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

The Architectural Review (ISSN 0003-861X) is published monthly for $105 per year by EMAP, Royal Mail International c/o Smartmail, 140 58th Street, Suite 2B, Brooklyn, NY 11220-2521. Periodicals postage paid at Brooklyn NY and additional mailing offices. Postmaster: send address changes to The Architectural Review, c/o PSMJ Resources Inc., PO Box 95120, Newton, MA 02495.

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

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ABC circulation 23 211 (audit issue May 2001)
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Regional hospital extension, Styria, Austria (p56)


Hospital, Graz, Austria (p44)

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Changes for the Better

Amazing Quality

"Even engineers can't believe the curved escalators!"

Named for the English port that once supplied its imported goods, Liverpool department stores sell high-quality merchandise through 44 major stores in Mexico's largest cities. Says Mr. Alonso March, "The company was founded approximately 150 years ago. Today we have stores from Chihuahua in the north to Cancun the south." As Mexico's leading department store chain, Liverpool had very strict demands for its transport systems. "Elevators are like the skeleton of our store. If they don't work we are dead! They are the principal pump by which people arrive at the different floors. They must be safe; they must be comfortable." Liverpool chose Mitsubishi elevators for two reasons: "Quality and price. Mitsubishi is quality." Since installation, Mr. March has been pleasantly surprised by several unforeseen benefits. "I am very happy with the level of service offered by the elevators." Even more surprising is the huge appeal of the spiral escalators in the Santa Fe store. "Another plus is that many people come to Liverpool from Mexico, Central and South America to ride the escalators. Even engineers can't believe the curved escalators! They say the curved stairs are marvelous and amazing. On the elevators, people can board with two or three baby-strollers, and they comment on the size, the speed, the safety and the ventilation." As Mr. March concludes, "It's something special!"

The spiral escalators in Santa Fe are the only ones in Mexico.

Some customers come just to ride the unique escalators.

Mr. Alonso March Mifs
Director, Liverpool S.
Mexico City, Mexi

Melco de Mexico: Supplying Excellence for 25 Years

A subsidiary of Mitsubishi Electric Corporation, Melco de Mexico was established in 1976 and opened its first industrial plant three years later at San Juan del Rio, Queretaro. The plant manufactures advanced technology elevators and escalators, and since 1984, has been exporting units to other South American countries. In the past 25 years, Melco de Mexico has sold more than 2,500 elevator and escalator units to clients that include some of the most prestigious hotels, department stores and companies in Latin America. Its elevators are installed in the Nikko Hotel, Petroleos Mexicanos Tower, Reforma Plus, Palacio de Hierro, while Santa Fe Commercial Center has the only spiral escalators in Mexico. Melco de Mexico has also exported more than 800 complete elevator/escalator units and 1,600 sets of elevator parts to overseas countries. In addition to high-quality manufacturing, the company is also highly acclaimed for its excellent installation, maintenance and after-sales service.

The plant's test tower is a stylish piece of architecture.

The main administration block at San Juan del Rio.

The entrance to Melco de Mexico's plant in San Juan del Rio, Queretaro.

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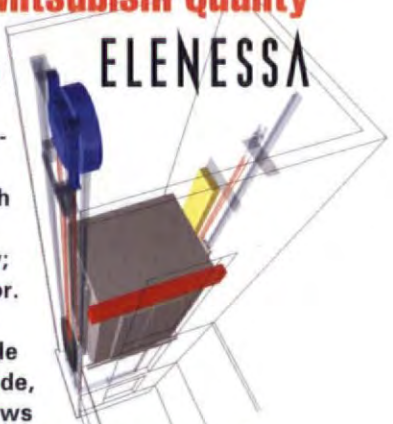

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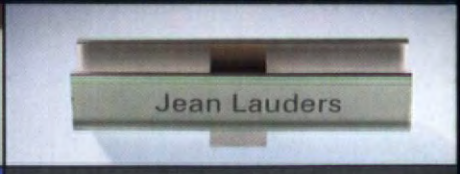

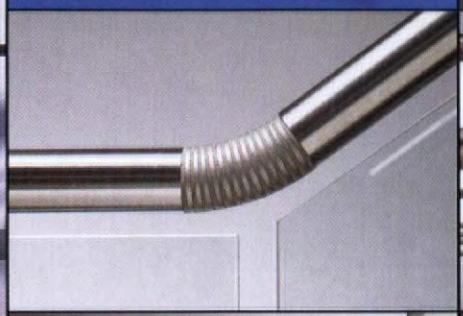

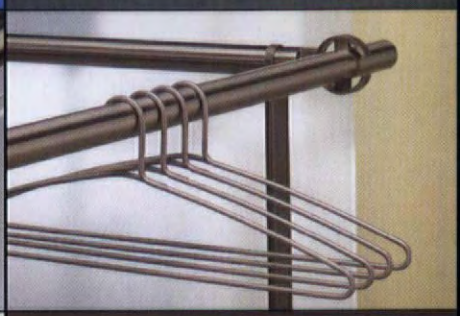

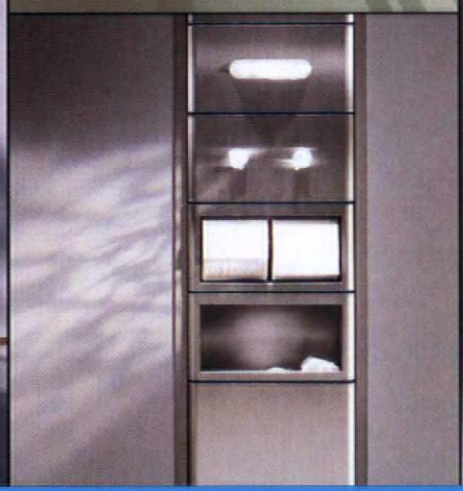

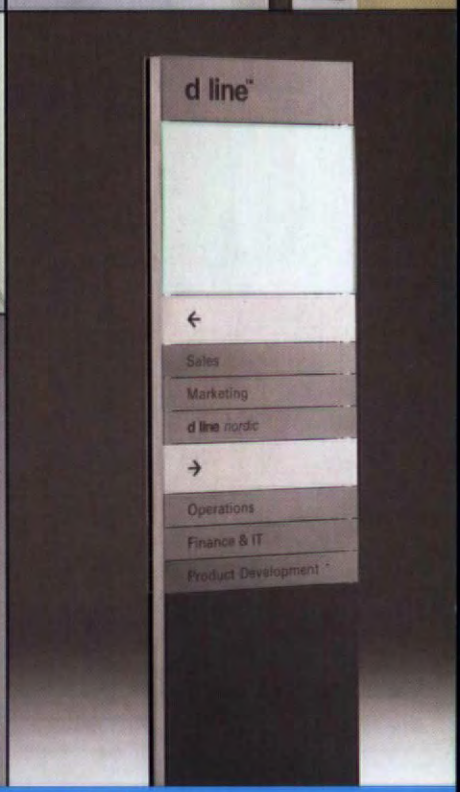

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Invitation

This is an open invitation to architects and consultants from around the world to engage in a challenging act of creative design that stipulates a unique architecture and state-of-the-art museum complex for the long anticipated Grand Egyptian Museum. Egypt, the centre of civilisation, art, and culture, offers its unique site neighbouring the Pyramids of Giza as a genius loci for such a cultural and architectural challenge that best addresses the world's Third Millennium and Egypt's Seventh Millennium.

Challenge

First Phase - 7 May to 17 August 2002. Twenty winners will be announced October 2002 and will pass on to the Second Phase. Second Phase - November 2002 to March 2003. Winners will be announced June 2003.

Organisation

Regulated in accordance with the Revised Recommendations of the International Competitions in Architecture and Town Planning, adopted by the General Conference of UNESCO in 1978. Official language of the competition and all related correspondence will be English. Official measurement system will be Metric.

Jury Members

Architects:
Dr. Salah Zaki (Egypt)
Dr. Galal Abada (Egypt)
Mr. Peter Cook (England)
Mr. Teodoro Gonzales (Mexico)
Mrs. Gae Aulenti (Italy)
Mr. Jong-Soung KIMM (Korea - UIA representative)

Egyptologists:
Dr. Gaballah Ali Gaballah (Egypt)
Mr. Sergio Donadoni (Italy)

Museologist:
Mrs. Françoise Cachan (France)

Deputy Jury Members:
Dr. Fayza Haikal (Egypt)
Mr. Arne Eggebrecht (Germany)
Ms. Ana Maria Zahariade (Romania - Deputy UIA representative)

Technical Committee Coordinator:
Dr.Yasser Mansour (Egypt)

Prizes

First Phase: Twenty winners will receive a prize of $10,000US each. Second Phase: First prize: $250,000US
Secondprize: $150,000US
Third prize: $100,000US
A sum of $200,000US will be distributed among Honourable Mentions based on the discretion of the jury.

Contact

The Grand Egyptian Museum
International Architecture Competition
Coordinator: Dr. Yasser Mansour
Al Remayah Square, Pyramids, Giza, Egypt
Tel: (2) 02 386 59 17
(2) 02 386 59 11
Fax: (2) 02 386 58 71
Email: gem1@idsc.net.eg
Web: www.gem.gov.eg

Registration

From 7 January to 7 April 2002. Registration may be made by mail, e-mail, web site online form, fax, or in person at the Giza address. Fees for registration are $300US + $50US for international shipping and handling, to be paid by bank transfer to the below address. Bank charges to be paid by applicants. The registration fees are non-refundable under any circumstance.
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Application

Applications for registration must arrive no later than 18:00h (+2 GMT) on 7 April 2002. Applications are to be accompanied by:
- Complete registration form with name, address, and country of origin of the architect or team of architects applying.
- Documentative evidence of the architect's or team leader's right to exercise the profession in his or her own country.
- Copy of bank receipt confirming fee payment.

Competition Brief and all related documents will be delivered during the month of April 2002 to the exact address of the registered participants. All correspondence and inquiries should be addressed to the Technical Committee Coordinator at the Giza address and/or e-mail address. Deadline for submission of the First Phase documents (two copies) shall be 12:00h (+2 GMT) 17 August 2002 at the Giza address.

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Ministry of Culture

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The Grand Egyptian Museum

International Architecture Competition

R79

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One of the estimated 140,000 artifacts currently in the collection of the Egyptian Museum, Cairo.
Image from "Treasures of the Egyptian Museum"
2000 Whitestar S.R.L. - Vercelli, Italy
The American University in Cairo Press
Photography by Araldo De Luca

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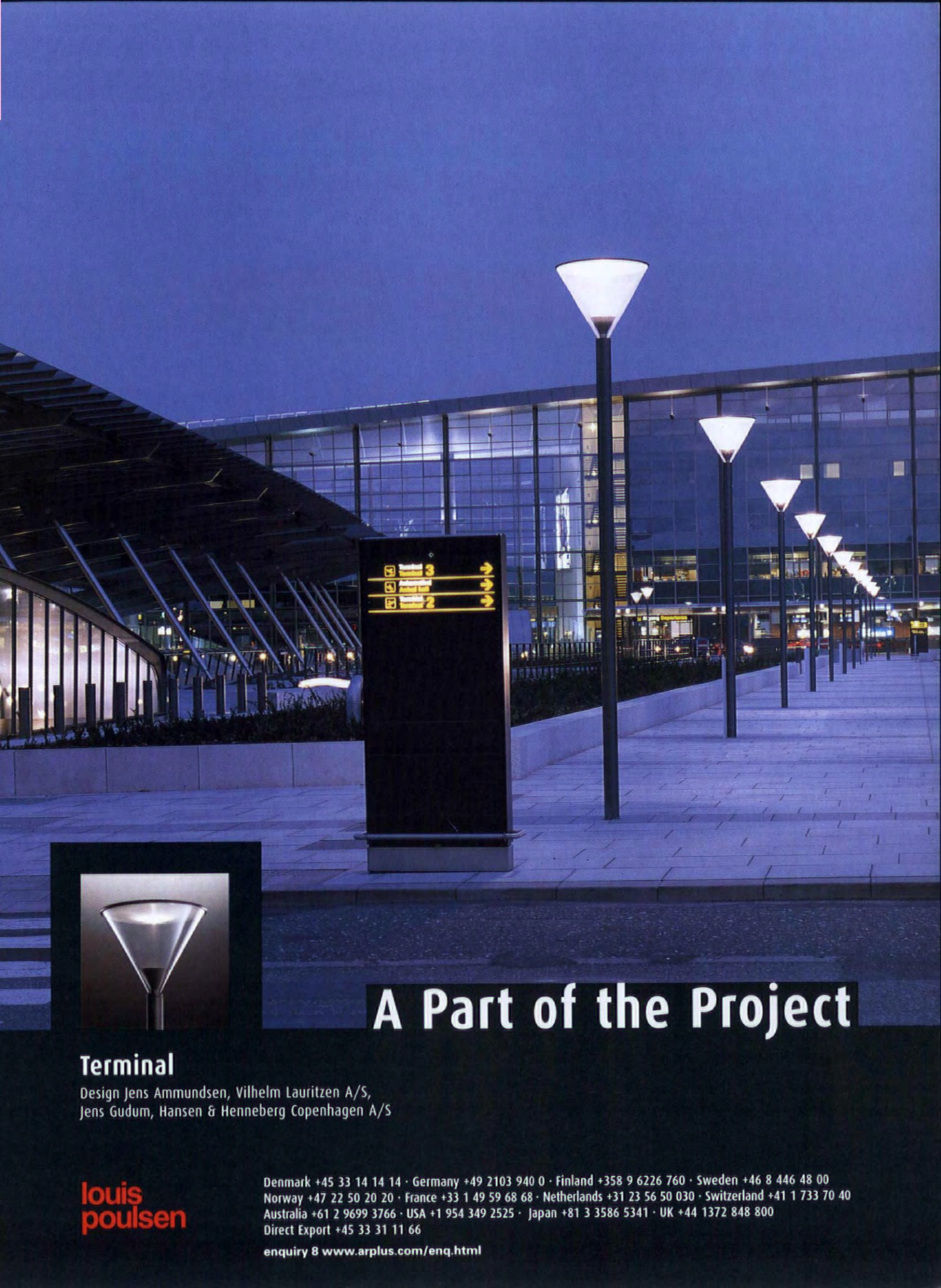

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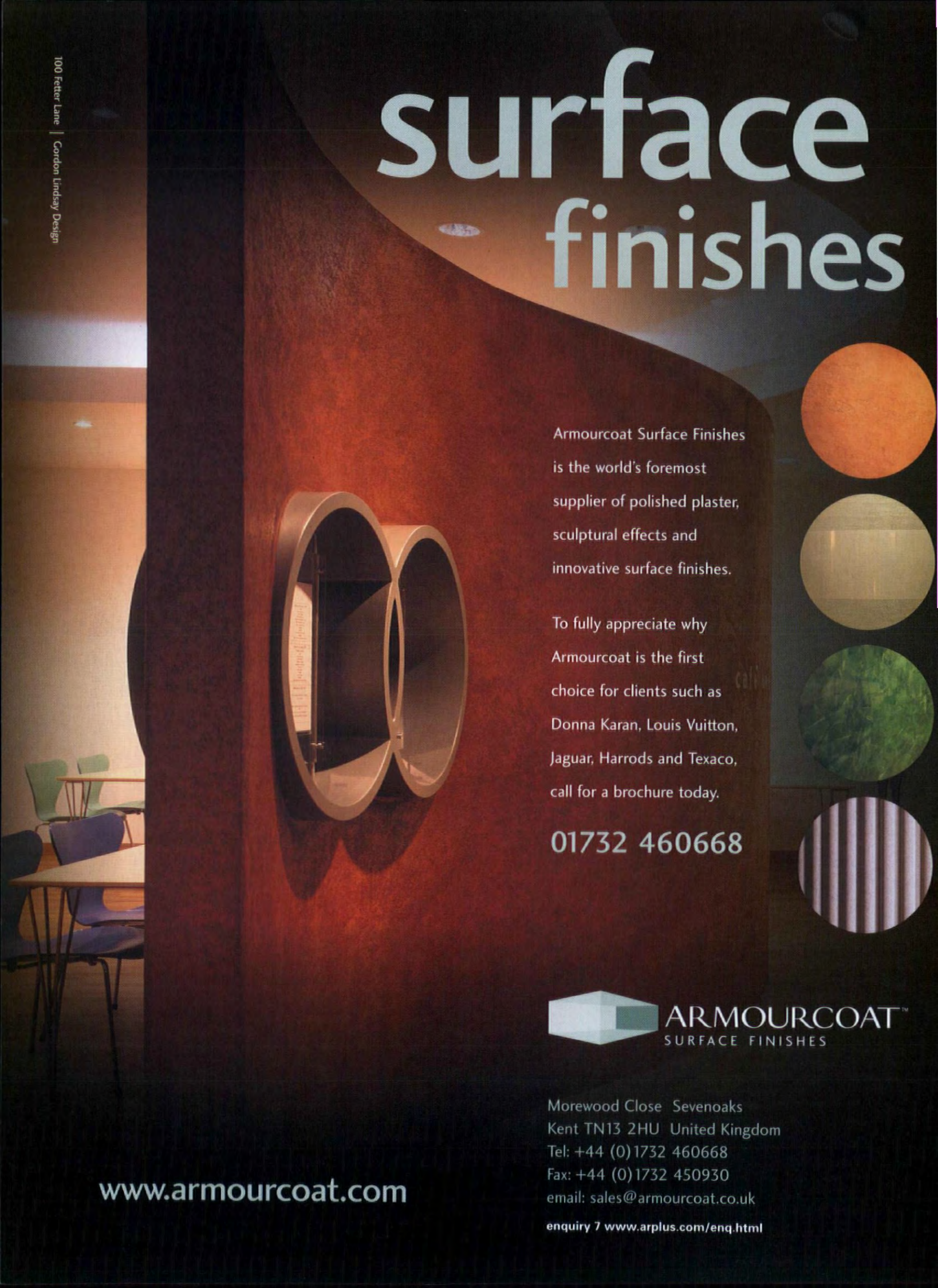

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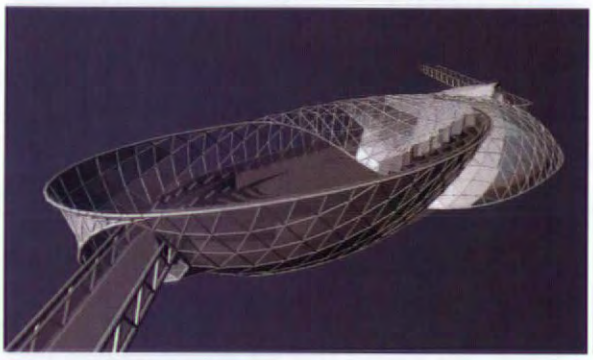

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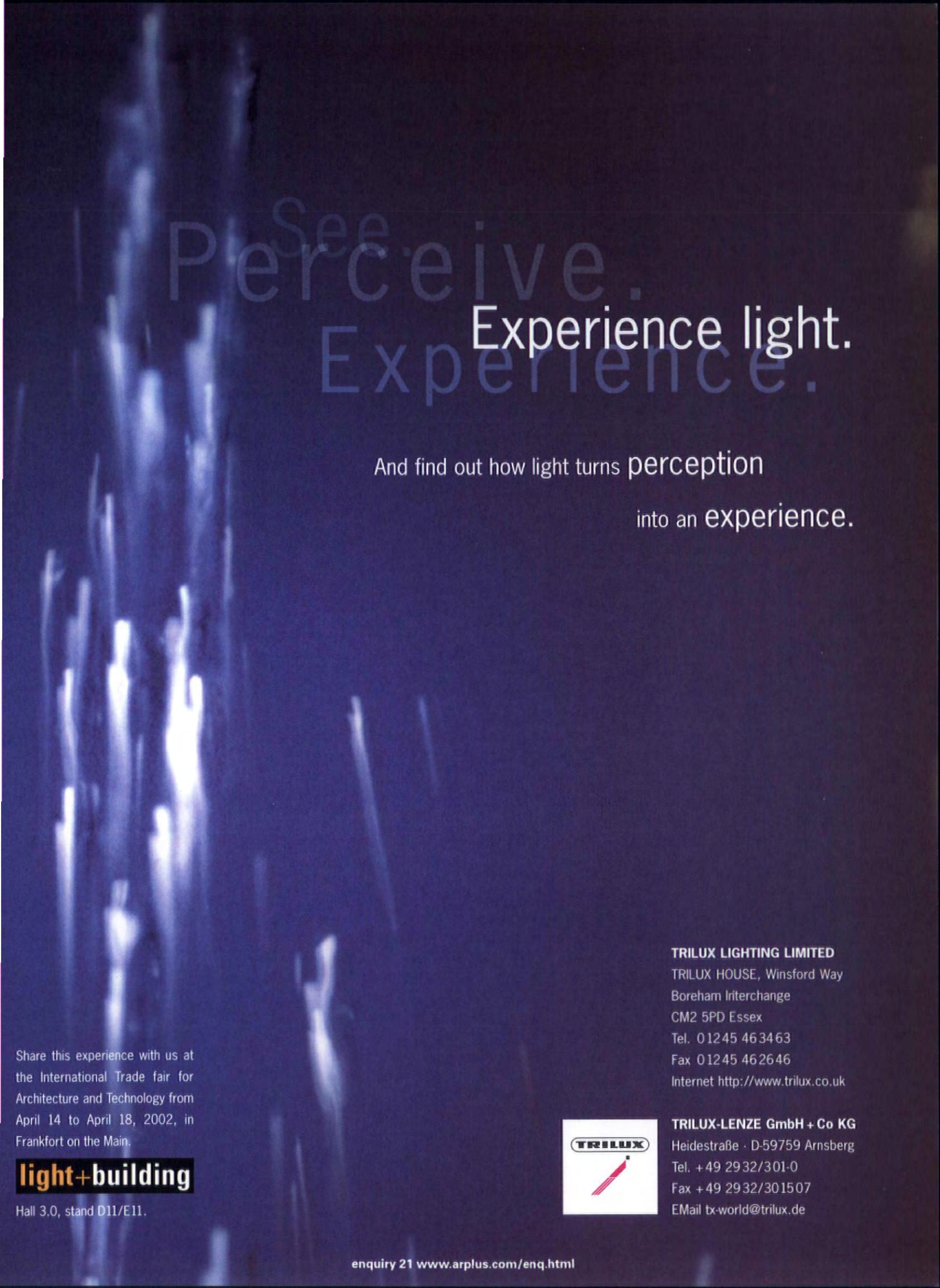

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view

WHAT SHOULD REPLACE THE NEW YORK WORLD TRADE CENTER? A RECENT EXHIBITION SHOWS THAT BRASH ARCHITECTS ARE NOT AFRAID TO PROMOTE OPPORTUNISTIC VULGARITY. SUTHERLAND LYALL FINDS GEHRY UNEXPECTEDLY. READERS ASK IF AR LACKS HOPEFUL FOUNDATIONS, AND HOW TO MAKE PREFABRICATION HUMANE.

ARCHITECTS AT THEIR WORST?

The huge crowd that wound its way round the block on the opening night of the exhibition of design proposals for 'A New World Trade Center' at the Max Protetch Gallery is evidence of the immediate and urgent craving experienced by so many New Yorkers for ideas about what should be done to repair the colossal damage done to their beloved city on that perfect September morning.

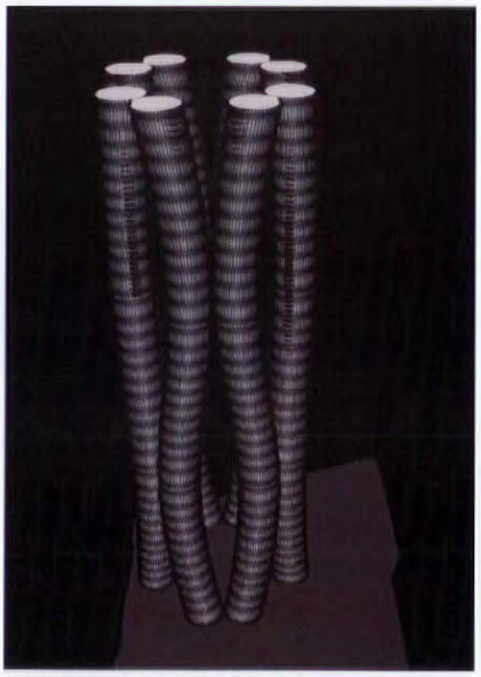
Max Protetch, who holds a personal position as gallery proprietor in New York's architectural scene that has no exact parallel in London, had written on 26 September, just two weeks after the attack, when the whole world was still in a state of shock, to about 90 'established and influential' architects offering them 'an opportunity to show an expanded public the ways in which architects can transform the world'. Perhaps only in New York would such an offer be accompanied by the proprietorial request for a 'suggested asking price' for the drawings displayed. Needless to say a good number of architects responded.

Meanwhile a serious debate had begun in the city about what could or should be done on Ground Zero. The Institute for Urban Design has produced a 'compendium of initial ideas' for the reintegration of the empty site with the huge and intricate fabric of the surrounding metropolis. The thoughtfully written introduction to that exhibition draws attention to 'a common desire to recreate, redevelop, and rebuild the landscape of Lower Manhattan', that had been dominated for 30 years by the 110-storey Twin Towers, an urban phenomenon that had become an icon for tourists without inspiring any equivalent local affection. Although the overall message of the Institute for Urban Design initiative is 'the need for reconstitution, not recreation' of the towers, sensibly within the context of a region that is not without considerable urban problems, it must also be said that there is a considerable body of popular opposition in New York to any building at all on what is now widely considered to be a war grave, a holy and haunted place.

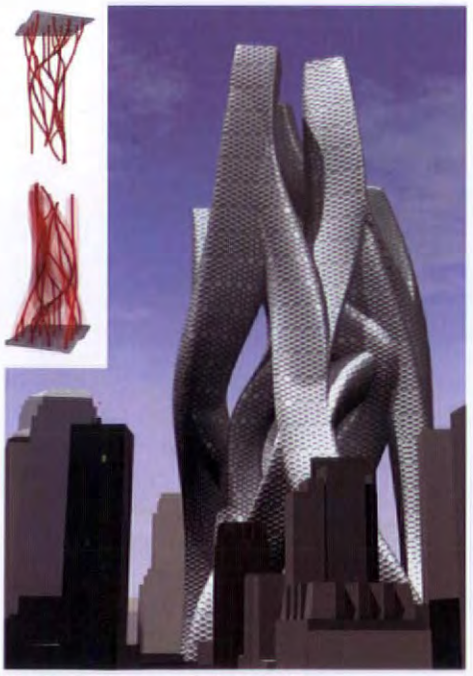
Energetic action needed?

The City of New York and the owner of the site are anxious for energetic action to protect the economy of the city and to help it recover as quickly as possible from the massive damage to the urban infrastructure in the immediate vicinity. A group of architects and planners led by Marilyn Jordon Taylor, Chairman of SOM, commissioned by Silverstein, the site's owner, has been hard at work for some months preparing proposals for rebuilding. However, this work is being carried out with a circumspection that almost amounts to secrecy – partly understandable – given not just the complexity of the planning, architectural, infrastructural and engineering issues involved but, much more importantly, the strength of public feeling and the immense and intricate legal problems that surround the project, including disputes about how much insurance is due (was it one incident or two?) and a burgeoning cloud of financial claims from the enormous number of people who have suffered the loss of relatives, of jobs, of income and of property. Public curiosity is huge and growing. Hence the crowds and television cameras inside and outside the Max Protetch Gallery.

So how well have the architects invited to exhibit by Max Protetch risen to the occasion? Is this really the best we can do – an unprecedented opportunity for architects to show how



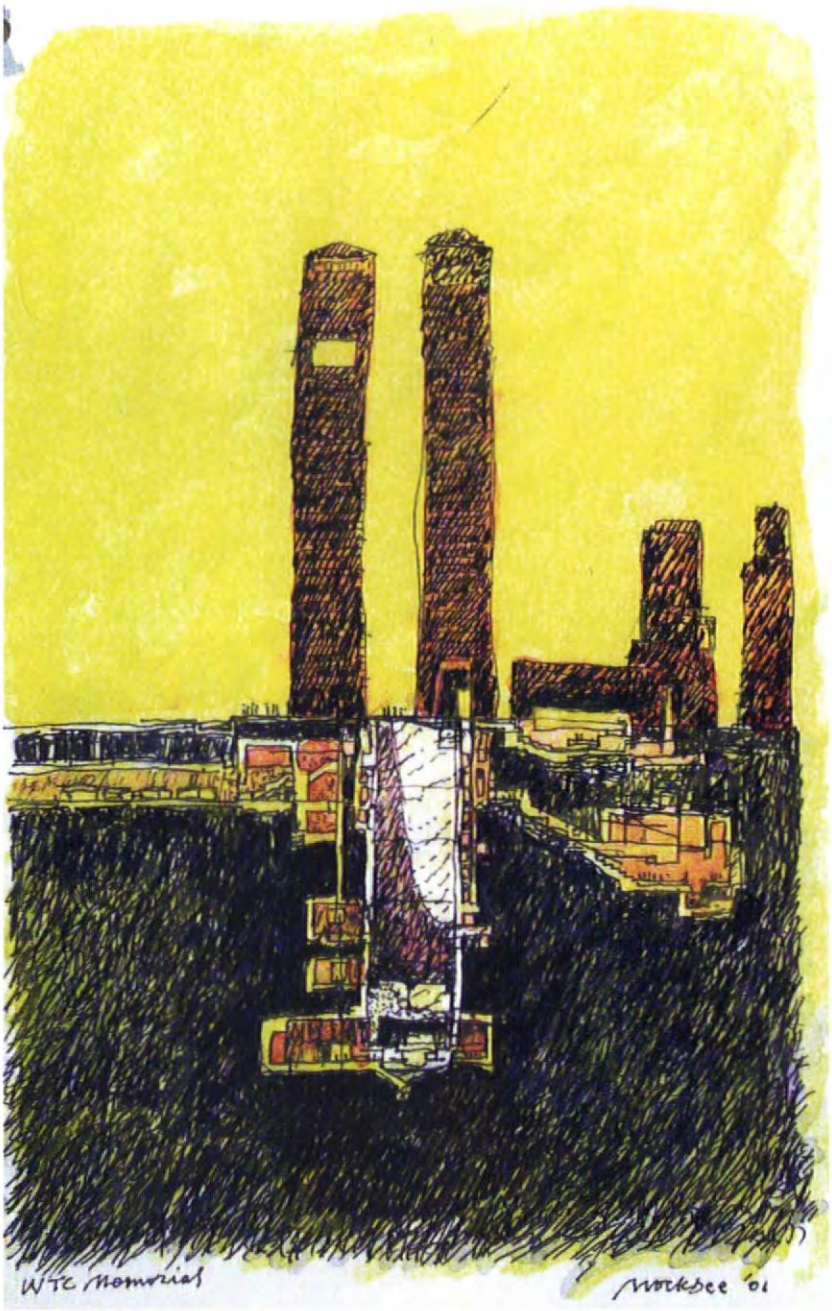
Foreign Office Architects: meaning?



Nox Architekten: post Gehry writhings.

Tom Kovac: gravity defying ectoplasm.

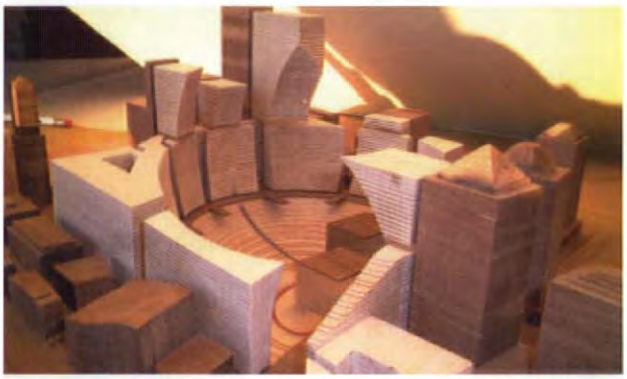
All pictures courtesy of the architects and Max Protetch Gallery



Samuel Mockbee: drawn on his death bed.

Shigeru Ban: a modest proposal.

Oosterhuis Associates: patriotic kitsch.



RoTo: urban intentions.

they can transform the world? The graphic displays, the exaggerated ambitions, the formal games and the silliness that characterize much of this exhibition are totally inadequate to satisfy public hunger for a vision of a new and better New York. The show is a long way from being a Chicago Tribune Competition. This is architects at their worst. Many of these projects hardly deserve to be remembered next month, let alone next year, and certainly not for decades.

A rum do

The worst projects are the biggest and the most modishly architectural. Many are exercises in post Gehry, amorphic geometry, some shaped like the waving life forms that cluster round thermal activity, deep underneath the ocean. Why? To what end? What do these shapes mean? (Foreign Office Architects, OCEAN North, Oosterhuis Associates, Office dA, Lars Spuybroek). Equally strained and meaningless are exercises in gravity defying ectoplasm (Coop Himmelblau, Hans Hollein). And what is a grieving public meant to make of a building full of holes – a high-rise gruyère cheese (Vito Acconci)?

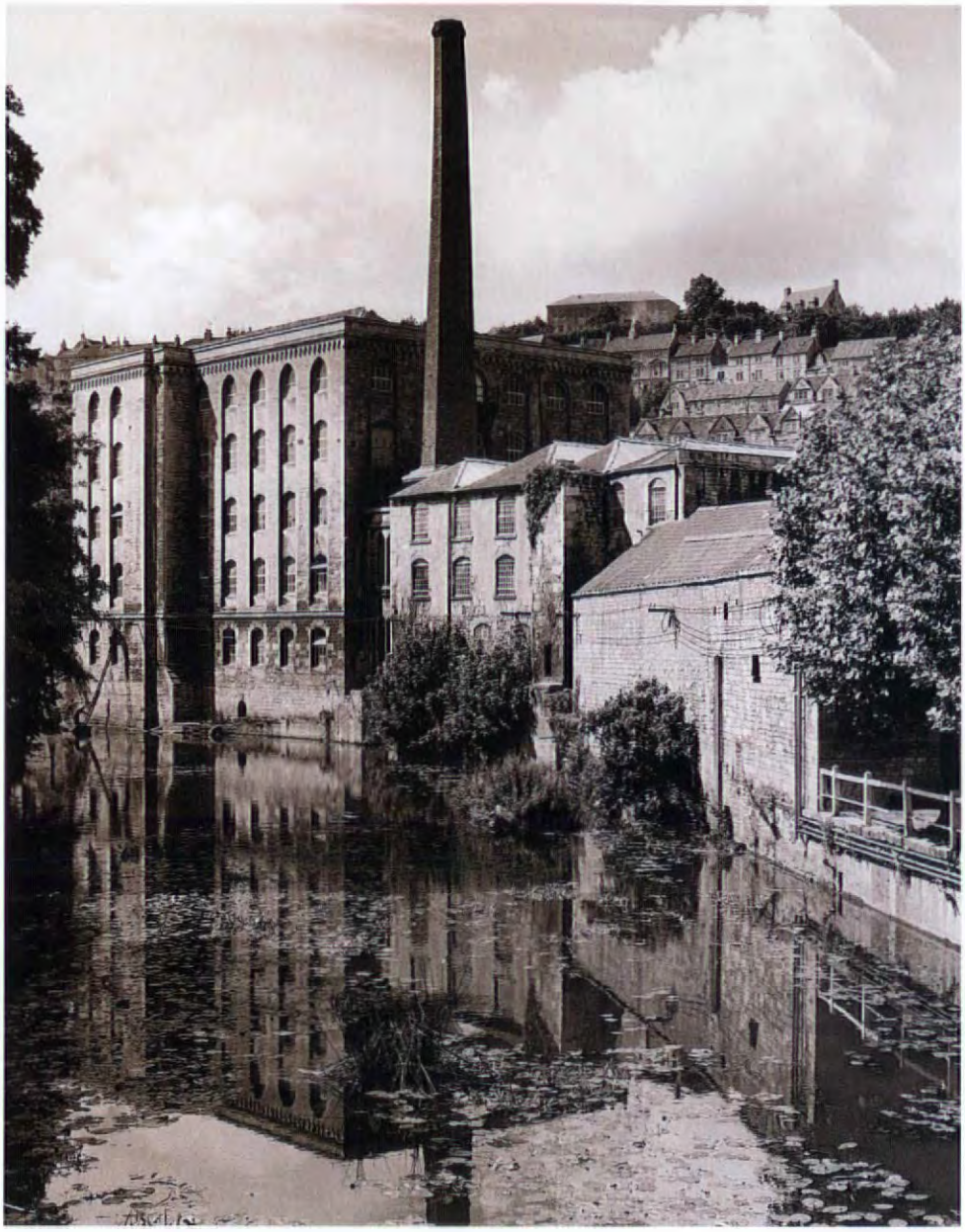
Some architects have tried harder – perhaps most movingly Samuel Mockbee's sketches of a contemplative pit, drawn on his deathbed. One can even sympathize – for a second – with the crude defiance of Morris Adjimi's towers, covered with stars and stripes. Fox and Fowle have made what looks like a serious attempt to create a varied, mixed-use development. More imaginatively, but in the same mode, RoTo Architects propose in a beautiful model a kind of coliseum of curving, medium-rise buildings, surrounding a place of remembrance. Zaha Hadid presents a series of semi-abstract images, accompanied by a surprisingly sensible text explaining that the real design task for the architect is to understand how cities can respond to change.

Some architects have imitated themselves – Daniel Libeskind's jagged, anguished monument, Paoli Soleri's re-demonstration of arcology, Will Alsop's elegant graphic fantasy – all three somewhat empty and curiously analogous.

All in all, a pretty rum show. The three chief lessons to be drawn by architects from the exercise are never to respond to opportunistic boosterism, never to draw without thinking, and finally that design is far too serious a matter to be divorced from the rigour of the brief.

FRANCIS DUFFY

'A New World Trade Center' exhibition, Max Protetch Gallery, 511 W. 22nd Street, New York, NY 10011.



Left, mill, Bradford-on-Avon. Top, pottery kilns, Stoke-on-Trent. Above, mill door, Snape, Suffolk. Below, footbridge, Cambus-o'-May, Aberdeenshire. All from *The Functional Tradition*.

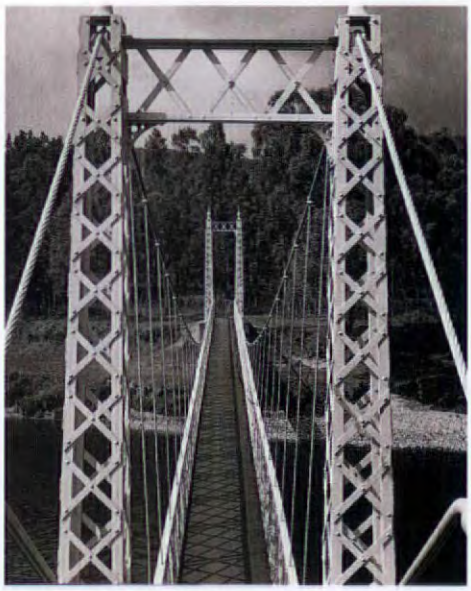
obituary

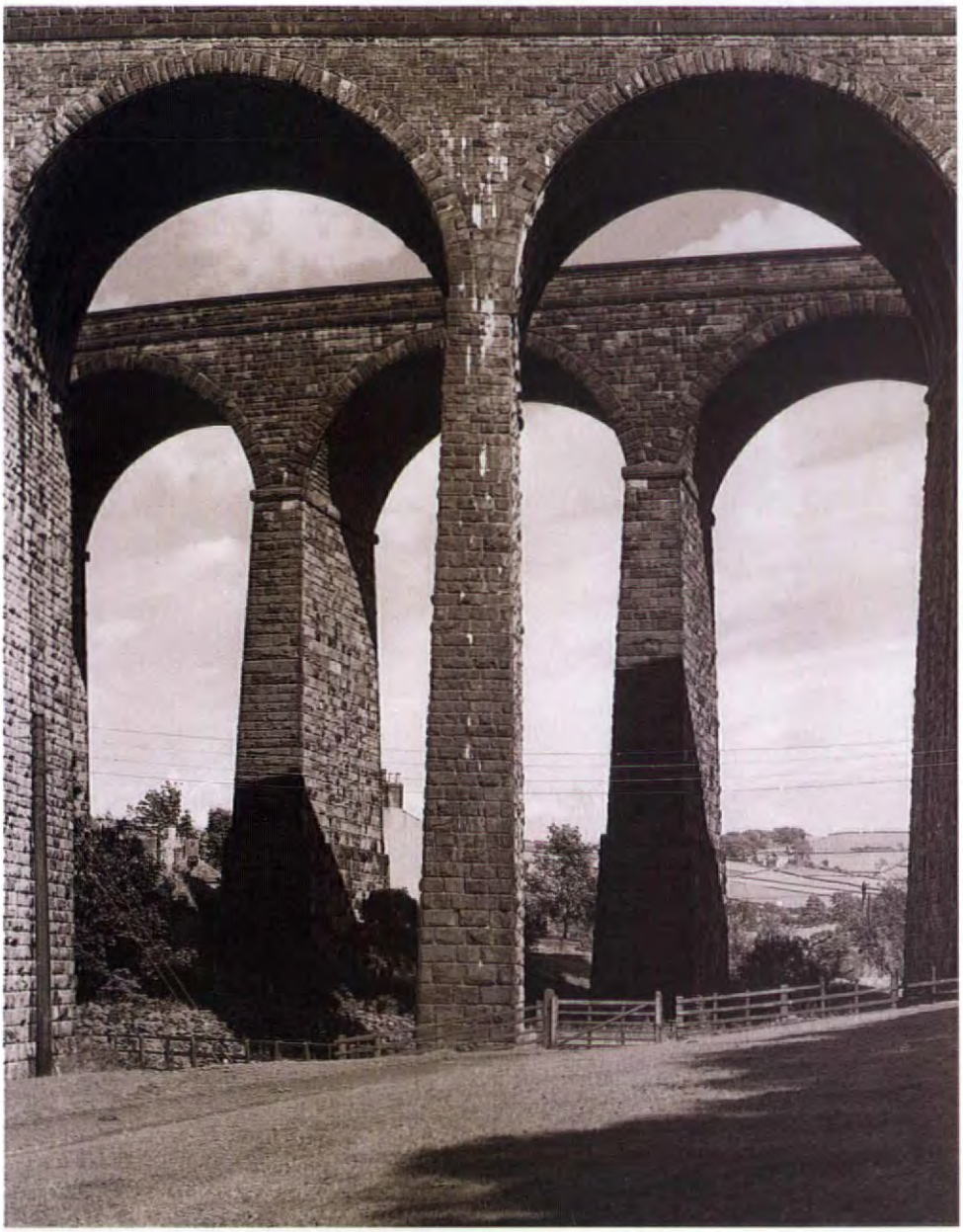
ERIC DE MARÉ 1910-2002

Eric de Maré changed the way we see. Born in 1910, he became immensely influential in the immediate post Second World War period, when his photographs transfixed two generations of young architects. His war had been a gentle one because of ill health, spent partly in the Home Guard designing what he called 'frondy camouflage', and from 1942 to 1946, being Editor of our sister paper, *The Architects' Journal* (when the *AJ* was exiled to suburban Cheam, and this magazine was edited by Nikolaus Pevsner from the same place).

But it was in the AR that his photographic genius flourished, in a series of special issues that celebrated canals, the Thames and, most importantly, the buildings of the Industrial Revolution, which were then ignored or being destroyed as a reaction to the horrors of the nineteenth-century transformation of society. His wonderfully contrasty pictures made us all aware of the noble, Roman solidity of some of the structures and the simple, honed elegance of their detailing. James Stirling said of *The Functional Tradition*, the book that came out of a 1957 special issue of the AR (with words by Editor J. M. Richards), that it showed a world of 'direct and undecorated volumes evolved from the functions of their major elements'. You can easily see the immense effect of the book on the work of young Stirling and his contemporaries.

Eric was the son of Bror and Ingrid, Swedes in the timber trade who had come to live in England as so many did at the time. He never forgot his Swedish roots, and was one of the people who





Top, Portsmouth Naval Dockyard no 18 store-house, formerly the great ropery, 1770. Above, Stanley Mill, Stroud, Gloucestershire. Right, railway viaducts, Chapel-en-le-Frith, Derbyshire.

promoted Scandinavian Modernism in The Review before and after the War. He produced the first book in English on Asplund, and was as devoted to the Göta Canal, which beautifully cuts across low forested southern Sweden, as he was to the Thames and its tributaries. Trained as an architect at the Architectural Association in the early '30s and a member of the RIBA, he practised on his own between 1936 and 1940. But he already started to publish in the early '40s. In 1946, he bravely decided that he could not bear to have a job any more, and became a freelance writer and photographer. Yet he remained in much demand at the AR. He was part of that stunning group – Hastings, Piper, Lancaster, Casson and their friends – who gathered in the private basement pub of our old offices in Queen Anne's Gate to support British Functionalism and the rise of a new version of the Picturesque. His association with the brilliant illustrator Gordon Cullen was particularly fruitful, generating moving visual polemics on what could be done in the public realm, if only we could find vision. Sadly, though the images were very powerful, they largely ended up in generating now unloved tracts of cobbles surrounded by bollards – about as far as planners and civil engineers could understand the complex and sensitive human proposal of Townscape.

On the whole, Queen Anne's Gate at that time, for all its suppressed problems, must have been absolutely wonderful. (It was when I got there too, but rather differently.) Eric recalled 'the pleasant summer days Gordon and I spent gliding along the Thames in a cruiser at the legitimate expense of the Architectural Press, taking snaps and concocting ideas'. And Jim Richards used to talk about how he and de Maré would regularly climb into a small car for a week to tour the whole country, finding content for *The Functional Tradition*. The magazine came out without them. I wonder how. Of his other books, *Photography and Architecture* (1961) and *Architectural Photography* (1975) were perhaps the most influential, and both remain important.

He was a most delightful companion, witty, sardonic but sensitive, long memoried and kind. He was a life-long passionate advocate of Social Credit, an idealistic predecessor of Keynesianism, which turned out not to work when it was applied in Alberta. It offered a gentle and happy existence to all. Throughout his life, he believed that civilization isn't 'easy to define but an essential ingredient is the leisure with security that would allow us, in Lethaby's phrase, "to add to what may be loved"' – De Maré's work showed us how to extend our love. PETER DAVEY

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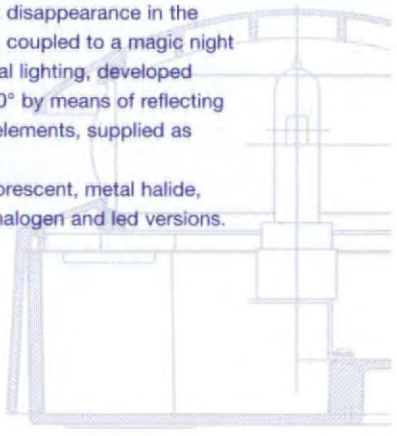

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browser

Sutherland Lyall continues to trawl the architectural cyberwaves mischievously and adventurously.

Look but don't touch

One theory says that architects like looking at pictures of buildings in the same way that submariners like looking at gatefolds. Well not exactly the same reason. Architects do it partly because that's the way they have operated since the Renaissance when printing made it possible. On the other hand maybe they don't: the RIBA's vast drawings collection, for example, is visited by scholars but almost never by architects. Whatever, last month I mentioned the link http://www.links2go.com/topic/Picture_Collections which, as it says is a list of image collection urls. You have to be very precise with the underscore towards the end of the address to avoid a pot pourri of architecture, art and really tiresome soft core. In the traditions of the internet this list has a wild mix but includes just-possibly interesting sites such as image banks to do with Chicago, Venice, Salisbury, Oxford and New York. There is the Digital Archive of American Architecture (started by Boston College fine arts department and currently under construction) and, although it looks a tad like a converted holiday snap show, a Monash university guide to eight Italian gardens including Caparola and the Villa d'Este.

Respect?

This month's review of a famous architect's site was going to be of that chilly pair of Pritzker laureates Herzog & de Meuron but, although there are squillions of references to them on the Web, they don't seem to have a site of their own. Neither does Frank Gehry. What he has is the apparently ultimate accolade, an unofficial site run by British architect and multimedia designer James Avery. He asked the Gehry office for information about its site. When he was told there wasn't even a plan to do one in the future he got to work. His site is at http://www.frank-gehry.com/. It lists other Gehry-related sites, frequently asked questions, projects, and a site development plan. Ominously the last entry is June 2001. Running sites is a serious and committed business and, as this one demonstrates, it's probably far more important to be skilled in the logistics of information management than in graphic design.

Reverse charges

We last looked at the UIA site (www.uia-architectes.org) in 1999 and said things like 'stuffy ... pompously self-promoting' and 'largely out-of-date'. Today this is a site whose design is such that you need to stick a biro deep into the muscles of your thigh to stop your head hitting the desk from the ennui. This is a bilingual site based in Paris and the French version is just the same – except you have difficulty reading it. I guess people who want to go on freebies will take an interest in the congresses: one is listed this year for Berlin and, er, that's it. Architects may be interested in the six current competitions available – surely not just six worldwide at any one time? And, naturally, I had a look at the list of architectural journals. The titles seemed to be arranged higglepiggledly with this organ near the bottom. It wasn't until I looked at the column on the right that it become clear that the taxonomy was based on reading dyslexically from right to left and only then on the initial letter of the country of origin. That means it starts with Australia and the magazine *Archipress*, Australia/RAIA third (reading right to left) and *Architektur* & *Bauforum* fourth. Needless to say you can't click on *Archipress* and go straight to its site. Admittedly that is because *Archipress* doesn't seem to have one.

letters

NAIVE AND SUPERFICIAL

SIR: Your comment on the 'corrosive effects' of the leisure industry (AR February, p30,'Destroying All the Things We Love') is the latest and perhaps most salient example of the Architectural Review's unsatisfactory struggle to develop a relevant and affirmative interpretation of the world as we confront it today. The curious blend of a reactionary conservatism with a sentimental affinity to modernism, and the subsequent, half-hearted embrace of post-modernity might be acceptable if it were a conscious choice. Of this, however, there is little evidence – once again, it seems as if the dogmatic application of received ideas, and an unwillingness to engage with their consequences has been the preferred route. Needless to say, this is hardly appropriate for one of the world's leading architectural journals. As such, the Architectural Review should live up to its standing, and assume responsibility for opening up roads along which culture can continue moving, of providing inspiration, shared hopes and leadership for the architectural profession.

Although I am not supportive of it, there is nothing intrinsically wrong with the conservative demand for a return to older traditions and norms; I confess that your rather naive elegy of Roman civilization and the associated, bloody rituals, was hard to swallow, but even such a radically retrospective romanticism can be justified. Similarly, a post-modern affirmation of pluralism and ambivalence as the most humane principles of societal organization is also perfectly acceptable. Indeed, all such positions are justifiable, so long as they are built on solid and reflected foundations, and, above all, give us reason to feel at home in our present, or, failing that, to look forward to a better tomorrow – even pessimism, where it yields critical insights or offers comforting dreams of arcadia, is permissible, inspiring and useful. What I resolutely oppose is an unreflected resentment that offers no prospect for creativity or initiative, and contents itself with truistic descriptions of a necessarily inconsistent world.

The legacy of modernity is our domination of the world, and its appropriation for our purposes – undoubtedly a mixed blessing. Even within the individual, purposes are usually irrational and conflicting. It is therefore hardly surprising that in society at large this should also the case. We should be aware of this problem and seek to support to the purposes we think best without ignoring their relative validity. Yet it is precisely this awareness, the all-important sense for complexity and contradiction which, in my eyes, The Architectural Review increasingly fails to demonstrate.

How can you, as editor of The Architectural Review, write that global travel is 'fundamentally unnecessary', while presenting buildings from four different continents in the same issue? What privileged perspective allows you to effortlessly assert that tourists 'usually learn less than what simplistic guidebook sketches tell them'? What exactly is 'paradoxical' about the fact that wealth takes an interest in poverty? How can you lament the 'horror' of Australian and British citizens spreading their cultural practices abroad and in the same breath demand a 'general cultural conversation'?

A useful polemic exposes and capitalizes on contradictions, rather than falling prey to them. The demand that the leisure industry be 'tamed' is legitimate, but, if successful, comes at a cost of which you make no mention. The millions that participate in it are neither blind nor manipulated, but have decided that a pristine and 'authentic' world is of little use to them, since conservation would require them to renounce participation in it. It should also be remembered that the pre-touristic world was a world replete with a naive exoticism and parochial absolutisms – and so on.

If you wish to reverse the development the leisure industry and contemporary life has taken, then it is your responsibility to think through the alternatives, and persuade us that, all things considered, they are more desirable. A vocabulary of resentment and personal aesthetic preferences is neither adequate, nor appropriate for a discussion that aspires to public relevance. If we are to participate in your vision of a 'civilized urban dialogue', you must give substance to this notion, and justify it in a language we can and want to share – a language, I would like to suggest, that is aware of its own limitations, and is built on hopeful foundations.

Yours etc
FABIAN FALTIN
London School of Economics, England

KATARXIS CATHARSIS

SIR: I would like to respond to the quite vicious comment Lyall Sutherland published in AR December 2001 on Katarxis (p31).

First I like to deplore the mean journalistic job we are familiar with from mediocre tabloid press and I am surprised that your magazine, claiming to be the most popular Architectural Review in the world, can accept to publish an article based on insinuations and attempts of discrediting persons and institutions for reasons of physical or moral qualities and characteristics?

In my sense the arguments used by Lyall Sutherland are very unhealthy assumptions and speculations of defamatory character, expressing a great lack of courtesy and intellectual honesty.

We are not offended by any serious and coherent criticism of the content and the objectives of our web-magazine Katarxis.

However we express our indignation if this criticism reduces itself to unfounded denigration of persons and their beliefs and ideals in a disdainful tone and ridiculizing manner!

Concerning one of the sarcasms of Lyall Sutherland, concerning one of the members of the editorial board, being the curator of the monastery of the Holy Cross at Tomar in Portugal, the following has to be said:

The mentioned board-member is an architect and trained conservator, not an exorcist or inquisitor! The monastery of the Holy Cross in Tomar is an Unesco World Heritage site and no longer an active monastery.

At this point it is used as a cultural facility and operates within cultural tourism and symposium and art event programmes.

I am available to provide other information concerning the goals and institutional connections of Katarxis if this can be useful.

I would really like to insist that this letter is published as a right of answer to the defamatory comments on Katarxis by Lyall Sutherland.

Yours etc
LUCIEN STEIL
Editor, *Katarxis*, Viseu, Portugal
Katarxis, a web-zine dedicated to new traditional architecture and urbanism.
http://luciensteil.tripod.com/katarxis

HOW HUMANIZE?

SIR: Had it not been by the highly respected Ralph Erskine, the projecting elements made to look like individual townhouses on top of the multi-storey Greenwich housing (AR January, p40) would probably occur under 'Outrage'.

As you admit, the results of humanizing prefabricated construction may 'seem strange'. They do indeed even if by the skilled hands of Erskine.

Yours etc
JOHN MACSAI
Chicago, USA

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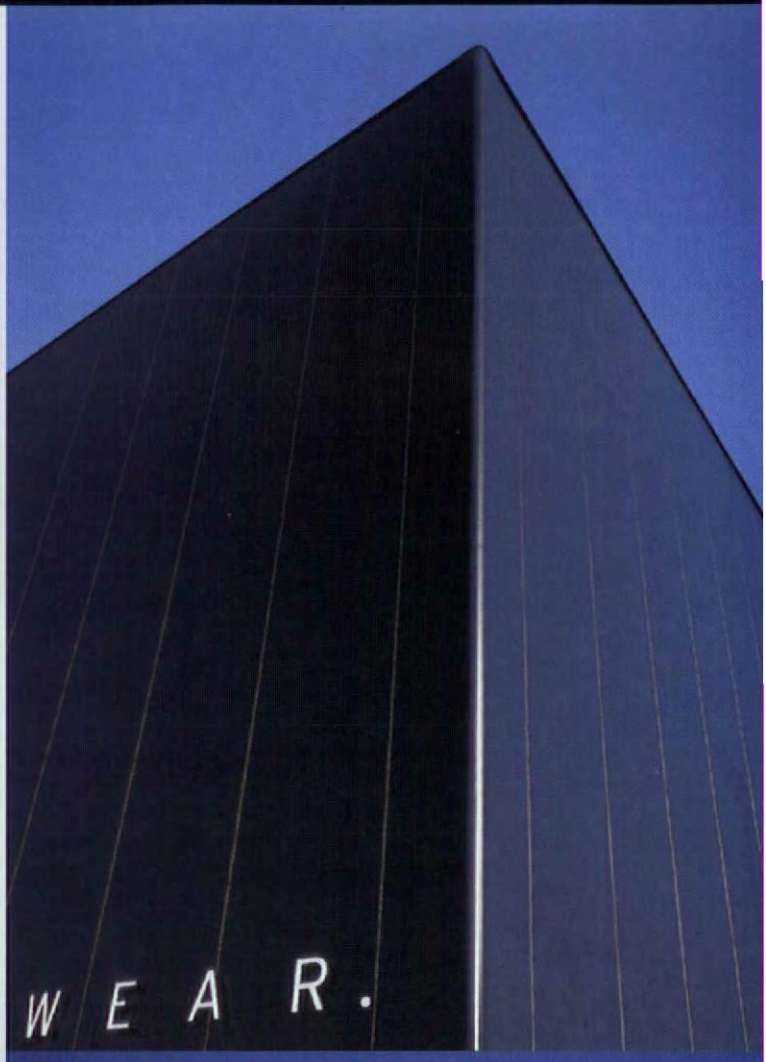

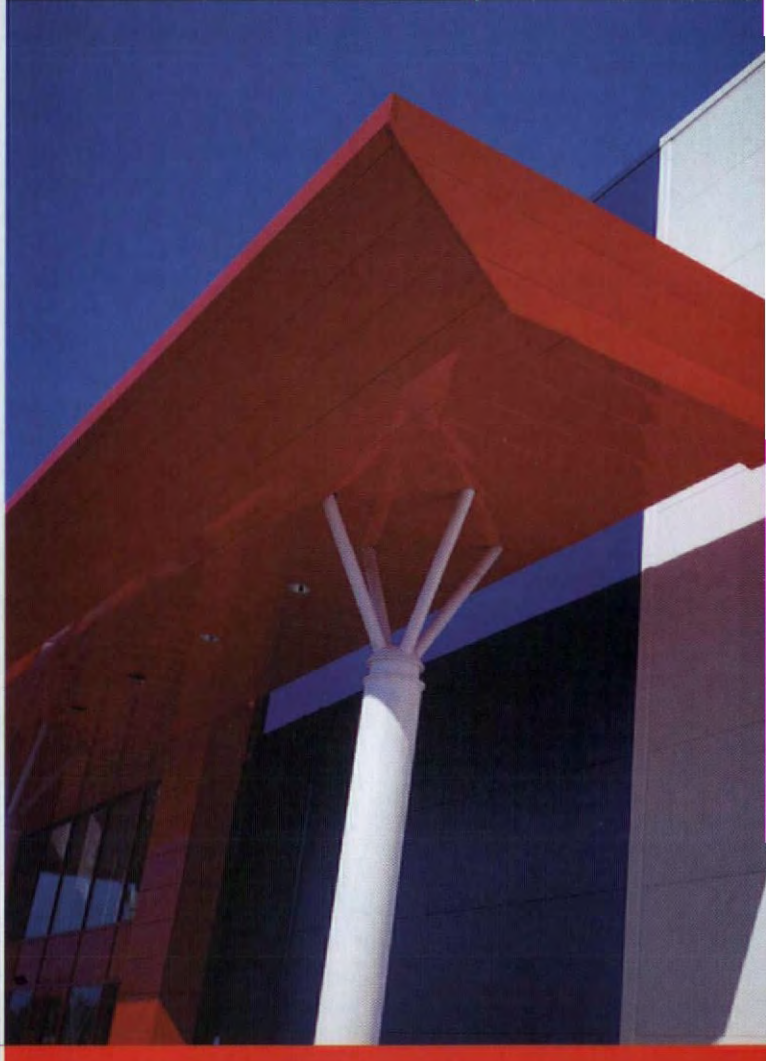

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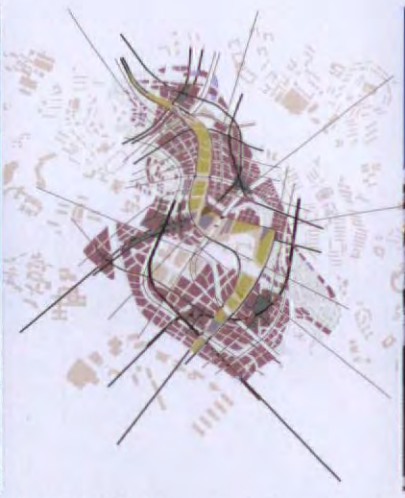

House by Chan Soo Khian (photo Albert Lim); Hadid's masterplan for one-north; Gallery Everson by Tangguanbee Architects and William Lim (photo Albert Lim)

View from Singapore

Under economic pressure from other Asian cities, Singapore is reinventing itself for the twenty-first century.

Will Singapore survive for another hundred years? It is a question occasionally posed by my acquaintances in South-East Asia. When I consider cities in Asia which were formerly seats of power – cities such as Angkor in Cambodia (802-1431), Ayuthaya in Thailand (1351-1767), and Fatehpur Sikri in India (1570-1585), I am reminded that some of the greatest centres of economic potency and cultural achievement have fallen victim to changes in circumstances beyond their control.

By any account Singapore is now considered to be a global city. Saskia Sassen suggests that in certain service industries, currency dealing for example, Singapore serves a global city function.[1] And in 'A new mapping of the world for the new millennium', researchers at the Department of Geography at Loughborough University UK, place it among the 10 so-called 'Alpha cities in the world in terms of global service space'.[2]

But its operating costs and manpower costs are no longer competitive with places like the Shenzhen Special Economic Zone in southern China, and its manufacturing industries are 'hollowing out'. In short, Singapore must once again reinvent itself as it did upon becoming an independent nation state.

On 4 December 2001 plans were revealed for one-north – a new 'urban quarter' to cultivate biomedical research and research-driven industries. The master planner for one-north is London-based Zaha Hadid Architects who were selected in an international competition. The masterplan covers 190 hectares of land, some of which was formerly British military bases and officers' housing. Over the coming years, the area will become home to an anticipated 50 000 new residents, and accommodate 70 000 workers.

It is in the nature of a global city that the skyline is punctuated by the signature architecture of a coterie of so-called 'global architects', a significant number of whom are located in London, New York and Tokyo. Singapore's new Supreme Court Building designed by Foster & Partners was unveiled to the public on 5 January 2002. The nine-storey rectangular building accommodates 27 courtrooms and is topped by a two-storey structure in the form of a steel-clad 'discus' housing the Court of Appeal. The new Court, which will be completed by 2004, is intended to boost Singapore's international standing as a dispute resolution centre in intellectual property, corporate finance, biotechnology and World Trade Organization (WTO) agreements.

Meanwhile the Singapore National Library Building, dubbed a 'library for the twenty-first century', designed by Ken Yeang, started on site in October 2001. It has undergone some changes since Yeang won the international design competition in 1999, but essentially it remains true to the original concept.

Curiously, not one architect in Singapore has yet been able to make it into the global architecture league to the same extent as Malaysia's Yeang. But there are a number of individuals and firms who are perhaps on the verge of doing so. Architect William Lim, the doyen of Singapore practice William Lim Associates defines a 'global' architect, in the Singapore context, as one who is operating internationally at the invitation of foreign clients or developers and not hanging on to the coat-tails of a Singapore developer. By Lim's definition Australian architect Kerry Hill, the principal of Kerry Hill Architects, who has been based in Singapore since 1979, might be considered a global architect, for the practice is currently building and designing projects in Bhutan, India, Dubai, Sri Lanka, Canada, Australia and Japan. Kerry Hill is still on a high after being presented with an Aga Khan Award for the Datai Hotel in Langkawi, Malaysia (AR November 2001, p62).

One of the younger firms which is beginning to stir interest internationally is SCDA Architects, whose principal is Yale graduate Chan Soo Khian. The architectural language of Chan (see AR July 2001, p50) has sustained a three-month long debate in the *Singapore Architect* (*SA*) and *The Straits Times*, on a regional (tropical) architectural language. The debate was initiated by a workshop led by Chan in the Department of Architecture at the National University of Singapore and fuelled by an editorial in the *SA* penned by respected architect Tay Kheng Soon. Tay, who is an advocate of a tropical modern architectural language of 'line, edge, mesh and shade', takes exception to Chan's pursuit of a language of 'space, light, structure and surfaces (implying planes)'. Tay argues vehemently that local architects have to reject 'the facile and supine recourse to European design baggage'. Chan responds that 'this is a continuing process concerned with dealing with the tropical climate with new structural and formal devices'. Chan is currently building in Shanghai, New Delhi and New York while Tay is working on projects in Ho Chi Minh City and Malacca.

Two other young firms on the verge of international acclaim are WOHA Architects – Wong Mun Summ and Richard Hassell, and KNTA Architects – Tan Kay Ngee and Tan Teck Kiam. In 1999 WOHA won the International Award of the Australian Institute of Architects for their Emerald Hill House and a year later emerged as winners in an international competition for Boulevard and Stadium MRT stations in Singapore. Their recent



Singapore Management University by KNTA Architects; Maple Avenue House by WOHA Architects (photo Albert Lim); Supreme Court by Foster and Partners.

Maple Avenue House is indicative of the quality of their work. In December 2000, KNTA were the winners, in association with Edward Cullinan Architects, of an international competition for the design of the Singapore Management University (SMU) campus masterplan. KNTA who have offices in London and Singapore have projects in Tokyo, Sydney and Seattle.

To sustain economic growth, and global competitiveness Singapore needs to constantly renew and upgrade its workforce. To that end, the country has a policy of welcoming inward migration of highly qualified people in those areas in which it seeks to secure a global advantage. In 2001 the Urban Redevelopment Authority (URA) revealed a new and revised version of the concept plan for the island catering for a population of 5.5 million. This estimate has been revised upwards as the target of 4 million which formed the basis of the 1991 plan was reached in September 2001, much earlier than expected.

Singapore is already, according to the Dutch group MVRDV, the most densely populated country in the world.[3] (Hong Kong and Macau may be more dense but they are now part of China.) When the population reaches 5.5 million, there will be 7237 inhabitants per square kilometre (assuming an additional 100 square kilometres of land is reclaimed from the sea). This population density is reflected in some new initiatives in public housing.

In late 2001, an international competition was held for the design of a 50-storey public housing project (with a plot ratio of 1:8), on the edge of the city. In December 2001, five practices were shortlisted from an estimated 200 entries. The winner of the competition will be known in March 2002.

Will Singapore survive for another hundred years? The island has no hinterland, no natural resources and its locational advantages are not guaranteed in perpetuity, yet it is inconceivable, for most people living here, that it will not continue to flourish. But to survive it will require a huge effort of will, creativity and adaptability to the changing global circumstances. The government is staking the future of the city-state on creating a global niche in the biomedical sciences, infocomm technology (ICT) and media industries. Architecture will inevitably be an integral part of this process of reinvention. ROBERT POWELL

1 Saskia Sassen, The Global City, *Princeton University Press, Princeton, New Jersey.*
2 Peter J. Taylor et.al. 'A new mapping of the world for the new millennium', The Geographical Journal, *Vol 167, No 3 Royal Geographical Society, London, September 2001, pp213-222.*
3 Winy Maas et al, Meta City Data Town, *MVRDV, 010 Publishers, Rotterdam, 1999, pp56-57.*

April

Next month's issue celebrates the work of a younger generation of architects in the UK. Collaborating across disciplines, a growing awareness of environmental issues and a more fluid approach to practice characterize this new generation. The recent programme of National Lottery funded public building has also helped to shape vision and provide tangible opportunities to build. Britain has no formal competition system for public buildings, so it can be difficult for emerging practices to break through. In recent years, new opportunities have become available, but enlightened private patronage for small projects such as houses, workspaces, shops and restaurants, which form the mainstay of younger practices, is still crucially important. Many projects shown in the next issue are modest in scale, but all are distinguished by strong formal, material or spatial invention. Wells Mackereth's Covent Garden hotel and restaurant complex is a model of metropolitan sophistication, sensitively carved out of an existing building. Likewise Allford Hall Monaghan Morris's conversion of a 1950s industrial building for fashion company Monsoon displays an intelligent treatment of the original fabric. A new house in Hampstead by Alison Brooks Architects delights in an ingeniously elegant approach to detailing. Cottrell & Vermeulen's school in Westcliffe-on-Sea explores the properties of recycled cardboard as a building material. And in Newcastle, Thomas Heatherwick's imaginative urban square enlivens the public realm.

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BRIDGE, AUCKLAND, NEW ZEALAND
ARCHITECT
MARIJKE DE GOEY

Bridging disciplines

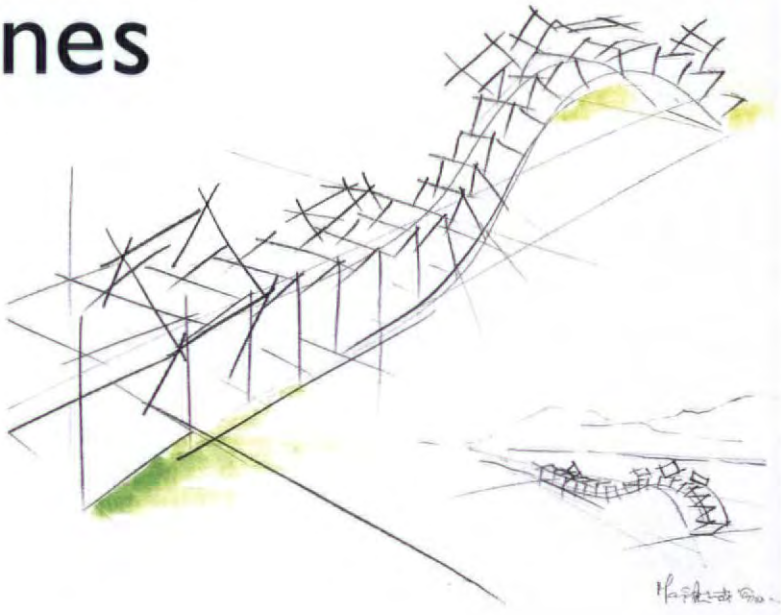
Comprising a skeletal cuboid steel structure supporting a walkway, this bridge resembles a piece of jewellery in the landscape.

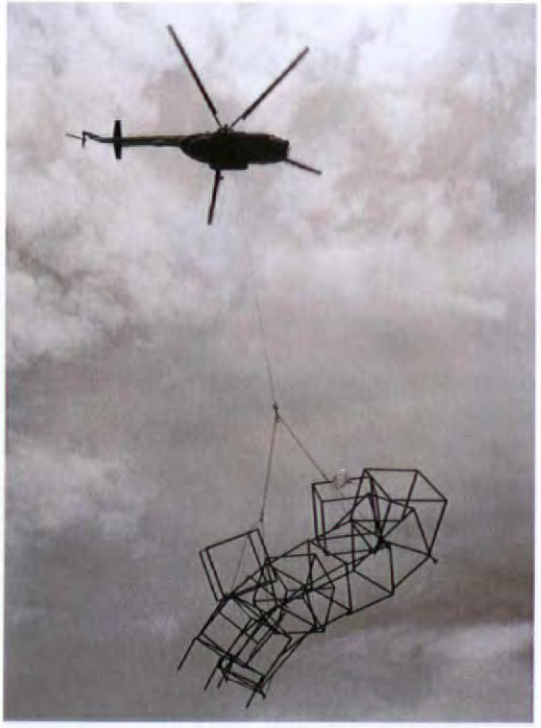
One of the challenges of using standardized geometry is how to create a variety of forms. Dutch designer Marijke de Goey shows what can be achieved in her radical design for a small pedestrian bridge over two artificial lakes at the Alan Gibbs Trust Park in Auckland, New Zealand. De Goey originally learnt how to make sculptural objects through her training as a jewellery designer. Her work includes the bridal tiara for the recent royal wedding of Dutch crown prince Alexander to Maxima Zorreguieta. Made of white gold and diamonds, the tiara is shaped like two bridges to fit across the bride's forehead.

For the New Zealand project, the miniature is powerfully transformed into the monumental. Using 22 welded tubular steel cubes each measuring 3 x 3 x 3m to support an aluminium walkway, de Goey elaborates on the basic concept of linked cuboid forms. The walkway winds in a decidedly perilous fashion between the cubic steel skeleton, which makes the simple matter of traversing the bridge an adventure not for the faint-hearted. Completing the slightly surreal tableau, the water of the lake has been coloured an intense blue using environmentally-friendly pigment.

Engineered by Peter Boardman, the structure weighs 11 tons and was transported to site in two prefabricated sections by a Russian helicopter. (Due to adverse weather conditions the pilot was forced to land in a private field, much to the surprise of a local farmer and his cows, who proceeded to lick the structure, showing a surprising measure of bovine aesthetic appreciation.)

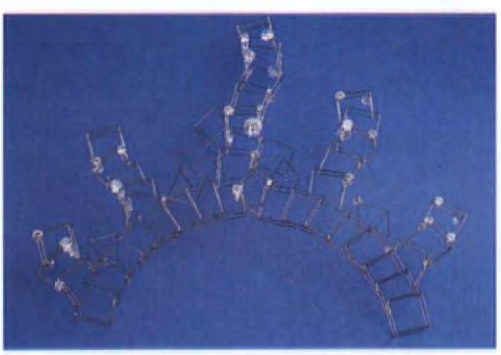
From a background of jewellery design and fine art, de Goey has successfully orchestrated a dramatic change





1
Part of the bridge being delivered by helicopter. It was prefabricated in two sections and assembled on site.
2
Linked cubes form a striking, angular geometry.
3
De Goey's experience of jewellery design was the basis for the transition to a larger scale.
4
Angular walkway is supported by the cuboid skeleton.

2

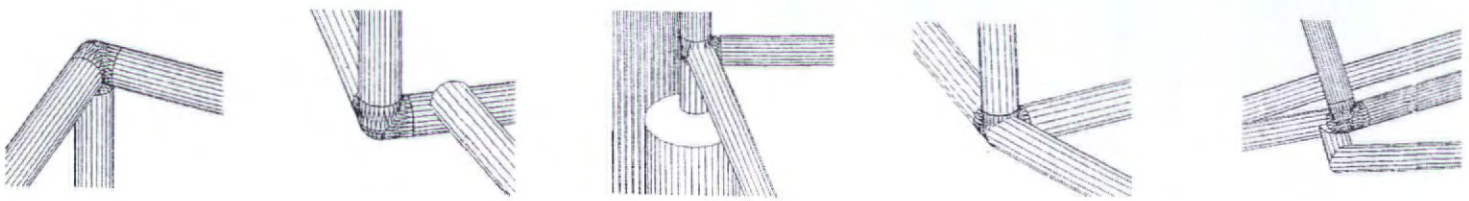


3

4

of scale. Personally supervising the welding of the steel, its means of assembly and the painting process with the same care she would exercise in her own workshop, her sculptural bridge resembles jewellery adorning the landscape, in the same way that jewellery graces and enhances the human body.

ALAN BROOKES



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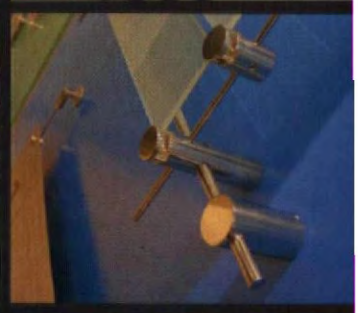





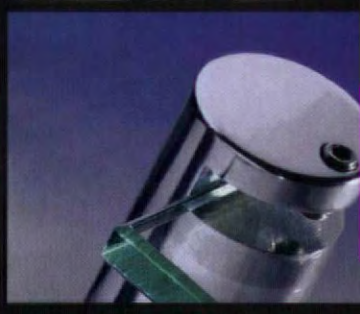

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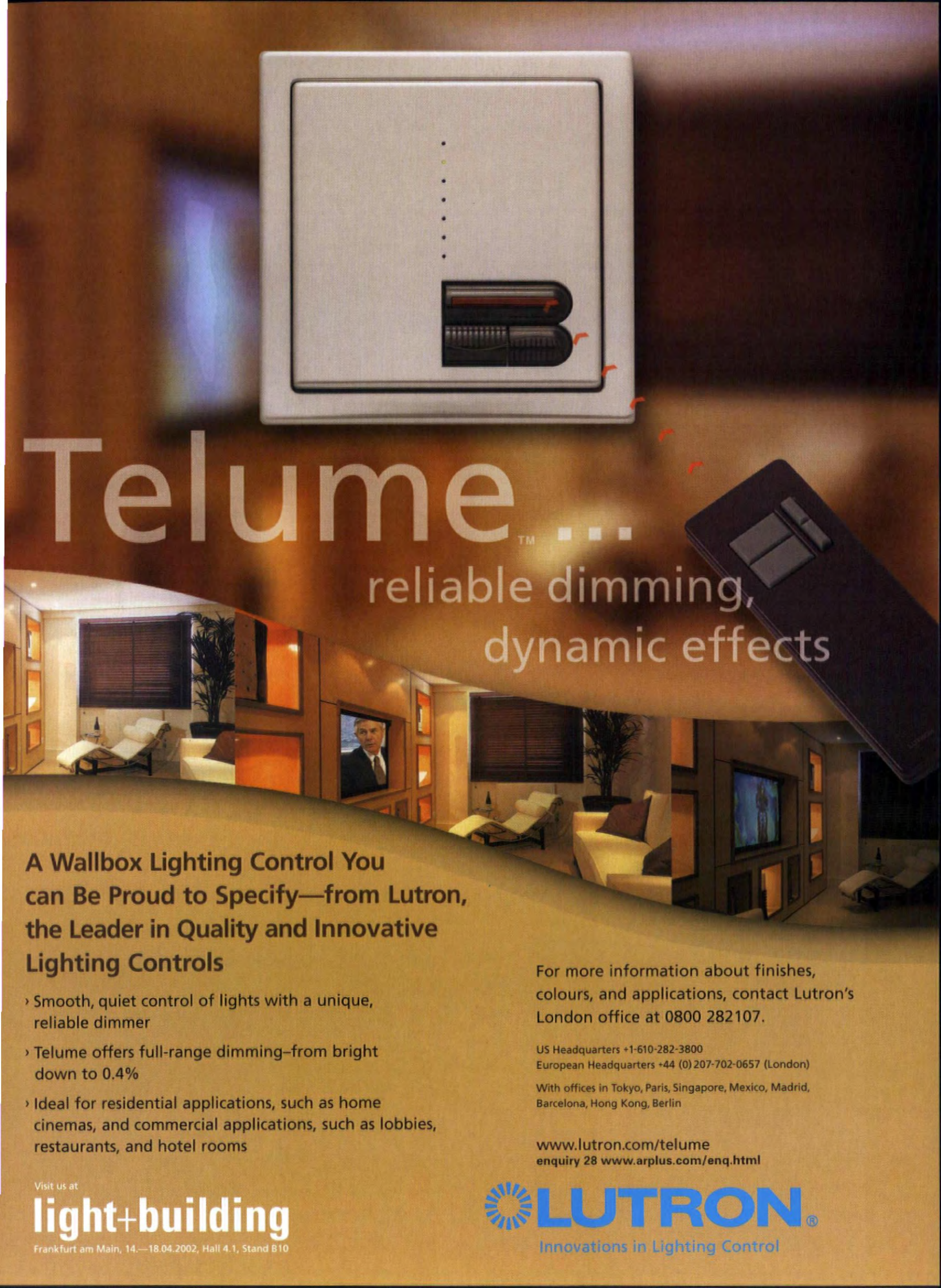

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THE HOSPITAL AS BUILDING TYPE

Hospitals are simultaneously almost machines for improving health and places for intensifying compassion and emotions. A new generation of buildings, particularly in Austria, shows how technology and humanity can be reconciled.

With a small addition the word hospital becomes hospitality. In the medieval world, a hospice was a place of shelter for pilgrims and strangers, while an infirmary was the department in a monastery reserved for elderly monks, usually with its own cloister. Hospitals began as religious institutions, often the only sources of charity, and until the nineteenth century they were dominated by their chapels. At first, beds for patients were actually in the room where worship took place, as with the famous Hospice at Beaune: later, as in the Ospedale Maggiore in Milan, the wards of the cross-shaped plan all met at the chapel. When separate ward wings were developed for patients, the chapel remained the most prominent building on the central axis, still dominating the plan of the institution. With the growth of city populations, secular organizations took over, and larger institutions were needed. Their organization tended to reflect the classification of patients as old or young, male or female, sometimes even first or second class. Similarities of organization were observable in prisons, asylums, and workhouses. At the same time, different kinds of specialized hospitals sprang up for women, children, lunatics and so on.

As medical understanding progressed, the spread of infection through air was acknowledged, if not fully understood, and isolation of patients in separate pavilions with cross-ventilation became a dominant consideration. Leaving people to the care of the Almighty gave way to a belief in science and an ever increasing level of technical intervention, while the chapel was reduced to a minor element – a place of comfort for the newly bereaved. By the time the Modern Movement broke, the hospital had become a bastion of scientific control, defending its occupants against the invasion and chaos of unreason and disease.

The perfect Modern building

The purity and abstraction of the Modernist architectural language quickly became synonymous with health and hygiene, and the hospital has remained the building type for which this kind of architecture seems most fully appropriate. The cool rationality of the grid spells order and control – no mysterious darkness or dirty corners – and the geometry of the cubic masses registers timeless perfection. Intense lighting stands for clarity of understanding, avoiding shadows of doubt. Bright impervious surfaces in plaster, white paint, vitreous enamel, glass or stainless steel are not just cleanable but seen to be clean.

The greatest boost to the Modernist programme came with the Tuberculosis Sanatorium. This killer disease of young people in dense cities caused coughing and was evidently exacerbated by polluted air, just as it was relieved by the pure air of the mountains. In the age before antibiotics, the bacillus was most effectively killed by sunlight, providing the most literal justification for the Modernist obsession with light and air. The key early model for Modernist sanatoria was Jan Duiker's Zonnestraal at Utrecht of 1926, but this was soon overtaken by Alvar Aalto's sanatorium at Paimio of 1928, the epitome of Modernist hospital design. Aalto designed the furniture as well as the building, and made great strides with the detailed design of the room and its fittings, considered primarily from the point of view of the anxious patient. The virtue of the functionalist approach has never seemed clearer: the buildings were not overscaled and even allowed a certain generosity, while the architect enjoyed considerable creative freedom.

As the welfare states took over, particularly in the postwar period, hospitals were at first expressions of a new pride in public provision and egalitarian care, but they increasingly became prey to bureaucratic standards and norms, due to both the understandable emphasis on safety and the need for public accountability. As medical science progressed, hospitals also became dominated increasingly by technical issues, an ever larger portion of their budget being spent on services and medical equipment. The dominant ideology remained fiercely scientific, the battle against the bugs being the front line. The discipline was almost military. Hospitals have also gradually become the places where most of the population are born and many die, yet it took a great deal of protest – mainly from women in the 1970s and '80s – to turn the maternity hospital from an emergency ward into a place fit to celebrate a rite of passage, a normal birth being no sickness but a joy. The other rite of passage, death, is stll largely repressed. It is treated as an institutional failure, something that should not happen – even when the patient is 95. We may no longer expect to meet our Maker, but, as a society, we have found no other way of facing that untidy situation. We try to forget that it is coming.

Development of modern medicine in industrial society has been a great success story: we live on average rather longer; very few infants die at birth; we are threatened by far fewer diseases; many bodily disfigurements can be alleviated. But all this must be paid for. Even if hospital visits have become shorter, drugs and instruments for diagnosis and surgery have become hugely more sophisticated and therefore expensive, and doctors cost as much to train as they ever did. We have come to see the elimination of disease almost as a human right. Surgical procedures are supposed to be successful, so when they do go wrong it must be the doctor's fault, and following the pattern of the United States, we are becoming more litigious. In the long run the expense is passed back to us all, hugely inflated by legal fees.

All these social and political issues are reflected in the condition of hospital architecture. In the 1950s and '60s the new welfare states proudly invested in huge new hospitals, centralizing all facilities on

edge-of-town sites. In the era of functionally driven architecture, when the answer to every problem was to measure and calculate, the hospital became the technical building type *par excellence*. Servicing provision was a major priority, with statutory levels of heat and light provided artificially and of course closely controlled artificial ventilation. Flow patterns of doctors, patients and visitors could be worked out like a traffic system, the complex routes controlled with batteries of signs. Materials and surfaces were chosen to be clean and cleanable, yet also to be uniform and efficient. The hospital became a wondrous great machine, reassuring in its efficiency; yet it could also be a labyrinth in which the patient felt lost, shuffled from department to department, level to level. A few decades of growth and change – new machines, different medical practices – made it more haphazard and less efficient, the labyrinth more impenetrable. The steel rusted and the concrete spalled. The Utopian moment of building afresh had passed, and the bureaucratic norms intended to establish a plateau of good practice became a limitation. The rules of hospital design left less freedom, and it became regarded as a building type that was worthy and dull, more or less lost to architecture.

The Graz contribution

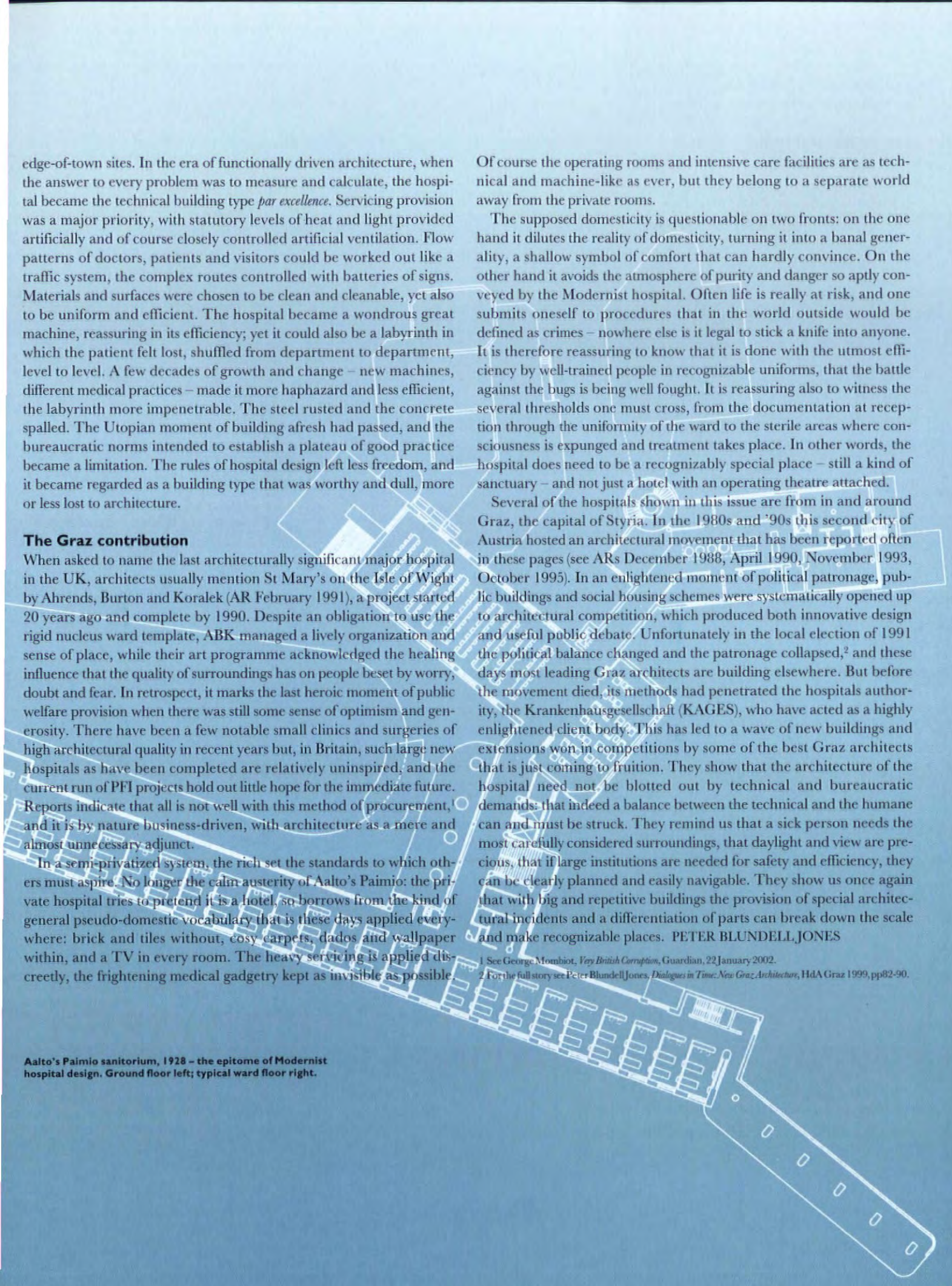
When asked to name the last architecturally significant major hospital in the UK, architects usually mention St Mary's on the Isle of Wight by Ahrends, Burton and Koralek (AR February 1991), a project started 20 years ago and complete by 1990. Despite an obligation to use the rigid nucleus ward template, ABK managed a lively organization and sense of place, while their art programme acknowledged the healing influence that the quality of surroundings has on people beset by worry, doubt and fear. In retrospect, it marks the last heroic moment of public welfare provision when there was still some sense of optimism and generosity. There have been a few notable small clinics and surgeries of high architectural quality in recent years but, in Britain, such large new hospitals as have been completed are relatively uninspired, and the current run of PFI projects hold out little hope for the immediate future. Reports indicate that all is not well with this method of procurement,[1] and it is by nature business-driven, with architecture as a mere and almost unnecessary adjunct.

In a semi-privatized system, the rich set the standards to which others must aspire. No longer the calm austerity of Aalto's Paimio: the private hospital tries to pretend it is a hotel, so borrows from the kind of general pseudo-domestic vocabulary that is these days applied everywhere: brick and tiles without, cosy carpets, dados and wallpaper within, and a TV in every room. The heavy servicing is applied discreetly, the frightening medical gadgetry kept as invisible as possible. Of course the operating rooms and intensive care facilities are as technical and machine-like as ever, but they belong to a separate world away from the private rooms.

The supposed domesticity is questionable on two fronts: on the one hand it dilutes the reality of domesticity, turning it into a banal generality, a shallow symbol of comfort that can hardly convince. On the other hand it avoids the atmosphere of purity and danger so aptly conveyed by the Modernist hospital. Often life is really at risk, and one submits oneself to procedures that in the world outside would be defined as crimes – nowhere else is it legal to stick a knife into anyone. It is therefore reassuring to know that it is done with the utmost efficiency by well-trained people in recognizable uniforms, that the battle against the bugs is being well fought. It is reassuring also to witness the several thresholds one must cross, from the documentation at reception through the uniformity of the ward to the sterile areas where consciousness is expunged and treatment takes place. In other words, the hospital does need to be a recognizably special place – still a kind of sanctuary – and not just a hotel with an operating theatre attached.

Several of the hospitals shown in this issue are from in and around Graz, the capital of Styria. In the 1980s and '90s this second city of Austria hosted an architectural movement that has been reported often in these pages (see ARs December 1988, April 1990, November 1993, October 1995). In an enlightened moment of political patronage, public buildings and social housing schemes were systematically opened up to architectural competition, which produced both innovative design and useful public debate. Unfortunately in the local election of 1991 the political balance changed and the patronage collapsed,[2] and these days most leading Graz architects are building elsewhere. But before the movement died, its methods had penetrated the hospitals authority, the Krankenhausgesellschaft (KAGES), who have acted as a highly enlightened client body. This has led to a wave of new buildings and extensions won in competitions by some of the best Graz architects that is just coming to fruition. They show that the architecture of the hospital need not be blotted out by technical and bureaucratic demands: that indeed a balance between the technical and the humane can and must be struck. They remind us that a sick person needs the most carefully considered surroundings, that daylight and view are precious, that if large institutions are needed for safety and efficiency, they can be clearly planned and easily navigable. They show us once again that with big and repetitive buildings the provision of special architectural incidents and a differentiation of parts can break down the scale and make recognizable places. PETER BLUNDELL JONES

1 See George Mombiot, *Very British Corruption*, Guardian, 22 January 2002.
2 For the full story see Peter Blundell Jones, *Dialogues in Time: New Graz Architecture*, HdA Graz 1999, pp82-90.



Aalto's Paimio sanitorium, 1928 – the epitome of Modernist hospital design. Ground floor left; typical ward floor right.

EAR, NOSE AND THROAT UNIT,
GRAZ REGIONAL HOSPITAL, AUSTRIA
ARCHITECT
ERNST GISELBRECHT

CLINICAL PRECISION

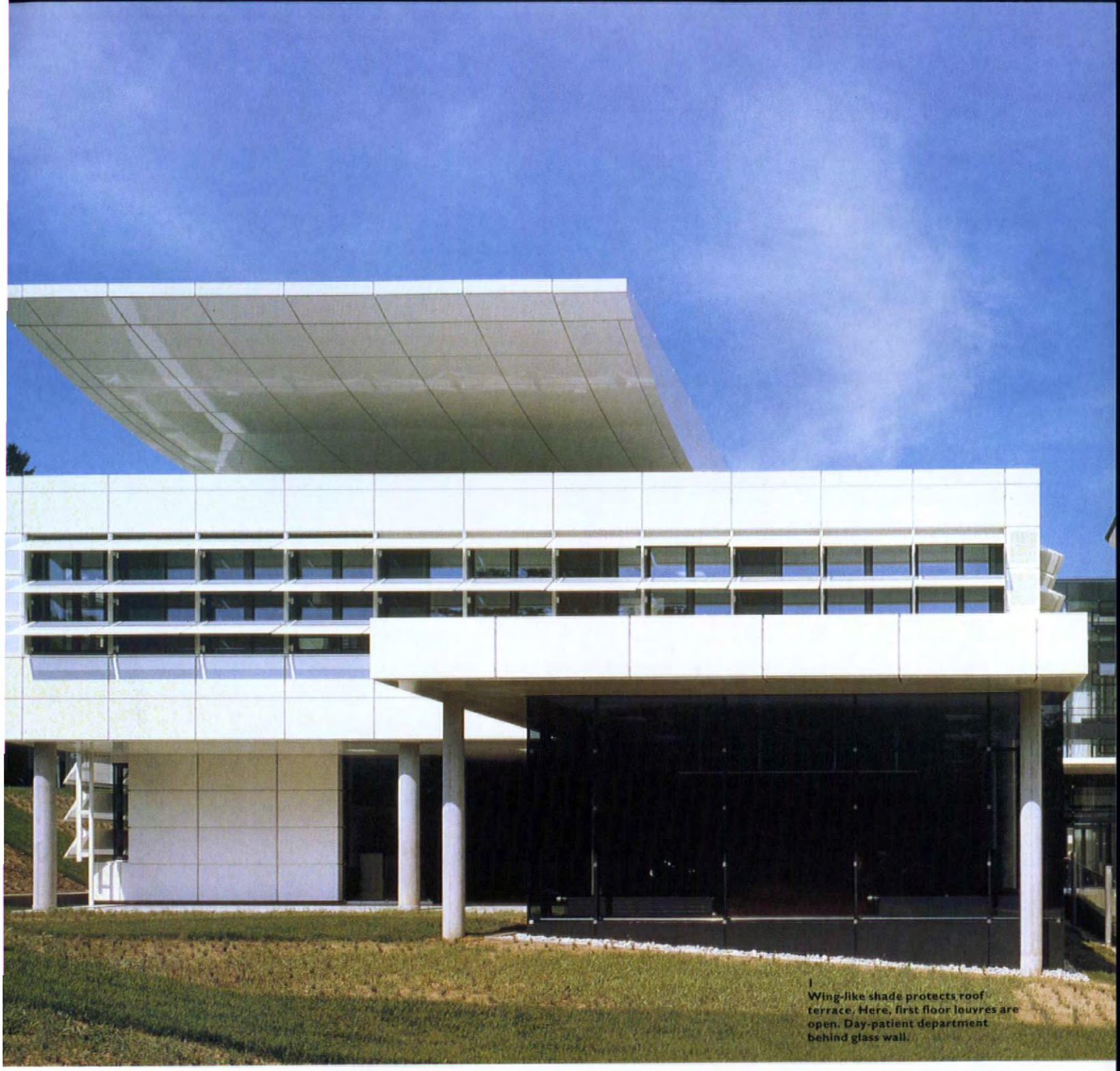
An extension of a distinguished ear, nose and throat hospital department is both efficient and lyrical.

The Regional Hospital of Graz marks an important moment in Austrian social and architectural history. Built on a low plateau to the north of Graz between 1903 and 1912, it had an unprecedented 1940 beds and was organized by a new body, the Regional Building Authority. Architecturally it consisted of a series of four storey pavilions, Classical in spirit and designed by pupils of Otto Wagner. One of these pavilions had become occupied by Graz's internationally renowned Ear, Nose and Throat Unit, which struggled to maintain its high standards in the antiquated buildings, so a competition was held to renovate and extend the Wagnerschule pavilion. It was won by Ernst Giselbrecht.

The old building's Classical front stands on the crest of a steep slope, visible from across the valley and complete in its elegant symmetry. Obviously the extension would have to be put behind. There was also the problem that the old building was listed, yet it required repairs in its original craft technology and avoidance of major alterations. Giselbrecht therefore sought to place highly serviced treatment rooms and operating theatres in the new block, while leaving wards, offices and lecture theatres – it is a teaching hospital – in the old. He avoided attaching the extension directly, and consequent violence to the old building's back: instead he left a gap between the two, with glazed passages as connecting links. He did however need to add fire-stairs at the corners of the old building and he had to extend parts of the third floor facade. These additions were made in a modern vocabulary following the Wagnerian geometry.

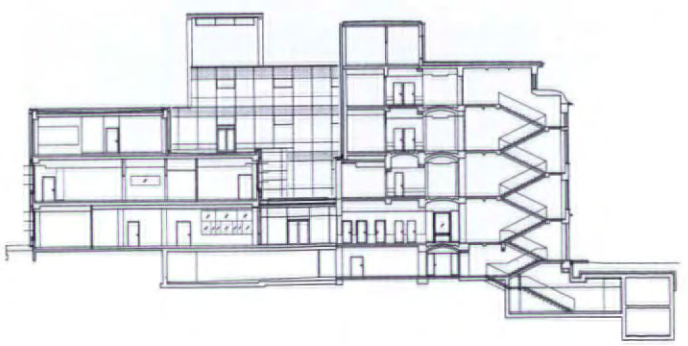
The cliff in front of the old main facade always made a lateral approach necessary, and the centre of the whole hospital complex lies to the west, so it made sense to create new entrances facing that direction, while making separate provision for emergency arrivals by ambulance to the east. Wisely, Giselbrecht made no attempt to continue the symmetry of the Wagnerian conception, though he did respect the central axis of the old building by retaining it as main public link leading to the original main stair. A second link further east at ground and first floor levels has become the main route for doctors and nurses entering the new wing. The main entrance for the whole department is now in the gap between the two buildings, and while the public turn left into the new or right into the old, doctors continue straight on across a small open court to their own entrance behind. This court is the new heart and an important visual reference point while moving about the building, decorated with a geometric artwork in polished stone by the Czech sculptor Vaclav Fiala.

In section, the new block consists of three layers: a day-patient clinic and emergency service on the ground floor, three operating theatres and associated facilities on the first, and a service floor above. To the back and north-east, the twin bed-sized lifts make a service tower, bringing the new building to a complete stop while, at the entrance end, it remains open and ambiguous, with a projecting wing-like shade to the second floor roof terrace that signifies openness and welcome. The south-west side also has a fully glazed ground floor set back behind pilotis, indicating the location of the most public interface: the day-patient clinic. The glass walls allow views out from the waiting area, and there is even a covered terrace for sitting out. Linked visually at high level by clerestoreys, consulting rooms are contained by a shiny red partition including red doors, a striking gesture in an otherwise white and neutral building. Although red might mean fire or danger, and these are rooms where grim discoveries might be made, it does

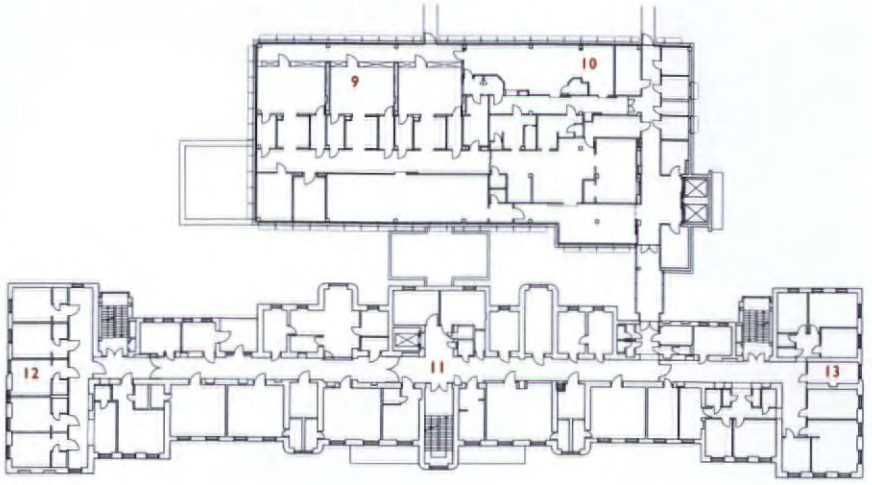


Wing-like shade protects roof terrace. Here, first floor louvres are open. Day-patient department behind glass wall.

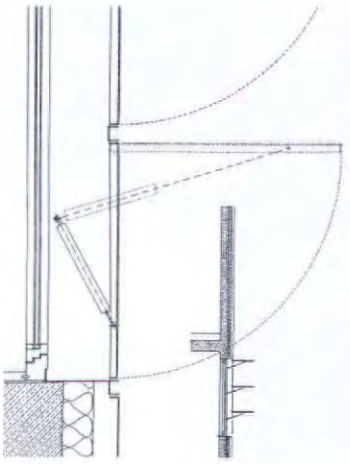
long section (east-west) through new work



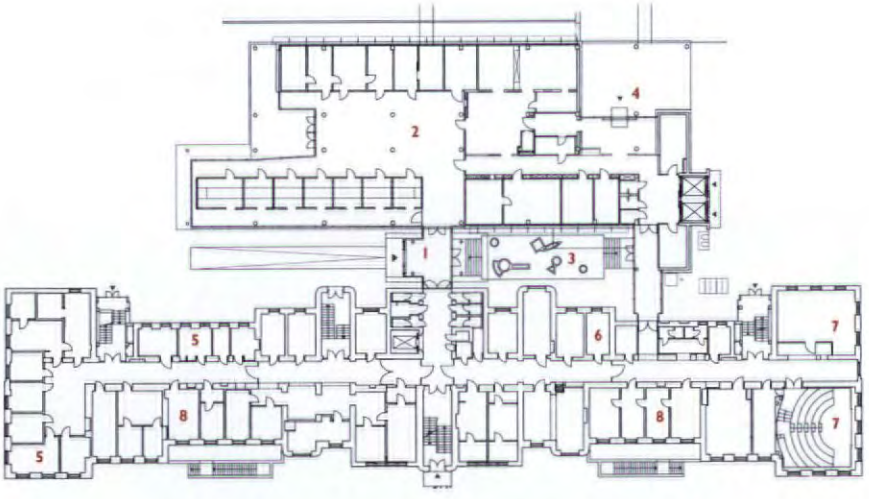
cross section (north-south) through new and old buildings



first floor



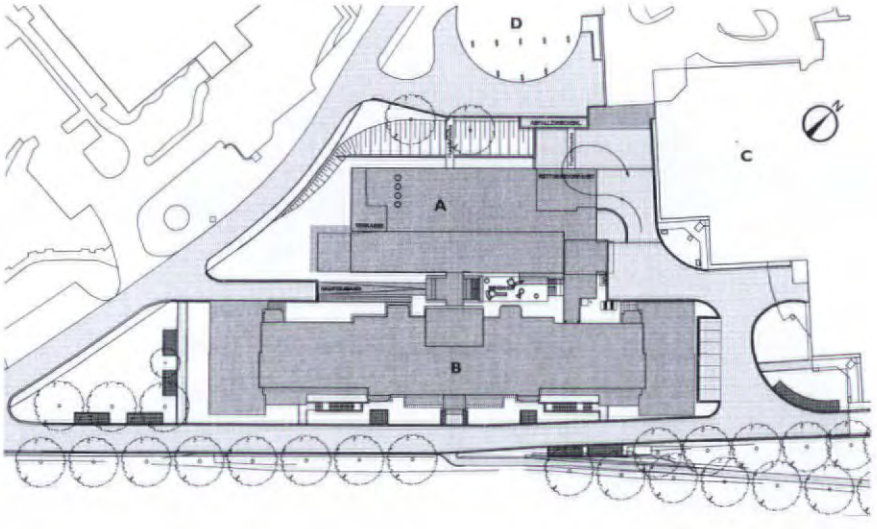
detail of moving louvres



ground floor of both old and new buildings (scale approx 1:750)

1 main entrance
2 day-patients waiting
3 court
4 ambulance entrance
5 audiology
6 speech therapy
7 teaching
8 research
9 operating theatres
10 sterilization
11 standard wards
12 private wards
13 staff

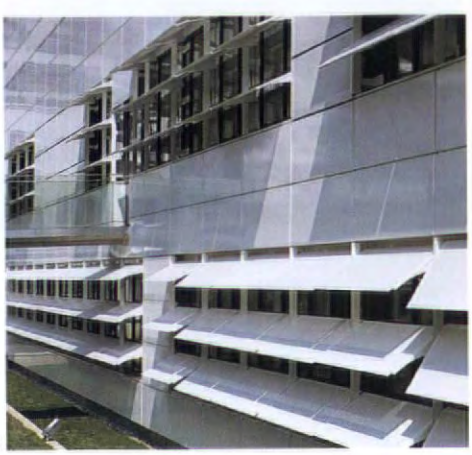
A new part
B existing pavilion
C children's surgery
D helicopter landing



2
Day-patient waiting area is linked to generous ground floor terrace. Behind is old building with new glass vertical circulation tower.
3
Automated perforated louvres prevent overheating by sun.
4
Main entrance mediating between old and new.

Ear, nose and throat unit,
Graz Regional Hospital, Austria
Architect
Ernst Giselbrecht

2



3

4

EAR, NOSE AND THROAT UNIT, GRAZ REGIONAL HOSPITAL, AUSTRIA
ARCHITECT
ERNST GISELBRECHT

5

6

seem appropriate to cheer them up in this way: all white, the whole thing would have seemed too antiseptic.

Trained as a mechanical engineer, Giselbrecht is a stickler for detail and received a generous enough budget to use expensive materials – polished stone in the washrooms, for example. Every corner seems nicely made, every fitting well-integrated. Frameless glass and stove-enamelled panels make for slick elevations, and solar control is provided by a new variation on one of Giselbrecht's favourite themes: horizontal metal louvres, this time perforated for reduced light when closed.*

The high level of specialist servicing is not made too obvious, and there is seamless continuity between the technology of the architecture and that of the medical equipment – all speaks of scientific efficiency. One of the technical advances most prized by the doctors and not immediately obvious in the architecture is the provision of electronic networks to allow operations and investigations to be filmed and recorded, for work up the nose and down the throat is only just visible to the surgeon, let alone to surrounding colleagues or students. Miniature TV cameras now allow all to be seen in detail, and operations are routinely recorded on video tape for teaching purposes and in case of future complications. Equally, a whole lecture theatre of students can see on large screen and hear an operation take place without crossing the threshold of sterility or risking getting in the way.

One slightly amusing detail is an obsessive provision of clocks, for in public life generally, they have disappeared in favour of personal watches, whose private time is now generally considered universal enough. But having hospital time displayed on every floor leaves room for no ambiguity: it spells teamwork and control in no uncertain terms. The architect told me that a leading consultant even objected to having a digital clock in the lecture room, asking for it to be replaced by one with a face: no less accurate of course, just a spatial representation, and one developed in accordance with a now outmoded technology.

These things are symbols of the prevailing ethos. Shown around by one of the younger consultants, I gained a strong impression of their pride in their new building and the expression it gives to the efficiency of their organization. For the manager of hospitals too, this was the best of the bunch. An updated version of machine-made modern, the architectural language shows the machine aesthetic fulfilled as it never could be in the 1920s. In a vulnerable and life-threatening situation, one could feel grateful for such calm surroundings, for the reality and rigour of technical control and the latest and best equipment. Surely this is better than being palmed off with a stage-set offering a fourth-hand myth of domesticity.

PETER BLUNDELL JONES

Architect
Ernst Giselbrecht, Graz
Project team (competition)
Peter Müller
Project architects
Kuno Kelih
Johannes Eisenberger
Project team
Rene Traby, Andreas Ganzera, Peter Potoschnig, Sandra Gruber, Andreas Moser, Wolfgang Öhlinger, Peter Fürnschuss, Ernst Rainer, Otmar Brosch, Anton Oitzinger
General planning
Ingenieurbüro ZT KEG, Emmerich Friedl, Hubert Rinderer
Project leader
Heinz Roflmann
Photographs
Paul Ott

* For earlier work see AR January 1994, October 1995, April 1996, April 1997.

5
Court with sculpture by Vaclav Fiala is new heart of complex.
6
New lecture theatre in old building.
7
Consulting rooms are in red, bringing a cheery touch ...
8
... to a building that might otherwise have seemed overly clinical.
9
Looking out through perforated louvres when they are closed.

7

8

9

1

KRANKENHAUS KADA

Hospitals are buildings for all, but they rarely offer proper public spaces. Here is a hierarchy of spatial experience ranging from the semi-private ward to the public domain.

If the economic and efficiency arguments for building hospitals in a rational modernist way persist, and if this means keeping largely to rectangular forms, regular column grids, and repetitive fields of cladding, Klaus Kada demonstrates that the result need not be oppressive. He won the competition against such talents as Volker Giencke mainly for his site strategy, which resolves contextual relations with a few deft strokes. The site was on the edge of town, a downhill east-facing slope next to the old hospital building which now has another use. Kada placed the bulk of his hospital at right-angles to the old building, corner to corner, creating a shared outdoor space and borrowing its drive for ambulance access and services. His new north wing is a two-storey tract of treatment facilities and operating theatres. Behind this – with a dividing gap – lie a couple of ward blocks set parallel and in line, but with a void between them. This void is occupied by a glazed hall, the highest element of the complex and its social centre. It looks out towards the south, away from the town to a country view.

Kada's master-stroke was to add a third ward wing projecting from the south side and skewed 62 degrees from principal orientation. This angle was borrowed from the road bordering the site to east, and Kada further exploited it in low terraces both to north and south. These platforms resolve the fall in the landscape, allowing expansion of service rooms at basement level. Ward wings project dramatically beyond them on pilotis to both south and east. The most important effect of the skew in angle is the raised plateau of entrance court created in the eastern corner. Spatially continuous with the glazed hall through the great window, the court is visually central to the whole complex, and on the outside it feels protected. The good view beyond is preserved for, instead of surrounding the building with tarmac and drowning it in a sea of cars like most hospitals, the land to the south-east and south-west is a garden, luxuriantly planted with trees and shrubs. The visitor's car park is demoted to the eastern corner across the road: a low and unobtrusive place. Lift and stair are provided, leading to the curved walkway above, which bridges the road then traverses the garden to

2

Regional Hospital, Hartberg, Styria, Austria
Architect
Klaus Kada

1
The great sweeping walkway from car park to entrance.
2
Terraces resolve fall in landscape.
3
Sun-facing sides have automatic solar blinds, which completely transform the building to avoid solar over-heating.

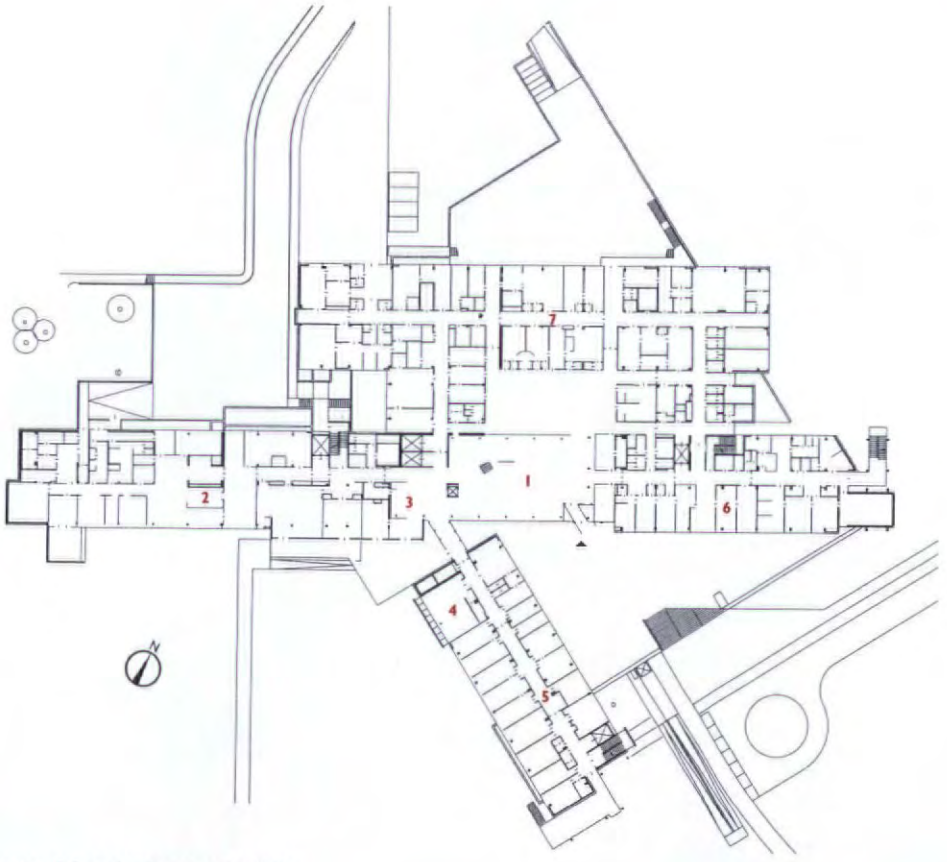
4

5

6

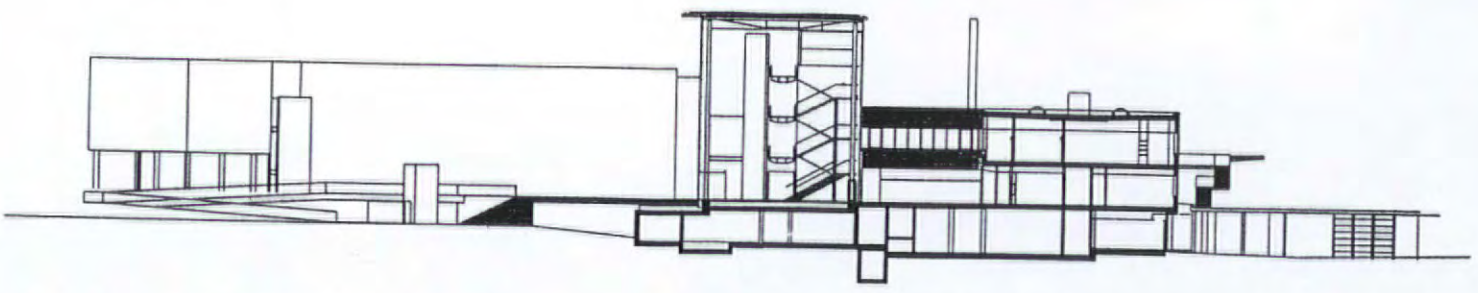
REGIONAL HOSPITAL,
HARTBERG, STYRIA, AUSTRIA
ARCHITECT
KLAUS KADA

4
Arrival at the entrance over the ramp.
5
Arrival by helicopter.
6
Entrance and waiting.



1 entrance hall
2 restaurant
3 café
4 chapel
5 administration
6 ambulant women
7 treatment
8 paediatrics
9 surgical
10 wards
11 terrace
12 roof garden

ground floor (scale approx 1:400)



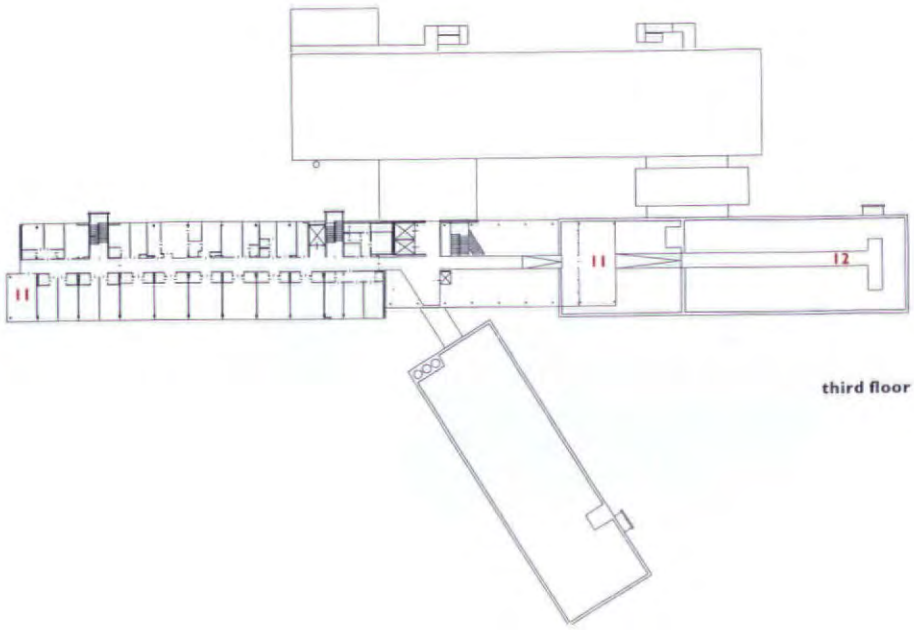
 south-north section through entrance

the building. A further lift and ramp allow direct access from a closer car drop-off at the bridge's end.

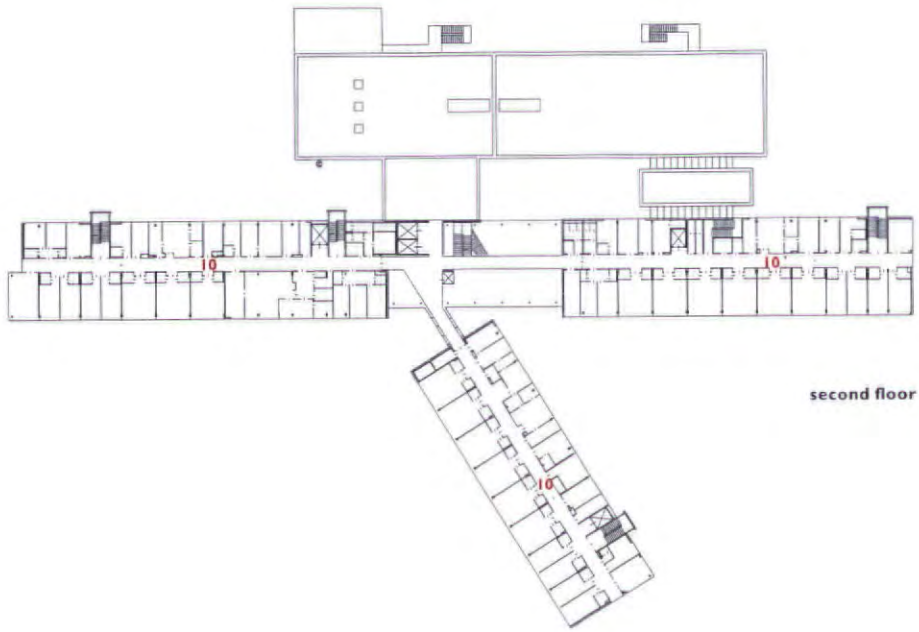
One can imagine tut-tutting about the changes of level and difficulties of access for the elderly and wheelchair bound: for many architects the knee-jerk reaction would have been simply to avoid the whole apparatus, yet access problems are solved, the road is crossed, and the great bridge provides the most dramatic and memorable entry sequence of any hospital I have ever visited. You arrive in the triangular court and are funnelled towards the entrance, with glimpses into the great glass hall beyond. Slip through the doors and another drama unfolds. The four-storey hall towers up, day-lit to the south when blinds are open, and side-lit to the north at upper levels too. Main circulation consists of bridge links at upper levels, connected to stair and lift. The latter is glazed, so unusually in a modern hospital your sense of vertical location is preserved rather than anaesthetized. The three levels also identify themselves by offering different experiences. Middle floors lead through straightforwardly to the three ward wings, but the top floor reveals the underside of the roof, ending to the east with a terrace where patients can sit out.

The ground floor is the most complex. Next to the entrance is the receptionists' booth, treated as building within a building. Ambulant patients attending clinics are invited to wait in the open area beyond – the central space between the two building tracts. Just a storey high with a glass roof, this area is more intimate than the tall part of the hall. Towards the west end is the main staircase, its bottom flight skewed to the angle of the south wing in response to the diagonal thrust of the approach. Further over, but still within the hall space, is the cafeteria. Here visitors wait and convalescent patients meet, but it also conveys a more general suggestion of hospitality. It has an outdoor terrace to the west. Continuing the social theme, the ground floor end of the south wing – otherwise mainly administration – contains a small chapel, unobtrusive yet centrally placed and easily reached. It is differentiated from the general fabric of the wing by double doors and a projecting side bay, while the seating, altar and raked floor orientate it just south of east.

Behind the hall to the north is the zone of medical intervention, with operating theatres, recovery rooms, X-ray and other diagnostic facilities. Kada accepted the disciplines of sterility and medical procedure, creating the usual labyrinth of corridors and thresholds. Surprisingly though, he managed to allow the operating theatres daylight, letting doctors and nurses see out to surrounding mountains. Fragile glass seems



third floor



second floor

first floor

Regional Hospital, Hartberg, Styria, Austria
Architect
Klaus Kada


7


8

to threaten the sterile environment, but with today's glazing and sealing methods and the provision of positive pressure ventilation, there is no reason to suppose it less safe. For people confined all day, view and daylight are as desirable as for those in less taxing occupations. As it faces north, there is no problem with sun.

Patient wards are largely on first and second floors, with a third level on the west wing only. Mostly there are four beds to a room, with some twins. Patient rooms face south and west, enjoying the best views to garden and sun, while nurses' stations and services are across the corridor to the north. Solar gain is restricted by automatic sunblinds on the southern facades, which completely change the building's appearance. Corridors have end windows, and also gain daylight from the side via clerestoreys, while the top floor corridor has a full rooflight. Although the column and slab construction system is regular and efficient, Kada was able to ring the changes with room arrangements, so each wing is subtly different from the next, and their ends also vary.

Detailing, as usual with Kada, is crucial for the ethos of the building. The steel structure of the hall seems daringly slender, with thinnest possible supports for the glazing and most delicate tie bars for roof trusses. The layering of the facades incorporates sunblinds almost like kinetic sculpture: no compromise of add-on here. And as with Kada's earlier buildings, elements are carefully juxtaposed, with deliberate gaps to allow them integrity. Two examples should suffice. Many architects would have run the south wing straight into the body of the building rather than just connecting it with a glazed link. The chosen arrangement leaves a tantalizingly unnecessary external corner space, but it avoids collision details and all such repercussions, and it allows Kada more of his beloved bridges. The second example is the waiting area on the ground floor. Set in a gap between the hall and the treatment wing, it is treated like a courtyard internalized, with its own glass roof. Not only does this maintain the structural integrity of hall and wing: it also creates a transitional space for a transitional function.

The building has heavy servicing provision with large basement areas for plant rooms and underground ducts for tempering incoming air – an increasingly familiar practice. But Kada does not overemphasize servicing. And he manages to underplay the elaborate fire precautions that must be in place, and whose demands often kill spatial continuity in buildings of this kind. Each ward wing has its own emergency stairs and the hall can presumably therefore be regarded as sacrificial, but one gets no sense of heavy compartmentation while walking around.

In general character, Hartberg recalls early Modernist hospitals and sanatoria, with an optimistic feeling of light and air and a promise of brisk efficiency. The kind of architecture Jan Duiker tried to make at Zonnestraal is shown 70 years later to be realizable without leaks and without excessive heat loss and gain. But the greatest triumph lies surely in the hospital's spatial coherence and strong sense of place: it shows that despite all rules, regulations and technical limitations, a modern hospital need not be a technical monster or a disorientating labyrinth. After Kada had won the competition and was developing the design, there was a call to cut out the 'extravagant' hall – those square metres apparently undedicated to any particular medical purpose. Fortunately the design had already gone too far and this philistine move was successfully resisted, for without the hall as its heart and centre, is not the building quite unthinkable? PETER BLUNDELL JONES

Architect
Klaus Kada, Graz
Photographs
Gisela Erlacher, 2, 8, 9, 11
Peter Blundell Jones, 4, 6, 7, 10, 12
Angelo Kaunat, 1, 3, 5

7
Convalescent terrace.
8
Typical four-bed ward.
9
Bridges over entrance hall ...
10, 11
... are main theme of public space, and ...
12
... at topmost level lead to roof terrace.

9

10

11

12

Conversion and extension of regional hospital, Fürstenfeld, Styria
ARCHITECT
Herwig Illmaier

COLOUR MOVES

Slowly, a major hospital in Fürstenfeld, Austria is being transformed with additions that are both lively and very responsive to patient demand.

The regional hospital of Fürstenfeld belongs to the ambitious wave of care provision of the beginning of the twentieth century which included the Graz Regional Hospital and, like that larger example, it was fulfilled architecturally with a symmetrical-fronted Wagnerschule pavilion. As often happens with hospitals, it was extended piecemeal over the years without much thought of the larger picture, and even the central entrance hall got an insensitive 1950s conversion. The whole thing had become untidy and inefficient, so the intention of the 1998 competition was to devise a plan in three stages to extend and rebuild, recovering the dignity of the listed historic parts while reconverting interiors and providing a series of extensions. Illmaier won with a scheme that attempts to complement the old building with new parts in a distinctive new vocabulary that nonetheless echoes something of the scale and rhythm of the original 1910 building. Since the hospital had to continue in operation during rebuilding, the phasing of the building process was taxing.

Illmaier decided to retain the two-storey Classical frontage of the existing building, restoring it faithfully and reconstructing the entrance hall. He built new behind. As in Giselbrecht's hospital, he decided to use the old rooms as wards and offices, building an entirely new highly-serviced block for the clinics and operating theatres. In the final plan, this block is linked back to the main building by two passages, left for patients and right for doctors. Between them will be a small open court, outdoor extension to the cafeteria which will sit at the heart of the reorganized complex. There will also be a small circular chapel, centrally positioned. Ambulances will arrive at the emergency unit at the back: operating theatres will be on two levels to the right, while clinics for day patients will be to the left. The whole building will be raised half a storey above the ground to comply with existing levels.

But all this is yet to come: so far only a couple of new pieces have been built, the most substantial being the new wing of patient rooms to the rear and the left. Planning is relatively straightforward, but the architectural vocabulary is unexpected. The multicoloured glass facade was inspired by a painting by Paul Klee, and the two sides are more different than they seem to be at first glance. The east is largely opaque, with a few windows added to illuminate passage and staircase.

On the west side are patient rooms on two levels, and the facade is much more complex. Not only do windows open: there are also vertically sliding panels of grey translucent glass to cut down light. These are driven by electric motors and controllable by the patients. So, many different options between open and closed are possible, and the facades are lively and mobile. Projecting horizontal sunscreens

1
Colours are inspired by Klee paintings, but ...
2
... the fenestration is very sophisticated, with automated opening windows and movable grey glass panels which can be moved by individual patients from their beds.

2

for both room levels extend the layering. On the front corner of the building, Illmaier has added a different kind of glass structure for the common rooms: translucent above and below and a slot of transparency for the view. Illmaier likes to articulate elements like the lift and side stair in a clear and simple way, and these set the pattern for the vocabulary of the later additions. The lift shows its white steel frame within the bolted-on glass cladding, and the side stair has a tubular steel structure supporting it at a single point. Also admirably delicate is the canopy slung over the stair on stainless-steel rods.

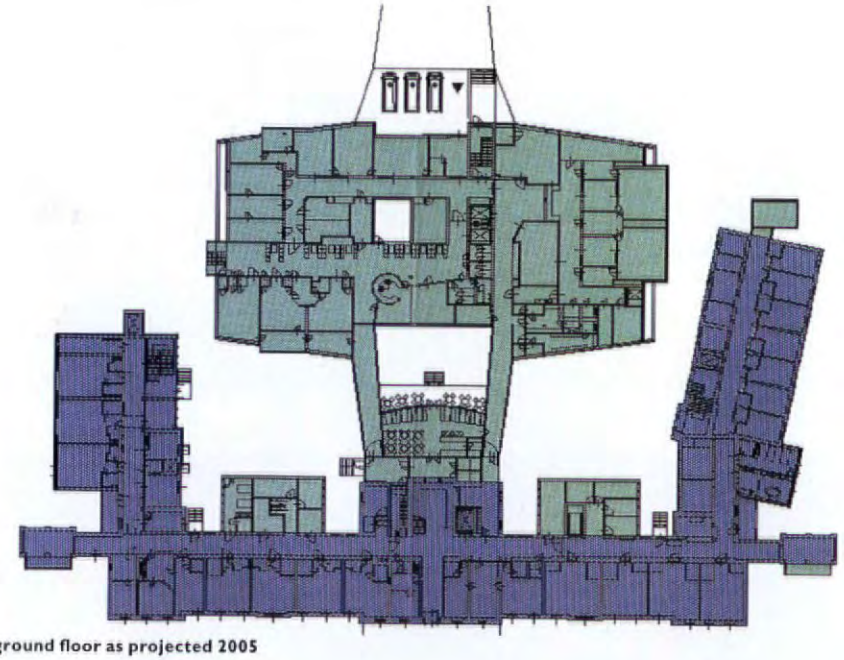
This is not the first 'old and new' project undertaken by Illmaier: he made a bold and uncompromising reinterpretation of a school building of similar period a few years ago, and made it clear there too that there would be no aping of the old building's style. His use of lightweight structures and glass is a reminder of how much building technology has changed during the past century, and while it is worth preserving the old building historically and ecologically, it makes little sense to limit the new one for the sake of consistency. When the whole complex is complete, it will have been reinterpreted functionally and made much more efficient but it will have two visible layers set in contrast.

I spent a delightful day last Easter with the architect, an engaging fellow and one of the rising stars of the Graz scene. Three months later I received the news that he had gone on holiday in Greece, saw somebody in difficulty swimming off a treacherous part of the coast, and in his generous and impetuous way had rushed in to save them. Within minutes he had also disappeared and was drowned. His sister, an architect too, has taken over the practice.

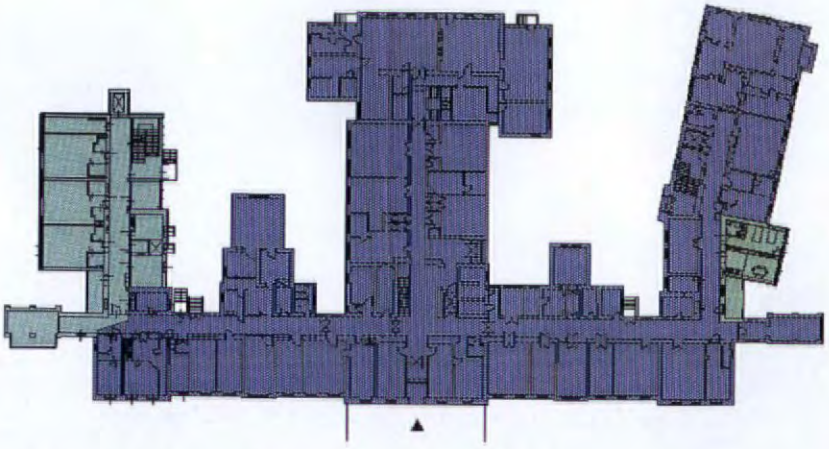
PETER BLUNDELL JONES

CONVERSION AND EXTENSION OF REGIONAL HOSPITAL, FÜRSTENFELD, STYRIA
ARCHITECT
HERWIG ILLMAIER

3
Careful articulation sets pattern for development over next years.



ground floor as projected 2005



ground floor now (scale approx 1:1000). Blue existing, green new

Architect
Herwig Illmaier
Photographs
Peter Blundell Jones

The new Graz West Regional Hospital occupies flat land close to the western boundary of the city, growing up next door to the uninspiring Accident Hospital built in the 1970s. It enjoys good views of the hills to the west, but the local context is grimly suburban, with the usual extensive car parks. In basic concept it is quite similar to Kada's recent hospital at Hartberg (p50), in that most of its accommodation is disposed in a series of linear wings (each two rooms and a corridor wide), articulating different functions at various levels in different wings. But it is a larger and more complicated building than Kada's: taller, and with more wings.

To understand the plans, it is easiest to start at the top and work down, as this establishes the basic geometry and column grid before the variations start to occur. Third and fourth floors are almost identical. They consist of two aligned south-west facing ward wings linked by a central glazed access hall. The four-bed rooms occupy the side with light and view, while shallower rooms containing services and nursing stations are opposite, facing north-east, as with Kada's ward wings. At this level you already see the roofs of the other wings: a further ward wing up to second floor projecting on the south, two parallel treatment wings to north. The roofs of the latter carry service floors treated sculpturally as separate pods with canted ends and a different cladding. These contain all the air-handling equipment and the distribution ducts: no need for windows, every excuse to be roof-like. Dropping to second floor finds the third ward wing in place, south-east facing with balconies. These show a touch of luxury as the rooms are *Sonderklasse*, in other words dedicated to people who pay or are on private insurance schemes. There are only two beds per room rather than four, but the allotted space is not vastly increased, and it is to the credit of the architects that the privilege of this wing is not made more obvious. The glazed hall linking the higher wings has now become L-shaped and includes a small cafeteria. Down another level, and the two medical treatment wings start: the outer northern one contains the main operating theatres and associated functions, the inner one intensive care. A band of rooms opposite is the surgical administration and the western ward wing has become the patient preparation area. Despite the size of the complex, central circulation remains relatively short and clear. Skewed walls in the connections to the treatment wings consistently indicate the major direction, so from the shape of the space you know which way to go.

1
Detail of the end of the western ward wing.
2
Western ward wing is supported by canted columns. Horizontal metal visors layer the facade.

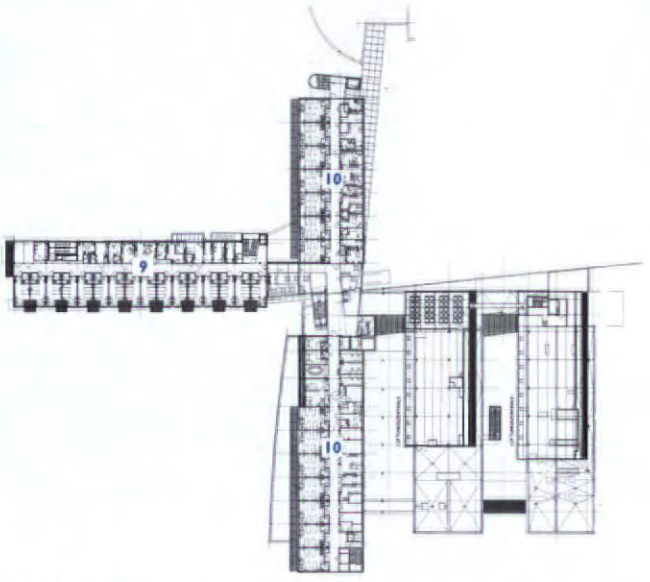
1

2

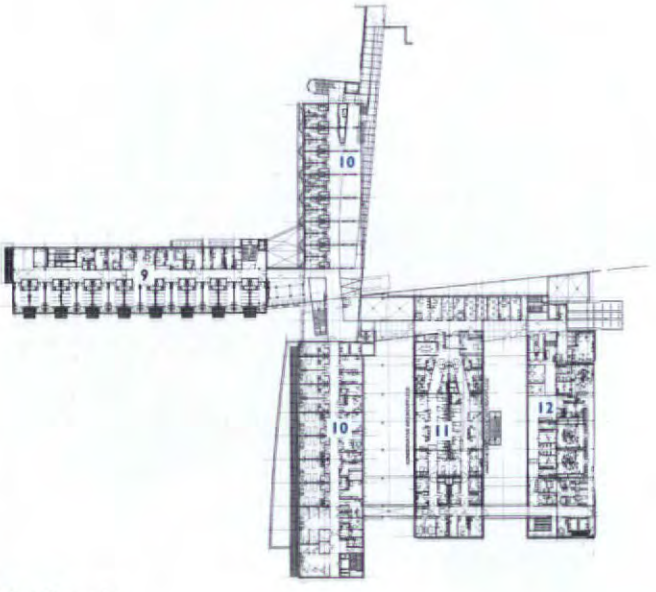
REGIONAL HOSPITAL, GRAZ, AUSTRIA
ARCHITECT
ARGE ARCHITEKTEN DOMENIG EISENKÖCK GRUBER

HEALING WINGS

Articulated by a responsive plan and subtle tectonic gestures, this new local hospital in Graz tames and humanizes a complex programme.



second floor plan

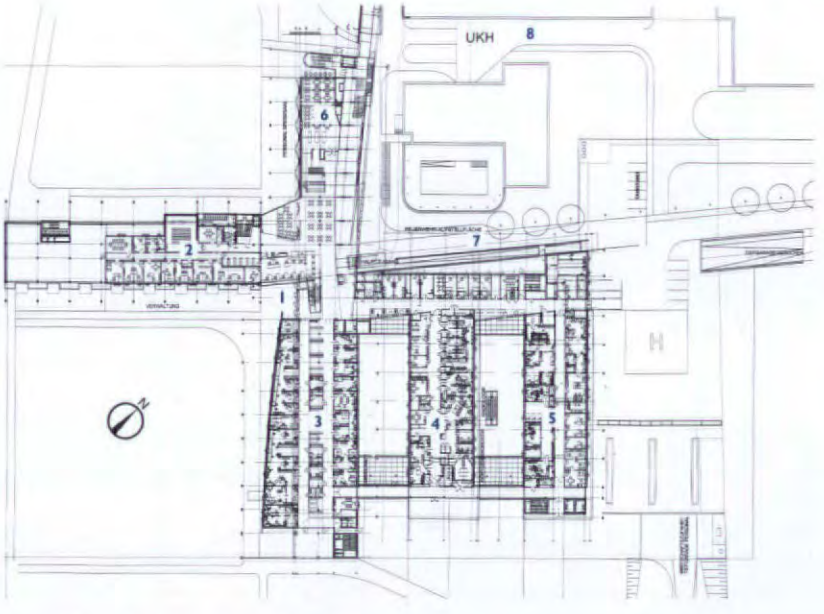


first floor plan

Real complications start at ground floor, with two skewed routes played off against the column grid. The main pedestrian entrance arrives from the front of the Accident Hospital at higher level and to north-east. It is brought straight through on a stair and a long ramp to terminate next to the lift and main stair. The other main entrance is nearby, its lobby skewed to the line of a street beyond to north, which is also followed by the ramp up from the basement parking. Where the two routes intersect is the main stair, set inside its own glass cage but still fully visible, rising right up the centre of the building. On the south side, a row of doors leads out to the southern garden space embraced by the right-angle of ward wings. A long curved wall swings in to meet the entrance, almost seeming to continue the line of the ramp opposite across the hall. As formal devices, these diagonals and curves, indeed the whole linearity, is familiar from the Domenig oeuvre and highly fashionable today. But more important than the sheer visual effect is the meaning. Allowed some independence, the building's routes start to show their own logic and significance: they are not just made mutely subordinate to the Cartesian grid as in the '60s and '70s. It does not make much difference in terms of distances walked or corners turned; but it does individualize the circulation spaces and allow directions to be read. It also creates a contrast between static enclosures – normal boxy rooms – and the dynamic in-between spaces of entry, foyer, stair, and general circulation spaces on the way to somewhere else.

The medical treatment wings continue in a similar vein as the floors above. Beneath operating theatres are laboratories and endoscopy, beneath intensive care the X-ray department. But the ward wings give way to other functions: east is taken over by day clinics, south by general administration and – as with Kada's hospital – a small chapel. Most importantly, the west wing becomes the site for the staff cafeteria, visible through glass, and it becomes public further down, fed by the same kitchens. Thus once again, hospitality is a main theme of the entrance and foyer, and visitors know immediately where they can get refreshment. It gives a place for a pause, where it is possible to sit and chat over a visit, to await the outcome of emergency intervention on a loved one, or to find the strength to face up to bad news.

The basement, unsurprisingly, is mainly services and car parks, but digging out two courtyards in the medical treatment area has



ground floor plan (scale approx 1:2000)

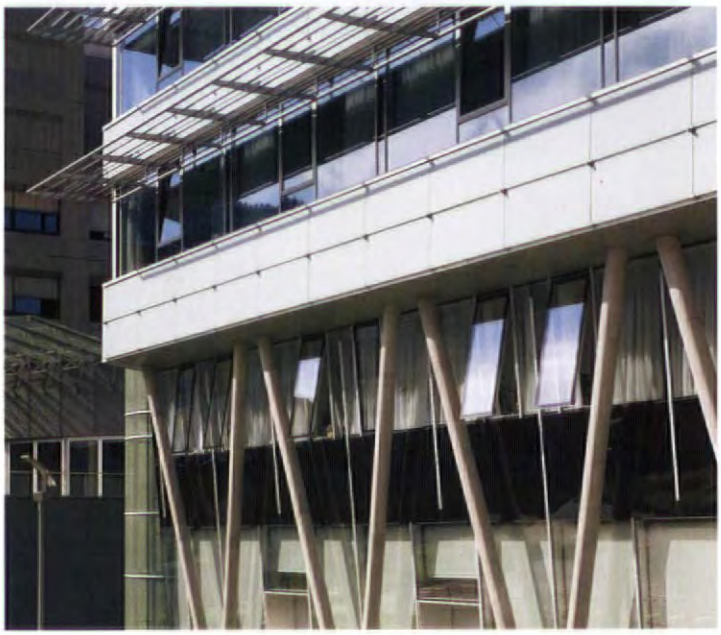
1 main entrance
2 administration
3 out-patients departments
4 radiology
5 pathology
6 staff dining
7 ramp
8 existing hospital
9 private ward
10 general ward
11 intensive care
12 operating theatres

REGIONAL HOSPITAL, GRAZ, AUSTRIA

ARCHITECT

ARGE ARCHITEKTEN DOMENIG EISENKÖCK GRUBER

3



allowed daylight into the kitchens, pharmacy and workshop. There is also an extensive staff changing area, a reminder of the huge numbers of carers who must daily make the transition from private citizen to soldier in the battle against disease.

The substance of the building is in-situ concrete, in the form of columns and slabs. Daringly, the western ward wing is carried not on the normal vertical pilotis but on V-shaped columns canted in different directions on the two sides. Obviously this helps with structural stability in an area which is effectively two storeys high without structural partitions, but rhetorically also it helps free up the space with arrival ramp and cafeteria, making them larger in scale, more dynamic. On the south side, the facade is held back behind the V-columns, showing without ambiguity that they carry the three horizontal floors above.

Given that this is a vocabulary of skeleton and cladding, there are different kinds of cladding vocabulary for the different parts. Pure glass constructions help differentiate circulation areas from more permanently closed rooms, and different kinds of glass are used, some curved and some translucent. On the ward wings facing the sun, horizontal metal visors project out, layering the facade. Changes in building vocabulary make tectonic sense and help further to articulate the kind of place-making gestures already discussed in relation to the plans. We shall have to wait until this large complex is complete and fully operational to judge its final success, but the impression so far is that Domenig and Eisenköck have once again managed to tame and make coherent an extremely complex programme, and their architectural rhetoric, while being attractive in itself, is most effective in serving this end. The deployment of the programme into a number of narrow wings with glazed connections, as with Kada's hospital, allows for good orientation and almost constant daylight and view.

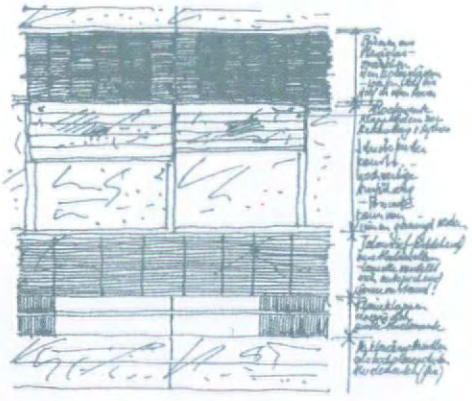
PETER BLUNDELL JONES

Architect
Arge Architekten Domenig Eisenköck Gruber, Graz
Photographs
Paul Ott

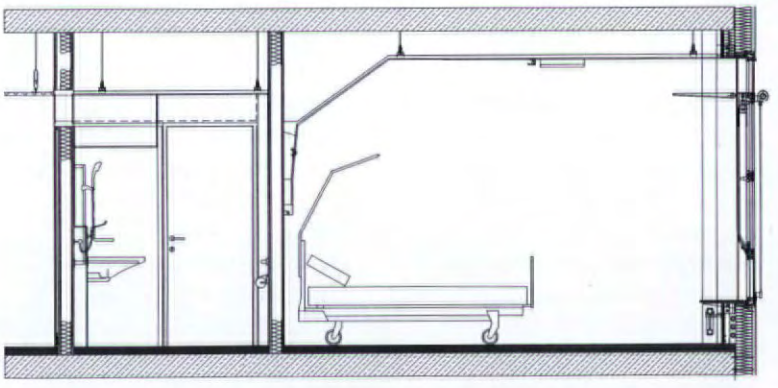
3
Typical room in the private *Sonderklasse* wing.
4
Detail of louvres.
5
Balconies add a discreet sense of luxury to the private wing.
6
Tectonic gestures help to create a sense of place. Ward wings facing sun are shielded by metal louvres.
7
The clear glass cladding differentiates circulation areas from the more enclosed spaces.

HOSPITAL, BREGENZ,
VORARLBERG, AUSTRIA
ARCHITECT
VOLKER GIENCKE

Model showing the configuration of ward wings.



sketch of view from bed



section through ward (note descending television)

Rewarding experiences

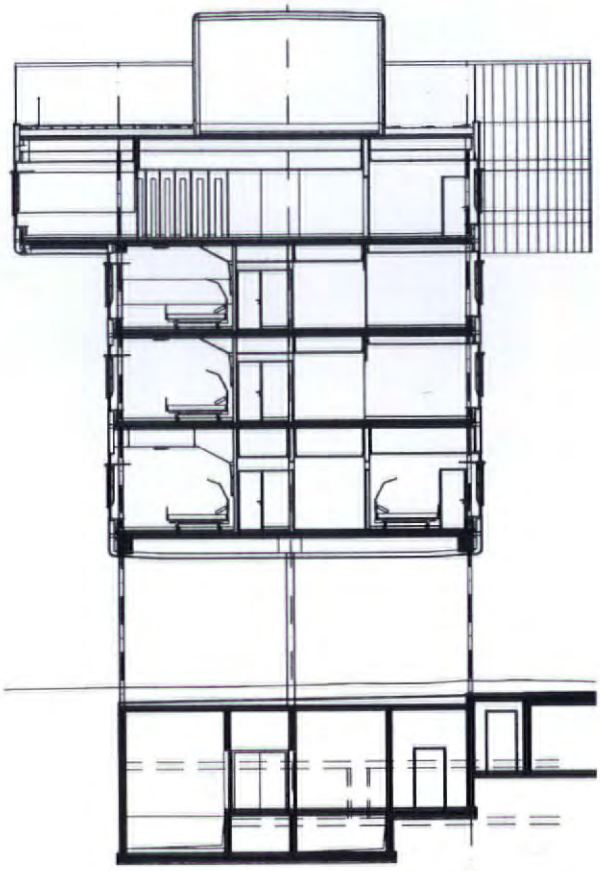
A new approach to hospital ward design based on patient needs at different stages of treatment.

Volker Giencke is one of the leading Graz architects[1] and was runner up in the competition for the Hartberg Hospital in 1992. Five years later he won the international competition for the Regional Hospital in Bregenz at the other end of Austria. It is still under construction and will be presented in full at a later date. For this issue we concentrate on Giencke's ideas about the design of the patient room and its relation to the outside world. His attention to detail recalls Aalto's statements about the design of Paimio.

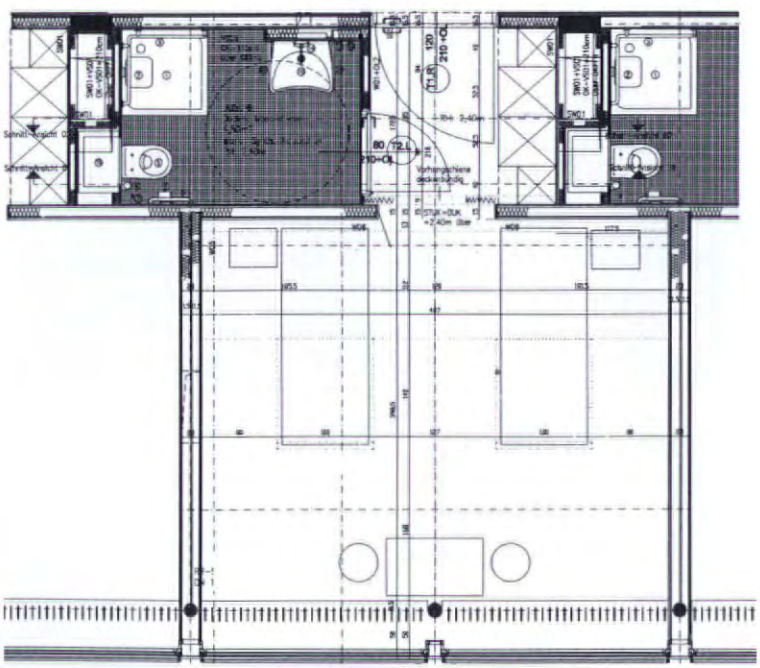
For someone marooned in a hospital bed, the view out of the window is rather important, so the bed should face it directly rather than from the side, Giencke argues. The cill must be kept low in keeping with the patient's recumbent position, and it can be made broad enough to sit on when the patient is well enough to start leaving the bed. The space beneath it accommodates heating. For the very sick patient, view is restricted to be the ceiling above and beyond the bed, so the surface must be attractively made. Giencke folds it around over the bed like a canopy, providing indirect artificial lighting to avoid glare. The patient's television folds down from the ceiling like one in an airliner. As the focus of attention, the ceiling must not be dark, but daylit, so the patient is aware of changing light. Giencke provides a clerestorey panel just below ceiling level, then adds a horizontal baffle internally. This cuts off the direct light path to the patient's eyes, preventing glare, and provides a reflective upper surface to bounce light back onto the middle of the ceiling. The underside of the baffle will also be reflective but mirror-like, giving a reflected view through the middle windows of the park below. Sunblinds on the outside unroll to protect all but the clerestorey from direct exposure, while the inner blind can cover the main window panels leaving open the one at bed level, preserving a slot of view. The combination of panels, the layering and provision of blinds both outside and built into the glazing cavity, promises a lively and mobile facade.

PETER BLUNDELL JONES

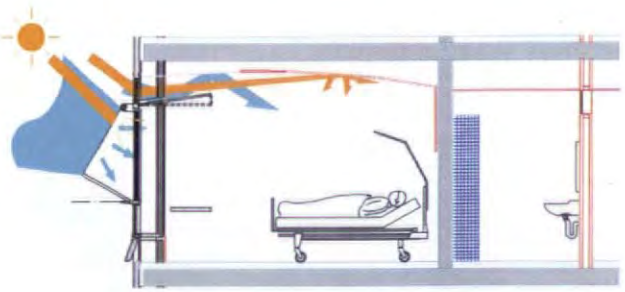
1 See for instance AR December 1988, April 1990, February and April 1992, October 1995, March and October 1996, September 1998, June 1999.



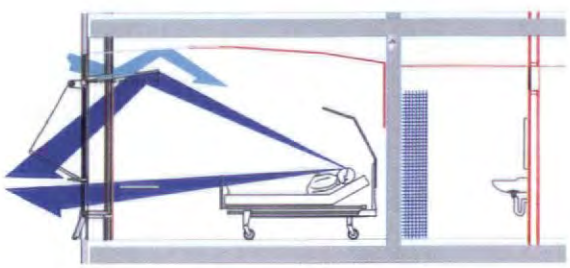
section through ward wing



typical ward plan (scale 1:80)



sky luminance control



patients' views

1

HOLISTIC GRID

Designed in the late '60s but only now complete, this hospital in Mirano by Giancarlo De Carlo explores the notion of the grid as a flexible, neutral framework that sensitively orchestrates light and spatial relationships.

Few buildings designed in 1967 but not completed until the late '90s would command much interest, but Giancarlo De Carlo is among the most thoughtful and respected architects of his generation and despite the delay, several of his ideas have remained unrealized elsewhere.

The fashion in hospitals in 1967 was for huge deep-plan high-rise blocks, but instead De Carlo suggested a low courtyard plan with two inhabited storeys planned on a tartan grid. This neutral flexible framework allows ready access and servicing within which different kinds of functions and their architectural forms might be set. It seemed to De Carlo appropriate for a hospital, both to accommodate the internal changes of programme and to allow expansion by addition of departments. In the event, the flexibility was exploited by programme changes even before construction began, while budget limitations caused the building to contract rather than grow.

Rug-like, the initial and ideal plan shows a series of variously sized fields divided by regular strands, sometimes warp, sometimes weft. These strands become communication channels of various kinds – wide or narrow, public or private, people or services – which occur like the different coloured stripes of a tartan. In contrast with these strands, some of the fields in between can be left vacant, forming holes which bring light and air into the plan. They can be of different sizes and penetrate the volume to different depths. The grid as abstract system thus sets up a series of relations at various fixed sizes, which are habitable in a variety of ways.

In section, the essential idea was to organize everything on three layers. The ground floor has all the main treatment rooms, clinics and operating theatres. This largely artificially-lit internal world is heavily serviced with elaborate thresholds, rules of dress and procedure, and positive air pressure against infection: it is necessarily the most machine-like part. The upper floor, by contrast, carries the patient rooms and wards, and because only the roof is above, there is endless possibility of daylight, both vertically through rooflights in passages and sideways from the many courts. Everyone gets a view out and a glimpse of sky, even if many views are relatively short. Between the two inhabited floors runs a shallow servicing layer, an endless room for the pipes and wires. This seemingly extravagant arrangement allows any kind of service to be fed from above or below, and systems can be added and renewed with minimum disruption. A curiosity of the initial plan was that the upper floor was the more complete of the two, setting the pattern for the whole. The ground floor with its various departments was then permitted to take over the space defined by the column grid.

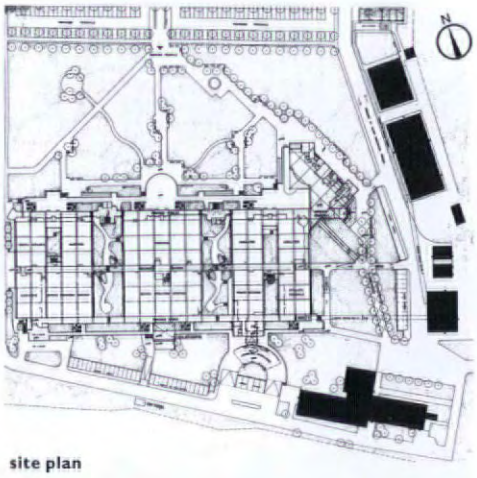
The plan and model of the original competition entry are self-contained and evidently worked mainly from the inside out: an abstract system owing nothing to the site.

HOSPITAL, MIRANO, ITALY
ARCHITECT
GIANCARLO DE CARLO

1
West elevation. The modest two-storey building is organized around a series of internal courtyards.
2
Ambulance arrival on long south side.
3
Internal courtyard at upper level.
4
Courtyards are formed by the interaction of the grid, bringing light and air to internal spaces.
5
White tiled exterior is articulated by escape staircases.

HOSPITAL, MIRANO, ITALY
ARCHITECT
GIANCARLO DE CARLO

6



site plan

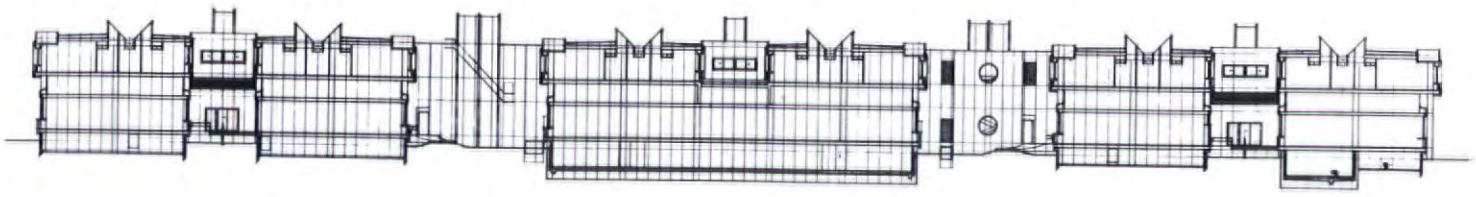
7

8

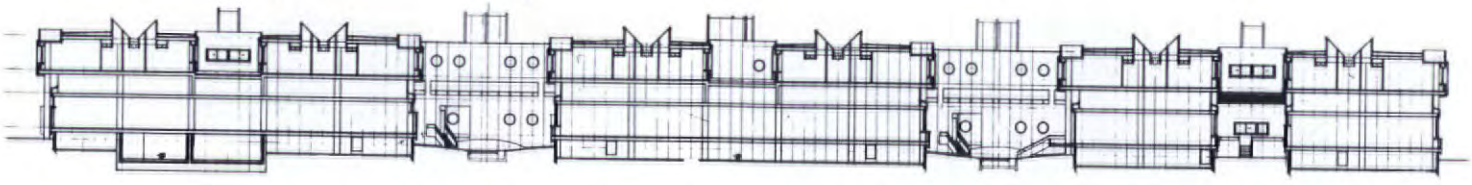
9

10

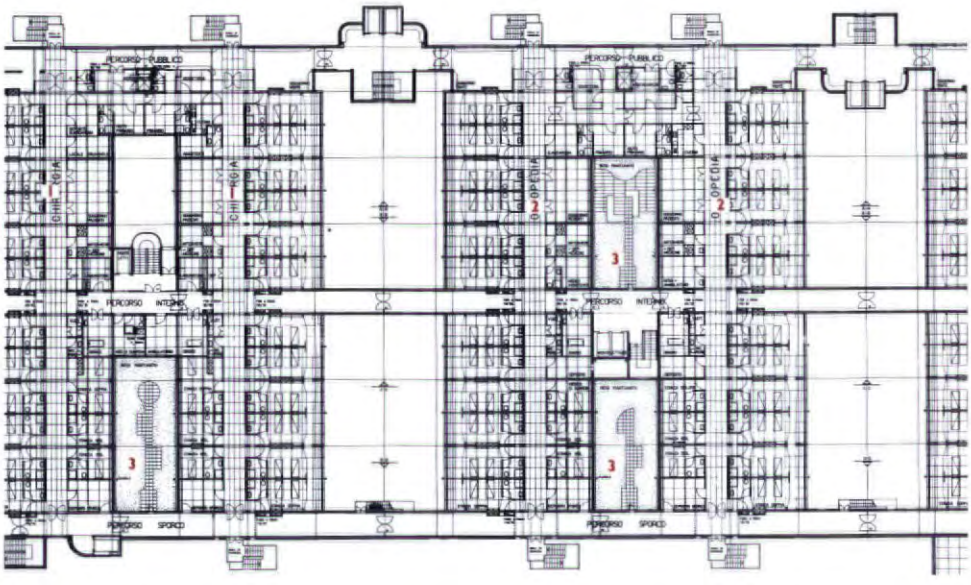
6
The low volume of the hospital merges with the flat lagoon landscape.
7
Main entrance and reception space.
8
Link between main entrance and public corridor.
9
Internal staircase.
10
Nursing station on the top floor.



long section looking south



long section looking north



upper level plan (scale approx 1:850)

1 surgical wards
2 orthopaedic wards
3 internal courtyard

Architect
Giancarlo De Carlo
Competition project team
Armando Barp, Georg Solms, architects
Building project team
Susanne Wettstein, Guido Zordan, architects
Site director
Giuseppe Svalduz, engineer
Furniture
Inso Infrastrutture Ospedaliere, Firenze
Photographs
Antonio Garbasso, 1, 5, 6
Peter Blundell Jones, 2, 3, 4, 7, 8

De Carlo is normally the most site-sensitive of architects, but this place – close to the edge of the Venetian Lagoon – is very flat and lacks long views, while the older hospital buildings dividing the site from the main road offer little inspiration. Nonetheless, in developing the design he tamed his grid with two irregularities as added limbs: at the south-east corner a diagonal block for the day patients' and visitors' entrance plus cafeteria, on the west side a ramp and curved canopy for emergency vehicles. These two gestures tie the building to its context, the restaurant's corner placing and angular stance making it more liminal: a transitional space between hospital and outside world. On its roof is a terrace for the doctors, set next to their library restroom, another breakaway from rhythmic discipline.

The corner placing also helps disguise one of the oddnesses of the building: that the main public route runs along the east side, rather than down the middle as Classical precedent would suggest. This reflects the anti-hierarchical and anti-axial nature of the '60s grid, and also the fact that the three spines running through the building serve different purposes: the east is public, the middle a medical corridor for doctors, nurses and patients on trolleys, the west a dirty corridor for services and waste only. Placed close to the service access, the latter is only ever seen by staff, and is definitely backstage. Thus moving from east to west there is a clear public/medical hierarchy. Moving from south to north at ground floor level is similarly hierarchical: the first block has day clinics to east and emergency to west, the middle one X-ray to east and operating theatres to west, and the end one more operating theatres and intensive care. The rationale is that as you move down the building you come to different departments; the deeper you penetrate, the more intensively medical it becomes.

Passage through the building is marked rhythmically by views into the various courtyards, the two-storey ones being the main orientation points, with round windows in the passages as added articulation. Repeated as frequently as first planned, the courts might have become confusingly repetitive, but it is not a problem so far. On the outside the same rhythm appears as within, picked up by the ends of the long rooflights and the fire stairs. If the white tiled facades seem a little dated, they are at least preferable to those of most other hospitals of the period, and on the whole the building is much gentler than its rivals. Most memorable about it are the light-filled upper corridors and the intimate patient rooms which overlook plant-filled courtyards, an apt memory of the cloister.

PETER BLUNDELL JONES

HOSPITAL CHAPEL,
AALBORG, DENMARK
ARCHITECT
FRIIS & MOLTKE

1

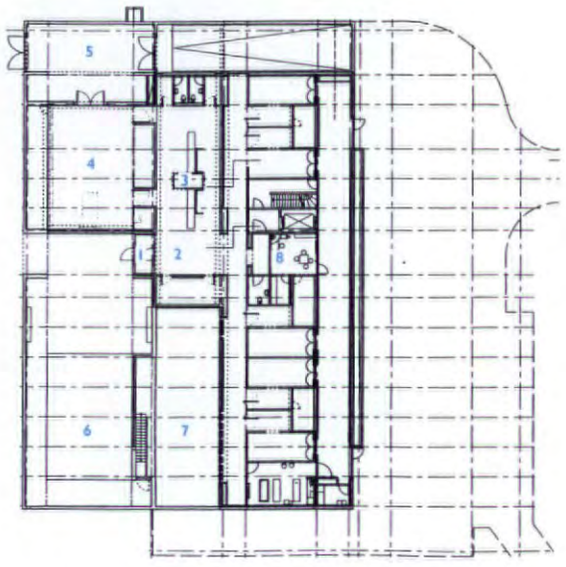
DANISH DIGNITY

The chapel may have been displaced from being the centre of the hospital (p40), but it can play its part in healing.

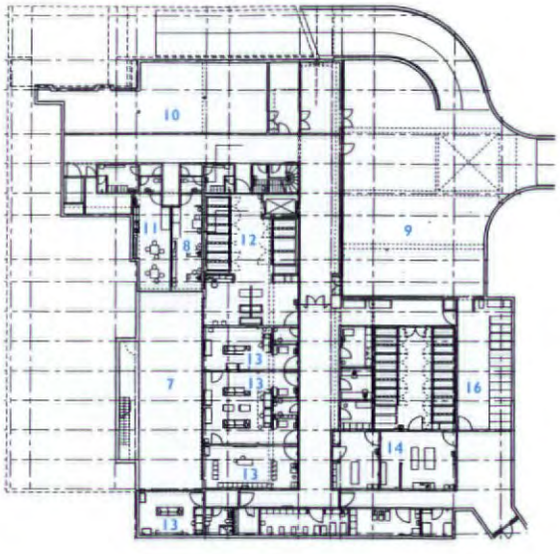
The Lutherans (particularly the Scandinavian kind) have produced many of the most moving religious buildings of the last 100 years. Quiet manipulation of cool light, precise understanding of calm space, sensitivity to landscape are some of the qualities that have informed the best churches and chapels of the north since Asplund and Lewerentz. There is also a profound understanding of death, of the need for rites of passage and of dignifying relationships between the living and the dead. The chapel by Friis & Moltke at Aalborg South Hospital is very firmly in this tradition. At first (and to most people) the building seems very simple indeed. A precise white rectangle is relieved only by a double-height cube, a few slots and the main entrance – a generous wide portico which leads you past a court, mostly devoted to a sky-reflecting pool, towards the welcoming wooden door. By this time, you have come through a simple route over the

2

1
Chapel stands some distance from hospital in a young oak grove.
2
Public entrance, which leads ...
3
... past the pool and chapel to the main entrance.



ground floor



basement (scale approx 1:700)

Hospital chapel, Aalborg, Denmark

ARCHITECT

Friis & Moltke

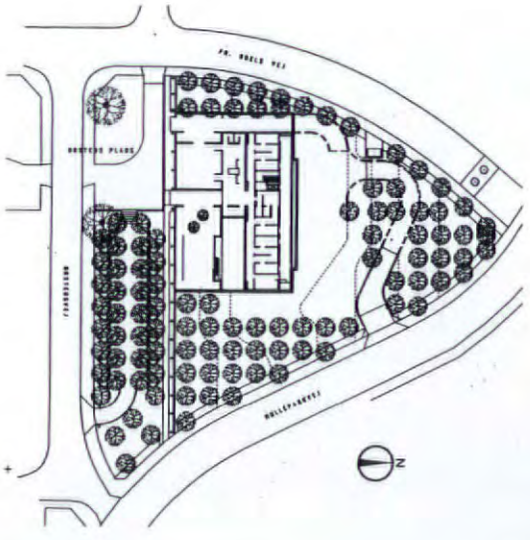
grey granite setts of the car park, along a perfectly cast in-situ concrete wall, among a grove of young oaks, which at the moment are tall, thin and elegant – gradually, they will become more generous as their canopies grow to shelter grieving visitors.

Once inside the building, visitors are deflected left towards the chapel anteroom, attracted by a glazed lightwell. Another left turn brings you into the chapel itself, a tall and noble white volume. It is made luminous by slots in the ceiling, and by a long thin court on the south side which contains a golden wave-like sculpture by Erik Heide. A thin window high up in the east wall, which has a painting by Stig Brøgger, does not dazzle like, for instance, the Romanesque slit in the apse of Torcello, but serves to remind of the forces of nature.

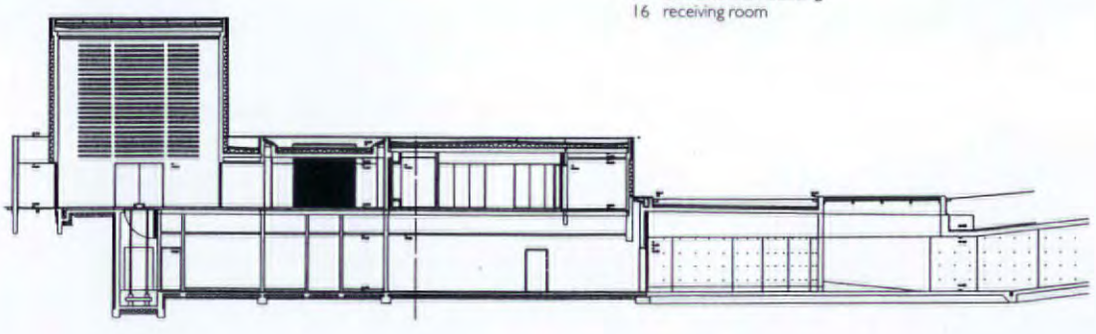
That odd experience of coming into the chapel and seeing the Heide wave under the light of the sky is one intimation that the building is very much more complicated and subtle than it seems at first sight. In fact, the clean prismatic perimeter contains an unexpected series of spaces, and is but the upper part of a highly technical building which is mostly underground, linked to the main hospital by a tunnel that connects to the subterranean layer that underlies most such buildings.

On the lower floor are the autopsy rooms, the cooled corpse store, the forensic dissection chamber and staff and training quarters. A ramp that is entered through gates on the south side of the upper floor leads down to a generous underground manoeuvring area for hearses. All this mechanical and (for most of us) rather sinister area is made bearable by a light court punched down next to the pool that greets visitors at the main entrance. Along the side of the pool, a slatted screen allows some sunlight to get down to the lower level, but prevents you looking down into the

1 entrance
2 foyer
3 lightwell
4 chapel
5 hearse entrance
6 pool
7 court
8 office
9 hearse turning
10 plant
11 staff
12 chilled area
13 autopsy
14 forensic autopsy
15 tunnel to main building
16 receiving room



site plan



south-north section

autopsy rooms (or even being aware of them). A lift carries coffins from the lower floor to the ceremonial one.

Throughout, construction is as simple and unobtrusive as possible. Structural elements are in-situ and precast concrete, rendered white above ground. In the ceremonial parts, floors are of granite; elsewhere, they are finished in linoleum, that excellent and often under-appreciated material which is used throughout the main hospital.

In Denmark, architects can still aspire to the Gesamtkunstwerk, because in one of the richest countries in the world, there is astonishingly still an industry in which craftsmanship can be an essential element, as it was in Jacobsen's day. Friis & Moltke have a product design department which was responsible for all the furniture and light fittings on the ceremonial floor. Their unfussy, thoughtful, solid details add to the calm and reassurance of the place.

HENRY MILES

4

5

6

7

Architect
Friis & Moltke, Aalborg
Project team
Palle Hurwitz, Stefan Magnusson, Esben Nielsen, Carsten Jensen, Max Due, Søren Ravn, Peter Sand, Ole Madsen, Gudrun Østergaard
Product design team
Ove Rix, Søren Pedersen, Stefan Magnusson
Landscape architect
Peter Sørensen
Photographs
Helge K. Olsen

4
Chapel: all pieces of furniture and light fitting are designed by the architects.
5
Court brings light to basement rooms.
6
Light well in foyer deflects visitors to chapel ...
7
... to be greeted by Erik Heide's wave lit from the sky.

HEALING ARCHITECTURE

For a long time, we have supposed that good design will improve patient well-being. Now we have figures to prove it. Bryan Lawson reports on how patient treatment and behaviour improved with new architecture.

Most hospital patients may get the personal attention of a doctor for only a few minutes a day and slightly longer periods of personal care from nurses and therapists. However they often remain in bed, or if they are more fortunate sit, for many hours with little to do. This may well make them even more susceptible to the environment and more sensitive to it. It is reasonable therefore to assume that environment may be a contributory factor to their sense of well-being and actual recovery. Over a century ago Florence Nightingale noted the effect of their surroundings on her patients.[1]

Our research set out to test the proposition by measuring effects on patients of hospital architecture. Many in the field poured scorn on our work, suggesting that patients in hospital have other things on their mind than the quality of architecture. In fact, we found patients extraordinarily responsive to and articulate about their surroundings. We also found that not only can their time in hospital be substantially improved through good architecture but also that the treatment they receive appears to be enhanced.[2]

One general medical and one mental health hospital were upgrading their accommodation using what is currently considered best practice in hospital design.[3] In each case the hospitals were providing new wards but using the same patterns of patient referral and same treatment regimes in the new buildings as they had in the old ones. In many cases medical and clinical staff were the same. This enabled us, as far as is practically possible, to see clearly any effects resulting from changes to patients' environment.[4]

Poole Hospital Trust was refurbishing a series of existing 1960s general wards. In the original wards there were six four-bed bays and six one-bed bays with lavatories at each end of the ward. In the refurbished unit there are 16 single bedrooms and three four-bed bays. The new bedrooms have a clean simple interior using natural timber and have ensuite bathrooms.

At South Downs Health NHS Trust in Brighton the original accommodation for the mentally ill comprised 15-bed wards in typical Victorian brick institutional buildings with characteristically high ceilings. These were replaced with a new medium secure mental healthcare building designed by Powell and Moya using only single rooms and now known as Mill View Hospital Hove.

Higher satisfaction

In both the newly designed wards, patients showed very significantly higher levels of satisfaction with their surroundings. Ratings given by patients in the newer hospitals were significantly higher for appearance, overall design and spatial organization. Patients in the two new sets of wards were particularly pleased with their own private area, whether it was a room of their own or a bay in a multiple bed ward.[5]

Significantly more of the patients in the newer wards told us that the environment had helped them to feel better. We went on to ask them about the treatment they had received and the staff who had cared for them. Remarkably, patients in the newly designed environments gave significantly better ratings to their actual treatment. Indeed they also thought more highly of the staff treating them. In most cases these were actually the same people. Some of these differences were not statistically significant but the overall picture is remarkably clear. In the newer environments, patients were more content, thought they had received better treatment and that their doctors, nurses and therapists were more helpful and attentive.

So far, although this is empirical evidence to support our argument about the effect of architecture on patients, it still remains largely subjective. Two questions remain. First, do the patients actually benefit from this in real health outcomes? Second, what are the major contributory architectural factors responsible?

The two health trusts involved monitored the patients and provided us with a mass of data about their progress while in hospital. Measuring patient progress is not as simple a matter as it might seem since there are many potential indicators with perhaps the most obvious being length of treatment.

In fact many patients in both our physical hospital and mental hospital samples were released significantly more quickly from the new wards than from the old ones. Non-operative acute patients showed a significant reduction of some 21 per cent in treatment times and mental health patients a reduction of 14 per cent.

However, there are interesting indicators that further contribute to the picture. In our physical hospital, analgesic medication is largely taken on demand within prescribed limits. There was a dramatic reduction in the amount of analgesic medication taken by the patients on the new wards.[6] Effectively here we see patients requesting less pain-killing medication in the new hospital ward environments than in the old.

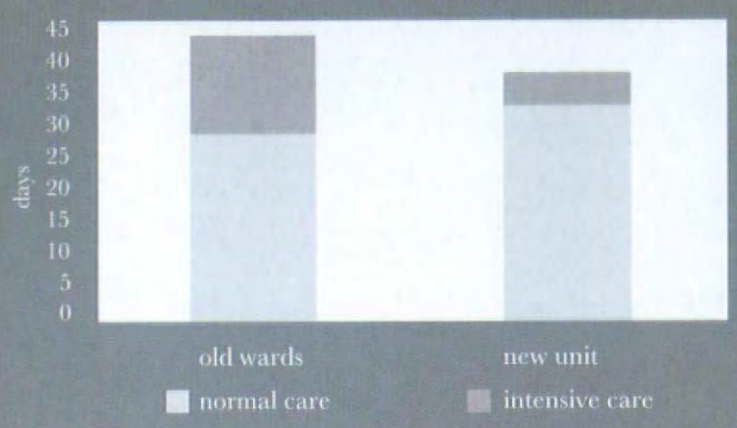
In a mental health hospital it is normal to record many items of patient behaviour including all instances of verbal abuse, physical violence towards others and physical self harm. These records were studied and the results quite remarkable. While the number of incidents of verbal and physical abuse remained largely the same, their severity dropped quite significantly in the new wards. The number of instances of patients injuring themselves was dramatically reduced by two thirds. Patients who become particularly distressed and are considered a danger to themselves are normally put for a period into seclusion in a safe room with intense supervisory care. The amount of time this was necessary was reduced by a remarkable 70 per cent in the new unit with an average reduction of nine days, from 13 to four in a typical stay.

A clear and consistent picture emerges from a very complex set of data. Patients in the new buildings seem to spend less time in hospital and appear to feel less physical pain or to be psychologically calmer. In addition to making life better for patients, this must in turn make life easier for the staff, certainly in the mental hospital. Finally of course this may well result in significant savings in the cost of treatment, but we have yet to show this and to quantify it.

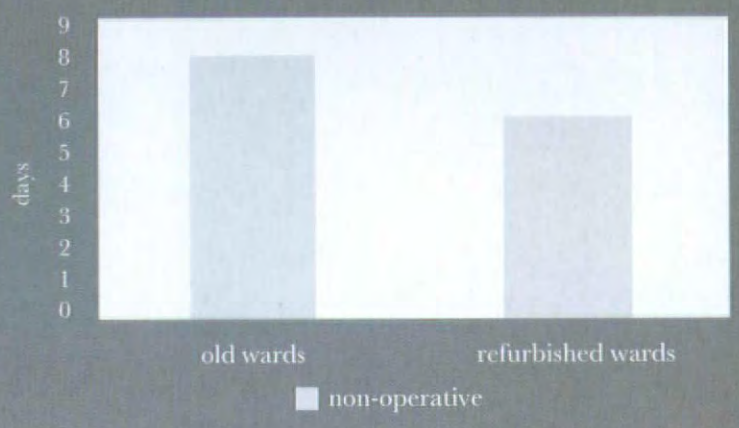
What should architects do?

Next we set about trying to ascertain exactly which features and aspects of the environment were responsible for causing these effects. What is it that architects should concentrate on to stand the best chance of promoting this healing architecture?

We asked our respondents to tell us in their own words what features of their environment were either particularly good or bad. There are two major groups of factors that we commonly see in such studies of the psychology of place.[7] The first and most obvious concern the direct relationship between people and their environment. Such factors might include the colours of surfaces or the temperature of rooms. However, the second group of factors concern the way the environment mediates the relationships between people. Such factors might include matters of privacy or how spaces enable people to establish community or maintain personal place.



average length of patient stay: mental unit



average length of patient stay: general medical unit

It is often falsely assumed that the value of good design lies largely in the first category. While this may be true for designers with heightened visual sensibility, in fact it is more often the second group that matters more to ordinary people. This study is no exception. The most commonly raised issue among all four of our patient samples was that of privacy. That is not to say that all our respondents were asking to be entirely private; they were most definitely not. However the way the environment enabled them to be either private or not as they wished seems to be of the greatest importance to them and their sense of well-being.

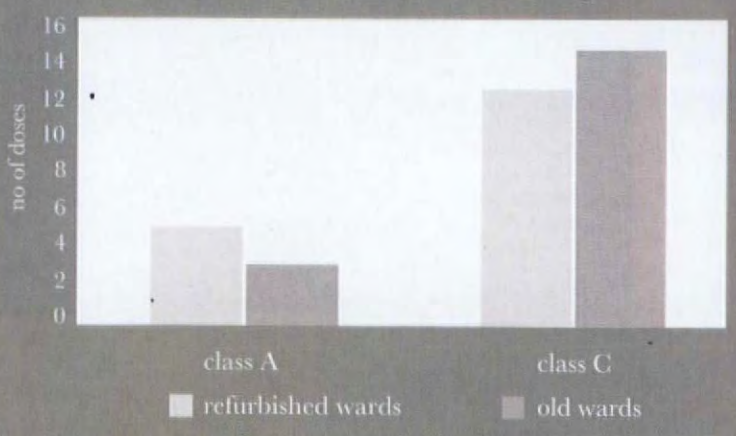
Following from privacy came the matter of view – or more often the lack of it. Nurses and other clinical staff also mentioned this problem, not just for themselves but on behalf of their patients too. There had already been some other evidence that patient treatment times can be reduced when they have a view.[8] This factor should not be interpreted as a purely aesthetic matter. There was no evidence that in general patients wanted classically beautiful views. If anything, it is views of everyday ordinary life that seem in demand. Views in which something happens seem desirable, and views that enable conversation between patients of the events unfolding: perhaps children leaving school or the postman on his rounds.

Next came the two obvious issues of appearance and noise. Appearance is inevitably a highly personal matter, although many patients agreed on the desirability of light and airy spaces. Whatever peoples' taste they also appreciate an environment that appears loved and cared for. The acoustic environment seemed almost as important as the visual one. While many complained about noise, not all patients want an entirely silent ward. What matters most here seems to be to have some degree of control. Both patients and the staff mentioned this about such things as heating, the lighting, windows and blinds as well as noise. In fact the newer wards generally continued to offer relatively low levels of patient control of these matters. In a separate study done of what healthcare professionals think important, it became apparent that such issues seldom appear in the brief for architects. There is a long way to go it seems in convincing both clients and designers of their relative importance!

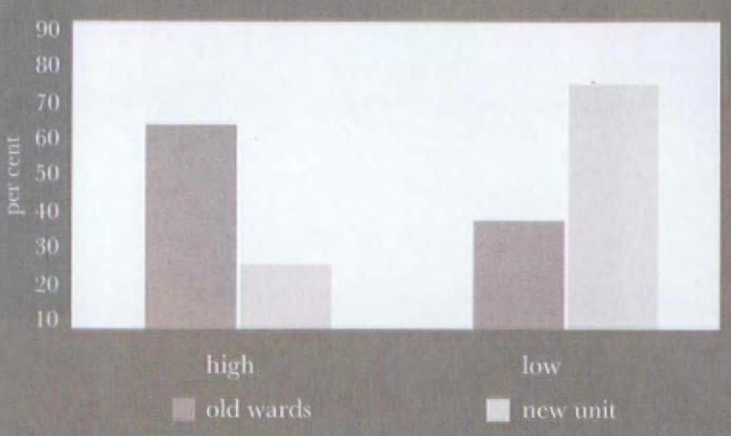
With privacy being such an important issue and our newer wards showing higher levels of provision of single rooms we decided to investigate this matter in much more detail.[9] In fact, just over half of the patients in our sample expressed a preference for multiple bed space accommodation rather than a private room. Two reasons were commonly given for preferring multiple bed spaces: the wish for company and others to chat to, and a feeling that they were more likely to be given attention by nurses – there was a fear that they might be forgotten if isolated in their own room. So the debate is a classical one for architects between the two great forces of community and privacy. Which you prefer is clearly a matter both of personal preference and circumstance.

Appreciating architecture

Our data show very clearly that patients, who are in the sort of accommodation they prefer and are left there,[10] express significantly higher levels of satisfaction than others. They regard their treatment as better, rate the staff more highly and consider the overall design of the hospital to be superior. Such patients how-



levels of analgesics: general unit (class A drugs are like morphine; class C less strong)



high and low level threatening behaviour: mental health unit

ever did not express any higher levels of appreciation of the appearance of hospital.

These data confirm two interesting conclusions. First, being able to decide what levels of privacy and community you want is extremely important to people. Second, being able to control the environment is also very high on the agenda. Not only does meeting these needs of people in the design lead to higher levels of satisfaction, it also transfers significantly to their general feeling about their treatment. While it would clearly be foolish to advocate neglecting the appearance of the environment, these data unequivocally demonstrate that matters of privacy versus community and personal control over the environment are fundamental and of great significance to most of us.

These results offer some interesting lessons for architects and their clients. We have shown the architectural factors that appear to be responsible for increased patient well-being to be generally universal rather than specific. They could be seen to apply to many environments rather than being particular to the hospital. As well as visual appearance, they concern such general matters as privacy and community, view, environmental comfort and control of the environment.

Such factors taken together could surely be thought of as a matter of good place-making. Sadly in the highly technical world of contemporary medicine, place-making, often seems to come low down if at all on the list of considerations.[11] Perhaps its frequent neglect in recent hospital design is as much a result of the tyranny of the functionalist view of architecture as it is of overly technical briefs. And yet our results show that not only is place-making very important to the well-being of patients but that good architecture may turn out to be extremely good value for money compared with the highly expensive treatments that are administered in our hospitals. BRYAN LAWSON

1 Nightingale, F. (1860). *Notes on Nursing*, London, Harrison and Sons.

2 The project funded by NHS Estates at the University of Sheffield was directed by Bryan Lawson, an architect and psychologist, chaired by John-Wells Thorpe, both an architect and an NHS Trust chairman. South Downs Health NHS Trust and Poole Hospital NHS Trust collaborated.

3 For more details of the research methods used see Lawson, B. R. and M. Phiri (2000). 'Room for improvement', *Health Service Journal* 110 (5688 20;1;2000): 24-27.

4 Samples sizes were approximately 140 in Poole General Hospital where patients typically stayed for nine or 10 days, and about 75 in the Brighton Mental Health units where patients typically stayed rather longer for about 35-40 days

5 At Poole Hospital 72 per cent of the patients in the new unit gave the highest rating they could for overall appearance compared with only 37 per cent of the patients in the old unit. At South Downs these figures were both lower with 41 per cent giving the highest rating in the new unit compared with only 20 per cent in the old. Generally lower satisfaction figures in the case of mental health patients is expected.

6 On the newer wards the average number of days on which Class A pain-killing drugs were administered was reduced by 22 per cent and the number of doses applied on these days reduced by 47 per cent. To slightly offset these data there was a slight increase in the amount of Class B drugs taken on the newer wards.

7 For a fuller discussion of this see Lawson, B. (2001). *The Language of Space*, Oxford, Architectural Press.

8 Ulrich, R. S. (1984). 'View through a window may influence recovery from surgery', *Science* 224: 420-421.

9 A further study was done at Poole Hospital involving a sample of 473 patients on this particular question.

10 Sadly, some 22 per cent of our patients were moved during their stay not for their own good but as a result of a need to accommodate others. Such moves were frequently at very short notice and often at night.

11 In a separate study for NHS Estates we showed that although senior health service managers and patients agreed about the importance of this issues, those responsible for briefing architects did not share this view but rather laid emphasis on more technical matters.

VISITORS' CENTRE, ARLES, FRANCE
ARCHITECT
RUDI RICCIOTTI

Romanesque refuge

A new visitors' centre in an ancient French Romanesque abbey is conceived as a series of precisely crafted interventions.

The Romanesque ruins of the Abbaye de Montmajour dominate the surrounding Provençal landscape from the top of a hill about 5km north of Arles. When established in the tenth century by the Benedictines (it is thought as a sanctuary from the Romans), the abbey was an island refuge surrounded by Rhône marshlands. Its prosperity began during the succeeding century, after the counts of Provence chose Montmajour as their burial place, and the abbey became one of the most important in the region.

The ruins, which now belong to the Caisse Nationale des Monuments Historiques, testify to the abbey's slow decline from the late Middle Ages onwards through fire and vicissitudes (the French Revolution was one); but, still eloquent of past wealth and grandeur, they are magnificent. Apart from remains of the great chateau of St Maur, the church is one of the largest Romanesque structures in Provence, its twelfth century crypt built into the hillside; and the cloisters, in the shadow of the great fortified watchtower, have double pillars wonderfully ornamented with a menagerie of beasts. Visitors energetic enough to climb to the top of the 25m high tower (all 124 steps) are rewarded with wide and extraordinary prospects, north to the limestone massifs of Les Alpilles and south to the sea.

The abbey is a popular destination and a plan to create a new visitors' centre in the vaulted cellars of the chateau was made the subject of a competition. It was won by Rudy Ricciotti whose imagination – austere, dramatic, and at times, ironic and surreal – we have seen exercised on design of structures as varied as a slender footbridge across the Han River, from Seoul to Sunyudo Island, an equally tautly designed sailing school at Bandol (AR July 1998), and the great anthracite monolith of the Vitrolles Stadium (AR February 1996), built in what was once a municipal rubbish tip. At Montmajour his approach is one that can be traced directly back, through postwar Italians such as Carlo Scarpa, who possessed an eloquent understanding of how to work with old buildings without compromising either building or architect, to nineteenth-century England and SPAB,* to Ruskin and Morris.

1 2

1
New interventions form crisp foils to the existing historic fabric.
2
An elevated steel and glass walkway marks the start of a tour through the abbey grounds.
3
Detail of walkway, supported on a series of inclined, tubular columns.

Ricciotti's design revolves around the idea of making the new impinge as lightly as possible on the old, of creating something akin to a theatrical set; and to this end (rather in the SPAB manner) he enlisted two artists, Elizabeth Cresseveur and Josep van Lieshout and architect, François Deslaugiers.

In general, work included cleaning the stone and clearing and restoring openings. Old apertures have been filled with clear glass with no visible fixtures. The visitors' centre, inserted into two vast rectangular vaulted chambers with sloping floors, included creation of an entrance hall within the largest volume. It is lined down one side by van Lieshout's 15m long reception desk – a gleaming monolith of green polyester glass resin. On the other side, the wall is lined by sliding glass panels in front of display cases, suspended from a metal rod and disappearing into hidden bases. The panels also mark the limit of a floating concrete floor, black and polished like a piece of quartz which stops short of the original shell. Like the long desk, the black river, which was poured in situ, follows the slope of the original floor and is elegantly illuminated along its edges by concealed fittings.

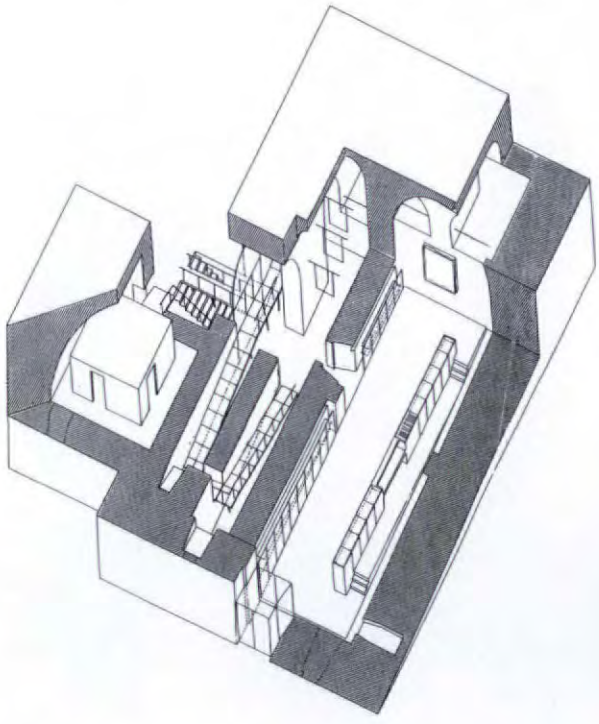
With Deslaugiers, Ricciotti's team worked on design of an elevated glass and metal walkway which leads up from the second chamber and is threaded through a double layer of the massive walls to the start of a circuit through the abbey grounds. Supported on single inclined columns resting on beaten earth below, the walkway is detached from walls on either side; and since the floor is transparent you have the impression of being suspended on nothing – on light (for the structure is illuminated from beneath) and air – floating between the weight and density of stone. (Ricciotti likens the experience to stepping across a vision of the underworld.) As the walkway passes between great arches in the wall, and outside to ground level, it turns into a glass balustraded bridge.

The ephemeral versus the substantial is a recurring theme. Fibre-optic bundles fed into a water channel carved into the wall of the entrance hall diffuse unearthly blue light; and van Lieshout's lavatories, contained in coloured pods in a separate and miniature vaulted building, emit ghostly coloured luminance.

P. M.

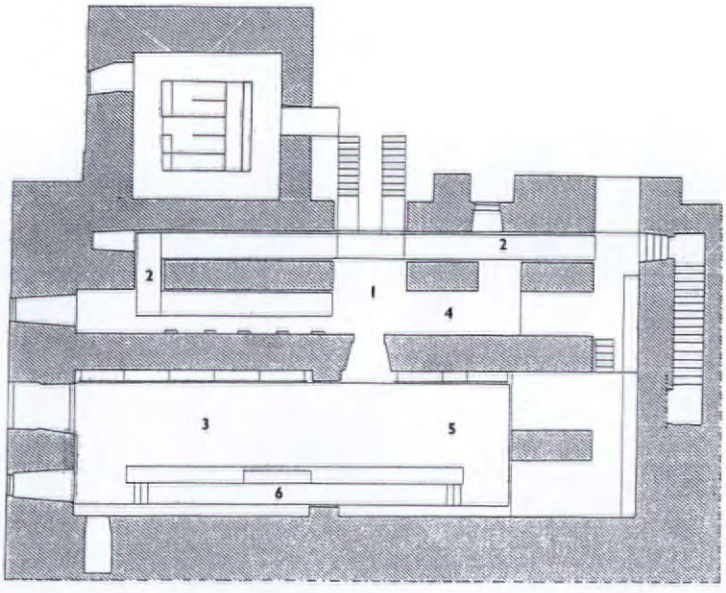
* Society for the Protection of Ancient Buildings, founded in 1877 by Philip Webb, William Morris et al.

4



1 entrance
2 walkway
3 reception space
4 slide projection
5 shop
6 ticket desk

axonometric



ground floor plan (scale approx 1:250)

VISITORS' CENTRE, ARLES, FRANCE
ARCHITECT
RUDI RICCIOTTI

Architect
Rudy Ricciotti Architecte, Bandol
Project architects
Rudy Ricciotti, Frédérique Pyra with François Deslaugiers
Project artists
Elisabeth Cresseveur, Joep van Lieshout
Photographs
Philippe Ruault 3, 4, 5
Serge Demailly 1, 2, 6, 7

4
Walkway is threaded lightly through the massive masonry structure.
5
Vaulted reception space anchored by a long low desk made of green polyester glass resin.
6
Entrance to reception space.
7
Ticket collection booth.

Raw discipline

Design of an apartment in a Toronto warehouse expresses the owner's desire for a disciplined existence, and the architect's love of sensual austerity.

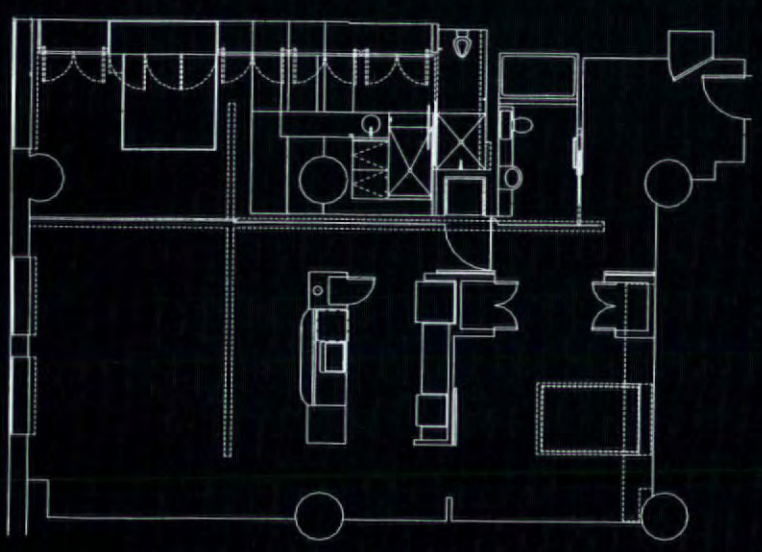
A penitentiary is defined as a place for punishment, for reform, but most of all, a place to inspire discipline. When Eric Yolles (son of renowned Canadian structural engineer Morden Yolles) asked designer Johnson Chou to 'think penitentiary', he was concerned primarily with materials – that his apartment would contain no embellishments or gratuitous flourishes. Yolles may not have realized it at the time, but by specifying penitentiary he opened more possibilities than simply working with raw materials (often a given in contemporary loft design); he invited Chou to discipline his space – to create an environment that would inspire and order, define and clarify the way he lives. Housed in a converted warehouse in downtown Toronto, the 185 sq m volume was a conventional strip with industrial windows at one end. Exploring the notion of surveillance implied by the demands of a prison aesthetic, Chou removed non-structural walls and divided the resulting volume with one large sandblasted glass screen. Space was layered by means of sliding partitions at times inset with sections of clear glass so that one part of the apartment is transformed while another is glimpsed. The largest of these partitions – a dramatic section of stainless steel – separates bedroom from living room; the adjoining translucent glass panel incorporates a strip of clear glass which allows you to see the sunken slate bath from the living areas. Experimenting with the act of viewing, Chou has turned the bathroom into a stage set for self-conscious performance.

Making furniture and fittings an integral part of interior design is an essential part of Chou's philosophy; it constitutes what he calls the 'narrative of habitation'. In this flat, the aluminium-clad bed is cantilevered from the wall so that it appears to hover in mid-air. Aluminium floor-to-ceiling storage cupboards span the entire length of the bedroom, holding and hiding all of Yolles' belongings.

Chou's seamless design demands order and an ascetic way of living. He creates simplicity, but also a serenity that derives from harmonious proportions and materials.

Though bare and elemental, liberal use of aluminium and concrete lends a particular glow to the interior, one specific to the materials themselves. Subtle nuances and reflections in slate and metal are revealed by illumination, which playing off surfaces lends a sculptural, ephemeral quality to the bed and free-standing washstand, their austerity and refinement recalling Donald Judd's sculpture. Using luminance as a theatrical element, Chou has employed halogen and fluorescent luminaires in a variety of ways to re-define space and create mood. In two sculptural gestures, recessed fluorescents cross the ceiling, and luminaires underneath low slate stairs create a subtle glow, in softer contrast to material severity.

In relinquishing control of his environment to Chou, Yolles has received more than ordered,



plan (scale approx 1:150)

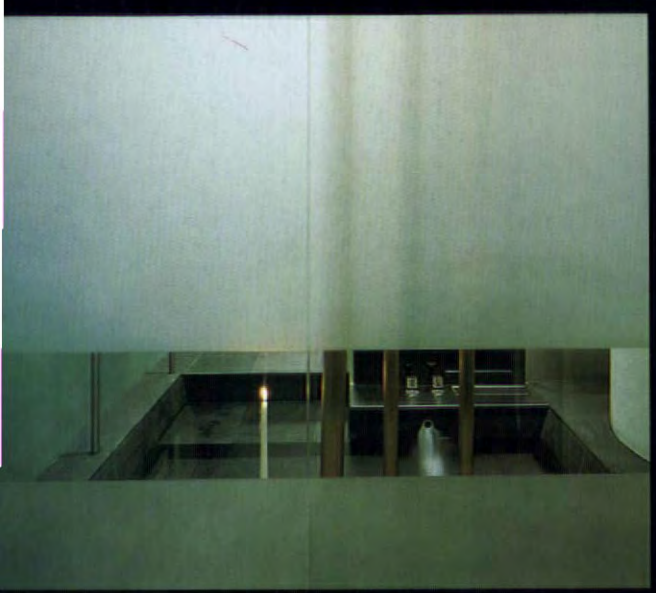
3

practical living. By designing every aspect of this apartment, from the arrangement of space down to details, like a bedside command module in sandblasted glass (sliding open to access light switches, thermostat, telephone), Chou has injected hedonism to create a penitentiary that is ultimately close to theatre. CARLY BUTLER

Architect
Johnson Chou, Toronto
Project team
Johnson Chou, Steve Choe, Michael Lam
Metal fabricators
Serious Stainless
Tredegar Kennedy
Millwork
Highgate Fine Cabinetry,
Lee Custom Millwork
Glass
Proto-Glass
Interior construction
Chiltern Contracting
Photographs
Volker Seding

1

2



4

Apartment, Toronto, Canada

Architect

Johnson Chou

1
Stainless-steel sheet separating bedroom and living room ...
2
... slides back so the two volumes can be made one. Recessed fluorescents cross the ceiling.
3
Full-height cupboards, clad with aluminium panels; furniture designed by the practice.
4
Panel inset with 250mm strip of clear glass to reveal sunken slate bath from living room.

The addition, by Simon Conder Associates, of a crystalline box to one side of a large nineteenth-century house in Canonbury, north London, transforms the ground floor confines of the old building and creates a new garden room.

The client owns the two lower floors of the house which faces south onto a tree-lined street. To the west of it there is a free-standing double garage. Between house and garage there was a gate and narrow path which led into a rough yard, rendered sunless by a tall hedge and large sycamore tree. Beyond the yard was a large mature garden, effectively screened from the street. There was little connection between the interior of the house and the grounds, for the main living room is one level up and at the front, street-side, of the building.

Since the client spends much of his time in the garden, particularly in summer, he asked SCA to design an extension giving directly onto the garden. In addition, he wanted a new utility room and entrance hall linking the new room to the existing building. The yard, which was next to the kitchen, was the obvious site. Its position, next to the kitchen, suggested easy links between a garden room, house and street, and building on it would leave the garden unscathed.

1
Passage from street mediated by series of iroko screens.
2
Garden pavilion at night; main house to left and garage to right.

Garden parti

A garden pavilion uses High-Tech vocabulary to create a transparent garden room, mediating between leafy exterior and nineteenth-century house.

ar house

EXTENSION, CANONBURY, LONDON

ARCHITECT

SIMON CONDER ASSOCIATES

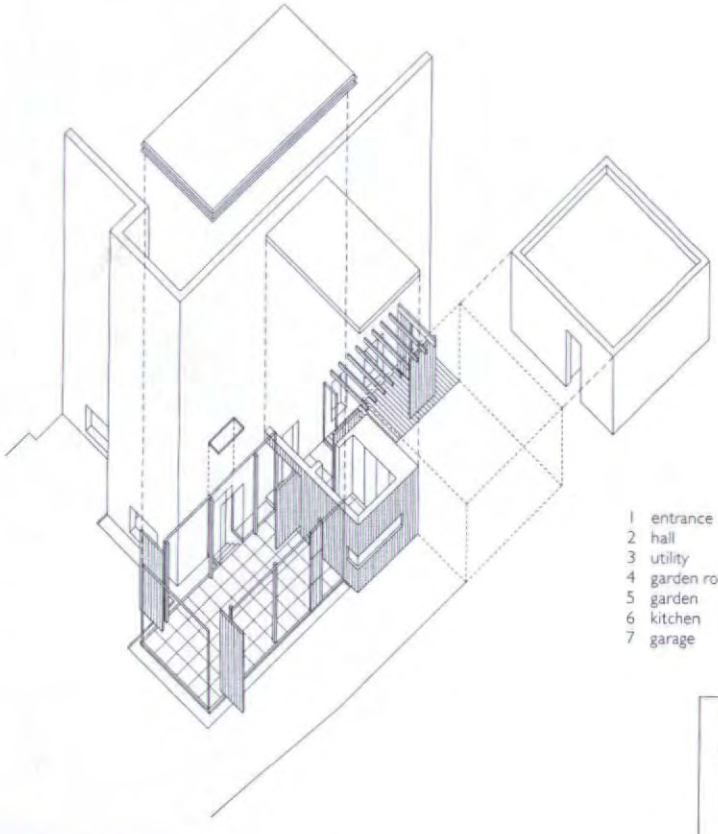
SCA's room is a sheer glass box, 3.6m wide x 7.2m long, and 3.0m high, built on a concrete slab underneath the sycamore. Initially, the architects wanted to glaze the roof, then they realized that in summer the tree would deposit an unsightly sticky glue on the surface. Instead, the roof is a composite steel and timber deck with a steel edge beam, supported on six 100 x 100mm steel columns. Flat and solid, and finished with concrete paving slabs, the roof adds a new terrace to the upper level of the house. Full-height, double-glazed sheets brace the structure and barely divide interior from exterior.

Passage from the street, mediated by a series of three iroko screens, has been elegantly contrived to reveal the new building and garden by degrees. From the street, all you see of the new building as you approach is the first screen. It pivots to let you into a raised (iroko) deck that runs, striped with light, below a pergola to the front door.

This is a replica of the first screen and leads to a low hallway with the new utility room on the left. Beyond, is the third screen which swings open to reveal the secret garden, seen through the transparent walls of the new garden room.

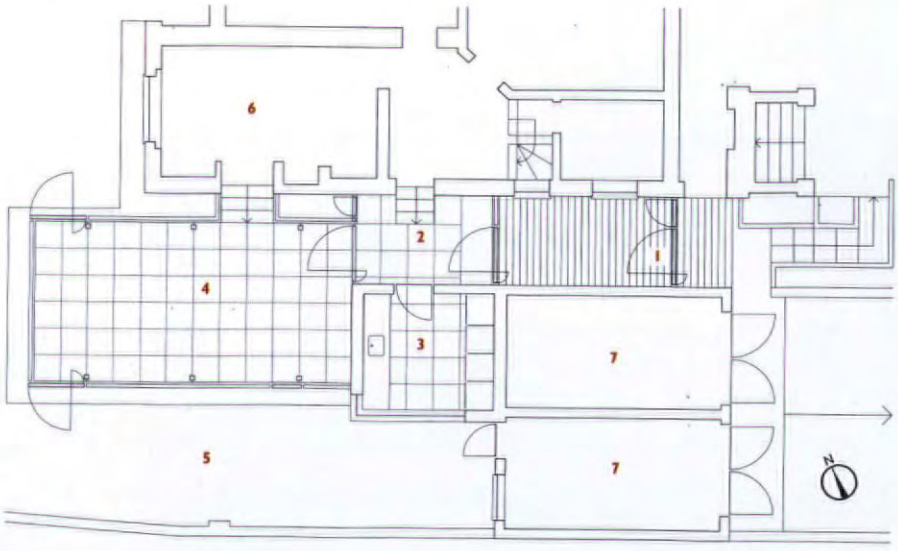
3

3
Through full-height pivoting door to garden; full-height double-glazed walls brace the structure.
4
From pavilion north-east to garden; furniture, austere and refined, by the practice.
5
From garden to pavilion; garage on right.



axonometric

1 entrance
2 hall
3 utility
4 garden room
5 garden
6 kitchen
7 garage



ground floor plan (scale approx 1:180)

EXTENSION, CANONBURY, LONDON
ARCHITECT
SIMON CONDER ASSOCIATES

4

Transparency and luminance were keynotes of the room's design. Glass walls are frameless (as are the iroko doors and ventilation panels), with the usual stops and seals being incorporated into the end of double-glazing units to reduce sightlines to a minimum. Cool north light is reflected off limestone flags paving the floor and off-white plastered walls and ceiling. PENNY MCGUIRE

Architect
Simon Conder Associates, London
Structural engineer
Dewhurst Macfarlane
Contractor
Deefor Quality Refurbishments
Photographs
Chris Gascoigne/VIEW

5

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Design Metis

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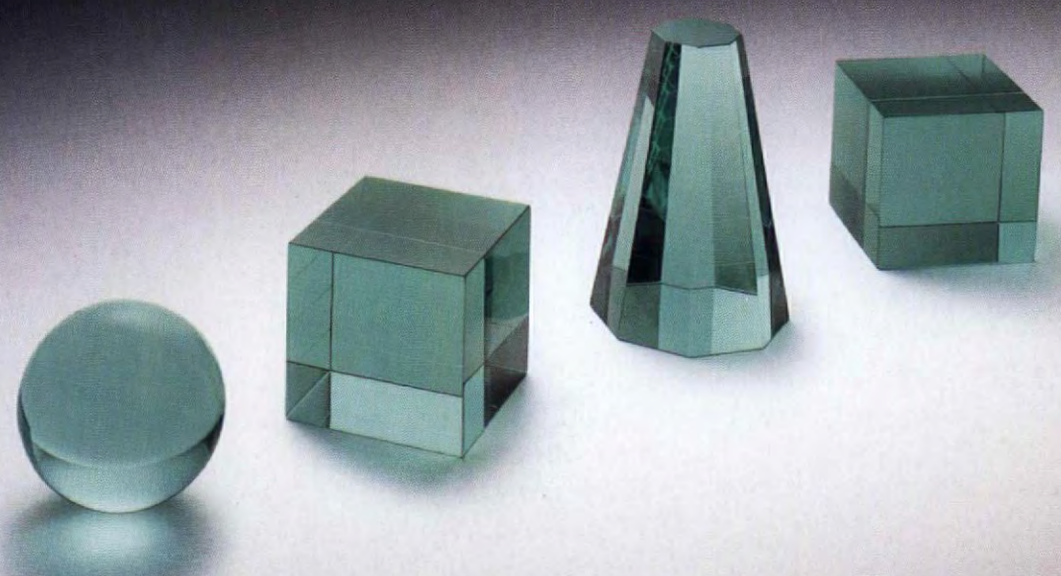

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501

The latest developments in lighting and luminaire design surveyed by Susan Dawson.

501 MODULAR LIGHTING
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502

502 CONCORD:MARLIN
Custom made lighting by Concord:Marlin was installed in the recently refurbished Waterhall Modern Art Gallery, Birmingham, UK. The main gallery space has rows of cast-iron columns supporting ornate barrel vaults, each more than 3m wide. Due to conservation concerns, only the end walls and cross beams could be used for support. A triangular uplighter trough formed from Concord track houses T5 lamps; it is supported by delicate 'gull-wing' brackets, carrying Torus 100 and Torus 50 spotlights. The brackets are attached to the walls with cables.

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WORLD HEALTH ORGANIZATION
CH-1211 GENEVA 27 – SWITZERLAND

DESIGN CONSULTANT FOR DESIGN OF A 400-BED HOSPITAL IN SULEIMANIYEH GOVERNORATE, IRAQ

Request for Expressions of Interest

The World Health Organization (WHO) has been requested by the UN Office of the Iraq Programme (UNOIP) to procure the design, construction, equipping and initial provisioning of a new 400-bed hospital in the Suleimaniyeh Governorate in northern Iraq. The project is to be founded under the UN/Iraq "Oil for Food Programme."

SCOPE OF WORK

WHO wishes to appoint a "Design Consultant" to design the new hospital, prepare tender documents and assist the Project Co-ordinator and Project Manager with the management and administration of the Project.

EXPRESSIONS OF INTEREST (EoI)

Companies submitting EoIs must have:

A proven successful and currently available team, capable of designing new hospital building with all services, landscaping and preparing tender documents to appropriate international standards;

A well-established and sound financial base;

Substantial experience and suitable staff skills in design and supervision/administration of large construction projects including hospitals. Experience should be international, including in the Middle East;

A list of references and comparable assignments, undertaken within the last 10 years (or in progress), including the location of each comparable assignment, its size in US dollars and length of time from design consultant appointment to completion of construction.

Prior experience in collaborating with UN Agencies or other international organisations, while not essential, would be considered advantageous.

Companies who wish to be considered for tendering are requested to provide, in no more than four A4 pages, sufficient information to enable WHO to assess whether the above requirements have been met. A copy of the latest annual report should also be included.

Tenders will be invited only from companies who, based on an initial assessment, are considered to be capable of the successful execution of the project. An invitation to tender will not imply any acknowledgement or acceptance of suitability or capability to undertake the assignment. The final selection of a Design Consultant will not be on price alone, but will also be based on technical merit.

WHO reserves the right, in its sole and absolute discretion, to determine which (if any) of the companies submitting an EoI will be invited to submit a formal tender.

Companies submitting an EoI will be expected to bear any and all costs and/or expenses they incur in preparing and submitting their EoI. WHO is not in a position to contribute to and/or reimburse any such costs and/or expenses.

EoI must be submitted in English to: World Health Organization, Attention: Director IRP, Avenue Appia 20, 1211 Geneva 27, Switzerland. Fax: +41 22 791 4809, Email: vanschooneveld@who.int Please quote Ref. IRP-EoI-DC-AR.

Deadline for receipt of applications: 18 March 2002.

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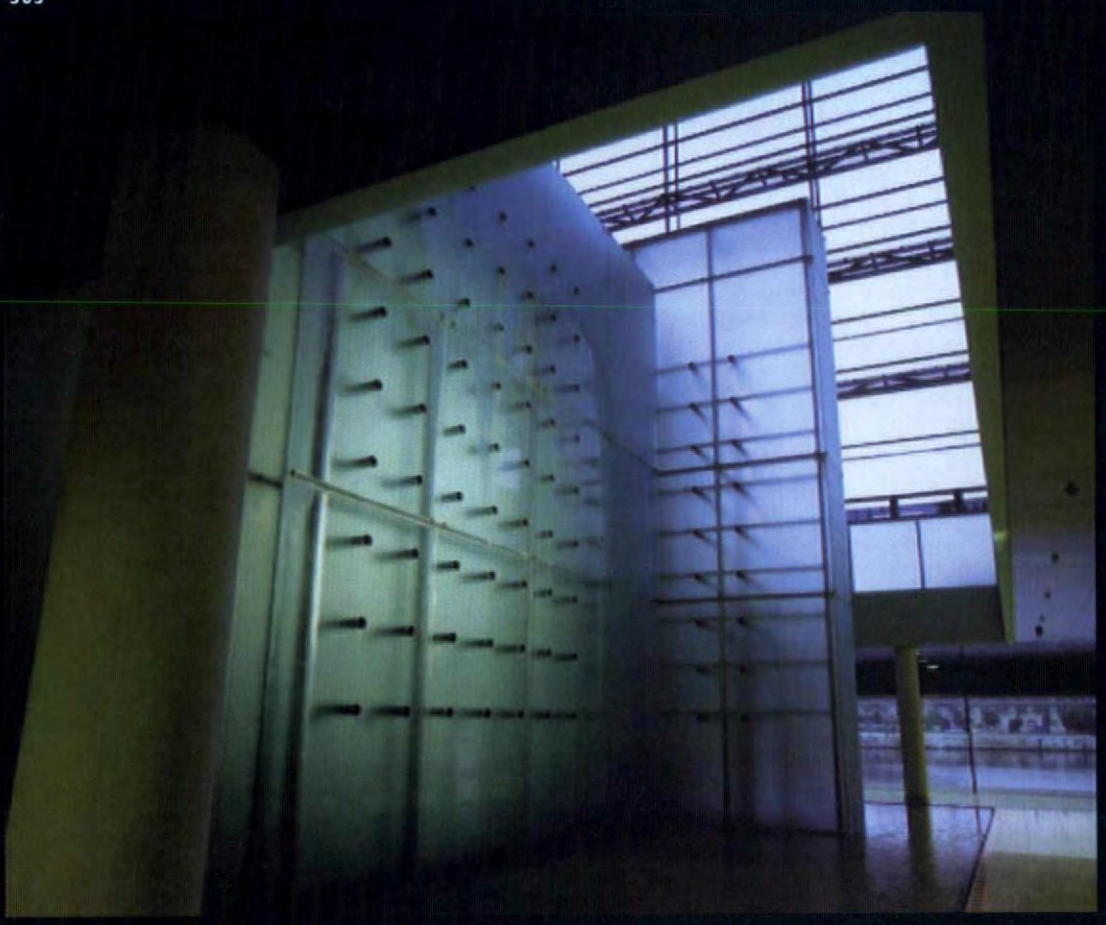
503



503 MARTIN
The new head office of Nykredit, designed by architect Schmidt, Hammer and Lassen, is a striking new building on Copenhagen's waterfront. The glazing on the north-east and south-west facades is defined by 24 horizontal ribs of granite, two per floor. By day these ribs frame the glass and emphasize the transparency of the structure; at night this appearance is maintained by means of a lighting scheme of 32 Exterior 600 luminaires. The Exterior 600's CMY colour system allows unlimited choice of colouring with smooth, slow fades; it can respond intelligently to the ever-fluctuating levels of natural light, so that the building is never over-exposed. Fixtures are recessed in purpose-designed wells set in the public walkway.

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504

504 TRILUX-LENZE
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FIACCO

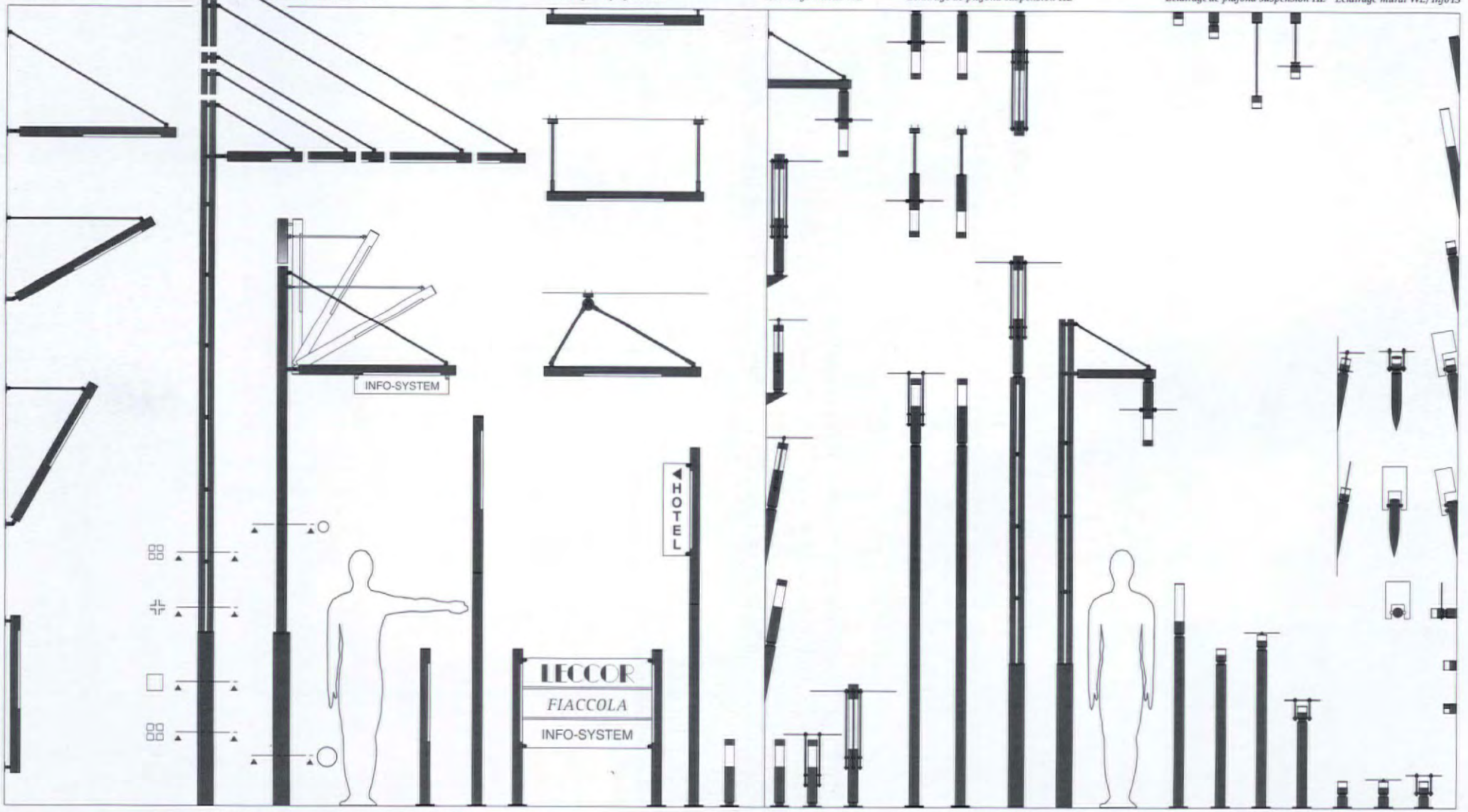
Wandleuchte WL
Wall light WL
Eclairage mural WL

Decken-Hängeleuchte HL
Ceiling suspended light HL
Eclairage de plafond suspension HL

FIA

Decken-Hängeleuchte HL
Ceiling suspended light HL
Eclairage de plafond suspension HL

Wandleuchte WL/Info IS
Wall light WL/Info IS
Eclairage mural WL/Info IS



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Eclairage de balisage/sur tube SRL

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Bollard light PL
Eclairage de balisage PL

Standrohrleuchte SRL
Standpipe light SRL
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505

505 MARTIN
Alien O5 recessed colour changer has a wide range of replaceable tints creating new opportunities for indoor illumination. The die-cast aluminium fixture has adjustable spherical head which can be angled to any position while maintaining a beam angle of 55-degrees. It can be used as a recessed ceiling fixture, or be positioned in a wall as uplight, downlight or sidelight.

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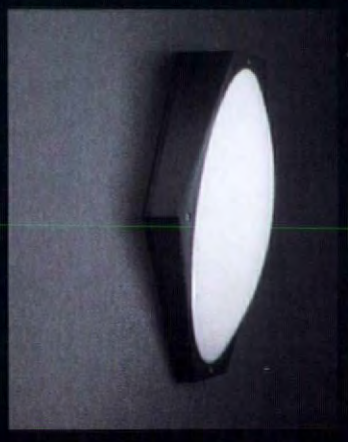
506



506 GHIDINI
Desy is a luminaire designed for exterior lighting which could also be used in interior spaces. The support frame is in die-cast aluminium, painted black, grey or white. The polycarbonate diffuser is slightly sandblasted to diffuse the light. Various accessories are available to modify the appearance and to allow it to be safely used outdoors.

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509

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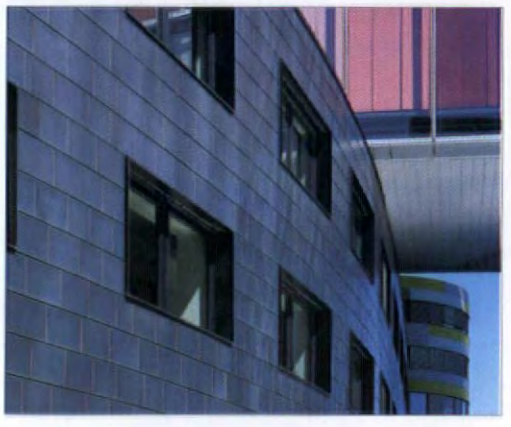
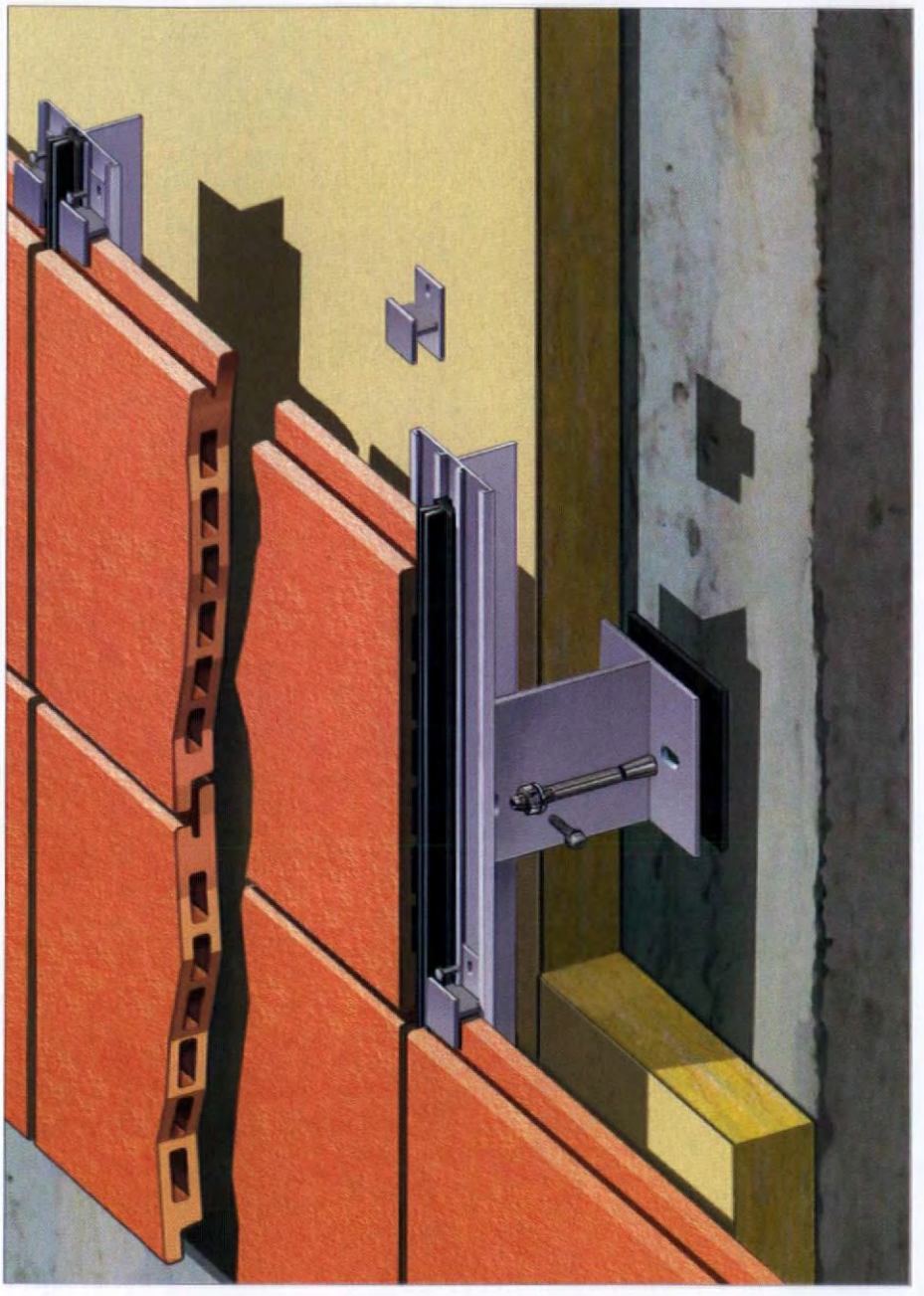
510

ARCHITECTURAL TERRACOTTA





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Specifier's information

North 4 Design

Vision panel specialist North 4 Design has added a 30-minute fire integrity to its expanding range of vision panels for doors and walls. Finished in brushed stainless steel with a choice of glass and fixings, they provide an attractive solution to functional vision requirements. All vision panels are designed for simple installation and are supplied as complete kits. A custom etching/signage service is also available.

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Louis Poulsen

The LP Charisma pendant from Louis Poulsen Lighting has been awarded the Danish Design prize 2001 in the category 'Product design/Building and the workplace'. The pendant was created for lighting of open-plan settings in both old and new buildings. The jury's comments were:'Instead of hiding the cylindrical metal halide lamp and its ballast, LP Charisma makes a visual virtue of its technical construction. The design is pronounced, clear and honest, literally allowing us to look into its very heart.'

901 www.arplus.com/enq.html

Oval 316

Foster and Partners has designed a new station, the first stop on the Mass Rapid Transport system from Singapore's Changi airport. Passengers at platform level can look down through a well to the concourse below; they are protected by means of a toughened glass balustrade topped by an Oval 316 stainless-steel slotted tube handrail, with a satin polished finish. Oval 316 was originally developed for use in luxury yachts but its qualities of superior durability, finish and appearance have led it to be adopted for other applications.

902 www.arplus.com/enq.html

Laukien

Stainless steel has been used in several innovative ways on the facades of the Fördetower, a new six-storey new office building in Kiel which overlooks the harbour. The west facade has been clad with smooth stainless-steel panels anodized to a light purple tint. The panels on the east facade are ribbed and dimpled but retain their polished finish. They are fixed to a robust supporting structure with bolts, reflecting the construction of an old bridge which runs alongside the building.

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AceFolio

Acefolio is a digital project portfolio management company. It offers subscribers an online library for 20 to 2000 projects, each with 10 high quality images. Self-administered with simple instructions, the system includes web publishing and digital brochure creation tools for effective showcasing, and offers considerable savings in DTP costs. A Hi-Res version handles print quality images. A free global Directory permits any practice to add 3 projects of up to 5 images each.

904 www.arplus.com/enq.html

Jotun Paints

The Eiffel Tower is to be repainted by Jotun France, following a three year test programme which indicated that the Jotun Mammut high-build alkyd based protective system was the best on offer for the project. Designed for the protection of structural steelwork, the system consists of Mammut primer and Mammut topcoat, each of which can be applied in a single coat. Together the two products form a system which is certified not to spread surface flame.

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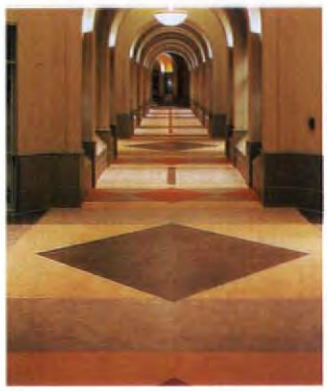

Forbo-Linoleum

Forbo-Linoleum has two new brochures for the specification of floor coverings in indoor and outdoor environments. Both publications deal in depth with issues such as health and hygiene, sustainable raw materials and life-cycle analysis. *Taking care of the environment* describes the commitment of the company to taking care of the environment and summarizes life-cycle assessment studies, from raw materials to waste management. *Our indoor environment* focuses on the role of floor coverings in reducing the impact of allergens such as house dust mites and bacteria.

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Sarnafil

The Utah Olympic Oval in Salt Lake, US, hosting the 2002 speed skating event, has a cable-suspended roof structure 1200 tonnes lighter than a traditional truss solution. It is covered with nearly five acres of solar reflective white Sarnafil PVC-P membrane over a SarnaTherm PIR thermal insulant. The roof surface is emblazoned with Olympic insignia using Sarnafil multi-coloured roof graphics.The building is one of 19 worldwide to get a LEED award by the US Green Building Council. The LEED rating system evaluates environmental performance over the life cycle of the building.

907 www.arplus.com/enq.html

ORNAMENT ISN'T CRIME

SULLIVAN'S CITY – THE MEANING OF ORNAMENT FOR LOUIS SULLIVAN

By David van Zanten. London: W. W. Norton & Company. 2001. £40

LOUIS SULLIVAN – THE POETRY OF ARCHITECTURE

By Robert Twombley and Narciso G. Menocal. London: W. W. Norton & Company. 2001. £30

Understanding Louis Sullivan had been made difficult, at least for me, by three apparent obstacles – first, the image of him as a bitter and disappointed John the Baptist (born only to make the way clear first for Frank Lloyd Wright and then for Mies van der Rohe and Walter Gropius) that emerges in Giedion's *Space, Time and Architecture*; second, his strained, Whitmanesque, and diffuse prose style – for example, the generalities that often cloud the narrative of *The Autobiography of an Idea*; and, third, by what seemed to me for a long time, I now believe for the wrong reasons, the outlandishness and over-elaboration of his decorative schemes – the equivalent in design terms of his over-strained writing.

I simply couldn't relate Sullivan's tendency to graphic and verbal abstraction with his much more obviously masterful architectural contributions: the Lieber Meister's early reputation as 'the nation's most innovative high rise designer', and particularly the ease and conviction with which he reconciled vertical and horizontal themes in the high office buildings he designed in the last two decades of the nineteenth century. The essays in these two very well illustrated and attractive books fill many gaps, clear up much of the mystery, and make it possible to understand how this very great architect's intellectual milieu shaped his designs. Studying these books has led me to make three resolutions.

The first is to stop thinking of Sullivan as primarily an architect of tall office buildings. His work is much more versatile and more interesting – as the 'mixed use' programme for the Auditorium building had already demonstrated as early as 1890 and his later work on low-rise banks and houses, so well described in David van Zantem's synoptic book, very clearly demonstrates. In fact, it becomes very clear from Robert Twombley's more analytical essay, 'A Poet's Garden', that Sullivan's early achievements in the design of tall office buildings have to be reconciled with his growing concern for a more diverse and amenable urbanism than late nineteeth-century Chicago and certainly New York were ever able to represent. Twombley explains how Sullivan was unable to hide his growing antipathy for unbridled entrepreneurialism, for example, in his inability to satisfy both 'the public welfare' (terms he used in a 1891 newspaper essay) with 'the landlord's right to build as he chooses'.

Such high principled concerns about urbanistic and social issues seem to be a more probable and a more challenging explanation of Sullivan's relative failure as a commercial architect in the latter part of his career than the stylistic shift that Giedion proposed. The second resolution stimulated by these two books is to take Sullivan much more seriously as a serious, sensitive, intellectual architect working within a very particular social and political context. The contradictions in democratic society that he saw emerging around him in the rapidly developing Mid West were obviously much more striking and important to him than to his probably more limited and certainly less articulate architectural contemporaries.

The third resolution is to have the patience to appreciate Sullivan's decorative schemes according to his own terms of reference. All three authors insist that decoration was completely integral with Sullivan's architectural ideas. The highly controlled contrast between architectural mass expressed by plain materials, such as brick or stone, and the organic, often polychromatic complexity of the iconographic schemes is not accidental or wilful. Not only are such schemes impressive when well photographed (as they certainly are in both these volumes) but they also shed considerable light on Sullivan's struggle to synthesize in his work a range of ideas drawn from such varied sources as Swedenborg and Herbert Spencer. An example of this kind of analysis is Twombley's discussion of the social and democratic ideas that Sullivan used to underpin the decoration, inside and out, of the exquisite series of bank buildings he designed in small towns in Ohio and Iowa between 1905 and 1920. Narciso Menocal's more complex analysis of the meaning of Sullivan's iconography from the Getty Tomb (1890) onwards describes the architect's attempts to create a new, organic and developing architecture, in which for him the process of resolving deep human and psychological conflicts was as important as the thing designed.

These impressive books illuminate not only a very important, complex and sophisticated body of work but also something of the context within which it was created. It certainly isn't true to say that Sullivan has ever been forgotten but it may very well be the case that the colourful and tragic surface of his rollercoaster career – and perhaps a certain condescension on the part of his successors and critics – have obscured for almost a century his full significance as an architect and intellectual.

FRANCIS DUFFY

GRIMP IN MIRE

HOW ARCHITECTURE GOT ITS HUMP

By Roger Connah. London: MIT Press. 2001. £11.50

'Hijack' is Roger Connah's favourite word. This book is supposed to be about the way contemporary architecture has hijacked (or possibly been hijacked by) other disciplines such as film, photography, drawing, philosophy and linguistics. Reference is made to all the usual philosophers and theorists – Bachelard, Barthes, Derrida, Deleuze etc – but also to literary figures such as Laurence Sterne, Samuel Beckett and Rudyard Kipling. It sounds intriguing and the title, derived from one of Kipling's *Just So Stories*, 'How the Camel Got its Hump', leads one to expect something lighter and more playful than the standard product of the architectural theory industry.

Unfortunately the book seems to be written in a private language and is virtually unintelligible. At first one gives it the benefit of the doubt, assuming that it is merely difficult, but after a few pages it becomes clear that this writer is not interested in his readers, or at least is interested in them only as a wondering, uncomprehending but admiring audience.

Wondering and uncomprehending yes; admiring no. This writing is so bad it simply doesn't communicate. Occasionally the silhouette of an idea can be made out in the fog, but then another non-sequitur or mixed metaphor, another empty rhetorical question or meaningless chiasmus drifts across the page and restores the perfect obscurity. The following sentence is fairly typical: 'What might, then, we have in mind for an undressed architecture caught between Deleuze's movement-image and a liquid architecture, including sotware [*sic*] projections, communing deep structures and formative myths only with ourselves.' Sort that one out. The many typographical errors are perhaps understandable. Pity the poor proof reader (like the poor reviewer) having to grope their way through this stuff. What this text needed, at the very least, was a really tough editor. It doesn't seem to have been edited at all. Indeed one wonders if it was even read.

COLIN DAVIES

ORNAMENT – BASIC PLEASURE?

THE LANGUAGE OF ORNAMENT

By James Trilling. London: Thames and Hudson. 2001. £8.95

Who outlawed ornament? How is it that the Berlin Wall of Modernism has come down and yet we are still denied the most basic pleasure

of pre-totalitarian architecture? James Trilling is the ideal person to answer these questions. He stays calm when many would rant at the sheer gall of those who have imposed an architectural burka on us all for a century without even the threat of Hell. He shows how, in the nineteenth century, machines allowed intricacy to outrun taste and invention, which naturally gave rise to William Morris and his 'hempen homespuns' and subsequently to Adolf Loos's famous essay 'Ornament and Crime'. He even has good words to say about Modernist ornament – basically patterned marble sliced up in a 'truth-to-material' sort of way and stuck on the wall in a 'less-is-more' kind of arrangement. But Trilling shows that, while there is much to admire in the architecture of Adolf Loos et al, there is really no reason to listen to a word they say. If only everyone read this admirable book they would be convinced of this sensible conclusion and have a magnificently lucid and sensitive account of the entire history of ornament thrown in.

Trilling is optimistic that we can put the twentieth century behind us and get back on track engaging with something which has delighted all civilized societies since Palaeolithic times. I wonder. As he himself says, 'It is easy to slip into doubt, and wonder if even the most assured of today's makers [of decorative objects] might not simply be doing their best with a bad legacy, one that robbed them of the training and even the ambition to make full use of their talents'. DESMOND SHAWE-TAYLOR

NAZI OR WHAT?

HEIDEGGER'S PHILOSOPHY OF ART

By Julian Young. Cambridge: Cambridge University Press. 2001. £35

Martin Heidegger was a functionary of the Nazi party from the early 1930s until the end of the War; nearly all discussion about him nowadays, both on the part of philosophers and by others, inevitably seems to revolve around his various attempts at disassociation from Hitler that followed the nemesis of Nazi Germany.

Julian Young has written an excellent and lucid account of Heidegger's thinking about art and the way in which it varied through the second half of his life. Young's principal text is not, in fact, *Building Dwelling Thinking*, but the pre-War *Origin of the Work of Art*; this is here contrasted with Heidegger's later preoccupation with modern artists, particularly Klee and Cézanne, which seems to have been neither natural nor comfortable but somehow a personal obsession, quite detached from modern art in general; later texts centre around the breaking out of the individual, on the smaller gods, on serenity.

It is in this way that one can perhaps analyze the consistency and application of some of his earliest thinking. Some of those concepts – such as that of constant agitation, the artwork establishing the 'primal battle', now seem (certainly to those of us closer perhaps to politics than to philosophy) classic fascist ideas; others, such as thoughts on the artwork which acts as a gateway to a world-understanding, make one think of the tragic irony of artists such as the sculptor Ernst von Bärlach whom the Nazis outlawed because he achieved, presumably, exactly that. This book is for the architect a fascinating way of probing the relationship between thought and political action. I have not read Young's earlier Heidegger, Philosophy, Nazism but I now hope to do so. It is a mark of Young's success that he has made so terrible a subject so accessible to a lay audience.

TIMOTHY BRITTAIN-CATLIN

BOTANICAL ABSTRACTIONS

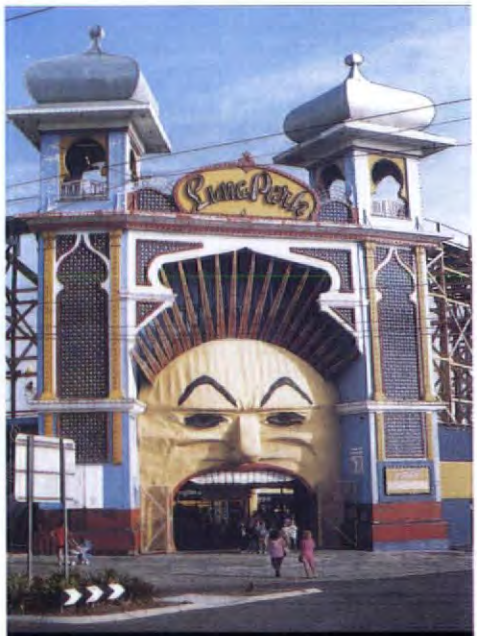
ROBERTO BURLE MARX: THE LYRICAL LANDSCAPE

By Marta Iris Montero. London: Thames and Hudson. 2001. £29.95

It is 10 years since the publication of the last book about Burle Marx. An artist with many talents, painter, sculptor and musician, he disliked writing about his ideas. Thus his colleague, Marta Iris Montero's book, starts by explaining 'what he was like, how he worked and how he thought' in early chapters on his life, art and landscape.

His fascination with botany started in 1928, when he was an art student in Berlin. In the Botanical Gardens of Dahlem he saw the extraordinary tropical plants of his native Brazil for the first time (such plants were spurned by the fashionable European gardeners then working in Brazil.) After his return in 1929 he began to work with Lucio Costa and Oscar Niemeyer whose new architecture drew references from the landscape and history of Brazil rather than Europe. Marx's use of native plants in appropriate ecological groupings, in conjunction with South American cultural artefacts provided ideal landscape settings for their buildings. In 1949 he established his own garden at St Antonio de Bica (now the Burle Marx Foundation) which included a nursery for the indigenous South American flora which he discovered on his many plant collecting trips to the interior.

The second part of the book is devoted to details of 26 of his public and private landscapes. Unlike previous publications, it includes many plans (some redrawn from Marx's vanished or ruined originals) which show that the gardens are almost literally 'paintings made of plants'. Monochrome blocks, representing single species planting, undulate in sinuous curves of primary colour reminiscent of Miro or Arp. Many of the photographs are taken from high viewpoints, and show how the combination of sculptural plant forms and strong geometric paving patterns mean that landscapes can be appreciated from tower blocks or motorways, so often part of the South American context. ELIZABETH YOUNG



Luna Park, Melbourne: sun imagery as part of the landscape of pleasure. From *Here Comes the Sun*, by Ken Worpole (Reaktion Books, London, £22), a spirited and provoking study of the attempts by early twentieth-century architects and planners to transform the world into a sunny, happy classless Utopia. Worpole focuses on the spaces between buildings, and is particularly penetrating in his discussions of Scandinavian public parks descended from Tivoli.

DESIGNER DISASTER

RADICAL LANDSCAPES

By Jane Amidon. London: Thames and Hudson. 2001. £29.95

Although this is a terrific picture book it could have been a terrific book. There are two problems. One is the text, the other the idiotic design – lots of totally meaningless diagonal lines and demented cut-outs dropped in irritating positions on potentially really nice and informative photos. At the back there are columns of text columns which slope in silly directions for no very good reason and naive angular doodles meander across the background. We all know that book designers never read the grey matter making up that boring

stuff we readers call text, but this person has decided to interpose ridiculous 'artistic' lines all over the place. You want to ring up Thames and Hudson and find out where the designer lives. The trouble is that the publishers themselves haven't been all that interested in the text. In the old days Thames and Hudson were very good about editing. If this is anything to go by, they have given that kind of non-revenue-generating thing up.

SUTHERLAND LYALL

URBAN. WHY?

THE URBAN LIFEWORLD: FORMATION, PERCEPTION, REPRESENTATION

Edited by Peter Madsen and Richard Plunz. London: E & FN Spon. 2001. £19.99

The contributions to *The Urban Lifeworld: Formation, Perception, Representation* range from a philosophical discourse on the nature of the lifeworld, via a discussion of musical theatre, an outline of the planning process in Copenhagen, to a discourse on the contradictory phenomenology of New York, from an essay on the Ashcan school of artists to an analysis of the work of Steen Eiler Rasmussen. Most notable among them are those by Gwendolyn Wright on domesticity in postwar New York, Peter Marcuse on the layered city and Jens Kvorning on the changing patterns of urban life in Copenhagen. If one or another contribution stands out, it is to the credit of the editors that unlike so many compendia, articles are generally interesting and well conceived.

At the same time though, there is little sense as to why the essays are together in the same volume: the urban lifeworld is anything from a Jenny Holzer arts installation to the fascination of nineteenth-century intellectuals in Boston and New York with the wilderness in upstate New York. In some broader sense the urban lifeworld may be anything that is associated with making and experiencing the city whether materially, in visual representations or written texts. Such a broad approach in single volume without any broader commentary bringing this wide range of subjects together in some way leaves us with a mélange of disparate elements rather than a stew of blended ingredients. We are left asking why make a volume on New York and Copenhagen and what the essays have to do with one another. EDWARD ROBBINS

Pietra dura cabinet (German mid seventeenth century) from *For the King's Pleasure, The Furnishing and Decoration of George IV's Apartments at Windsor Castle* by Hugh Roberts (The Royal Collection, London, 2001, £75), an exhaustive and detailed account (including for instance original specifications and accounts) of the vulgar luxury with which the First Gentleman of Europe surrounded himself.

DO WE DESERVE TO SURVIVE?

ARCHITECTURE IN A CLIMATE OF CHANGE – A GUIDE TO SUSTAINABLE DESIGN

By Peter F. Smith. Oxford: Architectural Press. 2001. £17.99

There is a plethora of primer-type guides to sustainable architecture, and one might be forgiven in wondering if they are all necessary, not because there is any doubt about the urgency of the message they all convey, but because of sheer duplication. Each may be slightly different in approach, format, balance and so on, but the fundamentals remain constant, as do many of the built examples. Is there anything new in this one, published only a few months ago?

First, a book from an authority such as Peter Smith is welcome and deserves to be read for the amount of information packed into its 200 pages. He begins by questioning whether climate change and our present situation is caused by us or is just part of the natural order of things – a rhetorical question, but it provides a foundation for the rest of the book. Much of its content has been said elsewhere, but Smith scores by being so up-to-date with new and exciting developments. He describes where glass technology is going, he sees a bright future in fuel cells, and he is clearly excited by smart materials and the imminent phototonic revolution. 'The end of the world of fossil fuels is at hand and beyond it is the much brighter prospect of the post-hydrocarbon society.' It's great that he is so optimistic.

Is this optimism justified, though? He draws attention to the need to disperse energy production and, like a good portfolio of shares, spread the load out over the many alternative forms of power generation so nearly a practical reality. And yet, we hear hints about a new generation of nuclear reactors. Surely the events of 11 September make this a nonsense, and justify the dispersal approach to energy production if nothing else does. Britain is supposed to be high in the league of energy-saving policy-making. And yet it has been recently announced that energy use in government offices is increasing rather than decreasing due to the growing proliferation of computers and other electrical equipment. Are things really improving, or is it a case of two steps forward and three back?

I don't know the answer and probably I am not alone in this. Despite laudable attempts by many architects – and despite useful books such as this, even with its optimism – I doubt that our human race will pull through, or even deserves to. ADAM VOELCKER

ENGINEERING HAPPINESS

TWENTIETH CENTURY ARCHITECTURE 5: FESTIVAL OF BRITAIN

Edited by Elain Harwood and Alan Powers. London: Twentieth Century Society. 2001. £19.95

BRIEF CITY: THE STORY OF LONDON'S FESTIVAL BUILDINGS

Directed by Maurice Harvey and Jacques Brunius. Massingham Production Ltd. 1952. £9.95

Fifty years ago Churchill's returning government spared little time in removing all traces of the Labour Party's Festival of Britain, and in October 1951 as the Festival Flag fell the South Bank Exhibition Buildings were also hauled down.

In recognition of this, The Twentieth Century Society not only organized a well attended conference, and released on video The Observer's film *Brief City: The Story of London's Festival Buildings*, but have also published a collection of essays that bring together new historical analysis and the recollections of those involved.

Like the Festival itself, when read together the essays are rather eccentric. Brief pieces on fringe events such as Coventry's Godiva Pageant, and references to the Festival's contribution to morris dancing and best kept garden competitions are read in stark contrast to the more weighty contributions of the South Bank and Lansbury Exhibitions.

To an architectural reader, the book is critically light. No explicit attempt is made to place the architecture within it postwar context, and

only passing reference is made to some wonderful experimental pieces – such as the Fairway Café's pre-stressed concrete diagrid roof and the wonderfully precarious 'Carry-Cot' offices. Therefore, beyond the broader stylistic themes discussed in Alan Powers' fine essay, 'The Expression of Levity', the opportunity to discuss specific architectural innovation has been missed.

Despite this, the essays and the film perfectly encapsulate the spirit of the Festival with perhaps the only omission being an editorial conclusion. The Society's recent conference concluded with Simon Sadler's excellent critical comparison with the millennium celebrations. Had the book included this piece we may have been left with more pertinent contemporary questions, rather than just fond memories of the birth of the 'Contemporary Style'.

ROB GREGORY

MODERN VERNACULAR POSSIBLE?

NEW VERNACULAR ARCHITECTURE

By Vicky Richardson. London: Laurence King. 2001. £39.99

New Vernacular Architecture assumes its place among a growing library of books exploring the production and future of architecture after Modernism. Richardson states that '... new vernacular architects express ambivalence about the Modernist notion of progress in society ... Vernacular architecture, or architecture in denial, is perhaps the most appropriate mode of expression for an era that lacks a sense of transformative historic change.'

Thirty-seven building case studies – of arguably varying architectural merit – are grouped by theme into six chapters, each chapter starting with a short essay covering subjects like 'Building with the Landscape' and 'Giving Shape to Identity'. Although at times the book reads like a series of magazines, the case studies contain a wealth of provocative ideas which are subtly developed in the context of the chapter essays. Richardson seems to thrive on this eclectic mix of approaches from around the world, and favours implication through carefully chosen comparison over the definition of a distinct way forward for architecture. Thus, it is suggested that regionalism and globalization are perhaps not as mutually exclusive as may be assumed.

What it means to be 'newly' vernacular is also defined with the broadest of brushes, and eventually one is left slightly bemused with this tenuous concept. Sverre Fehn is quoted as saying: 'The [primitive] architecture works perfectly because it exists in a timeless space. Its signature is anonymous, for it is nature itself.' Fehn's Ivan Aasen Centre (AR September 2001) stands out precisely because it defies what may be theoretically useful, but ultimately become generalized and restrictive labels. The best architecture presented here is certainly not in denial.

BOBBY OPEN

Oslo's was the last in a magnificent series of Scandinavian town halls that started with Martin Nyrop's in Copenhagen. It had a very strange gestation. Arnstein Arneberg and Magnus Poulsson won the competition in 1918, but the building was not completed for 32 years, during which it changed in style from National Romanticism to a kind of abstracted red-brick Classicism. In *The City Hall in Oslo*, Aschehoug, Oslo, Ulf Grønvold, Nils Anker and Gunnar Sørensen chronicle the development and lovingly document the present state of the magnificent building that dominates the harbour and city centre. In 1950, when it was opened, it seemed rather old fashioned and provincial. Now we can see it as a passionate and powerful monument to a people and their city, in which every detail tells a story, and every space has mythic narrative.

UNLOVABLE URBANITY

THE CHOSEN CITY

By Nicholas Schoon. London: Spon Press. 2001. £18.99

Most of us know that every new analysis of urban issues has to repeat facts familiar for decades, and this author endears himself to this reader with his comment that the 1977 Government White Paper on urban regeneration could be mostly repeated without change in 2000. The difference is, he notes, that the old one was a slim, small dull-looking document which cost 80p, while that of 2000, *Our Towns and Cities: The Future*, 'packed with colour photographs, maps and diagrams, looks like a GCSE geography textbook, is about five times as long and costs £28'.

Schoon's book, by contrast, has a lot of grainy black-and-white photos to show the increasingly tatty state of the cities, and the unlovability of the out-of-town dwellings sold by members of the House-Builders' Federation. He notes that some city-watchers argue that since dispersal is inevitable, it would be useful to plan for linear new towns on public transport routes. But he can't understand how those 'clever, thoughtful and extremely well-informed people' could have got it so dreadfully wrong.

One reason why they might have got it right is that they realize that the vast, overcrowded city, accompanied by rural depopulation, was a product of Britain as the steam-powered workshop of the world. Electricity and the collapse of manufacturing industry deflated the Victorian city, while site values inflated. So the workers on whom the city depends, like train-drivers, nurses and teachers, are driven out of the city housing market. Without the unfashionable suburbs, the city economy would collapse.

COLIN WARD

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

EXPOSED BY A RECENT FOREST FIRE, THE PRIMEVAL TOPOGRAPHY OF THESE CATALAN VINEYARD TERRACES HAS A POTENT GRANDEUR SHAPED BY BOTH THE FORCES OF NATURE AND THE HAND OF HUMAN INTERVENTION.

In the Catalan frontier area between Spain and France lie the Pyrenees Mountains. As they approach the Mediterranean, they progressively decrease in height to create the Cap de Creus, a small peninsula. Over time, the wind has eroded the landscape and converted the slate rocks into small fragments. Since the Stone Age, man has sought to tame this inhospitable harsh geology into a habitat for living and working.

From the end of the nineteenth century, the landscape was gradually ordered by the cultivation of vines, from Colliure de la Marenda to Roses Bay in Emporda. Vineyards extend across the terrain, from the top of the mountains down to the edges of the sea. The sweet Banyuls wine – a gourmet's delight – is now produced in one of the few vineyards in which winemaking still takes place, creating an exceptional landscape.

The national park of Cap de Creus partially protects this territory, but the special architectonic beauty of strata is always hidden behind a veneer of Mediterranean vegetation. Last summer, the unfortunate natural catastrophe of a forest fire temporarily re-exposed (for a few short months) this marvellous landscape formed and evolved over centuries.

Vineyard terraces are supported by small retaining walls known as *feixes*, made with the stones picked up during the initial weeding out of the land prior to cultivation. Stones are also used to construct simple square or ovoid volumes called *pedraguers*. The building process is very basic – stones are slightly polished and set without mortar, but the results are powerful vernacular architecture: stairs, ramps, dividing walls, sewers for rain water, farmyards and small protection houses. These single-volume dwellings can house up to ten people and provide an occasional and minimal refuge for vineyard workers.

Eventually, the vegetation will recover. But the spectacle of a landscape reduced to its primeval origins remains a potent memory.

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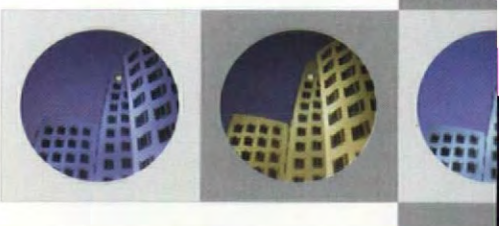

Martin

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