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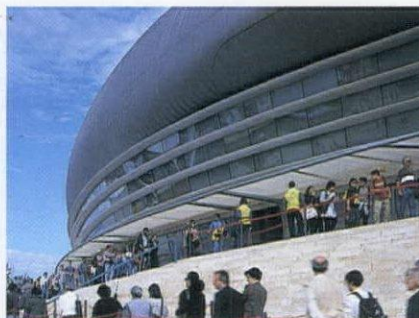
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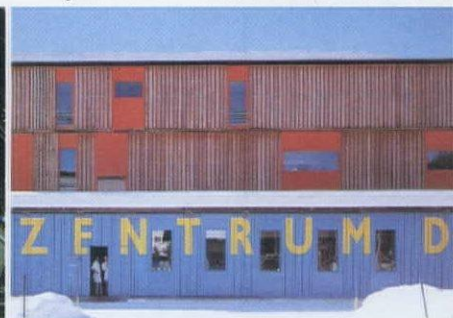
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LISBON
EXPO

The British Architectural Library, in effect the library of the Royal Institute of British Architects, is the finest architectural library in the world. Its collections of books, drawings, periodicals, manuscripts, electronic media products and photographs may be bettered individually, but taken as a whole, they constitute the greatest integrated assembly of architectural knowledge that the world has ever seen. It is more comprehensive than any of the nationally owned collections anywhere, for they tend to collect only works published in their own countries. It is better than any other professional or academic architectural library, partly because the RIBA is the oldest architectural institute in the world,¹ so it has had more time in which to collect, and partly because it was founded at a time when Britain was wealthy, and the profession believed that architecture was a liberal profession that depended on scholarship.

Now, the profession has a quite different temper. Though it is many, many times bigger than the body which founded the library, it is clear that the RIBA now neither has the money nor the will to maintain it. There are perhaps some good reasons for this,² but there are bad ones too, for example, a constitution which ensures that it is almost impossible to set and achieve long-term strategies.³

A great crisis has arrived. The Institute has known for 26 years that it had to set up new accommodation for its drawings collection.⁴ It has generated a succession of plans, ranging from bringing the collection back to fine accommodation next to the other elements of the library in the headquarters building, to moving it to a new grand centre at the Roundhouse.⁵ After a great deal of time, money and effort had been expended, this last proposal was turned down on the flimsiest excuses by the Heritage Lottery Fund, an outcome that showed bungling, if not downright stupidity on both sides.

Now, after further expensive work by consultants (which has confirmed what was known already), the library problem is no further towards being solved than it was 10 years ago. And it is getting worse every day, for not only can the RIBA not find a suitable home for its drawings collection, it cannot evolve a proper policy for accommodating growth (every living library has to grow to keep abreast of current publications, without discarding those of the past).

Matters have come to such a pass that some hooligans at the RIBA are suggesting that parts of the permanent collections should be sold. This will be a catastrophe in terms of losing knowledge (who are we to decide what future generations will want to consult?), and it will ensure that no one will give the library material or money⁶ ever again.

In any other civilized country, the government would help as a matter of course, but so confused is the RIBA at presenting its case (and perhaps so fundamentally philistine the government of Cool Britannia) that no sensible relationship has been evolved. The RIBA could try to give the library away, but existing institutions

which are capable of looking after its material (for instance the British Library or the Victoria and Albert Museum, even if they could be persuaded to take it on) would undoubtedly wish to break up and amalgamate the collections with theirs, impose their own acquisitions policy and so on.

As we go to press, it is mooted that a new trust, which will be independent of the RIBA (though with Institute representation on its board) should be set up to receive the special collections.⁷ The idea is good in that it may allow this part of the library to be seen to be independent of an institution increasingly devoted to promoting the self interest of its members, rather than serving civil architecture, for which it (and the library) were originally set up. Properly organized, the trust should be able to attract support much more easily than the Institute.

But the proposal is bad in that, as it is now envisaged, the trust will not receive the collections of books and periodicals. It cannot be emphasized enough that the incomparable potential of the library lies in its collections being made available together. If necessary, this may mean the printed material leaving its much loved specially designed 1930s premises in the Institute's Portland Place headquarters⁸ to join the special collections in a new home. In any case, new proposals for the management of the Institute suggest that a rump of the library left behind in Portland Place will lack effective representation in the Institute's decision-making structure.

This is the last moment of the last hour. The RIBA must finally face its responsibilities, its debts to the ancestors who so generously built up the library for us, and its responsibility for enhancing their legacy and passing it on to our descendants. It needs all the assistance it can get, but to get help, the Institute must produce a culturally creative plan, and stick to it through thick and thin.

PETER DAVEY⁹

1 It was founded in 1834.

2 For instance, the professions were gaining in power in the 1830s, when Victorian clients needed independent advice to cope with the principle of *caveat emptor* (let the buyer beware) adopted by rampaging capitalist industry. Now, governments believe they can use regulations to control industry on behalf of consumers, and they regard professions (except perhaps medicine and the law) as unnecessary impediments to trade. The RIBA has to spend much effort on combating the attitude.

3 An over-emphasis on regional representation has, for instance, ensured that many members of the Institute's council are (to put the matter at best) excessively concerned with parochial issues. Regional members are often elected on paltry numbers of votes, sometimes even without a poll.

4 In 1972, the collection was moved with great panache by John Harris (then its curator) from the RIBA's Portland Place headquarters to splendid (but now inadequate) accommodation in Portman Square. The lease on the latter runs out in 2002.

5 A disused railway building not very far from the RIBA hq. As well as the drawings, it was to house the other special collections: the manuscripts and photographs for instance.

6 With great dedication, the library staff attracts more grants for cataloguing, preservation and special purchases than any other library in Britain, except that of the British Museum.

7 For details see *The Architects' Journal* 4 June 1998, p11.

8 But it must not leave London, which is the most easily accessible place from both other regions of Britain and overseas. An alternative strategy would be to move most of the staff who serve the trades union functions of the RIBA out of the hq, and devote the magnificent building to the collections, exhibitions and architectural meetings.

9 Who, as Honorary Librarian of the RIBA in 1992 and 1993, is not without blame in the whole debacle.

CULTURAL CRISIS

The best architectural library that the world has ever seen is under imminent threat of irrevocable damage. The RIBA must make a plan for the future of the library that is credible both culturally and financially – and stick to it.

NEWS FROM EVERYWHERE

A bleak and arid future is predicted in a recent book which suggests that if present economic and cultural trends continue, architecture will become irrelevant. It will too, unless its traditional qualities are celebrated.

Just over 100 years ago, William Morris wrote *News from Nowhere*, a little novel which envisaged a post-revolutionary society in which people lived in harmony with each other, and with nature. The opening chapter of Martin Pawley's new *Terminal Architecture* (Reaktion Books, London, £12.95) has quite a lot in common with Morris's vision: the protagonists are transported a century ahead to a world which has been radically altered; work in our sense is unnecessary; energy is limitless and free; transport is agreeable and totally accessible.

But there are one or two striking differences. Morris's hero finds himself in a London of flowering orchards and meadows running down to a crystal-clear fish-filled Thames. Pawley's journalist persona and his photographer colleague go to Dorset (at present one of England's most green and beautiful counties). They stumble across grey 'ground that was hard and dusty, sculpted into inexplicable ruts and ridges that ran like railway lines in all directions. Here and there, bundles of cables snaked across our track'. Eventually (like Morris's time traveller) they find a kindly guide, Carlos, who explains that everyone lives in a sort of cushicle (AR July 1981, p45), a device (suit or capsule) which acts as a 'terminal' to provide sensory perception of all phenomena. So you can set up a terminal 'and have it look like anything'. Carlos explains that 'everybody really wants to live alone, they always have'.

Most of our existing physical infrastructure has been thrown away, houses and cities abandoned, even motorways rendered obsolete by the universal adoption of four-wheel drives (hence the lifeless, rutted landscape). Society, even sex, are obsolete because people are totally 'bound up in the study of their own personalities'. Given high definition interactive TV, 'everybody could see everywhere and be everywhere. So everybody lived everywhere, or at least thought they did'. Huge sheds in which automatic devices generate products are covered with 'bizarre collections of dwellings, part trucks or cars, part tents, part houses', movable, openable, totally personally controllable.

The rest of Pawley's book is taken up with identifying trends in our own time which justify his imaginary future. American international capitalism will inevitably win. Its social and environmental catastrophes will be overcome for the few who survive (perhaps the poor will be murdered, or die of Aids or starvation – we are not told). Food production will be concentrated on a few 'special farms in Ireland' which feed the whole of Europe, presumably tended by machines (or slaves? – perhaps that's where the poor have gone).

Architecture will be unnecessary. Buildings are plant, to be discarded when their use is finished: so goodbye to the temples and churches, the cottages, palaces, monasteries and manor houses – their original functions are gone so why keep them? In future,

there will be only big sheds made by shadowy corporations, or small dwelling shells created by individuals.

Indeed, architecture as it is now practised is a ridiculously expensive way of providing what we do: 'life servicing technology expressed as covered floorspace'. Pawley claims that 'half of the cost of any building comes down to the cost of producing the drawings and specifications according to which it will be constructed'. Clearly, if this is so, architecture is a very expensive aspiration indeed and should be kept for the pleasure of popes and presidents. But Pawley's maths has often been a bit wonky, and unless he can give a more clear explanation of how he has achieved the figure, we must stick with the more normal ratio of 20 per cent (at very most). If we do, most of the rest of his argument for the translation of architecture to a branch of product design falls – we do not necessarily need standardized built products, but can afford ones that are tailored to site and programme.

Occam's razor

His fundamental point is that architectural design should depend on 'a process of multi-sourced element combination that can better be systemized than created anew for each job'. He's right about technology, its transfer and its vital importance in the creation of buildings. He's right to use Bucky Fuller's 'Occam's razor ... of the first law of technological evolution, which states that the only valid measure of success is to achieve better results with fewer resources': a most sensible perception that must inform the process of building in future.

But Pawley is totally wrong about the nature of architecture. It is hard to write about the arguments of a person who claims to have given up so much human feeling while liking him. His rejection of the notions of particular place, of history and historical resonance are very sad. We are not Hobbsean beasts: we can celebrate nobility, honour, divinity, sublimity, beauty, tenderness, love, compassion, kindness, affection, and most importantly, common decency in buildings. This is architecture. Pawley will not allow any of it, nor that old buildings which embody such feelings should be preserved as memorials of where we came from.

Thatcherism's disgusting rejection of the concept of society, and the triumph of market and fear over the ideals of profession and love has found a forceful advocate in Pawley. Because he writes enchantingly, he may be taken quite seriously by students and people outside the profession.

His book should be read, but when you do so, you should reflect on the alternative futures that he and Morris have proposed. And decide (because you have choice, though he denies it) which to work towards. P. D.

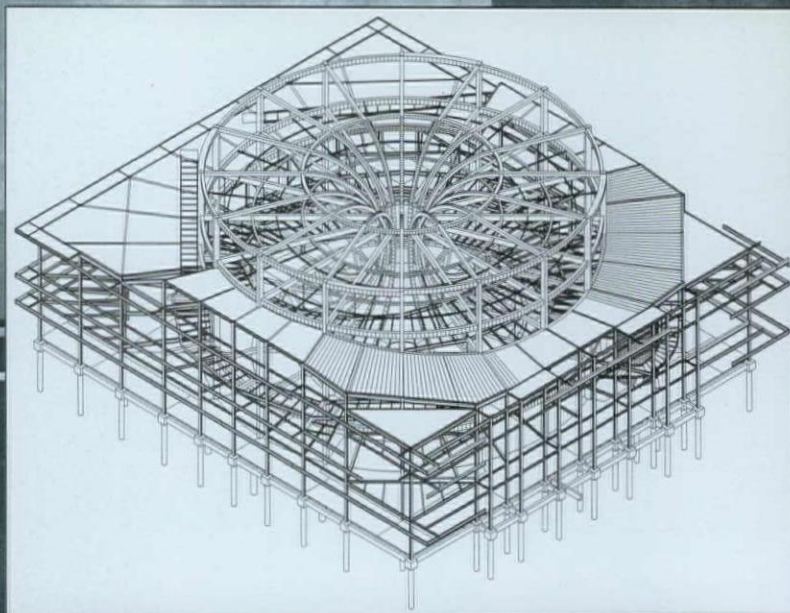
The Pavilion of the Future

The exhibition project for the contents of the Pavilion of the Future was designed by the team from the "Baixa" architects' office: Pedro Belo Ravara and Nuno Vidigal. Six separate areas take the visitor on a "journey" from the outer limits of the Universe to the bottomless depths of the ocean.

Each section shows a specific point of view: The Atlas Room, The Oceans under Threat, The Ocean Observatory, A Voyage into Deep Blue, Passage and Towards the Future. They had to design a full experience, where the visitor's perspective was of paramount importance.



Photos: EXPO'98 / Homem à Máquina



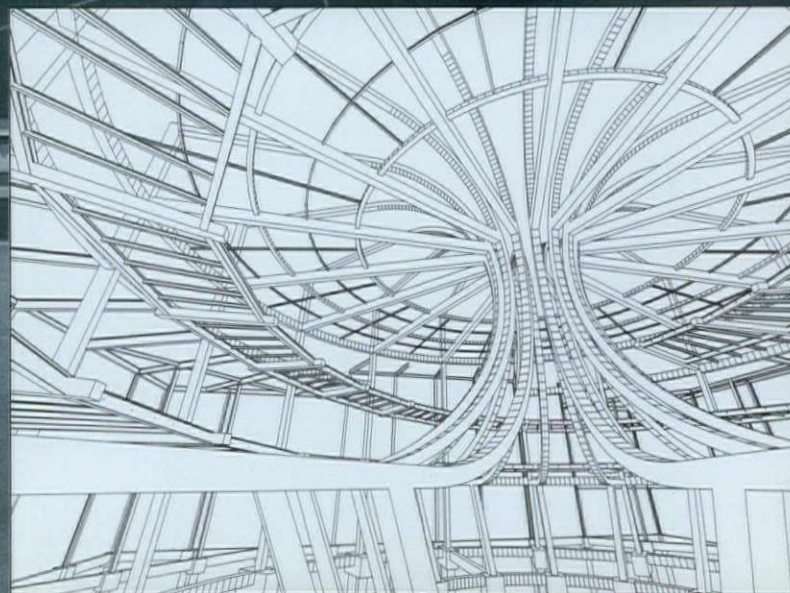
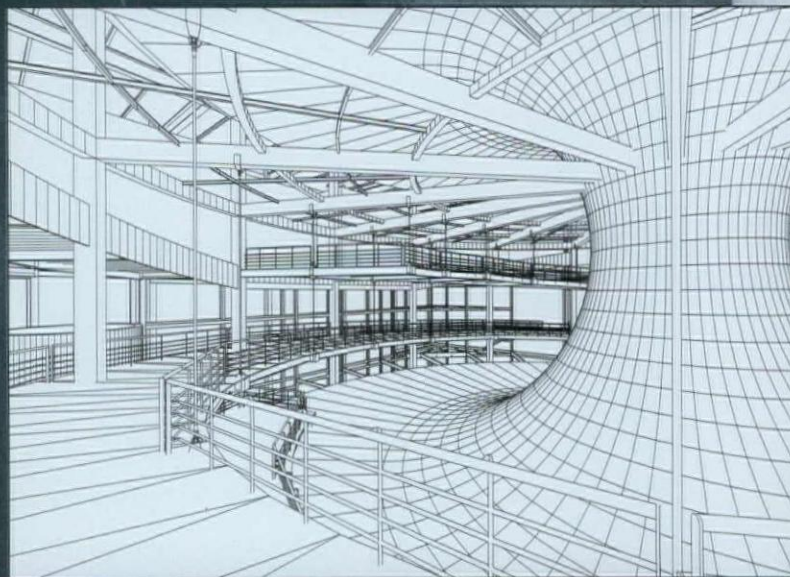
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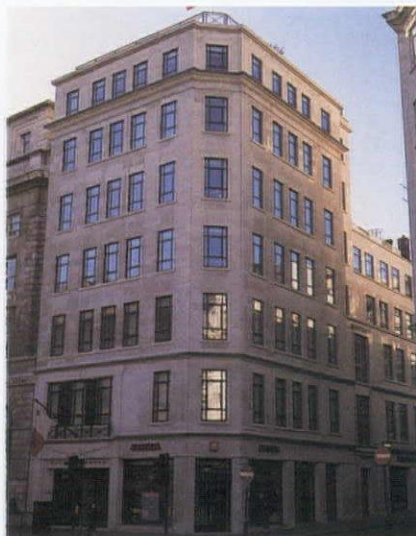
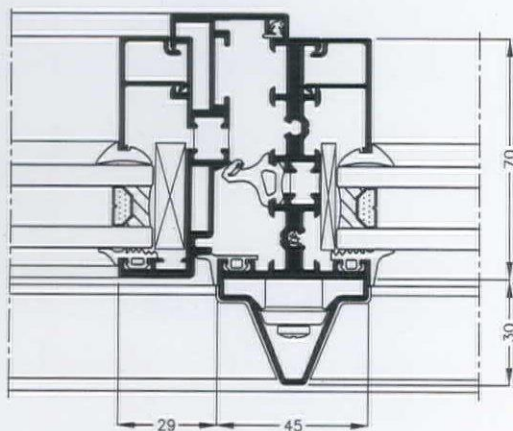
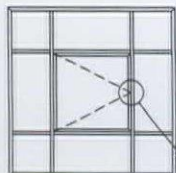
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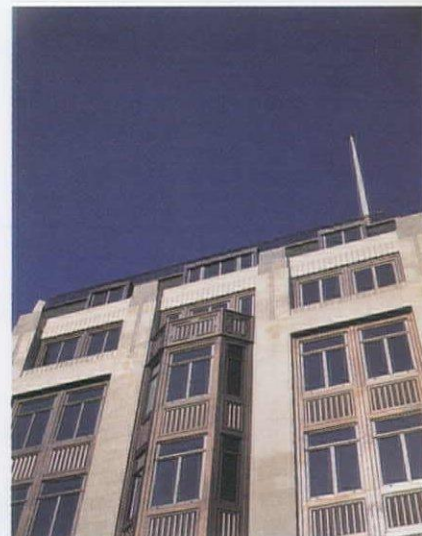
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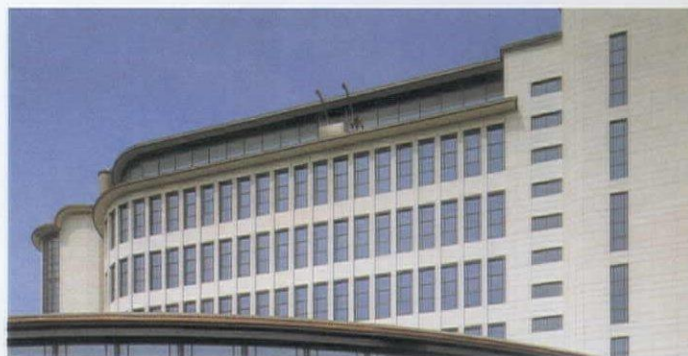
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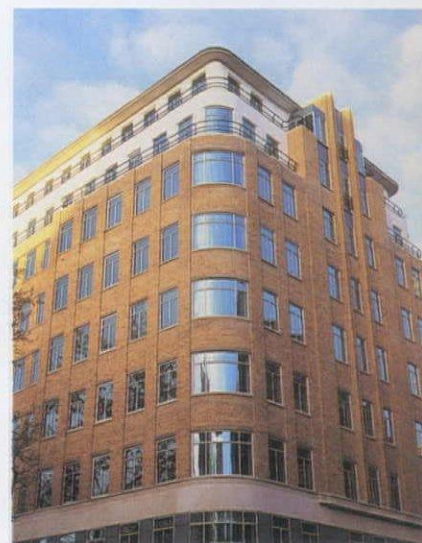
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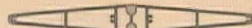
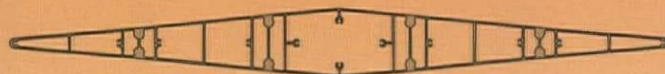
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Swedish model reassessed



Ralph Erskine's 1997 addition to Stockholm's Frescati University



Rafael Moneo's new Architekturmuseum

Post 1945, Sweden was envied by many other war-torn European countries. Its culture of architectural continuity, combined with enlightened community building programmes, became known as the 'Swedish model'. Continuing their examination of twentieth-century European architecture, the Deutsches Architekturmuseum (supported by the Architekturmuseum Stockholm) traced the history of this phenomenon, illustrated by photographs, models, and lectures from Björn Linn, Eva Eriksson, Eva Rudberg, Gert Wingårdh and Carl Nyrén. From Ragnar Östberg's Italianate Stockholm City Hall (1902-23), and Gunnar Asplund's modern development of Neo-Classicism, to Ralph Erskine's Brittgården and Nya Bruket urban housing projects and Rafael Moneo's Architecture and Modern Art Museum, Swedish architecture seems to have successfully united tradition and modern internationalism. Two main philosophical strands – symbiosis with nature and industrialized rationality – have shaped a recognizable Swedish character.

With its small population, speaking a language rarely understood by others and distanced from the mass of Europe, Sweden has had to be internationally orientated. A rapid agrarian industrialization, the laying of a railway network and founding of new private and public-owned undertakings and institutions for commerce, housing and education in the mid-nineteenth century, excited architectural and engineering ingenuity. On the one hand, traditional farm structures were pragmatically adapted and adopted for the first railway sta-

tions. Today, this building type lives on in many architect-designed houses such as those by Jan Gezelius (the Villa Drake 1970), and Thorsten Askergren (Villa Olby 1988.) On the other hand, prefabricated building systems (the result of international research and philosophies), were accepted as economic solutions for mass building. In 1964, A4 Co-ordinator produced a pilot project for offices in Stockholm. Behind a metal clad street frontage, rooms for 2600 office workers were grouped around intimate landscaped courtyards. Since 1968 Carl Nyrén has moved from the pure rationalism of precast concrete and an exposed structural skeleton for the Arrhenius Laboratories at Frescati University to more subtle and colourful buildings, like the Jönköping Museum in 1991, with colour-washed fair faced concrete walls, pine ceilings and floors, in an extension of a '50s building.

A sense of community structure has consistently pervaded Swedish architecture, whether in the transparency of Peter Celsing's 1966 Stockholm Kulturhaus public facade, the refurbishment of Stumholmen Island between 1989-97 from a military harbour to civilian housing and museum development, or in the planned 'Friendly City' on the ex-industrial north bank of Göteborg. Until recently, when the European Union and global economy changed priorities, social democratic policies championed equal opportunity projects to bind the nation. A cohesive population with a historically puritanical and self-examining religion has also influenced the way in which a well educated people have solved their building

needs. Significant numbers of religious buildings – Sven Ivar Lind's Nässjö crematorium chapel and a crematorium by the technologist group ELLT from 1957 and 1954 – particularly exemplify this reduced vocabulary of refined details.

In 1880 there were already 100 architects in a population of 4.5 million and since then it has been unquestionably accepted that environmental aesthetics play an important role in a successful culture. It was easy for Sweden, with its harsh but impressive landscape, to identify with the ideas of Ruskin and Morris, in which the relationship between man and materials was emphasized. Swedish National Romantic architecture is not hard to understand when the visitor sees Gerry Johansson's photography (at the beginning of the exhibition) of pine woods, solitary timber huts standing in snow-mantled fields, mountain streams and swathes of countryside almost devoid of human habitation. To realize how attractive this ideal can be, you have only to visit IKEA's pilot off-the-shelf timber housing project. Like their mass furniture at reasonable prices the international Swedish company is planning to offer these adaptable houses to other Europeans as a twenty-first century prefabricated building system solution.

LAYLA DAWSON

At the Deutsches Architekturmuseum, Frankfurt am Main, German, until 12 July 1998.

A 400 page catalogue accompanies the exhibition: *'Architecture in the Twentieth Century: Sweden'*, with texts from Thorbjörn Andersson, Claes Caldenby, Eva Eriksson, Björn Linn, Eva Rudberg, Rasmus Waern and Kerstin Wickman.

Published by Prestel in English, Swedish and German editions.

Israel at 50

When does a country's history begin? For Israel, 50 years old this year, birth was the result of struggle and loss. Only the Holocaust forced the world super powers to give in on an Israeli state. From the beginning, architecture and settlement planning were influenced by both European models and Middle Eastern realities, which rarely found a harmonious working relationship. Theodor Herzl's Zionist dream of a Jewish homeland was weighed down by so many expectations as to make a peaceful transition and synthesis even more difficult.

To mark this half century, the Deutsches Architekturmuseum recently held a critical symposium with Frankfurt's Jewish Museum. Architectural historians Ita Heinze-Greenberg, from Berlin and Haifa, and Myra Wahrhaftig (who has researched the biographies of architects forced to flee from Hitler's Reich), described the various movements which vied with each other to create an Israeli architecture.

At the first Jewish Congress in Basle, 100 years ago, the Zionists were mainly Russian and East Europeans but their leaders were German and Austrian. The first Haifa settlement was designed in Berlin by Alex Baerwald, who later emigrated to Palestine. In 1896 Herzl planned and wrote about his ideal country in *Der Judenstaat* where, in a peaceful landscape, pioneer citizens would build garden cities or communities based on the German Slav border *Hof* villages. In *Altneuland*, Herzl's 1902 futuristic fantasy novel, Israel is envisioned as a socialist, modern European state. Fictional Haifa is an Italianate city where the President's mansion, hung with chandeliers, reflects German middle-class eclectic taste. Criticized for ignoring the resident Palestinians, as though building on a *tabula rasa*, the architect's discussion as to which style they should adopt was as interesting as the question, 'in which language should Israel speak?' At Technion, the first architecture class communicated in German – because the professor was from Berlin – but Hebrew eventually won through. In building there was no Hebrew style, but a Modernist German *Neues Bauen*. The 70 architects who fled the Nazis and arrived in Palestine were influenced by the Bauhaus, but the first immigrant houses were temporary-looking wooden huts. In this identity conflict Arab building traditions which had 'grown out of the soil' were foreign to the Europeans; and the Bauhaus, symbolizing hard won European freedom, was foreign to Palestine.

Ada Karmi Melamede and Ram Karmi, the sister and brother architect team responsible for

Jerusalem's High Court (AR March 1993), were unable to attend the symposium at the last minute. So Zvi Hecker was left to speak as the only representative of modern Israel. Since 1995 he has been known in Germany for his Heinz-Galinski school in Berlin (AR June 1996). In Israel his early geometric buildings and later spiral apartment house (AR October 1990) are to be joined by his nearly completed Palmach Museum. Referring to Zionist history, Hecker declared that 'My architecture has nothing to do with what we have heard here today'. Visibly upset he continued, 'We have heard here about the past, about peoples' dreams, many of these early architects were my heroes, but we've heard nothing about the closed areas, the occupied territories, which is Israel today. We have been shown pictures from old newspapers because few of these early buildings exist anymore. We are not even able to look after our own history.'

Hecker is the only Israeli architect with a Berlin office who has had a steady flow of commissions, mostly as a result of competitions. All have been for commemorative or Jewish community buildings, for example an entry for Berlin's Memorial for the Murdered Jews of Europe (still undecided) and his entry to rebuild Dresden's synagogue, which was perhaps too modest for the jury. His architecture is often about absence, what is invisible or lost, what he describes as the soul of architecture.

Whether he would acknowledge it or not, Hecker's 'healing' architectural work in Germany is part of today's uneasy German-Israeli relationship and reflects on Jewish history in Europe. Likewise his Israeli work is also a mediation between the geography and traditions of the Middle East, and the aspirations of European pioneers and later American, African and Russians, in what they see as the 'Promised Land'.

Erich Mendelsohn was one of the few European architects who recognized that a synthesis between East and West was necessary in Israel. He expressed the fear that if his contemporaries continued building in the aggressive forms which they had imported, without consideration for their environment, any hope of a peaceful co-existence with their neighbours would be destroyed. Unfortunately for Israel, Mendelsohn found little enthusiasm for his views and left for England and the US. Zvi Hecker posed the question, 'What would Mendelsohn say today?' LAYLA DAWSON

Further reading

Sie Legten den Grundstein – Deutsch-Jüdische Architekten in Palästina und Israel, Myra Wahrhaftig, Wasmuth 1996.

Tel Aviv: Modern Architecture 1930-39, with a contribution by Ita Heinze-Greenberg entitled 'Immigration and Culture Shock', Wasmuth, 1994.

Subscription improvements

Recently, AR subscribers have been transferred to a new, up-to-date computer system which will provide a better service. As a result of this transition, we are aware that some of our subscribers have experienced problems, including difficulties in contacting our subscription department at Emap Readerlink. We apologise if you have been affected.

Our customer services department now has an email address (kiml@readerlink.emap.co.uk) and improved telephone facilities. Information about this is set out on p3 alongside the contents. Please direct all enquiries to do with subscriptions, distribution problems and change of address to Readerlink, and not to the Rosebery Avenue address.

Overseas subscribers will also benefit from our continuing investment in new, faster distribution methods which will speed up surface mail delivery times.

letters

Antithesis to Nazism

SIR: The review of 'Behnisch and Partners: 50 Years of Architecture' in your May issue (p104) concludes with an inquiry about the origins of the 'edgy unmonumentality of post-war German architecture'.

Behnisch's architectural outlook stems directly from personal experience. Born in 1922, he joined the Hitler Youth as an adolescent and later became a U-boat commander before ending up as a British prisoner of war. Then in the wake of Nazism's defeat, he dedicated himself to designing its antithesis. For him, monumental facades, stony symmetry and long axes evoke jackbooted soldiers; from his perspective, rows of columns summon blood-spattered tyrants.

Behnisch has expressed deep-seated fears that the new German state architecture now rising in the revived capital, Berlin, represents a distinct shift away from his understandable, if sometimes exaggerated and overly reflexive, design approach.

Yours etc

MICHAEL Z. WISE
New York, USA

Surface tension

SIR: The AR is to be lauded for its coverage of green architecture and the latest issue on architecture and ecology (April 1998). However, it is

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the superficial surface reading of the issues as typified by the lead commentary, 'A Moral Issue', that makes me wonder if I should bother to renew my subscription.

Chapter two of Simon Schama's book, *Landscape and Memory*, spends more time exploring the origins of the cult of Blut und Boden that was so favoured by the Nazis than arguing for the 'culture of wood with all its freshness and intimacy with natural forces' versus 'the culture of stone and brick, with its indifference to nature and seeming permanence'. Schama seems more determined to equate anything related to the 'forest myth' to Nazism than in holding Germania up as a Teutonic source of the noble savage and a natural architecture.

It is interesting that the sentence on Biotechnics quoted from plate 32 and not page 32 of Lewis Mumford's *The Culture of the Cities*, continues as follows: 'Marked by the muddled timidities of a disintegrating Capitalism, and that neurotic substitute for an integrated order, fascism ... Forward!' It would seem that one critic sees the beginnings of fascism in the natural world; while another critic sees the natural world as a redemption from fascism.

I admire the writings of both Mumford and George Orwell. Both men as critics were not afraid to think critically, and to take stands against the popular views and muddled thinking of their times; but in doing so they were also rigorous in their basis for their views. Several months ago your magazine published a contemporary review of Le Corbusier's *Maison de l'Unité d'Habitation* at Marseilles which focused on all the atypical oversize units in order to present a biased picture of the genius of Le Corbusier.

One should read two of Mumford's essays, *The Marseilles 'Folly'* and *The Case Against 'Modern Architecture'*, where he reviews the same building. In the first essay Mumford discusses the many problems relating to site and parking, the excessive construction costs, the varied unit plan types, failures of the public market components, the excessive cost of rent and other issues associated with the building he ends up terming an egocentric folly.

In the second essay, Mumford, who could supply some very cutting one liners, summarizes the building as follows: 'the genius of Le Corbusier here consisted in making a mere package look like a real building; and the feebleness of current architectural criticism is recorded in the chorus of praise that this extravagant piece of stage decoration still calls forth'. Was Mumford describing Rem Koolhaas and Quinlan Terry and most of the other star architects and their fawning critics here in this passage?

To end I must say that not only are the projects shown in the *Architecture and Ecology* issue very well done, but also the critiques on them are very well written and researched. Rory Spence's review of Richard Leplastrier's houses continues his stimulating research on Australian architecture. Reviews in previous issues by Rory Spence, Peter Blundell Jones, Colin St John Wilson, to name only a few of your magazine's writers, are of a consistent high quality that causes the AR to rise above the dreck of the typical architecture magazine.

Yours etc

JAMES DAVIES

New Westminster, BC, Canada

Kept in the dark

SIR: A few days after the American Air Museum on Duxford airfield was opened, a coachload of members of the Martlesham Heath Aviation Society visited Duxford in general and the new Museum in particular. There are still strong ties with the Americans – the 356th Fighter Group had been stationed here after the RAF had made room for it in 1943.

I for one was disappointed with the design. As a naive engineer, who during his working life had fallen among architects, I had been under the impression that the function of a museum was to display its artefacts in the best possible of natural light, at least during daytime. Not so apparently. This particular shell with a solid concrete non-reflective roof has only one single source of light at one end and the photographs accompanying the article were taken very cleverly of planes which stood right in front of that glazed area and had been taken on a sunny day.

The perimeter windows only illuminate the pedestrian ramps but, with the entrance at the shallow end, that end is otherwise completely without natural light. The first thing the visitor sees, once his eyes have adjusted to the murky gloom, is that huge B-52, painted black of all colours, which is so massive and out of proportion that it dwarfs, crowds out and casts a shadow over everything else, in every sense of the word.

To have limited the display to those USAAF combat and training aircraft which had flown from here during the war would have provided a sense or purpose in the East Anglian landscape, and there were enough of these anyway. The B-52 may have been famously used, as the description has it, or it may not, but it stands very uneasily among the real aircraft which took the Blitz and Coventry to the enemy.

The technical side was indeed on offer, there were display panels, but there were no books

which would have saved taking pictures, the latter made more difficult by the strong light from the sole window area interfering with the lens when taking anything at the dark end.

The human aspect was completely missing. Nothing about the crews, their age, their background, why they volunteered, their training. There was no linktrainer on display. What was a tour? How many were likely to survive, no sample letter from the CO to a parent or wife announcing a crew member as 'missing', no uniform, no log book, nothing about ground crews. Our tiny air museum here does better than that. From the world of muzak there wasn't even the simulated roar of a B-17 or of a Mustang taking off to add atmosphere, no revolving turret to squeeze into, no cockpit, no side show apart from one TV screen. A quiet and forlorn Merlin engine made under licence by Packard doesn't convey much to the present generation.

What was wrong with, say, three different size domes with a transparent covering to let some light in and show the sky, which is where aircraft look their best. The inside of a dark shell, however clever the engineering, didn't develop the potential the exhibits deserve.

Yours etc

FRANK BRIGHT

Ipswich, England

Photo synthesis

SIR: I have been intrigued over the last few months to witness the level of feeling that has been evoked by the way in which architecture is depicted in a magazine. Not least of which being the latest episode (Patrick Hannay, letters, AR May 1998).

I agree totally that to understand, appreciate and judge a building requires a knowledge of how it is used, how the occupants interact with it. The same is true of any 'product' whether it is a building, a car or a door handle, the function is everything, otherwise all you have is a sculpture.

So what will populating the photographs add to our understanding. It is after all what it is, a snapshot in time. It imparts little understanding of movement, of time. It does not really help us to understand how the occupants interact with the building or each other. It is a sculpture occupied by other sculptures, giving us only an indication of scale and an occupant's frozen view of the building. Does a photograph of a door handle being operated tell you how it feels?

Unlike other 'products' the architect does not have the luxury of a prototype to evaluate the operation of his/her building. He must rely

on his imagination to populate the spaces, and I feel we must do the same. I would suggest that our infinitely greater experience of the human form makes it significantly easier to 'populate' a clear picture of a building than to 'depopulate' what could be an obscured view of it. For my part I want to see, as Martin Charles puts it, 'how it is' because I have much less chance of imagining that.

Until AR is published on CD with interactive video pictures we will just have to put up with using our imagination. How dreadful.

Yours etc

SIMON MILLS

Stratford-upon-Avon, Warwickshire, England

Manchester slammer

SIR: I have always known that if there was any justice in this world then the Trafford Centre would appear on the Outrage page of the Architectural Review (AR May, p37). Why then did you have to spoil it by implying that Mancunians deserve this offensive pile.

You fail to mention all the good work going on in the city centre by Simpson Associates, Skidmore, Owings & Merrill, Stevenson Bell, Michael Hopkins, Hodder Associates, ORMS, Short Ford, FaulknerBrowns and of course, BDP. Combine this with the plethora of new bars, restaurants, cafés, shops, offices, leisure and cultural outlets and you have the makings of a distinctly European, not American, feel to the true heart of the region.

Mancunians do not spend their lives thinking grandiose thoughts about their city, about rivalling the capital; that is pointless. The city is improving dramatically within its own limitations and yet has a long way to go. However, so far so good.

Returning to your piece of Outrage what I wanted was more outrage and less lofty patronizing cynicism. I really wanted a scathing diatribe, total bitchiness, vitriol, venom and much much more for the Trafford Centre cannot get enough. What a lost opportunity!

Yours etc

PETER SHUTTLEWORTH

Manchester, England

Northern lights

SIR: I read 'Delight' and 'Outrage' first, as appetizer and hors d'oeuvre. May's Outrage killed my appetite. It was certainly outrageous, but only as an example of incompetent and bigoted journalism. PD seems to have lit upon a half-finished project, which he then hardly discusses, as a vehicle to launch a vitriolic attack

upon an entire city, and its alleged attitudes, using, unbelievably, an advertiser's promotion shots as evidence. This is exactly the South vs North, 'can't be bothered to get on a train' blind prejudice that is so counter-productive, unfair, lazy, and typical of the worst form of journalism.

Judging Manchester by the Trafford Centre is as inane as judging London by Brent Cross. All the Councils within Manchester apart from Trafford fought a long battle right through the planning process to stop it, the then Secretary of State for some reason overturning his own PPG's to permit it.

Manchester itself bears no resemblance to your description. Every time I go there I discover some new delight as the city transforms itself. Far from ripping down old buildings, Manchester has pioneered the re-use of what could have been an embarrassment of riches; and has done so for the last two decades. Witness G-Mex and the Royal Exchange Theatre, warehouse conversions by Urban Splash and others, proposals for the Great Northern Warehouse, and a proliferation of wonderful banking halls as pubs and restaurants. Little if anything has been destroyed by developers.

New quality buildings abound, ranging from the Bridgewater Hall, the British Council, Manchester Airport's Terminal 2 and railway station, the Siemens building, and other Mills Beaumont Levy buildings, right through to design and build at its best with the immaculate Royal Bank of Scotland warehouse at Salford.

At a small scale hundreds of bars, cafés and shops have sprung up setting an agenda of innovation and creativity and delight. Where else would you find four outstanding new bridges built in the last five years including one by Chris Wilkinson and another by Santiago Calatrava? What of the urban design agenda set by first the Hulme Design guide and then by the City Design Guide?

Castlefields presents a unique urban park, but nothing to the reborn City Centre plan by EDAW now coming together. Beyond that, the Lowry Centre, and the campus for the 2002 Commonwealth Games promises much, with the British Cycling Centre open as a precedent.

In fact there is so much, and Outrage was so absurd, that The Architectural Review should devote an issue to Manchester not only by way of apology, but because there is much to discuss and admire in that stimulating, vibrant and confident city.

Yours etc

PATRICK THOMAS

Monmouth, Wales



Next month we look at buildings that reflect and express institutions of various kinds. Throughout history, architecture has been appropriated to serve both public and private institutions, whether state, municipal, religious, cultural, educational or corporate. We examine how a range of different institutions crystallize and express their identity through architecture. Leading the way is Niels Torp's new headquarters for British Airways, on the edge of London. Based on organizational principles developed for the seminal SAS Building in Stockholm, Torp shows how a huge corporate entity can be successfully and humanely housed under one roof.

Also in the issue we look at Steven Holl's new Museum of Modern Art in Helsinki, a powerful and dramatic addition to the city, and Jourda & Peraudin's new law courts in Melun, south of Paris, which make the processes of law available to citizens in a dignified yet accessible building. Plus the usual stimulating mixture of interior design, delight and outrage.

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Post-modern sensibility awakens memories of history, topography and nature
by using found materials to generate a picturesque network of places.

Plant formation

The picturesque taste seems to be returning, enriched by a whiff of Surrealism and a healthy dose of ecology. Whereas land artists have usually tended to make individual pieces, some more recent works have been narrative compositions like those of two centuries ago.

One of the newest and most potent instances of the new sensibility is Sweet Farm, near Sutton in the Eastern Townships of Quebec. A 33 hectare estate had been amassed by its owners over a number of years and they asked Toronto architects Christopher Pommer and Lisa Rapoport (who make up the firm Plant) to bring order to the place, and to make its more tangled parts more accessible.

The architects were determined to retain as much as possible of what they found and identified the main areas as meadow, forest, marsh, gorge, lawn and dell, which should be both revealed and connected. New paths meander through the woods, following lines of least resistance and maximum picturesque impact. They will be supplemented by a thin streak through the thickest part of the forest, the 'laser cut' which is to slice across the estate from a tower on its eastern edge. Equally obviously artefactual will be the 'ellipse', a large structure gently carved into the earth. The Euclidean paths and the apparently natural ones make up a post-modern net across the

site which allows each visitor to make up a particular route and set of stories.

A major principle has been to use materials from the estate — including some of the least loved. During the chequered history of the place, it was clear felled, then became farmland, then divided into smaller plots, one of which was a milk farm. Its rusting cages have been built up as walls to enclose a little picnic garden in the middle of the woods. In summer they are covered in green creepers; in winter, they make a white filigree against the dark tree trunks.

Other picturesque elements have been made from the timber of the place, for instance the

belvedere, a pier that hovers cantilevered over the gorge. Elsewhere, withies are wound between poles and saplings to deflect views and reinforce the lines of paths. Underfoot, logs laid vertical or split horizontal take you through marsh and slough. Work is still going on: there is the tower to build, and the owners are now steeling themselves to see a collection of rusting cars transformed into a garden event. Sweet Farm promises to be a continuing inventive poetic interpretation of history, topography and nature which, like the Désert de Retz in the eighteenth century, will speak to a far wider audience than its immediate neighbours. JAMES P. DEENE



Rusting milk cages contain a tranquil garden in the middle of a forest. Remnants of the chequered history of the place are re-used to make picturesque events.



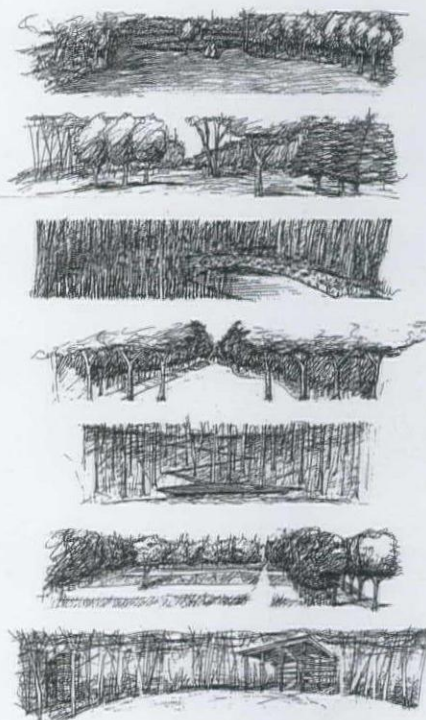
2 Forest timbers are used to create paths like the Marsh Porch and structures such as the belvedere and an elegant hut for firewood.

Architect

Plant, Toronto: Christopher Pommer and Lisa Rapoport



general plan



concept sketches, 1994. From top: formal lawn, arboretum, Marsh Porch, sculpture alley, gorge dock, striped meadow, mink cage garden (with unbuilt dining porch).

d line

Knud Holscher Design

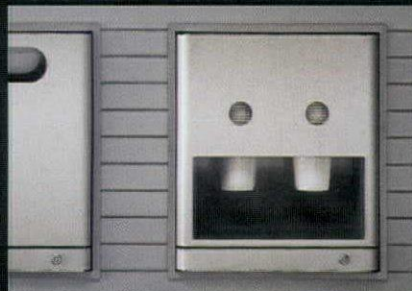
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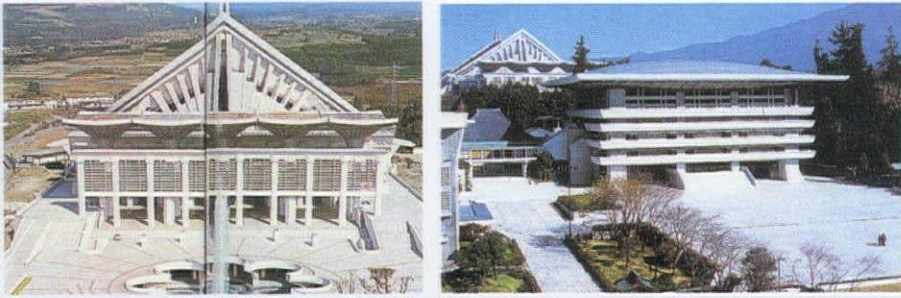
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outrage



A CANONICAL BUILDING OF JAPAN'S 1970S ARCHITECTURAL RENAISSANCE IS UNDER THREAT OF DESTRUCTION. KENNETH FRAMPTON SENDS A DISTRESS CALL TO THE INTERNATIONAL COMMUNITY.

I write to inform you of an extremely urgent situation in Japan in which the high priest of a Buddhist sect near Mount Fuji is about to demolish a temple known as the Sho-Hondo, an extraordinary architectural work and a twentieth-century masterpiece designed by Kimio Yokoyama. The temple was built with donations from eight million people and is a canonized work within the post-war Japanese Modern Movement. The threat to this building is very real and horrifying, as the sect last year succeeded in demolishing a companion building, a grand lecture hall [top right], which was in its own right a beautiful work of art. The high priest is currently accepting bids from demolition companies and has stated his intent to destroy the Sho-Hondo as soon as possible.

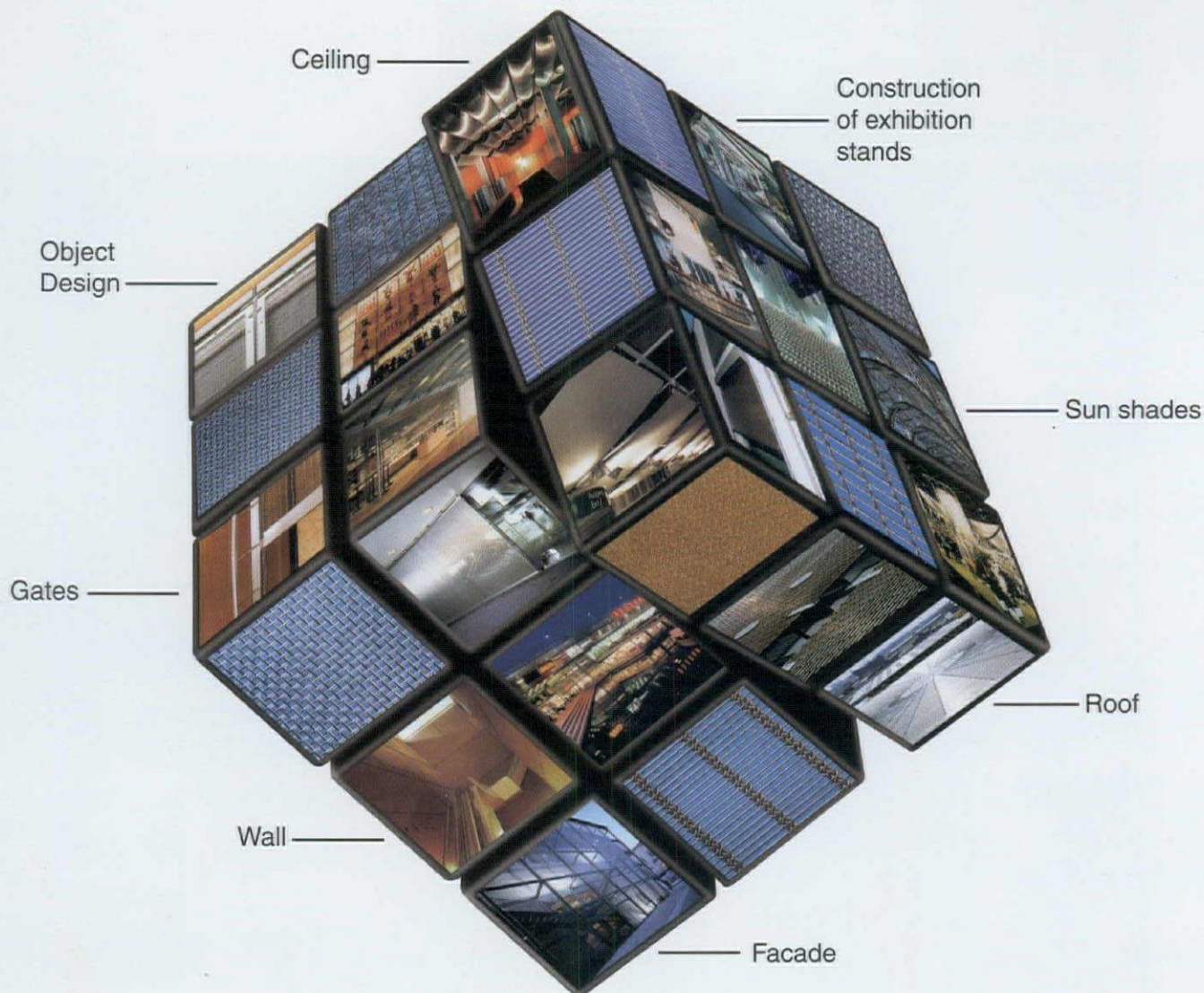
A growing number of architects, preservationists and scholars have written to this Buddhist sect and have also formed a coalition

called the International Committee to Save the Sho-Hondo (ICSS). I urge you as well to use all the influence in your power to dissuade this ecclesiastical power from carrying out the demolition, which I consider an act of violent barbarism. This building does not simply belong to this Buddhist sect. It belongs to the great heritage of post-war Japanese architectural culture and is one of the finest examples of modern building culture. It would, in my view, grossly and gratuitously dishonour the culture of Japan to have this remarkable work so wilfully destroyed. KENNETH FRAMPTON

Letters of protest against this dreadful act should be addressed to: Reverend Nikken Abe, Nichiren Shoshu, Taiseikiji, 2057 Kamijo, Fujinomiya-shi, Shizuoka-ken, Japan 418-0191. And copies should go to: International Committee to Save the Sho-Hondo, The Empire State Building, 350 Fifth Avenue, Suite 816, New York, New York 10118, USA.

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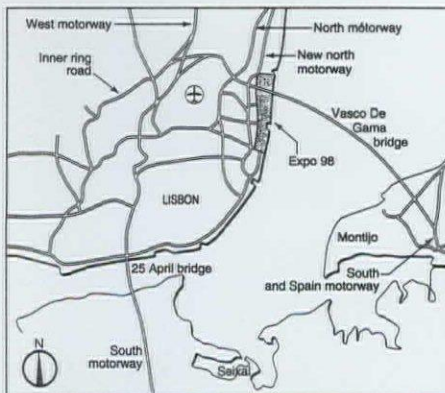
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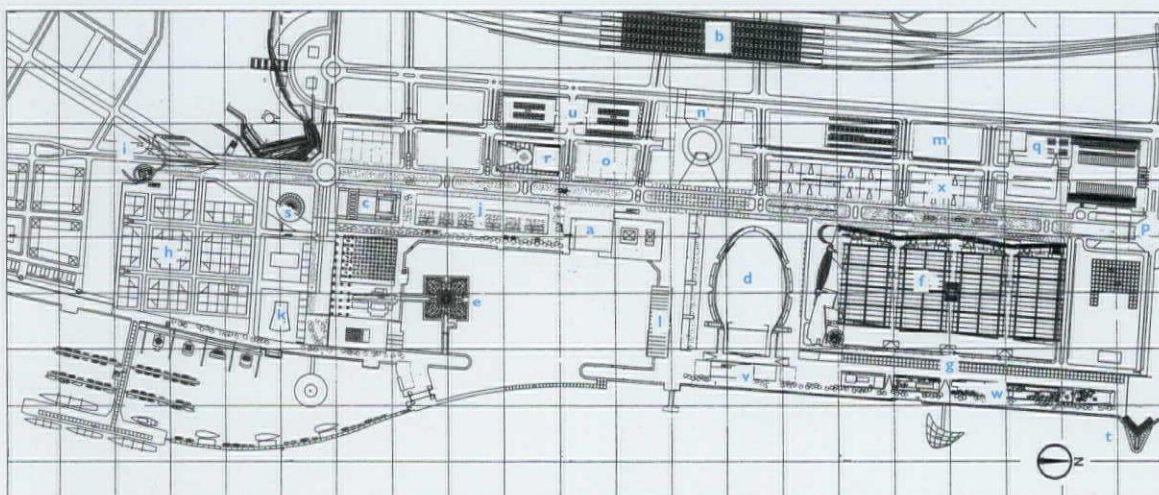
RECREATION

Recreation is the theme of this issue, beginning with an analysis of Expo 98 in Lisbon, followed by a series of short appraisals describing the site's major elements (here and p28). Also in Portugal we look at how a historic monastery was sensitively converted by Eduardo Souto de Moura into a modern hotel (p40). In Dresden, Coop Himmelb(l)au's new multiplex cinema shows how a banal typology can be energized to connect with the greater life of the city (p54), while in rural Norway, Carl-Viggo Holmebakk's little summer house evokes timeless, Arcadian delights (p69).

Photograph John E. Linden



location plan



Expo site plan

REDEFINING EXPO

Transcending the notion of Expo as theme park, Expo 98 aims to leave Lisbon a genuine legacy of buildings and infrastructure. Steven Spier analyzes the programme and on the following pages describes the major pavilions.

Historically, Expo is a nineteenth-century creation that introduced people to new or exotic goods and lands while confirming the Western world's industrial, cultural, and economic superiority. At the end of the twentieth century, however, the assured superiority of the industrialized world is more problematic and the ubiquity and potency of media has made the world smaller if not virtual. To these changed cultural circumstances add the considerable expense to the host country and the increasing reluctance of participants to invest time and money in what is after all a temporary exhibition and there are many grounds for questioning the viability of the Expo tradition. Lisbon, though, replies definitively to all of these misgivings by making Expo 98 and its theme, 'The Oceans, a Heritage for the Future', the excuse for a large-scale urban transformation, as well as the opportunity to celebrate Portugal's geographical position while dispelling its historical legacy at the edge of Europe.

The site for Expo Urbe (of which the 60 hectare Expo 98 is the first stage), constitutes 340 hectares up to 600m wide with 5km of frontage along the lagoon called the Sea of Straw at the mouth of the Tagus River. The consensus from an ideas competition for the river zone held in 1988 was to reposition Lisbon as a city on the Atlantic Ocean. In a now familiar strategy, Lisbon is reclaiming its waterfront from the industrial uses that grew along it in the nineteenth century. This particular site on the north-eastern edge was especially important within the larger urban context, and indeed was chosen for redevelopment over two others, in spite of its being contaminated by the presence of a working oil refinery, to act as a counterbalance to the city's drift westward towards Belém.

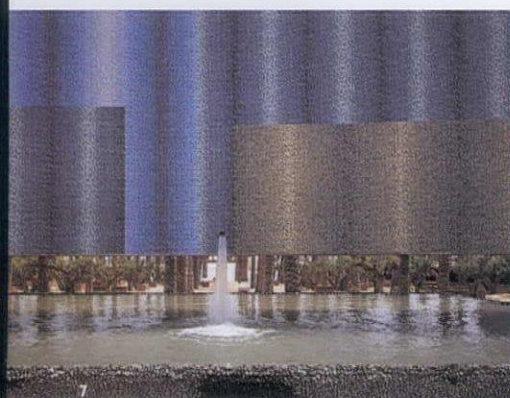
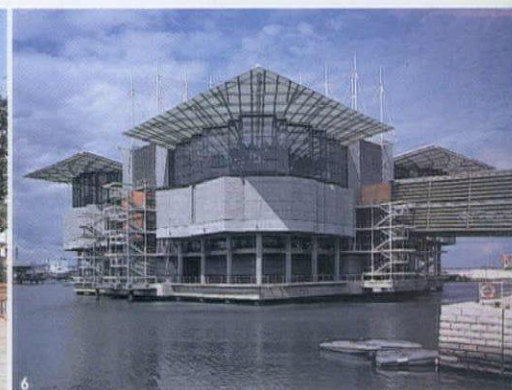
Having chosen this forsaken part of Lisbon, the organizers of Expo considered precedents both positive (Barcelona) and negative (Seville in 1992 and London's Docklands). Barcelona has become the paradigm of a city that transformed itself and its image through the Olympics, though its political adroitness in gaining the support of the populace through local enhancements has been less seductive. Expo in Seville represented Lisbon's worst fear, where in spite of its achievements at the time, such as record-breaking participation and its environmental theme, the legacy is disappointing, the new airport and train station notwithstanding (AR June 1992). The diagnosis of Seville included its being just too small a city to generate its naively assumed metamorphosis into another Silicon Valley, the reliance on an Expo tradition of individual national pavilions, and its method of finance. Failures from Docklands were seen as its single use and lack of investment in significant transportation infrastructure.

Expo 98 has certainly taken to heart the importance of infrastructure. Open since March, the 13km long Vasco da Gama Bridge is only the second connection between the two halves of metropolitan Lisbon. Oriente Station by Santiago Calatrava is a major transport centre linking international and national rail links, a new metro line, a coach station, and ring roads and is well connected to the airport 3km away. The district has its own heating, cooling, and waste disposal system. Programmatically, the larger site will include housing, shopping, schools, and a hospital as well as company headquarters, hotels, and culture and leisure facilities. By 2020 it should have 25 000 inhabitants and 18 000 workers. An 80 hectare park in a city with little green space terminates the site to the north.





- 1 Aerial panorama of the Expo site.
- 2 Alvaro Siza's minimal Portuguese Pavilion.
- 3 The sleek Utopia Pavilion is the largest single structure on the Expo site.
- 4, 5, 7 Details of landscaping. Mosaics and water reinterpret Portuguese traditions.
- 6 The nautically themed Oceans Pavilion, by Peter Chermayeff of Cambridge Seven and IDEA, has the largest aquarium in Europe.
- 8 Modular, permanent halls.
- 9 Part of the Garcia de Orta gardens.



To facilitate the success of the larger site the Lisbon Expo makes a distinction between permanent buildings which can be understood almost as infrastructure and demountable structures specifically for the duration of the event. The latter range from kiosks and restaurants to one of the two large exhibition halls, and some of them are very good. To keep down the cost of nations participating and to avoid a collection of grandiloquent pavilions, the organizers have constructed two large modular buildings in which individual stands are erected. The one to the south will be demounted, while the one to the north (by Portuguese architects António Barreiros Ferreira and Alberto França Dória) is a permanent exhibition centre. In total there are five main pavilions, two international areas, three buildings for shows and concerts, and a panoramic tower. Much emphasis is placed on the landscape design, drawing on Portuguese traditions such as mosaic paving and tiles. The Garcia de Orta gardens along the Tagus are planted with rare, exotic plants thematically linked to the Portuguese era of discoveries.

The site plan is fairly conventional, with two boulevards parallel to the train tracks and the coast, with nodes and cross axes to the river to the east where they are anchored by the permanent buildings, some of which will change their use after the Expo. An 11 000 seat multi-purpose hall, Utopia Pavilion, by SOM and Regino Cruz borders the axis from the train station, with the Expo Pavilion (which will become a shopping mall) between them. Bordering this axis to the south and on a corner of the Olivais Docks is the Portuguese Pavilion by Alvaro Siza. In the area of the Docks are the major pavilions, including Knowledge of the Seas by Carrilho da Graça, and of the Future by Paula Santos, Rui Ramos, and Miguel Guedes. Floating in the

centre in pride of place is the Oceans Pavilion by Cambridge Seven and IDEA. Site boundaries are delineated by four gateways oriented to the cardinal points. The north entrance by Manuel Tainha serves those coming by car, the southern or sea entrance by Manuel Graça Dias and Egas José Vieira includes a tower from the refinery and will serve those coming by coach. These define the ends of the main axis. The western gateway by Daciano Costa is opposite the Oriente Station and is part of a commercial centre which includes two large towers. The Tagus entrance by Livia Tirone allows boat entrance. A VIP entrance for official delegations was designed by Catherine Harrington and occupies a high point with one of the few river vistas.

Much of the architecture and design at Expo 98 exhibits Portugal's own talents, mostly to good effect, and has given their architects the opportunity to do some unusually large-scale work. Just how referential to the theme or the site's history the architecture at an Expo should be is problematic. At least equal in importance to the individual architectural achievements of Expo 98 is Lisbon's larger ambition and the care with which it has proceeded. Though it commemorates the 500th anniversary of Vasco da Gama's journey to India around the Cape of Good Hope, its theme acknowledges the industrialized world's troubled relationship with the environment and appropriately rejects an Expo-style architecture of High-Tech, futuristic self-congratulation in favour of some fine buildings and the legacy of a considerable physical and cultural shift for Lisbon.

Photographs

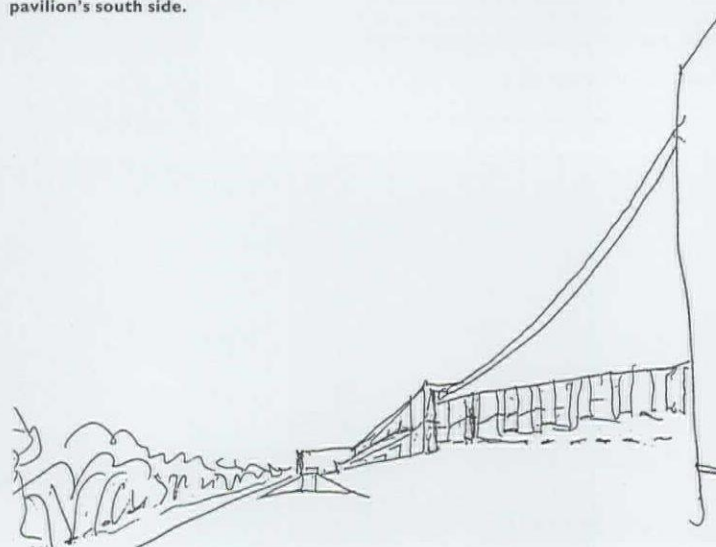
1, 2, 3, 6, 8 John E. Linden
4, 5, 7, 9 Luc Boegly/Archipress

PORTUGUESE PAVILION

ARCHITECT

ALVARO SIZA

- 1 The calm monumentality of Siza's Portuguese Pavilion clearly sets it apart from the more quotidian Expo structures.
- 2 Simple forms combine with an austere materiality.
- 3 A wafer-thin curved roof lightly encloses a huge plaza where formal ceremonies take place.
- 4 Elegantly proportioned portico on the pavilion's south side.



PORTUGUESE EXEMPLAR

2



As might be expected, the Portuguese have their own pavilion, and it was not the subject of a competition but simply handed to Alvaro Siza, by far the country's most renowned architect. No one can be disappointed with the result. It is sited at the corner of the Docks, the main boulevard, and the axis from the Oriente Station, and acts as a hinge between them. A portico leads you to the ceremonial plaza from the Oriente Station axis. Given its siting and programme, the buildings (for there are two) are appropriately monumental.

The complex consists of the pavilion itself and a slightly raised, covered plaza where dignitaries are greeted, ceremonies officiated, and which provides the

entrance to the pavilion proper. The plaza occupies an area of 65 x 50m, with a changing height of between 10 and 13 metres. It is defined by a most remarkable narrow, curved concrete roof supported on two porticoes sheathed in ceramic tiles. This plane is separated from its supporting porticoes by shaving off its concrete to expose its stainless-steel reinforcing bars and create a visible slit of sky which casts a striated shadow. Seen from any distance, the roof itself and its shadow are stunning and could be emblems of Expo.

The curving roof plane heightens the framed view to the water, but both its form and materiality have an abstract, ambiguous quality. It is pitched slightly forward towards the



3

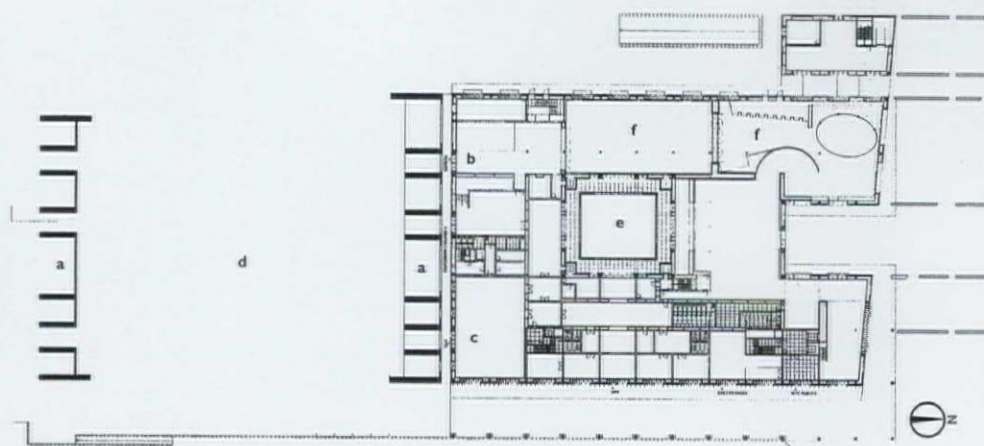
Combining monumental forms with a refined materiality, Alvaro Siza's elegant Portuguese Pavilion provides a dignified setting for both formal and informal events and is one of the highlights of the Expo programme.

4

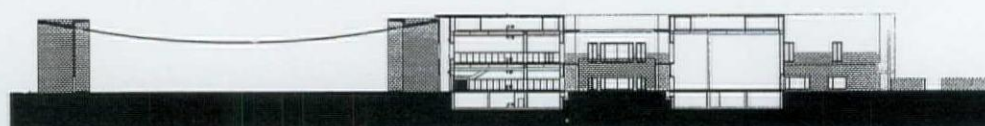


PORTUGUESE PAVILION
ARCHITECT
ALVARO SIZA

- a portico
- b publicentrance
- c VIPentrance
- d plaza
- e internalcourtyard
- f exhibition space



ground floor plan (scale approx 1:1600)



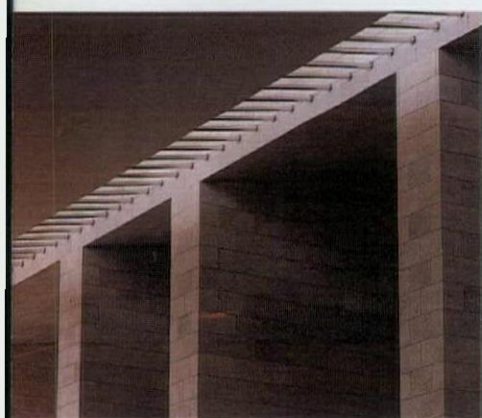
longitudinal section



east elevation

5
 Detail of the junction between roof and portico. Here the concrete is pared back to expose the stainless-steel reinforcing bars. Through this slit of sky, the bars cast striated shadows.

6
 Ethereal exhibition hall interior.



5

6



Docks and simply drains on to the stone floor. The piers supporting the roof are massive and simply but effectively relate to their different situations. The one to the south is closed on the plaza side to help define the space, but becomes a series of planes on the other side. Through shadow and spacing, these connect to and animate an area of restaurants, shops and services. On the other side of the plaza (the entrance side adjacent to the pavilion), the pier is now a set of planes and so you pass through a wall to enter.

The building itself is just slightly taller than the adjacent supporting porticoes, and consists of two storeys with a basement. It is organized around a large open courtyard. Planted instead of paved, it is a reference

to and a reversal of the ceremonial square next to it. At the north-western corner is a two-storey volume separated from the main building on the first floor by a 5m wide gallery. A low volume wraps around the eastern side, creating a U-shaped exterior space. Here the lines of interior walls are picked up outside to define exterior spaces.

The interior has been designed by Eduardo Souto de Moura who has divided the building longitudinally by function, with the water side housing the VIP area and a restaurant, and the other side housing the exhibition area. Future use of the building is, at present, unknown. S. S.

Photographs

All photographs by Paul Raftery except nos 2 and 6 by Luc Boegly/Archipress



UTOPIA PAVILION

ARCHITECT

SKIDMORE, OWINGS & MERRILL AND REGINO CRUZ

EXPANSIVE ARENA

This vast, multi-purpose arena is the single largest building on the Expo site. It is also a key element in the urban design strategy for life after Expo.

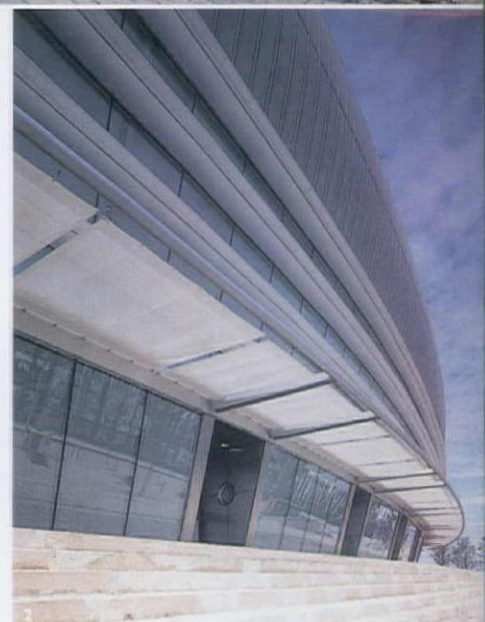
For Expo Urbe the Utopia Pavilion by Skidmore, Owings & Merrill London and Regino Cruz of Lisbon is vital to its mixed-use strategy, and is the single largest building at the Expo. It is prominently sited along the axis from Oriente Station, to the south of what will become the convention or exhibition centre, next to the Docks and Siza's Portuguese Pavilion. The problem with this type of building is that it is inherently a large blank mass, and needs to be

capable of accommodating any function, from sporting events to conferences and concerts. Yet by accepting its status as a landmark, the architects have produced a building which revels in its object quality.

In plan an oval, 200m long by 120m wide, with asymmetrical section, the pavilion rests on a plinth ringed with stairs. This ensures that it is seen at first deferentially from below. Its scale is confused by its blank, singular form, and skin of zinc

1 The Utopia Pavilion actively celebrates its status as a landmark object.

2 Part of the cool, scaleless exterior.



sheets with vertical seams which makes it glisten. The exterior could be a historical reference to the seaplanes that landed at the Docks here in the 1930s, but it works just as well without this allusion. Entry is marked by an aerodynamically reminiscent nose and generous glazing and brings the main site cross axis inside. The pavilion can seat 11 000 with an ultimate capacity of 17 500 people. In addition there is an attached, smaller auxiliary pavilion to the east with

capacity of 2500 which can be used independently or in tandem with the main hall.

The form encloses one large volume defined by (reputedly) the largest one-way laminated timber structure in the world, with a span of up to 115 metres. The main arena sits within this large volume, not reaching to the ceiling. If the pavilion is cool and almost scaleless on the outside, the vast interior is warm, colourful, and expressive. The roof is framed in the short

direction by 16 two-hinged, arched, portal truss frames spaced 9m on centre. Each arch is different because of the building's irregular form. The structure touches down on the perimeter of the circulation space. The roof structure is completed by longitudinal glulam purlins, diagonal braces and a plywood and subframe diaphragm. It is deliberately kept free of any mechanical services. After the crisp forms and blazing sun of Expo, its visual warmth

and layered construction comes as some relief. Here, the thematic relation to the oceans is actually credible. Form and materials recall the upturned hull of a wooden ship: the *carabelas* used in the Portuguese age of discovery.

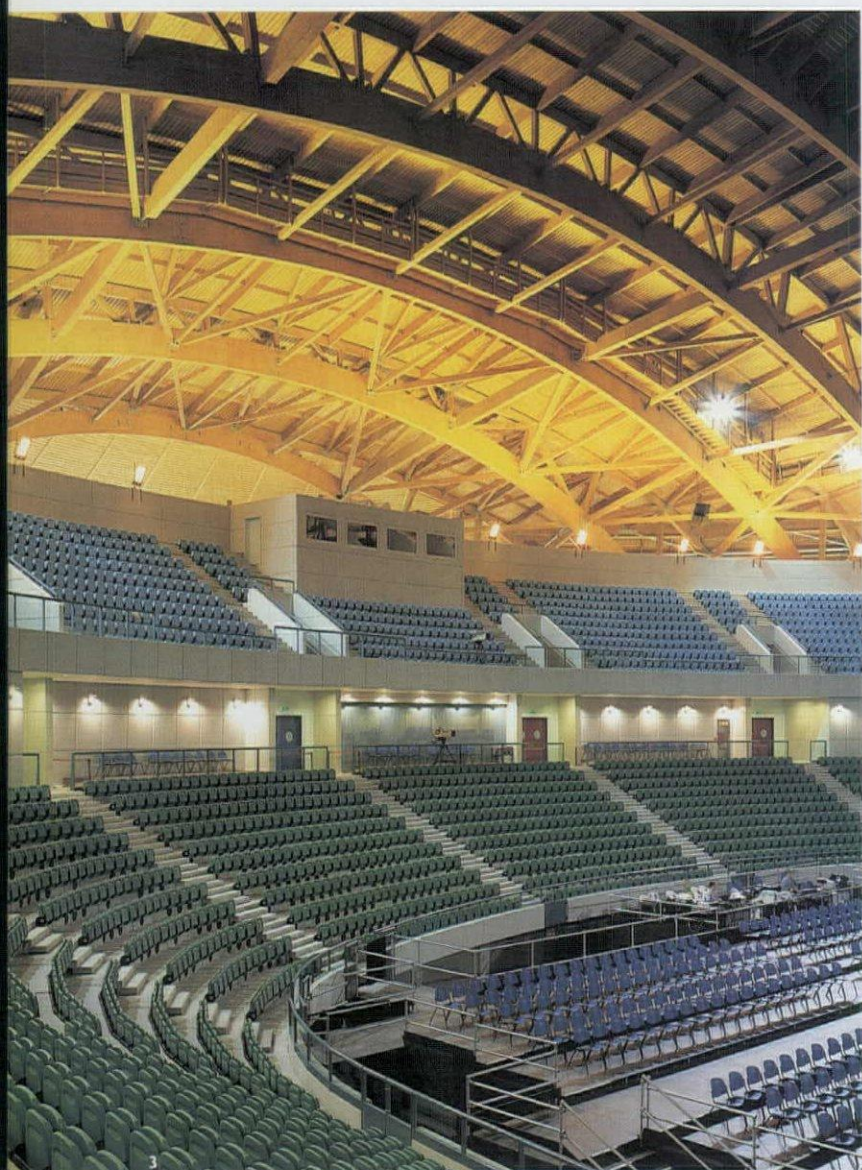
As important in the choice of timber structurally, however, are wood's acoustic properties, sustainability, fire-resisting potential, and psychological effect. Environmental issues are a sub theme of the Expo, and the

pavilion is remarkably energy efficient. Much of this comes from the thermal mass of having the building half-buried, which also facilitates circulation since people enter halfway up the arena. The building has east-facing clerestories so that it need not be artificially illuminated except during performances. Natural ventilation comes in through the seating, with air chilled by using the river bed as a heat exchange.

SOM London and Regino Cruz

together won the competition, beating teams from Arata Isozaki, Norman Foster, and João Luis Carrilho da Graça, who designed the Knowledge of the Seas Pavilion (p38). The two offices shared the project according to their respective expertise, with SOM designing the exterior envelope, the raked seating, and the structure. Cruz handled the secondary programme and the site supervision. S. S.

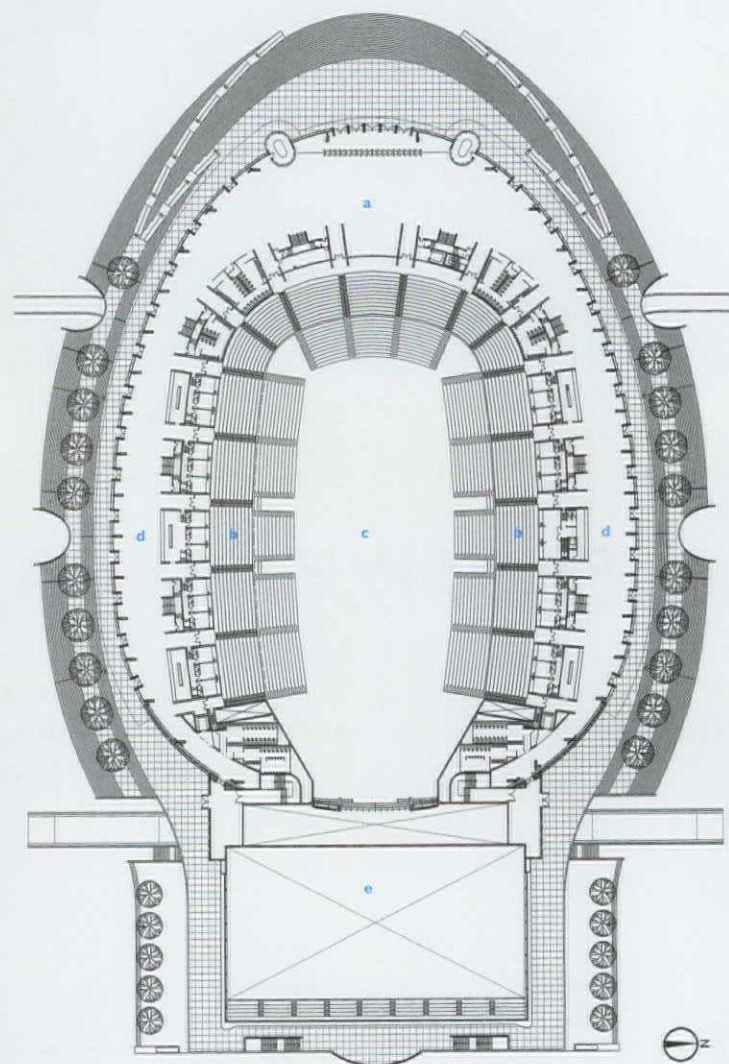
Photographs
John E. Linden



UTOPIA PAVILION

ARCHITECT

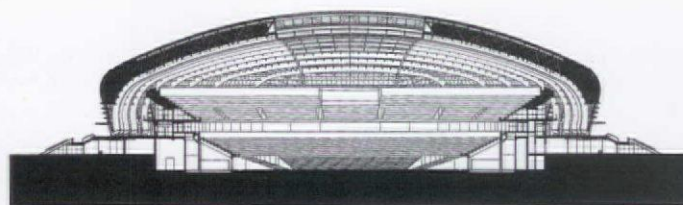
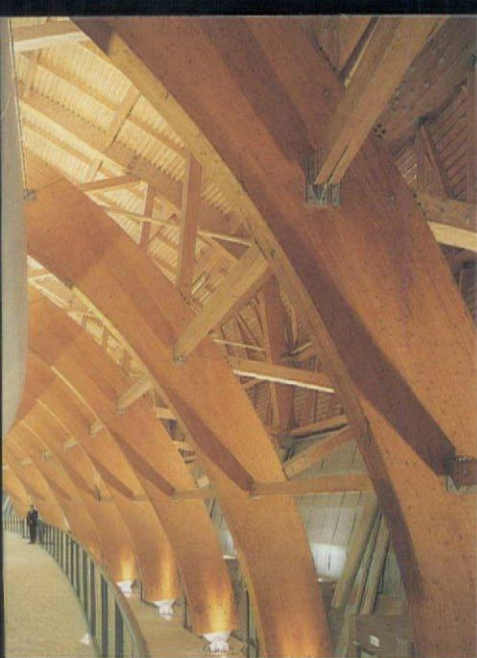
SKIDMORE, OWINGS & MERRILL AND REGINO CRUZ



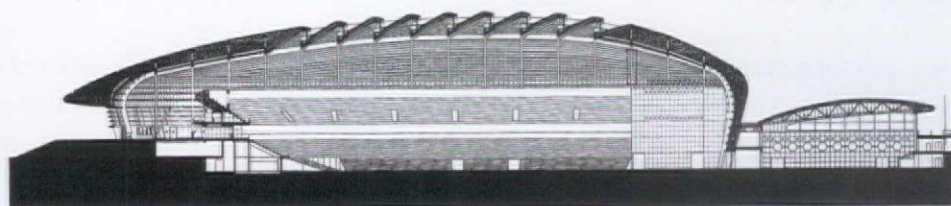
ground floor plan (scale approx 1:2000)

- a main entrance hall
- b seating tiers
- c multi-purpose arena
- d breakout spaces
- e auxiliary pavilion

- 3 The laminated timber roof structure encloses a vast, multi-purpose arena.
- 4 The timber structure recalls the upturned hull of a Portuguese carabela.
- 5 The main entrance hall, articulated by giant timber arches. The warmth of the wood contrasts with the sleek mass of the exterior.



cross section



longitudinal section

LISBON
EXPO



ORIENT EXPRESS

Santiago Calatrava's dramatic, Gothically-inspired Oriente Station will act as a major transport interchange for both the Expo site and future urban developments.

A huge, multi-level transport interchange, Oriente Station connects the Expo site with Lisbon, Portugal, Europe, and beyond. It is a nexus for long distance and commuter trains, the metro, coaches, cars, and the nearby airport.

Santiago Calatrava has resolved a hugely complicated brief with a design that is both vigorous and self-assured. The undercroft visible from the exterior is designed with overlapping, in-situ concrete arches which feel almost Romanesque, and through which you pass on the way up to the train platforms. On the main tracks sit seemingly countless

square pyramidal steel and glass canopies on steel columns. Their proportions, lightness, and articulation of forces seem Gothic, though others might describe them more organically as trees. They are glaringly white. Structural expressiveness is explored throughout the various levels, though the actual mode of expression changes from two-legged columns, leaning columns, columns brazenly illustrating static forces, and canopies stretching their vertical supports.

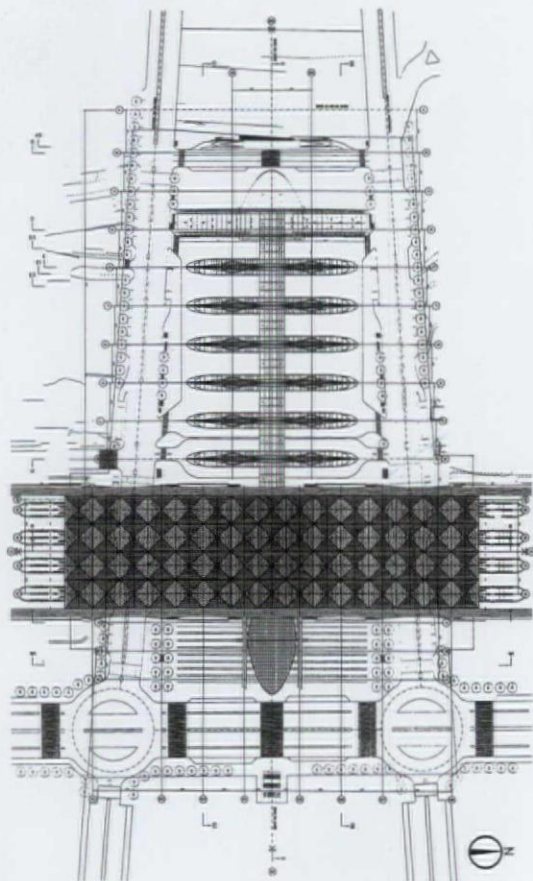
Unlike some of Calatrava's recent, more object-like designs, this one is structured in an urban, axial context. Trains

arrive on the uppermost level, passing over two roads which physically connect the area of Expo Urbe to the existing light industrial and working-class neighbourhood to the west. It remains to be seen how effectively this will connect two disparate areas, or if the tracks and the grandeur of the architecture only affirms the Expo site's insularity. The link between the trains and the coach station passes underneath the platform, which then connects underground to the metro and the car parking lots. Nearby are buildings with complementary programmes such as hotels. Towards the

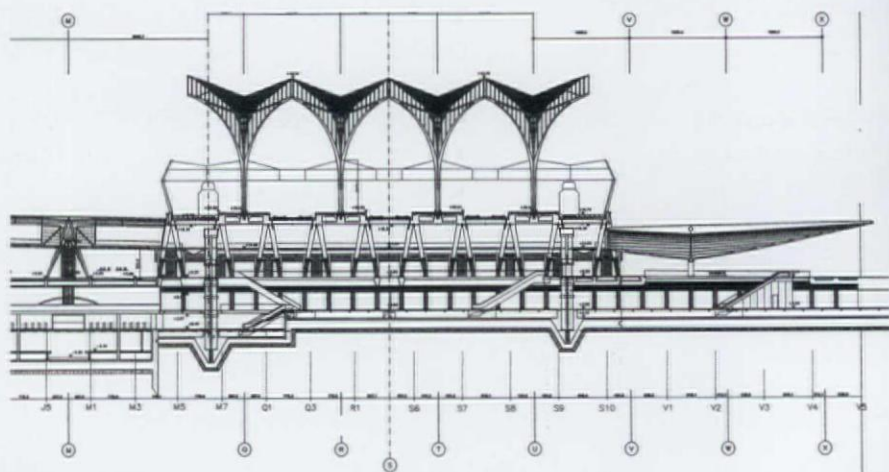
water this cross axis passes through a commercial centre before bisecting the Utopia and Portuguese pavilions.

The coach station and car park are protected by two glass and steel awnings and are intersected by a gallery at level +14m that ends at the train station. There are two levels of underground parking. A longitudinal gallery on an intermediary floor links all the uses and is lined with shops, exiting the complex into the larger commercial centre under the station square. S. S.

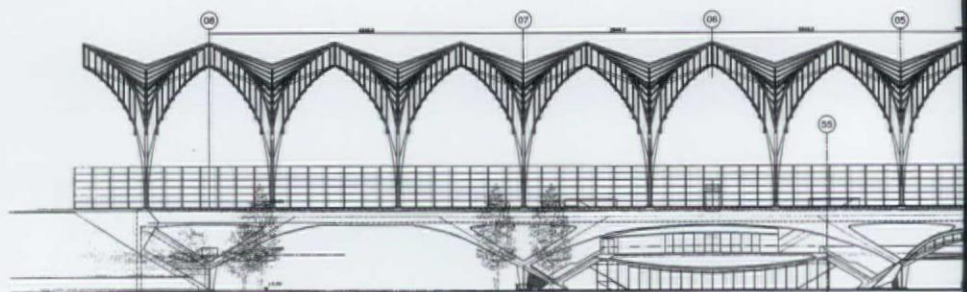
Photographs
John E. Linden



roof level plan (scale approx 1:2250)



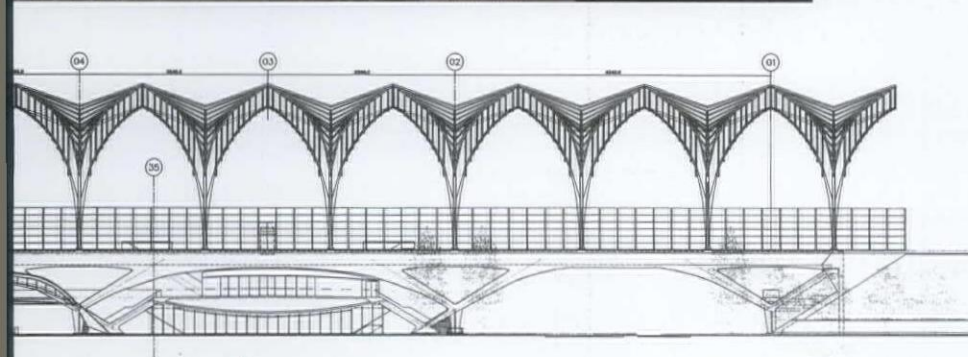
part cross section

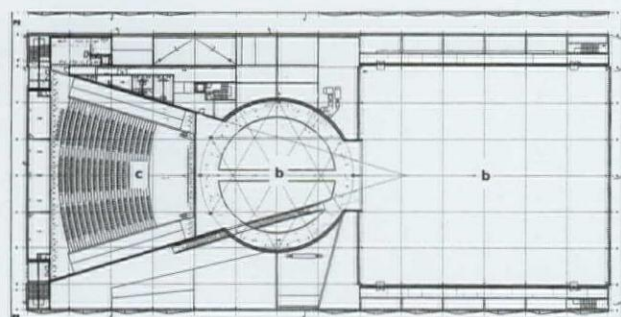


part longitudinal section

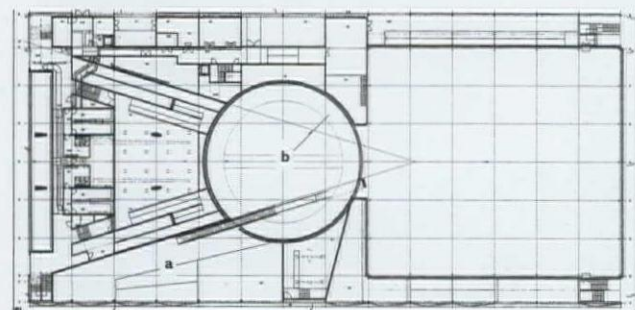


- 1 Tongue-shaped canopies provide shelter in the bus station which forms part of the Oriente Station transport interchange.
- 2 Platforms are enclosed by Calatrava's rhythmical expressive, modern Gothic roof.
- 3 Light filters through the delicately transparent canopy. The interchange connects the Expo site with Lisbon, Portugal and the rest of Europe.
- 4 Platforms and the canopy roof are elevated on a concrete substructure.
- 5 Part of the station undercroft.

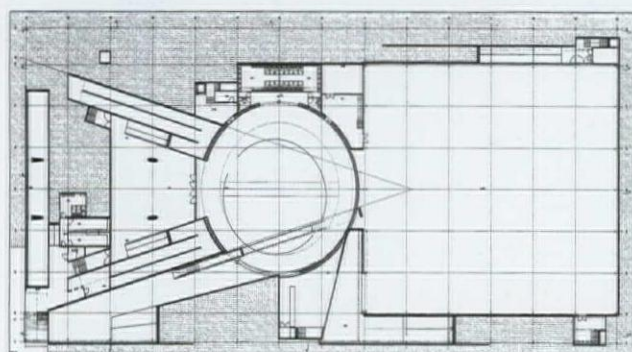




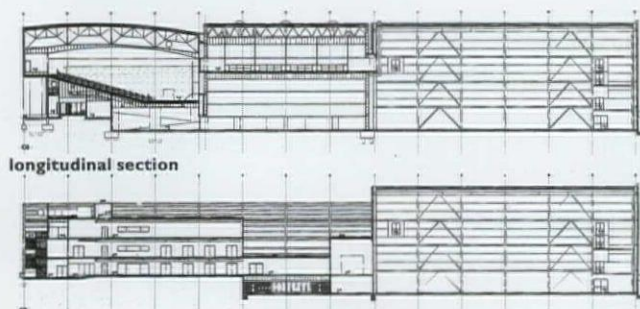
second floor plan



ground floor plan



lower ground floor plan (scale approx 1:1500)



longitudinal section

- a entrance ramps
- b exhibition spaces
- c auditorium

The Pavilion of the Future by Paula Santos, Rui Ramos, and Miguel Guedes is a large temporary exhibition hall just to the east of Oriente Station. The architects have used a conventional compositional strategy of articulating different functions with different forms. But they then wrap these three forms with a second skin to give the pavilion unity and to delimit its presence on the main boulevard. This screen is composed of 8m long horizontal strips of fibre reinforced concrete (GRC) painted a chrome colour. The form of the skin is clearly referential, undulating on the boulevard (which is the water side) and straight on the other. The strips are attached to a metal skeleton which is only interrupted on the short ends of the site where the masses are visible in elevation.

The pavilion sits between a series of buildings housing the

international organizations. The entrance is located on the boulevard and interrupts the undulations on the false facade. A series of ramps directly behind this screen takes you up to the central timber-clad cylinder which functions as an atrium and circulation node. It is well conceived, toplit, and crossed by an escalator and walkways at different levels. The rest of the massing is similarly diagrammatic. To one side of the cylinder is a theatre, a white concrete trapezoid, and on the other the exhibition hall proper, a steel-framed box with precast concrete panels clad in glass. This contains the various thematic sections, all dedicated to raising environmental consciousness. Formally, the cylinder is tangential to the square but intersects the trapezoid at its short end. S. S.

Photographs
Paul Raftery

FUTURE PRESENCE

Expos tend to encourage fatuous 'futuristic' structures, yet here a large temporary exhibition hall is instilled with a surprising tectonic presence.

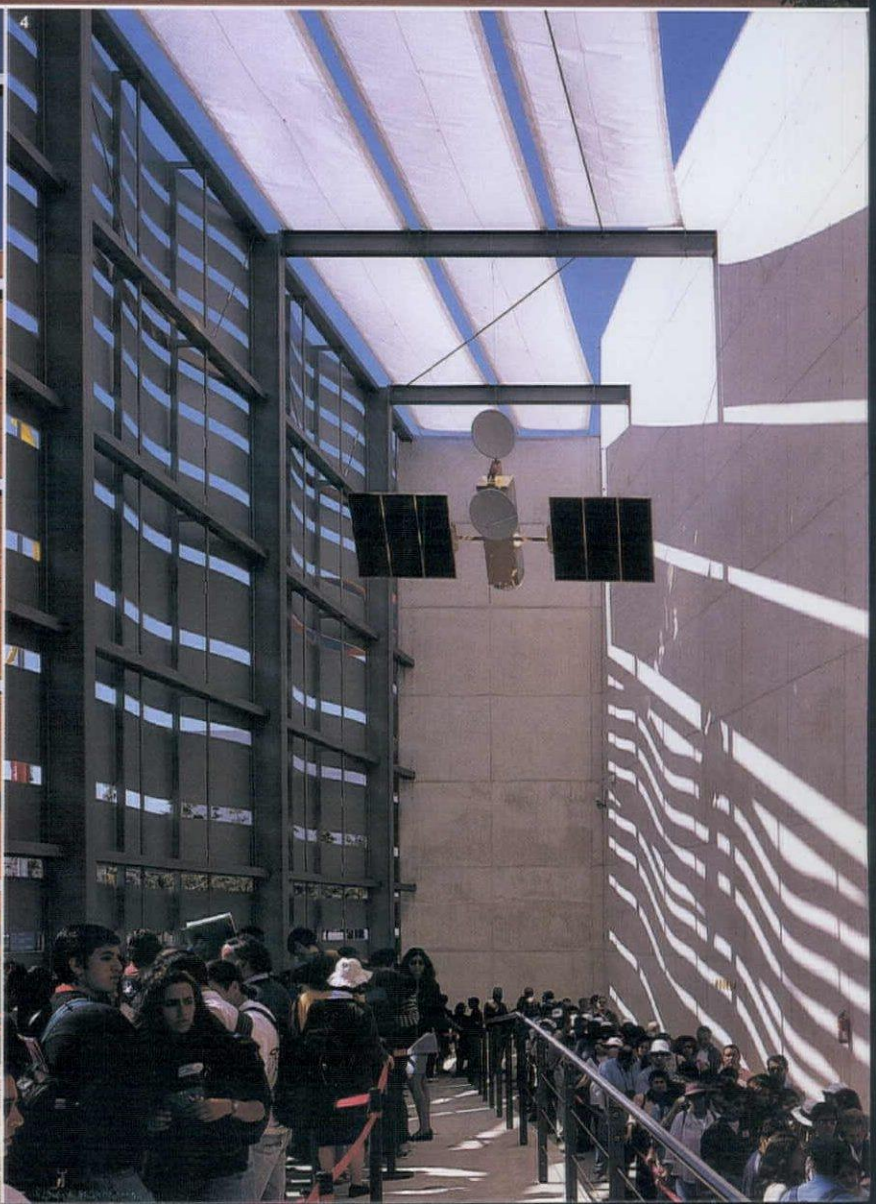
PAVILION OF THE FUTURE

ARCHITECT

PAULA SANTOS, RUI RAMOS, AND MIGUEL GUEDES

- 1 The mass of the pavilion is softened and articulated by a discrete external skin composed of GRC slats.
- 2 The plan revolves around a pivotal timber-clad cylindrical volume, visible through the outer layer.
- 3 The large slats cast bold, geometric shadows on the pavilion walls.
- 4 The interstitial space between the external skin and the pavilion mass provides welcome shade for the long Expo queues.

LISBON
EXPO



SEA LEVEL

A stark geometric composition with a calm courtyard at its heart, the Knowledge of the Seas Pavilion is another building that will remain in use after Expo ends.



The Knowledge of the Seas Pavilion sits at the south-western corner of the Docks and is the first pavilion you encounter from the southern entrance. It is an abstract geometric composition of two rectangles, one horizontal and the other vertical, intersecting perpendicular to each other. This simple massing strategy is made slightly more complex as the tower does not sit on a plinth as a separate element, but is materially and formally part of a single figure that forms a cross.

Yet as if to deny the aridity of such formalism, the building does engage sympathetically with the site.

The pavilion's long, two-storey horizontal mass lies parallel to the boulevard and the Docks. The south-western corner of the site is more urban, defined by a roundabout marking the intersection of the water gardens and the main boulevard. This is acknowledged by placing the tower on the south-west side and keeping the building at ground level almost solid. The

pavilion's exposed concrete and visible form emphasize its permanence and impermeability. But the mass does peel back slightly here to give an indication of the dramatically different condition on the other side of the tower, towards the Docks.

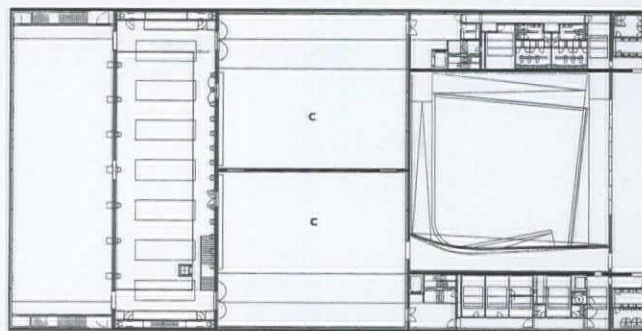
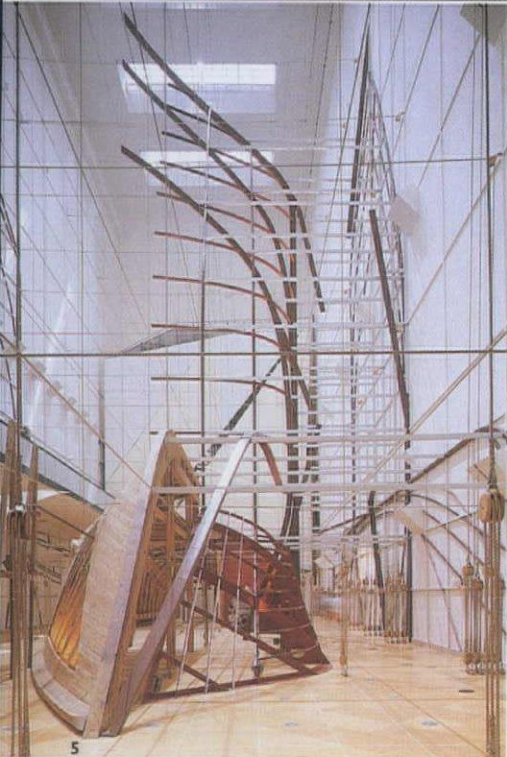
On this side, the horizontal mass is lifted above the ground on two L-shaped legs to allow the public space to pass beneath. The ground plane further develops into a series of ramps circumscribing an open courtyard leading up into the building. This courtyard is treated

like a respite, with limestone paving, water, and vegetation on the walls, all of which complicates and softens the building's otherwise abstract, object-like quality. Inside, you soon reach the tower, which delightfully turns out to be a single volume, lit from above. Currently, it is used for large-scale exhibitions. After Expo, it will become a museum dedicated to the seas. S. S.

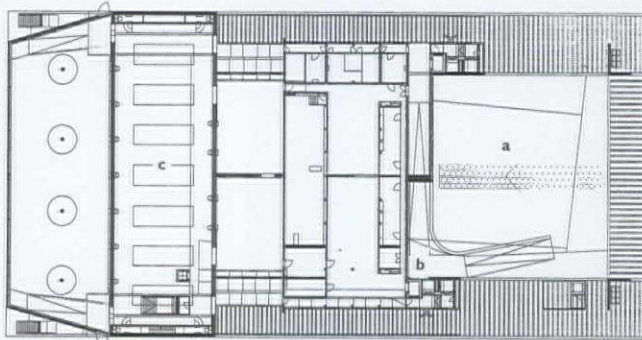
Photographs

All photographs by Paul Raftery except no 3 by John E. Linden and no 5 by Luc Boegly/Archipress

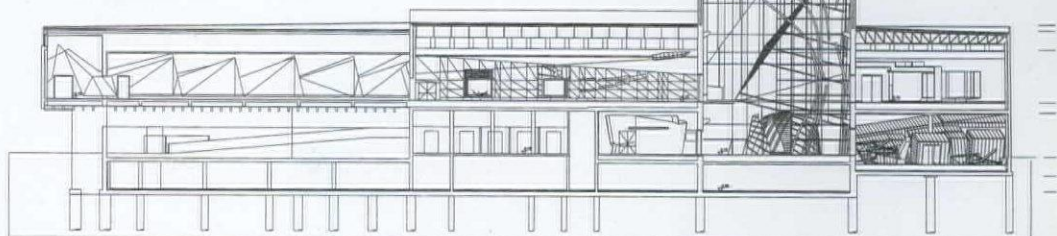




first floor plan



ground floor plan (scale approx 1:1200)



longitudinal section

- a internal courtyard
- b ramp
- c exhibition space

- 1 The pavilion is an abstract, Euclidean composition of horizontal and vertical masses.
- 2 The two-storey horizontal mass lies parallel with the main Expo boulevard.
- 3, 4 At the heart of the pavilion lies a serene, internal courtyard.
- 5 Part of dramatic, toplit exhibition space in the vertical volume, showing large-scale installation.



The Portuguese custom of turning ancient monuments into state-run hotels – *pousadas* – has produced notable successes. A recent scheme near Braga has been carried out with exemplary sensitivity.

HOLY ORDER



- 1 West face of church and entrance to hotel.
- 2 Original cloister wall left free-standing.
- 3 New pool created at the south-east corner of complex. Inside the tower is the dining room.
- 4 South-facing courtyard, rebuilt facades, and steps to long south terrace.
- 5 Long terrace, rebuilt south face and steps down to circular swimming pool.

In Portugal, state-sponsored schemes to revitalize the country's most romantic monuments, some abandoned and ruined, some just too large for private habitation, have been very successful. The most recent of these for state-run hotels have incorporated the ruins of ancient monasteries. The creation by Eduardo Souto de Moura of a hotel out of the ruined monastery of Santa Maria do Bouro near Braga in the mountainous north-west province of Minho must serve as the exemplar. Souto de Moura was an inspired appointment; his appreciation of the intrinsic nature of materials and of the character of place is almost mystical. This is evident most recently in his design of a stone house in Moledo that, facing the sea, streams long and low across a rocky hill above the town of Caminha. Unmistakably a modern insertion into the landscape, it yet is an organic element of it, with the structure and grain of traditional stone embankments. Here and at Santa Maria do Bouro, rigour and intelligence ensure that the picturesque is the consequence not the aim of design.

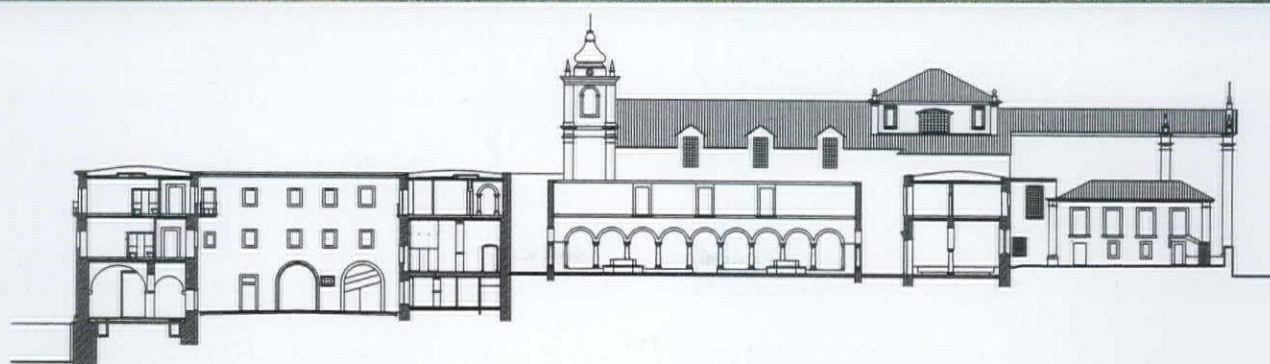
Minho is comparatively rainy and Santa Maria do Bouro on the top of a small hill rises out of lushly planted terraces; all around are the forest covered slopes of granitic mountains. As a ruin it was picturesque. The complex surmounted by delicate spires and guarded by massive walls consisted of the monastery church, some parts of which survive from the twelfth century, and a continuous building set on a great stone platform constructed between the sixteenth and eighteenth centuries. This turned like one arm of a Greek key around



4



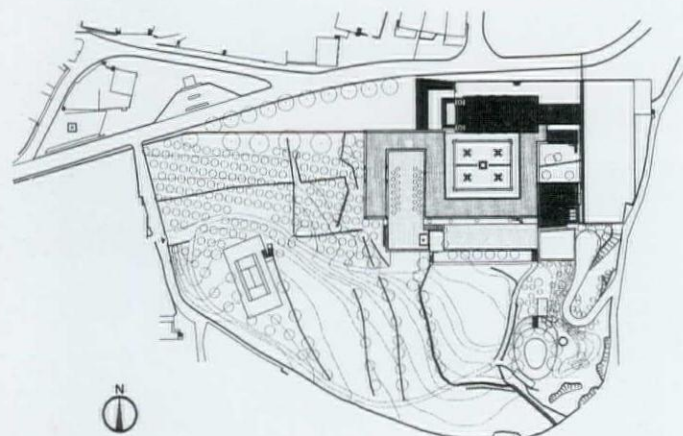
5



west-east long section



- a church
- b hotel
- c cloister
- d court of oranges
- e terrace
- f pool



site plan

two courtyards – one the monastery cloisters enclosed on the north by the church wall, the other rectangular and open on the south.

Confronted by a shell, the architects could simply have capitalized on the picturesque making a 'ruin for contemplation' and building a new hotel beside it. Instead they spent six years creating a phoenix from the ashes of the old. Without seeking to recapture an imaginary original state, they simplified the plan by judicious demolition and, using stone so reclaimed, extrapolated from existing parts of the fabric to rebuild the plain stone facades, punctuating them with regular patterns of simple openings. The site slopes down from north to south, east to west, so while the roofline remains constant, the height of the building set on a massive plinth varies. On the south side, a long terrace on the roof of the plinth now stretches the width of the building and looks down to a circular stone swimming pool.

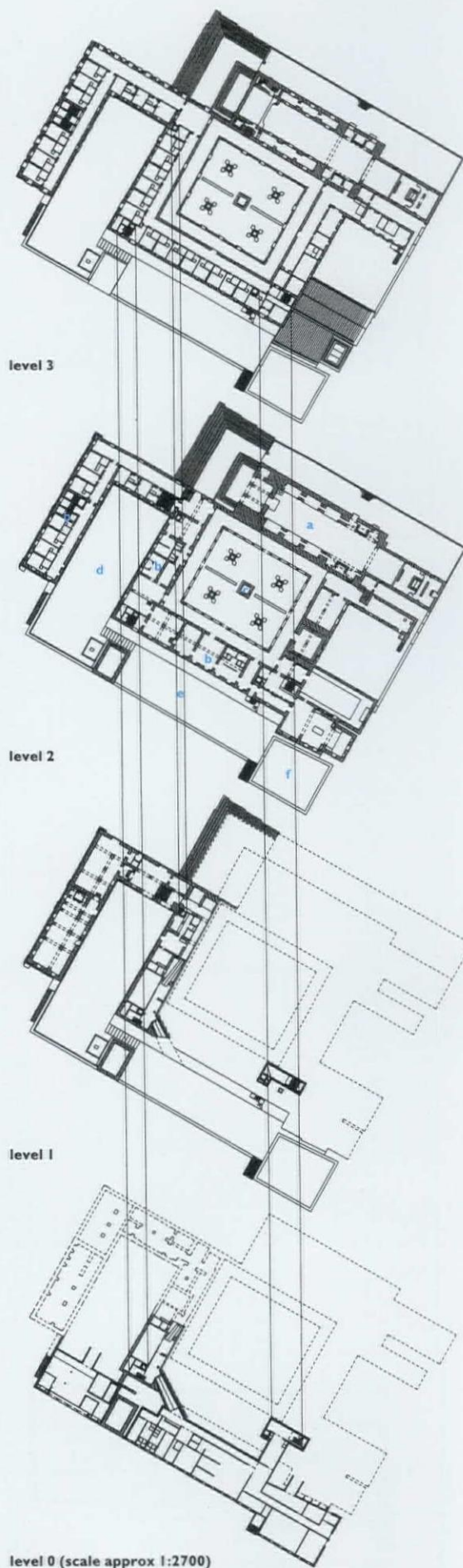
Internally, monastic austerity prevails and is sharpened by new materials (glass, rusted steel, titanium and copper) used in various ways for ceilings, doors, panelling and balustrading. Detailing and outside doors have been designed around the metal angle section habitually used by the practice. There is a repertoire of passage – aisles and corridors, an austere bridge, flights of stairs – that ensures fluid circulation. To original stone flights have been added monolithic blocks, steps of individual stone slabs and a slender flight of wood and steel service stairs connecting three levels of bedrooms.

The mystical opposition of water and stone is a recurring theme: present in the severely unadorned new pool at the eastern end of

HOTEL CONVERSION FROM MONASTERY, SANTA MARIA DO BOURO, BRAGO, PORTUGAL

ARCHITECT

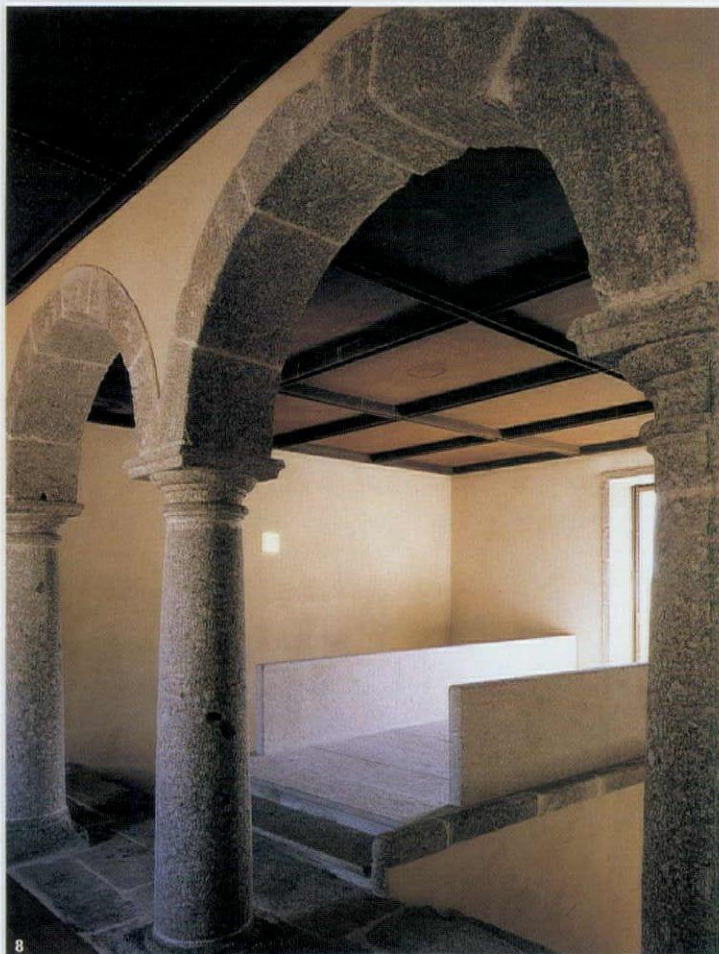
EDUARDO SOUTO DE MOURA





6 Discreet use of new materials includes Corten steel for ceilings.

7 A sheet of glass within thin metal frame counterpoised against massive stone walls.

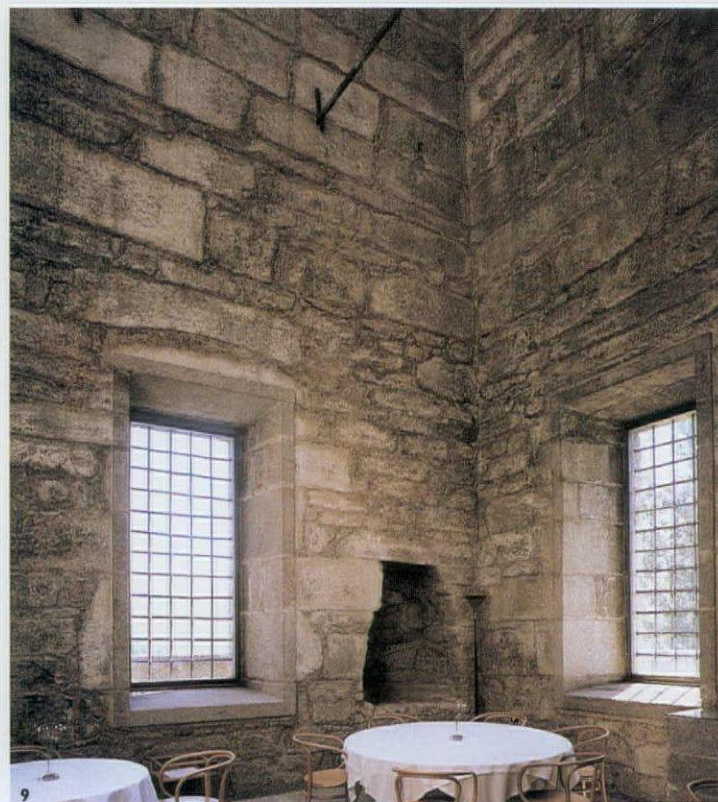


8

HOTEL CONVERSION FROM MONASTERY, SANTA MARIA DO BOURO, BRAGO, PORTUGAL

ARCHITECT

EDUARDO SOUTO DE MOURA



9



10

Architect

Eduardo Souto de Moura, Oporto
with Humberto Vieira

Project team

Manuela Lara, Antonio Clemont, Ana Fortuna,
A. Pedro Valente

Photographs

Duccio Malagamba

8
Austere stone bridge under Corten
steel ceiling,

9

Dining room in south-east tower.

10
Monastic bedroom of wood, stone
and plain plastered walls, metal
balcony.

the terrace, and in marble and stone bathrooms. Bedrooms looking over the landscape possess the simplicity (almost) of a monk's cell: plain walls and wooden floor, a plain wooden headboard and white linen. Services have been so discreetly managed as to be imperceptible – heating for example is under stone floors.

Souto de Moura is a very material architect with evident affinities with the group of minimal artists represented by Donald Judd. Just as Judd and others do, he expresses the quintessence of a material, allowing it to speak without interruption. At Santa Maria do Bouro you are made aware of the mass, grain, weight and texture of stone, the insubstantiality of a glass door held within a fine metal frame, and in turn set within the mass of a grave, unadorned stone wall. You can at a glance read the nature of each element, for it is made eloquent by the manner of their juxtaposition. The perception is capable of enlargement: a cloister wall intact but detached from the main building to form a free-standing screen touches the heart by the grace and simplicity of the architecture.

Of all things the insertion of a luxurious hotel with everything that implies into an ancient monument is likely to destroy the qualities that made the structure attractive in the first place. Souto de Moura's extrapolation from the old is so very delicately executed, the new is expressed with such refinement, that the enormous dignity of the place has taken on new life while the various juxtapositions of old and new, the clearly expressed seams, are a constant source of delight.

PENNY MCGUIRE

CATHEDRAL OF SPORT

In the historic town of St Denis, north of Paris, the new Stade de France built for the 1998 World Cup became the focus of the world's attention.

STADE DE FRANCE, ST DENIS, FRANCE

ARCHITECT

MACARY, ZUBLÉNA, RESEMBAL, COSTANTINI

! Roof floats above the base, making the giant stadium light and graceful.



STADE DE FRANCE, ST DENIS, FRANCE

ARCHITECT

MACARY, ZUBLÉNA, REGEMBAL, COSTANTINI

- 2 Under floating roof, terraces are divided into three zones: upper, middle and lower, each with its own means of access.
- 3 Roof covering about 2 hectares cantilevers over seating and inner annulus is clad in special tinted glass.

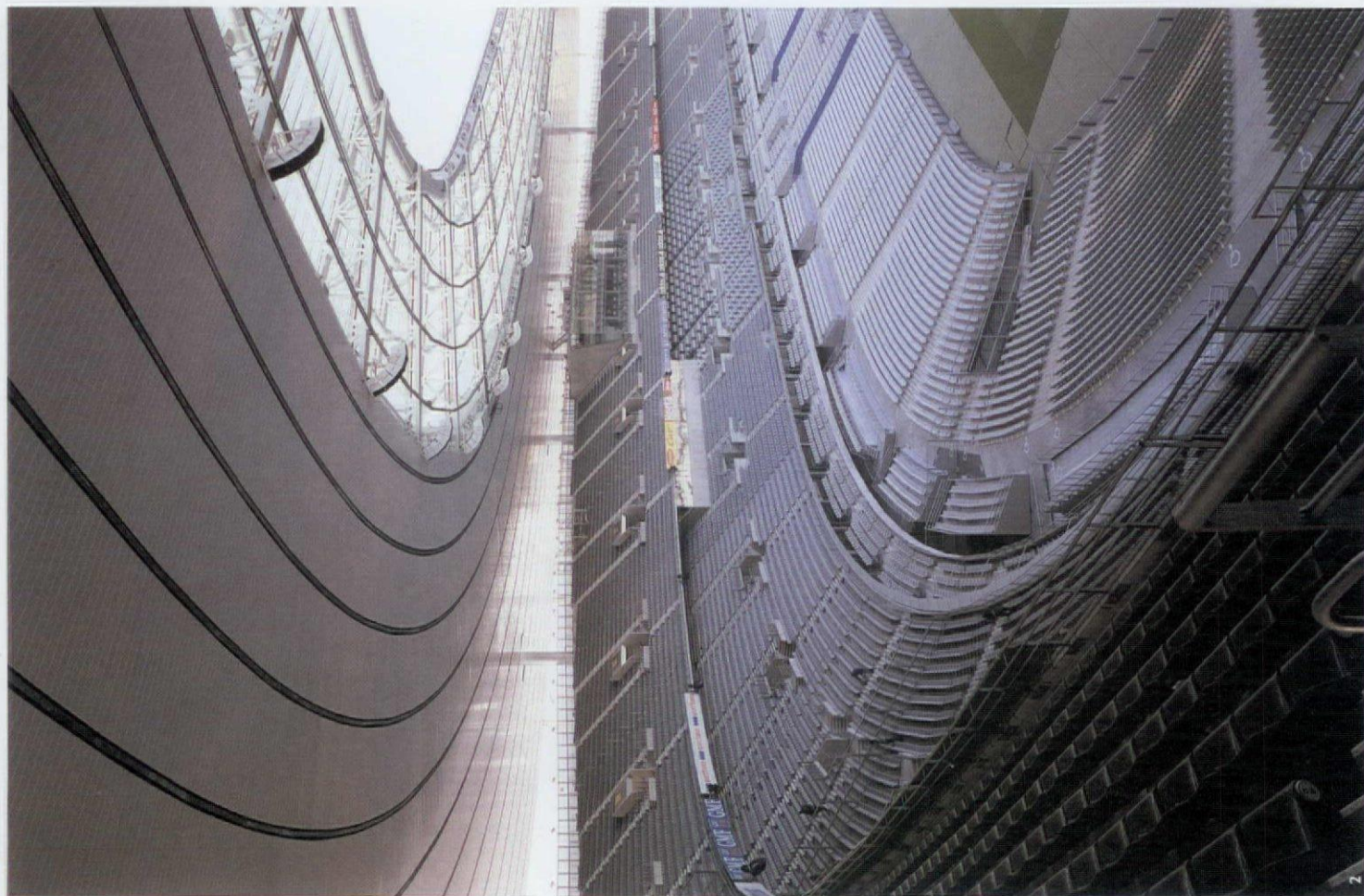
The football frenzy that gripped the world this summer, raging from France to Japan, from Chile to Norway and Nigeria, was of course provoked by the 1998 World Cup and nursed to fever pitch by the vast vested interests of press, television and advertising. The event is a modern enactment of tribal warfare, ancient mythologizing, Grecian catharsis, Roman circuses – all rolled into one; at its best producing the breathtaking moments of poetry and virtuosity that transcend the limits of national pride and rabid xenophobia.

This year the 16th World Cup – it takes place every four years – was the biggest ever, demanding in turn correspondingly large theatres in which to stage the various games. In 1994 it was held in America where there is a ready stock of giant stadiums; this year France which already had some (in Marseilles, Toulouse, Lyons, Bordeaux) was the host, and celebrated the occasion by constructing the Stade de France, designed by Zublena, Macary, Costantini and Regemba, near Paris at Saint-Denis. Like the game, the building attracts superlatives: covering six hectares and capable of seating over 80 000 people, it is said to be the biggest Olympic stadium in the world providing an Olympic-sized athletics track as well as a football/rugby pitch.

Advances in building technology, industrial production and material science may not have brought about appreciably bigger buildings

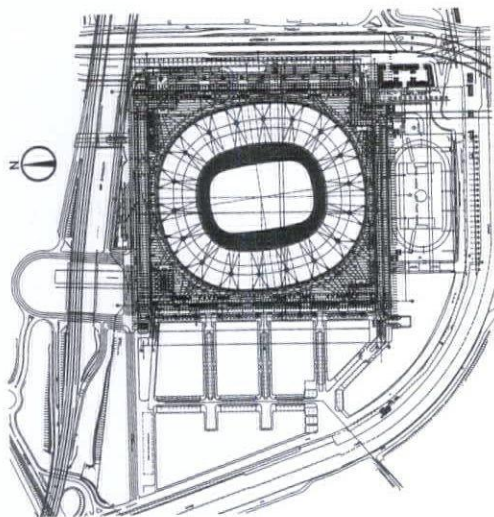
(estimates vary, but the Colosseum at Rome, with an arena measuring 76m by 46m, is thought to have seated 87 000 spectators, with another 25 000 standing; the Empire Stadium, in Wembley, was built in 1923 to hold 100 000 people), nor theatres with the intense dynamic force of Vitellozzi and Nervi's Palazzetto dello Sport in Rome (1957); but they have produced vast airy structures which, reflecting their athletic purpose, seem miracles of lightness and engineering virtuosity. In any case, human vision imposes its own limits on stadium size.

The Stade de France is an exceedingly graceful building. Elliptical on plan, it has a roof (designed by the Ingérop group) supported by 16 tubular steel masts, from which hangers suspend radial asymmetrical lattice trusses. Apart from its size and general elegance, the most memorable thing about the roof is its inner annulus. It cantilevers over the inner rings of seating clad in special tinted glass that reduces glare by filtering out red and infra red light, while letting through the green and blue end of the spectrum, which the designers believe is beneficial to people and grass alike. Asymmetrical roof loads are balanced and stabilized by pairs of cables on the perimeter. So from both inside and out, the huge elliptical roof plane seems to hover miraculously over the apparently traditional massive base which is given elegance by a gently swooping rim. On the south-facing side the base's undulations



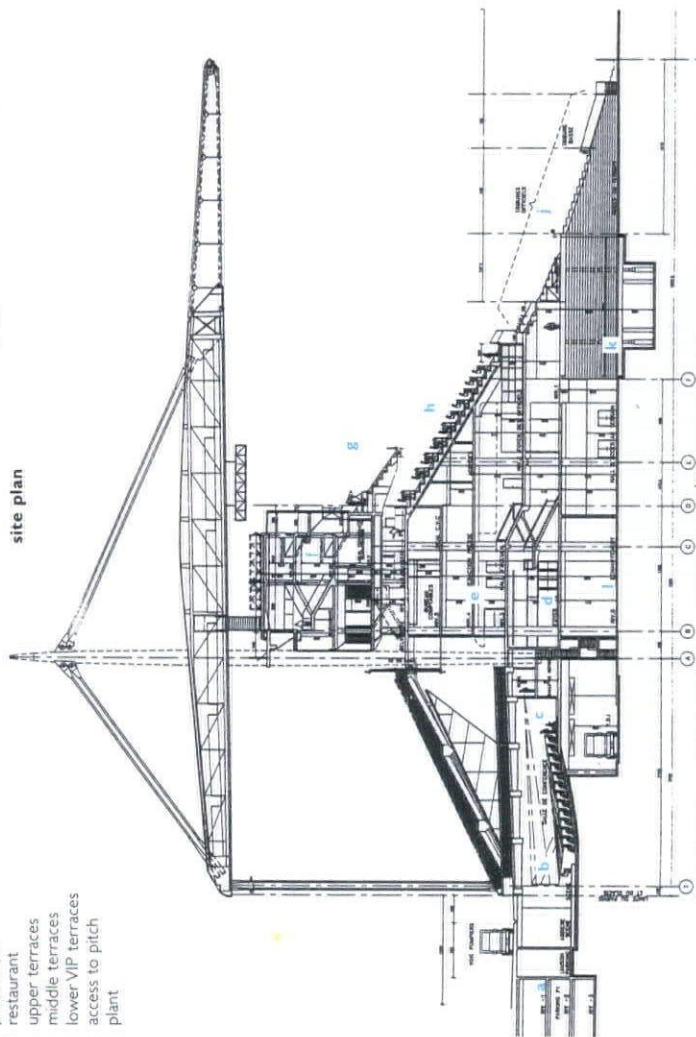


STADE DE FRANCE, ST DENIS, FRANCE
ARCHITECT
MACARY, ZUBLÉNA, REGENBAL, COSTANTINI

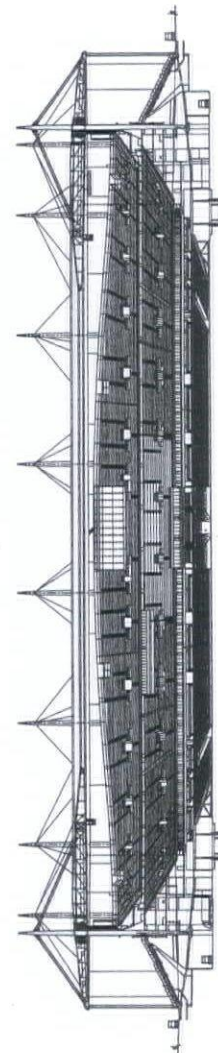


site plan

- a parking
- b conference hall
- c rest room
- d foyer/hospitality room
- e press room
- f restaurant
- g upper terraces
- h middle terraces
- j lower VIP terraces
- k access to pitch
- l plant



cross section



long section (north-south) of west zone

permit distant glimpses of the Sacré Coeur and the Eiffel Tower. The whole is a triumph of French structural engineering, which after many years of clumsiness, seems to be getting back to the inventiveness and spare economy of Eiffel and his immediate successors.

In fact, the base is not as traditional as it seems at first. The upper tiers of seats are propped cantilevers, supported by the masts and the massive framed concrete structure that provides a base for the mid tiers of seats and houses annular circulation, utilities and catering facilities. The concrete structure also acts as a sort of garage for the lowest ranges of seats (for 25 000 people), which can be projected 15 metres out over the athletics track surrounding the central grass pitch. Special bearings with cushions of compressed air prevent the track being disturbed when the seats on their precast concrete terraces (supported by steel structures) are moved out from their storage spaces. The 10 mobile units weigh some 10 000 tonnes; moving them takes a team of about 20 people several days, and involves many complex joints and adjustments.

One of the most difficult problems of stadium design is dealing with large numbers of people at the beginning, and particularly the end of games. The Romans significantly called the means of ingress and exit to their amphitheatres vomitoria, but at the Stade de France, such a description seems too coarse. The stands are divided into three zones – upper, middle and lower – each with its own

means of access. Entrances are generous, numerous and clearly marked and the system is designed to permit spectators to be evacuated in 15 minutes. The problem is getting out of the forecourt because the speed with which you exit the stadium means that you and 79 999 other people are crammed inside the perimeter fence waiting to get through security controls.

From the forecourt gently sloping ramps lead down from the upper to the lower stands, while the middle ones are reached by crossing footbridges. Crowds heading for the upper stands must climb the 70 steps of one of 18 staircases encircling the structure. Each flight of steps supported by a concrete prow-like structure is cantilevered off the ground under the floating horizontal roof. On emerging from the middle stands you experience the dynamic power created by repeating these structures which at this level seem half submerged. Looking up from the ground you are reminded of cathedral buttresses – and certainly for those four weeks the Stade de France was the new cathedral of (almost) religious delirium. PM/PD

Architects

Michel Macary, Aymeric Zubléna, Michel Regembal,

Claude Costantini

Main contractor

GIE Stade Construction

(Bouygues, Dumez-GTM, Campenon-Bernard)

Roof

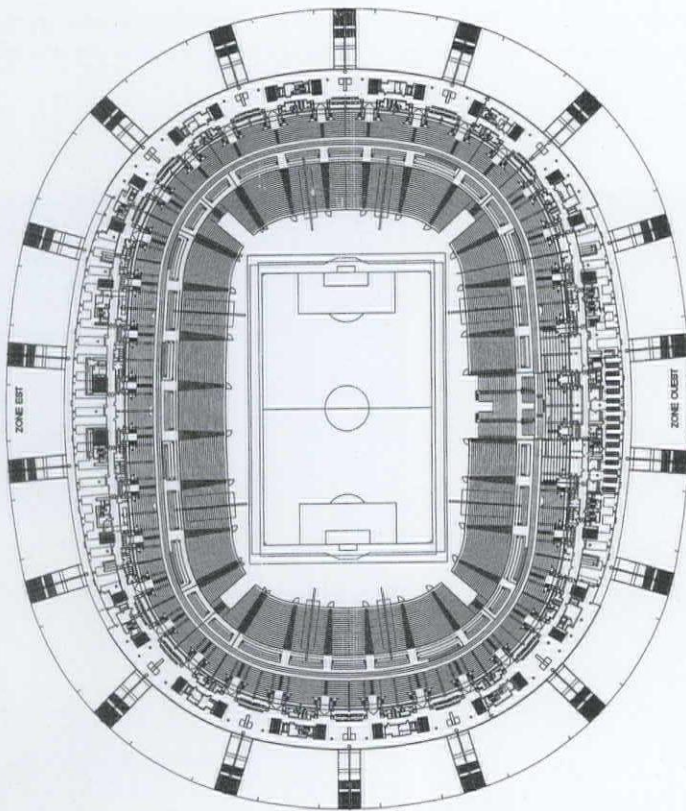
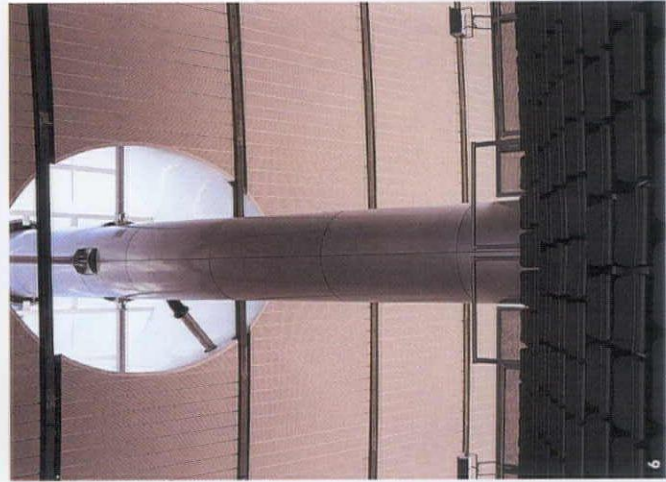
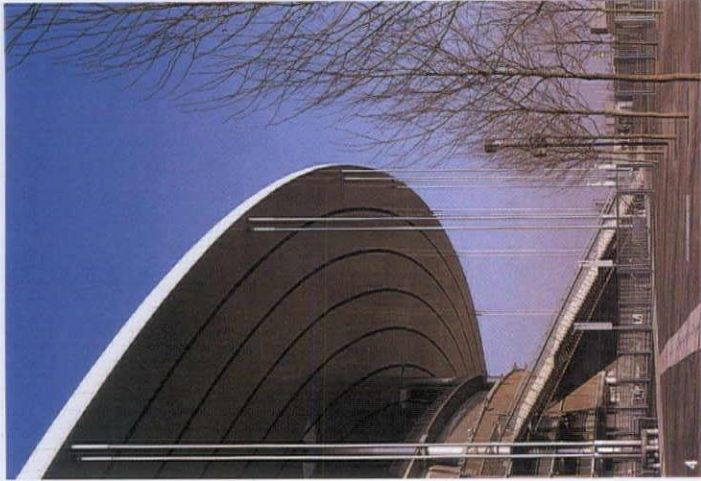
Ingérop

Photographs

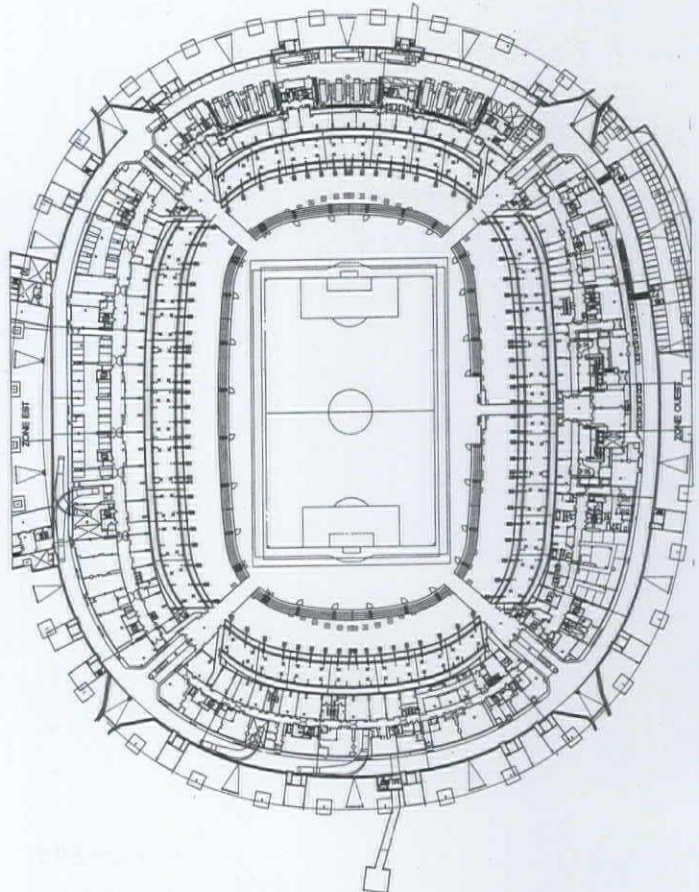
Paul Raftery



- 4 Asymmetrical roof loads stabilized by pairs of cables on the perimeter.
 5 Walkways encircle the building, enclosed by walls of metal mesh which add lightness to the building exterior.
 6 Detail of mast-roof junction.



level 4 plan



level 0 plan

FOLK ART CENTRE, KAUSTINEN, FINLAND

ARCHITECT

KAIRA-LAHDELMA-MAHLAMÄKI

FINNISH ACROPOLIS

A remote village in rural Ostrobothnia celebrates its renowned folk music festival and its unusual topography by turning its hill into an acropolis.



site plan

Ostrobothnia, the land to the east of the Gulf of Bothnia, is one of the world's most enervating places scenically. Absolutely flat, its forests seem from the militarily straight roads to stretch for ever, relieved occasionally by lakes and meadows. So a hill, no matter how little, has great importance.

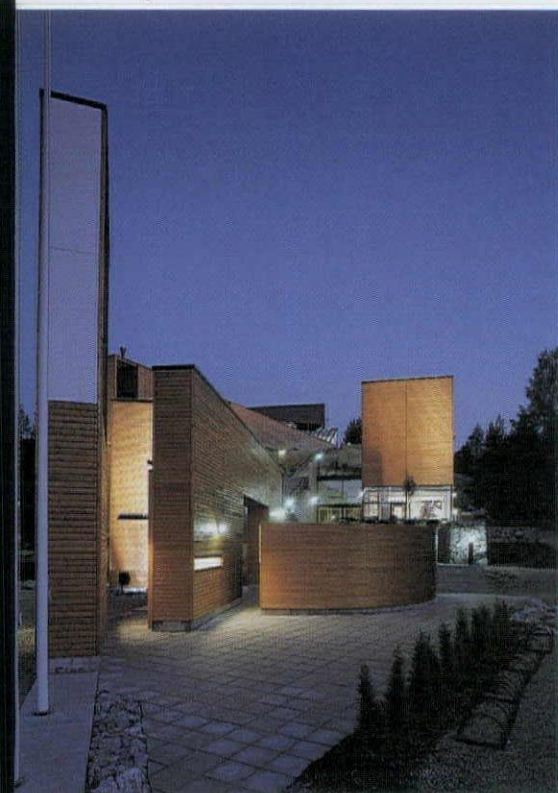
The new Centre of Folk Art at Kaustinen, a little village in central Ostrobothnia, celebrates the small mound-like eminence in the centre of the municipality by burrowing into it and turning it into an acropolis. The village is unusual in the area, for many small Finnish settlements were vilely redeveloped in the name of progress when Finland became prosperous in the '70s and '80s. But Kaustinen's centre is not very badly mutilated, and its structure, with wooden houses surrounding the church, is still clear. It has long been a centre for a folk music festival, and the hill is topped by a dance and rock pavilion (the Finns are very fond of dancing) and a sports centre with a ski jump. The Folk Art Centre climbs up the hill in a series of terraces connected by grand public stairs. The main approach is from the town to

the west. You are met by a propylaeum which consists of the timber-covered arc of an open-air theatre and its wooden scena which inflects you towards the ascending terraces by which you approach the entrance.

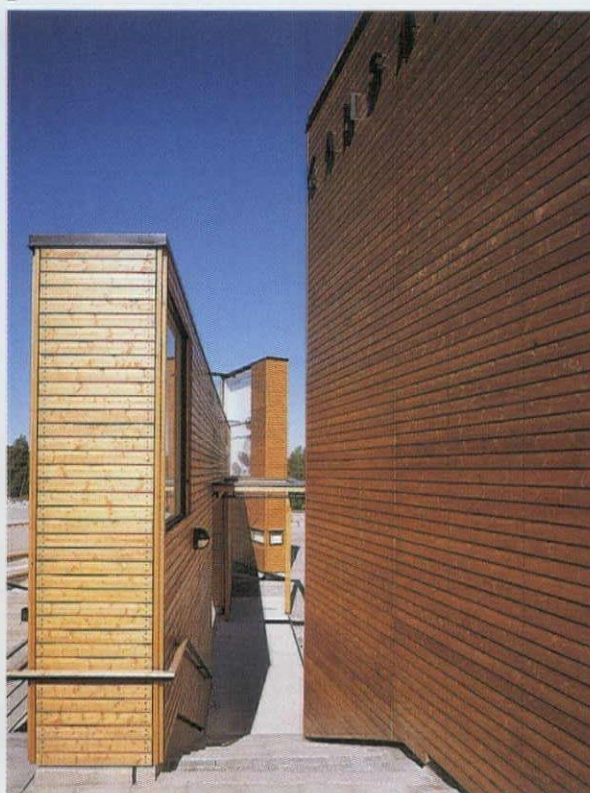
The terraces are contained by rectangular wings which house, to the south, the cafeteria and shop, and to the north, the galleries of traditional folk art, principally of musical instruments. Severely rigorous geometry is somewhat softened by the fir board cladding, which is treated and made ruddy and fragrant with a mixture of tar, linseed oil and turpentine. The wings emerge from the hill and funnel visitors up the terraces to the entrance foyer, the spatial hub of the place.

Steps (quite steep ones) continue up the hill over the foyer, so that it is partly underground. It opens the workings of the organization to the public on several levels, up and down. Two galleries fly across the space connecting the wings. Immediately ahead is a bridge-ramp which gently slopes down to the doors of the auditorium over the temporary exhibition space at a lower level.

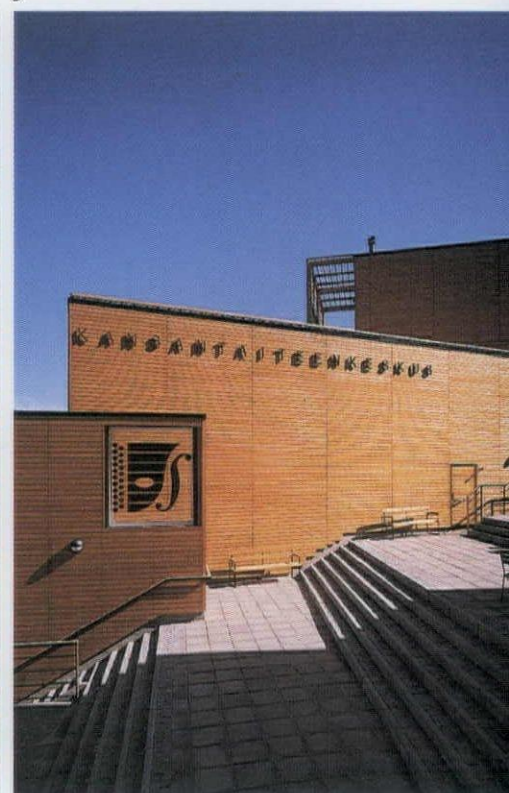
1



2



3





4

1, 2

The massive timber clad walls at the bottom of the slope deflect visitors towards the ascent and act both as signboard for the museum and as scena for the open-air theatre. Main entrance can be seen over curve of theatre in 1.

3

The route to the entrance up a series of stepped terraces.

4

The two rectangular wings grow out of the hillside and funnel visitors upwards to entrance. Their scale is carefully organized not to overwhelm the village.

5

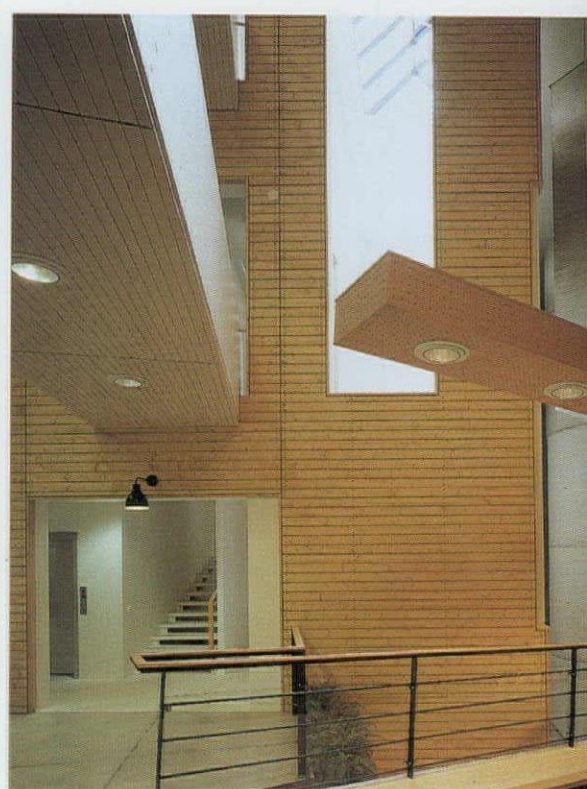
From the top of the hill, the wings have been detailed to be seen from above, and frame the view of the village and the plains of Ostrobothnia.

5





6



7

8

6,7 The multi-levelled foyer, where a ramp slopes down over exhibition area to ...
 8 ... the hall of the mountain king. The auditorium carved out of the rock of the hill, partly so that its bulk should not be out of scale in the village.



FOLK ART CENTRE, KAUSTINEN, FINLAND

ARCHITECT

KAIRA-LAHDELMA-MAHLAMÄKI

9
Dark austerity of the raw rock-cut hall is mitigated by lightness of spruce cladding and chair structure.

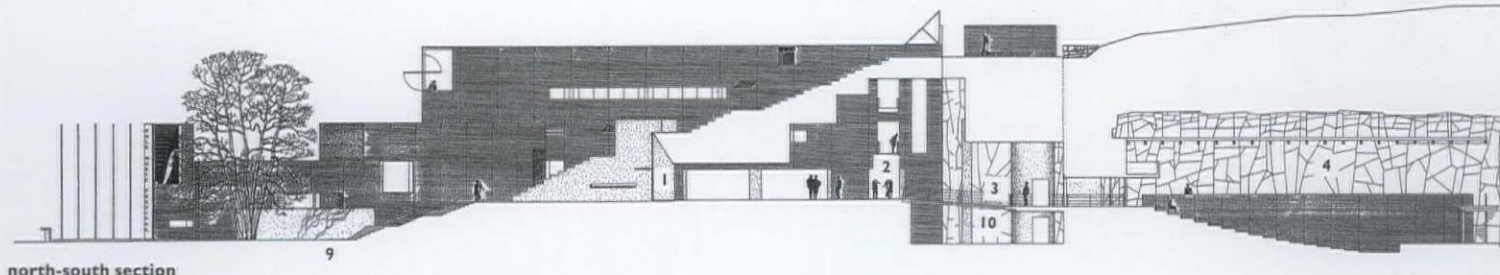
10
The musical instruments museum (the wing to the left as you go in) is sometimes used for small meetings and concerts.



9



10



north-south section

Even though it is partly dug into the hill, the foyer is a light and cheerful place, with illumination coming from above as well as the sides. Light is reflected from the pale grey polished concrete floors, and from the larch boards which line most of the vertical surfaces; they are made slightly warmer in colour than usual by being lightly washed with tar, a treatment that appropriately gives the whole space a smoky aroma, reminiscent of traditional timber peasants' huts.

If the foyer is the most articulated space in the complex, the auditorium is the most powerful and mysterious. A rectangular artificial cavern, a hall for a Finnish mountain king, has been carved out of the hill with raw rock walls sloping down to an ample stage. A suspended grid of heavy timbers partly conceals the gunite roof, and accommodates services. What could have been a grim space is relieved by the spruce-clad walls of the lower part, and light spruce-framed furniture, both of which also modify the reverberant qualities of the space.

Putting the hall inside the hill has the advantage of hiding its

large volume, and the arrangement of the external forms (and their cladding) ensures that there is a kinship in scale and material between the new complex and the largely timber buildings of the village. But it is the handling of the route and external spaces that gives the complex real distinction. The hill has become an acropolis (even if it is somewhat oddly crowned by the older rock music hall), and progression up and down (when the village dominated by the old church fills the view) has acquired some of the dignity and drama to be found in ancient Mediterranean celebratory routes. HENRY MILES

Architect

Kaira-Lahdelma-Mahlamäki

Project team

Rainer Mahlamäki, Juha Mäki-Jyllilä,
Minna Lahdelma, Vesa-Jukka Vuorela,
Pekka Heikkinen

Furniture

Työhuone Gullsten & Inkinen

Interior designer

Jari Inkinen

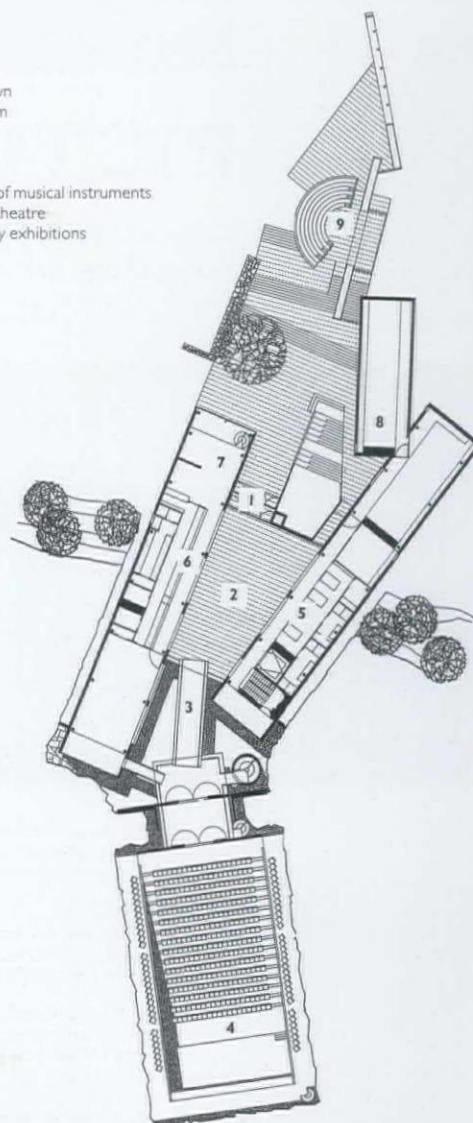
Exhibition planning and construction

Carina Jaatinen, Rainer Mahlamäki
assistant: Johanna Raukko

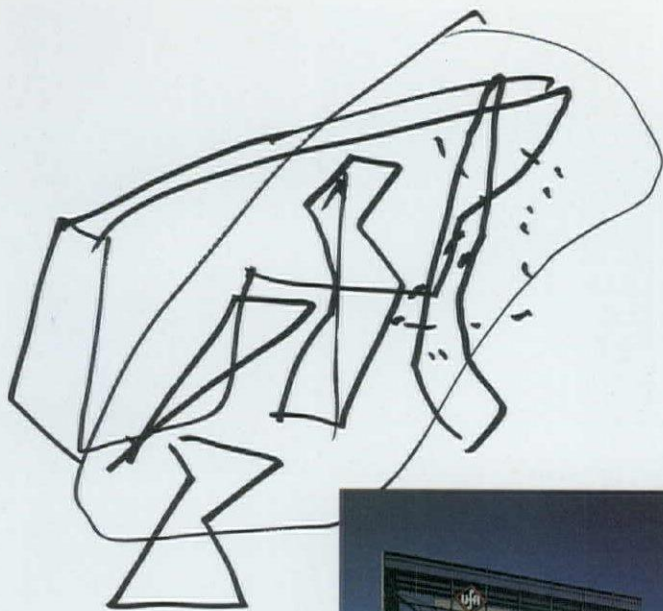
Photographs

Jussi Tiainen

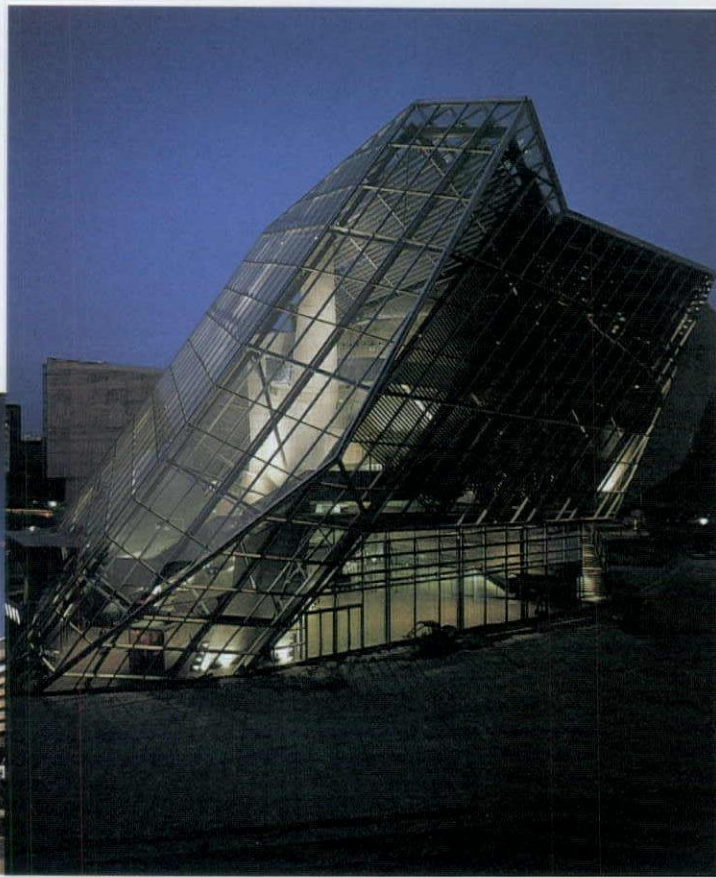
- 1 entrance
- 2 foyer
- 3 ramp down
- 4 auditorium
- 5 cloaks
- 6 shop
- 7 cafeteria
- 8 museum of musical instruments
- 9 open-air theatre
- 10 temporary exhibitions



plan of principal levels (scale approx 1:800)



CINEMA, DRESDEN, GERMANY
ARCHITECT
COOP HIMMELB(L)AU



PICTURE PALACE

Coop Himmelb(l)au's new cinema, in the eastern German city of Dresden, skilfully manipulates and elevates the mundane typology of the multiplex to stunning effect.



- 1 The new cinema consists of two interconnected volumes; a dense, concrete-clad block housing eight screens ...
- 2 ... and a spectacular crystalline foyer, which also acts as an extension of a new public piazza in the centre of Dresden.
- 3 South-east elevation along St Petersburgerstrasse. Escape stairs cascade down the exterior, enclosed by a metal mesh screen.
- 4 The towering foyer volume is criss-crossed by a series of angular bridges and stairs.

As a setting for mass entertainment, the cinema has proved itself a surprisingly adaptable typology. It has survived the effects of two world wars, television, video, declining audiences, unimaginative distribution policies and deteriorating buildings. Yet throughout the cinema's short history, over-reliance on internal scenographic effects has consistently proved an easily executable substitute for architectural merit. Few European cinemas exhibited the Modernist refinement of designs such as Hans Poelzig's minimalist Babylon cinema in Berlin, for instance, or Gunnar Asplund's jewel-like Skandia in Stockholm.

The cavernous, highly decorated auditorium that was the standard cinema form for

more than 50 years is now virtually obsolete. For most mainstream distributors and operators, the key to profitability lies in being able to screen as many films as possible. In the 1970s and '80s this meant splitting up existing buildings into a series of patently unsatisfactory smaller volumes; latterly, this has given rise to the purpose-built multiplex, which can be either slotted into shopping malls, or plonked down on cheaply acquired, edge-of-town sites. Multiplexes are a generally undistinguished breed, but occasionally, lowest common denominator values give way to adventure and innovation. Richard Rauh's energetic conflation of superscale elements instilled a suburban American multiplex with unexpected vigour and presence (AR February 1996),



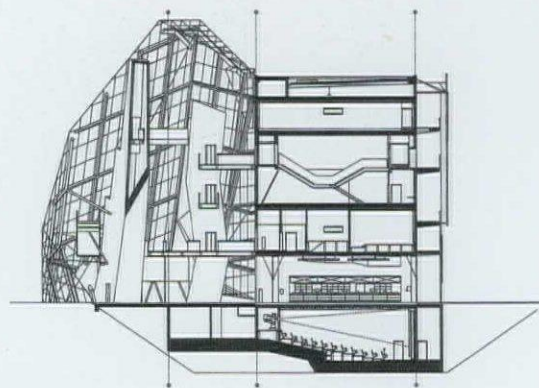
HUSH

and Koen van Velsen's cinema in the heart of Rotterdam (AR May 1997), with its great luminous foyer conceived as an extension of the public realm, shows what can be achieved with a series of introverted, blind boxes.

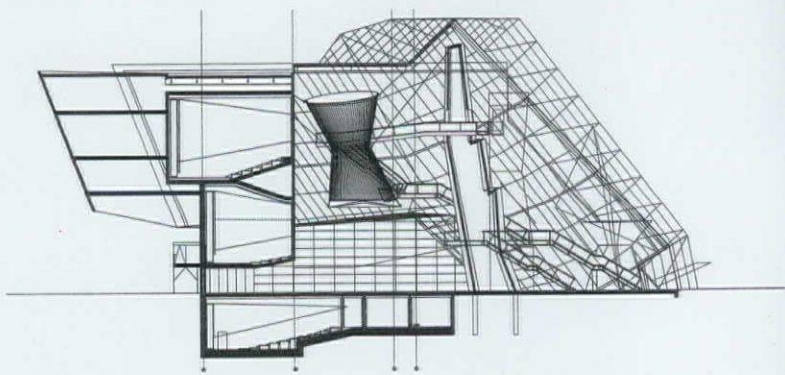
Coop Himmelb(l)au's new cinema in the eastern German city of Dresden is another experimental recasting of a fundamentally prosaic programme. Like the Rotterdam multiplex, it also has urbanistic ambitions to energize and densify the city centre by creating new public spaces. The site is a right-angled triangle, bounded by the busy St Petersburgerstrasse along its hypotenuse on the south-east side. To the west, is a row of raised podium blocks containing barrack-like post-war apartments; beyond these, the main thoroughfare of

Pragerstrasse. The cinema and its surrounding piazza form a new link with Pragerstrasse and St Petersburgerstrasse.

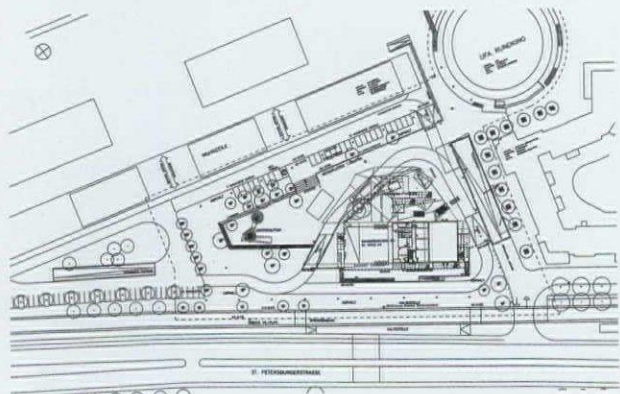
The new building is made up of two interconnected parts. An orthogonal slab houses eight cinema screens with seating for 2600. Four of the smaller cinemas are located below ground, the remaining quartet are slotted together as a series of interlocking wedges, forming a six-storey slab. Grafted on to the north-west side of this bunker-like block is a skewed crystalline volume which serves as the foyer for the cinemas. Escape stairs cascade down the length of the cinema block and the structure of the foyer writhes in implausible, computer-generated contortions. The raw concrete of the cinema block makes a dense, earthbound foil for the



cross section

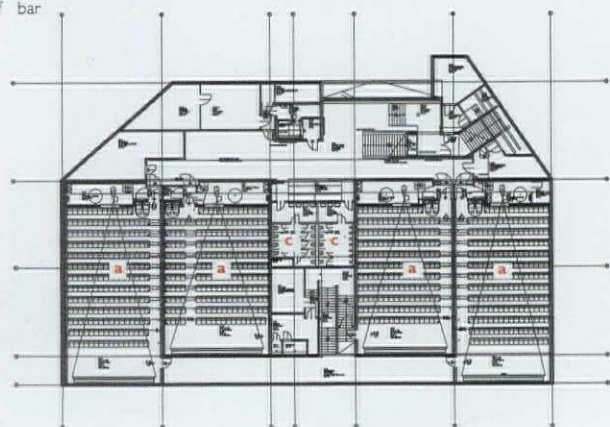


longitudinal section through foyer

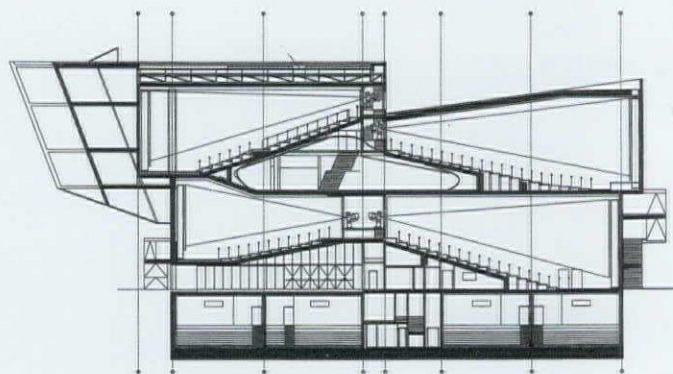


site plan

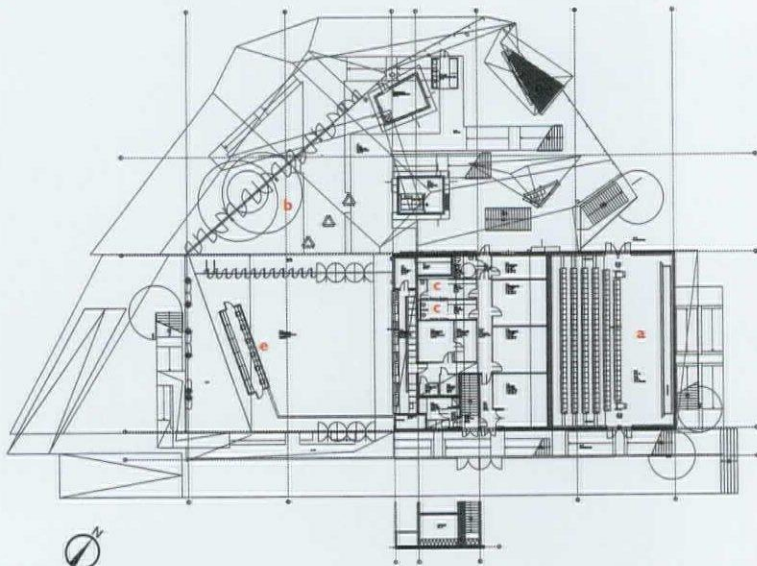
- a cinema
- b foyer
- c wcs
- d café-bar
- e ticket desk
- f bar



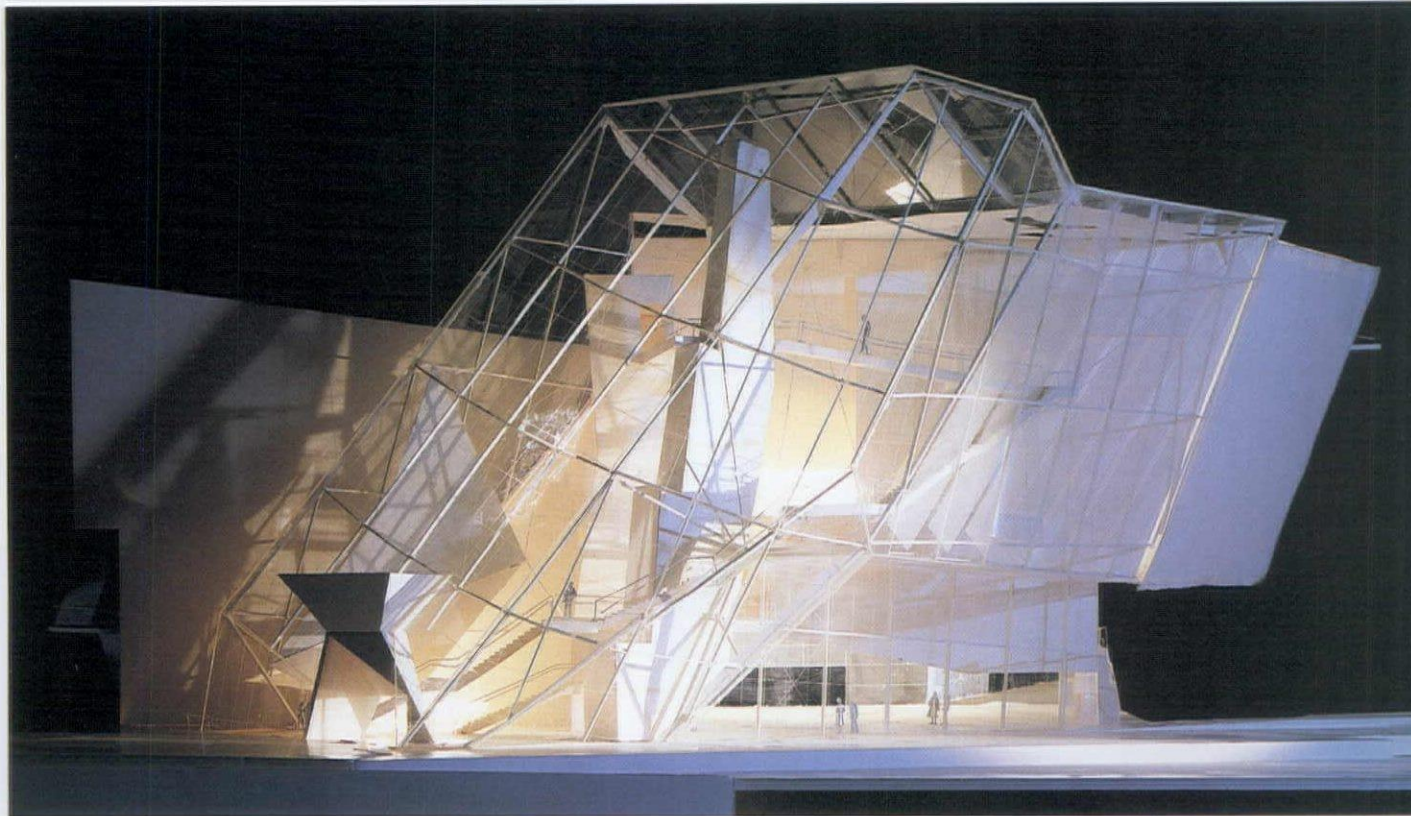
lower ground floor plan



longitudinal section through cinema block



ground floor plan (scale approx 1:1250)



5

CINEMA, DRESDEN, GERMANY

ARCHITECT

COOP HIMMELB(L)AU

5

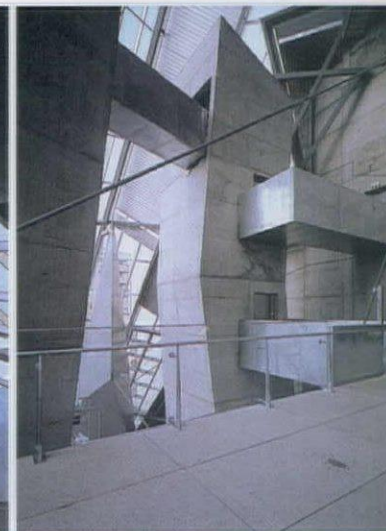
The exquisitely delicate model.

6, 7

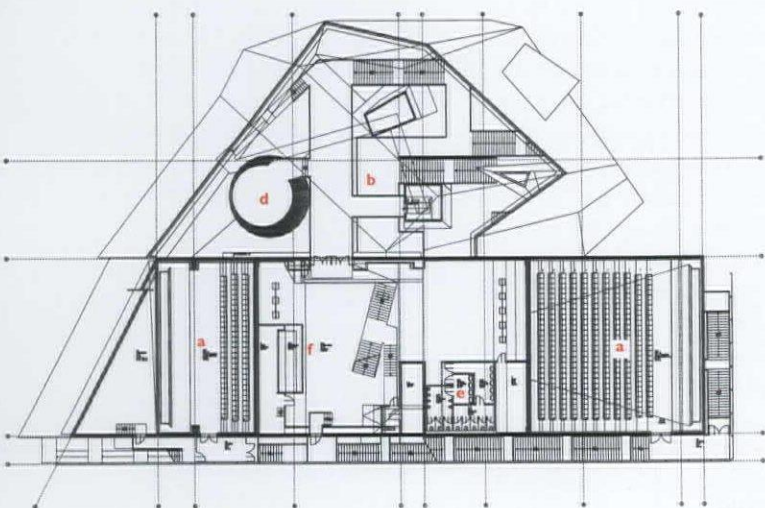
The dizzying foyer space acts as the social fulcrum of the building. Yet the industrial austerity of the materials and forms seems slightly at odds with the ethereal, crystalline model.



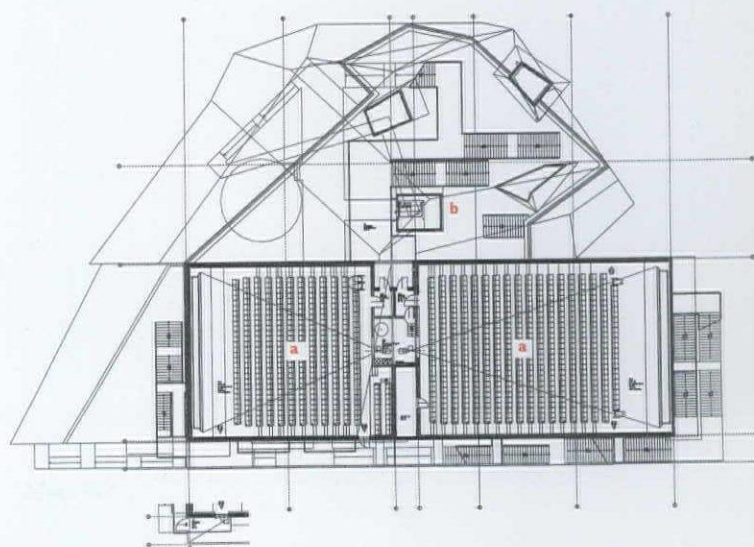
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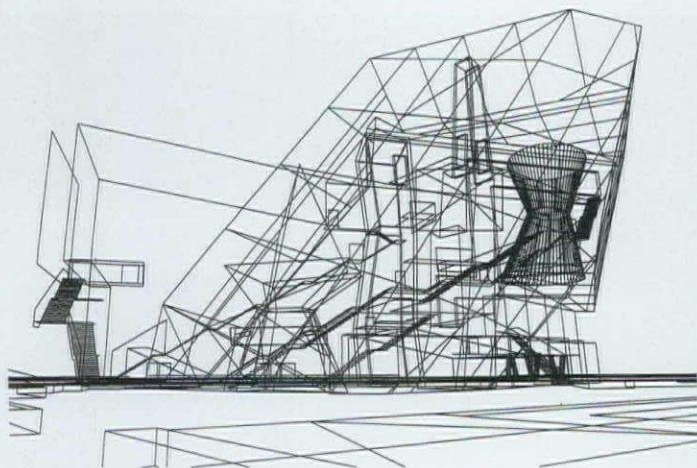
7



first floor plan



second floor plan



computer-generated perspective of the foyer

CINEMA, DRESDEN, GERMANY

ARCHITECT

COOP HIMMELB(L)AU

8, 9

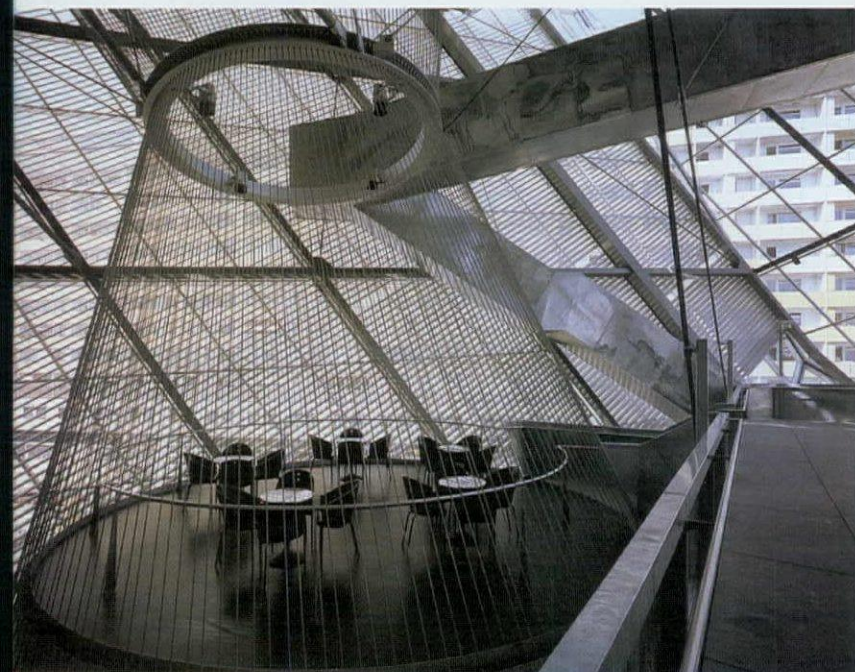
Like a giant birdcage, the café-bar is perilously suspended above the foyer.

10

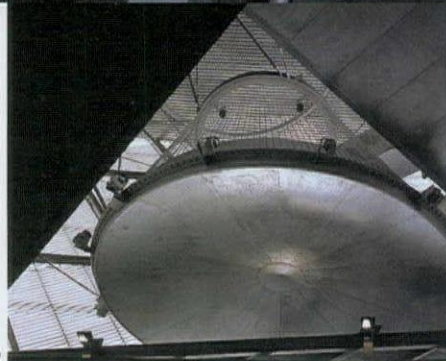
The foyer forms the dramatic setting for an elaborately choreographed urban ballet.



10



8



9

dynamism and lightness of the foyer. Yet it seems that the ethereal, almost quartz-like quality that characterized the original model has not fully translated to the final building. Instead, a kind of industrial austerity prevails, giving the cinema the appearance of a crumpled factory, or partially demolished oil rig.

Within the soaring interior of the foyer, ramps, stairs and bridges – some glazed, some enclosed by galvanized metal balustrades – contrive angular patterns through space, appropriately reminiscent of early German Expressionist films. A café-bar housed in a double cone is vertiginously suspended over the foyer, like a giant birdcage. Cinema-goers become part of an elaborately choreographed urban ballet,

with dramatic views through the foyer and over the square. At night, the glowing glass volume becomes a hive of activity, its transparent skin revealing the animation within. Through this, the building engages in and sustains a dialogue both with the city and its habitants, bringing life back into the urban centre.

CLAUDIA KUGEL

Architect

Coop Himmelb(l)au, Vienna

Project team

Wolf D. Prix, Helmut Swiczinsky, Tom Wiscombe, Sally Bibawy, Rainer Enk, Waltraud Hoheneder, Nerma Liensberger, Verena Perius, Florian Pfeifer, James Puckhaber, Andreas Schaller, Karolin Schmidbaur, Alexander Seitlinger, Bernd Spiess, Andreas Westhauser, Andreas Wohofsky, Susanne Zottl

Structural engineer

Bollinger + Grohmann

Photographs

Gerald Zugman, Ralph Richter (model)

Davos has evolved from a genteel, restorative location (the model for Thomas Mann's *The Magic Mountain*), to a base for popular all-year sporting activities. Replacing the 1930s wooden skating-rink building by Rudolf Gabarel destroyed by a fire in 1991, the sports centre by Gigon & Guyer embraces this need to be informal, populist, and robust, yet is sophisticated in form and programme.

Like its predecessor, the new building acts as a threshold

between the ice rink and the arrival area and car park. But while it is clearly two-sided, its massing is more ambiguous. The low, blue entry comes out to meet you, it also contains secondary functions like cloakrooms, kitchens, offices, medical treatment rooms, and a caretaker's flat. It is eased into the larger mass, the main body of the building, which flips up its base to accommodate it. The main building sits discretely behind the entry and holds all

the public functions, such as restaurants, main locker rooms, meeting rooms, and modest guest rooms on the top floor. Its west side is generously glazed and has a two-storey projecting grandstand. This provides shade and acts as a balcony from which to take the view and the air, a clear reference to rural alpine typologies with south-facing galleries which eventually evolved into the sun terraces of the Davos sanatoria.

This massing and zoning is made more complex by cladding

- 1
The new sports centre in its breathtaking alpine context.
- 2
An external skin of larch boarding sits in front of an inner layer of dressed pine painted in exuberant colours.

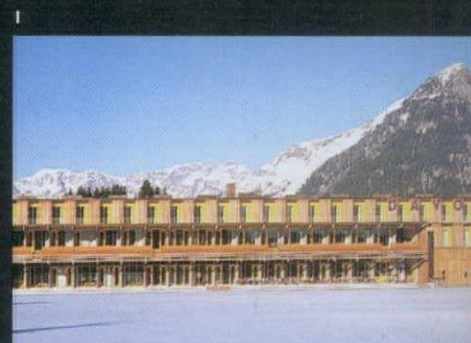
SPORTS CENTRE, DAVOS, SWITZERLAND

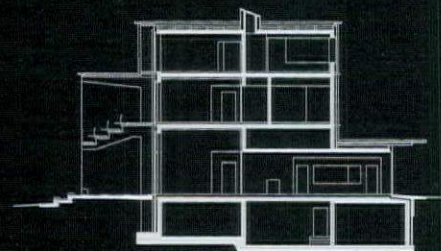
ARCHITECT

GIGON & GUYER

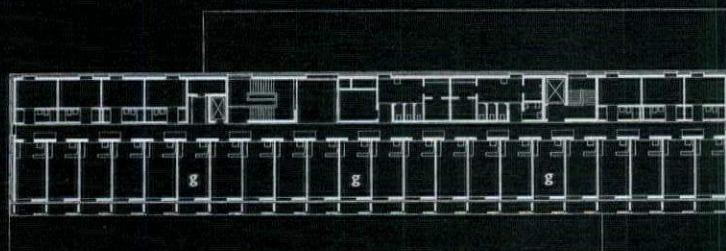
This robust little sports centre in Davos synthesizes the informal, populist qualities of sport with a highly sophisticated approach to detailing, materials and colour.

SWISS COLOURISTS

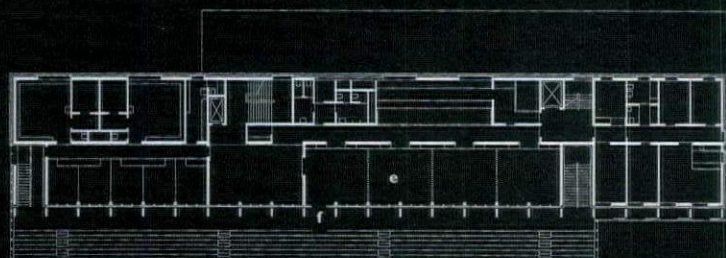




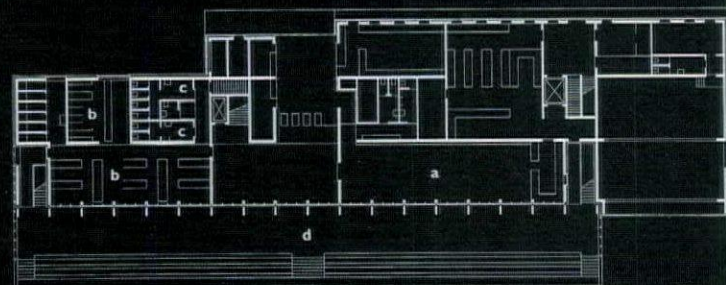
cross section



second floor plan

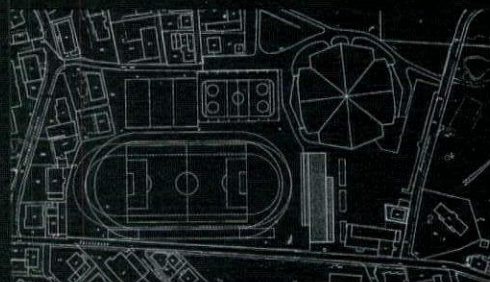


first floor plan



ground floor plan (scale approx 1:750)

- 3 The building exudes a *sportif* air. A long first floor balcony evolves into a grandstand from which to view proceedings on the running track and sports field below.
- 4 At night, rooms radiate contrasting pools of colour.
- 5 Interior of the restaurant.
- 6 Corridor on the top (second) floor, animated by superscale graphics and rich colour.



site plan



3

the building in two overlapping timber layers. The architects refer to the facade as a double fence, which allows rich dialogue between outside and inside. Wood is always used as a secondary material – to protect, to absorb, to clad – with raw concrete indicating the primary structure and vertical circulation. The exterior skin consists of vertically hung larch boarding, which sits on horizontal metal channels in front of an inner layer of dressed pine painted orange, blue and

yellow. Boards are generously spaced to allow the coloured layer behind it to bleed through. The larch skin is also developed into a system of sliding shutters, railings, and wind screening. This acknowledges the robustness needed in such a demanding climate and programme, while allowing the building's inner life of activity and vitality to peek through the outer carapace. On the north, east and south facades, the building is relatively closed, with these two layers almost collapsing into one

another and windows set to the exterior. On the sides of the protruding grandstand, the larch facade acts as a windscreen. Towards the skating rink, these layers are separated by the depth of the grandstand but maintain their separate functions; the benches are made of the same material as the outer facade. On the top floor, the outer skin becomes a series of sliding shutters. Colour was an integral part of the architecture early on, partly because of its economy, but also

perhaps because the architects' Kirchner Museum up the hill and their museum extension in Winterthur (AR February 1998) investigated material qualities so rigorously. Here, they collaborated with artist Adrian Schiess, who works with colour and its optical effects. For the exterior of the sports centre he proposed five compositions of elements in three colours from which the architects were free to choose. Yellow is used for the windows and the inner layer on the



5

6

elevation facing the ice rink, blue for the entry, and orange on the wall behind it. Inside and outside are joined by bringing the colour of the window frames through, and by blurring the masses' colour coding on the interior. To these three external colours are added another six on the interior: raspberry, turquoise, light green, dark blue, white, and apricot. It is a distinctive, modern palette in sympathy with sporting preferences.

Schiess was struck by how the construction process created

interior elements of different sizes and assigned individual colours to them, though every room has its own composition, with some elements repeating from a room before.

At night, when the facade becomes a silhouette, rooms radiate colour outwards. Graphics reinforce a playful attitude and allude to garish contemporary sportswear. The fruits of these collaborations can be seen especially in the striking top floor corridor, where the acoustic panels and doors are

painted a range of colours, which reflect in the ceiling and wall opposite of rendered white stucco. Adding to this incredibly rich effect is another rhythm of skylights.

The sports centre certainly shows Gigon & Guyer's versatility, as well as their stamina. After winning the competition in 1992, the building was twice reduced to save money. Yet the result is both relaxed and playful, well suited to its programme, and formally sophisticated. STEVEN SPIER

Architect

Gigon & Guyer, Zurich

Project team

Annette Gigon, Mike Guyer, Raphael Frei, David Leuthold

Colour consultant

Adrian Schiess

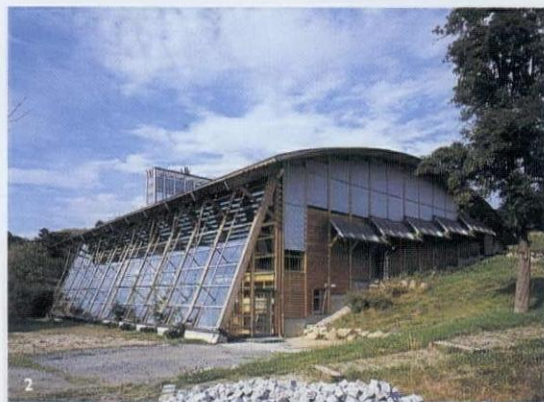
Graphic design

Trix Wetter

Photographs

Heinrich Helfenstein

**SPORTS HALL, OBERHAMBACH,
GERMANY**
ARCHITECT
PETER HÜBNER



A new sports hall designed by Peter Hübner for a progressive German school near Darmstadt inventively exploits green principles to create a humane, welcoming building that has a minimal effect on its precious site.

GREEN VAULT

1 Hübner's latest sports hall appears as a glazed bunker in the lush landscape. The site has been disturbed as little as possible.

2 The building digs into the hillside, so minimizing its bulk.

3 The glazed west side is a key part of the environmental control strategy.

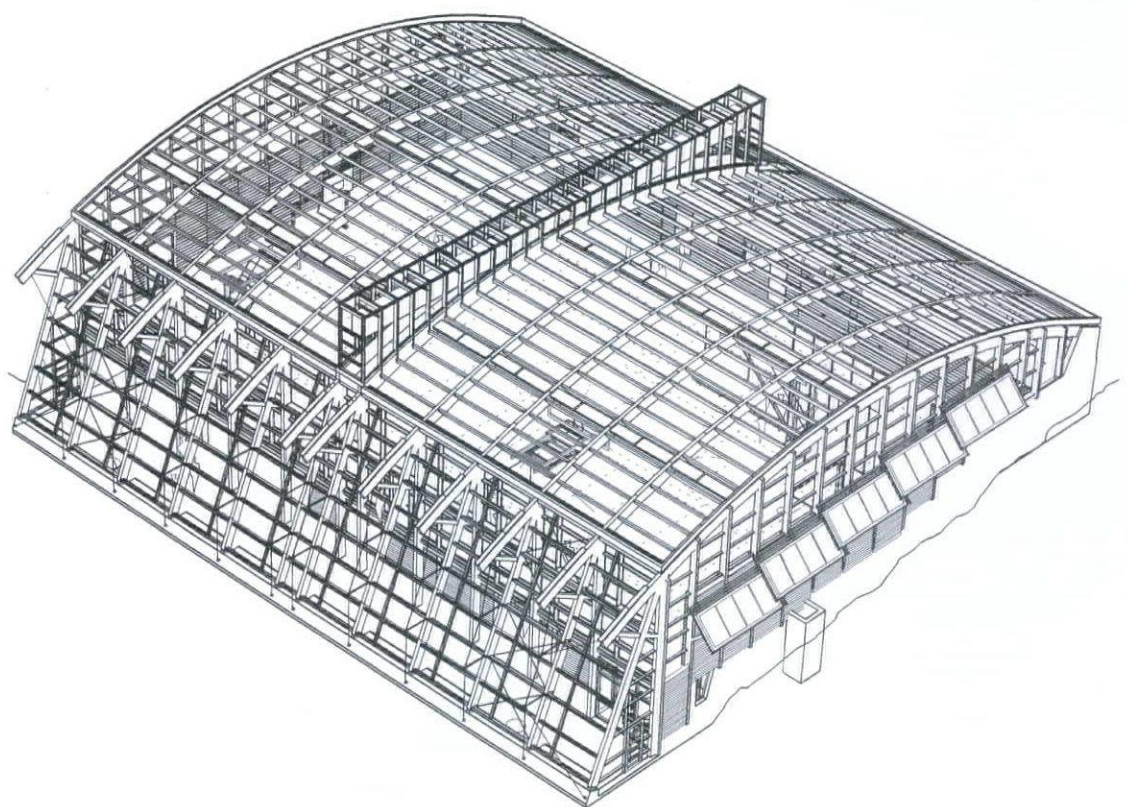
4 The gently curving roof – to accommodate the trajectory of a ball – forms the dominant element.

The Odenwaldschule is one of a handful of private schools started in Germany in the early years of this century as a result of the progressive School Reform Movement.¹ Though partly influenced by the English public schools, their ethos was less militaristic and conformist, concerned instead to promote self-sufficiency and independence of spirit and to develop a sense of personal responsibility. Pupils occupy boarding houses as in the English system, but house groups are smaller, each with only 8-10 pupils.

Set in hill country south of Darmstadt, the school occupies a steep wooded hillside, dominated architecturally by its villa-like boarding houses. These were designed by Friedrich Metzendorf in the picturesque manner derived from the English Arts and Crafts and brought to Germany by Muthesius.² It was a difficult complex to add to, but Peter Hübner succeeded without resorting to pastiche with his ingenious and much-liked 'Baumhaus' classroom extension (AR September '96). He was therefore the natural choice as designer for the next phase: a sports hall.

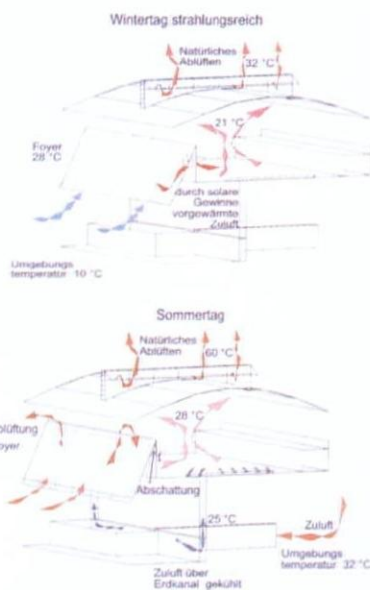
The sloping site with its numerous trees and its strict nature conservation rules seemed at first to offer no plausible place for a large, flat-floored building such as a sports hall, but Hübner saw the possibility of setting it into the hill on the edge of a meadow and letting the sea of waving grass continue onto its roof. A curved profile would allow the ground surface to rise and fall again, while leaving the optimum space inside to accommodate the trajectory of a ball. Taking advantage of the sloping ground, the changing rooms could be slipped underneath, and a narrow two-storey foyer linking the levels could be added at the front, with its triangle section serving as a stable mounting for the bow-shaped roof ribs. With west-facing glazing, this foyer would provide a cheerful approach space and absorb solar heat on winter afternoons. The major snag was the demand that the sports hall be divisible in two with a central curtain, for it seemed impossible that such a thing be hung from the curve, remain moveable, and leave the volume unobstructed when furled. Hübner conceived the idea of housing the curtain within a straight box projecting up to appear on the curved profile like a backbone. Glazed, it could be visually delicate while introducing a shaft of daylight into the centre of the room. Furthermore, when provided with opening lights, it could become the driving element of a solar siphon for cooling in hot weather.

So began a servicing strategy that is truly green, since it saves on both building and running costs. It avoids complex mechanical plant that is expensive to install and maintain, and air-conditioners that burn energy against

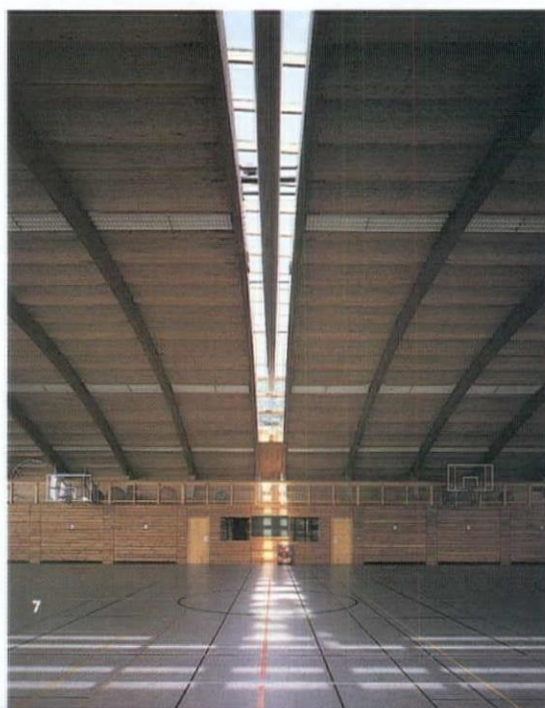
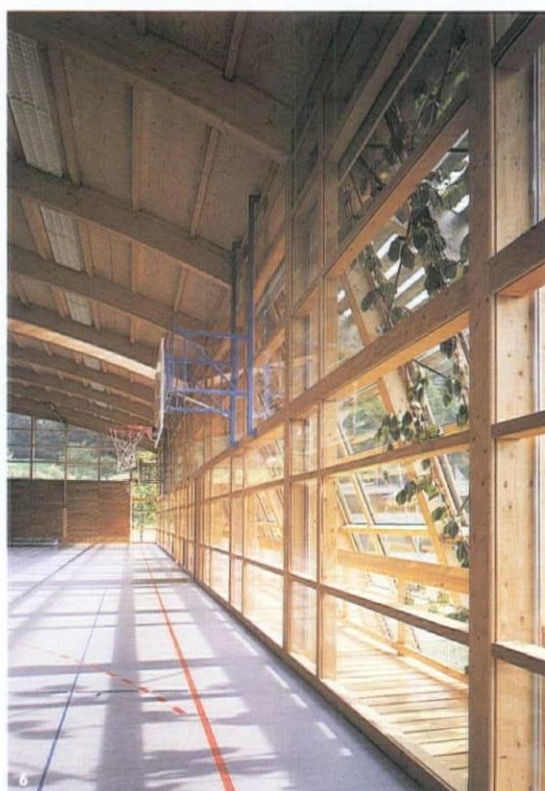
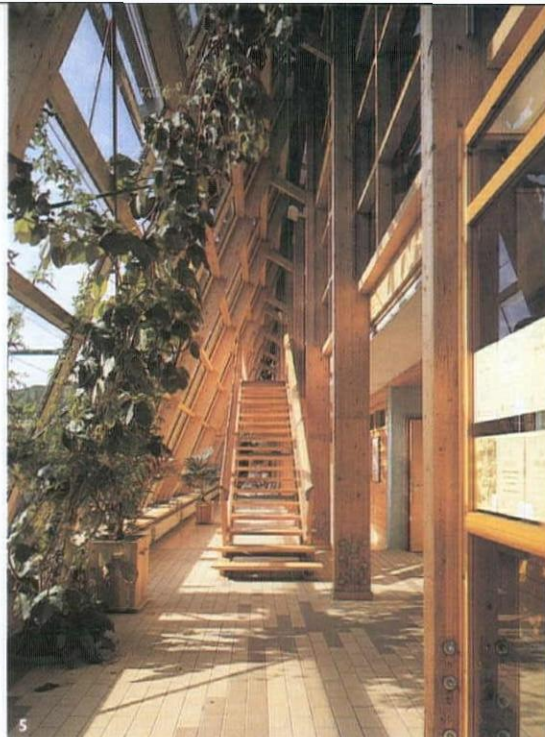


dissected axonometric

**SPORTS HALL, OBERHAMBACH,
GERMANY**
ARCHITECT
PETER HÜBNER



environmental control strategies in winter (top) and summer (bottom)



- 5
A luminous glazed foyer runs along the west side of the sports hall.
- 6
Light diffuses into the main volume of the sports hall through the foyer.
- 7
The laminated timber vault is penetrated by a narrow strip of glazing.
- 8
Although partly buried into the hill, the interior of the cavernous hall is surprisingly light.

the sun and use noxious chemicals. Instead, it balances out the given conditions with a series of openable barriers. On hot summer days, the glazed box on the roof heats contained air so that it rises through open vents, drawing more behind it. Suction pulls cool air in from the sides at floor level, which arrives via an underground duct big enough to walk through. Air intake is at the centre of the building on the uphill side, so air is sucked through the buried passage first from back to front and then out to the sides. Exposed to this enormous area of wall, the air is cooled by the surrounding earth, so by the time it arrives in the hall, its temperature has typically fallen by six or seven degrees. The glazed foyer heats up, but not excessively, as it has high opening vents, external shades against high sun, and some protection from seasonal climbing plants. Dropping blinds between foyer and hall protect the hall from direct solar radiation and from absorbing the foyer's heat.

It is on winter afternoons that the foyer really starts to work for its living, both as a buffer for the hall and as a solar collector. When it reaches the required temperature a photocell-powered fan cuts in to deliver its hot air to the hall. The blinds are up, so there is also direct transmission of the low sun. The glazed south wall has also taken the low sun's heat directly: this is prevented in summer by external blinds. On sunless winter days the hot water heating system in the floor slab brings energy from the school's central boiler, but it is still helped by the thermal siphon, now working very gently. The underground duct warms the incoming air with the accumulated heat from the surrounding earth, raising it typically from -10 to +5 degrees.

This description covers the extreme conditions, but for much of the year the temperature lies between, and the building can be adjusted to gain or lose heat by opening or closing its vents and blinds. Although it is by no means self-sufficient in energy terms, the energy input is entirely top-up heating, therefore far less than a comparable building without its high-insulation, solar wall and underground heat storage. It is also significant that apart from the solar water heating panels for the showers set on the south facade, the energy measures are not add-ons but integral to the basic design.

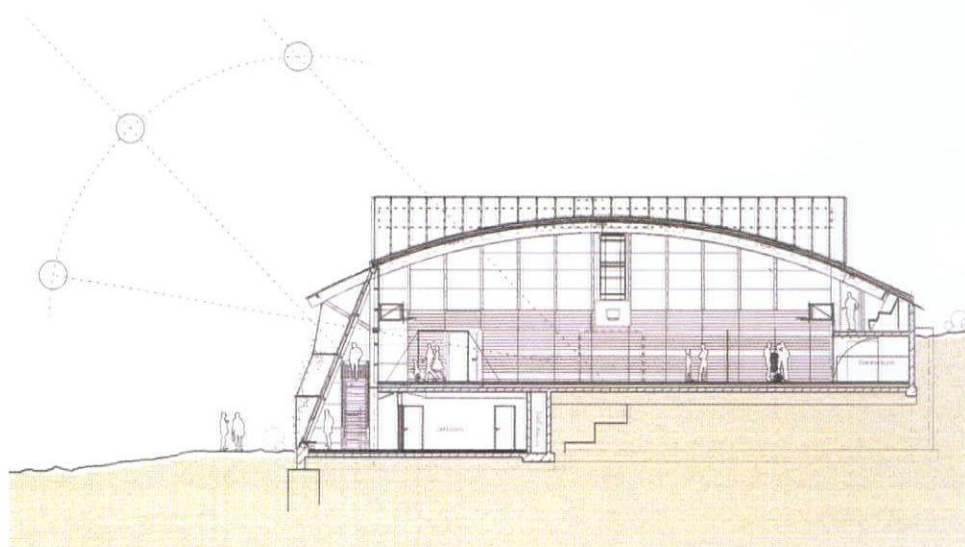
The parts of the building belonging to the ground are in concrete, the parts above in timber and glass. The roof deck is of thick plywood covered by insulation, membrane and turf, giving a natural surface at once protective and insulating. It overhangs the ends of the building just enough for shelter and shade, and to produce a definitive edge. The structure is laminated timber, perhaps



the most renewable and least energy-intensive choice, but a material in its most technically developed state. It is left naked to age naturally like the rest of the timber construction, for protective coatings harmful to insects may in the long run be harmful also to us.

Hübner's triumph at Oberhambach is that despite its undoubted green inspiration, the large building makes the gentlest impact on its precious context, and is a joy to use. The bright welcoming foyer is a good foil to the calm gentle hall and the daylighting seems generous. Despite being set into the hill, it seems very open because of the glass perimeter on three sides. Sport is not compulsory, and it is left to the pupils themselves to co-operate and organize teams. Since the new building was opened sport has become more popular, and the building has become in addition to its main purpose a popular social centre and meeting place. The highest praise came from one of the teachers, who admitted that he had formerly been very sceptical of the idea that architecture could change people's lives. Now that he has the evidence before him, he has to grant that it can and does.

PETER BLUNDELL JONES



cross section

1. A progressive German reform movement in response to the changes brought by unification and industrialization. Of particular significance was the Bund Entschiedener Schulreformer founded in 1919 under the leadership of Paul Östreich. The Odenwaldschule prepares pupils both for the normal academic exams and for manual occupations.

2. See for instance Hermann Muthesius, *Das Englische Haus* 1903.

Architect

Peter Hübner, Neckartenzlingen

Project team

Peter Hübner, Martin Grün

Structural engineer

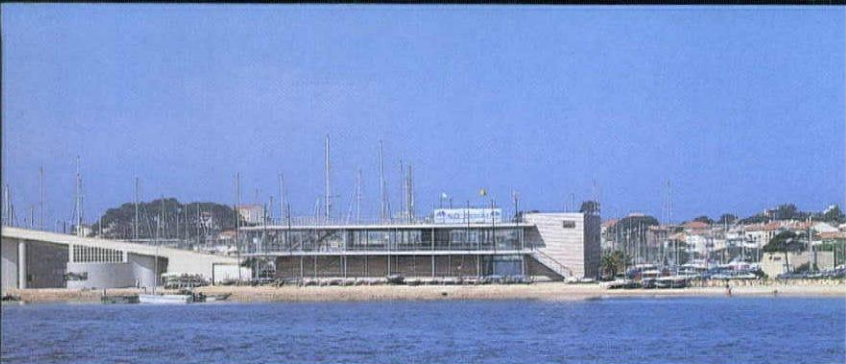
Sobek & Rieger

Energy concept

Transsolar

Photographs

Peter Blundell Jones



NAUTICAL CENTRE, BANDOL, FRANCE

ARCHITECT

RUDY RICCIOTTI

Rudy Ricciotti's elegant Nautical Centre stands on a sandy strip of land overlooking Bandol harbour. The two-storeyed building faces east onto the sea and stretches long and low over the site. The ground floor accommodates a sailing school and storerooms for nautical paraphernalia – sails, ropes, technical equipment and so on. Above is a club house and bar, and above this an observation deck; on the north side, the building terminates in a monolithic extension which houses services. Views are panoramic, over the town in one direction, the sea in another; in the distance are the Mediterranean hills.

At first glance, the building appears to be a straightforward Modernist essay. The vocabulary is there: the floating horizontal lines and slender masts, oversailing decks and dissolving glass walls. Other constituent parts – wooden planking, a base vaguely reminiscent of a hull, delicate balustrading and the suggestion of gangways – serve to underline the building's nautical purpose.

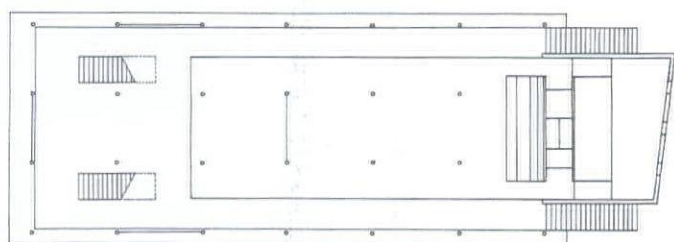
Closer inspection reveals some gentle extemporizing on a



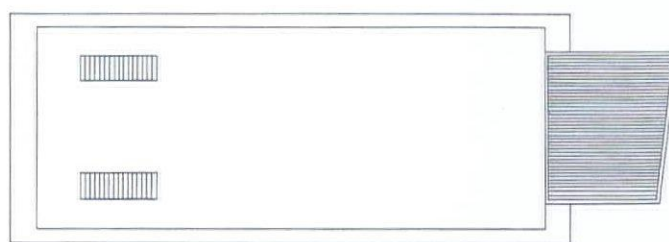
DECKS APPEAL

A new building for a sailing school in the resort town of Bandol in the south of France is an elegant and architecturally subtle addition to the lively harbour.

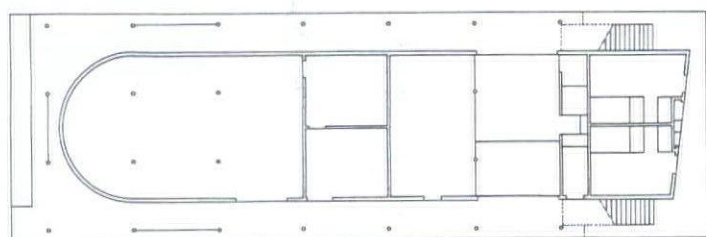
1
East face of building onto harbour.
2, 3
Concrete decks on slender supports;
base clad in wood reminiscent of a
ship's hull.



first floor plan



top floor terrace plan



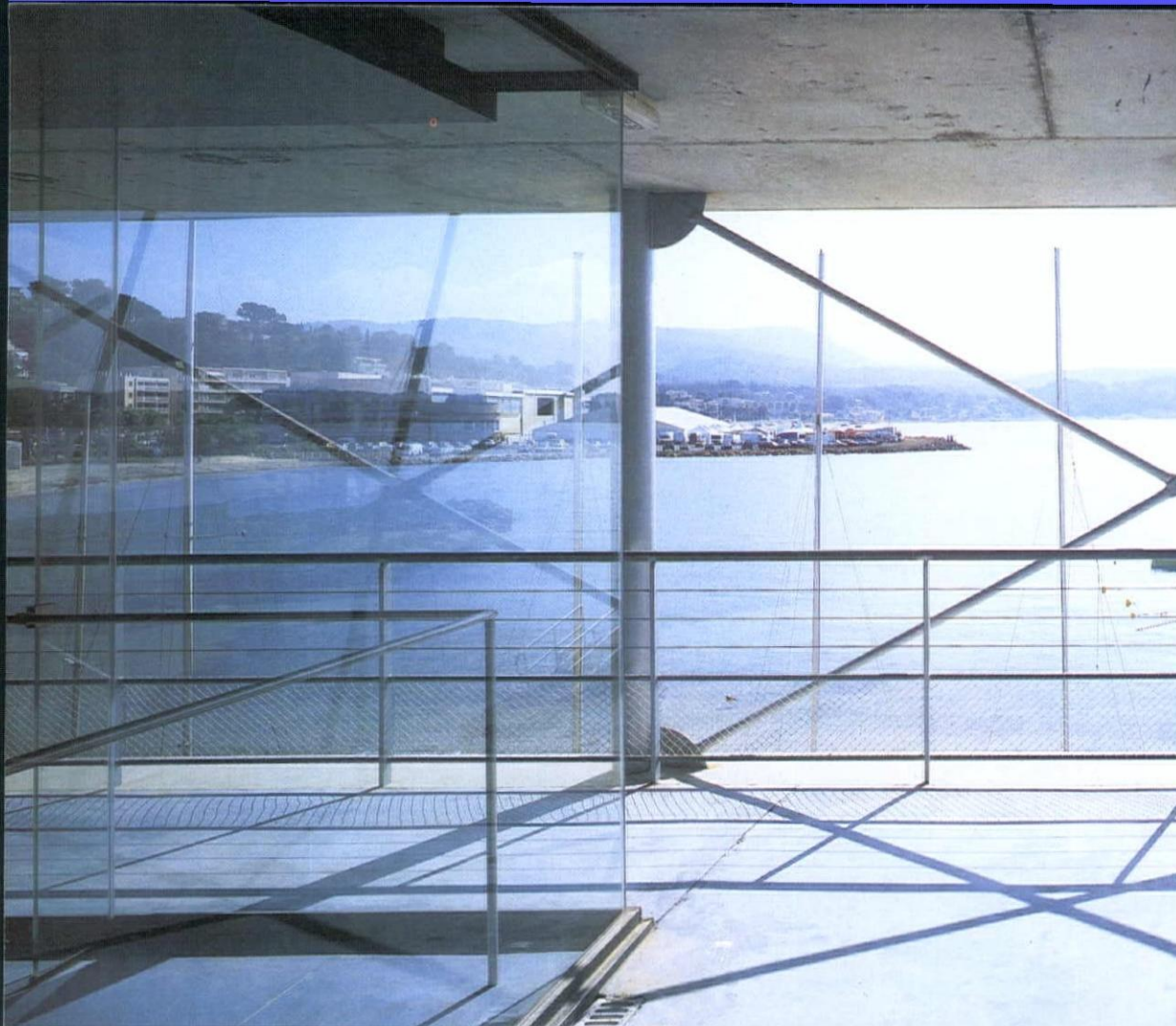
ground floor plan (scale approx 1:280)

NAUTICAL CENTRE, BANDOL, FRANCE

ARCHITECT

RUDY RICCIOTTI

- 4
Delicate mesh of fishing net and stainless steel cables over balustrading.
5
First floor level club and bar.



4



Corbusian theme. There is a sculptural tension between the massive concrete decks and thin metal vertical columns and diagonal bracing; and the heavy decks appear to hover in thin air kept apart by an insubstantial glass wall.

The few materials – glass, steel, concrete and wood – are served up raw and discretely, the nature of each being expressed by the way they are put together. At a glance you appreciate the heaviness of concrete, the strength of steel, the tactile quality of wood. Wooden cladding around the exterior of the base and service extension has been laid at a slight angle and the shadows cast by corrugation give the surface texture and emphasize the horizontal.

Ricciotti makes a point of using artists and craftsmen in his buildings. The silver palm tree outside the rock stadium at Vitrolles (AR February 1996, p73) was made by a local blacksmith, and here the delicate netting on outside railings was designed and made by two Tunisian fishermen out of net and stainless steel cables.

PENNY MCGUIRE

Project architects
Rudy Ricciotti, F. Pyra
Photographs
Philippe Ruault

1 In summer, the sun-warmed glacier-smoothed rocks become outdoor extensions to living room.

2 Laminated frame is expressed: note how it is shimmed up from top of concrete stub columns with flat pieces of wood in an almost antique detail. Final decisions on window heights and placing were taken on site.

COUNTRY LIFE

A holiday house built with traditional materials on a magnificent untouched site generates creative interplay between living and nature.

Carl-Viggo Hølmebakk built a garden shed which echoed round the world (see for instance AR October 1997). It was admired because it showed a profound understanding of materials and inventive ways of using them. Now, he has completed a rather larger building, a holiday cottage near Risør on the southern coast of Norway, which demonstrates the same intensity of imagination

on a rather bigger scale.

The site is typical of the area. Huge glacier-smoothed bones of the earth are exposed as gently rounded rock platforms over and between which pines emerge from a scrub of bilberry, bracken and birch. A place of which every urban Norwegian dreams, it smells of resin and the sea, which is only 70 metres away. The owners have long known the area because they

have a cottage nearby. This is now used by children and grandchildren, and a new building was needed for the extended family. But the site was very precious, and the couple were determined that the new building should make as little impact on nature as possible – certainly no trees were to be destroyed.

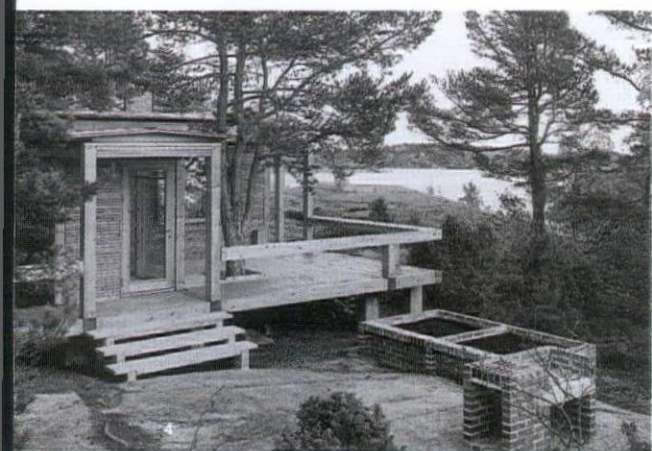
Hølmebakk organized a meticulous survey, using the





3
Court separates bedroom (in foreground) from kitchen, though they are linked by a continuous deck which delineates the west side of the court.

4
Looking east to sea, south-west deck penetrated by tree. Brick structures in foreground are barbecue and herb garden.



latest computerized gadgets, and generated a very detailed plan of trees and topography. Even so, he had to evolve an adjustable structural grid which can allow concrete stub columns to be cast in situ on to the rock in places which do not interfere with tree roots. Laminated timber beams which bear onto the stubs had of course to be to some extent structurally redundant to allow their supports to be located in

unpredicted places on the grid. All seven tough old sea-wind seasoned pines have been preserved and are thriving, though some have had to be pruned a bit to allow them to grow near the building, as close as a couple of feet away.

All the primary structure is laminated, pre-cut and profiled, and connected with steel fixings. So a big box-frame sits on the stubs, wedged up to become horizontal with flat pieces of

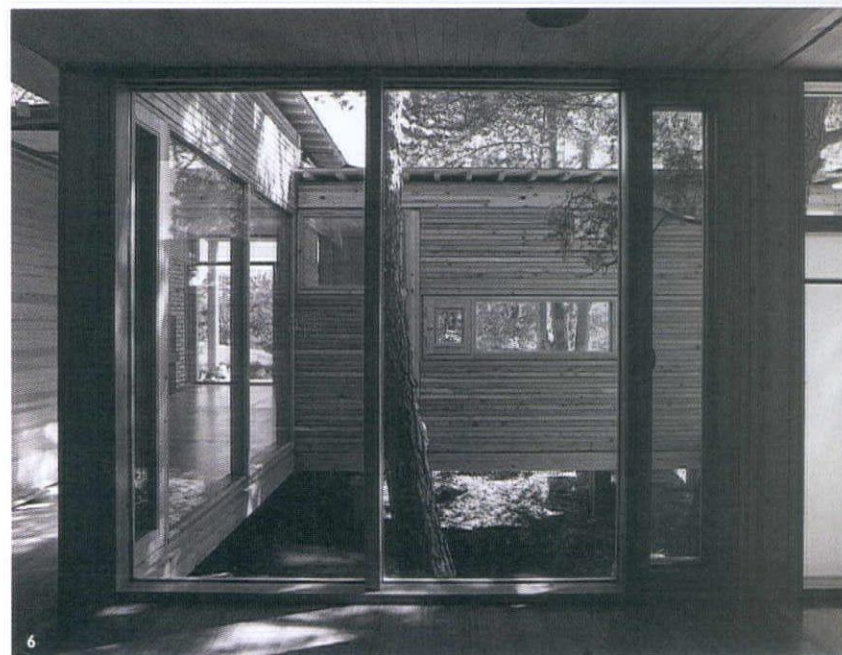
HOLIDAY COTTAGE, RISØR, NORWAY

ARCHITECT

CARL-VIGGO HØLMEBAKK



plan (scale approx 1:250)



5
Library corridor looking east from
court.

6
Looking south across court from
bedroom to kitchen; living space can
be glimpsed to left.

wood: an almost archetypal detail that recalls precedents in Norwegian farm buildings, as well as Japan and the Classical world. Panels of horizontal timber boards and glass fill the frame, which is expressed. Exact adjustments of solid and void were decided on site once the structure had been erected to ensure best relationships of house, trees and views. But for all the ad-hoc decisions on site, detailing is very precise, and the

oiled woods (Norwegian larch, pine and spruce, Siberian larch and particularly precious Norwegian oak) are chosen with great care for their purposes. The simple five degree pitched roof clad in zinc is another gentle reminder of the Classical world without being at all PoMo.

Planning is intimately related to topography, with living area and kitchen opening on to a terrace to the south-west, and the bedroom attached by a

library corridor that delineates a little court containing two of the precious trees. The result is a house which has an almost Antipodean or Californian air, woven into nature, with trees growing through it, and decks extending out so that the bald rock domes become part of the living place. And in its intimacy with the bones of Norway, the house also relates to the organic branch of modern Norwegian architecture so beautifully

exemplified in Knut Knutsen's own cottage (AR August 1996).

As Hølmebakk says, 'The Norwegian summer is short and beautiful, and always longed for ... a summer house could be regarded as an architectural short story – a building task demanding the highest intensity and precision, even if it is all about pleasure and relaxation'.

HENRY MILES

All photographs are by Per Berntsen apart from 5 and 6 which are by the architect.

b
BOTIUM

RUNNER DESIGN KASPER SALTO



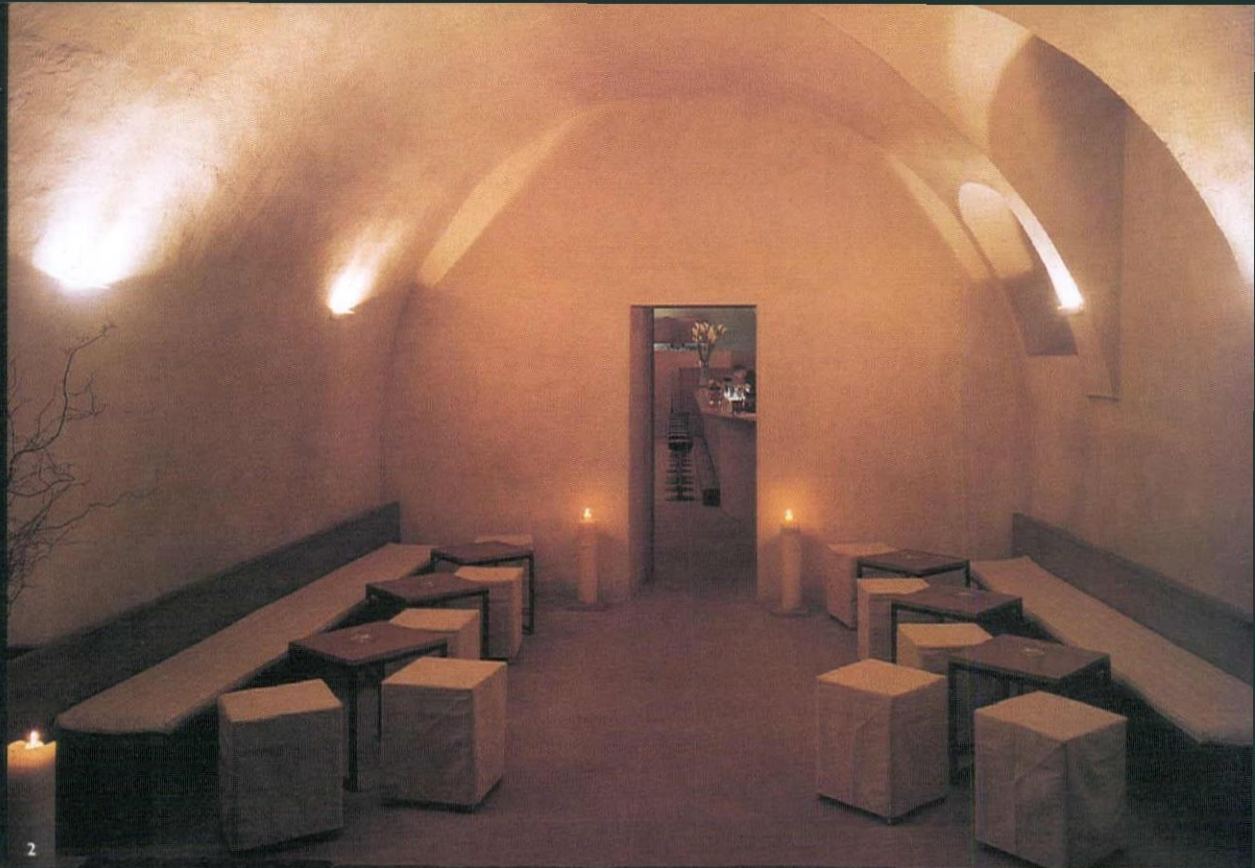
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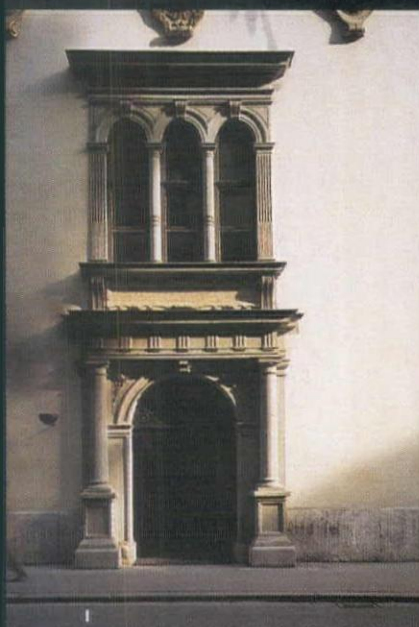
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2



1

RESTAURANT, GRAZ, AUSTRIA
ARCHITECT
CLAUDIO SILVESTRIN



3

1 Entrance to the restaurant through a fine Renaissance doorway.
2 Waiting area austere furnished with teak benches, canvas-covered stools and Fronzoni tables.
3 Entrance lobby paved with original slate slabs.

Stable environment

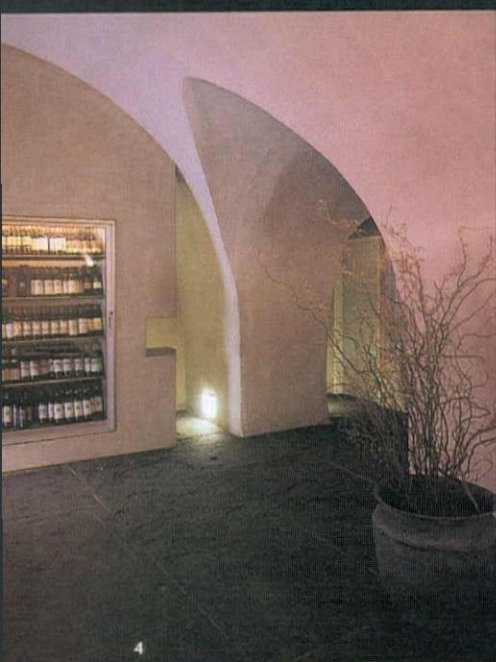
The design of a new restaurant in sixteenth-century stables restores the character of the old vaults and adds to the cultural life of the old centre of Graz.

Claudio Silvestrin's design of the Johan clothes shop in Graz (AR December 1993, p36) has been followed by the Johan restaurant. Both schemes had the same clients, and both coincidentally were inserted into sixteenth-century vaults.

The new restaurant occupies part of the ground floor, formerly the stables, of the Landhaus, the three-storeyed Renaissance building by Domenico Allio which has housed the seat of local government since the sixteenth century.

The restaurant off the Landhausgasse is gained by passing through a splendid Renaissance doorway and minimally detailed glass door into a vaulted antechamber, which Silvestrin has

turned into an entrance lobby. It is dimly lit and paved with the original dark slate of the sixteenth-century stables. To the left is the cloakroom, and through an arch to the rear is a glimpse of a frosted glass screen masking entrance to the lavatories. You wait at Fronzoni's cubic tables (Silvestrin studied under Fronzoni in Milan), sitting on teak benches or canvas-covered stool, before passing into the restaurant through a narrow doorway cut through thick walls. To Silvestrin's relief, a preservation order prohibited widening the opening, for to have done so (and he might have been pressed by the restaurateurs) would have diminished the drama of passage into an extraordinary crypt-like



4



5



6

RESTAURANT, GRAZ, AUSTRIA

ARCHITECT

CLAUDIO SILVESTRIN

chamber. The structure of this undercroft is remarkable with low vaults springing from a double line of squat stone columns.

Silvestrin's monastic proclivities must have responded immediately to such a place, and his treatment emphasizes – by continual reduction to the essential – the simplicity of the rectangular plan and the wonderful primitive quality of the structure.

From the doorway your eye is taken down the length of an immensely long hall lined by

stools which runs down the right-hand wall of the restaurant; down the other wall is a row of tables and linen-covered chairs. Kitchens and a service point at the far end are screened from sight by low plastered partitions set like a piece of sculpture to form overlapping planes.

Initially, the structure was cleared of post-war accretions, the stone cleaned and repaired. New technology was made invisible; with services being concealed under the new stone-tiled floor and piping driven through the thickness of the

wall. New materials are few: big sandstone slabs for the floor except at the entrance, teak for the furniture and stainless steel behind the bar. Finishes are very simple, designed to accord with the colour of the pale Graz stone.

Ceiling arches are limewashed with natural pigments and illuminated from the bases, moulded and defined by light and shadow; faux openings between each of the arches are backlit, appearing as jewel-like squares of light within the frame of plain plastered walls. **BRUNO MAGLI**

4 Entrance lobby, cloakroom to left; lavatories screened by opaque glass at rear.

5 Service point and kitchens masked by low plastered walls.

6 Restaurant with double row of tables, linen-covered chairs and high-backed teak benches.

7 Teak bar runs the length of the room; stainless steel unit designed to make bottles and utensils unobtrusive.

8 Detail: base of vaults illuminated and cut out to enhance structure and faux window heads.



7

Architect

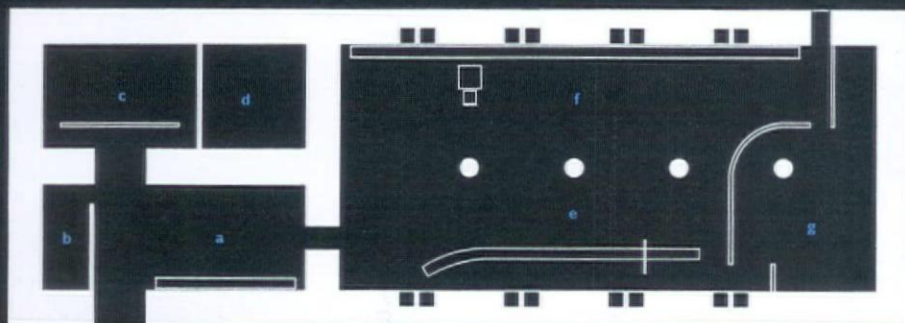
Claudio Silvestrin

Design team

Claudio Silvestrin, Mark Treharne,
Douglas Tuck

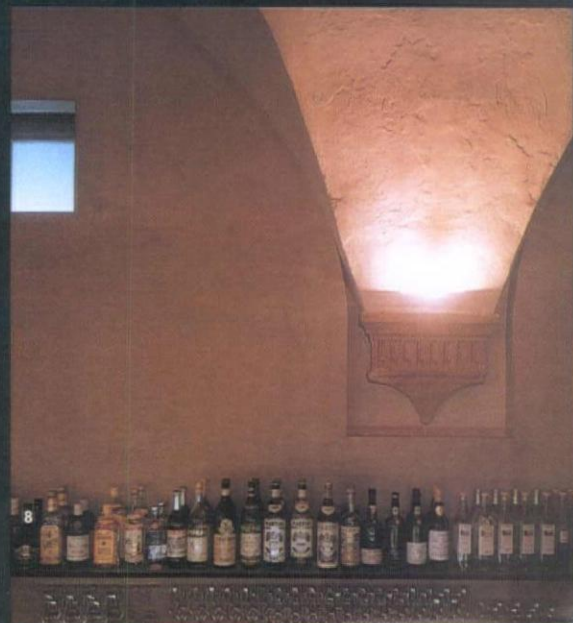
Photographs

Gisela Erlacher/ARCAID



plan (scale approx 1:150)

- a entrance
- b cloakroom
- c lavatories
- d plant room
- e bar
- f restaurant
- g kitchen



8

Soho sails

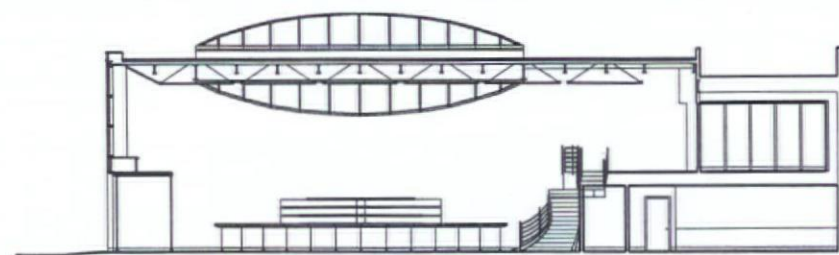
A simple double-height volume, in which day and artificial light are carefully modulated to provide a private but convivial atmosphere.

Gilles Dépardon, who is responsible for the lively design of Bar 89 in New York, is a young French architect living and working in the city.

Bar 89 is contained within a new two-storey building built on an empty parking lot in Soho. The district is remarkable for among other things the concentration of early cast-iron structures and the bar is flanked on either side by listed buildings which provide an exterior frame for the building and a backdrop to the interior.

The main delight of the simple double-height space is a huge curved skylight through which the neighbouring buildings can be glimpsed. Architecturally speaking, the architect has put his entire collection of eggs (save one) into one basket, for this is the main event from which all other things derive. In illuminating the room it also serves to remind you of the context, and its arcing form generates those of the curving bar, of stairs up to an intimate gallery and of the plan of the gallery itself. The skylight is masked by delicate undulating sunblinds attached by ties to the wall opposite so that the whole thing reminds you of a gauzy kite floating above the bar, which itself has a classic all-American character. Its combination with Dépardon's piece of exoticism is surreal.

Even more surreal and worthy of Buñuel* are the unisex lavatories enclosed by electrochromic glass walls. Transparent when unoccupied, the walls become opaque (you hope) when locked from the inside. This is Dépardon's last egg, but the novelty is a local source of wonder. VIOLET GORE



long section

* In Buñuel's film *The Discreet Charm of the Bourgeoisie* eating was done in private, lavatorial business in public.

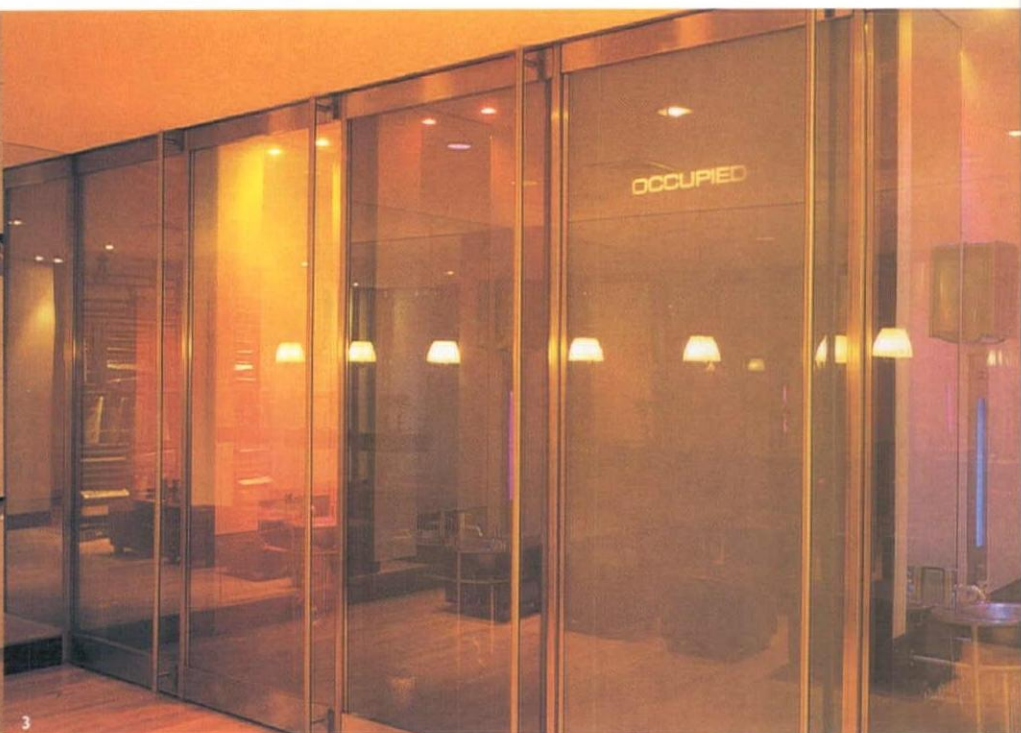
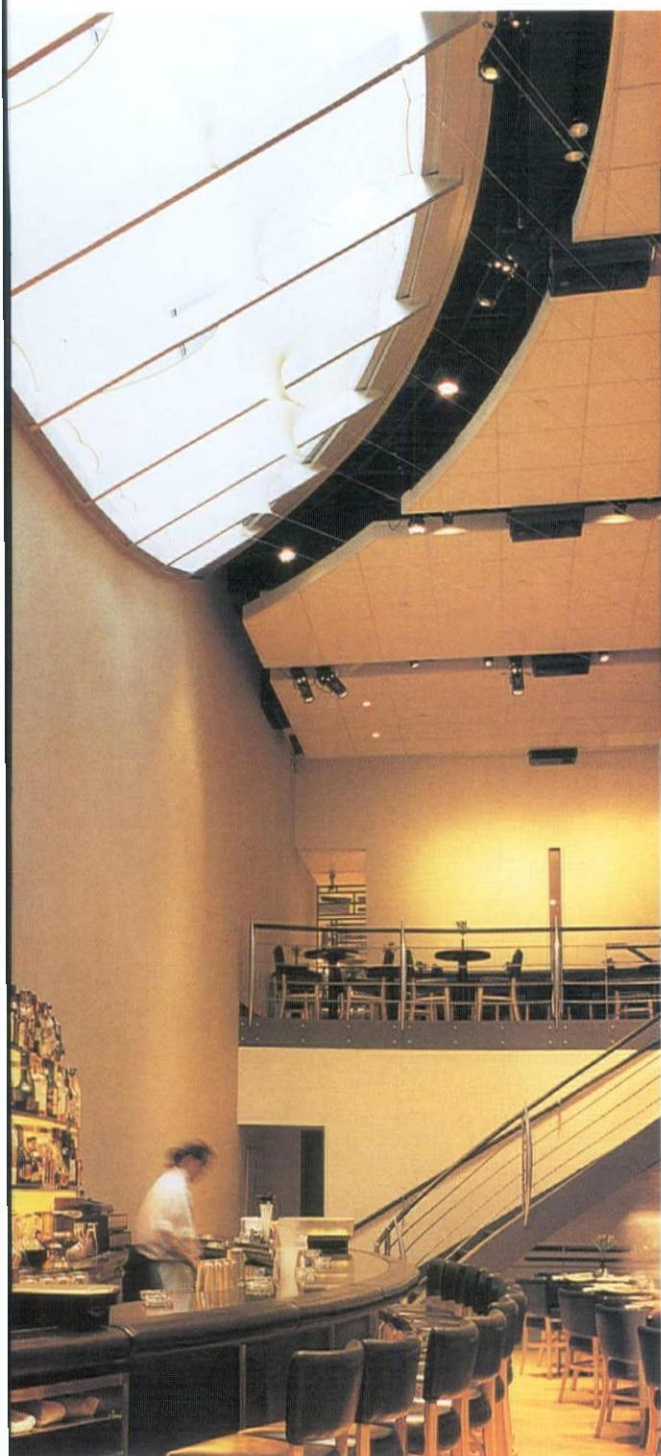
BAR, NEW YORK, USA

ARCHITECT

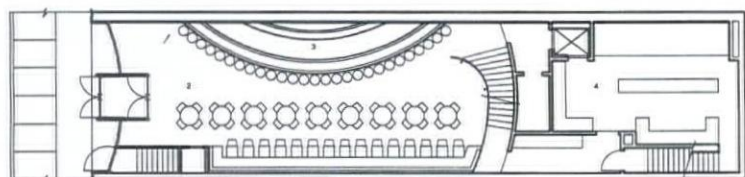
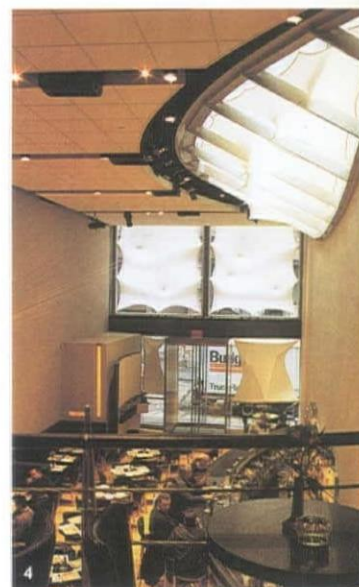
GILLES DÉPARDON

PHOTOGRAPHS

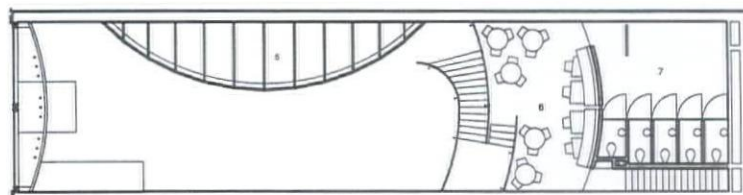
MIHAIL MOLDOVEANU



- 1 At night, the skylight acquires an almost solid presence.
- 2 Adjustable sunblinds make a gauzy kite floating surreally above the bar, which in contrast is a solid, rather routine affair.
- 3 The bizarre walls of the lavatories, which become opaque when the doors are locked from the inside (or are supposed to).
- 4 Fabric modulates light from street and adds a veil of privacy.



entrance level (scale approx 1:350)



gallery level



SPANWALL offer precision, high performance, versatile, lightweight curtain wall and cladding systems which incorporate composite metal panels, windows, doors and louvres to create a total building facade. They are ideally suited for industrial, retail, commercial and high technology structures and for new developments or the refurbishment of existing buildings.

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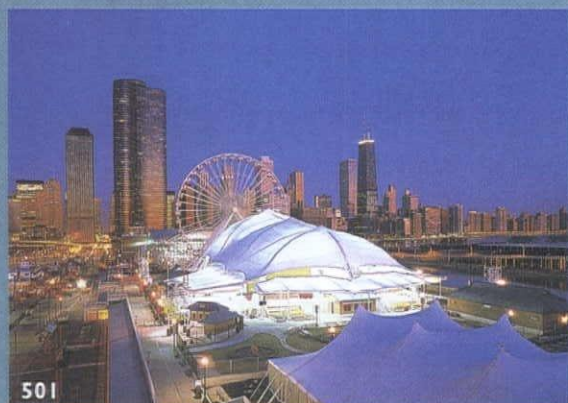


EDM Spanwall Limited
Unit 1, Carryduff Business Park
Comber Road, Carryduff
Belfast BT8 8AN
Northern Ireland
Tel: (01232) 815303
Fax: (01232) 815449

UK Sales Manager · Terry Devane, 15 Camborne Way, Heston, Middlesex, TW5 0PW. Tel: (0181) 570 9288. Fax: (0181) 577 6273

The Spanwall Panel System is available through a UK-wide dealer network

For more details enter 9 on AR enquiry card



501



502



503



504

EXTERNAL ENVELOPE

501

Birdair's Teflon-coated Fiberglass membrane, specified by BTA/VOA, has been used to form the amphitheatres on Navy Pier in Chicago, Illinois. The engineers were Rubinos & Mesia. Birdair's tensioned membranes can be used to construct graceful roofs, and skylights as well as free-standing buildings. They are durable requiring minimal maintenance and are unaffected by harsh environmental conditions.

Birdair

Tel: +1 716 633 9500
Fax: +1 716 633 9850

502

One of the main architectural events on the Expo '98 site in Lisbon is the exuberant new railway station designed by Santiago Calatrava. His characteristic structure, which was developed by subcontractors, Lenametal & Vidronorte (Saint Gobain), and consists of steel columns and trusses supporting a glass roof and glass walls, has

been sealed with Dow Corning's 797 Weatherseal Silicone Sealant.

Dow Corning

Tel: +32 26 55 25 09
Fax: +32 26 55 20 03
Saint Gobain Glass UK
Tel: +44 1753 810505
Fax: +44 1753 811011

503

The roof of the new Conference Centre in Glasgow, designed by Foster and Partners, is composed of gleaming overlapping shells linked by panelled, louvred

and glazed slots and covered with KAL-ZIP aluminium standing seam roofing, supplied by Hoogovens Aluminium Building Systems. The system is weatherproof, accommodates thermal movement and allows the building to breathe.

Hoogovens Aluminium Building Systems

Tel: +44 1942 295500
Fax: +44 1942 272136

504

The university complex at Tarrasa, the Catalan

birthplace of textile industry near Barcelona, was designed by Eduardo Broto. Its slender conical towers have been capped with natural zinc titanium sheets supplied by NedZink and installed by means of traditional techniques.

NedZink

Tel: +31 495 455700
Fax: +31 495 455790

If you would like to obtain more information on these products, please enter the relevant numbers (501 etc) on the reader enquiry card at the front of this issue.



505

505

Reynolds Metals is producing brilliantly coloured panels for canopies, signage, columns, and fascia. They are finished in Duragloss, a glossy polymer-based coating in standard primary colours (and others to order), that is durable, resists marking and retains its colour.

Reynolds Metals Company
Tel: +1 804 281 3939/2636
Fax: +1 804 281 3602
Reynolds Aluminium France
Tel: +33 3 89 74 46 46
Fax: +33 3 89 74 46 38

506

In cladding the Nokia factory in Finland, architect Helin & Siitonen (AR April 1998) specified Paroc Fire Proof Panels. Composition of these inherently fire resistant lightweight composite panels is based on a core of structural rock wool bonded to colour-coated steel sheets. The panels can be used for partitions and ceilings.

Partek Paroc
Tel: +358 20 455 6555
Fax: +358 20 455 6523

507

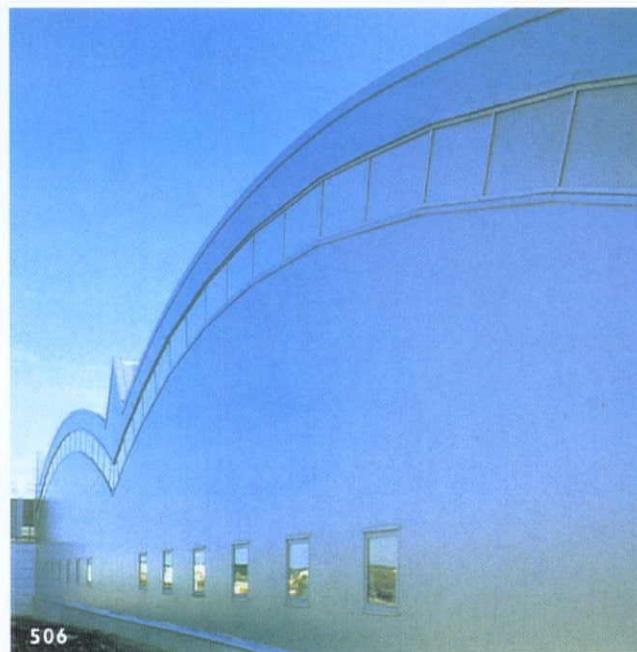
Colorcoat (HPS200) from British Steel is a colour-coated steel cladding for

roof and wall. Its Galvalloy substrate is strip steel hot-dip coated with an alloy of zinc (95%) and aluminium (5%) combined with other elements; the coloured finish, applied over corrosion-resistant primer, is durable, mould resistant and retains its gloss and hue. Shown here, the effects arising from the play of light on the steel, created by micro-impressions of the British Steel symbol. British Steel has just brought out Colorcoat Celestia, a metallic plastisol-coated steel for profiled steel and composite panel cladding systems.

British Steel
Tel: +44 1633 290022
Fax: +44 1633 464087

508

The BASF building in Ludwigshafen was constructed in 1958. Designed by Hentrich-Petschnigg & Partner, it is considered a classic German office structure of the period and is listed. In renovating the building envelope, the original architects worked with conservationists to retain the appearance of the exterior. With the metalworking company Müller and Frame Material



506

Group I, Wicona developed a second outer skin of printed glass which mimics the original mosaic facing and is supported by an invisible aluminium framework. All elements were prefabricated.

Wicona International
Tel: +49 731 3984-0
Fax: +49 731 3984-100

509

A new media centre and reference library, designed by J. J. Morisseau, in Honfleur has a curving glass lobby made from a new curtain-walling system from Technal. MC Trame Horizontale incorporates a spine and weatherproofing seal, replacing pressure plates and capping on upright profiles. A slender EPDM trimmed gasket protects the silicone seals between the glass and the mullion; metal elements can be anodized or colour finished. The firm's range of curtain walling which can now provide sloping glazing, concealed windows and a sun-shading system designed in collaboration with Foster & Partners.

Technal Viking
Tel: +44 113 296 1400
Fax: +44 113 296 1414



507



508



509

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Gasell APX is ideal for both new build and refurbishment projects and is particularly suitable for renovating churches, palaces and other traditional buildings. It is currently being used to refurbish the Presidential Palace in Lithuania. Gasell APX also provides superb aesthetics for futuristic developments including schools, colleges, museums and houses.

It is available in five different coating systems and an extensive range of colours. Of note is Gasell SHINE, an exclusive coating system that is PVF₂ Kynar 500 based and incorporates metallic pigments. The pigments change colour with the ambient light producing a unique iridescence. Some of the colours available in SHINE simulate the patina of copper and lead providing a very attractive, cost effective, soft metal roofing solution.

Gasell Profil

Gasell Profil AB
Landsvägen 68
P.O. Box 7,
SE-23108 Anderslöv, Sweden
Phone: +46 410 214 00
Fax: +46 410 214 50

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KAL-ZIP®

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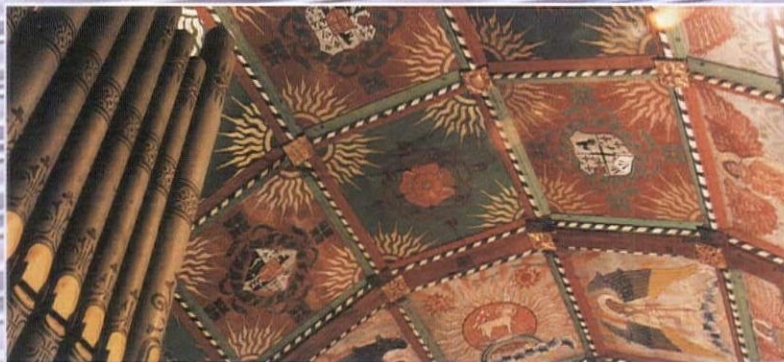
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For total flexibility in form and function from the simplest shapes to wave-form, crimp-curved and tapered-curved buildings the solution is KAL®.



Interior of Fenny Bentley Church, Ashbourne.

One of the earliest uses of aluminium in buildings is at Fenny Bentley Church, Ashbourne. The ceiling of the Beresford family chapel is made up of decorated aluminium panels with wooden bosses, one of which shows the date of 1895, the date the ceiling was installed.



Hoogovens Aluminium Building Systems

Hoogovens Aluminium Building Systems Ltd
Haydock Lane, Haydock, St. Helens
Merseyside WA11 9TY
Telephone: Customer Service (01942) 295500
Facsimile: (01942) 272136

Hoogovens Aluminium Building Systems Ltd is a subsidiary of Koninklijke Hoogovens NV.

For more details enter 5 on AR enquiry card

Registered in England. No. 2128169



510
Studios Architecture's design of company headquarters for 3 COM incorporated AME-EURO's Proteus I rainscreen cladding system. This is back ventilated and drained and can be used to overlaid existing structures. The system is designed to suit individual projects and provides a flush facade with 20mm recessed joints throughout.

AME-EURO
Tel: +44 1695 50658
Fax: +44 1695 50652

511
Lobb Sports Architecture specified Plannja's P70 decking in the design of the new Reebok Stadium for Bolton Wanderers football club in Lancashire. Plannja's Plastisol-coated steel decking is able to accommodate the complex shape of the four separate roofs of the

building. As can be seen here, the decking can be made a different colour on each side.

Plannja
Tel: +44 1628 37313
Fax: +44 1628 74940

512
Wet 'n' Wild is a new sports and fitness centre at Royal Quays, Wallsend, designed by Faulkner Browns. Dane Architectural Systems was specified for the large span curtain walling including curved elements, windows and inset entrance doors.

Dane Group
Tel: +44 1207 560492
Fax: +44 1207 561729

513
Glazing for the glass shell and exuberant winged roof of the new Bar Rouge café, designed by CZWG, in Birmingham was supplied by

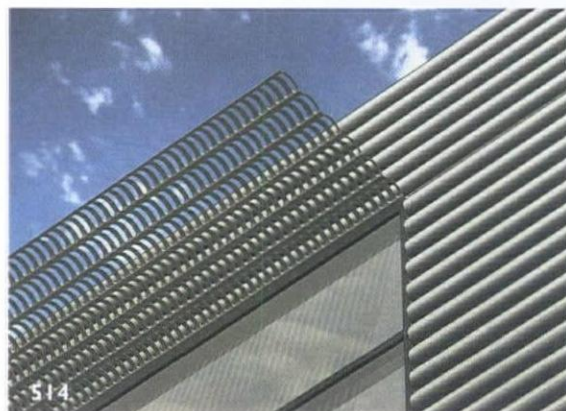
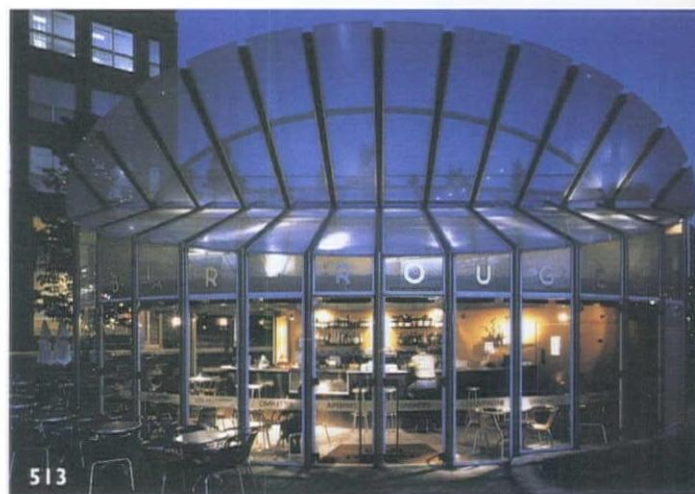


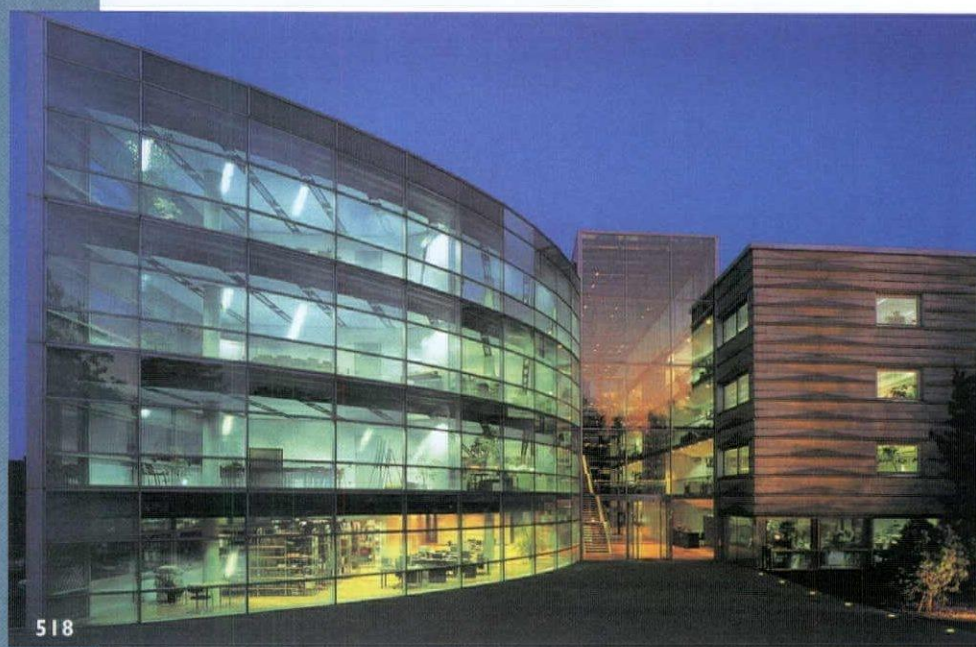
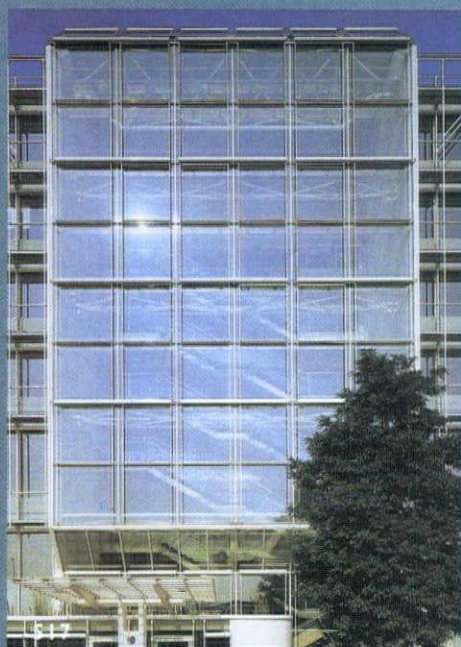
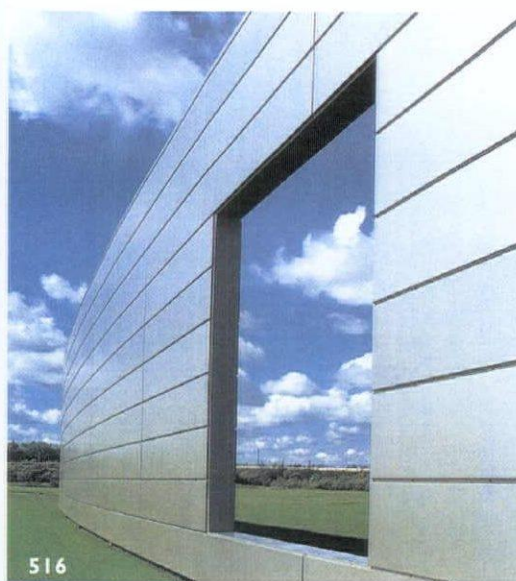
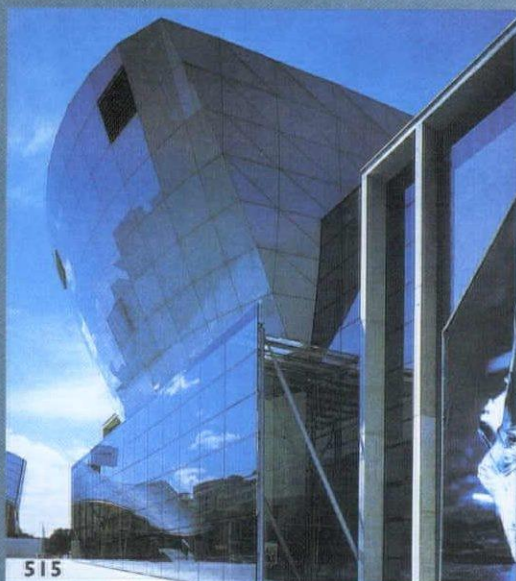
Solaglas. Saint-Gobain's SG Screen-Lite fritted glass was used for roof panes to reduce glare and solar gain; safety laminated glass was used for inner panes. Vertical panels are of clear glass to provide customers with uninterrupted views towards fountains, lawns and trees. At the rear, panes of solid SG Screen-Lite fritted glass obscure kitchen and plant.

Solaglas
Tel: +44 1203 458844
Fax: +44 1203 636473

514
AP 50 HR/BS is a new improved and larger brise soleil from Architectural Profiles. It is made of aluminium and appropriately slotted to provide the ideal sunscreen.

Architectural Profiles
Tel: +44 118 927 2424
Fax: +44 118 927 2400





515

The double curved, point fixed glass facade of Klaus Kada's Festspielhaus, St Pölten, Austria (AR May 1998, p42), consists of more than 600 different triangular and trapezoidal glass pieces. Seele fed the drawing of each 10mm thick, ceramic fritted pane – supplied by Eckelt Glass – into the glass-cutting machine by electronic transfer. In helping Kada to realize his vision, Seele and the architects worked closely with Dow Corning. The firm developed a new glass bonding system for the building's roof as well as the facade. Insulating glass in both areas was semi-drilled,

The standard bolting system was used for internal panes, but external panes were bonded with Dow Corning 993 silicone sealant. Photograph: Angelo Kaunat

Seele UK
Tel: +44 171 426 0798
Fax: +44 171 426 0799
Eckelt Glass
Tel: +43 7252 8940
Fax: +43 7252 89424
Dow Corning
Tel: +32 26 55 25 09
Fax: +32 26 55 20 03

516

Micon's Windmill Factory and Administration building in Jutland, designed by C.F. Møller, has been clad with

Gasell Profil's panels. Kassett flat steel panels have here been coated with PVF2, Metallic Silver, for longevity and for aesthetic reasons. To screen the building from the nearby motorway a long curving wall 200m long and 6m high has been clad with the same ventilated panels. These are available in galvanized steel, aluminium, stainless steel and other materials on request. The firm offers different jointing systems, coatings, flashings, corners and specially shaped parapets.

Gasell Profil
Tel: +46 410 21400
Fax: +46 410 21450

517

Krülland's Horiso sunscreen, which has been fitted over the facade of the airmail sorting office at Munich Airport, protects the interior from solar gain and, of course, glare. The firm specializes in screening buildings, inside and outside, for privacy as well as for protection against the sun. Screens, which are designed to be robust and to need little maintenance, are available with intelligent controls, in a great variety of forms, materials and colours.

Krülland
Tel: +49 21 31 60 07-0
Fax: +49 21 31 60 07 25

518

Schüco's systems were specified by Foster and Partners in the design of the exterior of an extension to Agiplan-Gruppe's office building in Mülheim. An 18m high atrium connects the old with the new, and the unusually large grid of the facade refers to the proportions of the existing building. The outer skin of the building in System FW 50 is fitted with large top hung vents integrated into the facade.

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Fax: +49 521 783 182



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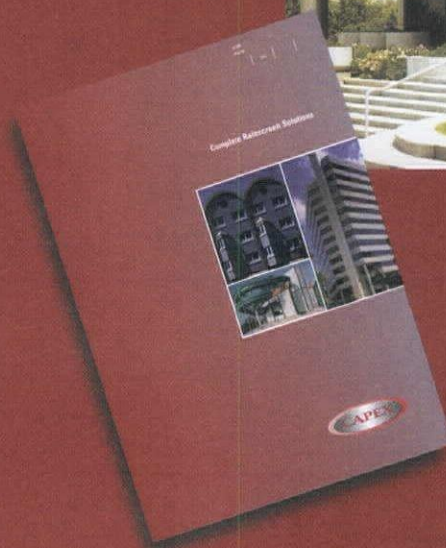
For more information on CAPEX services call **01254 391111** for a brochure.



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CAPEX is part of the CEP Group of Companies 

For more details enter 15 on AR enquiry card



Specifier's information



900 on AR enquiry card

Screenbase

Spirals is inspirational screening from Screenbase, market leaders in screen furniture systems. Finished in steamed beach veneer with a contrasting dark grey trim, Spirals screens are perfect for creating private and relaxing meeting areas or instantly enhancing a modest interior. They can be positioned and shaped into any style you desire, quickly and effortlessly.

For larger areas, Spirals link using the integral end-of-strip which also acts as a linking strip. For greater flexibility Spirals can also be easily linked to fabric trimmed screens in the comprehensive Screenbase range.

For further information tel: +44 (0)1264 332166 or fax +44 (0)1264 333560.



901 on AR enquiry card

Euroroof Ltd

Roofing and waterproofing experts Euroroof have launched a new light-weight granular metal roof tilestrip – Euroloc. Manufactured from galvanneal protected steel, Euroloc is an attractive alternative to the traditional heavier roof tiles and is available in 10 colours and three profiles (Continental, Shadowline and Woodshake), designed to suit any environment.

Euroloc has a dense surface covering of finely graded colour blended ceramic quartz granules, embedded and sealed in acrylic. The tiles will not burn or support combustion and are UV resistant. They are impact and weather resistant. Telephone Tracey Oakes on +44 (0)1606 48222 or fax +44 (0)1606 49940.



902 on AR enquiry card

Sill Lighting UK

The Sill Lighting 490 series power projector range has been extended. The compact floodlights are available in 52 different lamp-ways and 27 reflector combinations, and are designed for 35w to 400w lamps, including metal halide, high pressure sodium, and tungsten halogen. The power projectors have integral ballasts and a one-piece diecast aluminium body with cooling fins. Suitable for internal and arduous external use, they have a protection rating of IP67.

Sill's renowned reflector design produces optimum light output and energy efficient luminaires.

For information contact Bob Kramer of Sill Lighting UK on +44 (0)1844 260006.



903 on AR enquiry card

Kardex Systems (UK) Ltd

Kardex's DataStack is a custom-designed mass storage centre which reduces space planning requirements in document intensive offices by slashing storage footprints and eliminating battalions of filing cabinets. It can hold hundreds of thousands of hardcopy documents in less than four square metres. Computer controlled, DataStack is designed to blend with office furniture systems and can be customized in colour, texture and finish. Operating as an integrated wall unit or as an island retrieval centre, DataStack can be specified with a tailor-made integral workstation or reception counter.

For further product information telephone +44 (0)181 885 5588; or fax +44 (0)181 801 9858.



904 on AR enquiry card

Caradon Plumbing Solutions

Rada Controls, one of the 10 major brands within Caradon Plumbing Solutions Portfolio, are specialists in providing showering and washing control systems for commercial markets. Their new product, Rada 320, is a 1/4" thermostatic mixing valve, and has been designed primarily for group showering installation. The stylish and durable Rada 320 is the only group control valve that incorporates the unique 'Radatherm' temperature control cartridge. This cartridge employs two advanced thermoscopic temperature sensors to provide water at safe, accurate temperatures for showering across a wide range of flow rates.

Telephone +44 (0)1242 221221 for more information.



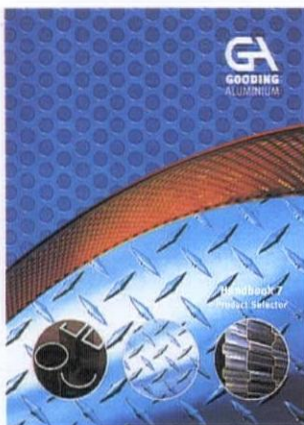
905 on AR enquiry card

Latchways

Latchways has launched a unique cable-based Fall Arrest solution in direct response to the growing use of composite roofs. The new system is based on a pioneering bracket that is quick and easy to install from the top of the building structure. It can be attached without damaging the integrity of this modern material, enabling the provision of safe access routes.

The lightweight, energy absorbing, pyramidal bracket is secured with a base section which runs in line with the purlins. In the event of a fall, the top section of the top-fixing bracket deforms, absorbing fall energy.

Telephone +44 (0)1249 816326 or fax +44 (0)1249 813283.

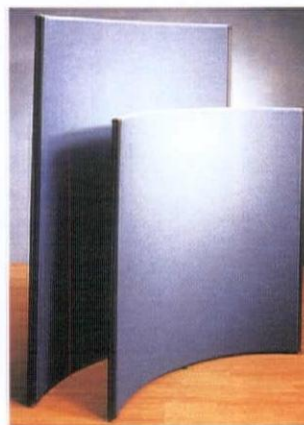


906 on AR enquiry card

Gooding Aluminium

This superbly illustrated 150 page Handbook covers the whole aluminium specification process, from concept to international on-site supply. Outstanding design solutions are provided by the comprehensive range of 'off the rack' perforated and patterned sheets, accessory trims and other extruded profiles. This informative publication features a broad range of photographic case studies which demonstrate many exciting examples of innovative design.

Processing and fabrication, surface finishing and technical information sections complete this essential and valuable aid to working with aluminium. A free copy of Handbook 7 is available by faxing our brochure line: +44 (0) 181 694 2004.



907 on AR enquiry card

Project Office Furniture

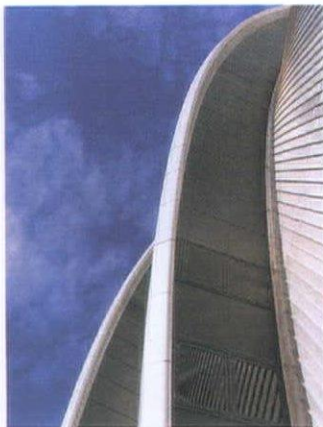
Project Office Furniture, a leading UK manufacturer of office furniture, is launching two new screen ranges which will add another dimension to space planning.

The Primary 30mm Screens and Primary 50mm Screens are the latest additions to Project's Screens Collection, offering greater functionality and superior quality at competitive prices.

Both Primary 30mm Screens and Primary 50mm Screens come fully upholstered and with a softly contoured top cap option in colours complementary to the desking. They are linkable and have two adjustable feet for levelling.

For further information telephone Project Office Furniture on: +44 (0)800 581516.

Specifier's information



908 on AR enquiry card

AME-Euro

Working closely with specialist cladding manufacturer AME-Euro Ltd, Foster and Partners used the Proteus modular cladding system to achieve the complex geometry for the Scottish Exhibition and Conference Centre. The system manufactured from pre-finished flat composite panels includes many specially-developed design details. AME-Euro specialize in the design and manufacture of high-quality, fully integrated, composite and rainscreen modular panel systems to suit a variety of aesthetic and performance criteria. All system elements (panels, windows, louvres) are modular to ensure high flexibility, maximum integration and consistent detailing. Tel: +44 (0)1695 50658; fax: +44 (0)1695 50652.



909 on AR enquiry card

Ecophon

Stunning visual effects and a sense of height can be created by using coffers for the natural illumination of office space.

With Ecophon standard coffer kits there is no time-consuming and messy wood and plaster construction or on-site decoration. The coffer kits are installed in the same way as a conventional suspended ceiling, with standard drawings and component lists readily available. They also provide a quick, cost-effective means of uplighting, which is now widely accepted as one of the best forms of interior office lighting.

For further product information telephone Ecophon Ltd on +44 (0)1256 850977 or fax +44 (0)1256 850600.



910 on AR enquiry card

Reynaers

Reynaers' advanced curtain-walling systems satisfy the glazing requirements of modern architecture, with vertical, sloping and faceted options which include opening lights within the curtain wall itself, as well as fast and efficient assembly.

CW50, with a visible width of just 50mm, allows elegant structures, thanks to its fine external capping, giving the facade a flush appearance. CW60 is suitable for the majority of architectural applications, with seven mullions and five transoms available. For further product information telephone: +44 (0)121 789 9191; fax: +44 (0)121 789 9500; or website: <http://www.reynaers.com>.



911 on AR enquiry card

Murray Locks

Murray Locks is a new UK-based brand revolutionizing the locks market. Its world-wide patented 3 point locking system is a fully integrated arrangement, incorporating 5-lever sashlock, that simultaneously operates security bolts at the top, bottom and leading edge of the door at the turn of a single key. It does not involve unsightly external levers and fittings, expensive specially-made doors, three separate locks or multiple keys and the system can be retrofitted on site, in under two hours.

The competitively-priced system replaces conventional sashlocks, accepting existing door handles and spindle, or reinforces a normal cylinder lock. Telephone Murray Locks on +44 (0)870 747 0999; fax +44 (0)870 747 1999.



912 on AR enquiry card

NEACO

In a move to improve safety on stairways for the blind and visually impaired, all handrail and balustrading systems in NEACO's Nearail Spectrum range can now be specified with a series of raised indicators formed into the rails to signal the approach of the first and last steps on a flight of stairs.

This latest development, which can be incorporated into both 38mm and 51mm standard diameter handrails, will increase the versatility of a system which offers a wide range of components, with various infill options, to meet virtually any installation requirement. Telephone NEACO on +44 (0)1653 695721; fax +44 (0)1653 697276 for more information.



913 on AR enquiry card

CEP Claddings

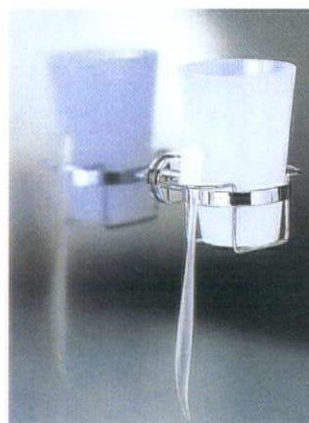
The exterior refurbishment of Glyndon and Claymill Towers – two tower blocks in Greenwich – featuring Bauclad Max high pressure laminate panels from CEP Claddings, has greatly improved the living conditions for the residents and provided a crisp, clean overcladding finish. 7300m² of winter white Bauclad Max with clinical grey Bauclad Max as the accent colour was used as part of CEP's Capex rainscreen system, with insulation behind the exterior cladding. The end result is an aesthetically pleasing, hard-wearing cladding system which fully protects the buildings from the elements and has drastically reduced heating bills. CEP Claddings, tel: +44 (0)1254 391111 or fax: +44 (0)1254 232020.



914 on AR enquiry card

Wicanders

Wicanders, the makers of beautiful natural floors has been selected to provide flooring by Lloyds TSB, the largest UK high-street bank. The public areas of 500 branches nationwide will be fitted out with Wicanders Wood-O-Cork Cherry plank. Commenting on the forthcoming installations, Fernando Nogueira, Managing Director of Wicanders said, 'Wicanders Wood-O-Cork flooring is perfect for public places because it is very durable, has excellent anti-static and noise reduction properties and requires very little maintenance'. Shown here: Wicanders Mutene Plank from their Wood-O-Cork range. Telephone Wicanders on +44 (0)1403 710001 or fax +44 (0)1403 710003.



915 on AR enquiry card

Vola UK

Vola was designed by Danish architect Arne Jacobsen, recognized worldwide for outstanding architecture and design. Pictured here is a T6 toothbrush and tumbler holder which is a part of the stylish and exclusive range of accessories from Vola. Specifically designed to complement Vola's kitchen and bathroom hardware, this superb collection is the perfect solution to complete your design ideas. The full Vola range is available in polished or brushed chrome, natural brass, platinum, brushed platinum or a choice of 18 colours.

For further details and a colour brochure, please telephone Anna or Gemma on +44 (0)1525 841155, or fax +44 (0)1525 841177.

Zen and sheeting

FROM THE CENTER: DESIGN PROCESS AT SCI-ARC

By Michael Rotondi and Margaret Reeve. New York: The Monacelli Press. 1998. £40

'From the Center' is a family album of faculty work from LA's Southern California Institute of Architecture (SCI-Arc). It complements 'From the Edge', a compilation of student work from some years ago, and marks the innovative school's (a recurring description) 25th anniversary.

Here are such familiar LA personalities as Eric Owen Moss, Robert Mangurian and Mary-Ann Ray, and SCI-Arc's first director Ray Kappe, alongside such comparative youngsters as Buresh Guthrie and Richard Lundquist. The architects all exhibit personal projects with statements of intent. Lecturers including Mike Davis and Margaret Crawford contribute essays on theory.

Despite LA stereotypes and the excitement of computerization, construction has always played a central role in the activities and agenda of the school (not unlike Switzerland where SCI-Arc maintains an annex in the Ticino). This focus on fabrication becomes, at times, almost meditative – Zen and the Art of Sheeting and two by fours. Michele Sae is most eloquent in this respect, writing of process, intuition and bodily senses.

If innovative LA architects have difficulty gaining large-scale commissions, this catalogue or subtle manifesto points to the social aspects of architecture as a way to greater influence, for design beyond the boutique and restaurant. Michael Rotondi, SCI-Arc's second director (now succeeded by Neil Denari), states 'we

learned not to separate society and architecture'. Here, with colleagues' politically-inspired projects for Tijuana and east LA, is his extraordinary ongoing work with the Lakota tribe in South Dakota.

Designed by April Greiman, 'From the Center' reads as a useful if bulky snapshot of where a healthy, still curious school of architecture is at in the late 1990s.

RAYMUND RYAN

Romanesque colossus**HENRY HOBSON RICHARDSON: A GENIUS FOR ARCHITECTURE**

By Margaret Henderson Floyd. New York: The Monacelli Press. 1998. £50

The massive, masculine buildings of that big man, H. H. Richardson, must be initially puzzling to anyone who reads about them first, for he is so often presented as a pioneer, the first authentic American. Henry-Russell Hitchcock's study of his architecture appeared in 1936 and before him there was Lewis Mumford who, in his *Brown Decades* of 1931, wrote of 'a colossal man ... an architect who almost single-handed created out of a confusion which was actually worse than a mere void the beginnings of a new architecture'. The implication was clear: Richardson begat Sullivan who begat Wright and then there was Modern Architecture.

Colossal Richardson certainly was, in character, physical bulk, taste and achievement, but his massive, rugged, arcuated structures, reveling in the weight and texture of stone, would seem to have little to do with the gravity-defying, planar and trabeated architecture of the Modern Movement. And, in fact, in his close dependence upon Romanesque and Norman prototypes, he was steeped in history and was no less Euro-centric than the Greek Revivalists of an earlier generation (who could also be very inventive, and distinctly American). But that is not the point: he must be taken on his own terms, and judged by his buildings which are magnificent, thoughtful and, yes, truly original.

This most handsome book by the late Margaret Henderson Floyd explores Richardson's achievement on its own terms, while Paul Rochelau's photographs celebrate the richness, colour and complexity of those buildings. The man is firmly put into context. Yes, he trained at the Ecole des Beaux-Arts, like so many other Americans, and he may have preferred the round arch to the pointed, but he also owed so much to England: to Ruskin, and to the ponderous High Victorian Gothic experiment – as Floyd, familiar with the British work, makes abundantly clear. But then Richardson went further: he was better than Burges. And he really was a colossus, creating in a short

career what now seems a distinctively American style: Richardsonian Romanesque. Who cares if in fact it led nowhere: the buildings are wonderful.

GAVIN STAMP

Kahn the Talmudist**LOUIS I. KAHN: THE IDEA OF ORDER**

By Klaus-Peter Gast. Basel: Birkhäuser. 1998. sFr.108.-

Kahn once remarked that he lived his twenties in a city called Le Corbusier. Many of us have lived in a city called Louis Kahn since the 1960s, but it hasn't been as easy to find our way around. Kahn, as this study confirms, was a great geometrician, but he wasn't a Cartesian, or a self publicist like Corbu. Even the core of this book, a study of the Ahmedabad Indian Institute of Management, while providing more detail of its development – the lake that never was, the richness of its exterior forms and spaces, the profundity of its proportional system and underlying geometrical ordering – fails to illustrate a single interior space. By contrast, the *promenades architecturales* on the pages of Corbu's *Oeuvre Complète* have yet to be bettered as a graphic and photographic representation of a building. This made it easy to match the seminal writings of Colin Rowe in *The Mathematics of the Ideal Villa* to the buildings.

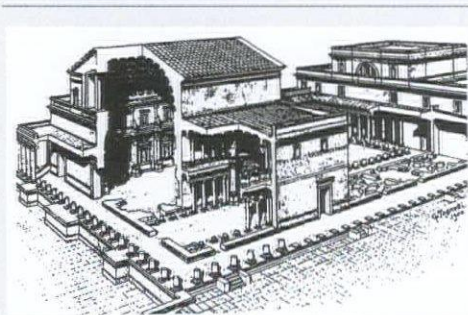
Rowe's methodology underpins this study, which deals in meticulous detail with all the very practical problems of proportion and order, brick size (particularly at Ahmedabad) and wall thickness, and you know that Kahn or his assistants were doing this as a matter of course. One observation on this important addition to Kahn scholarship; the author should now extend his analysis into the sections, and elevations. A student of mine once began such a study of Philips Exeter Academy Library, the exercise was revelatory if lacking in the rigour which Klaus-Peter Gast can bring to it. Kahn was a Talmudist, a man for complex order, unbundling it is like the study of Gematria, the numeric values of letters and words in biblical text.

STEPHEN GREENBERG

Magic numbers**NUMBER 9: THE SEARCH FOR THE SIGMA CODE**

By Cecil Balmond. Munich: Prestel. 1998. £12.96

It is hard to place Cecil Balmond's essay on the supposedly magic properties of the number nine: it seems to be a sort of executive toy for amateur mathematicians, to put on the desk and play with between meetings. A pleasingly



Cutaway axonometric of the reconstructed Domus Augustana, the imperial palace on the Palatine Hill in Rome by the architect Rabirius (second century AD). One of the illustrations from *Imperial Space*, by Christopher Tadgell, Ellipsis, London, 1998, £8.88. Tadgell reviews the spaces of Rome, Constantinople and the early church in a little square volume, the same concise picture and word format as the excellent city guides by the same publishers. The book is one of a series by Tadgell which also covers *Origins*, *Hellenic Classicism*, *Imperial Form* and *India and South-East Asia*.

direct, increasingly complex, investigation into recurring patterns in arithmetic is tediously interrupted by some sourceless legend, for all I know invented by the author, of the sort that has moonbeams and goddesses and clever little apprentices trouncing learned Masters. A nice book for secondary school children; an irritation for adults.

The nature of this criticism results from frustration, because of the aimlessness of this project from the hands of an apparently cultured and thoughtful writer whom you, like Koolhaas and Libeskind, may certainly want as your consultant engineer. For the book ends in a fuddle of 'magic', which is brought in to try to close the gap between a mathematical phenomenon and various random occurrences of the number nine in biblical and sub-biblical texts. An adequate bridge between the two is a long way off. A few quotations just don't do the job. A good copywriter could do it better.

TIMOTHY BRITAIN-CATLIN

Arabian memories

THE TRADITIONAL ARCHITECTURE OF SAUDI ARABIA

By Geoffrey King. London: I. B. Tauris. 1998. £45

My first reaction when receiving this work was one of envy knowing that Geoffrey King had had the opportunity to visit and enjoy the buildings he depicts while he lived in Saudi Arabia between 1972 and 1975 and between 1980 and 1987. Of all British scholars in the field of Islamic arts he is the best qualified to write on this subject. As an Arabic speaker and having taught in the language, he can go off the beaten track, without an interpreter, to gather information, and he can read in the original the accounts of medieval Arabic geographers, abilities he uses to the full in this book.

My second reaction to the book was of sorrow that many of these varied and intriguing buildings were photographed in a ruinous condition at least 10 years ago and it is likely that few now remain. By coincidence I was in Riyadh while reviewing this book and asked Saudi colleagues how many of the buildings illustrated still survive. My question was met with a shrug of despair, though followed closely by an expression of hope that Saudi traditional culture could be revived and strengthened.

The introduction describes climate and building materials. This is followed by chapters on buildings for each of five distinct regions; the Red Sea Coast and the Tiharna Plain, the northern Hijaz and the Holy Cities, the south-western Highlands and Najran, Najd and the Eastern Province. Entries are made for each town with detailed commentaries from the



Inflatable Bingo Garments by Sara Gillott, one of the many explorative, provoking, jolly sometimes silly illustrations to *Techno Textiles: Revolutionary Fabrics for Fashion and Design* by Sarah E. Braddock and Marie O'Mahoney (Thames and Hudson, London, 1998, £29.95) – a book which shows that we should not turn our noses too far up about the ephemerality of fashion: smart textile designers have a lot of imaginative ideas about plastics, woven metal, ceramic fibres, and silicones which might be adapted in buildings. Soon, we shall have solar-powered, self-cleaning dresses and suits, where's the equivalent in construction?

writings of travellers over the last thousand years. This is extremely useful because it brings together information from diverse sources which when combined give a context for the extant architecture.

The photographs are superb and will surprise many who imagine Saudi as a desert of wind-blown sand dunes, with the occasional oasis fringed with palms and dotted with mud-brick hovels. The truth is very different. There are (or were) breathtaking hills with cultivated manmade terraces, castles and fortified towns; there are mud-brick structures of immense proportions, elaborate carved stucco decorations covering complete facades, colourfully painted timber work and inspired cantilevered balconies. All of the photographs are dated and this adds to their value as a record.

Unfortunately the drawn illustrations are not of the same standard. However, the book will be a valuable addition to any library that prides itself in maintaining a well-stocked and relevant section on traditional buildings. I can only endorse the sentiments expressed by King at the end of his Introduction: 'My frequent perception in compiling this account of a vanishing Arabian building tradition is that within a few years most of it will be lost. I would prefer to be wrong'. I hope he is. ARCHIE WALLS

Sea stories

A HISTORY OF VENETIAN ARCHITECTURE

By Ennio Concina (translated by Judith Landry). Cambridge: Cambridge University Press. 1998. £45

Venice is a special place and, in the minds of Venetians, has always been so. The idea of Venice was important. Medieval Venetians saw themselves as heirs to a Trojan foundation as old as Rome itself, and their real (if often brutal military and rapacious commercial) connections with the Byzantine east fuelled a desire to claim continuity with Constantinople and its artistic traditions.

Fourteenth-century expansion into the North Italian terra firma inspired public interest in the Gothic, while fifteenth-century Venetian debates about Renaissance architecture revived ideas about their city as the last legitimate heir of the Classical tradition. If sixteenth- and seventeenth-century architectural magnificence coincided with the loss of the overseas empire to the Turks, this was yet another instance of the ability of Venetians to restructure themselves artistically. When the Republic fizzled out in the Napoleonic kingdom of Italy, and after a lengthier period of nineteenth-century subjugation to Austria, Venice was restructured yet again, physically and intellectually.

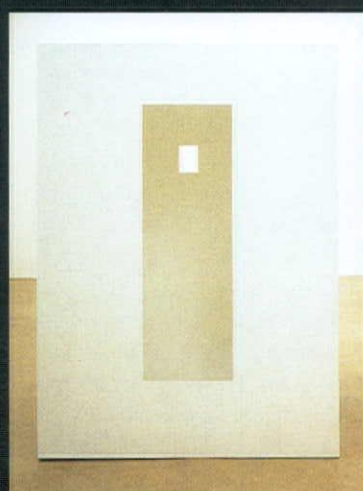
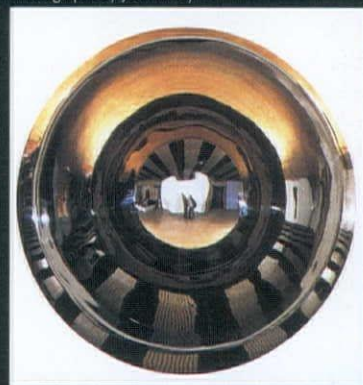
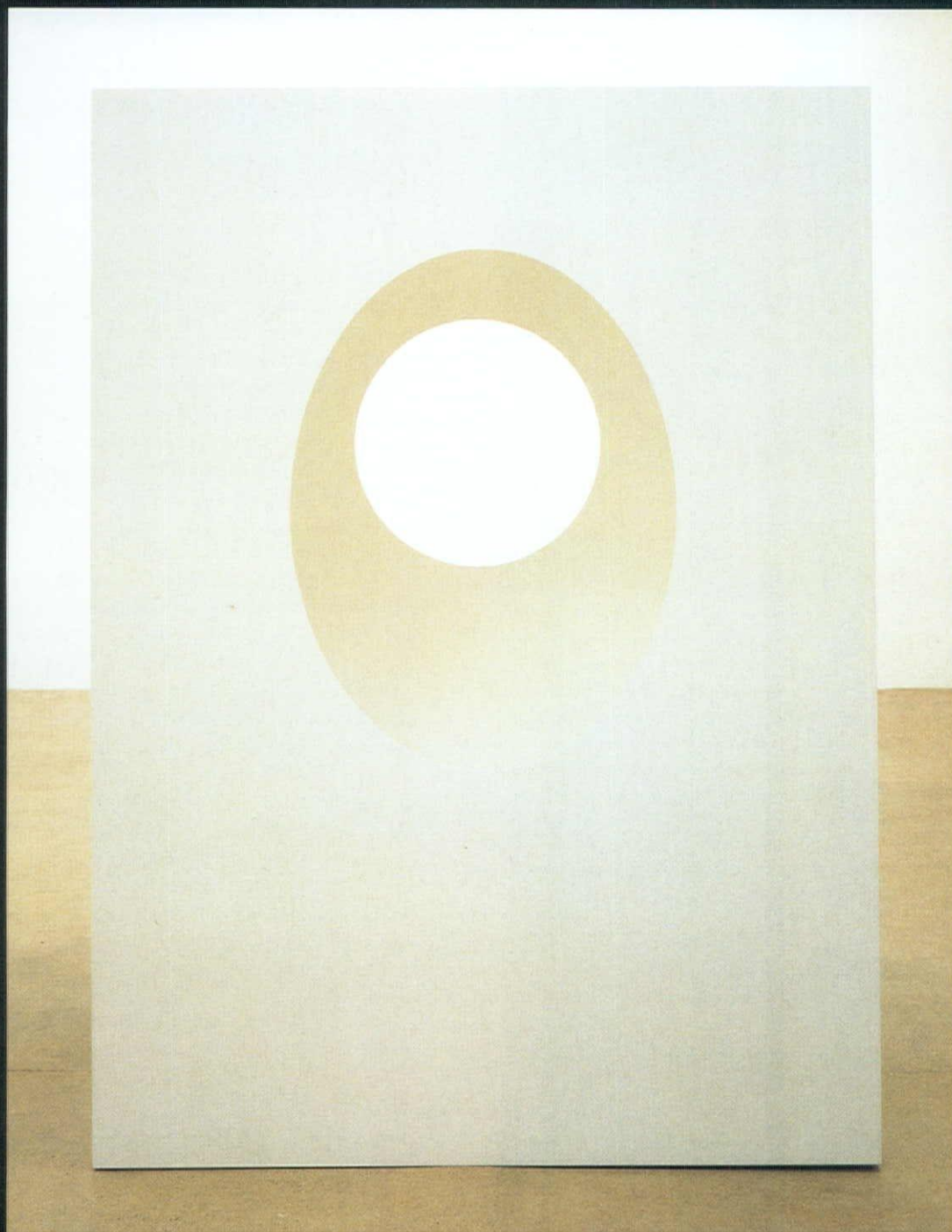
Ennio Concina's fascinating book is more a history of the Venetians' idea of Venice, than a history of its architecture in the normal sense. From foundation myths to modern design, Concina is always perceptive, original, and concerned to explore meanings. Currently teaching Byzantine art, he has published books on early modern humanism and the sea, the sixteenth-century defences of the terra firma, and modern Venice. This book draws on all of them, is robustly argued and wonderfully illustrated.

Despite its title, however, this is not a book for beginners. Densely written, full of asides, and with formidably long sentences, it is a debating piece which demands a grasp of Venetian history and of the city itself. Venice is a city of insiders who write for fellow insiders, build their festival sites on the periphery, and base the best of their modern architecture on Venetian historical modules and themes. The housing by Giancarlo De Carlo and Gino Valle, and Carlo Scarpa's Venetian interiors, are all closely based on the local vernacular. Wright, Corbusier and Kahn were kept at arm's length. This book may well irritate traditional historians, but is full of insights for those who want to get under the skin of the city.

SIMON PEPPER

DELIGHT

Photographs by John Riddy



A SCULPTOR OF SPACE, ANISH KAPOOR CHALLENGES OUR SENSES AND PERCEPTIONS WITH SIMPLE-SEEMING DEVICES THAT REVEAL STRANGE PROFUNDITIES OF GREAT IMPORTANCE TO ARCHITECTS.

Anish Kapoor is not part of the advertising and public relations industries like many young British artists. In common with say Damien Hirst and the Chapman brothers, he works with a few simple ideas, but whereas they strive to shock with queasy sensationalism, his works appeal directly to the senses with haunting power.

They are almost impossible to photograph because they change as you perceive them. For instance, the mysteriously anthropomorphic bulge in a white wall disappears when you look at it axially; the big vertical rectangle of darkest blue starts to flicker like a Josef Albers square-on-square when ghostly yellow after-images are imposed on each other by unconscious and uncontrollable eye movements. You learn about yourself as well as the objects – and not just about vision. Two huge indigo-lined hemispheres suck vibrations out of the air, creating a presence of silence; opposed polished metal concavities not only dissolve appearances but make a zone of intensified sound in

which a dropped pin would reverberate like a crashing tin can. One of the most powerful pieces is a rough rectangular block of granite (Kapoor affects the tactile sense as well as hearing and vision, but you are not allowed to touch).^{*} The hole that pierces it is sometimes inhabited with a strange semi-transparent presence created by multiple reflections off the highly polished sides of the aperture; so powerful and unpredictable is the effect that the gallery attendants confess to being scared of the ghost.

Kapoor's work sucks you in and blows you out; it can induce vertigo, generate a sense of the infinite and offer overwhelming enclosure. It both distorts and intensifies your relationship to the world and to your own body. It has many lessons for architects. All great art grips your guts, and by this criterion Kapoor is a great artist. PETER DAVEY

^{*}At least at the big recent retrospective of his work at the Hayward Gallery, London.