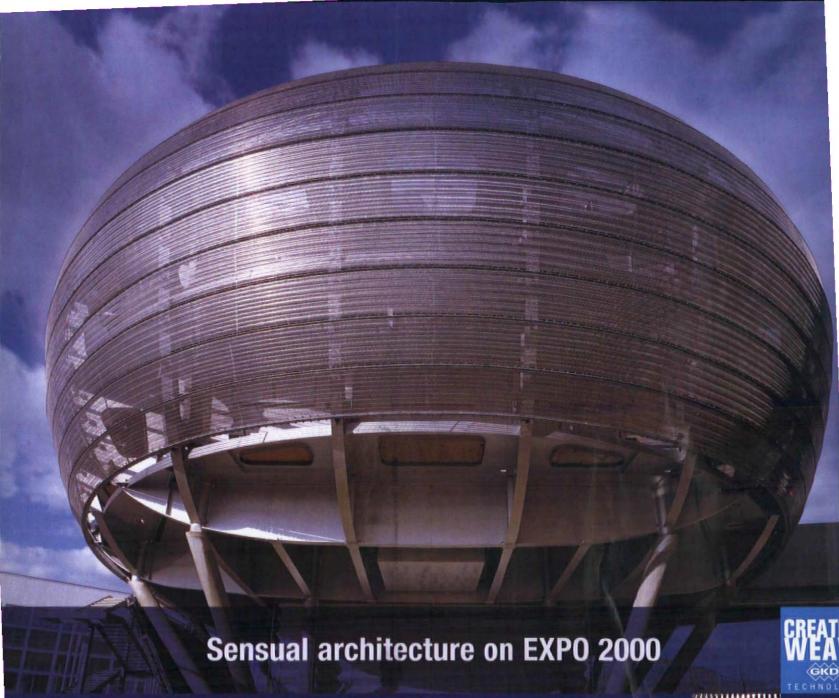
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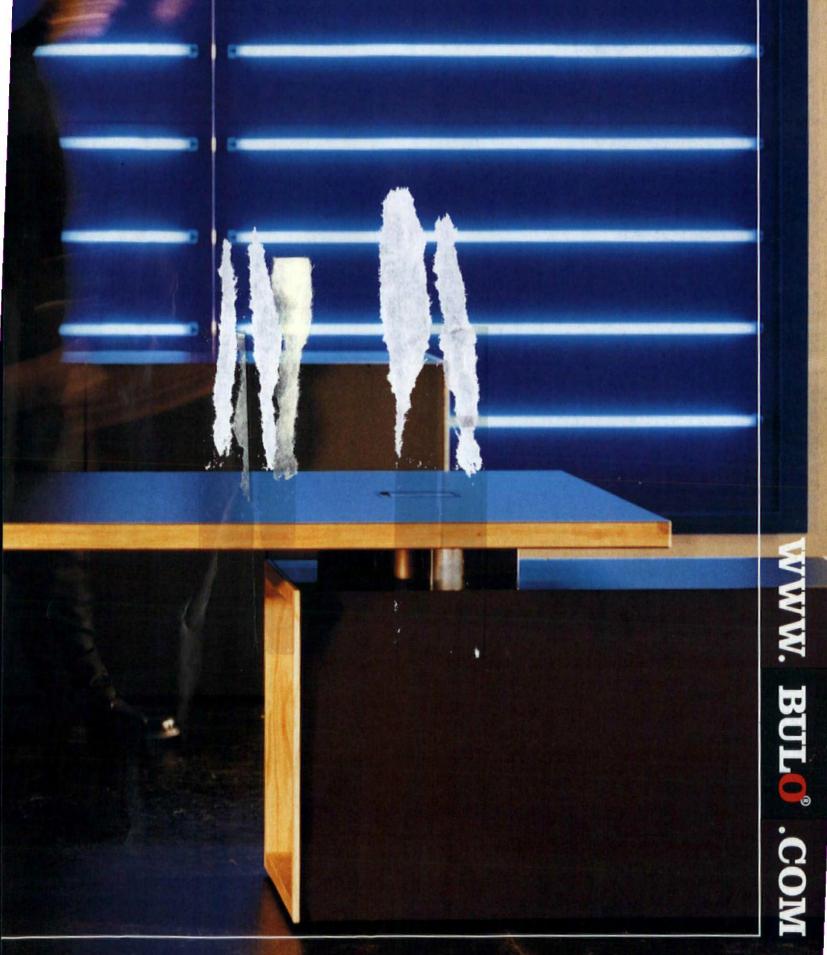
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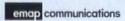
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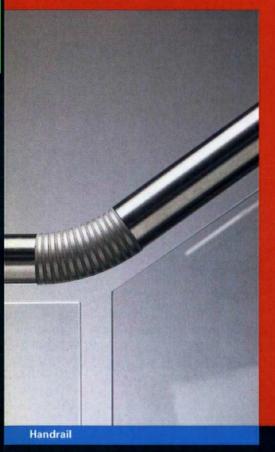
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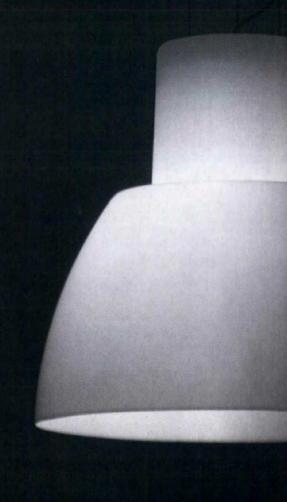


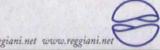
# Reggiani and Álvaro Siza



Alvaro Siza: Lorosae, dawn light.
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luce a Vicenza, verso la fine del '99, nella
sala grande della Basilica di Andrea
Palladio. Siza l'ha voluta per fare luce
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Álvaro Joaquim Melo Siza Vieira was born in Matosinhos, Portugal, in 1933. From 1949-55 he studied at the School of Architecture, University of Porto (ESBAP). The first of his projects to be built was finished in 1954. From 1955-58 he collaborated with the architect Fernando Távora. In 1976 he was appointed Professor of Construction at ESBAP. He has been Visiting Professor in Lausanne, Bogotá and Harvard. He lives in Porto.

Álvaro Joaquim Melo Siza Vieira nasce a Matosinhos, Portogallo, nel 1933. Studia alla Scuola di Architettura dell'Università di Porto (ESBAP) tra il 1949 e il 1955. Porta a termine il suo primo progetto nel 1954. Tra il 1955 e il 1958 collabora con l'architetto Fernando Távora. Nel 1976 diventa professore di Costruzione alla ÉSBAP di Porto. È stato visiting professor a Losanna, Bogotá e Harvard. Vive a Porto.



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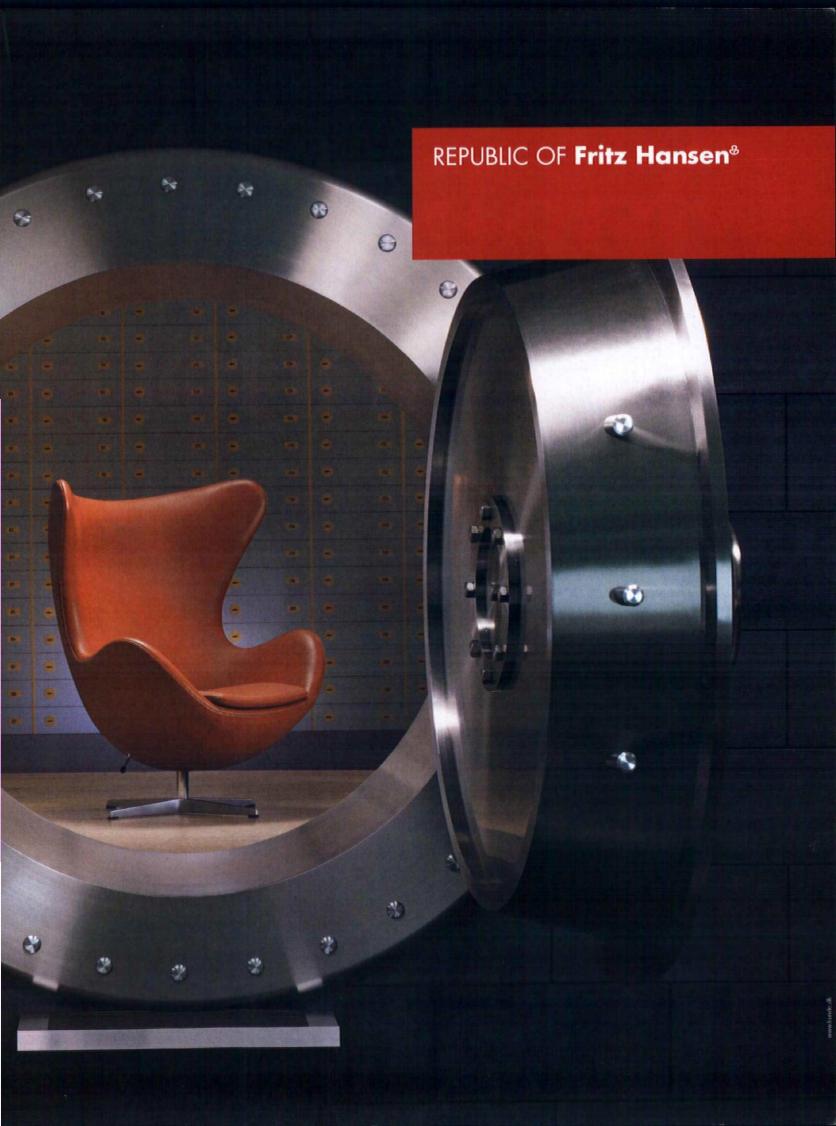


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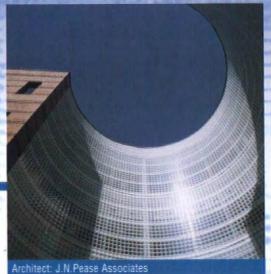


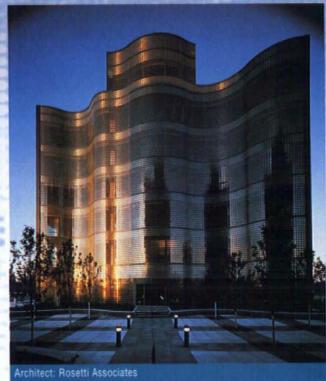


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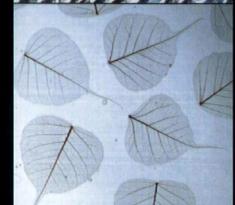


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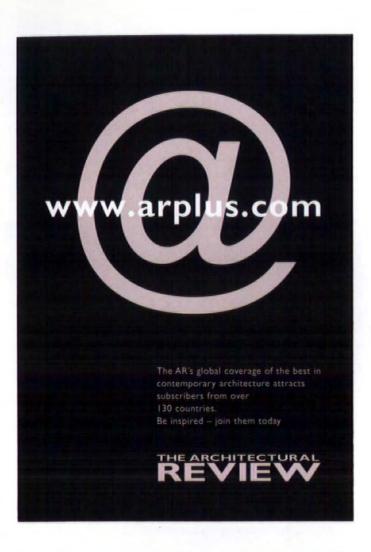


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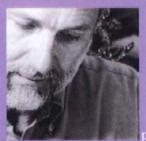
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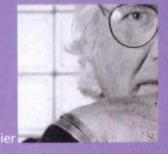
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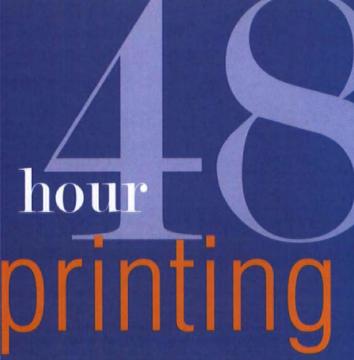


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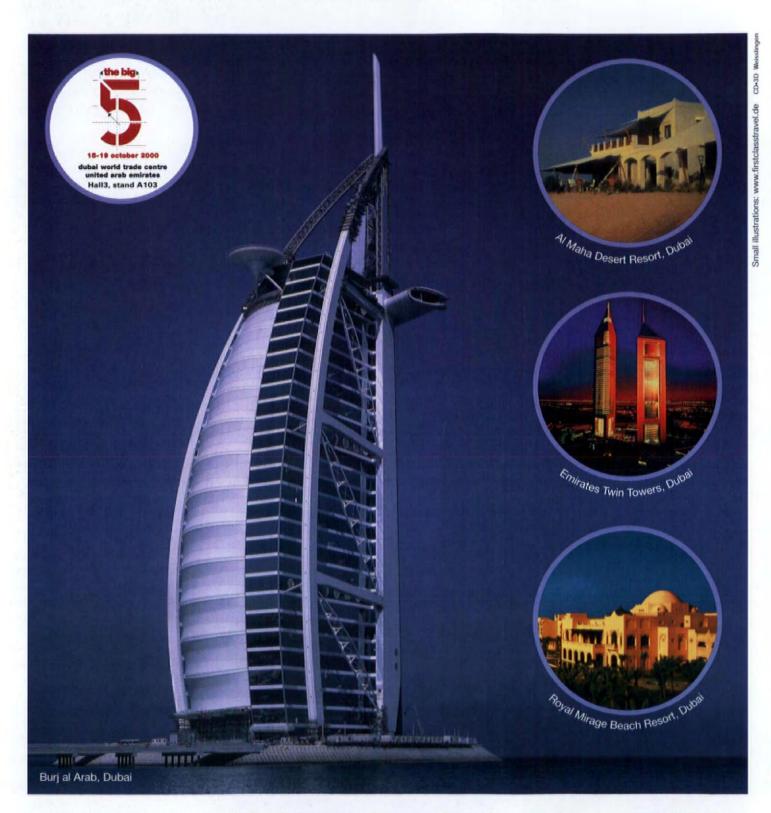
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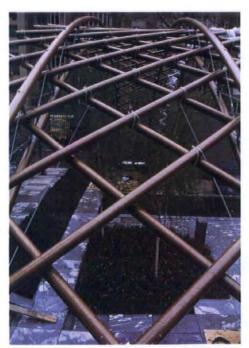
SHIGERU BAN'S PAPER LATTICE FRAMES THE TOWER-FRINGED HORIZON AT MOMA IN NEW YORK. ARCHIPRIX, THE DISTINGUISHED DUTCH PRIZE FOR FINAL-YEAR STUDENTS, BECOMES INTERNATIONAL. HOW TO BUILD IN THE DESERT: WENDELL BURNETTE REPLIES TO CRITICISM OF HIS CLIMATIC CONTROL IN THE PHOENIX HOUSE.

# BAN BUILDS AT MOMA

Paula Deitz remembers Shigeru Ban's Paper Arch, an exhibition at the Abby Aldrich Rockefeller Sculpture Garden, Museum of Modern Art, New York.

'The problem with representing architecture in museum galleries is that nothing less than a full-scale structure conveys the complete sense of an architect's achievement,' commented Matilda McQuaid, associate curator of the Museum of Modern Art's Department of Architecture and Design. MoMA found a solution to this problem back in the 1940s and '50s: the museum inaugurated a series of exhibitions that consisted of constructing temporary actual-size houses and other innovative structures outside in its garden to explore new ideas and technologies.

Houses by Marcel Breuer and Gregory Ain demonstrated how suburban America could achieve economy of space with elegance of form, and a traditional Japanese house designed by Junzo Yoshimura showed how aspects of contemporary architecture – curtain walls and open interiors – had been formulated in Japan 300 years earlier.



Ban's structure: more daring than Hanover (p58)?



Ban's arch enclosed Philip Johnson's garden without losing the drama of the skyscraper horizon.

For Making Choices, MoMA's recent allmuseum survey celebrating modern art in the years between 1920 and 1960, the architecture department sought a new temporary structure for what is now the Abby Aldrich Rockefeller Sculpture Garden, as a reprise of the popular concept. 'This time we selected material as the basic design theme,' said McQuaid. When it comes to revolutionizing building materials, the architect of this and many moments to come is Shigeru Ban, who has adapted paper tubing or 'evolved wood' (his term) as a construction material because of its cost-effectiveness and recyclability. The quick-fix paper log houses he built for earthquake victims in Kobe and refugees abroad are well known. Through sophisticated engineering, he has extended the uses of cardboard tubes to include more complex structures such as a railway station and community church in Japan and the Japanese Pavilion at Expo 2000 in Hanover.

Though he lives in Japan, as a 1985 Cooper Union graduate, Shigeru Ban is no stranger to New York and understands the special role of MoMA's sculpture garden as an oasis in the city, where afternoon visitors loll in Bertoia chairs among the sculptures and the groves of silver birch. His 30ft-high latticed paper-tube

arch\* that soared over the garden this past spring and summer appeared, after all these years, to complete Philip Johnson's 1955 garden design, creating a sense of enclosure and sanctuary without losing the drama of openness to neighbouring towers or the sky above.

Japanese architecture has traditionally been integrated with garden landscapes. Ban himself pays tribute to the association at the pavilion in Hanover (p58). Although MoMA's Paper Arch - both waterproofed and fireproofed - spanned the entire 87ft-width of the garden, weighed nine tonnes and was tethered to welded plates on the museum facade by steel cables under tension, the segmented arches of rolled, 32-ply brown paper tubing appeared to possess the lightness of a weathered bamboo trellis in an old Japanese garden. Sitting under the veil of its crisscrossed shadows, New Yorkers were enchanted by this grand gesture for their summer pleasure occupying the garden for the few remaining months before it was to close for the museum's major architectural renovation by Yoshio Taniguchi. The Paper Arch will remain in the memory; the garden will never seem the same without it. PAULA DEITZ

# view

# competitions

The latest international competitions for architects and students. Archiprix, the Dutch final-year student competition becomes international.

# Archiprix 2000

The Architectural Review is backing the internationalization of the Dutch final-year student competition Archiprix. Its new aim is to find the world's best student designs.

As Hans van Dijk's's article on p82 explains, Archiprix has a distinguished record in the Netherlands of finding and fostering young talent, and it has done much to generate a vibrant architectural culture in the Netherlands, While recognizing talent, the prize system has stimulated debate on the quality of architectural education and, indeed, on the nature of architecture itself. As a magazine devoted to improving international architectural practice and trying to foster humane values in constructing the environment, the AR is committed to supporting the growth of the award to global status in 2001. It will be judged by a distinguished international jury.

The 50 best projects will be made into an exhibition to be held at the Van Nelle factory, Rotterdam, Mart Stam's\* marvellous Modernist masterpiece, which has been converted into a cultural centre. From these the winner will be chosen. Selected projects will be published in The Architectural Review, and Archiprix hopes to publish a book on the entries.

From October, schools can apply through the website www.archiprix.org, where full details of the award can be obtained. Each entry should have six A2 panels, ten 35mm slides and a 500 word synopsis of intentions. Further details will shortly be given in the AR, and our own website www. arplus.com.

In the first week of July next year, a series of four day workshops will be held at the Van Nelle factory and, following the verdict, there will be an international conference at the Van Nelle involving the designers of the selected schemes, their teachers and the public. The conference, like the competition, will be organized in close collaboration with the Dutch Architects' Union and the International Union of Architects.

\*The tobacco building was built between 1927 and 1930, when Stam worked for Brinkman and van der Vlust.

# **TECU Architecture Award**

Registration: 31 October 2000 Submission: 31 October 2000

Entry fee: None

Awards: Total prize fund of 25 000 euros (first prize 10 000 euros)

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Former Archiprix winner, Underground AMF by Eric van der Woerdt, cross section through proposal.





Case Study House 22 by Pierre Koenig photographed by Julius Shulman in 1960; an iconic Modernist image.

## ICONIC IMAGES

A long-awaited Julius Shulman retrospective exhibition at the Photographers' Gallery in London.

Over a career spanning eight decades, Julius Shulman has become one of the greatest architectural photographers of our age. Shulman's perfectly composed black and white photographs defined an era of post-war Californian Modernism; an era of social and technological optimism, of elegant, economical architecture, of hedonistic cocktail parties and languid, sun-drenched afternoons idling by the swimming pool.

Entirely self-taught, Shulman met Richard Neutra in 1936 and began by giving pictorial form to his experimental, utopian buildings, exploring photography's technical advances to distil the essence of architecture. He went on to record work by other Californian pioneers such as Koenig, Schindler, Ellwood and the Eames. The heroic night-time view of Koenig's Case Study House 22 perched vertiginously on a Los Angeles hillside with the blazing grid of the city spread out below, or Neutra's Kaufmann House, a fragile pavilion dramatically framed by the desert landscape are some of modern architecture's most enduring and compelling images.

Now, as part of the Altered States of America programme at London's Photographers' Gallery, a selection of Shulman's iconic pictures can be seen in a long overdue British exhibition. While the show could have benefited from a more generous setting (why not, for instance, at the RIBA?) it is still essential viewing; a magical synthesis of space, light and geometry. C. S.

Julius Stulman, 9 August - 24 September, at The Photographers' Gallery, 5 Great Newport Street, London WC2, Website: www.photonet.org.uk



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# letters

# QUESTION OF RESPONSIBILITY?

SIR: I have just read the letter by James Hansen ('Question of responsibility') that you published in your July 2000 issue. Leaving aside the content of Mr Hansen's letter, I would like to point out that the concept sketches you reproduced beneath the letter are not Lord Foster's, but Arup's, and can be found on their website.

Yours etc MATTHEW FOREMAN Foster and Partners, London, England

# MONEO IN CONTEXT

SIR: Your elegiac farewell to Enric Miralles rightly acknowledges his unique response to context and his abilities in making places. In researching the July 1990 issue of AR, I found his work (with Carme Pinós) in illustrious company. All architects featured, including Rafael Moneo, demonstrated a sublime understanding of context, albeit responding in differing ways.

It was with some disappointment then that I turned to Houston's Beck Museum of Fine Art (AR August), finding little in the way of recognition of the building's response to a rather unique context, but instead a somewhat disjointed analysis of the response to contents.

In the Moderna Museet, Stockholm, it is Moneo's understanding of place that raises the game. I had hoped to see this in Houston. However, if I am to find a true Texan palazzo of art, Fort Worth and Kahn's Kimbell Gallery seems a better bet.

Yours etc GORDON C. MURRAY gordon murray + alan dunlop architects, Glasgow, Scotland



Hermetic palazzo: Rafael Moneo's Museum of Fine Arts in Houston. Where is the context?

## **DESERT STORM**

SIR: On leafing through your July issue, which I opened with the usual childlike sense of anticipation, I came across a home I had recently toured: the Schall House by Wendell Burnette.

It became abruptly clear to me that the author and photographer (Ms Slessor and Mr Hursley) must have recently been hired by you or your subordinates sight unseen, and for this reason will be forgiven for their sophomoric critique, save for the astute opening paragraph. Anyone who has toured this abode during any month when pumpkins, turkey and Santa Claus are not displayed in every strip mall window in the United States, is immediately struck by the realization that this house offers no reprieve from the subversive desert heat, and in that most important respect, the structure is rendered an absolute failure.

The lift, while an interesting study in curvilincar symmetry – provided you have stumbled in from an afternoon at the local pub, which is the only way you will gain the vantage point shown in the photograph – has no upper ventilation. There is no way for the heat collected by the natural form and the steel construction of the lift to escape. The experience is that of being a muffin subjected to 350-degree temperatures. A pity, given that this is the most entertaining way to traverse vertically through the structure.

The south and west-facing windows, no matter how carefully located, are not protected from the sun's inferno and thus relegate themselves to comparison with the thousands of 'cookie-cutter' homes that litter the Valley of the Sun. The stairs along the curved exterior wall are simply a cavern, devoid of any physical or physiological relief, despite Mr Hursley's talents as displayed in the photograph adorning the cover. They are claustrophobic: unfortunate when the internal flow of the design renders these stairs a necessity. For your staff and readers who do not have the opportunity to live in a climate where the temperature on the streets can reach 120°F (49°C) during the summer months, allow me to explain: without active cooling no one would live here. So it must be with Mr Burnette's clients. As your article shows, the south and west facing windows are not only unprotected from the sun, they are 1/4in-thick single-pane, i.e. uninsulated. This means, to put it simply, the heat gain is excessive, irresponsible and replete with the typical American arrogance that relies on a large electric cooling system to make the space tolerable.

With all due respect for the architect's relationship to the client, and the task of solving their needs and style of living, the abode does seem to have aesthetic flair, enhanced by the creativeness of Mr Hursley's eye. However, no one who lives in the desert, much less claims to practise architecture here, can claim any knowledge of good design when the basic necessity of mitigating the sun's almost unbearable heat is missed so thoroughly. Look at the photo of the corner seating area on the second level (p52). The human species has not evolved such that it can tolerate sitting in that southwesterly location, behind uninsulated glass, leaning on a heat absorbing table of dark steel and not be grossly uncomfortable. If you doubt this fact, I invite you and your readers to try it any Arizona summer day. Bring your canteen and a towel.

It is tragic that a heretofore respected international publication such as *The Architectural Review* should fall so easily into the trough of mediocrity. Decent three-dimensional form does not necessarily dictate acceptable function. Function, and the relationship to the surroundings, must exist for any structure to be a success – or has our relationship with the land evaporated whilst I've been a-slumber? I thought it was your duty to 'etch' this fact 'into [our] consciousness'. Sculpture it is, good design for the human animal it is not.

Yours etc LOU WERNER by email

# WENDELL BURNETTE REPLIES

I believe it is fairly obvious that the design offers many a reprieve from the desert heat – as well as warm places to sun oneself in the winter (we in Phoenix feel cold at 63°F!). Mr Werner seems to be hypersensitive to the heat and forgets that the reason 2 million people live here is that it is extremely pleasant for most of the year (seven months, give or take). But exclusively on the subject of 'reprieve from the heat'.

First, numerous outdoor spaces exist to enjoy shade and Venturi breezes at different times in different places throughout the day (north balcony, arrival court/pool patio, cocktail terrace and breakfast terrace). Everyone who enters this house, including the many contractors who have worked on it, comments on the simple fact that there is always a breeze.

Second, the amount of glass facing northwest (so catching the worst afternoon sun: the sun sets 27° north of west on the summer solstice) is minimal. The dining room's 8ft-square sliding glass door of 1in insulated glass, with low-e surface 2, is externally shaded by the 'ship hull' wall until just before sunset. The



Appropriate architecture for the harsh Arizona desert climate? Wendell Burnette's Schall House in Phoenix.

high living room window of 30in-square 1in insulated glass with low-e surface 2 is recessed 12ins into the 16in-thick wall construction and effectively shaded until six in the evening. The corner window ('bring your towel and canteen') is in fact 1/4in 'blue-green eclipse' glass with an extremely efficient solar coefficient that is somewhat reflective, 'like a pair of Oakley sunglasses glued to the nose of the prow', the approximate size is 9sq ft on each face. This corner window is an admitted compromise on a purely solar strategy but I hardly think it renders the design an absolute failure. (The corner window table is in fact sand-blasted glass, and is intended as a romantic dinner spot for two after sunset when the city lights come up.)

The only large area of glass in the home (20ft wide by 8ft 6ins high) faces east-south-east and is subjected to morning sun, which can be very undesirable in the summer – therefore it is 1-inch insulated glass, low-e surface 2, externally shaded with an automated shade screen of 94% Textilene fabric. Obviously Mr Werner didn't stick around to see this in action. This also controls glare for watching TV and, when it is closed, the sloping glass still allows a Zen view of the garden below (see section).

All other glass is either 1 in insulated glass low-e surface 2, recessed a minimum of 6 ins, sometimes 8 ins, for shading when the sun is at 82° in the summer sky, or, if it is flush to the

skin it is 'blue-green eclipse' as above. All in all, the need to edit the view and still create space with the pristine and distant parts of the landscape went hand-in-hand with reducing the total square footage of glass. The amount of glass facing south is equally minimal and follows generally the explanation above.

Third, the lift view taken by Hursley is achieved by simply looking up and doesn't require alcohol. The construction of the lift is perforated stainless steel, precisely for ventilation, with no top, so that it can exhaust. Mr Werner is correct that the uppermost part of the shaft has no ventilation and in fact it can and does get warm as the cab comes to a stop at the upper level. A round duct with barometric damper was discussed during construction and is still being tossed around, although the owner is not yet toasted, and 350°, the Schalls would attest, is a gross exaggeration.

Fourth, the stair is a beautiful space as rich as any in the project and without exception always provides one with a breeze: 5mph on the shaded skin of the human body is a comfort all desert dwellers appreciate.

Air-conditioning for my clients on this project was a requirement, I will note that they didn't turn it on in their first year in the house until mid-May, when we experienced unseasonably early high temperatures of 100-110°F. The Schalls like the desert and only use the air-

# view

conditioning in the extreme summer. Otherwise you find them using the 10½ in-square cross-ventilation doors to create Venturi breezes with the larger operable sliding glass doors, and by God it works – as it did on the day Mr Werner toured the home, I presume on the AIA-sponsored tour for 350 people. On any summer day when I have visited Ed Schall, who is retired, I can find him sitting outside by the pool in one of the many outdoor spaces.

Even in the best climatic design, people move and pick out comfortable places to be. For example, Berber families in the towns of Algeria have a summer oasis place and the regular home in the city quarter. I too have required my clients to move and experience creosote after rain or the smell of citrus in bloom in the spring night. The Schall residence has an adequate number of these places. No doubt it is not without some error, but it is a sincere attempt to provide a responsible and pleasure-filled design in the desert.

Yours etc WENDELL BURNETTE by email

### WHAT'S WRONG WITH TATE MODERN?

SIR: I am thoroughly enjoying reading the August 2000 issue of the AR on Evolving Museums, and especially the editorial juxtaposition of Moneo, Herzog and de Meuron and Pallasmaa. However, when is a critic honestly going to criticize Tate Modern? Your coverage is the most comprehensive I have read, including an excellent set of drawings and photographs, but it blatantly ignores some fundamental contradictions resulting from the key architectural moves of the design.

On approach, the building offers two options. The most obvious entrance from the north (it is the front, after all) delivers you onto a platform where escalators to the galleries tantalizingly bypass visitors, albeit in a beautifully detailed glass box; a hunt reveals bottlenecked queues passing through narrow openings in layers of glazed screens, past a bizarrely-scaled glass cabinet of curiosities adjacent to the entrance to toilets, to the lifts and staircase ... O.K., so let's assume the visitor is sufficiently architecturally literate to go around the side and take the ceremonial ramped entrance from the west (and let's assume they are not a kamikaze wheelchair user). The spatial sequence is quite remarkable, and this continues - ignoring those ridiculously small and claustrophobic gallery intersections - vertically through the galleries to the fantastic doubleheight spaces which are evidently the showcase galleries. And yet there's still another floor to

the 'ethereal and ghostly' light beam: what further delights can this hold?

Sadly none, except a café with nice views, the bulk of the light beam (perhaps appropriately omitted from the competition sections) containing plant rooms and a long and narrow glazed corridor. And then there's that end room, arguably the climax of the architectural experience: you enter at ground level from the west (truly an urban experience) and ascend and cross to the eastern end of the light beam (an urban scale element introduced from within the city). Culmination of the route is little more than a small school canteen forced to cater for all those who can't fit into the nice café; it is full of people squatting on the floor eating packaged sandwiches.

I understand that, as an architectural critic, it must be hard to dwell too much on the unresolved aspects of a scheme like Bankside, an urban project which is extraordinary in its vision and intentions and, what's more, is obviously already making a difference to the surrounding city. However, the gallery is not solely an urban venture; it is also a building, and admirable urban moves like the signature light beam and ramped entrance have set up a built topography which contradicts itself in its resolution.

The current architectural scene is dominated by projects which assume that three or four (if that) simple conceptual moves can carry an entire scheme, and, although questionable in many cases, Bankside Power Station is one situation in which this approach is entirely valid. But a strong overall concept (at its extreme, pure visual formalism) does not necessarily guarantee an appropriate and successful spatial experience as Pallasmaa (AR May 2000) so brilliantly argues in his inspiring essay on 'fragile architecture'.

Yours etc BOBBY OPEN Cambridge, England

# PERRETS TRADUCED?

SIR: Oh capricious editors: How could I have guessed you were itching to denounce 'the humourless aridities of Le Havre'?

An image of the RAF carpet-bombing Le Havre in September 1944 would have illustrated your caption (AR August, p31) so much better than does that cheerful archive photograph of youthful Perret brothers from IFA/Norma's new book.

If only I'd known... Yours etc CHARLOTTE ELLIS Paris, France

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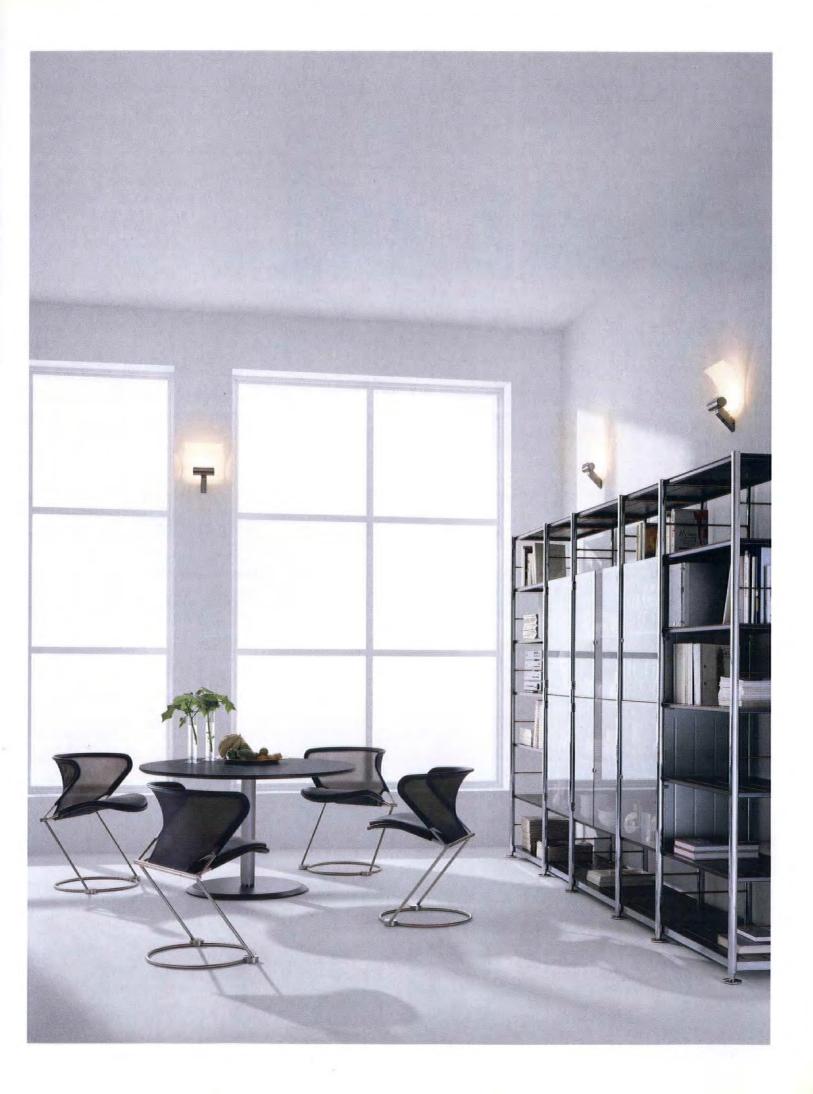


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African Manhattan – Johannesburg's bristling skyline at dusk, a dense silhouette of corporate towers.

### Letter from Johannesburg

Jeremy Melvin looks for signs of regeneration after the fearful architecture of apartheid.

'A journalist could come here,' someone in Johannesburg told me, 'and write 20 stories, 10 optimistic and 10 pessimistic - and they might all be true.' As my taxi halted at a red light in the darkened, deserted city centre one night, I feared my own story was about to veer towards pessimistic. Local advice is to ignore traffic signals, especially in so notorious a district as I was being driven through. Even to write my pessimistic story I would have at least to survive the hijack that locals like to convince nervous visitors is almost inevitable in such circumstances. A solitary car crossed our path. The lights turned green; the driver moved off, to locate my remote destination as easily as a London cabbie might find Buckingham Palace.

It was as if a crack had opened up in urban mythology, offering me a glimpse of Johannesburg as a city rather than a psychotic condition.



Dystopian suburbia - Blair Logie, a typical gated enclave reflecting the city's fortress mentality.

This city's urban form is complex. Sandwiched between the sprawl of affluent suburbs to the north and poorer ones to the south, a dense city centre spreads into a series of small communities. Each has its own grid, often with small block sizes - once Paul Kruger, president of the Boer Republic of the Transvaal, had reluctantly acceded to the formation of a new city to exploit the gold reef, he thought it might as well have as many prime corner pitches as possible. If these districts had run directly into each other, their low-rise buildings and regular junctions would have made them monotonous, but awkward topography and the original division of the land into farms mean that the grids are rarely contiguous. Between them loom slag heaps from the mines, Dickensian mounds which still contain enough gold to be commercially extracted after the mines are exhausted.

Geological and historical accident had divided Johannesburg into a series of more or less self-contained communities long before apartheid. When political ideology confirmed and strengthened the divisions, architecture became almost irrelevant. The herd instinct and the lack of overseas investment opportunities in the 1980s caused developers to create a patchwork of shoddy, half-empty suburban malls. It took only one irregular site within the Manhattan grid to produce the Flatiron building, but in Johannesburg, where grids clash all the time, there is no equivalent. Only occasionally does architecture assert itself. The incongruous setting of a pseudo-Italian piazza in the wealthy suburb of Sandton sports a refined library (AR March 1995) designed by Glen Gallagher, a student of Louis Kahn.

In the past, Herbert Baker designed a few distinguished residences for the rich 'rand-lords', while more recent monuments, at each end of the central business district, include SOM's Carlton Hotel and Helmut Jahn's supposedly diamond-shaped glass headquarters for Anglo-American. Both have received their comeuppance as big business has fled, leaving the centre to a teeming mass of informal trading. Even after 1994, centrifugal forces have continued to act on the city. The wealthy cower in gated enclaves, while the ANC's election slogan speaks for itself: 'A house for every family, a car in every garage and a chicken in every pot.'

All this makes Johannesburg a splendid place to study 'Urban Futures' – the theme of a conference jointly organized by the city council and Witwatersrand University. The city exhibits in its starkest form just about every pathological condition that can afflict a large conurbation. Its health and transport facilities are grossly inequitable. It suited the apartheid regime to divide the city into numerous zones; it now has five districts, and shortly it will become one. This gives the city the opportunity to raise revenue in wealthy areas and spend it in poor ones. One speaker at the conference identified a rateable differential of 31 280 per



Parkton suburb, in the northern part of Johannesburg – still wary of the outside world, but its defensiveness softened by luxuriant landscape and Dutch gables.



Sandton's refined, Kahn-influenced library, designed by Glenn Gallagher, is obliged to share a pseudo-Italian piazza with stodgy slabs of developer's neo-Classical.

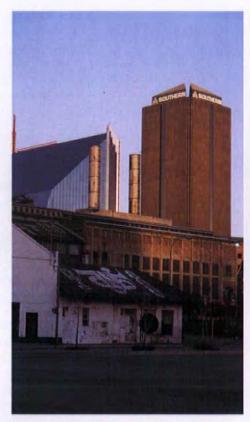
cent between the richest and the most deprived districts. A thriving tax base and accurate information would make a good foundation for developing decent public services. But parts of the city centre have untraceable patterns of tenure, while rates and utilities charges carry connotations of the previous regime, and this makes the planned privatization of water services especially controversial. A lack of hard data seems to be a persistent trait. Several times I asked to see a city plan; I was assured an accurate one existed and even had a diagram drawn for me on a restaurant napkin. But I have still to see the real item.

Ironically, while apartheid compromised urban culture in the white areas, overcrowding and lack of facilities fostered some form of communal life in the townships. One of the most notorious, Alexandra, still managed to nurture an amazing number of distinguished politicians and artists, and the Old Prison had numerous noted alumni. The children of this culture have taken over the inner city, colonizing buildings once designated for the privileged minority, and in defiance of the architecture of buildings such as the sub-Rockefeller-Center Chamber of Mines.

The various bodies attempting to regenerate the inner city have started to identify a hidden history, a form of counter-narrative that has developed below the surface. So the prison precinct is scheduled to become Constitution Hill, its centrepiece the Constitutional Court, whose competition-winning design, by the young Durban duo of Andrew Maken and Janina Robertson, is a notable attempt to devise an architecture which responds to history, climate and purpose. Van der Byl Square has become Gandhi Square, providing much-needed bus facilities and commemorating the political leader who developed the principle of passive resistance in Johannesburg in the years before the First World War.

In the same vein, the former market district, around the renowned Market Theatre, is to become that universal panacea for urban ills, an 'arts district'. It already has the Museum Africa, while the former Electric Workshops have acquired a series of mezzanine floors connected by ramps, making spaces which are, diagrammatically at least, something like the Pompidou Centre. And to see them thronged with protesters against water privatization is, perhaps, to see the beginnings of a connection developing between public institutions and grass-roots democracy.

This is a good place to appreciate the contradictions of the city. A distant tower, in contrast to the message of its brash neon advertisement, is entirely occupied by informal traders from Francophone Africa. Vacant lots ringed by a two-tier highway, overshadowed by anachro-



Emerging arts district dwarfed by Helmut Jahn's gleaming, angular headquarters for Anglo-American.

nistic commercial monoliths, could suggest dystopia; but with half-shut eyes it is almost possible to imagine that the Electric Workshops turbine hall could become a collection of desirable loft apartments. It's not going to happen very soon, but if the interaction of greed, fear and complex urban form which we call Johannesburg does regenerate, it would reassert the value of urban culture over the most naked attempts to deny the principles of civil society.

JEREMY MELVIN



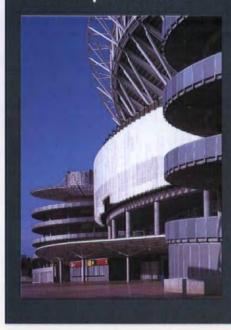
Johannesburg contradictions - Victoriana, antiques and a traditional stoep meet Armed Response in Parkton.

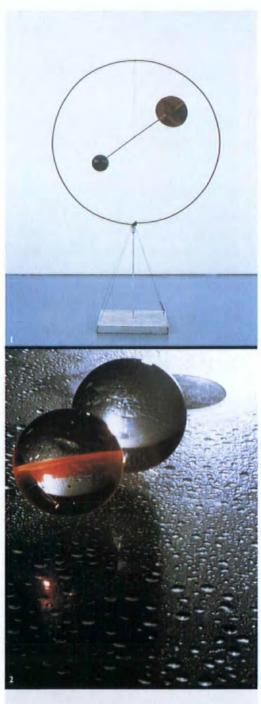
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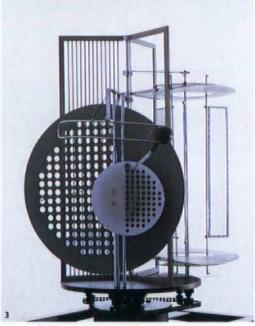
Sport and recreation are the themes of the October issue, with coverage of the ambitious programme of architecture for the Olympic Games in Sydney. Informed by a concern for sustainability and the environment, the Games will leave a green legacy not just at the Olympic site, but throughout the greater Sydney area, reflecting global hopes for an ecologically saner millennium. A vast new open-air stadium forms the centrepiece of the programme; there are also more modest buildings for sailing, shooting and equestrian events, as well as a range of imaginative infrastructural projects.

Away from the heroic gestures of the Olympics, we look at other recent sports buildings, including Chaix and Morel's inventive football stadium in Amiens and Cruz and Ortiz's elegant athletics centre in Seville. On the more cerebral side of recreation, Richard MacCormac's new wing at London's Science Museum is a magical world of space, light and sound that brings to life the mysteries of modern science and technology. Plus the usual stimulating mixture of Interior Design, House, Design Review, Delight and View. Obtain this and II other fascinating issues by completing the enclosed subscription form. Or visit our website:

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The trouble with kinetic art is that you can't photograph it properly, and somehow videos and films of a kinetic work tend to reduce it from three dimensions to two. Perhaps this is why it is so little seen in museums and galleries: it's difficult to make posters and postcards from moving objects. And of course, for curators, there are all the electric motors and electromagnets: devices that need a good deal of attention, and which are prone to stopping unpredictably and occasionally emitting sparks and bursting into flames.

Yet kinetics is one of the great twentieth-century contributions to the continuously developing corpus of artistic invention. And the Hayward Gallery in London is to be congratulated on mounting a show in which classics have been brought together (or remade) to form a stirring, sometimes disturbing and even hilarious sequence of often rowdy and flickering events. Almost the first thing you see, is Marcel Duchamp's rotorelief of a disc with slightly eccentric circles of hatched red, black and white. Pressing the button to make the thing revolve causes it to create in your mind the impression of a three-dimensional spherical object. It is caused by an interaction between the machine and your physiology and psychology which is completely impossible to reproduce in the two dimensions of the page and, I suspect, in movies. Duchamp's continuing fascination with movement, which he tried so hard to incorporate in his famous works like The Bride Stripped Bare ..., reached an apotheosis in these discs, but they are very little known because of the difficulty of showing them, except in reality.

All the early masters of kinetic work are represented: Calder (wonderfully elegant, but a bit rough in execution), Moholy-Nagy (a much better mechanic, but inclined to fussy effects), to Yves Klein (whose fire paintings certainly illustrate that the artist was very busy, but do little to recreate the action in your mind). The show, which started in the Museu d'Art Contemporani de Barcelona, has a strong and stimulating injection of South American and Mediterranean

work, for instance, the three dimensional wire space-knitting of Gego (Gertrud Goldschmidt), who emigrated to Venezuela, and in her old age produced the most delicate, space-modifying creatures that tremble as you approach them. And Julio le Parc from Argentina who arranges thin semitransparent/semi-reflective discs on strings and simply shines light up at them to make a continuously changing pattern of strange reflections on the darkened walls of the booth in which the installation is housed - the alterations are caused by convection from the lamps and the air movements of your body.

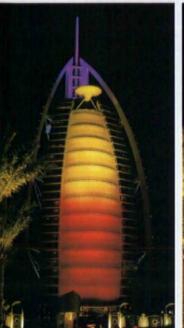
Such simple and humanly responsive work is rare in the exhibition, which covers the history of kinetic art from the '20s to the early '80s. Many of the mechanisms involved could have been used in a Second World War bomber: big and heavy electric motors seem to power most of the exhibits; in some cases they and their clumsy wiring become part of the object. The most high tech (in our terms) objects are the glassfibre sculptures of Pol Bury, where light flickers from the ends of waving strands. Because of the chronological restrictions, even Jean Tinguely is represented by clanking early stuff, a long way from the sparkling, funny, colourful waterworks at Pompidou.

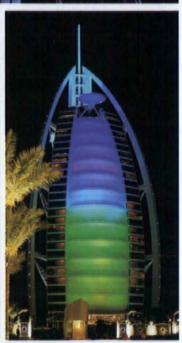
Induction motors, photoreceptors, thyristors, diodes, even computers, the whole world of electronics (as opposed to the technology of electro-magnetism) have been missed out. It's easy to understand why - technology has been completely transformed in the last couple of decades, and the potential of electronics is so astonishing that recent efforts would have been very difficult to marry with the great works of the mid-century, which still remain extraordinarily fresh, cheerful, and optimistic of dynamic future. An excellent subsequent show on electronic art is clearly possible. It will, like this one, have much to teach us all about relationships of the body, mind, machine and the phenomenal world in motion. P.D.

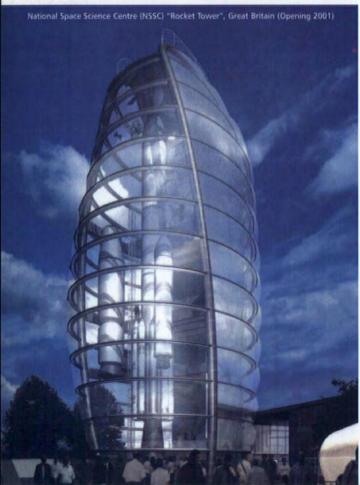
Force Fields: Phoses of the Kinetic is at the Hayward Gallery, London until 17 September 2000. Website: www.hayward.org.uk











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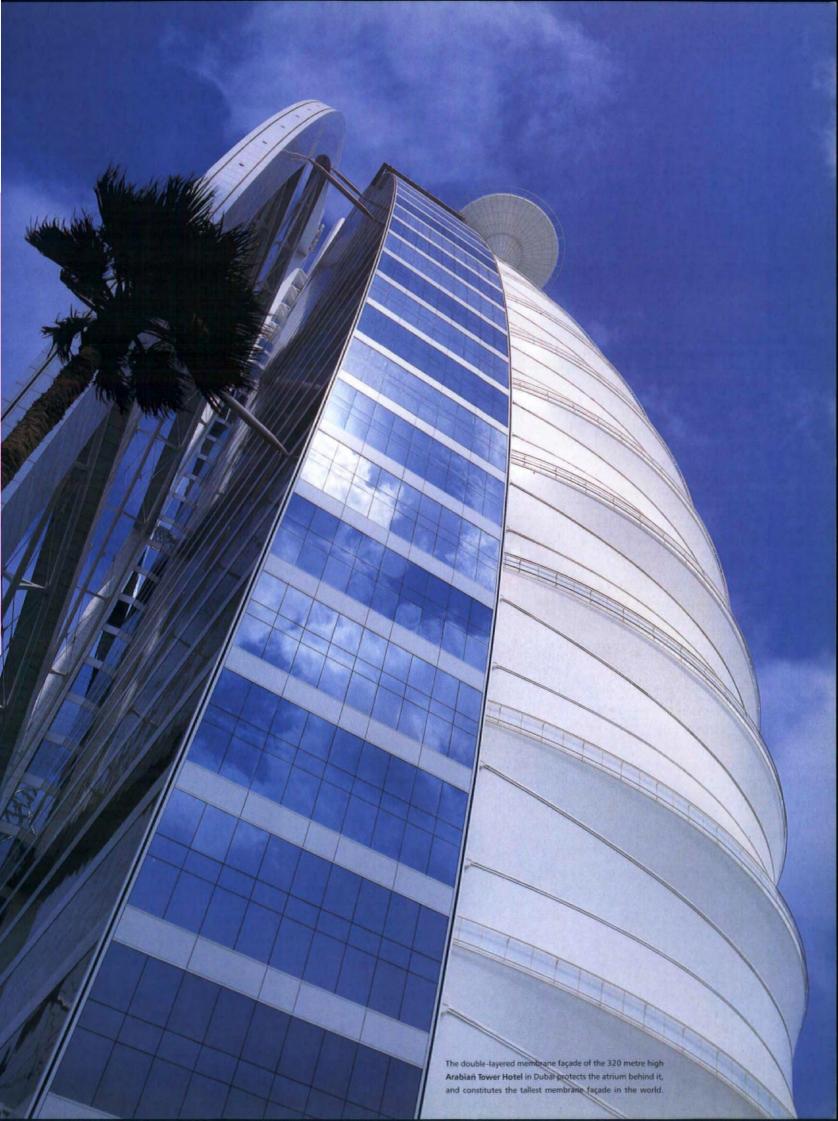
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# THE BATTLE OF PEACE AND INDUSTRY

Expos may be overrated and commercialized, but, as Hanover shows, they can still teach us important lessons.

What are Great Exhibitions for? The first exposition1 was organized in the Château of St Cloud by the Marquis d'Avèze in 1797. It had the express intention of reviving the trade of the old royal factories like Sèvres and Gobelins, to try to reduce the distress of the skilled workmen who had fallen into poverty after the Revolution. Though many people had previews of the show (and the pauperized workers benefitted a little from their orders), it was closed just before the official opening date because the Directory banished all aristocrats from the Paris region.2 But d'Avèze was not easily discouraged. He organized the next show of industries and crafts in the Maison d'Orsay in 1798, as soon as he was allowed to return. It was so successful that the government resolved to have a new one every year, although the next was not until 1801, when a court of the Louvre was used. Eight more French expositions were held before a magnificent temporary palace was erected in the Champs Elysées in 1849.

The example inspired the Society of Arts

to try to do something similar in Britain. A committee of the Society organized exhibitions in 1847, 1848 and 1849. Then a young and visionary civil servant, Henry Cole, approached the Society's President, Prince Albert, with the notion of making the exhibition international. The Prince pushed with vigour, committees toiled and organized an abortive competition. Paxton resolved problems of vacillation and delay with his Crystal Palace, in which, as Pevsner remarked, 'he virtually invented the method of prefabrication.' The Great Expo was born, and was immensely successful.

Paxton's Palace was seen by *The Illustrated Exhibitor* as a 'fair edifice, of which a free, happy, moral, educated and enlightened people, shall form the broad and smiling base.' And not just the British: 'all the nations of the world are met together; and the Chinese, the Turk, the Italian, the Frenchman, the Greek, the African and the Briton are this day fighting the battle of Peace and Industry, instead of rapine and bloodshed... Let us break down the barriers

of prejudice, which have too long kept men asunder, never to raise them up again.'5

Since 1851, there have been 61 world expositions,6 and they have all inherited much from The Great Exhibition. All have been international, all inspired by belief in the kinship of humanity, and in scientific and industrial progress as the sole means to our improvement; all have tried to amalgamate amusement and education; all have attempted to embody the expo ethos in striking buildings. And all have tried to exalt the power and potential of the host nation. In 1851, Britain was the workshop of the world and the Exhibition was intended to emphasize the fact - not least by demonstrating that a huge and elegant building could be erected in only six months using the most upto-date industrial techniques. Expo 2000 is just as determined to demonstrate 'Germany's unique opportunity as a business location', with the Expo itself 'a considerable economic force, sending impulses far beyond Hannover and the year 2000, and creating employment.'7

As well as intending to enhance the prestige of the host countries, and to boost their economies, expos have always had a cultural dimension. Eiffel's tower was the gateway to the 1889 Paris exhibition, and the sadly destroyed Galerie des Machines by Dutert and Contamin was its most wonderful space. Steel (as opposed to the Crystal Palace's iron) controversially laid claim to be the basis of the architecture of the future.8 In 1893, Chicago's World Columbian Exhibition and in 1904 the St. Louis Louisiana Purchase Exhibition celebrated the triumph of late nineteenth century Beaux Arts and Baroque, and laid the foundations of the City Beautiful Movement. The Paris 1900 show (which has left us the pompous Grand and Petit Palais), included the Finnish pavilion where Saarinen, Lindgren and Gesellius made a built manifesto for their nation's separate culture and identity. In 1906, Art Nouveau had its great blossoming at the Milan Exhibition (which, incidentally, also celebrated the maturity of the motor car, the Bugatti family exhibiting with verve in both departments).

Mies built his famous Barcelona pavilion

Von Gerkan + Marg have helped to create...

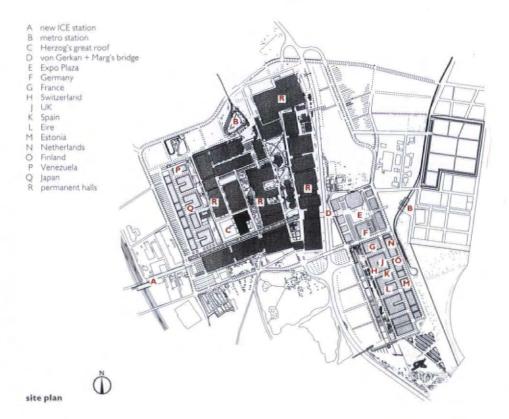


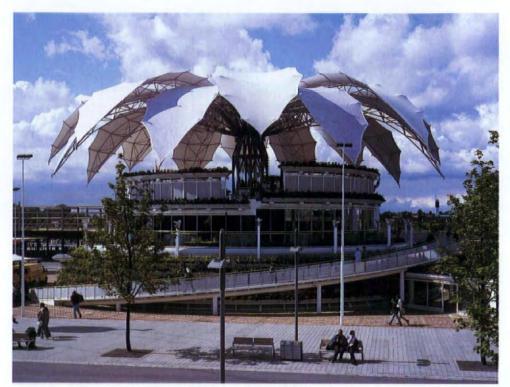


...a genial and generous sequence of public spaces.

in 1929, but Modernism really triumphed at the 1935 Brussels expo. Yet at the 1937 Paris show, the stripped neo-Classical hulks of the German and Soviet pavilions lowering at each other across the central axis heralded dreadful things to come. The 1967 Montreal expo was one of the last stands of functionalist modernism with the mighty Fuller dome and Safdie's Habitat. By 1970, the Tokyo exhibition was one of the first platforms for an emergent Post Modernism. Both Seville (AR June 1992) and Lisbon (AR July 1998) were attempts to extend and regenerate the city, though at the moment, Lisbon's more modest show seems likely to have much more lasting effects and the Seville site lies largely desolate.

Hanover takes up many of these intertwined traditions. Like Seville and Lisbon, it is supposed to add to the urban infrastructure – but to the Hanover Messe, the city's trade fair grounds, rather than the historic core. The strategy seems to have more potential for success than Seville's, where a whole city quarter was supposed to be reju-





Venezuelan pavilion by Fruto Vivas (with Buro Happold) - an unfolding flower.

venated with largely temporary exhibition buildings. At Hanover, the Messe grounds have gained a strip for Expo pavilions to the west and one to the south east. Many of the national pavilions - for instance the Portuguese (p54) and the Finnish (p68) - will remain after the show closes on 31 October, and they will be adapted in one way or another to become part of the permanent showground. Other pavilions, like those of the Swiss (p50) and the Japanese (p58), will be cleanly demountable, allowing appropriate infill to be inserted. (All the work on the west side will be demolished, and the site is to be returned to Deutsche Messe AG as an open-air display area). The big permanent exhibition halls of the Messe have been

adapted to act as show places for themes (p80), and for groups of stands by the less ostentatious and wealthy nations – most of the African and South American ones for instance. They will return to normal use after 31 October.

The new landscape infrastructure of gardens, squares and alleys, which has Thomas Herzog's Great Roof (p46) as its set piece, will remain to enhance the previously rather drab Messe site. Also permanent will be the transport links. Jolly little yellow cable-cars glide quietly from one side of the site to the other over the Messe halls. There is a new suburban railway line with excellent little halts by Martin Despang (AR December 1999), and a new station for intercity ICE

trains has been built on the Berlin-Hanover line. The airport has a new terminal; the motorways have been widened to a daring three lanes in each direction, and there is a new ring road round the whole site.

Notwithstanding all this heavy civil engineering, the masterplan (by Arnaboldi/Cavadini and Albert Speer & Partners) is informed by Expo 2000's main theme, 'Humankind-Nature-Technology'. At Seville, as Catherine Slessor remarked, 'over the last 22 years since the last major expo in Osaka, the greatest discovery made by modern man is that Western industrial culture is not the panacea for the world's ills that it was once thought to be.'9 Few nations and designers, she found, had the courage to respond to the 'obvious theme' of the 'increasingly troubled relationship between man and his environment'.

Everything was intended to be completely different at Hanover. As Birgit Breuel, the exhibition's Commissioner General, said: 'It is intended to demonstrate how humankind can use technology, which is there to serve humanity, to create a new harmony with nature.'10 There is undoubtedly a greater degree of ecological awareness in more of the Hanover pavilions than has ever been seen before. Some demonstrate great architectural imagination in interpreting the theme (particularly



One of the worst: British mediocrity distilled into aggression.

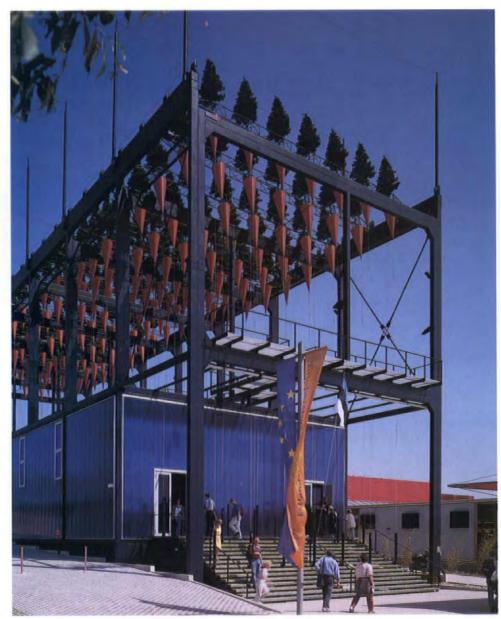


Not the Danes' greatest moment by Atelier Bysted.

Switzerland and Japan). But others are just as dim as ever. The permanent German pavilion (by 'architect and investor' Josef Wund) looms, dour and heavy, over the Expo-Plaza, an agreeable and civilized square by von Gerkan + Marg, otherwise fringed by commercial buildings, the arena, an ecumenical church (p78) and a hotel, all of which are intended to give the place a degree of urban life even when the rest of the Messe grounds are not in use. To the south of the German pavilion is the almost equally large French one, a building so dull after its passage through the bureaucratic system that its original architect, Hélène Jourda, has denied any connection with it.

Further to the south is one of the worst buildings in the whole show. In the British pavilion, mediocrity has been distilled into a form of aggression. Presumably, the thing is intended to show the qualities of New Labour Britain: sensitivity to people and the environment, innovation, technical excellence, architectural brilliance and enlightened patronage. None of these is evident in the large, crudely decorated metal shed, which has apparently been hired off the shelf from a firm of doubtless worthy, though definitely uninspired, German package designers, Goldbeck Bau GmbH. (Nigel Coates, who did the British section at Lisbon, put out a notice that, despite previous Foreign Office claims, he had absolutely nothing to do with the Hanover design.)

The Hanover débâcle is the more poignant because, at Seville, the United Kingdom Government hired one of Britain's best architects, Nick Grimshaw, to make an elegant pavilion which incorporated innovatory energy-saving climate control devices (there is nothing so ingenious at Hanover). Even so, Slessor remarked that at Seville the architectural ideas were 'marginalized by the muscle of dull corporate sponsorship'. At Hanover, dull corporate sponsorship is perhaps not so strongly emphasized, but the interior is full of dismal kitsch and naff exhibits like a reproduction of the front door of Number 10 Downing Street, and little panels with pictures of places like Milton Keynes that would not look out of place in a railway station forecourt. It adds up to a depressing, yet very



Andrus Koresaar & Roivo Kotov - young architects celebrating Estonia.

telling demonstration of the hypocrisy of much of the Blair New Labour project. Perhaps the Americans were more lucky. James Wines and Site were commissioned and produced an imaginative design, but it has not been built because, in the richest nation on earth, the money could not be found. If it had, perhaps Wines' ideas would have been as eroded by bureaucracy and dim business sponsorship as Jourda's were.

Yet grim and crass as many of the contributions of some of the big economy nations may be, silly as are some of the contributions of others, Hanover does offer several poignant suggestions of finer architectures: more inventive, more ecologically aware, more subtly sensitive to humanity than what we have now. And very diverse, as the pavilions studied in the following pages show. For all its faults, Hanover, stumblingly sometimes, gives hope of better futures, as all expos have been intended to do, since

d'Avèze's first efforts. Perhaps, after all, Prince Albert's belief in progress should not be discarded altogether. P.D.

1 The common shortening of the name to Expo is a tribute to the concept's French ancestry.

2 Anon, 'The Origin of Expositions', in The Illustrated Exhibitor: A Tribute to the World's Industrial Jubilee, published as a partwork by John Cassell, London, 1851, p23.

3 Pevsner, Nikolaus, A History of Building Types, Thames & Hudson, London, 1987, p244.

4 Illustrated Exhibitor, op. cit., p2.

5 Ibid, p3.

6 Since 1928, the Bureau International des Expositions in Paris has, by international treaty, been the official body responsible for recognizing an international exhibition.

7 Expo 2000 Hannover, press release, spring 2000.

8 Maupassant, Dumas and other distinguished literary figures signed a petition calling the Tower 'hideous beyond repair' and 'dizzily ridiculous'. Pevsner, op. cit., p250.

9 AR June 1992, p21.

10 Expo 2000 Hannover, press release, spring 2000.





# **EXPO-DACH**

Symbolically, the permanent roof over the main performance space at Expo is mostly made of timber: the renewable building material.

Timber, and its by-products, are politically correct New Age materials. For a World Fair with the motto 'Man, Nature, Technology', wood is the perfect construction material; 'natural', grown from sustainable sources, and with engineering traditions and building codes. Munich based architects Herzog + Partner, specialists in timber research and experimentation, are, not surprisingly, much in evidence at Hanover this year. Along with their Trade Fair administration tower, and exhibition Hall 26, their sculptural timber Expo-Roof will remain as a permanent feature long after Expo 2000 finishes.

Trees are nature's air conditioners. Photosynthesis, the method by which green foliage captures carbon dioxide and produces oxygen, gives us the air we breathe. So long as timber is not burnt, or allowed to rot, this carbon dioxide remains captive. Forestry, like farming, is essential for human health.

In 1958 the Brussels Atomium optimistically heralded in the then emerging atomic industries. Hanover's Expo-Dach (Expo-Roof) symbolizes, hopefully, a more benign partnership between Man, Nature and Technology, in the twenty-first century. As a weather-proof, open sided shelter in the uncertainty of a Northern European summer, it protects a stage area for musicians and artists, small pavilions and restaurants, and spectators

taking time out between events, in the central piazza.

Each of the 10 upturned umbrellas, over 20m high. consists of a central four-legged tapering pylon of timber and steel supporting a 40 x 40m square crown, which is further divided into four identical square leaves. At the base of each pylon, steel feet are anchored in a 15m deep concrete ring foundation. The leaves of the crown are double curved surfaces made up of a skeletal net of laminated timber struts clad in a weatherproof membrane. Precipitation is conducted to the centre of each umbrella, down a rainwater pipe in the centre of each pylon, and feeds into a grid of 5m wide canals on the piazza which complement the roof geometry. The illusion is of pontoons and pavilions, floating on water, under a substantial billowing cloud. Changing daylight, the aspect of the sun and sky colour, is filtered through the millimetre thin translucent roofing membrane which is fireproof, self cleaning and, if necessary, recyclable.

The timber originated in the Black Forest, in south-west Germany. Here grows the biggest concentration of ancient white oaks in western Europe. Used for centuries as ships' masts, the standard girth of the oaks chosen for the Expo-Roof columns was 1.4m, and some were up to 250 years old. For a forest, the culling of these older trees, up to 50m high, is essential for new growth.

Roof is a copse of 10 abstracted trees, each with trunk and canopy, which ...

... shelter cafés and performances.

Grid of canals, fed by rainwater from roof reflects the mighty trunks, in which steel stiffening (p49) is suppressed visually.





Suitable trees were selected using ultrasonic equipment to reveal any internal structural weaknesses.

Thomas Herzog has said that the aim was not to produce a filigree transparent construction, as would have been the case with glass and steel, but to reflect the solidity of a tree with its structural strength visible in a progression from large supporting trunk through to branches and twigs. The Expo-Roof tests the limits of present day timber engineering. Computer technology saved wasteful felling of trees. The double curved roof deck and supporting structure were coordinated using a computer program which steered CNCrobot cutting machines in the manufacture of partially factory made sections, small enough for transport, which were then assembled on site. This precision saved time and resources.

The design process was not linear but a ping-pong ball discussion between initiator, engineers and contractors. testing structure and construction feasibility using real models and computer simulations, wind tunnel and loading tests. Form and materials inevitably developed and changed accordingly. Steel shafts were unavoidable at critical points but this is the first time that timber alone, in the form of large area plate collars, solid and laminated sections, has been used for structural wind bracing. Like great-grandmother's

embroidered alphabet the Expo-Roof could be viewed as the sampler for a new generation of timber buildings.

Ten years ago the decision to hold Expo 2000 in Hanover met with much opposition from environmentalists who argued on both ecological and economic fronts. Some of their fears may still be realized. But more than in any earlier Expo buildings, landscaping and public transport systems have been designed for the city and the permanent Trade Fair site, and many experimental constructions have been sponsored and given media coverage. Germany's industrial strengths: systematic precision, an intact system of apprenticeships and master builders, a predominance of middle-sized, family operated manufacturing firms, codes which sometimes exasperate clients and architects, and a thriving economy, have all given Hanover the opportunity to show how we might deal with old problems in new ways, or even new problems in old ways.

LAYLA DAWSON

Architect

Herzog + Partner, Munich

Project team

Thomas Herzog, Hanns Jörg Schrade, with

Roland Schneider

Executive Architect

Ingo Brosch of Architekten BKSP, Hanover

Structural engineers

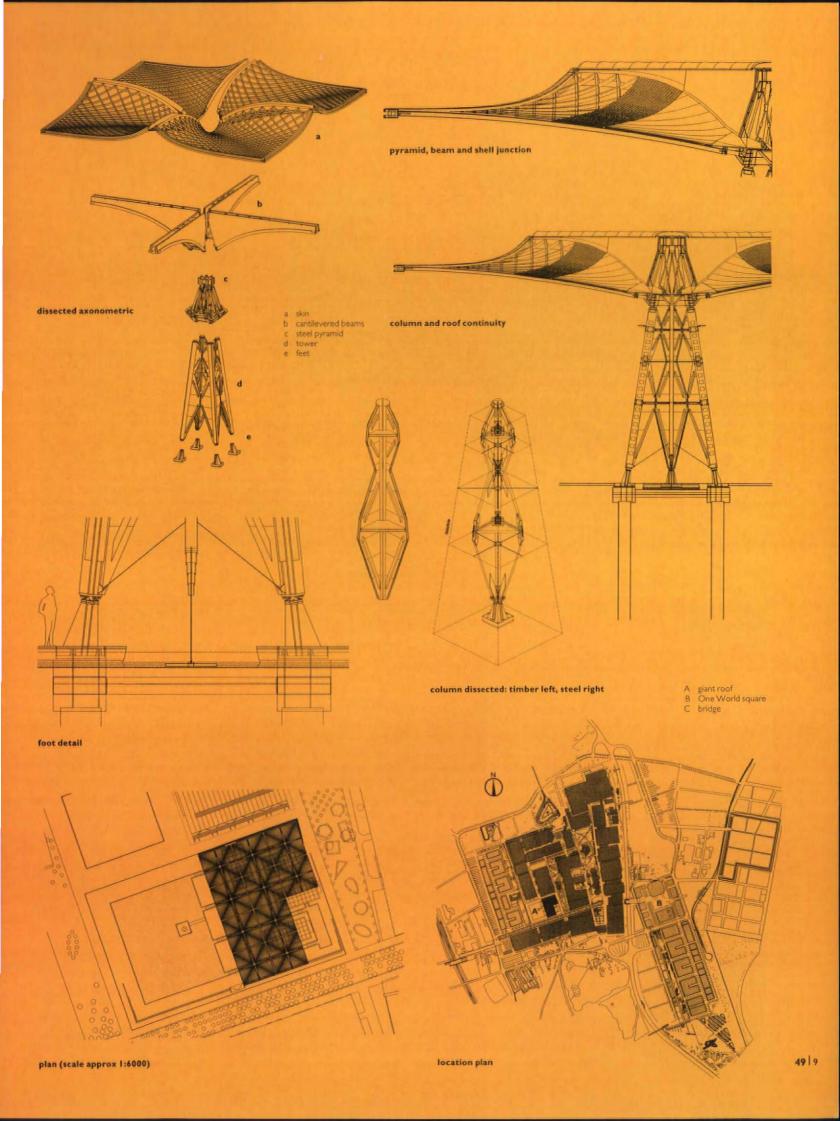
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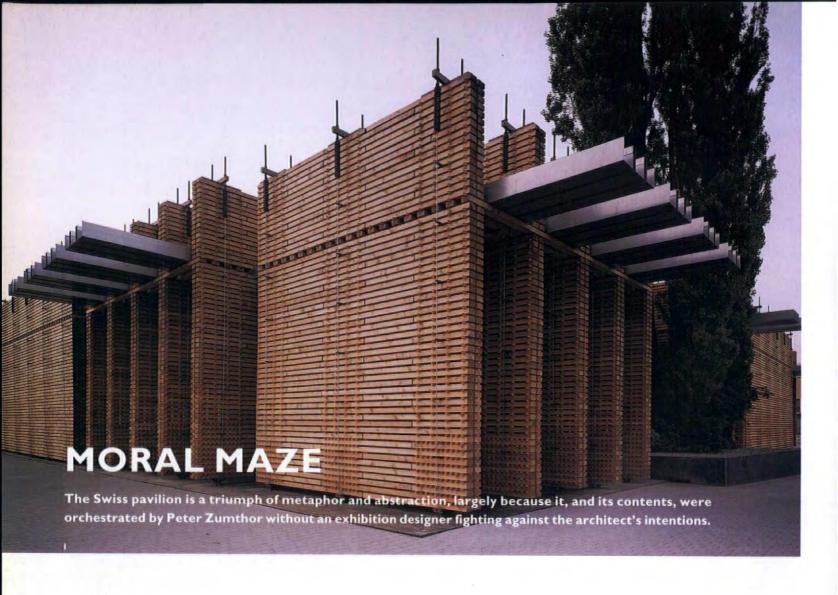
Ingenieurbüro Bertsche, Prackenbach Ingenieurbüro kgs, Hildesheim

Photographer

Christian Richters

4,5
Because light can penetrate
enormous roof, both through
transparent strips between
canopies, and through the
waterproof membrane and
abstracted twigs and branches,
area protected by roof is
surprisingly bright and cheerful.





**SWISS PAVILION** ARCHITECT

PETER ZUMTHOR

From his earliest years, Peter Zumthor has been involved with wood. Son of a furniture manufacturer and trained initially as a cabinet maker, he was brought up with its smell in his nostrils, and its potential at the end of his fingers. The first buildings which brought him international attention were made of timber: the little chapel at Sogn Benedetg and the Roman museum in Chur (AR January 1991), where he explored the acoustic, luminous and aromatic properties of the material with exquisite sensitivity.

Now, he has made the Swiss pavilion in Hanover, and has used much of his previous experience to make an unforgettable, calm, yet rather disturbing presence, which is perhaps the most potent in the whole of Expo. It is a timber labyrinth. Bearing in mind the principles behind the Hanover exhibition, its wooden walls are held together without nails,

screws or glue, so that at the end of Expo, they can be sold off (or re-used). Long thick horizontal planks of ruddy pine are separated by pale square larch cross-members. Everything is held together by stainlesssteel rods in tension quite highly stressed by springs to form in compression what Zumthor calls a 'wood yard'. It may be the most elegant and sophisticated wood yard in the world, but its three-dimensional lattice structure will work excellently as a timber seasoning device.

During the course of the exhibition, the height of the structure is expected to shrink by about 120mm as the timber dries out and is compressed under the effect of the springs, which will gradually reduce their tension as the walls contract. Sometimes the pine weeps sticky, sharp-scented tears of resin as the wood is gradually transformed. Zumthor is prepared for the possibility that

during the pavilion's life, whole walls may deform and buckle. He wants them to move. They will add to the organic resonance of the place or, if any become seriously deranged, they will be adjusted. Constant supervision will be needed and corrective measures taken: a metaphor perhaps for the nature of Swiss society.

Zumthor calls his building a Klangkörper, a sounding body, because rain on the wide galvanized gutters which form the roof turns it into a huge musical instrument, played on by God and Nature. But there are other sounds in the place as well. Zumthor, who won the project in competition, presented a scheme which is intended to appeal to all the senses, not only in its physical presence, but with contributions from other artists, musicians, writers, theatre workers, culinary experts, all conducted by the architect. One of the initial ideas was that the

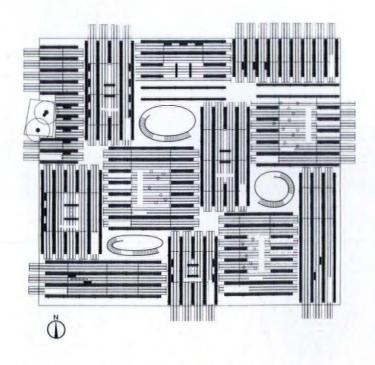
Multiple entrances to the maze are perhaps a metaphor of the open society.

Timber elements are not fixed to each other, but are held in place by compression, engendered by the tension of stainless-steel rods stretched by the springs. In the little internal squares like this, Swiss musicians gently and regularly perform, animating the intensity of the place.





SWISS PAVILION
ARCHITECT
PETER ZUMTHOR

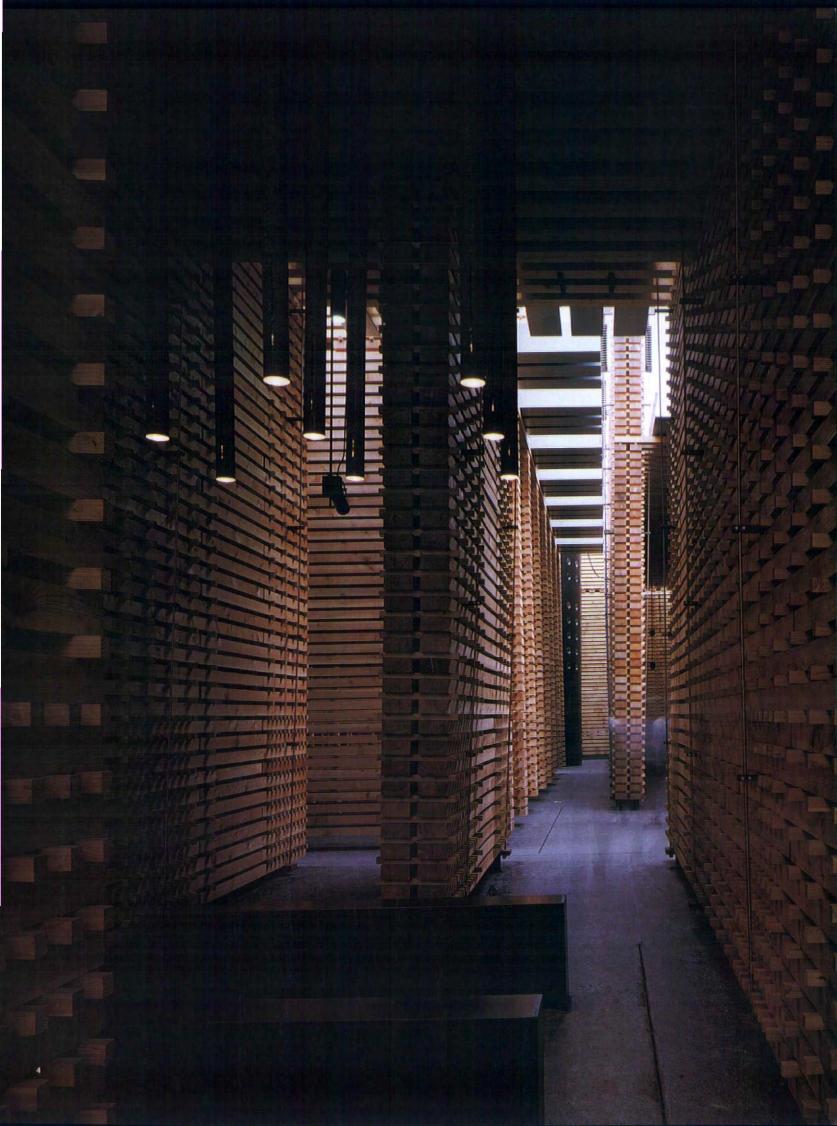


place should be a sort of 'rest house', where people could relax in the small internal piazzas to which the maze (without too much difficulty) delivers you - or in the strange black oval threestorey elements which house the service parts of the pavilion, and have quiet spaces on top with Jacobsen chairs. Though Zumthor vigorously denies that there is anything in the place which is obviously intended to evoke Switzerland, here is again a trace of one of the essences of the country, the tradition of efficient, soothing hospitality.

Unlike many of the national pavilions, the Swiss one is entirely funded by the federal government, so there are no sponsors whose wares have to be displayed, garishly and crudely competing with the pavilion itself. It evokes the notion of a decent, complex, subtle society, with gentle musical sounds, the scents of delicious food and drink mingled

with the aromas of wood, the words (in Switzerland's many languages) projected fleetingly onto the walls, or engraved on them, the strange little performances in the courts. Physically subtle too, because the walls are both opaque and permeable: as you walk down the paths of the maze, they seem almost solid, and directive. But turn straight onto the walls, and you can see through the slits. And see strangely edited versions of people's figures and faces: individuals glimpsed intensely in the strange little city of sensations which has been made with such elemental means. P.D.

Architect
Peter Zumthor, Haldenstein
Project team
Uta J. Graff, Rainer Weitschies,
Kirsi Leiman, Daniel Schmid, Miguel Kreisler
Engineer
Conzett, Bronzini, Gartmann, Chur
Photographs
Christian Richters



#### **PORTUGUESE PAVILION**

**ARCHITECTS** 

ALVARO SIZA AND EDUARDO SOUTO DE MOURA

The Portuguese pavilion brilliantly sums up what the rest of the world has come to expect of the best of the nation's architects, not surprisingly perhaps, for it has been produced by two of them, who, judging by the clarity and precision of the result, must surely have worked harmoniously together.

In plan, it is a square with a long finger and a short thumb sticking out south-west towards the Europa Boulevard, the main avenue of the east side of the exhibition grounds. Two storeys high, the front wall, the one at the end of the finger nearest the avenue, is made of smooth, slightly rosy Portugese limestone with PORTUGAL plainly and lightly incised in gold over a single central opening. To the left of this most understated of advertisements is the entrance canopy, a very simple steel

structure carrying underneath a plane of beautifully smoothed planks; it is made strong enough to sail, almost supportless, along the front on the boulevard and turn towards the main public entrance. In doing so, it encloses a small court where a couple of cork trees grow in chaste elegance. The two sides of the court defined by the building itself are clad in small square glossy hand-made tiles; Portuguese ceramics have changed a lot since the seventeenth century, but they can still be very powerful. To the left, the wall with the entrance door is a deep golden yellow, the colour of the sun and welcome. Straight ahead is a rich blue plane, signalling the end of the approach route and the prospect of calm within.

Inside, you are inflected by the Aalto-like curve of the pale stone reception desk out from the comparatively cramped space under the upper floor into the double-height square of the main exhibition area. This is quite astonishing. A completely irrational white translucent roof undulates over the space like a gentle cloud, or the sky seen from under water on a pellucid day. It is gentle, but utterly different from the calm rigorous geometry of the approach. (Though there were slight hints that all was not quite so orthodoxly Rational as appears at first sight by the slight inclination of the canopy from the rigorous grid of the main building.)

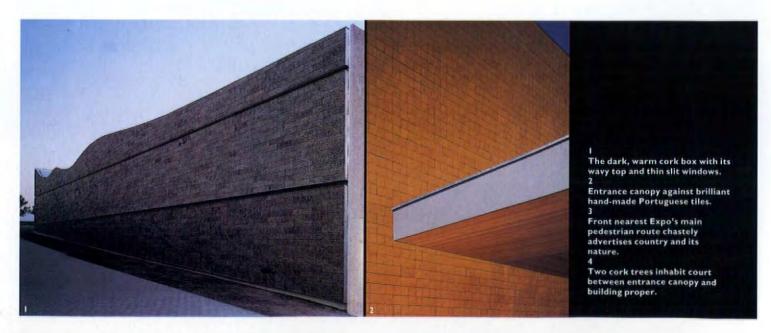
The roof, evolved with Ove Arup & Partners, is a deformed space-frame, fabricated as has been possible for only a few years, with every node and every strut slightly different to make the curves and billows. It was assembled from its precisely prefabricated components on

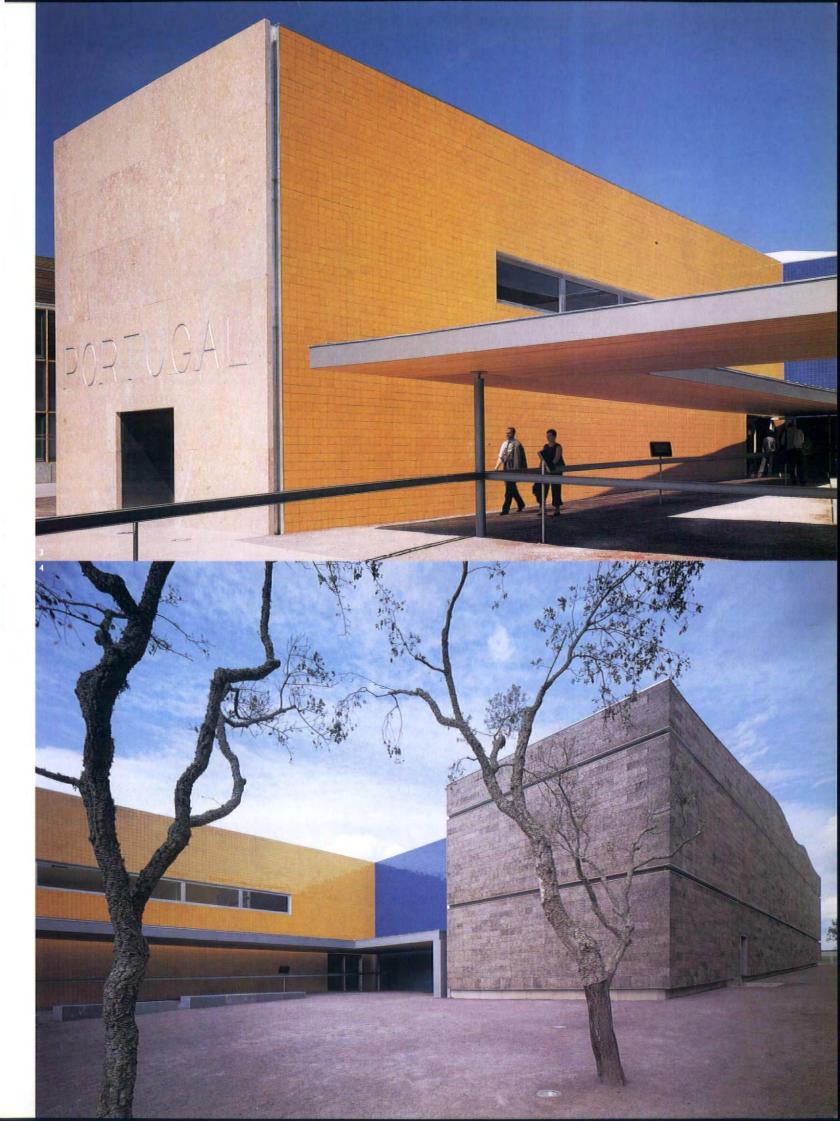
the ground, then hoisted up to bear on steel staunchions incorporated in the walls. External roof cladding is pvc coated polyester fabric; the internal skin is made of the purest white cotton. Calm, pale daylight suffuses the whole space, complemented when necessary with lamps in the cavity between the skins (the system also incorporates a degree of heating to cope with the unlikely event of snowfall).

Apart from the big space, the pavilion is a set of quite conventional but pleasant rooms, with a meeting area (or VIP entrance) approached through the opening in the limestone front wall, and a shop on the ground floor. The first floor has a little auditorium, offices with a meeting room and lavatories. All seems almost boringly utilitarian until you get breathtaking glimpses down

# PARED DOWN PARADIGM

Alvaro Siza and Eduardo Souto de Moura have cooperated to make one of the simplest and most powerful of all Expo's pavilions. It combines profound knowledge of Portuguese materials with a lyrical approach to technology.

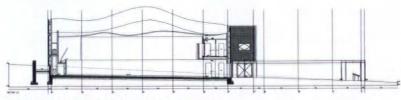




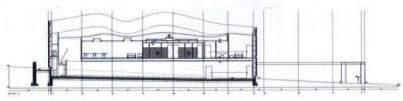
### **PORTUGUESE PAVILION**

ARCHITECTS

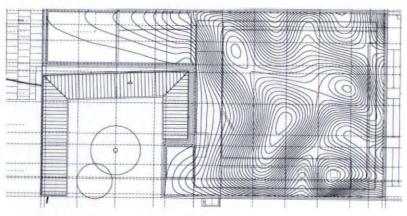
### ALVARO SIZA AND **EDUARDO SOUTO DE MOURA**



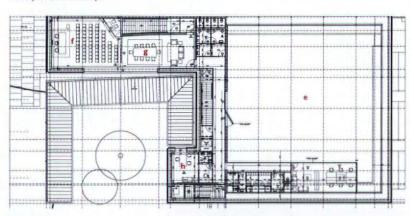
section through main gallery looking south-east



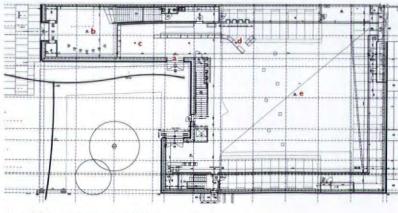
section through first and second floors looking south-east



roof (with contours)



first floor



- public entrance
- VIP hall coffee
- shop
- auditorium
- staff rest
- offices

Constantly changing images of Portugal's landscape and architecture animate main gallery with its cloudlike ceiling.

Grand stair from VIP entrance to upper floor.

Carefully controlled view from first floor into double-height gallery space.

and across the big magic volume.

Emerging, blinking, into the sun and looking about, it quickly becomes clear that the little building is much more complicated than it seemed when you went in. The main bulk is clad in compressed cork blocks apparently assembled like masonry, and waterproofed with a compound that colours them a strong brown-black. In fact, the cork walls are prefabricated panels which, like the modular steel structure, will be demounted at the end of Expo to be re-erected in Portugal. As you walk round the comforting, quiet warm dark-brown box, you become aware of the strangeness of the whole thing, for the undulations of the roof are echoed in the curves of the walls against the sky.

The Portuguese pavilion is perhaps an argument for expos. Here is a small and rather poor country making an exquisite, imaginative, economical thing, and showing up the stupidity of the blundering bureaucratic taste of big rich nations like the Germans and French (not to speak of the appalling market mediocrity of the British). It simultaneously demonstrates deep traditional appreciation of materials, light and space, and a lively understanding of the potentials of modern technology, without swanking about them. In its modest gentle way, it is a triumph. P.D.

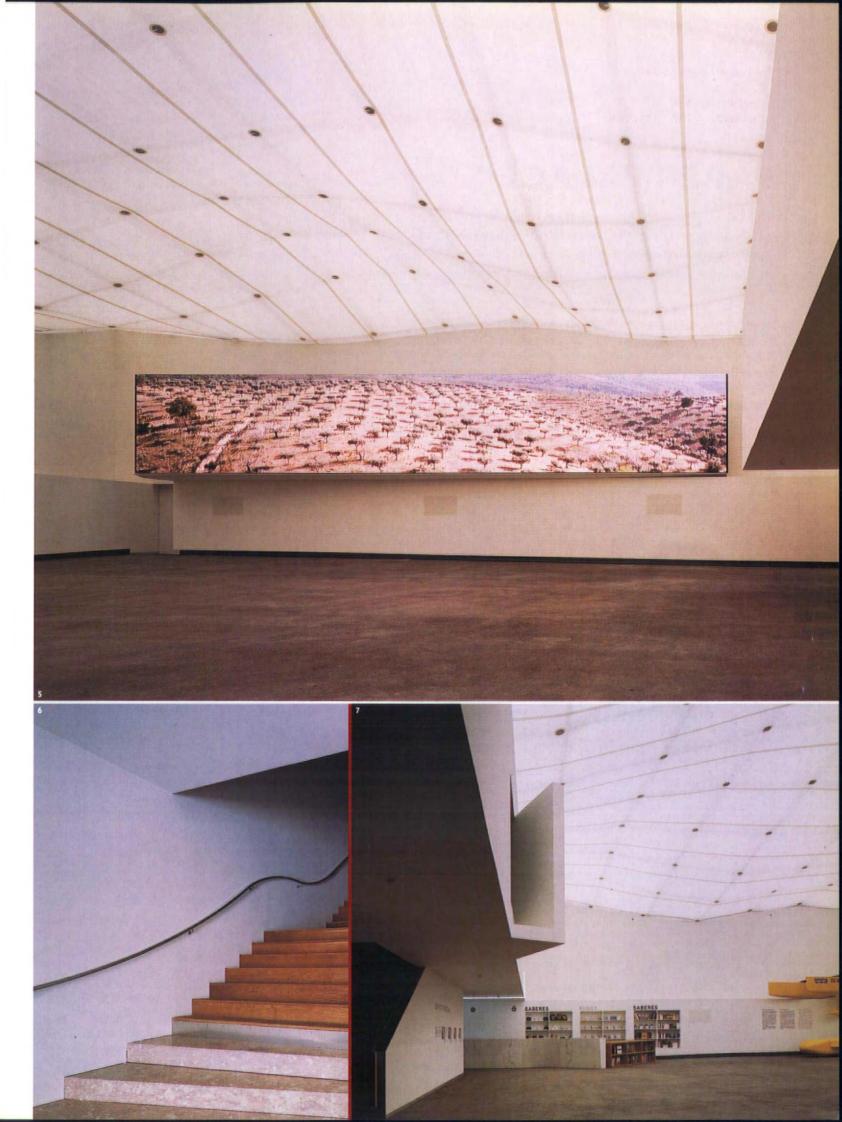
#### Architects

Álvaro Siza Vieira / Eduardo Souto de Moura Design team

Álvaro Siza Vieira, Eduardo Souto de Moura, Nuno Graça Moura, Ricardo Rosa Santos, Carlo Nozza, José Carlos Mariano, Jorge Domingues

Structural, electrical, mechanical and acoustic consultants Ove Arup & Partners

Photography Christian Richters



### PAPER PALACE

The Japanese pavilion is the biggest paper structure ever built, and one of the boldest attempts to meet the Expo organizers' aims of generating sustainable, humane construction by using advanced technology.

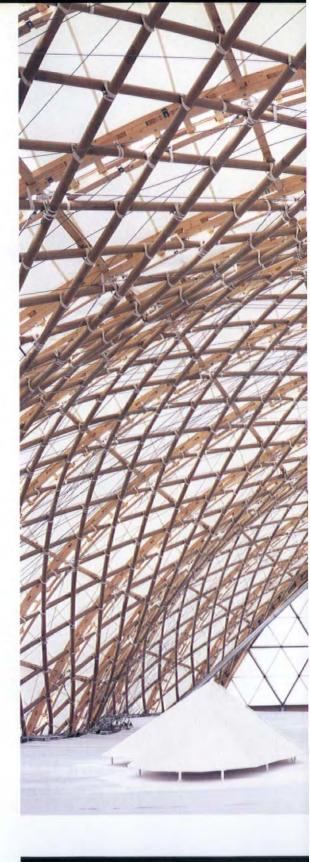
Shigeru Ban and the organizers of the Japanese pavilion have taken the Expo theme of Humankind-Nature-Technology more seriously than most. A very large proportion of the building will be recyclable when the show is struck.

Ban has made a name as a builder in paper, perhaps most notably with his church at Kobe with its structural walls of cardboard tubes, erected very quickly and economically after the earthquake (AR September 1996). At Hanover, the structure is a lattice of comparatively thin (120mm diameter) cardboard tubes, lashed together with white rope at their nodes (a detail wonderfully evocative of Japanese tradition). The largest cardboard structure ever made, the pavilion is 72m long by 35m wide, with a maximum height of 15.5m. Fundamentally rectangular in plan, three domes are fused together to form a generous and lofty space.

Construction is ingeniously innovative, worked out with advice from Frei Otto, and Buro Happold as consultants. The whole basketwork shell was constructed flat, and then gradually jacked into shape over about two weeks in early February. Tubes in the shell are 20m long and weigh 100 kilos each; they can be spigoted together, in some cases to achieve a total length of 68m. Stiffening is provided by thin ladder-like timber trusses, stayed with wires, arcing across the width of the plan. Loads are transmitted down to foundations made of mass sand enclosed above ground within scaffolding boards supported by steel frames. Sand is used because, unlike concrete, it is recyclable, and so of course are the steel, the timber and the tubes - the tubes made of recycled German paper, now destined to be recycled again (perhaps as cardboard files).

Covering the roof is a specially developed waterproof and fireproof translucent paper (recyclable of course) which is reinforced by being bonded to





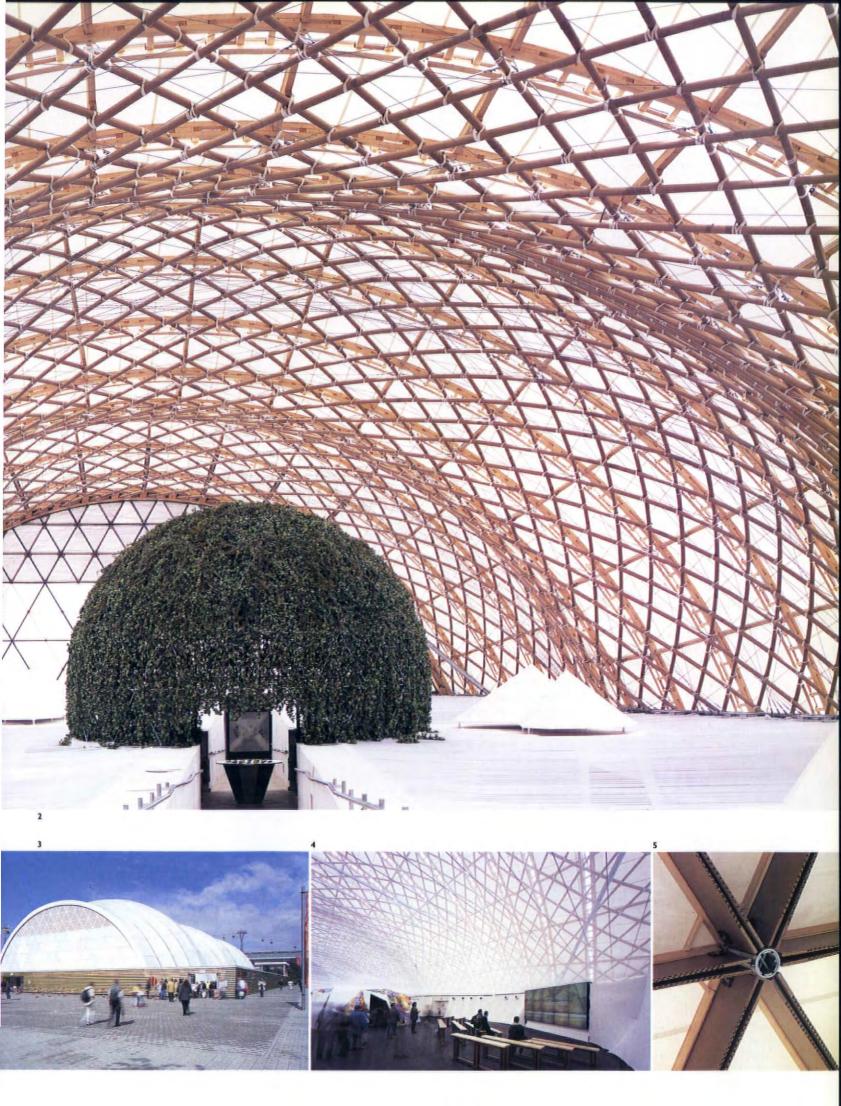
Three domes are fused to form...

...a magnificent space, strangely compromised by exhibition designers' white fabric plane.

3 Perimeter was intended to be in paper, but delays caused by cautious building authorities meant change to timber.

Without the fabric plane, something of Ban's original concept can be grasped. Sand foundations are above ground behind fabric covering to right.

End wall structure: diagonal grid of cardboard struts reinforced with wood, meeting at tubular stainless steel nodes.



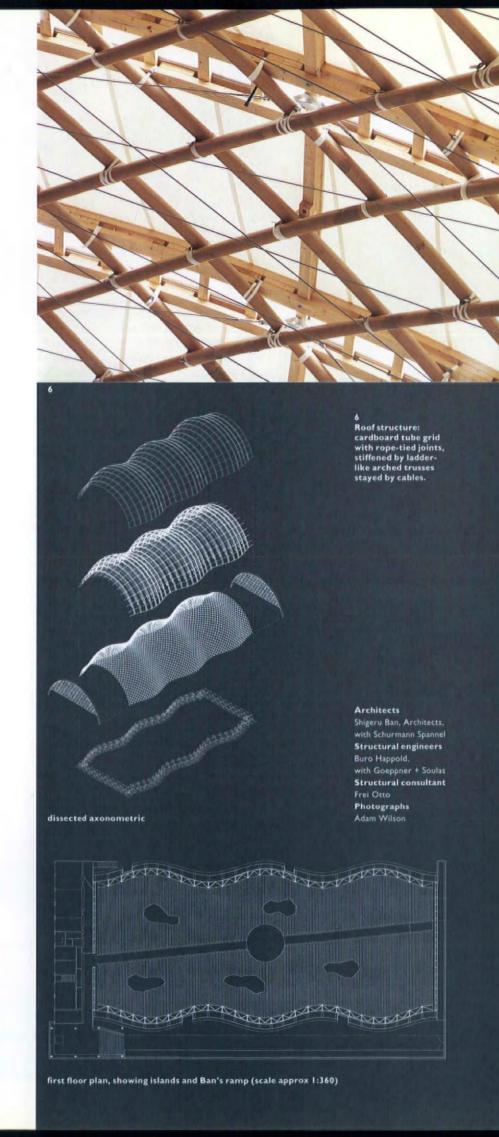
# JAPANESE PAVILION ARCHITECT SHIGERU BAN

an inner transparent pvc membrane. The ends of the dome are closed with the same material, carried on diagonal grids of cardboard stiffened with timber and connected by tubular steel nodes.

You enter at the east end, one storey up (having walked up steps to a little porch carried on cardboard columns). You pass the offices (made of standard reusable transport containers), and come to the top of Ban's ramp, which leads down through the space to ground level at the other end. From the top of the ramp, you should be able to appreciate the big volume, full of light and patterned by the diagonal Japanese grid. But all is disastrously compromised. The exhibition designer has chosen to insert a horizontal white fabric plane which in effect cuts the volume almost in half.

Only in part of the plan is the plane omitted and only there can Ban's space be partly appreciated. The white plane is all the more bizarre in that it seems to serve no function. Five 'islands', tepee-like structures housing exhibitions like 'Reducing CO2 emissions' and 'Nature's wisdom', are the main objects in the space, and their pointed tops poke through the horizontal white sheets. The islands seem at first to be very big examples of Japanese origami, but rather than being made of folded paper, they are of ordinary building board. The exhibition designers' only positive gesture seems to be the 'Terra dome', an 8m green sphere of artificial plants on the landing halfway up Ban's ramp.

Apart from this, it is difficult to avoid the impression that they were trying to subvert the architect's intentions: a state of affairs clear in many of the other pavilions, but particularly sad here, where the shell is so elegant, appropriate and innovative. PD



## **HIDDEN PLAZA**

Inscrutable and hermetic on the outside, with its rugged, cork-clad walls, the Spanish pavilion conceals a luminous public plaza at its heart.

SPANISH PAVILION
ARCHITECT
CRUZ Y ORTIZ ARQUITECTOS

Seen from the street, the
Spanish pavilion is inscrutable, a
blocky mass riven by five deep
crevices and raised on uneven
and irregularly placed columns.
The dense natural texture of the
cork with which it is clad
contributes to the impression of
impermeability and at the same
time makes the building intriguing,
drawing you towards it.

Cruz y Ortiz's architecture of surprise postulates a distinction between exterior and interior, transition, a sense of discovery. Here, you move from the rugged irregularities of the pavilion's exterior into a soaring white space, precisely articulated,

pyramidal in section and capped by an enormous rooflight. This is the architects' recreation of the Spanish plaza, a space to be discovered, undetectable from outside the building.

The square, elegantly paved, is set with tables and benches composed of massive blocks of pale stone (a cool relief in Spain but cold to sit on in this melancholy climate) between clipped hedges. Visitors are served by a tapas bar/restaurant which runs the length of the back (west) wall and is part of a rectangular block lining this side of the pavilion. Conceptually the sober anchor of the scheme, the

block also contains offices and meeting rooms.

From the floor of the luminous plaza, a staircase curves up to the first floor and exhibition, designed with great invention and intelligence (and little money) by King Miranda Associati. It is here that you appreciate the significance of the deep clefts cut into the pavilion envelope.

Running around the edge of the big light-well, the exhibition space is carved by the crevices at its periphery into a series of six peninsulas. Each of these has been transformed by the designers into a different theatre

Cork-clad walls of the Spanish pavilion form a hermetic, inscrutable mass.

2
With its raw materiality and simple, blocky forms, the pavilion is an impassive presence on the Expo site.





#### SPANISH PAVILION

ARCHITECT

### **CRUZ Y ORTIZ ARQUITECTOS**

Part of the exhibition sequence; Spanish history and culture imaginatively conveyed by film, light and sound. 4 Cool, luminous public plaza at the heart of the pavilion.

to convey something of the spirit and character of Spain - and thereby something of the history, peoples and landscape that inform them. Within the theatres, ideas, sensations, facts are conveyed by multiple film projections, light, sound and narration. The visit has

been designed as a crescendo, beginning with a filmic reconstruction of the first Europeans (whose remains have been discovered in the Sierra de Atapuerca near Burgos), and ending with lively forays into contemporary Spanish art.

Exhibition designers constrained by the confines and character of somebody else's building often have an unenviable task. King and Miranda seemed to have coped admirably. Their invasion of the upper reaches of the pavilion is both entertaining and full of vigour. V.G.

Architect

Cruz y Ortiz Arquitectos, Seville

Exhibition design

King Miranda Associati, Milan

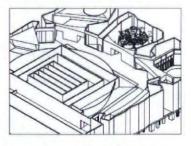
Project designers

Perry King, Santiago Miranda,

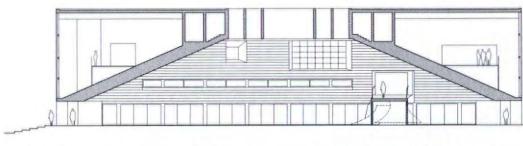
Malcolm S. Inglis, with Matteo Carbonoli, Christopher Knox

Photographs

Christian Richters (1, 2, 4) Andrea Zani (3)



cutaway isometric projection

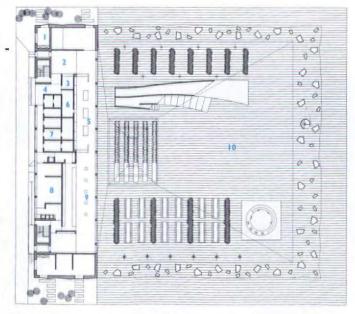


cross section

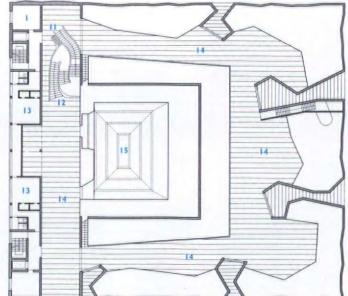
- service
- entrance to VIP suite
- control
- main entrance
- shop
- cold store
- kitchen
- tapas bar 10 plaza
- exit from exhibitions

exhibitions entrance

- 13 cloakroom exhibition space
- 15 void







first floor plan





# DUTCH PAVILION ARCHITECT MVRDV



# TOTAL LANDSCAPE

One of the most conspicuous structures on the entire Expo site, the Dutch pavilion is a huge layer cake that reflects the country's intimate relationship with its landscape.

With delicious irony, MVRDV's Dutch pavilion is sited directly opposite the lamentable UK contribution, emphasizing a revealing difference of approach between the two countries. While the Dutch celebrate the arts of building, landscape and ecology with an exuberant architectural layer cake (perhaps the most dramatic single structure on the entire site), the British take refuge in a cheap warehouse that would not look out of place on the most banal edge-of-town retail park. It is an acutely telling, if somewhat depressing, cultural comparison.

depressing, cultural comparison.

Like Britain, the Netherlands is a densely populated country with a strong northern European democratic tradition. Unlike the British, the Dutch have had to determinedly and ingeniously claw back much of their land from the grip of the sea, giving rise to a heightened and very particular.

relationship between people and topography. MVRDV's extraordinary club sandwich of a building is both a meditation on this relationship and a speculation on how it might evolve in the future. It also touches lightly on issues of topical global significance, on how to reconcile increases in population density with the fragility of nature and quality of human life. The monumental, multi-level park is intended to symbolize the forces of nature modified by man. Stacked dizzily above the surrounding pavilions, the layered structure is set among a carpet of flowers, a bizarre yet engaging prototypical experiment that suggests new ways of colonizing land and space.

Essentially a series of stacked square floor plates that vary in section height, the pavilion is a labyrinthine journey through different sorts of environments.

Wrapped precariously around the perimeter of the building like a unifying ribbon, an external stair forms the main means of vertical circulation, affording changing views of the Expo site as you gradually ascend or descend. From a subterranean grotto to a windswept roof garden studded with whirling windmills, the circuit around the pavilion is a logical progress through the earth and its elements.

Sitting on a brick-clad box of offices and administration spaces, the lowest public level is sensuous and cave-like, enclosed by undulating planes of smooth raw concrete. Massive and geological, this forms the rusticated base supporting the lighter levels above; it also houses the pavilion's information point and shops. The metaphorical cave leads up to a metaphorical field of flowers, with thousands of potted plants and shrubs arrayed on steel tables as if

Crammed with incident and topped by flailing windmills, the towering layer cake of the Dutch pavilion is a compelling presence on the Expo site.

Netherlands I, UK 0. MVRDV's inventive meditation on landscape and ecology looms over the apologetic British pavilion-as-retail-warehouse.

Top floor roof terrace is used as an outdoor room. Windmills generate electricity which helps to power the building.

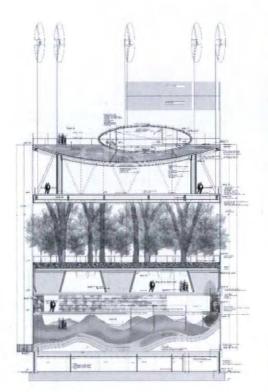
Ramp winds up to the first floor with its phalanxes of foliage and bold yellow ceiling.

Cave-like entrance level formed from folded planes of concrete.

### **DUTCH PAVILION**

ARCHITECT

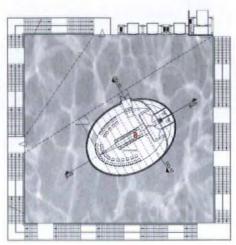
### MVRDV



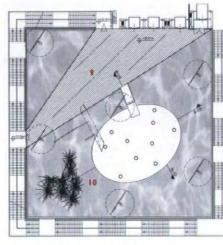
cross section

- entrance level planting service pods

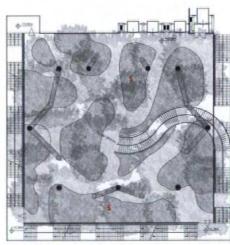
- 4 wcs 5 trees
- 6 exhibition 7 breakout space 8 meeting pod 9 terrace 10 garden



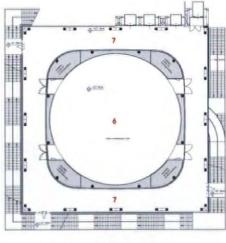
fifth floor plan (meeting pod)



sixth floor plan (roof terrace)



third floor plan (forest)



fourth floor plan (exhibition space)



first floor plan (plants)



second floor plan (cylinders)

6 Breakout space outside the exhibition hall.

Squat cylinders house storage and service pods. The internal landscape changes dramatically from floor to foor, envilvening progress through the pavilion.

in a giant greenhouse. A vivid yellow ceiling represents the nurturing power of the sun.

From here, you ascend to a functional level of hermetic cylindrical pods, containing lavatories and storage. The fat white cylinders form a surreal, artificial landscape, in contrast with the next level which is a forest composed of mature Danish oak trees. Heavy trunks of oak appropriated as angular columns and a wan green radiance bestowed by rows of strip lights contrive to reinforce the arboreal theme.

The penultimate floor is given over to a circular exhibition hall clad in a scaly copper skin. The dark metal is just visible through a translucent external wall made of gauzy stretched fabric. Rounding off the pavilion's layers is a roof garden with grassy hummocks and a calm, reflecting pool. Slender wind generators, like giant daisies, are used to make electricity for the building. Incongruous yet inventive, MVRDV's cartoon-like distillation of landscape has a spiritedness of vision and execution that cuts incisively through the Expo stodge. With its optimistic fusion of tectonics and greenery, the pavilion takes on the character of a happening or microcosmic ecosystem, suggesting intriguing paradigms for the future. C.S.

Architect MVRDV, Rotterdam Project team

Winy Maas, Jacob van Rijs, Nathalie de Vries, Stefan Witteman, Jaap van Dijk, Christoph Schindler, Kristina Adsersen, Rüdiger Kreiselmayer, Philip Oswalt, Joost Grootens, Christelle Gualdi, Eline Strijkers, Martin Young

Structural engineer

Mechanical engineer

Cost consultant

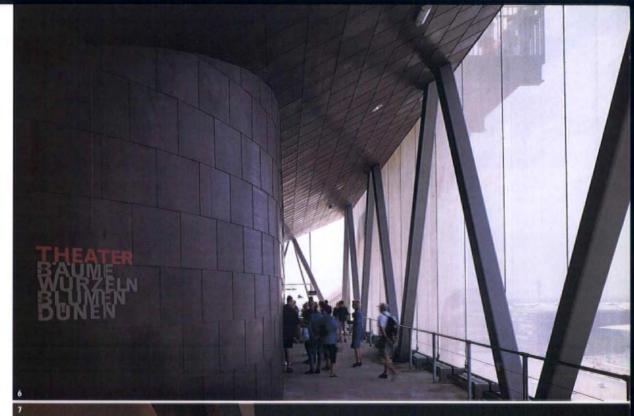
Visualizations GroupA

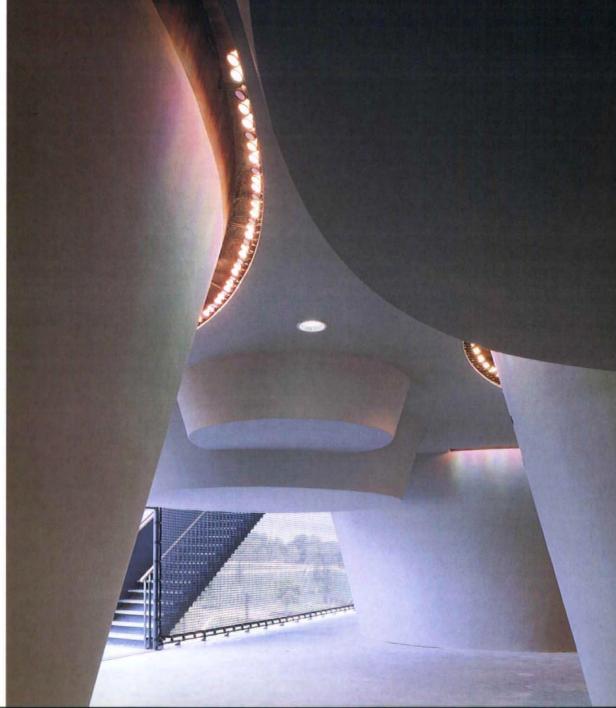
Model

Vincent de Rijk

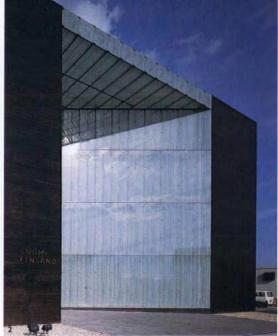
Photographs

Christian Richters









Externally, an impassive and austere pair of dark brown wooden boxes, with, between them...

2 ...a chaste, sheltered entrance porch, created with a screen of printed glass...

...behind which grows a birch grove, transplanted from the Finnish forests.

## NATURAL HEART

Finnish minimalism, love of the strange natural landscape, understanding of wood and love of light are all embodied in the nation's pavilion, bravely designed by young architects.

Finland's pavilion distils many of the qualities we have come to associate with the best of the country's contemporary architecture: precision and simplicity, love of nature, and ingenuity in timber construction. Instead of adopting the strategy of recycling the components of their pavilion to meet the Expo organizers' green requirements (as have, for instance, the Swiss and Portuguese), the Finns decided to make their building (won in competition by the young practice SARC) permanent and reusable.

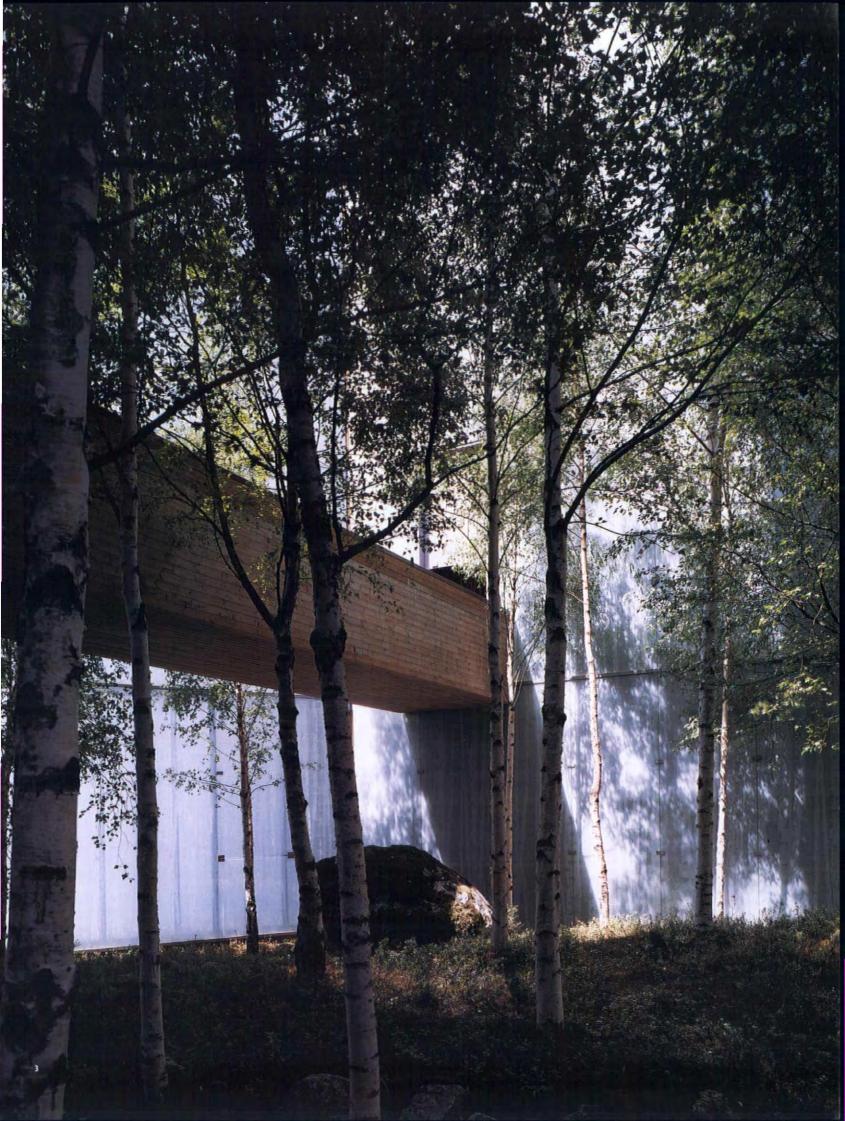
The plan is very clear and simple. Two parallel four-storey rectangular blocks, each 7m wide and nearly 49m long, face each other across a 14m court which has been planted as a piece of Nordic birch grove. The result is remarkably convincing. A slightly uneven surface is studded with irregular mossy rocks and covered with the northern European forest mixture of grass and creeping shrubs like bilberry. Slender, pale birch trees, 12 to 15m high, are scattered over the green between the two halves of the building, and when we visited the place, they seemed to be thriving, with translucent, newly opened leaves luminous in the thin sunshine. If you were blindfold - and, it must be admitted, wearing earmuffs to mask the acoustic environment your nose would suggest that you were really in a wild northern forest, with its wonderful, fresh, slightly pungent aroma.

Externally, the pavilion is pretty non-committal. Outer walls of the two long blocks are clad in pine, heat-treated by a Finnish method which gives it qualities similar to those of hardwoods: tough, dense, rot

resistant and dark. Doors are made in the same material, to appear as if part of the walls. Each end of the central court is closed with full-height screen-printed glass, which gives glimpses of the inner birch landscape. At the west end, off Europa Boulevard (the main thoroughfare of the east side of the Expo site), the glass screen is inflected. This simple move draws the public to the main entrance in the north block. And it allows a glass canopy to be inserted at roof level, so making a tall, austere but welcoming porch.

Entrance leads to a long lobby and exhibition hall, which, it must be admitted, has been folked-up with a rather fussy but jolly show by the exhibition designers. Across the court is the public bar and café. Both sides of the ground level are linked to galleries on the first floor by stepped ramps that rise gently through the trees. Of course, there are lifts and internal stairs as well, but the progressions through the scented grove, both on the stairs and on the bridges which cross the open space horizontally at first and third-floor levels, are the chief delights of the pavilion.

Throughout, you are made aware of the birches through the silk-screened glass walls which overlook the court, and are shaded to some extent by the leaves. In the south block, there is a double-height gallery. In the north one are two single-storey galleries, with the upper devoted to trade exhibits. One of the galleries has a powerful interior evocation of the Finnish landscape at daybreak, complete with aromas, a soft mossy floor and a filmed backdrop of lake, reeds and wildfowl and their cries. The top level of the



### FINNISH PAVILION

ARCHITECT

### SARC ARCHITECTS

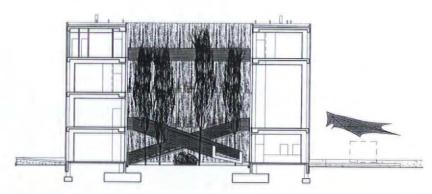
pavilion contains services, offices, meeting rooms and the obligatory sauna.

It is a compact, workmanlike little building, relieved by its central streak of nature. Provided the trees survive, and the court is well-maintained, the Finnish pavilion should convert very well to new uses: exhibition hall, offices and so on. And it will be a relief to be released from the patchy interior designs. H.M.

Architect SARC Architects, Helsinki Project team Sarlotta Narjus, Antti-Matti Siikala, Claudia Auer, Sakari Forsman, Tiina Torna, Peter Neidhart, Outi Martikainen Associate architect Dietz-Joppien Architekten Structural engineer Aaro Kohonen Oy Mechanical and electrical engineer Olof Granlund Oy Landscape architect Jyrki Sinkkilä (competition)

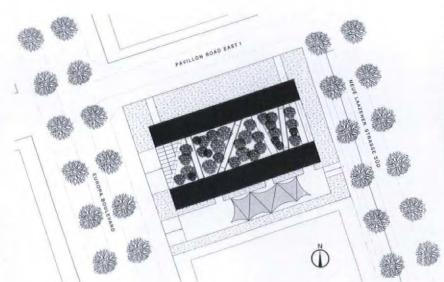


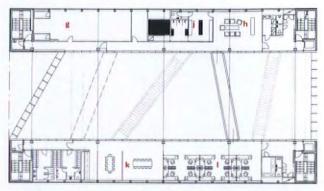
Viatek Oy (construction)



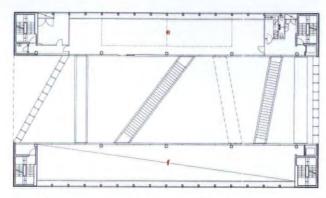
cross section

- a entrance b lobby/exhibition
- café
- d kitchen
- gallery void
- plant sitting
- sauna meeting
- office

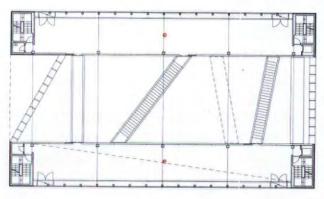




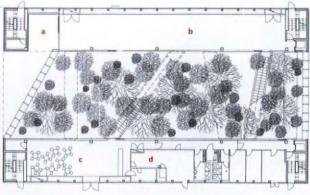
third floor



second floor



first floor



ground floor (scale approx 1:620)



## **IRISH PROMENADE**

Refined in its detailing and elemental in its use of materials, the Irish pavilion is a cool, tranquil cave providing refuge from the blare and bustle of the Expo site.

Surrounded by the razzmatazz of the Hanover Expo site, the visitor's instincts may well be to hide, to retreat to somewhere cool, natural and elegant. Ireland's pavilion offers the fugitive a cavelike and undemanding architectural promenade. It is a building of admirable tectonic simplicity (although some of its contents threaten to distract), in essence two stone walls, a pool of water, some ramps, a sheltering

roof plane, and an inner 'intelligent' wall, housing various art objects, text, and a lively video presentation.

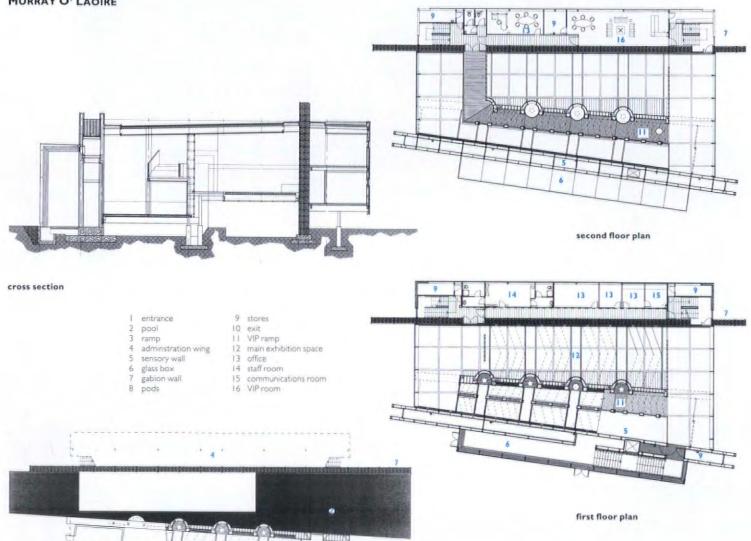
The north wall is made from gabions, the south of polished black Kilkenny limestone.

Perpendicular to the Expo boulevard, the gabion wall is 54m long by 10m high. It consists of metal mesh cages slotted between steel columns at 3m intervals and filled with local stone. A metal

plate is embedded between the gabions for fire protection. The polished south wall is of two parallel layers screening services and a small lift. Slightly shorter and slightly lower than its gabion companion, it is canted in plan to produce a forced perspective between a hovering piano nobile and the ceremonial pool which leads beneath.

The theme of nature and new technologies is established at the

The austere, tectonic simplicity of the Irish pavilion is achieved by judicious use of materials – black Kilkenny limestone, glass, water, and a wall made from steel gabion cages filled with local stone.



ground floor plan (scale approx 1:500)

10

entrance, where thin perspex reeds are illuminated by incandescent lights. A large glass panel slides automatically to allow passage upwards against the limestone wall (decorated by artist Tom Fitzgerald as an unfolding pictogram) and between a row of stone columns (some structural, others housing glass exhibition cabinets). The limestone wall contains a series of clefts in which the visitor can handle seaweed and feel 'Irish rain'; sounds of laughter can also be heard.

Carved out of the opposite gabion wall are four vertical recesses (part side chapels, part boutique installations) with stone,

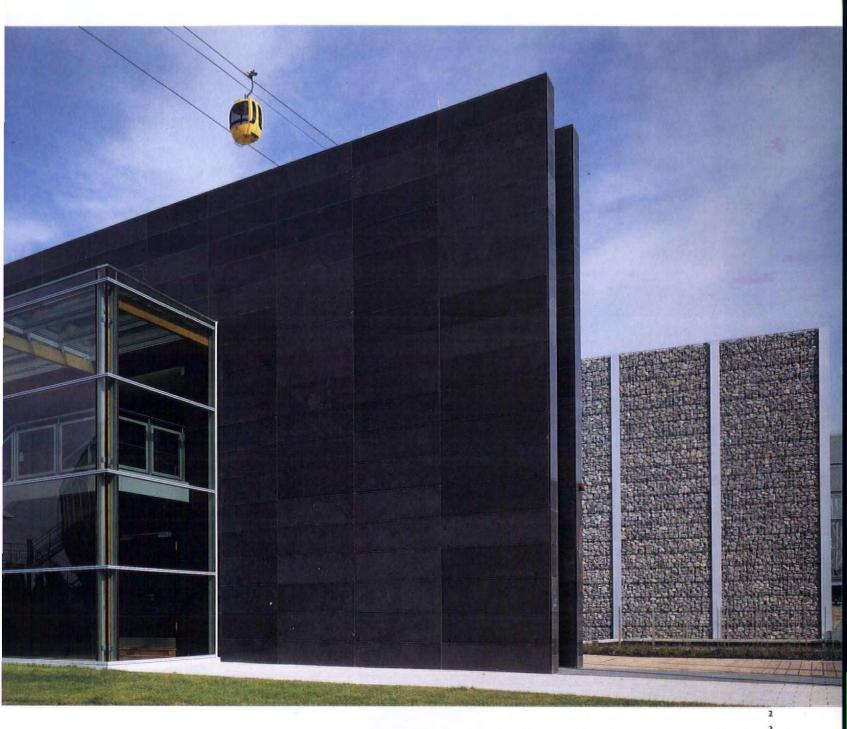
willow, hazel and rock salt stacked into columns. Another artwork, by Martina Galvin and a group of Dublin schoolchildren, filters light through the expansive, glazed west end. A 180 degree turn brings the visitor into the pavilion's main space, a generous ramped hall with a multi-screen video by Cian De Buitlear. The floor, laid in concrete pavers delineated by oak strips, is held clear of the longitudinal walls with metal grilles to allow free movement of air and occasional glints from the pool below.

The promenade ends at the east-facing opal-glass facade, with a transparent band above the entryway; then exits through a

conservatory outside the limestone wall. A VIP route cranks back inside to pierce the gabions and reach an administrative wing. This saddlebag of offices and restrooms and an entertainment suite hangs free of the pavilion above the ground. It is clad entirely in shiny corrugated metal - even window openings have perforated metal outer skins. The conservatory is less impressive, a glass cage framed in pine but lacking any programmatic function (apparently a small shop or café proved impossible to arrange with the Expo authorities).

In keeping with the stated ambitions of Hanover, Ireland's

pavilion engages with several issues of sustainability. As a temporary structure, it is not subject to some of the stringent building codes that other participants must follow. Rainwater is gathered from the roof and fed into the pool, which is kept fresh by small level changes and the introduction of rocks and environmentally kind additives. Air is taken up from the pool, circulated throughout the building and expelled from the roof. There is a small solar collector above the administrative wing. In principle, the building is demountable and may be re-erected next year in Ireland. RAYMUND RYAN



#### Architect

Murray O'Laoire Architects, Dublin Project team

Bernard Gilna, Sean O'Laoire, Jim Hennessy, Joe Cadogan, Catherine Gaughran, Christian Naeff, Philip Kelly, Des O'Donnell, Andreas Heil, Michael Hussey, Deborah Pasaleva,

Denise Murray, Shane Harnett, Jean Dumas

Liaison architects

Garriock & Associates

Structural engineer

Arup Consulting Engineers

Landscape architect

Cunnanne Stratton Reynolds

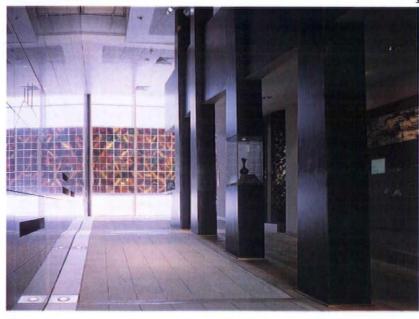
Interpretative architect Orna Hanly Architect

Photographs

Christian Richters

2
Polished south wall of black limestone is a massive, monolithic presence, contrasting with a crisp glass box.

A gently inclined ramp winds up through the interior, forming part of a leisurely promenade architecturale.





#### **HUNGARIAN PAVILION** ARCHITECT

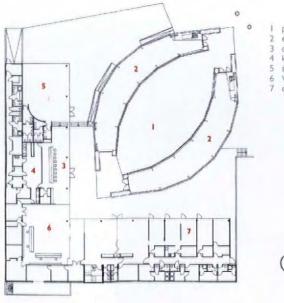
#### GYÖRGY VADÁSZ

Tranquil, womb-like outdoor room at the heart of the pavilion is enclosed by slatted pine walls and a lightweight, translucent, tented roof. The hull-like structure is a heroic presence on the site. A lower L-shaped block to the rear houses the functional guts of the pavilion.

Architect Győrgy Vadász Project team György Vadász, Pétre Basa, Gergely Fernezelyi Structural engineer Mechanical engineer Duoplan Electrical engineer Hungaroproject Landscape architect Garten Studio Exhibition Mafilm Szcenika Cinematographics Photographs Christian Richters

## **HUNGARIAN ARK**

The focus of Hungary's pavilion is a calm open-air room enclosed by a heroically scaled yet sensuous timber hull.



- performance space
- exhibition space
- café
- kitchen
- VIP suite
- offices

The pavilion is divided into two parts. An L-shaped service block contains the functional guts of the scheme, including a café, VIP hall, shop, stores and kitchen. Crisply executed in concrete and glass with a landscaped roof, the service block merges discreetly into its surroundings. The two low wings form a neutral backdrop to the timber hull, which rises up

With its slatted timber hull

ark beached on the foreign shores of Expo. Though it does

not have the sensuous impact

of Imre Makovecz's memorable Hungarian pavilion at Seville

(AR June 1992 - sadly Makovecz

recent work), György Vadász's

compact, sculptural building

has detectable overtones of

Makovecz's romantic

anthropomorphism.

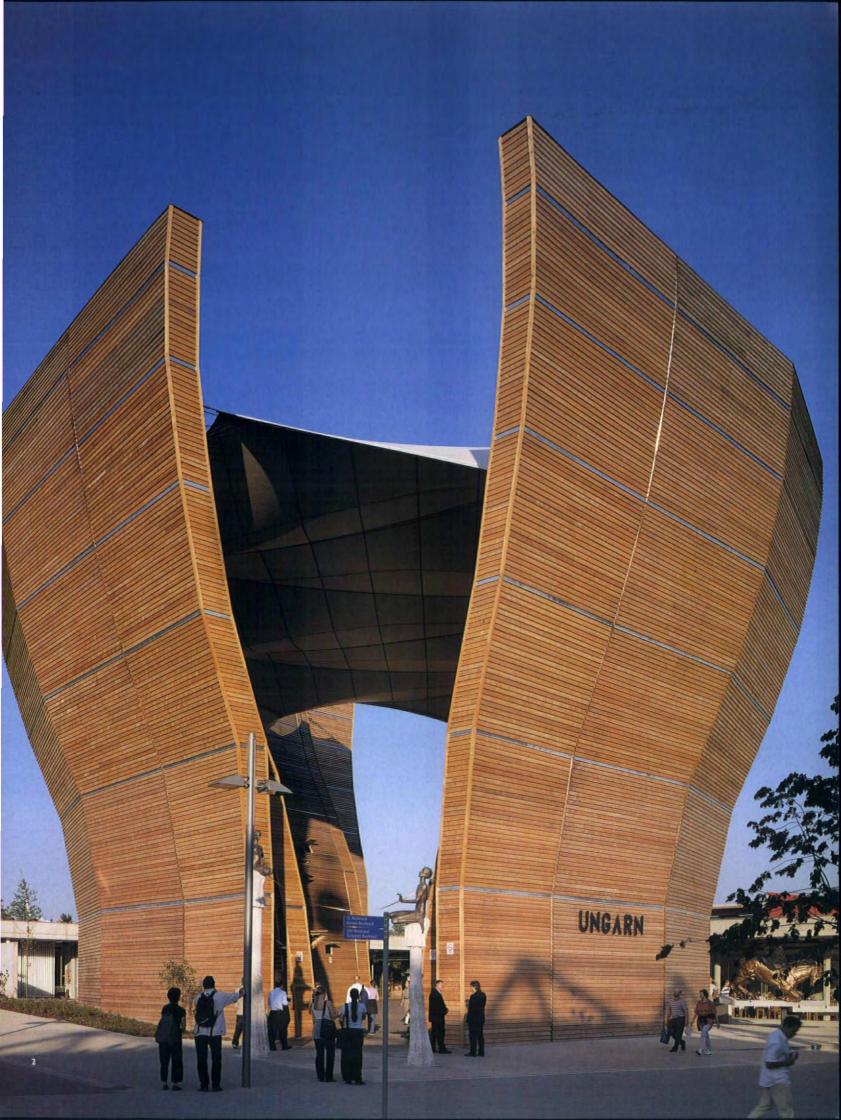
seems to have resorted to

self-parody in much of his

and translucent tented roof,

Hungary's pavilion is like a great

gracefully to greet visitors. Two crescent-shaped, inhabited walls enclose a lens-shaped outdoor room. Clad in horizontal slats of red pine, the walls bow gently outward, like cupped hands or a ship's hull. Crowned by a lightweight, tent-like roof, the central space is transformed into a theatre in the round, animated by a short, cyclical son et lumière. Mobile wall panels peel away to reveal film projectors and screens, and shifting lights cast shimmering patterns on the canvas roof. Infused with a gentle radiance and the scent of pine, the timber womb is an enclave of tranquil, sensory delight. Placed outside the swell of the hull are some debatable sculptures (including a Pegasus with harps for wings), but even such moments of earnest Eastern European kitsch cannot detract from the essential drama and dignity of Vadász's heroic pavilion. C.S.



## TURKISH ESSENCE

A clear, precise statement, the Turkish pavilion attempts the essence of a nationality.

Turkey's pavilion is a building in a cage. A rectangular steel structured box, some 12m high, clad in aluminium and glass, is wrapped to south, east and west by timber screens. With their 300mm square grillages, the screens, made of treated pine, are clearly an abstraction of the Middle Eastern mashrabiya, the traditional wooden screen that protects windows from the sun and from intrusive glances, while allowing air to circulate and inhabitants to look out.

Between screens and building are long thin pools, symbolic of the three seas that surround Anatolia. On the south side, a gently arcing timber bridge hovers over the water and gently delivers visitors to the entrance, three metres above ground. Inside, you find yourself on the middle of three square platforms made of the same timber as the screens. In front is a long glass reception desk with, when I was there, a mass of beautiful scarlet

species tulips (Turkey's national flower) in glass troughs underneath (what happens when the tulips are over?). To the left is the highest platform, with a glittering silver plexiglass globe in its centre; to the right is the lower one.

Reaching the ground between the olives, you can study the videos of the country, or turn round to be reminded of the traditional cantilevers of old Turkish timber houses in the structure of the platforms, which bear out from massive trabeated frames of laminated timber, with their construction clearly articulated. On the ground beneath the platforms is the shop and more gallery space. From this level, you can rise again by a grand stair (or lift for once, movement for the handicapped is not difficult) to a gallery which runs all along the north side of the exhibition space. This is enclosed in a rectangular box which runs

parallel to the main one and projects slightly to the west. At ground level, this volume contains services, offices and so on. Its gallery level is full of light, and decorated with modern versions of Iznik tiles, the wonderful blues of which traditionally celebrated fine public buildings. At this level is a 16m long table formed like a boat where 50 can sit down together at what the organizers call a traditional Turkish communal table. (It's a genial idea, but I've never come across a real one in Turkey.) Externally, this back block is not the most successful part of the building: the layered transparency of the front changes abruptly to opaque panels part of the way along the north elevation, and the window openings do not coincide with the square grid of the panels.

But much can be forgiven for the internal space, the layered treatment of front and sides -

and for the environmental control system. On hot days the greenhouse effect of a big glass building is combated not only by the mashrabiyas, but also by convection. Air is drawn in over the cooling water through louvres in the glass wall, then rises to be expelled through the plexiglass pyramids in the roof and through the northern clerestory at the vertical junction between the two plan elements. Such automated convected climatic control is by no means unusual these days, but in the Turkish pavilion it is more clearly articulated than in any other at Expo. H. M.

Manoel Nunes

ARCHITECT

**TURKISH PAVILION** 

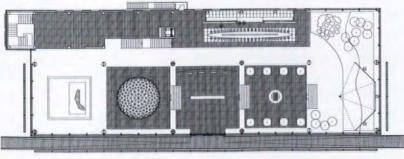
& CONSULTING

Architect Tabanlıoğlu Architecture & Consulting Project team Murat Tabanlıoğlu, Melkan Gürsel Tabanlıoğlu, Seyda Arguner, Murat Cengiz, Cagman Tepetas, Hacer Akgun, Alp Hatipağaoğlu, Aysegül Kamut Structural engineer Peter Budde Photographs

**TABANLIOĞLU ARCHITECTURE** 

first (entrance) floor

ground floor (scale approx 1:600)



#### cross section

Ground level: reeds and lemon and olive trees evoke the Mediterranean.

Detail of long thin pools between external screens and building.

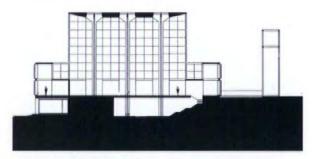
Approach bridge and mashrabiya set the scene.



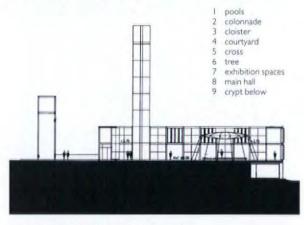




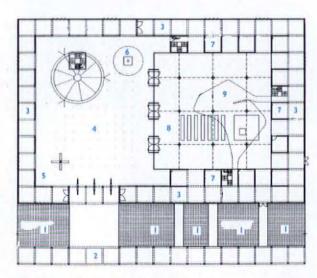




cross section through main hall



cross section through courtyard





## SPIRIT OF LIGHT

Through sensitive use of materials and simple spatial drama, a pavilion devoted to Christianity attempts to conjure a sense of the numinous.

The presence of the Church at a Mammon-worshipping trade fair might seem incongruous, but at Hanover the Pavilion of Christian Religions vies with an effort from the Vatican to infuse Expo's bloated commercial carcass with some vestigial sense of the numinous. Protestant and Catholic Churches have joined forces to instigate the Christian pavilion, conceived as a place for contemplation amid the sensory overload of the Expo site. Designed with great economy and subtlety by von Gerkan, Marg & Partner, the pavilion structure is based on a modular, exposed steel frame and glass sandwich panels filled with various materials - for instance, bamboo, cork, textiles and even dried poppies. The different materials add texture and animation to the very precisely detailed steel frame. This tectonic lucidity reinforces the pavilion's simple, unassuming dignity and solemnity - a relief from some of the more wildly scenographic offerings.

The focus of the pavilion is a square central hall surrounded by a cloister, which extends to create a small courtyard or ' open-air room on the south side of the hall. Enclosed by walls of very thinly cut marble sheets held in the steel frame, the hall is a tall (18m high) tranquil space washed with a soft radiance that diffuses through the delicately translucent marble walls. Simple benches of blond wood are its sole furnishings. A grid of nine slender steel columns, each cross-shaped in plan, supports

the roof. Below the hall is a womb-like crypt, its organic form a conscious contrast with the ordered, orthogonal world above. Thin glass slots cut into the floor of the hall transmit light down into the crypt's shadowy, subterranean realm.

Set between the hall and surrounding cloister is a zone of exhibition space ('Rooms of Silence') where various themes relating to Christianity are explored and disseminated. A contemporary reinterpretation of a traditional form, the cloister is a luminous, humanly scaled ambulatory space that leads visitors through the pavilion. Progress around it is enlivened by the changing textures and colours of the materials in the cladding panels.

Distinguished by its sense of spare, ascetic refinement, the pavilion is a sensitively orchestrated synthesis of space, light and materials. It is also one of the structures chosen to continue life after Expo: once the commercial festivities are over, the building will be dismantled and re-erected in a slightly modified form as part of the reconstruction of a Cistercian monastery in Turingen. C.S.

#### Architect

Von Gerkan, Marg & Partner, Hamburg Project team

Meinhard von Gerkan, Joachim Zais, Gregor Hoheisel, Sona Kazemi, Stephan Rewolle, Jörn Ortmann, Ulf Düsterhöft, Monika van Vught, Matias Otto, Olaf Schlüter, Andreas Hahn, Thomas Dreusicke, Helge Reimer Photographs

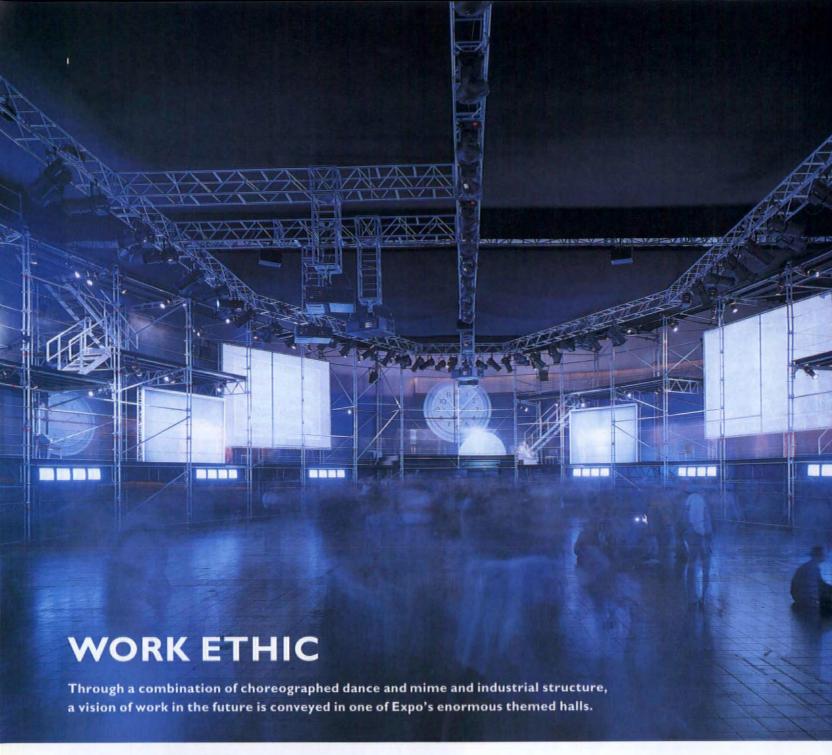
Christian Richters

PAVILION OF CHRISTIAN RELIGIONS ARCHITECT

VON GERKAN, MARG & PARTNER I
Framed and defined by a
modular steel grid, the
Christian pavilion is conceived
as a calm, introspective haven
of contemplation.

Light washes gently and magically through the thin marble walls of the central hall.







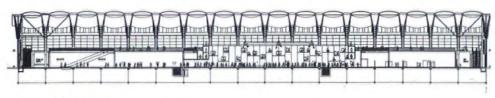
The five enormous themed halls – part of the Hanover Messe and permanent fixtures – run in a line north-south between the west and east parts of the Expo site. Various shows and exhibitions have been staged inside the halls on the theme of 'humankind in harmony with nature'.

This has been translated in various ways – some more successful than others – by dramaturgy, choreographic imagination and/or high technology, into visions of the future. As usual with extrapolations of the present, the moral content is high and the focus impossibly broad – health,

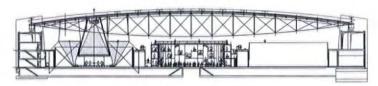
#### THEMED HALL

ARCHITECT

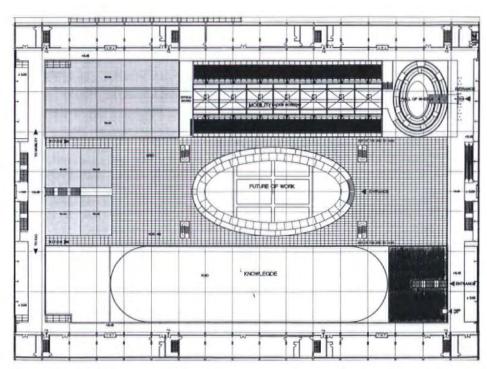
JEAN NOUVEL



longitudinal section



cross section



(1)

plan (scale approx 1:500)

knowledge, the environment, work, the twenty-first century, and so on. You wander from one show to another in alternating states: of delight at what can be achieved with high-tech these days, and of sensuous confusion. In places the didacticism is, to an adult, vaguely irritating. Just like at the London Dome.

Within the rectangular cavern of Hall 4, Jean Nouvel has devised crepuscular settings for three shows: the Future of Work, Mobility, and Knowledge, Information, Communication.

The Future of Work is the central section and here Nouvel has erected a scaffolded platform that stretches almost

the entire length of the hall, which is considerable. You reach the platform by escalator or stairs at one end. The lighting is blue, underfoot the floor is black and the scaffolding glints in the twilight. In the centre of the platform is an enormous elliptical well, enclosed by semitransparent walls through which you can glimpse shadowy figures. Descending a ramp, you find yourself on a darkened stage, 80m long by 30m wide, surrounded by vertical scaffolded tiers. It is the inverse of an arena, for the stage is occupied by the spectators while performers on the tiered walkways (members of Frederic

Flamand's dance theatre) enact the message accompanied by video art with light and sound effects.

The message that 'human beings are not passive receptacles, but must accept new challenges, make use of opportunities, and shape the future' is familiar stuff, an exhortation from the pulpit, but the staging is gutsy. The choreography involves simultaneous spectacles, so that in mute endorsement of the message spectators as well as dancers move around the place, all of them encompassed by the tough architectural language of industry. PENNY MCGUIRE

Architect Jean Nouvel Project director Stefan Iglhaut Engineers GEC Ingénierie Photographs Christian Richters

Great well in the centre is inverse of an arena.

Mobility zone, designed by Jean Nouvel, includes an 80m long corridor, with mirrored sides projecting images that optically cross the boundaries of the room. Sometimes real objects crop up, the shell of a vehicle or the gigantic pistons of a ship's engine. Different films on left and right, depicting aspects of mobility – the flight of birds or passage of dolphins, the excitement of Formula One racing or space travel – are accompanied by sound and music.

## competition

# Archiprix – a runway for young architects

Hans Van Dijk traces the evolution of the major competition for young Dutch architects, now expanding internationally. Compared to many countries,

the Netherlands seems a paradise for young architects. Over the past 20 years especially, they have had a good deal of support setting up in professional practice; at the same time there has been plenty of work for local authorities and national government.

The work was generated in the first place by the regeneration of nineteenthcentury urban neighbourhoods. and later by the promotion of architecture to a highly valued cultural activity. Local authorities could present themselves as champions of a 'civilization offensive' against the mediocrity and uninspired professionalism of established offices. After a short period

as Alvaro Siza and Ricardo Bofill were flown in, the rising Dutch generation made it clear that they too had the required creativity and expertise. Even when housing was increasingly handed over to the free market and the whims of consumerism, there was still a good deal of work on public buildings.

Over these 20 years, national cultural policy, which had previously concentrated on the visual and performing arts, has increasingly focused on architecture. A special report on architectural policy was adopted by Parliament in 1991. This established stable government funding for institutions including the Netherlands Architectural Institute (which houses archives,

stages exhibitions and events and publishes books and the magazine Archis); the foundation Architectuur Lokaal (Local Architecture), which began by providing guidance for inexperienced clients in the public sector, later extending its services to private developers; and funding bodies handing out grants to individual architects, urbanists and landscape designers. Recent graduates in the Netherlands can obtain a starting-subsidy if their work is of sufficient quality, by submitting 20 slides with a written explanation to a committee of experts. The subsidy amounts to a modest year's income – about £10,000.

This is the architectural landscape that, over the past 20 years, the Archiprix competition has also been helping to shape. Every year since 1980, the various teaching institutions – the two architectural faculties of Delft and Eindhoven Universities of Technology, six Architectural Academies and the Agricultural university in Wageningen (which runs a course in landscape architecture) – have nominated graduation schemes to be assessed by an independent jury for prizes and special mentions.

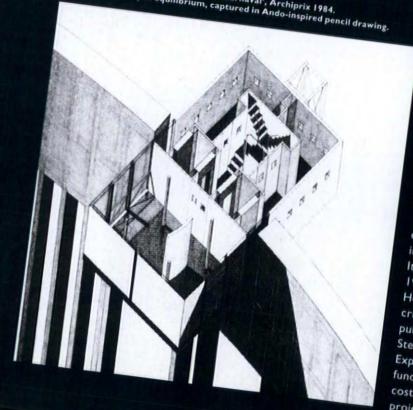
During the two decades of its existence the enterprise has inevitably changed in character. It had its beginnings in the mid-1970s, when the Ministry of Housing countered public criticism of the monotony of public housing by setting up a Steering Committee for Experimental Housing, with funds to subsidize the surplus costs of innovative and unusual projects. The committee was

confronted with experimental student projects which, although not immediately realizable, deserved wider recognition. In response, a 'National Committee for Student Projects' was set up. From the beginning, students sent in projects that were indeed socially relevant, but not always immediately viable. Early juries, during the 1980s, welcomed such projects. while ruthlessly criticizing entries that consisted merely of reports of the participation processes of housing committees. It took the view that architecture was supposed to add cultural value, to social housing as much as any other form of building.

Over the years, juries became steadily more interested in original projects that no longer closely adhered to government housing policy. It was hardly a coincidence that in 1983 financial support was withdrawn, although the Committee for Student Projects still emphasized that projects submitted should be relevant to 'housing and the residential environment'. Later. the contest was opened to student projects of every kind.

From being an outdated and rejected relic of the 'old policy' of the Ministry of Housing, the competition sought and found recognition within the Ministry of Culture's emerging new policy of stimulating the quality of architecture in general. The prize obtained structural financial support, it was steered by a new foundation – called Archiprix – and the practice of publishing student projects in rotation in the Dutch architectural magazines (Archis,

Wim van den Bergh's 'Villa of Prince Carnaval', Archiprix 1984. A perceptive essay in equilibrium, captured in Ando-inspired pencil drawing.



stooranh: Hans Knise & Hans Schouten

de Architect, A/B, Bouw) was abandoned in favour of an independently edited and comprehensive annual catalogue.

Today, Archiprix is a mature annual event in the Netherlands' cultural calendar, but it still raises some interesting questions about the competition process and the relation of established architects to the rising generation.

There has often been a divergence between the expectations of judges and entrants. Archiprix is a kind of coming-out ball for its entrants. Unable to show off any realized buildings, participants try to doll themselves up, make themselves as attractive as possible. They present themselves in what they consider their Sunday best: beautiful models and drawings and sometimes quasi-poetic and oracular written explanations. All this has tended to irritate juries, which have mostly been composed of architects of the 1968 generation, looking for a mix of instant pragmatics and ideological engagement.

A deeper question concerns the cultural importance of Archiprix. How accurately does it detect emerging tendencies in the rising generation? When the prizes have been handed out and the travelling exhibition has set off on its tour of the various architecture schools, one asks oneself what has actually been judged: the students' projects, the tutors who steered those students through their diplomas, the school committees that nominated them for Archiprix, or, finally, the multi-disciplinary jury? In short: who judges whom?

It is one of the explicit goals of the Archiprix foundation to stimulate debate on the quality of contemporary architectural education in the Netherlands, and tutors and institutions also feel they are being judged. Every year the jury takes it upon itself to criticize the whole condition of architectural education. The jury, of course, is selected from outside the circuit of academic practice, and its members perhaps temper the luxury of independence with frustration at being without

direct influence in academia.

The final selection of student projects for the Archiprix is not a representative sample of what is going on below the surface. It is difficult to be sure whether the final selection really shows the trends among the generation of students, or those among school tutors, or the contemporary expectations of the juries, or the critics - or is it all of these factors together? - and if so, is it a whimsical expression of today's delusions or a true reflection of the stimulating energy that radiates from Rem Koolhaas, Ben van Berkel and other Dutch architects who are successful in both building and theorizing? It is perhaps impossible to unravel this Gordian knot of influences and expectations, but it is just this complexity that has made Archiprix so intriguing a barometer of the Dutch architectural climate.

For the winners, at least, the prize has a real practical value. There is of course a danger that when a student wins a prize, obtains a mention or even a nomination it can create an instant reputation, before he or she has even embarked on the hard task of everyday practice, which could lead to disappointments and frustrations afterwards. Still, many of the prize-winners who presented projects for urban renewal in the early 1980s have gone on to earn excellent reputations in professional and creative practice. The Mecanoo Office, Erick van Egeraat, Dolf Dobbelaar, Paul de Vroom and Henk Engel are all Archiprix prize-winners who have subsequently set up their own successful practices.

Themes have changed over the years. In the early 1980s there were many projects for social housing. The emphasis shifted in the mid-1980s to buildings with cultural and public functions: theatres, museums, sports complexes. Instead of cosy, low-rent substitute houses in old neighbourhoods, there were high-rise apartment buildings. Rem Koolhaas's 'metropolitanism', and ideologically (quasi?) neutral



Jaco Woltjer: 'On the Amstel', Archiprix first prize 2000. Model showing a library celebrating the cerebral and contemplative language of books and knowledge.

realism became the vogue. Dutch students, mostly educated in a tradition of Modernism and radicalized by the student movement, became interested in Russian Constructivism. Later, new themes entered the stage. In 1989 there were many variations on 'the house'. A year later, the concept of 'travelling' became predominant. Then, in 1992, the two tendencies merged to form a hybrid in the image of the 'metropolitan nomad' - from the high-income company executive to the poor and homeless.

Archiprix juries have often criticized the bulk of entries for failing to address current practice and emerging social and planning problems. In many cases they have been perceptive enough to discern an existential dimension to conceptual and poetic proposals. But a severe tone predominates. The 2000 jury criticized a whole new generation for paying: 'no attention to spatial development, detailing and construction'. They added: 'We look for spatial

virtuosity, not for an extensive spatial analysis.' Nevertheless, it rewarded the best projects. Jaco Woltjer, educated in the Technical University in Delft, won first prize for his project for a library along the Amstel River in Amsterdam, intended to be built entirely of wood and brick, to create an atmosphere of rest and contemplation.

Archiprix is now expanding its reach to Europe. It is hoped that the initiative will be as successful as the evolution of the Francebased PAN (Programme d'Architecture Nouvelle) into the European-based Europan. A workshop is being planned for summer 2001 in the famous Van Nelle Factory in Rotterdam - an icon of Modernist industrial architecture from 1931, now being adapted to other uses. With students, tutors and architects from all over Europe being invited, it is certain to be a stimulating meeting.

HANS VAN DIJK

Details of this year's Archiprix competition can be found on p30.

## interior design

FLAT AND OFFICES, ANTWERP, BELGIUM

ARCHITECT

JO CREPAIN

Antwerp is presently undergoing something of a renaissance. New law courts by the Richard Rogers Partnership are planned for the south-west end of Amerikalei, the arterial boulevard bisecting the city, and RRP has been asked to prepare a masterplan to regenerate the immediate area. In the old - and still active docklands, redundant buildings are gradually being converted into desirable dwellings, elegant eating places and shops. The harbours are still picturesque with waiting barges and dockside activities and, with its mixture of the commercial and residential, the place is an agreeable one in which to live and work.

Jo Crepain's sensitive metamorphosis of an empty quayside warehouse into a flat (for himself and his wife) and offices (for the practice) succeeds his delightful conversion of an old watertower into a woodland house for one person (AR December 1998). In both cases, while respecting architectural character, he has employed cool rationality and a tough industrial vocabulary to open up the building and create extraordinarily austere light-filled spaces.

In Antwerp, offices fill the lower levels of the warehouse. The flat above them is on two floors with sleeping quarters on the third and living room in a rooftop extension. Externally clad with gleaming aluminium panels, the extension is open to the sky and surrounding roofs with the spire of Antwerp cathedral silhouetted in the distance.

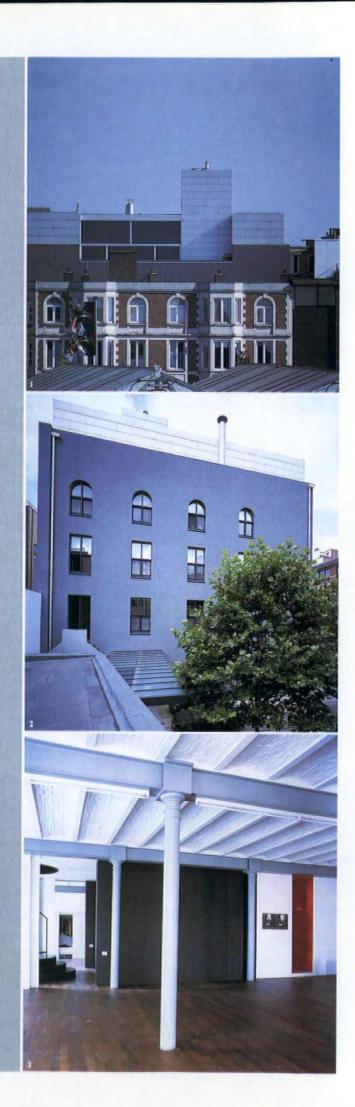
Dating from about 1910, the warehouse is an 11x20m rectangle on plan and faces north onto the street, with boundary walls on the south and west. To the east was a '30s office building and a warehouse of no interest. These were taken down to create a courtyard shaded by trees and giving access to the offices and the flat above them.

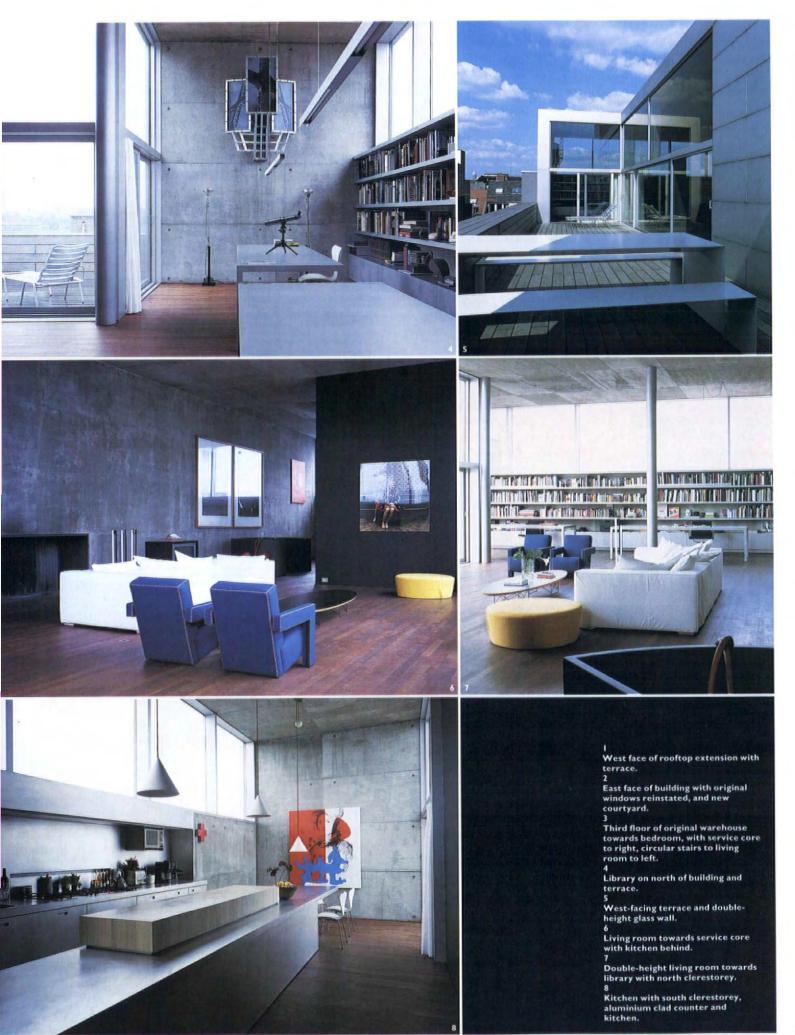
The brick face of the building. with its stone dressings, was restored; modern openings were suppressed and original windows bricked up in the east wall were reinstated and the exterior rendered grey to match the back wall. Inside, the handsome structure with cast iron columns and jack arches was cleaned and repaired. The main structural insertion is a black lacquered concrete shaft that rises through the building and shoots through the roof to contain a service unit. Built between the columns and replacing the old industrial lift in the southern half of the warehouse, the shaft contains a new lift and the staircase.

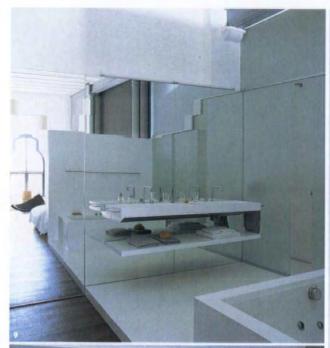
On the office floors, volumes are open but can be divided up by means of large sliding doors. On the third floor, Crepain slides private rooms off to each end of the building - the master bedroom and bathroom to the south, a guest room and study to the north leaving a big open space (described as multifunctional) in the middle. A similar but more open arrangement prevails above with a dining room and kitchen at one end, library on the other, and living room in between. Here, space expands and is flooded with light from three

## Quay rebirth

Renovation and conversion of a quayside warehouse in Antwerp provides civilized offices and an airy rooftop flat.





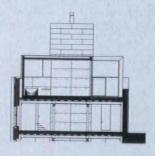




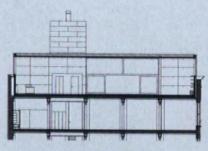


#### FLAT AND OFFICES, ANTWERP, BELGIUM ARCHITECT

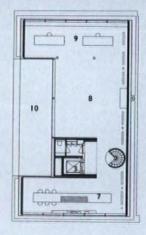
JO CREPAIN



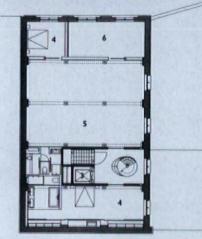
east-west cross section



south-north long section

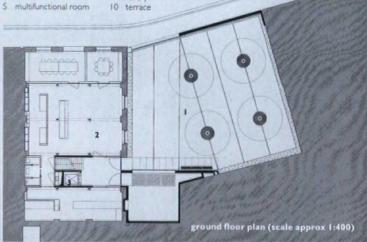


fourth floor plan



third floor plan

- courtyard offices
- service core
- bedroom multifunctional room
- 6 study 7 kitchen living room library



directions for the extension, really a rooftop pavilion, is double height with clerestorey windows on north and south running the width of the building. On the west, the living room is partly invaded by a large terrace, and barely divided from it by glass walls so division between inside and outside is blurred.

Whereas on the lower floor, Crepain has allowed the original warehouse structure and plain woodblock floor to lend character

to space, here the vocabulary is of raw concrete (for ceiling and walls), aluminium and glass. The coarse texture of béton brut is counterpoised to the silky surface of aluminium kitchen fittings and gleaming expanse of woodblock floor. Dove grey concrete under changing light is the austere background for the inhabitants' collection of modern art which stands out in vivid relief.

PENNY MCGUIRE





MUSEUM RESTORATION, PARIS, FRANCE ARCHITECT

ANDREA BRUNO
WITH XY ARCHITECTURE

Chevet of church and new entrance to museum.

Monumental staircase.

New mezzanine.

Overhead metal ducting, clearly a modern insertion.

Restoration and modernization of the Musée Nationale des Techniques, popularly known as the Musée des Arts & Métiers, has been completed to general acclaim. The museum, which is devoted to the artefacts of the industrial revolution – clocks, ships, planes, engines, industrial devices – has a collection of about 80 000 objects and 15 000 technical drawings and plates.

As part of the great pantheon of grand French museums to have been renovated, it is hugely popular with the general and professional public. The Turinbased architect, appointed to carry out the work under

François Mitterrand's presidential reign, was Andrea Bruno who is known for his sensitive work on historic buildings, notably on Rivoli castle near Turin. In Paris, Bruno worked in association with XY Architecture.

The museum is part of the Conservatoire Nationale des Arts & Métiers, an august institution occupying the grounds and buildings of the early medieval Abbaye de Saint Martin des Champs in the third arrondissement (a stone's throw from the Pompidou Centre). The Revolution had dissolved the abbey's power, and the site was occupied first by a school,

then by an arms factory and eventually assigned in 1798 to the Conservatoire. Apart from the church (with its twelfthcentury choir, thirteenthcentury nave and later additions) and the spectacular vaulted medieval refectory (now a library), the old buildings were reconstructed in the eighteenth century, restored and enlarged between 1845 and 1897 under the direction of Léon Vaudoyer, then further restored by Henri Detroux on the eve of the First World War. In 1880, at a time when enthusiasm for industrial invention was at its height, the museum was reorganized and

## French dressing

In Paris, another of the venerable French museums has been renovated and reorganized with sensitivity and respect for historical layering.





#### MUSEUM RESTORATION, PARIS, FRANCE

ARCHITECT

#### **ANDREA BRUNO** WITH XY ARCHITECTURE

the deconsecrated church nave converted into a magnificent space for exhibiting machines. Bruno's strategy was to work with, rather than against, the complex superimposition of historical layers and to establish a clear distinction between the historical and the modern. In general, his touch has been a light one.

The museum occupies roughly half a long rectangular block at right angles to the church, with the rest of the building to the north of the grand central staircase being inhabited by the various offices of the Conservatoire. There are two floors, with grand windows. beneath an attic. Bruno has conserved the original volumes and his modern additions of lifts (in the internal courtyard),

stairs, a café, shop and lavatories impinge lightly on the existing structure. The church has been restored by Bernard Fonquernie, architect for the Monuments Historiques de France, and retained as an exhibition space. A somewhat curious decision by the client body to appoint another architect to design the exhibition in the nave has resulted in the exuberant steel and glass viewing structure by François Deslaugiers.

Much of Bruno's structural work is invisible. While the Monuments Historiques restored the monumental staircase, decorative plasterwork and glazing, he strengthened constituent parts of the fabric to make it capable of accommodating large

numbers of people and weighty showcases. For example, in the attic, a composite floor supported by a concrete rim was installed to conceal services. Elsewhere, concrete replaces rotten wood floors, window frames have been repaired, and a mezzanine was installed on the ground floor to expand exhibition space.

On the ground floor, services controlled from centres at the corners of the wings are contained in metal ducting running overhead and designed to evoke the spirit of nineteenth-century industrial design. Designed in the same spirit and similarly transformed into a modern idiom, Bruno's display cases with wood or brass frames are sparely designed and traditional in feeling. Attic

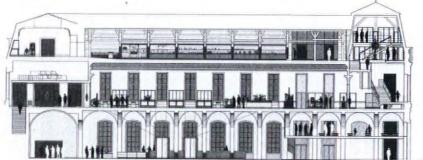
collections have been dusted off in new cases which line the walls so that you walk between them under the roof beams.

The seductive power of this museum consists first of all in the palpable sense of history present in the site, in the overlaying of architectural layers put down over centuries and revealed by degree and the architects' clever juxtapositions. More immediately, there is the excitement of appreciating the invention and imagination of the industrial revolution, felt most profoundly in the nave of the church where the modern artefacts are juxtaposed with the medieval fabric. V. G.

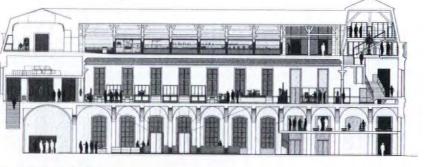
#### Architect Andrea Bruno with XY Architecture **Photographs**

Luc Boegly/Archipress

cross section with lift tower in internal courtyard

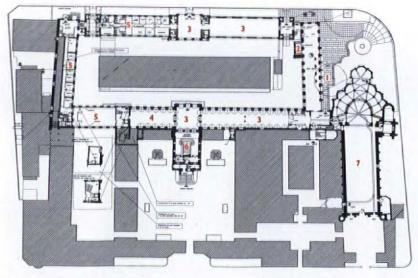


long section: south wing

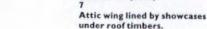




café Conservatoire grand staircase church nave



Glass and steel structure, by François Deslaugiers, in church Bruno's showcases in wood, or brass, and glass have a traditional quality.



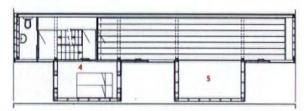




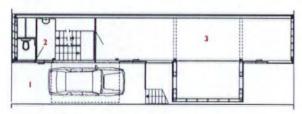


## ar house

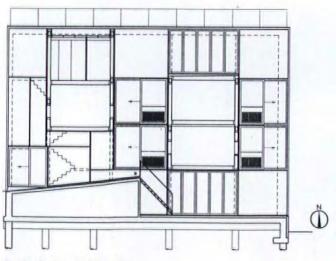




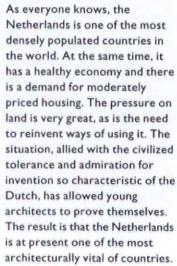
first floor plan



ground floor plan, Plot 12 (scale approx 1:200)



longitudinal section, Plot 12



MVRDV is one of several youthful practices that appear to see constraint as the engine of invention. The practice's Mondrianesque talent for manipulating and balancing plane, form and volume in pushmi-pullyu fashion, has been applied to the design of two houses in the Amsterdam district of Borneo-

Sporenburg. Conforming to an urban plan by West 8, this is the most compact new housing district in the Netherlands, and constraints on space, by most standards, are extreme. But then the Dutch have traditionally turned living in narrow strips into a virtue.

Both houses look on to water on one side and the street on the other. Plot 12 is 5m wide and 16m deep. Since there had to be space for parking a car, the architects established a narrow alleyway and designed the thinnest house imaginable beside it - only 2.5m wide, although bulging out in places into and over the alley. Within this strip is an extraordinarily ingenious composition of interlocking volumes.

Glass is an important component of the design. A full-height glass wall lines the alleyway, letting the maximum

## **SLIM VOLUMES**

With ingenious interlocking spaces the architects have brought light and air into two narrow waterfront strips.

- alleyway entrance living room guest room
- studios
- bathroom bedroom

cross section



second floor plan

TWO HOUSES, AMSTERDAM, THE NETHERLANDS ARCHITECT

MVRDV

Plot 12 house forms part of a contemporary reinterpretation of a traditional compact Dutch terrace.

Street frontage is the slimmest of

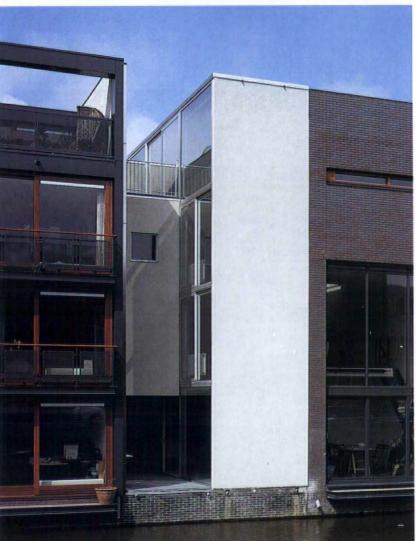
Both houses characterized by a Mondrianesque play of volumes.

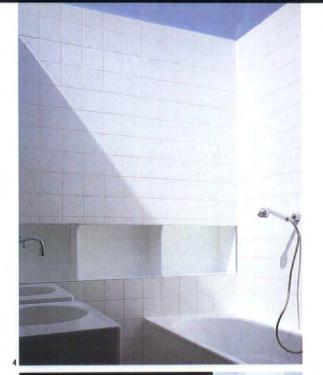
Bathroom opens up to the sky, like a James Turrell installation.

Voids bring light down into the interior.

Proto-industrial staircase winds through the house.











### ar house

amount of daylight into the interior and allowing space to flow outside. Each of the two ends are enclosed. The house descends from the street to the water, the change in level allowing the sloping roof of an alley shed to become a parking space. Above the alley, two enclosed volumes hang off the glass face at different levels, extending interior space and imparting a medieval flavour to the passageway. One extension provides a guest room and roof

terrace, the other provides extra width for first and second-floor studios.

According to West 8's plan, Plot 18 is designated a garden plot, 4.2m wide and the same 16m deep, with a 4m-deep garden giving on to the water. In principle, only three floors were possible within the 9.5m-high envelope, given the requirement for a double-height room at ground-floor level. In spite of this, MVRDV's scheme manages to provide four floors.

By sliding out the third floor over the water at the back and enclosing it to form the main bedroom and bathroom, the architects freed up the house's plan and section. Having installed another closed volume. a garage-cum-store, off the street, they created a series of interconnecting spaces on four levels linked by stairs through the centre of the building.

Differing in height and their degree of privacy, the various rooms give on to the water in

different ways. On the ground floor, the dining room flows through a glass wall on to a double-height verandah; above is the glass bay of the bedroom, and above again, a roof garden off the attic studio. P.M.

Architect

MVRDV

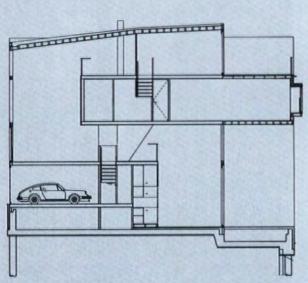
Project team

Winy Maas, Jacob van Rijs, Nathalie de Vries, with Joost Glissenaar, Bart Spee,

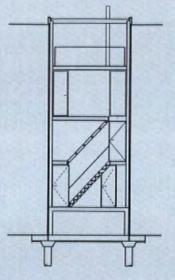
Alex Brouwer

**Photographs** 

Nicholas Kane



longitudinal section, Plot 18



cross section

#### TWO HOUSES, AMSTERDAM, THE NETHERLANDS

ARCHITECT

#### MVRDV

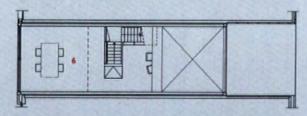
Plot 18 house is a reticent presence on the waterfront, pulled back from the site edge to create a sheltered patio at ground level and roof terrace on the upper level.

Main living space is a tall, luminous volume.

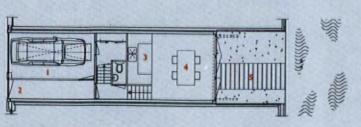
Street frontage of Plot 18 house at night reveals its powerful sense of permeability and transparency.

As in a traditional Dutch canal house, narrow stairs link the vertically stacked spaces.

Kitchen and dining area.



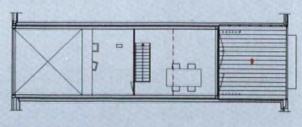
first floor plan



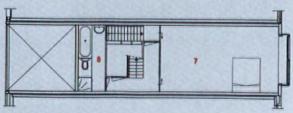
garage

- kitchen
- dining
- patio
- living bedroom
- bathroom
- roof terrace





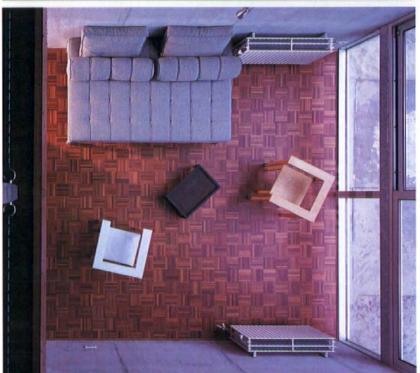
third floor plan

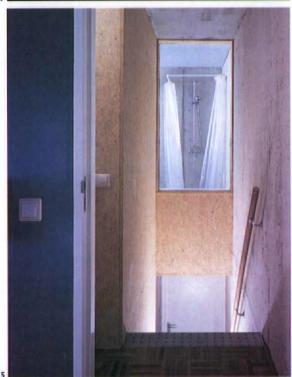


second floor plan

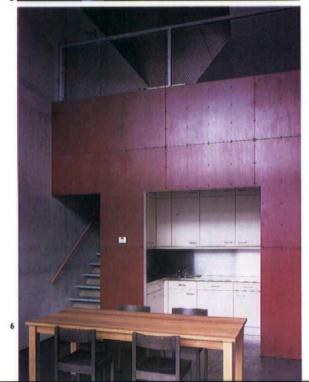


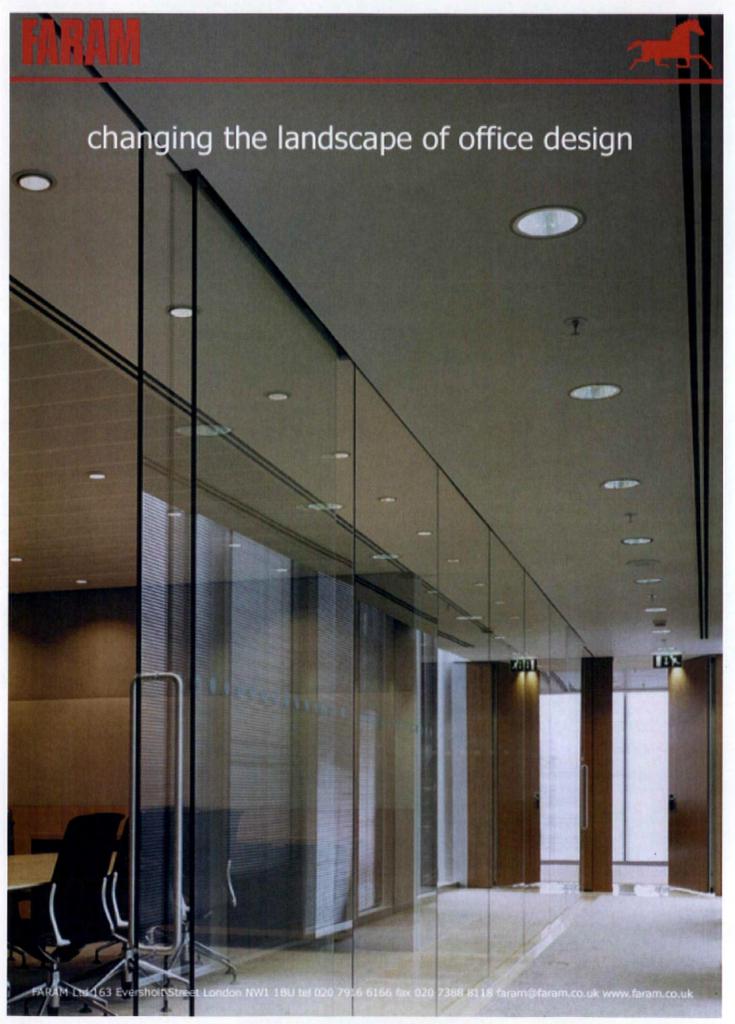




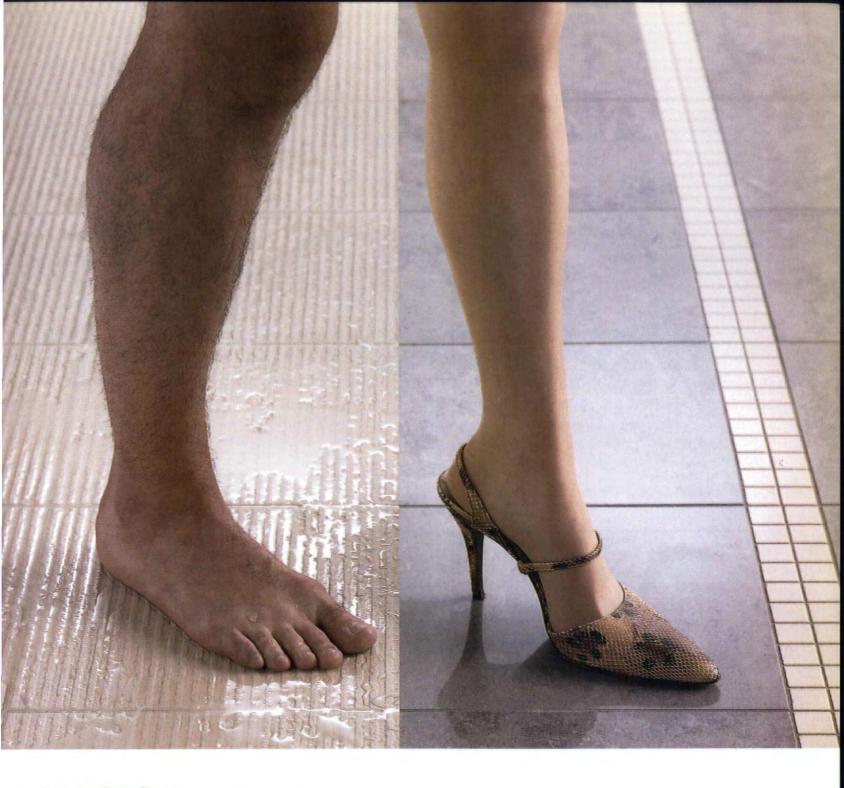








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## World Congress on Environmental Design for the

### Creativity Respecting Human • Earth • Culture

Satoshi Kose JAPAN

- Manu Gupta INDIA

Pamela Cluff CANADA

- Catalina Gandelsonas UK

Riadh Tappuni LEBANON ----- Babar Mumtaz UK

- Gunter Schofl GERMANY

November 8-21, 2000, Seoul KOREA

World Congress on Environmental Design for the New Millennium welcomes all paradigms, academic disciplines, professionals and people related to Environmental Design. Its objective is to collect world wisdom to promote environmental design profession thereby enhancing quality of our living environment. The Congress will be held in COEX, most recently built state-of-the-art convention center.

- World Conference on Universal Design November 8-13, 2000
- World Conference on Green Design November 13-17, 2000
- World Conference on Cultural Design November 17-21, 2000

Scope

- ▶ Urban Design
- ► Landscape Architecture
- ► Community Planning & Design
- ► Architecture
- ► Interior Architecture & Design
- Environmental Product Design

#### **Concurrent Events**

- ► Millennium Env. Design Exhibition
- ▶ Student Design Competition
- ► Cultural Festival & Field Trip

#### **Student Congress**

Student Congress will be held in parallel with the Professional Congress to provide the student participants with a unique chance to meet in person with world prominent designers, scholars and educators in a small intimate class setting. This will be the most dynamic world mobile class for students. Group registration of students from interested schools is highly encouraged.

#### REGISTRATION FEE

No. of Conference(s)	Professional	Student
All Conferences	US\$960	US\$600
2 Conferences	US\$720	US\$450
1 Conference	US\$400	US\$250

#### Headquarters

Tel:+82-2-3147-1192, 3 Fax:+82-2-3147-1194 seoul2000@millenniumed.org seoul2000@intercom-pco.co.kr

Secretariat Tel:+82-2-3452-7291, 568-9340 Fax:+82-2-3452-7292, 565-2434

REGISTER EARLY to secure seat at the Congress venue

#### **KEYNOTE & INVITED PRESENTATIONS**

Please refer to the website for additional list of presentations.

Design Guidelines for Dwelling in Aging Society-

Why Gender and Architecture Become an Issue?-

Social Factors Influencing Community Planning -

Inclusive Planning in Post Conflict Reconstruction --

Shared Space as a Potential for Inclusive Community Planning --

Gender & Its Relation to Urban Design-

Urban Environment for All Citizens

Universal Design(UD)

Creativity: Understanding its Nature & Importance	John Zeisel USA
Power of Creative Design Education	Roger Mandle USA
What's Needed for 21st C Architectural Professionalism	Vassilis Sgoutas FRANCE
Creative Challenge for Better China, Asia and the World	
Creative Urban Planning with Digital Technology for Future	
The Work of Manfredi Nicoletti	
Universal Design: Evolution for Humanity	John Salmen USA
Social Forces for Universal Design-	Yonghak Kim KOREA
Seoul 2000	Seokchul Kim KOREA
Urban Excellence: Singapore Example	Chyekhye Chionh SINGAPORE
Universal Kitchen System for Future Family	
Is There a Place for Children in the City?	Arza Churchman ISRAEL
Children Immersed in Nature	
Developmentally Appropriate Learning Environment	
Safety in Outdoor Playthings	Olle Jansson SWEDEN
Elderly and Environment: Theory, Research, and Practice	
Elderly and Enabling Product	
Elderly and Enabling Environment	
Ederly and Etabling Environment	C. L. L. K. TABAN

Green Design(CD)

Green Design(GD)	
Creativity in Design: Knowledge based Globalization	John Gero AUSTRALIA
Sustaining Human Settlement	Roderick Lawrence SWITZERLAND
Use of Digital Technology for Green Community Planning-	Fumio Hasegawa JAPAN
Future Envisioned by Paolo Soleri	Paolo Soleri USA
Sustainability as a Must for Future Environment	Peter Zlonicky GERMANY
Ecological Planning & Design for Future Environment	Jusuck Koh KOREA
Cities and Water: the Waterfront as a Strategic Factor	Rinio Bruttomesso ITALY
Sustainable Building Design	Peter Schmid NETHERLANDS
The Role of Benchmarking in Sustainable Construction	Roger Courtney UK
Green Design of the Sydney Olympic Site	Mike Horne AUSTRALIA
Innovative Future City : Punggol 21 ———————————————————————————————————	Fook Loong Chong SINGAPORE
Sustainable Park & Garden	Wheevoung Oh KOREA
Eco Village Examples in Japan	Kitao Kuninomu IAPAN
Crystal Waters Permaculture Village	May Lindegger AUSTRALIA
Sustainable Design of Frank Lloyd Wright	Susan Lockhart USA
Eco-Court Habitat System	Gan Hock Beng MALAYSIA
How Green is Your Design?	Peter Zec GERMANY
Eco Design: World Trends and Examples	Martin Charter UK

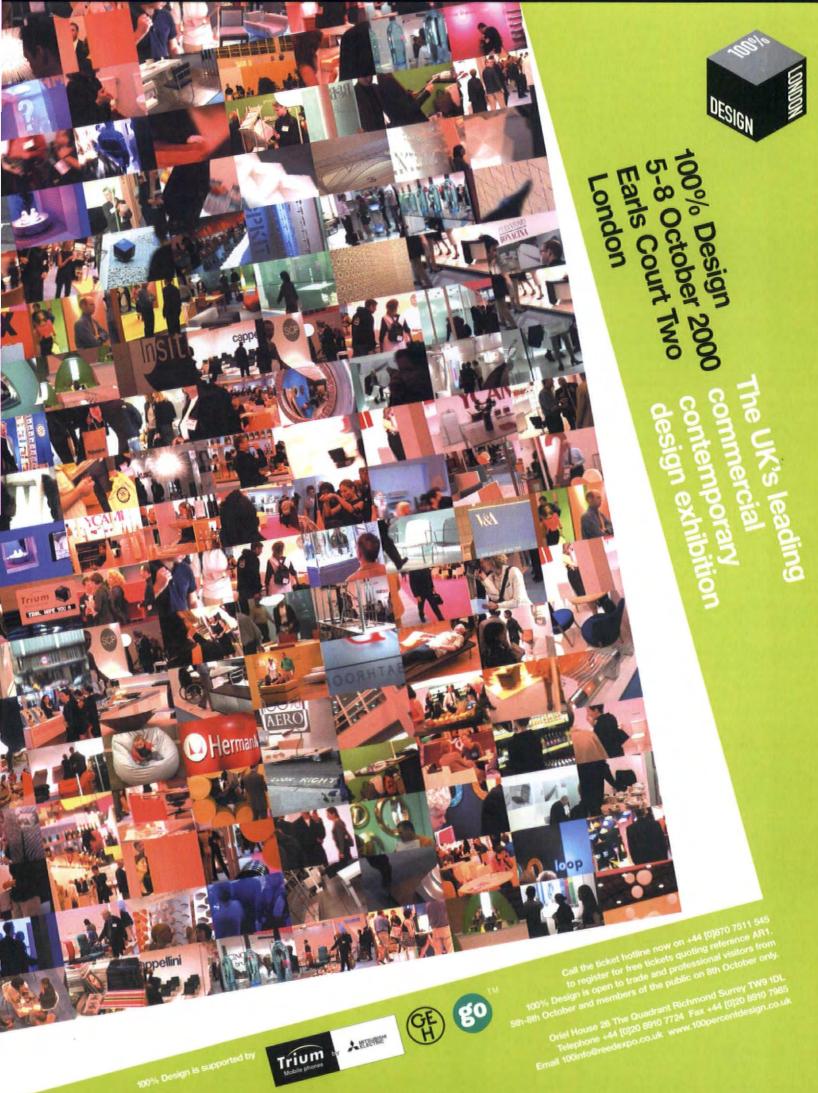
Cultural Decign(CD)

Using Culture in Environmental Design — Amos Rapoport USA Language as a Power in the Env.: Building and Their Texts — Thomas Markus UK Culture, Design and Meaning in the City — Gregory Ashworth NETHERLANDS "e-Topia" — William Mitchell USA Regional Culture as the Major Source for Spirit of Env. — Antoine Predock USA Creating Contemporary World with Traditional Spirit — Charles Correa INDIA Yin and Yang: Optimizing Best of Both Worlds — Jongsoung Kimm KOREA Contemporary Design with Local Emotion — Robert Stern USA Creativity in Transforming Old Images into Contemp. World — Michael Graves USA The Ethics of Building — Mario Botta SWITZERLAND Modernism in Housing & Town Planning — Dick Urban Vestbro SWEDEN Aesthetics & Culture of Living Spaces in Japan — Maki Fumihiko JAPAN Aesthetics & Culture of Living Spaces in China — Zhao Ye Guan CHINA Aesthetics & Culture of Living Spaces in Korea — Sanghae Lee KOREA Museum as a Linkage of Human Spirit — Barry Lord CANADA Creating a New Culture for Healing and Caring Environment — Wayne Ruga USA
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 Special Plenary Symposium, 'Environment with Digital Future & Culture' will be held on Nov. 17.

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#### 501 BOFFI

Adige basin (501A), part of a bathroom range called I Fiumi by Claudio Silvestrin (with Boffi and Zantedeschi Marmi). Made of stone, the basin rests on a thick wooden base. The range also includes an elliptical stone bath, called PO (501B), shaped like half an eggshell. Tel: +39 03 62 53 41 Fax: +39 03 62 56 50 77

#### **502 HANSGROHE**

www.boffi.it

The Axor Starck shower column with a tubular hand-shower and circular chrome shelf was designed by Philippe Starck and has a specially developed thermostat. Horizontal controls, halfway up the 2.2m column, have replaced the original Y-shaped fitting and regulate water temperature and flow. In chrome or satinox.

Tel: +49 7836 51 12 26

Fax: +49 7836 51 11 70

email: public.relations@hansgrohe.de
www.hansgrohe.de

#### 503 HOESCH/DURAVIT/ DORNBRACHT

Dreamscape: bathroom by Michael Graves, consisting of all elements including bath, basin, taps and fittings. The collection is designed around the geometries of the hemisphere and orthogonal column, and its separate elements made by collaboration between three different companies: free-standing bath, made by Hoesch (503A); basin, made by Duravit; wallmounted wc and bidet, made by Duravit (503B); and two-handled basin mixer, made by Dornbracht (503C).

Hoesch Design
Tel: +49 2422 540
Fax: +49 2422 54 276
email: hoesch.mk@t-online.de
www.hoesch.de

Duravit Tel: +49 7833 700 Fax: +49 7833 70 289 email: info@duravit.de www.duravit.com

Dornbracht
Tel: +49 23 71 43 30
Fax: +49 23 71 43 31 32
email: info@dornbracht.de
www.dornbracht.com

Product name: I/X

Design by : Fritz Frenkler & Anette Ponholzer

The main task of furniture design is not to invent new furnitures as tables, cabinets or sideboards, but to design them in a good and suitable manner.

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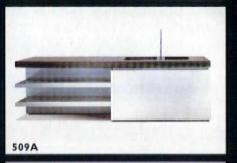














#### 504 RAPSEL/VOLA

X-Treme: wall basin by Peter Büchele, made of single sheet of stainless steel in two sizes, with VOLA 1 chrome mixer tap by Arne Jacobsen.

RAPSEL Tel: +39 02 33 50 14 31 Fax: +39 02 33 50 13 06 email: rapsel@tin.it

VOLA email: sales@vola.dk

#### **505 ARMITAGE SHANKS**

IPS Evolve: a washroom with its own frame. Based on Armitage Venesta's integrated plumbing system (IPS), this system is easy to install. Taps, wastes, cisterns, supply and waste pipes are fitted before delivery, and the sanitaryware is pre-plumbed and attached and sealed to laminated wall panels.

Tel: +44 (0) 1543 490253 www.armitage-shanks.co.uk

#### 506 KALDEWEI

Duo-Pool: a bath designed by Sottsass Associati. Compact and deep, the bath is made of robust and hygienic enamelled steel, is available in a great number of colours and is recyclable. A flat bath bottom allows room to move when showering.

Tel: +49 180 523 7513

www.kaldewei.com

#### KITCHENS

#### **507 BOFFI CUCINE**

Factory '00: by Antonio Citterio and Paolo Nava, is a classic modern kitchen which was designed in 1980 and has been updated. While retaining the original lines, the doors have been coated with a new 'soft touch' liquid rubber which is smooth and matt.

Tel: +39 03 62 53 41 Fax: +39 03 62 56 50 77 email: boffimarket@boffi.it www.boffi.it

#### 508 BULTHAUP

Motif 6: a development of System 25 and part of the firm's kitchen architecture range. It includes anthracite coloured linoleum given a protective coating and finished with an aluminium edge. Stainless steel units have 250mm thick worktops and side panels with handles set flush.

Tel: +49 8741 80 0

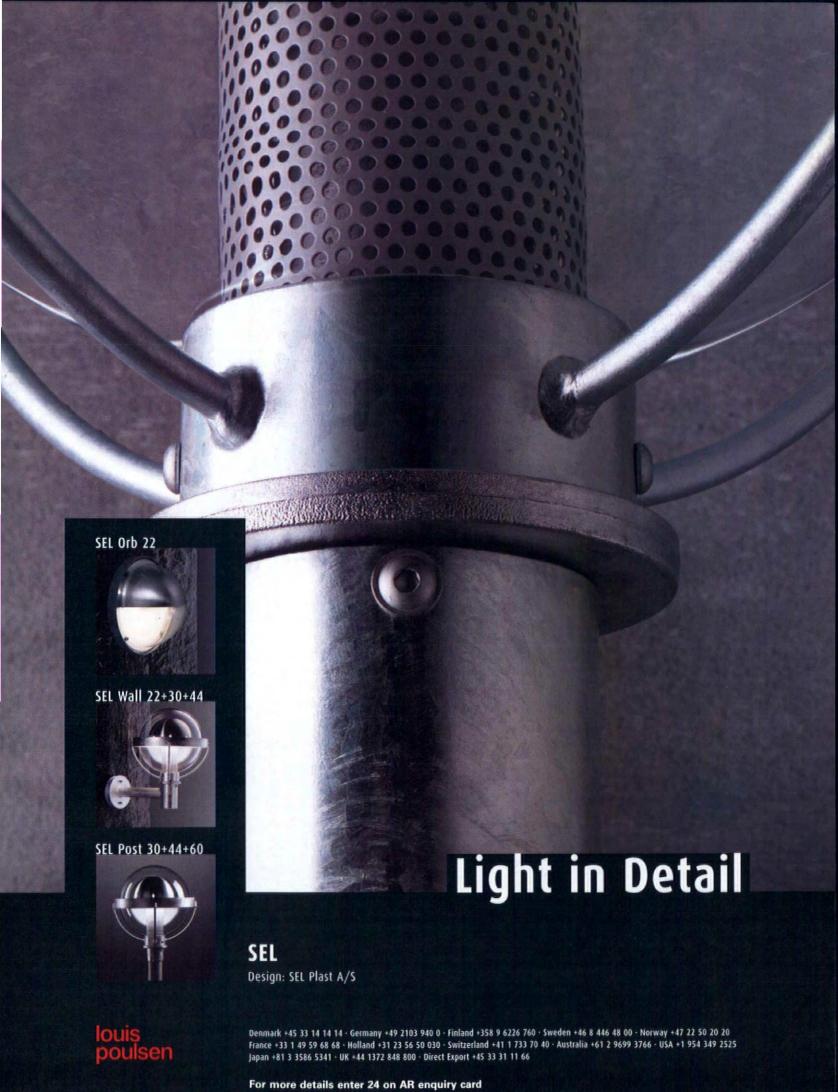
Fax: +49 8741 80 309

www.bulthaup.com

#### 509 OBUMEX STADEN

Minimalist kitchen (509A) with elegant waterspout (509B) by John Pawson. The worktop is available in steel, wood, Carrara marble or lava stone. The unit can be set against a wall or free-standing, with open shelves used in conjunction with concealed drawers. Visual chaos is concealed behind doors or within drawers. Tel: +32 51 70 50 71

Tel: +32 51 70 50 71 Fax: +32 51 70 50 81 www.obumex.be





















#### 510 ZEHNDER

Arcus: towel dryer and space heater with curved heated rails in front of a flat radiator. Tubes and radiator can be in different colours, or stainless steel. Available in the UK from Acova Radiators. Tel: +33 169 36 16 11 Fax: +33 169 36 15 33 www.zehnder.co.uk

#### HARDWARE

#### **511 RUBINETTERIE STELLA**

A new series of single control mixers by Norman Foster and Partners, which includes taps for basins, bidets, kitchen sinks and baths, and a thermostatic control. Free of sharp projecting parts, the compact forms are ergonomic and functional. Its unique mechanism allows water temperature and flow to be easily controlled. The firm has traditionally used bronze instead of brass for concealed parts and detailing. Tel: +39 0321 473 351 Fax: +39 0321 474 231 email: info@rubinetteriestella.it www.rubinetteriestella.it

#### **512 VIELER INTERNATIONAL**

Bathroom accessories in stainless steel (512A). Coathanger hooks in stainless steel (512B). Tel: +49 23 74 52-0 Fax: +49 23 74 52 268

email: info@vieler.com www.vieler.com

#### 513 DORMA

Padel: door handle by Birds Portchmouth Russum (BPR) which used folded and rolled plate technology to create a lightweight perforated stainless steel form. Tel: +44 (0) 1462 480 544 Fax: +44 (0) | 462 480 588 email: autos@dorma-uk.co.uk

#### 514 FUSITAL/VALLI & VALLI

Lamina: door handle by Norman Foster and Partners designed to evoke the wing section of a plane. The spine is a flat metal plate attached to a well engineered locking mechanism and sandwiched between mouldings in a variety of materials. Photograph by Richard Davies. Tel: +39 0362 98 21 Fax: +39 0362 982 200 email:vallivalli\_ser@cta.it

#### 515 COLOMBO DESIGN

Talita: door handle and window pull finished in brass, chrome, nickel or pearwood. Designed by Luca Colombo Tel: +39 035 49 49 001 Fax: +39 035 90 54 44

email: info@colombodesign.it www.colombodesign.it

#### 516 ALLGOOD

Door handle, designed by A.S.K., and the latest addition to the Sembla range of stainless steel hardware. Tel: +44 (0)207 387 9951 email: gardiners@allgood.co.uk www.allgood.co.uk

#### 517 D LINE

Sanitary panel: a stainless steel unit mounted on the wall and composed of a number of modules. Mounted horizontally or vertically, the unit is part of a larger series of wall-mounted fittings for the bathroom. Tel: +45 3618 0409 Fax: +45 3618 0402 email:rpo@dline.com www.dline.com ar+d emerging architecture award www.arplusd.com

# Netherlands Architecture Institute

PHOTO: JANNES LINDERS

The Netherlands Architecture
Institute (NAI) is a cultural institution
active in the fields of architecture, urban
design, landscape design, and interior
architecture. The NAI organizes
exhibitions, symposiums, discussions and
educational activities. A core activity is the
maintenance of archives and records of
Dutch architects and urban designers. The
NAI has a substantial library with study
room and an international study centre.
The NAI also issues the periodical Archis,
and NAI Publishers produce numerous
publications concerning the discipline.

The NAI is a national institute with an international status, which focuses on the cultural aspects of architecture and urban design both past and present.

The policy spearheads for the coming years include the expansion and development of educational activities and the intensification of (inter)national contacts in the museum, academic and professional worlds.

The NAI is a complex organization with a permanent staff of around 80.

To provide inspiring leadership, the board of the NAI is looking for a:

### DIRECTOR m/f

#### Profile:

The new director must have a knowledge of and affinity with the fields in which the NAI is active and have extensive experience in an executive role. He or she must be capable of developing a clear policy for the NAI programme, its presentation and public profile. The archives form the heart of the NAI. The director must have a vision regarding the acquisition and management policy of the collection and its integration in the programme.

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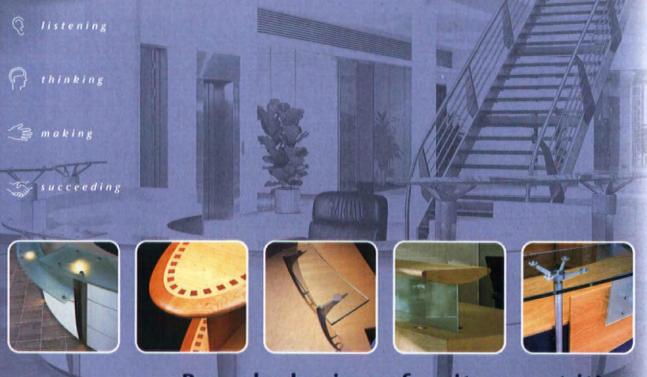
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#### **BIOGRAPHICAL PROBLEMS**

#### TOUCH THIS EARTH LIGHTLY; GLENN MURCUTT IN HIS OWN WORDS

By Philip Drew. Sydney: Duffy & Snellgrove. 1999. A\$35

This is a book that should probably never have been written. Not least because it wasn't so much written as spoken. Apart from the author's occasional interrogatory appearance and one or two paragraphs from the subject's mum, Touch this Earth Lightly is comprised almost exclusively of transcripts from the 1982 interviews for Drew's first Murcutt monograph, Leaves of Iron (1985). Its curious failure to distinguish between written and spoken language, compounded by publication of essentially private exchanges, makes you feel both gauche and voyeuristic, just for being there. On both counts Touch this Earth Lightly is an embarrassing read.

Unlike the signal spareness of his works, Murcutt is anyway inclined to garrulousness in conversation – a characteristic as excruciating on the page as it may be endearing in the flesh. Add to this the 17-year gap between the private delivery of Murcutt's words and their public appearance, and it all starts to read like a recipe for author-subject feuding.

Not that this was Drew's intention. Far from it. Having donated his 40-odd hours of audiotape to the State library, Drew felt, he says, morally bound to 'tell the full story'. In particular this included descriptions of the violent and exploitative background to Murcutt's childhood. Drew argues even now that such inclusions would not only throw sympathetic light on Murcutt-the-character but also help explain Murcutt's adult obsession with all things natural, as over-compensation for the sins of a still-dominant father.



The Wage Slaves (Burning the Forest Clearing) by Eero Järnfelt, 1893 from The Soul of the North, a Social and Visual History of the Nordic Countries 1700-1940 by Neil Kent (Reaktion Books, London, £35). One of the many reminders of the closeness to nature of the Nordic cultures, and how recently they were very poor indeed.

In fact Murcutt, who had approved the book in principle but had not seen the text until days before printing, managed to expunge some of its most off-the-record moments – technicolour tales of his father's exploits in pre-war New Guinea, for instance, and vehement criticisms of early-80s Post-Modernism as it was then beginning to flower around Australia. This probably saved him from the courts, but has not entirely saved the book from an air of prurience.

Murcutt says he was 'really burnt' by the exercise, and is understandably reluctant to cooperate in future literary exploits. 'It creates too much pain', he says. 'I'll just do my work.' This indirect disservice to architecture begs the larger question as to the value of the entire, ad hominem vogue of which Touch this Earth Lightly is a part. Given that Murcutt's status as an architectural celeb rests solely on his work – as opposed to his eccentric childhood, marital relationships, whatever – what precisely is the value of a book that pays only passing heed to the buildings but focuses obsessively on the man and his psyche?

Biography hinks would no doubt argue that personal analysis illuminates the work. Indeed, this could very well be the case, had Drew's decision to allow Murcutt to 'speak directly' to his audience not deprived the book of all analytical content. It is ironic, in view of the bitterness it has generated, that *Touch this Earth Lightly* arose from Drew's heartfelt admiration for both the man and his work. If Drew had used the opportunity to expound his theory of Murcutt's conceptual sources, rather than simply presenting the raw transcripts, it would almost certainly have improved the book, if not the relationship.

ELIZABETH FARRELLY

#### LOOS LOST

## FASHIONING VIENNA: ADOLF LOOS'S CULTURAL CRITICISM

By Janet Stewart. London: Routledge. 2000. £19.99

For an architect, Adolf Loos (1870-1933) was one of the most prolific, notorious and widely travelled cultural critics of his time. His epochal essay, 'Ornament and Crime' (1908), was an intellectual touchstone for many subsequent architects, including Le Corbusier, who, with unusual generosity, included a French translation in the second number of *l'Esprit Nouveau*. As in the case of Le Corbusier, literary discourse for Loos was a means of polemically advancing a range of cultural and architectural ideals. This kind of discourse often was and still is exaggerated, full of hyperbole, untenable contradictions and paradoxes. Janet Stewart, a lecturer in German at the University of

Aberdeen, has undertaken a painstaking summary of Loos literary discourse.

Fashioning Vienna, is in itself a summary of her. The study of Loos's work has been the subject of numerous books and hundreds of essays. Stewart's contribution comes late and omits his architecture. Her main interest lies in revealing the paradox in Loos's critique of Austrian culture. The more fundamental paradox between Loos's literary output and his architecture is not recognized. It was not Stewart's intention. And it is alas an obvious shortcoming of such pure literary analyses. For had Stewart addressed this aspect, her thesis would have been relativized as being less a problem, but more a constant source of productive friction confronting any thinking architect.

As such, Stewart's book is an academic version of a Loos Reader's Digest. Hovering in the background of Stewart's summary is an eighteenth-century ideal of the homogeneity of an intellectual position, of a philosophical Gesamtkunstwerk, never made explicit as to how that might have been constituted in the first three decades of the twentieth century. Stewart operates on the one hand with the idealized monolith of modernism that was mythopoetized after its formation and on the other hand with the intellectual ideals of the eighteenth century, in itself a paradoxical, but not untypical position for a literary critic. Stewart, who also teaches Cultural History, would certainly benefit from widening her scope.

WILFRIED WANG

#### THE GREAT CHAIRMAN

#### **HUGH CASSON: THE BIOGRAPHY**

By José Manser. London: Penguin. 2000. £25

Hugh Casson's life spanned most of the last century, but in many ways he was a child of the century before that. His heroes were Ruskin and Lutyens. He once admitted that modern architecture was not much fun to draw, and in all his writing and broadcasting, it's hard to find a single critique of a contemporary building. In fact, I've succeeded in unearthing only one, a piece in The Observer about Owen Williams' hangar complex at Heathrow in which the author, having quickly exhausted his stock of laudatory adjectives, finds himself yearning for a flying field 'flat, windswept, cross-garnered with the infinite perspectives of runways and rimmed by the horizon itself - a kingdom over which the aircraft can rule unchallenged ... and where the buildings, low and lightly built can be moved, extended and altered as the changing needs demand'.

This is an exhibition designer's view of the world (the piece was written two years after the

Festival of Britain) and it betrays Casson's romantic preference for the light and ephemeral over the permanent that influenced the conduct of his entire working life, too. He managed to dispense with offices and all the cumbersome paraphernalia of telephones and paperclips, preferring to perch on his secretary's desk (at the Royal Academy) or lean over someone else's drawing board (at Casson Conder & Partners). The equivalent to a true office, perhaps, was his yellow Mini, where he could draw and write unmolested – except by parking wardens.

So although he was an important creative force in his own practice, as well as an important procurer of clients, Casson was never really suited temperamentally to the hard slog of architecture. Architecture meant long and protracted battles with town halls and surveyors; it meant gumbooted site visits in the Midlands. Given the choice between that and whizzing down to Glyndebourne in the Mini to knock off a set for Haydn's *La Fidelta Premiata* or popping over to Windsor to sort out the Queen's curtains, he knew where his preferences lay.

He was sometimes dismissed as a lightweight, not least by himself, but I doubt whether anyone of his generation was his equal as a communicator. He could have made an excellent living as a travel writer or descriptive journalist; on television, he was in the Kenneth Clarke class; he was an inspiring teacher whose students adored him ('Hugh never did much actual teaching' was one, very revealing, comment from a colleague at the Royal College of Art); and he managed to convert the thankless task of committee work into an art form in its own right.

Ah, those committees. Why did he succumb so easily? Partly, perhaps because as a warmhearted and public-spirited man, he had difficulty saying no. But mainly, I believe, because he was one of nature's chairmen. The tact, diplomacy and brisk concision which he had brought to bear on the South Bank exhibition was ideally suited to the deliberations of the Royal Fine Art Commission, the National Trust and the Royal Academy.

He spread himself so thin that it is a miracle that there was enough of him to go round. I regret that he did not find time to write his memoirs. Instead we must make do with this thorough, if rather awestruck, biography. Apart from the distressing number of literals and homophones which infest my proof copy, my main criticism is that José Manser never quite succeeds in bringing her quicksilver subject into full view. We seek him here, we seek him there among these well-researched pages, but he remains damned elusive.

ALASTAIR BEST

#### TUGENDHAT REVEALED

## LUDWIG MIES VAN DER ROHE: THE TUGENDHAT HOUSE

Edited by Daniela Hammer-Tugendhat and Wolf Tegethoff. Vienna: Springer. 2000. ö5546,- (DM78)

I am writing this sitting on my Brno chair, one of several pieces of furniture still in production which were originally designed for the Tugendhat house. The great free plan living space, and the furniture within it, must be one of the noblest images of European Modernism.

Until recently difficult to visit, the house is being restored and at last has the book it deserves. It is co-edited by Wolf Tegethoff, author of Mies van der Rohe: The Villas and Country Houses and Daniela Hammer-Tugendhat, youngest daughter of the original clients. They have gathered an array of authors who, in addition to the editors' own contributions, give a complete picture of the house, its construction and its turbulent history. First a home for an affluent Jewish family, then offices for Messerschmidt, air raid damage, Russian barracks, dance school, childrens' hospital, government guest house and finally a museum.

Clients are not given a high profile in most architecture books, this volume makes a welcome change. Apart from Daniela Hammer-Tugendhat's chapter on the habitability of the house, there are papers by Grete Tugendhat, the original client. She loved living in the house, and Mies emerges as an architect very willing to listen to his clients. It is a different picture from the one we have of Mies and his other famous house client – Edith Farnsworth.

Especially interesting are the family photos. Usually presented as cold and austere, it is a revelation to see children playing and the Christmas tree being decorated in those perfect spaces. Clearly the formal setting was no inhibition to the rough and tumble of family life.

JOHN WINTER

#### ENGENDERING ARCHITECTURE

#### **GENDER SPACE ARCHITECTURE**

Edited by Jane Rendell, Barbara Penner, lain Borden. London: Routledge. 2000. £50 (£18.50 paperback)

This collection of 38 essays spans a wide variety of subjects, from painting in fin de siècle France to the impact of the post-industrial economics on the lives of British women. It is set out in three sections: Gender, Gender Space and Gender Space Architecture.

Who is the target audience and what is the provenance of this unfocused work? Is the purpose to encourage young aspiring women and



Philibert de l'Orme's chapel at the Chateau d'Anet, Dreux built for Diane de Poitiers, mistress of Henri II from *The Pollodion Ideal* by Joseph Rykwert, Rizzoli, New York, £55.00 One of Roberto Schezen's luscious photographs which illustrate a light-hearted but scholarly text, which ranges as a series of studies from Vicenza to Charlottesville.

provide them with a time-map of the continuum within which they live? The opening three texts from the writings of formulators of feminist thinking, Virginia Woolf, Simone de Beauvoir and Betty Friedan give hope. But this is dashed by the predominantly paranoid tone of the remaining contributions. The authors, with a few notable exceptions, show no awareness of the territory conquered. Women pioneers staked out the objectives as rights to: enfranchisement, property and earning power, birth control and education. All of these have been won (for middle-class women of the West in the Northern hemisphere, to which this group belong) and much more besides. Yet there is no celebration, only a chewing over of old grievances, and ascribing gender particularity to every activity which is the reverse of liberating, unless a way out is described.

Notable exceptions are Lynn Walker's excellent concise history of 'Women in Architecture', highlighting some of the difficulties for young women training, such as 97 per cent of tutors are male, and Doreen Massey's analysis of the impact of deregulated part-time, high-tech industries on gender relations. Denise Scott Brown gives valuable hands-on advice to young women graduates. KATE MACINTOSH

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

## delight







PHOTOGRAPHS OF THE GEOGRAPHY AND MONUMENTS OF THESSALONIKA FROM THE EARLY YEARS OF THIS CENTURY FORM A HIGHLY REVEALING AND SYMPATHETIC PICTURE OF THE RELATIONSHIP BETWEEN ARCHITECTURE AND SOCIETY.

These hauntingly beautiful early colour photographs record the 'human geography' and monuments of Thessalonika between 1913 and 1918.

Soon after Greece had regained Salonika from Turkey in 1912, the Archives de la Planète decided a photographic survey should be made, to record 'aspects, practices and modes of human activity the inevitable disappearance of which is only a matter of time'. Begun by Auguste Léon in May 1913 (between two Balkan wars) and continued by Stéphane Passet in September that year (just after the second Balkan war had ended), the survey was completed by Léon Busy in 1918, when First World War Allied troops were still based in Salonika. By then, a large part of the city had been either damaged or destroyed by a major fire in 1917

The technical and aesthetic quality of the images is astonishing. Made using the potato-based autochrome photographic process invented by the Lumière brothers in 1903, they combine the calm stillness characteristic of long, slow exposure with colours of pointillist subtlety.

Some show monuments – the grassy silhouette of a bronze-age fort, the mighty city wall begun circa 315 BC, a large Jewish cemetery established from the fifteenth century, and several churches long used as mosques which had been reappropriated for their original purpose in 1912. Less imposing structures are also featured – small houses with timber-frame jettied upper storeys overhanging narrow streets, shops, ships in the harbour, improvised shelters and refugee encampments – as are people going about their daily chores or posing for the camera.

Founded on the initiative of the Paris-based banker Albert Kahn (1860-1940) in the belief increased knowledge of different cultures would foster international understanding and peace between nations, the Archives de la Planète was active in some 50 countries in 1909-1931.

After Kahn was bankrupted by the Wall Street Crash, the Archives and his extraordinary 4 hectare garden were taken into public ownership. Both now form part of the Musée Albert Kahn, where 72 000 autochromes and 183 000m of film can be accessed by the public on video.

CHARLOTTE ELLIS

Thessalonique 1913-1918: Destinées balkaniques runs until 20 December 2000, at the Musée Albert Kahn, 14 rue du Port, 92100 Boulogne-Bilancourt, Paris (metro line 10 to Boulogne-Port-de-Saint-Cloud). For details of opening hours, events and publications, e-mail museealbertkahn@cg92.fr or telephone 33(0)1 46 04 52 80.









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