WORLD ARCHITECTURE

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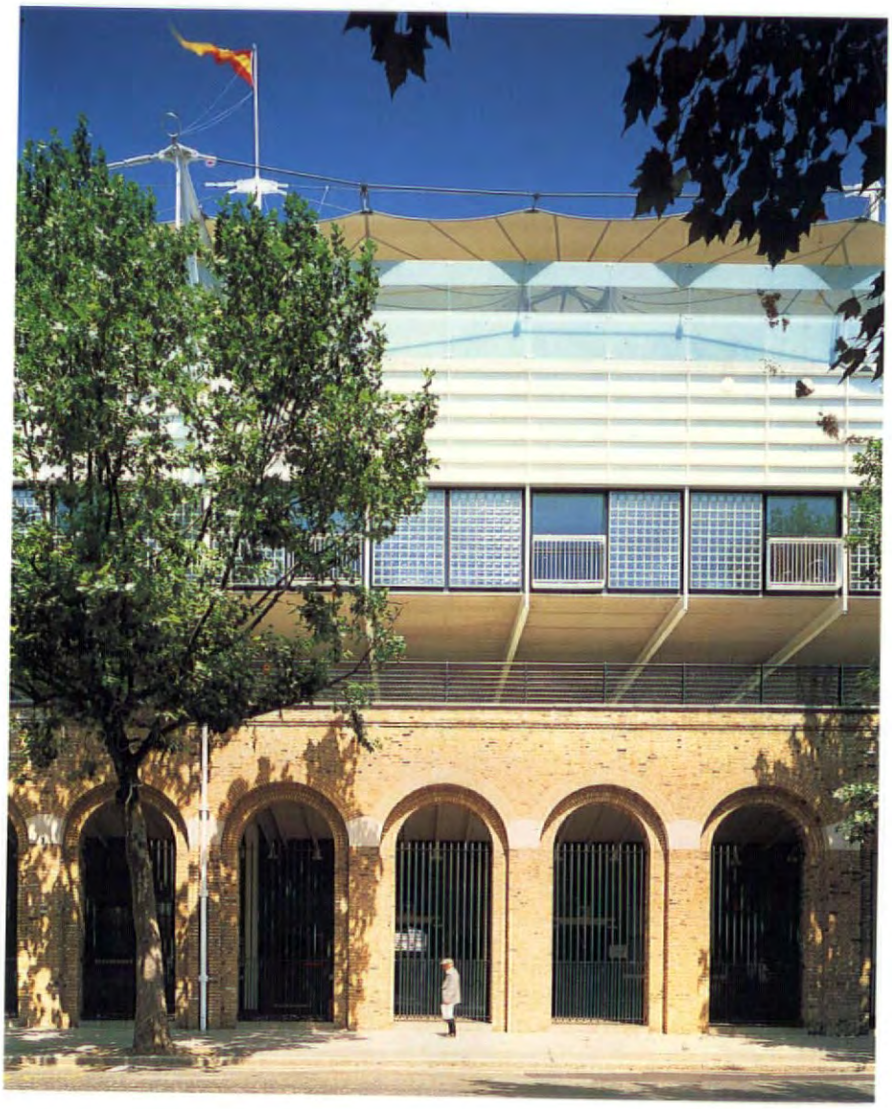

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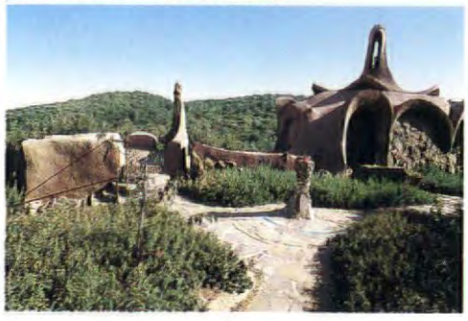
THE INDEPENDENT MAGAZINE OF THE INTERNATIONAL ACADEMY OF ARCHITECTURE (IAA) NUMBER 30

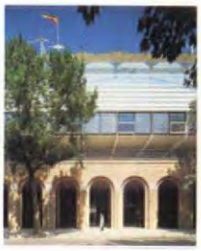
James Hubbell in San Bernardino



Timothy Ostler

Helene Binet

Helsinki Opera House



Cover: The brick arches at Michael Hopkins' Mound Stand at Lords cricket ground, London. Photograph: Martin Charles

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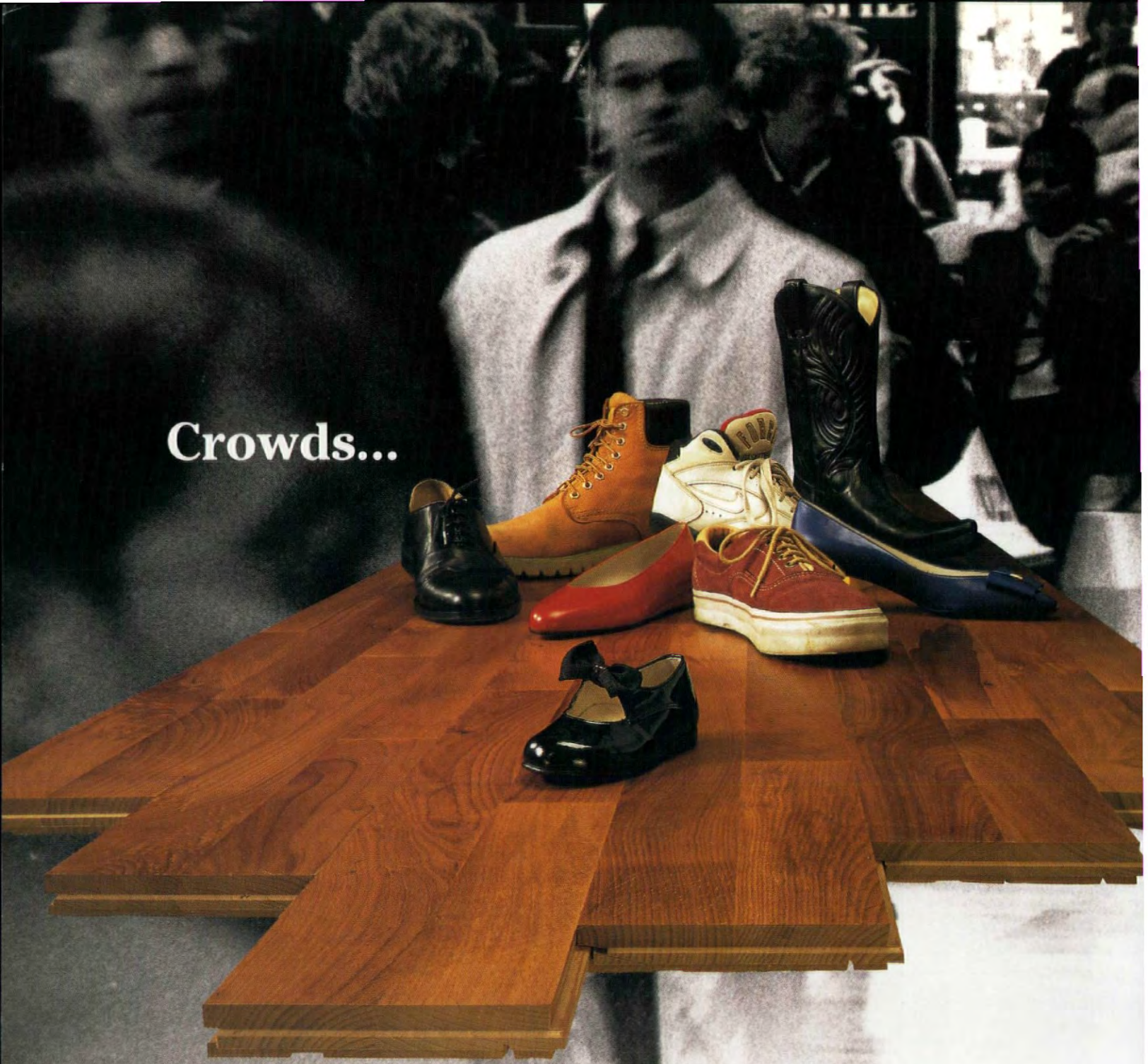

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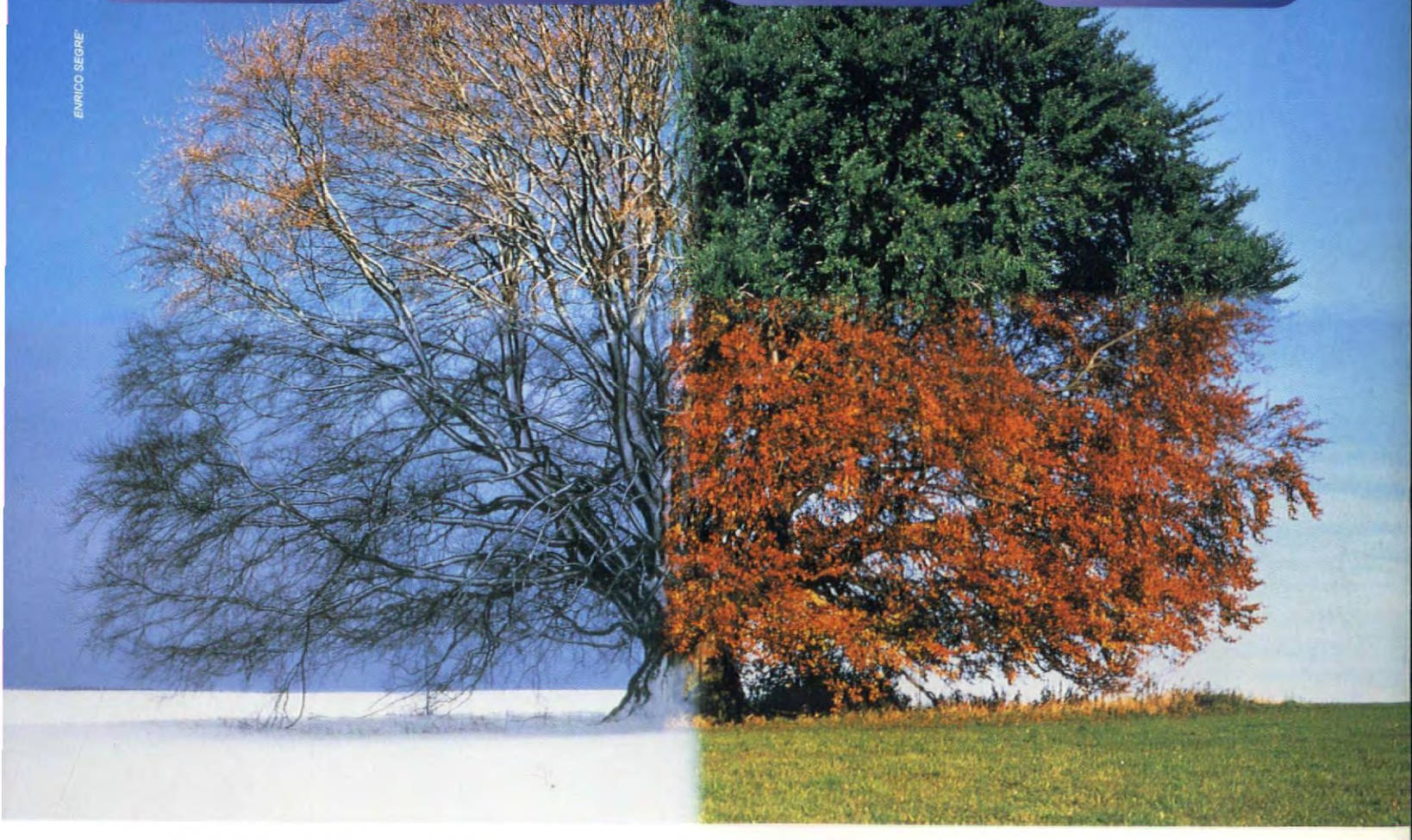

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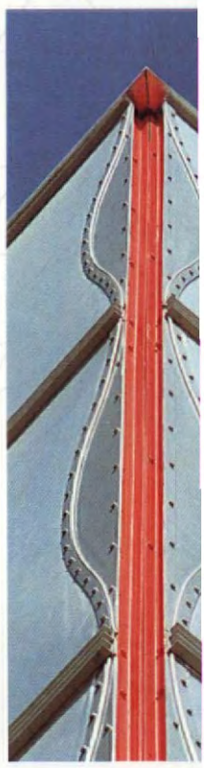

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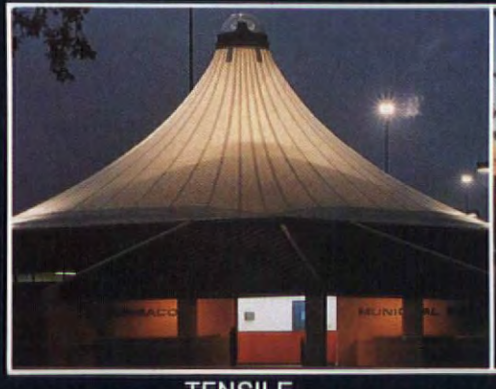

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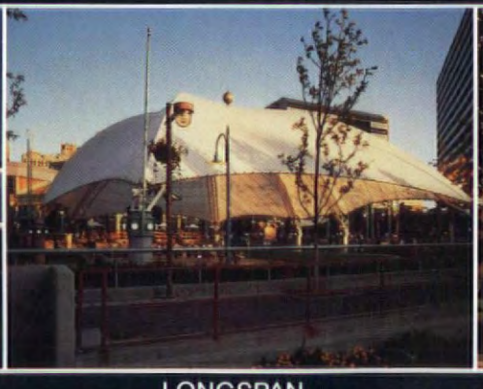

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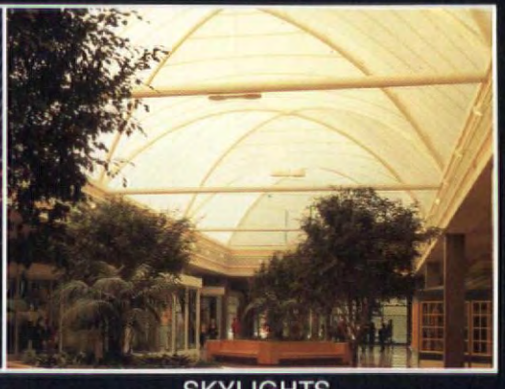

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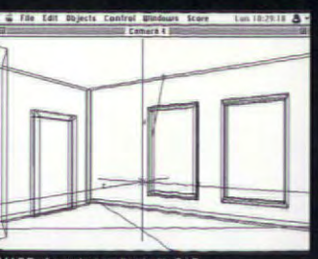

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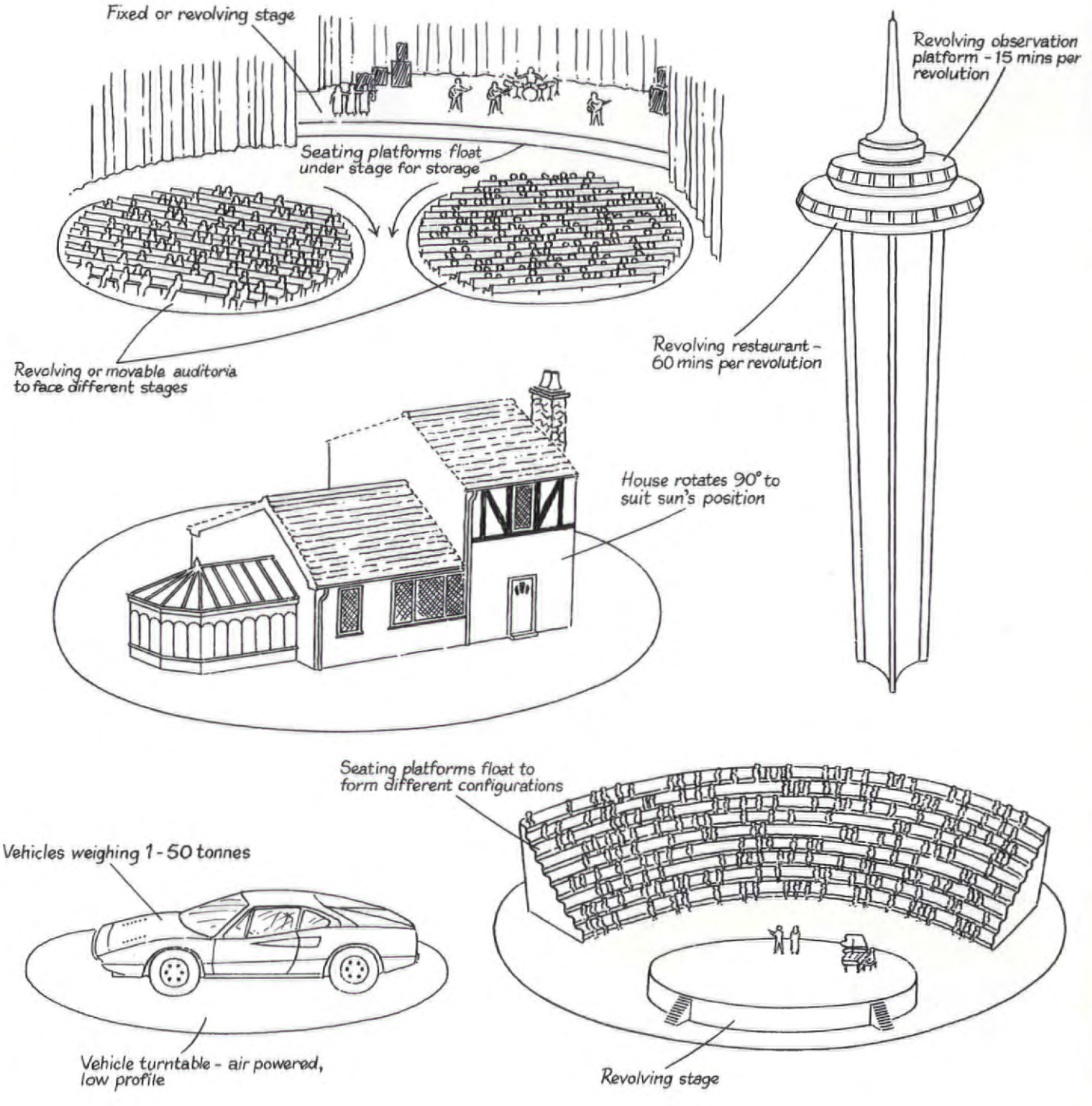

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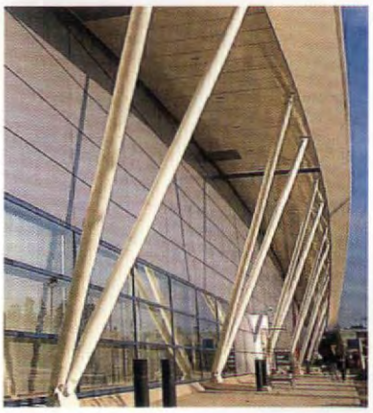

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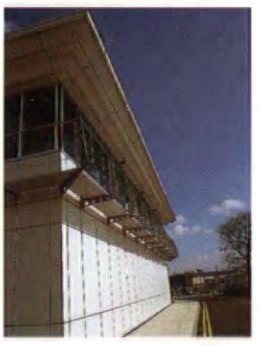

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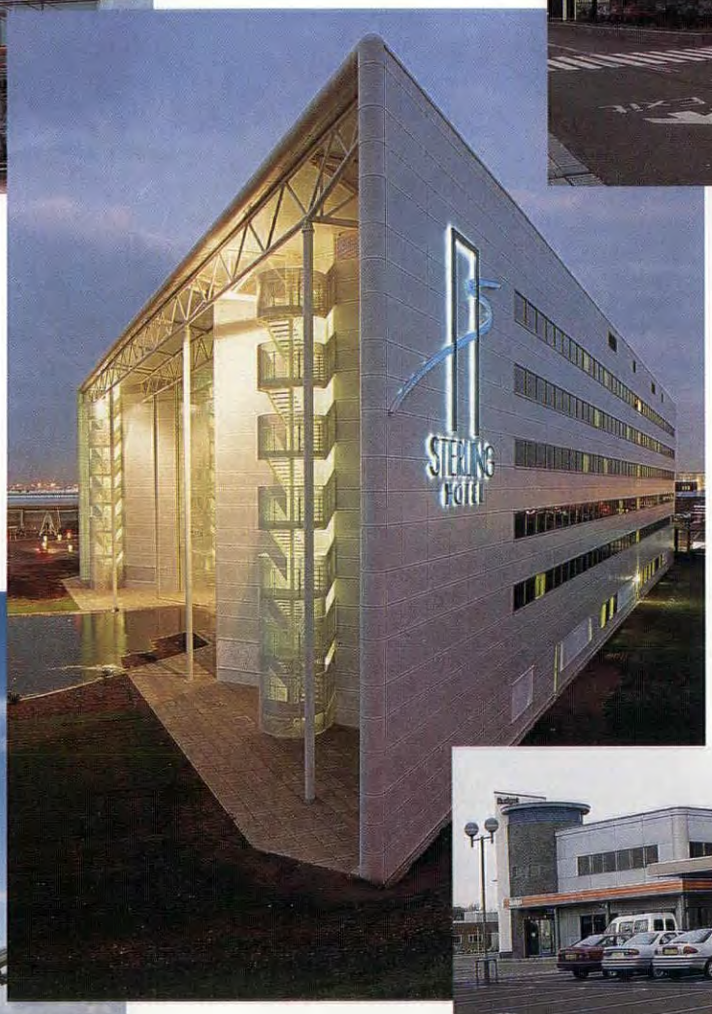

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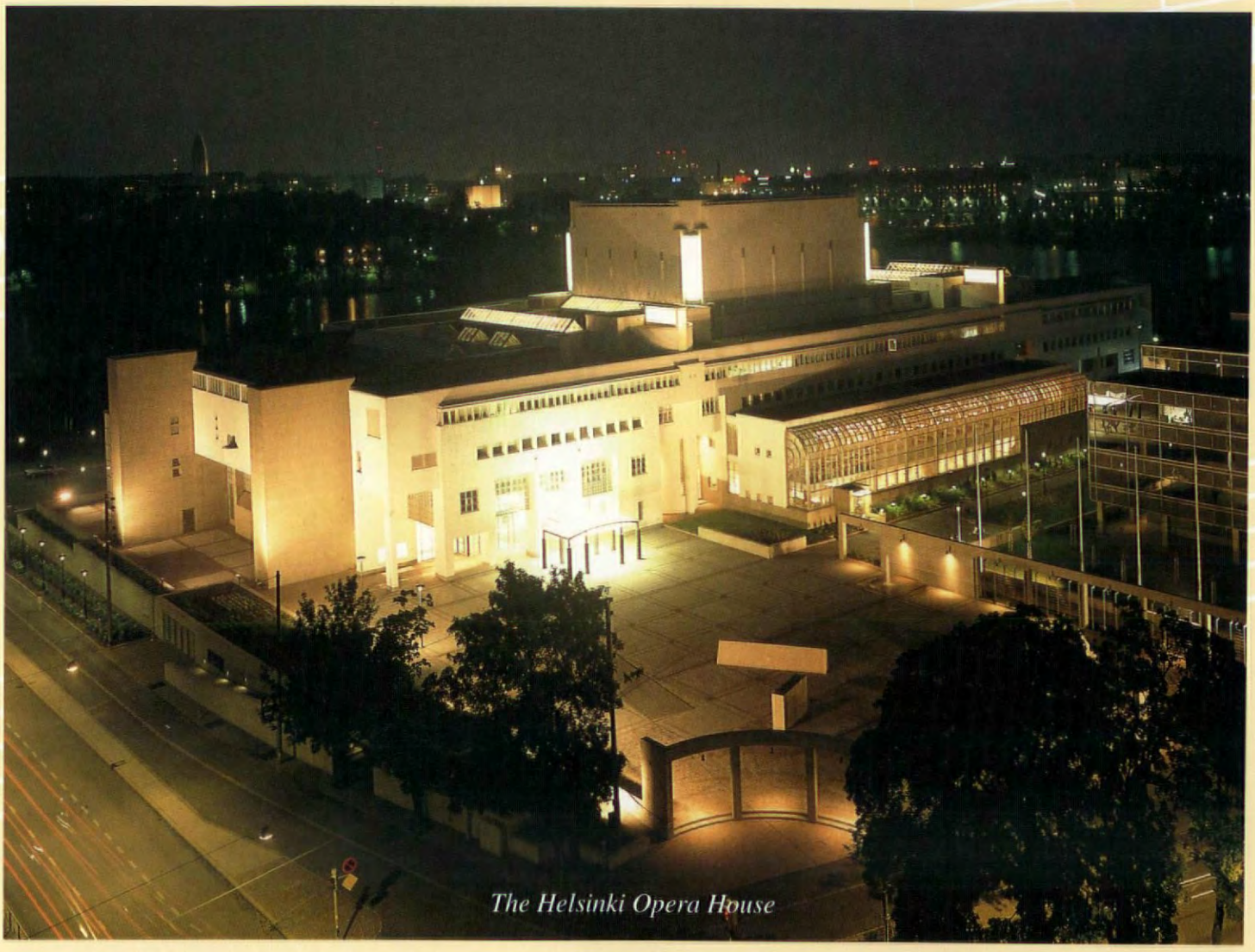

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WORLD ARCHITECTURE

Conservation loses control

The Conservation Practice

The former Midland Hotel at St Pancras, London currently undergoing restoration

The number of advisory, regulatory and promotional bodies employing "architecture administrators" has multiplied with the same rapidity as the real employment prospects for architects have diminished. In Britain all these "middle men" with their "architecture centres" are creating a kind of virtual reality out of projects that don't get built. Part of it is a system of multi-stage competitions that effectively excludes unknowns, even as it promotes out-of-the-plan-chest hype like last year's ill-fated Manchester Olympic bid, and meaningless eyewash projects everywhere.

While all this is going on, planners continue to use Parkinson's Law of Delay to get their way in aesthetic matters, and historic facades are routinely saved at the cost of the interiors that once gave them meaning. As a result, everywhere except out on the motorway networks, wall to wall serviced floorspace is being hidden behind Dickensian clingfilm.

Why has this happened? Because, despite endless arguments to the contrary, the appearance of public buildings, superstores, distribution centres and car parks is a quantitative issue, not a qualitative one. Putting new buildings in old places doesn't work. What is most economic to build and run, is always larger than an historic street pattern can accept. Like the architecture of container ships, the new architecture of satellite monitored articulated lorries is not about replacing one building with another, it is about doubling and trebling the size of buildings. Yet the only economic formula ever put forward by heritage interests is Tourism = Conservation + Double Yellow Lines.

In order to keep conservation in proportion, architects need to concentrate on identifying what is the real town and what is the apparent city. Today each is a binary phenomenon: one part assembling information, a global electronic substitute for old fashioned public space, the other part no more than an obsolete built environment, made up from the unusable space that is left behind. A paralysed, inert, obstructive, uneconomic free-fire zone that is disassembling into squalor.

Conservation is confronting economic and de-socialising forces far beyond its control. Energy, information and blind production are forces without human objectives, powers without human goals. Conservationist committees determining what they like and what they do not like, are entirely beside the point. They merely obstruct the assembly of the future by networks that have already been set in motion. Our environment is now so complex, from our capital cities to our tiniest villages, that to try to control it by street patterns and architecture borders on naiveté. As the German philosopher Manfred Frank said; "The most drastic thing that any of us can do is to leave everything as it is. That is truly revolutionary. We should all become spectators while the information machine works out what to do next."

Martin Pawley

AN ENGLISH ECCENTRIC IN POWER

"Name the greatest British building of the last hundred years." Sitting in his glass and steel house at the end of the twentieth century it seems like a reasonable thing to ask Michael Hopkins. True, he is not a man given to precipitate judgments — of Prince Charles's magazine, after considerable thought, he has just opined; "I have no views on it at all" — but the great building question is different. "The Smithsons' Economist buildings are still looking very good," he replies after a short pause, "they would have to be a strong contender." World Architecture *interviewed Michael Hopkins shortly before the award of the RIBA Gold Medal for Architecture jointly to himself and his wife and partner Patty.*

The Hopkins' house is famous. It was built in 1976 in the former garden of a Hampstead villa belonging to the planner Sir Frederick Gibberd. For nearly 20 years it has been a byword for late, but uncompromising Modernism amongst English architects and, even today, with its profiled metal walls newly animated by coloured magnets that spread and cluster like traffic cones holding up notes, drawings and images, it still impresses the visitor with a frisson of ruthlessness. There is no compromise with tradition in this house, unless it be that of Charles and Ray Eames. First there is the perforated metal bridge that gives access from the street, then the wide sliding glass front door, then the precision array of narrow venetian blinds, then the open-web welded roof beams and their small, square tubular columns, then the metal circular staircase. And then, on the master's desk... a biography of Sir Edwin Lutyens.

The contrast is definitive, but so is the parallel. Michael Hopkins is an architect who defies the popular jibe about living in a fine Georgian house whilst designing carbuncles for others, by living in a glass stump and designing, if not Georgian houses, certainly buildings whose inspiration combines past with present in an unique way. It is a contradiction, but not an irreconcilable one. For just as Sir Edwin Lutyens held a complex and ambiguous attitude to Modernity — his mastery of the imagery of the old coexisted with a great enthusiasm for wholesale demolition and renewal that, if they knew of it, would shock most of his admirers today — so does Hopkins contrive a similar ambivalence in his attitude to advanced technology architecture.

The capacity to encompass contradictions is one of the measures of talent, and there is, in the work of Michael Hopkins, a grand eccentricity, growing grander with each passing year, that reveals him as a very talented architect indeed. He has found ways, not merely of drawing the past into the future, but of retaining a level of control over the appearance of his buildings that other architects have found slipping away from them in a climate of increasingly onerous regulation and unwanted amateur advice. This exercise of control, begun with The Mound cricket stand and its supporting brick arches, was most consummately exercised in the refurbishment and rebuilding of Bracken House in the City of London in the 1980s. This project, a strange mixture of "Big Bang" deregulation, seventeenth century geometry, rampant heritage conservationism, Japanese money and advanced building technology, effortlessly rode wave after wave of interference to emerge with a strange and unique identity that meant all things to all people. Yet it was succeeded at Bedfont Lakes in 1992 by a cryptically perfect glass and steel half-square of buildings that "go further than Mies could, because of modern paints and fire protection." Bedfont is a gesture by the architect — a return to Modernism to show his admirers that his head has not been turned by conservationist praise — but Bracken House is made of sterner stuff. It marks the wave of the future. A conception destined to emerge again on the banks of the Thames, not of course as a copy, but in the ghostly form of a repeated formula that has infused the whole development of the New Parliamentary Building. Originally Hopkins called this formula his "campaign for real building". Now it has become something more dialectically subtle. A game whose rules are played according to the Modern rules of structural honesty, drawn back into the imagery of Sir Edwin Lutyens, even Viollet le Duc.

In practice the "campaign for real building" means making even the tenets of conservation functional, in the sense that all the parts of an airliner or a submarine are functional. In this way

nothing can be arbitrarily removed from a Hopkins design. At Lord's, where the game began, the brick arches really do hold up the grandstand, so why not construct new ones in loadbearing brickwork. At Bracken House the Sullivanesque iron window bays really are the structure of the facade, so they cannot be chopped off to save money, or too much altered in pursuit of different elevational treatments.

If all goes well, in the case of the forthcoming New Parliamentary Building, the "campaign for real building" will bring off its greatest victory yet. In this £150 million structure the dialectic convergence of traditional imagery with a fast track construction method generally associated with *Death Star* dark glass business parks, will be consummated in the most extreme fashion. Across the road from Big Ben, loadbearing stonework will support a bronze roof and great bronze ducts will pass up the external walls and cross the bronze roof slopes to rows of huge chimney-shaped heat exchangers.

Hopkins takes a quiet pleasure in the perversity of all this, notably in the exhumation of such forgotten materials as stone and bronze. It is the same pleasure as he took a few years ago in the use of lead roofing on his circular David Mellor cutlery factory. Provided it all performs a serious structural and service function, he enjoys the real and apparent durability of the traditional.

"Bronze is a particularly high quality material," he remarks, fingering a sample. "They used to make cannons out of it".

The trick is that the bronze of the New Parliamentary Building will not only form ducts and cover roofs, it will be part of a revolutionary ground water cooling system that will control the environment within this government building for 120 years with no air conditioning — if everything works out as it should.

But if the logic of these "new age", "new-old" structures is impeccable, what of their appearance? The great model of the courtyard New Parliamentary Building that dominated a good part of the Hopkins offices in Marylebone in the early part of 1994 is shocking, not only in its extreme realism, but also in its complete lack of any of the visual codes of Modernity. A comparison might be made with Sidell & Gibson's replica Grand Buildings in Trafalgar Square, except that in the latter all the paraphernalia of an air conditioned modern office building is crammed in behind a neo-Edwardian facade, whereas the awesome NPB is resolutely "real building", its heat-exchangers fed by real pumps, its floors solid, and its interior spaces destined to be a faithful rendering of what would be expected from outside. Even separated from its nightmarishly Piranesian substructure of Jubilee Line extension escalators and tunnels, the building looks as if it will resemble a gigantic Wellsian Time Machine, or Harper Goff's famous visualisation of Captain Nemo's submarine for the Walt Disney version of *Twenty Thousand Leagues Under the Sea*.

Only the result will confirm the truth. When the Millennial NPB finally achieves its stone, glass and bronze feat of emerging from the nineteenth century into the twenty-first, it will shame its detractors with an effortless demonstration of twentieth century prefabrication. Astonishingly the New Parliamentary Building is to consist entirely of finished assemblies, all fabricated offsite and put together in as Modern a fashion as the Hongkong and Shanghai Bank, or Hopkins' own tubular steel Patera offices in Marylebone.

In practice with his wife Patty for the last 20 years, Michael Hopkins has never worked abroad. A curious oversight in the age of the global practice but, as it turns out, not the result of a want of trying. Michael Hopkins and Partners did once enter an international competition for a concert hall in Copenhagen, but became discouraged when "the first ten or 15 places all went to Danish architects." Another prospect took them to Sydney with high hopes of a major commission, but nothing came of that either. Will they try again? "Of course, we would like the chance."

The want of foreign work is a surprising thing in a career so indisputably successful in England. For there can be no doubt that Hopkins is a major architectural phenomenon in his own country. In one sense already a grand old man, with his CBE, his membership of the Royal Fine Art Commission and the Royal Academy, and his commission to design the first new building for the Palace of Westminster in 80 years. Yet in a sense he is still an outsider too, doggedly sticking to his museum-of-technology glass box house, and his museum-of-technology glass box offices, one of which was once erected in the North of England, used there for years, then returned to its inventor to be re-erected in triumph in Marylebone. One of the few card-carrying members of the British high-tech elite to be singled out for praise by Prince Charles, Michael Hopkins is indeed a living paradox. One of his most enigmatic structures, the new Glyndebourne Opera House, was writ large in the first issue of the Prince's magazine. □

FROM HIGH TECH TO CONTEXT

The Michael Hopkins Partnership has selected 18 buildings and projects for this issue of World Architecture. *Placed in chronological order they show a pattern of continuous and thoughtful development that has marked out an unusual course to fame and fortune. John Winter interprets the unique career of the most English of all Modern English architects.*

The story is of a shift from High-Tech to a sophisticated contextualism. The guru has changed from Charles Eames to Lou Kahn a journey that some of us have taken in the other direction, as when Richard Rogers said that he had to "unlearn Yale". But the very English belief in construction as the basis of architecture runs throughout so that, despite the diversity of the work, it all holds together as the product of a single line of thought. In this country we are the heirs of Pugin, Morris and Ruskin and the notion of truth to materials and to construction is second nature to us whatever our stylistic leaning. Take the white cube houses of the inter-war period, an aesthetic based on reinforced concrete; the Berlin houses were steel frame with fill, the Paris houses were concrete block, all plastered over to look like reinforced concrete. We are very moral about our construction.

Any sequence of the Hopkins' inevitably starts with their own house. Earlier contributions within the Foster office may have been significant, but it is this independent work, set in an area where there are probably more architects per square kilometre than anywhere on earth, that made them famous. It is beautifully proportioned, it has an elegant economy of form and of construction so that it is perfectly at home in a late Georgian street. But the fact that the Hopkins live there completes the picture, so that it is furnished, inhabited and used in accordance with the architecture as a complete entity – a rare occurrence in these times when architects, commissioning agents and building users often have different views and different life styles.

The realisation of the first major work is a key test for any young practice, and the Greene King Draught Beer plant shows them effortlessly passing the test. The difficulties of building on a flood plain, the problems of the process, all appear to be solved with consummate ease with a well put together building of beautiful proportions. If there were technical problems or emotional angst they do not show in the completed structure.

The Patera Building System offered the Hopkins their ideal job in 1980. An architecturally trained entrepreneur seeking a prefabricated system for industrial buildings provided the opportunity to design a thoughtfully crafted basic shelter without specific site or specific use. Moreover, as the prototypes were built in the yard of the factory where they were made, there was the opportunity for testing ideas and for constant feedback between designers, makers and erectors. This is one of the favourite dreams of modern architecture, but, like other such dreams, it did not achieve a large commercial market. The Hopkins themselves acquired a larger version of the standard Patera building for their own offices in Marylebone, where they can all work in surroundings that show what the practice is all about.

The Patera had been a design for a standard industrial unit, the Schlumberger Research Centre outside Cambridge was for a very specific one. Neat rows of offices flank a great central space for testing rigs. This central space is the first of many Hopkins spaces which are half way being inside and being outside, they are sheltered but not heated to room temperature. Here it is roofed by a great tented enclosure – the structure is surprisingly heavy looking but it is certainly a memorable sight at night. In 1990 the Hopkins were commissioned to design a second phase, and once again they introduced an inside/outside space in the centre, and they continued their exploration of construction with air cushion roofs and ferro-concrete floors.

The excitement of the tented structure at Schlumberger led the architects to propose a similar roof for the new school at Fleet for the Hampshire County Council. This time they met user resistance and so used a conventional roof, but retained the initial design idea of a great open space with internal enclosures kept low.

The Mound Stand at Lord's Cricket Ground, completed in 1987, brought the architects to national attention because of the importance of its location at cricket's most prestigious ground.

Michael Hopkins' own house 1976 (opposite page) and Bracken House 1987 (below)

Alan Delaney

A Patera industrialized building at Canary Wharf in 1985

Morley von Sternberg

Architecturally it is of equivalent importance in spanning the gap between the two architectural cultures of the time. Many critics saw the architecture of Modern construction as being at odds with traditional London, and many famous battles were fought out in the 1980s. At Lord's the Hopkins designed their superstructure in steel, glass and polyester fabric all as modern as can be, but at ground level they retained and extended a row of brick arches and some of the seating structure so that it is hard to tell what is old and what is new. At the top level, the Hopkins created one of their inside/outside spaces of breathtaking drama and of great beauty. At the lower level they found that brickwork could be interesting and this set their practice off in a new direction. The retention and extension of the old structure forced them to face up to some of conservation's dilemmas, for the bold sweep of the brick arches could easily be accepted with affection by architects in love with construction, but they also had to make, not very happily, stylistic decisions on the detailing of the internal spaces where they extended the old structure. They were sailing perilously near to pastiche.

No second thoughts on architectural direction appear in their next building, the plant for Solid State logic at Begbrooke, near Oxford, completed in 1988. Standing as an elegant pavilion in a parkland setting, Solid State is a two storey building with an oversailing first floor expressed as a piano nobile, totally glazed and protected by external venetian blinds. The five staircases set on the splay are the only whimsical incident in a design which relies on its measured calm and its sure sense of repose for its sense of quality. It shows the architects in total control of their chosen way of building, and, as creative architects have a notoriously low threshold of boredom, that may be one of the reasons why they chose to explore new directions.

Two buildings for David Mellor followed. Both show tentative moves away from the world of metal and glass, although both still use these materials extensively.

The David Mellor Cutlery Factory at Hathersage is built on the foundations of an old gasholder and hence is circular in form. The building is supported on its circular wall of load-bearing stone, traditional to this part of the world but new to the Hopkins office who have thus made a change in the reverse direction to most British architects who start their careers designing houses of load bearing construction and proceed to framed construction when they have an industrial building. The Hathersage drum is roofed in a bicycle wheel construction of steel, as high-tech as anyone can wish for, and then roofed with timber covered with lead detailed with welts and rolls in the same way as a mediaeval church.

The second building for David Mellor, an office, showroom and flat in Shad Thames in London's Docklands, sets Hopkins integrity against the kitsch of most developments in Docklands. It has a beautifully detailed concrete frame, and, in the Hopkins tradition of refusing design elements that have worked for them before, has a lift tower of stiffened steel sheet like the Mound Stand and has glazing of big patio doors like Schlumberger & Begbrooke. But the cladding is of lead sheet in panels reminiscent of the matt steel panels of Kahn's Mellon Centre at Yale, the Hopkins' first influence from an architect who was to become increasingly important to their work.

The New Square Development at Bedfont Lakes, near London's Heathrow Airport, is perhaps the last and most complete of the Hopkins buildings in their straight metal and glass mode. Occupied by IBM it has a sense of cool perfection that is the result of being at the end of a line of thoughtful development by both architect and occupant. It has one attractive formal invention, the use of a metal casting to join columns and beams together in a way that enables the columns to reduce in size as the building ascends and hence the loads on the columns lessen. The reduction in size of structural members as a building rises is a feature of the work of both Mies Van Der Rohe and Louis Kahn, but at Bedfont Lakes it is clear that the Miesian star is in the ascendant.

Bedfont Lakes is the culmination of one direction; its contemporary Bracken House is the development of a new one. Required to keep the

Greene King beer cellars 1980 (left) and David Mellor showroom 1991 (below)

Ken Kirkwood

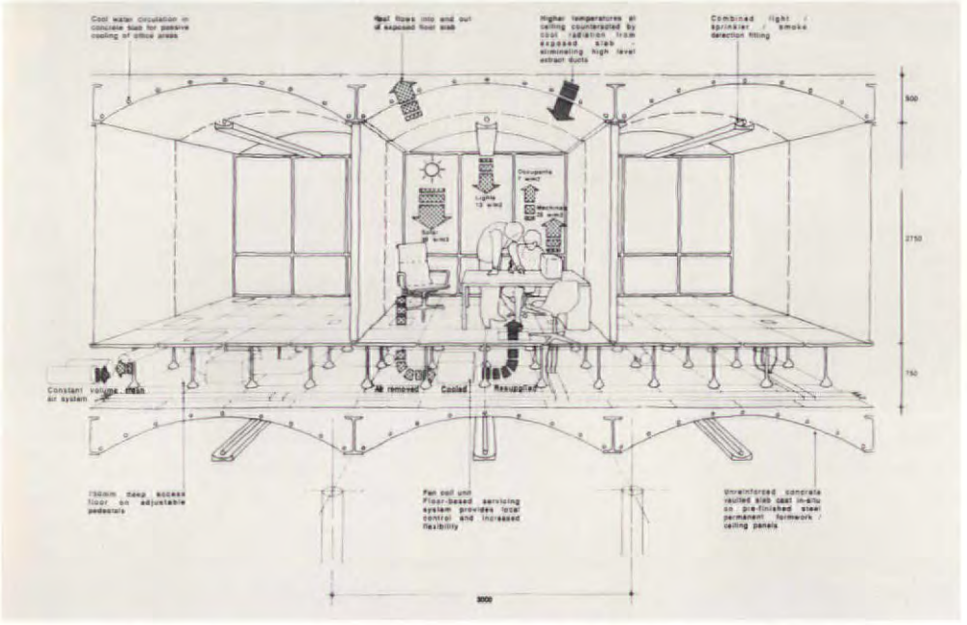
Peter Cook

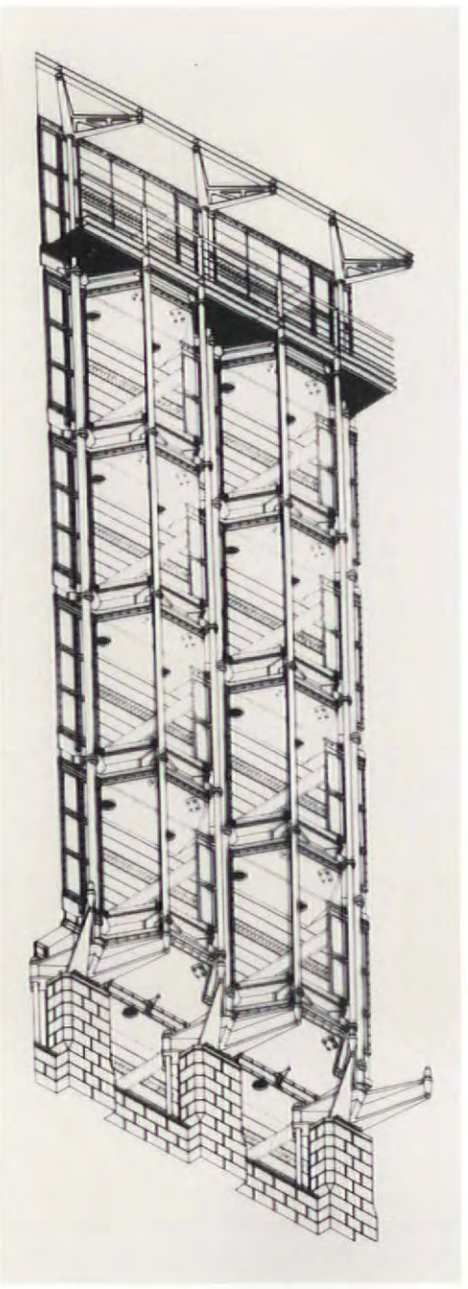
historic end pieces of a 30 year old building, the Hopkins offered a curved centre piece which neatly links the two ends, in spite of their somewhat random geometry. A central atrium and core utilise the sheet steel lift shafts and the patio doors of earlier Hopkins buildings and they place quadrant columns in each corner of the atrium with radiating beams which set the geometry and which take service runs between them. The plan is very clear and simple, the elevations are not. Rows of bay windows, Chicago style, surround the new building. Made of gun metal they take their own weight, plus a bit of floor, and come down to the ground to rest on load bearing stone piers via brackets of great complexity which provide entertainment and mystery for the passer-by who tries to work out exactly where the loads go. It keeps true to the office philosophy of architecture being derived from structure, but it had a love of complexity which is a new development.

After Bracken House the practice was perceived as capable of realising fine buildings on important or historic sites, and this has led to a new kind of commission and new kinds of client. Glyndebourne Opera House, completed in 1994, serves a very traditional, up-market English audience who picnic on the lawn as part of the evenings event. The new building re-uses old structures where possible, as at Lords and at Bracken, and it places in the middle of the complex a large new building of load-bearing brick walls and lead roofing. The building is entered through a fabric roofed foyer, which is open to the breeze as one of Hopkins indoor/outdoor spaces. The plan is clear and serene, with small rooms and balconies placed around the outside to give a human, occupied look. The main construction at the perimeter is of load-bearing brick piers, using the splay of the window arches to narrow the pier as it ascends in the manner of Kahn's library at Exeter, New Hampshire. The brickwork is detailed with a care and skill that is unusual in this country. Horizontal windows between the piers give a horizontal proportion and help to tie the building to the ground. Internally, all is brick, and wood, used in a thoroughgoing reappraisal of the way to use these most traditional of materials.

The new Parliamentary Building, standing on the edge of the Thames Embankment next to Big Ben, will provide Members of Parliament with offices on this key site. Below ground will be a new underground station, spanned by great arches of stone used structurally on a grand scale. The design of the upper floors is largely dominated by concerns of energy efficiency, but, as at Bracken House, most people will judge the building by its facades. Built of load-bearing stone and bronze, the facades contrive to take on board modern requirements of office design and low

Bracken House, early version of facade (below) and predecessor scheme for Pearsons (bottom). Load-bearing facade in stone and bronze (below right)





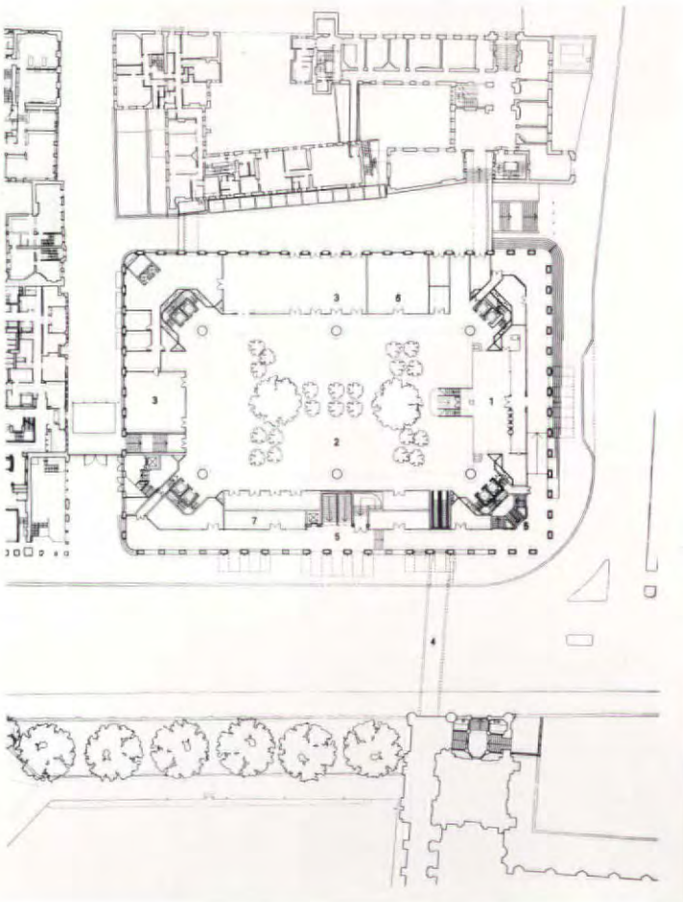
energy use and yet come up with an answer that looks very traditional, complete with Mansard roof and air extracts like chimneys. It all looks rather like the Ritz (although that, perversely, is steel framed), or, more to the point, like Norman Shaw's Scotland Yard next door.

Is this Modern architecture? and does it matter? Modern architecture flourished on a basis of science and rationality, concern with use and with structure. The Hopkins continue within these parameters adding concerns for energy and for context. What is lost is the utopian vision, the belief that tomorrow may be better and that each particular building illuminates the way forward.

One might have expected a building such as the New Parliamentary Building, made of stone and bronze and given a traditional, even contextual appearance, to have proved more acceptable to the powerful heritage lobby than the earlier high-tech work of the practice. Surprisingly this has not proved to be the case. Their own house was welcomed into a traditional brick street and Greene King was accepted into a conservative East Anglian town with greater ease than the supposedly more contextual recent work.

Whilst one may debate the appearance of the building, the direction of structural expression and low energy is admirable, and this direction is taken further in the Inland Revenue Building nearing completion at Nottingham. Brick piers, an overhanging top floor and lead roof are a development on the Glyndebourne design, but there is generally less brick and more sunshading. There is no air conditioning and the demands of natural air circulation are a major determinant of the designs for the individual office buildings. At the heart of the design is a communal building roofed with Hopkins beloved

The new Parliamentary building from across the river (below left) Ground level plan (bottom left) and photograph of one tenth scale model (below)



Richard Davies

fabric. This material had been proposed for roofing the William Younger Centre in Edinburgh, a building designed to exhibit the history of the earth. It incorporated the surround wall of an old brewery and formed an arena, partly in steps up the building and partly formed in formal landscaping – another Hopkins expertise.

The new lecture theatre for Emmanuel College in Cambridge takes the Glyndebourne approach on a much smaller scale and changes the brick to stone. It is a confident piece of design on a very restricted site.

The Jewish Care Residential Home for the Elderly is a new building type for the Hopkins and a building type that certainly needs the attention of serious architects. It is a four storey building, largely of brick, with a plan form reminiscent of Kahn's dormitories at Bryn Mawr. Steel lintels over windows and trussed beams supporting external walls at first floor level give richness to a design that promises to be full of innovation.

The Hopkins office is developing fast and exploring in many directions. One would have to be very bold to predict where it will go or the nature of the outcome. But one can expect the belief that architecture is largely structure and servicing to remain at the core of the work of the practice, and this bedrock enables them to experiment and develop without ever going off their chosen rails or slipping into styling. By jettisoning the utopian overtones that were central to the Modern movement, and by concentrating on the quality of the job in hand the Hopkins are very much in tune with the 'nineties. We have had enough of narrative, we want excellence. The Hopkins are set to be the practice of the decade and we can expect more wonderful buildings to come. We can also expect to be made to think. □

Hopkins house, Hampstead, London 1976

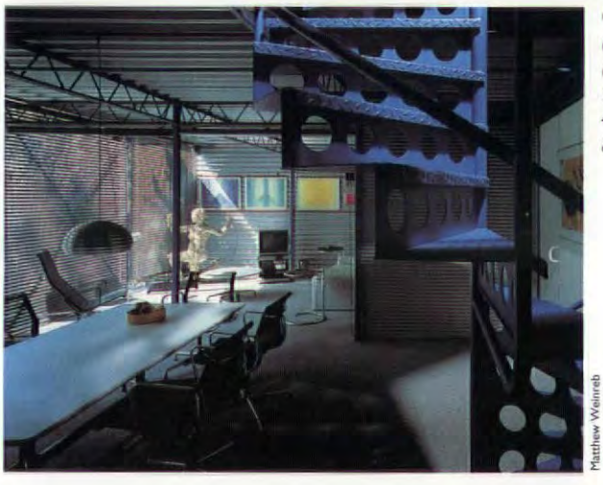
In designing this building, Michael and Patty Hopkins intended to try out on a small scale the techniques they were developing for larger, commercial buildings. The house was to be built from metal and glass components, put together in the simplest possible way. It was to make no conventional architectural concessions to its context – a well-established street of Georgian and Regency villas in Hampstead, London. Its "footprint" was defined by the front and back building lines and by the site boundaries on either side, leaving metre-wide clear strips to avoid the legal complications of party walls. This produced a 10 by 12 metre rectangle. The building had to be two storeys high in order to provide the required floor area. From the front, however, it appears to be a single-storey building because most of the site is 3 metres below road level. The main entrance, therefore, is at first-floor level, reached via a footbridge, which spans the steep slope that falls from the back edge of the pavement.

Once the basic form of the building and the access were established, the next step was to devise a suitable structural system. A small-scale structural grid, 4 by 2 metres, was chosen. This obviated the need for any secondary structure and meant the structural components could be very small and light. Perimeter columns at 2 metre centres support cladding and glazing without sheeting rails or sub-frames.

This basic strategy has produced a building of extreme simplicity and refinement. Troughed metal decking for both the floor and the roof is supported on a two-way grid of lattice trusses on 60mm, square steel columns. Joints are usually welded and the detailing is simple and repetitive. Side walls are of insulated, profiled metal sheeting; front and back walls are assembled entirely from full-height, horizontally sliding glass panels with no vertical frames. There are no ceilings or wall linings. Partitions are made of prefabricated melamine-faced panels. Other internal finishes are the metal and glass of the external walls and the carpeted floors.

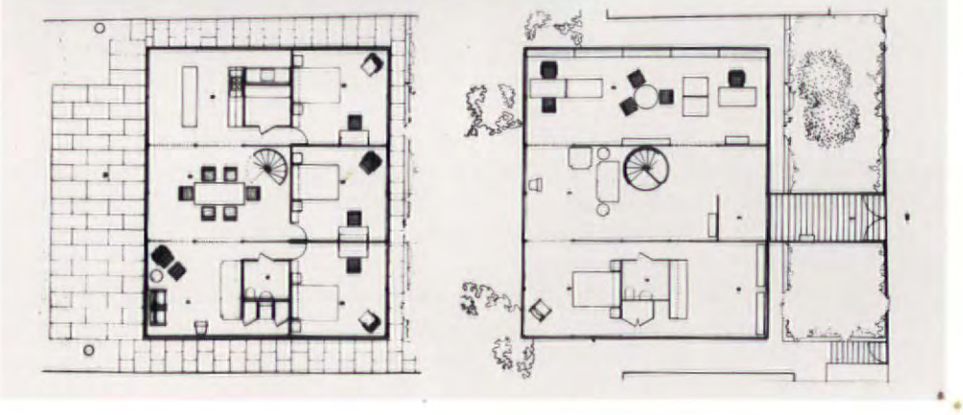
The internal planning is surprisingly open and flexible; domestic spaces are mainly on the ground floor, with the former studio at entrance level, the two being connected by an open spiral staircase. Solid partitions were designed to fit the basic frame, but in practice it has been found that in most cases free-hanging venetian blinds are sufficient to define the various functions. Heating is by a direct gas-fired warm-air furnace with only one outlet on the top floor.

James Mortimer



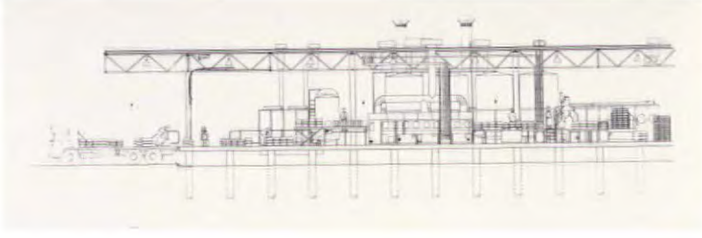
Matthew Weinreb

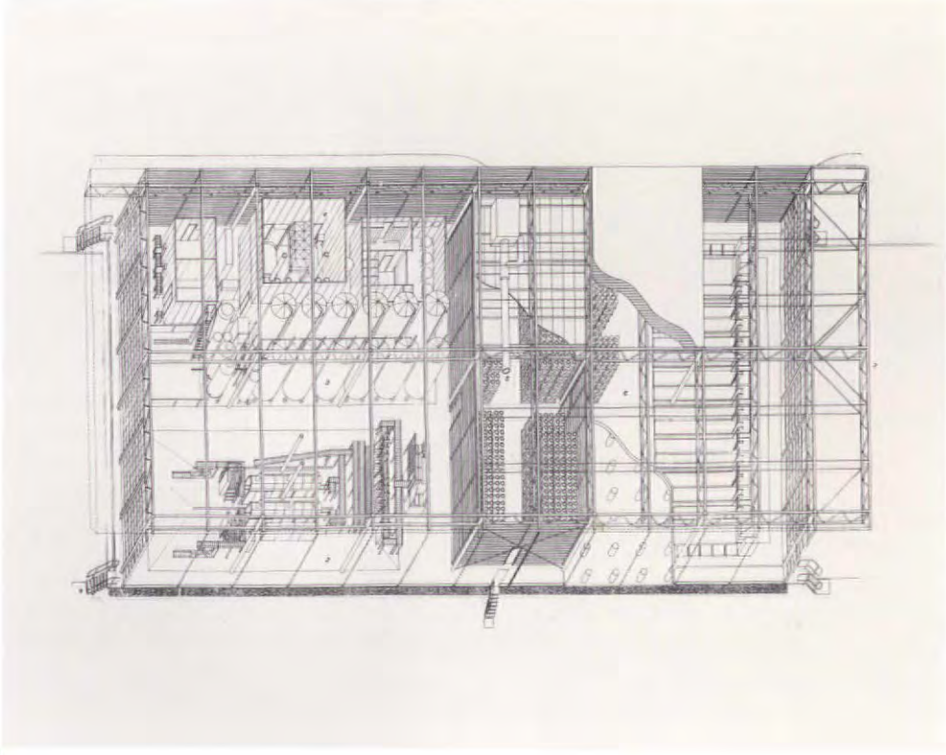
Garden view of house (top) and interior (left). Plans (below) show street level (left) and lower garden (right). Key: 1 footbridge, 2 entrance, 3 studio, 4 shower, 5 bed, 6 dressing, 7 sitting, 8 kitchen, 9 dining, 10 street, 11 garden



Ken Kirkwood

The "racking plant" (top). Section through casking plant (right) and axonometric (below)





Greene King beer cellars, Bury St Edmunds, Suffolk 1981

With the increasing popularity of draught beers in the 1970s, the old Greene King cellars had become inadequate. In 1977 Hopkins was commissioned to design a new plant so that beer could be delivered to the new building via a pipeline from the old brewery building.

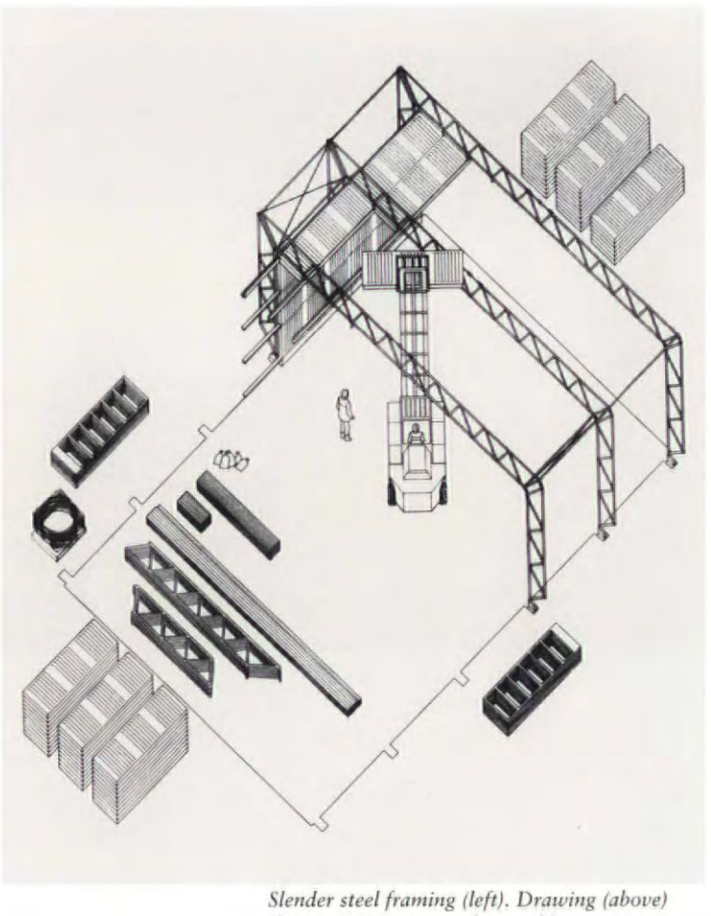
Although closely tailored to the special functional requirements of the racking process, the single-storey building is simple, unified and rectangular both on plan and in section. Its concrete floor is raised off the ground on short columns to protect it from the occasional flooding of the nearby River Linnett. However, setting the whole working plane at lorry tailgate-height also simplified the design of the full-width loading and unloading bays at either end of the building.

A steel superstructure of lattice trusses on three rows of tubular columns supports a flat roof, which is cantilevered out over the loading bays. Shorter cantilevers along the sides of the building allow the columns to be set back from the external walls, creating full-length corridors, which end in short flights of external steps down to ground level. The purpose- made welded trusses, with rectangular hollow-section booms and tubular struts, are exposed externally over the loading bays. Side walls are of silver PVF2-coated, profiled steel, lightweight cladding, divided into bays and perforated only by a pair of central exit doors. End walls consist entirely of fully glazed roller shutters opening onto the loading bays.

Internally, small freestanding buildings-within-a-building house ancillary functions such as mess rooms, wcs, offices, workshops and plant. A larger enclosure, occupying a whole structural bay, serves as a cool store. The remainder of the space houses the beer-storage vessels and machinery for washing, filling and loading the casks. Provision is made for possible future expansion by adding a third structural bay to the side of the building, thus preserving the logical, linear progression of the process.

In essence this is a very simple building. But the refinement of its proportions and detailing set it apart from the hundreds of steel-clad, portal-framed sheds that sprang up on industrial estates all over the country in the late 1970s: the raised floor, cantilevered at the edges in order to create the illusion that the building is hovering above its site, the panelled side walls of horizontally rather than vertically profiled steel sheet, and the elegant cantilevered porticoes over the loading bays combine to give it a dignified architectural bearing, which belies its mundane function.

Richard Bryant/Arcaid



Slender steel framing (left). Drawing (above) shows components and assembly system using a fork lift truck

Patera Building System 1982

Patera was conceived as a building system. The client, Nigel Dale, saw a demand for small, standardised, single-storey buildings, suitable for industrial or office use, which could be made as kits, delivered to the site in containers and erected quickly with minimal plant. For Hopkins this was the opportunity to realise one of the ideals of Modern architecture: the building that is mass-produced in a factory, just like a car. The closeness of the relationship between designer and component manufacturer produced a building of unusual technical refinement and accuracy. A full-size prototype was built alongside the factory so that every element of the structure could be tested and changes could be made if necessary.

The prototype building is a simple box, with a wraparound steel envelope and glazed gable ends. The floor area is 216 square metres and the internal height greater than 3.5 metres, which is high enough for most light-industrial uses but not high enough to permit the introduction of a mezzanine floor.

The structure is a tubular-steel lattice frame, placed outside the external envelope of the building. This reduces the extent of the envelope and of the space enclosed, with consequent savings in materials and running costs. More importantly, it obviates the need for fireproofing. The usual disadvantage of an external frame is that the top boom of the roof truss is unrestrained and liable to buckle. In a Patera building, this problem is solved in an ingenious way. What appear at first to be trusses supported on lattice uprights are in fact three-pin portal frames. The top booms are connected in the centre of the span by a special, hinged rod capable of withstanding only tensile stress. This effectively converts the three-pin structure into a two-pin structure whenever wind loading causes an uplift on the roof.

A remarkable feature of the external envelope is that the same type of panel is used for the walls and the roof. Each panel is a sandwich of mineral-fibre insulation between two skins of ribbed, pressed steel, supported by rectangular hollow-section purlins. Joints between the panels, in both walls and roof, are sealed by gaskets. Wiring and water pipes are accommodated in ducts within the thickness of the wall. All of the prefabricated components are small enough to be packed into a standard container and handled on site by a fork-lift truck. Assembly of the complete kit on a prepared concrete ground slab takes only ten days.

The Hopkins office in Marylebone is accommodated in a slightly larger version of the standard Patera building. The most obvious differences are that the height has been increased to allow the insertion of a mezzanine floor, glazing has been introduced in the roof, and the portal frame structure has been replaced by ordinary trusses on simple tubular-steel columns.

Central spine corridor (right), and curved fabric awnings beyond metal deck roof (below)

Dave Bower

Dave Bower

Velmead School, Fleet, Hampshire 1986

In 1984 Hampshire County Council's chief architect, Colin Stansfield Smith, asked Hopkins to design a replacement for a Victorian infants' school at Fleet. Hopkins proposed an open-plan building entirely roofed by a tent structure, using the stretched-fabric technology that the practice was then developing with engineers Buro Happold. Development of the design reached an advanced stage but was finally rejected for being too innovative by the council's education committee.

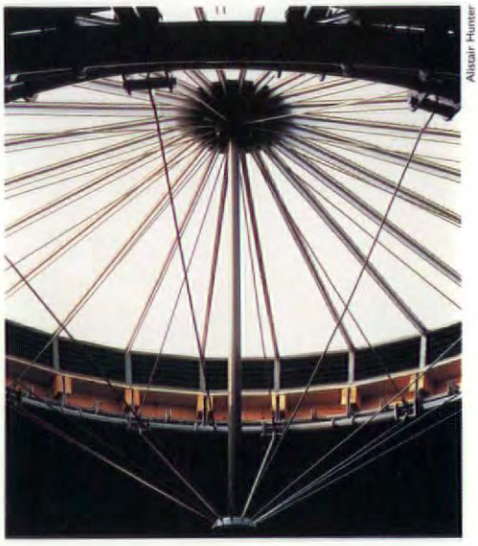
Fleet Velmead Infants School has a plain rectangular plan, divided in two by a top-lit circulation spine, with cellular spaces, including the main hall, on the north side and a row of identical open-plan classrooms on the south side. As always in a Hopkins building the basic structure is simple and honestly expressed. A barn-like, kinked, double-pitched roof of insulated metal decking, with glazing at the ridge over the circulation spine, is supported by a lightweight steel frame. This frame is precisely detailed and highly refined. Tubular compression members and diagonal bracing rods are fixed together with flanges and pins, all clearly visible. The components have been designed to enhance their apparent slenderness. Main rafters, for example, are mostly concealed in the depth of the roof decking, with only the tubular bottom booms exposed beneath the soffit. These are cut short at the external wall and at the columns that straddle the spine so they appear to float, unsupported. Similarly, the slenderness of the perimeter columns is enhanced by their dumb-bell profile, with tubular booms on either side of the glass external wall.

Within this simple envelope, cellular spaces take the form of structurally separate enclosures, 4.5 metres high. The main roof oversails these enclosures on the north side, with air-handling plant installed in the space between the ceiling and the roof. On the south side, with the exception of small octagonal quiet areas, the classrooms are open to the soffit of the main roof and to the top-lit spine. This creates a pleasant, airy quality of daylight, despite the relatively deep plan. Heating is by hot-water pipes cast into the floor screed – a sensible system in a building for children.

The south wall is entirely glazed and each classroom has a wide, double door that opens onto a paved terrace so that the children can play outside. Beyond the terrace the landscape is wild and boggy and is itself a valuable teaching tool. The original fabric structure proposal survives in a fragmentary form in the awnings that shade the south wall and give the building an appropriately playful character.

Exterior shows stone and leadwork (left). Central rooflight (right), and cutaway showing "bicycle wheel" roof structure (bottom)

Alistair Hunter



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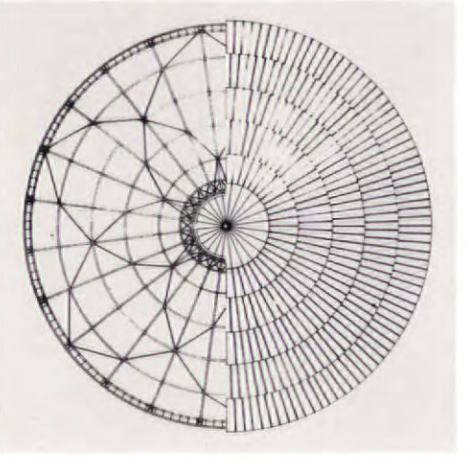


David Mellor Factory, Hathersage, Sheffield 1989

The setting of this small workshop, in the village of Hathersage on the edge of the Peak District, is rural but the site itself has an industrial past as it used to be the local gasworks. Planning permission for the building was granted largely because it reuses the old gasholder's foundations and leaves the landscape undisturbed; this accounts for its circular form.

An external wall of local stone, traditionally detailed but with precast concrete quoins and padstones, forms a drum supporting a shallow-pitched radial roof structure of lightweight steel trusses. These are tied together at the perimeter by adjustable tensile rods and at the centre by a sloping ring-truss around a conical, glazed lantern. The lantern itself is supported by a second radial structure like a bicycle wheel with an elongated spindle. The whole assembly is structurally rigid, so that it spans the entire space but exerts no lateral force on the supporting wall. Each truss is propped up off the concrete padstones on top of the wall, leaving a glazed slot around the whole building so that the shallow roof cone appears to float freely above the stone drum.

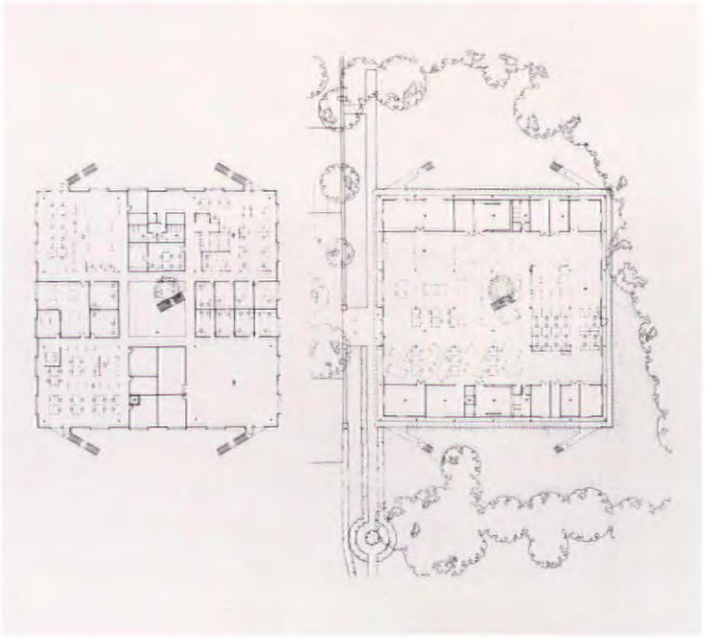
The roof covering is of traditionally detailed lead on a stepped deck made from prefabricated, stressed-skin, insulated plywood boxes, each tapered to conform to the radial pattern. These are fixed by means of steel hooks to tubular-steel purlins on top of the trusses. Boxes are used instead of a single-layer deck in order to provide the continuous, ventilated cavity above the insulation that is necessary to prevent condensation and possible corrosion of the lead. The roof has no gutter; rainwater falls from the eaves into a precast-concrete channel at ground level. Mellor supervised the construction himself and his own workforce made many of the components, including the plywood boxes and the precast-concrete quoins and padstones.

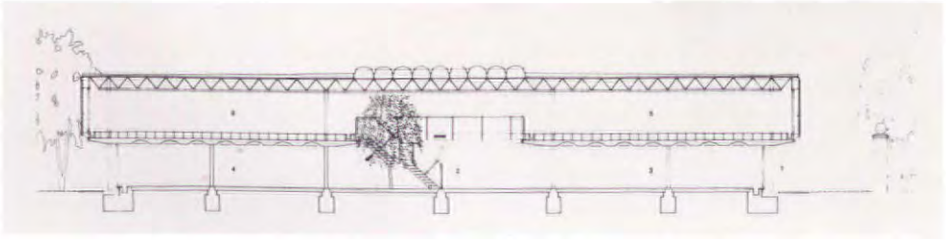
Inside the building, the functions that need to be enclosed – such as wcs, plant spaces and noisy machinery – are accommodated in two free-standing rectangular boxes.

As in all Hopkins' buildings, the design of every element conforms to a strict functional logic. The masonry drum, for example, is not merely a facing to a frame structure, but a true loadbearing wall. This fact, and the requirement for an open, column-free interior, dictated the design of the ingenious radial roof structure. All the components of this structure – tension rods, trusses and ring beams – are exposed and express their functions clearly. The result has the simplicity and power of the best nineteenth century industrial buildings.

Martin Charles

Oversailing upper storey continues right round building (top). Plans (right) and section (below) show simple but refined arrangement





Solid State Logic, Begbroke, Oxford 1988

In 1986 Solid State Logic commissioned Hopkins to design a new building in the grounds of a converted country house. It was to accommodate manufacturing functions as well as offices.

Although the building was designed to be used essentially as a factory, it has none of the linear, indeterminate characteristics normally associated with that building type. It has two storeys and is perfectly square on plan, with a flat roof and a central top-lit atrium. The first floor overhangs the ground floor around the whole perimeter, shading the lower level. Circular fireproofed steel columns on a 7.2 metre grid support a concrete first-floor slab. On the upper floor the span is doubled and the columns support a steel space deck, partially concealed behind a perforated-metal suspended ceiling. External walls are all glass, except for metal louvres around plant rooms.

The original intention was to accommodate manufacturing functions on the ground floor and place offices above but the abstract nature of the plan, which allows partitions to be placed anywhere on an 1800mm grid, allows a high degree of flexibility of use. Despite this, the building gives an impression of solidity and permanence, partly because of its Palladian, square plan and partly because of the treatment of the first-floor slab. This has an exposed soffit, coffered with shallow domes to take circular glass light fittings, and is shot-blasted to enhance its stone-like quality. Horizontal services are housed within a 400mm high raised floor on top of the slab and at roof level in the space deck.

Although the external walls are all glass, this is an energy-saving building, naturally ventilated with some mechanical assistance, but not air-conditioned. Its compact plan minimises heat loss through the external envelope and heat gain is controlled by a variety of environmental filters. The glass is tinted grey and full-height sliding windows provide natural ventilation. On the first floor these open onto narrow metal balconies with handrails supported on subsidiary steel columns bracketed off the main structure. The main function of these subsidiary columns is to support external motorised venetian blinds, which are adjusted automatically. No blinds are required on the ground floor, which is shaded by the 1300mm first-floor overhang.

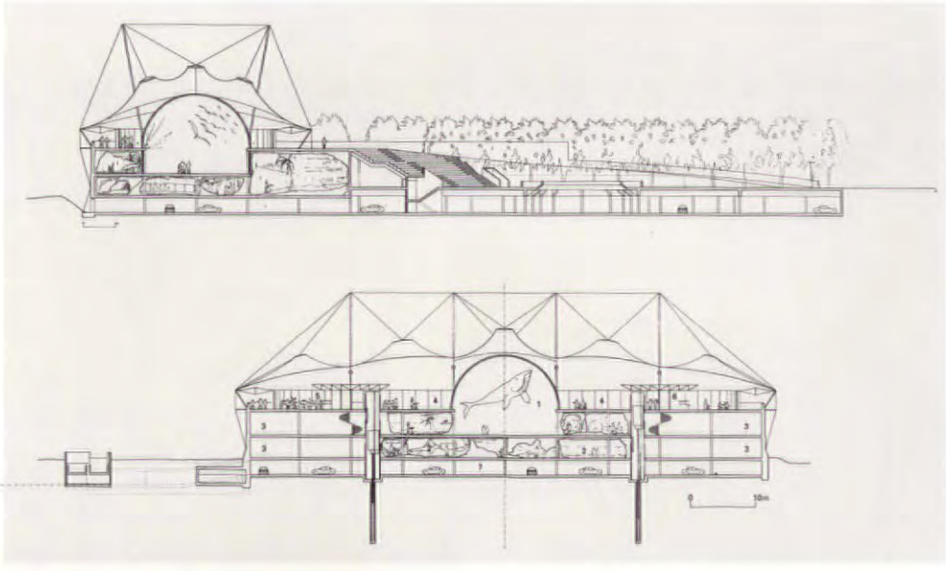
The four angled external staircases serve as fire escapes but they also tie the building into its mature garden setting. This is a high-quality, refined, almost monumental piece of architecture: a Miesian pavilion, rather than a High-Tech factory shed.

Younger Universe project, Edinburgh 1990

The Royal Mile is the main tourist axis of the city of Edinburgh. Hopkins' brief was to design a new attraction in the form of a "black box" to house a permanent exhibition telling the story of the creation and evolution of the planet Earth.

The starting point for the design was an existing structure, in this case the remains of the stone wall that was once part of the original brewery, including a castle-like tower on the south-eastern corner. This wall, restored and extended, forms the external wall of the black box.

Offices and workshops are ranged on either side of the exhibition space, which erupts through the roof, under the fabric canopy, in the form of a hemispherical dome over a multi-media theatre. Two more structures emerge from the building below, each containing a small catering facility as well as a lift and a pair of spiral staircases leading down to the exhibition. The rooftop pavilion therefore combines the functions of entrance hall, cafe and observation platform, with spectacular views over Holyrood Park. When viewed from the road on the northern side, the flamboyant canopy, suspended by cables from steel masts is silhouetted against the backdrop of Arthur's Seat and Salisbury Crags.



Richard Davies

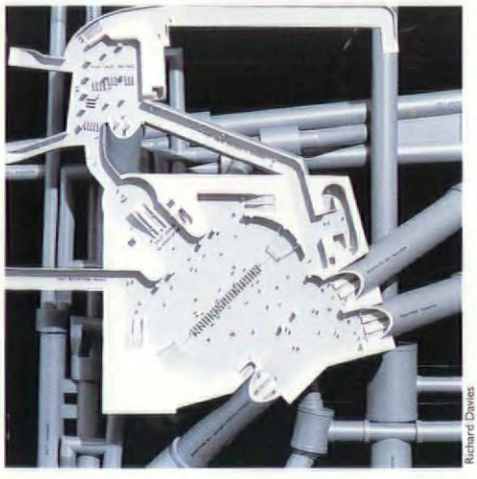
Project model (left) showing site. Sections (above) show fabric enclosure and proposed exhibits

Tottenham Court Road Station project, London 1990

Tottenham Court Road underground station, which serves both the Central and Northern lines, lies beneath the road junction, and has cramped entrances from the pavements on all four street corners. London Regional Transport's main aim was to relieve the congestion in the station and upgrade it to serve the new Crossrail and Chelsea to Hackney lines.

As well as improving the environment for pedestrians and rail travellers, the building has another important public function: to re-establish the civic dignity of what is in effect the eastern gateway of London's main shopping district.

Hopkins' proposal involves the complete demolition of the existing buildings. The key to the planning strategy is a diagonal pedestrian short-cut through the middle of the site in the form of an arcade. The main station ticket hall occupies a large oval space beneath the floor of the atrium, and is entered via escalators



Richard Davies

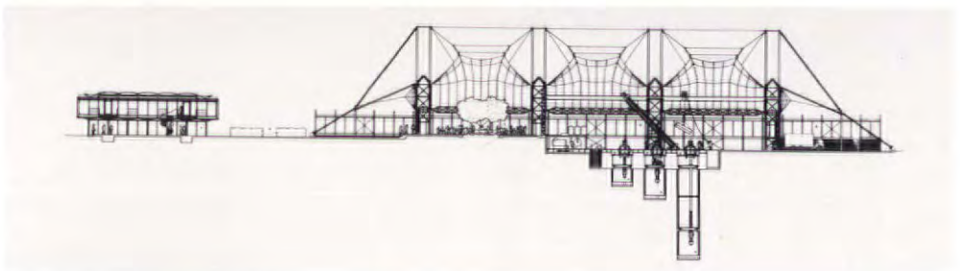
"Underground" model (below left) showing network of tunnels. Street level plan (below) shows pedestrian route across site

from the Oxford Street and Charing Cross Road corner, where there is also a third ground-level entrance to the arcade. There are other station entrances via staircases at each end of the arcade. A jazz club at sub-basement level beneath the ticket hall replaces the existing amenity of the Astoria theatre.

Shopfronts at ground level around the perimeter of the building are sheltered by a continuous glass awning, linking the three public entrances. Most of the vertical structure is concentrated at the perimeter of the building to keep foundations clear of the many underground structures. External walls are mostly glass, with exposed metal columns at close centres corresponding to the width of the cellular offices.

Dennis Gilbert

Night shot (above) shows Phase II offices to the left, and Phase I tent to right. Section (right) shows nature of machinery area. Phase II offices (below right) resemble Solid State Logic



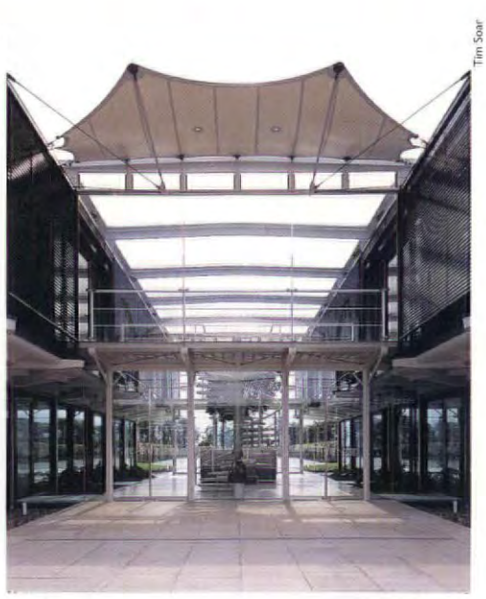
Schlumberger Research Centre, Cambridge
Phase One, 1982-85, Phase Two 1992

The main building, on a greenfield site just outside Cambridge, is a centre for research into aspects of oil exploration, including drilling and fluid mechanics. The client's brief envisaged four main types of accommodation: laboratories, individual offices for scientists, a drilling-rig testing station and staff recreation space. Hopkins' solution was a bold one: to put the testing station right in the heart of the building where it could be overlooked by the other laboratories.

The basic concept is simple. Two long single-storey wings, placed parallel to each other 24 metres apart, house the laboratories, facing inwards, and the individual scientists' rooms, facing outwards. Each wing is divided into five sections, articulated by recessed entrances. These sections have some superficial similarities to the standard Patera buildings.

In between the parallel wings a billowing fabric structure like a three-ring circus tent covers the drilling-rig testing station and the main social space known as the winter garden. The fabric is Teflon-coated glass fibre – the first large-scale use of this material in Britain. It is uninsulated and transmits about 13 per cent of daylight. The large-scale spaces, therefore, have a quasi-external character, though the winter garden includes a restaurant and a library as well as the main reception area. A cat's-cradle of cables transmits the weight of the fabric to the ground via four suspension bridge-like structures. These line up with the recessed entrances in the side wings, reaching over them to anchors in the ground beyond. Two separate structural systems – one for the large spans of the testing station and winter garden, the other for the short spans of the office and laboratory wings – are thus interlocked.

Tim Soar

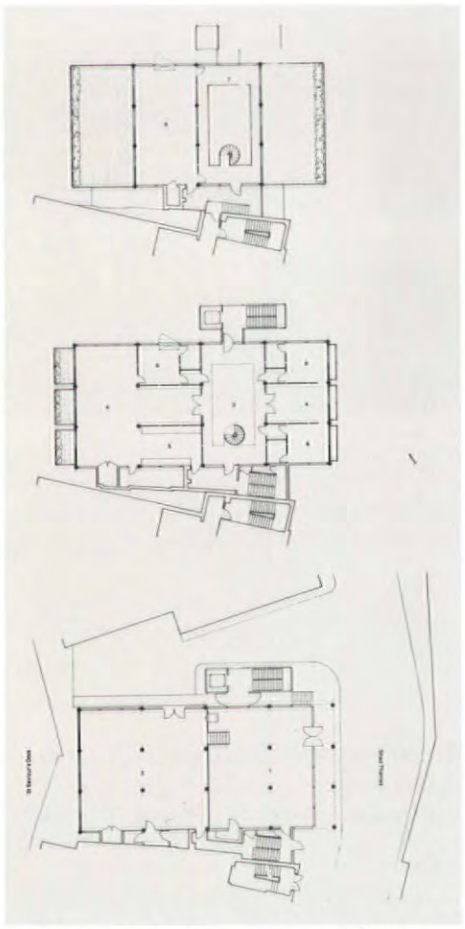


Tim Soar

Services are mostly accommodated below floor level. The air-conditioned laboratories are provided with undercrofts to house air-handling equipment and other plant, while electrical and data services are carried in the troughs of the steel-decked suspended floors.

The main equipment in the testing station comprises three drilling test pits.

Peter Cook



Building is set next to River Thames (left). Plans (above) show rational concrete framing and outrigged lift tower

David Mellor Offices, Shad Thames, London 1991

This second Hopkins building for David Mellor, houses the cutlery manufacturer's London showroom as well as offices and an apartment.

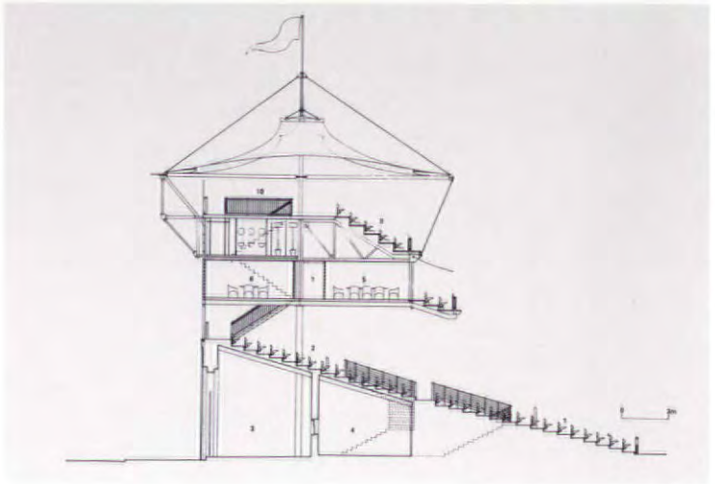
A simple six-storey glazed box, with its top floor set back to form roof terraces, is flanked by two service towers, one containing the main staircase and lift, the other containing plant rooms, wcs and a secondary staircase. This separation of "served" and "servant" spaces has enabled the main volume to be detailed in the simplest way possible. The building is naturally ventilated and the floor plates are small enough to allow heating by domestic-scale plant on each floor, which blows warm air across the space from one side. Suspended ceilings and raised floors, therefore, have been eliminated. The structural frame is concrete, which obviates the need for fireproofing. Round columns support flat slabs with exposed soffits and no downstand beams. Light fittings and conduits are cast into the slab, and power cables are housed in channels set into a cement floor screed. Full-height sliding windows are inserted between the columns on the front and back elevations, so that the true constructional nature of the building is apparent inside and out. In the flank walls steel-framed, lead-covered cladding panels take the place of sliding windows.

This degree of simplicity and refinement was not easy to achieve technically. Mellor and Hopkins went to great lengths to ensure a concrete finish that was precise and true, while preserving the moulded quality of the material. Plywood formwork was ordered to a special size and two types of joint were devised – a recessed joint formed by a specially developed aluminium extrusion and a secondary, projecting joint formed by chamfering the edges of the plywood panels.

The main staircase and lift tower display the same qualities of simplicity and solidity, though achieved by very different means. Here the distinction between structure and enclosing wall has disappeared altogether. Flanged steel panels are bolted together like the superstructure of a ship.

On the top two apartment floors the austere design is lightened by terrace balustrades and balconies front and back. Each balcony is a separate steel component, with a gridded floor, slung off the main structure by diagonal tension rods.

Richard Bryant/Arcaid



Mound stand seen from the field (top). Section (right) shows upper levels of stand cantilevered from steel columns

The Mound Stand, Lord's cricket ground, London 1987

In 1984 the Marylebone Cricket Club in London decided to celebrate Lord's 200th anniversary by rebuilding the old Mound Stand. Five architects were invited to submit proposals. Only Hopkins proposed to retain a part of the original stand, designed by Frank Verity in the 1890s. The reason was more practical than sentimental: it allowed the construction schedule to be conveniently divided into two phases.

Verity's original proposal had been to support the back of the single tier of seating on a brick arcade. In the event, this design was compromised and only part of the arcade was built, the remainder of the seating being supported on an exposed steel frame. In phase one of the Hopkins scheme, carried out in the winter of 1985, the seating tier was renovated, the arcade was extended along the whole length of the stand, as originally intended, and the steel-framed roof was demolished. In phase two, carried out the following winter, a new superstructure was added, including 27 private viewing boxes and a second tier of seating. The superstructure was erected in two months so that the turf, which had been removed, could be relaid in time for the next season.

This superstructure is entirely supported on a single row of six, 400mm diameter steel columns linked by a storey-height plate girder. Lattice girders at 3.66 metre centres cantilever out from the plate girder like ribs from a spine. This forms the skeleton of a three-storey structure hovering over the original tier of seating. Private boxes and dining rooms hang below the skeleton, while service spaces such as tank rooms and wcs occupy the spaces between the ribs. A tier of raked seating backed by open-air restaurants and bars sits on top. The six columns continue upwards to become masts supporting a flamboyant canopy of PVC-coated, polyester fabric. The whole structure is prevented from toppling over by tension members anchored to the ground at the back. These are strapped to the piers of the brick arcade in order to stiffen them and enable them to withstand the occasional compressive stresses caused by wind loading.

As cricket is played only in the summer, the building is unheated and most of the external walls are uninsulated. Materials are generally plain and austere. Private boxes, for example, have sliding and folding, frameless glass doors opening onto the continuous raked balcony facing the wicket, with party walls of fairfaced concrete blockwork and rear walls of glass block to shed borrowed light into the corridor. The external walls of the dining rooms on the other side of the corridor combine frameless glass with glass blocks in full-height panels.

Bracken House, City of London 1992

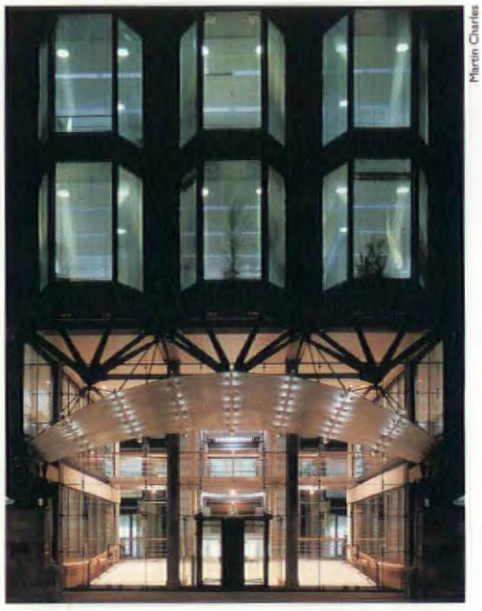
In 1952 the chairman of the Financial Times, *Brendan Bracken, commissioned Sir Albert Richardson to design a new building for the newspaper on an island site near St Paul's Cathedral.*

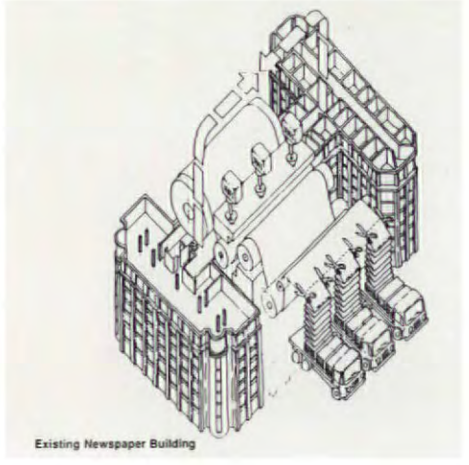
In 1987 the building was listed as being of historic value, but had also outlived its usefulness as a printing works. The Obayashi Corporation of Japan bought Bracken House and commissioned Hopkins to convert it to an office building suitable for use by a financial institution, and in a way that would respect both Richardson's building as well as the urban site.

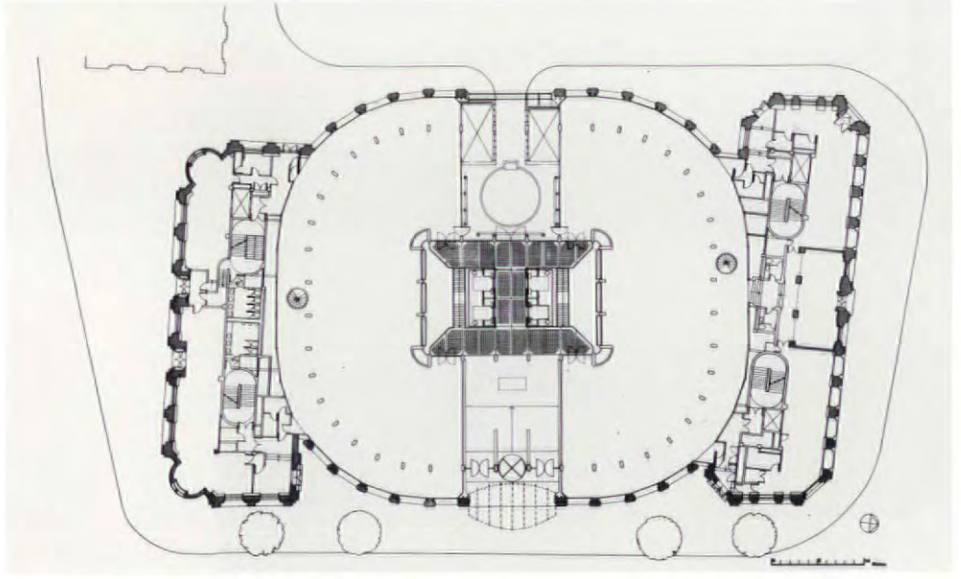
The two office wings are fine examples of Richardson's late, Classical style. In Hopkins' design, these wings are retained but the printing works is replaced by a new, deep-plan office block. The curved outline of the block easily accommodates the different angles of the wings and the whole composition recalls Richardson's palazzo. A three-storey basement houses a large dealing room at the first level, with car parking and plant rooms below. The new facades are divided horizontally into three bands corresponding to the base, shaft and entablature of a Classical order.

This leaves the floors of the main block completely open, interrupted only by the top-lit atrium with its central tower of four passenger lifts. A two-storey entrance hall on the east side of the building leads directly to the atrium.

In the new block, raised floors accommodate air-conditioning ducts as well as cabling. This allows the downstand beams of the main, reinforced-concrete structure to be exposed in the ceiling. The pattern of the structure is clearly legible, with the beams radiating from the atrium to a ring of columns set back from the perimeter.



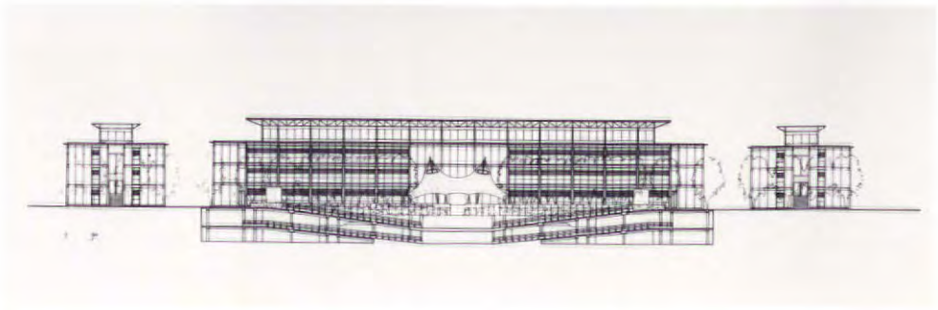




Listed wing (nearest camera) with curved centre block marks out oblique view (top left). Outrigged canopy (top right) is sole external survivor of high-tech style. Hopkins' own caricature of Bracken House (centre) and ground floor plan (right)

Tim Soar

Main Bedfont building (above) with internal atrium in use (right). Section through underground parking (below) shows fabric canopy



Bedfont Lakes, Heathrow, London 1992

As the result of an agreement with the local authority: a large area of wasteland was reclaimed and converted into a country park in exchange for planning permission for offices suitable for multinational companies a few minutes drive from Heathrow Airport. At Bedfont Lakes increased land costs dictated a high density development with underground car parking.

Hopkins' masterplan takes the form of a single square, approximately the same size as Berkeley Square in the West End of London. Three-storey, air-conditioned office buildings, 18 metres deep, surround a triple-level, sunken car park. Hopkins was responsible for the three buildings at the northern end of the square, all designed for occupation by IBM, who were the co-developers of the project.

The remaining buildings were designed by other architects in accordance with the masterplan. Hopkins' buildings are firmly in the Miesian tradition, displaying all the abstract virtues of truth to materials, geometrical regularity and extreme refinement. The key element is an exposed steel frame, incorporating a new invention: a standard casting that connects columns and beams and cleverly accommodates the differences between the sizes of the columns at each level. The frames are infilled with identical glass and grey-painted aluminium panels, each equipped with a set of fixed external louvres.

In the largest of the three buildings, at the end of the square, the 18-metre deep plan is wrapped around a central atrium in which the steel frame is again exposed. This quasi-external space is roofed over by an almost flat, clear-glass membrane, suspended from a lattice-steel structure spanning the whole width of the space. Fabric sun shades are stretched between the trusses above the glass. In the middle of the three-storey space stands a steel and glass assemblage of bridges, lift shafts and a long, straight staircase. This divides the floor space into two zones, one for the restaurant, the other for a demonstration area to be used by IBM's marketing department. The surrounding floors are open to the atrium, though IBM has chosen to erect glazed partitions between the office space proper and the circulation gallery.

In each of the smaller, flanking blocks the full-height entrance hall is glazed from top to bottom on both sides and has an elegant spiral staircase.

New Inland Revenue Centre, Nottingham 1992-1994

This building came about as the result of an architectural competition which attracted 130 entries. Michael Hopkins was the winner.

The scheme aims to extend the urban grain of the city southwards. The three and four-storey office buildings form traditional city blocks enclosing gardens. The site plan is basically symmetrical, with common facilities, including a sports hall and a restaurant within a fabric-roofed structure.

The office buildings are designed to control the internal environment using the minimum of mechanical plant, and traditional materials, engineered in a modern way. Natural lighting and ventilation mean that the office wings are only 13.6 metres deep, with an offset central circulation route to allow cellular and open-plan accommodation. Vertical circulation is by staircases in glazed towers at the corners of the blocks. Warm air is drawn from the office areas into these towers through full-height doors and travels up the open stairwell to vents in the roof. This flow is assisted in summer by stack effect and in winter by wind acting on the adjustable vents. There is no air conditioning, and space heating is by low-pressure, hot-water radiators. Maximum use is made of daylight, via "light shelves" over the windows.

In order to achieve the high thermal mass required by the passive environmental design, construction is mainly of heavy materials. Precast concrete floor units span the full width of the blocks; they sit on loadbearing piers of semi-engineering bricks. The roof covering is of lead-clad, plywood panels.

This building represents an experimental alternative to the deep-plan, air-conditioned, high energy consumption office buildings of the past.

Perspective drawing (above), and model of scheme now under construction (left)

Richard Davies

Project massing around courtyard (above)

Residential Care project, Finchley, London 1994

The Finchley Project comprises a Residential Care Home for 120 elderly and visually handicapped people located on a green field site in North London.

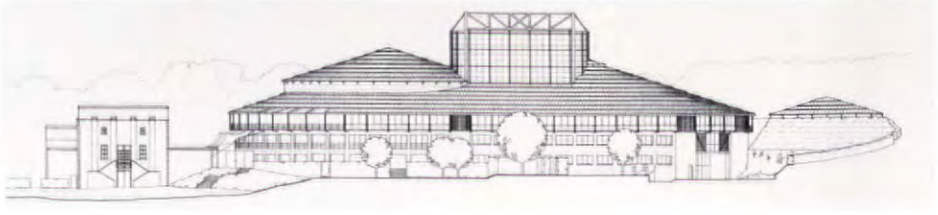
The building is organised around an open central courtyard on four storeys, the ground floor containing communal facilities, the upper three containing the residential accommodation. Each upper storey is considered as an individual and self-sufficient "house" containing 40 residential rooms, sitting and dining rooms and associated care facilities. The private rooms have been grouped along the side and rear wings of the building, while the more public sitting and dining rooms are accommodated on the front block overlooking the entrance. By sub-dividing the upper storeys into three groups of 40 residents, the intention is to create a series of "houses", which together form a Home rather than one single large institution.

The form and construction of the building is intended to reflect the difference between the upper storeys and the ground floor. Hence the top three storeys are lightweight but highly insulating cavity wall constructions supported on a ribbon of steel trusses and cantilevered self-finished pre-cast concrete planks and beams. The latter transfer the cross wall construction of the upper storeys onto a series of solid loadbearing brickwork piers which are expressed internally and externally. At each corner these loadbearing elements form solid "bookends" to each facade, rising up through the four storeys of the building.

Richard Davies

View from lawn (top) shows reversed auditorium with lead-covered fly tower. Auditorium interior is dominated by pitch pine finish. Section (below) shows fabric canopy and retained old dressing room

Richard Davies



Glyndebourne Opera House, 1994

The Glyndebourne Opera House was founded in 1924 by John Christie. Built in the grounds of a country house, it has become a favourite summer attraction for opera lovers who traditionally combine their visit with a lavish outdoor picnic in the long performance interval.

Hopkins' design reorganises the accommodation on the site, reusing existing structures wherever possible. The main proposal was to turn the theatre round through 180 degrees.

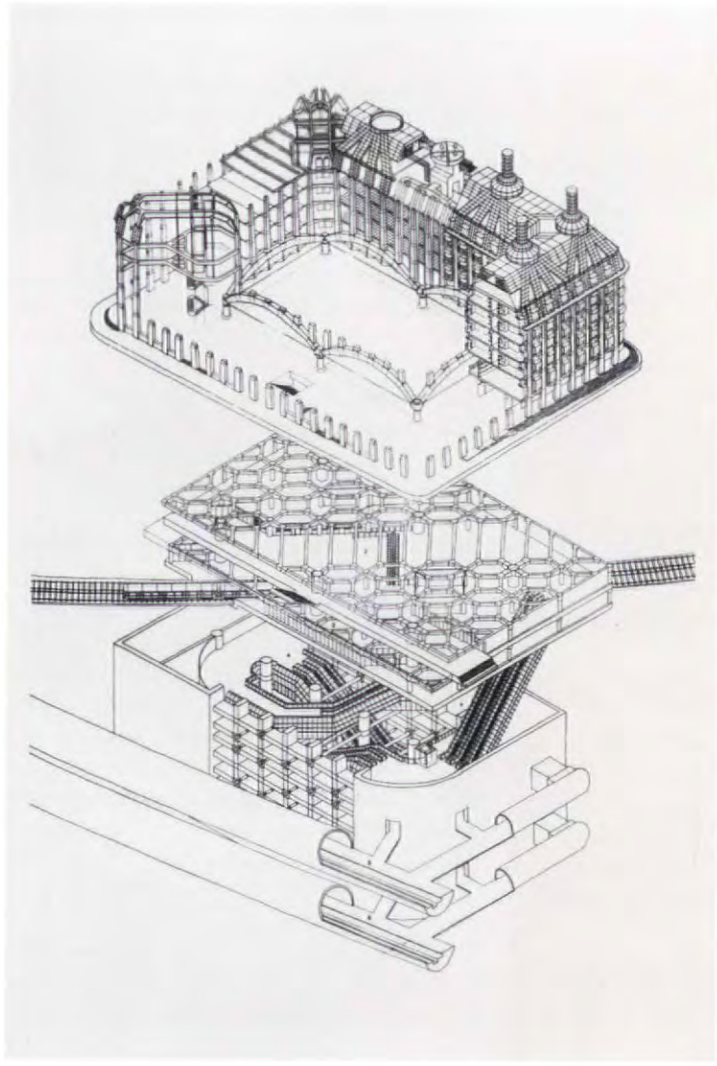
This strategy had a number of advantages: the building could be dug into the natural slope of the site to reduce its impact on the landscape; the bulky fly tower could be set back so that it did not compete visually with the original country house; the new foyer could face the gardens used for picnics rather than the access road and the scenery dock could form part of a clearly defined "industrial" zone away from the main public areas.

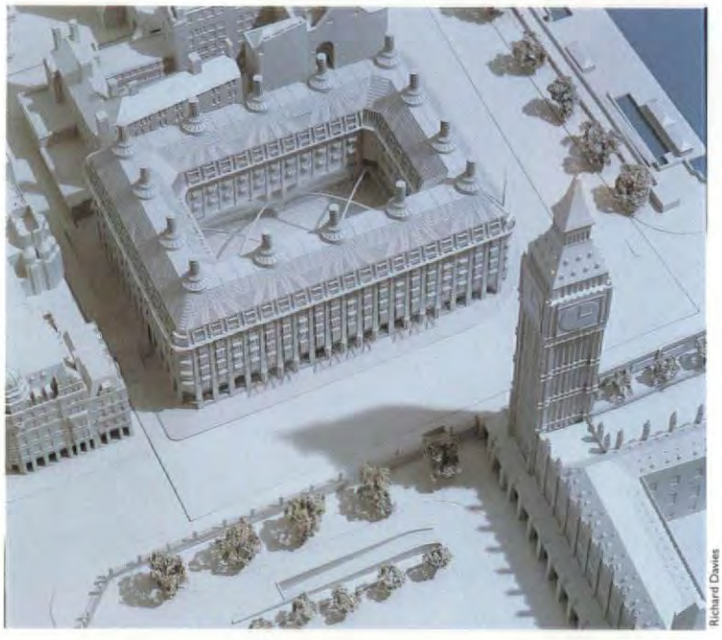
The new building is a single volume, three storeys high and oval on plan with a shallow-pitched roof. Its traditional horseshoe auditorium is contained within a circular drum that projects above the main roof and is connected to the fly tower. A colonnade surrounds the front-of-house end of the building at ground level. This is extended radially on the axis to form a new glass-roofed foyer linking the new building to a restaurant in the refurbished shell of the old backstage block. The semicircular space behind the stage and fly tower provides a working and storage area, connected radially to the scenery get-in and to an acoustically isolated rehearsal block.

Offices for administrative and production staff are wrapped round the backstage part of the building so that their windows give a human scale to the otherwise large, blank volume. These rooms also serve as an acoustic buffer for the auditorium, and ensure that people who work all through the year at Glyndebourne have fresh air, daylight and views out. Dressing rooms, plant rooms, stores and workshops are in the basement.

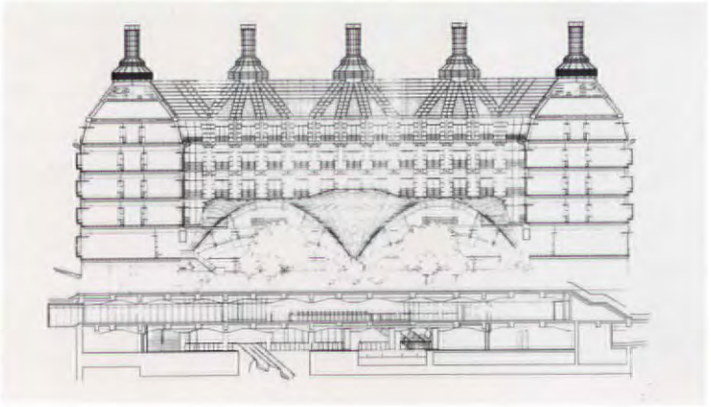
The external walls are of brick, used not as cladding but as a true loadbearing material, with projecting piers and flat arched openings, exemplifying the way that the architectural character of a Hopkins building always arises naturally from the structural functions of its various elements.

Exploded drawing shows building above new underground station (below left). Model shot (below) shows relationship to Parliament buildings. Section (bottom) excludes underground station





Richard Davies



New Parliamentary Building project, London 1994

This is the latest in a series of proposals go alleviate overcrowded conditions in the Palace of Westminster in London. The main purpose of the building is to provide offices for 208 MPs, but it will also accommodate the Committee Clerks' Department, a library, catering facilities and a suite of select committee rooms. The site, on the river frontage between the Palace of Westminster and a range of buildings by Norman Shaw, could hardly be more architecturally prominent or architecturally sensitive. It will form part of a "parliamentary campus" with a secure perimeter stretching from Bridge Street to Richmond House and from Victoria Embankment to Parliament Street. Beneath the site lies Westminster underground station, which will be redesigned for London Transport with a new ticket hall below ground.

The basic form of the proposed building is very simple – a six-storey rectangular block with a central courtyard. An arcade extends at ground-floor level along the two street frontages, sheltering the station entrance flanked by a pair of shops on the Bridge Street side, and the main public entrance to the building on the Victoria Embankment side. The entrance hall gives direct access, via a grand staircase, to the committee rooms on the first floor. For MPs, however, the main entrance is via an existing pedestrian subway that crosses Bridge Street from New Palace Yard and rises via escalators in the central courtyard. The courtyard is surrounded at ground level and first-floor levels by cloister-like corridors. At second-floor level the courtyard is covered with a spectacular arched glass roof so that it becomes a landscaped conservatory with a bar, a cafeteria and a library reading area.

Above the level of the courtyard roof, the cloister arrangement gives way to a conventional plan with a central corridor serving cellular offices. This means that the building can be mainly naturally lit, with a consequent saving in energy costs. Ventilation is provided by air shafts on the facade, connecting the individual rooms to tall chimneys on the roof. Fans housed in the roof space exhaust stale air through the chimneys and draw in fresh air at the bases of the shafts through heat-recovery units.

The chimneys are functional elements, not mere decoration, but the picturesque roofline they create is one of a number of features that help to reconcile the new building with its sensitive context. The texture of the stone and bronze facades echoes the Perpendicular Gothic decoration of the Palace of Westminster, the curved corners recall the turrets of the Norman Shaw Buildings, and the black-patinated bronze roof panels have been selected to match the roofs of both neighbours.

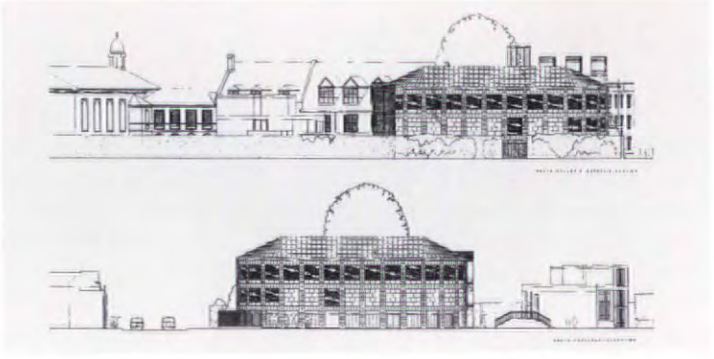
Emmanuel College, Master's Lodge Building, Cambridge 1994

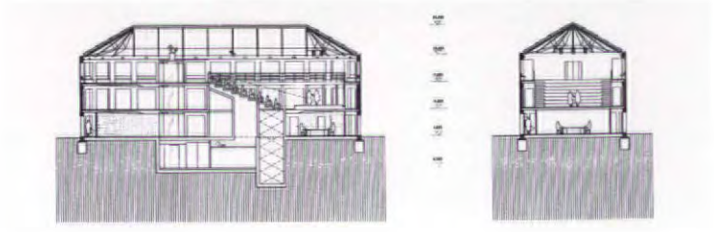
The College has developed a brief for a new building containing a 120 seat lecture theatre which can also be used for musical or theatrical performances together with music practice rooms, seminar and reading rooms. The new building could also house the contemporary art collection currently being acquired by the College as part of the Development Plan.

The Master's Lodge Forecourt has been identified as the site for this new building because of its size and proximity to the Old Library and Old JCR. The proposal takes the form of a detached three storey stone building similar in size to the existing Wren Chapel.

The external structural frame for the building is constructed from loadbearing Ketton Limestone to match the adjacent Wren Chapel together with precast concrete structural nodes. Windows or framed ashlar stone panels are used as infill panels and the adjacent stair tower is enclosed by glass block frames within a cylindrical structural steel framework. The roof construction uses timber and steel trusses supporting acoustic timber panels with lead roof covering over. Internally, joinery walls will be used as partitions with exposed concrete soffitts to the ceilings.

Richard Davies





Model shot (above) shows relationship to existing college buildings. Drawings (right) show theatre building

Michael and Patty Hopkins: a biography

The son of a builder, Michael Hopkins was born in 1935 and Patty Hopkins in 1942. They both graduated from the Architectural Association where they were strongly influenced by the teachings of Peter Smithson. After experience with other architects, in Michael's case several years with Foster associates, they established their own practice in 1976 in a house that they designed for themselves. Later they moved their office to an industrial unit, also of their own design, in nearby Marylebone.

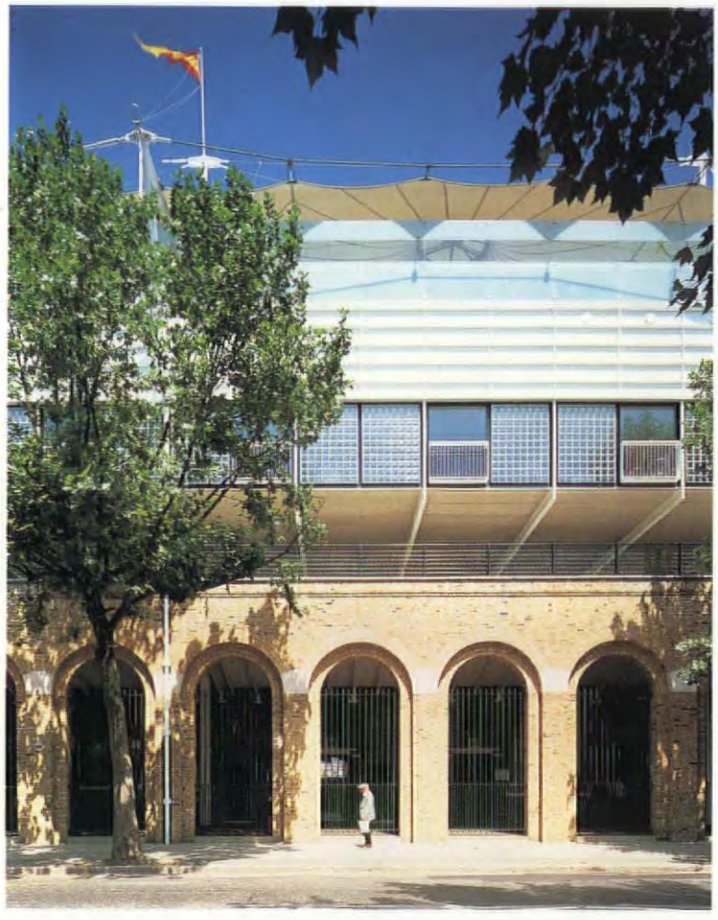
Today Michael Hopkins holds the CBE for services to architecture. He is an AA Councillor, a Royal Academician and a Royal Fine Art Commissioner. In 1994 he and Patty were jointly awarded the RIBA Royal Gold medal for Architecture - the first time a husband and wife joint award had been made since Charles and Ray Eames.

Selected Projects

1976	Architects' own house, Hampstead, London
1981	Greene King Draught Beer cellars, Bury St Edmunds, Suffolk
1982	Patera building system
1985	Schlumberger research centre, Cambridge
1985	Architects' own offices, Marylebone, London
1987	The Mound Stand, Lord's cricket ground, London
1988	Solid State Logic development and production building, Oxford
1989	David Mellor cutlery factory, Hathersage, Derbyshire
1991	David Mellor offices and showroom, Shad Thames, London
1992	Bracken House conversion, City of London
1992	Bedfont Lakes IBM buildings, Heathrow, London
1994	Glyndebourne Opera House, Sussex

WORKING WITH HOPKINS

The architecture of Michael Hopkins has always aroused admiration, but in the years since Patera and Schlumberger he has entered unknown territory. What Hopkins calls "real construction" is a process of design that makes it possible for him to use ancient and modern materials with equal authenticity, even in the same building. Here engineer John Thornton, who has worked with Hopkins over a number of years, offers an unique insight into the process.



Reviewing the projects I have worked on with Michael Hopkins it occurs to me that the process has never been easy. He works by slowly polishing and refining and, like all good architects, he is demanding. We did not make the process easier by arguing about ideas. An architect may suggest ideas which can be realised but which lack engineering logic. Without this logic a design is weakened, so the engineer should argue against ideas which he believes to be unsound while being committed to finding an alternative. We have had plenty of arguments but I believe that a good architect values the debate and understands that the engineer argues because he too wants excellence.

What interests me, as an engineer, about Hopkins' work is that for him engineering is not simply a set of images. Structural and environmental engineering concepts lie at the very heart of architecture itself. The engineer is expected to contribute from the beginning and, as a result, when he works with the same architect over a number of projects, a common vocabulary of experience and ideas results. This continuity of experience shows in the progression of thought and increasing sophistication of the integration of engineering and the use of materials.

Comparisons have been made between Hopkins' buildings using "high-tech" materials like glass, steel and fabrics, and those which use traditional materials: brick, stone, bronze and lead. In fact all these materials are chosen for their suitability rather than their conformity to a style. Irrespective of type, the material is used in a technically sophisticated way. Whether it is PTFE coated glass fibre or load-bearing stonework its performance is pushed to the limits and it is used in an absolutely modern way. In this sense Michael Hopkins' architecture might be described as "high-technology" rather than "high-tech".

My first project with the Hopkins office was the Mound Stand which started in 1985. This was a seminal project and from it can be traced lines of development that lead into all the buildings that Michael Hopkins has designed since. In one or all of them are to be found derivatives of the loadbearing brickwork; the steel spine structure; the plate girders; the precast concrete floors; the use of fire engineering to achieve exposed steelwork, and the use of membrane roofs.

Bracken House, which followed two years later, is very different but shared certain aspects. The Hollington stone used in the retained wings was carried through and used structurally in the piers at the base of the load-bearing facade. The facade itself was of cast bronze justified by fire-engineering. The lift shafts in the atrium were formed from plate girders, and the main floor beams were precast.

The design of the floors was interesting because the unusual location of the slab compacted the structural and services zone to minimise its overall depth. Not only did this permit the introduction of an extra storey, it also expressed the radial form of the structure and was a key element in the fire-engineering strategy which was the basis of the facade design. All these engineering concepts were completely integrated with the architecture.

The joint between the precast beams and in-situ columns in the central area, and the permanent metal formwork and reinforcement spacers used as partition restraints, all benefited from experience gained during development of similar details on Richard Roger's Lloyd's Building. Experience with the ductile iron castings on Renzo Piano's Menil Gallery was influential in the design of the facade. These derivations show how an engineer, who works with different architects, can perform a valuable function as a conduit of varied experiences.

The Compton and Edrich Stands at Lord's are apparently different from the Mound Stand but the stair-cores continue the use of plate-girders while the basic structural principle is that they too are balanced on a steel spine. This device reappears again at Glyndebourne, on which we started in 1989. There the balconies balance on a concrete spine and are tied-down at the back by the auditorium wall.

Engineers see things differently from architects. Sometimes we can recognise common elements in problems and by identifying technical principles can help clarify architectural thinking. Engineering diagrams can rationalise architectural development. The various parts of Glyndebourne present different structural problems and explaining these in a diagram helped establish the various technical solutions – such as the balconies. It also identified the main problem to be solved: the design of the brickwork.

Although the use of brick might seem to have been based on the physical context of the site, it was equally derived from the need to satisfy Hopkins' insistence that the facade should not merely be a skin. The problem was to design a structure which was modern but which used brickwork as a demonstrably load-bearing material. An interesting part of this process was the discussion of the characteristics that govern the performance of brickwork and which help define the use to which it is being put.

The relationship of the piers and windows, for example, demonstrates that the piers are load-bearing while the bonding of the flat arches shows that they are made of solid masonry. The precast concrete floor beams are built into the piers and appear on the outside. The slabs themselves are precast. Precasting was used for speed and quality but also because it is the natural equivalent of the timber or cast-iron that would have been used earlier.

The cement mortars used in modern masonry require frequent movement joints and these would have brought connotations of a non-structural skin. To avoid this, lime-putty mortar, a flexible traditional material, was used to eliminate expansion joints, although this cannot always be achieved.

Throughout the design of Bracken House and Glyndebourne the Michael Hopkins Partnership and Arups had been developing proposals for the New Parliamentary Building at Westminster. The location and the requirement for a building that would age gracefully led to the use of stone and bronze as exterior materials. This is an obvious extension to the work at Bracken House, while the piers are clearly related to those at Glyndebourne. There is, however, a less obvious link with Bracken House where restricted headroom in the listed wings of the original led to the need to service these from the outside walls. This idea has been developed in the Parliamentary building where the air ducts are placed adjacent to the stone piers on the external walls. The stone piers not only carry vertical loads but act as part of the moment frame to provide horizontal stability.

Stone has always been used as a structural material. The difference in the case of the New Parliamentary Building is that it is taken beyond the limits of previous empirical experience and used as an engineering material. Thus, as at Glyndebourne, research and testing are an essential part of the design. The aluminium bronze alloy, which is used structurally in the roof has also been the subject of extensive research since it too is being used in an innovative way.

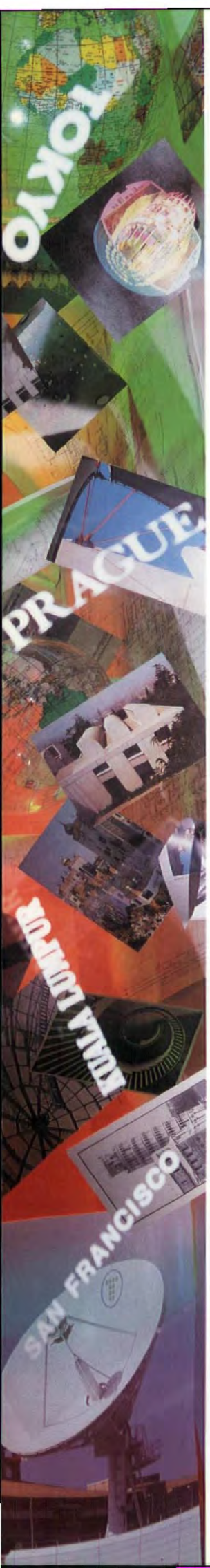
There is, in the New Parliamentary Building, a subtle link with the Mound Stand where the existing terrace had an area of steel filler-joist and breeze concrete construction. Water leakage had corroded some of the filler joists but we justified the structure by calculating that arching action within the concrete would compensate for the loss of support from the filler joists. Although this arching action was a structural concept rather than a physical form the idea of an arched floor lodged in the architects' mind for future use. It was to have been used at Lord's with ferrocement permanent formwork, but it could not be procured in time. Pier Luigi Nervi too had used ferrocement and made extensive use of ribbing in concrete. These ribbed forms interested Hopkins who wanted a similar quality in the floors of the Parliamentary Building. However, the form of the building was such that the logical way of spanning the floors would have been with parallel transverse ribs like a car park – an unfortunate image.

As an alternative we suggested folding a thin concrete slab into a wave form, an efficient way of spanning the floors with the minimum amount of material. It also produced the arched form which was to have been used at Lord's.

The competition for the Inland Revenue Centre at Nottingham was won in 1992 with a design which, combining the courtyard of the Parliamentary Building with the brickwork piers of Glyndebourne. The competition scheme used a system of precast beams and slabs but in design development this too changed to a precast wave-form slab derived from the Parliamentary Building. The brick piers could have been built in situ within the programme, but as this was obviously a critical activity, we developed a design which allowed them to be made off-site. This strategy was very successful: the piers, assembled under perfect working conditions were very precise and could be stockpiled in advance of requirements. This idea has now been absorbed back into the Parliamentary design where the stone piers will be also be pre-assembled.

If the Inland Revenue Offices at Nottingham, now nearing completion, are high-tech "traditional" construction, the Amenity Building there, a spectacular membrane structure with steel masts and glass lenses, will exemplify traditional "high-tech".

As a structural engineer I have concentrated on structural issues in relation to my work with Michael Hopkins. But there has been, in parallel, a development in the integration of environmental services too. Bracken House was an early example of the close spatial integration of structure, services and architecture. In the Inland Revenue and Parliamentary Buildings, architecture, structural and environmental services are so completely embedded in the architectural concept, that the whole building fabric plays a part in reducing energy demands. □



GLOBAL REVIEW

DUBLIN MODERN AND ANCIENT

In most other countries, the sale of an architect's own house would merit scarcely a mention outside the professional press. But in Ireland, the fact that the house Michael Scott built for himself was coming up for auction received front-page coverage in that august organ, the *Irish Times*, and became a topic of heated discussion.

To the Irish – and in particular Dubliners – Scott, who died in 1989, was a national artistic hero, fit to rank alongside James Joyce and William Butler Yeats. This was appropriate, since he built his house, Geragh, in 1938 at Sandycove, right next to the early nineteenth century Martello tower – one of a string of coastal defences against an expected invasion by Napoleon – where Joyce stayed in 1904 and which he used as the setting for the opening of his great novel *Ulysses*. Some 30 years later he rebuilt Yeats' Abbey and Peacock theatres in brick Miesian mode.

Scott – whose practice Scott Tallon Walker survives and flourishes, and whose celebrated protégés include Kevin Roche who went on to work with, and take over the practice of, Eero Sarinen in the United States – here introduced the "international Modern" style to Ireland, which in the 1930s was still a young nation trying to make its way on the international stage. The significance of the house is not so much in its architecture – this is a highly competent but early work, openly derivative of the Dutch and German masters of the genre, and not so assured as his famous Irish Pavilion at the 1939 World Fair in New York – as in its historical associations. So when it was put up for sale by his family, three years after his death, moves were made to turn the house into a museum of Irish architecture and design.

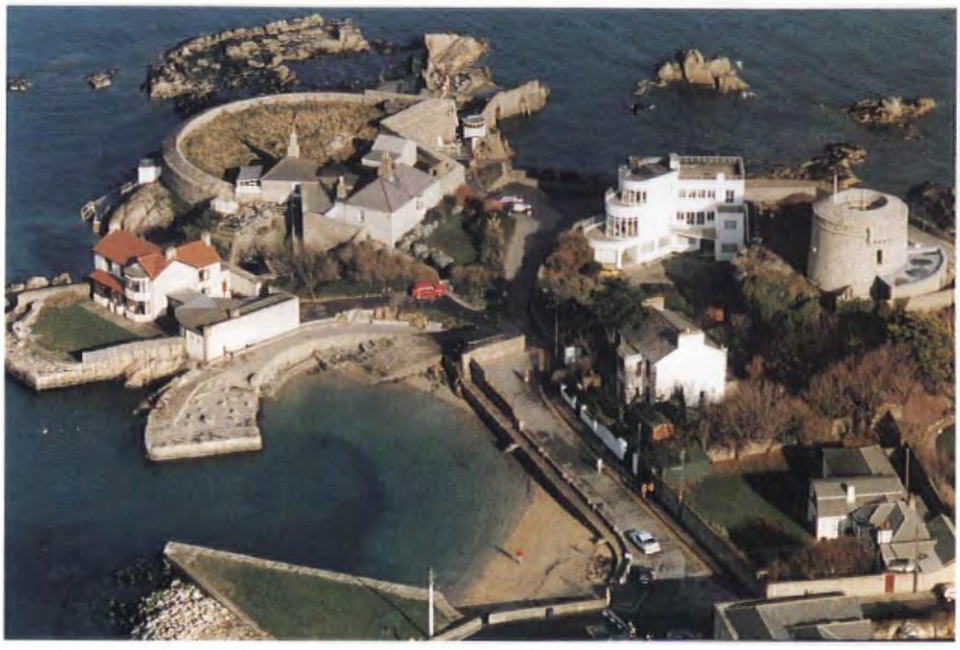
This was a good idea in principle. The Joyce Tower had become a museum some years earlier, and literary pilgrims could have rubbed shoulders with architectural if the house had been flung open to the public. In practice, however, the museum was a non-starter. Sandycove is a secluded peninsula across the bay from Dublin's harbour resort of Dun Laoghaire. There is nowhere to park a car and – particularly in the summer months – it gets crowded with swimmers and sunbathers. Despite this, the house with its garden, set in a hollow right up against the granite tower, remains curiously calm and secluded. Moreover, where was the money to be found to buy the house and found and endow a museum?

So the discussion in the city turned to the more practical matters of who, if anyone, would buy the house, how much it would fetch, and whether Scott's legacy would be spoiled. At one point, it looked set to become an embassy, or at least an ambassador's residence. But this snub-nosed building, well-maintained but distinctly lacking in the kitchen and bathroom department, would obviously not find favour with everyone.

In the end, when auctioneer Alexis Fitzgerald brought the hammer down on the property at the Dame Street auction rooms, Scott's house sold, for £274,000 (a little more than expected), to a banker who is keen to restore the house with care.

This, if true, is a piece of luck which means one less worry for the Dublin architectural fraternity. Plenty of fine buildings in Dublin, from Georgian times to the present day, continue to fall into decay or be summarily demolished. Although there have been some set-piece costly restorations,

Her majesty the Queen with Michael Scott in 1975 (below right) and Scott's house next to the Ulysses tower (below)



including most recently the 1720 Dr. Steven's Hospital (restored by Arthur Gibney) and the 1738 Newman House on St. Stephen's Green (restored to archaeological standards of exactitude by David Sheehan) there are many others queuing up for the small amount of cash available.

Chief among these is Francis Robinson's 1802 St. George's Church in Hardwicke Crescent, a fine example of a Georgian Protestant church, with Dublin's tallest spire and a single-span interior, 18 metres by 25, which is, unusually set sideways-on: it is wider than it is long, Deconsecrated and sold in 1990 to a private owner who cannot afford to repair it, it is now suffering from that curse of eighteenth-century technology: rusting iron cramps in the stonework which split the masonry of the tower asunder.

Were this a wealthy European capital, St. George's would be the focus of a concerted fundraising campaign. Being Dublin (a city described by Gibney as lying "...at the end of that great road through Athens, Rome, Paris and London"), it stands largely forgotten in what is now a run-down part of town. There are plans to turn it into a concert hall, but hopes are not particularly high. At any given time in Dublin, there is usually only one focus for investment and arts money, and at present it is all going into the city-centre urban regeneration scheme of the Temple Bar project, due for completion in 1995. After that, who knows?

ADMIRED PARK

Back in 1968, when Californian students were rioting, the Grateful Dead were the band to listen to and Dustin Hoffman was on his way to superstardom courtesy of *The Graduate*, a successful Korean-born architect, Ki Suh Park, suggested to his peers that architects ought to shoulder a responsibility on social issues. This May, he found himself the recipient of the American Institute of Architects' citation for "significant contributions to society". Not unconnected with this is the fact that Park is also currently on the Rebuild L.A. Executive Committee, and is chair of its Racial Harmony and Discourse Task Force.

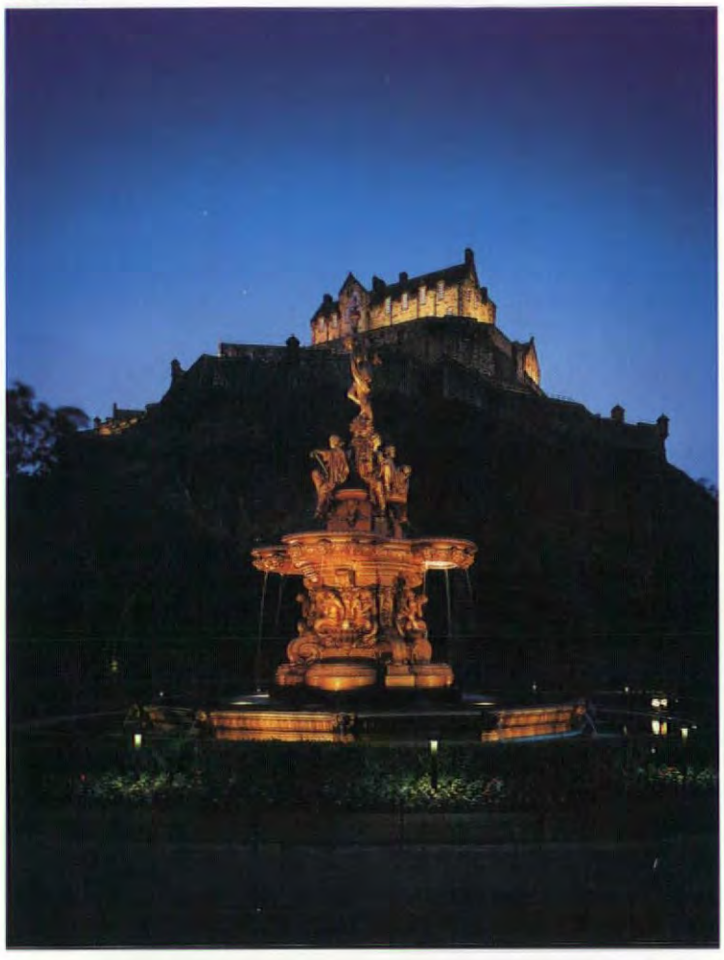
In a very American way, Park manages to be a community activist, an exemplar of racial minorities making good, and the principal of a highly-successful firm of architects, planners and transport consultants, Gruen Associates, in which he owns a 51 per cent stake. His was never a "normal" career structure – he arrived in the USA from South Korea in 1953 in the aftermath of the Korean War, sponsored in his training by both the author James Michener and the sentimental-realist artist Norman Rockwell. Having studied at the University of California at Berkeley (hence perhaps his intervention in 1968) and graduating from the Massachusetts Institute of Technology during its Miesian phase, he joined Gruen Associates in 1961. Unusually for the time, the firm had a policy of hiring what are described as "minorities, women, and people from all parts of the world". Park continued and expanded this multi-everything policy at Gruen during the 1960s and 1970s. But the reason he has received the AIA's "Whitney M. Young Jr. Citation for significant contributions to society" is as much for the way in which he shamed his largely corporatist profession to take a wider view of society than merely wondering where the next curtain-wall office block was going to come from.

Park, therefore, is a nationally recognised business success story with a social conscience. He helped create a climate of public participation, particularly in housing relocation projects, at the same time as undertaking more conventional commissions such as the expansion of the Los Angeles Convention Center and working in Korea, Japan and Indonesia. He is also interesting from the architectural historian's point of view as someone who worked instinctively in what became known as "community architecture", years before it became fashionable.

The Americans do love their citations, and sometimes the wording is very good. How about this, from the AIA in full Oscar-ceremony mode:

"Literally hundreds of people have benefited from Park's wise counsel and leadership, his altruism, and his commitment to human values. As a role model, Park is not only a community activist dealing with major social

Ross Fountain: new ways of lighting Edinburgh



New in New Zealand

Christchurch Railway Station by Warren and Mahoney (top), and Eskdale School Hall by Paris Magdalinos represent the two poles of contemporary New Zealand Architecture. The two buildings were honoured among six out of an entry of 36 for displaying "magic" and "a return to more solid and basic values" in this year's New Zealand Institute of Architects-Resene National Awards

and economic issues, but an activist leading by example in a whole spectrum of his professional work."

GLASGOW SECOND TOWER

Amid much loose talk as to what would make a suitable monument to celebrate the commencement of the third millennium, Glasgow, which has become very proud of its European cultural image, now has two competing millennial schemes.

Still on the table is the winner of the international 1993 Glasgow Tower competition by Richard Horden, usually known" as the "Glasgow Wing" because of its aerodynamic shape that rotates into the wind, so saving on costly structural stiffening. Its new rival, however, is by no living architect. It is the proposed rebuilding of a monument from the 1938 Glasgow Empire Exhibition, "Tait's Tower".

Thomas Tait of Burnet, Tait and Lorne was chief architect to the expo in Bellahouston Park, which was the most comprehensive collection of Modernist buildings in Scotland before the Second World War. The Tower, a somewhat Constructivist edifice in concrete and glass rising from a curving base block, was its centrepiece. Like the much more delicate Skylon at the Festival of Britain, but unlike the Atomium in Brussels, it was afterwards demolished.

The group wanting to reconstruct Tait's tower points out that its most substantial component – 3,000 tonnes of poured concrete foundation block – is still inside Bellahouston Hill.

"We believe that the rebirth of the Tower would be a major contribution towards Glasgow's striving to be a European centre, a capital of culture and a city of architecture and design for the coming millennium," heroically state the group's leaders, Neil Baxter and Jim Waugh.

There is a subtext here: Glasgow, Edinburgh and Liverpool are the three UK cities competing to win the crown of "city of architecture and design" for the year 1999. Edinburgh is trying very hard, proposing to build a new architecture centre, making much of its rather successful four-year city-wide lighting project (involving different "temperatures" of lighting for different periods of the city's history), and signing up Giancarlo de Carlo in support. Sir Richard Rogers is backing Liverpool, where he happens to be building at the moment. Glasgow still appears to be searching for the Big Idea.

Footnote: Bellahouston Park is becoming quite the place for Scottish architectural revivals. Three years ago Charles Rennie Mackintosh's failed German competition entry House for an Art Lover was lovingly built there. It is still trying to find a function.

Kraaijvanger's Door to the Hague. Lots of ceramic

BIG OFFICES

For a small country, the Netherlands does come up with some quite remarkably large office developments. One of the reasons for this is that the Dutch are very good at insuring things, and the country contains some awesomely huge insurance companies as a result. This building, called Haagse Poort or "Door to the Hague", will be the new headquarters of one of the biggest insurers in the world, Nationale Nederlanden.

It is designed by Rotterdam-based architects Kraaijvanger, will cover 81,000 square metres of floorspace, has a 20,000 square metre ceramic facade, spans a motorway, parks 1,000 cars, rises to 70 metres high in places, and will be turquoise and white. Despite its size it could not be said to be authentically Dutch in character but if city gateways must be made these days – then you may well fill all the space inside with insurance clerks as anyone else.

CHEAP DENMARK

Do small countries, having short lines of communication, get more things right in planning and architectural terms than larger ones? Where better to find out than in compact Denmark?

To try to explain how planning in Denmark (usually) works, the Danish Cultural Institute is holding a seminar on Town Planning and urban renewal in Copenhagen this September.

The seminar is open to professionals, teaching staff from universities and institutions of higher education, and advanced students from all over the world.

Denmark has a very carefully planned urban framework in which the consumers are not far removed from those who make the decisions. Moreover the Danish population is very aware of the need for quality, tending to allow the introduction of new ideas by a process of evolution rather than revolution.

It is this aspect of designing for the spirit of place on a co-operative basis that will be explored in the seminar, which is being held in the English language, between September 17-23, 1994 and includes several visits to sites of interest. Cost is DKK 7,600. Application forms from Det Kulturinstitut, Kultorvet 2, DK-1175 Copenhagen K, Denmark. Deadline for applications is August 10.

JACOBSEN REVIVED

After touring Copenhagen, Amsterdam and Seville, an exhibition of architect Arne Jacobsen's design work will conclude its run at London's Design Museum, from June 16 to October 2, 1994.

Danish-born Jacobsen, who died in 1971, was a prolific designer of furniture, lighting, tableware and textiles. Although usually intended for individual buildings, many, such as his celebrated bent-plywood "Ant" chair, have since gone into mass production. Other chairs include the "Swan", the "Egg" and the "Series 7".

Although Jacobsen drew out his buildings painstakingly, he appears never to have committed his product designs to paper, preferring to work directly and let them emerge from the available production processes. It is said that the "Ant" chair derives its striking nipped-in waist from the simple fact that the cut-outs in the plywood remove tight radii that would otherwise make the veneer wrinkle.

Original architectural models and drawings have been lent by the Royal Danish Academy of Fine Arts. Sponsorship is by Carlsberg-Tetley.

Arne Jacobsen in Focus: 16 June-2 October 1994, Design Museum, Shad Thames, London SE1 2YD. Phone +44 (0)71 403 6933. Fax: +44 (0)71 378 6540.

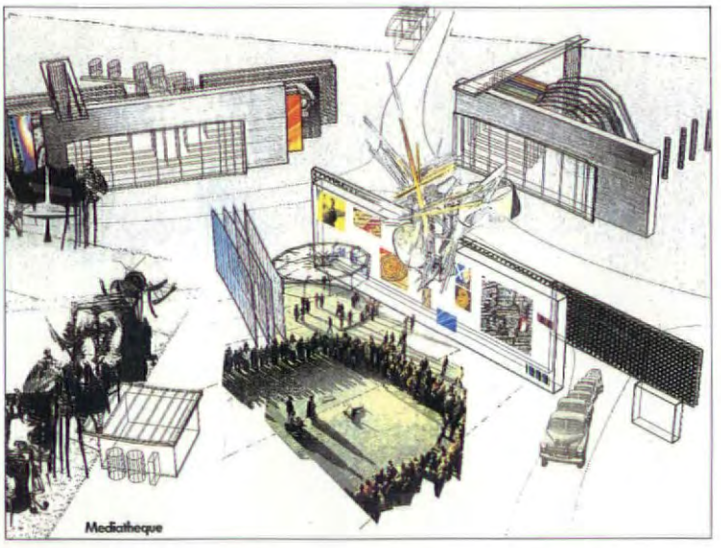
WHAT IS GLOBAL HIGH-TECH?

Here are the judges: Sir Norman Foster and Sir Richard Rogers from London, Jean Nouvel from Paris, Tay Kheng Soon from Singapore, Philip Cox from Sydney. Here is the award: the Quaternario IAITA Gold Award for Innovative Technology in Architecture, founded by a steel magnate. Now – go ahead and work out the winners for yourself.

There were five winners of the Quaternario, a biennial award established in 1986 by Massimo Coloban, president of the Permasteelisa company. Given who was on the judging panel, a number of names you might expect to crop up obviously couldn't. The five, this time round, were: Nicholas Grimshaw for his Waterloo International Terminal in London; Fumihiko Maki for the Makuhari Messe Nippon convention centre in Tokyo; Valode et Pistre & Associates for their

Jena Revisited

Readers may recall the scene of devastation that was the former Carl Zeiss optical plant in Jena (WA20). At that time the most recent of the DDR buildings, B58, was in the process of being converted and overclad as a mixed use commercial development by architects Rodl + Braschl. This project has now been completed, together with some of the work set in train by DEGW on the site at the heart of Jena. (Photo: Richard Bryant/Arcaid)



Architectural photographer Timothy Soar's attempt to get the Cambridge mediatheque project off the ground took a step nearer fruition this summer. After successful exhibitions at Cambridge the design proposals of Apicella Associates, Hodder Associates, Jonathan Ellis-Miller, Robert Evans, Shillam + Smith and Spiller Farmer will be coming to London shortly. Shillam and Smith's offering (above) gives the flavour

L'Oreal factory outside Paris; Forbes and Fitzharding for the CRA Advanced Technical Development Complex in Victoria, Australia; and Behnisch & Partners for the Bundestag (German Federal Parliament Building) in Bonn.

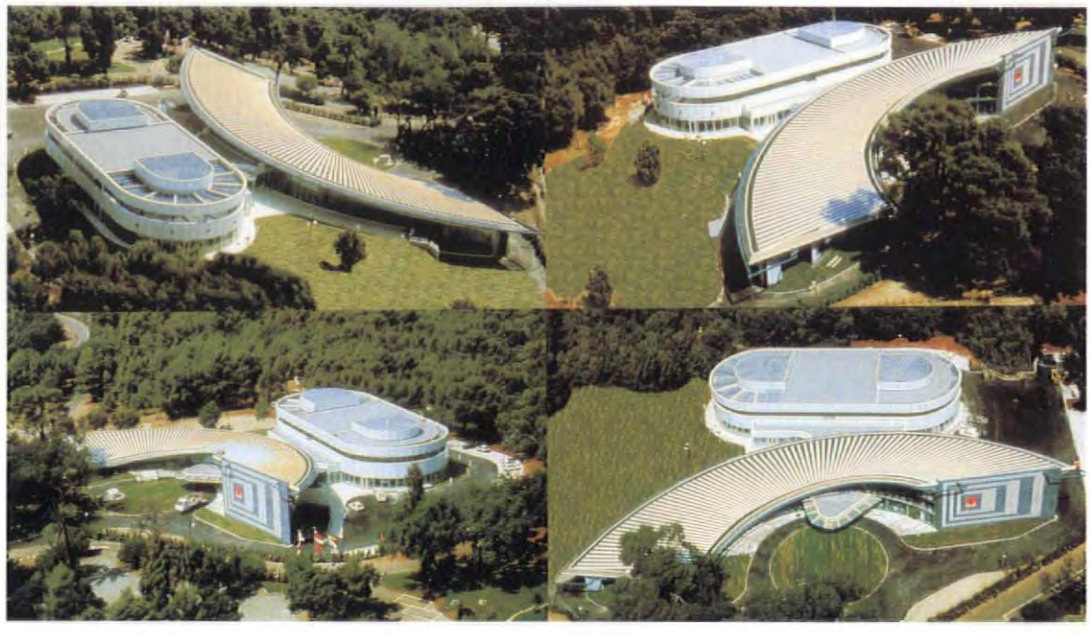
All these are, broadly speaking, variations on the glass-and steel aesthetic that now dominates one kind of technology-led architecture. It's interesting, as always with such awards, to see who didn't make it to the top rung. The disappointed firms who were on the shortlist of 20 are a roll-call of some of the world's leading architects: Australia's Denton Corker Marshall and Daryl Jackson, Belgium's Samyn and Partners, France's Claude Vasconi, Germany's Architekturburo Bohm, the Netherlands' Harry Rejinders, Malaysia's Ken Yeang, Norway's Niels Torp, Japan's Kenzo Tange, Spain's Martorell Bohigas Mackay, Switzerland's Mario Botta, the UK's Manser Associates, and, in the United States, Kohn Pedersen Fox, Murphy/Jahn, and Skidmore Owings & Merrill. Plenty of steel and glass among that lot, but also quite a bit of masonry and timber in various forms.

Such an award, we hope, will as time goes on address the matter of what are seen as "traditional" materials used in an advanced way. Cedric Price once defined "high-tech" as the way a mediaeval stonemason dressed great blocks to fit together with the very thinnest layer of mortar. Most of what passed for high-tech, he averred, was merely industrial chic. With architects such as Michael Hopkins – once a steel, glass and tensed-fabric man – now working extensively in loadbearing masonry and natural ventilation, and even Norman Foster capable of producing a timber house, it seems that our definitions of what constitutes "technology-led" in architecture may be about to shift our aesthetic perceptions of the genre.

The up-and-coming architects in Britain, Modernists to a fault, tend to divide themselves into "woodies" and "techies" to describe, not their technological programmes, but their aesthetic preoccupations. To which, in the light of some recent UK architecture, we might soon add the category "stonies". To check this out, see the "New British Architecture" show, originating at London's Architecture Foundation, which is at Berlin's Aedes Gallery during Summer 1994, and at the Arc en Rêve centre in Bordeaux during the Autumn.

Dominique Perrault, he of Paris's Très Grand Bibliotèque, got into hot water at a March symposium on timber at Paris's Pavillon de L'Arsenal. As the world knows, Perrault's competition-winning design involved putting all the books in four L-shaped glass towers. Then the matter of climate control and book conservation came up. Perrault decided to overclad his glass with red wooden shutters. However, this apparent move from techie to woodie has proved controversial since it is alleged to involve the use of prodigious quantities of rainforest timber. Technology, these days, is all about sustainability.

Pathological grandeur, Schmeltz's European Heart House near Nice



TECHNOPOLE

At what point does a disease become sufficiently widespread and alarming to generate its own dedicated architecture? In the case of the European Heart House, the point was reached when the development of cardiology demanded a stand-alone centre, apart from specific departments in specific but competing universities and hospitals.

The Heart House has recently been completed in the vast business/research development (known as a technopole by the French) of Sophia Antipolis outside Nice. Designed by architect C.J. Schmeltz, it is the first purpose-built headquarters for the European Society of Cardiology, which was established in 1950. This is where cardiologists get away from their patients to meet up in a training and educational centre. It also acts as the hub of a pan-European research computer network.

The centre takes three forms: a semicircular entrance and administration building, dominated by the abstract brick patterning of its end wall: the linked oval of the conference building: and a semi-formal landscape for those healthy strolls in the intervals.

This is the third building of its kind in the world, but the first outside the United States. Significantly, its technopolic location was preferred to a clutch of famous cities that were considered, including Amsterdam, Barcelona, Berlin, Brussels, Dusseldorf, Frankfurt, London, Munich, Strasbourg and Vienna. True, the archly-named Sophia Antipolis (which has been going since 1969) is intended to become "an international city of knowledge, science and technology", which sounds appropriate: but one can't help thinking that, being midway between Cannes and Nice, it has the perhaps coincidental advantage of a far better climate than any of those northern cities

$200 MILLION BEIJING PROJECT

Los Angeles, CA. May 20, 1994 — The Los Angeles office of RTKL Associates Inc, an international architecture and engineering firm, has been awarded the design contract for Xi Xi, a new mixed-use development in Beijing, China. The China Aeronautical Project and Design Institute is serving as the local architect. The firm behind the $200 million project is Beijing Huayuan Real Estate Company, one of the city's largest developers.

Xi Xi, consisting of retail and Class "A" office space as well as a five-star hotel, is the second major Beijing project awarded to RTKL since late 1993. The firm is also the design architect for the $300 million redevelopment of Beijing's historic DongAn Market.

In addition to executive vice president David Brotman, the RTKL design team includes Greg Yager AIA as project manager and Xiaoguang Liu as project designer.

A major contender in the international market, RTKL's Los Angeles office currently has projects underway in 24 foreign countries. The firm's portfolio of large-scale mixed-use, planning and urban design, retail, hotel and resort, and government projects also includes work within California and several other states.

SEATTLE REVITALISED

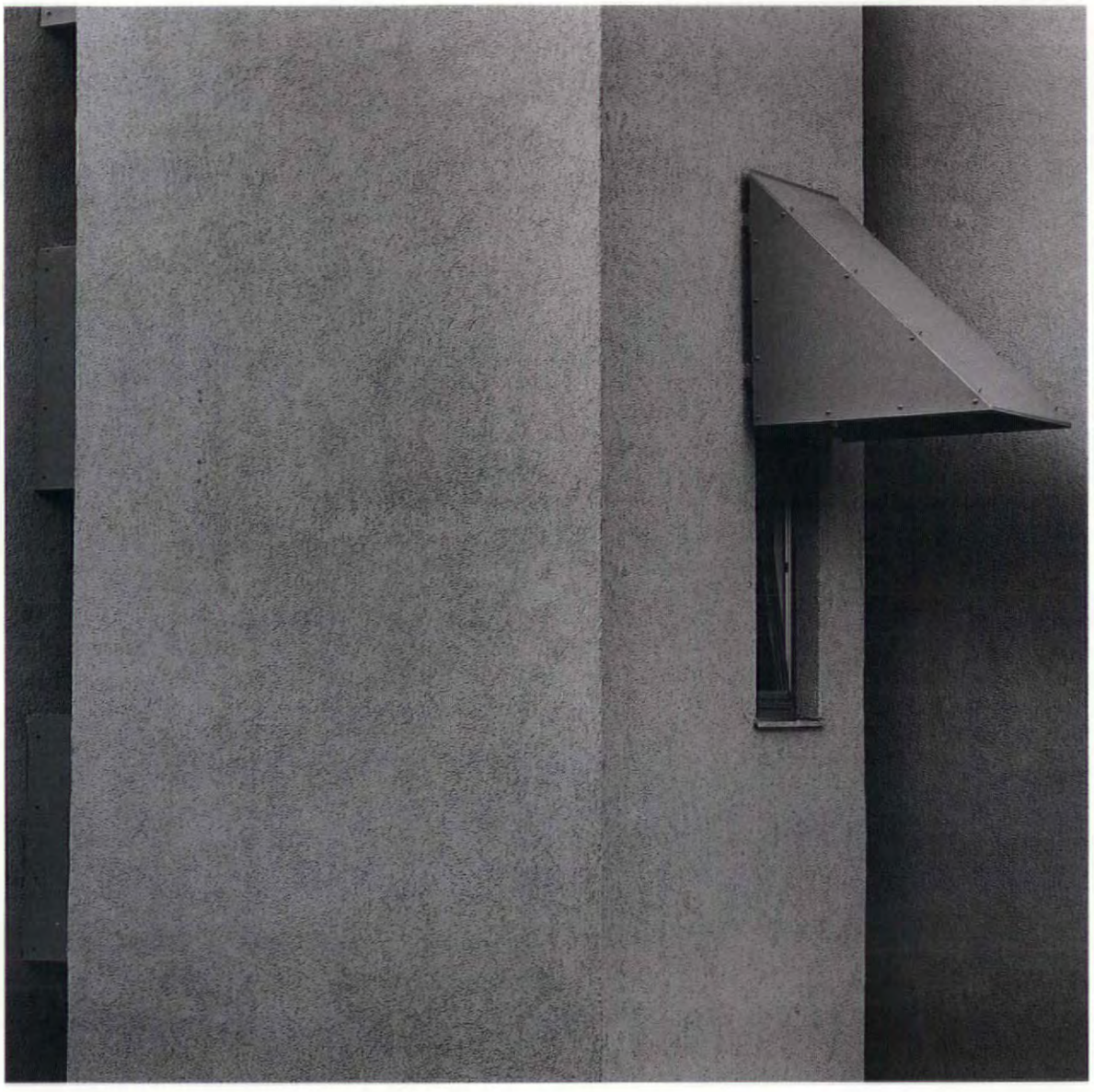
Seattle — This year's Callison International Student Design Competition (CISDC) challenged top architectural students from 30 colleges and universities on five continents, representing 14 nations. Tapping into their status as an international design force, Callison put together an international design competition that served as a "testing ground for new ideas about urban development", according to Callison Design Director Mike Whalen.

Students from the University of London to Quan Zhou in the People's Republic of China and the University of Washington in Seattle offered their best design for a section of the Seattle Commons, a neighborhood revitalization plan surrounding a magnificent urban park in Seattle's South Lake Union area. Winners announced in July.

Callison selected the Commons district of Seattle as the focus for the competition because it manifests global trends in urban design. Historically, urban solutions have originated in other countries, whose cities have long been dealing with the problems associated with integrated urban neighborhoods. Callison is "in the fortunate position of being able to bring students around the world together on a tangible, challenging project while generating further interest in the Seattle Commons effort", explained Whalen, who heads up major Callison projects in Asia. Whalen was also a member of the competition jury.

PENS FOR ALL

The following readers won Lamy fountain pens in WA's reader questionnaire contest. Paul Coggins, Wakefield, England. David Booth, Hong Kong. Michael Hohmann, Germany. Kristinsson Reitsema, Netherlands. Sue Nolan, London. □



HELENE BINET

Helene Binet grew up in Rome, within sight of Borromini's Chiesa Nuova. The city's light, with its strong chiaroscuro effects, left a lasting impression on her mind. That same clarity of light is found in the work of such architects as Hejduk and Leverentz. Her affinity with both of them, especially the close working relationship she has developed with Hejduk, therefore seems almost natural. The work she did at the Geneva Opera before entering the field of architecture showed the transformative potential of architectural photography. Like music her photographs externalise emotions, allowing the viewer to perceive the architect's intentions even where these are not fully realized. The photograph then becomes a revealing and emotional event, much like a carefully orchestrated dramatic moment in Opera.

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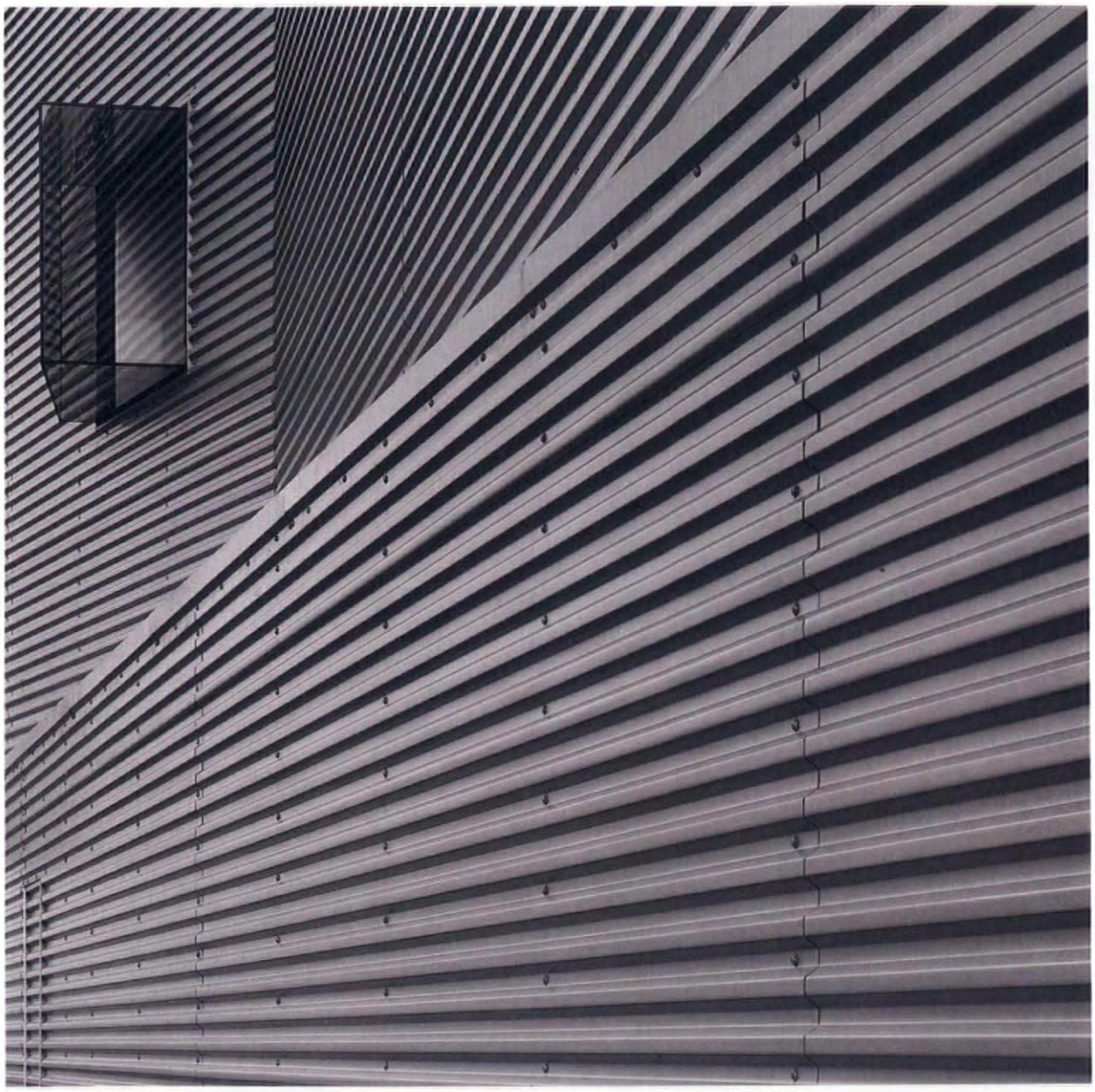
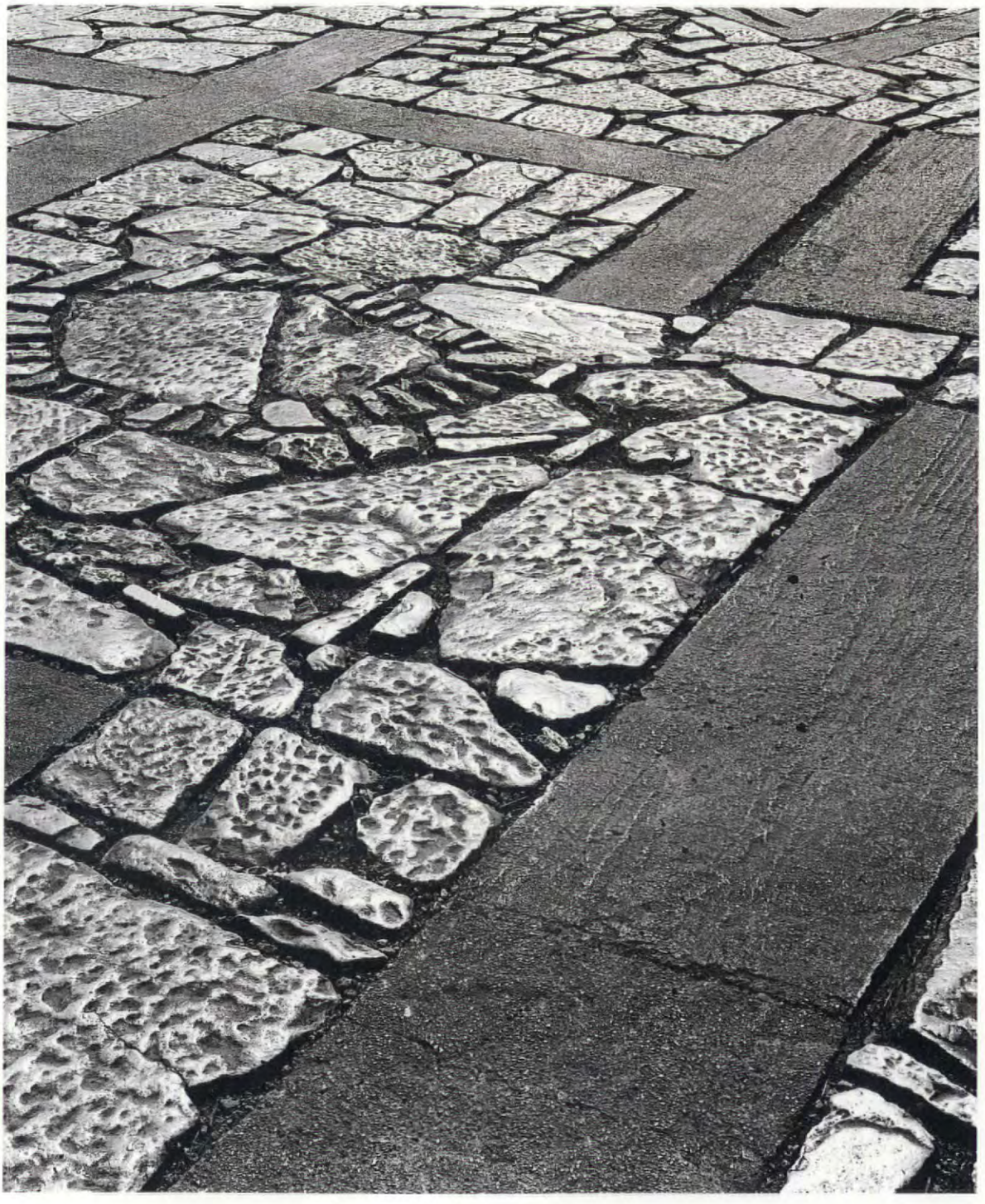




ONE HUNDRED MILLION ALL

TV commercials are an integral part of the contemporary environment, establishing our images of the world. Nowhere is their role more intelligently understood than in Japan. There "Commercial Messages" or "CMs" play a role more akin to high culture than to advertising. Keiko Sei, a Japanese media analyst living in Europe, gives an insider's view of the fractal geometry of Japanese TV image culture.

Chip Lord Projects

In this poster from a Seibu TV commercial a giant model strolls through the city

Once upon a time in 1980s Japan, the artist Christo expressed strong reservations on learning that his solo show was to be held in a department store. The planners at Seibu pressed the argument. Christo however, being a Westerner, could not comprehend Japanese circumstances. What convinced him in the end was the promise that his exhibition would also be seen at a separate, free-standing museum outside of Tokyo. One could almost cap off this little story with the punchline that the real reason Christo objected to the department store show was because he didn't want to be upstaged as a wrapping artist. For as everyone knows, Japanese department stores are famous for wrapping everything to excess.

Japanese department stores are likewise famous for selling "everything from soap to culture". Many department stores have their own theatres and museums, facilities on a par with anything public venues might offer – often better. Then there are "artist spaces" and "designer spaces", audio-visual "software" counters that sell, among other "visuals", video art. The Japanese department store possesses unimaginably more functions than in any other country. Andy Warhol may have said "The best museum is a department store", but to Japanese city-dwellers, accustomed to a hyper-consumer lifestyle, theory lags far behind reality.

Thus, when the artist trio General Idea exhibited their *Boutique*, a work that plays off commercialism and art to full effect in art-contextualised spaces, the joke fell curiously flat. The site for their Japanese show was lingerie manufacturer Wacoal's "cultural antenna building" SPIRAL located in the heart of Tokyo's prime "Image Consumption Area" Roppazao, a "multi-forum" with a trendy Thai nightclub in the basement, café and atrium/gallery on the ground floor, decorator-item boutiques on the first floor, a performance/fashion-hall on the second floor, and a salon, executive members' club and up-market French restaurant above that. Small wonder that General Idea's *Boutique* lost all shock value; it positively paled in comparison to the second floor SPIRAL boutique where it was displayed.

Artist-stable galleries are practically unheard of in Japan. Any artist wanting a solo exhibition must rent gallery space at exorbitant rates, plus expect to pay the venue

up to 50 per cent of sales.

Public support for the arts remains negligible and for individuals virtually non-existent. There is no such thing as non-profit status and no tax write-offs for contributions to culture.

All things considered, it's not difficult to see why art in Japan is unthinkable without ties to commercial enterprise.

In Japan the whole fine art/applied art dichotomy never existed. Not only is there no Japanese term for "applied art", but the word *bijutsu* (beauty + skill) commonly translated as "fine art" rather loosely encompasses both concepts. In more common usage is "art" pure and simple, either translated as *geijutsu* (talent + skill) or transliterated as *aato*, with subtle differences of nuance and conscious distinctions in usage. The effect is to undercut the loftiness of "art with a capital A" by injecting a dash of street scepticism.

Seen in this light, the history of Japanese TV advertisements – CMs or "commercial messages" – fairly well delineates this *geijutsu*-into-*ge-i-ju-tsu* transition.

In 1969, a Maruzen Oil "Dash 100" high-octane petrol CM swept Japan. It showed a young model whose miniskirt is "breezed up" by a passing car, prompting the line, "*O-o, mor-o-re-tsu!*" ("So fierce!"). This marked the beginning of a specific CM production technique whereby, as one analyst put it, "the *psychological* emphasis breaks down stiff commonsense resistance to pretence". The significance of italicising "psychological" is that in the actual commercial the model only speaks her line; the TV audience is free to "hear" the implication if they so choose. The genius of this CM, however, was to make the viewer see a mental subtext. What was really "so fierce" was the "Age of Rapid Economic Growth" – as Japan's 1960s were called – but the commercial made light of that "fierceness". This technique is what we Japanese would call *ge-i-ju-tsu teki* – or perhaps "artful".

Take the case of Taro Okamoto: one of Japan's leading postwar artists, he is also a big star in the world of CMs. His 1975 Robert Brown whiskey CM, in which this Japanese Dali pronounces "Art is an explosion!", left its mark. A follow-up CM for the same whiskey had Okamoto promoting a free-gift glass with the now-famous line, "The bottom of the glass oughta have a face!". Soon, as the newspaper print version of the advert presaged – the copy ran "Creating a chilling contemporary mask, to cast a spell over this new world" – Okamoto's face was everywhere, along with his artworks. More recently, a JVC Victor S-VHS video CM had Okamoto poetising "Blistering bright red, true blue...ah, the visions!" in front of a painting entitled *The Challenge*, which depicted a fist with a face on it; while a "Dustkin Free-Size Mat" doormat CM showed Okamoto free-floating in the middle of a non organic room, dropping red balls that metamorphosed into a carpet, the whole room seen from directly above forming a huge face.

The fixation on Okamoto's face, albeit something of an after-effect, is extremely telling. Given that all characters who appear in CMs – animals and cartoon figures included – are the sponsor's face, Okamoto is the face of Kirin-Seagram, JVC and Dustkin to the TV audience. At the same time, Okamoto is the face of "art" as pictured by the Japanese public at large. Having Okamoto spout such slogans as "Art is an explosion!", making the TV audience imagine that "Art oughta have an artist's face", CMs have become an artful caricature of art. And, if any more proof were needed, Okamoto is the same *enfant terrible* who created the soaring giant-faced Tower of the Sun at that paean to contemporary consumer society, Osaka Expo '70.

Okamoto strikes a pose diametrically opposed to that of Josef Beuys, who appeared in a Nikka whiskey CM with the written credit line: "Josef Beuys appears in order to promote his own nature conservation movement." For the Japanese, who never had any real concept of art, let alone one of ideology, it was too much to expect them to comprehend Beuys' concept that "Everyone is an artist" as fine art. Furthermore, the group-minded Japanese are so wont to use the phrase "... 100 million all" that they would merely have thought him to be reiterating some "Artists 100 million all" remark – surely somebody must have said that. Just why this *gaijin* so-called artist would only appear in a CM tacking on an appeal to a "just cause" was altogether baffling.

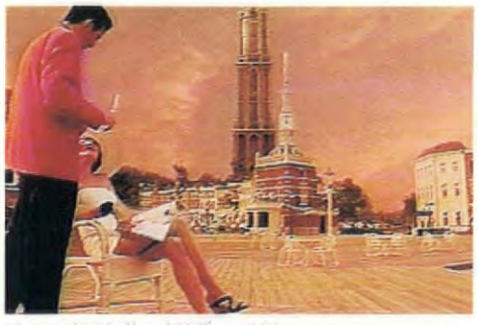
Meanwhile, the overwhelming majority of Japanese art school students dream of becoming "CM creators" after graduation. Their heroes are CM copywriters and directors Shigesato Itoi, Katsumi Asaba, Makoto Saito and Taeyong Lee. They can swing money equal to feature film budgets, and the

LD Karaoke machine CM
One of the most popular ways in which people in Japan today spend their leisure time is in the "Karaoke Box". There are millions of them all over Japan. These small rental rooms have capacity for 4-5 people and an LD-Karaoke machine. You can rent the room by the hour, bring whatever you like - drinks, food - and have a Karaoke party with family and friends. In this CM for one of the manufacturers of Karaoke machines, a man is peeping into one of the supposedly luxurious Karaoke boxes

"Stamina Drink" CM
This commercial message is derived from the Salvador Dali painting "The Persistence of Memory". The exhausted man in the painting drinks what the Japanese call a "nutritious drink" or a "stamina drink" (such drinks are the biggest secret of Japanese economic power — they give the drinker instant stamina), then he revives and even time itself revives with him

"IBM Japan" CM
This commercial shows that the computer has 16,770.000 colours, stereo sound and depicts Japanese characters beautifully

Lawson chain store CM
A "Lawson Japan" CM (Lawson is a convenience store chain). Transmitted during the busiest shopping month at the end of the year, this CM shows that you can make reservations for all kinds of service provided by the store. The girl sits in her room wondering if there is anything she has forgotten to buy. The picture shows a typical room of a single Japanese girl who lives alone



Nagasaki Holland Village CM
This commercial shows a young couple spending a day at the "clone city" of Groningen, reproduced in a district of Nagasaki and designed to offer Japanese holidaymakers the illusion of foreign travel

Ski dome CM
This commercial is for SSAWS, the world's largest indoor ski slope. Hundreds of skiers are seen soaring over the dome of the building which is only partly visible above the snow

"Sekisui Home" CM
The girl is a half Western and a half Japanese celebrity who was a popular child actress in the 1950s. The picture, one of the various shots of her laughing, crying and talking, is taken from an old film of hers. Over the picture the narrator says "A timber house that laughs and cries when you do". It makes an appeal both to people's nostalgia and their fascination for anything Western-made, which is seen as old-fashioned

glamorous star treatment afforded them in the mass media, convincing them that in doing a CM for Seibu they'd be doing better work than pure artists like Robert Longo and Jonathan Borofsky.

CMs as video *haikus*

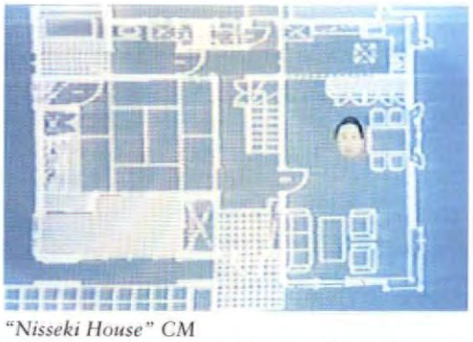
Show a reel of Japanese CMs to a foreigner and almost inevitably the reaction comes back, "Hey, I just got an idea for a Japanese CM!". But to Japanese versed in the *furyu* aesthetics of it all, such sudden inspirations are a daily experience, not unlike *haikus* popping into the head of a poet. In fact, the similarities between *haikus* and CMs are many: both must conjure up vivid pictures within extremely limited frameworks (17 syllables for *haiku*, 15 seconds for CMs), both must work in special words (*kigo* seasonal references, sponsor or product names), both are inseparably linked to the lives of the common people, and as seventeenth-century master poet Basho's maxim of "unchanging flux" has it, both are constantly in search of the new and different. Blank verse has a relatively short history in Japan; to this day the Japanese feel closer to the strict patterns of *haiku* and *waka*. They tend to applaud "mastery" within restrictions more than flights of free expression. And as foreigner's reactions show, this gives a distinctive character to Japanese CMs.

Another major characteristic of Japanese CMs is that, unlike the demonstrative argumentation of adverts in the United States – that other great commercial country – the appeal is more sentimental. Instead of saying this is what's good about the product, the approach is to create an engaging mood-image. Many CMs are unrecognisable as advertising until the very end. As Jacques Séguéla, the French PR man who engineered Mitterand's 1981 upset victory on the strength of his advertising campaign, commented: "Japanese advertising operates symbolically at a remove from the product. While, as we all know, American advertising remains bound to the product. Are not the Japanese playing out the ultimate stage in advertising communication? Indeed, the ultimate stage played out by those "CM creators" so revered by Japanese youth would seem to transcend the bounds of advertising communication itself.

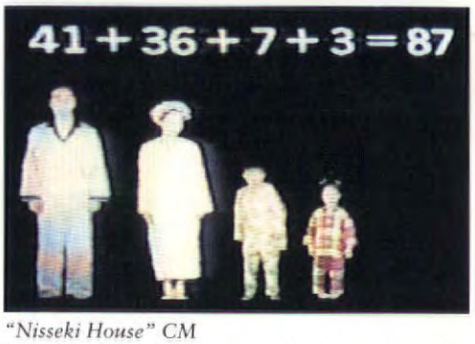
A Koikeya snack foods CM series that ran for two years caused something of a stir. For here among Japanese CMs removed from the product were the first adverts in ages to stress product names – albeit ushering in a new technique in the process. In a 1988 Scone CM, the product name Scone is called out repeatedly as the basic rhythm to the ballroom step a young couple are dancing. In the follow-up Jagaz crisps CM, (*Jaga* meaning "potato"), we see detectives replaying the evidence from a security-camera of a bank robbery over and over again, each time two housewives in the foreground repeat the incidental comment, "It's these jagged edges that make Koikeya Jagaz so tasty!".

Sanyo fashion house CM
Shot in Prague for its "Kafkaesque" effect, this CM depicts people hanging from trolley-car wires to the music of King Crimson

Interactive video CM
The viewer is the camera wandering the streets of an old town encountering strange characters like a man with a mask, a pair of twins etc. The characters ask you where you are going



"Nisseki House" CM
A new campaign to establish what the really important thing is to consider before you buy a house — the catch phrase is "a house that will go on being a good house"



"Nisseki House" CM
This CM shows how you can calculate the size of your new house — a 30 year old husband and a 25 year old wife need a 55 square metre house. With children they will need more

Japan in 1989, it was said, "wanted to cry", An extremely odd turn of phrase, to be sure, but the mass media abound with this sort of expression. "Popular demand", heretofore virtually invisible in the old cultural order, has with the advent of the new CM culture become easier to grasp.

The purpose of CMs is to steer popular demand toward consumption, isn't it? Yet, by the same token, even before they get that far, CMs reflect phenomena that have already been subjected to who knows how many fastidious marketing procedures, so it isn't as if the populace couldn't have known – which paradoxically also makes it impossible to utilise CMs for propaganda. Furthermore, what the Japanese populace demands out of CMs has long since left products or information behind; by now what the Japanese populace demands is an autonomous "aesthetic".

Consider, then, these CMs for the nation that "wanted to cry": a CM for the overseas direct-dial telephone service where a young student at Narita Airport leaving for studies abroad breaks down in front of her friend and simply cries – enough tears to "go down in history". Or the JR Tokai East Japan Railway's CM series that presented train trips as sentimental journeys – "Hometown Express", "Alice Express", Huckleberry Express". Stirring up nostalgia for each social stratum, the strategy was nothing more than to wring out tears. The "Hometown Express" CM (no actual rail service goes by that name, but who was to tell?) had a girl on her hometown station platform about to cry when the boyfriend who was supposed to meet here doesn't show, only to burst out smiling when he appears from behind a lightpole bearing a gift – the old melodramatic double-take. Or the Suntory whiskey CM showing a man moved to tears watching a sad movie. The crowning extreme was the rags-to-riches "bowl of noodles" story that claimed mass media space in all the magazines. Originally written as a children's story, it inexplicably went on to win a mass following: a poor mother and her two children go to a noodle shop and always order a mere one bowl between the three of them. The owner of the noodle shop takes pity and always serves them a bowl and a half. Then one day, much to the concern of the shop owner, they simply stop coming. Many years later, the children now grown up and prosperous, the three reappear and order one bowl of noodles each to thank the shop owner for his kindness.

After that saccharine tale, the other tear-jerking CMs were mere parodies. Yet as patently trumped up as it all was, Japan was convinced that it "... wanted to cry 100 million all".

The question is, then, why did Japan "want to be moved to tears"? Well, first of all, there was "X-Day" – that untold day when the Emperor would die, an all too potent signifier that registered incalculable profit and loss throughout all sectors of society. More than

Mita photocopier CM
The Mita commercials features strange, surrealistic events in a post-holocaust world. In this one black-clad figures descend from the clouds into an empty city

"National Paluc" electric light bulb CM
A newly created character, Mr Paluc, tries to change a light bulb. The picture is the synthesis of a miniature set, full-size shots and computer graphics.

Miso soup CM
Rice and miso soup is the daily diet of almost everybody in Japan. The room depicted in the commercial reflects the ordinary life of the most ordinary Japanese person

anything, X-Day meant the disappearance of all CMs from Japanese airwaves for 48 hours. Never since the advent of TV in 1953 had the Japanese experienced such austerity. Advertising agencies had, of course, worked out counter-tactics well in advance against the losses they stood to incur, laying in a stock of tear-jerking videos that now needed to be consumed.

Then there were the "dry beer" wars between the various breweries in Japan. When Asahi "SuperDry" scored a massive hit, the next year everyone – Suntory, Kirin, Sapporo – was coming out with its own "Dry"; until the market go so "dried" up that a consciously "un-dry" campaign went out, as hailed by the Suntory Beer "Me, I'm not dry!" CM ... and on it goes.

There are many ways of looking at the Japanese media, but at the very least the general public does derive pleasure from trying to decipher the not so hidden agendas of the ad agencies. (Just for reference sake, Hakuhodo's campaign "lifestyle theme" for 1989 was "Excitement Hormones".) Meanwhile, the side-being-deciphered is busy detaching the subjects from key sentences in reports on market mechanisms to be released as appealing copy – quite stimulating literary work, it would seem. As video artist Bill Viola commented: "The real surrealists today are not the artists of the school called by that name, but commercial film-makers and TV producers. They're the ones making things realer than real. After all, they're dealing in people's images." Indeed, these "CM creators" who dictate to awesome numbers, fanning the flames of mass-emotion, punning their way through market wars, are truly our postmodern-day surrealists.

"*Nan de aru, Ai-de-a-ru*". (What's the idea? Ideal." So speaks a man holding an Ideal-brand umbrella. Five seconds, nothing more. Why this should have been so groundbreaking has something to do with the copy – an untranslatable play on words between "love" and "ideal" in Japanese. But even more than this, it was because the man speaking was the star of the previous year's hit movie *Nippon Musekinin Jidai* (*Japan: The Age of Irresponsibility*), comedian Hitoshi ("Mr Irresponsible") Ueki, who delivered the same line in the movie. But whereas in the film version he only shied away into a whimper afterwards, in the CM version he mugs ... "There, I went and said it again!" Here was a first on several fronts.

As early as 1963 it proved that comedy was an effective method for forging a connection between television possessed of this dual-edged character and the public on the other side of the screen. "The method of floating oneself totally out of context to transcend any conversational gap with the onlooker" – what in *haiku* is called *karumi* or "weightlessness".

It acknowledged that CMs are complete in themselves, but only come into their own when rounded out by viewer participation. (Those who knew nothing of Ueki's previous role as "Mr Irresponsible" would have missed out; the line was made to seem "ad libbed".)

These were new discoveries at the time, thereafter taken up into the standard CM vocabulary.

In 1967 the Renown women's fashion "*Yé Yé*" CM so revolutionised TV expressions that everything thereafter was seen as "post-*Yé Yé*". Two utterly non-individual, mass-produced Twiggy clones stride between skyscrapers before a Pop Art-like backdrop illustration. With its total lack of any message, the lively colours and rhythm, this became the bible for any number of CMs that followed, not to mention the pose for young women to mimic. "Every bit as much as Pop Art, *Yé Yé* was a clear expression of the times, as well as a critical vision to measure up to." Three years later in 1970, Kenichi Takemura picked up on this vision of the times and the Fuji-Xerox "From Fierce to Beautiful" CM was born. A transition was underway from the period of "fierce" economic growth to one of more "beautiful" human values.

To understand what was transpiring here, we must backstep slightly to 1968. This was the year that Pilot fountain pens launched their "*Happa Fumi-Fumi*" CM, in which the TV personality Kyosen Ohashi recites total nonsense syllables as a *waka* verse, then chirps "Got it?" at the end – said to have been "A caricature of this Age of Discontinuity", or else analysed as "Avant-garde theatre". This CM, together with our aforementioned "Ideal" CM, announced a mainstream swing toward nonsense CMs.

"Coffee without Creap, well ..." (1969; Creap being a coffee-whitener like America's Pream).

"The man-who-knows-the-difference's Nescafé Gold Blend" (1969).

"A strong, silent man – Sapporo Beer" (1970).

"For some reason, husband and wife – For some reason, Kirin (Beer)" (1970).

None of these catch phrases verbalised any conclusion. Instead, the effect was that the product name had been casually substituted where the conclusion should be, thus making it just as easy for people to re-use the phrases in their own daily lives by simply re-substituting something else. It's one way to start fads.

In 1974 in everyone's head was a throat medicine Ryukakusan CM styled as a short-film narrative. A boy's puppy love fizzles, prompting him to declare with full dramatic overture: "... This is how it all worked out - that's how I'll write it in my diary." A memorable line much paraphrased by "100 million all".

In 1980, when Japan's first specialised video art venue Video Gallery Scan opened its doors, Fuji film likewise came out with an epoch-making Fujicolor CM in which a kimono-clad old maid hands a roll of film to be developed to the photo-shop girl (both women being famous TV personalities), saying: "It's a matchmaking portrait for my marriage prospects. Make it pretty." Whereupon the photo-shop girl looks at the old maid and says: "With Fujicolor prints, beautiful faces come out even more beautiful. Others come out as-is..." That year everything was "as-is"; meanwhile, the society-in-miniature based on skilful slice-of-life casting and at-odds conversation became one set style in CM history.

Most recently, Japanese CMs have taken the ultimate step in this direction, waving aside catch phrases entirely in a move toward the "final solution" – what in Japan is called "naming". Ultra-condensed packets of information, the very product names subsume everything from the features of the manufactured item to the CM storyboard. And conversely CMs are no longer conceived to sell an existing name; the CM now determines what the product is called: "Papa, Take My Picture!" (video tape), "What an Image!" (film-pack camera), "A Ramen Called 'Youth'" (instant noodles), etc. In a 1984 Kirin Beer CM, a married couple turn toward the camera and say "There's something missing here", to which the mother-in-law interjects "You mean thoughtfulness and sincerity, no?", producing a beer in each hand – the actual product names for the two special kegs, Thoughtfulness and Sincerity. Taking the traditional son-trapped-between-mother-in-law-and-daughter-in-law pattern as its axis, the final twist in this "naming" crosses something missing from the dining table with something missing from the home. Where does this leave us?

The first of these conditions means that aside from urgent news and live sports broadcasts, all TV programs are calculated to incorporate CM interruptions – hardly anything more boring when one thinks about it. So in a sense it was only natural that the TV audience should "tune in" the evermore impossible situations sent their way in the form of CMs. What could be more refreshing than when suddenly in the midst of yet another pop idol singing yet another pop song, two gigantic whales are sighted fluking briskly across the sky (Suntory Beer CM, 1989). Or for thrills, when right in the middle of the international news missiles are shown firing from a frozen derelict city over a nuclear-winter landscape (Mita Copier CM, 1989). Or as a change of pace, when at some not so crucial point in a television drama serial a man is seen waking in the morning to find himself transformed into a cockroach yet still sitting down at the breakfast table, practising his golf swing, trying to crawl under the covers with his wife at night, with a voice-over narrating "If you see a big cockroach, it may be your husband – be extra sure before you use Cockroach!" (Kincho Cockroach insecticide CM, 1989).

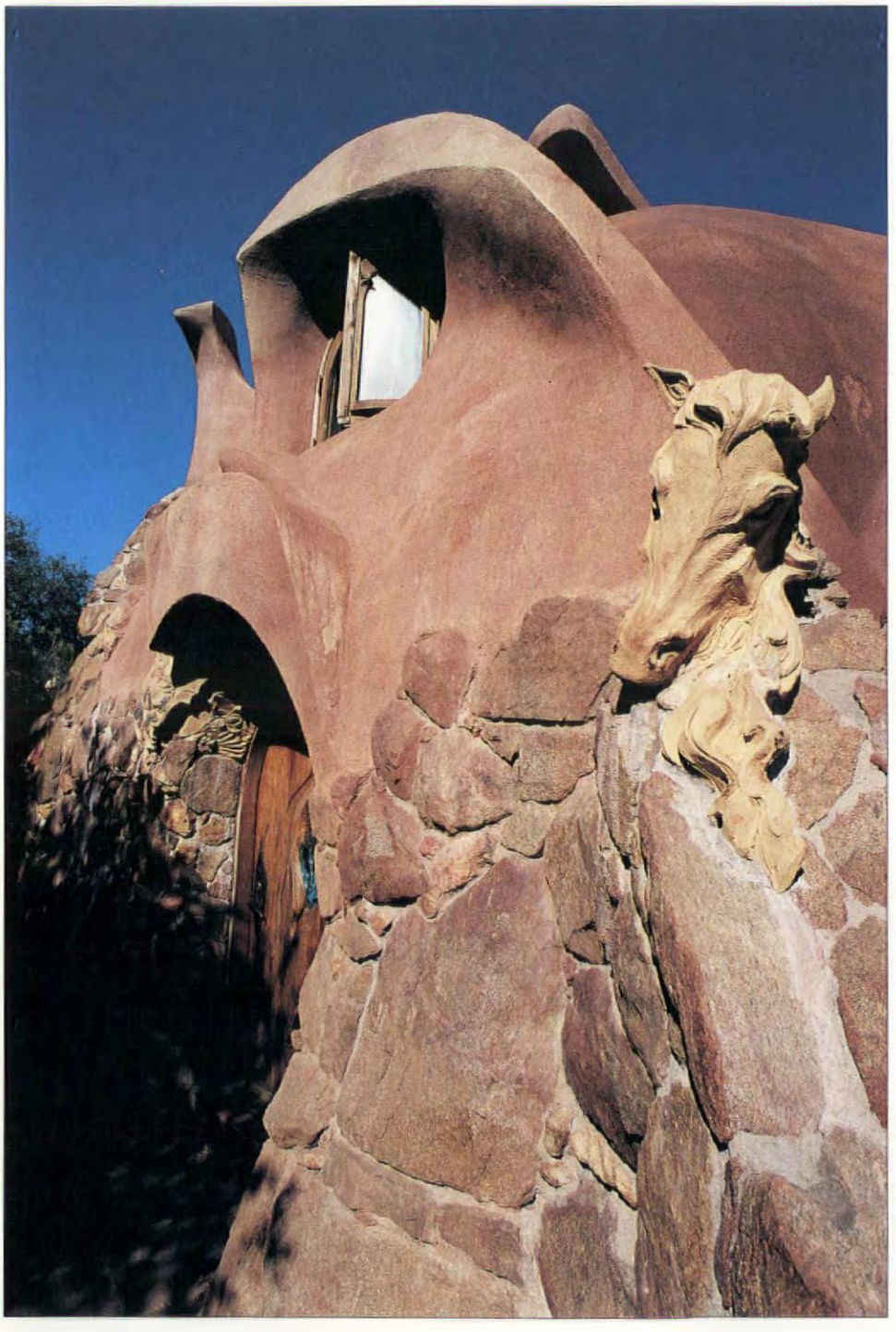
New machines have been set up at various locations in Japan's metropolises today. First, there's this device: a TV-phone by outward appearance, its picture tube plays an endless succession of CMs – the instant someone inserts a coin, the CM sound goes off, but the image of one company's CM continues on-screen for the length of the call. The cost of the call is "sponsored" in part, so the user can talk longer than on a normal pay telephone.

A simpler, but more amazing device is the advertising mirror. Typically installed above public telephones, it reflects like a mirror until someone approaches, whereupon a sensor unit inside the panel activates a fluorescent light, causing a commercial message to appear – a very clever seduction of the inherent human psychological urge to look at oneself in a mirror, but who'd have thought this would be the reflected "face" of the 1990s? Even so, one can only wonder what use some Japanese Cocteau will find for this mirror. □

"Sound Bath" CM
This commercial advertises bath salts that make a noise when you put them in the bath. The actor dances naked in an enormous bathroom set placed in the open air to the roaring sound of the bath salts

New product CM
Fashionable people are shown being impressed by the world's thinnest TV (9.8 cm), "Panasonic Flat Vision". Above is a high-tech artist and below a "space producer" (a profession unknown outside Japan)

ORGANIC CHEMISTRY IN CALIFORNIA



All photographs by Timothy Ostler

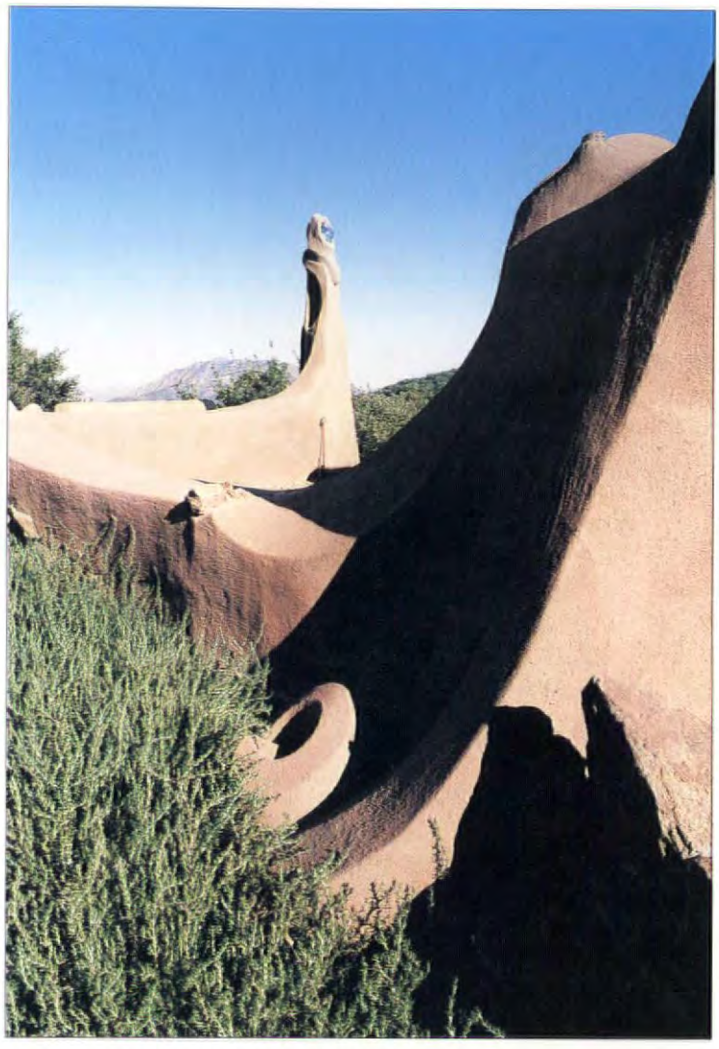
The word "organic" has become worn and slippery, like the pilgrim-polished knee of Michelangelo's Pieta. Intentionally at least, architects who subscribe to its ideals tend to draw parallels between architecture and the forms arrived at through natural biological and botanical processes. Horatio Greenough and Louis Sullivan in turn both subscribed to this view, with the corresponding belief that form should follow function. Tim Ostler looks at the work of contemporary organicists, James Hubbell and Kendrick Bangs Kellogg.

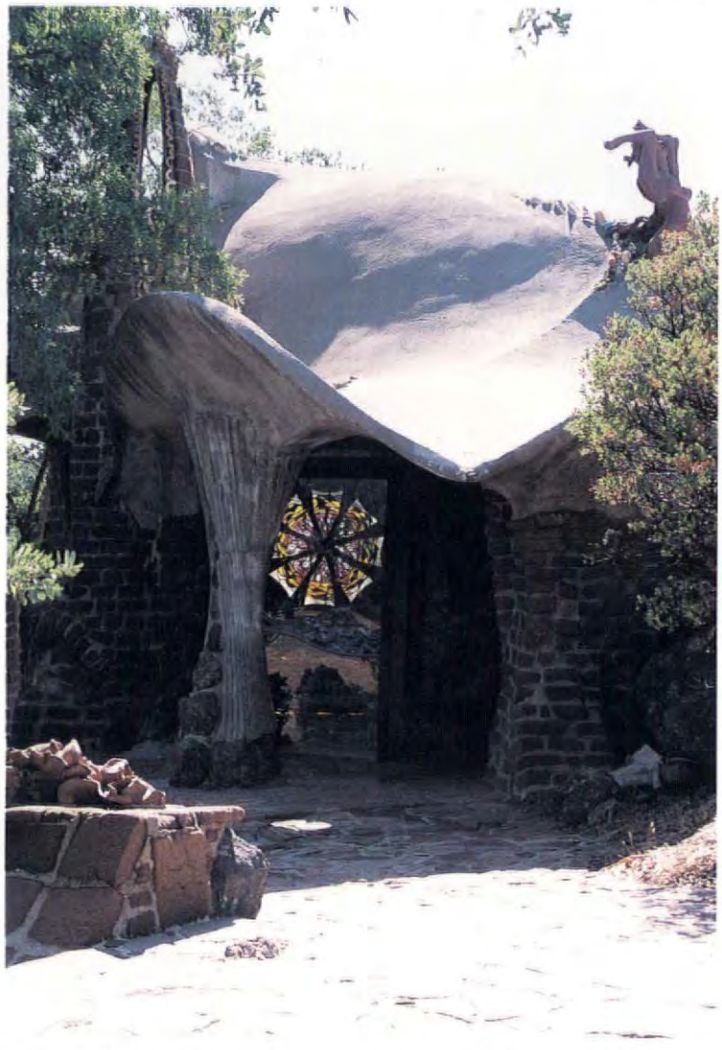
The *Fontana Dictionary of Modern Thought* covers "organic" pretty well when it defines it as follows:

"Adjective used (1) principally by Frank Lloyd Wright (1869-1959) as a term of approval for certain buildings, including his own, which were usually asymmetrical and integrated closely with the particular features of the site; in this sense the term is opposed both to "classical" and the International Style; (2) often in its more literal sense of being abstracted from the forms of nature, especially in the case of ornaments such as the arabesque; (3) occasionally to describe buildings, or parts of buildings, organised on a direct biological analogy such as that of the human body. *See also functionalism.* (my italics)"

It is peculiarly ironic that the term used to describe many of the twentieth century's most bizarre and anti-rational buildings should have come from the same root as Functionalism.

The Gay House, San Bernadino (opposite and below left). Hubbell House (below) Santa Ysabel





Both movements seem to have started from the same premise but then went off in very different directions. Functionalists chose to define function in a narrow mechanical sense, Organicists (or should it be Organists?) in a broader – but still partial – spiritual or emotional sense.

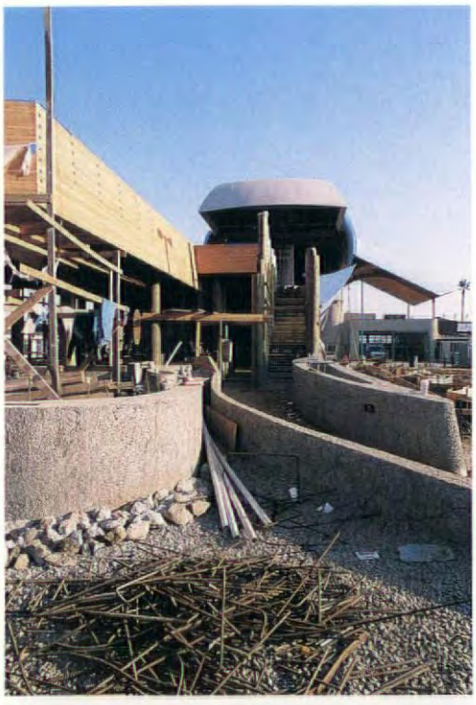
Today's American organic architects, conditioned in turn by the successive influences of Frank Lloyd Wright and Bruce Goff, define themselves as much as anything by their professed desire not to limit themselves to conventional notions of good taste. Probably the best handle on their activities can be got by referring to the manifesto of the Friends of Kebyar (FOK), an organisation based in Portland, Oregon that describes itself as "a Network of Architects, Artists and Those Interested in the Creative and Adventurous Horizons Beyond the Main Stream." Kebyar, a Balinese word meaning "flowering", was the word that Bruce Goff chose for a school of art and architecture he was planning just before he died. Within these circles, Imre Makovecz is a hero, and even Santiago Calatrava has been claimed by some as a representative of the cause.

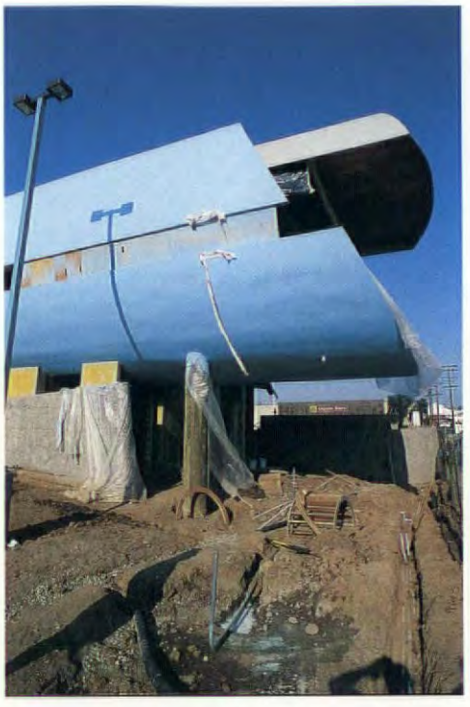
It would be invidious to suggest that Kendrick Bangs Kellogg and James Hubbell, practising in the San Diego area, are representative of FOK's membership, as all members are by definition individualistic. But they represent two different extremes: Kellogg bluff and swashbuckling, Hubbell grave and ascetic. Both are fundamentally pragmatic and mistrustful of architectural ideology.

I went to see Kellogg on the site of his new office. It is designed to double as a fast-food parlour. "They said you can't apply it vertical – hell, we're doing it upside down!" he said as he strode ahead through a timber-ribbed space looking like the hold of a Spanish galleon. The substance he was referring to was a glutinous-looking paint with which most of the surfaces of his new San Diego office were being coated.

The office sits on a prime site near the beach that belonged to Kellogg's family: "All of the fast-food majors are trying to get their hands on it," said Kellogg. "I thought, 'why should the big companies get the profit when I can build my own restaurant?"

Kellogg is calling his new designer eatery "Outryder." Why? "The outryder," he replies, "is the surfer that goes out and gets the big wave." It takes the form of two giant blue semi cylinders, with another two semi-cylinders from and rear as *porte cochère* and drive-through shelter respectively. Its ribbed timber frame structure is raised on a series of two-foot thick Oregon pine tree-trunks. At ground level it is enclosed by concrete walls. Their strange surface finish Kellogg achieved





Bangs Kellogg's Outryder (above) and "organic inspiration" on site at Tijuana (below)

by coating the formwork in molasses (normally fed to cattle) for a day before pouring.

Kellogg's previous office was inland, in chicken pens on Palomar Mountain. In future, while he conceives grandiose oddities upstairs, downstairs "Outryder" will be doing a thriving trade in hamburgers and enchiladas. He is the sort of architect who could hardly exist in Britain: the architectural equivalent of a muscular Christian, with a rough-and-ready approach to working out details on site. The glazing is direct to slots in the concrete and poles. As we walked up the stairs past a sheet of glass with two edges hanging incongruously out of alignment, he dismissed questions about how he was going to resolve it with a casual "That's something I'll figure out later." To the British architect preoccupied with figuring out how to shoehorn his creative processes into BS 5750, it seems like another world.

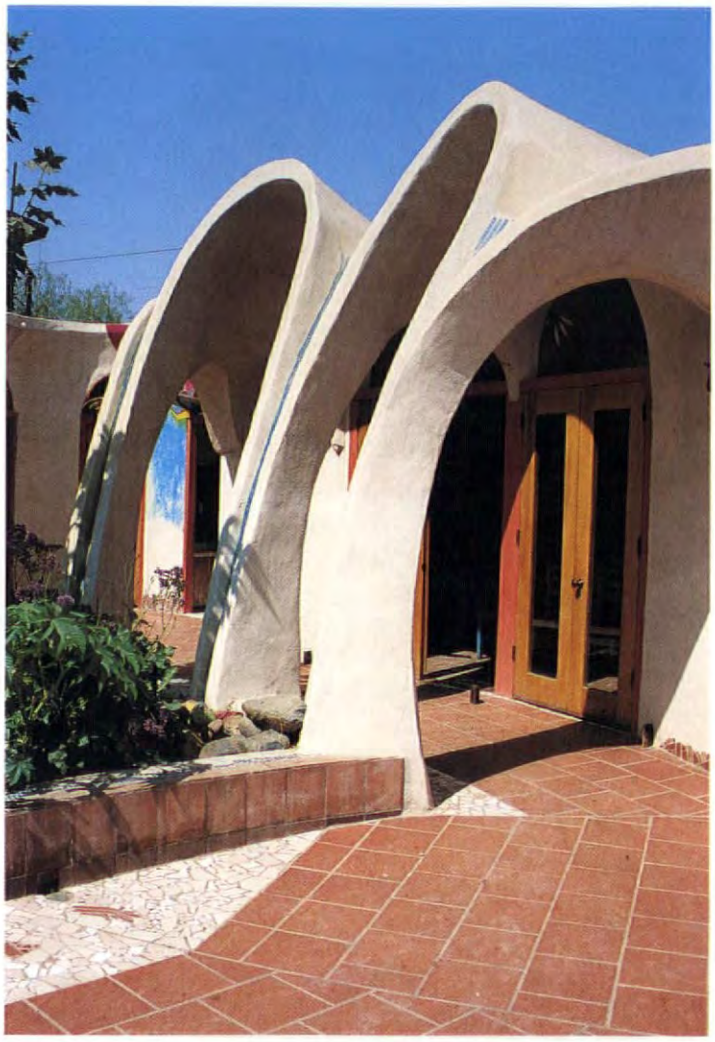
A Venturian "duck" if ever there was one, Outryder's bizarre appearance will undoubtedly draw in passing trade from the local beach crowd; but it's not clear whether this was the architect's prime intention, or he was merely asserting his rights to free speech. Kellogg's views on planning control are robust. Aesthetic control, he says, is a form of censorship. Freedom to design is equivalent to freedom of expression, and therefore enshrined in the First Amendment.

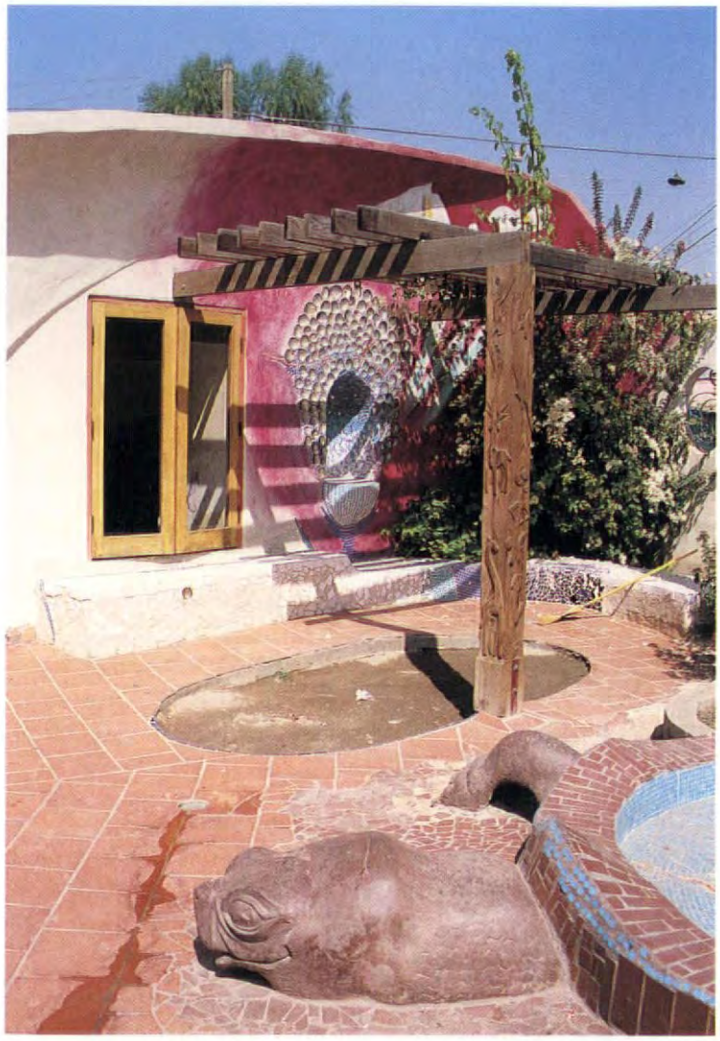
These are not just the views of a loose cannon: I was surprised to hear that Kellogg is chairman of the commercial planning subcommittee for San Diego's Pacific Beach area, and he has been instrumental in establishing the principle that architects in the area can design whatever they want provided bulk and scale are respected.

Kellogg and Hubbell belong to a small but thriving community of designers with ostensibly romantic/organic leanings in the area. Others include Wallace Cunningham, Robert Thiele, and Arthur Dyson. Superficially, the tenor of architectural debate at this end of the West Coast seems to have less in common with a conversation in the RIBA Member's Bar than a brawl in a Wild West saloon. Kellogg, just turned 60 and strangely reminiscent of Edward Shevardnaze, was irked recently when Dyson, referred to him as "the Chainsaw Architect" – a remark spurred by Kellogg's means of personally cutting the pine poles on site. Kellogg's lawyer, who was with them at the time, responded by calling Dyson a "peacock" – presumably a term of high abuse. I didn't hear what happened next.

James Hubbell's work burst on to the American architectural scene last year with the publication of his Sea Ranch meditation chapel on the cover of *Progressive Architecture*. It was an extraordinary confection, swirling and fluttering with what appeared to

Tijuana Nursery School. Hubbell and artists (below left and right)





be feathers sticking out of an orifice with unquestionably Freudian overtones.

There was a reason that it looked like no other building designed by an architect: it was designed by an artist, and as such ruffled a few feathers in the profession.

"[It was] the first time I've had anything at all in the nationals," says Hubbell. "The architects locally were quite upset because I'm not an architect. They didn't think they should have published it." At Sea Ranch Hubbell was drawing on a set of preoccupations wholly different from those of even an organic architect. For instance, Hubbell develops his designs not as drawings but as models – or rather maquettes. It is up to the carpenters who built it to interpret Hubbell's intentions – always, of course, under his supervision.

One of the consequences of training as an artist is that, while Hubbell is naturally interested in structure, he is not particularly bothered about expressing it. The primary purpose of his buildings – other than their function – is symbolic. Thus the roof structure supporting the chapel's extraordinary roof is somewhat ad-hoc, hidden behind matchboarding. It's not that he objects to expressing structure: it's just that in the case of Sea Ranch, it was cheaper that way.

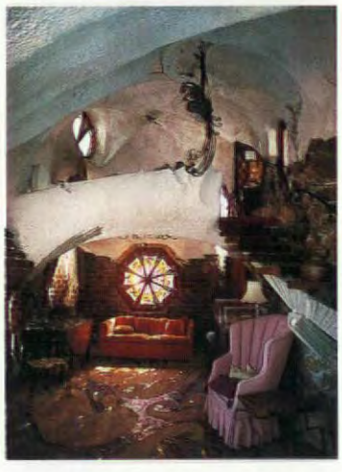
"I don't feel inhibited if I do things that don't reflect the structure," he says. "I don't feel that pressure...but to me it doesn't matter. It's what happens inside; it's what you feel. You don't know what happens inside here: you don't know the muscles and the veins, but yet you get a feeling, and if you saw them you might be quite...upset!"

Hubbell came to architecture as a result of working as an artist for the architect Sim Bruce Richards. "Gradually I learned a lot from doing the buildings. I got to work a lot with poor people and masons and carpenters and I learned a lot from being on the sites of buildings." It was during this period that he met Kellogg, who was also working for Richards and is now a close friend.

Hubbell's completed work is small but select. "We've done maybe about six houses. Three restaurants: two of them remodels; the school in Sacramento, the schools down here; the chapel – I don't know: maybe ten, eleven buildings." For 32 years, he and his wife have been living in the mountains near Santa Ysabel, half way between San Diego and the desert, gradually adding to the collection of structures as money becomes available.

Judging by the nature of his buildings, one might be tempted to think Hubbell parochial. The truth is anything but. He grew up in Connecticut and, at the age of 19, spent a year in southern Africa. After service in the Korean War he spent some time in Japan before going on to study art at the Whitney

Tijuana Primary School (below). Hubbell House, Santa Ysabel (below right)



Art School and Cranbrook Academy of Art in Bloomfield Hills, Michigan. Here the grounds had been designed by Eliel Saarinen and Hubbell claims to have been deeply enriched by the asymmetry and eclecticism, and by the tension between formal gardens, sculpture and wild nature. He has been several times to Findhorn in Scotland, where he has proposed designs for a sun-petal house.

It is easy enough to discern the lessons that he has learned from certain sources. Hitch-hiking round Europe for a year introduced him to Gaudi, who was a revelation: "It was like seeing a typewriter [for the first time]," he says. "You knew that you could do things with architecture that you didn't know you could do before." Most appealing was the Güell chapel crypt. "Of all the buildings, it's the most sculptural. A lot of his buildings are facades, partly because they were early ones or adaptations of existing buildings. But that's a sculptural building in every sense."

Gaudi's chapel offered lessons about how structure might be expressed and yet expressive. "The structure is both architecture and sculpture. Remember it's the one where he used ropes to find the form. And so when a column is bent it's because it's taking the force."

Europe's Gothic cathedrals – in particular Chartres – provided the other highlight of this particular trip, for the relationship between structure and art. In particular they fed a passion for stained glass and the power of light, which Hubbell has used to such good effect in his own house. "There's three ways you can work with art. One is when you take the building and then you place something next to it. It can be done beautifully. Another way is like Frank Lloyd Wright did, where the building's a triangle and all the art's a triangle – sort of like a mountain and then a lot of little mountains. But in the Gothic it's like you had a mountain...and then you had a tree."

Gothic cathedrals are a collective creation. But the idea of architecture as a collaboration is not perhaps the first thing that occurs to you when you think of Organic architecture. For this we have architectural supremacists such as Frank Lloyd Wright to thank. By contrast Hubbell shares with Bruce Goff and Herb Greene a desire to have other minds involved in creating his buildings. In Goff's case the creative role of the client actually led him to claim that the extraordinary houses that he designed were in "Client Style." His pupil Herb Greene, these days no longer working actively as an architect, has developed ideas in which architecture can serve as a template on which to "hang" the contributions of individual artists or users. Greene links this with a concern for reflecting the processes of time. Hubbell, too, professes the desire for his buildings to bear the marks of time passing. It is really just an extension into the fourth dimension of the irregularity that exists in three dimensions.

Recent work has taken collaboration with others to an extreme of sorts. For three and a half years, under the umbrella of his own charitable foundation, Hubbell has been co-ordinating the construction of two

At home with the boulders. Hubbell's Gay House, San Bernadino

schools in a squatter colony just over the Mexican border in Tijuana.

In human terms the border between Mexico and the US is one of the most extraordinary in the world. People migrate from all over Mexico to be near to the USA, both to find work in the *maquilladoros*, factories set up by German and Japanese companies to exploit cheap labour and in many cases to get smuggled over the border. Road signs on the freeway heading south warn drivers to be aware of pedestrians crossing the freeway; while periodically would-be illegal immigrants mass on the Mexican side and flood the border points on the "safety in numbers" principle. The contrast in population density on both sides of the border is so great that it is easily made out on satellite photographs.

The *colonia* is littered with signs of folk culture, from the abandoned Chevrolet engines by the wayside to pairs of trainers hanging from telegraph wires where children have thrown them for a dare. Into this fevered atmosphere came James Hubbell, at the invitation of his friend Christine Brady Koscoe, who learned of the *colonia's* plight on television and has been leading the fundraising effort ever since. A long succession of events led to Hubbell designing first a nursery school, then a primary school, currently under construction on a spectacular site overlooking the *colonia*.

Labour has come mainly from the families of the prospective pupils, who at the weekend I visited were working in a frenzy of activity that puts the tired Mexican *mañana* stereotype to shame. Hubbell, meanwhile, has led successive waves of volunteers – some of them professional artists, some of them students, some of them amateurs – from north of the border.

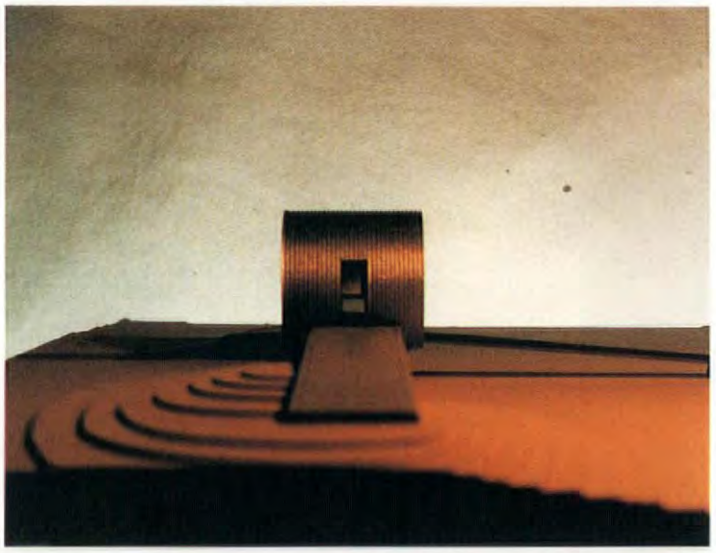
"I kind of coach them," he says, "but I don't tell them what to do...maybe some of the areas I'll be more involved with. There's lots of times I make decisions, but then people will come because they don't understand you and do different things. So then you have to come back and figure well what do we do now that they did this?" This is definitely not a Wrightian approach.

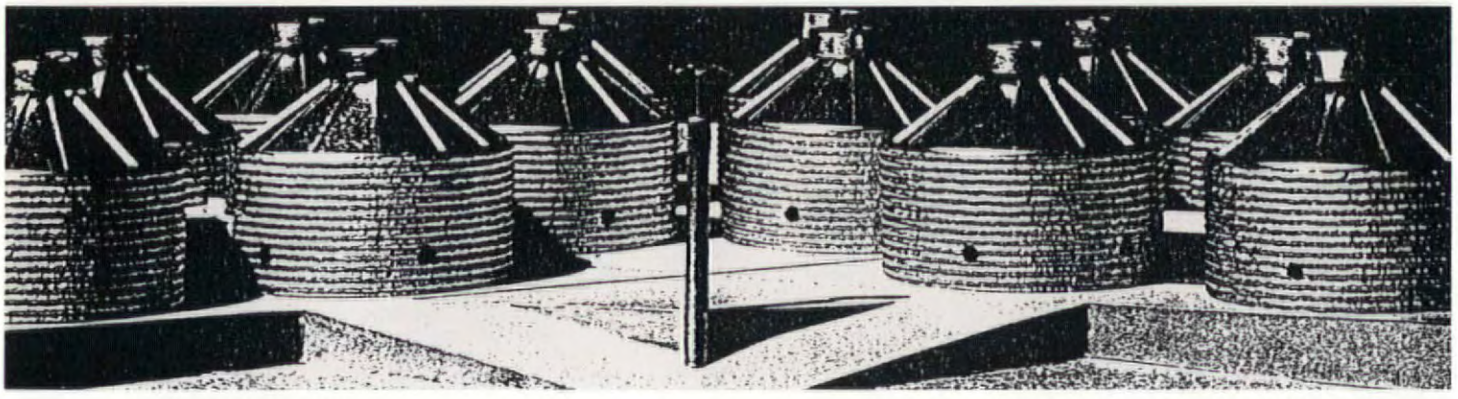
Meanwhile, in the altogether more tranquil atmosphere, 4,300 feet up the San Bernardino mountains and not far from his home, Hubbell recently completed a house for long-standing friend Phil Gay and his wife. The sculptural forms in sprayed concrete over a reinforced framework are designed to look at home amongst the boulders – although the final colour coat was inspired by the adobe around Santa Fe and not the local stone. The house is situated in a natural gap in the mountains, which affords views in both directions across two thirds of the width of California and funnels winds of 100 mph every ten years.

From some angles the house appears ugly; from others sinuous and photogenic. It reminded me of something whose shape was not dictated by a straightforward complex of muscles, yet whose substance had its own integral will to form: a snail's foot. It's a perfect metaphor for the organic. Strangely, there are no snails in North America. □

Editor
Georgi Stanishev

Below left and right: Michael Beck, Vienna, Austria (Grand-Prix)
BUTLER'S GATE: The description of the future museum gave me the idea of linking the landmark and the entrance to the Quadrivium area with the architectural theme of its main building units, namely the Butler's grain bins. These, when turned on their sides called to mind the perfect circle shapes of the moon doors in Chinese gardens. The cylinder is a gateway, a prelude to the "road of the arts" and at the same time a frame for the landscape with WAH seen in the distance. The grain bin lying on its side, rests on a broad concrete base which divides the museum area from the forecourt.
Bottom: A view of the World Architecture Habitat Centre, The Quadrivium, designed using ready-made Butler grain bins.





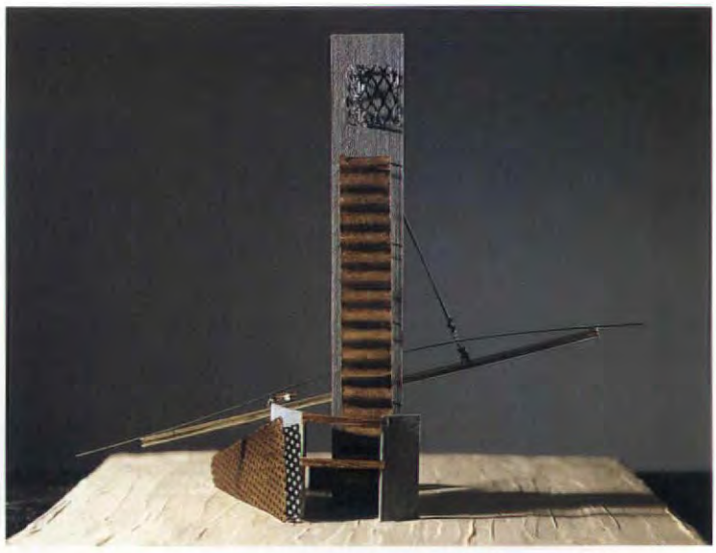
A HABITAT FOR ARCHITECTURE

The Competition for a Landmark Installation to stand at the Entrance to the World Architecture Habitat Centre in The Springs, Florida, gathered students' entries from architecture colleges and schools of Austria, Bulgaria, France, Russia and USA. The competition was organised by the Iakov Chernikhov International Foundation and the Nautilus Foundation, USA and was held on February this year at Florida A&M University School of Architecture, Tallahassee, Florida. Here a report on the competition results unveils the professional intentions of architecture students from five different regions and cultures.

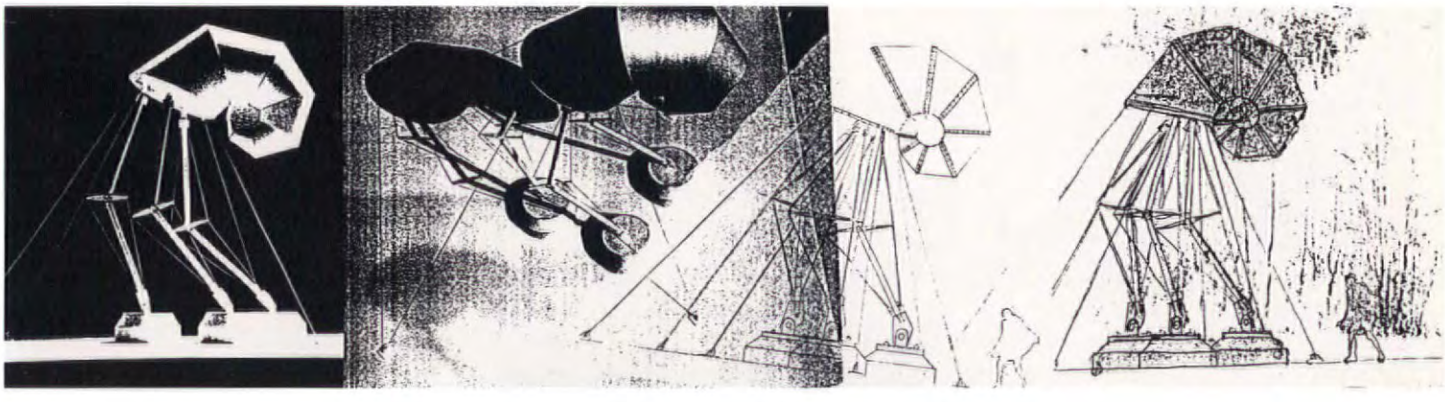
The Architectural Fantasy in 3D competition, held earlier this year at FAMU, in Florida, posed an architectural task in between pure paper visionaryism and the practical aspiration to build. The contest offered a programme of a symbolic architectural installation, a landmark for the entrance to a future architectural exhibition centre in Florida which was to be a conceptual installation designed in the tradition of the architectural visionaries and fantasies as well as a practical and realistic project to be realised within a very modest budget of 5,000 US$. The culmination of the competition was to be the physical realisation of the winning Fantasy on site.

The idea of the competition

In 1992, several internationally renowned architects from different countries – Kiyonori Kikutake from Japan, Augustin Hernandez from Mexico, Justus Dahinden from Switzerland and Robert Stern from the USA – set down the idea of establishing a World Architecture Habitat



Above: Marianne Frey, Strasbourg, France
TOTEMS OF THE TWENTIETH CENTURY:
The sculpture should reinforce the contrast between wild and "unfinished" Nature, and the perfection of human work.
First – the use of concrete, a raw and heavy material, present in the two central "Totems".
Second – the use of steel, laying stress on the work of reconstruction from concrete volumes.



centre on a 600,000 square metre plot near the city of Tallahassee, the capital of the state of Florida. A system of grain bin houses of different sizes, a system designed in the 1930s by Richard Buckminster Fuller and produced by Butler's Company for agricultural needs, will be used to form the urban plan of the World Architecture Habitat Exhibition settlement.

With the object of attracting local and international attention to the WAH idea, as well as to fix a starting point, the Nautilus Foundation invited the Iakov Chernikhov Foundation, which is specialised in promotion of initiatives for young architects and architecture students, to organise a competition for a WAH landmark sculpture. The place selected for installation of the landmark was the entrance plaza of WAH itself.

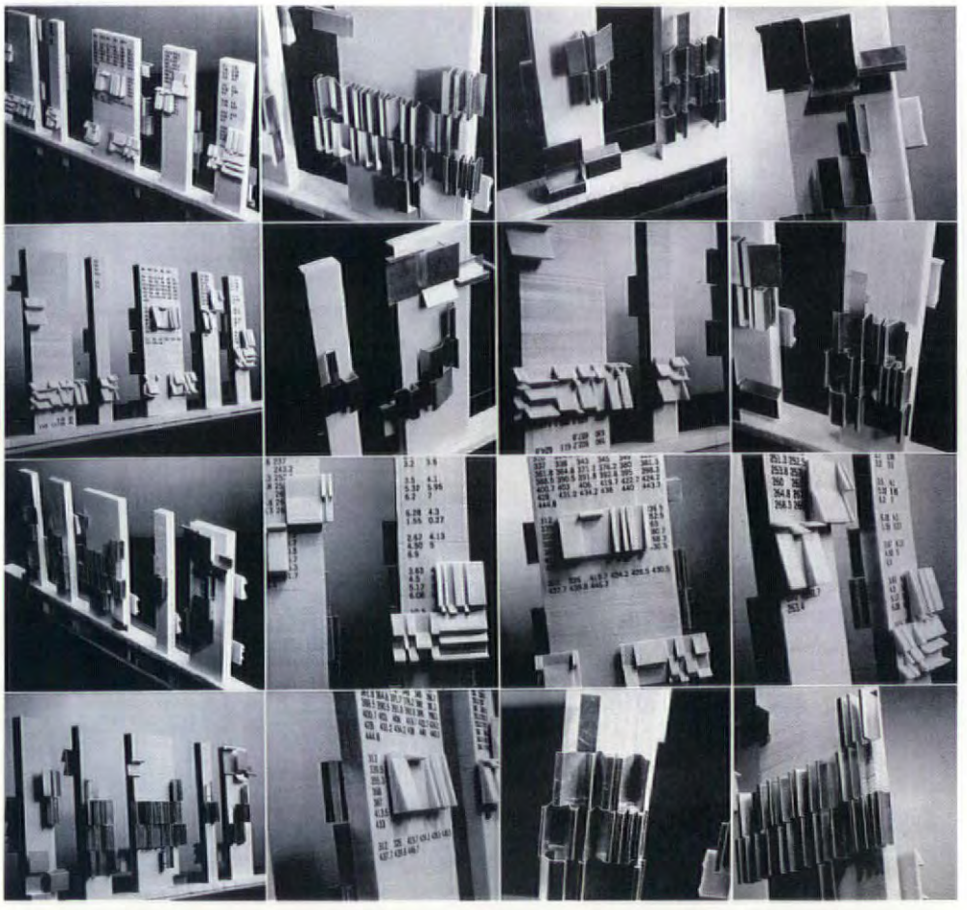
The Competition Programme

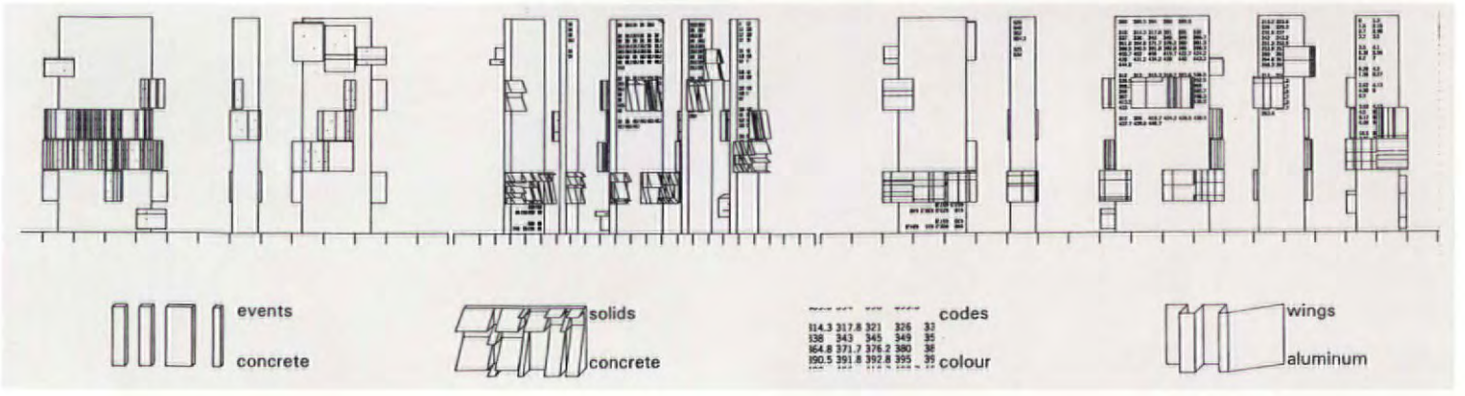
Starting from that historic context the participants were invited to design an architectural sculptural composition to respond to

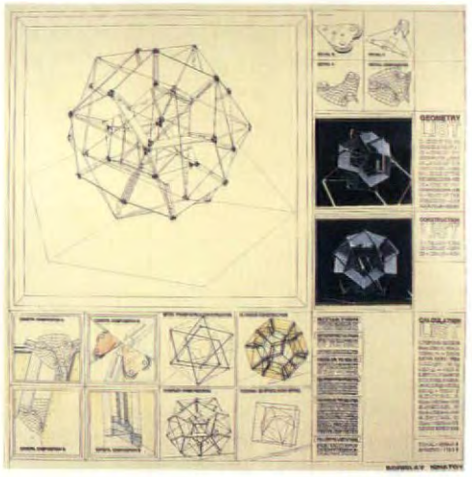
Top left and above: Thomas Watzek, Vienna, Austria
HIGH-TECH-NAUTILUS: The basic idea was to build both a landmark, and a memorial for the Nautilus Foundation.
Nature in the language of technology is an urgent requirement to halt and look. The spider-like details, the metal joints and an animal made of rusty metal sheets cause the tension between the sculptural objects and the beauty of the surrounding nature. Animation to move towards the museum, which is situated in the distance, is created by the step-like position of the legs which emerge from the nautilus-snail shell.

Left: Raffi Tomassian, Sofia, Bulgaria (Honourable Mention)
STAIRWAY TO HEAVEN: The installation is a Ghost House stripped of everything except its spatial relationships and ways of communication. Structurally the ladders are the main supporting elements, although that support could not be provided without the pulling force of the ropes. Nevertheless few will call the ropes "elements" and the ladders "connections". Thus we have connections that are in fact connected themselves. Their solitude is supported by the efforts of the heroic ropes, showing that what is keeping you together may as well keep you apart. How very true that is.

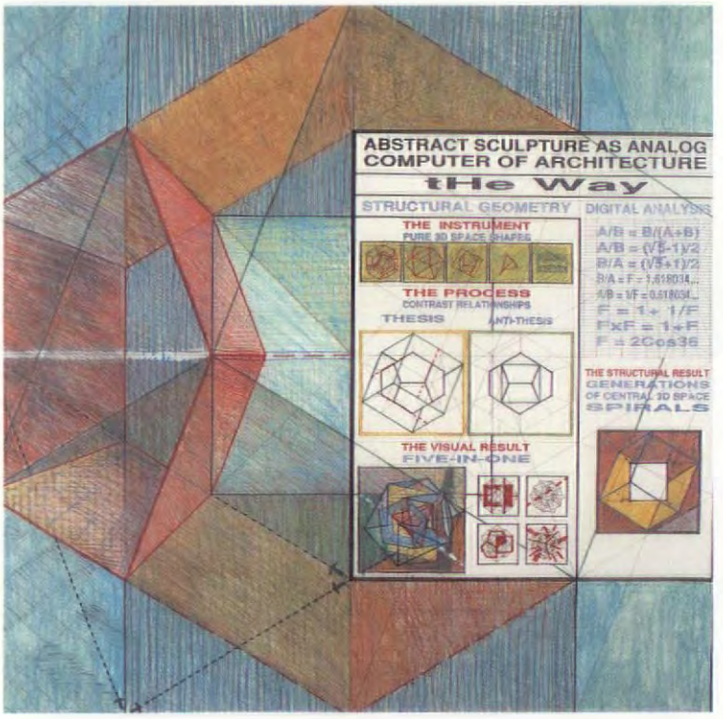
Wolfgang Koelbl, Vienna, Austria
(5, 6, or 7 WOLVES) LONGITUDE 0: A park bench. A bench in Greenwich Park, some 50 yards from the line of zero longitude. Onset of winter twilight; the park soon to close. Trees turning to silhouettes; flame-pink and pigeon-grey sky. A couple on the bench, striking intense attitudes (she passive yet tenacious; he, on the edge of the seat, indignant importunate) which suggest, despite the trappings of advanced years (thick winter coats, scarves, a begrudgingly docile golden retriever lashed by its lead to one arm of the bench) a lover's tiff. She is silent, as if having already spoken. He speaks. He wants to know it seems, what she means, what on earth this is all about – he demands an explanation. He addresses her in the manner of a schoolmaster addressing a recalcitrant child. The experienced observer of the park-bench lovers' tiffs might say that the woman has had something to confess. (...)
(Graham Swift: Waterland. London 1983.)

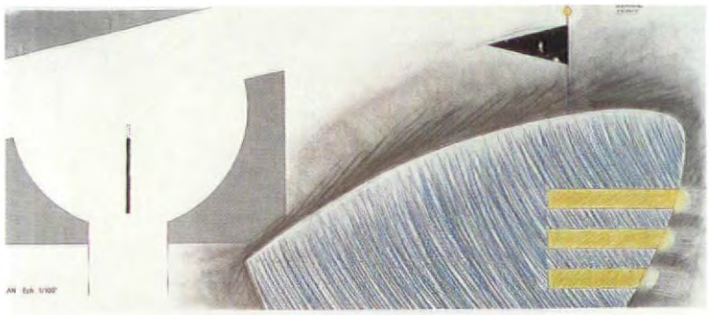




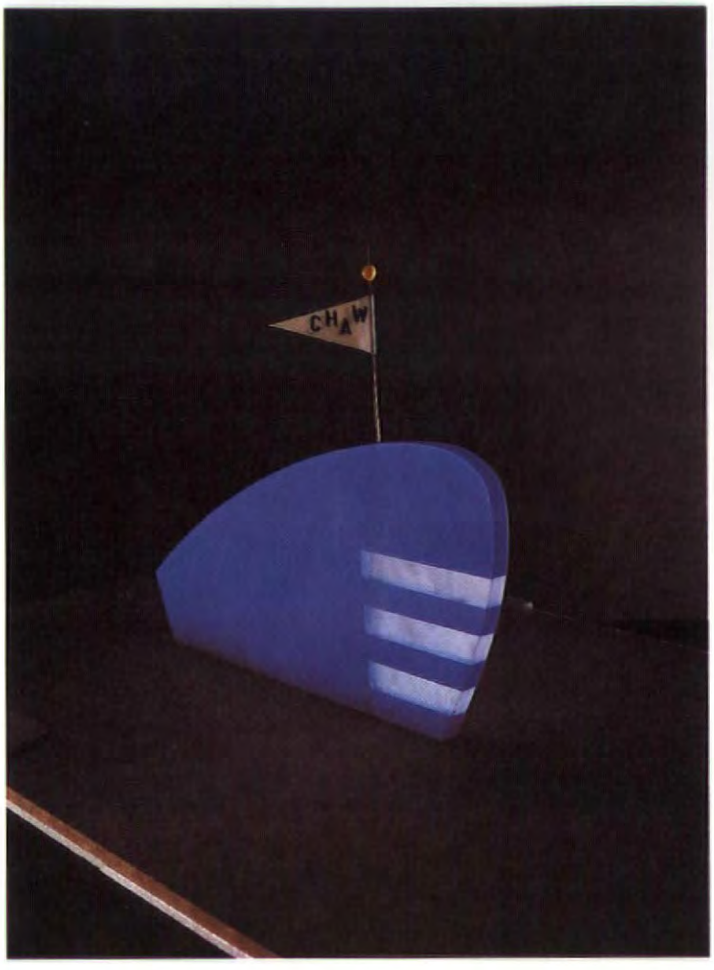


Left and right, Borislav Ignatov, Sofia, Bulgaria
TEMPORARY MUSEUM OF ARCHITECTURE: The theme of the contest gives the freedom to initialise a zone of structural architectural composition. In this sense the proposed version does not represent architecture itself but merely the condition for its appearance. In fact it is an absolute definition of the simultaneous condition of the spaces, and a generator for a series of minimal logical expressions – the five ideal bodies and their interconnections based on the Golden Section. The symbolic meaning is converted from "Entrance" to "Beginning".





Left and below left: Judith Parisse, Strasbourg, France (Honourable Mention)
THE BLUE: A big Blue sign in the landscape. The idea of attracting attention has imposed the choice of being very evident. Architecture is not so popular yet and it needs to be clearly announced. What is shown is Architecture, and only a piece of architecture. A very well known building element can obviously promote architecture and in most people's minds, nothing but a concrete wall recalls modern architecture so evidently.



the following criteria: to work as an Entrance Landmark to the World Architecture Habitat centre as shown on the site plans supplied, and to work as a 3D Architectural Fantasy. The proposed composition must cost no more than US $ 5,000. Any available materials and technologies may be used for the design. The height of the composition must be not less than 7 metres from the level of the ground.

Participants and Jury

Over 30 architecture students from The Institute fur Raumgestaltung at the Technische Universitat in Vienna, Austria; the Architecture Faculty at the University of Architecture and Building in Sofia, Bulgaria; Moscow Architecture Institute, Moscow, Russia; the School of Architecture at Florida A&M University, Tallahassee, Florida, USA; and the Ecole D'Architecture, Strasbourg, France, participated in the competition with 27 entries. The International Jury consisted of WAH activists, representatives of The Nautilus Foundation and the Iakov Chernikhov International Foundation, including Kiyonori Kikutake from Japan, Augustin Hernandez from Mexico, Justus Dahinden from Switzerland, Georgi Stanishev from Bulgaria, Georges Heintz from France and François Bucher, USA, President of the Nautilus Foundation – as Principal Consultant.

Entries and Results

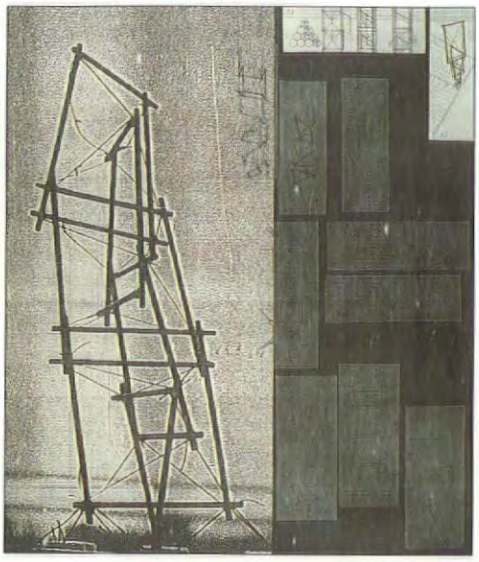
The task concentrated the students' attention on many contradictory requirements: a Fantasy, which must still be realisable; a flight of imagination versus strict structural calculations; a symbolic conceptual presence versus the realism of American suburbia; the ambition of the students versus the modesty of the financial possibilities.

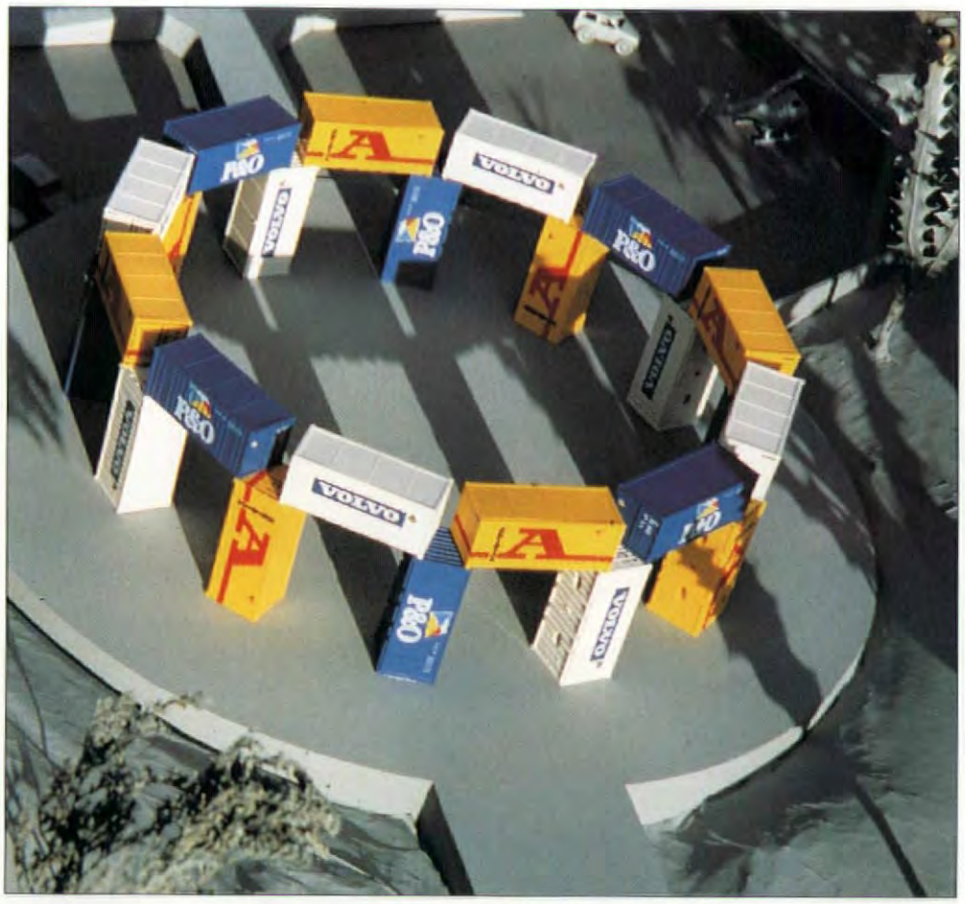
The most interesting results, comparing the five colleges that presented, were shown by the European schools based in Vienna, Sofia and Strasbourg.

Above: Anne Gutfreund, Strasbourg, France
INTENTIONS: The WAH Landmark symbolises City and Architecture.
The City. The composition is based on two elements: Artificial and Natural. The vertical elements symbolise habitation. The combination of metal works with the vegetation mark the contrast between the artificial and the natural in the city.
The Architecture. The installation reflects the continuous sequence of Civilisations, marked by the horizontal planes. The conception is to signify all architectural civilisations through different materials such as timber, metal, glass, stone etc.

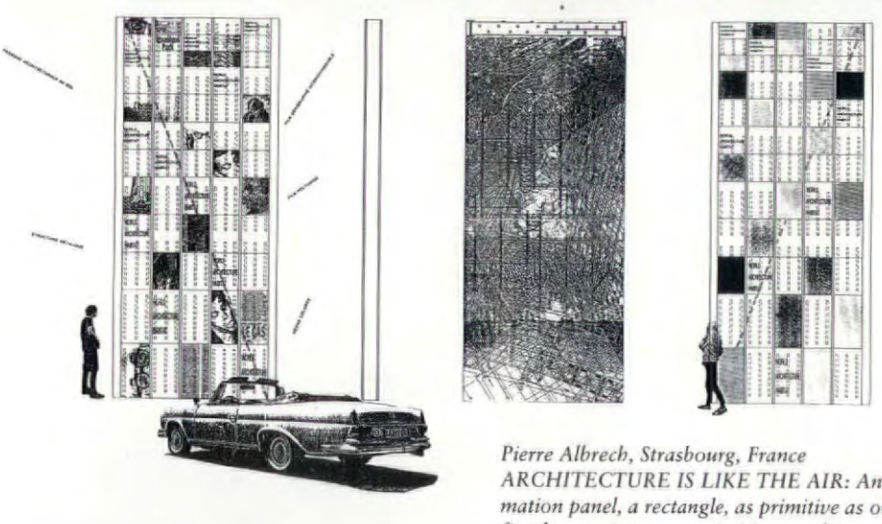
The Viennese projects have shown the most diverse spectrum of researches. Nearly every entry created a pole of its own presence in the whole field of ideologies, ranging from the very sensual and decadent High-Tech Nautilus, by Thomas Watzek, to the hyper-conceptualised and computerised version of Delius's "5,6,7 wolves", by Wolfgang Koelbl,

Below: Mirena Nikolova, Sofia, Bulgaria
A GATE FROM DOORS: This Landmark features the vertical as a sign and is at the same time an indicator, a tower and a column, developing through the multiplication of a single element – "the door" – which is conceived to represent human scale and reinforce the key entrance role of the landmark. Two groups of doors lying in perpendicular planes, are enfolded into one another like the links of a chain





Above: Karin Zeitlhuber, Vienna, Austria (Honourable Mention)
CONTAINER'S CIRCLE: With architecture people think too much of matter with its main purpose as shelter against rain, sun or enemies; but first architectural signs were not houses but monuments, erected stones that were symbols for myths. Therefore the role of the architect is to confront and to come to terms with information and the most intriguing of these pieces of information are the visual images.
(Paul Virilio, 1987)



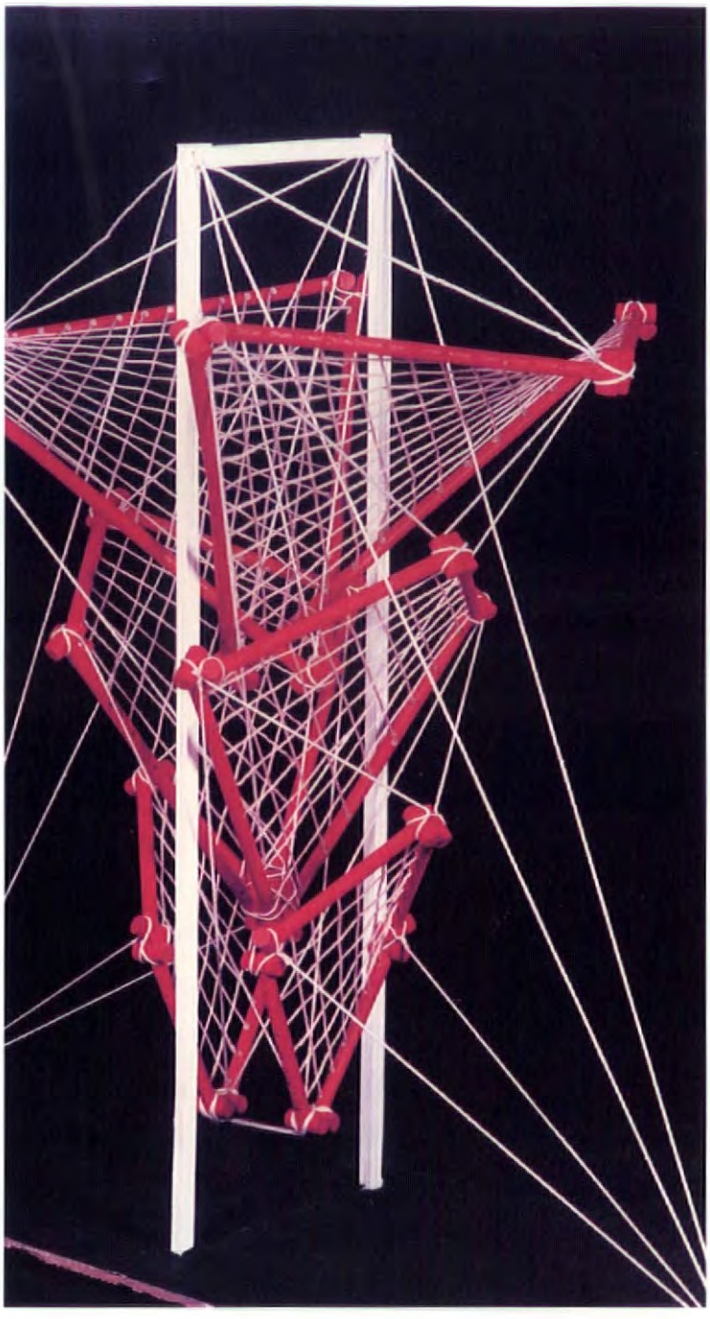
Pierre Albrech, Strasbourg, France
ARCHITECTURE IS LIKE THE AIR: An information panel, a rectangle, as primitive as one of the first human totems, a primitive graphic gesture and yet clearly modern, a neat geometry, with rusted steel sides. A panel of polyamid, panel of iron, an object charged with ambiguous and mixed meanings: information most certainly, but also the panel of pollution, the pollution of the vision, like in modern town, that bars the way forward, prohibits and attracts simultaneously.

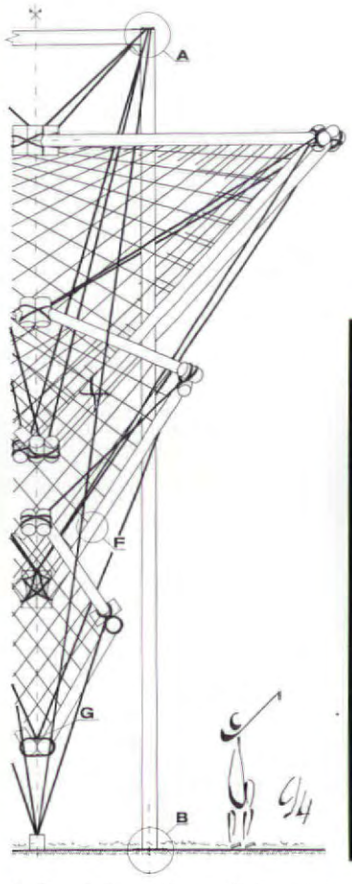
and to a Pop-Art "Stonehenge" ready-made out of containers by Karin Zeitlhuber.

The Bulgarian projects were generally obsessed by the intention of creating geometrical "creatures", free in expression but strictly ordered according to Mathematics. This to some extent might be understood as a contradictory call for flexible order in the chaotic transition period of a country with lost ideals and ideas. Thus, the Hyperbolic Wings of Plamen Gekov, clashing with the freely composed Ladders to Heaven by Raffi Tomasian, and the Platonic Bodies inscribed into one another by Borislav Ignatov, all unveil a hidden search for a structurally ordered space perversely used to project an image of irregularity and unpredictability.

The French projects incorporated the most cultivated set of ideas, showing works ranging from direct translations of Chernikhov 2D fantastic compositions, to 3D installations by Claudine Kaell, by way of gentle poetic compositions of building materials from the five architectural epochs by Anne Gutfreund, and the very urban neon-info-stand by Pierre Albrech. Rem Koolhaas's influence was present in a free curve silhouette of a hydrid of a ship, a blue whale and a concrete building wall – in a project by Judith Parisse.

The students from FAMU School of



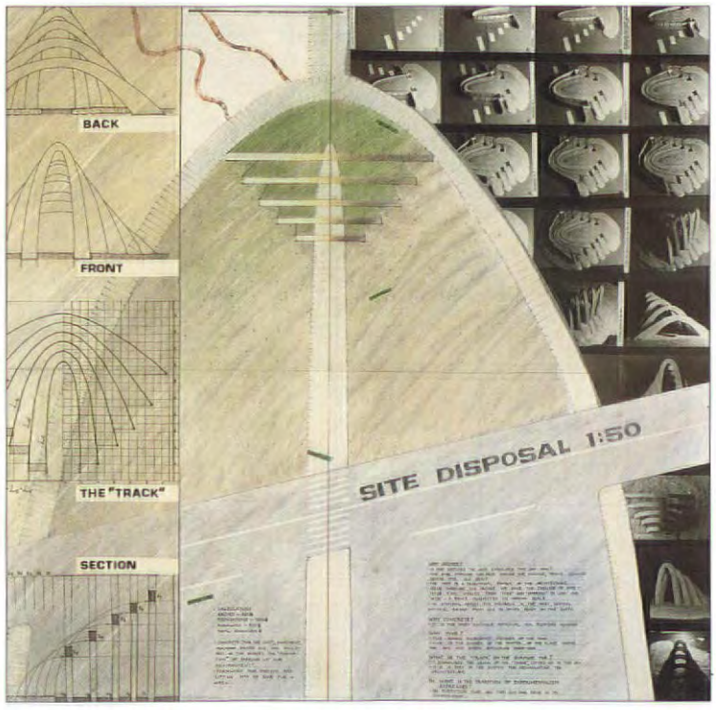


Left and above: Plamen Gekov, Sofia, Bulgaria
PALMA PALMARIS EST: Since Ancient times the people in my country have celebrated such important events as childbirth or building a house, by planting a tree.
The idea was to symbolically plant a tree at the front of the museum on the occasion of its opening. My proposal is a steel rope-and-bar construction consisting of three pairs of hyperbolic parabolids which overhang one another and are stretched between the supports of a simple frame.

Architecture showed relatively less fantasy, taste and conceptuality, with the exception of a project by Ximena del Marmol (Honourable Mention), treating the landmark as a continuous rhythm of red-mirrored panels, hanging between the trees along the road to WAH, with a culminating distortion of visual order at the moment of entrance.

The Russian participation showed an unexpectedly weak presence after so many years of significant leadership in the field of conceptual and visionary design.

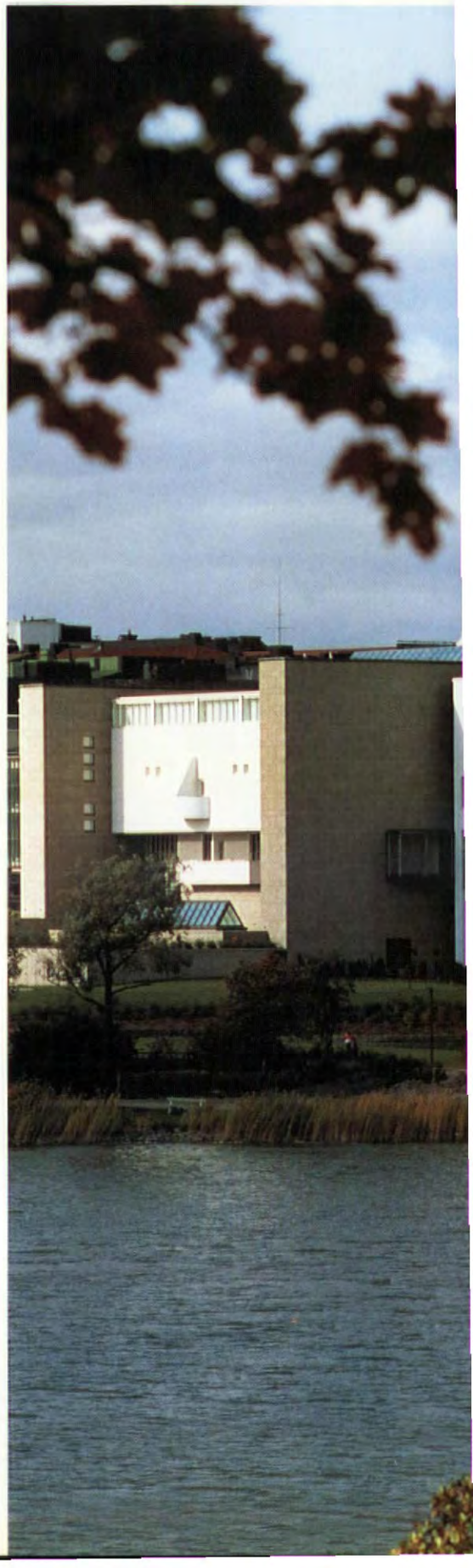
In spite of the vast differences between the entries, the competition showed the limitations of working in marginal and controversial conditions somewhere between fantasy and reality. On a more global scale, aside from the practical results for WAH, the competition showed that the experimental marriage of visionary with the realistic could give fruitful and promising results. Perhaps they even outlined a new type of experimental optimism in architecture. □



Dimitar Paskalev, Sofia, Bulgaria
ARCHES: In most cultures the arch symbolises the sky vault. A ritualised pass through the arch used to mean leaving behind the old spirit. Passing through my arcade gives the sense of different scales and measurements related to human body: from high and narrow to low and wide. Just like a supermarket.
The track on the terrain is a trace of the arch shape origin.

SOUND OF THE NORTH

Finland has had an extraordinary history in the twentieth century. A province of Imperial Russia until 1917, independent until 1944, then under Soviet domination until the end of the Cold War, the country has finally emerged into a new creative freedom. The recently completed Finnish National Opera is the latest symbol of this national success. The architects are Eero Hyvämäki, Jukka Karhunen and Risto Parkkinen.

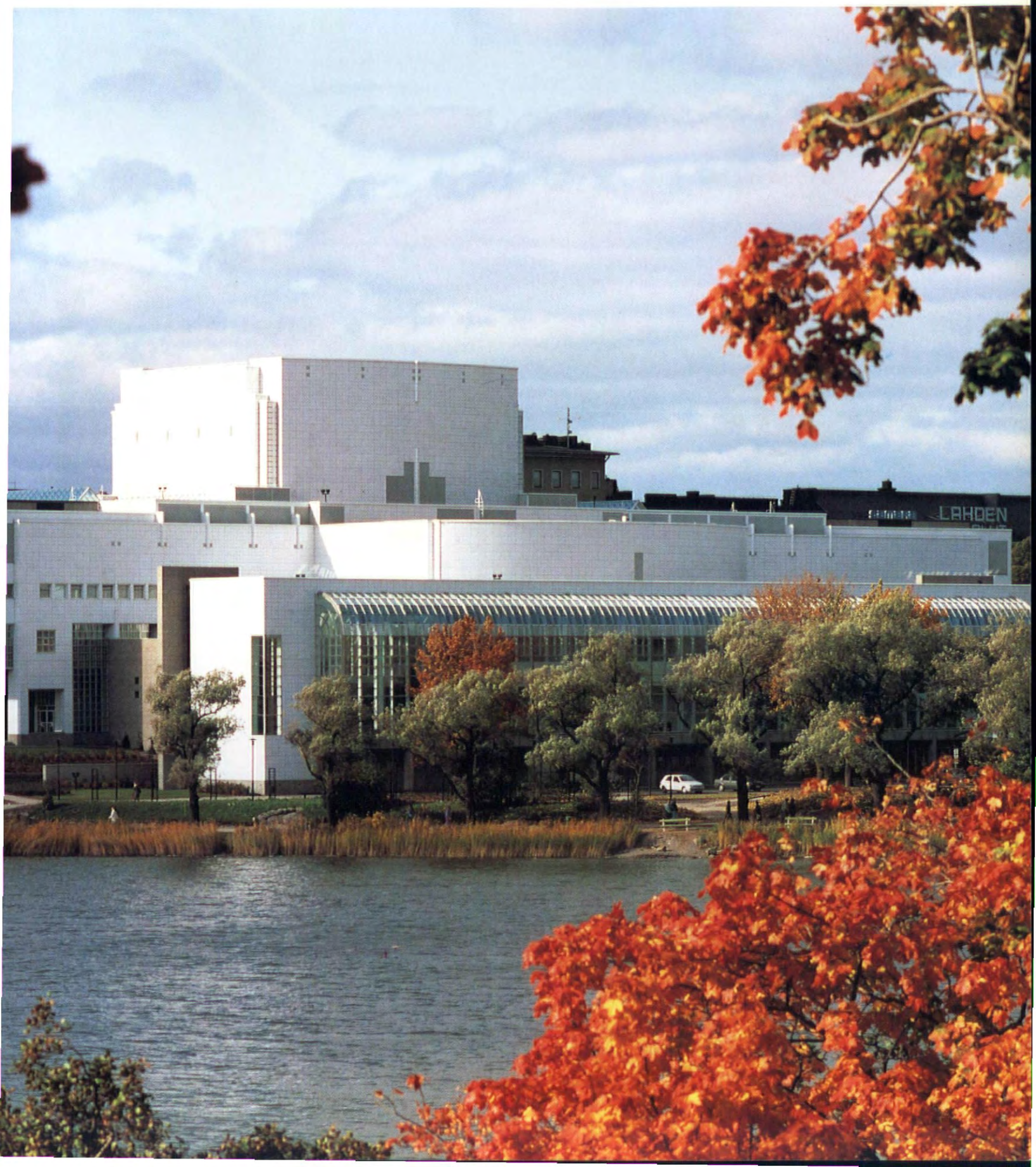


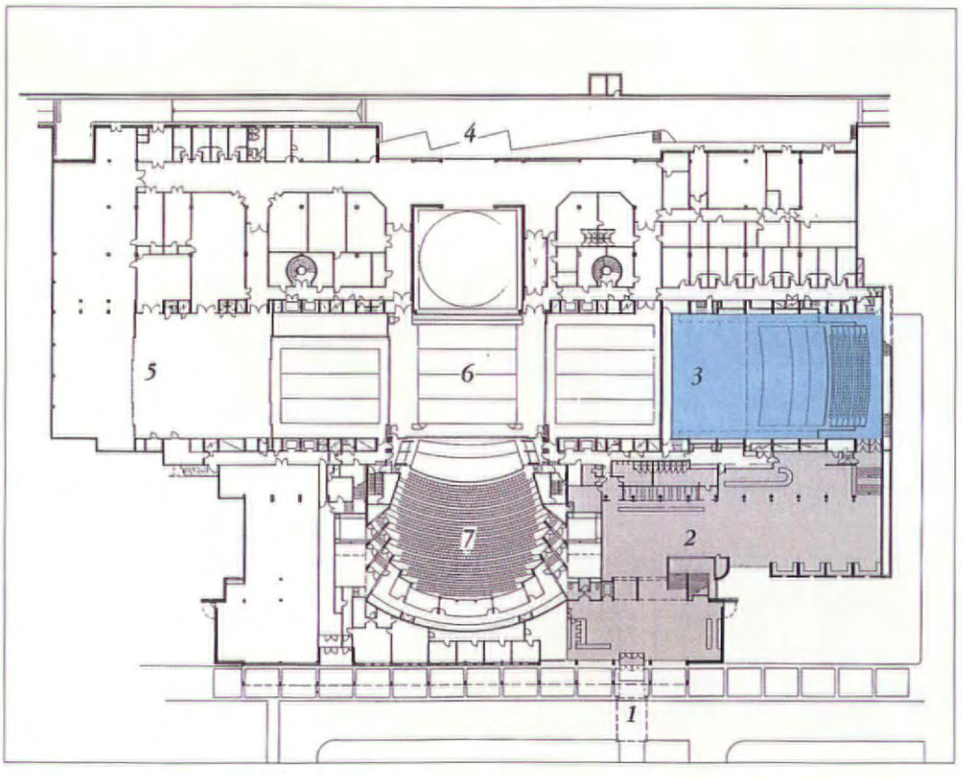
The Finnish National Opera never had a real operatic home during the hundred years of its history. Its location in the small and acoustically poor theatre built for the Russian garrison in the nineteenth century prohibited the production of many key works of opera and resulted in the rehearsals being held in various rented premises all around Helsinki. The efforts to find a new home for the National Opera finally started to bear fruit in the mid-1970s when the Helsinki city council approved an architectural competition to design a new building on an empty site by the Bay of Töölönlahti at the crossroads of the streets Mannerheimintie and Helsinginkatu. The competition was organised by the Opera and Exhibition Centre Foundation together with the Finnish Association of Architects in the form of an open two-phase architectural competition in 1975-77. The winning entry served with minor changes as the basic design for the Opera House.

The open square planned at the crossroads of two main roads incorporates the building into the street network and leaves the shoreline of and the walkways around Töölönlahti Bay intact. By partially removing old relics of a surrounding wall, the Opera grounds are linked with the adjoining park facilities, and new walkways for the public are thus provided.

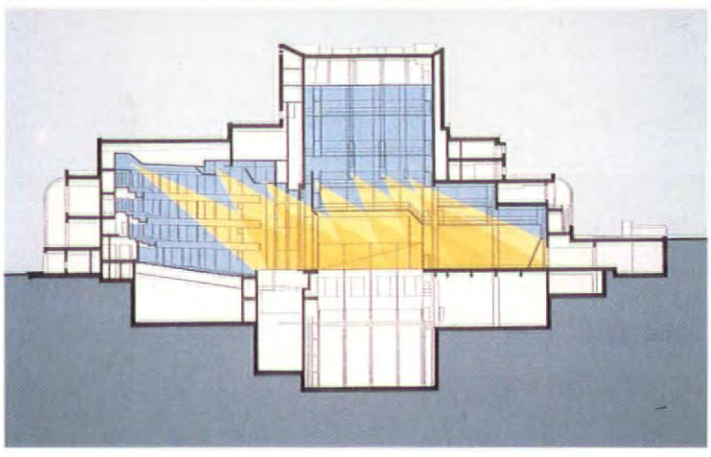
There are two entrances for the public: the main entry for evening performances is from the side of the street through the front square which is enclosed by walls and gates; the less official side entrance with nearby car parks is situated on the bay side of the building one floor lower. The lobbies and the foyer face Töölönlahti Bay. Because the building is situated in the vicinity of a vulnerable bay-side park, the bulk of its volume is hidden underground. The generally white colour of the visible structure serves to blend the Opera in the group of other white cultural landmarks located around the Töölönlahti Bay (Helsinki City Theatre and the Finlandia Hall). The bordering wall between the white building and the nearby park is made of granite which in due course will be covered by green vegetation. The building is also linked to the park by an outdoor stage which serves to remind people of the history of summer theatre performances on the bay, and gives opera productions the opportunity to be performed in the open air.

The foyers are primarily designed for the

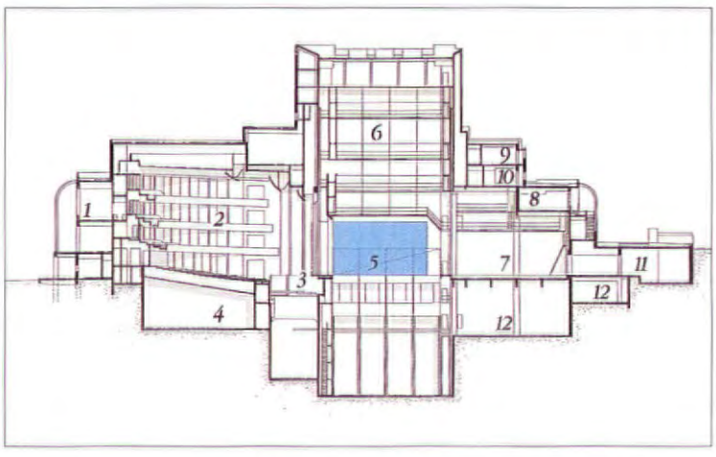

LAHDEN

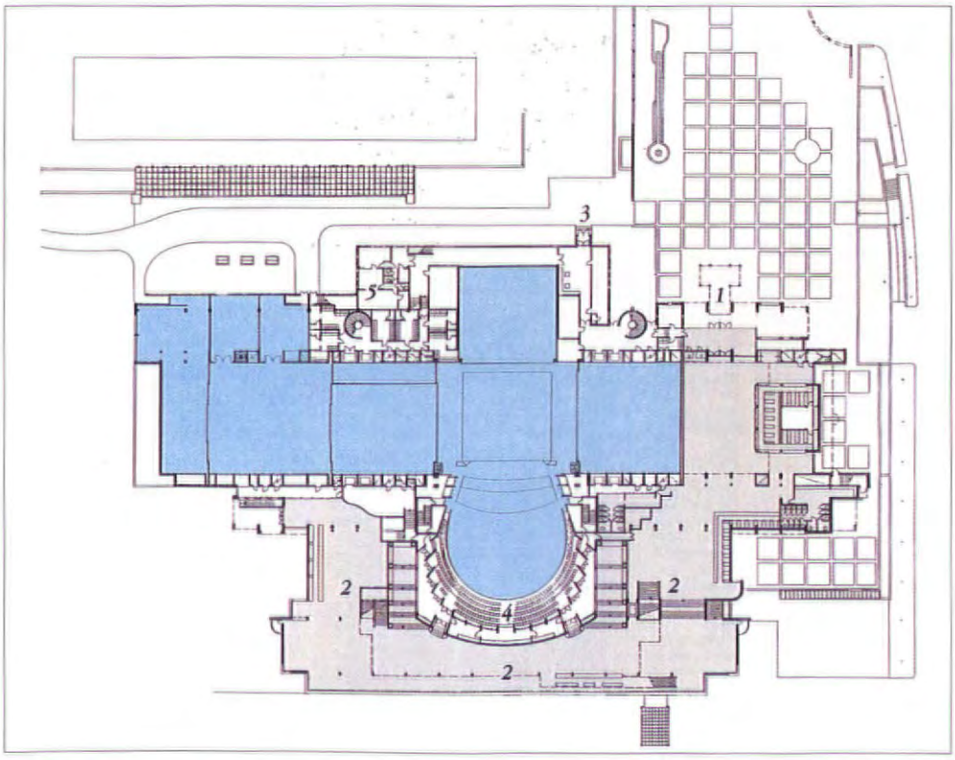


Interiors show grand arcade.
First floor plan key: 1 Lower Entrance, 2 Lower foyer, 3 Rehearsal, 4 Loading docks, 5 Workshops, 6 Main stage, 7 Auditorium



Antti Lahio





Auditorium and backstage (top, left and right). Sections showing fly tower and main auditorium. Second floor plan (left): 1 Main entrance, 2 Foyers, 3 Stage door, 4 Balcony, 5 Offices

External view showing glazed arcade

recreation of the public during intervals but they can also stage events outside main performance hours: miniature operas, dance performances, or exhibitions. To bring life into the Opera during day-time, there are commercial activities such as a restaurant, a record shop and guided tours. The objective is that the Opera, unlike many other theatre houses, will open its doors to the public also during the daytime.

The colour tones in the public facilities serve as a timeless, tranquil background for the audience and changing events.

The dominant material of the floors is bluish grey marble. The surrounding surfaces are white walls, while the reddish tone of wooden materials to be found in the niches of the walls hints at the materials used in the principal facility of the building, the auditorium. A large window wall opens onto a view of Töölönlahti Bay and the urban skyline of the city centre.

The design objective was to create a facility for music which is neither a concert hall nor a theatre but a space specifically designed to meet the needs of opera. The fan auditorium in the original winning design was, as plans progressed, developed for a typical opera auditorium with high stalls and horseshoe tiers. This design creates an intimacy between stage and spectators who additionally share in the feeling of an artistic experience. This also allows for sufficient acoustic volume and a number of sound reflecting side surfaces. The intimate, intense atmosphere is further emphasised by the warmly toned wooden surfaces of the walls and the floor. All other materials except the seats are hard and reflect sound. The shape of this facility and of the bordering surfaces, and the materials used were designed and constructed in close co-operation between the architect and the acoustician.

The size and height of the orchestra pit can be adjusted and the pit can be turned into an additional auditorium floor at a concert. The orchestra hoists can also be lowered onto the level of the rehearsal room beneath the main auditorium for easy access and transportation of instruments. The acoustically important side walls on the level of the orchestra and the height and the width of the proscenium opening can all be adjusted to the needs of the production.

The stage is a modern cruciform stage with state-of-the-art technology on the spaces on the sides of, behind, above and underneath the principal stage. The floor of the performance area is laid on four floor hoists which can also be used for transportation of equipment to storage cellars. The stage sides accommodate equivalent stage wagons which serve for the swift changes of scenes on-stage. Hanging scenes are lifted in the fly tower above the principal stage. There is no fixed revolving stage but it is positioned in a separate wagon backstage and can be driven onto the performance area when needed. The dimensions of the stage and its functional principles match those in most full-scale opera houses enabling a versatile international guest programme.

The small stage of the Opera is a convertible multi-purpose facility, an "opera laboratory" with the seating ranging between 200 and 500. With the smallest seating the amount of space available corresponds to the dimensions of the large stage, even allowing for rehearsals of productions of the main stage with a complete orchestra. This facility is especially suited for experimental theatre, concerts and rehearsals of touring companies. The acoustics can be adjusted providing accommodation for acoustically very different styles of music; from modern works to ecclesiastical music. The "Alminsali" has its own entrance and foyer which also serves as a restaurant.

Although the public facilities are the most visible part of the Opera, they make up only

Night view from the water

Antti Laiho

a fifth of the whole usable area. The rooms for preparing productions occupy a considerable proportion, the most important facilities of which are the rehearsal rooms (for chorus, orchestra, singers, ballet), and the adjoining dressing and washing rooms for the artistic personnel. The rehearsal rooms are "room in room" plaster structures isolated from the main frame to prevent transmission of sound. Floating floors have been installed in most workroom zones in order to prevent sound transmission.

The exceptionally long duration of the building of the Opera – it took 18 years from the initial competition to the completion of the building – created additional problems. The management of the National Opera, many key persons and the working methods were changed several times during the planning phase, and plans were suspended several times when nobody could say for sure what the future held. When construction finally started, technical designs and equipment were often found to be outdated, some materials were no longer produced; and the clients had changed their perceptions on what was really needed in the new building. In addition the Opera was built in the boom years of the construction business, a fact which increased the costs beyond original estimates. To control the costs, the National Board of Public Building contracted out the project for smaller contractors and thus increased competition. But the management of more than 80 contractors simultaneously put site organisation and designers under an almost intolerably great stress.

Most of the solutions in the Opera are prototypes, specially developed for this building and are never likely to be used again in any other project. The architects were also charged with the design of furniture, special lighting and signs, and the selection of the sets of articles in the lobbies including catering equipment and the clothing of the vestibule staff. The extensive project has demanded the commitment of those participating from beginning to end, even beyond completion, because the process of testing the facilities and equipment in the National Opera has revealed facts that no member of the project could anticipate.

The Opera's acoustics were the object of particularly high expectations. By the time this text is printed, several concerts, ballets, and operas will have been performed clearly demonstrating that the design outcome has come up to these expectations. □

The Opera in figures

Usable area:	25.275 m²
Gross area:	40.450 m²
Volume:	227.000 m³
Height of fly tower from main stage level:	28 m
Size of main stage	20 x 25 m
Performance area	16 x 16 m
Floor hoists of main stage	4 pc. of 4 x 16 m
Hoistway of floor hoists	-8 +3 m
Seating/large auditorium	1,365 (concert setting, 1,496)
Seating/the Alminsali auditorium	200 - 500
Staff	550
Construction costs ('93 level)	750 MFIM

Designers

Architectural design:
Eero Hyvämäki, Jukka Karhunen, Risto Parkkinen
Project implementation team:
Eero Hyvämäki, Kari Piela, Tuula Mäkinen, Antti Laiho
Interior design:
Tuula Mäkinen, Anita Karhunen, Antti Paatero
Auditorium seats:
Yrjö Kukkapuro
Acoustical design:
Alpo Halme
Green arrangements design:
Camilla Rosengren
Electrical and stage technology design:
Engineering consultants Joel Majurinen Ky
Structural engineering:
Engineering consultants Vapera Oy
HPAC design:
HPAC engineering consultants Chydenius Ky

FOOTSTEPS OF A NATIONAL HERO

For most of the twentieth century Michael Scott was Ireland's greatest living architect, and the practice he founded, Scott Tallon Walker, suffered a grievous loss when he died in 1989. But since then the office has regrouped under new partners and is facing the future with a new pattern of operations and a new client list. In this exclusive World Architecture *feature Colin Davies examines the methods and goals of a practice unique in its own country.*

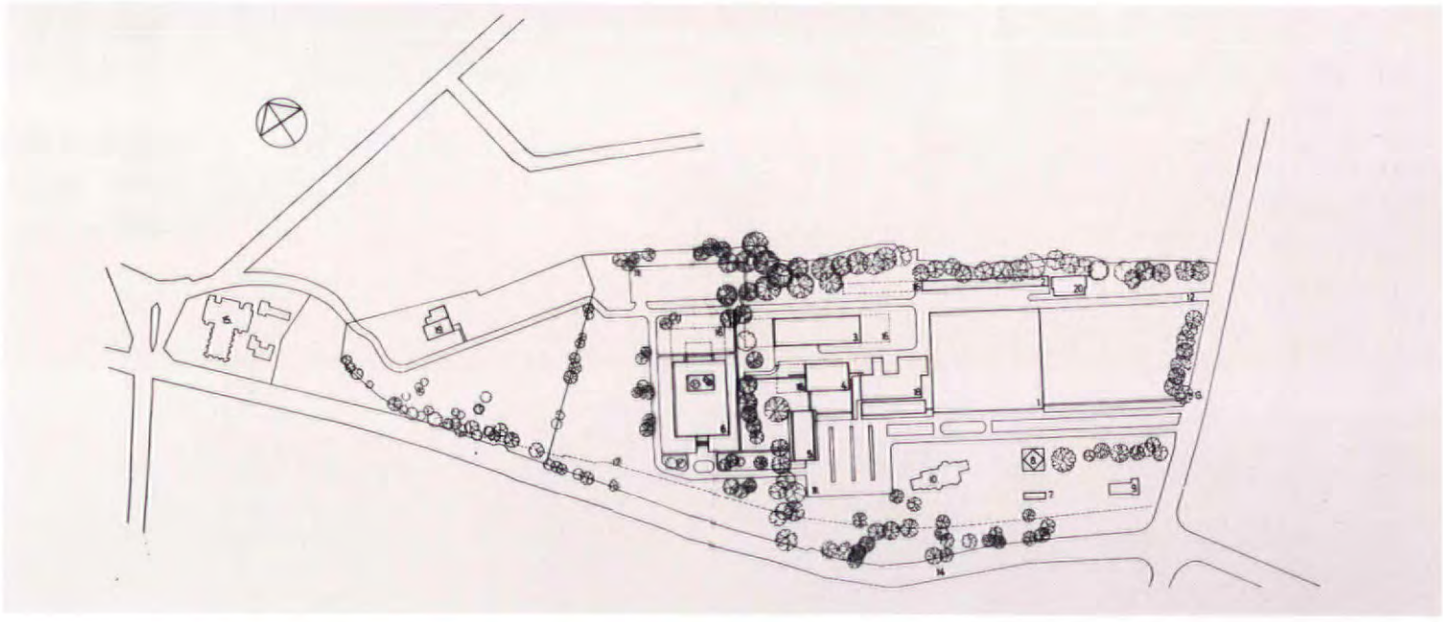
When "Gerach", the house at Sandycove in County Dublin that Michael Scott designed for himself in 1938, came up for auction in March this year, the Royal Institute of the Architects of Ireland suggested that it should be bought by the nation and converted into a museum of Modern architecture. In the event it was sold to a private buyer, but the RIAI initiative was confirmation that Scott's place in history as the man that brought Modern architecture to Ireland remains secure. Scott died in 1989, but his practice, Scott Tallon Walker, survives and flourishes. It has nine partners, a total staff of about 40 and operates from a pair of extremely elegant Georgian houses in Merrion Square, Dublin. The spirit of Michael Scott – pioneer Modernist, art lover, *bon viveur* and actor (he played the lead in Sean O'Casey's Broadway production of *The Plough and the Stars*) – still haunts the place, if only in the sense that it is about him that visiting journalists ask their first questions. A mile away in Store Street, Scott's masterpiece, the Busaras (bus station), is well preserved and still operates as it did when it opened in 1953.

The truth is, however, that Scott Tallon Walker's international reputation as accomplished Miesian Modernists rests not on the handful of buildings that can be attributed to Scott, but on the design talent of Ronnie Tallon and Robin Walker. They became Scott's partners in 1965, and from then on he was happy to leave the designing to them. By the mid 1970s, he had effectively retired. In 1982, Robin Walker also resigned from the partnership. For the last 12 years, therefore, Ronnie Tallon has led the practice alone and established something of a dynasty. His son Michael and his son-in-law Peter Dudley are both active partners, as was his daughter Joan O'Connor until she decided recently to take an "extended sabbatical" for family reasons.

The practice is the biggest in Ireland. In England and America, when practices founded on strict Modernist principles grow and become successful businesses, their architecture tends to become less single minded, more pluralistic. One thinks of SOM, YRM and BDP. STW, however, have stuck to the straight and narrow Modernist path. At the age of 67 Ronnie Tallon still sets the architectural agenda and his young partners would not think of departing from it. One reason for this remarkable consistency is the relative stability of the Irish construction market. There have been no economic booms and troughs to disrupt the continuity of the practice and no Stuart Liptons or Reichmann brothers to call into question the traditional architect/client relationship. No Prince of Wales either. The Modernism that Michael Scott brought to Ireland in the 1940s remains respectable.

Major public sector clients still provide most of the practice's work. University College Dublin, Trinity College Dublin, University

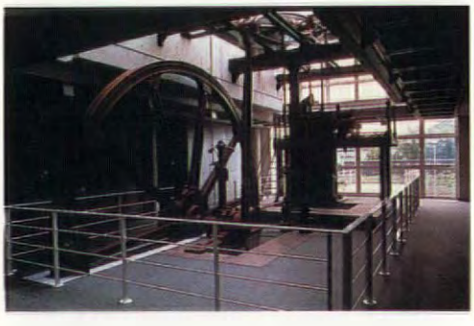
"Gerrach" (opposite page) marked the start of Scott Tallon Walker. Radio Telefis Eireann's latest sound stage building (this page) completed in 1990 shows the practice's present form



College Galway and Radio Telefis Eireann have all been clients for decades and are still coming back for more. The architectural free-for-all that wrecked the Modernist campuses of so many English universities in the 1970s has yet to take place in Ireland, and perhaps never will. STW's latest buildings represent not a fashionable Modernist revival but an unbroken Modernist tradition. Master plans drawn up more than 30 years ago are still being adhered to, with only minor modifications. The RTE radio and television studios campus in Dublin, for example, was planned way back in 1961 and has been growing steadily ever since. It is strongly reminiscent of Mies van der Rohe's Illinois Institute of Technology, except that the monumental steel framed buildings look rather better in the damp green Irish landscape than they do on the dusty outskirts of Chicago. STW were recently commissioned to design more offices on the site. There is no question that the new development will do anything but conform to the strict rectilinear discipline of the original master plan and the basically Miesian style of the existing buildings.

The practice's style has not, however, remained static. It has had to adapt to changing technology and shrinking budgets. In the early 'seventies Ronnie Tallon could design a headquarters building for the Bank of Ireland in Dublin and make it look like a miniature version of Mies's Federal Centre in Chicago, complete with bronze curtain walling made locally. Twenty years later it still looks superb, fitting surprisingly well into the Dublin street scene, but it would be hard to repeat. Cladding of that quality would these days have to be brought over from Germany or Switzerland and would be well beyond the budget of most clients. STW have had to develop cheaper alternatives. Many of the practice's recent buildings are clad in glass reinforced cement. This material lacks the gloss and sheen of exposed steel or bronze,

University College Dublin School of Engineering



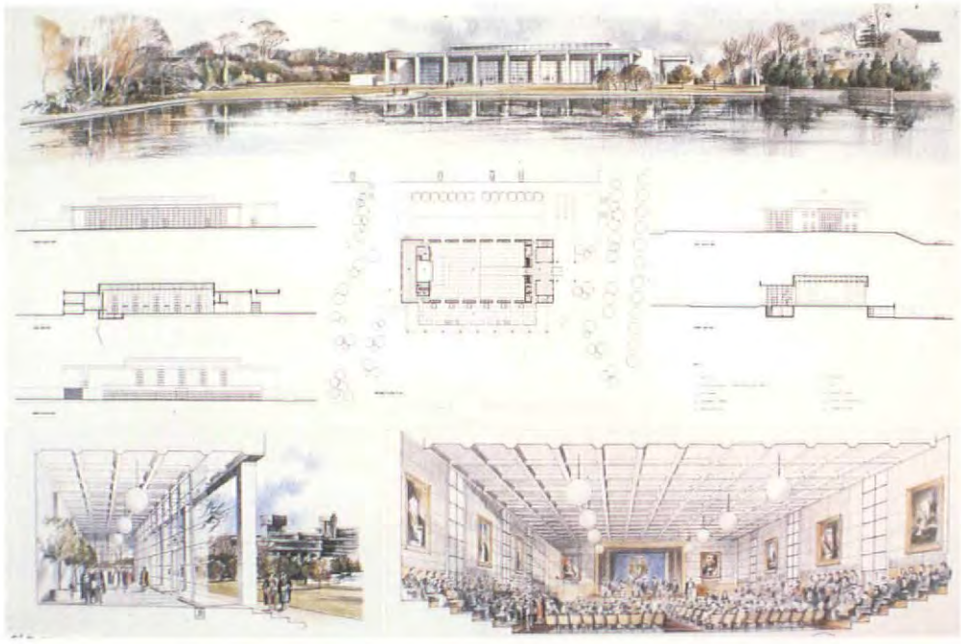
but it is light, waterproof and cheap, and the factory-made panels have a precision that suits STW's abstract, geometrical style.

Typical of this style are the three recently completed buildings on the Belfield campus of University College Dublin. The largest of these, the School of Engineering, has a somewhat bland exterior with cladding panels of GRC and glass in a monotonous square grid. Inside, however, the highly serviced workshops and laboratories are well organised on either side of a top lit circulation spine of real spatial quality. Materials are cheap and rugged, but the detailing, especially of the exposed concrete blockwork, is firmly controlled. The other two buildings show a willingness to depart from Miesian rectilinear planning, but within strict limits. The University Industries Centre, basically a small conference centre with exhibition and catering facilities, is an equilateral triangle on plan with a flat diagrid steel framed roof and external walls of plain GRC panels and glass curtain walling. The Biotechnology Building on the other side of the campus also makes use of simple geometrical forms, this time a two storey rectangular laboratory block with glazed staircase towers at each end, and a panoptican-style semi-circular suite of scientists' workstations placed off centre on one side. The architectural effect is more Mendelsohn than Mies, but there is no mistaking its Modernist pedigree.

This is an architecture completely untouched by the disruptive influence of post-Modernism and Deconstruction. Neo-Classicism is perhaps a different matter. When UCD ran a limited competition for the design of a new assembly hall, to be endowed by industrialist, media magnate and ex-rugby international Dr A J F ("Tony") O'Reilly, the conditions specified that the building should be in a classical style. For STW this presented no particular problem. Mies, after all, was essentially a classicist. STW's design is formal and symmetrical, like a temple but with the

University College Dublin Biotechnology building 1993

John Searle



STW's competition winning "Classical" scheme for University College. Plan shows formal associations

portico along one side. It is a steel framed building and there are no antique details, but no-one can deny that it is classical in character. It duly won the competition and is now under construction.

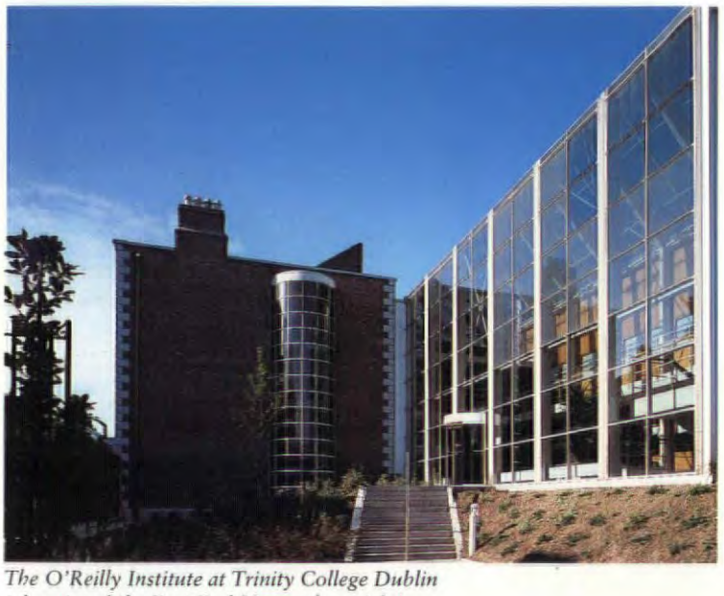
Two private houses illustrate the way that STW's style draws on different strands of the Modernist tradition without ever giving in to fashion and frivolity. Ronnie Tallon's own residence on the outskirts of Dublin, built in 1970, is a classic glass house in the Farnsworth mould – single storey, steel framed, with a rectangular plan and a hovering entrance platform. Like the Merrion Street office, it is full of abstract paintings of the highest quality, proving that for Tallon Modernism is a way of life, not just a professional interest. He has recently extended the house, after much agonising, but it retains its unity and simplicity. His daughter Joan's house, built in 1992, is similar, but with a more relaxed, articulated plan incorporating brick walls and chimneys. It is obviously a development of Tallon senior's original, but it recalls early, rather than late Mies and, beyond that, Frank Lloyd Wright. Recent neo-Modernist fashion seems to have had no effect on it whatsoever. It might have been built at any time over the past 60 years.

Not all of STW's buildings are free-standing set pieces in landscaped settings. Difficult urban sites get the same straightforward, practical treatment, with no concessions to shallow "contextualism". The new development in Westland Row, Dublin, for Trinity College, for example, adapts the linear atrium concept of the Engineering Building at UCD to incorporate an existing terrace of Georgian houses. The building accommodates lecture theatres, teaching spaces, offices, laboratories and a library in a completely rational arrangement without disrupting the scale and grain of the city. Once again, glass and GRC are the main cladding materials.

The most important job in the office at present is the new extension to Dublin's Civic Centre now under construction on a prominent site beside the River Liffey. Like so many of STW's recent jobs, it was won in competition. The existing Civic Centre is a pair of squat octagonal towers designed by Sam Stephenson and completed in 1983. Stephenson was invited to enter the competition but his scheme to add more towers was rejected in favour of STW's design, which

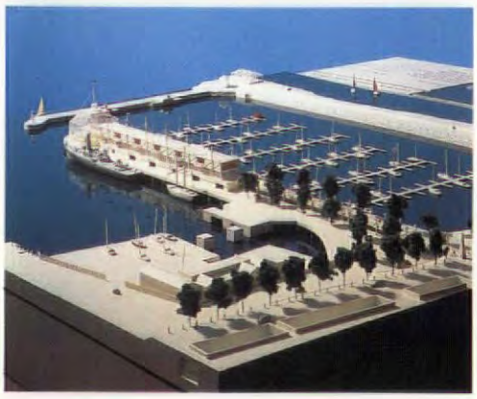
Ronnie Tallon's house at Foxrock, County Dublin 1970, recently extended (above and left)

Joan Tallon's house recalling early Mies and Frank Lloyd Wright



The O'Reilly Institute at Trinity College Dublin (above) and the East End Masterplan (right)

Marina project Dunlaoghaire (below) is a departure into the leisure area

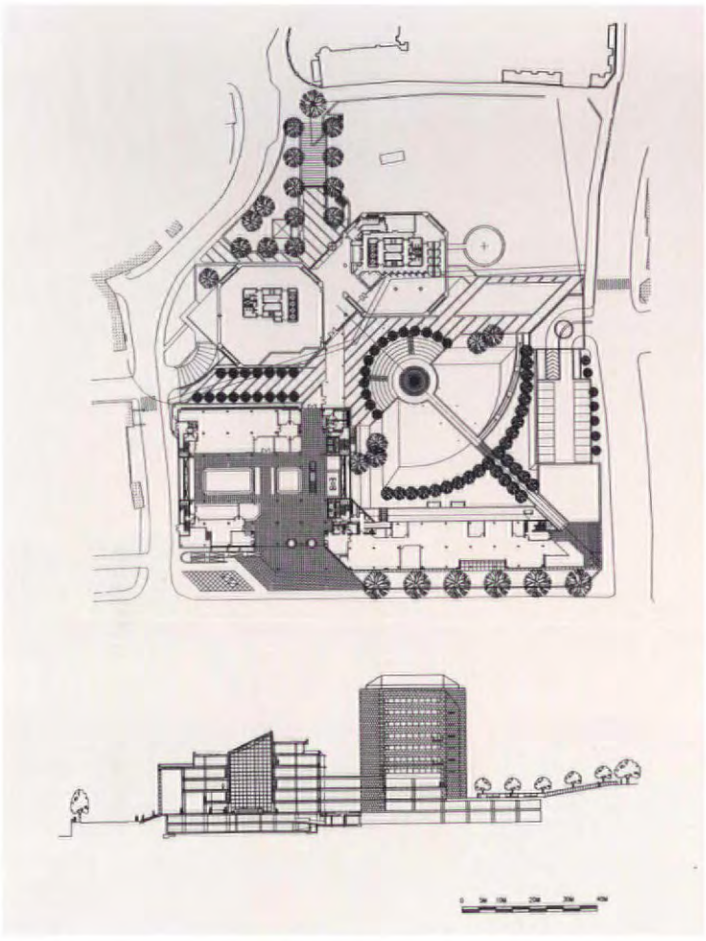


deliberately screens the towers from the river frontage. This has caused some controversy, both architectural and political. STW are keeping their heads down and getting on with the job. They have complete confidence in their design, but are nevertheless looking forward to the building's opening in the autumn with some trepidation.

Dublin has a relatively small architecture and building community and after almost half a century STW are well embedded in it. They have close relationships with most of the best contractors, whose respect they command. Sometimes they are even in a position to hand-pick the site agent or contracts manager they want for a particular job. But like architects everywhere in Europe, they are feeling the professional winds of change. They have to compete for their livelihood and they have to perform well for clients in order to maintain their position. The Merrion Square office may be old and elegant but it is not stuffy or down at heel. A new back extension has just been completed with the aim of selling one of the houses and improving the layout to maximise efficiency. The practice is fully kitted out with CAD equipment.

Ronnie Tallon himself takes responsibility for the running of the practice. He is certainly not lacking in business acumen, but producing good architecture remains his main priority. A few years ago the practice experimented in a limited way with multi-disciplinary working when it set up its own services engineering department. Typically the motive was not to improve the profits but to improve the architecture. A number of bad experiences with services consultants had convinced the partners that they could do better themselves. But there was no attempt to sell consultancy services to other architects – there would have been no joy in that – and in the end they had to admit that the job base was too small. Services engineering, they learned, was not as easy as it looked if you didn't want to lose money. Commercial common sense prevailed and the idea was abandoned.

About 20 years ago the practice set up a



Dublin civic offices completion scheme, cause of controversy for several years. Plan above left.

London office to carry out a job in Milton Keynes. In the event the job came to nothing, but the office was kept open to look after some bread and butter work for Marks and Spencer. At its height, it employed 18 people, but then the recession hit and it has now shrunk back to five. The hope is that as the economic situation improves, STW will begin to pick up work in the sector they know best: education, and especially university work. But Ronnie Tallon does not believe in expansion for its own sake. Dublin will always be home and Ireland's relatively buoyant and stable economy looks like producing enough work to keep the practice busy for the foreseeable future. Culturally too, it provides an environment in which STW's particular brand of Modernism can flourish. Ten, even 20 years ago, from a wider European or American perspective, STW's architecture might have looked old fashioned. But now that post-Modernism has run its course and the virtues of simplicity and practicality are once again admired, it looks bang up to date. □

Dublin Docklands light industrial development at East Wall Road

The Samuel P. Harn Museum of Art, Gainesville, Florida, 1992

Architects: Kha Le-Huu and Partners (design); Jackson-Reeger (technical)

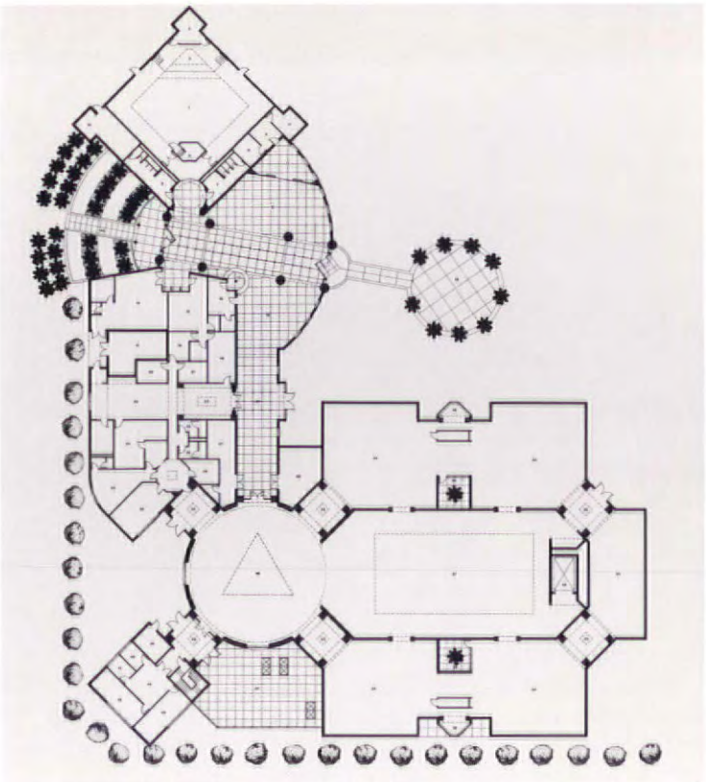
The museum is planned to be part of the University of Florida Cultural Center, which will eventually house a performance art centre and natural history museum.

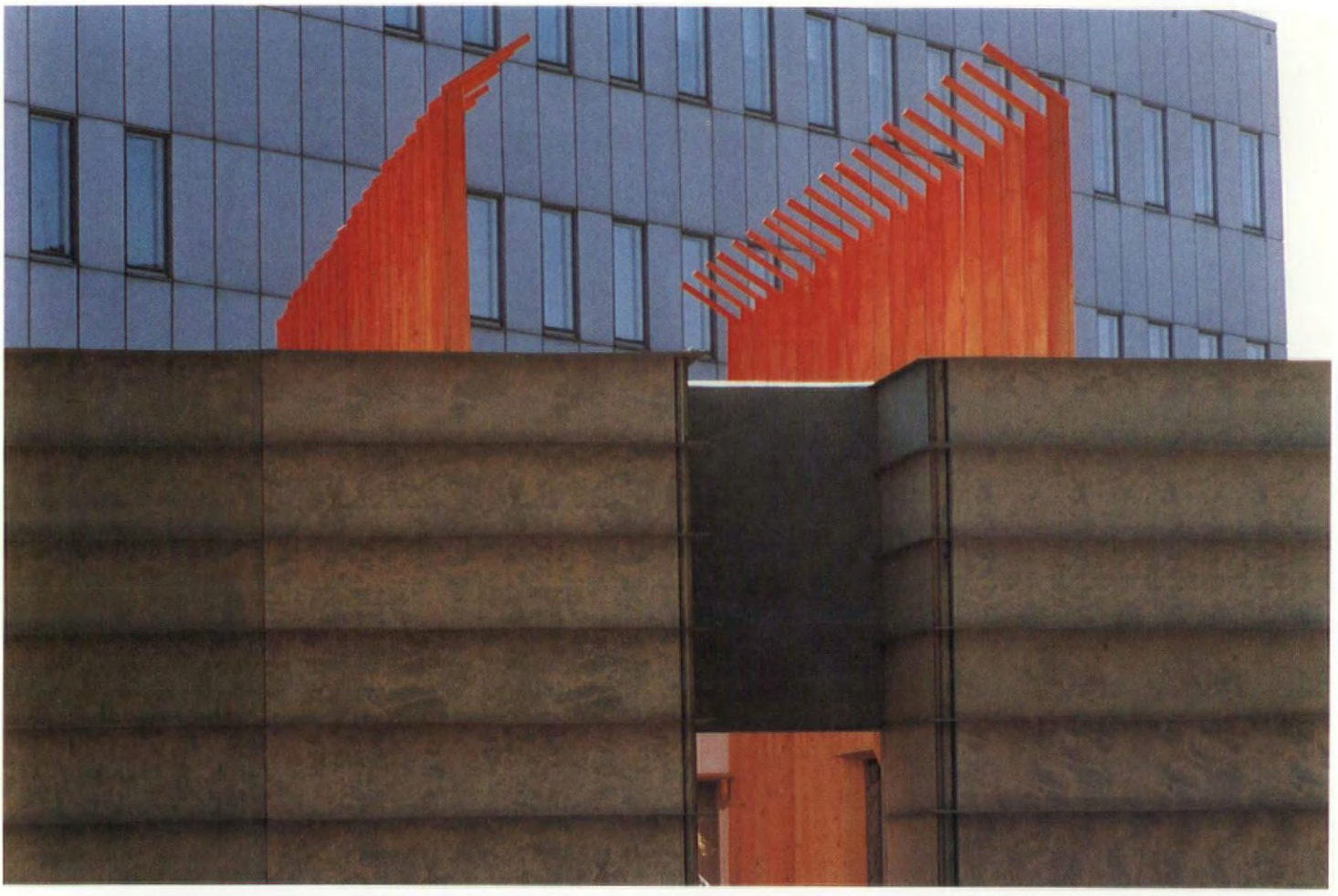
The building's muted exterior, with its quiet palette and crisp massing of simple geometric shapes, sets the tone for its interior. The low lines of the gallery level - all that is visible to those entering the museum from the main parking area - are broken by the dramatic, jagged lines of the tetrahedron rising over the curving drum of the rotunda.

Once inside, the visitor is immediately aware of the vast paces opening before and - with vaulting soaring to more than 30 feet - above him. To the left of the entrance is a 200-seat auditorium; to the immediate right is a kitchen. Just beyond the auditorium is the bright, window-walled museum shop and seating that overlooks the still incomplete cultural precinct that will rise outside the museum. To the right of the lobby, beyond a passageway whose ceilings are a cosier 18 feet above, lie the administration offices.

Kha Le-Huu saved his most impressive vista for the rotunda, a circular space that rises to 60 feet at the peak of the tetrahedron skylight and leads directly to the main gallery ahead or alternatively, into smaller, more intimate galleries that are clustered around the skylighted, oakfloored main hall on the three sides. The main gallery was designed to be used for changing exhibits, divided by partitions as needed and lit partly by natural light from above when the skylight is open.

As all spaces are linked by a logical network of passageways, the entire 18,000 square foot gallery space Feels open and friendly. Yet the surrounding, smaller and quieter carpeted galleries are clearly distinguished from the main hall and so allow the visitor to approach the works in understandable units.



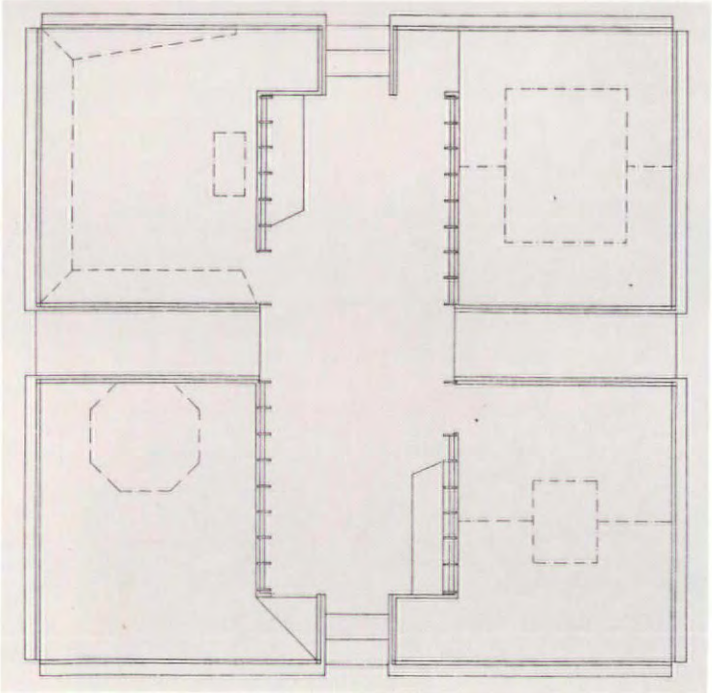


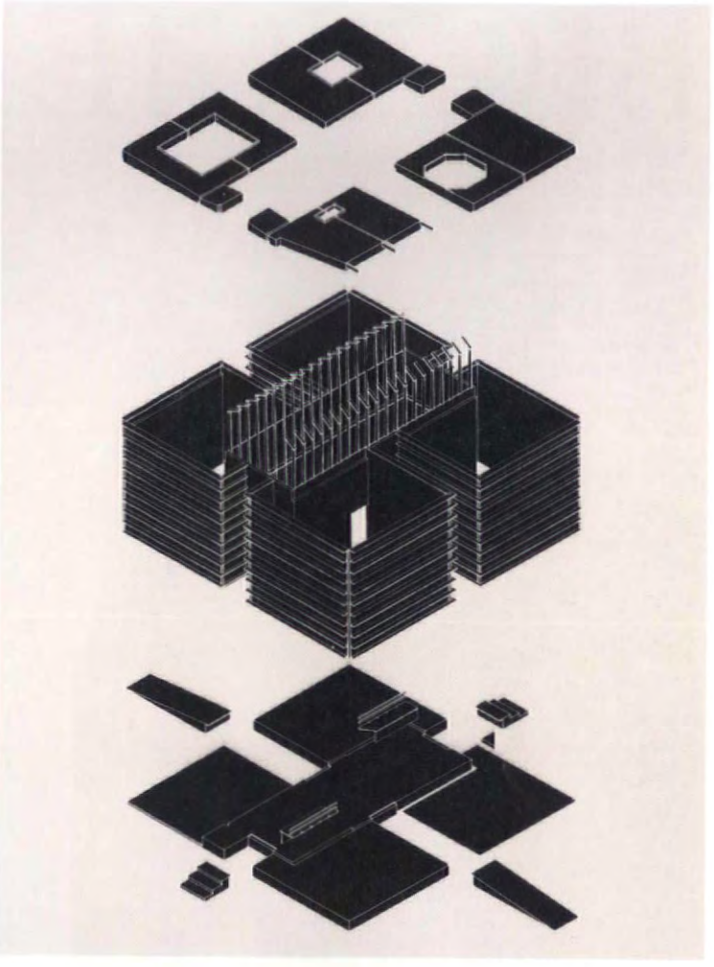
Pavilion for the Arts/Crafts and Design School, Stockholm, 1993

Architect: Alexis Pontvik

The pavilion was a very low-budget temporary exhibition structure to house the work of four final year art students. It was designed as an abstract shell square, 10 by 10 metres, with an entrance/exit at each side. Each student was given an individual room of equal size, but when fitted with individual materials, specially designed roof lighting, and the exhibited artworks, these rooms became very different environments.

The rooms were reached via a central atrium. On the walls of the atrium, large vertical elements, painted orange at the top, emphasised that the attraction was on the inside rather than on the outside of the pale turquoise shell. □





BIG SCIENCE DUO

That Neurosciences Institute in La Jolla, now under construction, is situated less than a mile from Louis Kahn's famous Jonas Salk Institute. Due for completion later this year this research facility stands in clear contrast to Kahn's inward-looking building. While the Salk Institute is surrounded by wild coastal beauty, the new complex is situated in an effete research park hitherto rather lacking a sense of place. Dedicated to the study of the brain, the Institute is designed to reflect the cross-referential nature of fields such as artificial intelligence, psychology, philosophy, linguistics and theology. In Tod Williams and Billie Tsien they chose the right architects, thinks Graham Vickers.

Last year *Vanity Fair* ran a piece on Tod Williams and Billie Tsien, under the headline "Neuromancers". This coined word was intended to add mild sex appeal to news of their design for a Neurosciences Institute in California. From this you may gather that New York-based Williams and Tsien attract the sort of media attention that architects rarely enjoy. Such magazine items are usually accompanied by a picture of them looking cool, and if there are still impressionable young people around who imagine architecture to be a glitzy profession, these pictures must do for them what *The Fountainhead* did for an earlier generation. What is more, while many other Manhattan-based architectural firms have been driven downtown in search of cheaper rents, this one actually owns its fashionable Central Park South premises. Am I dressed well enough even to ring their doorbell?

Well, yes, because Tod Williams answers it looking mildly dishevelled. He is carrying a dishcloth with which he starts to wipe mayonnaise from the glass-topped table in the meeting room that doubles as a lunch area. Billie Tsien is working in the studio alongside a handful of young architects – nine seems to be the median number of the practice – and judging by the number of bicycles stashed there, they all pedal to work.

Williams established the practice in the mid-'80s after six years with Richard Meier and a somewhat hit-and-miss start to his own solo career.

"I worked for Richard between 1967 and 1973" he says. "And much as I enjoyed that, over the years I began to recognise that I was becoming a designer. Despite a great deal of contact with Richard, I had little contact with the client. In the end I left knowing nothing about the business or contracts and less about administration. All the time I thought that I was skilled but in fact I was completely unskilled".

Williams also admits to having been "young and foolish enough" to have believed in a certain flexibility of approach at Meier's. "I thought that there were many possible avenues that the work could take, but it turned out to be difficult if things were seen to be leading down a path that Richard did not support."

Eventually Williams asked if he might do a personal project in Meier's office.

"He said 'I don't think so!' at which point I left. That project set me free. But when it

didn't go forward I found myself struggling for many years."

He formed an alliance with a friend who was also struggling and they struggled together until 1977 when they needed someone to help out. This turned out to be Billie Tsien, graduate of Brown, Yale and UCLA. Williams and Tsien married in 1983, and became a professional partnership in 1986. Since then they have brought a unique, frequently rather metaphysical approach to a variety of projects, ranging from private interiors to major institutional buildings. This approach might be summarised as a marriage of post-hippie self-awareness and critical regionalism, if it were not for the fact that such a phrase somehow manages simultaneously to trivialise and inflate what they do.

Williams has taught at Cooper Union, has been a visiting adjunct professor at Columbia and Harvard, and was appointed Thomas Jefferson Professor at the University of Virginia in 1990. Tsien, meanwhile, came to architecture via painting, graphic design and teaching and – insofar as one can separate the contributions of such a closely-fused team – seems to bring more of an art approach to their work.

That Neurosciences Institute in La Jolla, now under construction, is situated less than a mile from Kahn's famous Salk Institute. Due for completion later this year this research facility stands in clear contrast to Kahn's inward-looking building. While the Salk Institute is surrounded by wild coastal beauty, the new complex is situated in an effete research park hitherto rather lacking a sense of place. Dedicated to the study of the brain, the institute is designed to reflect the cross-referential nature of fields such as artificial intelligence, psychology, philosophy, linguistics and theology. All expressive gestures, tranquil spaces and contrasting materials, the Neurosciences Institute typifies the Williams and Tsien interest in bringing an "art installation" approach to architecture – my phrase, not theirs.

"Billie and I see that each project is taken on its own terms" Williams explains. "Although there is a lot of duplication from project to project, that's not basically something that we desire. The only real glue comes from us being older and having stumbled through many more problems than some of the younger people. We don't have a particular vision of the way things should be but rather a vision of how we would work with someone to arrive at something that neither of us could expect."

This, I venture, is the kind of talk that tends to make the more conservative sort of client start to look uncomfortable and suddenly remember a previous appointment. Certainly the practice has depended heavily upon the occasional enlightened institutional client to add gravitas to the lightweight *joie de vivre* of the loft renovations, commercial spaces and installations that have filled the gaps between major commissions.

"When Billie first came to work for me I'd done a little house up in Long Island" William recalls. "But our first important project together was a small dormitory at Princeton. It was significant because it gave us credibility at institutional level. That was tremendously important and took us out of the private client sector and into dealing with buildings that would be around for longer."

A graduate of Princeton (he later spent a year at Cambridge), Williams acknowledges that he received that commission because Princeton were looking for talented alumni and the project was a modest one.

"I was hardly a good student there, so I was quite shocked that they should ask us. What we did though was to work real hard and make this tiny assignment much more than it should have been. It actually became a free-standing building although everyone says it should have been an addition. I thing that it was tectonically quite strong. The campus in the late '70s, '80s and '90s has been particularly interested in post-Modern architecture. Venturi is the basic language that is spoken and the context is often a somewhat sentimentalised neo-Gothic one. One of the things we were able to do at Princeton was to make a strong building that still stands up for being connected to the context".

Williams says that the "critical regional approach" idea is something with which he has a degree of sympathy. "It's not entirely what we're doing, but we certainly trying to be more connective to the places and look into the technologies that are available before deciding whether to do it with ways of constructing or with imagery."

The practice has so far resisted the urge to invest in computers, concentrating more upon getting the balance of staff responsibility right for projects.

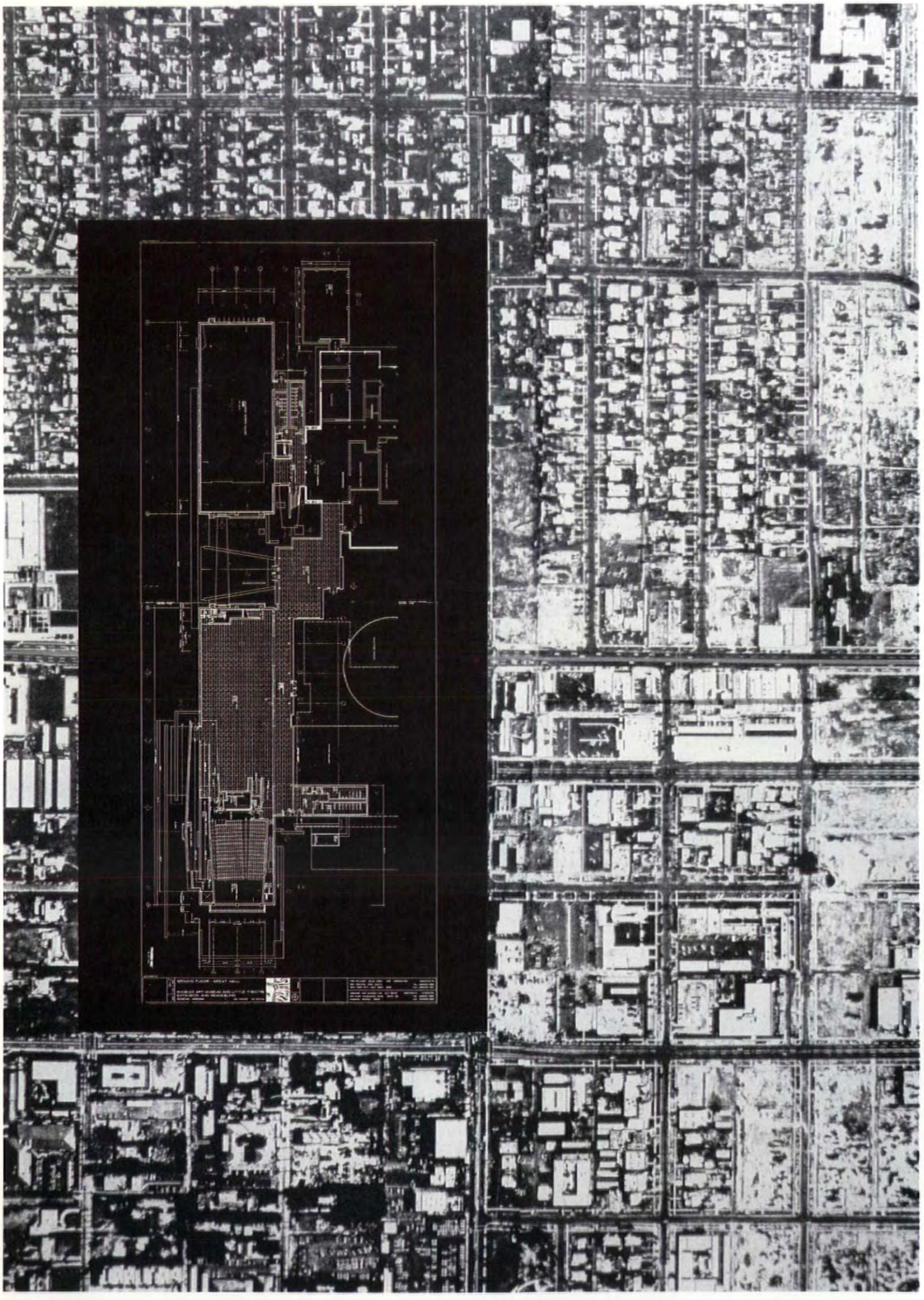
Screen for "The World Upside Down" 1990

"In each case one person is continuously responsible for the whole project" Williams says. "What happens when you have specialists in all different fields is you end up with no-one specialised in the overall picture. And although we don't use computers, I think we're able to produce the work as quickly as any one else".

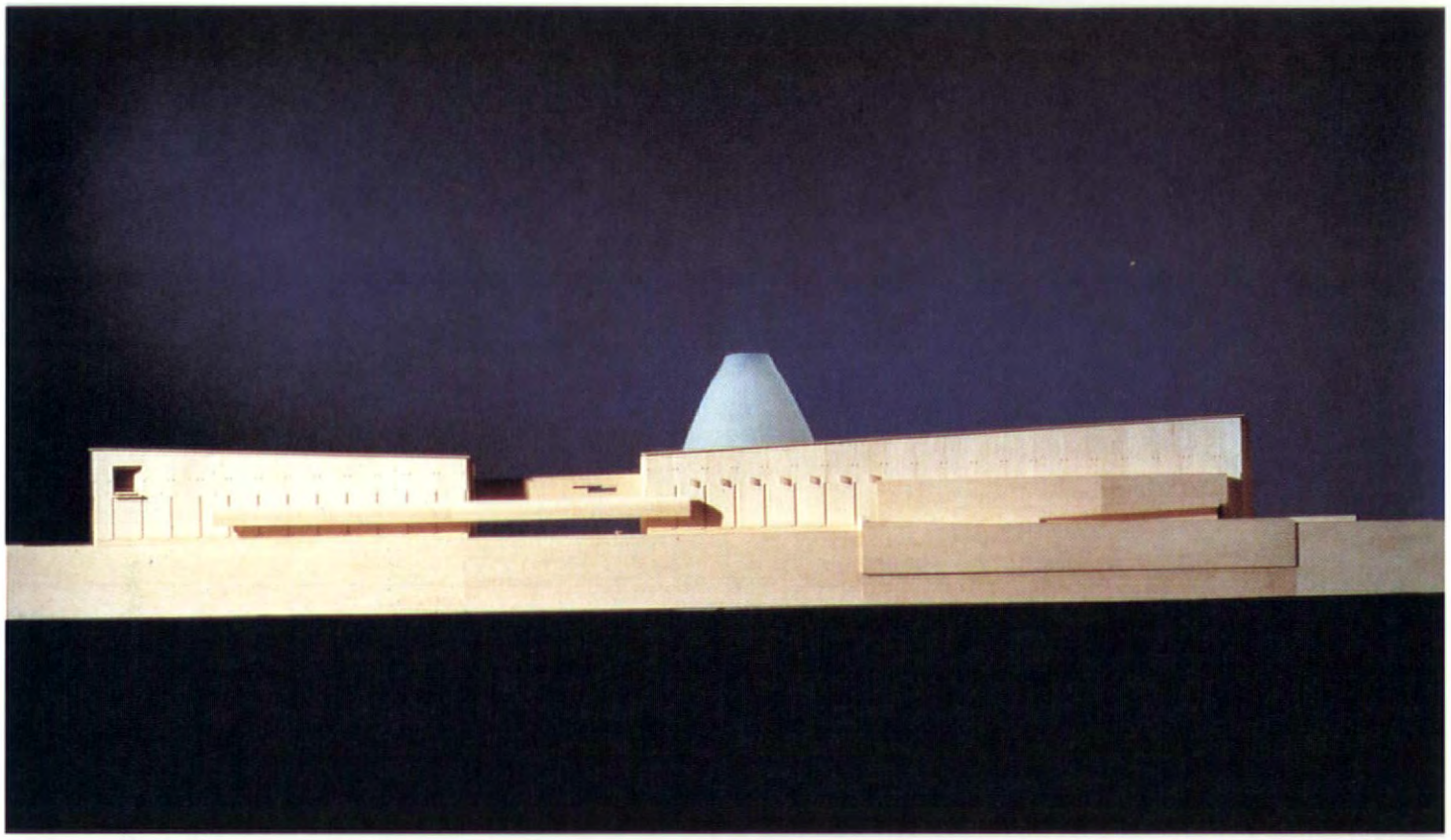
Williams believes that architects in the '80s often became seduced by the computer and began to try to sell architecture as something that could be taped out.

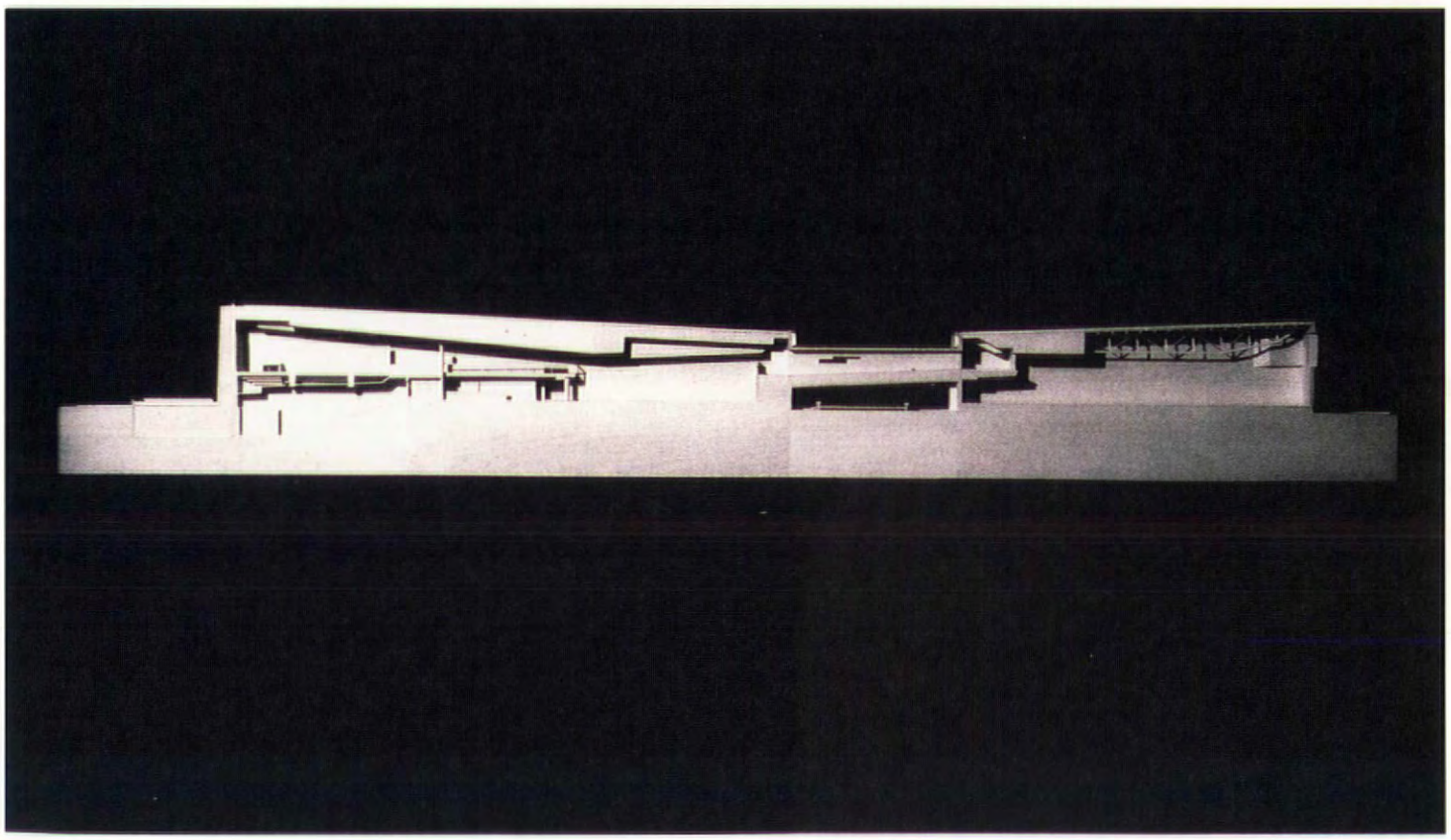
"People became very reliant on the computers they bought and the programs that updated them" he says. "Finally they built systems that turned out repetitive work. Computers tend to feed bad instincts, encouraging you to repeat details. It takes more work to do it our way, but you can think slightly differently about it each time." He pauses, perhaps deciding that he is expressing too rigid a view.

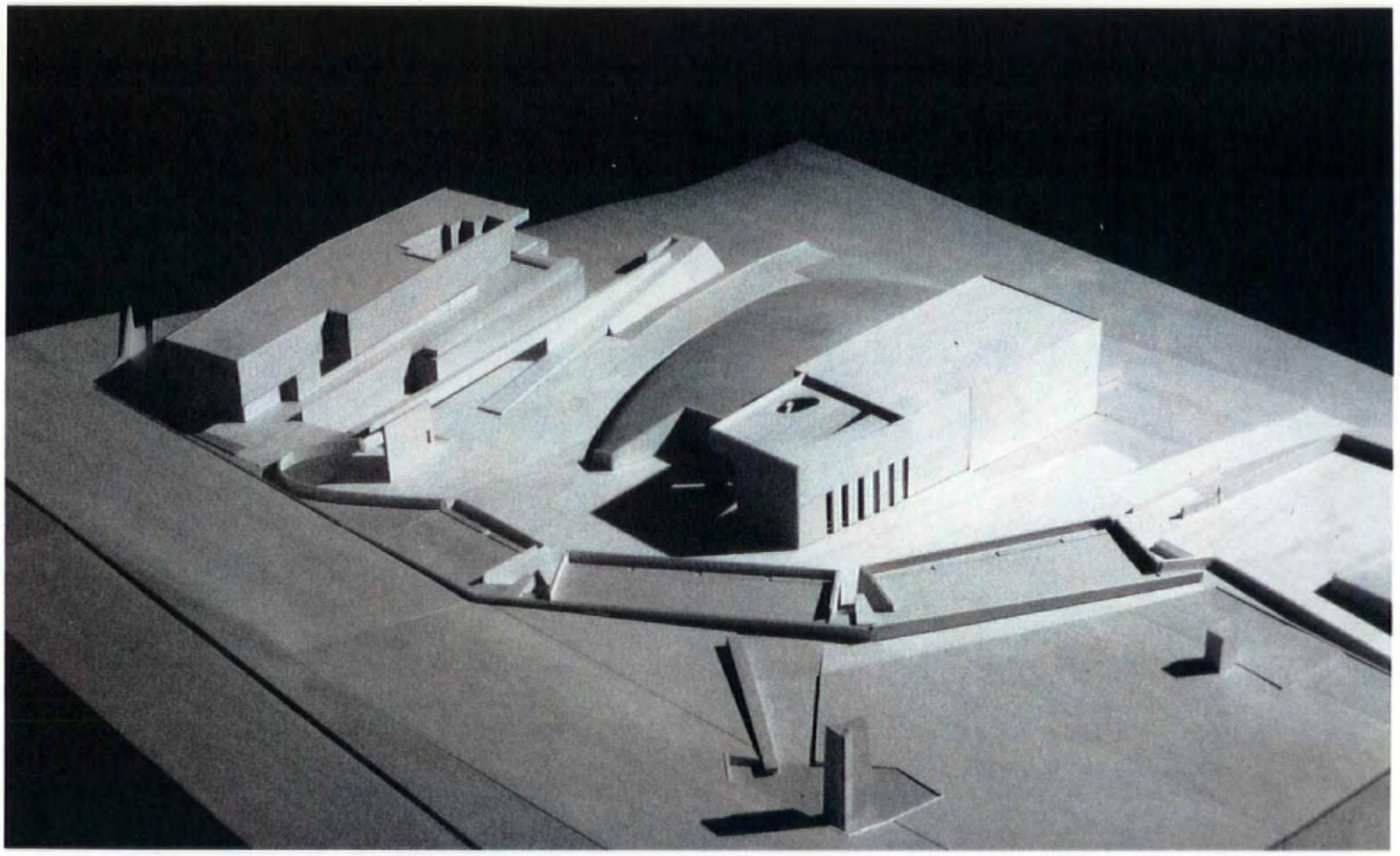
"Then again maybe we are making some big mistakes by resisting computers" he concedes. "Our communication with our clients and consultants is very inefficient and redrawing the base plans is also time-consuming."



Phoenix project context (inset opposite page) surrounded by an aerial shot of the Phoenix grid. (Below) The Phoenix art museum extension







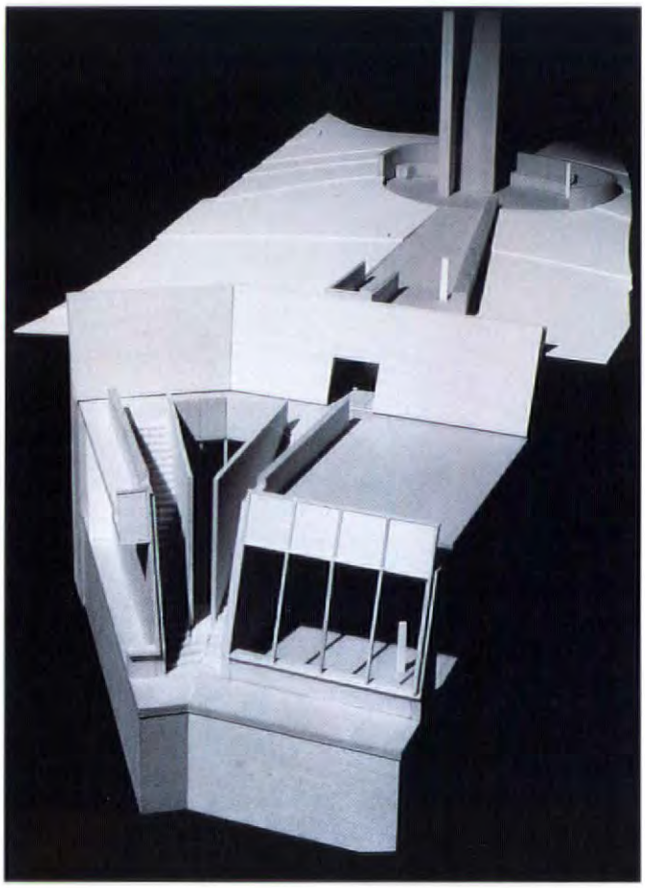
This tendency to air both sides of an argument even when he is not pressed to do so combines rather favourably with Williams' general air of disarming frankness. I had heard that a few people once though him professionally rather arrogant, but by contrast he now comes over almost as an engaging amateur in the true sense of the word of someone who pursues something for the love of it. He will admit that his fortuitous purchase of the practice's premises when the price was low has provided a bulwark against occasional financial buffeting. Asked if he thinks if there are enough enlightened clients out there for his kind of work, he replies simply "I have to believe so! Because after a while, you wear out. Looking for work takes a tremendous toll. Here in the States you can't count on cities like Barcelona, places that will come back for more. The low level of visual culture here has a lot to do with the fact that children are not given visual stimuli – the first thing that's eliminated from the public schools agenda is art appreciation. However, California's a little different. New York, after all, is quite an old city, with all of the attendant problems. The West Coast has more land, more opportunity, more interesting clients. Of course, we always tend to think that the people who hire us are interesting. I guess that's rather self-centred."

There remains a strand to their approach that will always put off certain clients. They make no secret of the fact that they consider the circumstances of their personal lives not only relevant but central to their work, and may preface a serious written account of their architecture with intimate details of their home (a small studio on the sixteenth floor of Carnegie Hall), their son (Kai, aged nine) and their weird furniture (a mammoth tusk, a boomerang and a West African death bed). In 1990 they designed a famous theatrical production for the Amsterdam Het Muziektheater and N.Y. City Center – "The World Upside Down". This reflected the practice's long-term fascination with the idea of the wall, here expressed in the form of a large folded screen supported by aluminium members. This screen could open flat, fold into a narrow wedge, roll, cantilever off the stage and over the heads of the orchestra, and become opaque or translucent to accept or throw shadows. The scenery, in fact, became another performer, and the implications of this exercise for their architectural work might be thought exciting or worrying, depending on your politics.

The small "art" projects continue: an installation for the Takashimaya Gallery on Fifth Avenue is currently underway, and Williams was particularly pleased when some canopies they designed for the light rail stops in St Louis received most of the plaudits even though Williams and Tsien were not the overall project architects.

New college buildings at the University of Virginia marked a return to the campus, this time with the secondary brief of restoring something of the feel of the academic village to today's 18,000-strong institution.

"The decision was made to try to form them as residential colleges. We wanted them to speak to the land in the same way that Jefferson's buildings did, but also speak to a social organism for the first time" Williams says.



(Opposite, left and above) Modelling studies for the Neurosciences Institute, la Jolla, California

His current great enthusiasm however is an addition to the Phoenix Art Museum, a project the practice won against stiff competition from, among others, the late Jim Stirling.

"It's a wonderful project" Williams says. "The existing museum was built in the '50s by a not terribly distinguished architect and we were asked to add to that with a low budget. Even though it's a city project there have been a few people rooting for the quality of the project."

Williams and Tsien, adopted New Yorkers, have responded starry-eyed to the prospect of building in the sort of beguiling Arizona location that used to engage Reyner Banham's imagination.

"Phoenix is a grid superimposed on a desert which has some lumps and bumps in it. But the grid has more or less levelled it and made it anonymous. Downtown Phoenix is in many ways a kind of architectural hotchpotch. Ours is a small two-storey building that sits underneath towers and has all the problems of someone wanting to have an air-conditioned building without natural light in it in the centre of a rather dull city."

Central to the solution is a spectacular fibreglass cooling tower, extremely thin and tall, made in panels that are repeated and stacked and then bolted together.

"The panels are perforated at a certain altitude, and as the warm desert breeze passes through, it hits an invisible mist of water shot out by atomisers. The heavier air falls to the courtyard below, creating a cooler area in which to walk. Depending on the amount of water that you use you can actually change the temperature of the courtyard."

At night the tower can be illuminated like a lantern by uplighters, providing a constant focal point and addressing an initial commission stipulation for a building that would be the "star" of Phoenix.

Williams has an enduring interest in minerals, and here specified an aggregate that uses a soft greenish rock from Phoenix's main river to re-introduce some natural element into the man-made structure.

"The director of the museum really cared about this, and the city of Phoenix took a risk with us – and with some other architects – for a related series of civic projects. I get really excited when something like that happens. Princeton coming back to its son is not all that exciting, but this is."

He sounds excited, in a controlled sort of way. All the time we have been talking, Billie Tsien has hovered, but apart from a few interjections has chosen to let Williams do the talking. This is odd, because one reason Williams gives for the large amount of coverage they receive in the popular press is that "Billie is a very good speaker".

I believe him, and I also think they have been wise to reject the frequent offers to make a book about their work. Williams says he mistrusts the vanity press, but I suspect there is another good reason too: written down, their ideas sound suspect and sometimes pretentious. Explained with enthusiasm and self-deprecating humour, they sound not only appealing but slightly heroic as well – the continuing efforts of a '60s survivor and his helpmeet, kept afloat by the accidental collateral of prime real estate and still propagating a perspective of the world that, if not exactly upside down, is at least creatively skewed. □

FROM THE CRUCIBLE

Morphosis: connected isolation. *Text by Thom Mayne. Artemis London. 144pp. £27.50 hardback, £19.95 paper.*
Morphosis: tangents and outtakes. *Text by Thom Mayne and Fred Orton. Foreword by Dan Hoffman. Artemis London. 84pp, 1500 illustrations. £17.95.*

Reviewed by Andrew Rabaneck

Morphosis is a Los Angeles architectural practice driven by the extraordinary vigour and imagination of Thom Mayne. Until quite recently, Morphosis was the Stirling and Gowan of Los Angeles, or at least of Santa Monica. Now Mike Rotondi, the other founding partner is Director of the Southern California Institute of Architecture, or Sci-Arc for short, still the pedagogic crucible for novel ways of architecturally confronting the actuality of Los Angeles.

Thom Mayne (the Stirling figure) has become sole principal of Morphosis. His visions of transformed plans, sections and construction elements form the substance of these two new monographs. Actually, the built work, whether Kate Mantilini's restaurant on Wilshire Boulevard (1986) or the brilliant Cedars Sinai Cancer Centre (1987) are so compelling for those who have seen them that books are redundant, however seductive the graphics.

And that's the problem, at least for me. Outtakes has about five pages of interview with Thom Mayne before the "plates", 70 pages of exquisite but completely unexplained artworks of Mayne's work. Connected Isolation offers 143 pages of drawings, model-montage, and photos of completed work, laced with a sort of Bill Burroughs cut-up text used more as graphic motif than as information.

Now, both of these documents are very beautiful and they pin some exceptional talent to their pages. But they are also a sort of architectural pornography. Cheap colour printing and high tech distribution bring an astounding diffusion to architectural ideas. These books have probably reached at least to Ulan Bator by now, where their near wordless luxuriance may well spawn orgasms of creativity. Language is no barrier to pleasure. Stripped of all allusion to context, these documents are pure architectural fantasies; their alluring traits exaggerated beyond anything encountered in daily life.

Should we worry about this? It is, after all, an apotheosis of the architectural publishing revolution whose prophet was Dr Papadakis. Maybe its harmless, but it is certainly transforming of taste and sensibility, and it has its antecedents. Nancy Lancaster and John Fowlers' post-war English interiors were immediately snapped in colour, printed and pored over in Madison Avenue hairdressers in the late 1940s, resulting in an almost instantaneous re-diffusion of English taste in New York and up and down the East Coast.

Again the diffusion of taste was made possible by print technology; it's what keeps Hermès, Ralph Lauren, and Rei Kawakubo going.

Perhaps we'll see a Kate Mantilini in Ulan Bator next year!

INSIDE THE GREAT ROOM

The Wright Style: the Interiors of Frank Lloyd Wright. *By Carla Lind. Thames and Hudson. 224pp. £25.*
Frank Lloyd Wright and Japan: The role of traditional Japanese art and architecture in the work of Frank Lloyd Wright. *By Kevin Nute. Chapman and Hall. 244pp. £39.50.*

Reviewed by Sam Webb

When John Vinci drove me round Oak Park and Riverside one September afternoon in 1965 I didn't realise that I was about to embark on a lifelong admiration of VW Beetles and Frank Lloyd Wright's architecture. Shortly before then Vinci had been working in the Chicago office of a large commercial practice. Outraged at the wanton demolition of Sullivan's Schindler Building and the threatened demolition of the Holabird and Roche's Cable Building, Vinci and a group of architects took to the streets in protest with their placards. Next day their photos were on the front page of the *Chicago Daily News*. Vinci was given the sack.

When we got to the Coonley House we found a skip outside in the road. Most of the beautiful stained glass windows had been stripped out of the Playhouse only to be replaced with clear double glazing. The next day a message came from John that the clear-storey windows were on sale in one of the downtown street markets in Chicago at $5 each. Racing down there to get one I was too late. John had been more successful. His window went into the cellar under his parent's house as company for a pair of lift gates from the Schindler Building. The other pair are in MOMA. In a race against time Vinci recorded Sullivan and Wright's detailing from the Schindler Building. In the Auditorium Building, threatened with demolition 30 years ago, Vinci found the original dusty rolls of drawings used for the friezes and ceilings. They were hand drawn by Wright and Sullivan.

Vinci was an avid collector of bits of buildings which he has put to good use. He was responsible for the saving of the arch from the Chicago Stock Exchange designed by Sullivan and Wright and the setting up of park of architectural fragments from Chicago's greatest period of architectural flowering from 1880 to 1910 but perhaps his greatest achievement has been the painstaking restoration of the Coonley Playhouse together with Wright's Studio. Its good to find him again in the pages of Carla Lind's lavishly illustrated book.

The Wright Style is a panegyric. But what it loses in the test is made up for in the photographs of the interiors and the interesting collection of houses and interiors designed by assistants who worked with Wright like Rudolph Schindler, Alden Dow son of the founder of Dow Chemicals, Arthur Dyson and John Lautner.

In complete contrast is Kevin Nute's *Frank Lloyd Wright and Japan*. This attempts to unravel the major enigma of Wright, exactly where did his ideas and inspiration come from? Nute is clear on this. Wright's influences came from Japan. From the work of artists like Katsushika Hokusai, Ando Hiroshige and the *Ukiyo-e* or Japanese woodblock. Who and when was Wright first exposed to this catharsis?

In his autobiography Wright talks about the Phoenix Hall or Ho-o-den at the 1893 Chicago World Fair. He also mentions Lao-tzu's *Book of Tea* which was enthusiastically reviewed by Wright's friend Frederick Gookin in 1906. Yet Wright claims never to have heard of it until the 1920s some 15 years after its first appearance in an English edition published together with two other

major works *The Ideals of the East* and *The Awakening of Japan* all by Kakuzo Okakura.

Others are less reticent about the influence of Japan on their work, "I don't need Japanese pictures here. For I am always telling myself that here I am in Japan which means I have only to open my eyes and paint what is in front of me." So wrote Van Gogh from Arles to his sister in 1888. Van Gogh even made his own interpretation of Hiroshige's *Sudden shower over Shin-Ohashi Bridge* in his work *The Bridge* which hangs in the Vincent Van Gogh Foundation in Amsterdam. Van Gogh was not alone in his admiration for Japan; so too were Toulouse-Lautrec, Gaugin, Klimt, Whistler, Dégas and Bonnard. Japanese work had been shown at the 1862 London Exhibition, in the Paris Exhibition of 1867 and in Vienna in 1873. But apart from the prints and the 1893 Ho-o-den other factors were at work in introducing Wright to Japan: his first employer Joseph Lyman Silsbee and Silsbee's cousin Ernest Francisco Fenollosa.

If Silsbee had an amateur interest in Japanese *objets d'art* his cousin was in a different league. Fenollosa's interest in Japan started when he was appointed at the Imperial University in Tokyo to teach the future leaders of the new Japan the basics of Western thinking. He soon became preoccupied with traditional Japanese art which the Japanese were abandoning in the rush to modernise following the fall of the Tokugawa shogunate in 1867. Together with some former students Fenollosa founded the Kangakai devoted to the preservation of *kan-ga*, the traditional Chinese style of painting championed in Japan by Zen inspired artists such as the celebrated classical painter Sesshu (1420-1506) which was subsequently combined with indigenous Japanese styles in the famous Kano school based in Kyoto. Fenollosa and Okakura were decorated by the Emperor Meiji for their services to traditional Japanese art. Fenollosa was sent by the Emperor on a fact finding mission with Kokura and Baron Arata Hamao. They were accompanied by Japophile John La Farge and the writer Henry Adams. Kakura and Fenollosa formed a lasting friendship with La Farge to whom Kakura was to dedicate *The Book of Tea*.

By the time of Fenollosa's arrival in America in the autumn of 1886, his cousin had known the young Frank Lloyd Wright for at least two years. By 1887 the 19 year old Wright was firmly established in Silsbee's office. "It would have been strange, then, if Silsbee had not drawn his young assistant's attention to the presence in America of his illustrious relative the Imperial Japanese Fine Arts Commissioner Ernest Fenollosa," writes Nute. It would indeed. This book is a brilliant piece of scholarship and a major work in the understanding of the work of Frank Lloyd Wright.

EVERYTHING IS TRUE: NOTHING IS FORBIDDEN

Los Angeles Architecture. The Contemporary Condition. *By James Steele. Phaidon 231pp £39.95.*

Reviewed by Gillian Darley

James Steele is but the latest in a long tradition of outsiders who have gone to Los Angeles and who feel compelled to share their confusion, their excitement and their certainties with the rest of the world. Our appetite for these *aperçus* depends on how much we know of Los Angeles and where we spend most of our time. The English warmed to Reyner Banham's 1971 *Los Angeles: The Architecture of Four Ecologies*, which seemed quite hip (it was the era of Pop Art which seemed a good fit with LA, Hockney had arrived there and Ed Ruscha was in full flight). The French later chuckled over the snobbish drivel of Jean Baudrillard's *America*. New Yorkers were comforted by Joan Didion's *Play it as it Lays*. We all saw *Blade Runner* and *Chinatown*. The difficulty in deriving meaning from the actual evidence of Los Angeles is that, as Banham observed "about anything one can say about LA is true".

Fortunately Steele's book is generously endowed with Tim Street-Porter's wonderful photographs. Street-Porter, himself a Los Angeles import of some 20 years standing, has learned to capture the extraordinary light and colours of the city, and is the preferred iconographer of the new Los Angeles architecture which excited and puzzles Steele so much.

Steele is one of many who see Los Angeles as a presentiment of an "urban typology of the future", and therefore worthy of examination. But the "examination" is invariably so narrowly drawn, say in terms of what fashionable architects are up to, that the result is like trying to explain Italian politics by reference to the Milan Collections.

True, it is difficult to grasp and to convey the gestalt of the place. Fortunately, the architects whose work Steele wants to show us – Gehry, Morphosis, Moss, Moore, Israel, Hodgetts and Fung – the usual suspects, are simply in love with the place, tuned into it. They accept it in its wonders and in its awfulness, but above all in its reality. Not for them anxiety about their "validity" when the April 1992 riots broke out. They won't rise to the guilt – inspiration of Mike Davis' *City of Quartz*, or the yearnings of Sam Kaplan, sometime architecture critic of the *LA Times*.

The reason that the new LA architecture, especially that of the Sci-Arc, Santa Monica School is so exciting is that it is explicitly non-ideological; it deals with the present and with actual context, whether defined by client ambitions or mere dumb construction materials. It is completely un-nostalgic, whether for the past or the future. It eschews immortality and welcomes the ephemeral. It is art, but it is also a weapon in the east/west culture war between New York and Los Angeles.

Steele does a good job of outlining sources of the new sensibility, from Irving Gill to Wright, Schindler and Neutra, the parvenu easterners who misled generations of (eastern) architectural historians and their students about Los Angeles. His analyses of the current architecture are tortured reconciliations between eastern "theories" and built reality; in this section enjoy the photos. Now teaching at the University of Southern California (what locals call the University of Spoiled Children), Steele offers a good overview of what's happening in the architecture schools at Sci-Arc, UCLA and USC, and an excellent summary of recent developments in downtown such as the Library, Pershing Square and Pei Cobb Freed's First Interstate World Centre. Much of this work is, of course, being done by Easterners.

No book but a novel can adequately capture the kaleidoscope of city life, LA or elsewhere. Steele's book is ultimately about architecture which happens to be in Los Angeles. Study the pictures, read the text, and glimpse the soul of LA emerge. It's a good attempt. □

PRAISE FOR WORLD ARCHITECTURE

Dear Sir,
I am a new subscriber to your magazine, and I very much appreciate it. Why? Contrary to many other magazines, which all present the same contemporary realizations, more spectacular than really interesting, you make much more eclectic choices. Particularly, I am thinking of architects as Herzog, Murcutt, Pallasmaa, Peichl, who, in my opinion, represent talented men, more interesting than others who exclusively pay attention to fashion. In the last issue, I particularly appreciated the papers by Bryan Avery and Georgi Stanishev.

During the sixties, I have been designing projects for the city of Liège named Liège 2000, and, more recently Liège 2040. These projects were based on the invention and the fabrication of a new kind of housing and lodging, totally industrialized like cars.

I think that today, after a necessary post-Modern era, a new age is starting again for searchers as Prouvé, Archigram, Quarmby, Price and many others, among whom I was and I still remain. From this point of view, Europeans must know that Japanese already understood that a very large world market was to be caught. And in this area, Toyota is a new challenger, very powerful, able to become in the next future the leading firm as it is in the car's sector.

For these reasons, I was delighted to read the paper by Wislocki and those by Avery and Stanishev.

Sincerely yours,
Jean Englebert
President of CEJUL
Liège

HOT TOILETS

To the Editor,
I enjoyed WA28, even if it did seem to be around for a very long time before WA29 came along. I particularly enjoyed Gallery and Global Review and the Editor's usual diatribe against cities. What I did not enjoy was 24 pages of Ken Yeang's identical skyscrapers. Are these buildings — projects really, most of them — truly an answer to the cost of air conditioning? All I detect from them is that the toilets are "naturally ventilated", which means they aren't air conditioned.

Why there should be such continuous and dispiriting hostility to air conditioning amongst architects nowadays defeats me. Never has heating and ventilation engineering been more advanced, nor as well integrated into building structure as it is today. To argue that global warming is the consequence is to ignore the disease in favour of the symptoms. In the end the businessmen of Malaysia, like the businessmen of Europe will make their own choice. The victims of unheated and uncooled "ecological skyscrapers" are likely to be employees who have no voice to complain.

James McArthur
Abu Dhabi

ARTISTIC ERROR

To the Editor,
I am writing regarding the photograph of the Romanian Museum of Modern Art's proposed reconstruction of the bedroom of Klaes Kreeps in your issue of January 1994 which was dated "1948" in your uninformative caption. The furniture you show was not manufactured until the mid 1960s. The idea that Kreeps could have possessed such furniture at an earlier date is completely impossible. You should either change the furniture or the date.

Tibor Wolff
Tobago.

Mr Wolff is very observing. The photograph of Kreep's bedroom actually dates from 1968 and was miscaptioned at source. Romanian Modern art is dogged with these errors, making it difficult to authenticate apparently advanced work. A typical example is Teige's celebrated soup tin which is often cited as having appeared in 1938 when in fact it was first exhibited in Lodz in 1983. (Ed.)

COMMERCIAL SUCCESS

Sir,
Simon Drill's contention (WA27) that membership of the architectural profession should be discriminatory demonstrates his ignorance of the means by which an architect initially becomes successful.

Many architects become architects by chance. They join the profession in the hope that it will offer them a direction in life and enhance their status in the construction industry. Surely the key point is that commercial success can only come from appreciative clients, that is from people who have commissioned and paid for buildings, not from other architects who may or may not approve of what one has done.

Matthias Windburger
Basle

A NEW DISTRIBUTOR

Dear Sir,
My name is Mario Munoz, I'm an architect from Colombia (South America). I am now studying at New York University. I discovered in one of the stores in New York City your magazine.

I think *World Architecture* is one of the best architectural magazines, and we as architects in Colombia are missing the opportunity to have it as part of our libraries in our schools and universities. Therefore I wish that I could distribute your magazine in my country. Please send me all the details so that I can do this.

Bayonne
New Jersey

E-MAIL IS THE ANSWER

Dear Sir,

I have often felt the urge to write to WA, whether to chide Nigel Gilbert for his techno-fear or Paul Jodard for his over-enthusiasms, for example, or simply to ask for more information on some of the Global Review pieces and images (who has swung the Grande Arche through 180 degrees, for example). But the idea that a two-month wait before the next edition thuds into the mailbox is rather discouraging. Perhaps other readers feel the same? So why don't you start a bulletin board on Euronet or Infonet, so we can all be in touch all the time.

Cyrille Rimbaud
Montrouge
France

Letters should be addressed to the Editor, *World Architecture*, Halpern House, 301-305 Euston Road, London NW1 3SS, England
Fax: +44 (0)71 383 3181

RAVAGES OF TOURISM

Having finally completed the manuscript of a book begun more than three years ago, Pierre Vago needed a holiday. Fleeing the rain and the cold, he chose that part of the Mediterranean coast whose very name promises the sun. A promise that was kept: he was able to exchange sweater and raincoat for short-sleeved shirts and linen trousers, but then the trouble started.

I knew these landscapes half a century ago; the beauty of the coast, the small towns and picturesque villages of the countryside, the rocky creeks and little sandy beaches. I have been back there since, many times, as a tourist or on professional occasions - a meeting of the IAU Council at Torremolinos, the jury of a competition for a holiday complex at Elviria. Each time I noticed, and deplored, the damage to the landscape, and more and more irremediable destruction of nature, of the environment. This wasn't because there was no overall plan for the development of the coast. I remember the sadness of my dear friend Luis Blanco Soler, realising how little was left of the plan for which he was responsible, torn apart, piece by piece, by the demands of developers and speculators' greed. If it were possible to suffer in the Paradise in which he now finds himself, Luis would suffer even more in witnessing the disappearance of the last pinewoods, and of the last fine places from which you could see, in the distance, the beautiful hills and mountains of the back-country, replaced now by the high walls of building which rise beside the terrible motorway along the Coast.

I will say nothing of the quality of what I cannot bring myself to call the "architecture" of these "residences", some of them brutal towers standing by the sea, others long horizontal blocks which recall the estates of so-called social housing in our suburbs (the balconies, the "decorative" arcades and other pseudo-Andalusian or pseudo-Moroccan trimmings change nothing!), sometimes less brutal groups of dwellings, 2, 3, or 4 floors high, always of very high density. The architect visitor can even discover certain exceptions, where there has been thought, imagination, sometimes even sensibility and quality. But in the end these details aren't very important, because in the midst of this vast ecological and planning disaster, they disappear. The successive developments already form some sort of continuity, although poorly connected with each other (sometimes only by a one and a half metre wide concrete path running alongside the motorway). Enormous hoardings advertise the forthcoming destruction of whatever is left that affords a view of the sea or the mountains. These developments are more or less well fitted-out and well maintained; some of the landscaped areas are even agreeable. But they stop some tens of yards from the sea-side. This has been completely left to go to ruin; a waste tip strewn with rubbish of every kind from land and sea, plastic containers and patches of tar everywhere: a sad no-man's-land where you find no-one but the occasional fisherman with his rod, and the even rarer tourist brave enough to venture there. Intelligent initiatives, such as that famous competition for Elviria, or the one for Maspalomas in the Canaries, have come to nothing, just like the international action to save the little wonder that is the island of Djerba in Tunisia, the Odyssey's land of the lotus-eaters. Which shows that the phenomenon is universal, and how the threat hangs over all those sites still miraculously preserved.

As a very young architect I was made responsible for a preliminary study for the development of the Côte des Maures, the stretch of the French Mediterranean coast that lies between Fréjus and Hyères (and which includes, among others, the famous Golfe de Saint-Tropez). On this occasion, I had of course to get to know all the projects and studies concerning the Côte d'Azur. There was a report by the famous planner Henry Prost, who was the head of my School of Architecture and my professor of planning, and it shocked me profoundly. Prost predicted that in the very near future the whole of the Mediterranean coast from Marseilles to Nice would become one continuous suburb. Idealistic, and indeed a little naive, I was scandalised by his resignation in the face of such a catastrophe, accepted as an ineluctable fate. Alas, it has to be said that it was probably Prost who was right. Visiting Sicily for the fourth or fifth time, I was dismayed to discover that the magnificent Doric remains of Acragas has become in some way of suburb of Agrigente. Happily, the temple of Segeste is still there, pure and majestic in its solitude.

The ravages that we see more or less everywhere, in Europe and elsewhere, should not discourage us. On the contrary, we should mobilise to prevent the plague from spreading; we must alert the decision-makers, stir up the Press, wake up public opinion; and in collaboration with ecologists, sociologists and economists investigate and put forward solutions for these problems, of the very greatest importance to all of us.

From time to time a meeting is organised on burning issues such as: mass tourism and the preservation of archaeological sites, tourism and the protection of the national heritage, tourism and the protection of Nature. Because it isn't only the coasts that are threatened. How can the rock-paintings of Tassili Najjer be protected from vandalisation by taggers? How can we avoid having to surround the megaliths of Carnac with fences? How can we deter the developers who insist on building a luxury holiday village at the foot of the pyramid of Cheops? Some years ago, in Tunisia, I took part in a colloquium organised under the aegis of Unesco. As is nearly always the case, nothing came of it.

Should it not be the task, the responsibility – one of the responsibilities! – of the architects' world organisation to deal seriously and constructively with a problem that concerns all of us, our children and our grand children? □

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INTERIORS REVIEW

Over a lifetime of practice the work of an architect can span the whole gamut of construction from the huge structural elements found in civil engineering to the tiny fixtures and fittings found inside the different spaces of buildings themselves. Sometimes the architect can be responsible for virtually every aspect of the design of a building from the macro scale of intervention at street and city scale, to the design of furniture for a specific space inside a specific building. At Sir Norman Foster and Partners this has happened frequently, with specific interior elements later developed into product ranges themselves. Even when the architect's role is more limited, he or she is generally in a position to make the first proposition, the first selection and often the final decision on important matters in the world of interiors.

Like the larger world of architecture, the world of interiors encompasses its own spectrum of elements. They range from intensively designed fixtures like light fittings, door pulls and handles, to almost universal elements like window blind systems, screens and partitioning systems, raised floor technologies, suspended ceilings, fabrics, carpets and synthetic floor finishes, sanitary installations and equipment, fixed and mobile furniture and security and communications systems. Across this huge spread of elements only time and scale draws a line. For the architect the building is the container, and the interior is the world that is contained.

It is to focus more closely on this inner universe of architecture and design that World Architecture *is introducing Interior Review, an illustrated portfolio of products and systems backed up with selected advertorial information packages to present the reader with a synoptic view of what the world's manufacturers and suppliers can offer for the interior of any building. I commend it to your attention.*

Martin Pawley

K+N International: King Media

King Media, the new desking programme from K+N International, sets a different style for the office. Simple, adaptable and attractive, it is designed around two basic elements – work tops in different shapes and sizes, and tubular legs in a choice of colours.

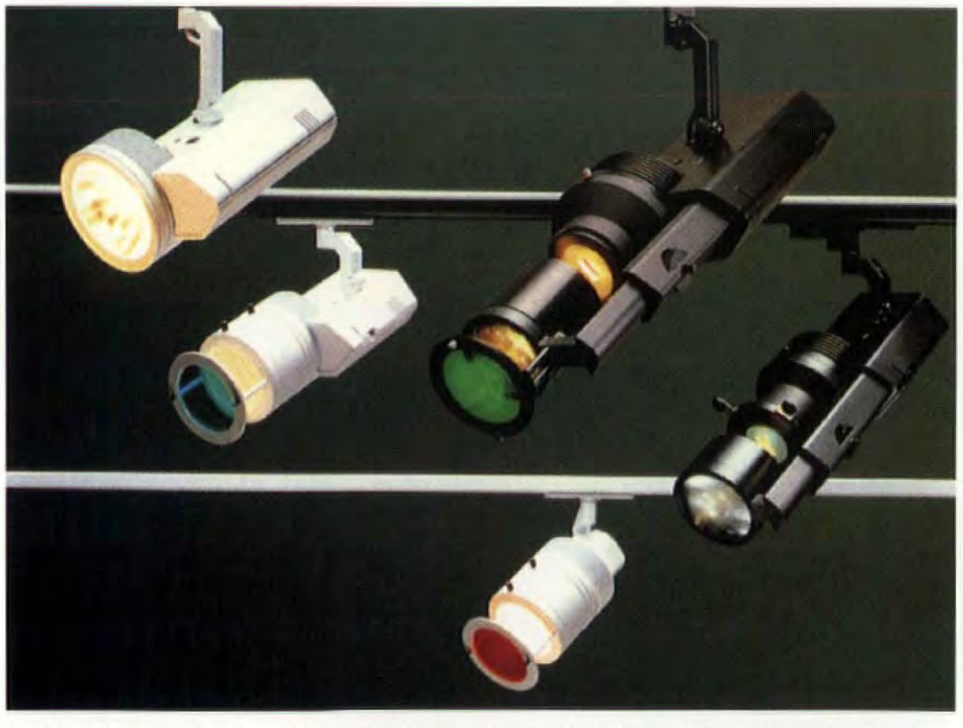
The workstation illustrated has an angled work top with deeper (900mm) return, which is particularly suitable for VDU use; it also comprises an organisational shelf and circular swivelling top (left) to keep the work surface clear, a CPU basket and cable spiral for vertical cables (right).

K+N International (Office Systems) Limited
King House, 38 Croydon Road, Beckenham, Kent
BR3 4PJ, U.K.
Telephone 081-658 2247. Fax: 081-658 2246.

Elementer

Elementer have recently added to their existing d line range of bathroom fittings. Two of the new products are designed for disabled use. A stainless steel grab rail with snap on cover and concealed fixing is available in both 300mm and 650mm to match their pull handles. This grab rail can be optionally fitted with 80mm thrust roses. A hinged cantilever disabled grab rail is also available in stainless steel, designed to compliment other fittings in the d line range. Other additions are a wall mounted paper towel dispenser and a wall mounted waste paper bin, both available in stainless steel.

Elementer Industrial Design Ltd
Progress House, Whittle Parkway, Slough, Berkshire
SL1 6DG, U.K.
Telephone 0628 667951. Fax 0628 667093.



The Control Spot range from Concord Lighting includes two projectors with a wide range of specialist attachments such as Framing Heads, Gobo Holders and lens options. Six spotlights are also available for use with a variety of lamps

Girsberger: Pronto

Girsberger's latest range, Pronto, provides seating for all office functions. Designed by Dieter Stierli and the Girsberger design team, Pronto meets the latest ergonomic standards and its range of options will meet the individual requirements of any person and his or her job function.

The programme includes a swivel chair with different adjustment options, and a complementary visitor's chair on a cantilever base; both versions are available with or without armrests, which are offered in wood or polyurethane (pu) and are adjustable.

The swivel chair has a height adjustable backrest and a choice of synchronic or individual adjustment for the seat and backrest. The synchronized action can be locked into any position and incorporates a safety lock, whilst the individual action allows the seat and backrest tilt to be adjusted independently of each other.

Girsberger GmbH
Suites 206/207, Business Design Centre, 52 Upper Street, Islington Green, London N1 0QH, U.K.
Telephone 071-288 6142. Fax 071-288 6134.

New emphasis at Thorn

Since 1986, Thorn has been pursuing growth through its light fittings business. Today, it operates in 140 countries worldwide and is arguably the world's largest independent supplier of light fittings. Invigorated by the completion of its buy-out from Thorn EMI in 1993, the company is focussing its resources on making sure it is as well-represented at the top end of the international architectural market as it is in other areas.

Thorn's international lighting consultancy service already has a long and distinguished history of collaboration with the world's foremost architects. For example, Thorn has lit the Sydney Opera House, the Dome des Invalides in Paris, and the Hong Kong Stock Exchange. Last year, its portfolio included the the UK's Channel Tunnel Terminal, Japan's Kansai Airport, Finland's new presidential Palace, and Norway's Lillehammer Winter Olympics. This year it is particularly proud of its work in France, at the Natural History Museum in Paris and the network of TGV stations.

Michael Hopkins has turned to Thorn more than once to light his recent projects, including the new Glyndebourne building, Bracken House and Schlumberger's research operation in Cambridgeshire. On each project, Thorn not only demonstrated its reputation for well-designed, technologically-advanced fittings and first class customer service, but also its ability to deliver cutting edge architectural lighting.

Thorn Lighting Group Ltd
Elstree Way, Borehamwood, Herts WD6 1HZ, U.K.
Telephone 081-905 1313.

Newstyle Furniture Ltd

Newstyle Furniture Ltd is the marketing company for a group of five leading Norwegian furniture manufacturers, who have combined to offer a total furnishing concept.

Raw materials, machinery and surface treatment are of the highest quality with beech and oak being the dominant wood veneer. All furniture is tested under conditions corresponding to 10 years' use and meets all requirements laid down by the Norwegian Furniture Inspectorate. The wide range of furniture styles available together with an almost limitless choice of upholstery fabrics enable Newstyle to offer a tailored package to suit any office environment or budget.

Newstyle has introduced Hov Dokka's Columbi Vegg range of smoke glass and beech office partitions. The range offers a choice of right angles and curved corner frame units. All models are suspended from the metal frame which can be erected without structural work. There is a base adjustment to allow for safe installation on uneven floors; cables can be positioned throughout the frame to meet individual requirements. This method of installation means that each frame is set up individually and can be re-located to meet changing office requirements.

Newstyle now provides an exclusive package aimed at hospitals which includes everything from reception counters to a range of chairs specifically designed for the sick and elderly, and their carers.

Newstyle Furniture Ltd
Crossways Business Centre, Alconbury Hill, Alconbury Weston, Huntington, PE17 5JH, U.K.
Telephone: 0480 457 373. Fax: 0480 457 374

Strand Lighting

For over 80 years Strand Lighting has been a world leader in entertainment lighting, supplying specialist lighting for theatres, concert halls, conference centres, theme parks, schools, clubs as well as for television and film studios throughout the world.

Greatly expanded from the Strand Electric Company of 1914, Strand Lighting today offers designers a comprehensive range of equipment specifically designed to bring the possibilities of dynamic lighting to architectural applications. The product range includes controls, from simple yet stylish manual sliders, to the most advanced, fully programmable PC based system; and dimmers for every kind of application from single units to fully digital racks.

Strand Lighting have the resources necessary to manage a project through planning, design, manufacturing, transport, installation and commissioning, to training and maintenance. Their expertise has resulted in countless jobs from offices, conference suites, hotels, museums to cruise liners, palaces and theme parks, brought in on time and on budget.

Strand Lighting Limited
Grant Way (off Syon Lane), Isleworth, Middlesex TW7 5QD, U.K.
Telephone 081-560 3171. Fax 081-568 2103.

Neither form nor function exist in isolation.

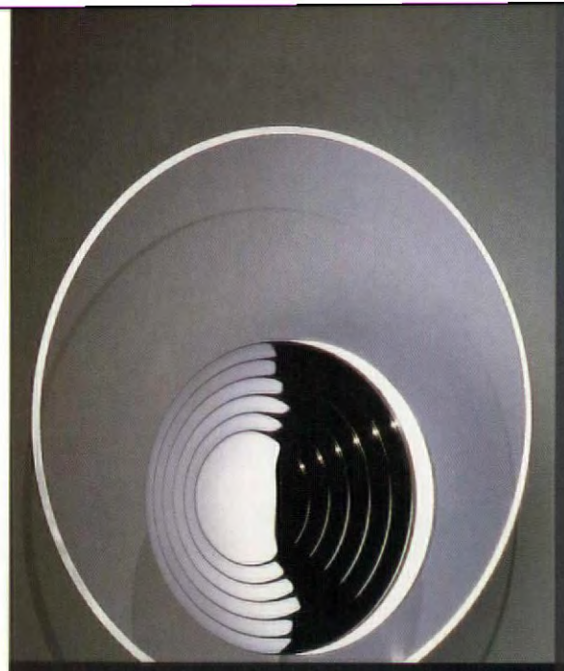
A well designed light fitting has an integrity where its form flows from its function and its ultimate location.

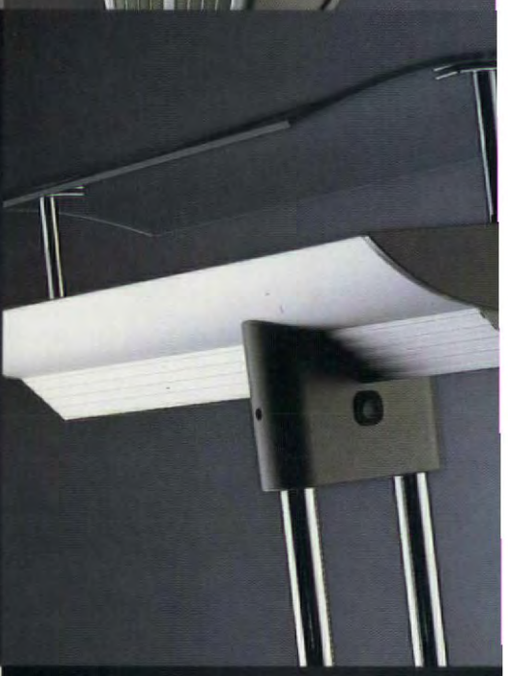
These are the criteria we rigorously apply whenever we design a new fitting for our product range.

Broad as that range is, we understand that architects and lighting designers frequently require custom made fittings.

Working in partnership with them, our award-winning lighting consultancy harnesses all Thorn's considerable resources to transform their lighting visions into unique reality.

To do anything less wouldn't be fitting.





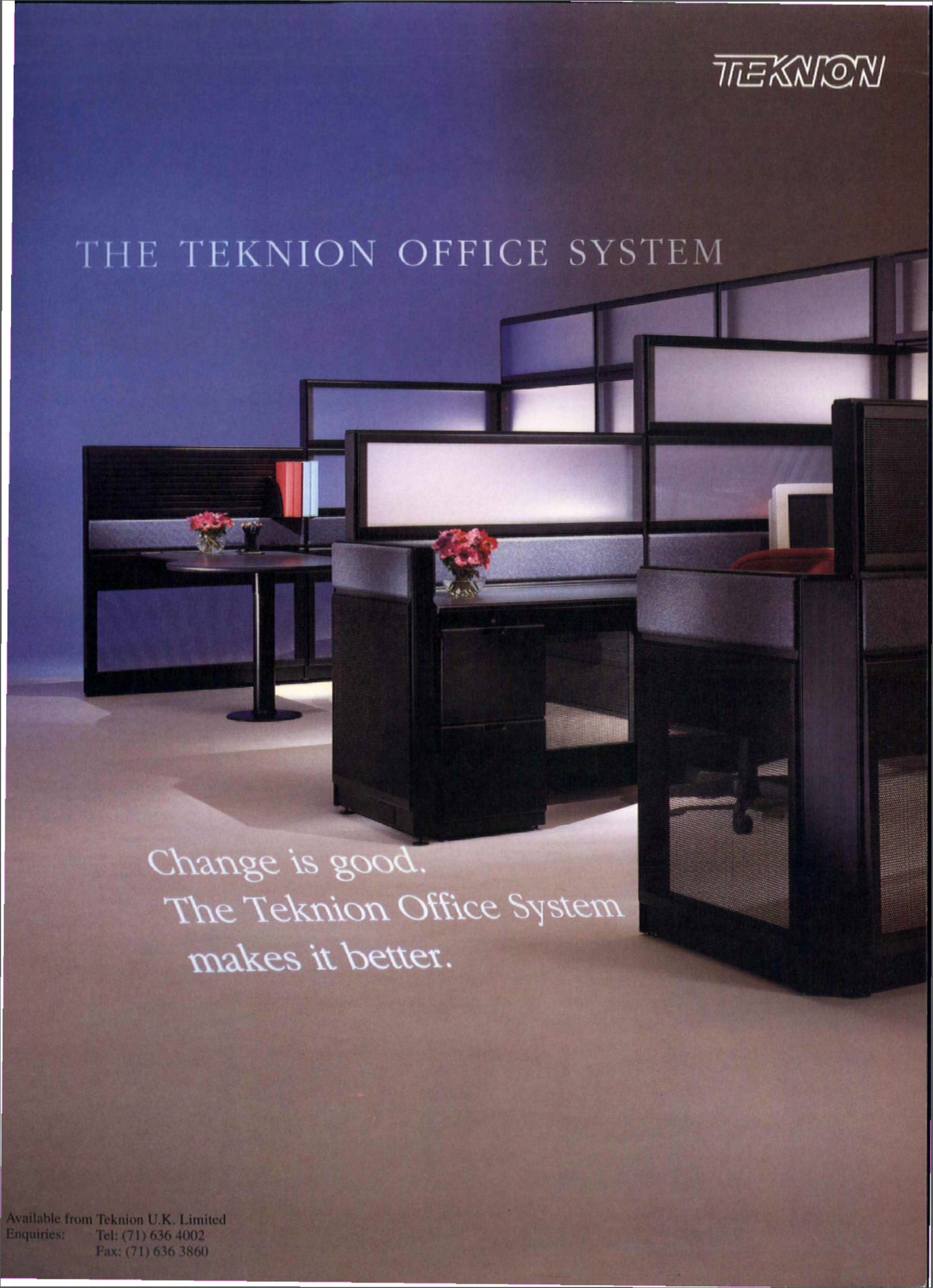
Fitting Design

Thorn Lighting Limited, Elstree Way, Borehamwood, Herts WD6 1HZ
Telephone 081 967 6300 Facsimile 081 967 6343

THORN

TEKNION

THE TEKNION OFFICE SYSTEM



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Liaising closely with interior designers, hotel management and contractors, BMK Stoddard provide a five star service to ensure that every yard of carpet more than meets the expectations of their customers.

As a roll call of our clients will testify, when it comes to the business of providing luxury, BMK Stoddard are a fitting choice to meet your every requirement.

BMK STODDARD
CONTRACT CARPETS

Contract Showroom: BMK Ltd., 9-10 Savile Row, London W1X 1AF. Tel: 071 437 3828. Fax: 071 287 9380

BMK Stoddard Contract carpet clients include:-
De Vere Hotels, Ritz Carlton, Sheraton, Hilton, Holiday Inn, Intercontinental Hotels, Ramada, Leading Hotels of the World, Hyatt Regency, Westin, Mandarin Group, C.P. Hotels, Mount Charlotte Thistle, Stakis.

The Newstyle Portfolio

Global is our most prestigious range and the 'flagship' of the Newstyle portfolio.

Global's extensive range of products and finishes will enable you to achieve a personalised executive environment.

Global combines counters, work centres and seating systems to create smart, practical reception areas.

Universal - tailored configurations, colours and wood stain finishes to suit - elegance and ergonomics in functional harmony.

So simple, so practical, so inexpensive. **Spectral** gives you quality and value for money.

Office design, incorporating the new EEC Directive, is a series of rules covering the essential design criteria for work stations. Ergonomic intelligence and comfort combined with elegance make Newstyle's portfolio of distinctive office furniture the unbeatable choice. Manufactured by Hov Dokka in Norway, natural wood veneers and the latest in contemporary finishes are used to produce superb furniture at surprisingly sensible prices.

HOV DOKKA

NEWSTYLE

Newstyle Furniture Limited
Crossways Business Centre, Alconbury Hill, Alconbury Weston, Huntingdon PE17 5JH
Tel: 0480 457373
Fax: 0480 457374

WORLD ARCHITECTURE

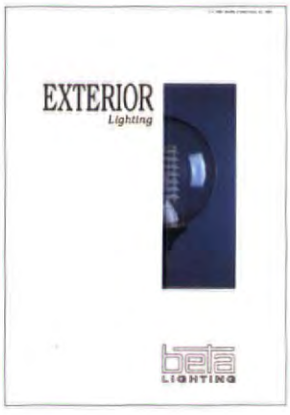
ADVERTISERS INDEX

Brochure Showcase

To obtain your free copies of the brochures shown on these pages, circle the appropriate numbers on the reader reply card.

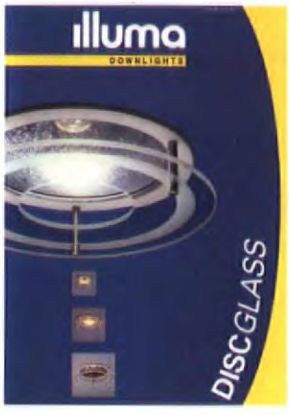
Thermoscreens Ltd
Air Curtain Protection
Thermoscreen air curtains have been developed specifically to improve customer comfort and environment in retail and commercial buildings. Thermoscreens provide a comprehensive range of warm and ambient air barriers to suit a wide variety of applications. Thermoscreen units can be fitted with electric heating or low pressure hot water coils. Our high performance range is particularly suited to industrial and commercial doorways, giving a high level of protection.

Reply number 30



Beta Lighting Ltd
Exterior Lighting
Beta Lighting have introduced a comprehensive range of exterior amenity lighting. A full range of IP55 polycarbonate spheres and diffusers, brackets and columns are available combined with a selection of high quality bollards and bulkheads. The new catalogue provides the architect or engineer a means of specifying lighting requirements for all types of commercial and architectural exterior lighting projects. Beta Lighting offer a computer aided lighting design service and a full 'specials' manufacturing service.
For further information please contact: Remy Silver, Marketing Manager, Beta Ligting Ltd, 383/387 Leeds Rd, Bradford BD3 9LZ. Tel: +44 (274) 721129. Fax: +44 (274) 305007.

Reply number 34



Illuma DiscGlass Downlights
DiscGlass is the exciting new range from Illuma Lighting which transforms downlights into an attractive feature. Available with or without aperture, DiscGlass has been designed for Illuma's most popular downlights, incorporating the following lamps: 12V Dichroic; Metal Halide; White SON; Compact Fluorescent; Reflector Lamps.
DiscGlass adds a new dimension and sparkle to downlights and is ideal for creating decorative lighting effects in shops and stores, hotels, restaurants and similar interiors. For further information please contact: Tanya Burgess, Illuma Lighting Ltd, 24-32 Riverside Way, Uxbridge, Middlesex UB8 2YF, UK. Tel: +44 (895) 272275. Fax: +44 (895) 270024.

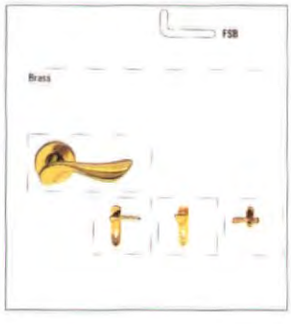
Reply number 31

Hovair
Hovair air-film turntables are now available to architects worldwide for all conventional applications (vehicle turntables, theatre revolves and large display turntables) and some less conventional ones (revolving restaurants, revolving auditoria and revolving buildings). Loads of 5 to 5,000 tonnes can be supported on compressed air or pressurised water for extended periods with minimal maintenance, enabling anything to be facing the right place at the right time. All Hovair's Turntables are low profile, rumble-free and safe.
Contact Hovair by phone on +44 (252) 319922 or Fax on +44 (252) 333790.

Reply number 10

NORAL
In this new NORAL catalogue there are 24 new models. All of these new lighting products have the same high quality aluminium alloy, painting process and design as the existing NORAL products. This catalogue is aimed at the architects, electrical consultants, electrical engineers, communities, etc. With its three product lines: Traditional Line, Compact Line and Park & Street Line, NORAL is able to cover a broad spectre of lighting. The catalogue has been made for easy location of products. All the necessary information for each model is gathered on the specific product page.
This new NORAL catalogue reflects the commitment of the NORAL company to product quality, high quality design and customer satisfaction.

Reply number 32

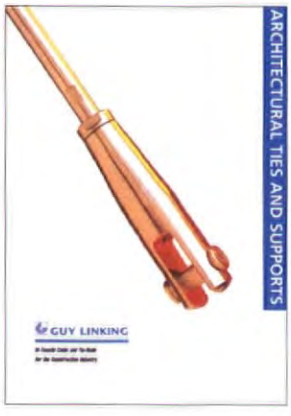


FSB
This prospectus can be regarded as a taster, representing but a small sample of FSB's extensive range of products. Architects, interior designers, joiners and hardware specialists will find much to please their professional eye in the 400-plus pages of the full FSB manual for the Nineties. To get your copy, simply phone or fax your address through to: Allgood Hardware Limited, 297 Euston Road, London NW1 3AQ, U.K. Telephone: +44 (71) 387 9951. Fax: +44 (71) 380 1232.

Reply number 35

Ramchester Furnishings International
The softer design of the Signos family of chairs belies the technical innovation for which Roder are renowned. The spontaneous synchronised mechanism provides a gentle sliding adjustment into any seating position giving constant support.
The "family" consists of visitors, conference and executive chairs, reception area seating with matching tables.

Reply number 33



MSP/Guy Linking
Architectural ties and supports from MSP McCalls Special Products, manufacturers of threaded bar systems, is now offering a range of small diameter stainless steel high tensile cable and tie rods.
The stainless steel tensioners and terminations were developed by Guy Linking Ltd and complement MSP's own range of Macalloy 460 tension components in larger diameters. They are designed to suit a variety of applications, including structural ties, hangers and bracing, glass curtain wall supports, membrane roof and canopy supports, and balustrading. A broad and comprehensive range of diameters of stainless steel cable and bar are available in various strengths.

Reply number 9

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TransVario

The new escalator generation from O&K.

Step this way.

The TransVario is "nearly" new. Nearly, because much is still unrivalled and on its own as a standard. Take the chainless escalator drive, for instance. One new feature here is the variable arrangement of the OkaVarioDrive. Also variable is the travel speed: OkaVarioSpeed. And the new OkaVarioTronik control system is even more efficient than its predecessor. The balustrades are one metre high throughout, and the handrails generally slimmer. Choose your own colour.

The TransVario is environmentally sounder, more economical and ergonomical, technically perfected, and even more elegant. Top quality and maintenance-friendliness are standard. Of course. TransVario from O&K. The sensible in what is feasible.

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