THE ARCHITECTURAL REVIEW

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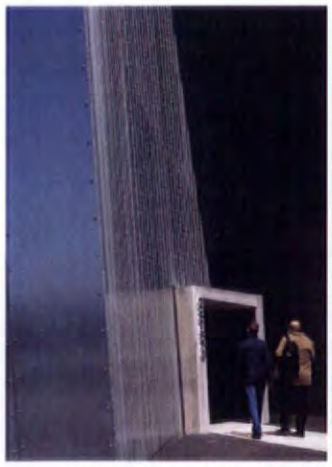
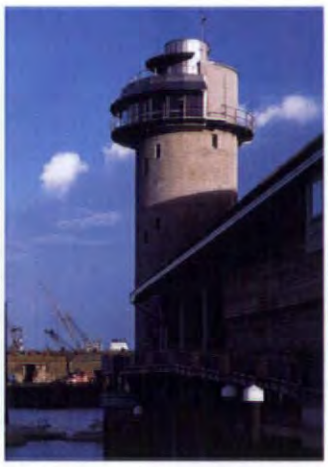

War museum, Salford by Libeskind (p36)


Maritime museum by Long & Kentish (p48)


House in Mexico by Steven Harris (p68)

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The Accelerating Escalator

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Takashi Yumura - Group Manager, Mechatronics Department Lift System Group, Advanced Technology R&D Center

Stretching for Speed

The accelerating escalator is a prototype model.

A revolutionary escalator that moves 1.5 times faster in the incline, thanks to breakthrough link and step technology

The accelerating escalator employs two unique technologies to create the stretching and contracting effect. The links connecting each step stretch automatically at the incline to 1.5 times their normal setting, and then contract to normal at the boarding and disembarking areas. This essentially is the secret to achieving greater speed. Moreover, each step is designed so that gaps will not appear when contracting or stretching. These technologies combine for a smooth, safe ride.

As subways grow deeper and escalators lengthen, there is a strong demand for shortened travel times

The longer the escalator, the more the accelerating escalator proves its traffic benefits. Since the escalator speed is dramatically increased, fewer people will feel the need to walk up the moving escalator, thus reducing the risk of accidents. Furthermore, where safety is critical (for example, in hospitals and homes for the elderly), the escalator can be set to run at a slower speed at the boarding zone.

Contracting for Safety

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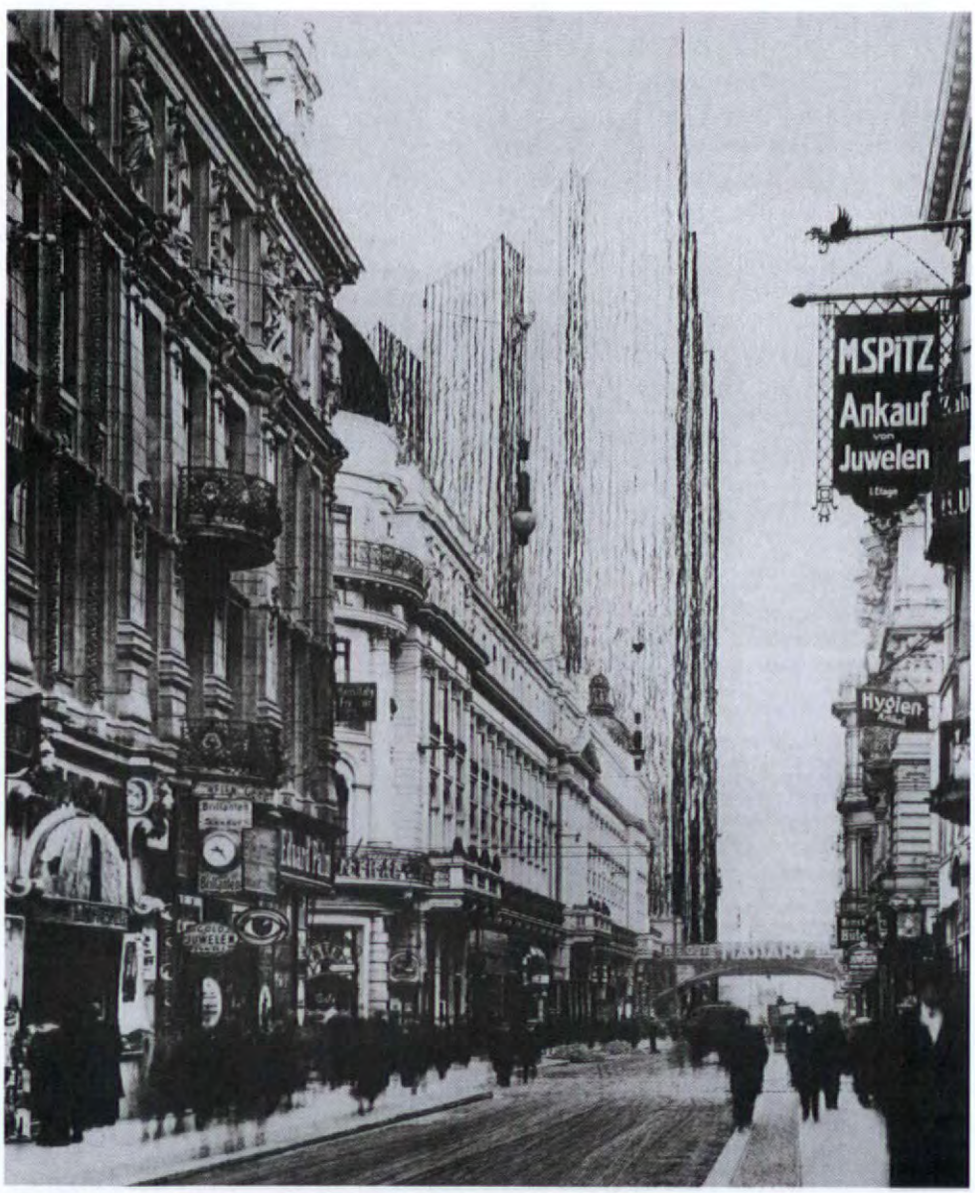
view

MIES VAN DER ROHE'S EUROPEAN PERIOD; LATE TWENTIETH-CENTURY ARCHITECTURAL DRAWINGS AT MOMA; ATHENS TO GET NEW SEAFRONT; SNØHETTA WIN FJORDSIDE COMPETITION; AR'S GREEN CONFERENCE; LAKESIDE VIEW FROM ZURICH; EDWARD CULLINAN'S EXEMPLARY WEBSITE; PUZZLES OF AR+D; WHAT IS OUTRAGEOUS?

MIES IN EUROPE

Two recent exhibitions in New York chronicled the two phases of Mies's career. The second, dealing with American Mies, is not coming to this country; but we now have a slightly abridged version of the German Mies Exhibition at the Whitechapel Gallery. Curated by Terence Riley of the Museum of Modern Art and Barry Bergdoll of Columbia University, this is a formidable show.

The curators decided to look at Mies's pre-war work as if the later years of success in America had never happened. This led them to ignore work linking the two periods, such as the Krefeld Silk Works, which foreshadows the work built at I.I.T. a few years later, and to play down continuing concepts, such as the pavilion on an inhabited podium that links the 1907 Reihl House with the National Gallery of sixty years later. However it does leave them free to assess the work on its merit and not to be sidetracked into finding the germs for the later successes.



Mies van der Rohe's proposal for a glass skyscraper in Friedrichstrasse, Berlin, 1919.

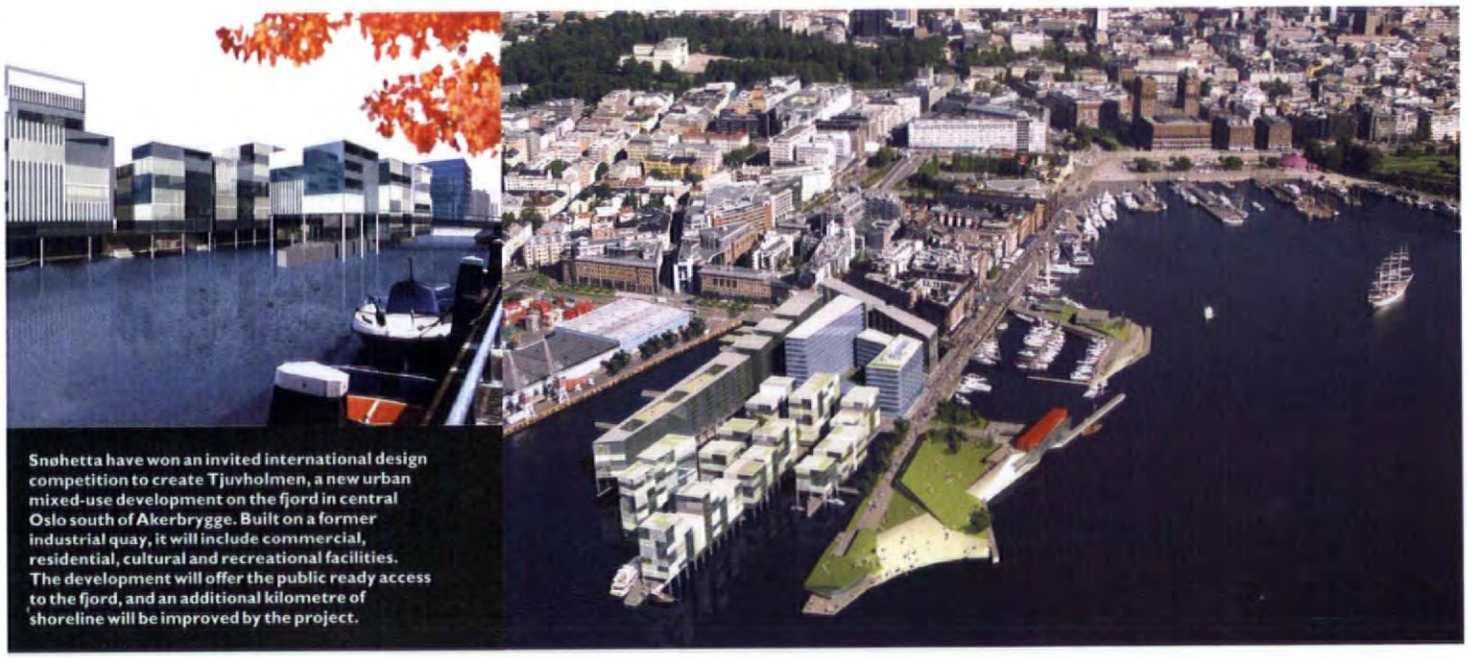
With the work of any great architect, one cannot help being fascinated and intrigued by that moment when he or she became a great architect. For the first decade of his career Mies built respectable, but orthodox, bourgeois villas and designed mildly pompous neo-classic monuments. Then we get this change as complete as Saul's vision on the road to Damascus. Mies changes his name, leaves his wife and family, alters his lifestyle and becomes an architectural revolutionary and propagandist. Was this the result of Gropius's rejection of Mies's Kroller-Muller Villa as 'too conservative'. This exhibition does not tell us, and perhaps the reasons for such a change are unknowable.

The results of Mies's change around 1921 are beautifully shown in the exhibition. Large-scale drawings give some of the impact that these projects must have generated at the time.

There are numerous books on Mies van der Rohe, so one may ask 'what does this exhibition contribute to our knowledge or understanding of the man and his work?' For me there are four areas of added insight. First, there is the emphasis on Mies's continuing concern with landscaping. Second, there are revelations in the use of colour. The two drawings of the concrete country house, one in bright sunshine and one in a glowing red dawn, reveal a concern with colour and light to rival Mies's well known interest in reflections and light.

Third, there is increased understanding for me – as a non-German speaker – of the revolutionary period with the copies of the magazine *G* given an English translation.

Finally, the models of most of the significant buildings show facades that are not seen in the few published photographs. The Wolf House, for example, is usually illustrated by its garden elevation, the side elevations are much less resolved. The model of the Gericke House, on the other hand, reveals a masterpiece which I had not appreciated from the imprecise sketches published in the books. The model of the glass office tower is exhibited so low down that one looks down at it, it looks rather squat, a far cry from the well known perspective with that marvellous sharp corner. Mies's editing of his own work is clearly shown in the Resor House, the beautiful design that we all know was done after the com-



Snøhetta have won an invited international design competition to create Tjuvholmen, a new urban mixed-use development on the fjord in central Oslo south of Akerbrygge. Built on a former industrial quay, it will include commercial, residential, cultural and recreational facilities. The development will offer the public ready access to the fjord, and an additional kilometre of shoreline will be improved by the project.

mission had been cancelled, the model of the commissioned building shows a two-storey house, partly designed by another architect and singularly lacking in clarity.

The masterworks, the Tugendhat House and the Barcelona Pavilion, are somehow disappointing. Flowing space, quality materials and sheer magic are impossible to capture in an exhibition. But go and see the show for the big drawings of the early works, for the informative models and to wonder at the extraordinary range and creativity of one man's mind. JOHN WINTER

Mies van der Rohe 1905-1938. *Exhibition at the Whitechapel Art Gallery, London, 10 December 2002 – 2 March 2003*

DRAWING DISTINCTIONS

The vision of mid-town Manhattan plastering the horizon from the elevated train to Queens, provides a great, if hard to compete with, preamble to this exhibition. Yet once inside the big blue box that is MoMA's temporary home (AR October 2002), you find a simple but nonetheless cogent and enjoyable exhibition.

The display consists of 173 works of the around 200 which make up the Howard Gilman Collection of Architectural Drawings, assembled between 1976 and 1980 by the eponymous collector and his curator, Pierre Apraxine, and bequeathed to the Museum in 1998. It traces a narrow but richly productive timeframe, from the '50s to '70s, including works by Superstudio, Ettore Sottsass, Cedric Price, Leon Krier, Rem Koolhaas and Arata Isozaki among others, with iconic drawings representing key projects such as Ron Herron's 'Cities: Moving' and Aldo Rossi's 'San Vitele Cemetery'.

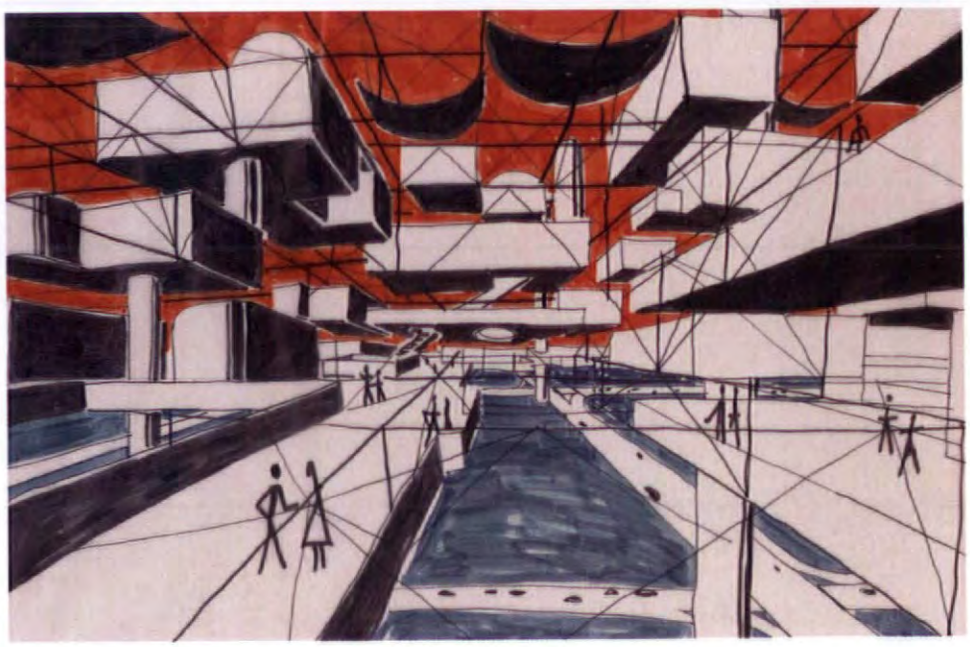
The works present a familiar but very readable trajectory of action and reaction. Thus the concept of Megastructures, growing from disillusionment with the failure of Modern Movement models to transform the world, is itself rejected in favour of relative contextuality, in turn paving the way for Post-Modernism.

This is architecture writ large, both conceptually and often literally – Superstudio's Continuous Monument was designed, in theory, to extend across the whole globe putting 'cosmic order on earth'. While it is easy to point out all the issues seamlessly glossed over by these utopian projects, the optimism and social engagement of the early 1960s visibly dissipates through the show. Even at a crude level the project briefs seem to reflect this – compare Cedric Price's phenomenal 'Fun Palace' for Joan Littlewood in London (1959-61) with Gaetano Pesce's 'Church of Solitude' in New York (1974-77), nearly twenty years later.

The general tenor shifts from social manifestos to hermetic poetics, as the inspiration of Lefebvre's 'festival of everyday life' quickly sours to the 'chimera of utopia' (described by Reyner Banham as 'a whitening skeleton on the dark horizons of our recent past'). This loss of faith is perfectly illustrated by Sottsass's 'The Planet as Festival: Design of a Roof to Discuss Under' (1972-75), showing Herron's Walking Cities reduced to beached hulks.

But today when architects are better known as celebrity interviewees and not theorists, and with shopping centres the nearest approximation to megastructures and mixed-use in cities a contentious planning issue, this exhibition reveals an exhilarating level of architectural and social vision. ROB WILSON

The Changing of the Avant-Garde: Visionary Architectural Drawings from the Howard Gilman Collection, *MoMA QNS, 24 October 2002 - 6 January 2003, www.moma.org*



Yona Friedman's utopian Spatial City project (1958-1959) on show at New York's MoMA.

Proposed new park and esplanade in Faleron Bay will offer Athenians an entirely new approach to the sea.

ATHENS ON SEA

Faleron Bay was traditionally the principal opening of the Athens plain to the sea, where the city's first harbour was located before Piraeus was developed to the west. In about 1870, the first train from Athens to Piraeus was built, starting a process of industrialization and development that led to today's polluted, scarcely planned mess.

Now, a new plan has been evolved by the Faleron Group of architects and planners including Alan Stanton, Reichlin & Robert and SOM (the latter advising on sports facilities). The plan's main aims are to restore the relationship of the city to the sea, and to create an essential pole for the Olympic Games in 2004 (the bay area was used in the first modern Games in 1896).

The present elevated motorway will be moved back some 100m from the seafront and remade at ground level, allowing a linear park to be created along the waterfront. Most of the sports facilities will be permanent and used by the community after the Games. Other improvements will include a bird sanctuary, a major new open space (the old racetrack) for the local densely populated neighbourhoods, and better transport arrangements (including a new tramway service).

AR'S CONFERENCE

The Architectural Review will hold a conference on Greening the European City at the RIBA in London on 19 March. We face a world ecological crisis of unprecedented proportions in which cities and their buildings are eating up the planet's resources at ever-increasing rates.

Distingushed architects and thinkers from all over Europe, including Lucien Kroll, Stefan Behnisch, Philippe Samyn, Mario Cucinella, Christoph Ingenhoven and Max Fordham will discuss new forms of urban planning and architecture that will enable us to live in greater harmony with nature and each other. Further details can be found on p73.

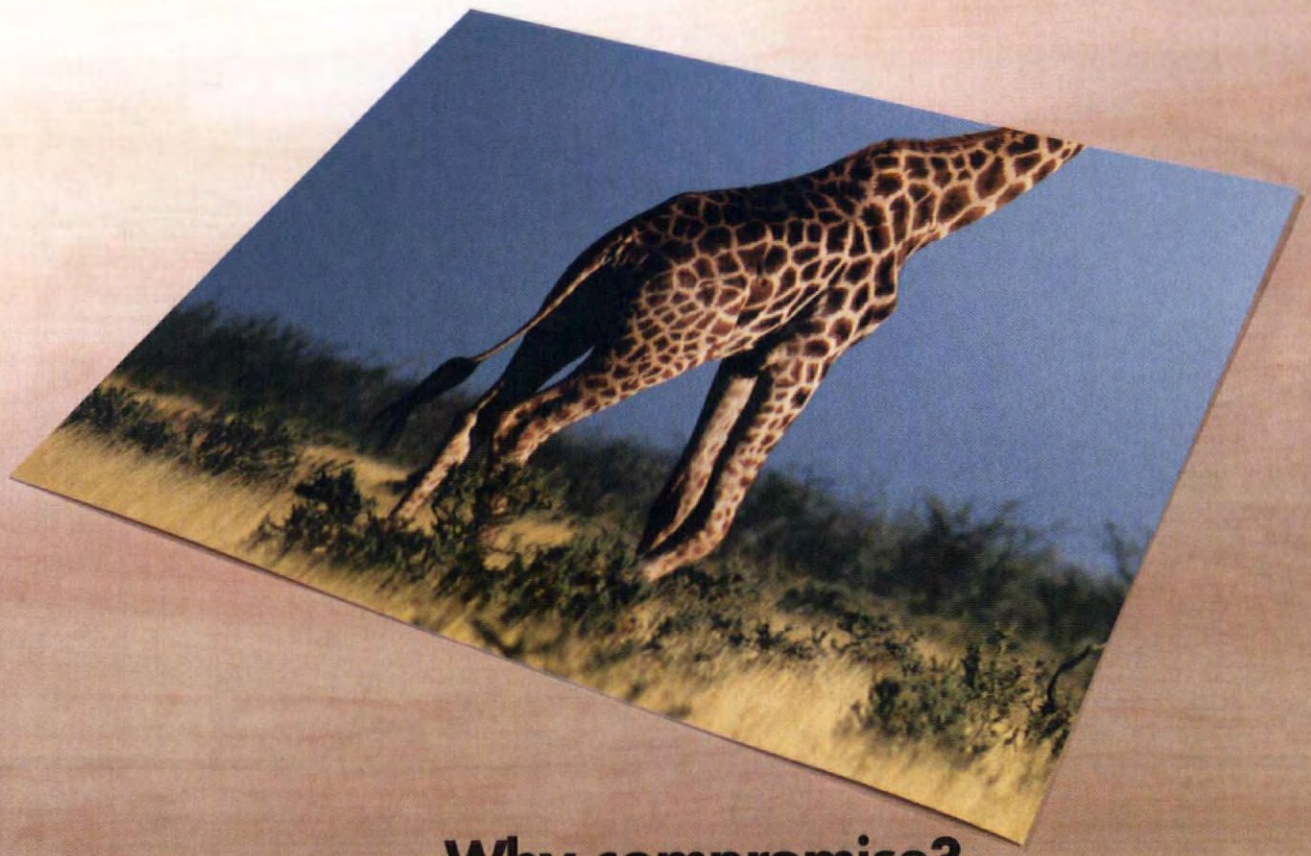
WANTED: ASSISTANT EDITOR FOR AR

Because of the departure of a dearly loved colleague, The Architectural Review is looking for an Assistant Editor. We hope to get someone with an architectural background, who is lively and prepared to play a creative part in the small editorial team. Further details on p72.

ARPLUS

The Architectural Review's own specialized website *http://www.arplus.com* greatly adds to information provided in the magazine. Besides reproducing selected features from the paper product, the site has up-to-date world-wide news on architectural exhibitions, competitions and events.

There is a jobs section, a directory of museums and galleries, and one of architects and photographers featured in The Architectural Review – and of course latest information about our awards: the ar+d prizes for emerging architects, with over 700 entries, and the newly inaugurated Project Awards at MIPIM, the international property and development fair held annually in Cannes.



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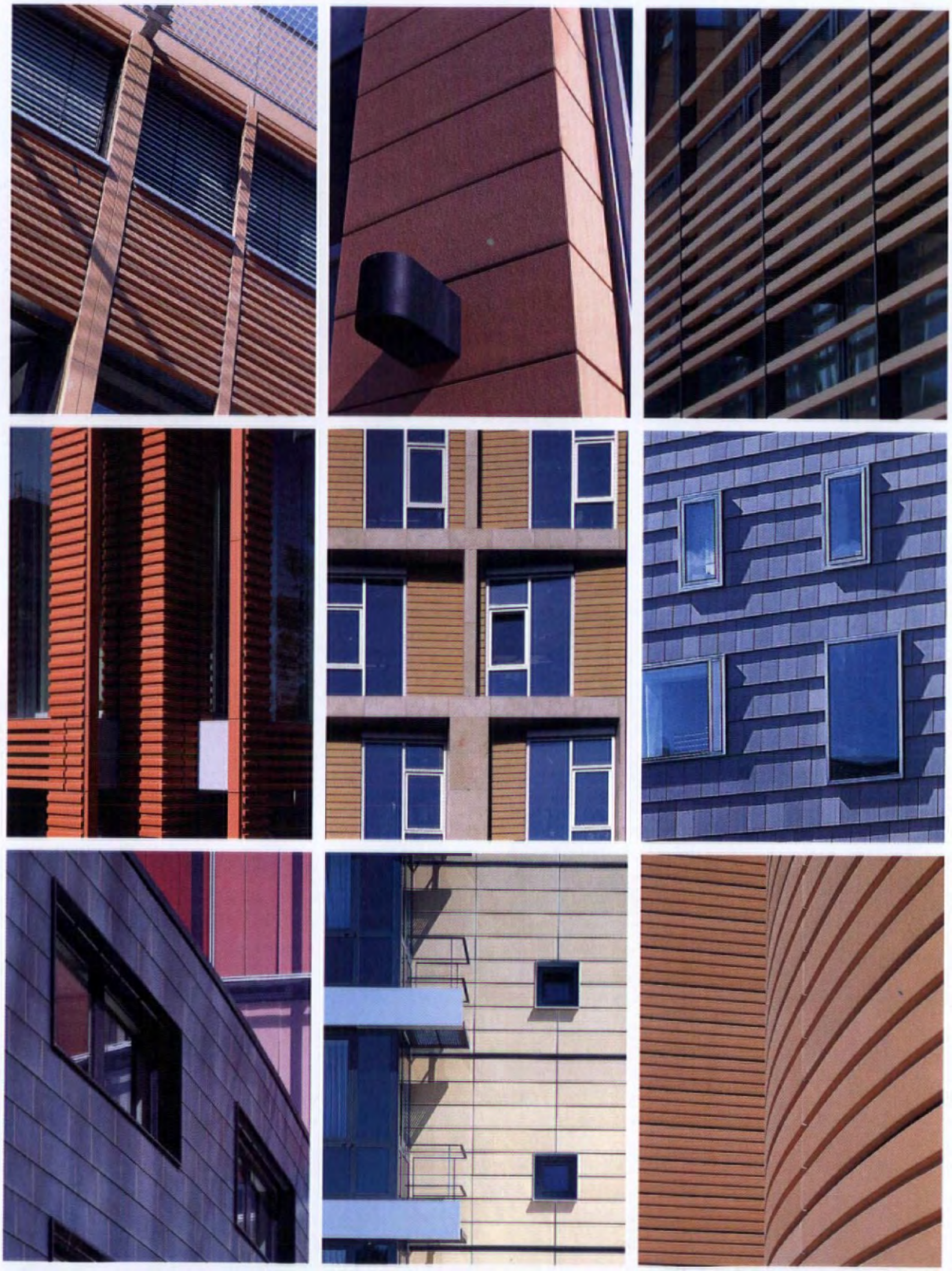

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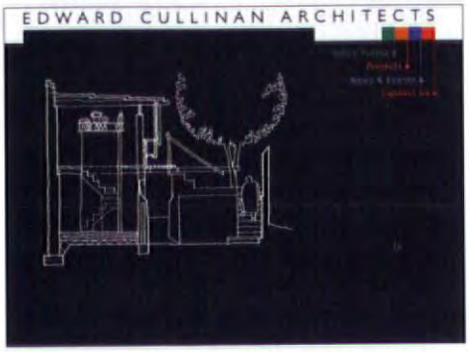
browser

Sutherland Lyall energetically explores the byways of architectural cyberspace.

What is it about Edward Cullinan Architects?

Ted Cullinan is a British architectural institution: Royal Academician, founder of the first (of very few) architectural co-operatives, sometimes quirky innovator and not half bad architect, his office web site is at *www.edwardcullinanarchitects.com*. According to senior director, Robin Nicholson, as we clashed trolleys in the local wine warehouse the other week, it's demonstrably getting them inquiries/work. I'd say that is because it is a model of brevity and clarity. The home page has colour coded links to its four main sections: Office Profile, Projects, News and Events, and how to contact the office. Meantime on the left there's an animation, of a building in section, being built and altered over and over again. The sections maintain the basic design: practice name across the top, a nice big open sans serif face on a white background and then below the pages are grey with a thin border across the top in the colour relevant to the section – the same colour being used for crossheadings. Text on the grey background is in readable white sans serif type (possibly, because last month's Fontexplorer font identifier was no use, Tahoma which is on all Windows machines) – and, happily for potential clients of a certain age, it's adjustable with the browser's View/Text Size command. The text itself is brief, no-nonsense stuff although it could do with a lot fewer capitals and commas. Happily most of the architectural commentary is by other people and hidden away in the Projects section whence you have to download it all packed into one big pdf file – the site supplies a link to a free download of Acrobat Reader in the unlikely event of you not having it. High graphic art this ain't but the slightly woodsy colours, the absence of marketing cant and the simple workaday purposefulness of the site must set up in the minds of potential clients the idea that the practice is friendly, straightforward and will get the job done. Slap on the wrist, though, for the absence of a credit for the designer.



Edward Cullinan: friendly, straightforward, efficient.

Still amazing, probably

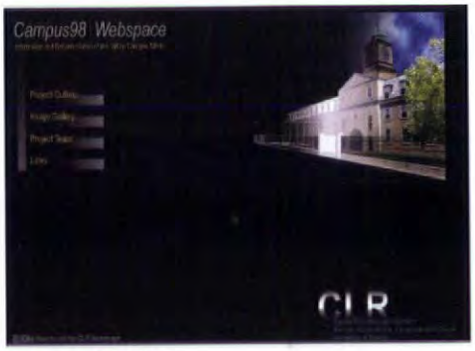
Stung, doubtless by Browser's gloom about the lack of an Archigram site, one of the surviving heroes, Dennis Crompton, points me to *www.archigram.net*. It was there a month ago (a tad neglected) following the boy's rapturous reception at the RIBA but I'm not sure whether it will still be live when you read this. Whatever, try it.

Finally admitted

A footnote to my review of the Aga Khan's ArchNet site at *http://archnet.org*. The day after we went to press I had a courteous reply to my plaintive email about being locked into a password loop and I was allowed in. Then I tried it later and was in the loop again. By a stroke of luck, I wondered about turning on cookies in my browser. That did the trick. Naughty, naughty. Maybe one per cent of the site's Browser visits require you to activate your cookies facility. And you should be told. European Community laws will soon insist on it. Cookies are thought to be useful by some retail and commercial sites because they trace your movement around the site. Their use is apparently declining in the US – partly because people have a well developed sense of privacy and partly, because most marketing people don't really know how to interpret the data they provide. But the Archnet site? Well, I can report that several (non-Muslim) people I know who have used this site say that if you want information it's quite good but that its design qualities are less than exciting. Quite so. The two most discussed topics in the chatroom were about the effects of music on designers and whether you had to be a Muslim to design a mosque. Happily most correspondents said no. You may also want to take a look at the site of the Islamic Arts and Architecture Organization at *www.islamicart.com* which is a mainly text site and seems a bit friendlier.

Keep at it

You have to be cautious about sites which haven't been recently updated – and *www.clr.utoronto.ca* which is the site of the Canadian Centre for Landscape Research has January 2002 as its last update but you persist. In the home page search box I tried wetlands, quincunx, Martha Schwartz and Stourhead, a better spread some might say than the keywords one uses to test architecture sites. Still, little joy with these except for wetlands. The first of the six responses to this was a Martha Schwartz design for Cumberland Park. Ho hum. This is a site which is undergoing a comprehensive renovation, but seems to have lots of potential so don't give up on us U of Toronto.

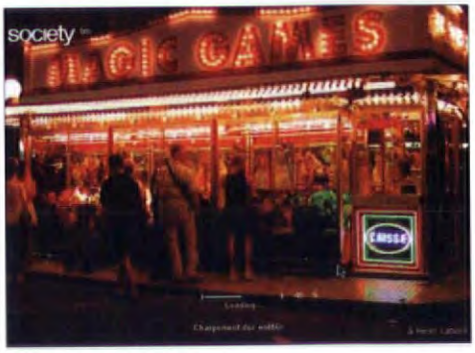


Keep at it, Canadians

Fun with the Technöids

This month's pleasure is to be found at *www.villette-numerique.com*. It's based at that great Parisian institution, the Cité des Sciences et de l'Industrie at Parc de La Villette. It is actually a site to do with the biennial Villette Numérique festival of arts, science, music, movies, interactive stuff and that sort of thing which in September was attended by a modest 35 000 'technöid people'. Uncharacteristically for French sites, this has an alternative English text version. I guess it breaks lots of the rules of commercial/information website design but, since the event is long over, that hardly matters, especially when the charming whimsy of its games and delicate interactive animation will keep you occupied through the immediate post-Christmas longueurs.

Sutherland Lyall is at sutherland.lyall@btinternet.com



Fun with the Technöids

letters

AR+D PUZZLE

SIR: Your December ar+d issue was lively and had many good things in it, but I was surprised at some of the decisions of the jury. For instance, giving the Wilkinson Eyre bridge in Gateshead a mere highly commended, and at the same time making a full award to that rather dull bridge in Croatia. The Gateshead model did, after all, win the British Stirling Prize – one of the most prestigious in the world. Why, one wonders, did the honey house in North Carolina come so high in the hierarchy: it is not much more than a clever wall under a car port. Was it given an award to try to appease the Americans, or at least your American juror?

On the other hand, several of the commended buildings seem more impressive than some of the award winners. I am thinking particularly of the Jensen & Skodvin church in Norway, which must surely, as you say, be a worthy inheritor of the grand Nordic tradition of church-building; and of Christoph Ingenhoven's car park in Germany, which, as you indicate, really does appear to set new standards for this very unpleasant building type.

On yet another hand, why were the odd little office building in Ljubljana, and the clinic and pharmacy in Kyoto with its very strange alley, thought worthy of commendation – again an attempt to increase geographical spread?

Of course, in any competition, observers will disagree with some of the decisions of the jury. But the 2002 Awards jury does seem to have made stranger decisions than most.

Yours etc
HERBERT INGOLD
Zurich, Switzerland

EMERGED ARCHITECT?

SIR: This year's Emerging Architecture issue (AR Dec 2002) was as inspiring as ever. What is most remarkable, however, is to learn that the British architects Wilkinson Eyre, twice winners of the Stirling Prize, no less, are under the age of 45. Their's is an astonishing achievement – and little has been made of their youth as well as their brilliance, in previous reviews I have read on their work.

Yours etc
JENNIFER SMITH
London W11, UK

We were surprised too. We checked. Eyre is under 45: he was partner in charge of the job. Wilkinson is over the magic age. THE EDITOR

DEAD RIGHT

SIR: I was pleased to see the touchingly moving cemetery near Hiroshima honoured in your last issue (p43). You were quite right to give it a prize, but, being probably one of the few of your readers who has actually been there, I would like to add one thing to your description.

When the wind blows, the rods bend slightly and sing. I was there on almost calm day, but I imagine that in a high wind, they bend more, and the whispers of the dead almost become anthems. It is a wonderful creation at every level.

Yours etc
ANNIE OGILVY
Birmingham, Alabama, USA

OUTRAGEOUS?

SIR: The Architectural Review is for the most part an objective reviewer of the current state of architectural practice worldwide. In instances where projects reviewed barely pass muster, to your credit you have always managed some positive comments.

Your Outrage column earns you my respect for intellectual honesty and promotion of 'good' architecture. Hence, it is with dismay that the October issue reviews two projects that by any measure should fall into the Outrage category.

The library, a collection of mushrooms that has grown adjacent to the Indian Parliament house is a case in point. However, Raj Rewal did one good thing, he sunk half the structure into the ground. Pity that he didn't sink the whole mess below grade and cover the top with a lovely green lawn. Imagine a great circle of grass, surrounded by a walkway, a strip of gardens and enclosed in a dense mass of trees. Access to the facilities and services below would be through shafts let into the forest but accessible from the street outside its triangular plot.

And your other 'questionable' is of course the Utrecht Town Hall extension. The 'extension' as reported, is simply a recladding of existing structures, an 'exterior/interior decoration'. Those worthies who sanctioned this abomination should be excised from the body politic and confined, along with their Indian counterparts who authorized the mushroom farm, to a special circle of hell – oblivion. People of taste in both countries, must be sickened by these abominations.

Lest the US consider itself superior to the finger of Outrage, I mention the new simply awful and huge, Chicago Public Library. We are not without fault. Where the mushroom farm appears a simple lack of talent, or imagination, the Utrecht 'decoration' is perhaps an excess of both with a touch of historical reference.

In the case of 'the farm', various Hindu and other historical structures were given as sources for the 'design'. This I doubt! I dare say any high school or college architectural student could do a better job.

As for 'Utrecht', it certainly brings attention to the city! We can establish a historical reference from the sixteenth century. One of the most famous architectural copy books came from the hand of the Dutch/Flemish Mannerist Dietterlin: his book *Architectura* was published in 1598. One product, is 'The Dutch House, Kew' (ref: p20, *English Country Houses, Caroline 1625-1685* by Oliver Hill and John Cornforth, Country Life, London, 1966). However, we might call this post-Mannerism style – 'junk-yard'.

Yours etc
DONALD R. BAKER
New York, USA

FRY VANDALIZED

SIR: Having long admired the magnificent Maxwell Fry house on the Coombe Hill Estate, Kingston, in Surrey, I was very saddened to see that developers have recently acquired the property.

Plastic windows have already gone in and the building looks as though it is being drastically gutted with many of the original features disappearing. To make matters worse the grounds of the original house are being swamped with a number of grotesque new houses. Is there any way you can highlight this vandalism?

Yours etc
MICHAEL BURNS
New Malden, Surrey, UK

The Maxwell Fry house on the Coombe Hill Estate, Kingston. Early masterpiece of British Modernism.

The two level promenade: lower level is more recent.

Lower promenade with steps to upper level.

A constant dialogue with the lake and its water ...

... full of incident, natural and artificial.

View from Zurich

Susan Lasdun goes for a lakeside stroll in Zurich, Switzerland.

People may differ in their views about Switzerland as a country, but there is little disagreement over its scenic splendour, and it is no surprise that many Swiss cities have been built with the dramatic impact of its rivers, lakes and mountains firmly in mind. The way these natural features have been integrated in different urban contexts is an object lesson in urban landscaping or Townscape. One of the best examples is the lakeside promenade or linear park in Zurich, the largest city in Switzerland.

Medieval Zurich grew up along the River Limmat, which flows out of Lake Zurich. In the nineteenth century, however, Zurich planners perceived the lake itself as a valuable recreational asset and began to develop the city along the lakeshore at its narrowest end. Though the first public amenity was an arboretum (1880s) laid out as an English park on the left side of the lake, today it is the right side which has the finest city promenade.

Beginning at Bellevue Platz in the centre, it leads away from the river and the city centre. It stretches for one and a third miles and is 200m broad at its widest point. It was initially laid out as a lakeshore park with an avenue of chestnut trees, but the hinterland was sacrificed for a road-widening scheme, leaving just the avenue of trees alongside the old quay wall. In recent years a parallel promenade or terrace at a lower level was constructed directly over the water itself to widen the walk at this, its busiest, end. This level is 12 to 14m wide and 500m long.

The most interesting feature of this walk, which was created over a period of sixty years or more, is its great variety, which nonetheless coalesces into one homogenous whole. The eye is continuously entertained by being led onward while maintaining a constant dialogue with the lake and its opposite bank, through the masking or sudden opening up views.

Traditional park seats line the shady walk, while at the water's edge, on the new promenade, are simple concrete benches or some with wooden slatted seats, which act as a barrier against falling in the water while offering a large amount of seating. Different shrubs, mainly evergreens, cascade down from the top of a 1.5m concrete wall which separates the two levels, while providing on the lower level a sheltered place for further seating. The avenue is punctuated at points for access to and from the city, with flights of wide steps leading down to the lower level. There is a continual panorama on the water according to season and weather: sailing boats, ferries, pedalos, water birds, fishermen, swimmers and ever-changing skies and light. Different piers or jetties mark the places where boats can be moored or hired on the waterside, all of which can be viewed from an open air café on the upper level. Two elegant round pavilions which flank the restaurant provide the public lavatories. The lower level is also articulated by groups of plane trees, large-scale concrete troughs or boxes which hold the lamps for lighting this stretch of the walk, while doubling as places for planting seasonal flowers. The lighting has been carefully considered to provide adequate light without competing with the bright city lights.

Inside the Chinese walled garden.

As the two levels merge, the whole opens suddenly on both sides into broad, parklike, grassed areas shaded by the canopies of groups of trees. Wider at this point, by stretching into the hinterland of the city, the continuing promenade is also carefully contoured with small grassed hills which contrast with an adjacent flat rectangle of turf where ball games and so forth can be played. The character of the planting is constantly changed to make different kinds of gardens. Some are planted to provide private and secret areas and others for people-watching. The changing contours give surprise glimpses of handsome city villas (many now museums) or the joyous pavilion designed by Le Corbusier in 1967, his last and only steel-frame building.

Separated from this, again by judicious planting, is a Chinese pavilion; a gift from the people of Kunming, with which Zurich is twinned. Its enclosed garden provides an oasis of tranquillity.

Nineteenth- and twentieth-century sculpture is placed at many vantage points throughout and includes major works by Moore, Tinguely, Lichtenstein among others. A large marble ball (Christian Mayer, 1984) held just above ground level by the force of water from an underground spring is seldom without children constantly rotating it.

While the walk proceeds as a rather wide formal boulevard, the varied edges of the lakeside form a pleasing contrast by their naturalness. Where access to the water is easy, grass slopes edged by just a few boulders and water plants lead down to it. Sometimes a carefully positioned stepping stone has been placed to help. In some places large rectangular grey stone slabs have been laid one on top of the other to form casual seats at the water's edge. In summer an outdoor cinema is erected with its screen standing in the water. Next to it is a timber building overhanging the lake, a fish restaurant and a jetty for fishing and boarding ferries. On the side away from the water, parklike characteristics continue,

Parklike setting for Henry Moore's 'sheep sculpture'.

Water sculpture by Christian Mayer.

Centre Le Corbusier exhibits his sculptures and graphic works – his last and only steel-frame building.

interspersed by well planted shrubberies, a small pond with stepping stones, and a leafy stream flowing out into the lake. The whole walk ends at Tiefenbrunnen, one of the main bathing places, which provides every kind of facility for those who pay. Each group of this multi-ethnic city finds some place along this promenade to express itself – rastafarians with their drums, Albanians or Romanians with their accordion, hippies who come each evening to watch the sun set behind the mountains across the lake. Such is its layout that each season can accommodate the way people, young and old, want to spend their leisure time, whether it is spontaneous street theatre in the spring, a market place for exotic crafts, cycling, roller-blading, walking, meditating, or in the heat of summer, simply crashing out on the grass or jumping into the lake either for free at the water's edge or in one of the paying swimming areas. Needless to say, despite its being in the middle of a city, everywhere is spotlessly clean, as is the water itself.

The success of this walk has been its interpretation of the term Townscape (whether consciously or not) which this magazine has for so many years promulgated. Surprise, delight, contrast, scale, floorscape – the attention to different surfaces on the ground – street furniture, planting (and when not to impose on nature), the importance of different viewpoints, have in the most part been successfully understood and applied in this enjoyable lakeside city walk.

SUSAN LASDUN

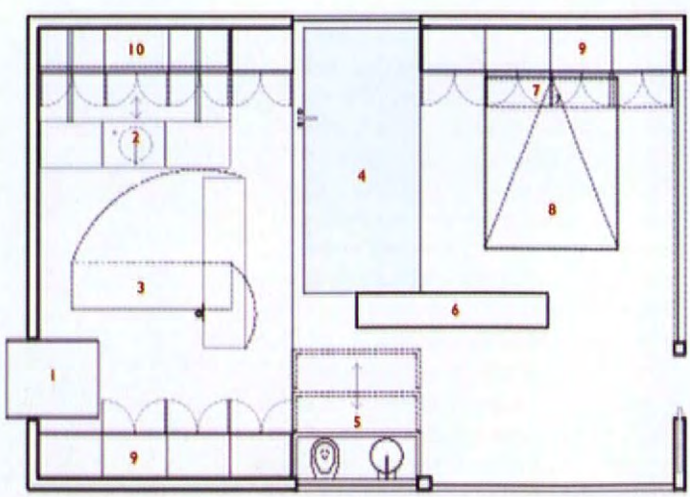
February

In the next issue we look at innovative uses of light. We range from Tadao Ando's powerful Osaka Museum to the luminous Härnösand library, Sweden by Tirsén & Aili. Daryl Jackson's inner street in the Victorian County Courthouse, Melbourne contrasts with the colourful spaces of Andel Hotel, Prague by Jestico + Whiles. The Mollerussa school by Carme Pinós, with ingenious control of strong Spanish sunlight, can be compared to the lively handling of artificial light by Massimiliano Fuksas in his museum in the Renaissance Villa Aldobrandini. In our theory section, Charles Jencks expounds his proposition that there is a new cultural paradigm in the arts and sciences. Buy this and 11 other challenging issues at a discount by filling in the enclosed subscription card, or using our website: **www.arplus.com**

1

STUDIO FLAT,
TORONTO, CANADA
ARCHITECT
JOHNSON CHOU

1 entrance
2 retractable kitchen unit
3 pivoting table
4 bath/whirlpool
5 bathroom
6 suspended fireplace
7 cantilevered seating
8 bed
9 storage
10 cabinets above



plan (scale approx 1:140)

Womb service

A machine for living provides a movable feast, allowing its occupant to juggle the volumes.

Womb, the name of Johnson Chou's invention of an adjustable room, stands for work, office, home, base. As a starting point for design of this prototype room (built for last year's Interior Design Show in Toronto), the word also expresses Chou's idea of retreat from external chaos.

For some time now Chou has been interested in architectural conjuration, in contriving to make things appear and disappear. Design of a cabinet of curiosities (AR August 2001) drew on Eileen Gray's ideas of pivoting, movable elements and on Marcel Duchamp's Portable Museums. The cabinet seems to be an inscrutable glowing box but is gradually revealed as an intricate puzzle of parts that shift or rotate.

A similar intricacy underlies the stripped down simplicity of Womb – a single volume that can be transformed at the touch of a button or two into an apartment with kitchen/dining, bedroom/living, and office or an austere contemplative space. The underlying assumption in this exercise is that overall space is a reasonable size and, in this case, the volume measures 56m^2 and is a wood-framed, rectangular box-within-a-box. To create pure space, surrounding voids are wide enough to accept fold-away furniture and services (air conditioning, electrical, plumbing and insulation systems). Acid etched glass walls lining the long sides of the box, 600mm (2ft) away from external walls, accommodate storage and are backlit.

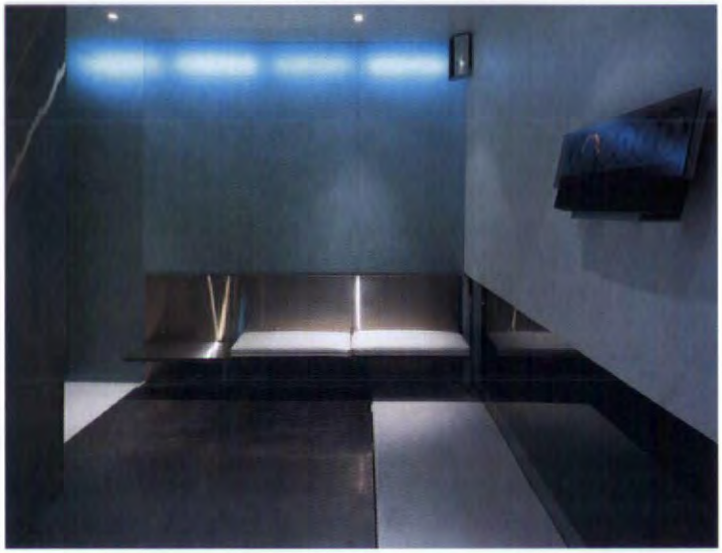
2

At Womb's centre is a suspended stainless-steel fireplace and a pool which is intended to aid meditation when the volume is empty, and to be used for bathing when the bathroom is in operation. Drained like a conventional bath, it is filled from taps discreetly mounted beside the raised marble floor.

All furniture and fittings, including dividing screens, appear and disappear into walls and floor. Beside the pool a bathroom is concealed behind a U-shaped screen that can be moved out on runners; when the bathroom is not needed, the screen closes against the fittings. The living area, separated by the pool from the work/kitchen space contains a bed that disappears into the floor when not required and allows a cantilevered sofa to fold down from the wall.

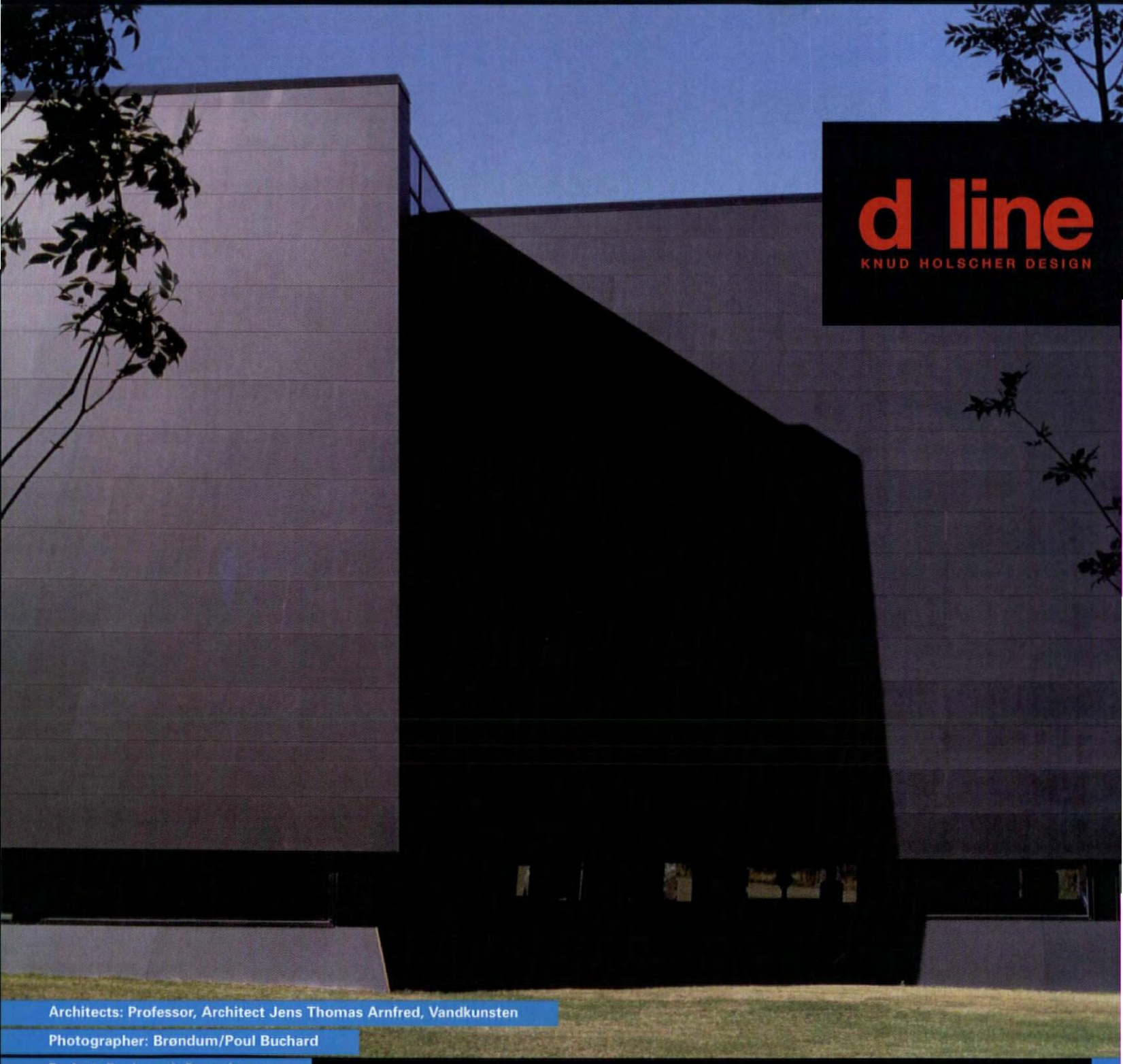
Similarly, a dining table pivots to make room for a kitchen unit which, connected to the plumbing system by flexible pipes, slides out from the wall when required.

Architect
Johnson Chou, Toronto
Project team
Johnson Chou, Steffanie Adams, Stacie Amo, Georgia Ydreos, David Hanna, Carly Butler



3

1
Room with pivoting table in foreground, suspended stainless-steel fireplace in middleground, and living/bedroom in background with seating and bed concealed.
2
Bed half put away, cantilevered seating half folded down and table swivelled to make room for kitchen unit (out of sight). Washroom wall pulled out.
3
Seating folded down.



d line

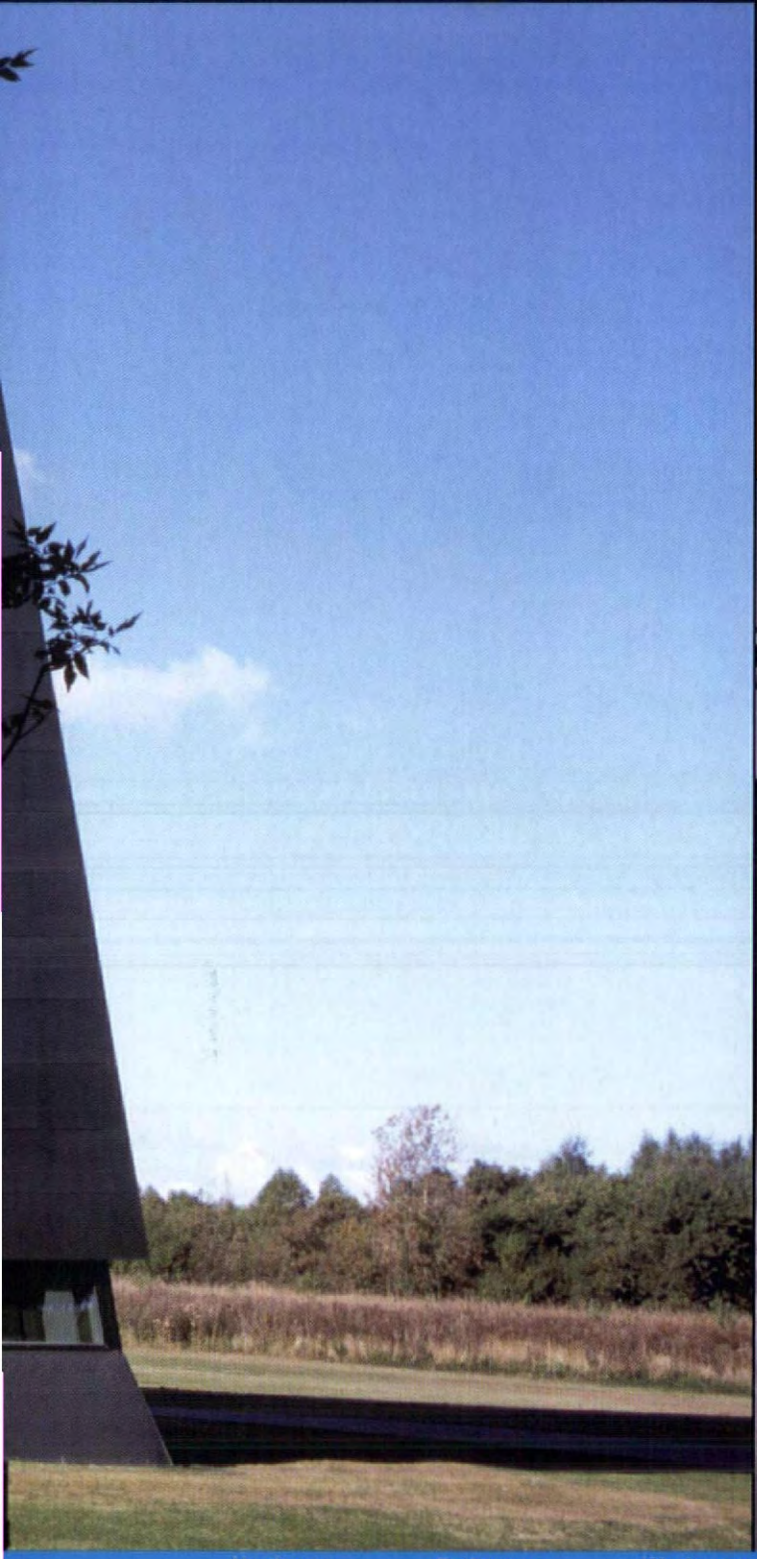
KNUD HOLSCHER DESIGN

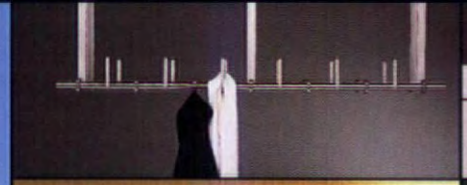
Architects: Professor, Architect Jens Thomas Arnfred, Vandkunsten

Photographer: Brøndum/Poul Buchard

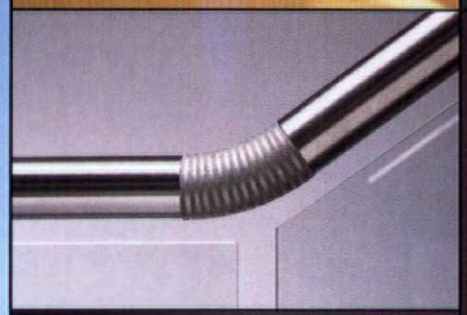
Project: Rockwool, Copenhagen

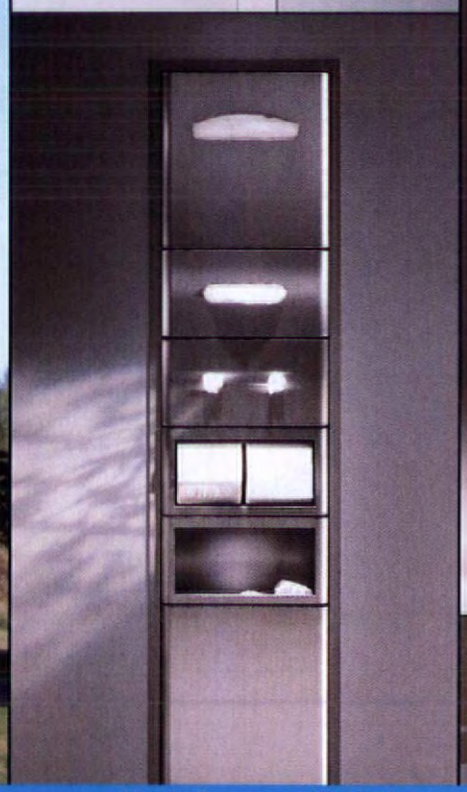
Hardware
Bathroom
Washroom
Handrail
Wardrobe
Signs

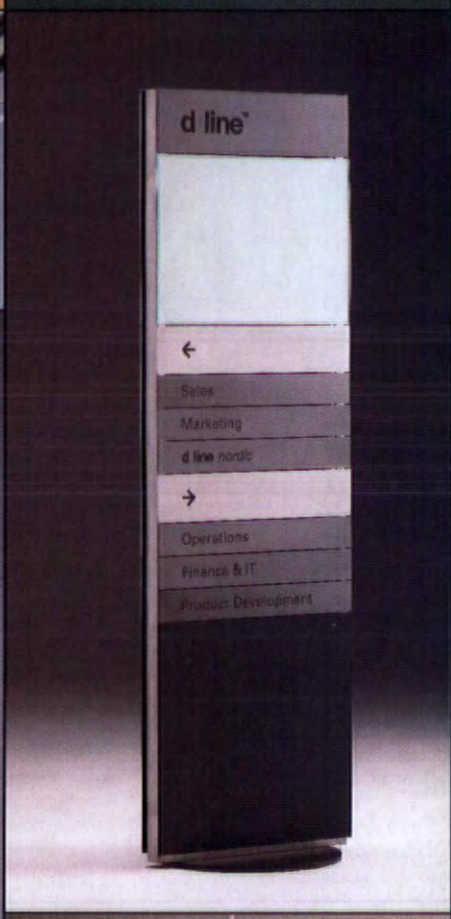


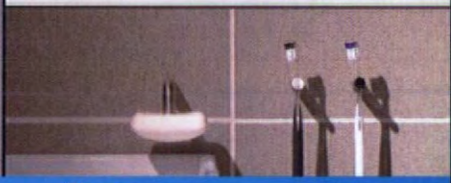


ar+d d line
Emerging Architecture









Hardware Bathroom Washroom Handrail Wardrobe Signs

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Following the inauguration of Bernini's Fontana dei Quattro Fiumi[1] in the mid seventeenth century, it became customary for the more privileged inhabitants of Rome to hold a *corso* on the flooded Piazza Navona on Sunday mornings.[2] Everyone who possessed an elegant coach (or small boat) suited to the occasion had himself driven (or rowed) through the cooling water at a predetermined time, to enjoy the ritual of seeing and being seen. In the nineteenth century, the social status of the *lago estivo* declined and the *popolino* took over the flooded piazza in donkey carts, often overturning passengers into the water. This riotous aquatic pageant finally came to an end with the installation of cobbles in the piazza in 1867.

From the aqueducts of antiquity to the Baroque fountains on squares and street corners, Rome has enjoyed an intimate relationship with water. The city developed and exploited water on a vast scale, the aqueducts of imperial Rome furnishing supplies for 121 fountains, 11 imperial *thermae*, 926 public baths and assorted private establishments.[3] Up until the Empire's decline, the tiered arches of monumental water conduits dominated the cityscape, each aqueduct terminating in a huge fountain adorned with statues and water shrines immortalizing stern gods, great men and noble deeds. The Romans, like the Greeks, recognized the social, therapeutic and hygienic qualities of bathing, as well as the potential of water to orchestrate environments conducive to sensuality and leisure. The enjoyment of water was evident in garden grottoes and nymphae structures in which fountains, cascades and pools were choreographed to create an appropriately sybaritic milieu.

Constantinople was also crossed by water conduits that strode over valleys like giant bridges. Under the great Ottoman architect and engineer Sinan they were replaced by more technically advanced hydraulic mains. Yet though water-bearing structures disappeared from the city's public spaces, they reappeared more elaborately in building interiors. In the secluded inner world of pavilions and arcaded courts, water acted as a precious agent of cooling and animation, reflecting light and playing off exquisitely ornamented tiled surfaces. No other architectural tradition depends so heavily on the physical and sensual employment of water as that of Islam. Historically, the traditional Persian garden appropriated water for irrigation, display and effect, and its influence spread throughout the Muslim world, assuming increased symbolism as water came to represent the source of life amid inhospitable landscapes. The Moorish Alhambra at Granada is, as Aaron Betsky notes, 'a *locus classicus*'[4] for the use of water in architecture, a monument to its connective capabilities going beyond simply seeing buildings as objects to something lyrically phenomenological, sensed and experienced by the entire body. The Islamic world also assimilated the tradition of the *thermae*, supplanting the athletic culture of the Greeks and Romans with the more languid repose of the *hamman*. In fifteenth-century Cordoba there were 900 *hammams* and they remain an important Muslim social institution.

Progress, in technological and social terms, is generally the result of successful attempts to control water. Most major cities and towns were founded round a water source – river, stream, spring, lake, delta or harbour. (One exception is Johannesburg, built on a gold seam instead.) In determining a location, an accessible supply of drinking water, waterways for goods transport and efficient sewage removal were all crucial factors that shaped the ground plan and evolution of settlements. Water planning is one of the oldest driving forces in urban development, yet the way it is handled is more than the result of simple technical ingenuity. Relationships with water can also manifest profound social and spiritual dimensions. The *ghats* of India and Nepal are essentially just great stepped embankments on the sides of rivers, but they are also a connection with the divine, binding earthly existence with the cosmos through ritual bathing, meditation and the disposal of the dead. In the more prosaically inclined Netherlands (as Aaron Betsky also observes), the constant battle against the sea and the need to irrigate land to bring it into productive use gave rise to a political tradition of localized cooperation and entrepreneurship that helped the Dutch to avoid the excesses of feudalism and nationalism.[5]

Yet despite humankind's physical, cultural and spiritual affinity with water, it is also a powerful enemy of the built environment. The very act of building involves protecting against rain and snow to keep people and possessions dry. Throughout history, humankind has confronted the elements with as much fear as reverence, yet although warmth-generating fire was taken into dwellings at the dawn of time, water has been kept at a distance for much longer. (The domestic bathroom is a comparatively recent innovation, appearing in European homes around the early nineteenth century, after being tried and tested in castles, hotels and luxury brothels.)

Water has the power to destroy as well as create; at the wrong time and in the wrong place it can cause high tides, floods, erosion, destruction and spread disease. Its absence can be just as pernicious: droughts and lack of ground water can wipe out people, flora and fauna, and change ecosystems. Today, a billion people do not have adequate supplies of drinking water and two billion have no sanitary facilities.[6] Moreover, water is shamefully squandered by developed countries (a Mediterranean tourist uses, on average, 1000 litres a day, even though water is scarce in summer) and by nations with aspirations to become developed – the groundwater level in Peking is decreasing by two metres annually, but water is used with abandon for air-conditioning plants, street cleaning and garden sprinkler systems. We are defined by our relationship with water, yet increasingly waste, exploit and pollute a resource so essential to life. Strategies for sustainable water planning, distribution and development must ensure that present achievements are not at the expense of future generations.

There are many ways this harmony might be cultivated, but the following modest architectural example suggests one approach. In restoration of the Fondazione Querini-Stampalia, Venice, Carlo Scarpa saw no point in devising defensive schemes for dealing with the city's periodic *acqua alta*. Instead he accepted flooding as a fact of life and installed stepping stones in the cellar, ensuring that every corner of the building could be reached without people getting their feet wet. This admirably practical yet elegant solution changed the perception of water from a regularly occurring threat into an almost theatrical experience. Rather than being feared, water was accepted, welcomed, even, as an inevitable, transforming force of nature. We need more ways of being similarly reconciled. CATHERINE SLESSOR

1 Commissioned by Pope Innocent X, Bernini's Fountain of the Four Rivers was completed in 1651. A quartet of figures represent the main tributaries of the four continents: the Danube, River Plate, Ganges and the Nile.
2 The concave surface of the piazza could be easily inundated by blocking the drains.
3 *Aquatecture: Architecture and Water*, Anthony Wylson, The Architectural Press, London, 1986, p5.
4 'Take Me to the Water', Aaron Betsky, *Architectural Design* Vol 65 no 1/2, 1995, p9.
5 *Ibid*, p9.
6 'Think global, act local', Wolfgang F. Geiger, *Waterscapes*, ed Karl H. C. Ludwig, Basel, Birkhäuser, 2001, p72.

THE STUFF OF LIFE

Throughout history, human progress has generally been the result of attempts to control water, but beyond this mastery, our relationship with water can embody cultural, social and spiritual dimensions.

The pleasures of water celebrated in *Hortus Deliciarum* with the *Fountain of Love*, fifteenth century.

International port terminal,
Yokohama, Japan
ARCHITECT
Foreign Office Architects

1

CRUISE CONTROL

Built like a ship, Yokohama's new port terminal is an audacious fusion of architecture and engineering that creates a topographic landscape for public activities.

2

In Japan, the economy has been mired in recession for at least a decade. Banks are sagging under the weight of bad debts, the social contract of guaranteed lifetime employment is beginning to fray, and yet construction is booming. Jean Nouvel, Richard Rogers, and Kevin Roche have built prestigious towers in the expansive new Shiodome office park, located on former rail yards in central Tokyo, and the huge Mori mixed-use development is nearing completion across town in Roppongi. Bridges and expressways are still heading off to remote areas, though few can afford the tolls and they are customarily deserted. Prefectural governors continue to build imposing museums, sports stadiums, and other public works in remote locations, without pausing to consider how they will be used and maintained. The juggernaut seems unstoppable.

The Yokohama International Port Terminal is the latest of these grandiose gestures, and, like the Tokyo International Forum (AR November 1996), it was probably inspired more by a craving for prestige than a recognition of need. Yokohama, a poor fishing village when Commodore Perry landed there in 1853, has become the second largest city in Japan, rivalling Tokyo as a port, and it would like to be seen as something more than an industrial appendage of the capital. It seems an unlikely destination for cruise ships, though, and the present total is only 50 to 60 a year, staying for an average of two days each. However, the authorities decided to replace the small 1960s terminal with one that can accommodate up to four ships at a time, and Foreign Office Architects won the 1995 competition with their brilliant concept of a self-supporting steel structure, built like a ship, that would integrate the flow of passengers with public gathering places into a seamless whole.

As visitors to the same architects' British Pavilion at the Venice Architectural Biennale discovered (AR October 2002), the design is extraordinarily complex, but the product of these stacks of working drawings (many

1
With its gently undulating roofscape, Yokohama's new port terminal is intended to create civic spaces for different kinds of activities, as well as accommodate cruise ships.
2
The terminal under construction on its huge finger-like pier.


WELCOME TO YOKOH

INTERNATIONAL PORT TERMINAL, YOKOHAMA, JAPAN
ARCHITECT
FOREIGN OFFICE ARCHITECTS

4

revised on site during construction) is one of beguiling simplicity and power. Spaces and surfaces are woven together and flow continuously from one end of the 400m long building to the other. Ramps link the different levels and blur the divisions between enclosed space, the cantilevered decks, and the undulating roof promenade. The terminal sits atop the Osanbashi pier, and is built from prefabricated sections of fire-resistant steel plates that are folded like origami and backed by stiffened girders to form an integral structure-skin and provide clear spans of up to 30m. Floorboards of ipe, a dense Brazilian hardwood, flow through walls of glass that are stabilized with glass fins. The consistent use of steel, wood, and glass ties the whole structure together.

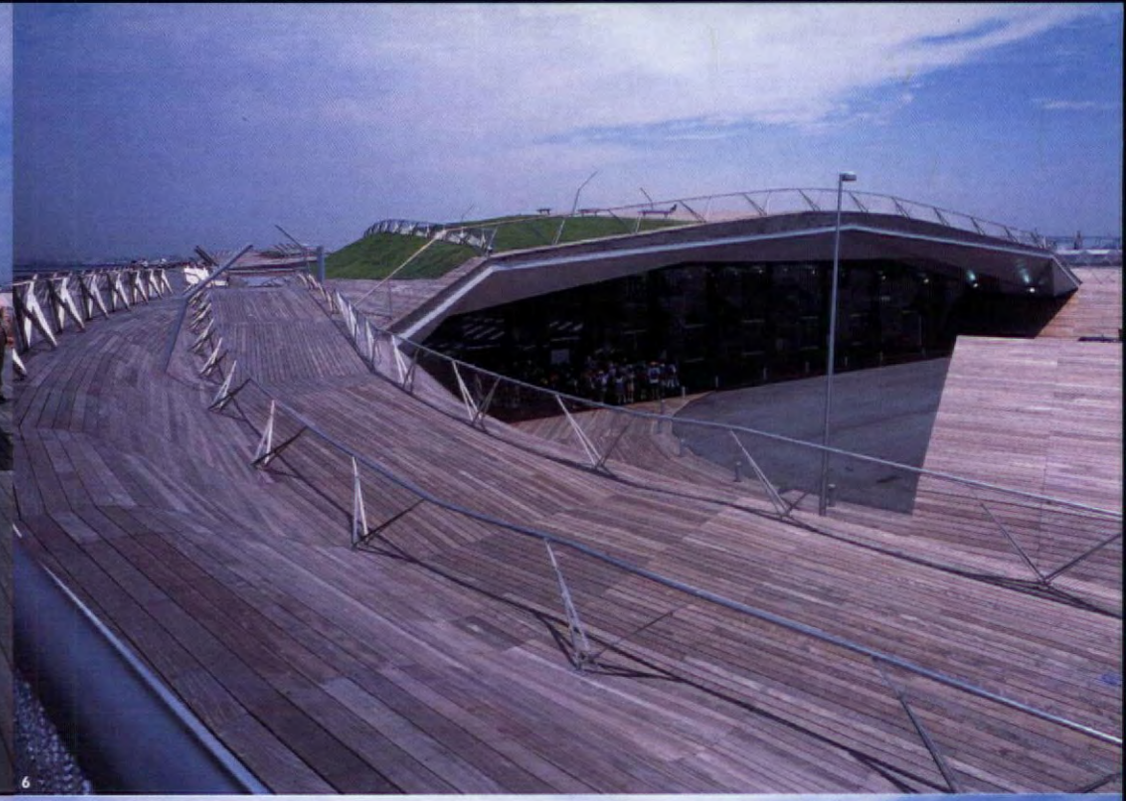
Visitors can drive into the first floor parking area or walk into the arrivals and departures hall from the top of the entry ramp. Ships dock on either side of the pier and board or disembark their passengers through walkways into the customs and immigration area that is separated from the public area by movable barriers. On either side of this secure zone, enclosed ramps arch over to Osanbashi Hall, a cavernous multi-purpose room that can also be accessed from a broad ramp leading down from the roof.

It was the inspiration of the architects – Farshid Moussavi, Alejandro Zaera-Polo, and their team – to go beyond the original brief for a terminal, and develop the promenade as a major public amenity: a place where locals could stroll out into the harbour and look back at their city. Anticipating that cruise ship traffic would be insufficient to make full use of the complex, they designed it as an infrastructure that could be used for markets, expositions, and group activities of every size. Show cars can be driven into the arrivals hall, and down the ramp to Osanbashi Hall, and this broad walkway is flanked by bleachers for outdoor performances. Moussavi envisages the building serving as a huge foyer for floating attractions that might be moored here at the pier as cruise traffic allows.

Foreign Office had to fight to preserve the integrity of their design while keeping it within the allocated budget. Five years elapsed between the competition and the start of construction, and when the job was put out to tender, there was a steel shortage in Tokyo that drove up the price. The architects reduced the thickness of the plates and found alternative sources in Japan and Korea. Sections were prefabricated in shipyards and brought to the site by barge – an appropriate use of local technology that strengthens the structure's links to its site. As an economy, skylights were eliminated, but, happily, so was the client's misguided impulse to cover up the steel with plaster. Furniture that would have made the promenade more user-friendly was also cut,

3
Clad in planks of ipe, a dense Brazilian hardwood (and the same timber used to build Coney Island pier in New York), the contours of roof resemble delicate origami folds.
4
The geometry of the surface follows the geometry of the structural system. Folded steel plates backed by stiffened girders form an integral structure skin and provide clear spans of up to 30m.

5



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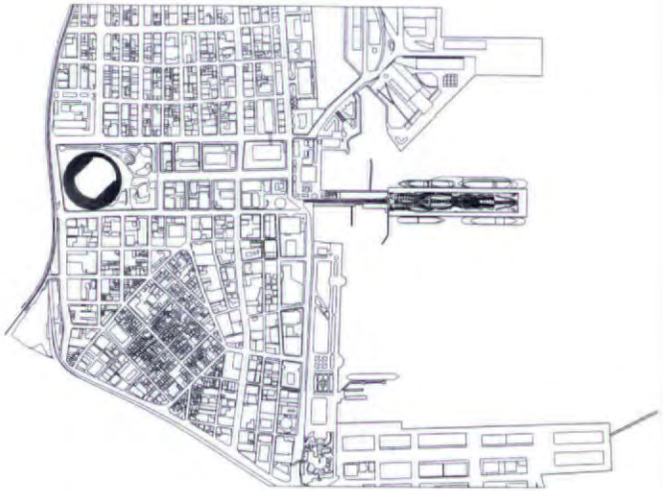
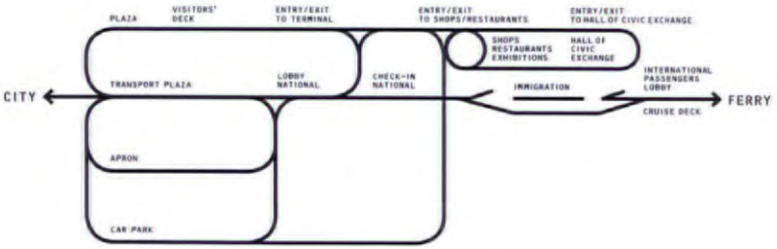
7

8

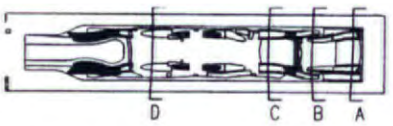


location plan



flow diagram

5
The changing landscape of the roof promenade. Just under a third of the area of the roof is planted with grass and angular roof projections provide shade.
6
Promenade overlooking the main entrance and end of the traffic plaza.
7
Custom-designed stainless-steel balustrades with rhomboid mesh, like fishing nets, define the usable domain.
8
Tiered contours create open-air theatre.



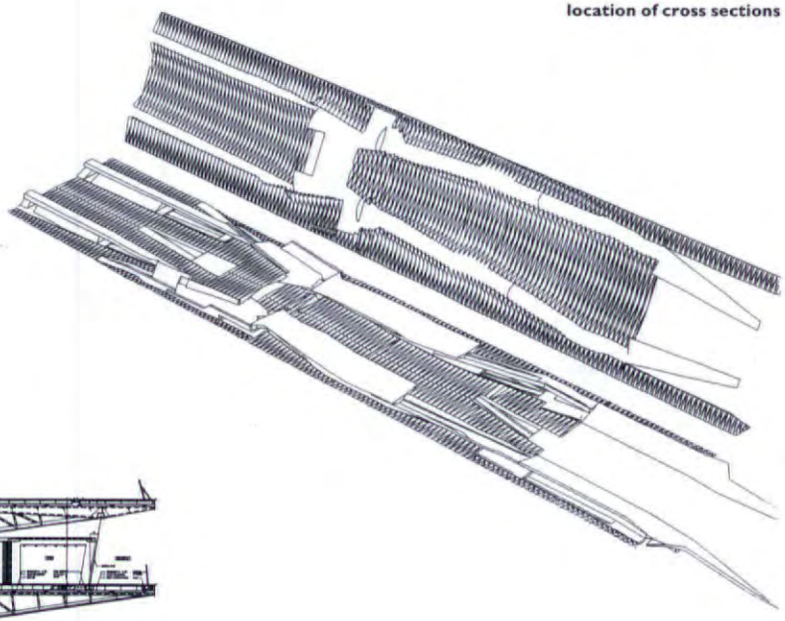
location of cross sections

cross section AA

INTERNATIONAL PORT TERMINAL, YOKOHAMA, JAPAN

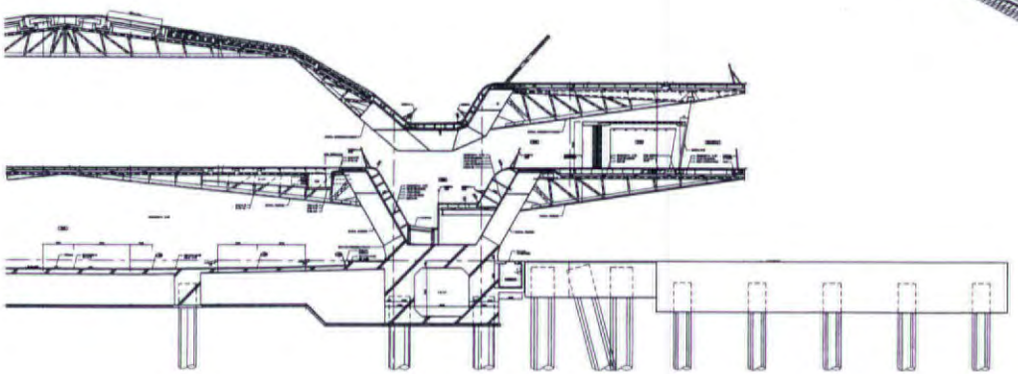
ARCHITECT

FOREIGN OFFICE ARCHITECTS

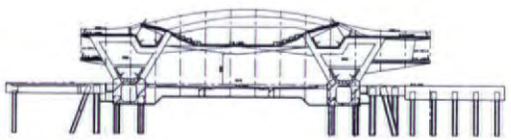


geometry of folds

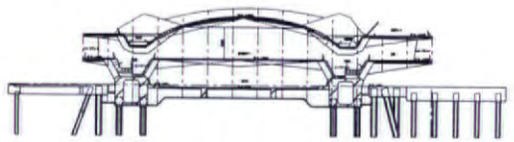
cross section BB



part cross section



cross section CC



cross section DD

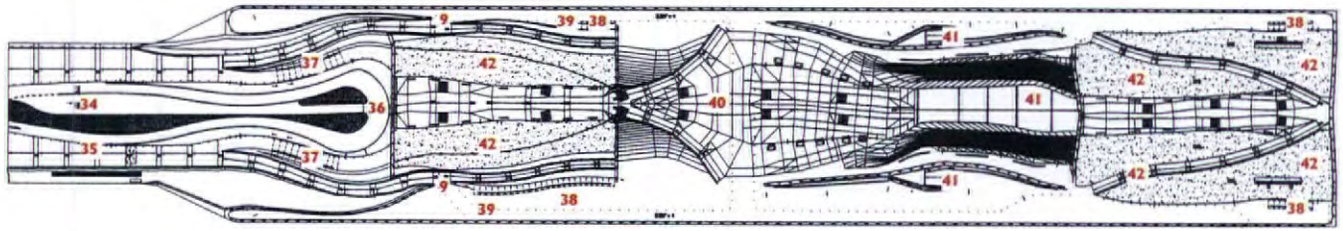
INTERNATIONAL PORT TERMINAL, YOKOHAMA, JAPAN

ARCHITECT

FOREIGN OFFICE ARCHITECTS

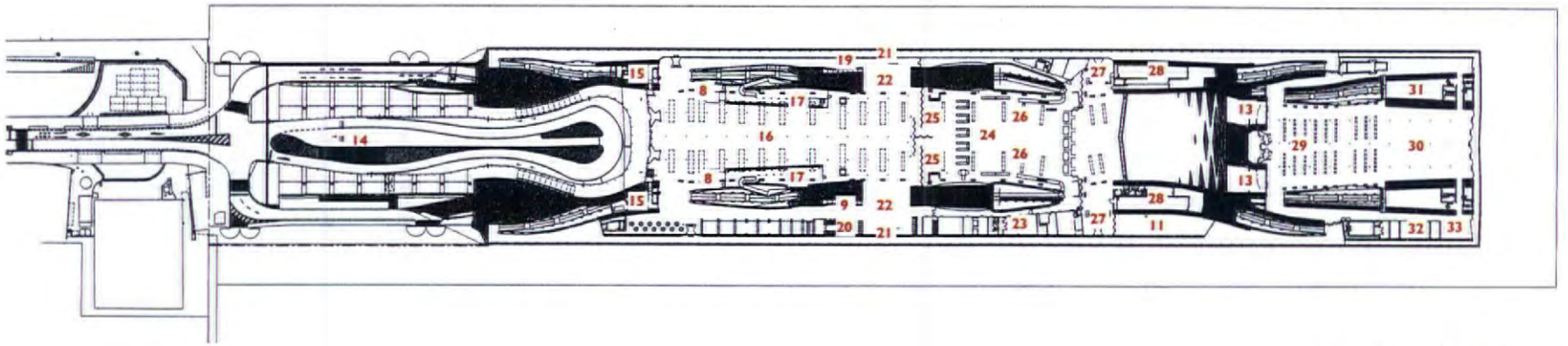
9
One of the entrances to the terminal from the roof.

longitudinal section

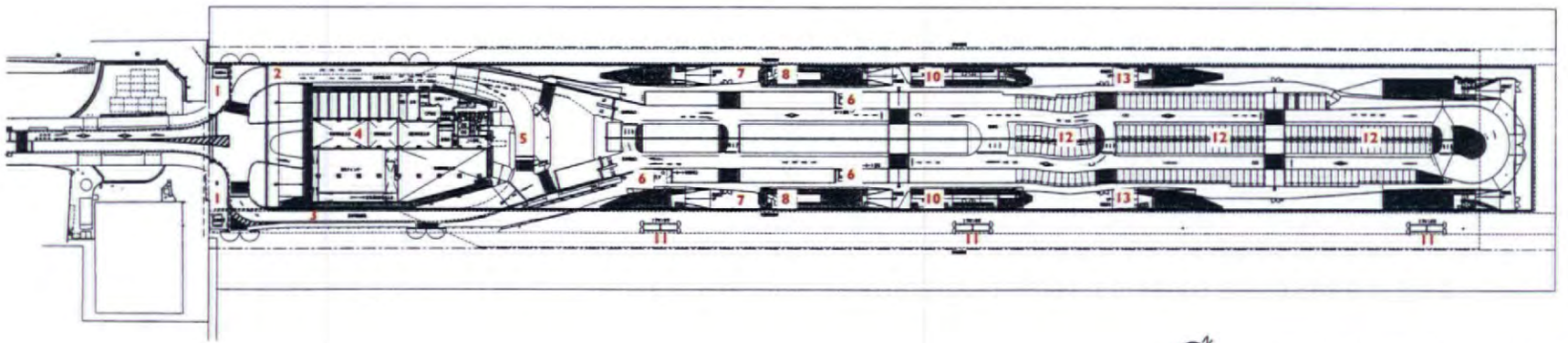


roof plan

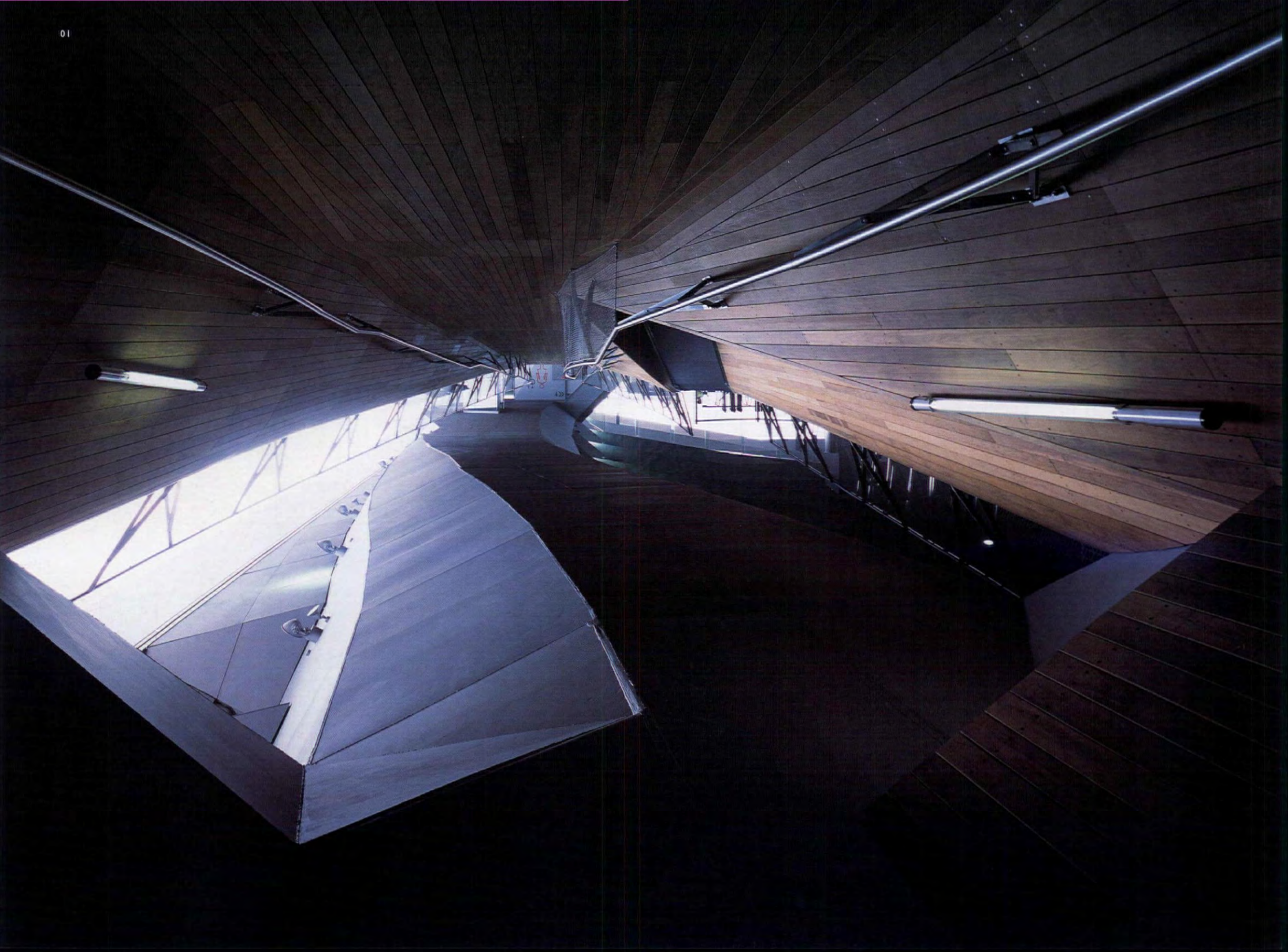
1 security points
2 car park entrance
3 car park exit
4 machine rooms and disaster prevention centre
5 bus station
6 lift access to terminal
7 domestic apron boarding
8 domestic baggage conveyors
9 pedestrian access to terminal
10 international baggage conveyors
11 storage
12 parking
13 international apron boarding
14 traffic plaza
15 WCs
16 domestic terminal concourse
17 domestic check-in
18 shops
19 waiting area
20 champagne room
21 cruise deck
22 domestic gate
23 offices
24 customs
25 movable screens
26 plant and animal quarantine
27 international gate
28 mechanical rooms
29 lobby
30 multi-purpose hall
31 restaurant
32 banquet and reception rooms
33 belvedere
34 vehicle approach
35 vehicle exit
36 vehicle drop-off and pick-up
37 bus stop
38 canopy
39 visitors deck
40 open-air theatre
41 access to terminal and civic facilities
42 green spaces



cruise terminal plan at civic level



parking level plan (scale approx 1:3000)



INTERNATIONAL PORT TERMINAL, YOKOHAMA, JAPAN
ARCHITECT
FOREIGN OFFICE ARCHITECTS

leaving only a few uncomfortable steel-pipe benches, some token canopies that fold up from the deck, and entirely too much chainlink fencing – primly shutting off the steeper contours where (horrors!), someone might stumble and fall. Lawn was added at both ends of the boardwalk to secure a grant for introducing greenery, but signs warn visitors against stepping on it.

The uplighting within the three halls can be boosted with downlights as needed; however, there is less natural lighting than the architects had intended. Though customs officers work here for only a few hours a week at most, they insisted on enclosed offices, walled in translucent glass, obscuring the side windows. Former retail tenants, however tacky, were allotted similar areas along the edge of the arrivals hall, and the café, which could have been entirely transparent, was enclosed. As a result, the halls have to be artificially lit even on bright days, and the sweeping panorama of the harbour is blocked.

But these are minor criticisms of a remarkable achievement. It's a miracle that so audacious a building was completed in just over two years (by three contractors working closely together), and that solutions were found to the engineering challenges and client change orders while going only two per cent over the original budget of 23 billion yen (129 million pounds). In contrast to the Sydney Opera House, which dominates its waterfront and has become an internationally recognized icon, or the Constructivist exuberance of Michael Rotondi's Dragon Promenade in Nagasaki harbour (AR December 1998), the Port Terminal is intentionally low-profile, deferring to the floating hotels; from a distance it resembles an earthwork more than a building. The roof promenade divides at the entry and extends forward in two steep banks to embrace the approach road and draw people up to explore its folded and rounded terrain. From this sensuously modelled landscape, evoking without mimicking the roll of the ocean, the new trophy buildings that line the waterfront look like a row of Alessi *tchotchkes*. And the interiors have the sweep and authority that Le Corbusier recognized in the George Washington Bridge; architecture and engineering indissolubly fused.

MICHAEL WEBB

Architect
Foreign Office Architects, London
Project team (detailed design and construction)
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Structural engineer
Structural Design Group
Services engineer
P. T. Morimura & Associates
Associate architect
GKK
Photographs
Satoru Mishima

10
Ramps lead down from the terminal concourse to the car parking deck below, extending the architectural language of the roof.
11
Inside the domestic terminal. The folded plane structure is clearly legible.

WAR STORIES

Daniel Libeskind's trophy building for the Imperial War Museum is a key element in the regeneration of Salford's defunct docks.

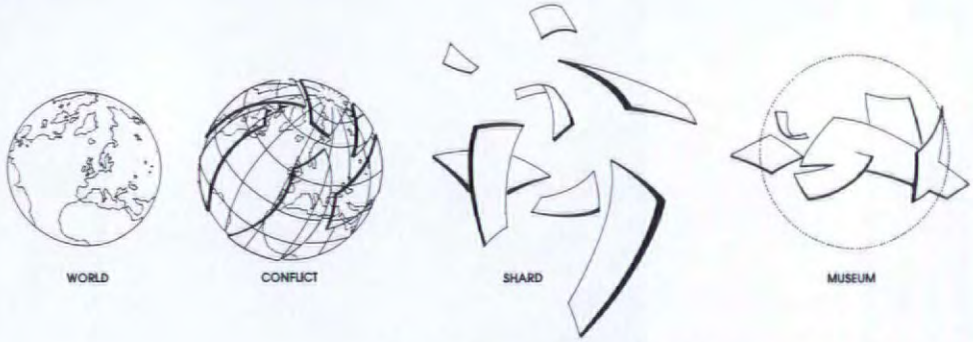
Salford Quays, Manchester is a former dockland recently redeveloped with housing and commerce. There are two cultural cherries on this cake: Michael Wilford's theatre and gallery complex, The Lowry (AR August 2000), and Libeskind's War Museum across the canal. Both are intentional landmark buildings, extrovert in the extreme, and they cooperate to raise the architectural temperature well above the local norm of awful shopping palaces, meaninglessly symmetrical PoMo bronzed glass offices and low-grade vernacular/Georgian housing.

Given the need to grab attention, Libeskind has produced the more successful sculptural piece. Simpler in its basic form than the cacophonous Lowry and more muted in colour, it is more coherent as an object despite its dynamic plan; yet its curves and diagonals differentiate it dramatically from the horizontal and vertical backdrop of ordinary buildings.

From a distance the tower makes a projecting sail, but as you approach, the building becomes a collision of large rounded metallic forms. Its front yard is criss-crossed with dynamic Libeskind lines infilled with contrasting materials and concrete pyramids which evoke tank-traps. The widest of the magic lines is a concrete path leading unambiguously towards the entrance at the base of the tower. This is a surprise: not a tower of rooms but a soaring empty frame, one of the few places you see the structure. Take a lift in the corner and walkway across the top, and you are rewarded with a panorama of Manchester through a grille, the only view allowed, and not from the tower's highest point. War may be a cage, but the grille reads as an anti-suicide measure: tiny hinged openings leave only cameras an unfettered view. Back on the ground, an unexpectedly sharp right turn brings entrance queue and information desk. Left and right again through the shop, zigzag up stairs in near darkness to reach entrances to exhibition rooms. All is basement gloom, for the building is blind apart from windows in the restaurant. It is therefore hard to relate inside to outside.

The main exhibition sequence presents itself initially as a labyrinth of unknown length and unknown depth, rather like a cave. In a brilliant move, some sense of orientation is restored by setting the floor on a gentle slope, so you feel yourself descend as it sinks towards the far corner and rise as it returns. Libeskind gave the exhibition designers a long angular space lit by randomly diagonal gashes of fluorescents. With his approval, they added angular islands to produce more concentrated pockets for specialized exhibition areas. The designers also projected diagonal bands of light onto the new walls, and clashing diagonals remain the dominant visual impression.

The exhibition takes four forms. First there is a handful of large objects including a jump-jet, a tank, a field gun, a fire trailer – and oddly a Trabant car.[1] Second, there are conventional glass cases with things like documents, photographs, military uniforms, gas masks, and artificial limbs. These are accompanied by the usual labels and texts, taking up themes such as Empire, Commonwealth and War, Women and War, and Science, Technology and War. Third, there are small exhibition enclaves like the 'silos' made of filing cabinets, and the room done out like a Lichtenstein painting. Finally, there is a periodic *son et lumière* display involving great batteries of slide-projectors showing the extensive collection of war photographs, which you experience throughout the space as you wander around. In short, all stops are pulled to give you the maximum 'experience', and the paucity of large objects is counterbalanced by the audio-visuals. Beside the main gallery is another for temporary exhibitions, at present showing a slide show on the construction of the building. The small restaurant is sited between



Libeskind's symbolic explanation of the museum's fragmented form

Museum, Salford, UK
Architect
Daniel Libeskind

1
Poised on the edge of Salford Quays, the monumental shards of Libeskind's museum mark another stage in the regeneration of a defunct urban docklands.
2
The building's main public entrance is virtually imperceptible, slotted in at the base of the tower.

3

the galleries off the main stair. It has a well-placed zigzag serving counter, black Libeskind tables, and the only glimpse of the outside world through its horizontal tinted window. The shop is on the way out, with swinging display cases that become doors and more zigzag gashes of light in the ceiling. Sales have already exceeded 25 per cent of the predicted annual turnover.

Dave Haslam's comment in a recent BBC documentary that the title Imperial War Museum 'combines three of my least-favourite words' is symptomatic of an uneasiness hard to dispel.[2] The armed services need their pride and their rituals and we ought to preserve for posterity an archive of military objects, but it is increasingly difficult to believe in just and honourable wars. The First World War is now seen as an act of general carnage caused by excessive nationalism, and the myth of the Second as a good clean fight, so powerfully portrayed in British and American films of the 1950s, is increasingly undermined by revelation of mistakes and atrocities as historians sift the evidence. Also in our world-village you cannot celebrate victories without offending the loser (who often as not stands next to you) and we have more appropriate times and places to commemorate the dead. True, there has been a shift away from displays of military pride and weapon-fetishism. The curators at Manchester have tried instead to situate war within its social and historical context, not shirking from exposing its horrors and waste. But even so, the lights and glamour of presentation, the feeling of entering the set of a TV show, lend the weapons and hardware a touch of James Bond. It is hard to escape the impression of thrills and entertainment as the essence of what we now tellingly call a 'visitor attraction'. A disenchanted German critic went further, referring to 'an outlet-store for military history, an art gallery of the destruction-aesthetic'.[3]

MUSEUM, SALFORD, UK
ARCHITECT
DANIEL LIBESKIND

4

It may be unfair to single out the War Museum for criticism that can be applied to most museums today, but it does seem to push the issue and provide a moral hostage. With every branch of human endeavour regarded as a business and therefore tarnished by money, is not each curator beholden to the graph of visitor numbers? And does this not lead to a certain desperation to outdo the last one, make something flashier, more spectacular, workable on an even shorter attention span? In the case of a subject like war, deadpan presentation might be safer, and the model of the archive more appropriate. The old planes as they used to be shown simply lined up in an old hangar at Duxford with simple notices might be enough. Make of them what you will. It is ironic that in this so-called post-modern age, when everything supposedly depends on the stance and interpretation of the viewer, we are increasingly served everything pre-digested on a plate. The idea of the new capitalist 'democracy', that we vote with our purses, does not apply with the War Museum: admission is free, or to put it another way, we already paid for it. Like it or not, the building is a national cultural institution, a record of who we are and what we have been, a generator and guardian of shared mythology. It must surely therefore be something and mean something more than another afternoon's entertainment, another film on the box.

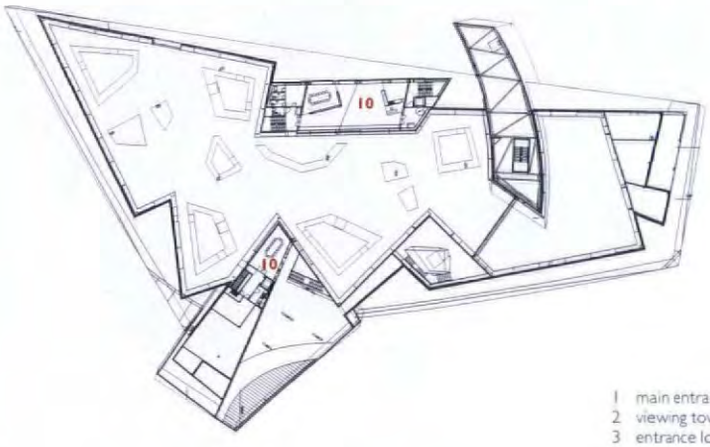
The museum's context also demands scrutiny, for its position as figurehead in Manchester's urban redevelopment can be no mere innocent coincidence. The architecture offers a signature, and the sail-like profile of the tower is used as the museum's logo.[4] Ever since Gehry's Guggenheim at Bilbao (AR December 1997), city fathers have looked hopefully on cultural buildings as catalysts for regeneration, whether as an injection of high-culture to leaven the commercial mix, or more bluntly as devices to suck people in and make the tills ring faster. When in the 1960s or '70s you saw a single wacky irregular building in a sea of boring boxy

3
Entrance lobby, with the ubiquitous shop on the left, its low ceiling gashed by slashes of light.
4
The latticework steel structure of the viewing tower. From here a lift trundles up to ...
5
... a viewing platform with vertiginous panoramas of Salford.

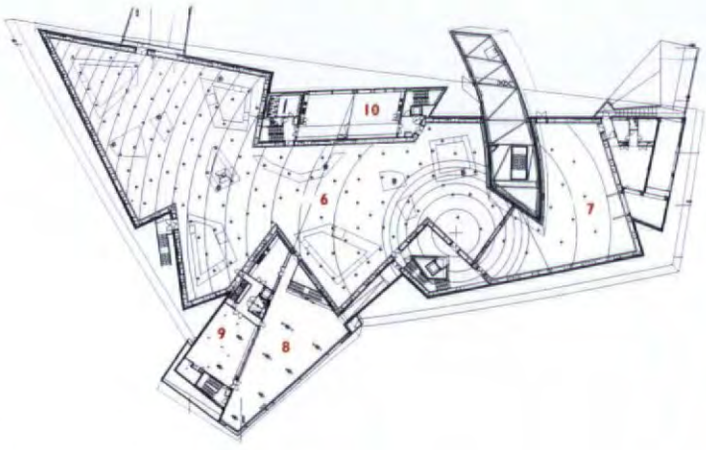
ones, it was a church: Ronchamp set the paradigm. Nowadays it is instead a museum, but it carries some of the same spiritual expectations. Culture legitimates the city and creates spin-offs: not only is money spent in the War Museum and Lowry: a commercial building across the way is opportunistically presented as a Design Centre.

With the pressure for fresh images, museum buildings have become playgrounds for architects. International reputations are made with bids for sheer spectacle, and the authors become the Calvin Kleins of building. They set the scene, students imitate them, and their theories are taken seriously. But the Midas touch of the 'great architect' is in danger of blinding us to the limitations, moral difficulties and compromises surrounding the commission. Instead, look at the developing story. After wading around in difficult seas of theory and producing some charming and intriguing drawings, Daniel Libeskind made his name with the Jewish Museum in Berlin (AR April 1999). He explained it as a distorted six-pointed star and as a collision of lines which linked remembered local places of Jewish significance, but these arcane 'meanings' are only readable with prior knowledge and guidance. Obvious to everybody, in contrast, is a kind of anti-architecture of clashing lines, with almost nothing straight and square, slashes and cuts, sharp corners, zigzags. The contrast with newly re-gridded Berlin and the Rationalism of the leading local architects could scarcely be starker. Libeskind has come to be regarded as the leader of the 'other' tradition in Berlin, that of outsiders, of protest, of wildness and irregularity. For an architect moving from theory to practice, it has to be said that he made the transition into the world of building with surprising panache. He capitalized on the new technical freedom brought by computers to build irregularly, and he has shown an instinctive feel for enhancing his formal ideas through an effective choice of materials, and for getting around difficult corners without embarrassment. The building was considered so impressive, such a masterpiece, so poetic a statement about Jewish fate, that it was for a time left empty to work on its own, devoid of exhibits. What a dream for an architect! Belatedly an exhibition has been installed.

But having invented and proved his style, Libeskind has gone on to re-apply it elsewhere, and few could fail to notice that the same family of forms and techniques dominate the Jewish Museum, the War Museum, and the planned 'spiral' extension for the V&A. The difficult question is whether this vocabulary can really be equally appropriate each time, for there is a danger that the unique nature of the Jewish Museum will be diluted. Libeskind gives different explanations. He is a great talker, a charming and incurable optimist, and everything is grist to his mill. Countless alibis prop up the work, some of which defy comprehension. But that for the War Museum is simple enough. It is meant to be a shattered globe. The building form takes three pieces from the same hollow sphere. These are

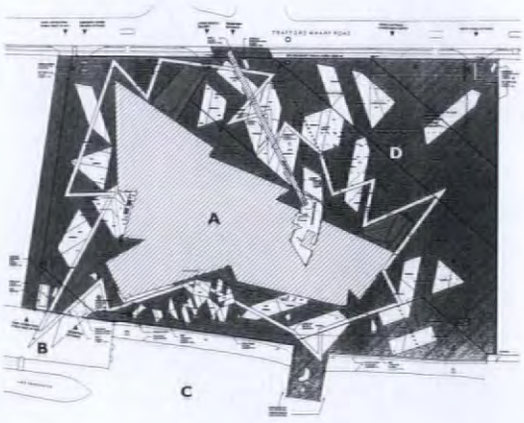


mezzanine level



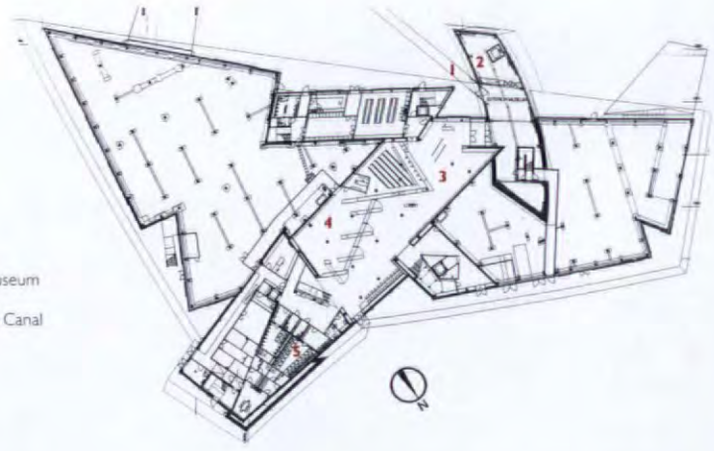
first floor, gallery level plan

1 main entrance
2 viewing tower
3 entrance lobby
4 museum shop
5 wcs
6 main exhibition space
7 temporary exhibition space
8 restaurant
9 kitchen
10 staff



A Imperial War Museum
B promenade
C Manchester Ship Canal
D visitor parking

site plan



ground floor plan, lobby level (scale approx 1:1250)

6
The main labyrinthine exhibition space with its mixture of conventional military hardware and more thought provoking displays housed in self contained 'silos'.

7

called 'shards' and related to the elements earth, water and air – the 'fire' shard so appropriate to war is unaccountably missing. The air shard points up as the tower, the earth shard comes out of the ground; the water shard points towards the canal. The symbolism is that war shatters the globe: that's it.

Perhaps this was the first idea in all sincerity – it was used as a demonstration at the interview, so it got him the job – but it is scarcely readable without the accompanying commentary (given in the entrance hall) and the articulation is not readily evident within the building. Set against the rectangular everyday norm, it is the zigzags and clashing diagonals of the interior that provide the most convincing symbols of conflict, giving real identity to the purpose of the building. Also potentially appropriate is the feeling of chaos in the labyrinth, but it never becomes awesome enough, and one finds one's way reassuringly soon. The spatial development is frankly disappointing, with little sense of *promenade architecturale*, harmonious or sublime, so the drama well caught by a two-dimensional photograph is not much added to. The most oppressive thing is the total lack of daylight. This might be read as symbolic: war is dark, but the curators and exhibition designers probably demanded it for their audio-visual display. It also reflects the current wisdom that daylight is damaging to objects. The norm is a black box, with everything flexible and completely controllable, a hermetic internal world. Perhaps I am being mean to Libeskind. With this demand for neutral space, most of the architect's usual palette was denied him. Many would have made the black box simply that: a rectangular box-like container with flat floors following the rational logic of the frame.[5] Libeskind's random generator works much better, making the interior irregular and unpredictable, and also aperspectival. It was no mean feat on his part to manage the collaboration with the exhibition designers so successfully, and he cheerfully put up with cuts of budget that would have made most architects tear their hair out. The large-scale sculpture works even if its connection with the site remains tenuous, and it puts Wilford's Lowry to shame. The public are coming in droves. Libeskind has also produced a textbook example of Deconstructivist architecture, and for the most appropriate possible programme – a celebration of the human capacity for destruction. For architectural historians this neatly fulfils the promise of that definitive turn-of-the-century style proclaimed in New York nearly ten years ago. PETER BLUNDELL JONES

1 A curator suggested in the recent BBC film (see note 2) that its presence reflected the Eastern Bloc's devotion of resources to weapons rather than developing cars, but this is surely a gross oversimplification. The capitalist pressure to produce a new model every year is part of a culture of built-in obsolescence and envy, so perhaps the people's car needed to remain utilitarian and constant. The relation between civilian and military production is everywhere present and much more complicated.

2 *War Museum of the North: Manchester's Renaissance* introduced by Dan Cruickshank, produced and directed by Mark Jones, BBC Manchester 2002.

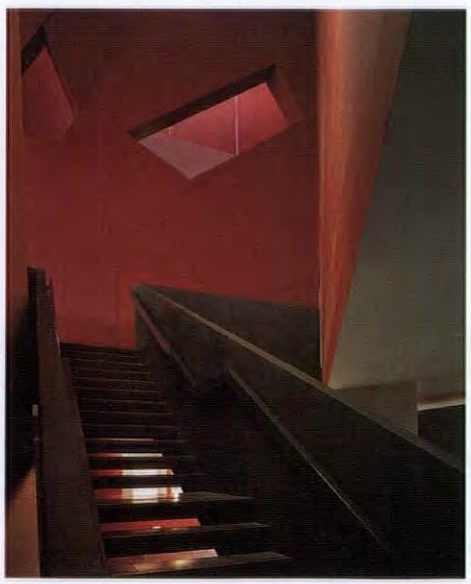
3 'Geniessen Sie die Aussicht!' Hanno Rauterberg, *Die Zeit*, 14 February 2002, p40.

4 Not for the first time: the ill-fated National Centre for Popular Music in Sheffield by Branson Coates has been called 'a built logo'.

5 For much of the twentieth century a rectangular grid was regarded as neutral, but it is a manifestation of a very particular order.

Architect
Daniel Libeskind, Berlin
Associate architect
Leach Rhodes Walker
Project team
Daniel Libeskind, Marcus Aerni, Wendy James, Martin Ostermann, Sören Bisgard, Stefan Blach, Gerhard Brun, Christopher Duisberg, Lars Fischer, Lars Gräbner, Jeanette Kuo, Susanne Milne, Daniel Richmond, Alexis Trumpf
Structural engineer
Ove Arup & Partners
Services engineer
Mott MacDonald
Exhibition design
Event and Real Studios
Photographs
Richard Bryant/ARCAID, 1, 2, 4, 6, 7
Peter Cook/VIEW, 3, 5, 8, 9

MUSEUM, SALFORD, UK
ARCHITECT
DANIEL LIBESKIND



8

7
The museum's restaurant overlooks the docks.
8
Pungent colours, punctured planes and low level lighting giving circulation spaces a moody drama.
9
The main exhibition space is dominated by the hectic, zigzag rupturing of the ceiling, adding to the incongruity of the tiny Trabant (included as an example of Eastern Bloc devotion to developing weapons as opposed to motor vehicles).

HOME AND DRY

A mix of uses is replacing the industrial area round the river port of Duisburg. This housing development is inspired by the waterside cities of northern Europe.

HOUSING, DUISBURG, GERMANY
ARCHITECT
INGENHOVEN, OVERDIEK & PARTNER

Duisburg was once the biggest inland port in Europe. Its inner harbour was carefully carved out of the banks of the Rhine and lined with warehouses and mills. Like all nineteenth-century ports, Duisburg has collapsed economically and its trade was taken over by lorries and road transport. Küppersmühle – the last big industrial building – closed in the '90s, it was revived by Herzog and de Meuron as an art museum (AR June 1999). The city has robustly decided to transform its industrial heart to become a complex interweave of domestic, commercial and leisure functions. A competition was held for Emscher Park, a derelict industrial area, which was organized by Internationales Bauausstellung. Foster and Partners won with a masterplan that has been interpreted by that practice and others.

In their housing scheme, Ingenhoven Overdiek & Partner decided to reinterpret the morphology of the area between the city centre and the harbour basin. They have created roughly parallel blocks flanked by shallow canals that are actually slightly above harbour level. These take all rainwater from the development, and are planted with reeds that help purify the water as it gently flows down towards the great river.

Despite their very regular elevations, the blocks contain a wide variety of accommodation, ranging from studio units to three-bedroom family flats. All face east-west with deep loggias on their west sides and small balconies on the east.

Construction is of finely finished precast concrete panels, with the recessed top storeys having steel structure and cedar cladding. Internal partitions have been varied, allowing, for instance, kitchens to open off living areas, or to be separate

1
Large court separates terraces, which face shallow canals on each side of project.
2
Carefully and reticently made in the northern European waterside tradition.

spaces. The architects wanted to make the rooms 'neutral' so that they can be used for many different purposes.
This sounds like a recipe for anomie. In fact, it is not. The parti locks into the existing city with a small square to the south and a generous well-planted inner court. The canals are a real gain for the whole city, with their tree-lined pedestrian paths leading down to the river. So on both sides, the flats look out over trees and each dwelling has a view of the canals. Cars are carefully controlled: under each block is an underground garage, which in section raises the entrance level a metre above path level, so the lowest floor has privacy, and the garages are ventilated.

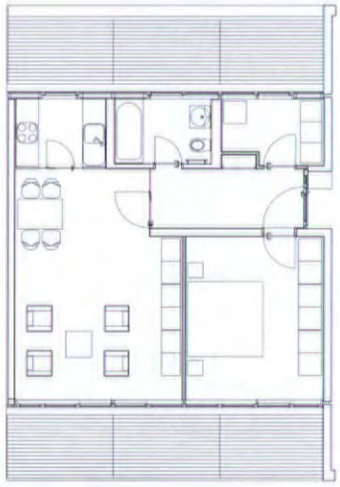
Vertical circulation stacks divide the terraces. They serve two flats on each floor with glass lifts and really excellently made stairs that have cast stone treads cantilevered from central stringers.

Each heavy, well insulated front door has a welcoming wooden seat in the internal porch. Joinery is immaculate and the concrete is either acid-etched or polished.

It is this fineness, the quality of obvious decency that makes the scheme a quiet, undemonstrative example of how a city can re-embrace its waterside nature, and evoke the elegant aquatic northern European urban tradition that inspires us all from Amsterdam to Stockholm.

location plan

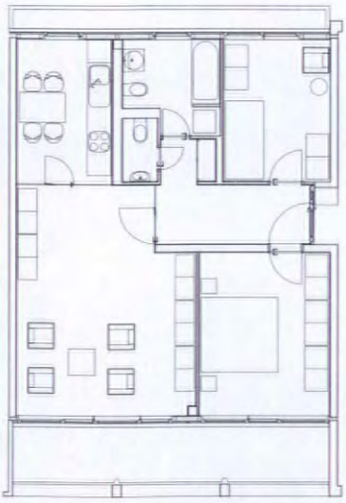
large mid-terrace flat



large top floor flat

3
Large loggias face west.
4
Stairs serve only two flats on each floor, which ...
5
... have well insulated and very well made front doors.
6
Loggia side, waiting for planting.

Architect
Ingenhoven Overdiek & Partner, Düsseldorf
Project team
Christoph Ingenhoven, Rudolf Jones, Barbara Bruder, Frank Reineke, Richard Galinski, Axel Möller
Photographs
H. G. Esch, Hennef



medium mid-terrace flat (scale approx 1:200)

maisonette (end of terrace)

small top floor flat

3

4

5

6

Falmouth is one of the best natural harbours in Northern Europe and its deep water can accommodate the largest ships, so it used to be a convenient stopping off place on the Atlantic run, and it has always had a fishing fleet. It served as the centre for the British Empire's mail service from the end of the seventeenth century, and its early strategic importance for naval purposes is reflected in the presence of two castles built by Henry VIII. Since its whole raison d'être has revolved around its maritime past, it is certainly a legitimate place for a maritime museum, both to provide a focus for local pride and identity and to attract the visitors on which the Cornish economy now depends. Acting in tandem with Tate St Ives (AR July 1993), the Eden Centre (AR August 2001) and the Lost Gardens of Heligan, it may even draw more people into the peninisula.

The Fal estuary is long and wide, and Falmouth grew along its western side in a straggling way, curving round into docks at the southern end where a headland projects to narrow the mouth. The town centre is some way up, and the critical area of derelict land next to the docks had been reassigned to housing. The style was pseudo-vernacular, but instead of cosy old-fashioned Cornish terraces along public streets, it offered flats in an aggressively gated condominium. Model boats displayed in windows and super-exotic vegetation from a landscaping firm proved no substitute for real local colour, and halfway through the development ran out of customers, by which time the town was having second thoughts. Instead of deteriorating into a lifeless suburb, the southern part of town needed to become more of a public focus, and it was thought that this could be helped by the intended museum. The way the site curves round to embrace the harbour with a view back across the town seemed to offer an ideal position.

Long & Kentish were appointed after an interview competition. They have developed a complex building in many parts that responds to the site a different way on each side. An early decision was made to break with the sea wall, both to change the site's shape and to avoid sitting passively on its edge. Instead the building could straddle it, getting its feet in the water and feeling the tides. The key element here is the tower, without which the whole complex would now be unthinkable. From outside it brings the composition to a climax by providing a lighthouse-like landmark: on the inside it gives the best view of the town and out across the harbour. Equipped with instruments and telescopes, it is like a ship's bridge or an airport control tower. You approach it by lift or an austere spiral staircase in a concrete drum: go down the other way and you reach an extraordinary underwater room. Here 5m high windows of 80mm laminated glass reveal the sea rising and falling through its tidal range, and you can observe marine life in the surprisingly clear blue-green water. The tower thus combines inside and out in air and water from the longest view to the shortest – from telescope to a shrimp in front of your nose.

Such playing up of the water side makes contrast all the stronger with the land side on the west, where the architects intend to make a small public square for social events. The idea is to enclose it by a series of cultural and commercial buildings including a cinema, in

1

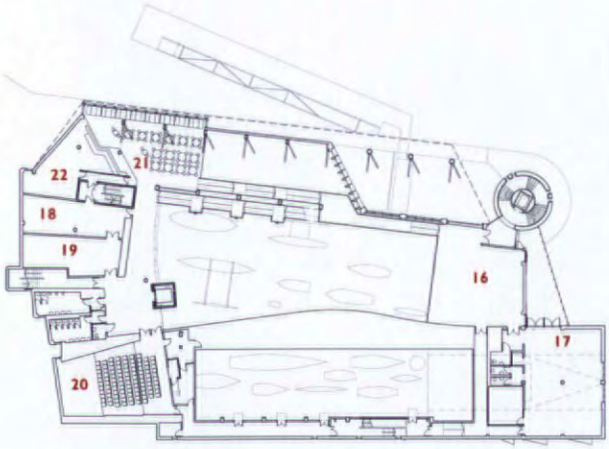
Maritime Museum, Falmouth, England
Architect
Long & Kentish

NAVAL POWER

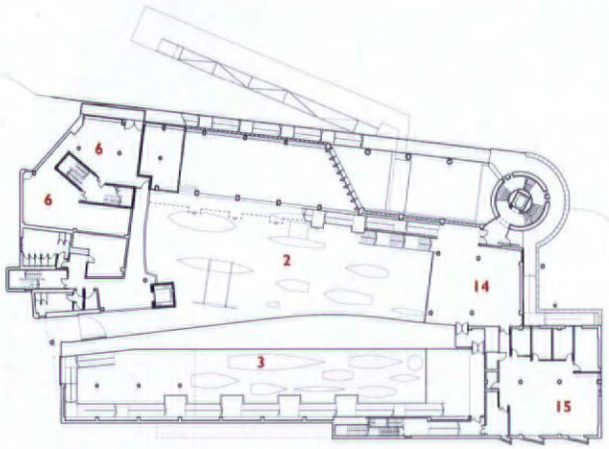
Falmouth's new maritime museum responds to and is inspired by the muscular vernacular of nautical buildings.

2

1
The new museum commands the harbour, with view back to the town.
2
Anchored by its lighthouse-like tower, the building responds sensitively to its maritime context.
3
Green oak cladding, which will eventually weather down to a dignified silver, reflects both the traditional material of boats, but also the local vernacular of sheds and warehouses.

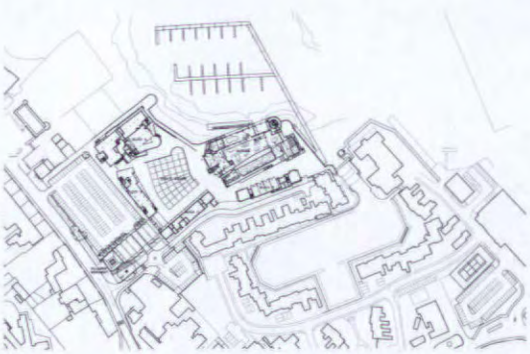


second floor plan

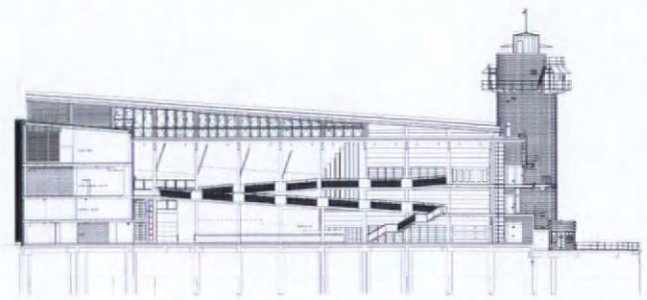


first floor plan

ground floor plan (scale approx 1:1250)



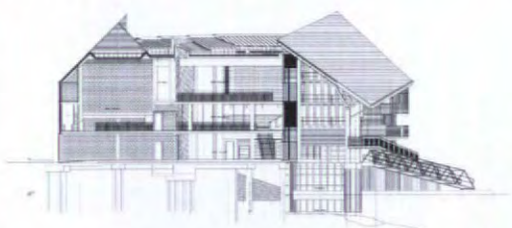
location plan



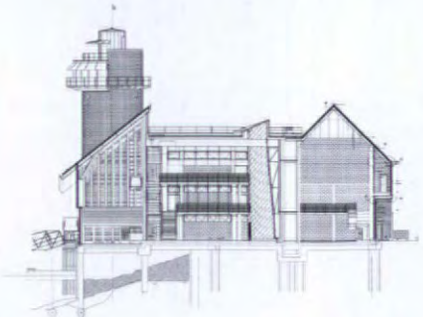
longitudinal section looking north

longitudinal section looking south

1 main entrance
2 main exhibition hall (daylit gallery)
3 dark gallery
4 workshop
5 construction gallery
6 Cornwall gallery
7 waterside gallery
8 tidal pool
9 pre-show
10 library
11 shop
12 marina offices
13 information
14 introduction gallery
15 offices
16 meteorological and navigation gallery
17 school room
18 climate control gallery
19 temporary exhibitions
20 auditorium
21 café
22 kitchen/servery



cross section looking west



cross section looking east

Maritime Museum,
Falmouth, England
Architect
Long & Kentish

4
The main exhibition hall, with its lively display of boats and associated nautical paraphernalia.

5

6

7

pitched roof linear sheds following local warehouse vernacular.

The main entrance sets up an axial relationship with a small local monument, and the facade of the museum will provide a backdrop for events, helped by hints from the pattern in the stone paving. Running from square to tower and visible from the town, the north side of the building is dominated by a great area of sloping roof that works better in reality than in elevation. It indicates the main exhibition hall within and dips to defer to the tower, while at larger scale it follows the line of the local topography. From close to, the roof is seen to step forward covering both the tidal pool and the public harbourside walk that skirts the building's entire north and east sides. Under the roof's upper reaches are great wooden shutters that open into the exhibition hall, so that in summer the sea air can waft through and sounds of the harbour can be heard. In the east face the tower is balanced with a double gable on the corner next to the housing, and between the two is an open area of balcony with windows to the main exhibition hall. Least important is the south elevation, which faces the housing and accommodates the dark, outwardly lifeless part of the museum. With its conventional pitched roof and timber siding, it mimics a warehouse. Plans to front it with a lower and similarly linear service building across an alleyway would have helped the transition of scale, but fell victim to budget cuts.

Inside, the building divides into two long halls, with groups of smaller facilities gathered around each end. The entrance doors face lift and admission counter, with the obligatory shop tucked behind to left. Three destinations are offered: right to the dark hall, direct left to the Cornwall Galleries in the corner – a kind of museum within the museum – and right at the end of the counter to enter the main hall. The whole plan is tapered because of the shape of the site, and this taper is absorbed by the main hall, making it larger towards the entrance. The space is high and well daylit, housing boats slung at various levels. It is partnered by the long thin dark hall, which is dark in accordance with the current mania for audio-visual displays: a series of giant TV screens showing short films associated with the boats exhibited.

Dividing dark and light halls but seen only from the main hall is a huge curved wall panelled in light-coloured wood veneer. It is set on the diagonal and lit by a wide rooflight. This forms the backdrop for the display, and seems appropriately to suggest the side of a great hull. Both main hall and the dark hall are traversed by long ramps, in the main gallery pausing at the east end before returning full-length to the top level. These main routes work well, the axis of the first ramp picking up a harbour view through windows at the end. Where the ramp returns to the second floor above the entrance is the café, enjoying views both to the hall and across the harbour. Further round, over the entrance to the dark hall, is a well appointed lecture hall. Other facilities, including library, workshop and schoolroom are added around the periphery, referring back in different ways to the main hall, and at ground floor north is a model boating pool with artificial wind where young visitors can try their hands at setting sail.

Inevitably the main construction is of concrete, the harbour edge involving complicated ground works. Roof structures are of steel and visible surfaces in traditional slate. As in most contemporary well-insulated buildings, much of what you see is cladding – predominantly green oak, though with frames and balustrades in iroko. The timber cladding reflects not only the traditional material of boats but also the local vernacular of sheds and warehouses, and it will weather down to silver-grey in the sea air. The architects have managed to produce quite a lively variety of effects by varying the direction and spacing of the timbers, and allowing glimpses between them in places. The exhibits include many different kinds of boat including prototypes and race-winners, which are made visible from different heights and angles. There are the usual panel displays and model boats in glass cases. A construction gallery shows half-built boats and informative structural sections, and activities in the adjacent workshop can be watched. Links to the outside world and harbour are planned, and the possibility is envisaged of temporary exhibitions in large visiting boats. I was surprised, however, to find no large floating exhibits in the harbour – tugs, steamboats, superannuated submarines – but perhaps these will be offered now that the institution is established. In these days of media bombardment and easy distribution of superficial information, what really counts on a real-life bodily visit to a museum of this kind is not the transferable make-believe of panel displays and videos, but direct confrontation with the real objects in the real place. Ships and boats are impressive enough without fancy labels, and Long & Kentish have found enough in the context to make the building really belong. The boat-builders in the workshop will help to animate the museum, but more life will be needed, so it is essential that the intended square linking the museum with the town be completed and allowed to develop a life of its own. PETER BLUNDELL JONES

Architect
Long & Kentish Architects, London
Structural, services and maritime engineers
Ove Arup & Partners
Cost consultants
Davis Langdon & Everest
Exhibition design
Land Design Studio
Photographs
All photographs by Peter Durant/arcblue.com
except no 2 which is by Dennis Gilbert/VIEW

Maritime Museum,
Falmouth, England
Architect
Long & Kentish

5
A long ramp winds up through the main exhibition hall.
6
The museum's café.
7
The harbour panorama from the top of the tower.
8
The tall volume of the main exhibition hall resembles a boatshed.

HOUSING, VENICE, ITALY
ARCHITECT
CINO ZUCCHI

VENICE REFORMED

Forming part of a wider urban revival, this Venetian housing block is a lucid, modern addition to the city fabric.

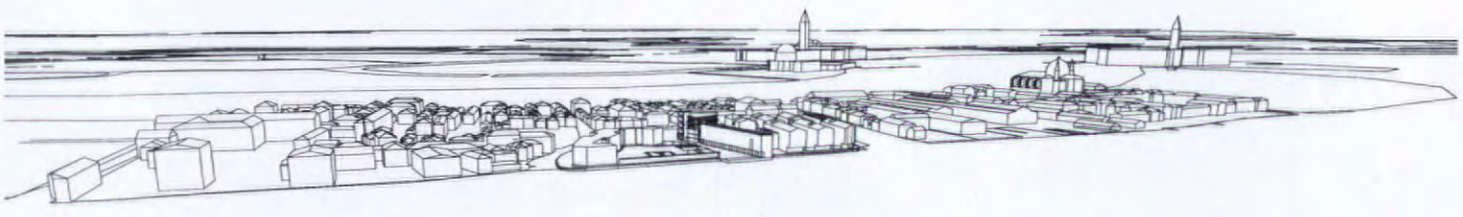
Venice owes its very existence to water, founded in and forged by a centuries old relationship with its protective lagoon. Yet though the demands of the modern world may have been grudgingly accommodated, it is still a city in profound and profitable thrall to its past, so that the apparently simple act of trying to make a contemporary Venetian building tends to be subdued by the omnipresent weight and sentimental sway of history.

Away from the tourist drags, however, Venice has its share of languishing industrial and residential quarters that require sensitive strategies for urban repair and renewal. One such area is the Junghans industrial zone, formerly the site of a huge watchmaking factory, which lies midway along the Giudecca on its south side and which was historically both physically and functionally separate from the rest of the island. In the mid 1990s, the city council invited five architects to propose development strategies for this considerable parcel of land. Milan-based Cino Zucchi won the competition with an approach extolled for its highly sensitive and surgically precise nature. Zucchi likens the ultra-dense urban stratification of Venice to the tombstones of the Jewish cemetery in Prague – confined by an immutable boundary (water) the city is obliged to grow and reform within itself, with every conceivable inch of space put to use.

Zucchi's scheme re-establishes physical links with the Giudecca through a series of new bridges that integrate the Junghans site with the life of the city. His strategy also pays particular attention to the nuances of Venetian urban space with a clearly delineated hierarchy of private and public domains, such as *calle* (streets), *campiello* (courtyards) and gardens. Within this framework, Zucchi was commissioned to design five buildings, currently at various stages of development. Among the completed projects is a new residential block on the north-west corner of the site, at the intersection of two canals. An existing industrial chimney, a legacy of the area's industrial past, was incorporated into Zucchi's scheme, and the site's isolated position, bordered on two sides by water, underscores its prominence in the emerging new urban composition.

The compact, cubic mass of the block is broken up on the south (land) side by a wedge-shaped courtyard. The basic template is simple and economical: four flats, varying in size from one to two bedrooms, are economically organized around a tight central core of lift and stairs. Repeated over four storeys, this generates a conventional, medium-rise urban apartment block, of the type found in most European cities.

1
The apartment block forms part of a wider plan to regenerate a former industrial area on the Giudecca. The chimney is a legacy of the site's original watchmaking function.
2
A new bridge reconnects the site with the surrounding neighbourhood. The housing occupies a prominent position at the junction of two canals.



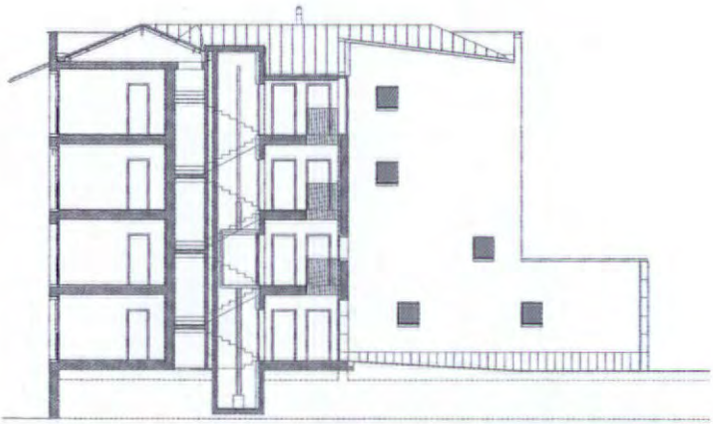
 aerial perspective of the Giudecca from the south

Yet the building's generic character is subtly and intriguingly transformed by its Venetian setting. Signposted by the towering chimney, the courtyard hovers between being an intimate domestic space and blind alley, blurring the distinction between private and public realms. The form and scale of the building recalls ancient Venetian palazzi, but it is treated in a more abstract, contemporary fashion, with an emphasis on the flatness of the external surface. Materials are traditional: grey rendering on the street and canal sides, white in the courtyard, with cool white Istrian stone defining the openings in the walls, together with slim timber window and door frames and shutters.

The arrangement of the openings, some recessed to create terraces, some flat, together with the stone frames reflect Zucchi's interest in the styleless, vernacular character of Venetian domestic architecture. The facades also manifest a painterly sensibility, treating the surfaces as if they were canvases, adding here, taking away there. The result is a convincing and intelligent reinterpretation of Venetian types that avoids the ready trap of whimsical pastiche. Nor does it lapse into fashionably arid reductivism. 'One cannot fight urban kitsch through simple forms of "structural sincerity", or by adopting the latest avant-garde attitude, at least not in Venice', as Zucchi perceptively notes. The Junghans project heralds what will hopefully be a thoughtful new era of contemporary Venetian architecture that addresses the city's titanic past but is not submerged by it. Not drowning, but waving. C. S.

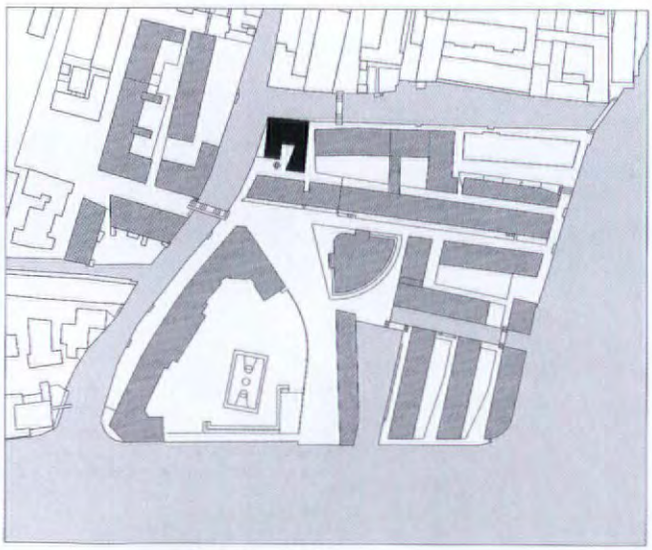
second floor plan

first floor plan



cross section

1 courtyard
2 chimney
3 entrance
4 living room
5 kitchen
6 bedroom
7 bathroom
8 balcony
9 terrace



site plan

ground floor plan (scale approx 1:250)

Housing, Venice, Italy

Architect

Cino Zucchi

3

4

5

Architect
Zucchi Architetti, Milan
Project team
Cino Zucchi, Alessandro Acerbi, Ida Origgi, Franco Tagliabue, Federico Tranfa, Natascha Heil, Gaudia Lucchini, Anna Chiara Morandi, Luca Zaniboni
Photographs
Cino Zucchi

3
Despite being the same scale as typical Venetian blocks, the new building's facades have an abstract, painterly quality, which distinguishes it as a recognizably contemporary addition.
4
Detail of facade.
5
Lightwell in circulation core.

MARITIME SERVICES BUILDING, OTRANTO, ITALY
ARCHITECT
MARIO CUCINELLA

1
Beached like a ship on Otranto's harbour side, the new Stazione Marittima is a stepped, almost geological, formation, clad in panels of local limestone.
2
The Italian coastguard occupies the building's prow, while the hull is more publicly accessible.
3
Perforated aluminium lamellae on slim steel columns form a delicate canopy.

ADRIATIC STATION

A civilized new services building in the historic port of Otranto aims to consolidate and expand Italy's Adriatic connections.

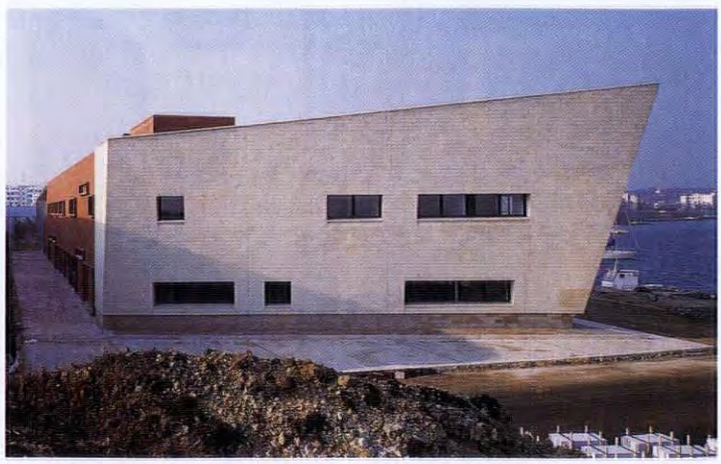
Otranto port accommodates yachts, local fishing boats, and freighters that haul cement products across the Adriatic. Also to be found here are vessels of the coastguard and customs service as the Italian state monitors the waterways between Puglia ('the heel of Italy'), Albania and Corfu. Alongside the port, the Stazione Marittima by Mario Cucinella Architects has a hybrid programme. It processes foot passengers and provides services for port users, as well as housing the security/intelligence operations of Italy in the southern Adriatic.

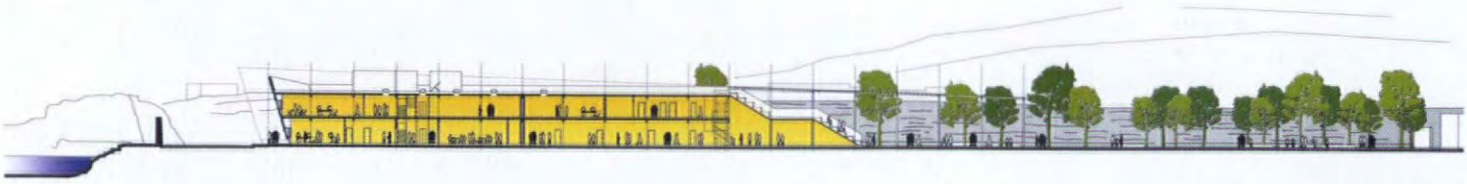
The building is a stepped linear form thrusting at an acute angle towards the sea. Clad in local limestone, the Stazione Marittima is conceptualized as a geological or topographic fragment parallel to a low escarpment. Its harbour elevation tilts out at approximately 8 degrees from the vertical; the elevation to the Adriatic at twice that incline. The key facade is south-west towards the Old Town. Cucinella has stepped its entire form to create an outdoor auditorium and meeting place, a terminus to a new civic promenade leading up onto part of an extensive roof terrace. From there, you look back to the town with its fortress walls designed by Francesco di Giorgio Martini in the early sixteenth century.

Despite its codified brief and a comparatively modest budget (€2 million, roughly £1.3 million), the Stazione Marittima is designed with gestural, contextual and urbanistic intent. From the Old Town, its north-west flank appears to reply to the splayed Renaissance fortifications. The new building glides alongside the port like a frozen ship. With the coastguard occupying the more secure prow area, the hull is publicly accessible across a new piazza screened from heat and glare by a pergola of perforated aluminium lamellae on tall slim columns.

From the old ramparts, a line of lights leads to the Stazione Marittima; in the evening its long north-west facade is washed from the pavement in artificial light. Cucinella's elevation south-west onto his new piazzetta is split in two with ziggurat-like stepping towards the harbour and a sloping glass roof and entryway inland by the cliff face. Through the glass, planes of solid colour – orange, green, blue – are visible. The little-seen elevation against the natural rock is a deep red, as are service elements on the stone-paved roof terrace (a chromatic reference to Malaparte's villa on Capri?) With devices including radar concealed behind a simple grill fence, citizens of Otranto now have a panoramic finale to their *passeggiata*.

Di Giorgio Martini's fortress walls splay outwards, down to the sea to repel marauding buccaneers. Cucinella's form inverts that geometry, expanding as it meets the sky and views of the Adriatic (glimpsed through the archways of a secondary defensive wall). This, then, is clearly not a traditional load-bearing masonry wall. The Pietra di Lecce stone panels have been glued to the primary concrete structure with minimal interstitial joints. Rather than accepting

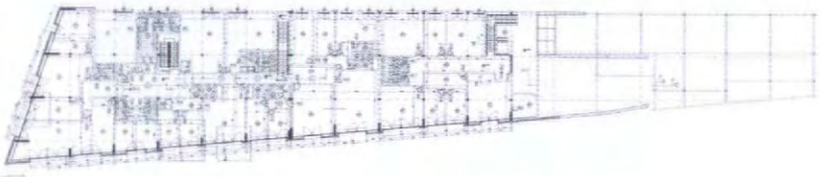




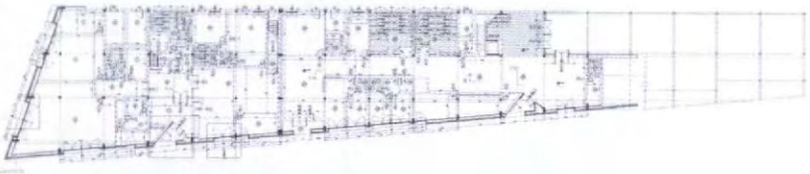
longitudinal section

MARITIME SERVICES BUILDING,
OTRANTO, ITALY
ARCHITECT
MARIO CUCINELLA

location plan

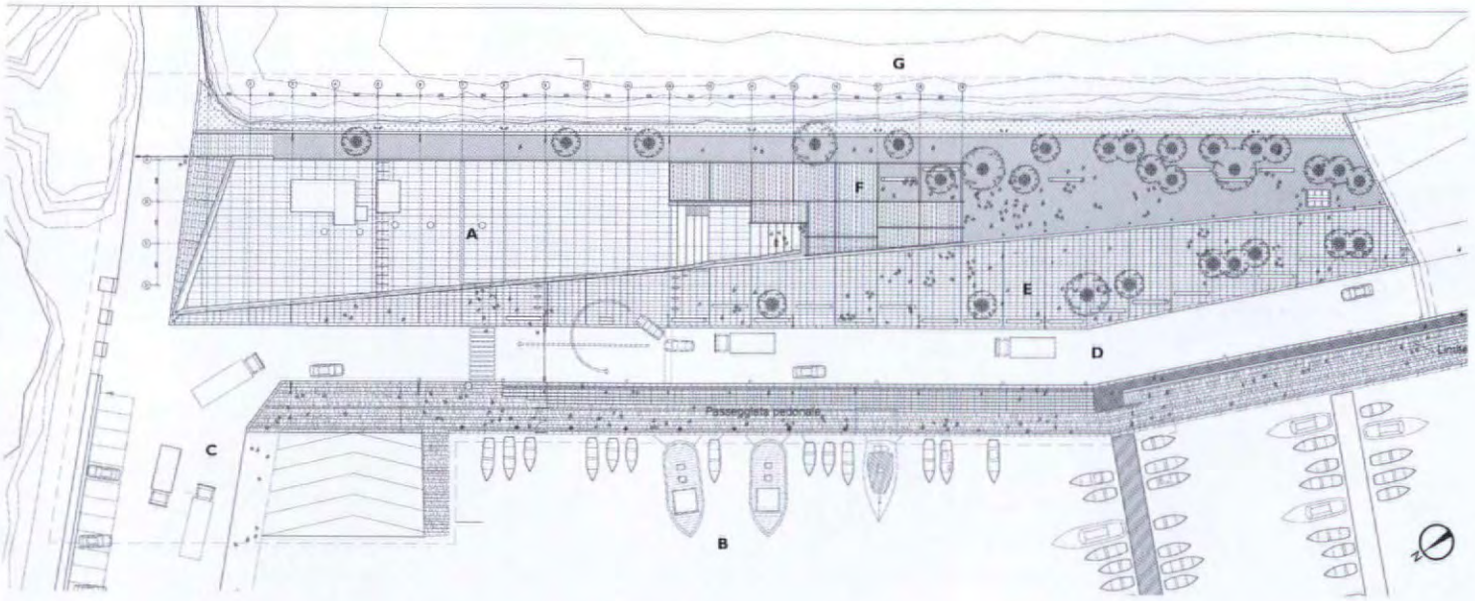


first floor plan



ground floor plan (scale approx 1:1250)

A Stazione Marittima
B harbour
C Molo San Nicola
D access road
E pedestrian precinct
F canopy
G ridge



site plan

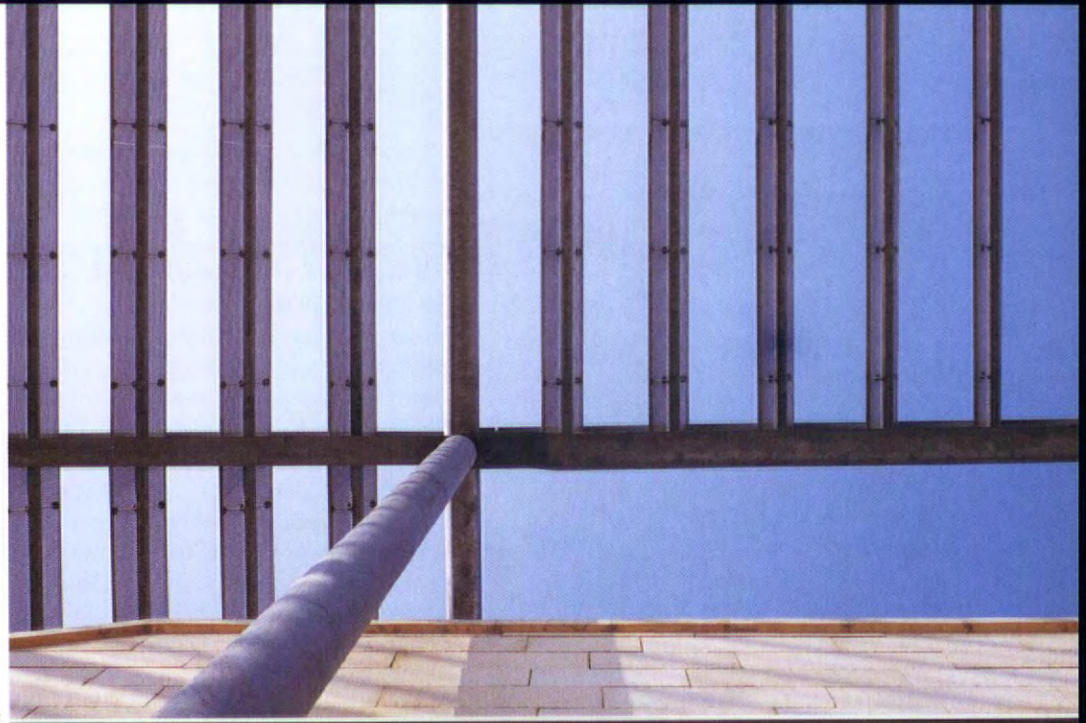
today's typically homogeneous finish achieved by diamond-cutting techniques, Cucinella chose a more archaic rough-hewn method, then mixed stone from different zones of the quarry so that the final assemblage has a lively texture.

A darker Soleto stone clads the tiered theatre and base of the tilted facades, and a third, from Apriceno, is used for paving details. Towards the harbour, fenestration is contained in two strips of deeply-set, horizontal cuts. With windows flush to vertical internal wall, the Pietra di Lecce folds in from the facade to wrap reveals, lintels and cills, so augmenting the perception of building mass.

Once the building is operational, the public will circulate around a double-height hall beneath the sloping glass to buy travel tickets and get maritime information. Offices overlook harbour activity while ancillary services are aligned alongside the low cliff to the rear. The more security-conscious, forward section of the Stazione Marittima has command rooms, a canteen at ground level, accommodation for service personnel and the commandant's private flat above. An internal corridor receives daylight through small, circular skylights. Facing the harbour, both sections of the building, separated by a vertical zip of Soleto stone, have deep doorways cut at the same angle.

Otranto is unlike other projects from the Cucinella studio. The practice is best known for its environmentally sensitive assembly of lightweight components, for instance the iGuzzini headquarters at Recanati, near Ancona (AR February 1999). Otranto is more expressive, a kind of trigger to future urban growth , and a re-presentation of an ancient indigenous material in an unmistakably contemporary fashion. RAYMUND RYAN

Architect
Mario Cucinella Architects, Bologna
Photographs
Jean de Calan



4
5

4
Detail of canopy.
5
Planes of solid colour animate the building mass.

1

The STUK is one of the best and most innovative art houses in Belgium, known particularly for theatre and dance. Founded as a student arts club in the 1970s, in the ancient university town of Leuven (Louvain), it is an independent body, funded by the state, city and university.

Until very recently the STUK was spread about the town in a number of buildings. But with the acquisition of a lease from the university on a large part of the Arenberg Institute, a complex that once housed the university's chemistry department, the STUK has been able to concentrate its activities in one place and has transformed itself into a single, identifiable arts centre. This provincial Brabantine town now has a new public space and 10 new theatres embedded in its centre .

The centre was designed by Neutelings Riedijk Architecten as an intricate piece of urban mosaic, made up of buildings and spaces for all kinds of performing and visual arts, as well as spaces for reception halls, teaching areas and administration. Each part of the mosaic, whether historic, new or refurbished, has a distinctive character while forming part of a unified whole.

When acquired, the site consisted of an irregular block of buildings, most of them dating from the beginning of the last century, stepped down from Naamsestraat on the east to Schapenstraat on the west and arranged around an inner court. Having been largely vacant for a long time, the physical fabric of the complex required a great deal of work and, in the case of the south wing, demolition.

New buildings of reinforced concrete have been faced with red brick with windows of enamelled steel sections, hammer finished in grey. Existing buildings in a reasonable state were cleaned up and, where necessary, repaired. Wherever possible, original structures were retained and finishes renewed. So, the 100-year old auditorium in the north wing has been preserved in its original state but equipped with modern services; in the nineteenth-century east wing on Naamsestraat, the cast-iron columns and parquet floors of the Zuilen (columns) rooms on the first and second floors have been restored and the volumes insulated; one has been turned into a new gallery, the other devoted to the university's cultural studies course. On the ground floor, the café-restaurant was once a chemistry lab. High-ceilinged, columned, and flooded with light from tall windows, it seems always to have been part of the grand-café tradition.

New insertions into the old include the silvery shed roof over the east wing which diffuses north light into an airy new studio on the top floor, with big windows onto Leuven. Floating over the building at the highest point of the site it is a new landmark on the city skyline. The structure spans the width of the complex from south to north, and faces onto a sunken forecourt on Naamsestraat where huge letters supporting a surrounding frame announce the STUK's presence. A foyer has been realized as a covered street space, its grey concrete flooring and floor lamps continuing the exterior aesthetic. A new double stairway leads to the café above.

Forecourt and foyer are the beginning of a system of public spaces stepping down through the complex and linking the main entrance with the secondary one on Schapenstraat.

At the heart of the STUK is the inner court and an outdoor foyer with entrances to the most important theatres. From here a monumental stairway leads west down the slope to yet another courtyard on Schapenstraat. These exterior spaces are full of life. Used for impromptu performances, they are informal meeting places for performers, spectators and audiences, students and city inhabitants.

1, 2
Exterior on Naamsestraat.
3
Sunken forecourt leading to entrance off Naamsestraat.

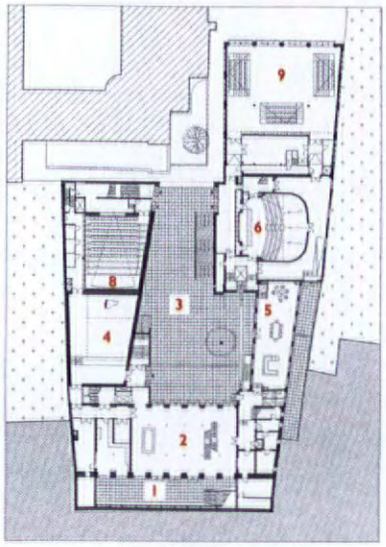
2

Urban mosaic

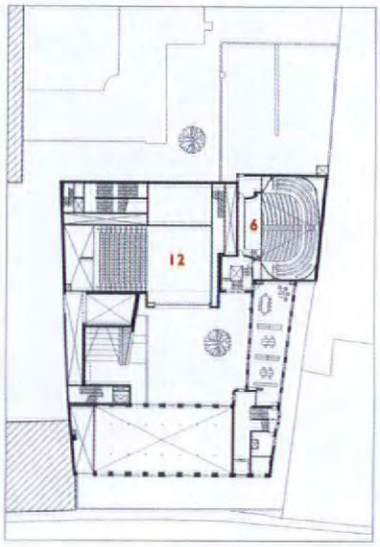
A new arts centre gives a provincial Belgian city an urban square and 10 theatres for performing arts.

interior design

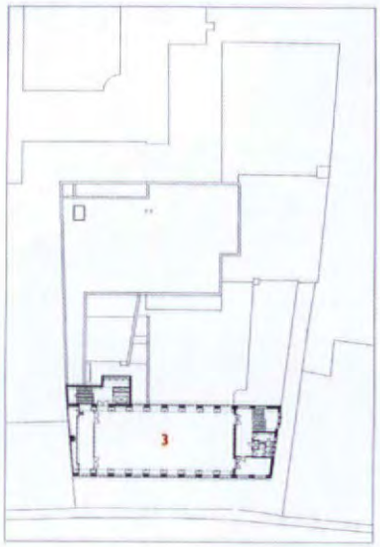
Arts centre, Leuven, Belgium
Architect
Neutelings Riedijk Architecten



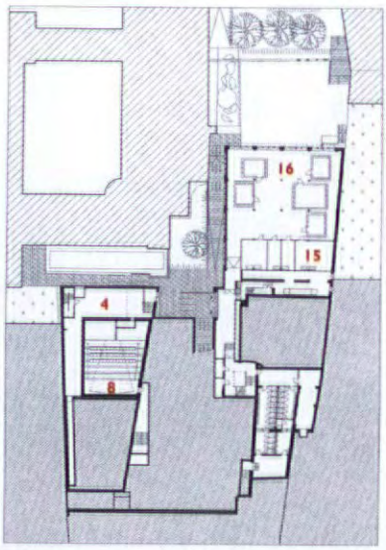
level -1 plan



level +1 plan

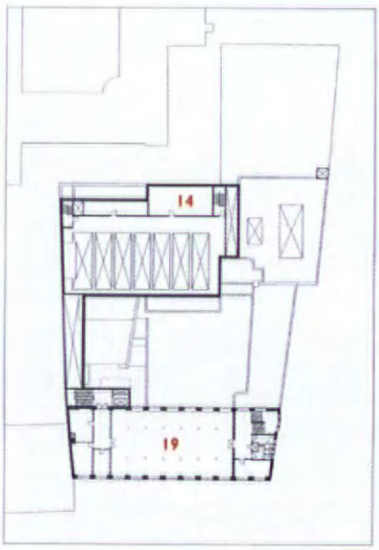


level +4 plan

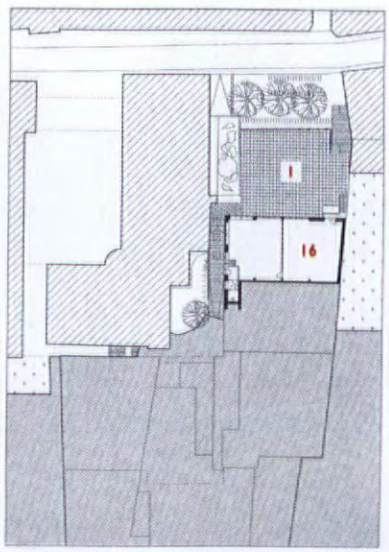


level -2 plan

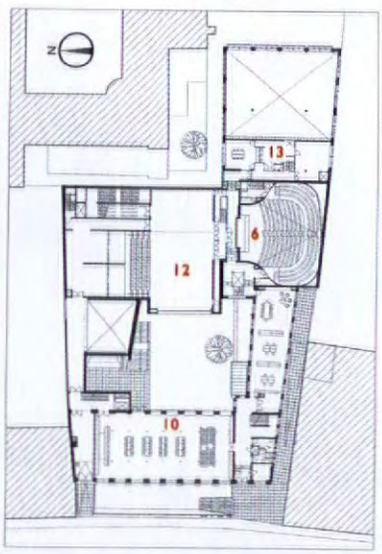
1 forecourt
2 foyer
3 courtyard
4 Ensemble music studio
5 artistes' foyer
6 auditorium
7 outdoor foyer
8 film theatre
9 small (Kleine) theatre
10 café
11 offices
12 Gröte theatre
13 dressing rooms
14 technical services
15 photolab
16 rehearsal rooms/dance studio
17 gallery
18 outdoor (Buitenzaal) theatre
19 cultural studies room (for university)



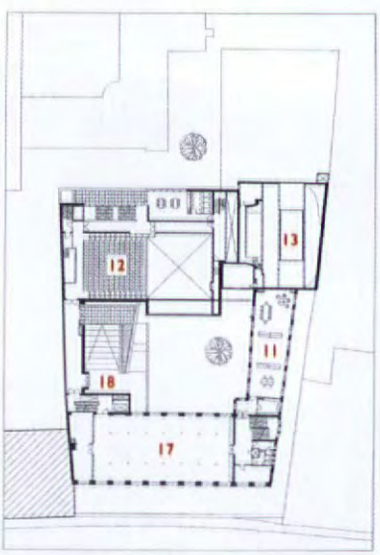
level +3 plan



level -3 plan

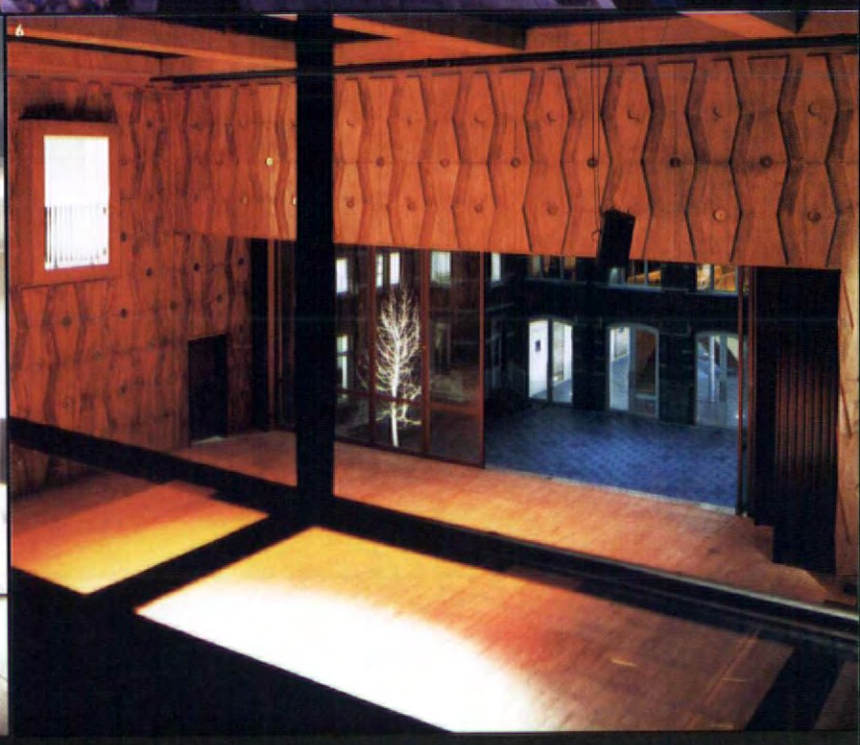


level 0 plan (scale approx 1:1400)



level +2 plan

4
Internal courtyard: Gröte theatre to right; centre, open-air theatre; left, east wing on Naamsestraat.
5
Zuilenzaal studio
6
Grötezaal.



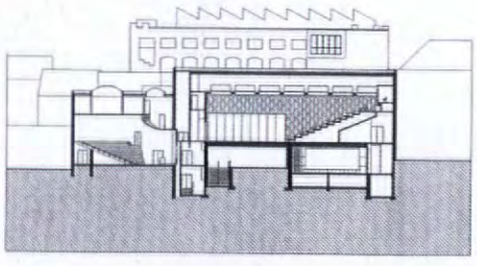
Neutelings Reidijk's architecture, expressed in a tough industrial vocabulary, has a sculptural and, at times, theatrical intensity. Design of new parts of the centre creates a host of bays, lookout towers, balconies, stairways, alleys and terraces. To avoid having a collection of hermetic dark boxes, theatre interiors are rich and diverse; and in their design the architects have manipulated light, perspective, and the connections between buildings and with exterior spaces. The Gröte theatre, replacing part of the south wing and sheltering the foyer on the inner courtyard's west side, exudes a sombre kind of exuberance; the ambiance suggests a combination of urban square, living room and old machine factory. Grey walls (oiled concrete, decorated with bas-relief zig-zag and brass rosettes) encompass bays, balconies, loggias and gateways; a grey floor (oiled ash parquet) is set with seating covered in rough brown fabric which can be converted into long sofas. Above, fixed bridges support technical equipment, and to one side a 2m deep bay with an enormous window onto the inner courtyard forms a kind of side-stage engaging public attention.

To the east of the Gröte, the gold, red and blue interior of another new theatre, the intimate Ensemble (for rehearsals and the university's ensemble orchestras), is illuminated by a triangular upper window of opalized glass. A sloping ceiling rising to a height of 8m, prefigures the angle of tiered seating for the (Buiten) outdoor theatre on the roof. Connected to the café in the south wing and Gröte theatre at the back, this is an urban enclosure of brick walls and concrete tiers coloured terracotta. Backcloths and actors can be lowered from a tall watchtower. Slotted in at the lower level of this new section as the ground falls away is a black padded cinema fitted out with capacious seating in blood-red plush.

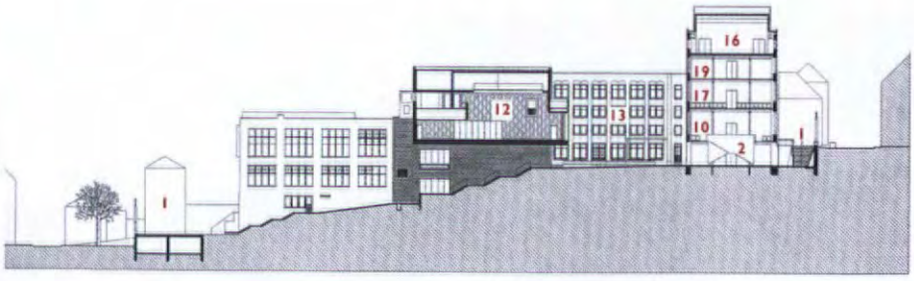
Such intricate interlocking and layering takes place horizontally and vertically, physically as well as visually, and devising anything approaching a coherent system of services must have been something of a nightmare. A logistical circuit connects the many technical spaces without crossing public routes and as a result, technicians can move easily between them. The level of servicing does seem to be high. For acoustic reasons, new theatres are heavy independent structures – boxes-within-boxes – with foundations on rubber blocks to prevent oscillation transmission. As a result, all of them can be used at the same time without interfering with each other. All the public theatres have their own interior climate controls which can be separately regulated. In existing buildings central heating systems have been renewed while preserving the original cast-iron radiators. P. M.

Architect
Neutelings Riedijk Architecten, Rotterdam
with Carl Meeusen and Serge Vendenhove/STUK
Technical support
Bureau Bouwtechniek, Antwerp
Bureau voor Architectuur en Stabiliteit, Leuven
Roelandt and Rys, Leuven
Daidalos, Leuven
Theater Technieken Advies en Studie, Ghent
Main contractor
Bouwbedrijf Van Hout, Geel
Photographs
Sarah Blee

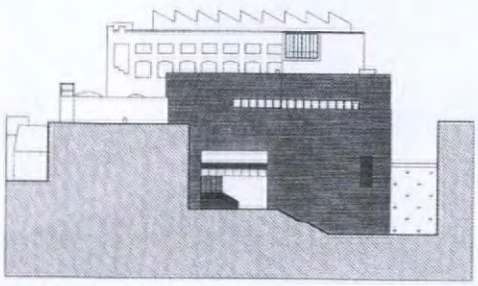
7
Internal courtyard.
8
Studio under new shed roof of east wing on Naamsestraat.
9
Film theatre.
10
Ensemble music studio.



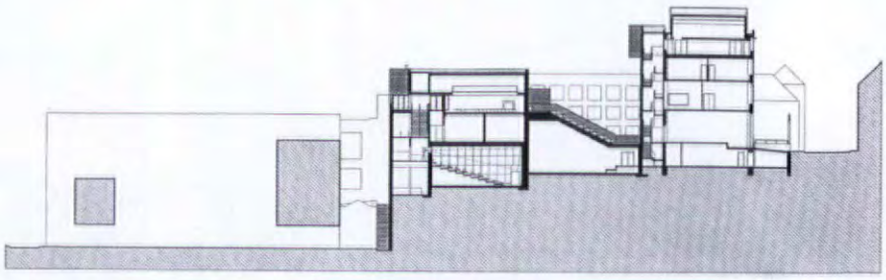
north-south cross section



west-east long section

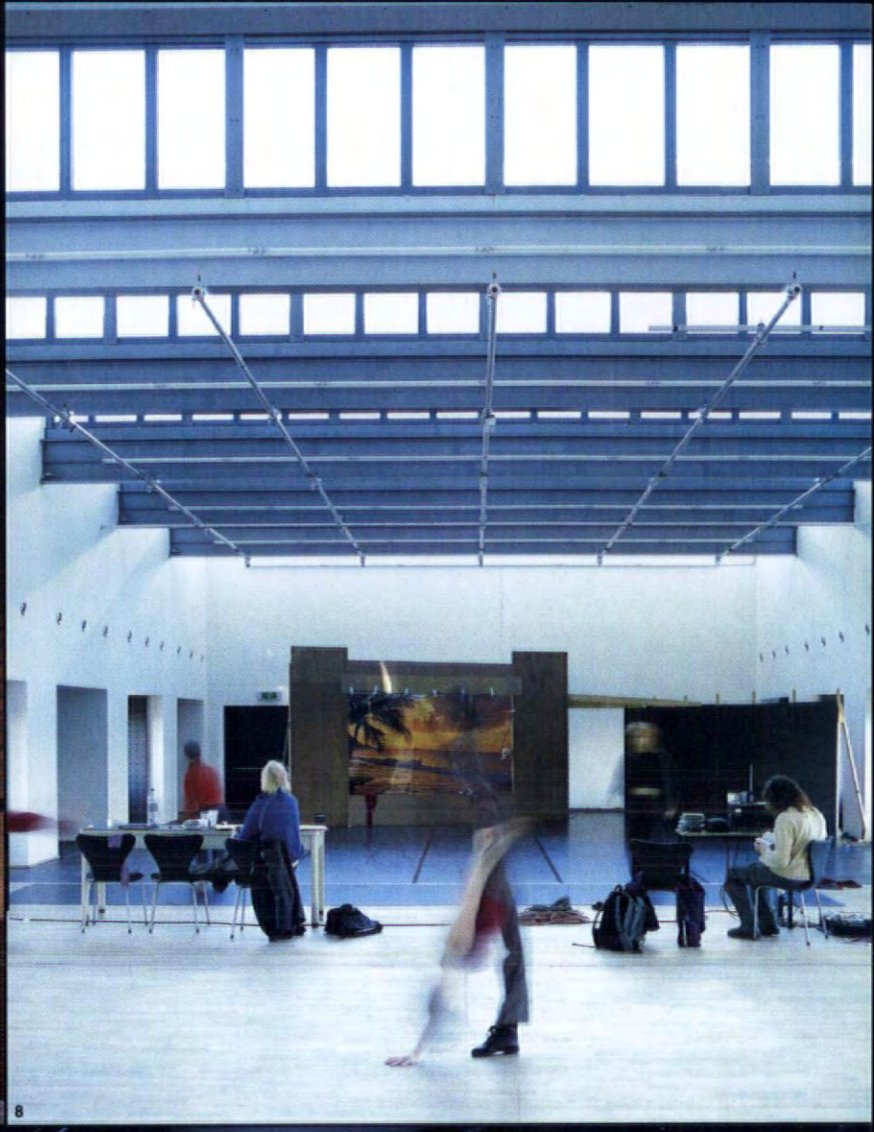


north-south cross section



west-east long section

7



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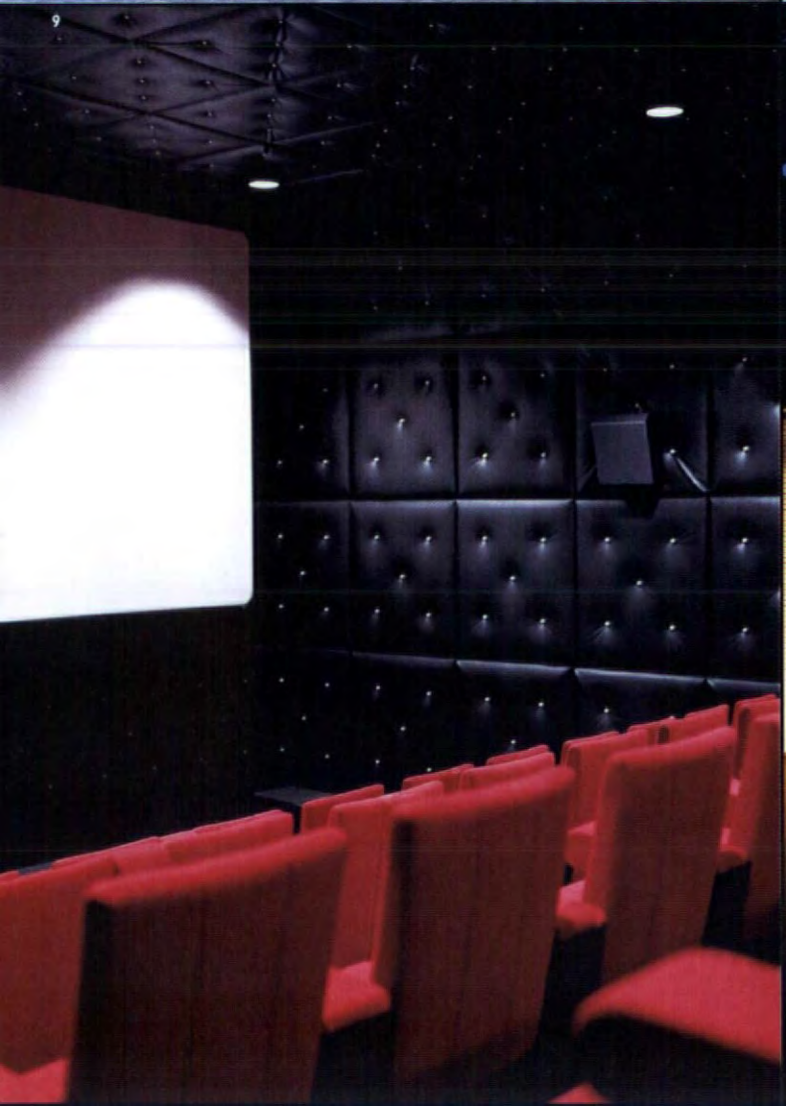
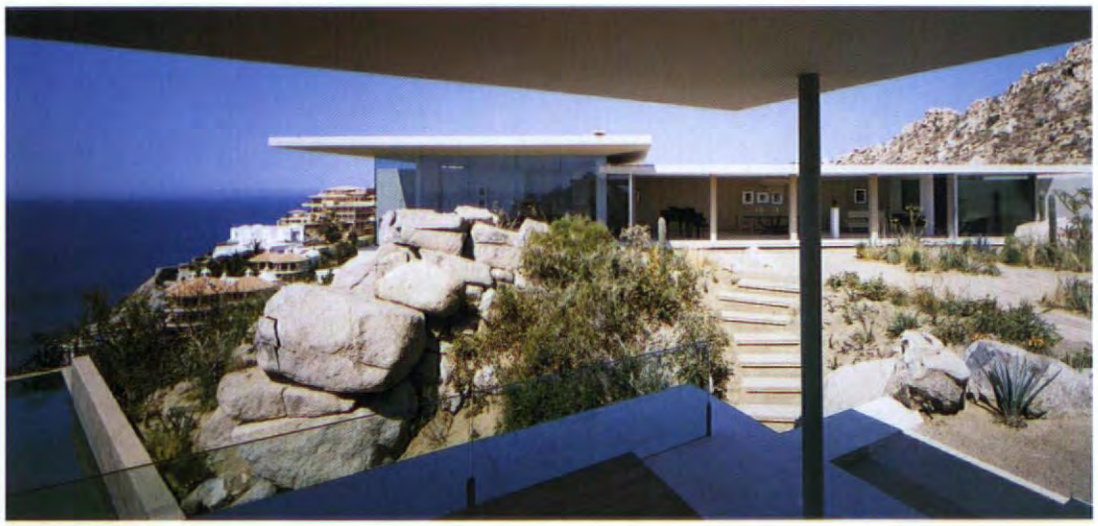


9

10

ar house

House, Cabo San Lucas, Mexico
Architect
Steven Harris Architects



2

3

A cut above

On a rocky site over the Pacific Ocean, a Mexican house exploits the prospect and arid beauty of the site.

The Weiss House, by Steven Harris Architects, has been built into the rocky contours of a headland, 75m above the Pacific Ocean in Cabo San Lucas; it is the southernmost private house at the foot of the Baja Peninsula, one of the few places in the world where the desert meets the sea. The landscape is an arid one of rock and sandy windswept soils; and natural vegetation, of desert grasses and cacti, is sparse.

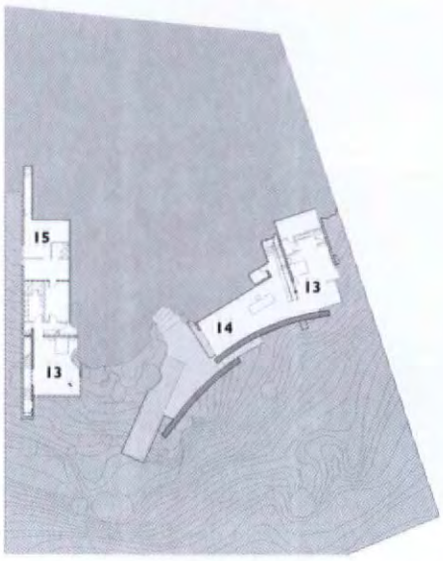
Wishing to preserve the particular beauty of the landscape and disturb it as little as possible, the architects divided the house into two separate wings, dispersing them to the perimeter of the site. The result is a marvellous sense of space, light and air; and an impression of experiencing the land as it is, for as well as being spread out horizontally, the structures take advantage of vertical drops.

The approach to the house, looking down on roofs and with a view of the Pacific, gives some intimation of drama. From a car port you pass between large boulders, down a stair carved out of the rock, to a ramp between two walls where a view of the sea is denied. The path through an entrance pavilion (embellished by a Bertoia sculpture) opens into a magical stony garden, a fragment of desert outcrop sprouting spiny cacti and frangipani.

On the east of this internal courtyard is the (private) master bedroom; on the west, are living and dining rooms above a study, with guest accommodation fitted

1
West to swimming pool and Pacific. To right is glass living room facing south and east.
2
East across internal garden to living rooms.
3
From roof of private suite south-west across site to pavilion and living rooms.
4
Swimming pool cantilevered over sea, east to open pavilion on the main upper level with study and guest accommodation beneath.

4



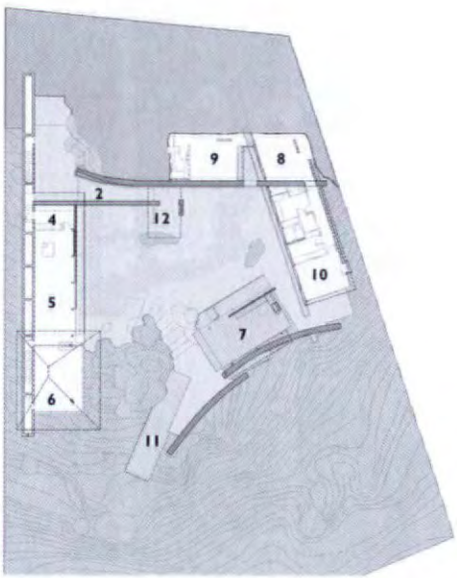
level -1 plan

into the cliff below. Along the south cliff edge are an open pavilion with study and guest bedrooms beneath, and a pool, cantilevered towards the Pacific.

Formally, the building's austere geometry, suppressed section and subdued palette defer to the muscular forms and subtle hues of the terrain. Open to the limitless expanse of sea on the one hand, to fragments of desert on the other, its interior becomes a series of sensual experiences. Some rooms are cave-like; others at the cliff edge are barely enclosed by glass and seem suspended in mid-air.

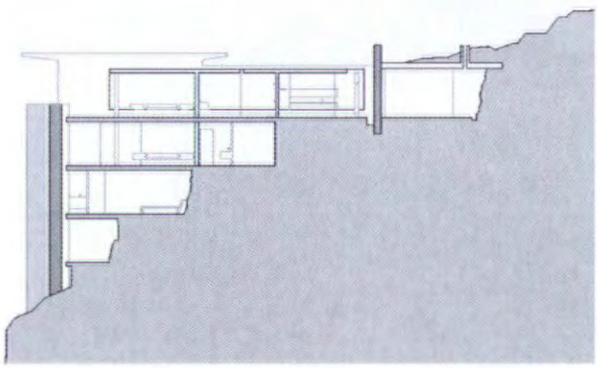
Light and water are elemental themes running through the design. Glass rods embedded in the east wall of the master bedroom pick up the first rays of sunlight and project large circles on the plane opposite. Underground media and exercise rooms, excavated out of the rock to the north, are themselves sources of light. By day illuminated by slivers cut through the ground, they cast luminance at night over the rocky surface and over the entrance path. A glass bottomed runnel, which collects water during the short and torrential rains, doubles as a skylight over a glass shower and over the guest room below. Steps of underlit stone seem to float.

Structure is of reinforced concrete and high-strength laminated glass. The area is subject to hurricanes and the glass is braced by a sophisticated system of custom-made stainless steel anchor points – a measure that allows much larger expanses of glass than would otherwise be possible. Otherwise, the concrete construction is conventional and familiar to local craftsmen.



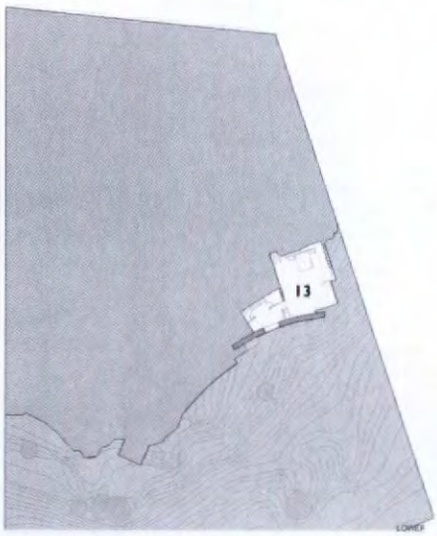
main level 0 plan (scale approx 1:1500)

1 car port
2 entrance ramp
3 courtyard
4 kitchen
5 dining room
6 living room
7 open living room
8 media room
9 exercise room
10 master bedroom
11 pool
12 entrance pavilion
13 guest bedroom
14 study
15 service



east-west section

level +1 plan



level -2 plan

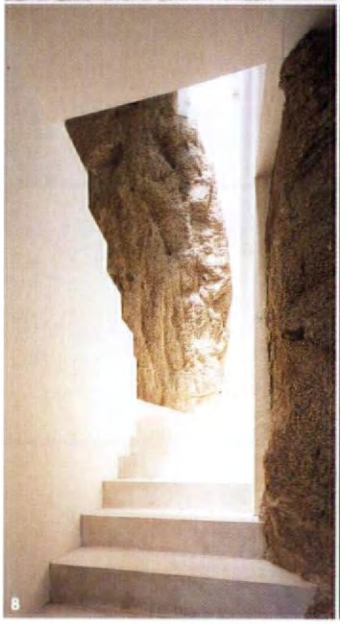
Architect
Steven Harris Architects, New York
Photographs
Scott Frances/Esto

5
Glass enclosed living quarters on west.
6
Internal garden: an enclosed fragment of natural desert.
7
Living room with transparent walls south and east over sea.
8, 9
Shafts of light illuminate passage to lowest elegantly appointed guest bedroom.

5

6

7



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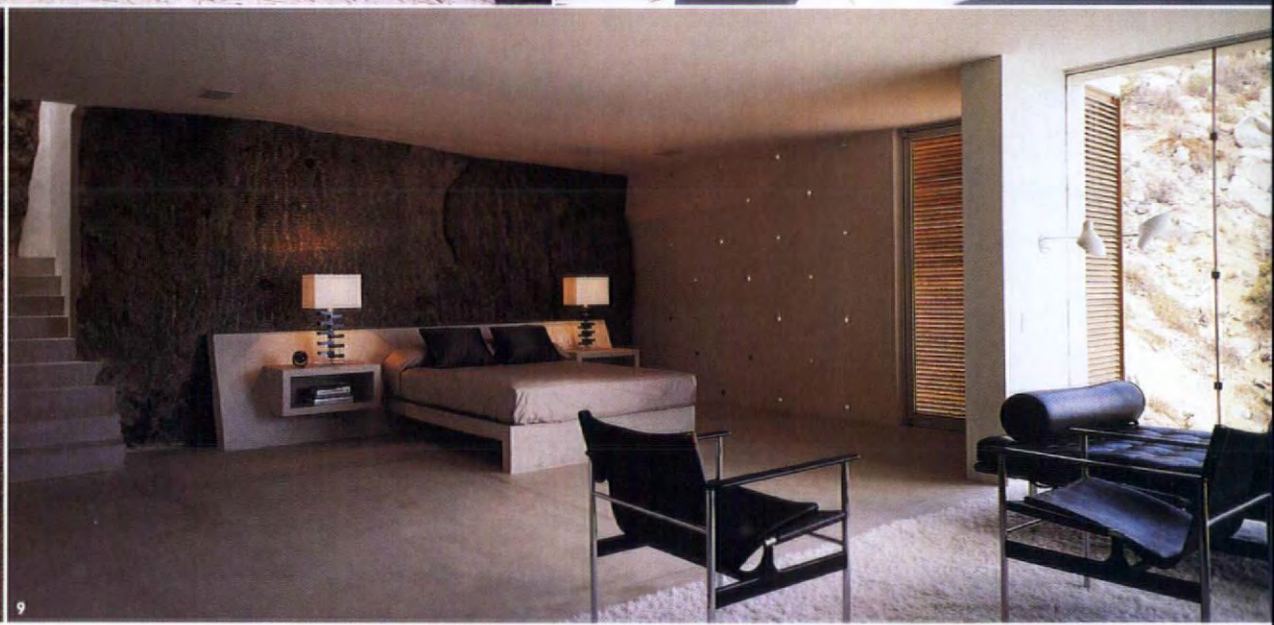

9

UNIVERSITY OF DUNDEE

School of Architecture

Chair of Architecture

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This is an exciting time for this long established, vibrant School which views architecture in the context of "creative realism". The University is looking for someone with a strong vision for the future of the School who is expected to have a national/international reputation in practice, research or academic leadership.

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To request an Application Pack contact:

Personnel Services, University of Dundee, DD1 4HN, Tel: 01382 344015.

Please quote Reference: DJ/886/1/AR.

Closing date: 24 January 2003.

The University is committed to equal opportunities and welcomes applications from all sections of the community.

dundee.ac.uk

enquiry 2 www.arplus.com/enq.html

Lecturer/Senior Lecturer in Architectural Design

School of Architecture
Faculty of Architecture Property Planning & Fine Arts
Vacancy A307-02

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Applicants should hold a professionally recognised qualification in architecture, and have a postgraduate qualification or equivalent practice experience, and be able to plan and deliver teaching in Architectural Design. In addition applicants should be able to offer teaching in one of the following areas: Architectural History and Theory; Sustainable Design; Material and Construction Technologies. Candidates will also be expected to have, or have the capability of developing, a research/creative work programme in their area of specialisation.

Enquiries of an academic nature should be addressed to the Head of the School of Architecture, Professor Errol Haarhoff, telephone 64-9-373 7599 ext 88629, fax 64-9-373 7694, or email: e.haarhoff@auckland.ac.nz.

For further information and to apply on-line, please visit www.vacancies.auckland.ac.nz or alternatively call 64-9-373 7599 ext 83000. Please quote the vacancy number.

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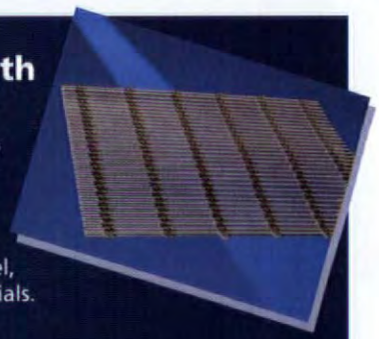

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ASSISTANT EDITOR, THE ARCHITECTURAL REVIEW

The Architectural Review is looking for an Assistant Editor. We want someone who has a passion for architecture and its related arts and sciences. We need a lively mind that can understand and communicate the wonders of technology, has a knowledge of architectural history and theory, and can write (or at least is prepared to be taught to do so). We seek a person who is keen to explore developments world-wide (some travel is part of the job). We hope for eyes that can see, and a brain that can whirr – and preferably be funny too.

We expect that the successful candidate will have at least RIBA Part I qualifications (or the equivalent overseas) and, preferably, Part II. Practical experience in architects' offices, building sites or in academia will be useful.

This is a very rare opportunity to join the small editorial team of the AR. We look forward to getting an enthusiastic and supportive new colleague who will complement our strengths, add to debate and to the richness of the magazine.

Please apply by post to: Peter Davey, Editorial Director, The Architectural Review, 151 Rosebery Avenue, London EC1R 4GB. Include a curriculum vitae and, if possible, copies of previously published work.

THE ARCHITECTURAL REVIEW

GREENING THE EUROPEAN CITY

A ONE DAY CONFERENCE FROM THE ARCHITECTURAL REVIEW, 19 MARCH 2003, RIBA, LONDON

In the last hundred years, humanity has become ever more urban and, now in the West, increasingly suburban. Cities have generated civilization, but they are increasingly eating up the world. If we are to remain civilized and try to live in some kind of harmony with the planet, we must evolve new kinds of urban planning, new architectures and new ways of relating to nature. If we do not, we shall not survive as a recognizable species. How are we to plan? What are we to build? How can we create cities in which we can live in harmony with the natural world?

The Architectural Review is holding a conference on Greening the European City on 19 March 2003 at the RIBA in which distinguished architects, environmental engineers and landscapists from all over Europe will discuss issues, innovations and initiatives. Full details about this conference can be found at www.arplus.com. This conference will address the most important issues facing all responsible for creating the human-made world.

For booking forms and further information call +44 (0)20 7505 6745 or **email: magdalena.lojszczyk@emap.com**

Speakers include:

STEFAN BEHNISCH (Germany)
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LUCIEN KROLL (Belgium)
Lucien Kroll is one of the earliest protagonists of both ecological awareness and participation in architecture. His output is as innovative as ever.

MARIO CUCINELLA (Italy)
Mario Cucinella has made a European name as a remarkably provocative and thoughtful designer of green buildings.

PHILIPPE SAMYN (Belgium)
Philippe Samyn's practice is one of the foremost environmentally exploratory laboratories in Europe.

MAX FORDHAM (Britain)
Max Fordham is one of the most distinguished environmental engineers in the world. His practice has contributed some of the most advanced buildings of the last 20 years.

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FEE: Conference fee £250+VAT (£293.75); €412
AR/AJ subscribers/students or if booked before 19 February 2003 £225+VAT (£264.38); €371
Architects accept that this programme is appropriate for CPD.

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501

Susan Dawson reviews the latest products for the external envelope.

507 DRAMEX

Studio BAAD has designed a new office building for TFL International in Preston, UK. The south facade of the two-storey building is formed of an inner layer of glazed sliding doors to the office spaces; they open onto a terrace screened with storey-height panels of 3mm mill-finish expanded aluminium mesh. Fixed to a light steel frame, the mesh acts as a solar and security screen, reducing glare while allowing views through to the docks.

Enquiry 507 www.arplus.com/enq.html

502 CORUS

The Imperial War Museum at Salford, UK, by Daniel Libeskind, is clad with flat natural mill-finish aluminium panels, screw-fixed to the structure with dome-headed screws. The tower, 50m high, is an 'external' space clad with 300 x 100mm hollow aluminium box-sections which run the full height of the tower, fixed to the steel structure with 100mm gaps between them.

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502

503 OKALUX

Designed by Rem Koolhaas, the 11-storey high Central Library in Seattle is under construction, to be completed by the end of 2003. The prismatic shape of the building is clad with a curtain wall facade of insulating glass panels set in a framework of steel tubes. The panels consist of triple-glazed units with sheets of expanded aluminium integrated into the cavities, imparting an attractive metallic sheen that glows in the sunshine. On the inside, the same panels create a soft glare-free light in reading areas. The panels are designed to modify climate; they have solar and thermal control coatings which reduce total solar transmittance to around 16 per cent.

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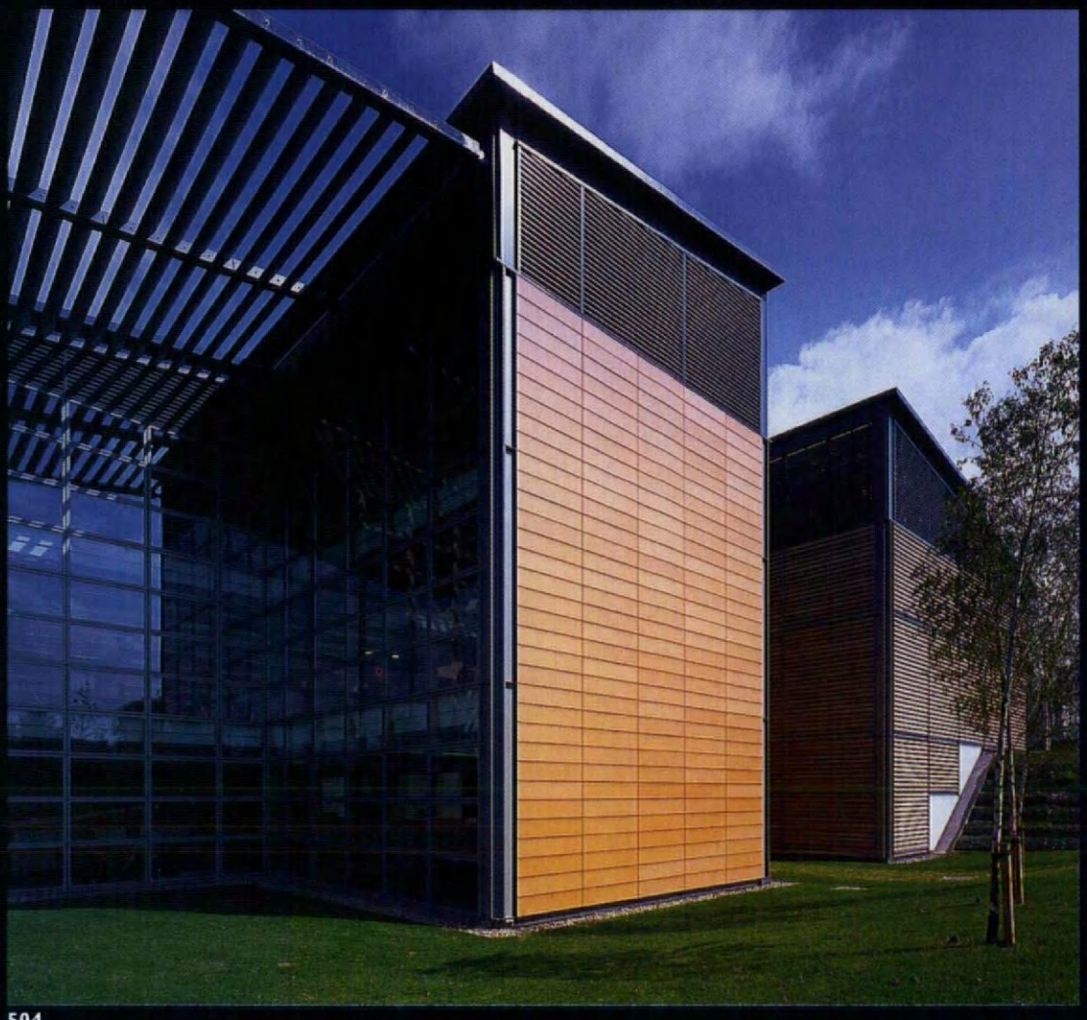
503



504

504 NBK
Fletcher Priest have designed a new headquarters for Vodaphone on a 15 hectare site just outside Newbury, UK. It takes the form of seven linked two-storey buildings grouped around a lake. The facades are clad with brick red terracotta rainscreen panels, selected from the Terrart-Large group of products and fixed with the Terrart-Flex support system. The terracotta panels, together with cedar panels, were chosen for their high environmental ratings – the complex is designed to be efficient in the use of energy and materials.

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501 HAVER & BOECKER
A cladding panel system of stainless-steel woven wire cloth backed with absorbent material offers an effective solution to the problem of traffic related noise. Lined with recycled polyurethane foam or mineral fibre for noise absorption, the system is suitable for tunnels, underground parking garages, car parks or metro stations. The stainless steel used to form the panels is especially resistant to road salt, exhaust fumes, sooty and oily residues. Despite its metallic shine, woven wire cloth reflects little direct light; reflections from car headlights are diffused by the irregular surface.

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505

506

506 BIRDAIR
Tensile canopies of translucent PTFE fabric membrane will form part of the renovation of Grantley Adams International Airport, Barbados. A large two-masted canopy will shelter the terminal entrance, with canopies over passenger drop-off, passenger arrivals, bus bays and the main retail space.

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507

508 MOEDING

The new headquarters of the Vogtland savings bank at Plauen, Germany, has a first floor facade of storey-height windows set between panels of clay tiles. The tiles are a warm shade of red with a sand-blasted finish, a reference to the historic brick facades of the old town. They are fixed in panels to form a ventilated rainscreen cladding system backed with thermal insulation.

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508

505 COVERTEX

An enclosure at Zurich Zoo, known as the Masaola Rain Forest, recreates the conditions and ecological system of Masoala, a peninsula north-east of Madagascar. At 120m long and with an area of about 10,600m², the enclosure is, it is claimed, the largest greenhouse in the world and will house rainforest plants and trees up to 30m tall. To get conditions of natural light essential for plant growth, the enclosure is covered with air-supported cushions of ETFE, with light transmission of 94 per cent. The three-layered cushions are fixed to a structure of 10 arched Vierendeel trusses.

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509 GKD

Designed by Dominique Perrault, the new Town Hall Gallery in the heart of Innsbruck comprises shopping arcades, hotels, restaurants and offices for city administration departments. The hotel facade is a layered composition of transparent, semi-transparent and opaque surfaces. A series of windows and opaque panels is overlaid with an outer layer of movable screens made of stainless-steel wire mesh. The density of the wire mesh allows it to act as an effective sunscreen while allowing views through.

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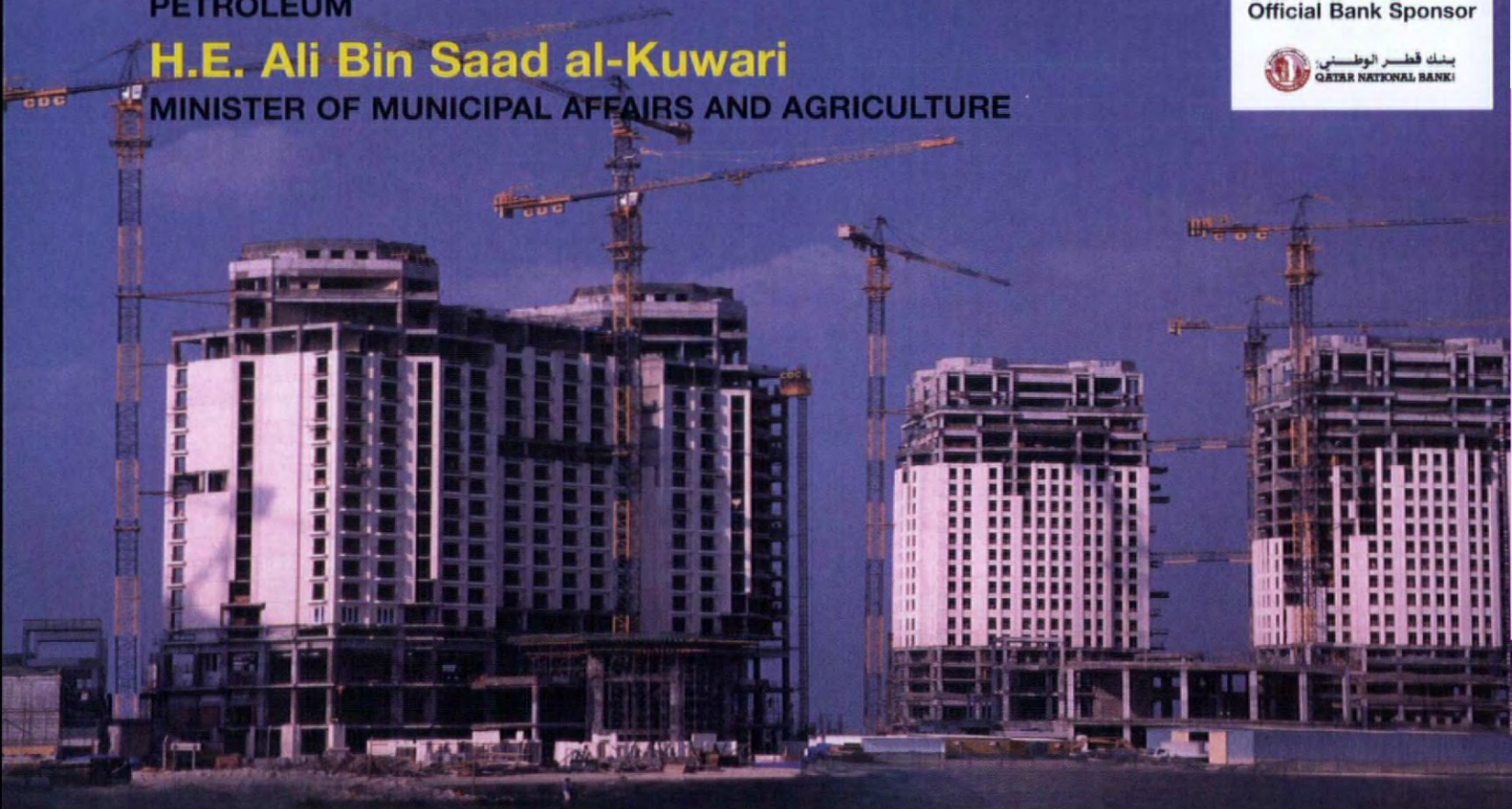





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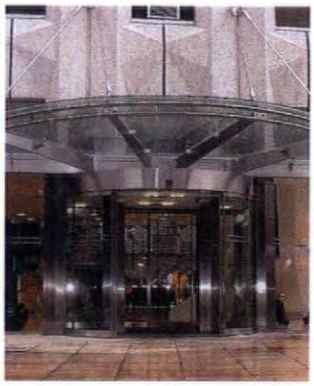


900 www.arplus.com/enq.html

PollardsFyrespan

PollardsFyrespan has installed a main entrance at Beagle House, London, the headquarters of P & O Nedlloyd. The original revolving door to the main entrance on Camperdown St has been replaced with curved bi-parting external doors and a set of internal sliding doors leading to a new lobby. Structural columns were removed to create a more open aspect. The new entrance is sheltered with a curved glass canopy. A secondary entrance in Braham St has been upgraded with toughened glazing and Colour-Line doors. PollardsFyrespan specializes in doors and entrances.

901 www.arplus.com/enq.html

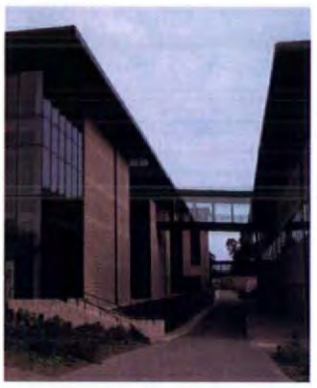
Graphisoft

The US Coastguard is using Graphisoft's ArchiCAD 3D CAD package to create intelligent 3D models of its buildings. The information is for use in space planning, quantifying building efficiency and prioritizing capital improvement projects. Highly detailed virtual models have been made for buildings in Charleston, Georgetown and Tybee. Other applications such as building project simulations and estimating can be carried out using the intelligent building models as a foundation, because ArchiCAD models support Industry Foundation Class standards for interoperable software.

902 www.arplus.com/enq.html

BioLab UK

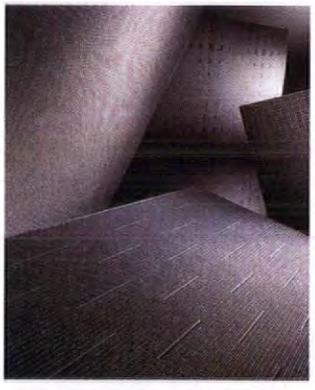
William Pye, designer of water features such as Charybdis, at Seaham Hall, Sunderland, used BioLab's specialist water treatment to maintain the quality of the water. The Fountain Fresh water treatment will sanitize the water and correct its balance, reduce the build-up of organic waste and prevent algae growth. Dosing and control systems make routine maintenance relatively easy. BioLab runs tutored training courses to give an understanding of the practicalities of water treatment.



903 www.arplus.com/enq.html

Vetrotech Saint-Gobain

Fire-resisting glass was installed in two adjacent buildings at the manufacturing plant of Sun Microsystems at Linlithgow, Scotland. A facility has been built next to the existing building and fire-resisting glass used on the adjacent facades of both to act as a fire-break. The glass, 6mm SGG Vetroflam, was installed in double-glazed units with grey Parsol, another Vetrotech Saint-Gobain glass which incorporates solar control. SGG Vetroflam meets the radiation control classification of Euronorm EN 357; it gives in excess of 60 minutes integrity and gives a significant reduction in radiated heat transmission.



904 www.arplus.com/enq.html

Carpet Concept

Tec Wave, a carpet woven with a metallic yarn pile, combines the qualities of woven carpet with the durability of a hard floor covering. The metallic yarn gleams over the coloured ground and becomes iridescent under light. The carpet is available in four designs based on a diagonal of constant dimension with 'constellations' of squares and stripes, with six background shades – grey, blue, red, black, brown and neutral.

905 www.arplus.com/enq.html

Kawneer

The new Sports Science and Research building at Edinburgh University, designed by architect FaulknerBrowns, has just been completed. The four-storey building has a facade of Kawneer 501 top-hung ribbon windows coupled together and installed into composite panels with specially adapted mullions. On the fourth floor a long sweep of curtain wall was created with Kawneer 1202 zone-drained curtain wall system. The aluminium windows and curtain wall were finished in a grey metallic polyester powder coating and fitted with high performance sealed units.

906 www.arplus.com/enq.html

Glazing Vision

Glazing Vision's latest product for the domestic and commercial market is the Walk-On FlushGlaze rooflight. It can be installed, for instance, in an external upper floor terrace with a timber deck; the glazed surface fits flush with the deck and can be walked on while allowing daylight through to rooms below. To accommodate floor loads of 1.8 k/Nm^2 and concentrated loads of 1.4 k/ Nm^2, the outer panes are of toughened laminated glass integrated into standard Low E double glazed units. High performance structural adhesives bond the glass onto the polyester powder coated aluminium frame, backed up with a two-layer weather seal.

907 www.arplus.com/enq.html

Wright Style

A new fire-resistant glazed door system has been developed by one of the UK's leading steel glazing system suppliers. The door system, meeting BS 476 Part 22, achieves an integrity fire-resistant rating of three and a half hours, making it the safest glazed door system on the market. The doors are glazed with 3m^2 of 5mm Firelite glass and incorporate Dorma floor springs and overhead door selectors. The system is also suitable for high security applications.

MORE THAN COMMON DECENCY

RURAL STUDIO: SAMUEL MOCKBEE AND AN ARCHITECTURE OF DECENCY

By Andrea Oppenheimer and Timothy Hursley. Princeton: Princeton Architectural Press. 2002. £21

'The land through which the Black Warrior [River] curls is rich with defeat. One only has to kick at its red surface to detect the layers of hurt beneath it.' This is Hale County, Alabama, one of the poorest places in the US and the rural backwater 'beneath the radar' of regulation where Samuel Mockbee found space to develop his Rural Studio. Far away from Auburn University, a radical educational experiment culminating in a new architectural aesthetic has been emerging. Recognition for Mockbee's work culminated in the award of the prestigious Macarthur 'genius grant' in 2000. Tragically, he died at the end of last year, victim of the leukemia he thought he had conquered. This book is a timely memorial to his life's work.

Mockbee was deeply conscious of the place from which he had sprung, the character of the deep south. In particular, he was sensitive to the inequitable social relationships which had permitted his own privilege, while invisible others suffered in poverty. He wanted to make 'the connection between esthetics and the realities underlying design ...' This book documents the work of his laboratory, demonstrating connections between the people and the place, using 'subversive leadership ... [to] keep reminding students of the profession's responsibilities' and how a new vernacular aesthetic grew out of this context. Tracked through essays and interviews with the parties involved and illustrated with beautiful photographs by Timothy Hursley showing the buildings occupied by proud users, the book describes how by working subtly, in small ways, at grass roots level, understanding and reinventing processes of design and procurement, a new relevance and social connectivity can come about. The lessons of the Rural Studio are so many and so varied it is humbling to read this book. It should be required reading for every architect, reminding them what good architecture can be achieved.

SARAH WIGGLESWORTH

MONUMENTAL FAITH

NICHOLAS HAWKSMOOR: REBUILDING ANCIENT WONDERS

By Vaughan Hart. London: Yale University Press. 2002. £35

Like Soane, Hawksmoor was rediscovered in the twentieth century when the starkness and originality of both architects exercised a special appeal. Hart's enthralling study now claims that Hawksmoor gave permanent monumental form in many styles to the fundamental beliefs of his time: Christianity, Monarchy, Trade, Reason, Liberty, and Freemasonry, against a background of expanding scientific and geographic horizons in which attempts were made to reconcile faith with modern science. He quotes Defoe's Calvinist claim in 1725 that the new London churches are 'not adorned with pomp and pageantry as in Popish countries; but, like the true Protestant plainness, they have made very little of ornament'. Admiring the masonry construction of the mediaeval cathedrals as a patriotic national style, Hawksmoor emulated this in his Gothic work at Westminster Abbey and All Souls' College, and indeed in his predilection for blocks of masonry in his Classical buildings.

In this richly documented monograph on an architect whose obituary recorded that he was 'bred a scholar', Hart also explains the meanings behind Hawksmoor's eclectic ornamental details and 'quotations from ancient architecture'. Though Hawksmoor left no body of theory to explain works such as St George's, Bloomsbury, and St Mary Woolnoth, Hart describes his intellectual interests and theoretical sources, drawing especially on his letters and on his library with its books on logic, law, metaphysics, natural history, and mathematics, its works by Fischer von Erlach and Descartes, its exotic travel literature, and its engravings of Baroque Rome by Falda, de Rossi, and Fontana.

Hart's approach differs from that of Howard Colvin or Kerry Downes, but they can exist side by side, and if anyone finds the text of this book too conceptual, they will still want to acquire it for its dazzling visual survey of Hawksmoor's masterpieces in 352 illustrations, many in colour.

DAVID WATKIN

ARTS OF DARKNESS

HITLER AND THE POWER OF AESTHETICS

By Frederic Spotts. London: Hutchinson. 2002. £25

The idea that aesthetic policy was an integral part of National Socialism has been established at least since Peter Cohen's unforgettable documentary 'The Architecture of Doom' of 1989, but Frederic Spotts here presents something more specific: that Hitler himself was obsessed about the arts beyond any other concern as dictator, and that while stealing paintings and bullying musicians was left to cronies and go-betweens, he himself had a credible grasp of architecture and an astonishing, almost freakish, memory for its details. He was himself, says Spotts, the designer of much of what was put up in his name during the Third Reich, and Speer, with his office of 1000 staff, was merely an efficient and self-glorifying bureaucrat.

Hitler had informed but determined views on the visual arts and he intended to impose them on the rest of the world. He disliked the 'Nazi' art displayed in Troost's Munich gallery – except for the homoerotic statuary – and he was, apparently, an early twentieth-century admirer of Angelica Kauffmann. He did not rule out Modernism: he had Bonatz design a Modernist railway station for Munich. Everything had to be 'the largest in the world'. According to the German media, Hitler's new autobahns, presented here as an aesthetic, social, project, were 'the greatest single masterpiece of all times and places', 'the sixth wonder of the world', 'greater than the Great Wall of China', 'more impressive than the pyramids',

In Denmark, a *koloni* is a collection of hut-like dwellings each on its own small plot, where city people can spend evenings and even weekends away from their flats. Surely the most poetic of all such places is in Nærum by C. Th. Sørensen, where clipped hedges divide individual private ovals from lawn-sown public glades. One of the many fascinating examples of the nation's brilliant twentieth-century landscape tradition to be found in the third volume of the magisterial *Danmarks Havekunst*, by Annemarie Lund, Arkitektens Forlag, Copenhagen, 2002, Dkr 1800 for all three volumes.

'more imposing than the Acropolis', and 'more splendid than the cathedrals of earlier times'. Some of Hitler's early service stations were apparently designed by Mies van der Rohe. The new roads did not have, according to Spotts, any military role, and indeed their high visibility made them an easy target.

If Spotts' book has a facetious character to it – and, for some reason, he is at his most facetious when referring to architecture – it is certainly matched by the altogether grotesque nature of the story being told.

TIMOTHY BRITTAIN-CATLIN

BIOSPHERIC FEARS

THE EARTH'S BIOSPHERE: EVOLUTION, DYNAMICS, AND CHANGE

By Vaclav Smil. London: MIT Press. 2002. £21.95

'Finally we have an accessible, highly integrated account of the environment: wise rather than clever, responsible rather than glib, comprehensive rather than confused, comprehensible rather than new. Smil's unique biospheric narrative, devoid of hype and patriotism, transcends academic apartheid. This immensely learned story of the past history and current state of the third planet is destined to become required reading for anyone who seeks the environmental context for human activity.' (Lynn Margulis, on back cover of book)

Comprehensible to scientists maybe, but hardly to architects, I fear. The text of this work, Vaclav Smil's latest, is forbidding indeed, and peppered with calculi, formulae, tables which only a specialist is likely to understand. Entire sentences run with words I've never heard of – and yet it gripped me nevertheless.

Smil tells the story of our biosphere. It seems he covers all aspects of its physics, chemistry, geology, oceanography, biology, energy, climate and ecology. He traces its beginnings and he surmises its end. He outlines the history of scientific theory and research, bringing it up-to-date so thoroughly that Hawkins and Lovelock seem already old-fashioned. The prose style is tight, with an occasional touch of humour lurking beneath the dense text. Had I not read the concluding chapter first, I would have wondered where it was all leading and maybe would have drowned in its depths of unfamiliar knowledge.

The conclusion one might reach after Smil has finished with his awe-inspiring exploration of the biosphere is this – if the universe around us is so vast, if the way it works is so complex, if time stretches to infinity both backwards and forwards, and if as a result we, industrialized human civilization, are so incredibly minuscule and insignificant in comparison, how can we possibly harm it? Smil's frightful message is that we can. And this comes from a scientist, not an amateur doom-monger. Smil is equivocal on whether or not we will succeed in harming and destroying our planet irrevocably. He is frank enough throughout the book to confess that he does not have the answers to many of life's great riddles.

But he leaves us with a fascinating scenario. It is quite possible that our increasingly sophisticated machines will survive us. When our planet becomes uninhabitable, either through our own fault or through natural cosmic causes, these machines will cope on their own. Some will stay and adapt. Others (those imbued with human values) will leave the biosphere and search for other planets where they might settle and re-create Earth's biosphere. Just suppose they felt disposed to re-creating human civilization again – would we deserve a second chance, or would the machine-race be better off without us?

ADAM VOELCKER

Muir Pass Stones by Richard Long. One of the many strangely thought-provoking and moving interpretations of nature and mankind's traces by the powerful land artist in *Richard Long: Walking the Line*; authors are the artist with Paul Moorhouse and Denise Hooker, Thames & Hudson, London, 2002, £39.95. Lines and circles dominate Long's work, as he traces human paths and defences through the wild world.

A GREENFIELD SITE

LETCHWORTH: THE FIRST GARDEN CITY

By Mervyn Miller. Chichester: Phillimore. 2002. £25.00

In 2003, Letchworth, the first of the two towns founded by Ebenezer Howard to bring his theories to life, reaches its centenary, and a revised version of Mervyn Miller's handsomely illustrated book has been timed to celebrate the event. The town was poorly funded, but there were compensations. One was that its architect-planners were Raymond Unwin and Barry Parker, masters of domestic design, another was the ingenuity of its Cheap Cottages Exhibitions, attracting experiment and publicity, and a third was the sheer enthusiasm of the pioneers. Half a century later, First Garden City Limited was actually in profit, and a group of speculators, watching for plums in the property market ripe for exploitation, managed to buy enough shares to win control.

Miller tells the complex story of the Letchworth Garden City Corporation Act of 1962, designed to ensure that dividends remained limited and that any further income was to be spent for the benefit of the inhabitants. The story is important. Letchworth is not immune from general trends. Miller finds that, last year, it was the seventh most popular place to live in the country. He explains that investors were buying houses to rent them out, and that 'first-time buyers had practically been priced out'.

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.

Photograph: Richard Glover/Retna

AN EXTRAORDINARY BAROQUE FUSION OF ARCHITECTURE, SCULPTURE AND ABSTRACTED NATURE, THE FONTANA DI TREVI STILL BRINGS AQUATIC SPLENDOUR AND DRAMA TO THE MIDDLE OF ROME.

Possibly the most famous fountain in the world, Rome's Fontana di Trevi is an urban oasis whose essential functions of supplying the populace with water and providing relief from the city's heat have long been surpassed by its symbolic and metaphorical dimensions. From a labyrinth of alleys glutted with souvenir shops, you are drawn on by the sound of water into a compact piazza dominated by an extravagant Baroque stage set of creamy travertine sluiced by foamy rivulets of plunging spume. A riotous panoply of cavorting sea horses, conch-blowing Tritons, exuberantly modelled rocks and sculptural trees rises in theatrical splendour to meet the facade of the Palazzo Poli above, adorned with the allegorical figures of Abundance and Health. Water cascades in sheets, whipped up by a host of nozzles, spilling from basin to basin, spreading and gaining in volume as it tumbles down each tier, finally gathered and contained into a vast sunken basin. Roughly half the piazza is occupied by the basin, pushing visitors to the edge of a man-made amphitheatre and transforming urban life into a teeming, dramatic spectacle. Scintillating in the sunlight or caught in the flashes of scores of tourist cameras, the aqueous torrents sparkle and shimmer with a mesmerizing intensity. At night the fountain becomes even more magical, pulsating with a soft glow like a giant, implausible candle. Finally completed in 1762, the Trevi was designed by Nicola Salvi, who picked up where Bernini left off, devoting an almost maniacal attention to the form of the *scogli*, or rocks, clambering over the fountain brandishing a charcoal stick to indicate precisely the shapes his stonecutters should follow. The meltingly fluid *scogli* and sensuous vegetation soften and harmonize with the regularity of the palazzo above, orchestrating an exquisite unity of sculpture and architecture. Even Ruskin, no great fancier of the Baroque, was moved to declaim 'I got among the mimicked rocks and among the deep pools of this most noble fountain until I fancied myself among the gushing torrents of my own Cumberland'. The earlier habit of ensuring a return to Rome by drinking from the Trevi has since been replaced by ritual coin throwing, the water now containing unpalatable quantities of bleach.

Celebrated in countless images, stories and films, the Trevi continues to figure prominently in contemporary Roman life, notably as a backdrop for amatory interludes, both real and fictitious. The most memorable of the latter was Anita Ekberg's famous nocturnal dip with Marcello Mastroianni in Fellini's 1960 film *La Dolce Vita*. The futility of the liaison between film star and tabloid journalist is symbolized by the fact that just as they are about to kiss, thigh deep in the basin, the fountain's water is turned off, leaving a poignantly eerie silence and stillness. When Mastroianni died in 1996, the Trevi was again hushed in tribute to his memory. C. S.

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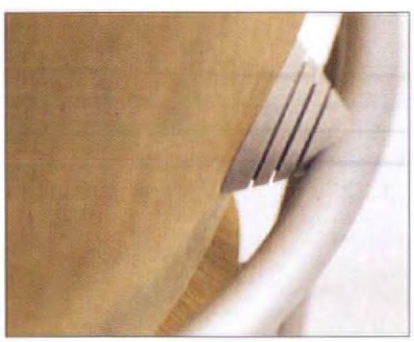
Bloom by Enrico Franzolini



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Town Hall, Innsbruck: Moving Façades

CREAT
WEA
GKD
TECHNO

Permanent change by altering transparent windows and variable, movable sun shade elements made of coolly gleaming stainless steel wire mesh: intimacy and openness – free sight towards the outside, varied light guidance and protection against viewers towards the inside. Architects: Dominique Perrault, Paris, with RPM, Munich

GKD Metallic fabrics

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