WORLD ARCHITECTURE

ISSUE No. 7 $10 US
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THE OFFICIAL MAGAZINE OF THE INTERNATIONAL ACADEMY OF ARCHITECTURE (IAA) VOLUME 2 NO 3
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All advertising and subscription enquiries to: Grosvenor Press International, Holford Mews, Cruikshank Street, London WC1X 9HD, England. Tel: 071-278 3000. Fax: 071-278 1674.

RATES:
UK rate: £6 + £3 post & packing.
US $10 plus $5 post & packing.
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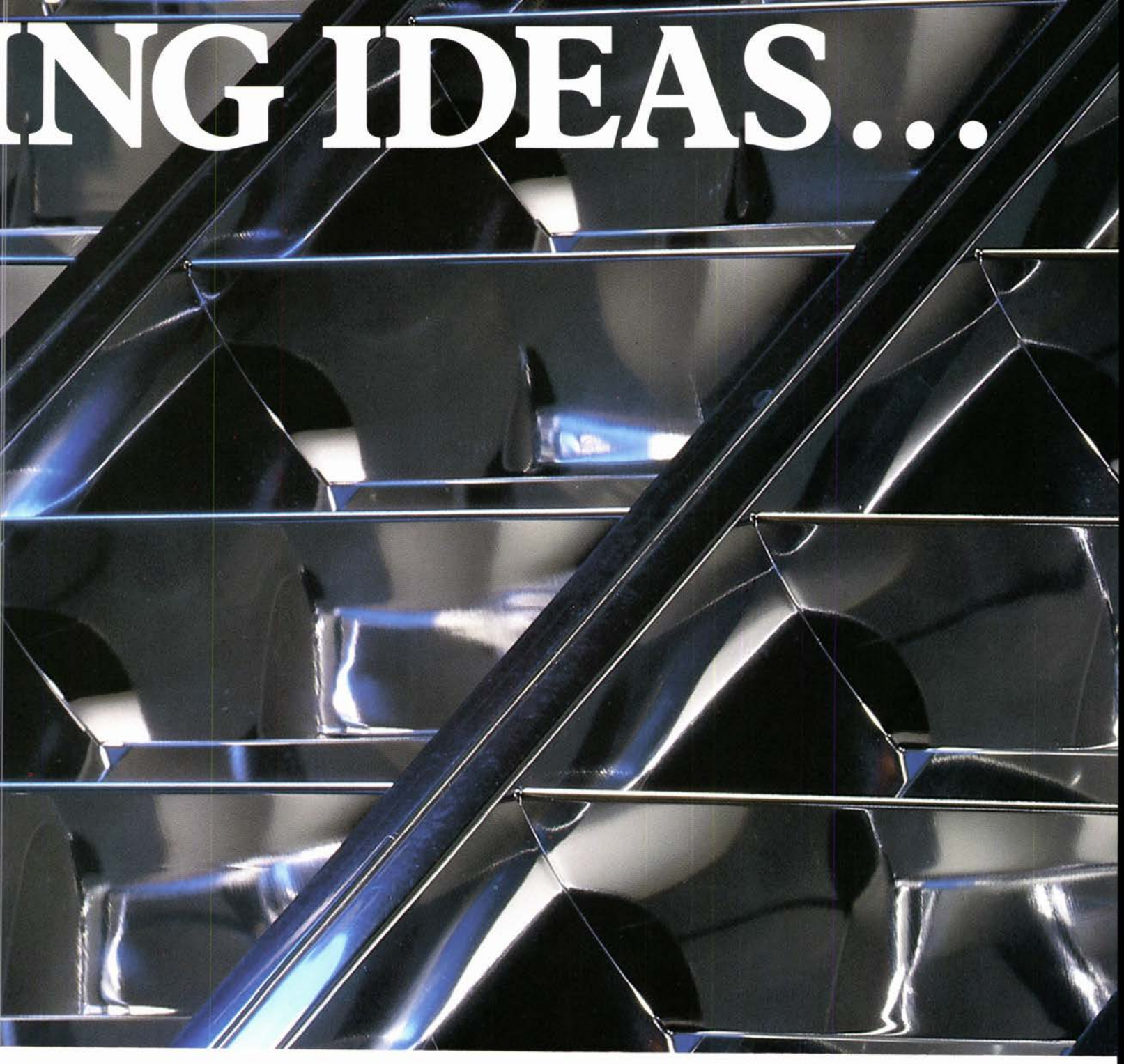
STUDENT RATES:
US $6 + $2 p&p or £3.50 + £1 p&p. Only bankers drafts accepted with proof of student status.

World Architecture is published bi-monthly (6 times a year) by Grosvenor Press International Ltd. Subscription is US$60 per year. Second Class Postage Pending at Rahway N.J. Postmaster send address corrections to World Architecture, c/o Mercury Airfreight International Ltd. Inc. 2323 Randolph Avenue, Avenel, New Jersey 07001

er Bridge Court Acknowledgements; Client: Grosvenor Square Properties Architect: Cecil Denny Highton Main Contractor: Wates Construction (London) Photos: M&G Design LTD/DLS



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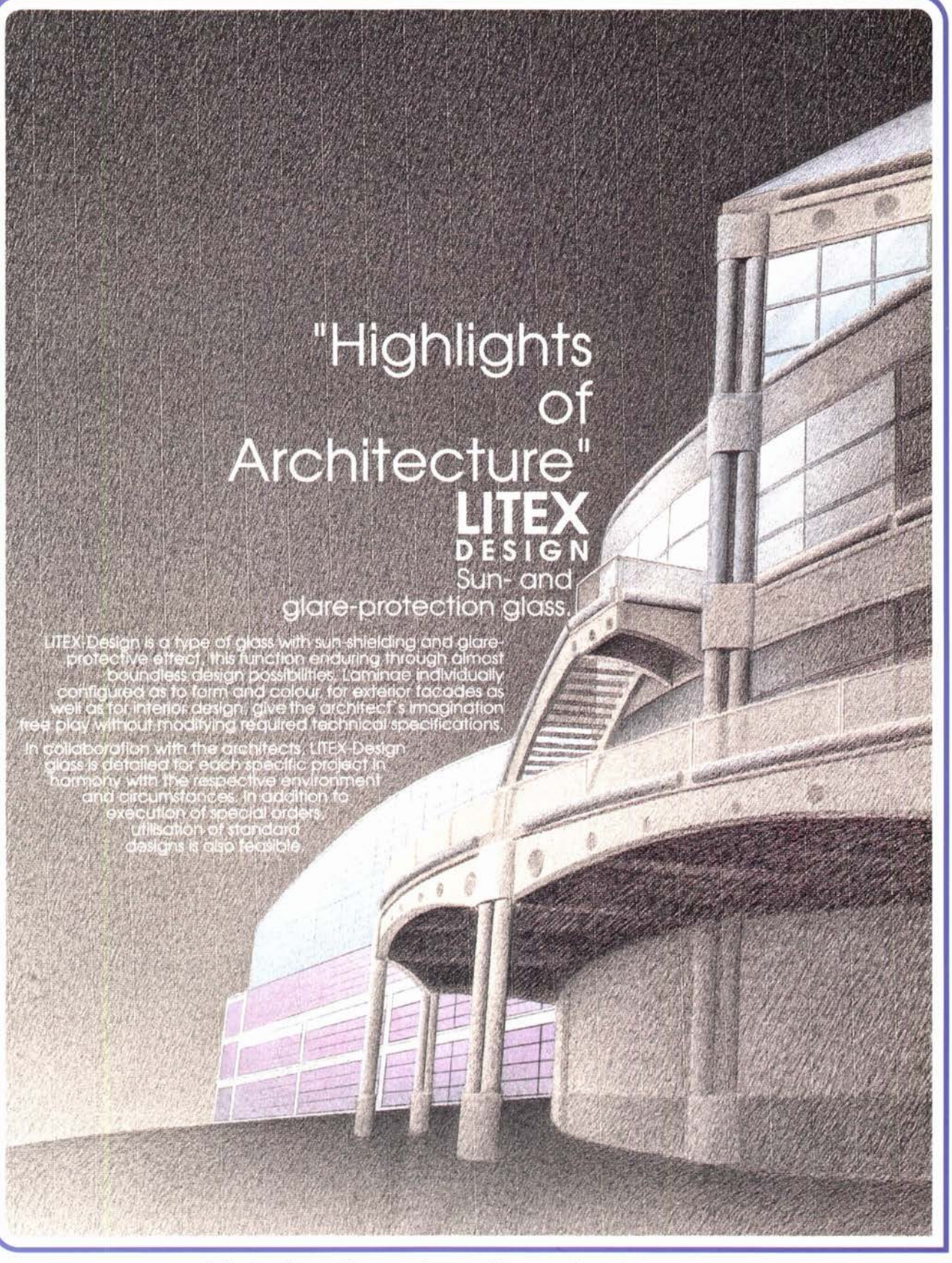

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WORLD ARCHITECTURE

Harry Seidler in Australia: modernist tradition

Laurie Baker in India: didactic principles

The triumph of modern architecture in Australia has much to do with Harry Seidler. For decades his authoritative position within the architectural circles of the Old Continent – initially as an advocate of Walter Gropius's ideas and then with a growing mastery of his own – proved unassailable. He has been talked about in the same breath as his noted predecessor Walter Burley Griffin, the Wright disciple who shaped the geometrical plan for Australia's Capital Territory at Canberra, and the great Dane Jørn Utzon, who forever changed people's perceptions of Sydney with his operatic sailing ships.

Harry Seidler has reshaped the centres of a number of Australian cities. He has also built some of the most beautiful houses over the past 40 years in the suburbs. In this issue of *World Architecture,* we examine the potency and strength of his immense contribution.

Seidler's architecture is as uniquely Australian as a can of Fosters beer. It is international in the sense that it uses ideas and concepts that derive from the roots of avant-garde modernism and from the synthetic work of painters and sculptors as well as from other architects. These ideas filter through Seidler's own creative vocabulary, as Philip Drew demonstrates in his article on quadrants, to produce buildings that are assertive but exciting, dominating but never destructive.

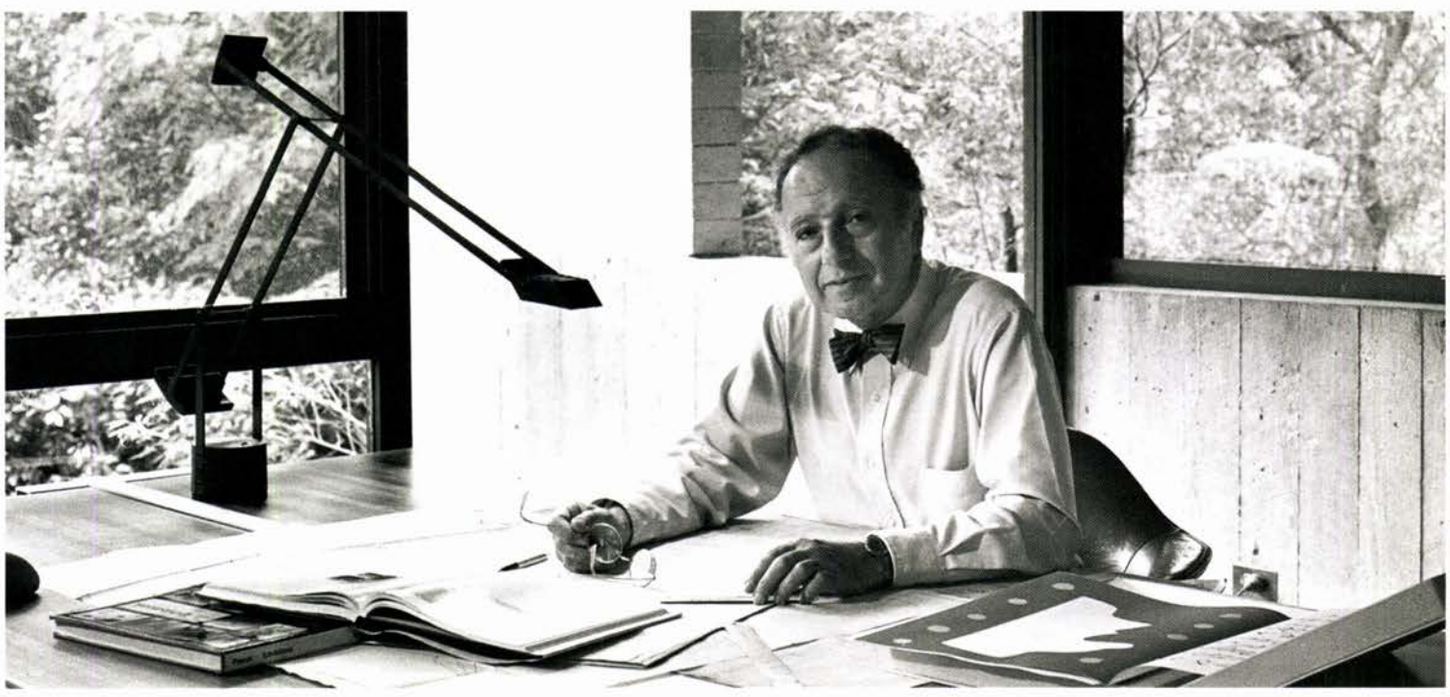
The underlying functional programmes and the geometries behind such structures help to stress the continuity of an important tradition which, in Australia as elsewhere, has come under severe criticism since the late 1960s. It is, I believe, an exemplary tradition that cannot – and should not – be gainsayed by arguments about regionalism, cast iron vernacular nor the romantic reactionism associated with the so-called Melbourne School of suburban romantics.

The future danger is not there. It is and always has been with the entrepreneurial developers and landgrabbers who choose to see architects either as isolated individualists (Seidler, Cox, Jackson and Murcutt) or as groups of minimalist suburban theorists intent on creating a "real Australian" style. They are thus able to cream off the best jobs without recourse to architectural values at all, as can be seen in the centre of Adelaide and other cities.

For all this, Harry Seidler's work remains exemplary and consistent – persistently consistent, one might say. On close examination it is not just the expressive external façades that impress, rather it is the whole process of design that exhibits itself through plans and sections which culminate in the structural and engineering forms that clad the outside and give freedom to his open interiors.

Nothing, it would seem, could be further away from the burgeoning high building boom of Australia than the modest scale and didactic principles of Laurie Baker's work in Southern India, which is also featured in this issue. Surprisingly perhaps, both Seidler and Baker do seem to show some common architectural ideas.

Dennis Sharp



David Moore

HARRY SEIDLER **MASTERING THE MECHANICAL**

Philip Drew on the enriching architecture of Australia's Harry Seidler, who has held true with unusual faithfulness to the rational tenets of modernism he first learnt from Gropius at Harvard.

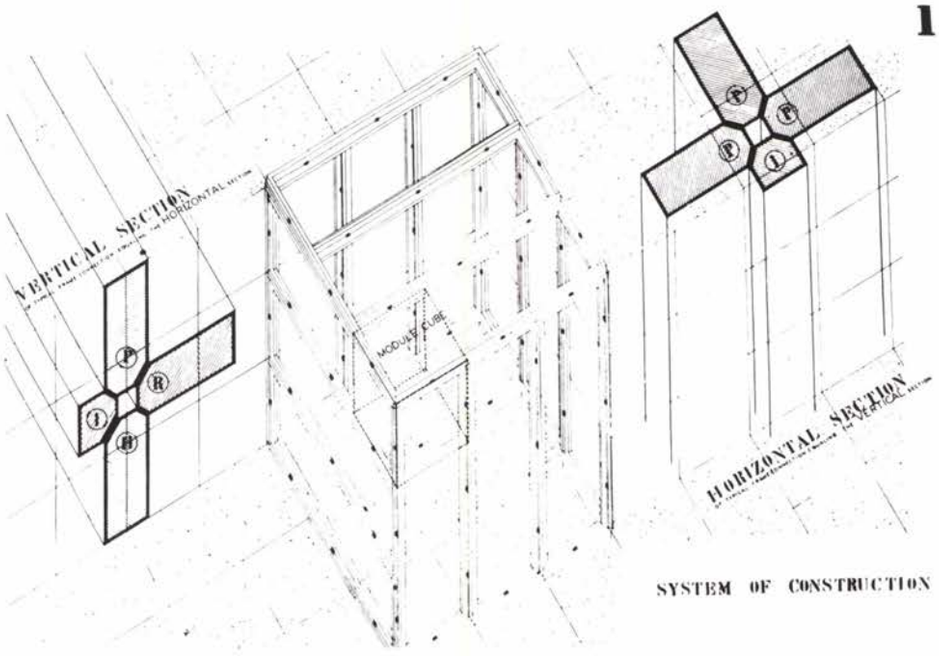
Walter Gropius at a master-class discussion at Harvard in 1946; Harry Seidler is in the centre behind Gropius.

Sigfried Giedion called mechanization the most repulsive barbarism of all. He thought it typified the twentieth century. Jacques Tati made us all laugh at the bizarre predicament of people caught in the toils of mechanization when he showed us the inept Monsieur Hulot struggling to control a malfunctioning plastic tube machine in his brother-in-law's plastics factory in *Mon Oncle*. Mechanization also has its funny side.

The pioneers of modern architecture accepted the challenge of mechanization with great gusto, seeing it as an opportunity to enrich architecture by bringing it into line with its time. Harry Seidler inherited that responsibility from Walter Gropius at Harvard in 1945-46, and, to a surprising extent, his 40 years in practice have focused on ways of tackling it. When Seidler arrived at Harvard in the Fall of 1945, Gropius was deeply committed to the General Panel System of prefabricated dwelling construction which he developed in association with Konrad Wachsmann from 1943 to 1945. Seidler's 1953-54 Exhibition House was assembled from interlocking 20 gauge zinc-anneal wall and roof panels, prefabricated in sections, and it was meant to demonstrate the potential of a fully industrialized house. Gropius came to Sydney to open the exhibition in the Sydney Town Hall. The Sussman house at Kurrajong Heights, New South Wales (1951), although not an industrialized building, anticipated the simple in-line plan of the Exhibition House. It too standardized the framing by adopting an equal structural bay interval.

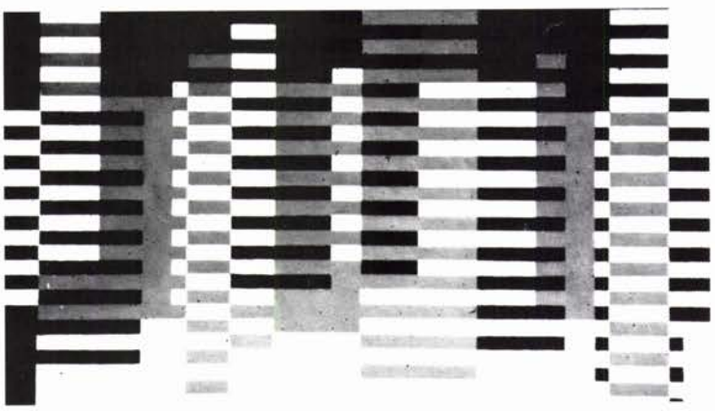
There is an important difference between Gropius' approach to standardisation and Seidler's: whereas Gropius proposed systems based on components which are combined to construct a range of different buildings, Seidler develops a few standard structural elements to increase the repetitive design component in large schemes such as the Trade Group of Offices or the Riverside Centre, Brisbane.

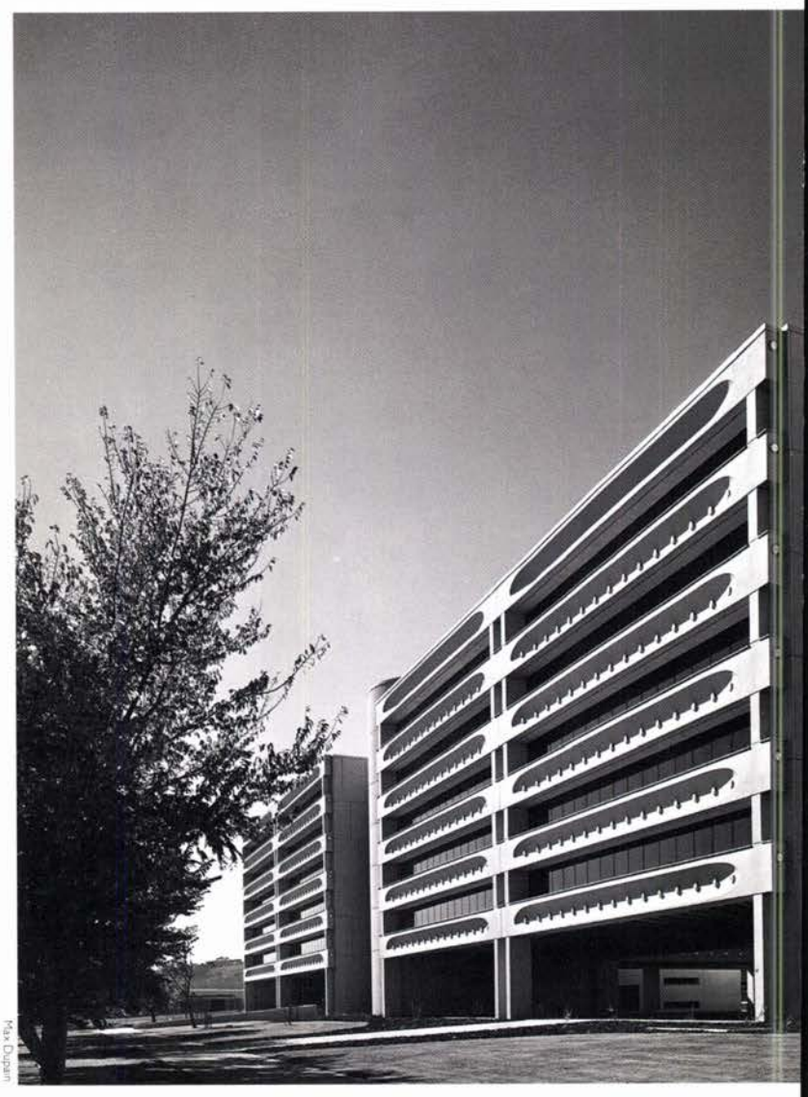
In Australia, Seidler's architecture, especially his one-off houses, reflect the modest nature of Australian clients and the universal appeal of suburban living. But even here Seidler sought, wisely many would insist, to persuade Australians to accept higher densities of housing in their cities and to design orderly, intelligent forms of housing to create genuinely urban settings. In doing so, he has run counter to the Australian preference for the English



The General Panel System of prefabrication developed by Walter Gropius and Konrad Wachsmann, 1943-45

A painting such as Josef Albers' The City *(1928), below, inspired Harry Seidler in his attack on the monotony of identical forms repeated without variations in schemes such as, bottom, the Blue Point Towers Apartments, North Sydney (1961).*





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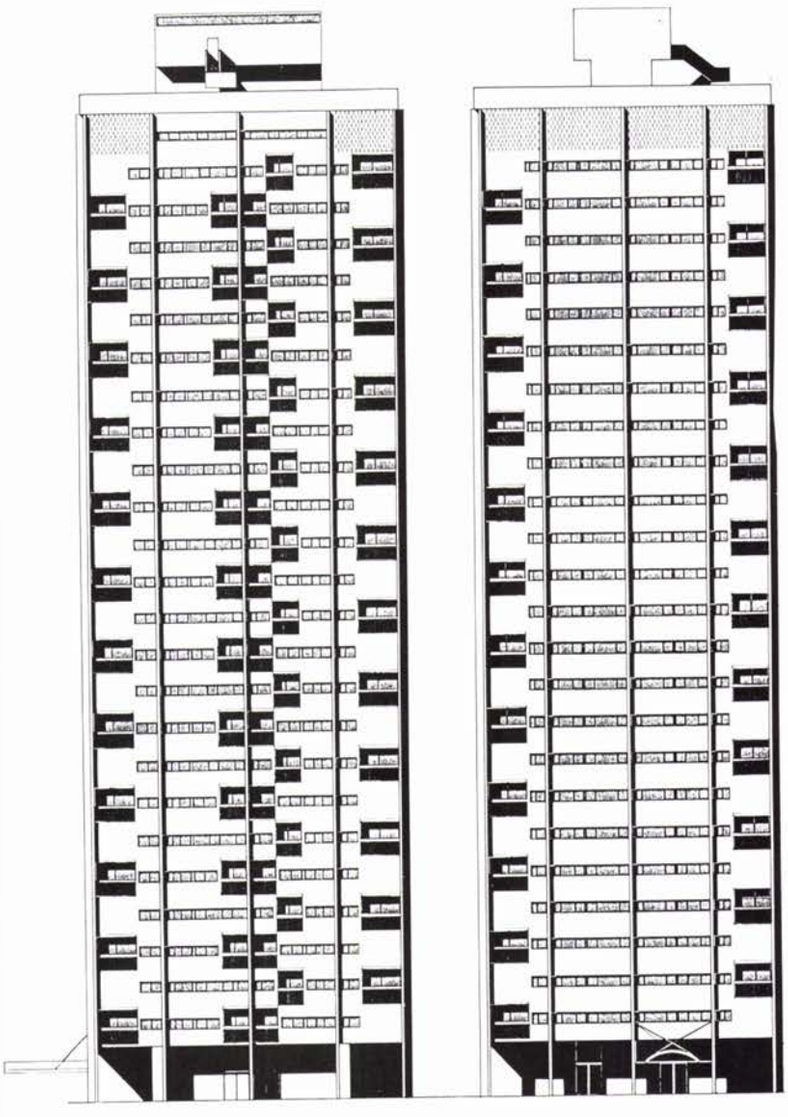
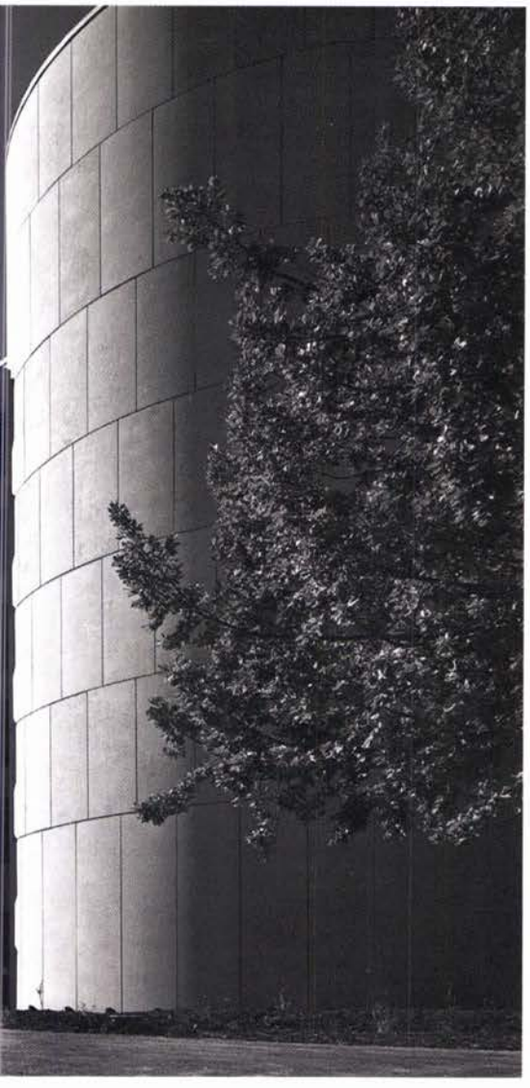
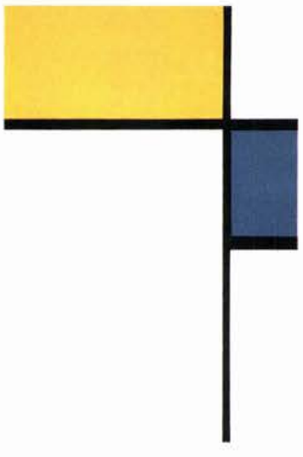


Frank Stella's use of quadrants can be seen reinterpreted in Seidler's Trade Group of Offices, Canberra, 1970-74.





Left: Seidler's Studio at Point Piper, New South Wales (1948) echoed Piet Mondrian's Composition With Blue and Yellow, *1932.*

horizontal city (remarked on by Steen Eiler Rasmussen in his study *London: The Unique City*).

In placing Seidler in perspective, it will come as no surprise to find that he is a late modern architect who has extended, with unusual faithfulness, the tenets of modernism as he learned them at Harvard, but with a preference for strongly expressed forms and a systematization of details, which he acquired from the two years spent in Breuer's fledgling New York office from 1946 to 1948.

Giedion stated of mechanization that: "It is blind and without direction of its own. Like the powers of nature, mechanization depends on man's capacity to make use of it and to protect himself against its inherent perils. Because mechanization sprang entirely from the mind of man, it is the more dangerous to him." Giedion feared that because mechanization is caused by man himself, it is more insidious, less readily recognized for the threat it is, and hence, less easily controlled than natural forces.

Mechanization reacts on the senses. Seidler sought to diminish its effect by using standard structural elements, such as his T-beams, within geometries which multiply variety without causing monotony. Whereas Jørn Utzon dealt with the challenge of mechanization through the inspiration of folk and primitive architecture before formulating his principle of "additive architecture", Seidler was inspired by the painting of Josef Albers and Frank Stella, and their research into serial form.

Seidler saw geometry as the key. The example of minimalist painting from New York formed the basis for Seidler's attack on the monotony of identical forms repeated without variation. He sought ways to achieve multiplicity of form without departing from the standard.

In the summer course at Black Mountain, North Carolina in 1946, Albers' abbreviated Bauhaus *Vorkurs* exercises established in Seidler's mind the importance of visual research into perception as a basis for form composition in architecture. Albers was concerned with perceptual ambiguity - with creating an unconventional sense of perspective. Seidler took the results and used them as a principle in generating variety of form in order to master mechanical repetition in building.

There emerges from this a conscious analogy between Minimalist practices in painting and the arrangement of Seidler's forms. This can be seen, for example, in the fenestration pattern in the Blues Point Tower Apartments, North Sydney (1961), identified with Josef Albers, *The City* (1928), or the concrete frame of the Arlington Apartments, Edgecliff (1965-66), compared to Mondrian's vertical and horizontal lines of solid colour. The earliest evidence of this conscious parallelism between Seidler's architecture and painting emerged with his Studio at Point Piper, New South Wales (1948), which echoed the pin-wheel composition of Piet Mondrian's *Composition with Blue and Yellow* (1932).

The most important single influence later on was to be the Frank Stella *Protractor Series* (1967-70) which consisted of a total of 93 paintings. The series resulted from 31 serial arrangements translated into a circular, a quadrant or a rectangular expression which Stella referred to as "interlaces", "rainbows", and "fans". The *Protractor Series* was based on architectural themes, so Seidler's interest in the paintings is understandable.

Since a quadrant-shaped building incorporates the same standard length beam throughout, it is ideally suited for standardization and mass production. Choice of an appropriate geometry is the means of standardizing the parts of the building. But there is an added bonus, as Seidler quickly realized; placed on a specific site, the quadrant building produced the greatest exposure of the interior to the view, while minimizing circulation distances around the core. Seidler explained it this way: "There are two approaches: one is to design a capricious shape that looks at the view, or to adopt a geometry that lends itself to mass production." Seidler chose the latter course.

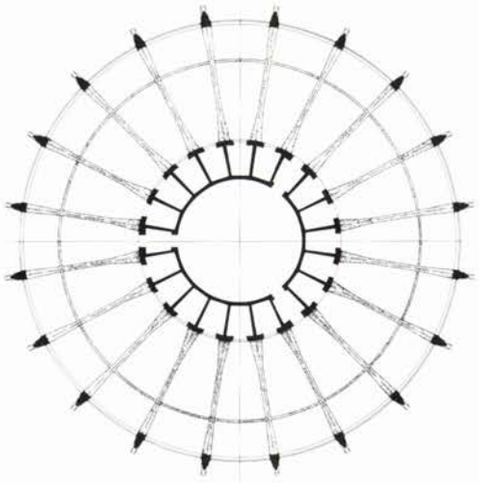
The choice of a circular over a square or diamond tower shape for the Australia Square Tower (1963-67), marked a significant departure from the previous rectilinear order of Seidler's architecture, resulting from a progressive elaboration of square, octagonal and polygonal alternatives. The circular geometry of the tower footprint shortened circulation distances, concentrated the vertical circulation core, and assured standard floor beams could be used throughout. It also captured the view by maximizing the exposure of the office floors to the outside.

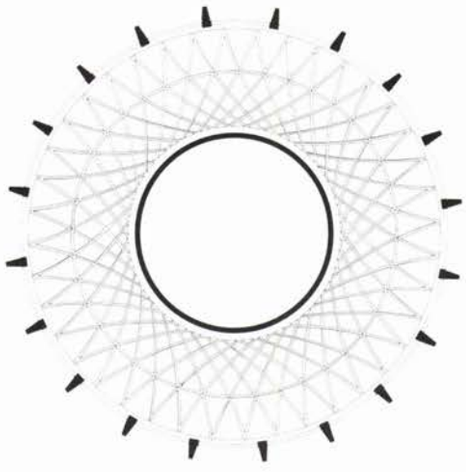
Seidler's use of quadrants is seen in his design for the International Trade Centre, Milsons Point (1968-69), and the courtyard of the Trade Group of Offices, Canberra, ACT

Frank Stella: Newfoundland Series, Port aux Basques.

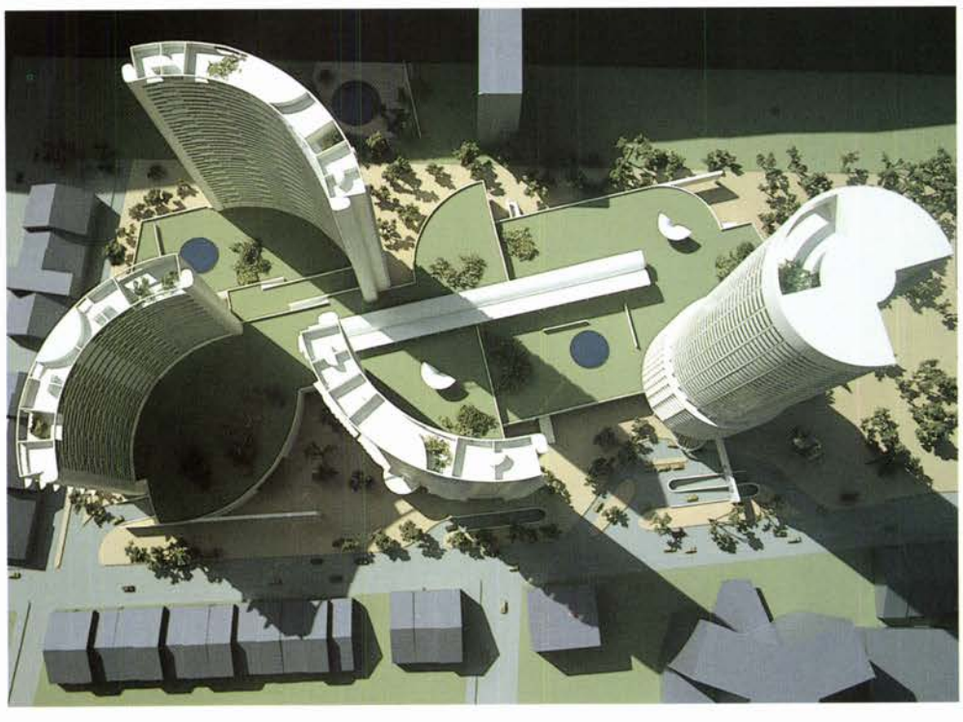
Gemini G.E.L.

Standardising the parts of a building requires the choice of an appropriate geometry. Harry Seidler soon realised that circular and quadrant plans produced greater freedom for the façade and for circulation. These include the choice of the circle for Australia Square Tower (1963-67).





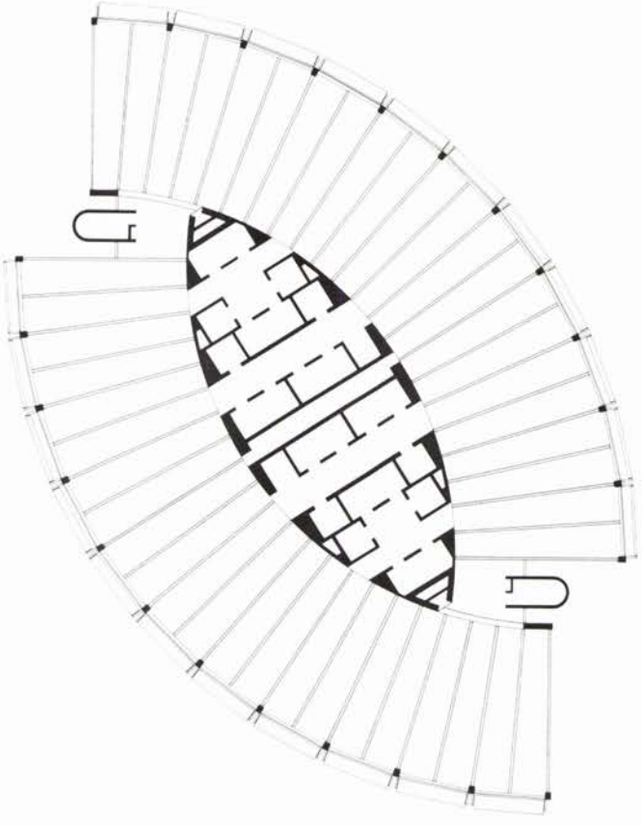
The hotel and office towers, Chevron Development, Melbourne (1969) with opposed quadrants.

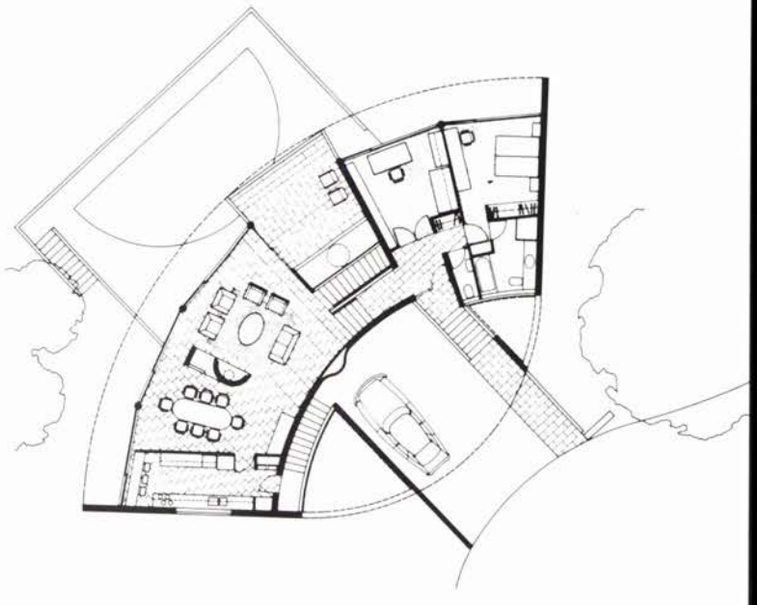


The Bushey Park housing, Singapore (1973) comprised four opposed quadrant units.

Double quadrants form the basis of the two Australian Embassy buildings for Paris (1973-77) and, below, the Trade Group of Offices in Canberra (1970-74) show variations with quadrants in the conference building.

Other quadrant variations include the fused paired quadrant tower of Grosvenor Place, Sydney (1982-87), and the Basser House, Castlecove (1982).





In the Hong Kong Club (1980-84), Seidler sets the quadrants aside in favour of a more complex system, as he does below with the Riverside Centre in Brisbane (1983-86).

(1970-74). The hotel and office towers, Chevron Development, Melbourne (1969), deliberately opposed two quadrants, the thicker of the two not quite striking the other tangentially. The Bushey Park Housing, Singapore (1973) for 400 apartments comprised four opposed quadrant units linked to produce a continuous serpentine wall of apartments.

The quadrant with variations appears in the conference room of the Trade Group of offices, Canberra, the two buildings of the Australian embassy, Paris (1973-77), the Ringwood Cultural Centre, Melbourne (1979-80), Basser House, Castlecove (1982), Merson House, Palm Beach (1983), and the fused paired-quadrant tower of Grosvenor place at the Rocks, Sydney (1982-87).

The Australian Embassy in Paris is the outstanding application of quadrant geometry; it comprised just two quadrants, arranged on a 30° triangular plot, bounded by the Rue Jean Rey and Rue de la Federation, and reversed, so they form an 'S'-shaped composition which, in a single stroke, satisfied a number of requirements. It fitted an awkward site, complied with the urban planning constraints, accommodated the dual office and residential programme of the Embassy, and catered to the need for a logical structural scheme to facilitate standardization of the building elements.

In the 1980s Seidler was increasingly engaged in the design of landmark office tower projects. These were not the run-of-the-mill tower blocks, but focal buildings which were required to stand out and define the corporate image of the client group. They are an interesting series of towers which are all related, much as Stella's *Protractor Series* of paintings interpret selected formal themes. In the Shell Building, Melbourne (1985-88), three quadrants wrap around the vertical core in a mechanical translation of the nautilus shell. In others, the quadrant is set aside in favour of compound linear-and-arcuated systems such as the Riverside Centre, Brisbane (1983-86), or the complex sculptural essay of the Hong Kong Club (1980-84) with its intense spatial pyrotechnics.

All these works attest to Seidler's determination to attack mechanization and create variety from standard components within a geometrical framework for the forms, to create serial compositions such as had previously been produced by Josef Albers and

Charles Perry's Yellow "S" sculpture in the upper plaza of the MLC Centre, Sydney.

Norman Carlberg's Black Widow *is situated in the courtyard in the Trade Group of Offices, Canberra.*

the young American sculptors, Norman Carlberg and Charles Perry, Albers' one-time students. Carlberg and Perry showed in their work how it was possible to generate intriguing three-dimensional configurations of forms using standard shapes. Perry's yellow "S" sculpture for the upper plaza of the MLC Centre, Sydney, is one such instance, since 16 different sculptures can be achieved from the same standard elements merely by arranging them differently.

This ethic of economy by means of standardisation of elements is demonstrated in the Trade Group of Offices which was assembled using moving three-legged steel gantries mounted on rails from standard precast 16-metre T-floor planks, and 24-metre spandrel beams. In the building's courtyard, Norman Carlberg's *Black Widow* and *Column* sculptures echo this principle. The *Black Widow* is composed of 16 identical quadrants; the *Column* of 12 identical twisted prisms.

Seidler accepted the principle of standardization and concentration which Hermann Muthesius enunciated to the Deutscher Werkbund in June 1914. This same principle of standardization guided him in his employment of standard plan types, standard sections, and standard structural elements such as the T-beam. Each detail is repeated and refined from job to job, so avoiding wasted effort in solving the same problem over and over.

The architecture of Harry Seidler is much more complex than it seems: it is a rational architecture, but its rationalism expresses emotional tensions at the same time. Seidler inherited the legacy of modern architecture through Gropius and Breuer, and he has worked consistently over four decades to extend and apply many of its ideas, while accommodating himself to the limitations of a building industry in Australia which was much less sophisticated than that of Europe or North America.

It is in the realm of concrete technology that his imagination and inventiveness, spurred on and assisted by Pier Luigi Nervi, and on his death, by his sons, have shown what may be accomplished in this regard. Underpinning the effort to achieve a more rational building process is the analogy of minimalist art, and of sexing the quadrant. □

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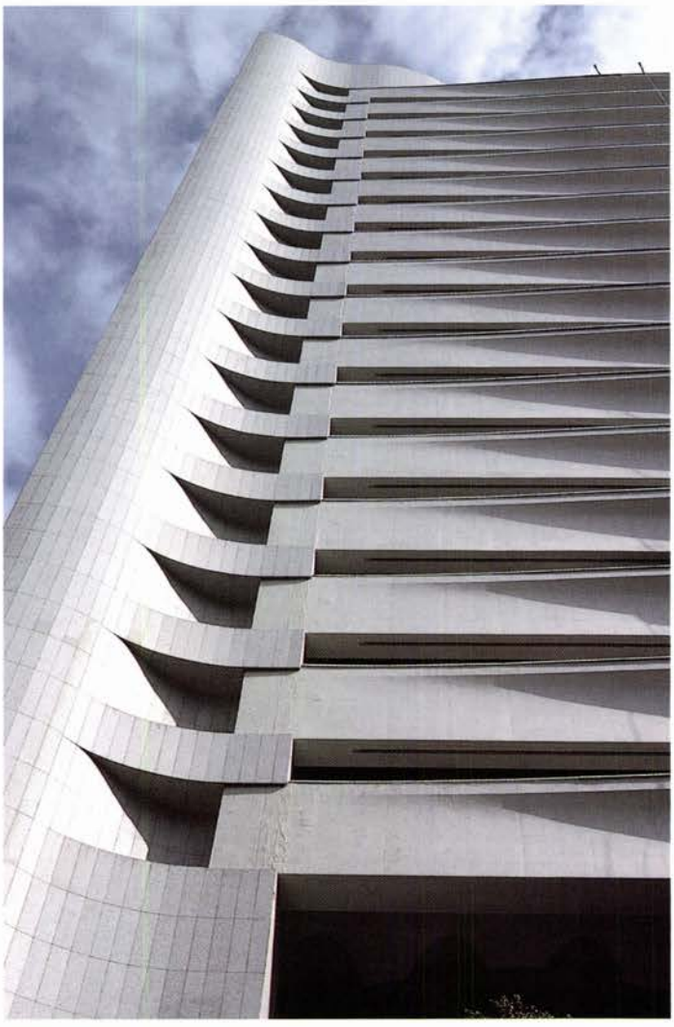
STRUCTURE AND MEANING

Professor Kenneth Frampton analyses three of Harry Seidler's most innovative buildings – in Hong Kong, Sydney and Brisbane – in a short extract from his forthcoming book on the architect's work.



Hong Kong Club Tower, Hong Kong 1985

Harry Seidler's Hong Kong Club is axially located, opposite Cenotaph Square in the central business district of the city. While remaining classically symmetrical about its major and minor axes, with the exception of the service "bustle" situated to the rear of the principal elevation, the Hong Kong Club is such a display of structural and plastic exuberance that it is difficult to know how to commence an appraisal of its form. One surely has to concede that if any contemporary work warrants the nomenclature "baroque" this is it.

Compositionally this work is a remarkable synthesis of the two predominant types to be found in Seidler's later practice: the volumetrically differentiated public building and the repetitive form of the commercial high-rise. Both types are patently evidenced here in the superimposition of a four-square, medium-rise, 16-floor, office tower over the four-storey premises of the club.

No one has written more lucidly of the various factors that led to this unusual juxtaposition than the architect himself:

". . . With mushrooming new development all around it, in recent years the site has become immensely valuable. This prompted a developer's offer to build a new building for the club if he were given the right to construct rental offices above it to fully utilize the site's potential. The two uses were to be kept strictly separate, the club maintaining its private entry in the old axial location facing the Cenotaph and the offices entering from the wide side street. The club occupies the podium of the building to a four-storey height up to which regulations allow almost total site cover, and the offices above, the permissible two thirds of the area."
A + U, Japan, September 1986, p79.

The common but respected modern paradigm of a high-rise block on a low-rise podium, that has so often proven resistant to resolution, is here, for once, integrated in a remarkable way. This synthesis is largely the result of certain formal reciprocities, first, the implantation of the tower directly above the podium from the point of view of the principal approach; second, an orchestrated rhythmic syncopation, in which plastically oscillating planes within the podium find their muted counterpart in the

Opposite page: Towered corner detail of Harry Seidler's Hong Kong Club.

The HongKongClub is situated in the central business district of the city opposite Cenotaph Square and at right angles to Foster Associates' Hong Kong and Shanghai Bank.

inflected spandrel beams running the width of the tower, as well as in the organically shaped piers that establish the four corners of the high-rise form.

From a structural and conceptual standpoint, the extremely long spandrels (stretching 34 metres across the long façade of the "pagoda" tower) transform the received high-rise typology into a form of bridge construction, wherein the column-free clear spans quite literally liberate the public space of the club beneath. Nothing could be further, however, from Le Corbusier's *plan libre* of 1926, for here the "liberated" plan does not arise out of the inter-articulation of free-standing planes and columns. Instead, the freedom in question is one of volumetric displacement, reminiscent in its elaboration of Frank Lloyd Wright's Guggenheim Museum of 1956.

With the street level largely given over to retail and services, the main unifying volume of the club is a central circular void cut out of the fourth floor, mezzanine level. While accommodating various ancillary lounges, this level looks down onto the main dining floor situated beneath. This level in turn is connected to the main, multi-purpose hall situated at the first floor. The whole spatial sequence is animated vertically by a bi-partite, semi-cylindrical elevator shaft and by an open, helicoidal stair, that runs up through the continuous volume to link, via intermediate floors, the foyer at grade to the bar/buffet and garden on the podium roof.

Once again Seidler has invariably modified his production methods to achieve the same structural type under different economic circumstances. To this end he writes:

"... The expressive form of these T-beams ... is not one of ephemeral fashion or capricious decoration, but rather is based on the immutable laws of nature, of statics, and is therefore likely to remain valid.

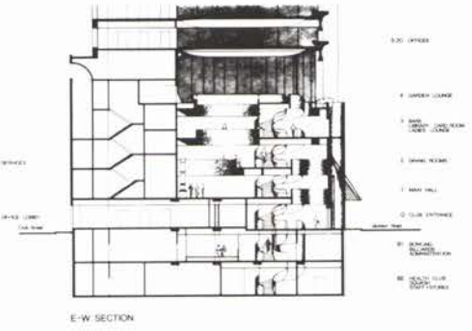
"In industrialized high-labour cost countries, the structural form was used as a pre-cast element lifted into place by crane .... To force this notion, however logical, into the Hong Kong labour scene would be unreasonable. Here ample labour was available at costs far lower than in Europe, Australia or the USA. It is therefore more 'in tune' economically to form these floor elements conventionally and pour concrete on site, a procedure which readily allows for the varying length and radiating pattern of the beams."
A + U, September 1986, p79.

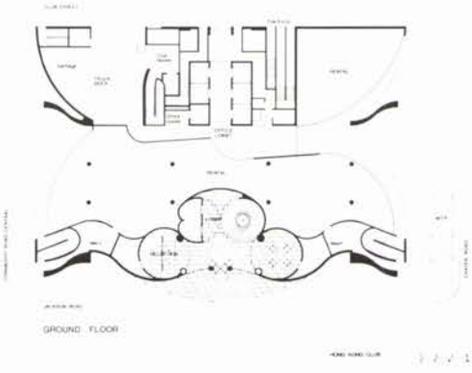
East-west section through the Hong Kong Club.

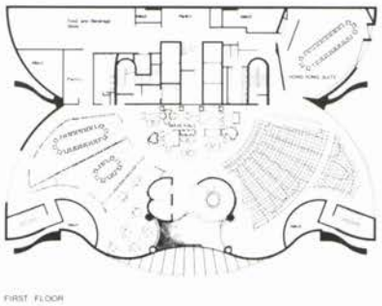
Ground floor plan.

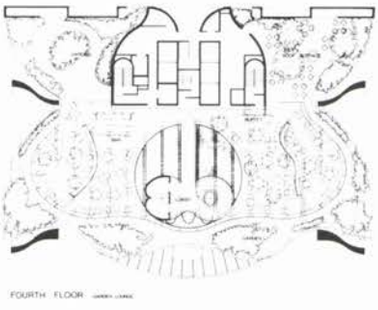
First floor plan.

Fourth floor plan with garden lounge.



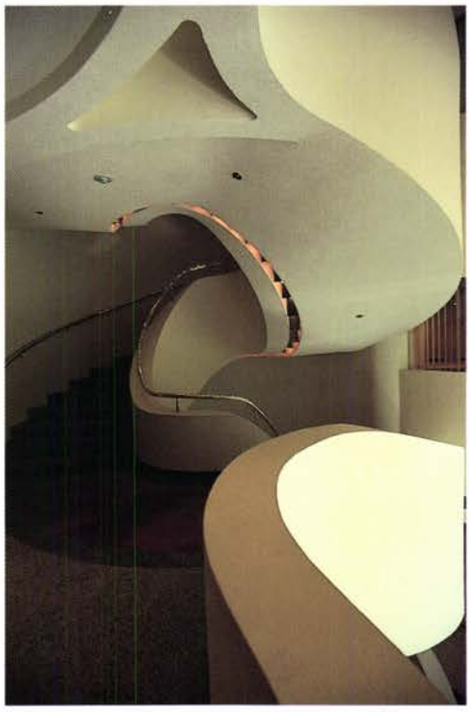


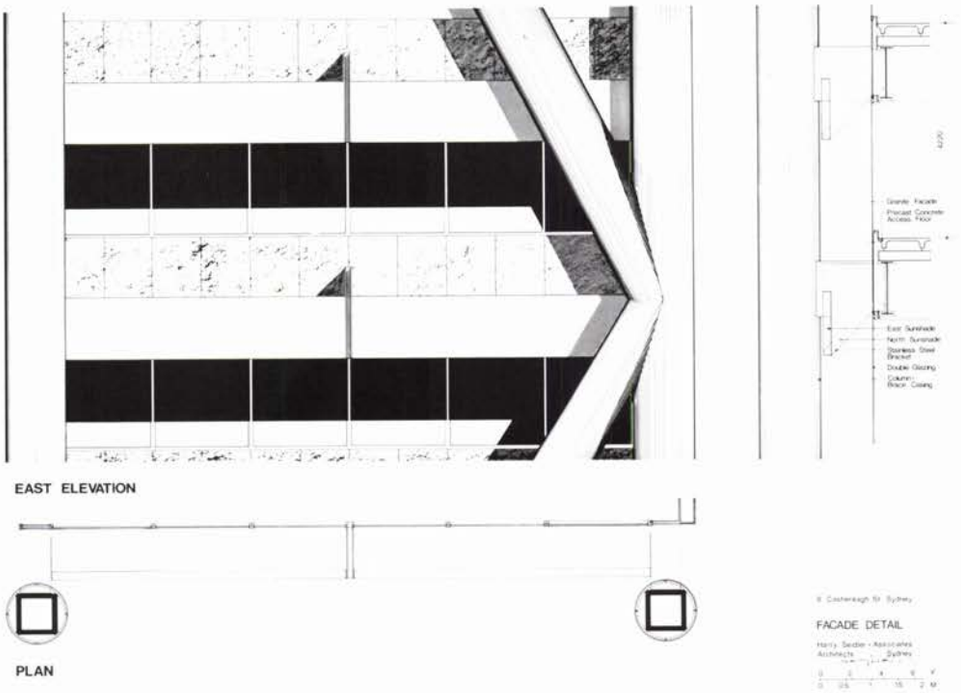




Opposite page: Capita headquarters office building and galleria, Sydney; details of the façade and an early model showing the open, stepped atrium. The building, which is shoe-horned into its small infill site, could not have been realised without the flexibility offered by trussed steel construction.

The open spiralling sculptural stairs from an impressive feature in the Hong Kong Club.





Capital Building: façade detail.

Finally one needs to comment on the curiously oriental inflections that appear in the overall form of the work, such as the horizontal slots of the tower windows that seem to cut across its vertical mass like the horizontal eaves of a pagoda, or the glass canopy over the main entrance that recalls in its subtle profile, the manifold curves of the traditional Chinese roof.

Capita Buildings, Sydney 1985-87

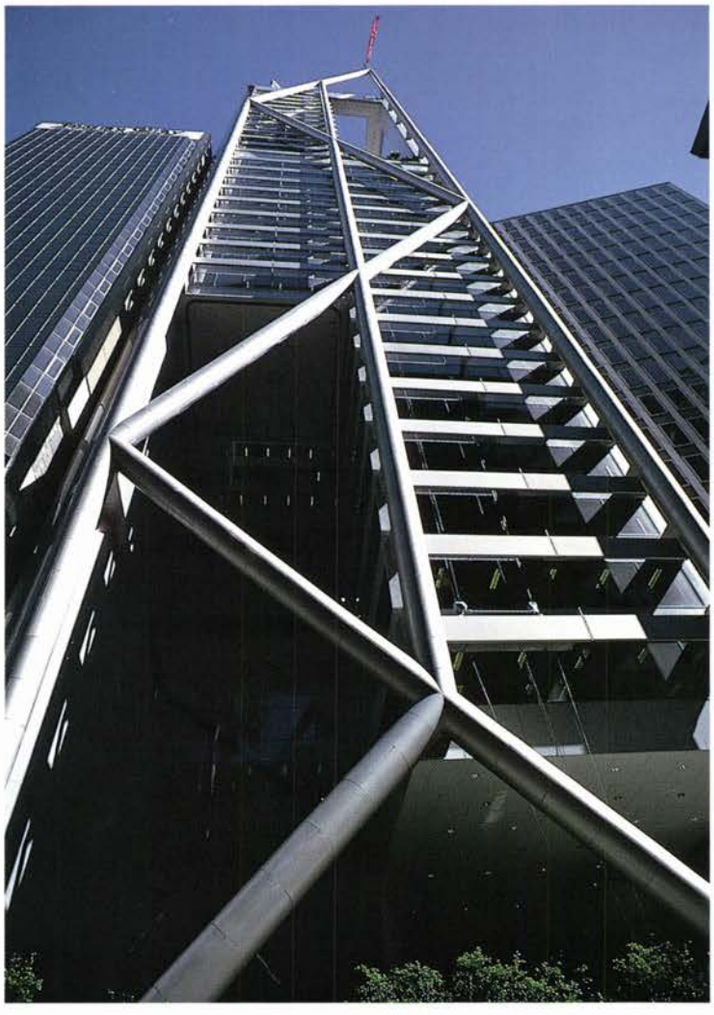
The 31-storey Capita Building was first projected in 1985 and completed in downtown Sydney in 1987. A shoe-horn exercise on a ridiculously small infill site, Capita could hardly have been realized without the use of trussed steel mega-construction.

Once again one can hardly improve on the architect's own account of the ingenuity involved in finding a feasible solution:

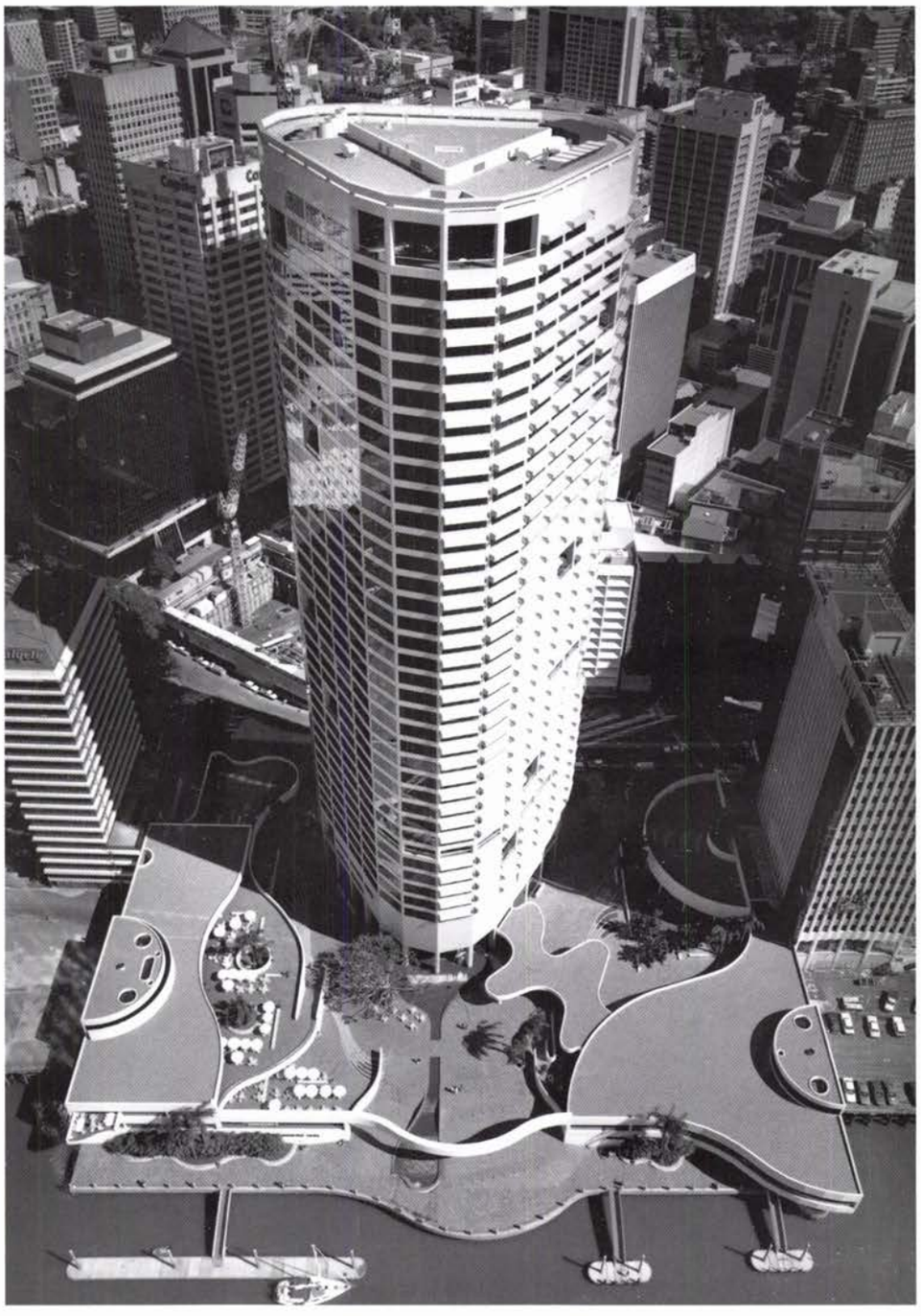
"Surrounded on three sides by buildings 20 and 25 floors high, left only the narrow street façade for windows and out-look, it became necessary to create an internal outlook for the 12-in deep offices, by only covering two-thirds of the site with building and leaving the balance as urban space.

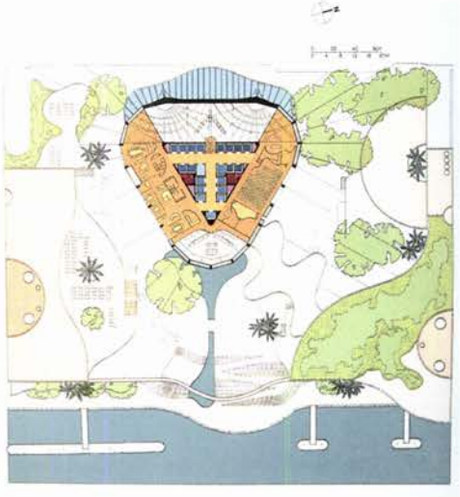
"To create something more than a mere light well, the building is hollowed out for its full height by an open atrium. Changing its position from the south side to the centre and stepping up to the north, ledges are created and planted with trees and shrubs, with northern sun penetrating down the full height of the building's hollow centre. The ground level is left entirely open, becoming a landscaped pedestrian thoroughfare between streets with high palm trees, a waterfall fountain and glass-roofed public galleria space."

The planning of Capita turned on resolving a light-square puzzle in which the six 12 × 13 metre "squares" of the sub-divided buildable area were manipulated in section so as to shift the distribution of atria up the full height of building. The lowest atrium, first treated as a high entrance against the southern boundary, shifts at mid-rise to a central square position facing north. This atrium then steps progressively outwards towards the northern boundary, from which sun and daylight penetrate into the base of the structure. Planned on the same 12-metre module, each office overlooks one of the atria, all of which are landscaped with large trees.



The 40-storey Riverside Centre, Brisbane, is an ambitious project that combines good civic design with beautifully considered and well-integrated high-building forms.





Capita's megastructural frame, a diagonally trussed exoskeleton of tubular steel running up for the full 30 floors, was based on a more generic formulation of the same idea, as this had appeared in the 50-storey Landmark Tower projected for Brisbane at virtually the same time, 1985. The necessity of using steel in the development of Grosvenor Place clearly compelled Seidler to rethink his predilection for diaphragmatic concrete construction and thus to develop a new tectonic based on the use of tubular steel exoskeletons of mega-proportions, not unlike the suspended tubular system adopted by Norman Foster in the Hongkong and Shanghai Bank, although this bracing of a multistorey high-rise by an external mega-structural frame clearly has other precedents. Above all one thinks, perhaps, of Skidmore Owings and Merrill's John Hancock Tower built in Chicago in 1966. It is important to note that even this kind of a structure has a diaphragmatic aspect in that the outer cage acts as a kind of lateral space-frame, in conjunction with the secondary steel framing of the floors within.

Riverside Centre, Brisbane 1986

Under construction in downtown Brisbane from 1983 to 1986, the 40-storey Riverside Centre is in some ways a synthesis of everything that Seidler has realized over the past two decades. Aside from being further proof of Seidler's prowess as a civic architect (it is, patently, the finest high-rise built in Brisbane, to date), Riverside is in many respects a consummation of his growing capacity to handle fluid forms and to integrate their articulation about a single crystalline shaft. Riverside also represents the first occasion on which he was able to endow a high-rise with a true sense of civic status.

Situated at a crucial point at a bend in the Brisbane River, Riverside Centre attempts to re-vivify and re-organize a large extent of the river frontage. Indeed Seidler tries to stretch the impact of a point tower to its lateral maximum. In this regard one may safely claim that this is the first landscaped civic complex of the last 20 years to pick up where Oscar Niemeyer and Roberto Burle Marx left off, at the apogee of the Brazilian modern movement in the mid-1950s.

Seidler's ability to extend the plastic energy of the central "diaphragm" beyond the confines of the building itself, his capacity to activate the entire domain of the site, takes Riverside beyond the overly pyrotechnic plasticity of the Hong Kong Club. Here a remarkable balance seems to be established between the various dialogical themes that inform the work. In the first place, the opposition between the formal integration of the tower as an urban landmark (so obviously a weak point in the case of Capita and Phoenix) and the horizontal but equally civic extension of the site itself. In the second place, the contrast between the tectonic logic of the skeleton structure and its plastic amplification as a diaphragm and finally, the play between symmetry and asymmetry that as a dynamic opposition activates the entire development.

The equilateral triangular plan of Riverside divides into an up-stream and down-stream aspect, about a bisecting south-west/north-east axis. While this biaxial symmetry helps to establish Riverside as the symbolic centre of the downtown, the asymmetrical architecture of the waterfront opens the site to a panorama of the river as it moves away from the bridge towards the confluence of the waterways bonding the city. This dialogical relationship between the tower and the river is comprised in effect of two movements; on the one hand the centripetal compression of the tower itself, which seems to draw everything into its triangular vortex, on the other, there is an opposed centrifugal motion that radiates its energy out from the tower so as to animate the carefully contoured layers of the site.

Riverside seems to comprise a dialogue between the symmetrically-crystalline form of the tower and the asymmetrically organic form of the site. Appropriately enough these "counterforms" attain their synthesis in the monumental glazed canopy that announces the principal entrance from the street. The dyadic theme does not end here however, for the canopy itself assumes a bipolar character and finds itself suspended from two of Seidler's hyperbolic piloti that flank the main entrance. Isostatic rib-lines radiate out from the centroids of these piloti to support the ceiling of the entry-foyer and therein to celebrate the monumental character of its space. □

Harry Seidler is perhaps best known internationally for his tall, complex buildings in city centres. However, he has over the years designed many smaller-scale houses for sensitive and demanding clients. To accompany the architect's own statement, World Architecture *has prepared a pictorial survey of some of those buildings which show the relationship between his domestic architecture and the challenge and drama of the Australian landscape.The building shown right is the penthouse apartment and office extension to Harry Seidler's own office at Milsons Point, Sydney (1989).*

LOSING BY THE RULES

In this article, Harry Seidler deplores the "hustling technicians" who plan today's cities and argues that modern architecture is not only still alive but the potential of its methodology has barely been explored.

Disenchantment must surely be the appropriate word to describe what most people in cities of the western world feel about the newly-built developments taking place around them. Given immense thrust through the media, the emerging new laws and images make us believe that the direction of development in the city in the last 80 years or so has been totally ill-oriented - that it has created nothing but environmental and visual chaos. It is put to us forcefully that the time has come for a complete turnabout; we should abandon all past notions of city planning, discard theories of architecture developed in our time and change direction totally. This anti-intellectual stance is nothing other than an irrational turning back of the clock away from the gradual, logical and consequential development of this century. To understand how deeply this reaction has permeated current attitudes towards the built environment, let us examine two areas of concern - firstly, what is allowed to be built in our cities and secondly, what architects choose to build.

The Urban Dilemma

In the realm of urban planning, it seems that all the proposed utopian schemes for guiding three-dimensional physical planning after the second world war have not been pursued. The enlightenment needed to grasp the benefits and consequent rewards to the community was too much to expect. Landholders fought against constraints on building bulk for fear of depreciated property values without compensation. Politicians found the necessary actions of resumption and re-subdivision "untenable". So, *laissez-faire* attitudes prevailed and development has lurched forward on the assumption that market forces alone are best left to guide it.

The Rose Seidler House, Turramurra NSW was Harry Seidler's first house design and built for his parents in 1948-50.

The physical results of rejecting far-sighted policy has led, inevitably, to a negative public reaction. This in turn has been given widespread momentum by the media which purveys and encourages conservation modes. The outcome is that any proposal to build something new is immediately put on the defensive. The call is either for abandonment of entire projects or the preservation of existing buildings and their re-use. Where this policy is applied to worthy structures of the past it is obviously desirable and to be encouraged. But the form it has taken is the adoption of an historicist attitude which asserts that keeping old façades and hiding any new building behind them is better than anything totally new. The results are pitiful and border on the absurd. Old and new become caricatures, embodying the worst of both.

The present mood against new development has also inspired the most amazing and arbitrary "rules". For example, one can cite the objections of authorities in Melbourne, Australia to a large city building. They quote, verbatim, the recently proposed San Francisco plan and insist that this reactionary set of new rules, imported from halfway around the world, be adopted. This plan calls for the prohibition of buildings with flat roofs, of blank walls and for "a generous use of decorative embellishments". To demonstrate what benefits are offered to builders in return for compliance, these decorations are even allowed to protrude outside the zoning envelope! The San Francisco plan further requires buildings to be "shaped to appear delicate and of complex visual imagery". Worst of all, there is a dictate to "retain the street wall"; tall buildings are to have distinctive tops and shafts, that is, to construct "street-fronting bases" for all tall buildings. The rules discourage limits to site coverage and, in fact, outlaw any towers which leave large portions of the ground level unbuilt.

The irrationality of insisting that urban development be built to an index of 14 to 1, while at the same time having 100% site coverage, is obvious. To allow an increase in the population on a city block to that extent and then to strangulate pedestrian circulation by restricting it to 10-feet-wide footpaths, is inhuman and unworkable. It is socially irresponsible to build to high indices of 12 or 14 unless there is a limit on site cover of no more than 25-35%. This should be so, not only for the sake of health and clarity of the inevitably huge structure that results, but also to generate some breathing space for the additional thousands of people that work in such buildings. In our crowded cities the aim should be to create as much genuinely useful open space on private land as possible, places of repose and recreation.

The fashion of solid street-fronting bases for towers is also highly questionable. One must reject it for practical and aesthetic reasons because it forces architects to design huge, deep, windowless, commercially unviable podium spaces which are structurally and constructionally undesirable.

The design professions must, as a matter of principle, fight against governments being given the right to codify and thereby dictate design in detail. To allow such rules is absurd and contrary to fundamental freedom of action, freedom for the advancement and development of architecture. To stifle creativeness by law is intolerable. We should want no part of a system in which bureaucrats become powerful arbiters of taste, imposing a dictatorship over the language of form.

Opposition to Modernism

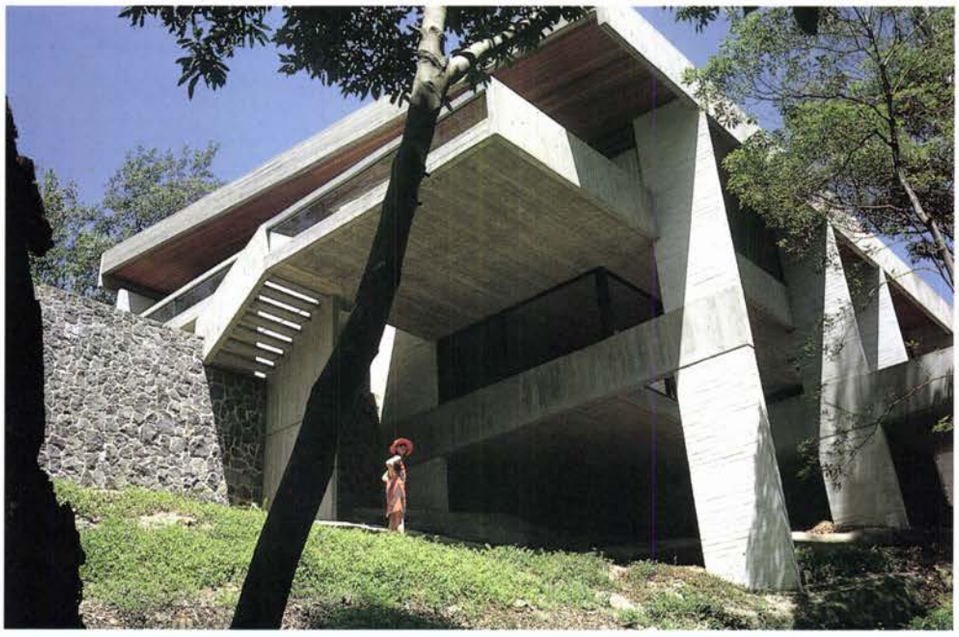
Turning now from city planning to the subject of architectural theory and taste and the issue of what architects choose to build, we find the reaction has been equally devastating. Much wordy journalism tells us that it is time to revert to the past and suggests that we go back to the 1920s and other fragmentary sources in history for inspiration. Lumping together and labelling everything built in our time under the much maligned term "International Style", the media distort historical facts with great abandon.

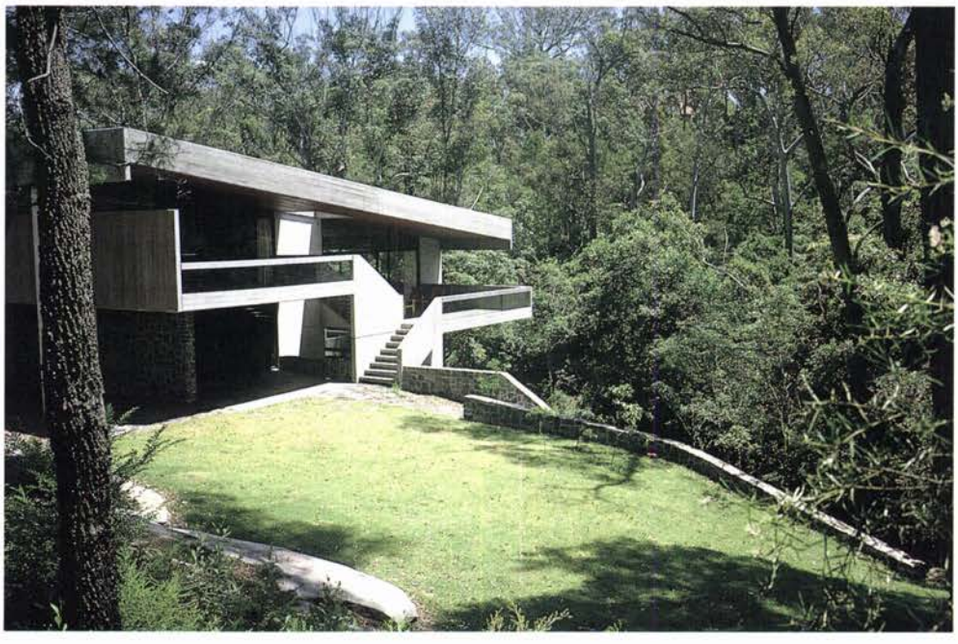
To begin with, the term "International Style" is a misnomer. It was anathema to the methodology expounded by the pioneers of

Below: the Williamson House, Mosman, Sydney (1951) is a simply-elevated one-storey house design with a bridge connection and garage at the upper level. Bottom: the J Rose House, Turramurra (1950), was designed as a weekend house. Uplifted to overlook a bushland valley, it is basically supported by four columns from which diagonal hangers provide a support for the cantilevered rooms on either side.

Max Dupain

Harry and Penelope Seidler's own house in Killara NSW was originally designed in 1966 and extended some ten years later. Its split-level floors extend out to form terraces.





modern architecture. Walter Gropius himself expressed contempt for its use. To him the only structures which could truly be labelled "international" in style were "those classic colonnades, borrowed from the Greeks, placed in front of important buildings anywhere from Chicago to Moscow to Tokyo". For modern architecture, as conceived by its pioneers, was not a fixed set of forms but rather a way of thinking. It is an approach which "allows one to tackle a problem according to its peculiar conditions, not by ready-made dogma nor stylistic formula, but by an attitude towards the problems of our generation which is unbiased, original and elastic". The modern architecture could never be a style *per se*. It must remain in constant flux, responding not only to regional differences and social demands but also reflecting the changing visual language of art and the ever-expanding wealth of technological means. As the form-determining factors change, so too must the architectural expression.

In my own work this methodology has been simply a framework on which to hang very different and potentially changing images – the opposite to frozen stylistic moulds. It is an attitude towards design which can grow and mutate with the cultural essentials of time and place.

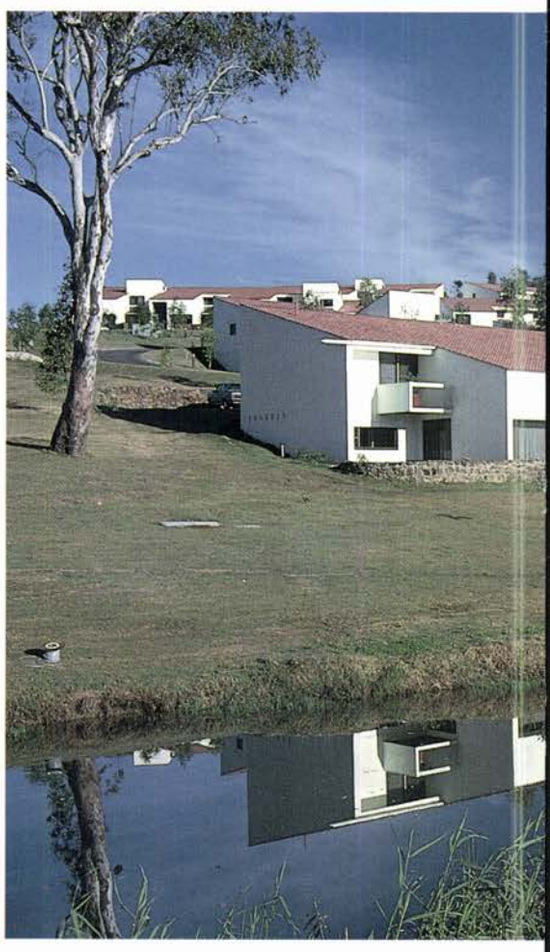
Unfortunately, however, the clarity of this concept and the specifics of its aesthetic components (built on the study of visual fundamentals) never became the guiding principle for building in our time. What had originally started as a fight against traditional "style" was utterly misunderstood and was imitated insensitively until it became so banal that it could itself be termed a style. Since the last war, unskilled, superficial images with hideous clichés have covered western cities and the understandable public distaste for these ubiquitous results finds its voice in the present-day media war on the so-called "International Style". The attack is misdirected though. Journalists and opportunistic writers deliberately misrepresent facts, re-write history and cowardly discredit the dead pioneering initiators, blaming those whose work originated the long-overdue movement away from the superficial "art for art's sake" architecture of the *fin de siècle* era.

What is now proposed, seemingly unchallenged, is the very antithesis of the visual and technical concerns of our time. We are shown ponderous, earthbound, pyramidal compositions standing flatfootedly, exposing their childish broken pediment "metaphors" in order to make us feel closer to "history". Ignoring and defying all constructional, let alone structural, logic they are the tantrums of a rich, spoilt child delighting in being contrary and shocking us with corny stylistic idioms, not to say ludicrous bad taste.

The degeneration has indeed gone full circle. One need only remember the western architectural world's outrage at the "cultural inferiority" of East Berlin's Stalinallee, erected after the war at the same time Le Corbusier was building in Marseille. And now, in a complete reversal of roles, communist East Germany has rebuilt the Bauhaus structures better than new and declared them national shrines while, in France, Ricardo Bofill builds a public housing scheme which boasts new concrete classical orders and gigantic fluted Roman columns for fire stairs. It is the kind of architecture that totalitarian regimes of both left and right have always favoured.

It could all be ignored if there was not the danger, due to all the wordy journalism surrounding and justifying it, of being taken literally, and by the young and uninitiated; of being blown up and catapulted into the significance of a new design philosophy.

A remark Marcel Breuer made to me in the 1950s puts these things in perspective. Reacting to the then fashionable classicism – that sugar-coated, misunderstood Miesian mode prevalent in America at that time – he said in German "Nur abwarten" (just wait patiently). And who remembers or takes this fad seriously now? Or who remembers the Brutalists in England with their pathetic imitations of Le Corbusier's rough concrete of the 1940s? With that record what lasting validity can be ascribed to the "metaphors" so verbosely elaborated to describe the present reversions to licentious decorative caprice?



Looking Forward

To me there is a discernible visual direction in our age. As manifested in our immediate history, the essence of this is best defined by the painter, Josef Albers: "Where the discrepancy between physical fact and psychic effect is maximised, there lies the threshold of art" and "One plus one is three – in art". This credo of getting the most aesthetically and physically for the least in effort and material is directly applicable to architecture. Not only is it valid for economic reasons, but it will heighten the value of that which, by a shortcut of the mind and with penetrating insight, finds Gordian Knot solutions to aesthetic, planning and constructional problems.

The simplistic way in which this essential element has been misinterpreted is the cause for much of the harm that has been done in the name of modern architecture. To do the minimal only leads to stagnation and rejection, but to do little in such a way that riches result, both visually and tangibly, that is where our direction lies.

From its earliest days the modern movement has emphasised the study of visual fundamentals of just how our eyes respond in predictable ways to visual phenomena. A study of these principles will make us realise how we see changes as other areas of our existence change. What was valid in 1930 can no longer be actively so today because our senses will respond differently to the altered social conditions and to advances in technology. Thus our notions of appropriate construction, of the way space should be ordered, of visual expression and the forms derived out of these concerns must, of necessity, be different from those of the past or of other cultural milieus.

For example, however much we may admire Le Corbusier's buildings, their 20-feet square span structures (which was all they could do economically then) are superseded today just as is their planning, plumbing and everything else about them. We may still find his spatial flow poetic, enticing and valid, even if achieving it meant the use of excessive hand labour or constructional devices no longer realistically plausible.

We live in a world of vastly varying social and economic climates. I have built on four different continents and what is possible and in fact desirable in one country with ample, willing and undemanding labour but poor technology, is unthinkable in a location with advanced industrial potential and high labour costs. Such considerations will inevitably produce regional differences in buildings even if the common aim is to create a subtle orchestration of spatial intricacies.

It is also evident that in the twentieth century, man's concept of space and how it should be organised has changed in a way which only our advancing technology can muster. Instead of the assemblies of connected finite volumes of the past, we now seek a sense of the infinite and yet simultaneously the intimate – a sense of the beyond in the immediacy of the present.

Likewise in the choice of the appropriate form our horizons broadened considerably with time. The initial puritanical rigidity has been allowed to widen into an all-encompassing search which even today is yielding a wealth of new expression. We have learned to borrow from the art forms of our time just as we have learned not to exclude history. By "history", of course, I do not mean the puerile adaption of decorative paraphernalia but rather a study of the essential forces behind the images of the past. For instance the subtly brilliant geometric systems that came into being in the seventeenth and eighteenth centuries can inform our approach to developing system-oriented methods of construction. But the visual language must be new. I believe that visual tension, not the phlegmatic earthbound images of the past, speaks to our time; the channelling of space and surfaces in opposition, curve against countercurve, sun and shadow, the juxtaposition of compression to the surprise of release.

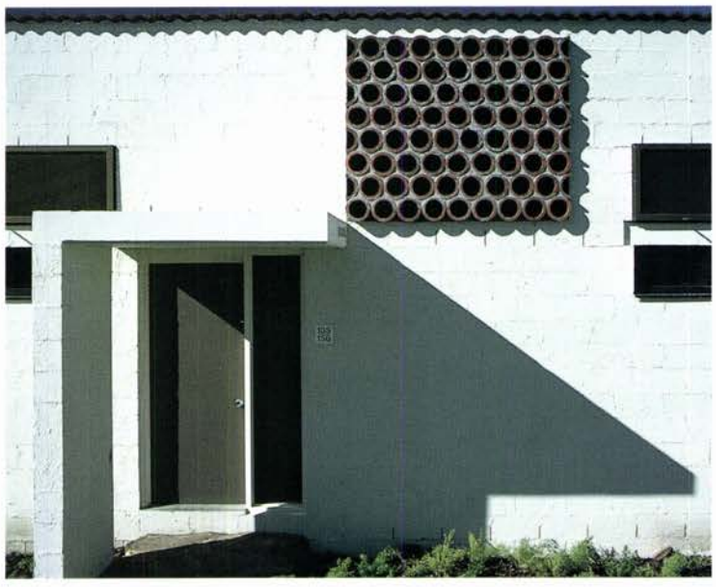
Even if the expression is exuberant or flamboyant, an economy of visual means will heighten the value of the result. Instead of creating an arbitrary assemblage of unrelated geometries, a single form element should be evolved and transformed, finding its echo throughout the work at every scale – a set of variations on a single visual theme.

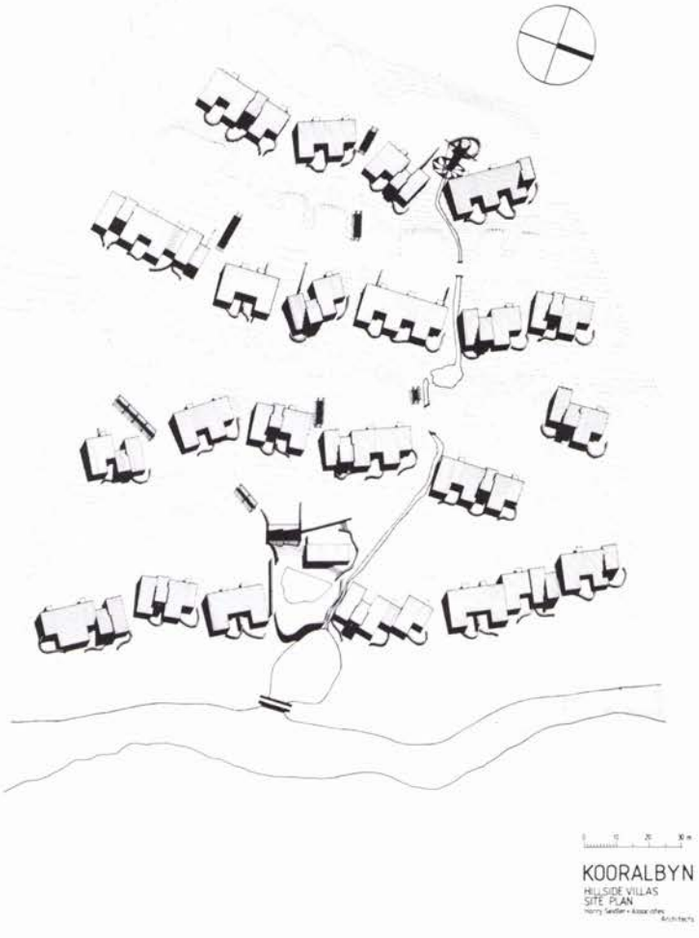
Free rein must also be given to the expression of the laws of nature – not what is "imagined" to be so by many structurally naive architects, but the unassailable physical truth of statics. Being born of the immutable and irrevocable truth of nature, the richness of expression which can result from such a search will have the irreplaceable quality of longevity, of remaining authentic as times change.

In our approach to constructional systems architects generally have been far too simplistic, accepting any dull repetitiveness to be economically valid. Just as the revivalist architecture at the end of the last century was out of tune with the emerging industrial means, so I believe the design profession today is not responding adequately to either current technological and manpower conditions or new construction methodologies. That is why we are losing the grip on vital decision-making and are being replaced by hustling technicians. To design a tall building today, which simply takes too long to build, is a self-arresting process, a hollow victory realised only on paper.

It is our task to maximise systems of mechanisation appropriate to and "in tune" with the particular task. Even though these must vary in different socio-economic and industrial climates, one must not stop at the consideration of structure and covering only, as is so often the limit of prevalent thought. Rather, one must encompass simultaneously integral solutions to the problems posed by all the services required in a project thereby avoiding the usual nightmarish afterthought complications of most modern buildings.

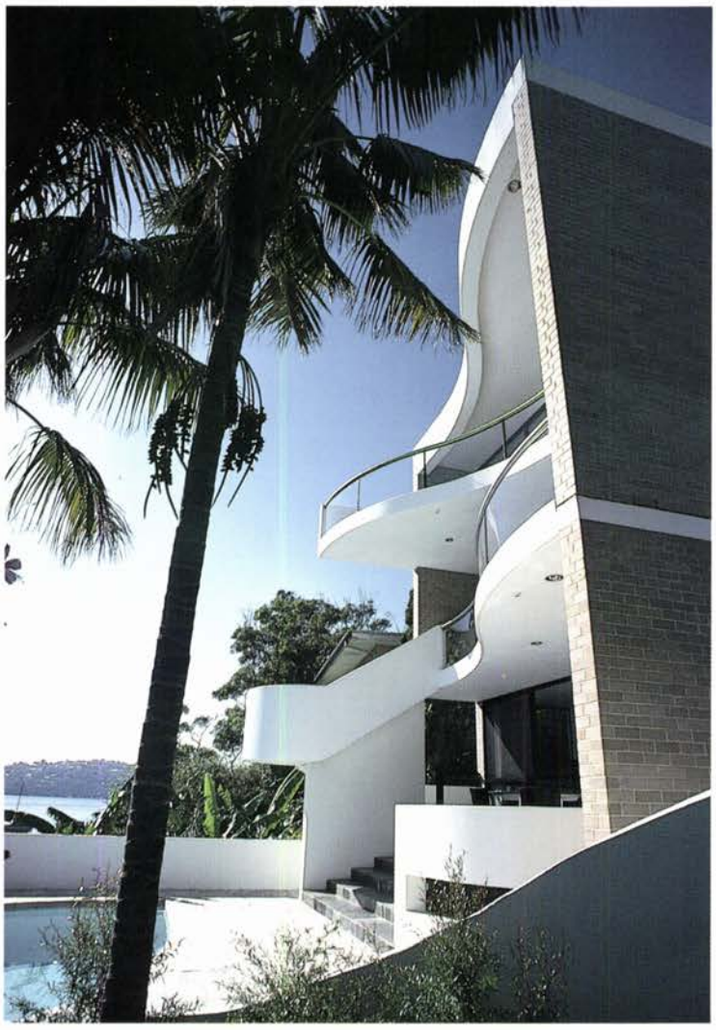
True modern architecture is not dead as some will have us believe. We have hardly started to explore the potential of its methodology. The high principles and clear moral consequentiality of the pioneers needs to be constantly interpreted anew. They demanded basic integrity and an intrinsic honesty of approach. Only by making these part of our work will the frontiers of development be pushed forward. □





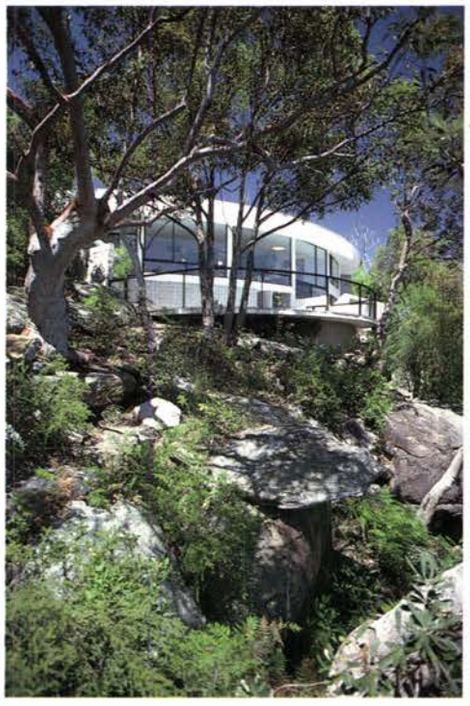
The resort village of Kooralbyn, Queensland (1980-82) was built on a hillside that slopes down to lakes and a golf course. It falls along irregular contours to a focal village centre with a swimming pool, barbecues and trellised relaxation areas. In its use of white rendered masonry and red pantile roofs it recalls earlier European hillside towns rather than Australia's suburban settlements.

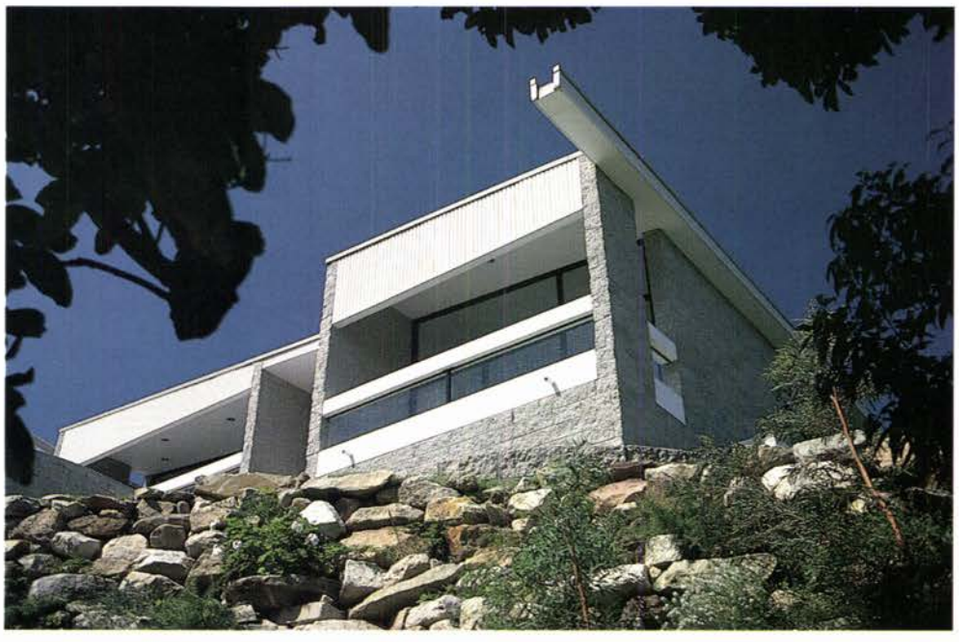
The waterfront three-storey Hannes House built in Cammeray (1983) faces part of Sydney Harbour and lies some ten minutes from the city centre. Its simple rectangular framed structure contrasts with the strong sculptural curves of the opposing forms of projecting roofs and terraces.



A group of dissimilar houses designed by Harry Seidler between 1981 and 1983 includes – shown on the left – the curved plan Basser House, Castlecove NSW (1981) which places all the living areas looking towards the harbour. Seidler's curved geometry predominates here, as it does in the Merson House, Palm Beach (1983) on the right, which is based on a variable quadrant plan. Below, the two-storey Bland House at Rose Bay, Sydney (1983) consists of two basic rectangular living and bedroom spaces, and uses curved shapes as oppositional elements in the form of freestanding curvilinear room dividers and a semi-circular swimming pool.

HARRY SEIDLER – A BIOGRAPHY





Harry Seidler, AC, OBE, born in Vienna, Austria 1923. After studies in England he graduated 1st class hons in Architecture from the University of Manitoba, Canada and later M Arch at Harvard University with Professor Walter Gropius. He then worked in the office of Marcel Breuer, New York. After a period working with Oscar Niemeyer in Rio de Janiero, he settled in Australia in 1948.

He has designed many large projects in and outside Australia including the 50-storey Australia Square Tower (1967), 67-storey MLC Tower & Centre (1977), Grosvenor Place and Capita Centre in Sydney; Commonwealth Trade Group Offices in Canberra; 45-storey Tower and Riverside Centre in Brisbane, and the new Shell Headquarters in Melbourne. Overseas he has designed the Australian Embassy in Paris, the Hong Kong Club and Office Tower in Hong Kong, and apartments in Mexico. Currently in design and construction are Darling Park beside Sydney Harbour and QV1 development in Perth.

He has also designed many single houses, and both low- and high-density housing developments. The first house built, the Rose Seidler House in 1949, is now owned and managed as a museum by the Historic Houses Trust of New South Wales, Australia.

Seidler was made a Companion of the Order of Australia (AC) in 1987 for his services to the advancement of architecture in Australia; Order of the British Empire (OBE) 1972, and Honorary Doctorate, LLD, University of Manitoba, Canada 1988. Various architectural awards include the RAIA Gold Medal (1976), the Sir John Sulman Medal four times, the Wilkinson Award three times, the Civic Design Award twice, the Sir John Zelman Cowan Medal (1987), the Queensland Trienniel Espie Dods Medal (1988), and the prestigious RAIA "Lustig & Moar Prize" (1989) for the design of Grosvenor Place in Sydney.

He is an Honorary Fellow of the American Institute of Architects and was awarded AIA Pan Pacific Architectural Citation in 1968 and is a Member of the Académie D'Architecture, Paris.

He has been Visiting Professor at Harvard University Graduate School of Design (1976-77); University of British Columbia Centre for Human Settlements (January 1978); Thomas Jefferson Professor of Architecture University of Virginia, USA (1978); Inaugural Visiting Professor University of NSW (1980), and University of Sydney (1984).

He has lectured on architecture and planning at École des Beaux-Arts, Paris; University of Virginia, USA; Rice University, Houston, USA; Syracuse University, USA; Boston Architectural Centre, USA; Toronto University, Canada; Technische Universitaet, Vienna; University of California, USA; University of Manitoba, Canada; Royal Institute of British Architects, London; Architects Association, Budapest, Hungary; and at various international architectural conventions.

Gautum Bhatia, a young Indian architect, writes on the remarkable contribution of British architect Laurie Baker in India – a contribution rooted in a profound understanding of local construction and culture.

ARCHITECTURE AND TRADITION

All photographs by Gautam Bhatia

British architect Laurie Baker has practised in India for the past 44 years. In the Southern city of Trivandrum alone he has built over a thousand homes and, beyond that city, his work has included over 40 churches, numerous schools, institutes and hospitals. Few architects have had the opportunity and the stamina to work on such a remarkably varied range of commissions; Baker's projects extend from a fisherman's village to institutional complexes and from a low-cost mud housing scheme to a low-cost cathedral.

And yet it is not the number of buildings that Laurie Baker has designed, nor the range of architectural commissions he has executed that sets him apart from any other architect in India. What makes Baker's contribution unique is the remarkable way in which he has drawn creative sustenance from the environment in which he works, absorbing vernacular patterns of construction and individual styles of living to such a degree that he has been able to give back to his clients the comfort and ease of buildings that are firmly rooted in the culture of their region. In each of the buildings Baker has designed, he has asserted the appropriateness of traditional construction to local conditions, adapting existing local technology to contemporary structures.

A recognition of Baker's contribution to architecture has a singular timeliness today. It comes at a time when a questing conscience has provoked the developing world to look inwards, to solutions of its own making. Baker in India remains a lone protagonist, experimenting singly and quietly in a distant corner of the country and providing information on the causes and results of his numerous architectual interventions.

The idiom Baker has evolved to suit the particular problems of his clients in Kerala is not a formula applicable to all similar situations; and yet, from it stems an entire ideology of architectural practice, a pattern that is revolutionary in its simplicity and its contradiction of the accepted norms of architecture in contemporary India. Baker's built work is an effective demonstration of his own strengths, his own interpretation of tradition, technology and lifestyle.

Centre of Development Studies

"Most materials have their own special characteristics and if used honestly and simply they contribute to the 'looks' of a building merely from their colour, their texture and the patterns formed by joining them together. There is no need to cover them over with costly finishes. Let a brick wall look like a brick wall and a stone wall look like a stone wall. Concrete should look like concrete and not be plastered or painted to look like marble."

Baker's sensitivity to the natural contours and features of a site, his use of materials, the way he seeks opportunity within the limitations imposed upon him by his materials and the needs of his client have all found expression in the structure he designed and built for The Centre of Development Studies in Trivandrum. All the elements that are characteristic of Baker's style – his *jalis* or screens, traditional roofs, stepped arches, overhanging eaves and skylights – are to be seen in this group of buildings which demonstrates the vitality of Baker's use of vernacular architecture at the level of an institution.

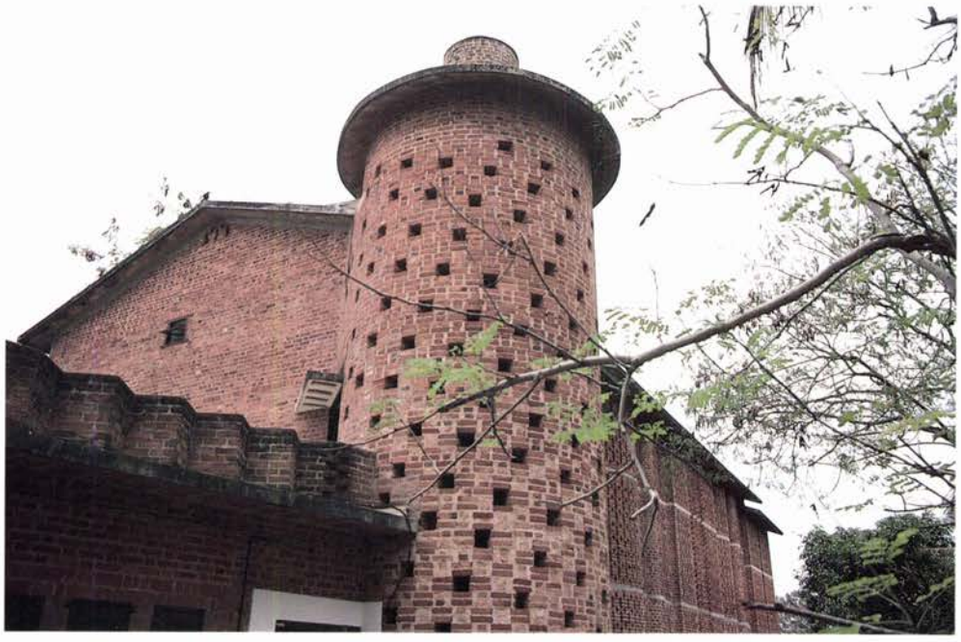
Set up to promote the economic development of Kerala, the Centre and the eminent economists on its staff sought an architectural image in tune with its socially progressive goals, and Baker was the obvious choice as architect. The project was, for Baker, a testing ground for many ideas that he had experimented with on a domestic scale.

In designing the Centre, the absence of precise topographical surveys and existing plantation plans dictated that much of the design work had to be carried out on the site itself. The numerous changing levels of the library complex for example, is the result of plotting plans on the natural terraces of the terrain, so that the visitor never experiences the complex as a single entity. The terrain fragments the institute into its building components, behind groves of existing trees.

Kerala's lush and tropical nature and climate have been kind to Baker's buildings, in a way it seldom is to the so-called modern uni-style, and Baker in turn has been kind to nature. The location

"I learn my architecture by watching what ordinary people do; in any case it is always the cheapest and the simplest because ordinary people do it." – Laurie Baker

Opposite page: the library of the Centre for Development Studies, Trivandrum, India, reveals Laurie Baker's ability to exploit the limitations imposed by local materials.



Baker's Centre for Development Studies, Trivandrum: hostels for men and, below, women show sensitivity to the natural contours and foliage of the site. Rarely is a plant removed to make way for building.

of virtually every tree and sapling on a site is taken into account before the building location is chosen, and rarely, if ever, is a contour disturbed, a plant removed.

The variations and folds of the roof are not the outcome of whimsical expression but suggest, by their very shape and size, the importance of the functions housed within. Casting shadows on the lower roofs the composition is meant to suggest a protective family of buildings.

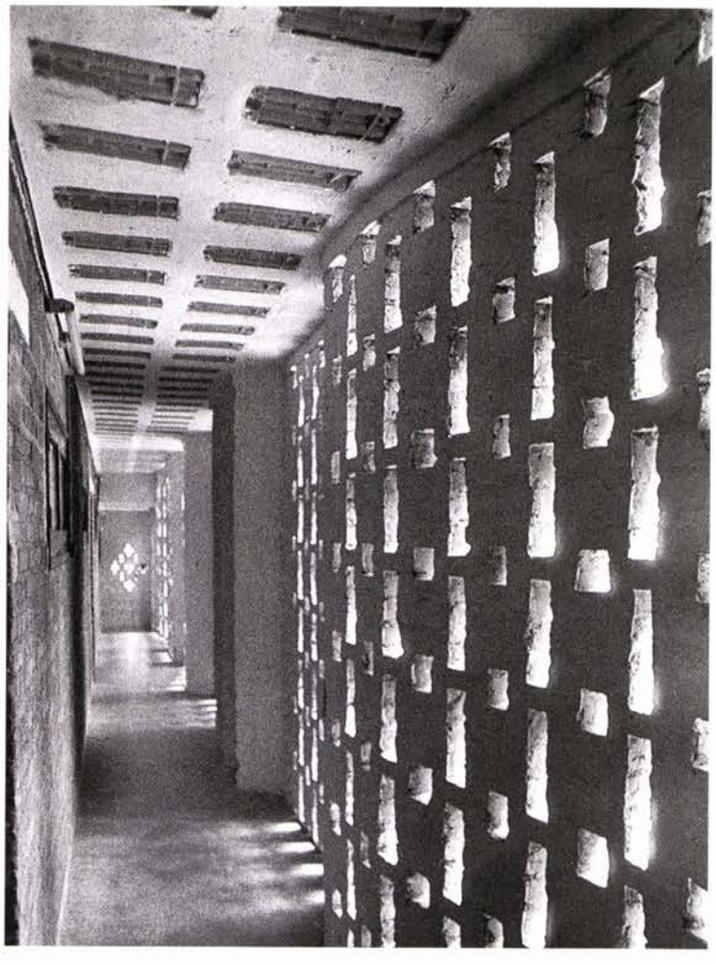
The architecture demonstrates the economic goals of the Institute in a direct and practical way, as is seen in the simplified design of the specific buildings on campus. At the Men's Hostel this economy is expressed in the organization of the plan, the nature of the materials and construction. Student rooms in single file, opening out into a verandah, and stacked on four floors give a formidable linear shape to the plan. Each room is entered simply, down a rear corridor built into the shared walls. This inordinately regimented organization is offset by the playfulness of the circulation and the entrances block, both of which move away from excessive rectilinearity into the realm of curved walls, circular staircases and deep-set wall niches. Though the juxtaposition at close range makes for startling contrasts of light and shade, Baker's justification remains purely structural and economic. "I was very keen to demonstrate the use of the 4½-inch thick load bearing wall. When such a wall is taken to four storeys the curves and circles give it that added stiffness".

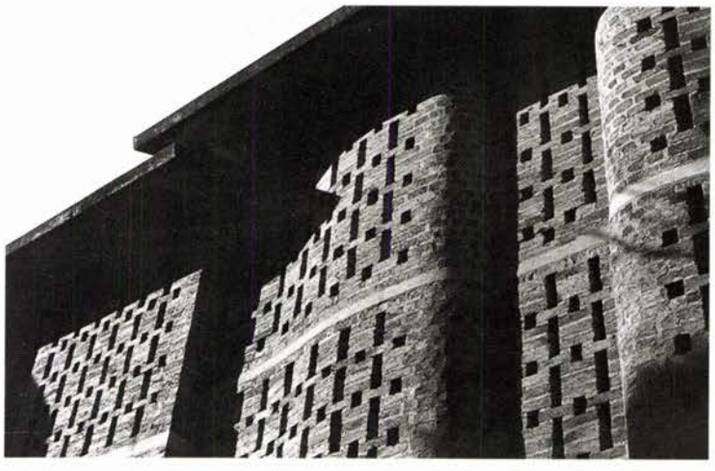
Baker achieves both a natural economy in cost and a subtle variation in design by the way he treats his building material during the process of construction. On a rocky terrain the rock itself becomes the foundation for building. Concrete is used very sparingly, often in a folded-slab design with waste and discarded tiles used as fillers thereby making the roof light and inexpensive. Innovative bonding techniques for brick allow him to build walls of only a half-brick thickness. In many cases they are stepped and curved for added stiffness. Where a single brick thickness is necessary, where a half will do, where water seepage may occur are questions and concerns that find their resolution on the site, as the building goes up.

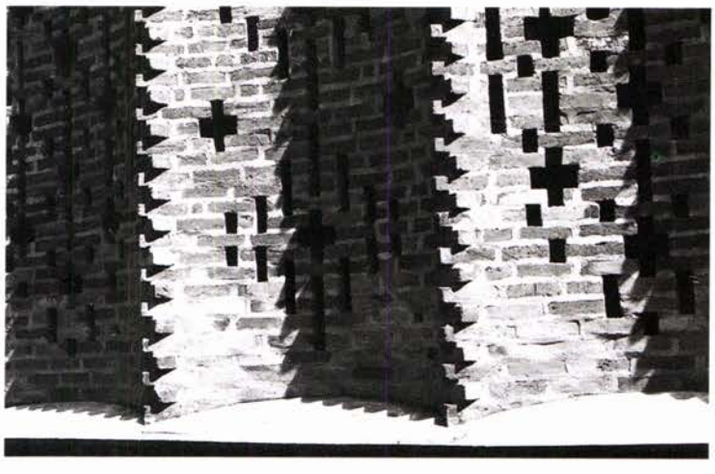
The interiors too are uncompromisingly direct and simple, devoid of superfluous comforts, expensive veneers or flashy details. Baker often eliminates or modifies glass windows, frames and sills, preferring small openings in brick like the traditional *jali*, a screen wall of tiny regular openings producing intricate patterns of light and shadow. For Baker the *jali* is the true vernacular solution to the problem of the window, and it has the elegance and simplicity which the traditional craftsman would consider the hallmark of rightness in a solution. It catches both light and air and diffuses glare while allowing for privacy and security, combining the functions of a window and ventilator. Where large openings are absolutely essential, Baker corbels in bricks, securing the doors directly to the wall surface.

In the palm-fringed, tropical landscape of the region, Baker has also managed to

Intricate patterns of light and shadow are a feature of the Centre for Development Studies as Baker opts for the elegance and simplicity of tiny openings in brick like the traditional jali.







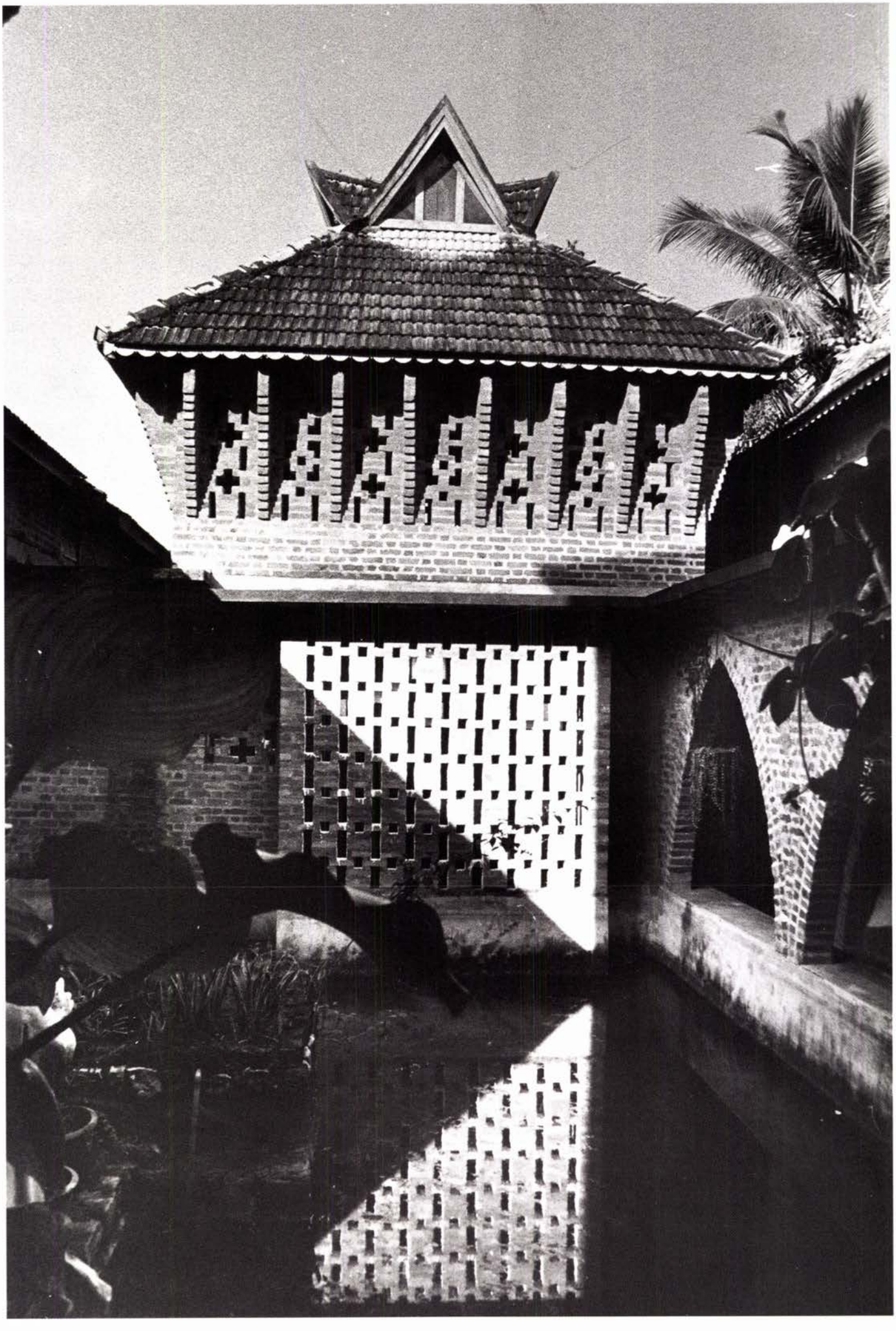
recreate the traditional roof but in a contemporary rendition. The Mangalore tile of the vernacular is relieved of its accepted function of cover, and is introduced into the folded concrete slab as a filler in order to lighten its weight. The resulting form has the shape of a traditional roof with its overhanging eaves and skylights but without incurring the expense of traditional labour and construction. Screen walls, tile roofs, courtyard plans, the corbel and the arch; Baker has built up a vocabulary of these elements over successive projects. Yet the seductive simplicity of each element, the almost flippant casualness of their assemblies can be misleading. Their continual repetition over several projects became necessary once Baker accepted the limits of indigenous material and practice – yet each composition is handled with a directness that makes the end product strikingly original.

Loyola Women's Hostel

Constantly recurring themes of simple planning, honest expression, adaptation of vernacular elements, natural ventilation and ideas on cost reduction all find their way into another tiny jewel-like building, the Loyola Women's Hostel which Baker built nearby.

There are few buildings that so convincingly express all the ideas of an architect in a single complex, as this project does for Baker. Open brick walls, corbelled brackets and traditional fish-tile roofs combine in a series of linked arcaded courts set along a slope.

A major requirement of this working women's hostel was for protection from the outside world, a quiet seclusion within which to follow a strict Christian regimen. "They were to be guarded from any outside intrusion by devoted and determined nuns", says Baker. "Gates were to close at sunset; no windows to overlook the street.



Study games, recreation, meditation and exercise were all to be done within high protective walls."

For Baker, "the prison-like feeling" that accompanied the introversion, made essential the creation of an outdoors within the building, and it needed to be dispersed in a series of places built within the confining outer walls. This was dealt with by using a "checker-board plan, in which the black squares became the hostel buildings and the white ones, the gardens, pools, courts and sit-outs under trees".

The Narayanan House

Students of architecture who have worked with Baker attest to his remarkable capacity to improvise according to the situation. Baker avoids cumbersome working drawings which detail the building for the contractor. Instead, he happily incorporates any material available around the site, whether bricks or electrical fixtures. A house built for Mr R Narayanan in the early 1970s demonstrates the idea of reuse simply and effectively.

"We built-in a number of wooden remnants salvaged from an ancestral home which had been pulled down," says Baker. "The boundary wall incorporated an antique gateway, the main entrance of the house was through a porch of traditional columns and brackets. Door frames were too small to be reused as doors, so they were re-shaped for windows. No attempt was made at any sort of reconstruction or reproduction of an old-type house. We merely made use of the timber to fit in with the new plan and new needs."

The house, built for Narayanan, a senior Indian Administrative Service officer, and his dancer wife Geeta was centred around a mango-shaped courtyard. That the house reflects the graceful movement of *Bharat Natyam* is no accident, for Baker designed the plan in a curving spiral, around a coconut tree incorporating within its flow not merely the couple's needs for living but those of dance practice and performance as well.

Yet, the meeting of such diverse requirements, made it necessary for Baker to separate the more public performing and entertaining areas from the quieter spaces of family living. The upper floor, or rather the upper end of the spiral, includes all the functions of dining, sitting and performance in one curving sweep of space, an idea that is carried through, even in the random placement and size of the windows on the curving exterior wall. The three bedrooms at the lower end disappear into the ground.

Baker's interest in finding an appropriate response to each site condition makes his presence essential during the construction. The organic symbiosis between floor-line and terrain, tree and wall, building volume and landscape, window and view, is achieved only as a result of Baker's perpetual intervention during all phases of building. Improvisations are made to suit the specific daily life pattern of each client.

One of Baker's professional concerns is the extension of the inhabited territory into accidental and immeasurable realms. This intention arises from the architect's wish to first, give the client more than the conventional spaces required of a house, and second to transform the external site condition to suit the design. Such deviations from the norm are the result of the site's own decisive characteristics: an ancient mango tree, a rocky outcrop, or an architecturally severe slope are all factors that contribute to the distinctive final form.

Furthermore, the splaying of walls in the interior or their curving around trees, even the changing angles of the roof-line contributes to a spatial complexity not found in planned, excessively rectilinear architecture. The accidental discovery of unintentional and ambigious space is left to a client's imaginative use: a store discovered under a stairway, a seat fashioned into a window.

Corpus Christi School

Such imaginative reuse of spaces is a deliberately designed feature of an early school project. At the Corpus Christi School the nature of a child's experience in learning and play is reflected in a plan that itself suggests a playful inquiry.

The site along a gentle hill is graded into a series of related plateaus. The upper contours, serviceable from the road, locate the formal functions of living and dining in a rectangular courtyard building. On lower ground, the rooms twist, turn and

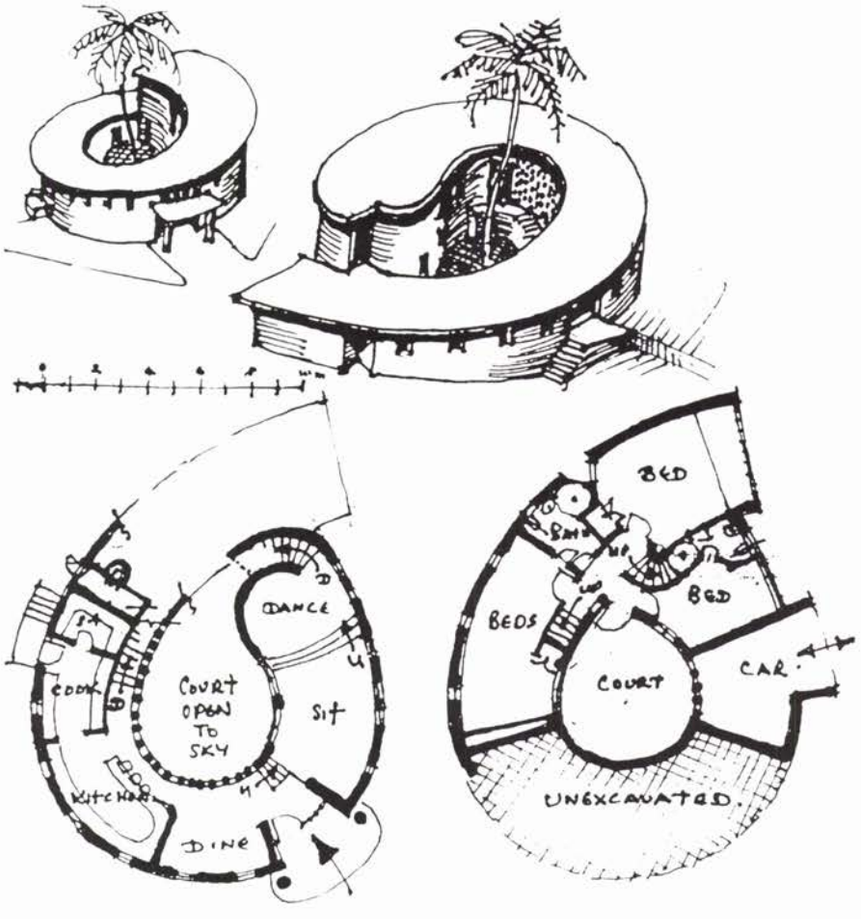
Opposite page and below: the Loyola Women's hostel is a jewel-like building which reflects all of the ideas of the architect in a single complex.

triangulate into varying positions and sizes, offering choices of formal classrooms as well as intimate study dens, larger halls and smaller nooks. The playfulness of the walls, however, reveals a delicately worked flexibility. Rooms function as independent classrooms, but, when necessary, their radiating walls also serve to shift the focus to the gallery outside, and together the teaching complex becomes a single multipurpose hall. Where rooms do not have the formal labels of classroom, assembly hall or office, the student feels less intimidated and is left free to roam, to meet others like himself and discover places suitable for learning and play.

Practising within strict constraints of function and economy, the peculiar plasticity that Baker achieves in the interiors is indeed commendable. An unplastered room of brick is lit by the dark stained louvers of a traditional window, another window is recessed into an alcove, a tiny room in its own right. Such spaces allow the ordinary to become exceptional and in so doing, extend the mind to a multitude of varying associations.

The need for contact with the outside, and with the organic profiles of the site makes it important for Baker to introduce architectural elements that express this

The Narayanan House, built in the early 1970s, was centred around a mango-shaped courtyard. It ingeniously reused wooden remnants salvaged from an ancestral home which had been pulled down.



duality of inside and out, of man-made and natural. The screen wall is made by brick, but also by an absence of brick; the courtyard is delineated enclosure, but it is also open to sky. In the Vaidyanathan House the circular screen conceals the private residence from the outside as well as establishes a link with it. In the Aniruddhim House, an undistinguished cube, the resident's orientation is inwards to a more utilitarian courtyard in the centre. Such spatial and building elements are used to suggest sequences of habitation in varying plans.

The design of spaces for an intimate, personal and familiar occupation are the characteristics that mark all of Laurie Baker's domestic architecture. The accounting for every detail of living and inhabiting makes the process of building for an anonymous mass of people extremely difficult for him. This however, does not keep him from trying. In a recent project for a fishing village gutted by fire, Baker was asked by the State Government to prepare plans for its rehabilitation. The project took him into the field for an extensive survey of each family's requirement; and after a uniform shell was

erected for each, specific individual needs were accommodated in custom insertions, not unlike the effort lavished on his private middle-class clients.

Bureaucrats funding and supervising such projects are always surprised at the genuine personal involvement which they often consider unnecessary for vast housing schemes. The difference between their way of thinking and the Baker approach is invariably where one tries to establish similarities in design and the other tries to discover distinctions between individual families. Such an approach is perhaps related to Baker's desire to create places of rootedness, a permanence lacking in the anonymous and transient structures provided by the Government.

An appreciation of an architect's contribution to society must be seen in the light of the public's perception of the architect as a socially responsible professional. Though Baker has a formidable body of buildings to his credit, his work is clearly out of the contemporary Indian or international mainstream. A large-scale acknowledgement of Baker's work can only come from the government which controls a majority of the biggest projects in the country. Working within wasteful time frames and budgets and with a set of antiquated norms, the government has been unable to provide adequate housing for the millions. Its unimaginative and elephantine bureaucracy has yet to accept Baker's ideology. Recent work in his home state incorporates none of the principles that he has sought to express in his own buildings. This is to be expected, for Baker's iconoclastic system of practice if put to widespread use would threaten the very system that recognizes it.

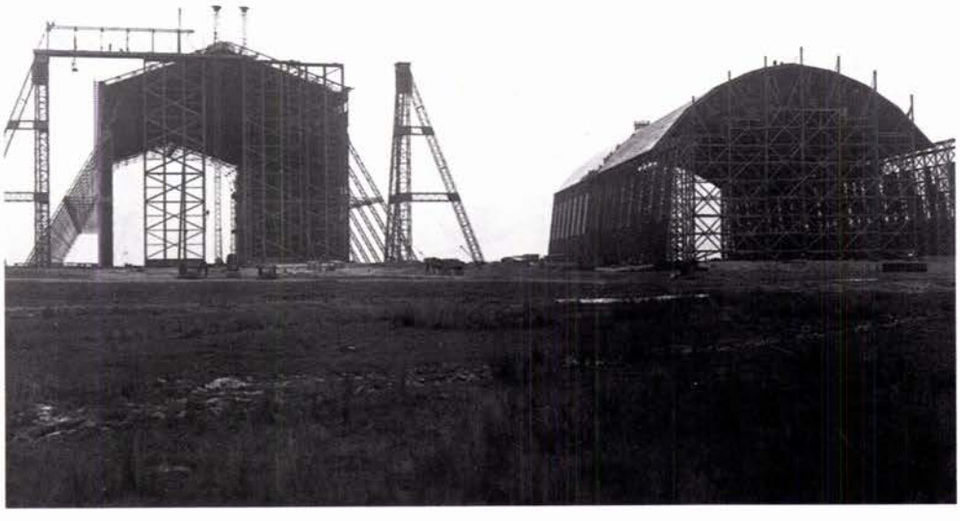
Because Baker falls outside of the professional mainstream, it is perhaps unfair to assess his work in an international or a national context. Yet, the message of his professional life is all there in his buildings. His intellectual contribution has been most effectively articulated in an architecture of structural honesty and authenticity. Rejecting alien values, unnecessary and wasteful building practices, and the self-seeking ethics of the architectural profession, Baker promoted his own kind of architecture, and his own morally satisfying way of practising it. His singular ambition of a better building at half the cost made him eliminate useless members of the conventional architectural team just the way he eliminated unnecessary material from a building.

Baker's most impressive contribution has doubtlessly been his ability to draw the attention of architects, bureaucrats and politicians to the growing problems of the poor. Over the course of a thousand-odd buildings he has clearly demonstrated his concern with a confident consistency. The source for all his professional work has always remained his own particular brand of Quaker humanism, which, more than any single building, is indeed his most significant legacy to architecture.

Laurie Baker's architecture reflects his own brand of Quaker humanism: his buildings are designed for an intimate occupation by their users whether they are private middle-class clients or villagers being rehoused.

SOARING AND SUBLIME

The scale and magnitude of early twentieth-century airship hangars have long fascinated architects and engineers. Peter Dormer looks at an exhibition and book which indicate their importance to contemporary building designers.



Imperial War Museum

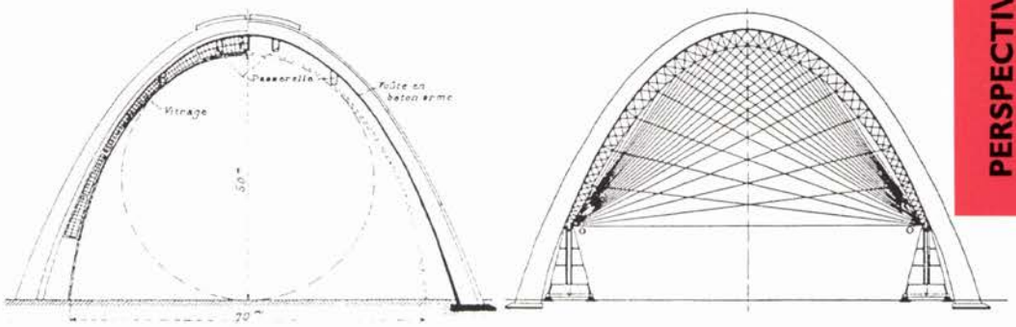
The great airships of the 1920s and 1930s and the sheds that housed them are among the most beguiling of twentieth-century constructions. So much bulk was created to carry such small collections of people. So much money, time and technological effort was put to work for idealism, for the sheer excitement of discovery and for national pride and propaganda. The later twentieth-century parallel is, of course, the American technological triumph which led to men reaching the moon.

There is a minor masterpiece of a book, published by the Architectural Association called *Housing the Airship* (London, A A, £30), edited by Christopher Dean, this book insists that we look at the architecture that was spawned by the airship – the huge construction and mooring sheds – and recognize them for their sublimity as well as their technical prowess.

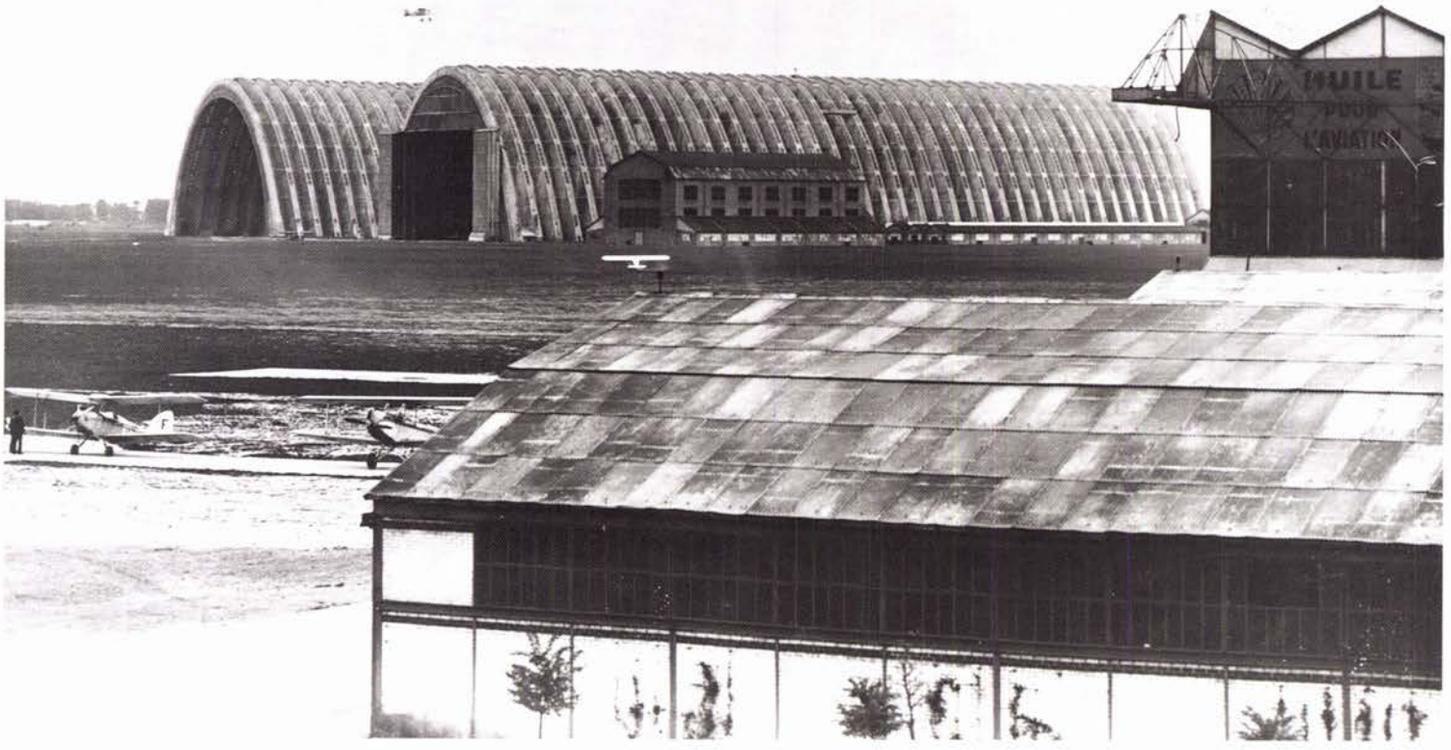
Sublimity is a big word. Normally we reserve it for cathedrals and other buildings or situations in which there is an obvious religious dimension. And certainly what these great airship sheds possess is the glorious, confined, soaring space of the North-European cathedral nave. But as a materialist and an aetheist I *naturally* argue that all sublimity in architecture or art is the natural consequence of our biological and psychological reactions to scale, to light, and to the recipes of enclosing space. Such reactions may be called "religious" but it is not, despite the prejudices of Christians, the hand of God we see at work, but the hand and mind of man (and man made God in his own image).

But there is also a littleness, a domestic side to the airship enterprise which is worth noting. Ships like the R100, the Graf Zeppelin, and the Hindenberg were potentially extraordinarily dangerous. And being carried before the wind on several million cubic feet of combustible gas could be an upsetting experience for passengers. Passengers therefore had to be distracted. When the Hindenberg entered service on the North Atlantic crossing, carrying 50 passengers, it also took to new heights the concept of domestic service. The on-board kitchen provided a full range of hot meals, fresh baked bread and the meals were served on porcelain plates. There was also a daily newspaper printed on the airship.

Opposite page: Kingsnorth (Rochester) Admiralty Airship Station, 1915, showing sheds nos. 1 and 2 under construction.



Eugene Freyssinet (1879-1962): Orly aerodrome (Paris). The pair of famous airship hangers, 1921-23, are shown below, the nearest with its high doors. Cross-sections, right, show glazing between corrugated concrete ribs and tension cables radiating from the reinforced concrete supports.



In other words there were as many reassuring domestic features as possible to emphasise the *normality* of travel and distract the mind from fears.

The need to reduce weight and the constant fire risk did generate idiosyncratic details: the smoking room on the Hindenberg is an example. This room featured a single electric lighter, self-sealing ashtrays and only the steward was permitted to handle a match. (See *The Journal of Decorative and Propaganda Arts* No. 15 – *Zeppelin Decor,* J. Gordon Vaeth.)

The Hindenberg, however, unlike the Graf Zeppelin or the R100 used a modern, Bauhaus-style decor in its furnishings and decoration. The Hindenberg was a propaganda weapon: it had to proclaim its technological "up-to-dateness" in all its particulars. Hitler, however, was no fan of airships but Goebbels saw the value of this great phallus penetrating the New World's consciousness time and time again.

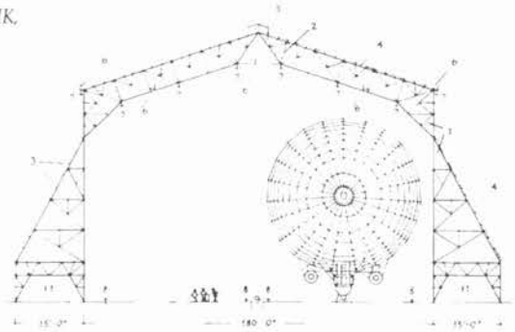
But nationalistic motives do not trivialise the excitement of the technological and aesthetic achievement. Martin Pawley, one of the contributors to Christopher Dean's book, says that "It is not too much to say that the engineering achievement of the enormous airship sheds paved the way for the primacy of the structural engineer in the constellation of construction professionals that rules the built environment today."

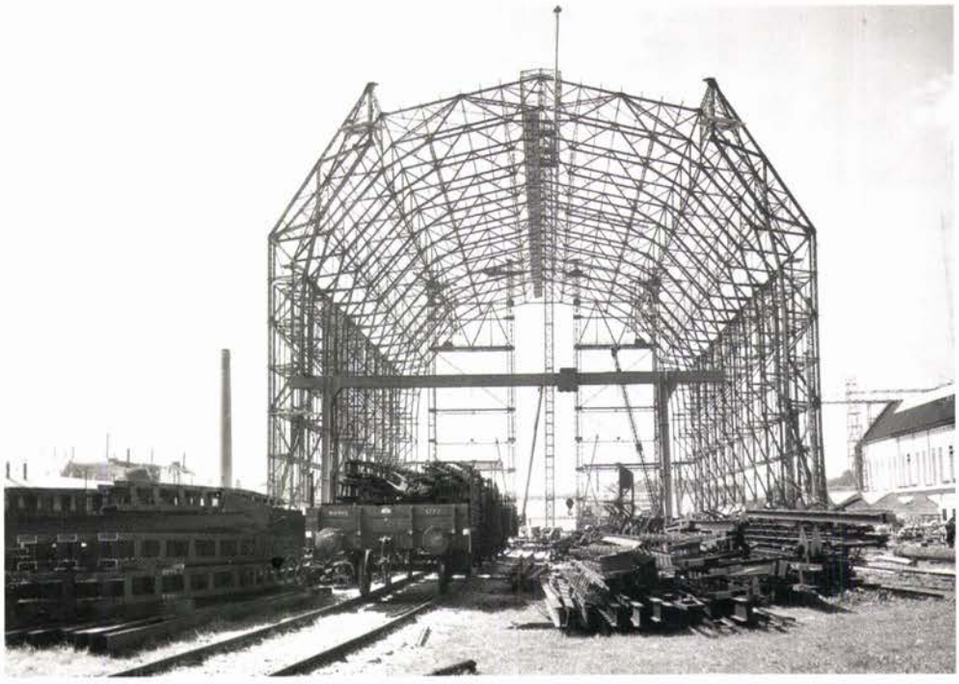
What does he mean? Well for one thing Pawley is reminding architects that they depend on engineers. I think that architects implicitly admit this even in the decoration of their work: the decorative detailing of the Seagram building is the "I" beam, it is an engineering metaphor. The greatest architectural conceits of the 1980s – the Lloyds Building in London and Foster's Hongkong and Shanghai Bank – are full of a variety of engineering metaphors.

Christopher Dean makes the engineering/architecture connection in a more scholarly way. This is his description and commentary upon a large airship hangar built in 1919 at Montebourg, near Cherbourg in France and used now by the French Navy: "The rectangular-section ribs are tied by a series of equally spaced horizontal runners carrying a modular system of fibrocement cladding panels similar in scale to the panel system used by Foster Associates at the Sainsbury Centre at the University of East Anglia (1975-1978)".

The first airship was built in a floating hangar but soon land-based sheds became normal. However, fixed buildings could cause difficulties if, when manouevering the airship in and out, the building was facing the wrong way into the wind. Thus, before the first world war, a number of sheds were designed to rotate on huge turntables. Then, a little later, around 1911-12, the inclusion of airships in military operations generated a demand for

Cross-section through rigid steel shed at East Fortune, UK, 1916 showing the R34 in position.





Luftschiffbau Zeppelin

The enormous scale of these hangars can be appreciated in this picture of the Friedrichshafen construction shed, 1929, which was the largest ever built. The Zeppelin shed of 1915 is seen on the right.

sheds that were easily erected, disassembled and reassembled elsewhere.

The pace of development of airship architecture was obviously forced by the development of the airships themselves. John Provan says that from the first airship by Count Zeppelin flown in 1900 to the last of the prewar generation, the LZ-130 which flew in 1938, the capacity increased from 121,920 cubic metres of hydrogen to 2,194,560 cubic metres of hydrogen.

Manfred Bauer, for example, lists some of the details of the brief to build the first steel shed for the Zeppelin Company in 1909. Temperature control, ventilation and access were three of the problems. Bauer says that to prevent the internal temperature from fluctuating excessively, the roof covering and walls were constructed from materials with low heat conductivity. The gable ends, which also functioned as doors and therefore had to be lightweight, were steel framed and clad with galvanized metal sheet lined with cork with an insulating air layer between the two surfaces.

Doors were a problem. According to Christopher Dean, the design of large, moveable doors was seldom satisfactorily resolved although some countries managed better than others. In 1917 the airship hangar doors at Cardington, England, were 36 metres high, ran on flanged wheel bogies on rails, and were operated by four man-operated capstans. Thus it took 30 minutes to open the doors. In Germany they had already developed electrically operated doors such that a similarly-sized entrance could open or shut in ten minutes. In the 1920s the Germans developed the design of curved sliding doors which in turn led to "clamshell doors" in which the whole curved front of the building would be swept open on rails. The biggest example being the 55-metre doors of the Akron airdock in 1929.

Housing the Airship contains many notes and photographs which show how the demand for big sheds encouraged the technology of prestressed concrete and metal fabrication. But one might end with a note on the design of the airships themselves. Barnes Wallis, designer of the R100 Airship, said that the R100's purity of line could not have been accomplished by a single graphic artist – not even one with the skill of a Michelangelo. The airship was a creation of technology and mathematics, notably the equation:

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} + \frac{z^2}{c^2} = 1$$

Wallis says "When suitable values are assigned to the constants a, b and c, this produces a closed surface known as an ellipsoid, and by its means the position of every point on the surface of the airships can be calculated to any desired degree of accuracy."

Interesting too is the fact that whilst we can claim the airship shed for architecture, we can, says Wallis, claim the airship itself as an example of product design because the hull structure of the R100 (over 200 metres long) was built from only eleven different parts. Over half a million of the smallest part, a bracing piece, were used, and they could be ordered by the 100,000. (See "Barnes Wallis: Artist or Engineer?" *Royal Designers on Design*, Design Council 1986).

Thanks to Christopher Dean we can begin to reclaim an important but largely ignored part of twentieth-century industrial culture and take it into account in the history of the development of architectural engineering and design. □

INTERNATIONAL
FORUM
OF YOUNG
ARCHITECTS
PUBLICATION

EDAS

KIRPICHEV'S ARCHITECTURE SCHOOL-STUDIO IN MOSCOW

The International Forum of Young Architects is a world-wide organization of young architects for joint professional activities aiming at the stimulation and promotion of avant-garde trends, concepts and projects in the field of architecture.

Editor:
Georgi Stanishev
Design:
Georgi Stanishev
Ivan Ivanov
Translation:
Evgeni Dainov

Maxim Baryshnikov, age 16. Fragment of the book "We", 1988. Course work, discipline: "Literature". Cardboard, distemper, Indian ink.
Accent of attention on the form of the text. *Colour-dynamic and centripetal movement. Contrast between self-sufficient geometricism and concentric structure of the composition field.*

Vladislav Kirpichev's Experimental Children's Architecture Studio (EDAS) has been functioning in Moscow since 1977 as one of the most exciting experiments in child education and initiation into the world of art and architecture.

Two days a week, after school hours, about ten to twenty children aged from six to sixteen gather from different parts of Moscow in No 50 Pervaya Brestskaya Str to convert their imaginary worlds into real architectural models, designs, visionary and fantasy compositions.

From the few publications on the subject, it would be difficult to discover any consistent methodology in the teaching process developed by Vladislav Kirpichev, founder and director of the School-Studio. But there simply must be some psychological mechanism which turns these EDAS evenings into a Magical Mystery Tour through the subconscious world of children's artistic potential. Because the results of their work are so intriguing in their compositional and stylistic novelty, it is difficult to believe that they are produced by children's minds and hands. As can be seen from the School-Studio curriculum vitae, it already attracts the attention of distinguished arts and architecture centres, museums and galleries.

Vladislav Kirpichev's Double Manifesto *reveals the hidden methodology of EDAS as well as his personal views on the creative process in art and architecture.*

ARCHITECTONICS

of a Free Order

traditions	and	transformations
game	and	reality
empiricism	and	intuition
elitism	and	democracy
style	and	ideals
analysis	and	selection
beauty	and	spontaneity
conglomeration	and	heterogeneity
cult	and	destruction
opposition	and	synthesis
unregulatedness	and	interlacement
emptiness	and	saturation

of a Personal School

dialogue	and	discussion
influence	and	accommodation
adaptation	and	imitation
conformism	and	copying
jointing	and	intensification
interflow	and	isolation
rejection	and	degeneration
multidimension	and	heterogeneity
graphic	and	likeness
remoteness	and	indistinctiveness
submission	and	enrichment
game	and	activity

Author's conception of form as mouthpiece of unevident Nature

Restoration of image on the level of primary elements.

Tradition as codified ideal of formal decision.

Mastering of reality as clarification of its rhythmic structure.

Stylistic maximalism.

Architectonic "hindrance" as conscious denial of "pure" correlations in combinatorics and geometry.

Spirit of game and rules as an extrapersonal character of workmanship.

Technological programmes not needing precision of execution. Recognition of the structural principle and its realisation as a propaedeutical mechanism.

Destruction of the existing system of visual terms as the most inert psychological system.

Rules for the transformation of the original version of composition, and for the study of its inner structural potential and regularities.

Geometric realism as material, and spontaneous form-artistic combinatorics as order.

Latent functional scenario as a subjective choice of an individual philosophical version of space.

Content of formative processes as a permanent transformation and interpretation of formal elements.

Absolute form as invisible object appearing after conversion of the irrational into a typified element of composition.

Submission of style formulae of the past and foreguessing as an overtaking of language, and the spirit of contemporaneity, as a permanent preparedness for the future.

Creation as deformative architectonic transition from parameters of Absolute form to the polysemantics of the symbol and the maximum being of illusory form.

Semblance of independent life, coexistence of spaces and forms, objects,

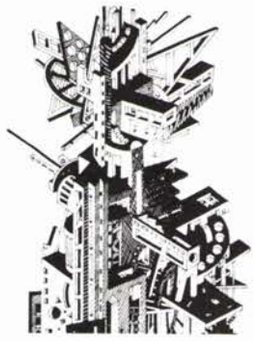
Composition, rhythm, fragmentation of the whole as lessons in the visualisation of one's presentations about decorative essence of Form.

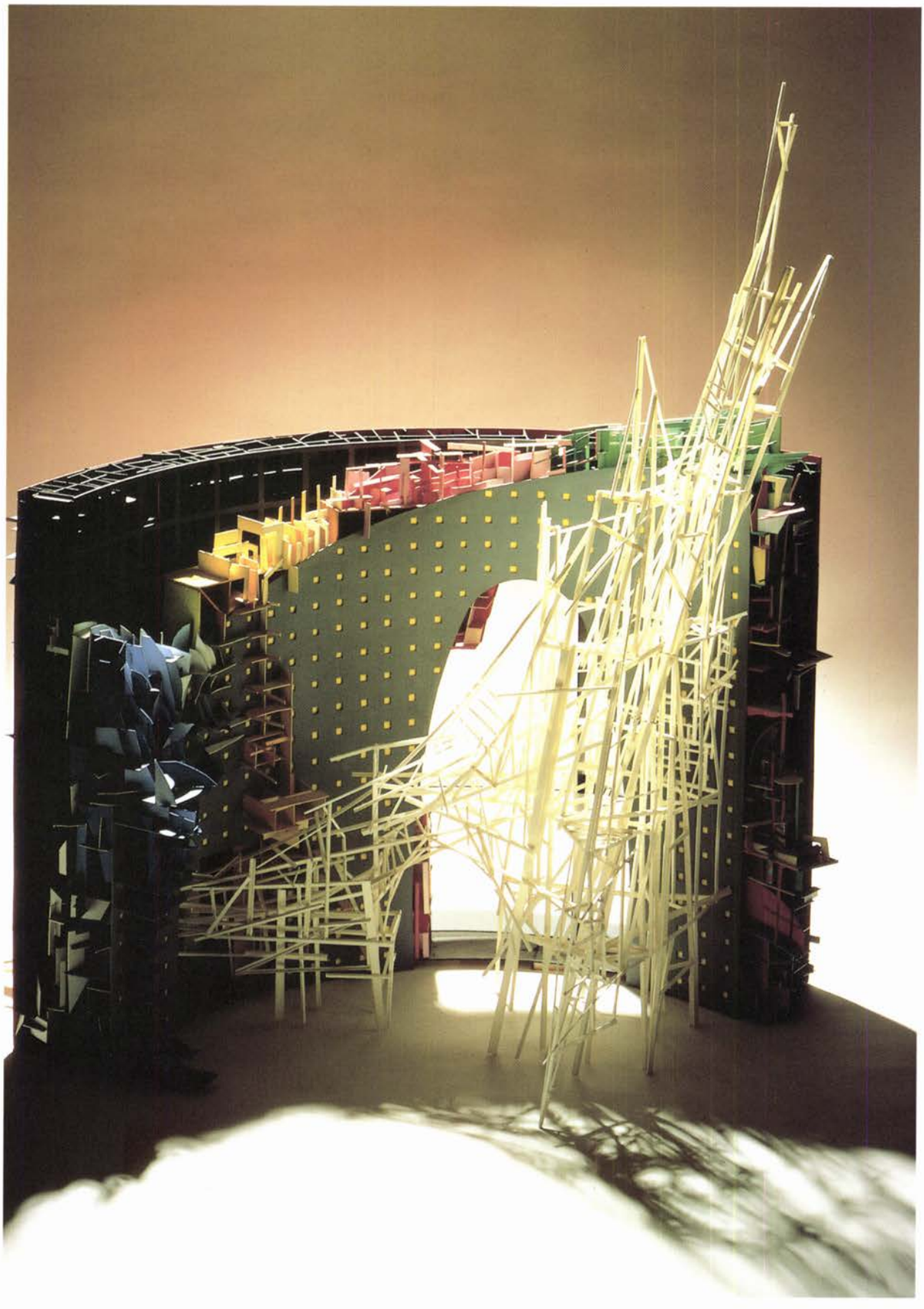
A programme, containing a collection of formative elements and their transformations formulated as the creative task.

Pedagogic postulates as an obstacle for the disappearance of aesthetic values of the profession and the practical elements of craftsmanship. Creation of Form as a phenomenon in which processes of time play a principle role – Chronological order.

Coexistence and mutual complementation of heterogenous methodological principles as a condition for the viability of the school and a premise for movement in any direction.

Model of dialogue: "Shadow on moving surface" as a re-translation of new fact into the inner language and absorption of its energy by the creative potential of the mind. □





Opposite page
top to bottom:
Collective Work.
EDAS, 1986.
Studio programme
"Alphabet",
Wood, paint.
Practical use of learned principles.
Constructive understanding of form.
Articulation and superimposition of structure elements.

Vladislav Kirpichev with pupils in his studio.

Moments of work on "Modelling", and "Collage".

This page:
above left to right:
Pavel Panov, age 15.
Half-Timbered House, 1988.
Studio programme
"Fantastic Architecture".
Paper, Indian ink, pen.

Anton Minenkov, age 15.
House-Sculpture, 1987.
Studio programme
"Fantastic Architecture".
Paper, Indian ink, pen.

Tania Kirs, age 8.
Butterfly, 1987.
Studio programme
"Ecology".
Paper, Indian ink, pen.

Maxim Baryshnikov, age 15.
House-Conglomeration, 1987.
Studio programme
"Fantastic Architecture".
Paper, Indian ink, pen.

Left:
Maxim Baryshnikov, age 16.
House-Wall, 1988.
Workshop, studio programme "House".
Coloured Cardboard, paper, paint.
A conversation on the interaction between two different structures.
Explanation on the role of functions in forming the composition.

Below:
Moments of work on "Arbitrary installation", discipline: "Modelling".

Opposite page:
Maxim Baryshnikov, age 16.
City Fragments, 1988.
Course work, studio programme "Fantastic Architecture".
Cardboard, paint.
A conversation about colour and the principle of connection between autonomous elements.

functions and movements bereft of any internal logical connection: a spatial collage.

New architectural landscapes as a chain of visual pictures, subordinate to criteria of individual choice, enabling one to feel as an active element of time and the environment.

Cultivated orientation toward omnivorousness as a principle of enrichment in different worlds, in combination with strict taste selection – electric cultural programme.

Original constructive collection of methods and a new alphabet of sterile geometric primary elements – instrument and intermediate result of the analytical renovation of the language of Absolute Form.

Principle of gradual structural complication of technological programmes and transition of formal elements of artistic language

Russian architectonic line – an artisanal embodiment of spatial interactions of geometric bodies in accordance with the laws of combinatorics: formal combinations become a new world of the existence of the Absolute form.

Beginning of work on a project is a problem of choice of a single starting metaform: the geometric primary element which will lie at the base of the transformative construction.

The process of choosing opens the whole chain of transformations to the end. Rational methods of complication of the starting metaform can be mixed with the irrational – a "hindrance" due to which the texture of artistic language becomes irreversibly entangled, and the chain of transformative construction is ruptured.

Each transformation programmes for itself a new space: when this method flows into reality, untraditional architectural phenomena appear.

Successions of transformational chains are not evident and are not inter-correlative: they exist in parallel, and their intersections are unpredictable but considerable, for as a result a "hindrance" appears which irreversibly synthesises chains.

Each metasign is a stable object and carrier of the structural idea. The collection of metasigns is constantly swelling, but in each period of time it is finite and reflects the character of the dominant style. Depending on the degree of universality contained in the metasign it can possess a different invariance with regard to styles.

Multi-stage dynamic method

Of transformative construction as a development of metaform from its ideal state to concrete fragmented manifestations, or to a realisation through more elementary visual notions: the horizontal, the vertical, the diagonal, the contour etc. There is an aesthetic algorithm of chain formation: the ideal must be shown through the deviations. Movement from the original metaform, existing in the mind, to deviation from that ideal makes it more significant. The nucleus of the artistic effect becomes the indirect sense of the rational element of the starting metaform, evoked by the complicated game of formal combinations: the impression is built on the provocation of the feeling of the ideal.

The multi-stage dynamic method of the propaedeutical course fixes some phases of composition formation as an independent creative result. Here the structure of learning provides maximum unfolding of the author's conception of form creation. The system of metasigns, being the thematic basis of all study work acts as a mediator in the process of mastering the universal formal alphabet and the elements of the professional vocabulary. Consequently, the pedagogical conception of the personal school integrates the author's conception of form creation with the universally valid architectural categories into a single polysemantic factor in the dynamics of the professional mind – a new type of transformative compositions.





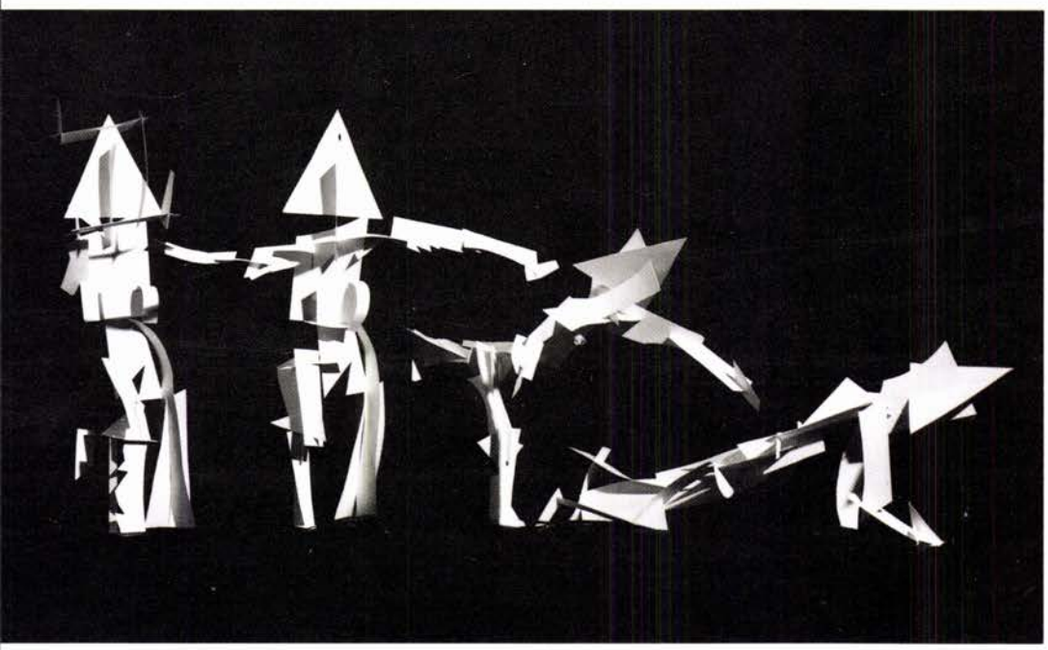






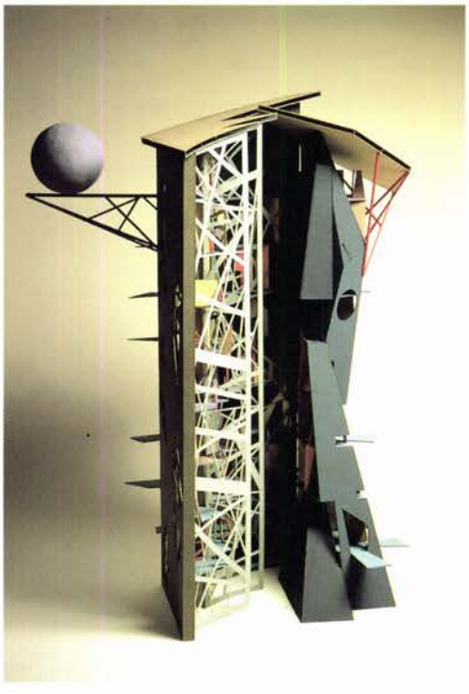




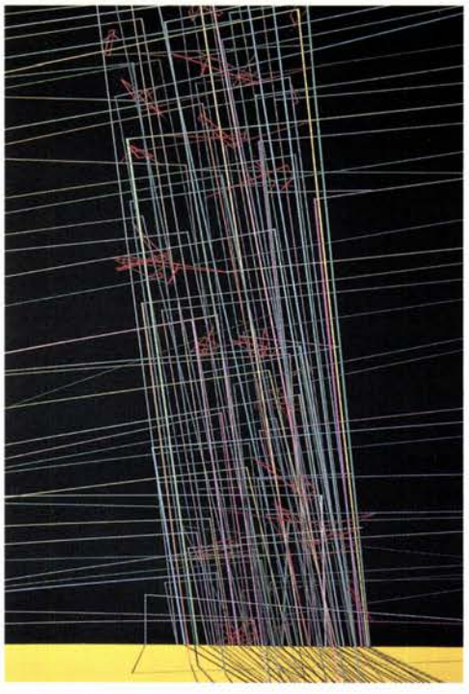
Above:
Pavel Panov, age 14.
Maxim Baryshnikov, age 15.
Gymnastics, 1986.
Studio programme "Man".
Paper.
A conversation about movement and its qualitative stages.
Each stage opens as a self-sufficient form.

Right:
Vladislav Tulupov, age 14.
Vertical-Horizontal Skyscraper, 1988.
Course work, studio programme "Fantastic Architecture".
Cardboard, paint.
Analytical task for exposing common features and differences between two contrasting structures.

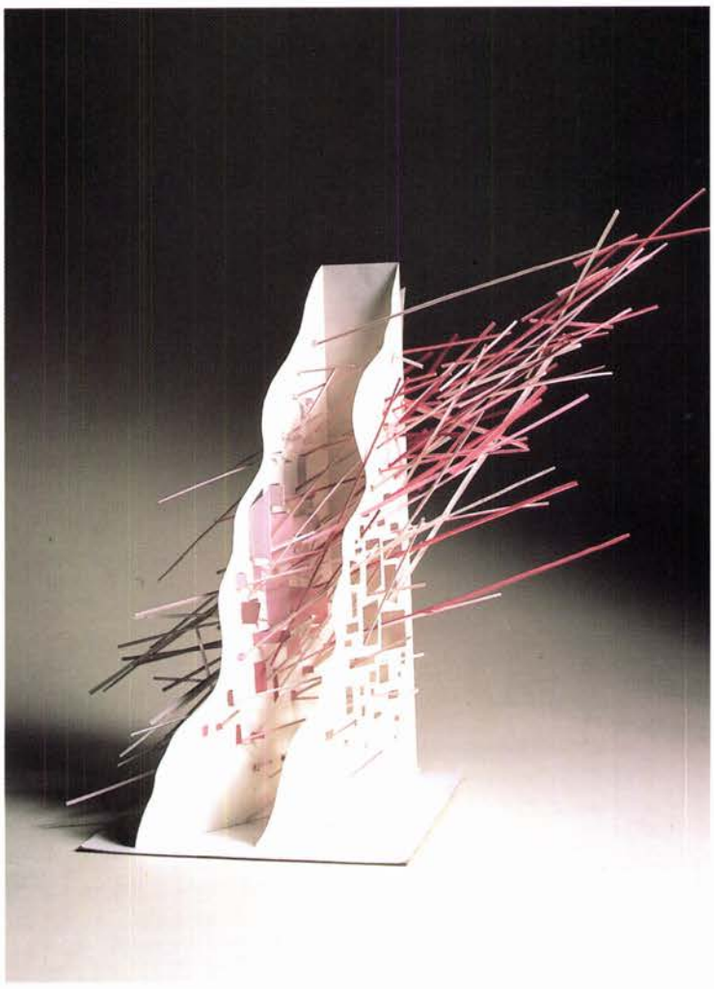


Anton Minenkov, age 16.
House-Canyon, 1988.
Course work, studio programme "House".
Coloured cardboard, wood, papier-mâché.
A conversation about the canyon, its spatial characteristics and specific features of the plastic texture.

Anton Minenkov, age 16.
House-City, 1988.
Course work, studio programme.
"Fantastic Architecture".
Cardboard, paint.
Possibility of a free choice of the theme and the form of its revelation.



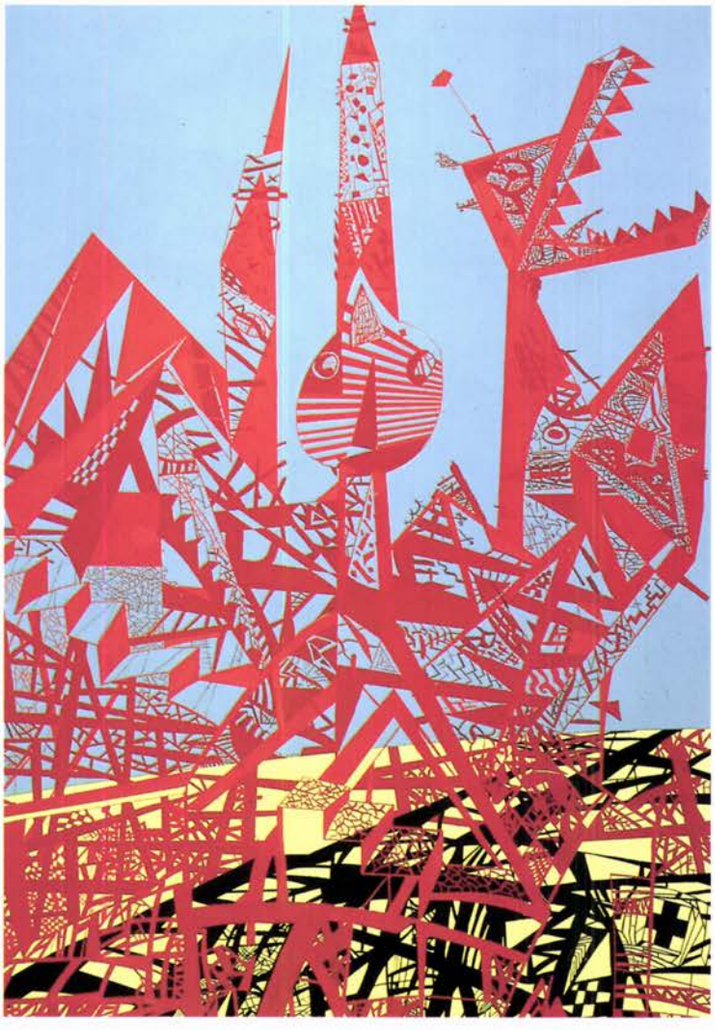
Gennadiy Chumichev, age 15.
Ghost Tower, 1989.
Course work, studio programme "Fantastic Architecture".
Cardboard, paint.
A conversation on a skyscraper. Task: Making form out of nothing.



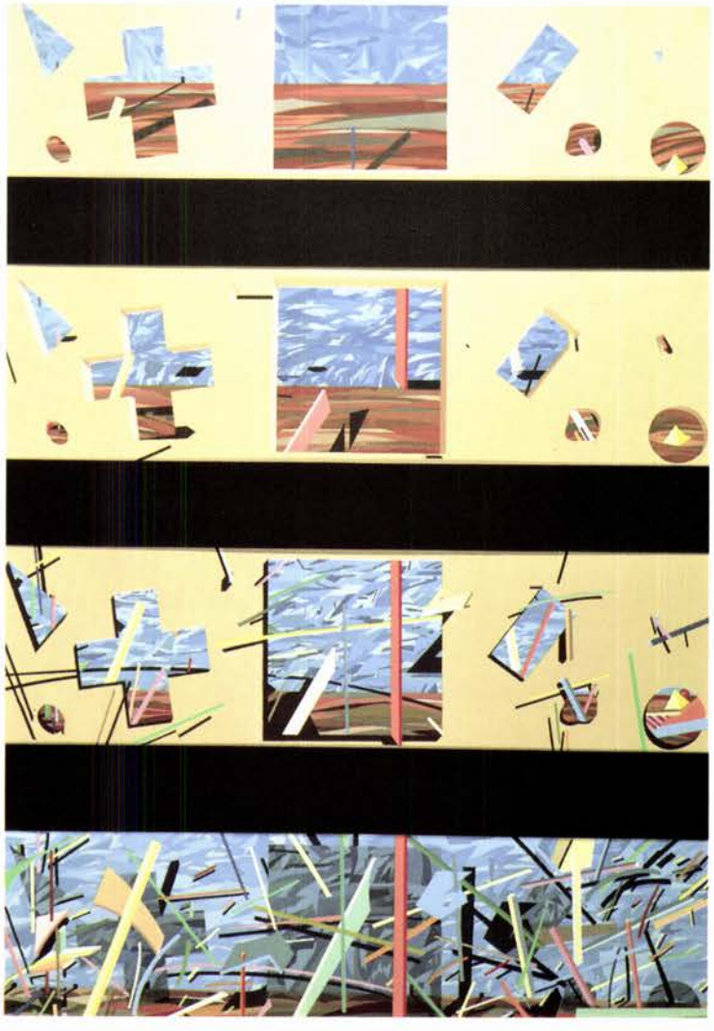
Left:
Sasha Kirs, age 8.
Skyscraper, 1989.
Course work, discipline: "Modelling".
Matches.
Stage-by-stage structure formation in the process of work fulfillment.
Study on the principles of system development. Contrast between stability and expressiveness.

Above:
Anya Bokova, age 14.
Skyscraper, 1989.
Preparation Course work. Discipline: "Modelling".
Coloured paper.
Influence of the concrete analogue and its interpretation.

Below:
Roman Flier, age 14.
House of surfaces, 1988.
Educational task, studio programme "Fantastic Architecture".
Paper, Indian ink, pen.
Explanation of the layer principle. *Transformation of three-dimensional architectonic construction into an unreal object.*



Above:
Gosha Lezhava, age 9.
Dragon, 1988.
Course work, studio programme "Fantastic Architecture".
Cardboard, paint.
Task: Imagery. A conversation about shadows *Geometrical stylization of formal features of the metasign and its transformation into an unreal object.*



Right:
Katya Munares, age 7.
Fish, 1986.
Educational task, studio programme "Ecology".
A conversation about natural textures.

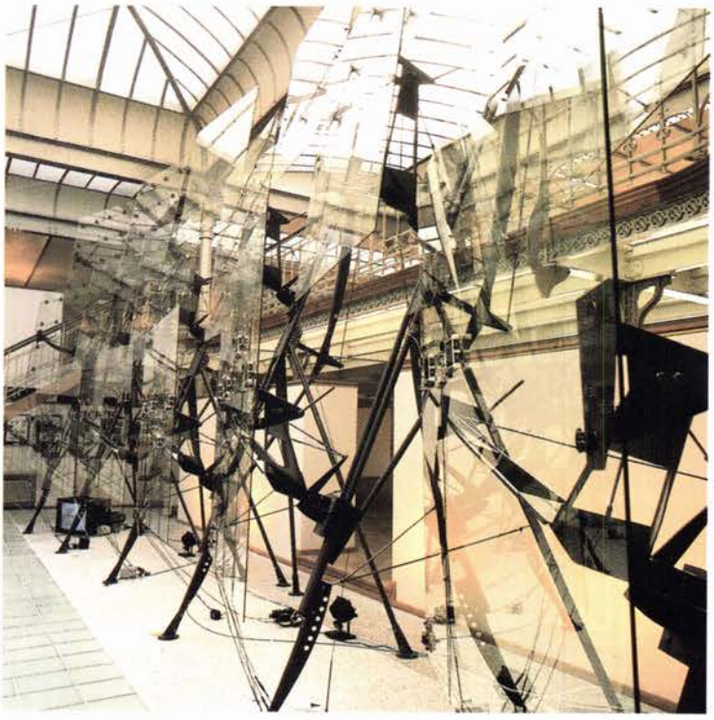
Above:
Dimitriy Bakaev, age 15.
Wall, 1988.
Course work, studio programme "Fantastic Architecture".
Cardboard, paint.
A conversation about illusion and reality.
Working out of principles of destruction, movement, variations.

CURRICULUM VITAE
EDAS ARCHITECTURAL SCHOOL-STUDIO, MOSCOW

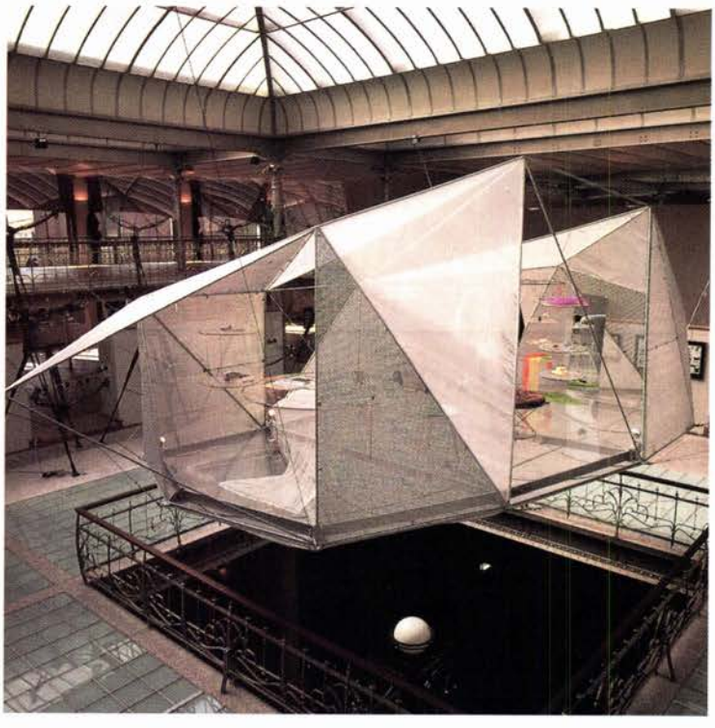
1977 – founded in Moscow (and until 1979 known as "First Studio") as an independent creative association; includes an experimental school and a free workshop. The programme is based on a combination of non-traditional forms of study with traditional
1978 – First Studio renamed by its pupils to EDAS – Experimental Children's Architectural Studio – for its first presentation at the Central House of Architecture, Moscow
1980 – creation of the first series of educational programmes for children aged 4-5. First trip abroad to the exhibition at the 14th UIA Congress in Warsaw
1981 – first creative report at the Central House of Architecture in Moscow
1982 – EDAS attains official status. First presentation abroad (Britain)
1983 – completion of the work on translating a number of technological disciplines into an idiom suitable for young children
1984 – first major exhibition abroad (Hungary) of 207 works
1985 – first extended circuit of the USSR with lectures about the work of EDAS
1986 – "Parents' Manual" completed. Beginning of "Alphabet" programme
1987 – first mobile exhibition in the USA (Los Angeles, San Fransisco, Belenheim, San Diego) and first permanent exhibition in the USA (Washington and Santa Kruz)
1988 – organisation of international childrens' designs seminars
1989 – first presentation of the Studio in France, West Germany, the Netherlands. First presentation of the work of the workshop in the USA
1990 – principled rejection of traditional models of professional education. The programme is based on transformative interaction between archetypes of culture, metasigns of the creative mind and real forms of objects designed.

CURRICULUM VITAE
OF VLADISLAV KIRPICHEV

1948 – born in Chelyabinsk, USSR
1968-70 – studies classical dancing at the Moscow Choreographic School under N.B. Cherkasskaya
1972 – First prize at the UNESCO competition at the Second UIA Congress. Entry: "Centre of Creative Activity"
1975 – graduates Moscow Architectural Institute
1977 – Founds EDAS Studio in Moscow
1975-79 – architect-designer at the Mosproject-I Institute
1977-79 – design and construction of the Headquarters of the Moscow River Shipping
1977 – competition entry: monument "In Memory of the Heroes of the International Communist and Working-Class Movement", Moscow.
1980-83 – teacher at Moscow Architectural Institute
1982 – competition entry "Doll's House" for "Architectural Design" (Britain). Runner up prize.
1983 – competition entry "Tête-Défence" (together with A. Cheltkov, D. Barkhin and others)
1985 – works as designer for Irrational Theatre "House of Arto-I, II"
1987 – script and mounting of the film "The Child's Soul", based on a novel by Herman Hesse
1988 – designs memorial complex "Victims of Stalinist Repressions"
1989 – Christmas cake "Moscow Architectone 1990"; relief-collage for the firm Steelcase Design Partnership



THE END OF STYLES



All photographs by Ryuji Miyamoto

Six architects from Japan contributed to an exhibition called Transfiguration *staged in Brussels in 1989. We show here pictures of the exhibition and we print the introduction to the catalogue written by Professor Riichi Miyake. The architects are: Toyo Ito; Kei'ichi Irie; Shin Takamatsu; Hiromi Fujii; Yutaka Saito; and Kasuyo Sejima.*

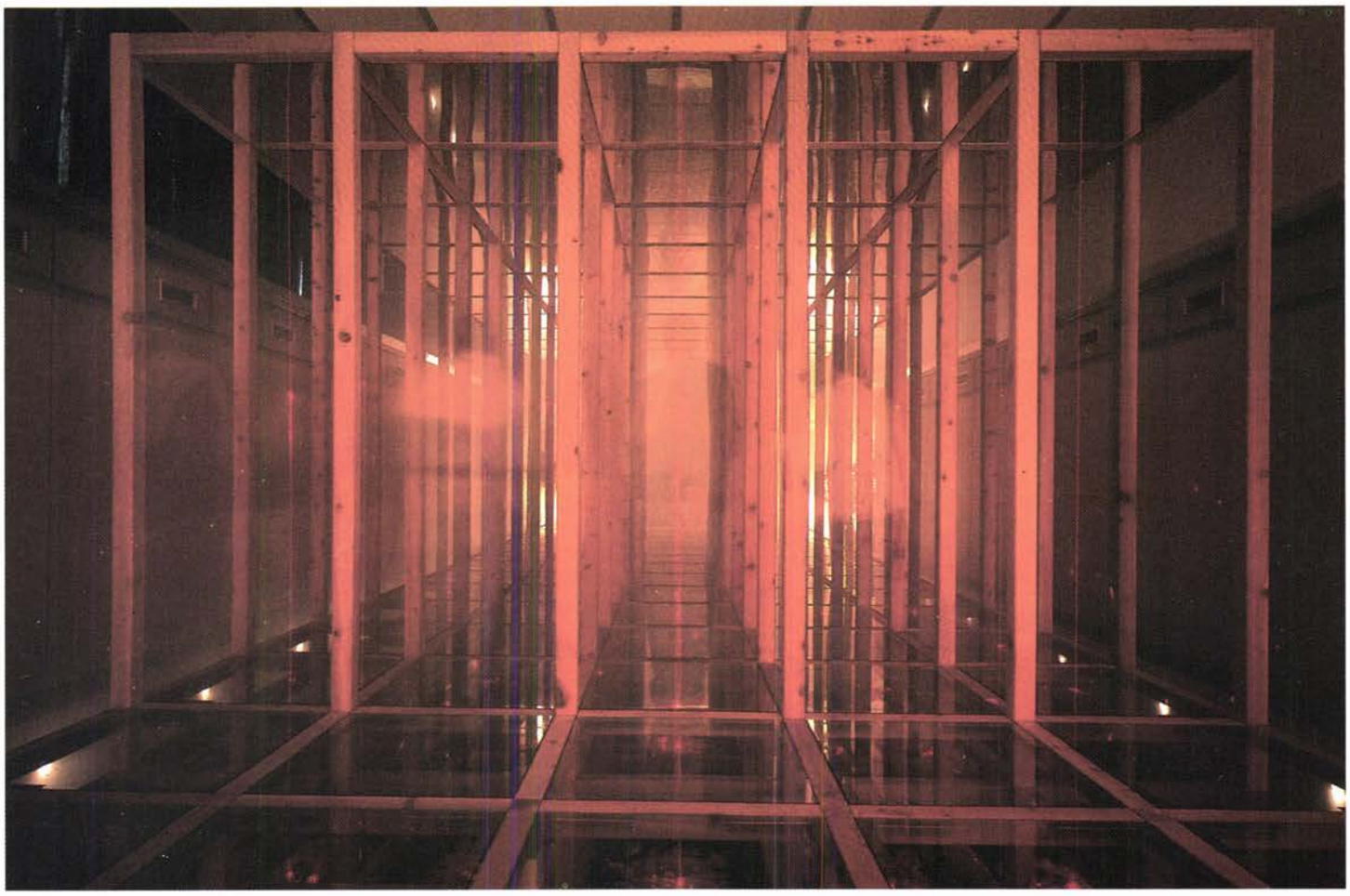
Top left: Lascaux *by Kei'ichi Irie.*
Left: Egg of Winds *by Toyo Ito.*

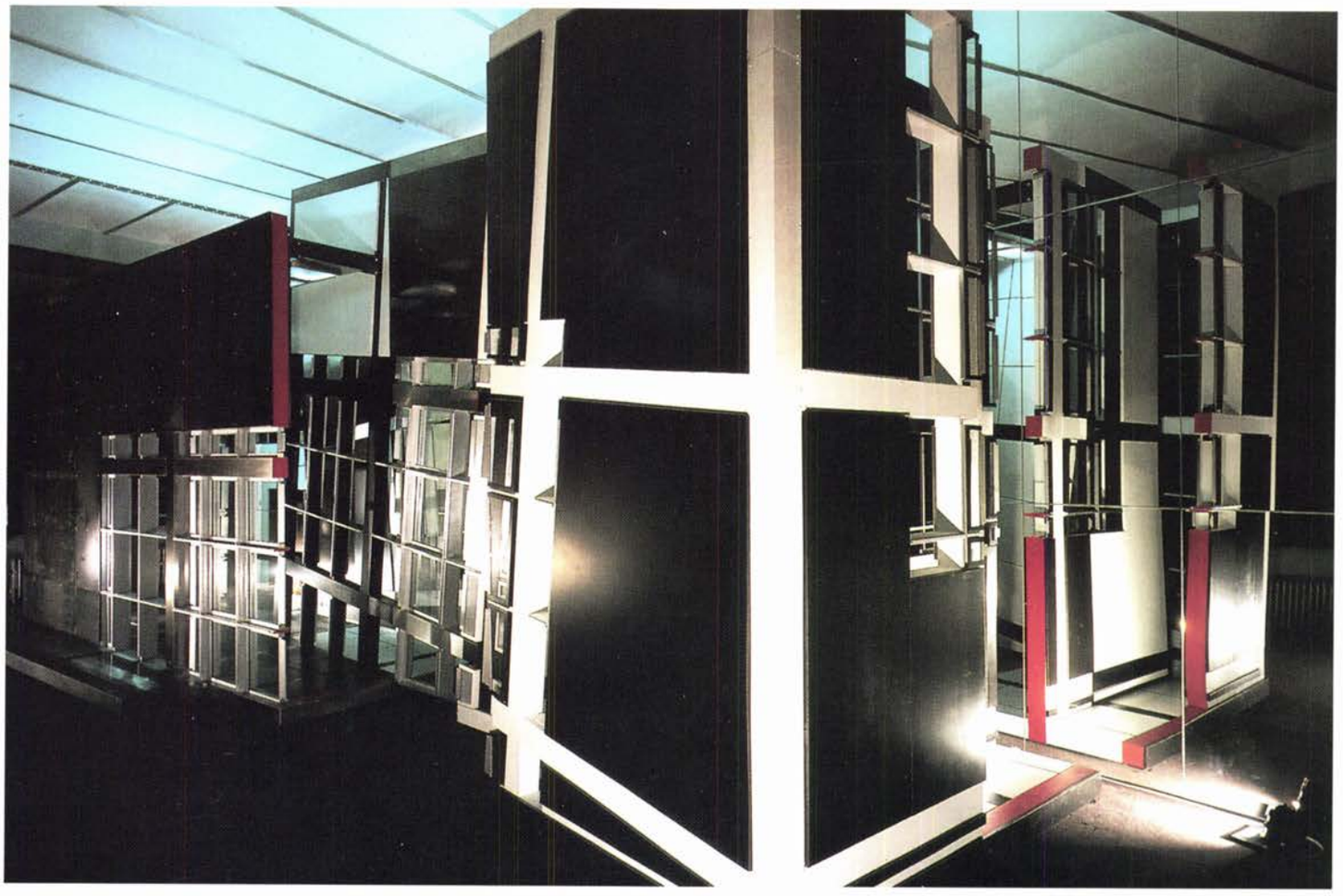
Since the publication of the book *International Style*, a joint work by Henry – Russel Hitchcock and Philip Johnson, half a century has gone by. This book caused a storm unusual for the time, and by giving historical meaning to the modernist trend – then in full expansion – it helped to spur on many a young architect.

It is also known that this book gave rise to a New York exhibition of the same name. Architects of new trends exhibited their works there, and the exhibition sent shock waves throughout the world. It was particularly through this exhibition that Mies van der Rohe and Gropius were discovered. A new architecture was revealed, pure and stripped of eclecticism and decoration, characteristic of the turn of the century. These new theses on geometrical and on the functional systematization of space, opened the town-dwellers' eyes, used as they were to a traditional urban order. This shows how much impact one exhibition can have. People could, through the manifestos of artists taking part or the impact of the works, realize what changes were taking place and were able to set their activities to the rhythm of a verified future.

What is noteworthy about 'International Style' is that it substituted a new style called 'modernism' for the classicism and the regionalisms it sought to overcome, which became a universal style. This new style took little time to make its mark on cities the world over, and even in certain cases to fundamentally change the aspect of an entire city. Observing the architecture of Mies van der Rohe, for example, it is easy to detect the precise style composed of the skilful assembling of metal and glass. Likewise, people could recognize the pure forms based on the geometry of Bauhaus.

Towards the middle of the twentieth century, this architecture was recognized as an official architecture throughout the whole world and it altered the way people saw things. That is why modern cities at first look haphazard and yet on a modernistic plane have a certain unifying logic, displaying its formal characteristics.





Above: Nave of Signs *by Hiromi Fuji*
Opposite page, top: Templum Obscurum *by Shin Takamatsu; bottom left:* Momoware *by Yutaka Saito; bottom right:* Architecturium *by Kasuyo Sejima.*

That goes to show how used we are to the townscape around us. Then came a moment when modernism came in for criticism, and post-modernism saw the light of day. But many critics have gone no further than seeing in this new movement another style, and they have not tried to go beyond the substantial contents of modernism. The outcome is that the debate never ended, and we have seen the partial demise of modernism. Search for style as an attitude, justified in architecture, goes against certain modern social phenomena.

Until the last century there was no doubt that architecture comprised the conception of a determined style situated at the core of all creation. European cities were rebuilt according to classicism. In Japan's case, it was a method of building in stylized timber that decided what cities looked like. Nowadays, architectural styles have become cliches or social standards like any other. They have acquired an inevitable position. Even the forms of modern architecture are based on the same essential ideas as those which are at the base of classicism. But by getting rid of ornament and prescribing functionalism, modernism worked out a moral, i.e. a purist style. But now at the end of the twentieth century, what we see around us has undergone many changes and our arrangement of space has profoundly altered. The order of space and things determined by style has lost its raison d'être, and we are forced to construct spaces in a situation of segmentation and scatteredness.

Henceforth, the inherent relationships in architecture have become important factors, and cases where this kind of rapport of theories is taking off are not rare in the processes determining architecture. For both Alberti and Schinkel, a relational concept held up form. To re-question the basis of this situation, we must first strip architecture of any shackles of style and reconsider the problem from the roots up.

The computer has now put itself at the forefront of creation and materials have been completely overhauled. That is why architecture as we know it can no longer be enough. We must get rid of the notion of styles and go back to the essence of things. The potential of new architecture lies in working out a new rapport between space and space, man and space, things and space. Architecture must acquire an existence coming from change. Architecture which witnesses the process of that change will be the architecture of the future, and is coming about before our very eyes. □

FIRST LADY OF THE MODERN OFFICE

Sylvia Katz and Jeremy Myerson cast fresh light on the career of Florence Knoll, whose achievements in bringing the Bauhaus to corporate America and scientific disciplines to interior planning hold strong today – despite her retirement 25 years ago.

Hans and Florence Knoll . . ." an unstoppable combination of entrepreneurial genius and design intelligence"

Photographs supplied by Knoll International

The story of modern twentieth-century architecture and design has been dominated by men – glorying the machine has been a tediously machismo activity. Yet, remarkably, it was a woman who brought the ideals of the Bauhaus to the corporate interiors of the world's most powerful economy.

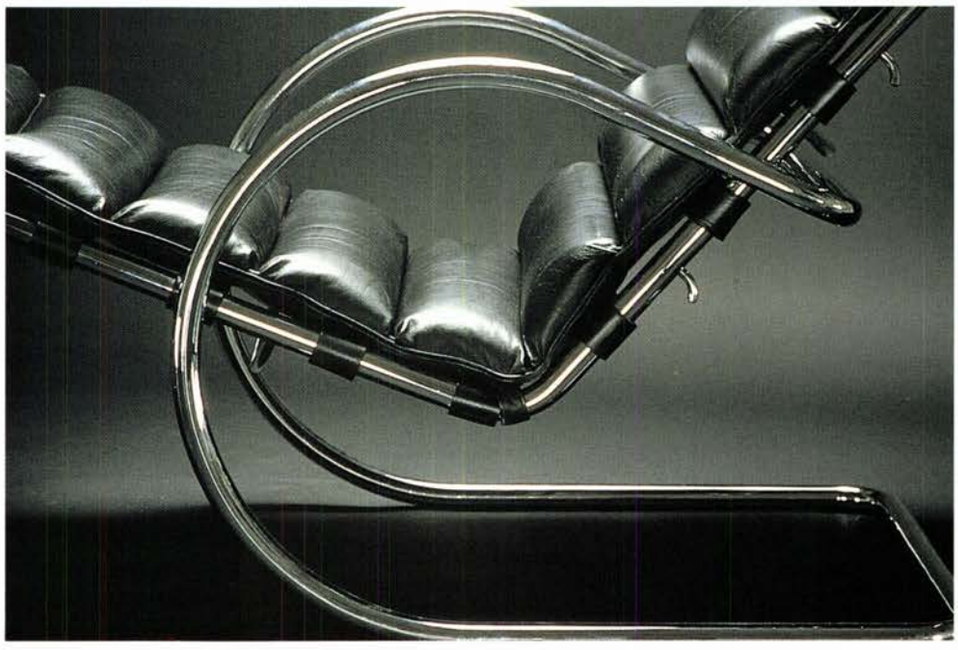
American designer Florence Knoll had a relatively short career and retired fully 25 years ago, a premature departure at the peak of her creative powers. Yet in the years between her first work as an architect in 1941 and her retirement in 1965, she engineered a profound change in the way the offices of American big business should look and function.

As a co-founder of the Knoll furniture company in 1946 with her husband Hans Knoll, Florence Knoll emerged as a patron of some of the world's most outstanding designers and sculptors as she developed an interior style and methodology to complement the new modern architecture emerging after 1945.

She recognised the inherent conflict between modern buildings and the interior design profession which was, as she put it, "imprisoned in the formula and entrenched in the custom of period or antique furniture". She saw her role to provide unity between the interior spaces and the furnishings. Her eye and her discipline as head of the Knoll Planning Unit, especially in years after her husband's tragic death in Cuba in 1955, brought her widespread acclaim as a doyenne of design.

Today she enjoys a quiet retirement, dividing her time between homes in Florida and Vermont. But her career deserves fresh consideration and evaluation on an international level as an example to interior designers who may be tiring of the restless styling of recent years. It is a quarter of a century since she was on the scene but her influence is still clearly visible. In retrospect she can, for instance, be seen as a pioneer of space planning.

Florence Knoll was known by everyone as "Shu", a reference to her maiden name Florence Schust. She was born in Michigan in 1917 and trained as an architect under Eliel Saarinen at Cranbrook Academy of Art, under Mies van der Rohe at the Illinois Institute of Technology, and at the Architectural Association in London.



MR recliner, made of chrome steel tube with black leather and rubber straps, designed by Mies van der Rohe, 1932: Knoll introduced modernist classics to American big business

These were impeccable academic credentials: Cranbrook in particular was a major influence, a hothouse of energy and commitment not unlike the Bauhaus itself. Florence Schust studied there alongside Charles Eames, Eero Saarinen and the sculptor Harry Bertoia.

She first met Hans Knoll during the second world war. He was a charismatic German furniture salesman who had arrived in America in 1937, having gone first to England where he set up an interior design firm called Plan Ltd. Knoll's father had manufactured modern furniture in Germany and had known Gropius, Breuer and Mies van der Rohe.
Shu, at this time, was a young architectural graduate working in the Boston offices of Gropius and Breuer as well as in New York. In 1943 she began to take on odd moon-lighting jobs – interior space planning and design – for Hans Knoll who was bravely forging ahead with his own enterprise. They married at the end of the war and in 1946 formed Knoll Associates, a company dedicated to introducing the work of modern furniture designers to corporate America.

Their alliance, personal and professional, was described in one quarter as an "unstoppable combination of entrepreneurial genius and design

Mies van der Rohe's 1934 pen and ink drawing was for a rocking chair with bentwood seat. His Barcelona Chair of 1929, with chromed flat steel bars and leather straps, also joined the Knoll repertoire

intelligence". So it turned out. First there was a significant commission to design modern offices for the Rockefeller family at 30 Rockefeller Plaza. This opened doors in all directions.

Then Hans Knoll spotted an immediate postwar opportunity to make use of "blocked funds" – American money which could only be spent in Europe. The State Department decided the money should be spent on housing for staff of the US Information Service. Knoll won the contract to provide furnishings alongside a prefabricated house builder. This proved to be the beginning of Knoll International. Florence Knoll designed all the layouts, colour schemes, furniture and fabrics.

The links with Europe – the couple drove between Paris, Milan and Stuttgart on the project – were established. Indeed, although Knoll is essentially an American company, its products are drawn from European modernism. Over the years such names as Franco Albini of Italy and Pierre Jeanneret of France joined Breuer and Mies van der Rohe on the Knoll cast list of top international designers and architects working on royalty agreements.

In a sense the Knolls established their reputation by commissioning the right talent and that aspect of their work has become a company tradition: more recently, Robert Venturi and Richard Meier have added to the Knoll legacy of architectural rigour brought to the discipline of furniture design.

At the height of his success, Hans Knoll was killed in a car accident in Havana in 1955. He was just 41. Doubts were expressed as to the company's ability to survive without its leader but Florence Knoll stepped into the breach. She made her mark in two major ways.

First, she brought an entirely new scientific approach to corporate interior design as head of the Knoll Planning Unit. This unit interviewed executives and secretaries on their work routine and duties, and went into great detail on every square foot of space. Productivity patterns were analysed, and the flow of equipment and people within the office surveyed.

With clients, Florence Knoll was both artistically fluent and economically persuasive. Practices which are now commonplace in interior design – such as maintenance manuals, three-dimensional presentation models, and furniture layout plans with fabric swatches attached – originated with her.

Knoll Planning Unit first displayed its capabilities on a large scale inside a new

Above: Pedestal table, chair and stool designed by Eero Saarinen, 1956: Knoll's policy to commission the top architectural talent of each era is now a company tradition

Florence Knoll dismissed her own furniture pieces as "fill-ins" – but, as her boat-shaped boardroom table demonstrates, her work reflected the pedigree of her architectural training

Sixties futurism: Eero Saarinen's Pedestal Chair for Knoll features in an advertisement for Fortune *magazine, 1964-67*

building for the Connecticut General Life Insurance Company in Bloomfield. It had already attracted the attention of leading architects of the day with an arresting redesign of the CBS offices on Madison Avenue, New York.

In *Knoll Design*, the major work compiled by Eric Larrabee and Massimo Vignelli, Vincent Cafiero, the designer who worked alongside Shu on CBS, remarked: "It was a concept, whether we were doing CBS or Connecticut General. What we were doing, above all else, was making beautiful furniture. We were taking the Bauhaus idea of design and development and making it a profitable operation."

In the same book, Lewis Butler, an early recruit to the Knoll Planning Unit, said of Florence Knoll: "She was a driving force, extremely creative. She could target in on one thing, whether it be fabric, catalogues or furniture development. She had a strong, basic design philosophy."

But Shu was more than a planner and a catalyst. She also designed her own furniture: tables, desks, credenzas and seating for Knoll Planning Unit projects which suited specific tasks and which were not available elsewhere in the Knoll collection. She characteristically dismissed her own pieces as "fill-ins", yet her boat-shaped conference table is a classic today and other well-composed items reflect the quality of her architectural training.

"I never really sat down and designed

In the 1980s, Richard Meier's hand-finished maple collection for Knoll was inspired by the Viennese art nouveau of Hoffman and Wagner. Charles Pollock's executive chair of 1965, right, has an extruded aluminium rim: Florence Knoll "critiqued the hell out of it and made the proportions right"

furniture," she later said. "I designed sofas because nobody was designing sofas . . . Eero (Saarinen) and Bertoia did the stars and I did the fill-in. I did it because I needed the piece of furniture for the job and it wasn't there so I designed it."

Her attention to detail extended from her own furniture to other pieces developed within Knoll. She could be fastidious to the point of tyranny in pulling apart prototypes. Bob Longwell, a quality controller at one Knoll plant, recalls: "I knew what a stickler she was. She had the greatest design eye of anyone in the business . . . Charles Pollock's chair would never have been the success it is today had not Shu taken Charles under her wing, and critiqued the hell out of it and made the proportions right."

In 1958, three years after the death of Hans Knoll, Shu remarried. Her new partner was a Florida banker, Harry Hood Bassett. Knoll International sales had continued to rise but she was no longer comfortable running the business side of the operation. A year later she sold the company to large office furniture manufacturer Art Metal. In 1960 she retired from the presidency of Knoll and became a consultant.

She ended all connection with the company she co-founded in 1965, stepping out of retirement only once in 1968 to design interiors for Saarinen's CBS Tower, his only New York skyscraper. The two had talked about the project before his premature death.

To Shu's credit she managed to pass the Knoll torch on – to the men and women she and her husband had imbued with the spirit of truly modern interiors. Her innovative showroom design in particular was sustained by Italian architect Gae Aulenti, whose first Knoll showroom was in Boston in 1970. Within three years of Shu's retirement, Knoll had acquired Gavina in Italy and Massimo Vignelli (a future Knoll design director) was masterminding a new graphic programme for the company.

But in a sense one is left with a slight tinge of regret about Florence Knoll's career. She achieved so much of value and significance within such a short time that one wonders what more she might have given to interior design had she remained on the scene longer. □

Florence Knoll table: she has passed on the Knoll torch to a new generation of architects and designers

CANADA'S CARDINAL ISSUES

The UIA hosted its highly successful XVII Congress at Montreal this summer. Its theme was "Cultures and Technologies". WA Executive Editor Dennis Sharp, co-organiser of this year's critics' events, reports on a hot and hectic week.

Will there be life after Brighton? That has been the recurring question that has worried the UIA over the past three years after the disastrous XVI Congress held in Brighton in 1987. It virtually brought the UIA organisation to its knees financially.

Expecting an audience of well over 5,000, Brighton had seen less than 1,000 delegates turn up. Montreal 1990 the host city for the XVII Congress this year therefore *had* to work. Fortunately, it did.

Montreal proved to be an ideal choice. Some 3,500 delegates attended and the UIA General Assembly meetings occurred side by side with the Congress itself. Like a well-rehearsed quick change act, the Congress at Montreal performed well at every level – from the small seminar to the final laser-driven banquet. In three years' time, Chicago will find it a very difficult act to follow. The shame of Brighton is now behind.

There is already some talk of a handsome profit from the Montreal event and clearly a confidence and some hope for the future. Rod Hackney, whose energetic period as UIA World President soon ends, will step down and the organisation will be in the hands of a new Nigerian President.

Variety of Events

So much for the framework of the Congress; what about the content? Here there was inevitably a tinge of disappointment. It soon became clear after registration that a number of the heralded talks by major-name architects were not going to take place. However, two major world architects known for their ability to produce brilliant buildings and to convey their ideas elegantly, made up for any absence of European prima donnas. Professor Philip Cox from Australia and Fumihiko Maki from Japan ran through a bewildering number of slides on their recent work to appreciative audiences.

Most of the Congress sessions however were concentrated in workshops and presentations of individual papers, as well as an ambitious film festival, video programme and a number of well-placed exhibitions. Additionally, a series of well-attended afternoon sessions run by CICA (the International Committee of Architectural Critics) were held, of which more later.

Outside in the city itself, a number of related activities took place including a major retrospective exhibition of the Montreal-based, but Roumanian-born architect Dan Hanganu: *Projets et Réalisations 1980-1990* at the Design Centre of the University of Quebec at Montreal. The exhibition provided an insight into the work of a remarkably consistent and innovative architectural practitioner who, although not unknown outside Canada, deserves to attract much wider international attention. The exhibition, it appears, will be available for travelling in due course.

Other Canadian architects represented at the Congress included Jacques Rousseau whose own recently-completed concrete-faced studio house in Montreal was also open for inspection, and the controversial Douglas Cardinal whose Museum of Civilization at Ottawa was being talked about both on the platform and in the nooks and crannies of the Congress corridors, either in terms of anxiety or admiration for its amorphous and ambiguous expressionistic imagery.

The other controversial Canadian architect often mentioned but conspicuously absent from the proceedings was the Boston-based Moshe Safdie of Habitat fame, whose own Museum of Civilization in Montreal was vying with Rose's Centre Canadien d'Architecture – a much less successful building – for delegate and media attention. In Ottawa, Safdie's new National Gallery faces Cardinal's museum across the Ottawa River. One is a flat pancake-like building sitting on a former vacant site on the underused Hull French bank, while the other is a kind of Expressionist crystal pavilion straight out of Taut, set high on the Ottawa hillside.

International Workshops

During the conference itself, when the day-by-day presentation of individual papers occupied most delegates' time, the final jury sessions of the International Architectural Workshop organised by the City of Montreal and the University of Montreal, Quebec, also took place. Students from 30-35 countries joined together in planning – or in reality, not planning – the site of a new Local Courthouse adjacent to City Hall.

A comprehensive volume of presentational papers was issued on the Congress workshops and eventually the whole proceedings will be published in book form. According to the accounts of those people who took part in the workshops, the emphasis on the technological innovations of recent years

Museum of Civilization, Ottawa by Douglas Cardinal was one of the most talked about buildings at the UIA Congress in Montreal. A view towards the main exhibition halls.

Dennis Sharp

and the way these link to the current world ecological and green situation created a great deal of interest: a charter was issued at the end demanding government action at many levels.

CICA Sessions

CICA has played an increasingly prominent part in UIA events since the UIA Congress was held in Warsaw in 1981. It has introduced wide-ranging discussions on architectural topics through members' contributions and the participation of Congress delegates.

This year – billed as a part of the peripheral programme of the Montreal Congress – CICA had three main sessions. They were among the best-attended of all the events.

The first CICA session concentrated on architectural theory and was led by CICA's President Bruno Zevi. His theme was "Architecture and Light" which he examined in a carefully-worded and well-illustrated paper. The inventive, exponential and experimental use of light in buildings and the play of light on forms were his theme.

Although somewhat predictably he ended up with comments on Frank Lloyd Wright's ingeniously lit Johnson Wax Co's buildings at Wisconsin of the 1930s, he pursued more recent examples as well. He finished with Frank Gehry's new German furniture museum. Perhaps here he had laid a bait for the audience. If so, it caught few fishes. Although large in number the audience appeared reticent to open up a discussion on a specialised theoretical issue that was ineffectively developed by subsequent speakers, particularly the Russian critic and historian Glazichev who had been briefed to follow Zevi but failed to deliver his catch. Things were too difficult, he said, in the Soviet Union to think about such superficial issues, and walked off the platform and presumably out of the Conference. This was all very disappointing as the following day's session seemed to accentuate the special quality of light that Zevi had been referring to. It was observable in many recent buildings in the wide range of examples taken from Canada, France, Germany, Mexico, Britain, Australia and the USA.

Cardinal Issues

Some of the most controversial buildings of the past three years were included: Von Spreckelson's "Arch" at La Defense presented by Pierre Vago, and Jean Nouvel's Institut du Monde Arabe both from Paris, Richard Meier's Museum of the Decorative Arts in Frankfurt and Eisenman's Museum in Columbus, Ohio, USA defended by Jorge Glusberg, and Michael Hopkins' modest Mellor cutlery factory in Derbyshire, UK.

Significantly, the Canadian contribution soon got fully into focus with two university professors and critics, Jeffrey Cook and Trevor Boddy – the latter the ebullient author of a recently published, controversial biography of Douglas Cardinal – jumping on the country's latest architectural bandwagon. They discussed the organic nature of the Museum of Civilization which emerged as one of the most original buildings of recent years in North America. It caught everyone's imagination.

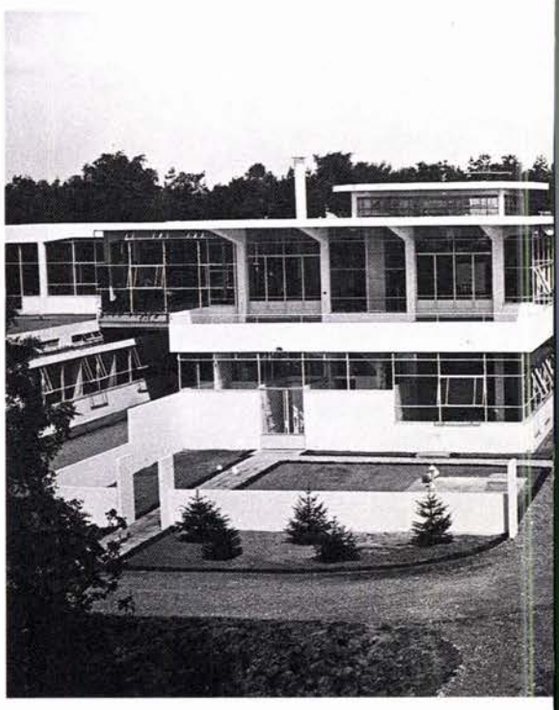
The third CICA session was devoted to a discussion of important and controversial publications produced over the last three years and was effectively organised and chaired by Louise Noelle de Mereles (Mexico). The meeting included a contribution from Dr Catherine Cooke on Alexander Tzonis' new book on neo-classicism and, inevitably in these circumstances it seemed, a review of Trevor Boddy's *Architecture of Douglas Cardinal* by Jeffrey Cook.

CICA Awards

During the Congress the CICA International Awards for Architectural Criticism 1990 for books and magazines were made. This year's major award was given to Roger Connah for his ambitious new book on the Finnish architect Reima Pietilä, *Writing Architecture*, published by the Building Book Co, Helsinki, 1989 and distributed by MIT Press, Cambridge, Mass. Editor Robert Powell's book on *Criticism in Architecture*, published by Concept Media for AKAA, Singapore/London 1989 was also commended and a special mention was given to Simon Marchan Fiz for *Figurative Contaminations*, Madrid, 1989.

The CICA International Award for a critical or theoretical article was given to E M Farrelly for her introduction to and the editing of the special issue of *The Architectural Review* entitled: "The New Spirit". The CICA Award for the best introduction to an exhibition catalogue was given to Mark Wigley – with one abstention – for *Deconstructivist Architecture*, MOMA, New York, 1988. □

DOCUMENTING THE MODERN MOVEMENT



Hubert-Jan Henket, Chairman of DoCoMoMo, on a series of conferences that are of being organised over the next few years on the documentation, conservation and analysis of Modern Movement monuments.

TU Delft, Faculty of Architecture

TU Delft, Faculty of Architecture

At the turn of the last century, far-reaching social and cultural changes took place. Dissatisfaction with the existing social order coincided with the need of many artists to look at things in a different way. They tried to show the world as it actually is rather than as it appears to be. Beauty on the outside was rejected; inner meaning was what they were searching for. Kandinsky called it "inner necessity", and Tony Garnier wrote: "l'Architecture antique fut une erreur. Seulement la vérité est belle."

In architecture the inner necessity was found in the function of spaces. Structures of columns and beams replaced loadbearing walls; transparency replaced closed elevations. Openness and

T.U. Delft, Faculty of Architecture

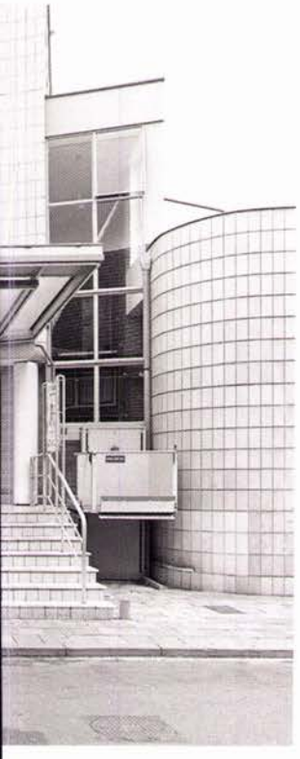
Left: The Zonnestraal Sanitorium in Hilversum, The Netherlands. Central Building from the west. A photograph taken by the architect Jan Duiker in 1928. A key building in Dutch Modern Movement history which will be featured in the DoCoMoMo Symposium.

Above: Zonnestraal Sanitorium showing its physical condition today.

Below left: Main entrance of Duiker's Gooiland Theatre, Hilversum, designed in 1934 which has recently been restored.

Far left: Roof of Gooiland Theatre in Hilversum: a paleo post - modern image?

Below: Exposition Hall in Brno, Czechoslovakia designed by Kalons and Valenta, 1926-28. The building is still in use and is a striking example of interwar Czechoslovak modern architecture.



T.U. Delft, Faculty of Architecture

relationship between inside and outside, between inner function and outer appearance became the goals of a growing group of architects, which finally culminated in the modern architecture of the 1920s and 1930s.

This movement developed simultaneously in various countries in Europe, later in Latin America and in the colonies of the European nations. Architects like Ginsberg, Vesnin, Mies van der Rohe, Gropius, Le Corbusier, Fuchs, Terragni, Rietveld, Duiker, Van der Vlugt and Lubetkin were among the leading exponents of this Modern Movement. The exchange of ideas among these architects was so extensive that one could speak of a truly international movement.

Now, 60 years on, many of the buildings of the Modern Movement have either disappeared, changed beyond recognition, or are in ruins. Only a handful have been conserved with a view to safeguarding them for future generations. It is peculiar, however, that whereas the Modern Movement was an international phenomenon, the conservation of its buildings is only done at local levels and usually on an ad hoc basis.

DoCoMoMo's Role

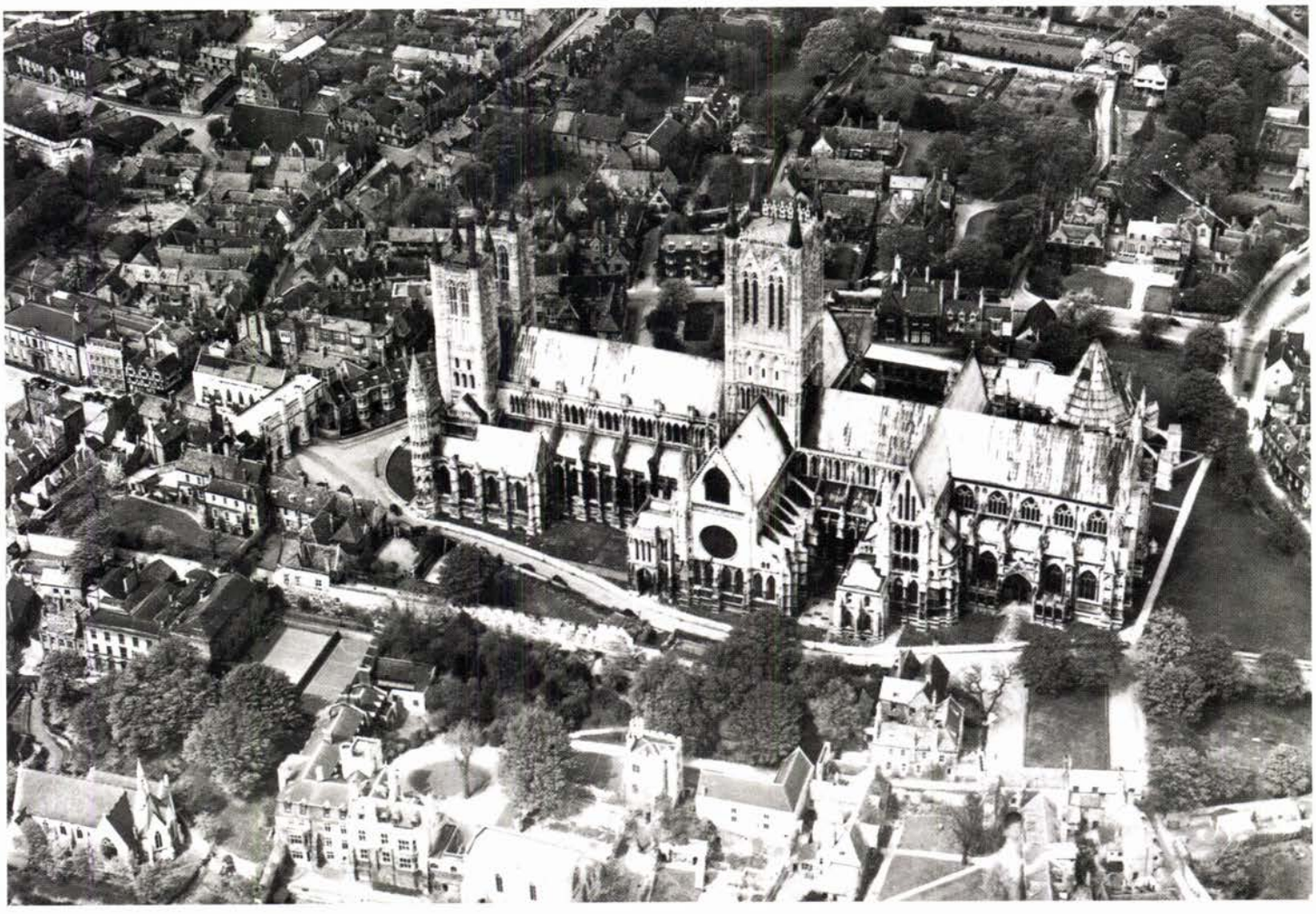
In order to change this situation, some members of the architecture faculty of the Eindhoven University of Technology in the Netherlands started, one and a half years ago, to form an international network of people interested in early twentieth-century architecture and of specialists with knowledge of these buildings and the technology used.

This network is called "the international working party for the Documentation and Conservation of buildings, sites and neighbourhoods of the Modern Movement", in short DoCoMoMo. At the moment DoCoMoMo has active working parties in the USSR, Hungary, Czechoslovakia, the DDR, the GFR, Italy, Spain, Britain, France, Finland, Switzerland, Belgium and the Netherlands. The aim of the organisation is to safeguard buildings of the Modern Movement for the future. This will be done by starting a debate on why and how these buildings should be conserved, by acting as a watchdog, by stimulating interest and by exchanging knowledge and expertise.

1990 Conference

To this effect the first international DoCoMoMo conference will be held from September 12-15 1990 in Eindhoven. The conference is sponsored by Crittal Windows Ltd and subsidised by various national and international bodies. The response to the call for papers has been so great and from such a variety of Eastern and Western European countries, that it was decided to use the first conference mainly as an introduction platform for as many speakers from different countries as possible. The main items are architectural history, technology, urban conservation, analysis and documentation, policy and case studies. These topics will be presented on the second and third day of the conference. The first day will be devoted to debate about the dilemmas concerning conservation of the Modern Movement. In total 50 papers have been selected for presentation. Among the speakers are Peter Palumbo, Sherban Cantacuzino, Dennis Sharp, Martin Pawley and Catherine Cooke. The Bauhaus has offered to host the second DoCoMoMo conference in Dessau in 1992.

Registration for the conference can be done at the DoCoMoMo International Secretariat, Postvak 8, P.O. Box 513, University of Technology, 5600 MB Eindhoven, The Netherlands. □



Lincoln Cathedral from the heavens: the aerial shots in The Gothic Cathedral come highly commended.

THE SEDUCTION OF STYLE

The Gothic Cathedral

By Christopher Wilson. London: Thames and Hudson, 1989, £20.
Review by John James

In "brisk surveys" such as this, the reader should be treated gently. The history of Gothic is complex and the numbers of buildings that can be mentioned, even in a general study, run into thousands. They are spread right across Europe. It is an enormously difficult task to write such a book and authors should severely tailor their knowledge to the most comfortable fit. Christopher Wilson writes at a gallop with too many quick-fire references to buildings that are not central to his argument. His language is also a shorthand and when he writes that "Suger (the Abbot of Saint-Denis in the 1140s) finally decided to rebuild Pepin's nave", he assumes that we all know that Pepin was an eighth-century general and accept the convention that the reference to Pepin is only to give the nave a date without concluding that he actually had anything to do with its erection.

Behind these art-historical conventions lies a more serious problem: the book shows little appreciation of the construction process. Gothic buildings daily tested the mason's ingenuity and skill to the utmost. Structural decisions had to be made with little mathematical knowledge. Scaffolding had to be held in place with hand-made hemp ropes. Money in vast amounts had to be raised from communities with no banks or government subsidies. Much of the builder's professional time would have been taken up on these matters.

Style, which is the major preoccupation of art historians, only exists within the technical limitations of the constructional capacity of the times. Of course, if some new idea is wanted, the constructional techniques will probably be found in due course. But, in the process, the effort required to find the best technical solution will influence the next step in the design. Style is the interaction, in time, between the dream and the possible. Wilson's preoccupation with appearance ignores all of this. For him, style has a life of its own. The building is an artefact. The trouble rests with a system of teaching that still believes that historians of architecture can be trained in libraries and not on the site.

As a result, people with little understanding of the realities of architecture are telling us how buildings were designed! It's like the stewards telling the passengers how to pilot an airplane.

Buildings that took generations to complete are assumed to be the work of "one architect" as if the design produced at the start would still be acceptable decades later. We have drawings, such as those from Strasbourg, to show otherwise, and Murray's work on Troyes, Gardner's at Saint-Denis and my own work on Chartres all demonstrate that designs were being constantly updated as work proceeded. To look on the completed work as the creation of the first architect ignores the evidence. The creation of a Gothic building was a fluid and on-going process.

There are a number of factual problems: Wilson repeats the old canard that the Gothic style reflected "the increasingly effective exercise of royal power". This was Viollet-le-Duc's belief, and is not borne out by the evidence. Between 1980 and 1983 I surveyed over 3,500 churches in the north of France and isolated all those that were Early Gothic. The uneven distribution of these churches showed that Gothic was not a royal creation, but that most of the crucial inventions that went into the evolution of Gothic first appeared in the smaller buildings to the north-east of Paris, beyond the King's lands, and that these ideas were not transmitted to the Ile-de-France until the 1190s.

It cannot be said that "rib vaults were *firmly* established in Normandy and England by about 1100" when the first ribs appeared only in Durham at that date and the concept did not reach Normandy for another two decades. Nor can it be said that "thrustlines and the resolution of forces were concepts unknown to medieval architects" when the careful alignment of flying buttresses along the direction of thrust shows otherwise.

It is not easy to produce a good general survey, and some things have to be sacrificed if the story is to be made interesting. In this book the pictures are excellent, and some, like the aerial shots, are stunning. It is a good enough book on the history of style, if you like that sort of thing. □

THE GLAMOUR AND THE GLORY

Eames Design – The Work of the Office of Charles and Ray Eames

By John Neuhart, Marilyn Neuhart and Ray Eames, London, Thames and Hudson, 1989, £55
Review by Mary Banham.

This book is a record – albeit a glamorous one (I use the Hollywood expression advisedly) – the first tribute to a partnership and an office which has informed more than one generation of designers and design buffs worldwide. We need this thorough-going catalogue, those of us who have always been fans and those to whom it may all come as a surprise.

Generations of students, with the rise of Design History studies, have treated the Eames as historical figures – certainly from the time of Charles' death in 1978, neatly at three score years and ten in his home town. Ray Eames lived exactly ten years longer, to the day, and in that time worked on this book with John and Marilyn Neuhart, long-standing friends and colleagues of hers and Charles'.

The book puts the record straight. Charles and Ray Eames ran a design office, of a sustained quality and integrity seldom achieved, from 1941 when they settled in Santa Monica and began experimenting with their plywood chairs, to 1988 when the office was dismantled and the process filmed by Charles' grandson. And they did it by never standing still, always being ahead of the game, experimenting constantly.

As the office grew, they employed the brightest and best in the Los Angeles basin and ambitious young designers from many other places clamoured to work with them. Also, from the start, they worked with the most talented of their own generation. In the early California days there was John Entenza, owner and editor of *Arts and Architecture* magazine, a fellow student of Charles' at Cranbrook with Eero Saarinen. The list of students there in 1938 is impressive. Eliot Noyes, internationally known West Coast architect and designer, and George Nelson of Herman Miller Inc, who made and still market Eames furniture, became workmates and friends. Later they collaborated with Buckminster Fuller and other great pioneers.

What kind of record *is* this book? Above all it is a very thorough catalogue. Every project, every invention, every commission is covered in chronological order, each double-spread beautifully illustrated and designed with great clarity. A strip at the top of each page is devoted to concurrent events in the life of the office, some illustrated, and a list of everyone working in the office at the time. The photography is superb throughout as befits the way the office worked and its central aim – that of communication in the truest and widest sense.

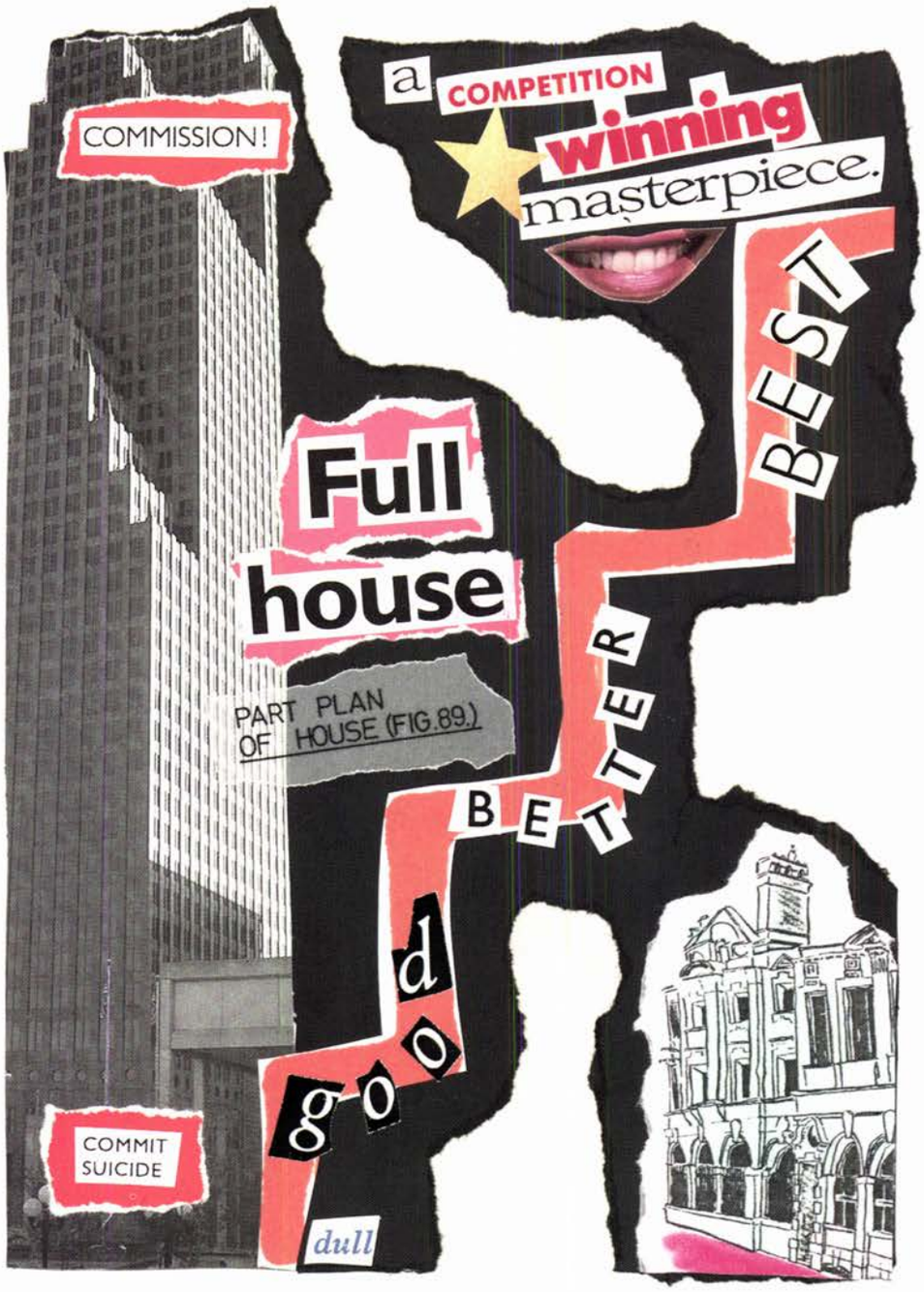
The book will be a revelation, even to those who knew the Eames and followed their work from the start. How can we have forgotten those early films which made us sit up and gasp with delight, the toys or the *House of Cards* our children loved?

As recognition became worldwide, commissions for World Fairs and giant international exhibitions absorbed much of the Eames' time and effort. Their office expanded with professionals from many fields. Exciting it must have been, but almost inevitably a certain essential concentration seemed to get lost along the way. The Big Time took over from the Fun Time. Staggering around one of those "drop dead" exhibitions of the seventies, notably the bicentennial *World of Franklin and Jefferson*, one was overwhelmed by too much information (however well designed) and began to mourn such talent lost in a sea of Big Brother propaganda. But, fear not, fun and delight was there all the time in the films made alongside the blockbuster government work. The Eames spirit always came through .

It is all here in this spectacular publication which will be in every design office library and on the bookshelves of everyone who cares about design in the twentieth century. Undeniably the Eames occupy a commanding position in our time and place. □

COMPETITIONS: A GOOD IDEA?

Pierre Vago argues that the modern proliferation of international competitions can only benefit the profession provided proper guidelines are followed.



Competitions for artists and particularly for architects are not a modern innovation. They were already a commonplace event in Ancient Greece in which the most famous architects took part. We know, for example, that in a competition held in 435 AD, Pheidias was beaten by Polukleitos.

Detailed accounts by Vasari make it possible for us to appreciate the difficulties involved in choosing one of the best Florentine architects to construct the dome of Santa Maria del Fiore. Eventually, the final decision went in favour of Brunelleschi. The Place de la Concorde in Paris is the result of a competition between such architects as Blondel, Boffrand, Servandoni and Ange-Jacques Gabriel, the winner.

Over the last hundred years or so, the number of architectural competitions has increased and in many countries they have become more or less standardised. Anonymity has become more widespread, despite the fact that the ruling on this has often been held up to ridicule. International competitions have also increased in number, particularly for major architectural projects. Disputes either during or after these contests have become more frequent, and some have had far-reaching repercussions. The most famous of these was the scandal created by Le Corbusier following the competition for the Palais des Nations in Geneva. The true story of this has never been told.

Even before the second world war, an organisation accountable to the League of Nations, a kind of forerunner of UNESCO, undertook to carry out a study for the standardisation of international competitions. At the time I was a young architect and had the unique opportunity of participating in the work of the group of experts commissioned to prepare it.

Therefore, when the UIA (International Union of Architects) came into being, I initiated the discussions which lead to the drafting of a text which was approved by all national professional organisations and adopted by the General Conference of UNESCO held in New Delhi. It is this text which, with a few slight amendments, is still in use today and which has brought a degree of order to an area which had

previously lacked any form of organisation. However, given the considerable increase in the number of competitions, the UIA finds it difficult to enforce this sensitive area of control. A large number of competitions are launched which do not observe the rules, show a total disregard for the opinion of the UIA and do not attempt to consult or inform it.

This increase in the number of competitions has provoked a hostile reaction from one sector of the profession and the question once again arises, as it did half a century ago, as to their value.

I find it hard to accept the far too matter-of-fact point of view of those who condemn competitions because they apparently "impoverishes the profession". It is perfectly obvious that when a hundred or so architects work on the same project, they make a personal effort and incur costs which, when taken overall, are out of all proportion with the amount of prize money offered by the promoters. It is equally obvious that the object of some competitions does not justify involving a large number of architects, and it cannot be denied that others are launched to serve the publicity interests of the promoter rather than produce work of outstanding architectural quality. But the competitors know all this, and nobody forces them to enter a competition if they consider the subject or the conditions unsuitable.

So what makes so many architects take part in a competition when they are perfectly well aware of their chances, mathematically speaking, of obtaining the commission or, in the case of a paper competition, a prize?

For young architects and those who are either unknown or not sufficiently well-known, it is perhaps their only opportunity of gaining publicity and perhaps even obtaining a commission. This alone is a good enough reason for encouraging a large number of competitions, not only for major architectural projects, but also competitions which are more generally accessible, because for many architects they provide a unique opportunity. It is unlikely that the famous architects would compete in a "small" competition, while limiting competitions to projects "of international prestige" would be to the disadvantage of young architects as well as to all those (and they are many) who have talent and ideas but lack the connections and sense of publicity. This may mean ensuring that competitors are not required to carry out an unnecessarily excessive amount of practical work.

The principle and the advantages of the "big" competitions, are generally accepted. It is, however, important to ensure that the conditions necessary to ensure their success are observed, ie a well prepared programme, reasonable deadlines, the documents required from competitors limited to a number which will enable judges to come to a decision based on a full knowledge of the facts, attractive prizes, the guarantee, where buildings are concerned, that they will be constructed and, in all cases, a public exhibition and a widely distributed publication of all projects submitted.

Apart from providing competitors with the opportunity of winning and receiving prize money that will, at best, cover only part of their costs, competitions have a dual purpose. Firstly, there is the desire of all competitors to *express themselves*, and the satisfaction of having done so. There is also a desire to *compare themselves*. It is important for architecture, the profession and its younger members not to underestimate the educational value of competitions.

All this has often been said and it is for this reason that, in spite of the protests of those who would like to limit the number of competitions, they will continue to exist, for both "big" and "small" projects and, it is to be hoped, as widely accessible as possible. It is annoying that so many opportunities are offered to the same fashionable architects who, precisely because they are fashionable, do not need them. All too often the same names recur, as if among the million architects in the world, only 25 or 30 are capable of designing an interesting building.

Also, the often disappointing results provide conclusive proof that imagination, intelligence and quality are not the prerogative of a small pseudo-élite promoted by the media, more often as a result of their sense of public relations than their creative talent.

Some people agree with the idea of competitions, but question the international dimension. Here, too, we should allow circumstances to dictate the degree of participation. It is hard to imagine that an American architect would compete for the construction of a school or small church in Germany or Africa. But there is surely no reason why a young Austrian architect should not want to build in Switzerland or Holland, or a Moroccan architect on the Ivory Coast. Why should the twenty-first century be any more "protectionist" than a past which allowed Guglielmo di Volpiano to construct the Abbey of St. Benigne in Dijon, Geoffroy de Noyers to build Lincoln Cathedral and Guillaume de Sens to become the creator of Canterbury Cathedral, Villard de Honecort to work in Hungary, Domenico di Cortona to build the Hôtel de Ville in Paris, Juvara to work in Madrid, Etienne de Bonneuil in Uppsala and Rastrelli and Le Blond in Russia. And, more recently, a Dane, an Anglo-Italian, a Chinese American, a Catalan, a Brazilian and a Japanese to build in Paris?

Instead of wanting to define limits and raise barriers, we should be striving to create a situation which will make it possible to ensure the success of these very valuable competitions. And firstly, we should avoid asking for practical work which in 90% of cases proves to be a waste of time. From this arises, among other things, the advantage of holding competitions in two stages. It is also important to ensure that the panel of judges, which should consist of a small number of competent and conscientious personalities, is carefully selected. Finally, it is essential that the verdict of the panel, which by definition should have the confidence of the promoter who selected it and the competitors who acknowledged it, should be respected. □

Hildmann, Simon, Rempen & Schmitz/SMS

The black, artificial leather transport bag has 2 handles and a zip-fastener.

Tetrax consists of 2 aluminium tubes, adjustable to a height of 2.64 m, and 4 black, powder-coated aluminium legs. The base can be adjusted to cater for uneven floor surfaces of height differences up to 45 mm and gradients of up to 15 degrees. The triple switch allows for individual control of the 3-phase track.

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Tetrax is equipped with a 1.3 m length of Monopoll. It has been approved to carry up to 16A and also for use within hands' reach. It is able to bear loads up to 20 kg per side.

When Tetrax is unwrapped, a stylish lighting concept is revealed, although, technically speaking, Tetrax is simply track on legs.

So therefore, light may be introduced wherever it is required: At exhibitions, in foyers, on sales and display stands, in studios, shop windows, galleries or at fashion shows. In such places, the real versatility of Tetrax is soon revealed.

It can be equipped with almost every spotlight in the ERCO range and be adjusted up to a height of 2.8 m and can therefore provide the right light in the right place. All that is required is a socket.

As far as safety is concerned, Tetrax is extremely stable. Unlike normal tripods, it stands on four legs, an advantage especially when carrying heavy spotlights and extended to its full height.

However, Tetrax is not simply very mobile, it is also extremely attractive. After all, like many other products in the ERCO range, it was designed by Mario Bellini, yet another reason to make use of the many possibilities offered by directional lighting.

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