of an LED that weaves its way between the trees. Intended as a reference to the Alaska Pipeline, this electronic sign carries a changing flow of illuminated information about Alaska and its natural resources.

Planned as a long narrow bar of space, the exhibition hall forms an armature for the scheme. Designed as a glazed hall, it connects visually and materially to the natural landscape and the surrounding forest. Like a sophisticated fragment of a Plug-in City, it has also been designed to connect a series of seemingly independent boxes. Clad in a range of materials, the boxes variously contain meeting rooms, offices, lavatories and a large multi-purpose space.

In contrast to the transparency of the focal exhibition hall, most of the meeting spaces and rooms on the upper floor are wrapped in a skin of finely detailed dark grey corrugated metal cladding. However, this is peppered with groups of random yet carefully composed small openings that capture framed views of the forest while also creating delicately patterned elevations. These views effectively locate the rooms within the airy spaces of the surrounding tree canopy.

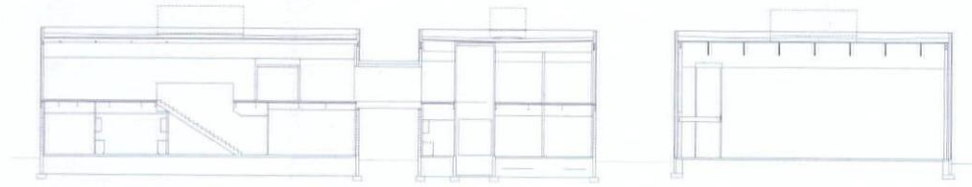
The larger multi-purpose space is treated differently. Opaque on three sides, the fourth side is fully glazed to frame a panoramic view of the forest beyond. Opaque elevations are clad in a rain-screen wall of green glass panels,



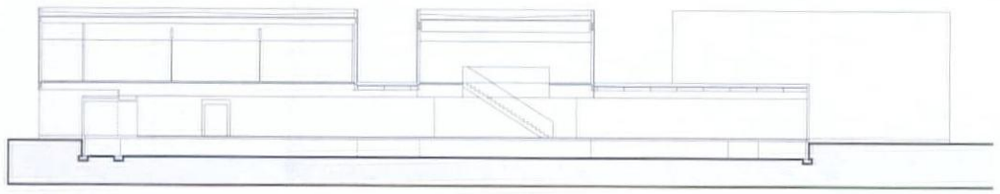
site plan



1
Multi-purpose space covered by light green glass rain-screen intended to reflect sky and surrounding forest.
2
Winding path leads to east (staff) entrance in exhibition hall.



north-south section through multi-purpose hall



north-south section through exhibition hall

COMMUNITY CENTRE, ANCHORAGE, ALASKA, USA

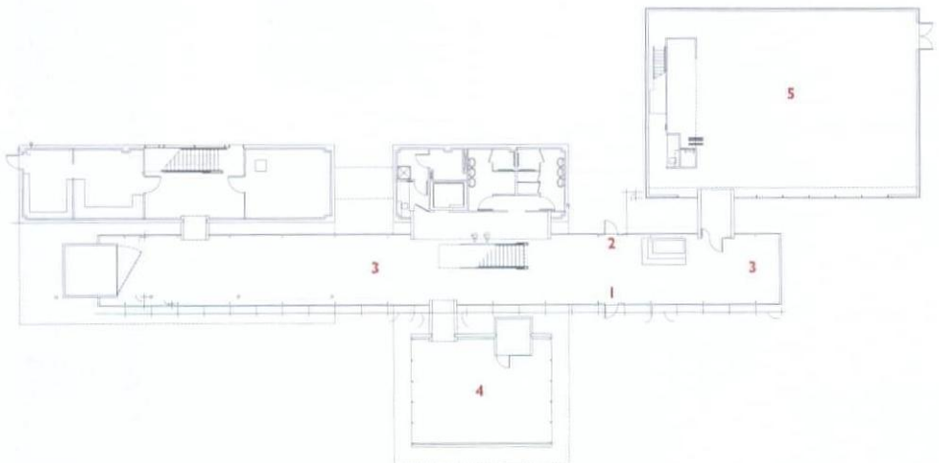
ARCHITECTS

KOONCE PFEFFER BETTIS



1 public (west) entrance
2 staff (east) entrance
3 exhibition
4 conference
5 multi-purpose
6 meeting room
7 business centre
8 projection

upper floor



ground floor (scale approx 1:550)

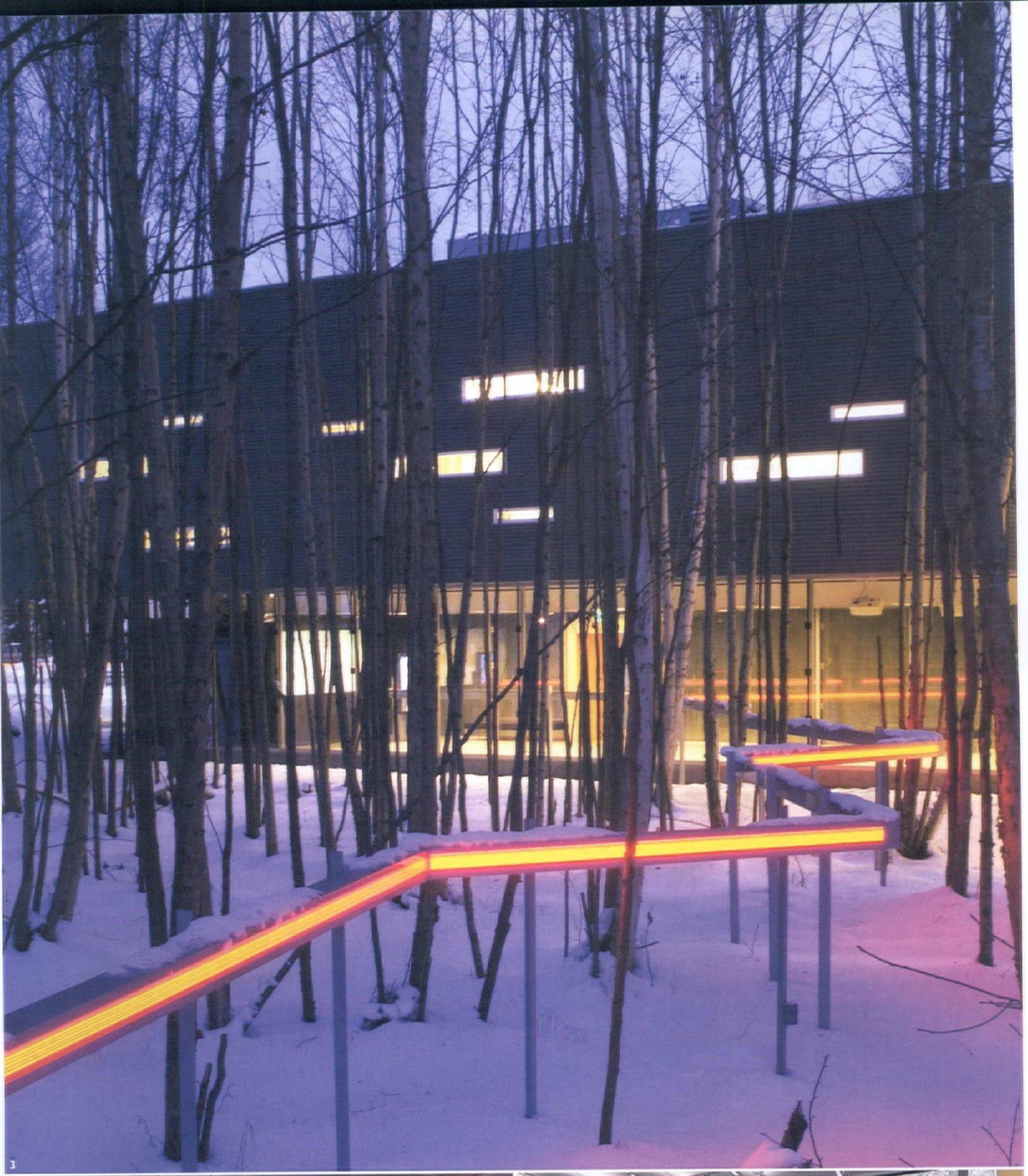
each fixed with point fittings, to create a series of precise grids. Exit doors, external lighting and alarm systems are all carefully integrated within the facades so that the volume assumes a tantalizingly scaleless sculptural quality, reading as both a constructed object and neutral backdrop. Wall planes are animated by the changing reflections of trees, sunlight and shadows, so that they almost disappear during the summertime. However, in Alaska's long dark winters, the ingenious cladding also works as a reflecting surface that mirrors and enhances precious daylight and the twinkle of artificial lights within the building.

The building is used by community groups and public service agencies, bringing together a disparate array of teachers, firemen, housing officers, schoolchildren, business people and many others of different ages, interests and backgrounds. So the centre is conspicuously different in an area shaped by predominantly single-use zoning. Within a predominantly corporate enclave, it introduces an informal, occasionally light-hearted and distinctly local emphasis.

The building's design clearly recognizes the importance of nature in a growing city. While its siting defines the edge of a remaining fragment of the natural landscape stranded within tumultuous urban sprawl, the wall-like quality of the building offers protection to the woodland. Together with the thoughtful planning of spaces, this new centre creates places where the diverse range of interests of a community can be energetically cultivated at the edge of the world. BRIAN CARTER

Architects
Koonce Pfeffer Bettis, Anchorage, Alaska
Photographs
Kevin G. Smith

3
Exhibition space has glass wall to forest with, above, carefully framed views from meeting rooms. LED abstraction of Alaska Pipeline to left.
4
Digital storytellers in exhibition space.
5
Multi-purpose space looking into forest through exhibition hall.



3



4



5



As witnessed by recent projects such as the Lucerne concert hall (AR October 1998) and Nantes law courts (AR November 2000), the big roof has become something of a Jean Nouvel signature. Here in the French town of Périgeaux it makes another appearance, floating languidly over a lightweight glass box that houses the municipality's new Gallo-Roman museum. From a distance the building resembles a cabinet of curiosities, with tantalizing glimpses of historic artefacts; its lightness and fragility are also reminiscent of the temporary structures used to protect archaeological digs. Within lies a modern labyrinth arranged around the physical remains of ancient Roman town houses, together with more conventional exhibition spaces.

The museum has its origins in the serendipitous discovery in the late 1950s of two Roman dwellings (during excavations to build a low-cost housing development). The houses were geologically compacted on top of each other and decades of exploration subsequently revealed an archaeologically significant array of bathing rooms, wall paintings, a courtyard, kitchens and two peristyles. To protect and display these precious relics it was decided to build a new museum on the site, and in 1993, Nouvel was selected through a competition. His design reads as delicately transparent planes set in a mature landscape, recalling other projects of the period such as the Cartier Foundation in the Montparnasse district of Paris, in which mass is dissolved in a mesmeric play of light, reflections and evanescence.

Cabinet of curiosities

Its internal layout based around ancient remains, this new Gallo-Roman museum is a lightweight, luminous box that engages with nature and lets antiquity speak for itself.

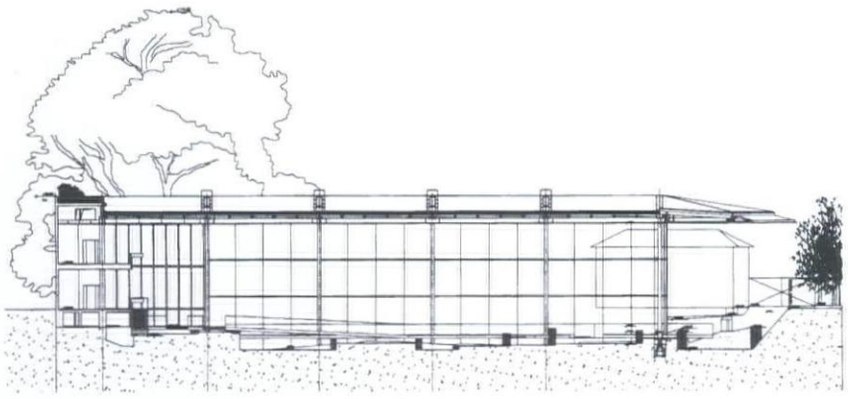


MUSEUM, PÉRIGEAUX, FRANCE
ARCHITECT
JEAN NOUVEL

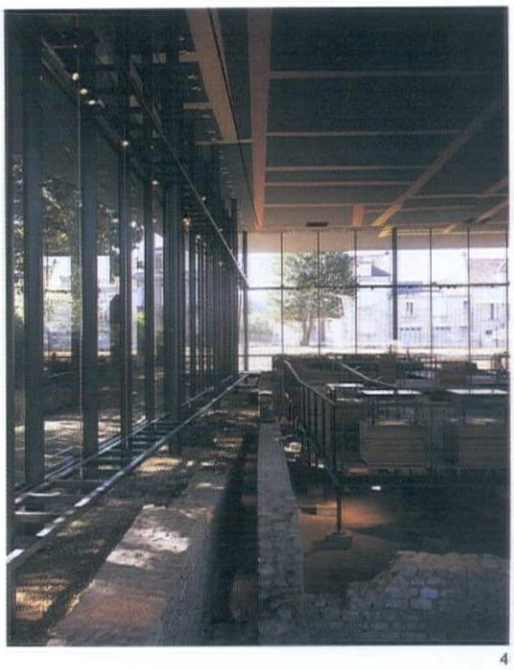
MUSEUM, PÉRIGEAUX, FRANCE

ARCHITECT

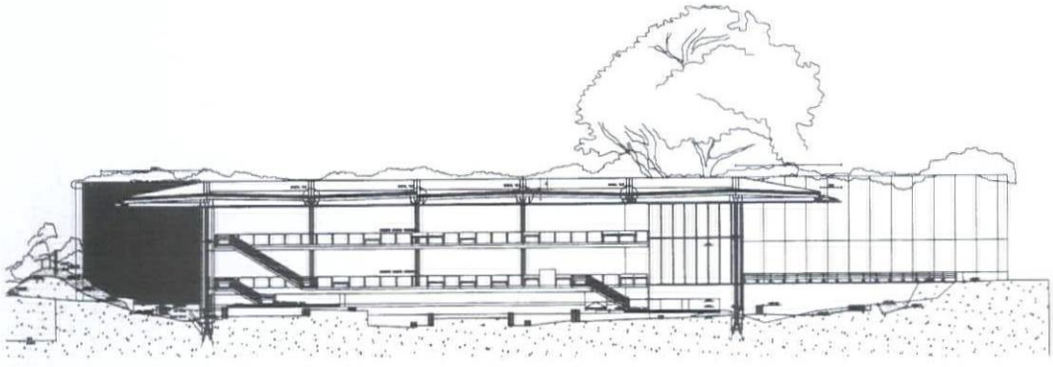
JEAN NOUVEL



cross section

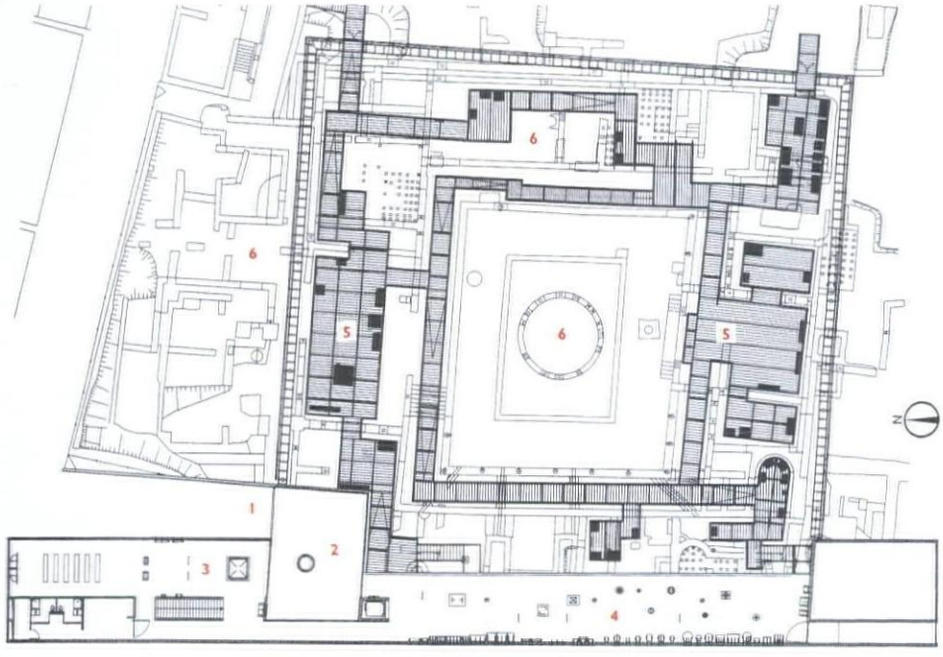


4



long section

1 main entrance
2 entrance hall
3 shop
4 Gallo-Roman collection
5 boardwalk
6 Roman remains



ground floor plan superimposed over Roman remains (scale approx 1: 750)

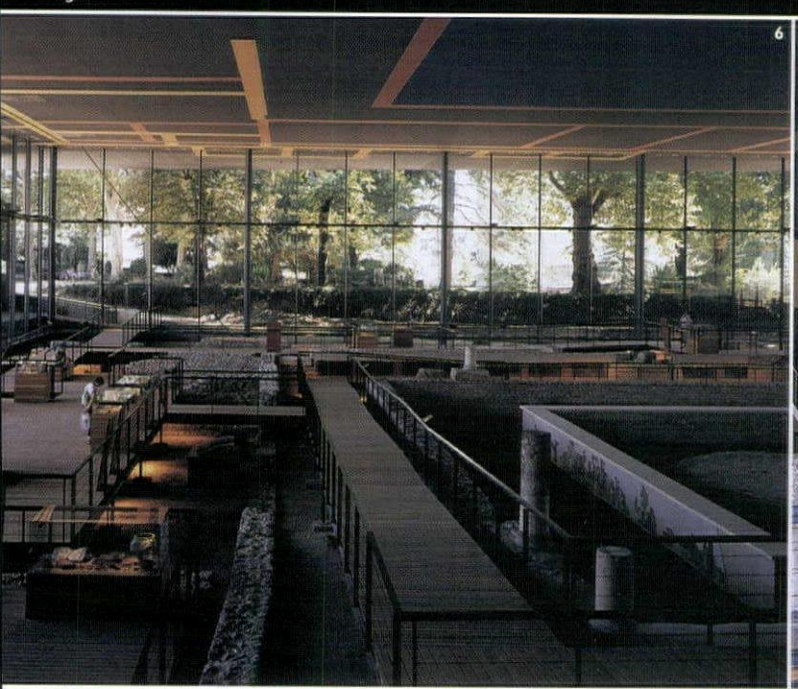
4
The boardwalk navigates visitors around the remains of two Roman town houses.
5
The 'cabinet of curiosities'. Plans of the Roman houses are inscribed on the ceiling.
6
The cavernous main hall seems to dissolve into the surrounding landscape.
7
A double-height volume to the rear houses more conventional exhibition spaces.



1
The new museum is a low slung glass box in the landscape.
2
The building's lightness is reminiscent of the temporary structures used to protect archaeological excavations.
3
A timber boardwalk weaves around the interior.



5



6



7



MUSEUM, PÉRIGEAUX, FRANCE
ARCHITECT
JEAN NOUVEL

The box is anchored on its west side by a long, low bar containing two levels of exhibition spaces for the Gallo-Roman collection. Despite its simple and apparently uncompromising geometry, Nouvel's building is actually quite circumspect in its response to existing elements. The broad brimmed eaves of the great roof shelter a small seventeenth-century house (now remodelled as the museum's offices) and a protected 400 year old oak becomes the unexpected focal point of the entrance hall, its branches rising up and out through the roof.

Inside the soaring central space, the presence of nature is also never very far away. Separated by a skin of clear glass hung on a slim steel frame, the arboreal landscape forms a verdant screen around the cavern-like hall. Through one wall there are also views of the surrounding medieval buildings on the north edge of the site. The oversailing eaves of the umbrella-like roof mitigate the distracting effects of glare.

Nouvel responds to the challenge of making the Roman ruins accessible (yet also safeguarded from the effects of such access) by employing a system of raised timber walkways and platforms supported on a dark steel frame. Made of billinga, a robust African hardwood, the walkways guide and orientate visitors around the site. The original Roman plans of the houses are mapped out on the ceiling, colour coded red and yellow according to their different eras.

Glass cases on hardwood bases are used to display artefacts such as pottery, jewellery and metalware; larger objects are mounted on steel slabs anchored to the concrete walls of the two-storey block to the rear of the main hall. Individual pieces are illuminated with theatrical precision against sober, neutral backdrops; in fact the entire building is conceived as a kind of protective, workman-like stage set. At night it gently pulsates with light, revealing its historic contents. Though Nouvel tends to be associated with a more gestural sort of architecture, here his intelligently understated approach has a dignity and clarity that lets antiquity speak for itself.

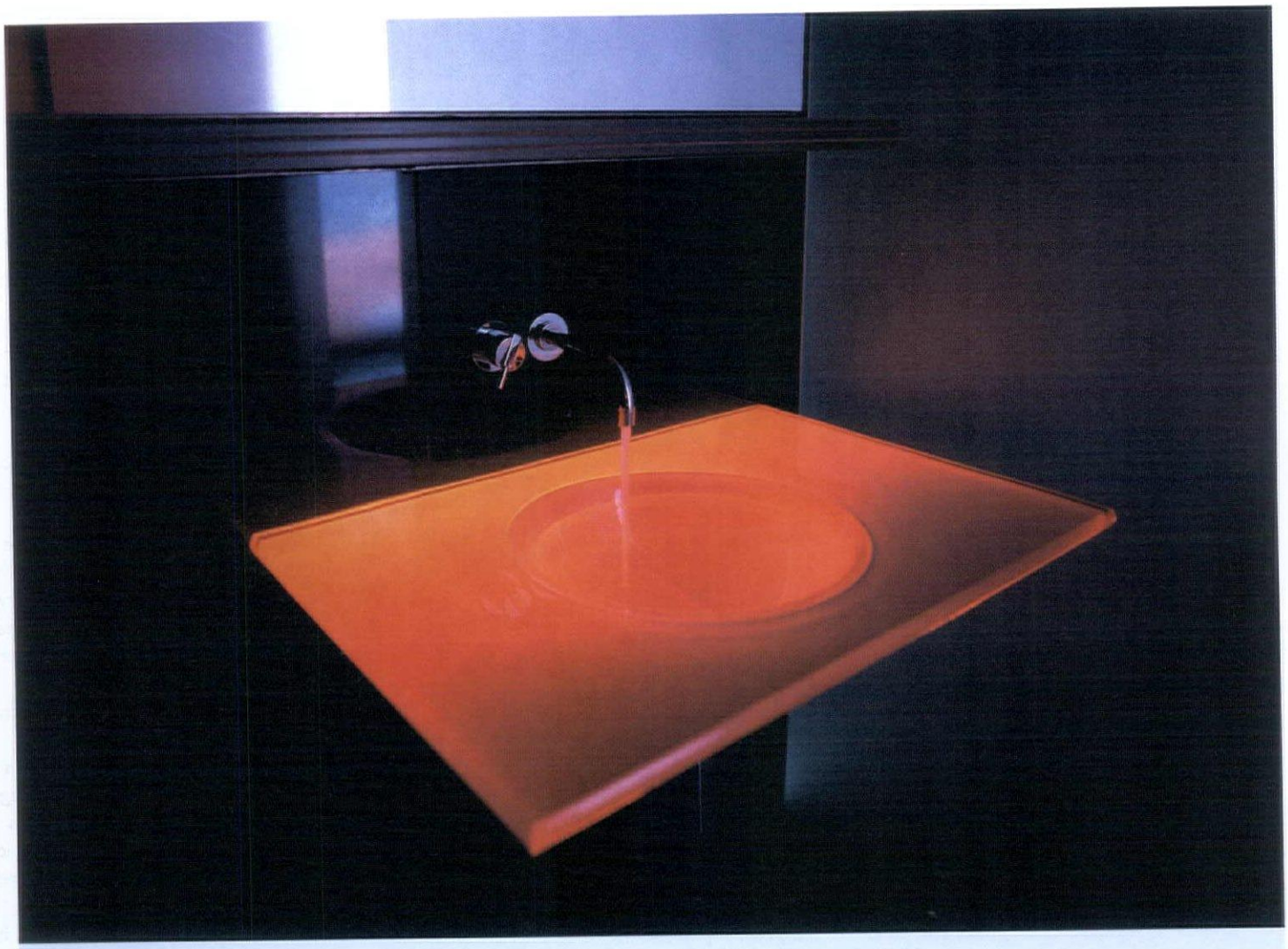
PAUL JOUBERT

Architect
Jean Nouvel, Paris
Photographs
Paul Raftery/VIEW



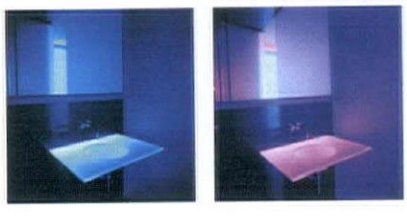
8
The Gallo-Roman collection. Larger objects are mounted on steel slabs anchored to the concrete walls.
9
Bookshop lined with blackened steel panels.

Dynamic light



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Lighting Design: James Turrell
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ar house

Anderson shelter

On an apparently impossible site in the heart of London, with significant constraints, Jamie Fobert Architects have derived a new form of contemporary house.

HOUSE, CENTRAL LONDON
ARCHITECTS
JAMIE FOBERT ARCHITECTS

The Anderson House, concealed on an invisible backyard site within a central London Georgian block, is exemplary, not least because there must be hundreds of similar sites awaiting adaptation, dormant beneath the crumbling roofscapes of cities around the globe, but also, having no discernible external form, it explores the essence of urban dwelling and offers a new contemporary housing type – a shift from loft life to yard life.

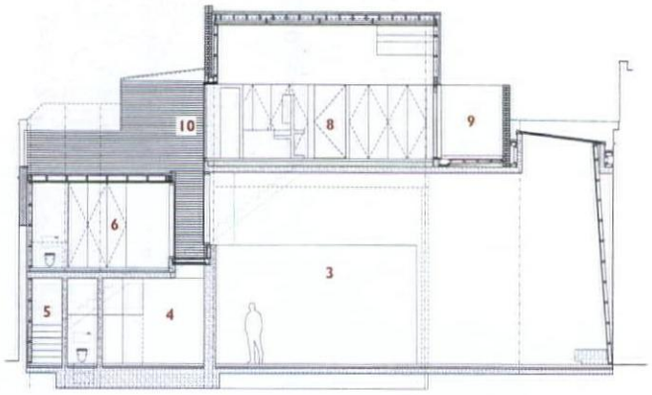
The derelict building was a two-storey shoe factory set above a small basement. Hemmed in on all sides, and accessible only via a metre-wide passageway between two five-storey buildings, few would have supported the proposal to build a 125m² home. But that is precisely what has been achieved.

For Jamie Fobert, the creation of this contemporary cave was an opportunity to pursue his own architectural fascination that prioritizes the resolution of the room. The success of the house is testament to nine years spent with David Chipperfield, where he learnt to manipulate space on projects like Nick Knight's house (AR April 1990), and the subsequent eight years spent evolving his own work, work that attracted the client for this house – drawn by Fobert's trademark cast concrete benches and counters at the Aveda shop in Marylebone. Much like these installations, to avoid further complicating the daunting task of issuing 60 party wall notices, the structural core of the house was set-in from the 7m deep boundary. Conceived as an inserted object, avoiding underpinning party walls, the centralized armature does all the work. Bearing on sixteen 20m deep piles, a concrete raft folds, contorts and extends around the kitchen and living room as a series of fully expressed shear walls and slabs. So, from Aveda where an interior was ordered by massive folded concrete furniture, here a collection of rooms is structurally and spatially reinforced by a single folded concrete form. Around this, the perimeter is lined with sound insulating dry-wall, douglas fir screens conceal circulation, storage and ancillary spaces, and two bedrooms are located within steel huts that replicate the former shoe factory's silhouette above.

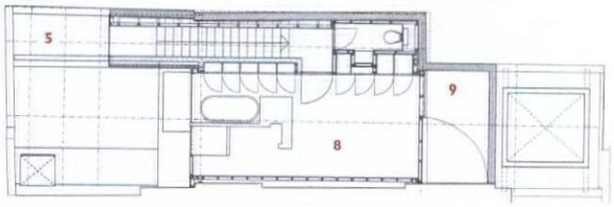


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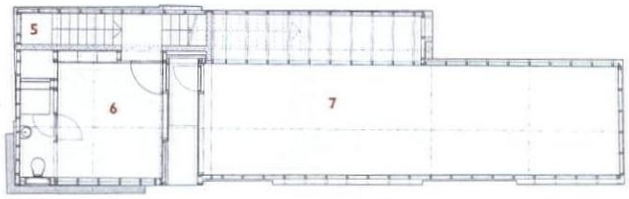
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Providing dramatic views, here from the master bedroom, rooflights articulate the Anderson House's otherwise invisible new roofscape.



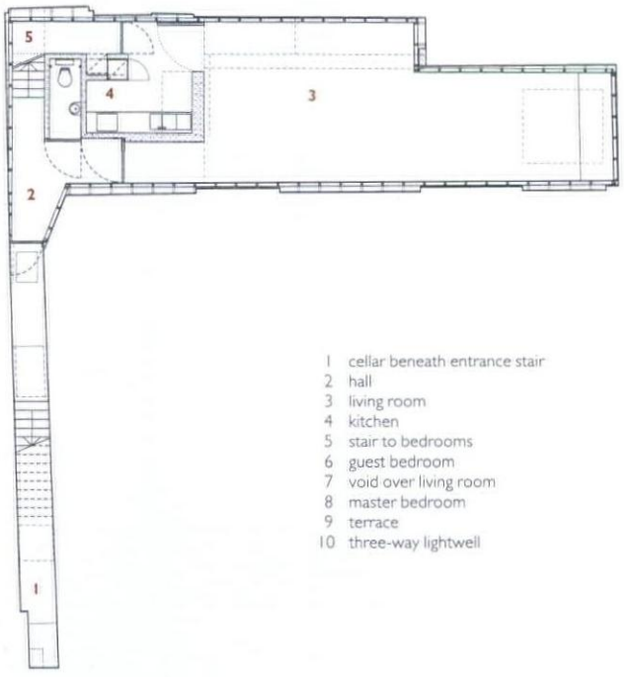
section through principal spaces



level two plan



level one plan



1 cellar beneath entrance stair
2 hall
3 living room
4 kitchen
5 stair to bedrooms
6 guest bedroom
7 void over living room
8 master bedroom
9 terrace
10 three-way lightwell

lower ground floor plan (scale approx 1:220)

Unlike many contemporary homes, where circulation is celebrated with feature staircases and galleries in loft-like spaces, containment is increased by additional layers of enclosure. Recalling a German *Treppenraum* (which literally translates as stair-space), the stair is isolated from the living spaces in a residual notch of land that turns the south-west corner of the plot. Set within this, the kitchen is small, functional, and enclosed, the guest and master bedrooms are remote, and the living room is expansive.

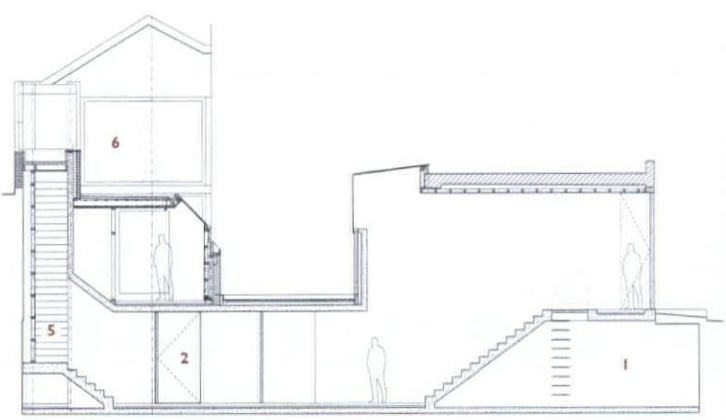
Light and circulation are resolved with virtuosity as lightwells punctuate the subterranean route and living spaces. Upon entering the house, visitors immediately see sky through a folded rooflight, before passing beneath the retained parapet wall that maintains rights of light to the adjacent properties. From here light articulates two routes: either directly into the living space to the right, or by drawing you up the cavernous stair to the bedrooms above. At the centre of the plan, a three-way lightwell brings light and orientation to the heart of the house, illuminating the kitchen, living room, guest and master bedrooms, in a single architectural move that serves as the eyes and lungs of the house, providing views and ventilation. Two additional rooflights give dramatic sky views from the living room and master bedroom.

While close scrutiny demonstrates many highly considered details, with crisp rooflights and gently cupped joinery panels, Fobert maintains a refreshing loose attitude, that he says 'rolls with' the practical outcomes of construction; accepting inherent imperfections gives character to material, turning on-site surprises to an advantage. As-struck concrete finishes differ to provide unique surfaces, and devices such as the altar-like concrete bench and battered rear wall in the living room cleverly conceal an unexpectedly high party wall footing and a new rooftop gutter.

Like its namesake, this Anderson Shelter derives its quiet beauty from modest means, and as his first major new-build project, reveals Fobert as an architect who, being passionate about construction, will no doubt produce more highly distinguished work. ROB GREGORY

Architect
Jamie Fobert Architects: Jamie Fobert, Kevin Allsop, Emily Roberts, Thomas Spanger, Juan Cuevas Pareras
Structural engineer
Michael Barclay Parntnership
Party wall
Arena Property Services
Contractor
Horgan Borthers
Photographs
Dennis Gilbert / VIEW

3
Polythene wrapped formwork gives as-struck concrete a unique texture and surface sheen.
4
View through the central lightwell seen from the guest bedroom. Kitchen below through rooflight.
5
The 12m by 6m high living space with concrete soffit and northerly rooflight.
6
Master bedroom, with island bath, rooflight and terrace beyond.



section through entrance hall



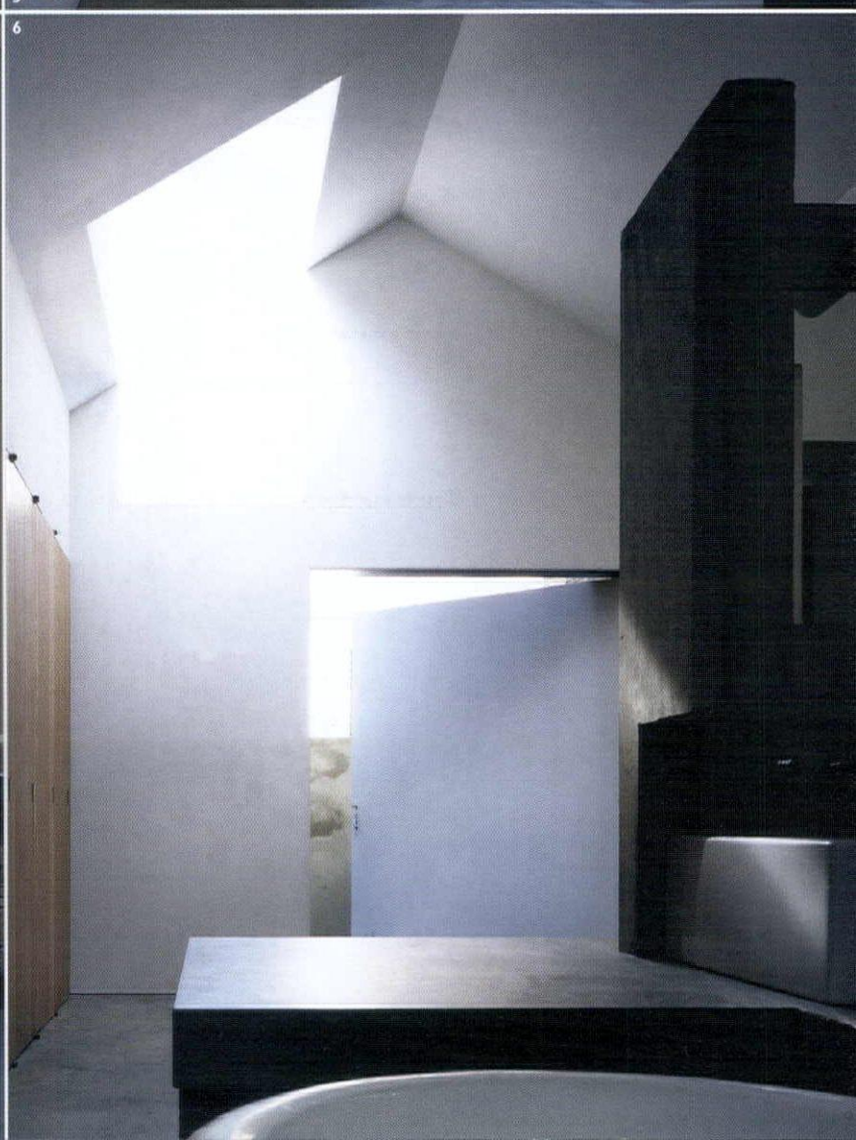
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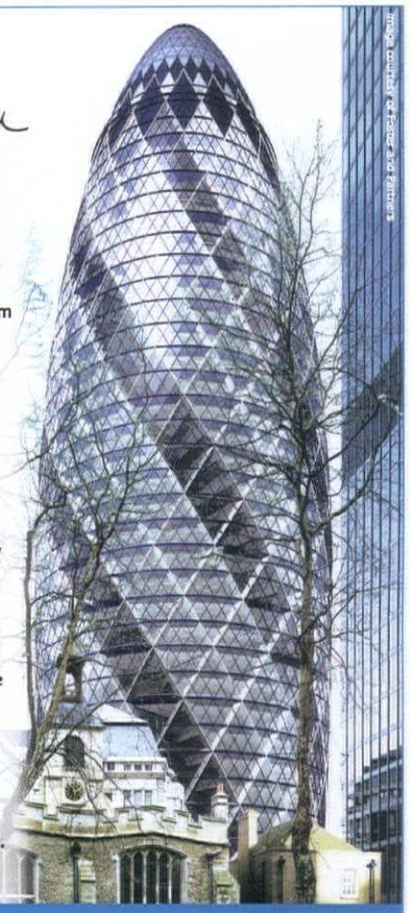
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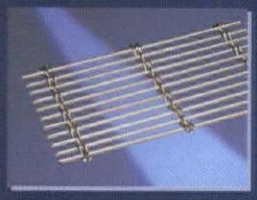
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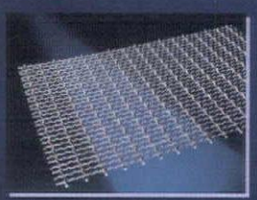
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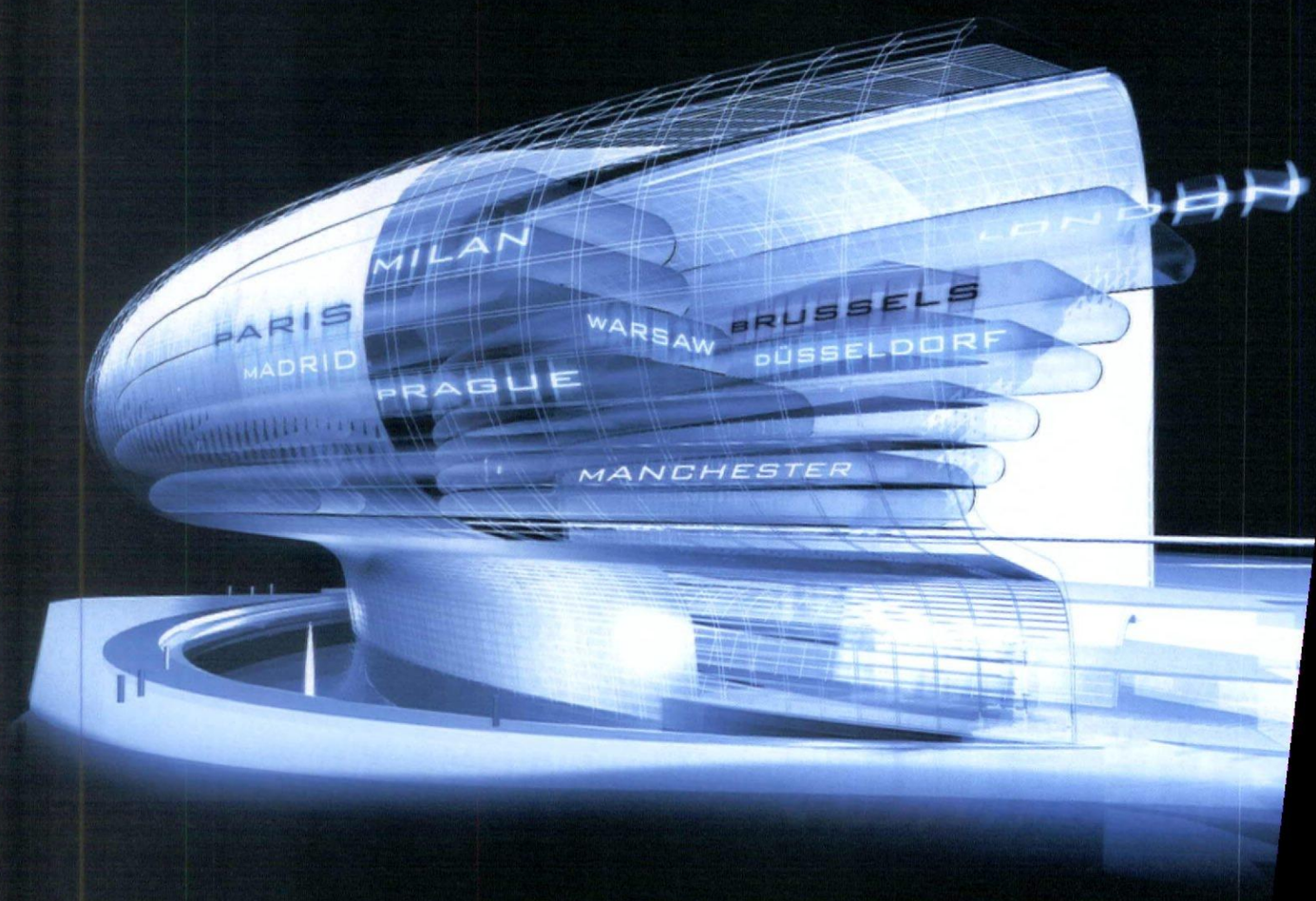
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501

501 STREETLIFE
The new Streetlife Butterfly Bridges – designed by npk industrial design – have recently been installed near Amsterdam and in Travemunde, Germany. As a standardized cycle and pedestrian system, the bridge is based on a butterfly-shaped structural frame that helps give a dynamic and transparent appearance. Curved steel pipes support a walkway fabricated with Artdeck steel grids filled with anti-slip rubber granules. With variable dimensions, different balustrades, a choice of materials and colours, the system can be attuned to any specific environment.

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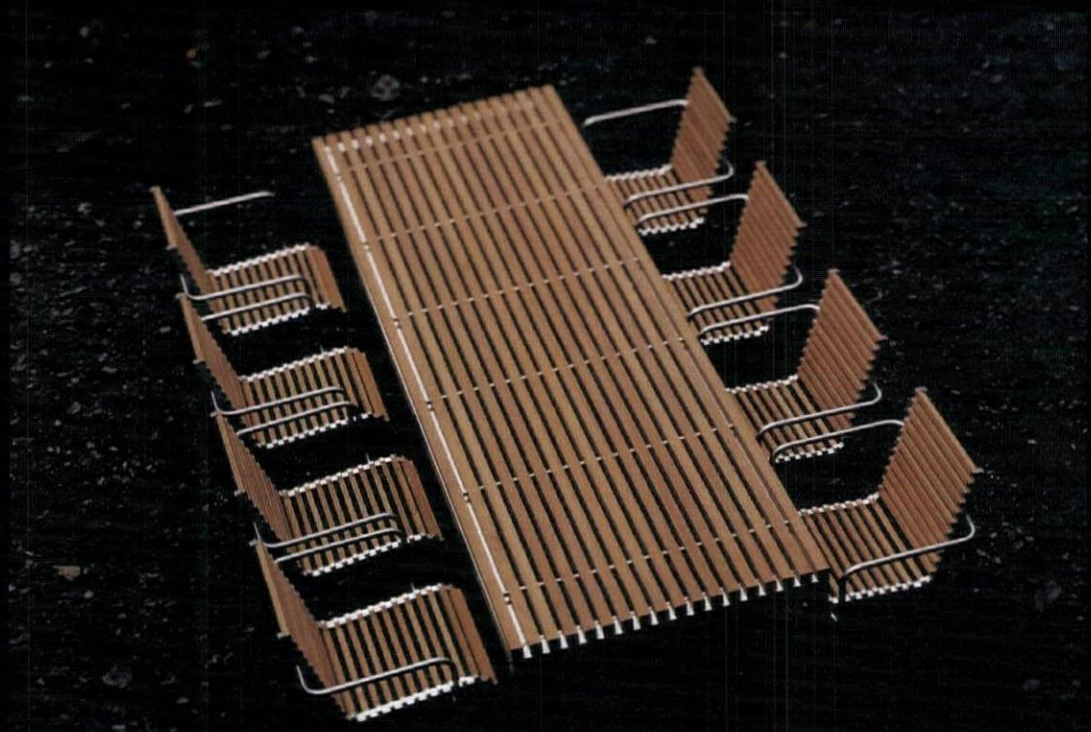
502 WOODHOUSE
To light up the footpaths leading to the entrances of the Gateshead Millennium Bridge, nine Geo illuminated bollards have been positioned in single file. Standing 1100mm in height, the bollards are made of stainless steel with bead-blasted body and satin-finished machined caps. The fitting takes a 26 watt TCT-lamp with symmetrical light distribution created by efficient MTR refractor technology.

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503



503

503 EXTREMIS

To complement their extensive product range (AR July 2003), ExTempore – designed by Arnold Merckx – is one of the most extensive ranges of outdoor furniture. Including benches, chairs and tables (high and low), sun beds, lounge chairs and even a barbecue, all are fabricated in stainless steel, aluminium and timber. The modular system is fully integrated with sliding table tops that make room for the barbecue or table top extension, and stackable chairs.

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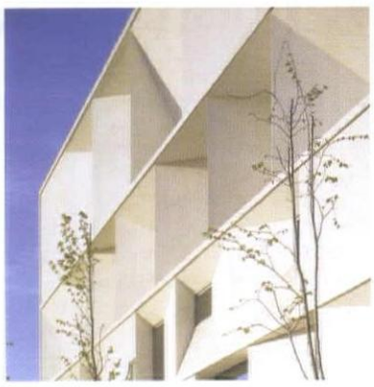
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504 STUA

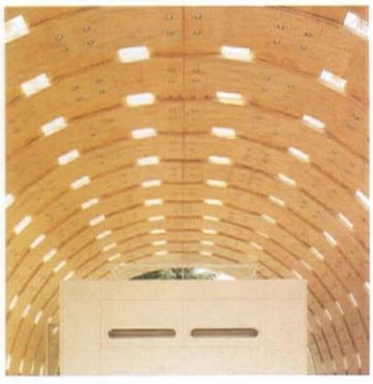
As their first external furniture product range, the Deneb Outdoor system by Stua derives from the Deneb table, designed by Jesús Gasca. Comprising a table with matching benches, both items comprise an anodized aluminium base with solid Iroko slats, and seek to embody simplicity, timelessness and warmth.

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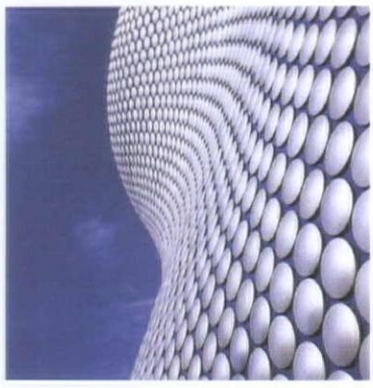
Kenneth Yeang
Partner, T R Hamzah & Yeang Architects, Kuala Lumpur

Lawrence Scarpa
Pugh + Scarpa Architects, Los Angeles

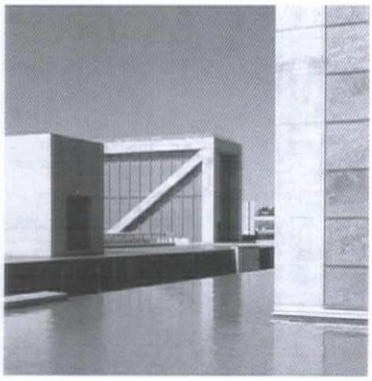
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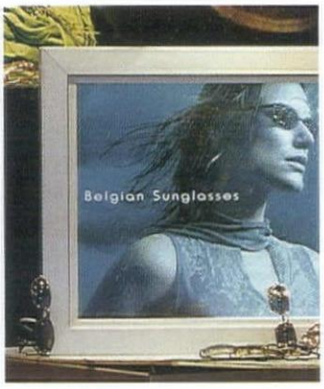


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Barlo Cast plastic lumina are sheets of cast plastic that can be evenly illuminated, allowing small and low power light sources to be used in street furniture and poster displays. Even illumination is achieved by injecting light round the edges of the sheets.Light sources can be fluorescent tubes, optical fibres or LEDs.
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Wright Style

Wright Style has become one of the world's leading suppliers of high-quality and innovative curtain wall and roof glazing systems – with a range of systems that continue to push the design envelope further. The firm has now published a comprehensive guide to its curtain wall and roof glazing systems, a guide developed to help architects incorporate the latest innovations in steel glazing technology into their designs. The guide illustrates how the simplicity of a modern steel glazing system can be combined with the aesthetics of glass to provide highest-possible levels of safety.

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E-Motive Display

E-Motive has supplied a lift monitoring system to the Constellation Office Tower in Los Angeles. The monitoring system tracks real-time lift movement and current status of all cars. Remote operational control allows commands to each lift including placement of car calls, floor lockout and return operation. The Advanced Traffic Analysis package diagnoses lift problems and evaluates performance. Vital statistics such as average call waiting times can be continuously tracked. Mitsubishi Electric and Electronics' Lift and Escalator Division installed the system.

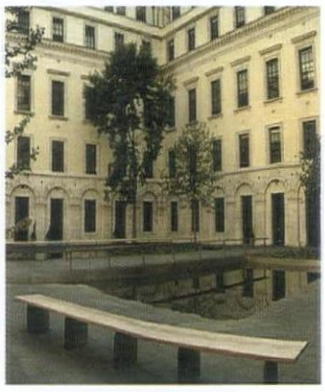
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Saneux

Saneux's EL1 range of sanitaryware is intended to provide space saving and simplicity of style for a limited budget. Sanitaryware includes three rounded washbasins (including a corner version), all wall mounted, two floor-standing wcs and a matching one-hole bidet.
Specially designed cabinets are intended to replace the washbasin pedestal with useful storage space. They have curved doors made of marine-grade ply with a lacquer finish. The EL1 range is made in white porcelain with chrome towel rails and birch carpentry.

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ACO Technologies

Two new water features in the refurbished nineteenth-century central courtyard of HM Treasury in London incorporate ACO Technologies stainless-steel drainage channels in reverse to deliver flat sheets of water of constant level over a combined total outlet length of 18m. Gustafson Porter were the landscape architects. The system was specially made by ACO Technologies. A central walkway runs between two separate pools and the drainage system flattens the high points that would normally occur at fluid entry points below the main horizontal outlet.

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EDM Spanwall

EDM's Spanwall system has been used to replace energy-wasteful cladding on a 13-storey 1970s Sheffield office block. Architects D. J. Curtis &Associates produced a drained and ventilated facade solution. With the architects, Spanwall approved installers Pendant Aluminium evolved a specially designed system that incorporates EDM Spanwall's 1016 composite, stacking, flat panel cladding system in silver, integrated with Kawneer double-glazed windows.

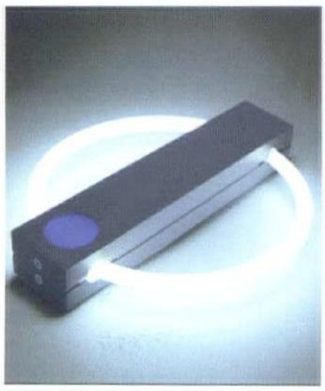
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LB Plastics

The Litchfield Group of Companies is to bring its range of UK products together for the first time in Hall 6 at Interbuild this year (25-29 April, National Exhibition Centre, Birmingham). Shown will be the full range of Sheerframe windows, curtain walling and the new conservatory roof system. Masterdor will demonstrate its range of bespoke external doors and Hometrim products to be seen include decorative skirtings and fascia boards. Sheerline ramps, decks and verandahs will also be shown on stand 6C44.

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RIDI

RIDI Lighting has produced the Corona, a circular wall-mounted luminaire. It uses the circular fluorescent 40W T5 lamp which is combined with a cross-section rectangular housing to create a luminaire intended for school, restaurant and commercial interiors and the domestic market. The Corona body is titanium or white, with optional colours for branding and signage. Matt glass shades are available to veil and diffuse the lamps, which are normally exposed. Half-round clear or opal polycarbonate covers are also available. Ceiling fitting and wire suspension options are possible.

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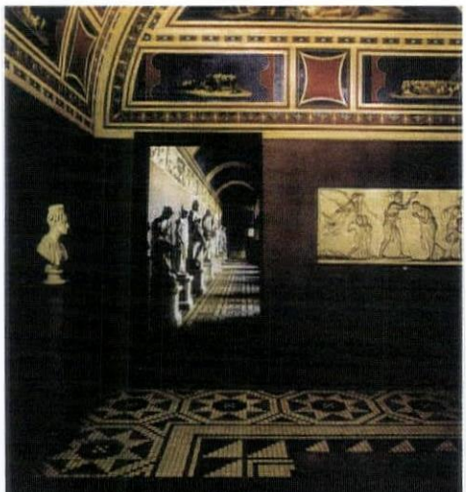
IN SEARCH OF COMMITMENT

NEW COMMITMENT IN ARCHITECTURE, ART AND DESIGN

Edited by NAi Publishers. Rotterdam: NAi Publishers. 2003. €25

In a sense, the very appearance of this book is a sign of the futility of its mission. The unnamed editors at NAi have commissioned a series of essays, both long and short, from people mainly active in Dutch and Belgian academia or media on the subject of architects' and artists' obligations – their 'commitment', their 'engagement' – to contemporary society. The authors mainly mourn the lack of such commitment, which may or may not have existed during an imagined golden age of Dutch Modernism, dated here generally to somewhere around the mid '60s. Some are cynical, but some make a bold stab at identifying small instigators of change. But I fear they all know that their various contemporary protagonists are for the most part following current fashions, rather than changing public opinion or for that matter 'engaging' with it. If anyone believed that there were designers who significantly challenged today's social conventions, who fought with fire in their heart, then NAi would be publishing a book about them instead.

So the tone of the essays is often too general to be either interesting or informative, and not helped, in some cases, by rather a plodding translation into English. There are distinguished exceptions. The first chapter by René Boomkens, professor of social and cultural philosophy at Groningen, sets out the broad theme of the book effectively. Architecture critic Hans Ibelings briefly but thoughtfully questions the role and the influence of his profession. Chris Dercon bravely questions the 'customer – or consumer – is always right' attitude to museum display policy. Hilde Heynen, following Tzonis and Lefaivre, plots the descent of visionary architecture into its current status as a lifestyle subsector of a shopping culture. NAi are planning a series of these books: they may make depressing reading. TIMOTHY BRITTAIN-CATLIN



When heroic sculptor Bertel Thorvaldsen returned to Denmark after a life largely spent in Rome, C. F. Hansen's royal carriage depot in Copenhagen was converted to house his collections. M. G. Bindesbøll produced marvellously coloured interiors to set off Thorvaldsen's cool marble. It was Bindesbøll's first and finest job (1848) and is excellently celebrated for our time in *Thorvaldsen's Museum*, by Bente Lange, Arkitektens Forlag, Copenhagen, 375 DKr.

URBAN PARADIGM?

EASTERN HARBOUR DISTRICT AMSTERDAM: URBANISM AND ARCHITECTURE

By Marlies Buurman, Bernard Hulsman, Hans Ibelings, Allard Jolles, Ed Melet, Ton Schaap. Rotterdam: NAi. 2003. €60

Since the end of the 1980s the Eastern Harbour District in Amsterdam has been transformed from redundant dockland to a residential community of over 8000 dwellings. This book is a record of that process. It combines a series of essays on the history, politics, economics, sociology, urban design and architecture of the district and lavishly illustrates both the process and its outcome.

The book nicely spells out the importance of both space and time for a project such as this. The scale and topography of the district, with its alternation of finger-like islands and wide dock basins, influenced many aspects of the project. It offered a clear subdivision of the territory, which informed decisions about the phasing of development, and the specific dimensions of the islands fundamentally influenced the built forms. The time scale, of over a decade, allowed lessons learned to be fed back into the process. Additionally it saw political and socio-economic changes in which the role of the public sector diminished and market-driven private investment became dominant. The influence of this on the urban and architectural programmes is clearly described, as are the accompanying shifts of emphasis and style in the architecture of mass housing. The small-scale concerns of 'social' housing are progressively replaced by more conspicuous formal gestures as projects fight for attention in the marketplace.

Emphasis is descriptive rather than critical, and this is a virtue. It is relatively rare to have such a dispassionate account of any architectural project and certainly of one on this scale. Events are just presented as they occurred; nothing is obscured or confused by authorial partiality. Many architects of note have undertaken individual projects. Wiel Arets, Jap Coenen, Diener & Diener, Hans Kollhoff, Enric Miralles, MVRDV and many others have contributed. In their various ways their works here become a kind of summary of the current state of European housing. A disappointment is that there is virtually no detailed description or discussion of the individual dwellings, apartments or houses. Very few building plans are at a scale where internal arrangement can be properly read. Is this because mass housing is seen as a commodity, in which standard plans are arranged within striking forms whose primary objective is to grab attention in the battle for market share?

This is a serious book to be read as an objective documentation of a major event in urbanism and architecture. It contains many beguiling images, enjoy these, but please read it for its deeper messages about the processes that are at play in the modern city and how these affect the way people may live. DEAN HAWKES

GETTING THEM UP

HIGH-RISE MANUAL: TYPOLOGY AND DESIGN, CONSTRUCTION AND TECHNOLOGY

Edited by Johann Eisele and Ellen Kloft. Basel: Birkhäuser. 2003. €65

I had always imagined that high-rise buildings were designed and built by people with years of experience and more know-how than the rest of us. But this book sets out to make the reader an instant expert. Twenty chapters by different experts cover most aspects of building tall, from management to structure to fire. Like the *Reader's Digest Book of Home Maintenance*, it takes a complicated technical subject and describes it in language that we can all understand.

The information contained is really impressive. For inexperienced architects joining a team designing a tall building, this book is a must. It may not make them expert, but it will give basic knowledge that should give confidence and enable the right questions to be asked. More experienced architects will also find much to learn and to ponder, but should be aware that local practice and regulations may be different from those experienced by the various authors.

The authors, and most of the examples, are German. But the massive Asian contribution is fully acknowledged. Thirty years ago a book like this would have been almost exclusively American; now America does not even play a dominant role. The German concern for sustainability issues is most welcome, and this book is particularly good when dealing with energy-saving facades and illustrates some innovative low-energy high-rise projects.

The book is mercifully un-architectural. This is a technical and managerial manual, with architectural issues getting short shrift.

JOHN WINTER

CENTERING ON THE CLIENT

DESIGNING BETTER BUILDINGS: QUALITY AND VALUE IN THE BUILT ENVIRONMENT

Edited by Sandy Macmillan. London Spon Press. 2003. £32

If it is true that, 'Architects and engineers are in the process of losing (or have already largely lost) design control over building projects through the rise of project management and new procurement methods' then the advice given by the authors of this book is to become more professional than the managers. The authors advance the notion that both clients and architects can reach a higher level of satisfaction through a client-centred approach to design that makes use of specific process and management techniques to ensure a better quality of building. They believe that it is possible to make good economic arguments to justify good design, and that these arguments, when coupled with greater professionalism, will help designers to win clients over to the design of better buildings.

The book is addressed to both 'those who are engaged in design' and 'clients responsible for commissioning buildings and civil engineering projects'. Further, the book hopes not only to win these two groups over to this new commitment to better buildings, but to provide instruction on how a variety of consulting, quality management, value management, and building performance measurement techniques can be applied in order to achieve better results. But the two constituencies require very different arguments to bring them over to the newer better world of happy collaboration imagined here.

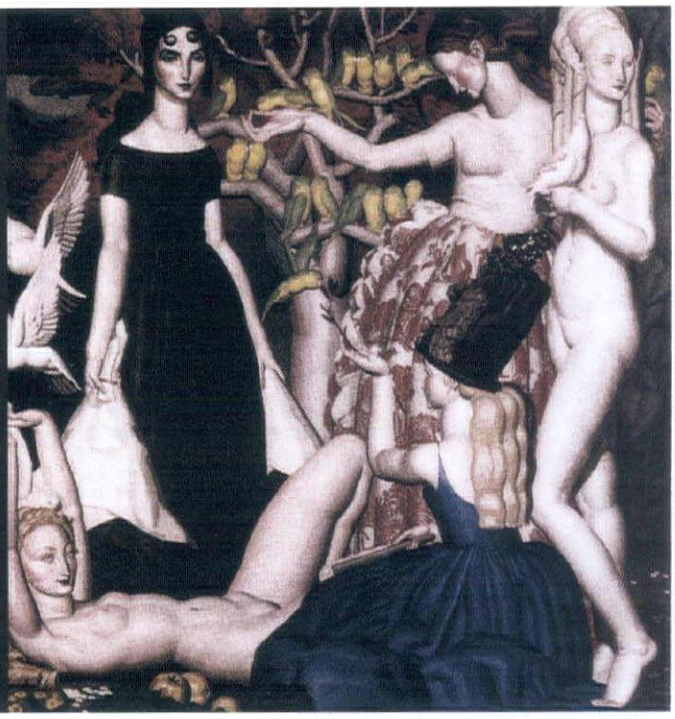
So the authors run a double risk – of being seen as having sold out by the architectural camp, and as being propagandists for the spendthrifts by the project management, real estate and client group. The arguments that must be made to these two groups are quite different, so two books might have been better than one.

Client centred processes, client satisfaction and well managed design processes are the key concepts advanced. Many architects will be concerned that a client-centred practice will mean that they will no longer be free to design architecturally interesting buildings. Client centredness is often perceived as lowest denominator populism, requiring first and foremost abandonment of ambitions to participate in elite architectural culture. A few authors have illustrated their contributions with photographs of architecturally meretricious buildings, previously published in architectural journals, including AR. But they are too few and often not sufficiently prominent enough to convince many architects that they will be able to reconcile their architectural ambitions with client-friendly practices advocated here. On the other hand, discussions of realized value are too vague to convince many on the client side – too few financial specifics are given.

Chapters on management or design process rarely make connections to built projects, and chapters discussing case studies do not mention the processes and techniques used in achieving the results. So the book fails to make the case that architecturally interesting buildings (or even 'better') can be achieved by using management and process techniques described. That is not to say that these techniques are not effective, only that the case for them is not made.

Still, in the end, the book is worth the read. It is a pity that it is likely that only the already converted will find the book attractive enough to do so.

JOHN L. HEINTZ



Of writing histories of design, there is no end, but a particularly thoughtful one has been produced by David Raizman. He traces design's courses from the royal manufactories of eighteenth-century France to today's electronics, plastics and star-designer self-indulgence. Raizman covers a wide range of design production, from textiles to graphics. This is Jean Dupas' *Les Perruches* (The Parakeets), from the Exposition Internationale des Arts Décoratifs et Industries Modernes of 1925. Raizman's *History of Modern Design*, Laurence King Publishing, London, 2004, £24.95 is full of such unexpected and insightful examples.

OPERATIC GARDENING

THE GARDEN OF COSMIC SPECULATION

By Charles Jencks. London: Frances Lincoln Publishing. 2003. £35

Charles Jencks first revealed his inclination for landscape and garden design in 1984 with a memorable completed project in California, named House of Elements in Rustic Canyon (1984) designed together with his wife Maggie (AR June 1984). This was a masterly achievement (it still stands maturely in a changed Los Angeles). Creation of the Garden of Cosmic Speculation, at Portrack in Western Scotland had its genesis with Maggie in 1988. She played a fundamental part in inspiring this unique venture, of which the book is both a documentation and a celebration of her memory: she died courageously of cancer in 1995. The mutual quest was fulfilled in this magisterial consummation, as the twentieth century limped to a close, an enquiry no less into the 'fundamentals of the universe, its laws, and its basic organizational types – and to create a new language of landscape from them'.

On one level within the new book's narrative lie perhaps the seeds for a superb contemporary opera, a worthy successor to Sir Michael Tippett's *The Knot Garden* (1970). Musical score by Daniel Libeskind, walk-on parts for Leon Krier ('Ayatollah' as nicknamed by Jencks), and Zaha Hadid all performed at Portrack, Glyndebourne-wise.

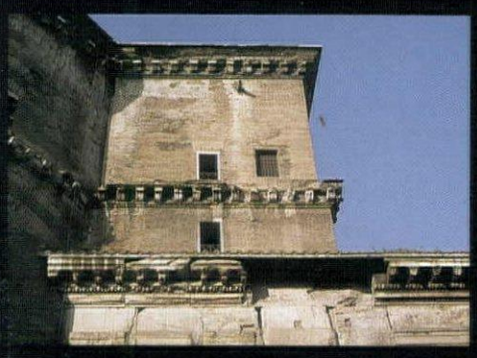
It is in such a celebratory frame of mind that this reviewer felt less than perplexed by Chaos Theories, Fractals, and the necessary decoding which the new cosmology demands. As Jean-François Lyotard said (quoted by Jencks) 'we live in an age of scepticism towards all meta-narratives'. Fortunately, Jencks is fully engaged now on further landscape projects: the one for Libeskind's Imperial War Museum in Salford was noteworthy but fell foul of budgetary slicing. That for the National Gallery of Modern Art, Edinburgh is remarkable and completed (2003). This book provides a worthy documentation of a determined, thoroughly researched venture into the redefinition of meaning for landscape.

MICHAEL SPENS

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

delight











Photographs: Rob Gregory

LIGHT AND DARK ARE MAGICALLY ORCHESTRATED WITHIN HADRIAN'S MAGNIFICENT PANTHEON IN ROME.

The Pantheon was made for light. It captures light and even conquers it. It was the prize for which all this concrete was poured.
W. L. MacDonald, *The Pantheon*, USA: Harvard University Press, 1976.

Nothing can prepare you for your first visit to the Pantheon. Even locating the building is a magical experience, discovering it accidentally as you approach along narrow streets that reveal surprising unfamiliar views. Internally this magic is heightened, as even the most overcast days produce a mysterious luminance that seems to lift the mass of the great dome. Above layers of marble, coffered concrete forms a surface that tricks your eyes, cast in a material so inherently matt that appears to soak up light. Throughout the day coffers are seen in relief, set within a constant array of shadows that appear static when passed by the dynamic shaft of sunlight that tracks the sun. As a distributor and resonator the Pantheon makes form from light, celebrating its duality, separating daylight and sunlight as distinct components of the same force. While much has been written and much can be read, nothing can be as profound as seeing it yourself. ROB GREGORY