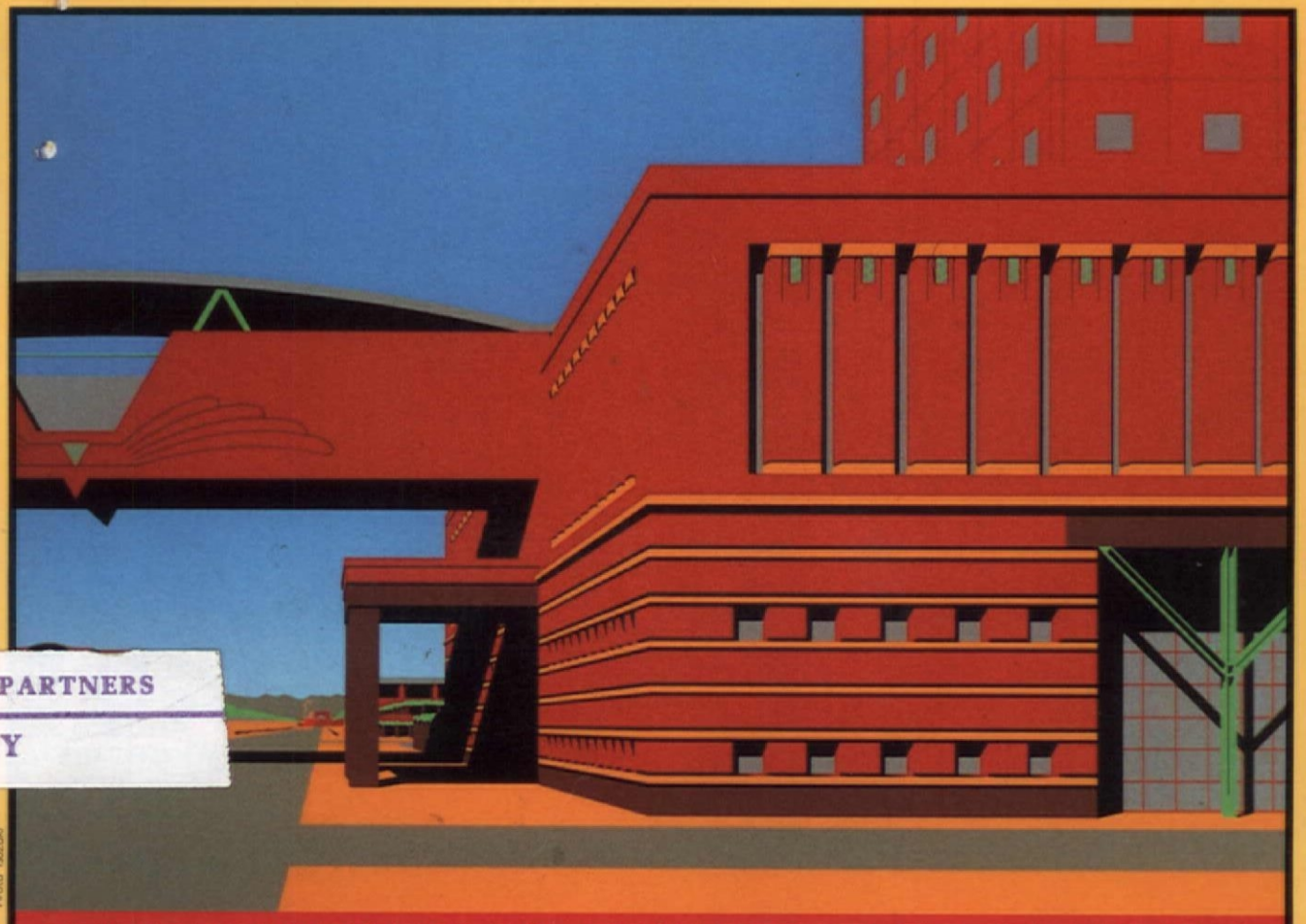
Architectural Design 56 3-1986

Architectural Design

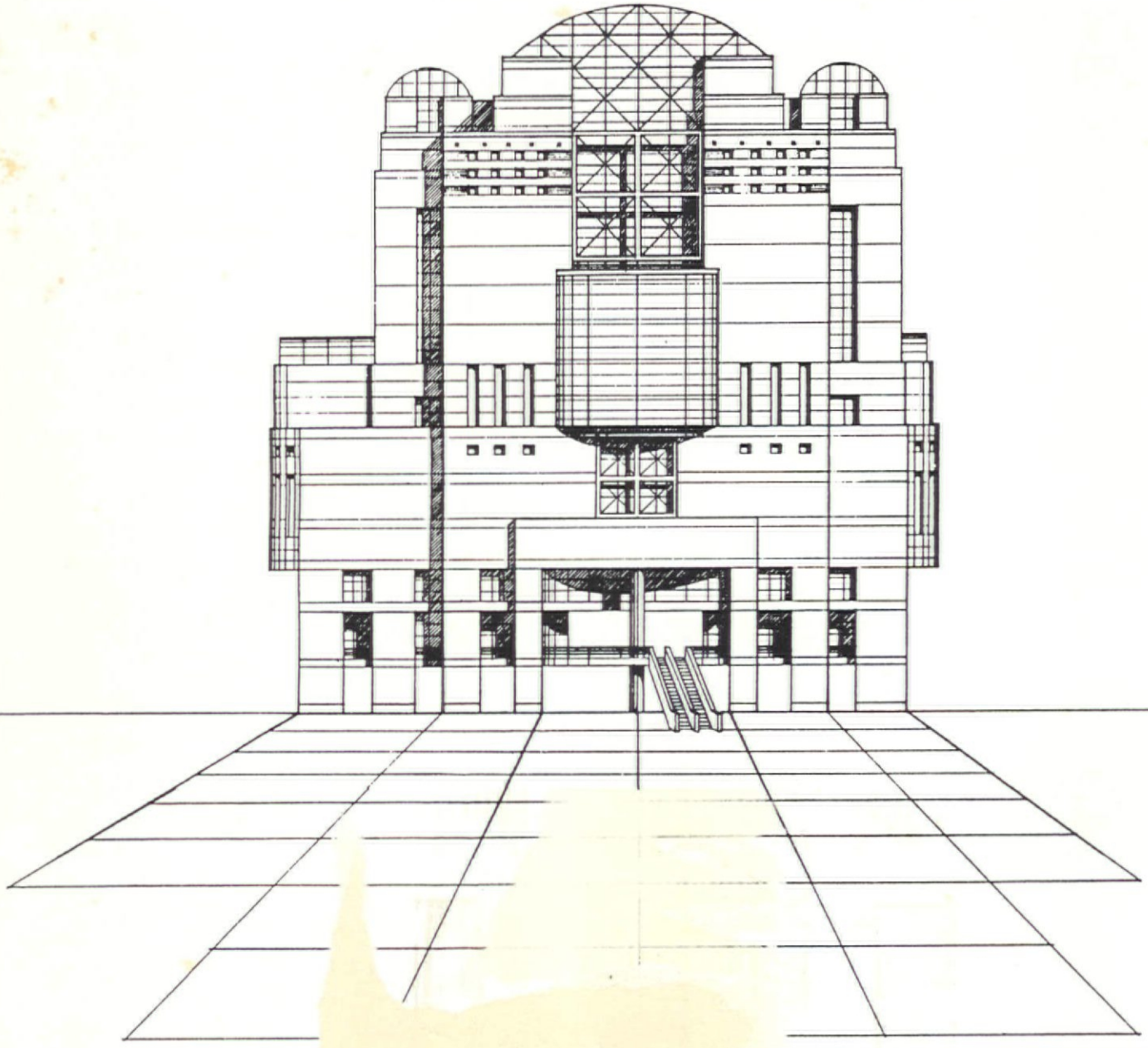


Arata Isozaki

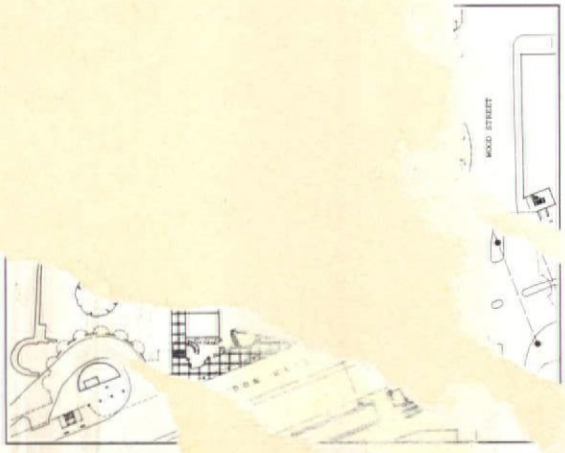
INTERNATIONAL CURRENT PROJECTS I
ARATA ISOZAKI · RICK MATHER · TERRY FARRELL
MIES VAN DER ROHE CENTENNIAL

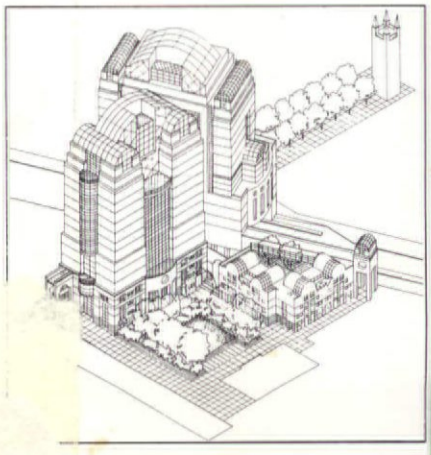
ALBAN GATE, LONDON WALL

Terry Farrell Partnership



The latest in a series of new L projects by Terry Farrell tackle problem of office accommodatio signed for tomorrow's financia vices, in anticipation of the so-ca 'Big Bang' later this year. The existi building will be demolished and re placed with 335,000 sq.ft of office space linked with a new structure spanning London Wall. The new 17-storey building will consist of dealing floors with deep and cellular offices grouped around three atria, and it is anticipated that the construction period will be three years.





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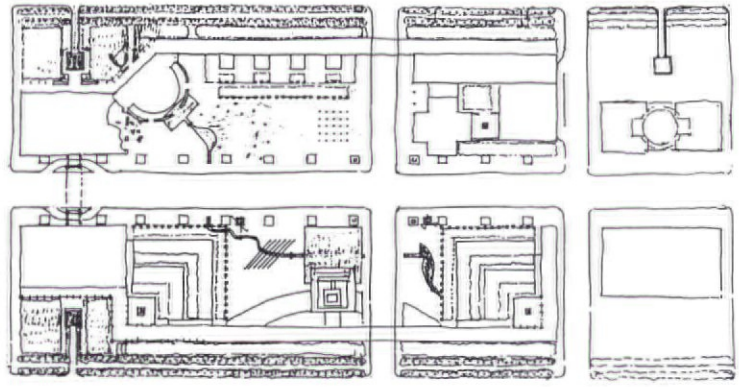
International Current Projects



Isozaki's sketch for the Municipal Government Centre, Phoenix, Arizona.

JAMES GOWAN
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Reflections on Mies in celebration of the centenary of his birth, honoured by a major exhibition at MOMA.

ARATA ISOZAKI
Phoenix Government Centre 12
A major competition to design the Phoenix Government Centre was won by Canadian architect Barton Myers. Here we show the first and second stages of Arata Isozaki's entry, on the occasion of his award of the Royal Gold Medal for Architecture.

RICK MATHER
New Building at U.E.A. 20
A look at the recently completed buildings for the University of East Anglia, including the Climatic Research Building, which won an *Architectural Design* Project Award in 1984.

TERRY FARRELL
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An extensive presentation for a scheme which formed the basis of the competition brief for the site development. The commission for the building was won by Jeremy Dixon and Building Design Partnership, who provide an update.

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Inside Front Cover: Terry Farrell – Alban Gate *Inside Back Cover:* Futurism and Futurisms

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BOOKS

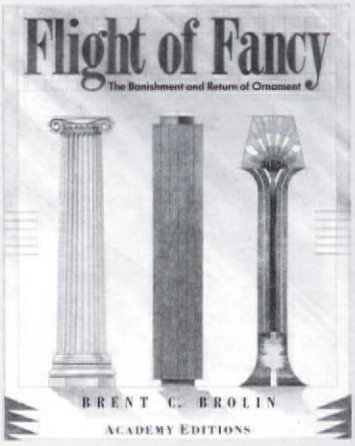
Reviews by
Catherine Cooke & Hugh Cumming

Flight of FANCY

Flight of Fancy. The Banishment and Return of Ornament
Brent C Brolin
Academy Editions, London, 1985
338 pages, b/w ills. Cloth £ 25

Brolin ranges over a very wide cultural and historical canvas in pursuit of his thesis that there has always been ornament in architecture, even when nineteenth-century Rationalism and twentieth-century Modernism thought they had banished it. They borrowed forms from outside their own natural architectural imagery or they embellished and refined functional components to become objects of aesthetic quality in their own right.

Somehow one doesn't feel many people would disagree with him, and the 'breath-taking and impeccable scholarship' imputed to Brolin by American critics in the jacket blurbs is extremely relative. At the same time it is a stimulating discussion, and a useful, fresh cross-section of history for the student or non-professional, and this is a level at which far more literature is needed. *CC*

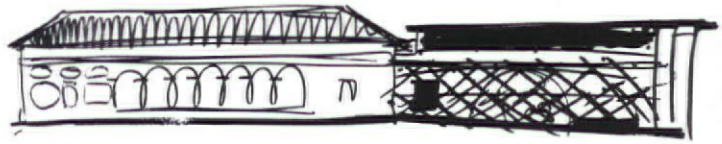


Robert VENTURI

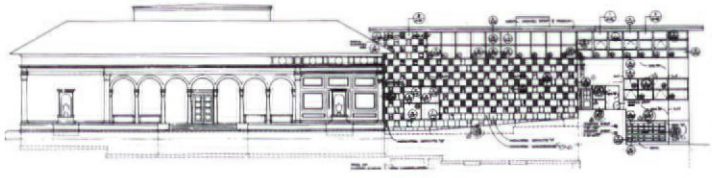
Venturi, Rauch & Scott Brown
Edited by A. Sanmartin
Academy Editions, London, 1986
144 pages, b/w & col ills. Paper £14.95

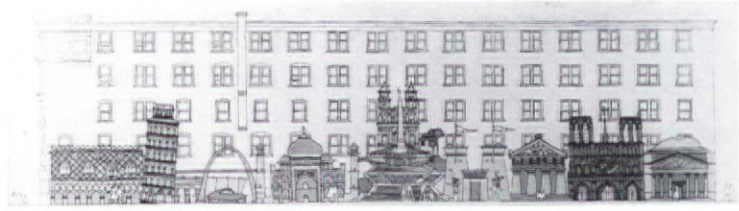
'Where the Modern masters strength lay in consistancy, ours should lie in diversity.' This monograph illustrates clearly the Venturi partnership's eclectic and imaginative approach to architectural tradition. Following his commission to design the extension to the National Gallery in Trafalgar Square, the monograph provides a timely record of the works of one of Post-Modern architecture's major theorists and practitioners.

Venturi's introductory essay explains the essential tenets of his divergence from the Modern Movement. He seeks inspiration in an architect like Edward Lutyens 'who especially in his domestic architecture, worked in a variety of historical and decorative styles'. Venturi goes on to stress that today's architects 'should be distinguished by the rich variety and diversity of their architectural vocabularies'. He discusses 'representation in architecture achieved through depiction and appliqué' and advocates 'an explicitly symbolic and representational historicism'. He repudiates claims that he is a Pop architect and emphasizes his adherence to the Classical tradition of Western architecture. The works covered in the monograph are accompanied by concise descriptions by Venturi. They include early works such as the guild House of 1961 and more recent works such as the Gordon Wu Hall, Butler College, Princeton, New Jersey. The monograph amounts to a well-illustrated introduction to the work and theory of Venturi's partnership. *HC*



Renovation of Allen Memorial Art Museum, Oberlin College, Ohio, 1973





Outdoor mural project, Pennsylvania, 1976

A View from the Campidoglio: Selected Essays 1953-1984
Robert Venturi & Denise Scott Brown
Harper & Row, New York, 1985
154 pages, b/w ills. Cloth £ 21

This volume brings together seventeen essays and articles by Robert Venturi and Denise Scott Brown, some written collaboratively, some separately, dating from different periods in the last thirty years. Given the role this husband-and-wife team has played in reshaping architectural sensibilities and aspirations, this is a valuable assemblage to put alongside their hitherto more readily available books.

The title refers to the first piece here, 'The Campodiglio: a Case Study', which formed part of Venturi's MFA thesis in Princeton in 1953, and discusses the effect of changing urban context upon the symbolic role, and hence the very nature, of Michelangelo's subtle composition. An elegant piece which Scott Brown points out to be the only one whose final form owed nothing to her, it sets up the scale for the whole book, and for their subsequent theses. Many pieces are wrought with the tensions of a battle from which they are now isolated here. Whilst not making the reading easier, they remind us how hard-won many now accepted ideas have been.

Their buildings as such are not the main subject of the book, but they are illustrated extensively, having been constantly used, as they were conceived, to illustrate or test polemic stylistic innovations.

The editors have provided a useful service with their very full bibliographies of material that discusses work by Venturi, Rauch and Scott Brown; of writings by them and about them as individuals. There is the substance of many undergraduate dissertations here, and if that focuses continuing attention on these important debates it can only profit architecture in the next generation too. *CC*

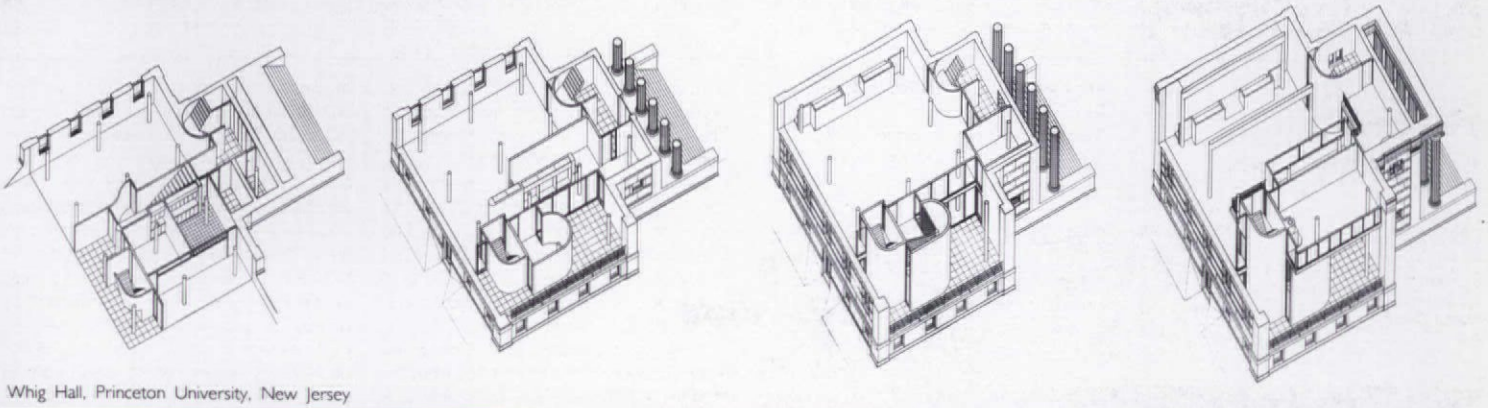
Charles GWATHMEY

Charles Gwathmey and Robert Siegel: Buildings and Projects 1964-1984
Edited by Peter Arnell and Ted Bickford
Harper Row, London, 1985
295 pages, col & b/w ills. Paper £25

In a concise and detailed introduction to his partnership's method Gwathmey claims 'our work appears to rest solidly in the cubist frame of reference as opposed to either the non-representational or the representational'. This is a claim echoed by critic Charles Jencks who has noticed the 'Surrealist emphasis' in Gwathmey's Residence and Studio at Amagansett, New York. 'Gwathmey buildings look as if Rene Magritte had played intellectual billiards with Corbusian toys'. Gwathmey is also respected for what Philip Johnson has called 'clarity rather than picturesqueness; compactness rather ramble'.

Gwathmey recognises that 'there is conscious re-evaluation of architectural language' which takes the form of 'a communication of ideas and meaning in our architecture'. His own approach reflects this. 'We believe that architecture is generated by the specific problem, resulting in a process of ordered evaluations'. From this he deduces that 'form must be inherently responsive to the constraints of the problem'. This can be seen, for instance, in Gwathmey's reconstruction of the interior of Whig Hall, Princeton University. Whig Hall was destroyed by fire with the exception of the exterior walls. It was necessary to build a new structure within the existing shell whilst respecting the traditional nature of the university and its neoclassical type. The result was 'a neoclassical temple embracing and revealing a twentieth century free-plan object building'.

The work of Charles Gwathmey and Robert Siegel from the past 20 years is extensively illustrated in this monograph. The illustrations are accompanied by plans and drawings and a detailed project bibliography explaining the demands and requirements of each scheme. Projects and buildings covered include the Gwathmey Residence and Studio, Amagansett, New York, the East Campus Student Housing and Academic Center at Columbia University, the de Menil Residence in East Hampton, New York and the Guggenheim Museum Renovation and Addition. *HC*



Whig Hall, Princeton University, New Jersey

Restoring the ACROPOLIS

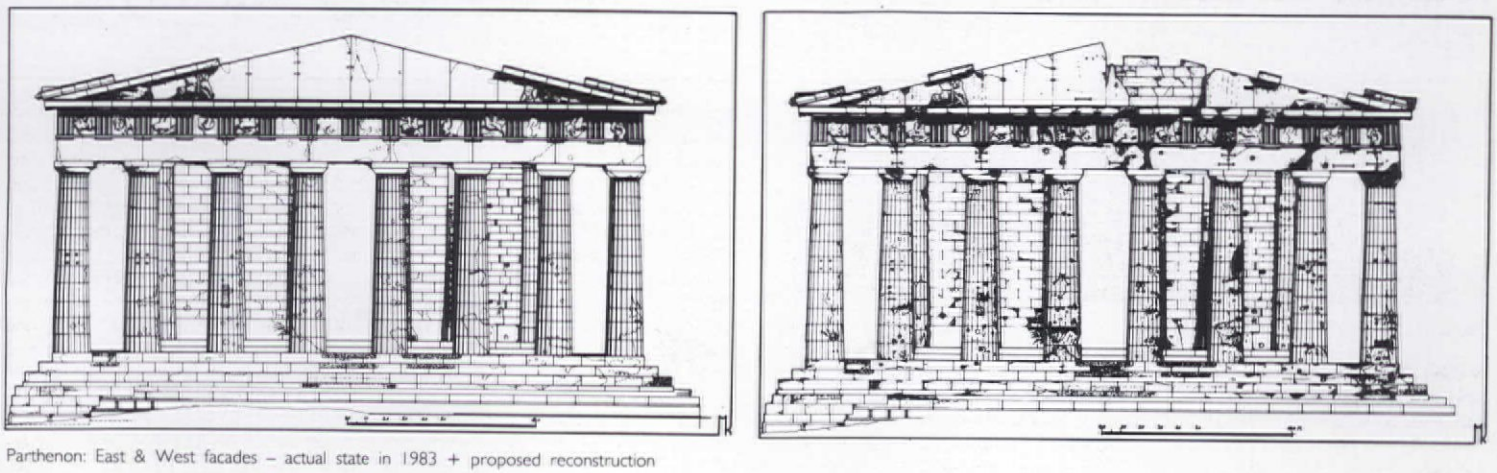
The Acropolis at Athens: Conservation, Restoration and Research 1975-1983
Ministry of Culture, Committee for the Preservation of the Acropolis Monuments
Athens/London, 1985
126 pages, b/w ills. Paper NP

The Acropolis is currently the subject of a preservation programme that began in 1975. The Committee for the Preservation of the Acropolis aims to be more sensitive and thorough than any of its predecessors.

Preservation took various guises in the past, ranging from distortion to theft. Following considerable damage due to bombardment during the Greek War of Independence in the early 19th century, when the Parthenon marbles were removed by Lord Elgin, the revival of European interest in classicism led to the beginning of excavation work. The Greek architect Kyriakos Pittakis and the Bavarian court architect Otto von Klenze both undertook work which was coloured by a view of classicism that sought to heighten the pure and orderly at the expense of what was considered as pagan. Of the more recent attempts to restore the Acropolis the work of the civil engineer N. Balanos at the beginning of the 20th century was both extensive and detrimental. Balanos used iron clamps and beams which were embedded in blocks and subsequently rusted and expanded destroying marble.

The present Committee has sought to preserve the Acropolis on the basis of a detailed programme of historical, archaeological and geological research. A travelling exhibition of their work has visited the British Museum, London, which retains the Parthenon Marbles. It presents the main contemporary menace as the chemical erosion of the surface of the Acropolis marble, which is caused by environmental pollution. The Committee intends to collect and restore all the scattered fragments of buildings and sculptures. Their plan includes the reconstruction of the Parthenon roof. With the aid of technological equipment and geological testing they have consolidated the Acropolis rock which is now seen as an integral part of the monument.

The final realisation of the Committee's aspirations will be the removal of damage caused by previous injurious reparations and the establishment of the whole monument according to the original principles of harmony that inspired its creation. This catalogue is a valuable record of the history of this work, with a wide range of drawings and photographs. *HC*

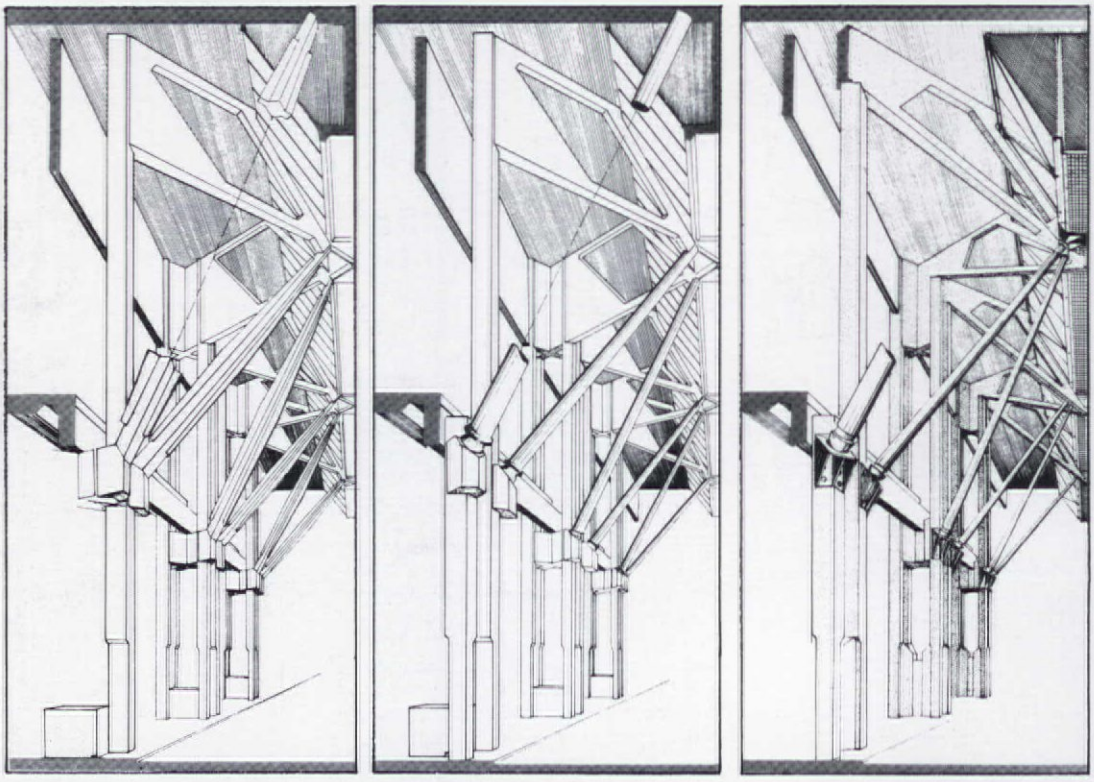


Parthenon: East & West facades – actual state in 1983 + proposed reconstruction

Paul CHEMETOV

Paul Chemetov
Frédéric Pousin & Daniel Treiber
Electra Moniteur, Milan-Paris, 1985
126 pages, b/w ills. Paper NP

This monograph in the series *Construire aujourd'hui* presents the varied work of Chemetov since 1960. Much of it has been in that field of public housing where the French have constantly sought imaginative solutions, some of it has been private housing, and about a third of it, public and community facilities. The latest work, still under way though begun in 1979, comprises underground routes and cinema, gym, winter-garden, swimming and other facilities that are some of the best work within Paris's major redevelopment of Les Halles. Introductory essays and an interview with Chemetov himself provide background on his ideas and work. *CC*

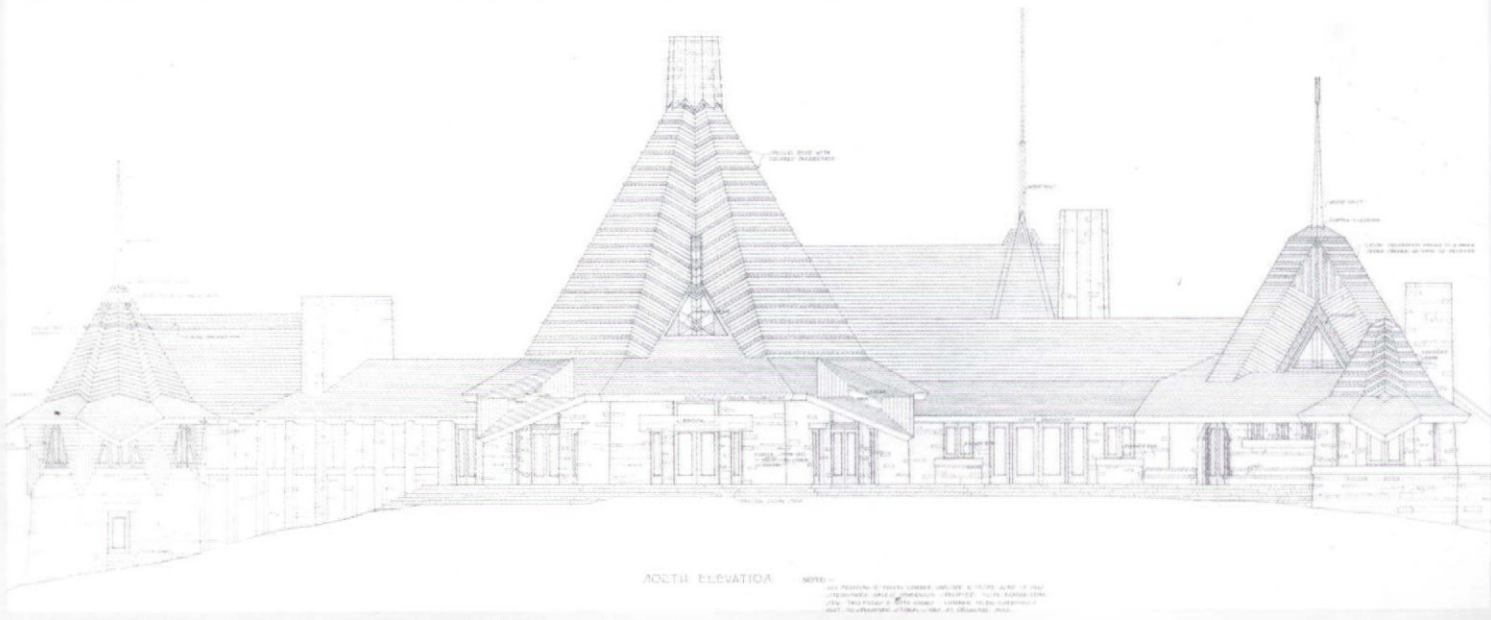


Preliminary sketches for the public gallery, Les Halles, Paris

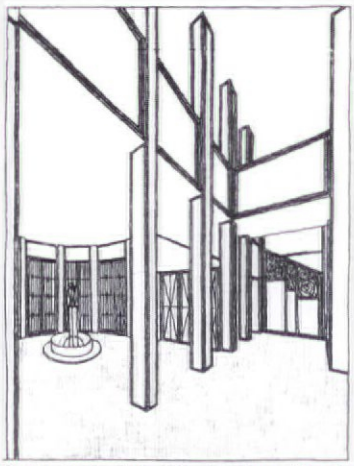
Frank LLOYD WRIGHT

Frank Lloyd Wright: Treasures of Taliesin. Seventy-Six Unbuilt Designs
Bruce Brooks Pfeiffer
Thames and Hudson, London, 1986
72 pages, b/w & col ills. Cloth £50

'The Mile High would absorb, justify and legitimize the gregarious instinct of humanity. The city in itself now is incongruous, unclassified, an absurdity throughout ... it is in the way of culture.' Frank Lloyd Wright's drawings for the Mile High building are part of a collection of a hundred and six drawings for designs, some of which are published here for the first time. The projects included by Bruce Brooks Pfeiffer range from the Yahara Boathouse, Madison, Wisconsin, 1902, to the Morona Civic Center and the Arizona State Capitol, Phoenix, 1957. Pfeiffer's introduction discusses briefly Frank Lloyd Wright's creative procedure and emphasizes the importance of all of his projects. He sees the Mile High building as the embodiment of Frank Lloyd Wright's aesthetic vision which stressed the harmony of architecture within the natural world as opposed to the detrimental effects of inconsistant, random urban structures. Pfeiffer's book reproduces colour drawings fully, and provides a visual if unrealised extension to the imaginative vision of Frank Lloyd Wright. *HC*



North elevation, Nakoma Country Club, Madison, Wisconsin, 1924



Design for the hall of Stoclet House, Brussels

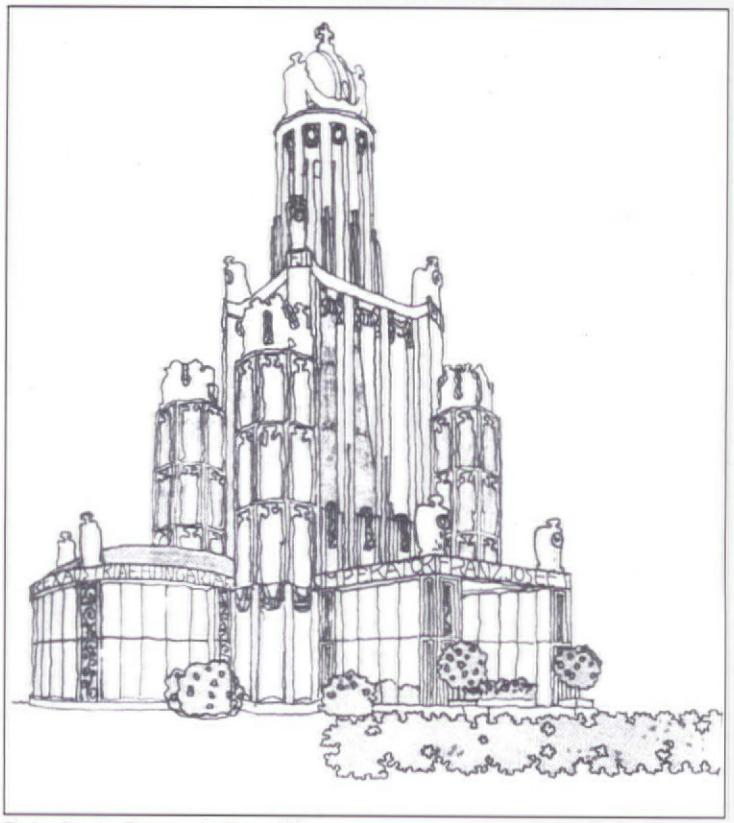
Josef HOFFMAN

Josef Hoffman:
the Architectural Work
Eduard F. Sekler
Princeton Press, USA, 1985
543 pages, b/w, col ills. Cloth £68.10

A monograph of this calibre barely needs comment, only encouragement to buy and appreciation of the decades of work so lucidly distilled and so accessibly presented. On this last count extra thanks must go here – and unusually to the author himself – for a major act of translation. Sekler's work appeared in German in 1982, and its inaccessibility to those without that language has been a major frustration ever since. The catalogue raisonnée is translated by John Maass.

The book is important for rebalancing our view of Hoffman's oeuvre. As Sekler's foreword tells us, 'Though he designed everything from book decorations to bentwood furniture and from dresses to jewelry, Josef Hoffmann always considered himself first and foremost an architect. Yet the whole extent of his architectural oeuvre was never surveyed in depth, and several of his works, in fact, fell into complete oblivion. Therefore if one wanted to render long overdue justice to Hoffmann's achievement, one had first to provide a full documentation of his architecture.' As he says later, full understanding of that architecture requires visiting it, but even at its 'post-publication' price, this book remains a bargain compared with the costs of visiting even one work.

The scope of Sekler's text is well described by its ten chapter titles: Years of Upbringing and Education; Artistic Beginnings and Models; British Models and the Path towards Simplicity and Unity; Richness as Artistic Possibility – a particularly perceptive discussion which focusses on the Stoclet House, with superb colour photos of interiors. They continue with: The Turn to Classicism; Inspiration from the Vernacular and the Climax of the Classicist Phase; The Climax of the Decorative Phase and the Inspiration from Cubism and Expressionism; Coming to Terms with the Modern Movement and New Architectural Solutions in Housing; The Late Work; Hoffmann the Man, the Artist and the Teacher. The two penultimate chapters on the late twenties and the thirties onwards are also particularly rewarding for the amount of hitherto virtually unknown work they reveal. A professional life of such length and centrality inevitably brought Hoffmann into contact with most major figures of his period, and Sekler locates his approach to other contemporary attitudes elegantly and economically when these moments for juxtaposition arise naturally from the work. Twenty texts in a brief set of appendices take this process further.



Design for the Emperor Pavilion, 1908

The 'descriptive catalogue' forming the second half of the book looks ingreater detail at every architectural project so far traced. They span from 1891-1951, and even 'after completing the catalogue' of 501 items Sekler finds references to another twenty or so.

This book has occupied a lot of Sekler's professional life, but it is unlikely to be surpassed as the record of a public and private architecture of constant formal and expressive invention. *CC*

Reflections on the MIES CENTENNIAL

James Gowan

THE INFORMATION THAT IS available on Mies van der Rohe has been greatly extended in recent years; by the research of Sandra Honey on the early houses which was the subject of an exhibition at the London Building Centre in 1978, and by the establishment of an archive in the master's name at the Museum of Modern Art. Lilly Reich and a former Bauhaus student, Eduard Ludwig, stored the European records in Mühlhausen, now a part of the German Democratic Republic, until 1963 when the material was allowed to leave for Chicago. There Mies let it lie unopened for weeks and for reasons that are mildly interesting to speculate upon. One of the possibilities must be that the architect knew that there was nothing in the cache that he particularly wanted, that he already had the best items.

To some extent, the publications that have followed Philip Johnson's and Werner Blaser's bear this out. These early books have the hallmark of scrupulous editing by Mies in his lifetime; those that follow have much to commend them but it is questionable if they extend the nature of Mies van der Rohe's accomplishment. The pictorial aspect of his work has been widely and fastidiously disseminated. The editing has been marvellous. How this equates with St Augustine's throw-away remark that 'Beauty is in the splendour of Truth' is a matter of conjecture, though not something that current writers are rushing to answer. The aphorism has been used so often in connection with this area of aesthetics, heavy metal, that it has become an incantation whose meaning has been left somewhere far behind.

Given the unhelpful form of the architect's pronouncements, akin to silence, authors such as Kenneth Frampton in his essay in the David Spaeth book hang their opinions of Miesian architecture on a chronology, a life's work extending sequentially from one project to another, getting better all the time. The snag with this procedure is that it always promotes an escalation of superlatives which, in this case, peak with the rather unhelpful conclusion, 'Thus we pass in one final heroic work from the technical and the tectonic resolution of a long-standing Neoclassical proposition, to the intangible, almost imperceptible, not to say mystical assertion of the sublime as this appeared in Malevich's white-on-white series of 1918', which would seem to suggest that Malevich got there first.

This mode of architecture has its painterly roots in Ozenfant theory and the notion that the machine and its aesthetics equate with reason and perfection. Not so many years back, Norman Foster, a disciple of this creed, appeared on my TV

Salon with chairs designed by Mies, Villa Werner, Zehlendorf, Berlin, 1913

holding a large lump of white material, polystyrene presumably, and attributed to it all the qualities mankind required of a building material. It was cheap, etc, etc, and, at a stroke, made mindless traditional building outmoded. It was to be as simple as that. Now one learns that he has completed the most expensive building in the world. Clearly something has gone awry. The Smithsons, too, now find that the lore of their Hunstanton School with its square-edge steel detailing is now being kicked around whilst its models, the IIT campus and the Alumni Memorial Hall, are lauded. Reason suggests that both assessments can hardly be accurate.

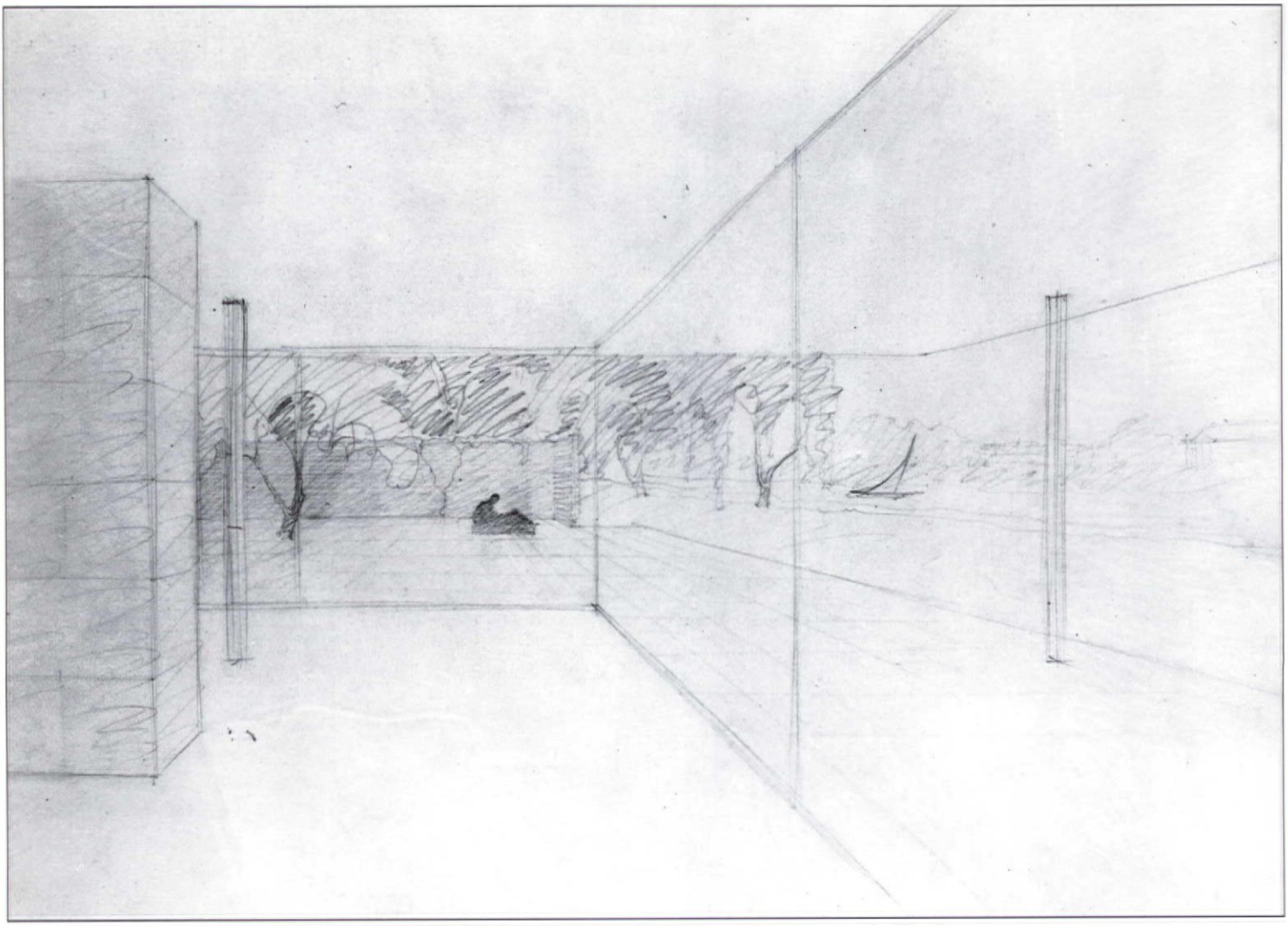
In 1965 I drifted around the IIT layout and suddenly found myself caught up in what appeared to be an endless and hostile slum. The sharp white layout (p 132 MoMA 1947) was not just a drawing-board allusion. It existed in fact and we had stepped over the edge of its outline. The chapel with its tiny apologetic cross managed to be both ridiculous and banal. Understandably, it became the prototype for the boiler houses of the English school programme of that period; the British, ever pragmatic, substituted heating equipment for the altar. As far as I can see, we also found a use for the blocky, stock brick 1926 monument to Karl Liebknecht and Rosa Luxemburg. The latent balcony fronts have made it easily adaptable to very basic flatted housing; such is the nature of invention, or misunderstanding.

Dining room, Villa Urbig, Neubabelsberg, Potsdam, 1914.

If the books by David Spaeth and Franz Schulze do not take on the paradoxes of the technological debate which is implicit in every part of the Miesian vocabulary – steel and its conductivity, glass in single panes, geometry versus building science, logic or style, conformity and individualism, social purpose rather than commercial hype, hand-crafting and machine techniques . . . the list is endless – they do offer much information on the man and his carousing and lots of pics of ancillary things, background and homelife, if that is the right word. Wolf Tegethoff concentrates on the villa and country house projects with exemplary thoroughness but the new material looks very thin indeed; there are rather too many wonky sketches.

Early and remarkable houses, such as the Werner, where the architect designed everything specifically for the family – table, chairs, settee, cabinets – had particular promise and thrived upon their recognisable constraints. Stuffy and bourgeois they may be but they held to life as it is lived. In architectural terms, Europe's loss has been domestic, and America's gain, corporate. There his buildings became an obsession with the single space which, as it enlarged, became emptier and emptier until it described that cultural cypher, the international airport lounge where his beautiful chairs are placed waiting silently for what Lawrence Ferlinghetti has described as 'a renaissance of wonder'.

Lilly Reich at Lugano, 1933.



Hubbe House, 1935: perspective of the living room and terrace with Elbe River.

The Old and the New

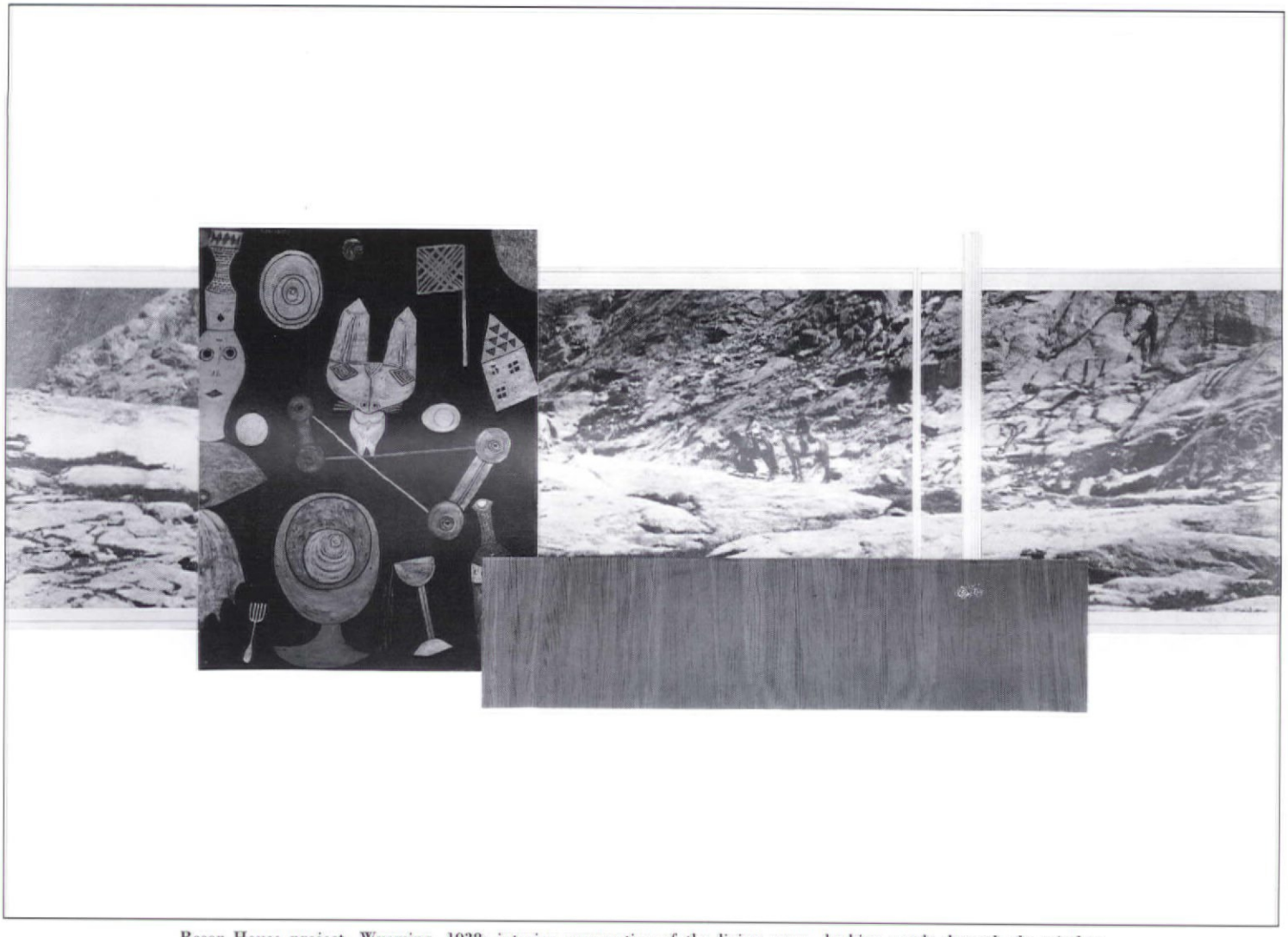
'Aneurin Bevan says an interesting thing. He says that we intellectuals are in a difficult position. Our tastes attract us to the past, our reason to the future. Hitherto we have been able to appease this conflict since our tastes were still able to find their outlets, whereas our reason could indulge in the picture of the shape of things to come. Now, however, the future is becoming very imminent and we are faced with the fact that our tastes can no longer be indulged. Gone are ease and income and travel and elegance. There is a tendency therefore for the weaker souls to escape into mysticism. Their reason tells them that the future is right, but it is agony for them to lose the past.'

Diaries and Letters 1939-45
Harold Nicholson

THE PROSPECT THAT MIES VAN der Rohe sketches from the living room of his houses is a quiet piece of a traditional landscape; grass, trees, hedges and an occasional sailing boat. It is a secluded setting, uninhabited and totally familiar. It could be said that a Mies house is concerned primarily with its outlook, that it is an interior place from which the past is relished as if it were a painting; with composure, distance and the superiority that new technology invokes.

It could, perhaps, be said that the introduction of a building into this ideal landscape would be unfortunate. The sense of isolation would be lost; but if there had to be a building in the vista, an old farmhouse, something ageless, would do no great harm.

A modern building would be less acceptable however. It would be an obtrusion, a competitor, another young bull. At best, a modern building is a place for looking at old buildings or a piece of the past. The contrast makes the scene more pleasurable, the distinctions more acute. Perhaps modern architecture has thrown up only one or two good ideas, that the captive view is one of them, and that it is not a unique style at all . . . simply part of the flow of architecture. If the generality of this argument is reversed and tested by consideration, there is not a lot of joy in looking at a modern building from a traditional setting. The experience is something of an embarrassment; a challenge, too, for any occupant given to introspection, harbouring doubts, and sitting in front of the glass.



Resor House project, Wyoming, 1938: interior perspective of the living room, looking south through the window.

Mies: Europe & America, purpose & use

ALTHOUGH WHAT ARCHITECTS say about their buildings tends to be, at worst, idealised and inaccurate or, at best, mysterious and misleading, it is the only direct clue one has to the way they think. Such information has to be regarded with some reserve as it is usually preceded with an appeal to the emotions; a stratagem that gives the licence for the particular antics that are to follow. Thus 'a new epoch is beginning' can be followed happily by any spectacular comment one cares to make. With this cautionary note I would like to consider some words of Mies van der Rohe. 'It was only after the war, in the 1920s, that the influence technical developments were beginning to exert on many aspects of life became increasingly apparent. We recognised technology to be a civilising force and one to be reckoned with. Advancing technology . . . '(this now reads like an incantation) 'provided the builder with new materials and more efficient methods which were often in glaring contrast to our traditional conception of architecture. I believed, nevertheless, that it must be possible to harmonise the old and the new in our civilisation. Each of my buildings was a statement of this idea and a further step in my search for clarity.' And again, 'True architecture is always objective and is the expression of the inner structure of our time, from which it stems.' These comments, from the introduction to the Werner Blaser book on his work, were made in 1965 and contain no surprises now, except perhaps, the phrase 'harmonise the old and the new'. The extract that, possibly, gives the most useful summary to the impetus behind his work is, I think, 'Each of my buildings . . . was a further step in my search for clarity.'

There is little doubt that this is a reference to aesthetics primarily and not to the practicalities of construction. He ended his inaugural address as Director of Architecture at the Armour Institute of Technology with, 'The long path from material through function to creative work has only a single goal; to create order out of the desperate confusion of our time.'

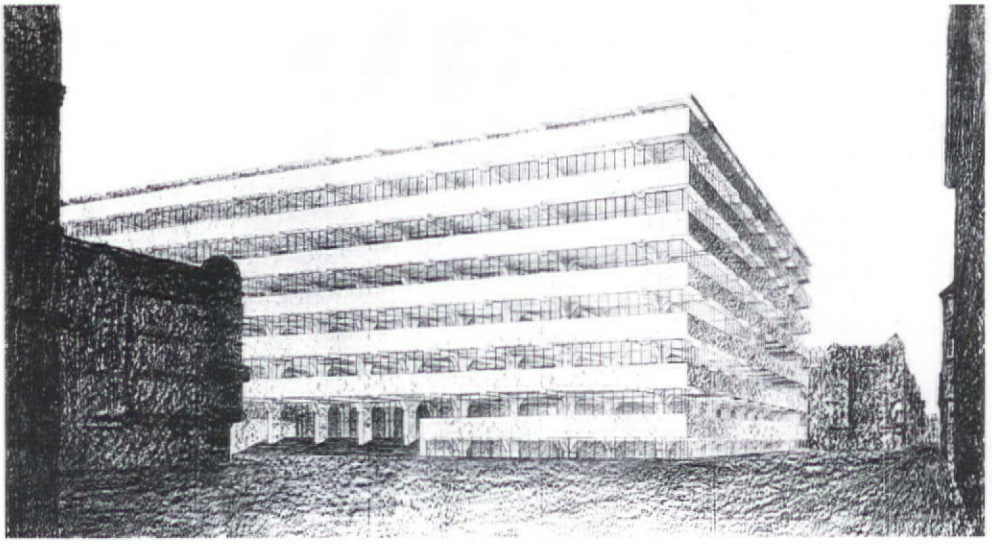
The ground plan of a Miesian building can be seen to be in two parts. A flat, plane, white surface engraved lightly with a precise geometry, with superimposed on this, darker cryptic episodes which project forward to the eye, representing the props and structural supports. At the slight risk of oversimplification, it can be argued that the floor plan is the key to this architect's buildings and it is interesting to remind oneself that his early projects were quite traditional, of load-bearing brick pre-

sumably, or alternatively and experimentally, glass envelopes without any indication of the internal structural mechanics. Columns with cantilever beams appear for the first time in the 1922 office building perspective drawing and, with their clumsy and heavy appearance, they have the scale and the overtones of the previous century and its warehouses. The brick house projects of 1923 are a criss-cross configuration of thick walls but they too, in the round, retain the general opacity of traditional walled structures; punctured wall surfaces with a lineage that stretches from Georgian backs and facades to the Venturi 1968 Humanities Building at State University, New York. Dark, reticent buildings; without great promise and enthusiasm for the future. The plain, rectangular block of flats at the Weissenhofsiedlung reverts, cautiously, to a simple orthodox structure; framed, with its columns fused into the facade. It is a building that anxiously checks its roots, finds them wanting and is reassured.

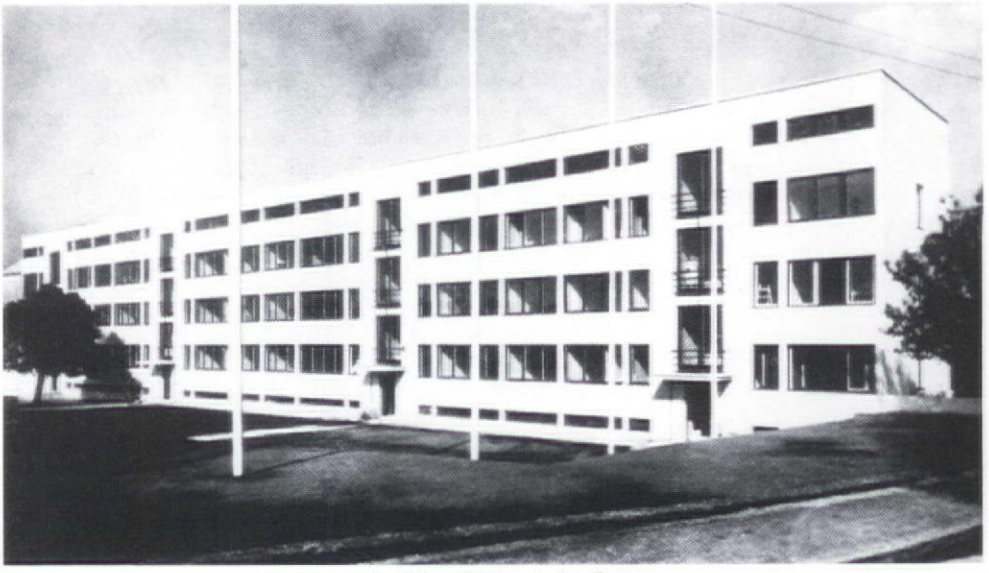
These excursions are the preliminaries for a dramatic aesthetic thrust; a movement of space which rushes around columns, walls and screens in the German Pavilion of 1929 and, in the Tugendhat house, this same arrangement of structural and semi-structural components is locked tightly with clear glass. A circular screen to the dining area appears and suggests that there is a field here for further accommodating elaboration. Significantly, in both these buildings the columns are cased in chromium plate, giving them greater emphasis and importance. Indeed, the cold shiny surface cocoons the particular component that Mies was to develop obsessively, above all else, in his later buildings.

The architect then takes another exploratory step. The 1931 Berlin Building Exposition house has a general enclosure which pushes a few freestanding columns to the outside of the walling but they are slender and tentative . . . hardly noticeable except on scrutiny.

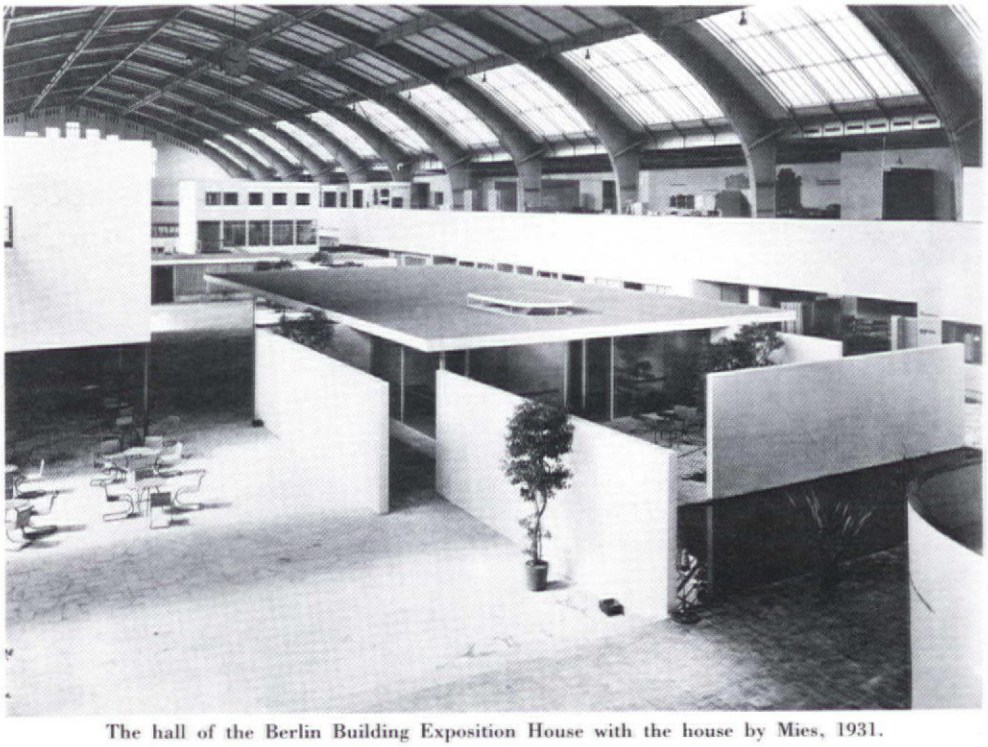
From this time on, until he arrived in America, this aspect of his work hibernated; structure and a sense of style. A concern with columns and wall relationships can, in loose general terms, be said to be classical and, in a narrow sense, structural. It was a fortuitous coincidence that Chicago was to provide a ready-made and apposite historical background; Sullivan and the frame office blocks of the 1890s . . . America, a country of high technology which takes mechanical equipment for granted and in its stride . . . motor cars that start in freezing weather . . . lifts that operate with speed and smoothness . . . unhurried and unflurried Greyhound



Concrete Office Building, 1923: perspective.



Apartment building, Weissenhofsiedlung



The hall of the Berlin Building Exposition House with the house by Mies, 1931.

buses . . . steel bridges and well-crafted utilitarian detailing . . . the safe deposit vault of the Philadelphia Savings Fund Trust building with its effortlessly fashioned stainless steel intracies, the Tutankhamen tomb of the twentieth century.

The IIT buildings were built in sequence and, one after the other, were a surprise and a revelation to British architects. The simple steel frame theme was generally assumed to be intractable and a form of aesthetic strangulation, with good reason when one looks at the home-grown cabbages in this style. But Mies demonstrated, in a series of buildings, an unsuspected yield and a progressive, accumulating, virtuosity. The form remained constant . . . rectangular, boxy; the variations were now about junctions, details, abutments, corners . . . all executed with much sophistication and a few shocks. Steel stanchions planted onto the face of the inner fire-resisting concrete framework caused consternation and still do, though perhaps only in myself. This duality of expression and its reality could not be sustained by logic but only by invoking classical precedent; the pilaster and the attached column. Reluctantly and a little sadly, steel structure was seen to be a committment and a style for Mies; detailing its articulation. Steel components had been elevated to refined adornment, a style had been found for a New World; hard-edged, metallic, glassy, engineered, with paradoxes of functional shoe-horning, hand-workmanship and external maintenance built in. And when the steel style peaked with a brilliant outcrop of cruciform columns, external roof trusses and trussed walls, there was some reason and evidence for feeling and thinking that such dexterity could only be sustained by this one man; that when he had gone, the inventiveness, the intensity and the stunning conviction that had overwhelmed all the inherent contradictions of this abstemious style would go too.[1]

Not many architects today would dare to be on record as saying that 'Nothing can express the aim and meaning of our work better than the profound words of St Augustine . . . Beauty is in the splendour of Truth.' Another call to the emotions, of course, but then it came at the end of his 1938 address, not at the beginning, so we are each left with our own interpretation of what that might mean and although that may not have been the intention it is a happier and much more reasonable state of affairs.

Note

1 I am thinking here particularly of SOM, one of the very few firms with which comparison can be made without embarrassment. The SOM style is closely linked to that of Mies to such an extent that, aesthetically, it appears to be wholly dependent on his experimentation yet, technically, and in the processing of these decisions particularly, it has quite different motivations. The distinction could be said to be between high art and extreme professionalism.

The illustrations within this article are reproduced with the permission of the Mies van der Rohe Archive of the Museum of Modern Art, New York, and the University of Chicago Press.

Franz Schulze, *Mies van der Rohe: A Critical Biography*, The University of Chicago Press, Chicago 1985. 325 pages, 219 black-and-white illustrations, cloth £33.95.

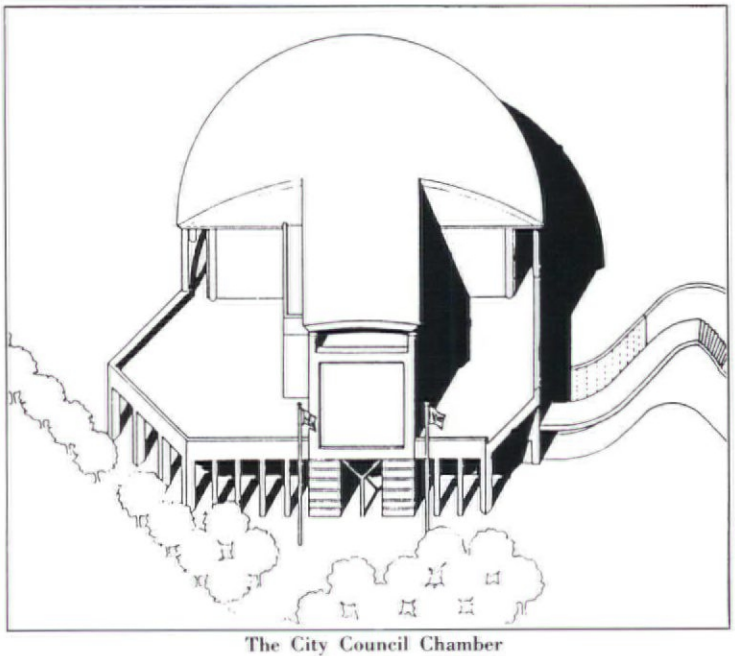
David Spaeth, *Mies van der Rohe*, The Architectural Press, London 1985, 208 pages, 235 black-and-white illustrations, paper £19.95.

Wolf Tegethoff, *Mies van der Rohe: The Villas and Country Houses*, The Museum of Modern Art, New York 1986, 233 pages, black-and-white illustrations, cloth £54.95.

The Mies van der Rohe Centennial Exhibition opened at the Museum of Modern Art, New York in February. It is the most comprehensive exhibition ever devoted to the architecture and furniture of Mies, and it will be travelling to the Museum of Contemporary Art, Chicago (May 8 – August 10, 1986), the New National Gallery, Berlin (November 13, 1986 – January 15, 1987) and sometime thereafter to Barcelona.

Arata Isozaki & Associates

PHOENIX GOVERNMENT CENTRE



The City Council Chamber

THE NAME 'PHOENIX' LINKS THIS DESERT city in Arizona with the mythological bird that supposedly lives forever, destroying itself upon a pyre of its own nest every few hundred years to rise again from its ashes rejuvenated.

The city of Phoenix stands on the ruins of a settlement built by the Hohokan Indians who inhabited the area until 1400 AD. Subsequent invasions by the Conquistadores have left a strong imprint of Spanish culture on what today, is a rapidly expanding urban centre.

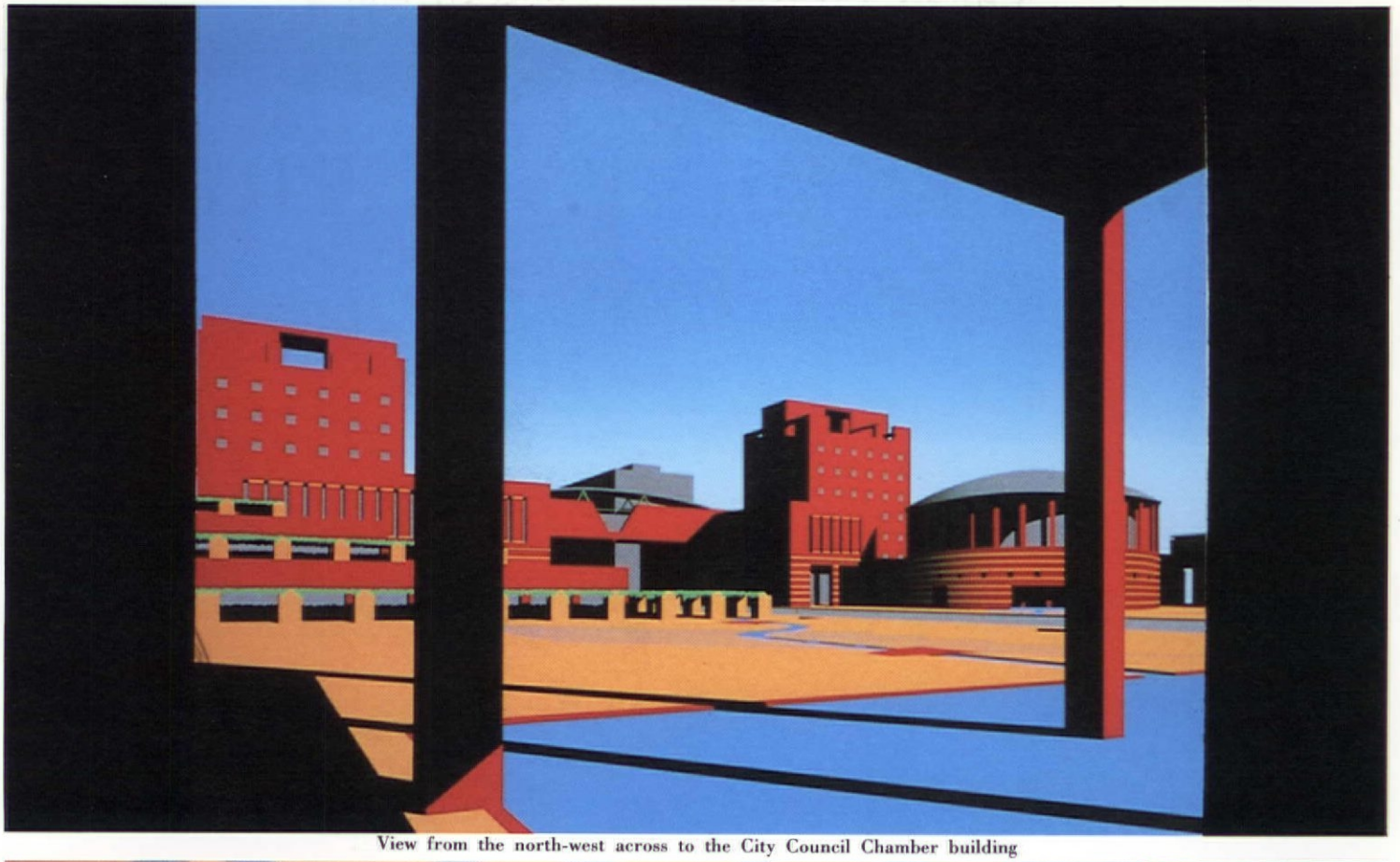
In the arid desert environment of the American West, shade and water are precious commodities providing relief from heat and dehydration. The creation of an oasis and garden paradise in a desert context has long been the dream of many generations of settlers and builders.

The opportunity for realizing this dream was afforded by the Phoenix city fathers when they launched a major international architectural competition to design a new Municipal Government Centre covering a 12-block area of downtown Phoenix. Over 100 proposals were submitted, and the two-stage competition was eventually won by the Canadian architect Barton Myers. The three other finalists were Michael Graves, Arata Isozaki and Ricardo Legorreta. In this feature elements from Arata Isozaki's colourful proposal are presented.

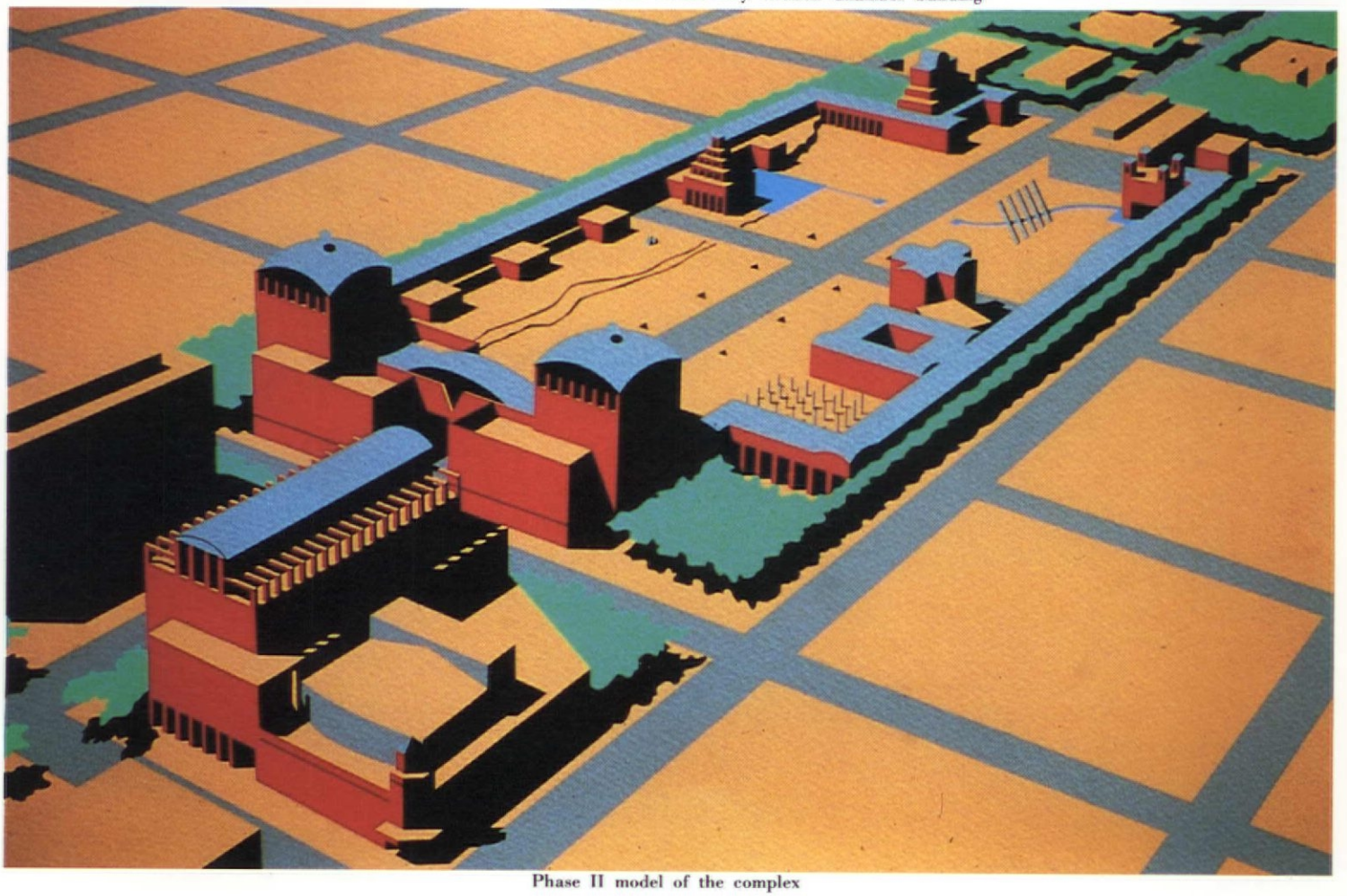
A central objective of Isozaki's proposal is to create an architectural environment particular to Phoenix. Whilst based on the traditions of the indigenous Pueblo Indian Architecture and the Hispanic Classicism of the region, the 'Phoenix Style' is intended to be constructed with modern materials and technology. The public buildings are designed using the tripartite composition of Western Classicism, and the more commercial buildings are adapted from the stepped-back architectural type of Pueblo Indian architecture.

To create an impressive building complex under the strong sunlight, the complex needs to be seen as almost monochromatic masses, like the *mesas* in the Grand Canyon. Isozaki proposes to use red sandstone extensively, as the basic external facing material, as it is the most effective, efficient and longlasting material for the environment. To match the colour of sandstone, red granite is used for the bottom of the building's base, the lintels and the window surrounds. An interesting contrast to the red is the copper of the roofs, which themselves are designed according to their function and emphasize each building's identity by creating different individual skylines.

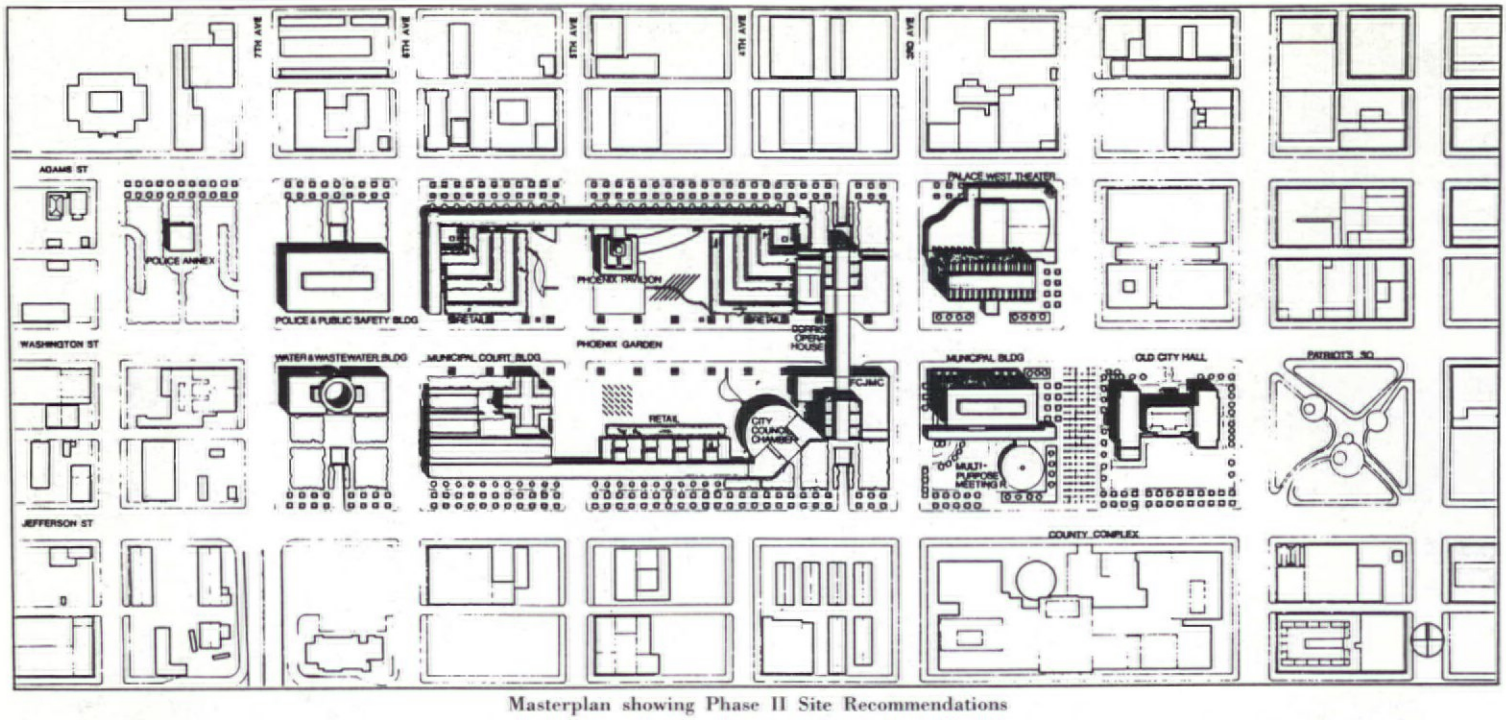
Beige sandstone and terracotta tiles will also be used – the latter are particularly characteristic of the Pueblo Deco of the Southwest. The limited use of such subtle ornament is an important element in the accomplishment of a clearly-defined style. Ornament symbolizing Phoenix is, for example, applied to the cornice and capitals of the buildings and the centre of the



View from the north-west across to the City Council Chamber building



Phase II model of the complex



Masterplan showing Phase II Site Recommendations

bridge. The entrance to each building displays another form of ornamentation: brightly painted steel columns, representing contemporary industrial production.

Masterplan concepts

In his Phase II presentation, Isozaki has developed six key concepts for the masterplan of the municipal centre, which he has labelled as follows: City Axis (Governmental Mall), City Gate (The Fire, Criminal Justice and Municipal Centre Building – FCJMC), City Room (Phoenix Garden), City Corridor (Colonnade), City Sanctuary (Phoenix Pavilion) and City Colour.

The existing concentration of Government and other public buildings along, or related to, Washington Street, together with the addition of the new buildings, would create a Governmental Mall, providing a much-needed directional axis for the city, with the State Capitol as the main visual and symbolic focus at its western perimeter. The striking Phoenix bridge spanning the eastern end of Washington Street, would form the City Gate, emphasizing the City Axis and framing the view of the State Capitol.

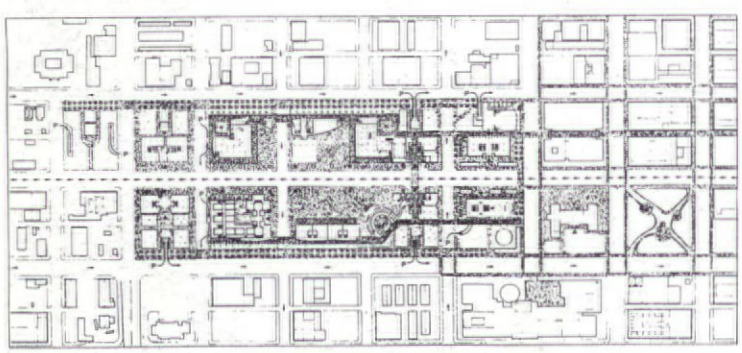
At the heart of this complex is Phoenix Garden, defined as the City Room, the main public space of the city. The whole Governmental Mall would become a green belt, with rows of palm trees and densely planted landscaping, in the centre of which Phoenix Garden would be designed as a symbolic desert landscape, with rocks, arid plants and water, as well as a sculpture garden. Framing the City Room and linking the buildings along its perimeter is the City Corridor – a colonnade which would provide a welcome shaded pedestrian promenade. Completing the composition of the Phoenix Garden is the Pavilion, a key cultural building of the city. Arising from the 'desert' landscape to look out over the Garden, Isozaki sees the Pavilion as a place of almost religious significance – the City Sanctuary.

The basic form of the project remains essentially unchanged from Isozaki's earlier proposal. The area covered has been slightly reduced, in accordance with the request to contain all construction within sites already owned by the City, and stronger visual links have been made between several of the buildings.

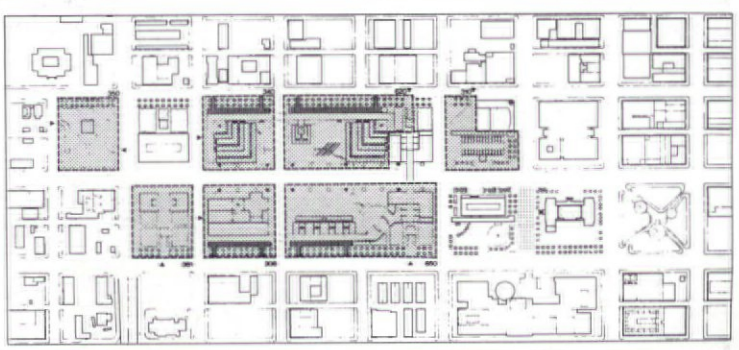
In Phase I, the Phoenix Garden with its large open space had less sense of enclosure and was closer to a literal interpretation of the real desert. It has now been made more compact by moving the two wings of the colonnade closer together, reopening 6th Avenue at its western boundary and increasing the volumes of some of the surrounding buildings.

The existing traffic system also remains largely unchanged in Phase II, although 4th Avenue between Jefferson and Adams Streets has been closed to emphasize the City Axis, making it the main thoroughfare for cars within the complex. The colonnade links up with and extends the existing pedestrian network. It contains independent office and retail units but is integrated with the attached buildings along its length.

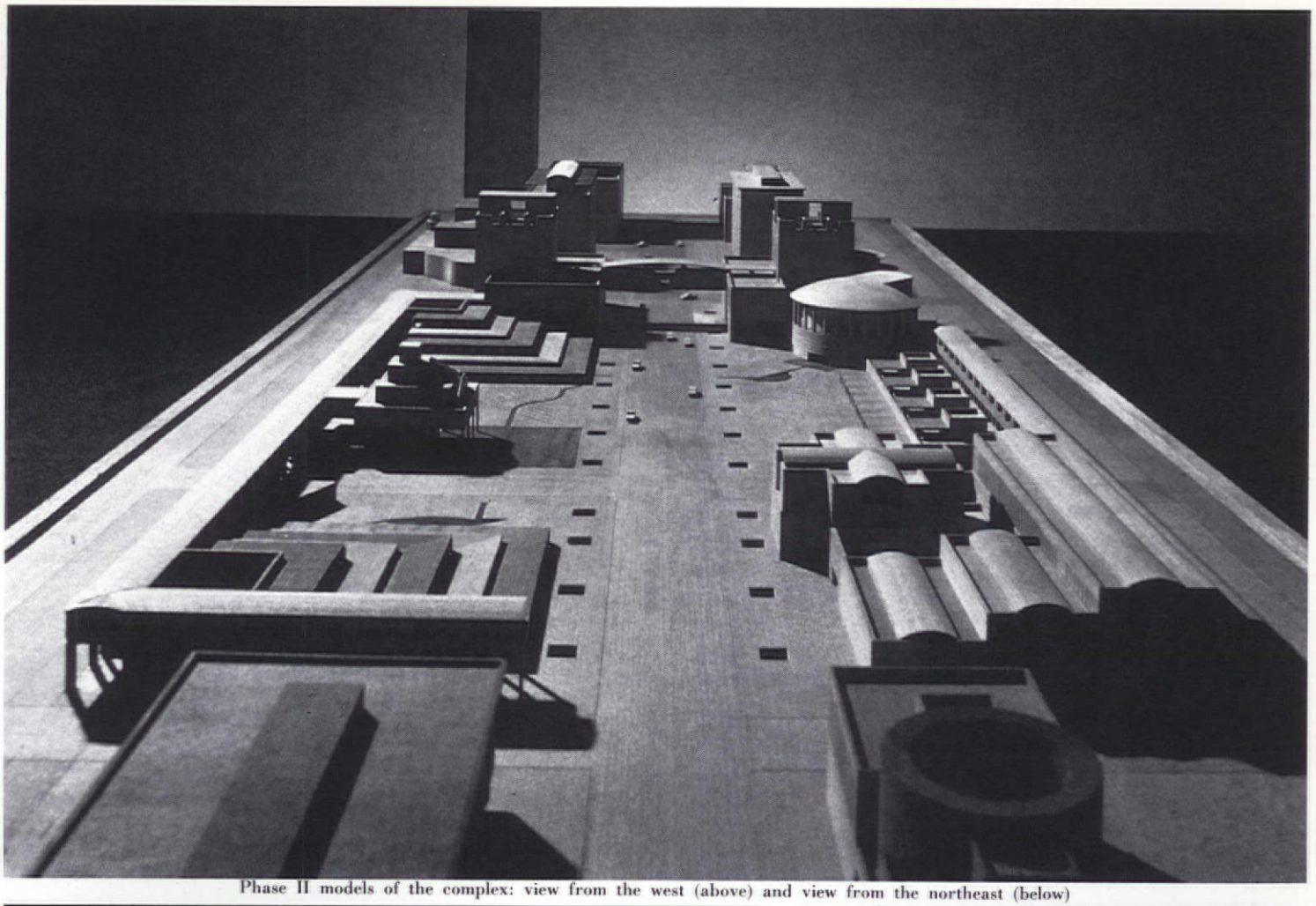
As in the earlier proposal, Isozaki has satisfied the majority of the car parking requirements with the provision of extensive underground car parks. In addition, short-term surface parking has been included along the entire length of the colonnade. The underground car parks are brightened by natural light entering through the large



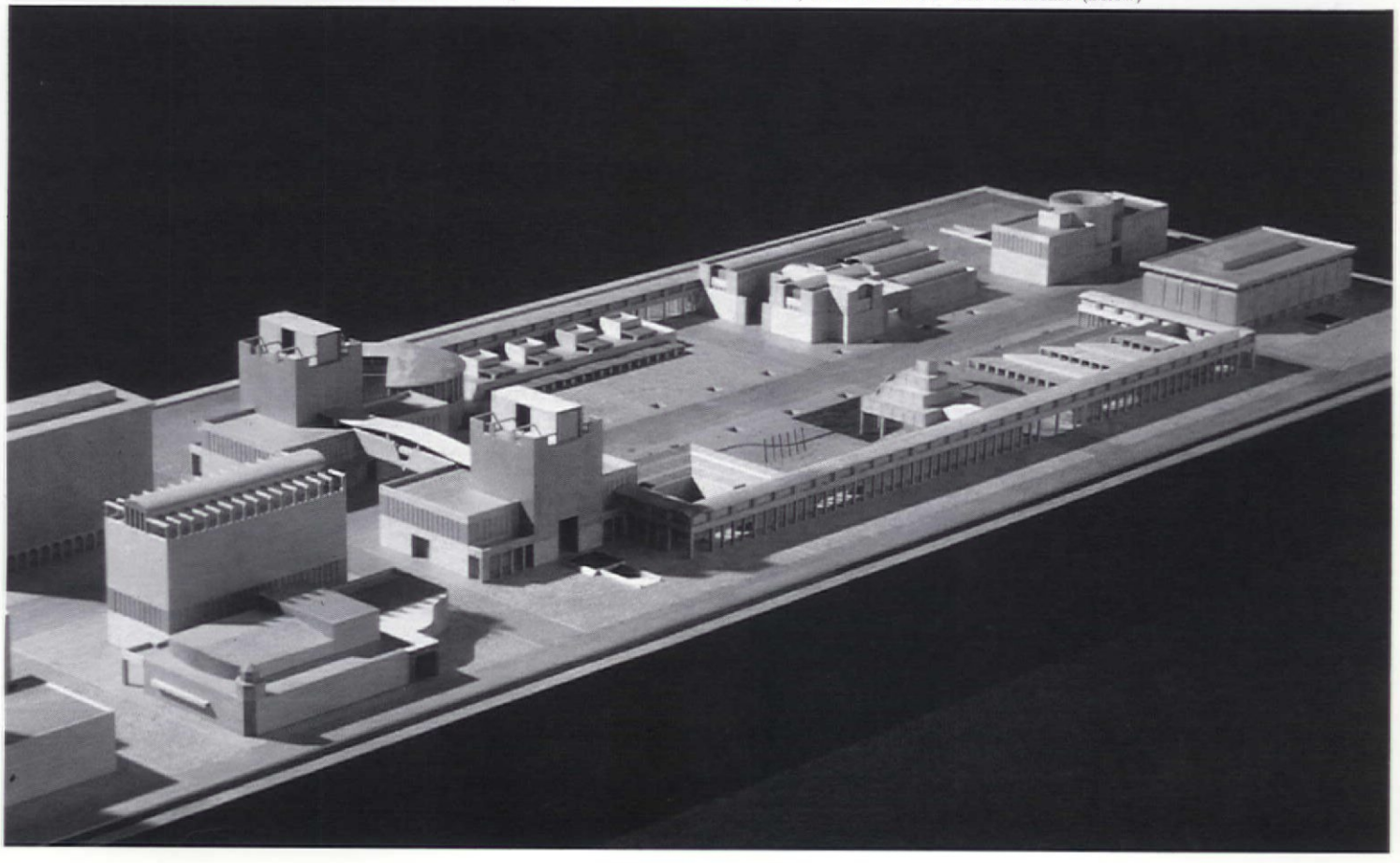
Circulation plan

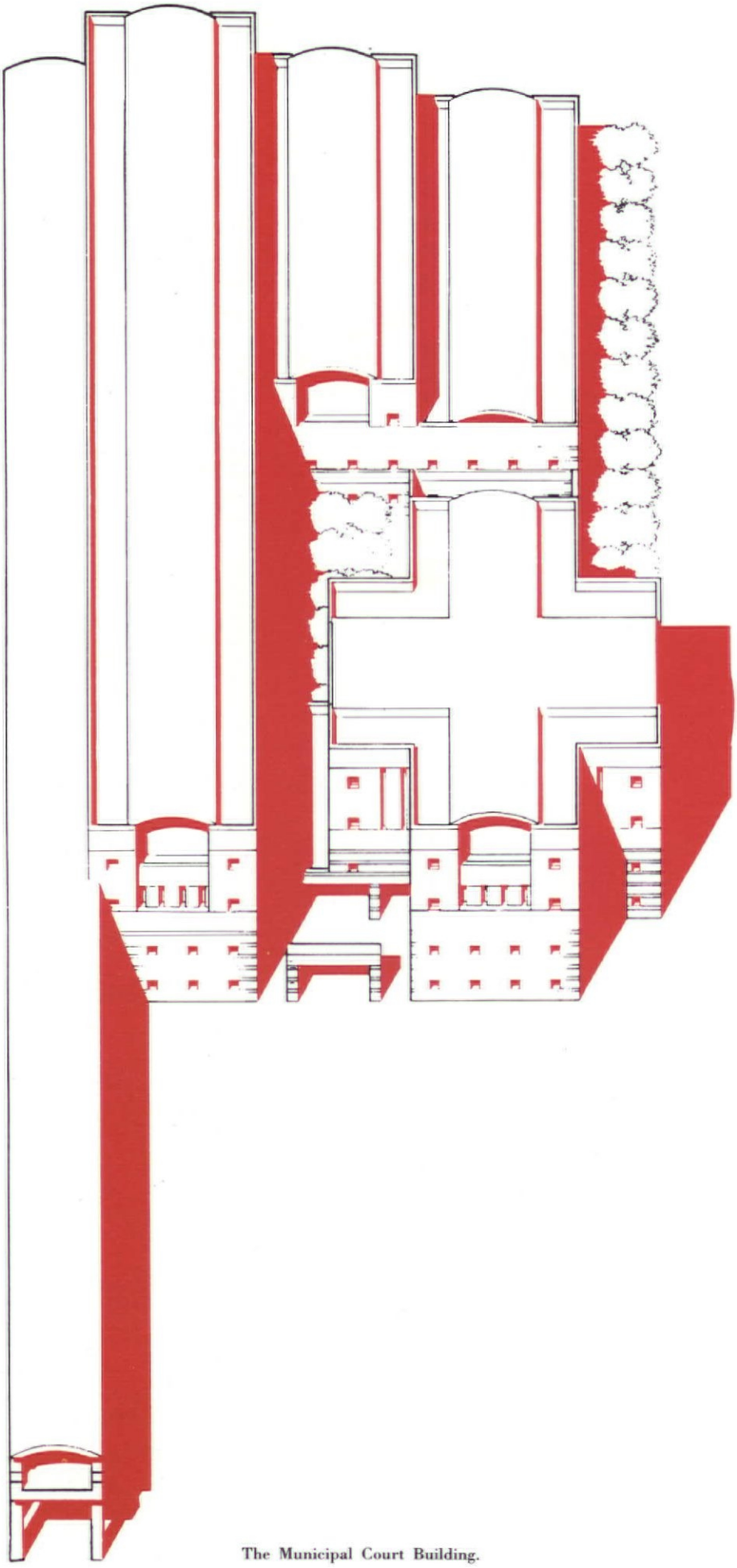


Plan showing underground parking facilities

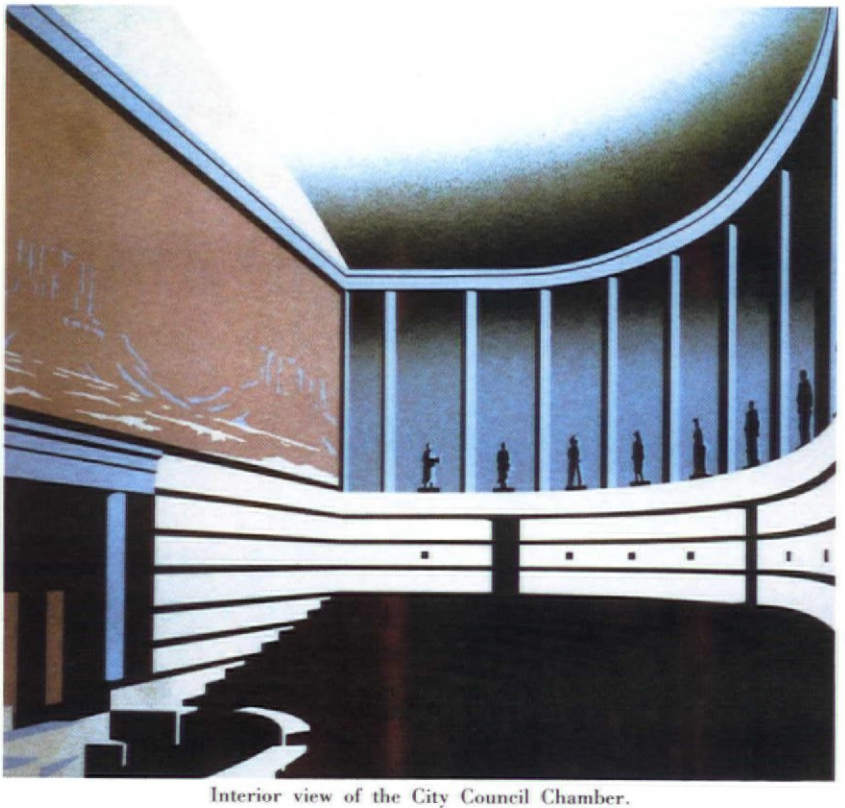


Phase II models of the complex: view from the west (above) and view from the northeast (below)



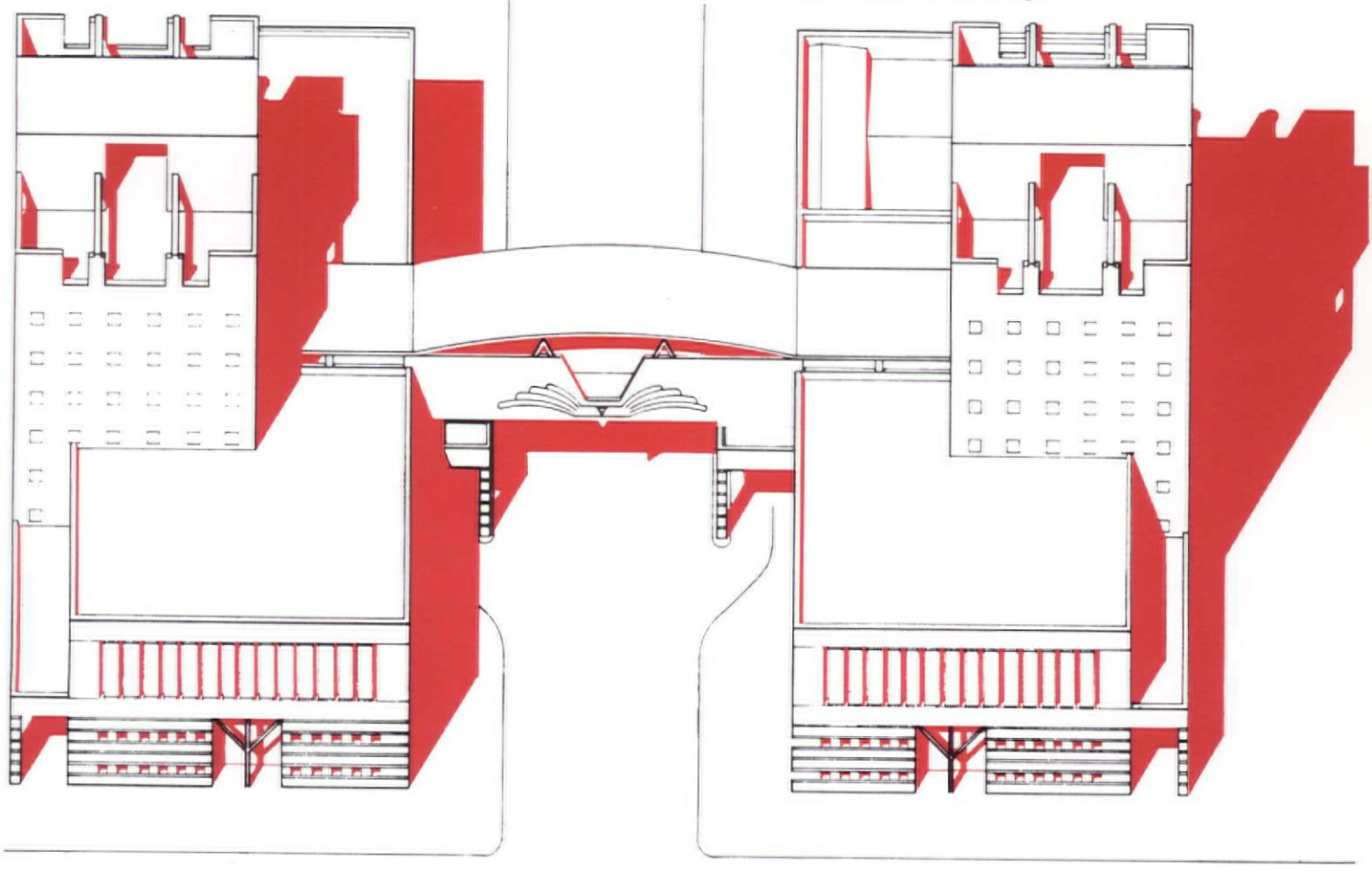


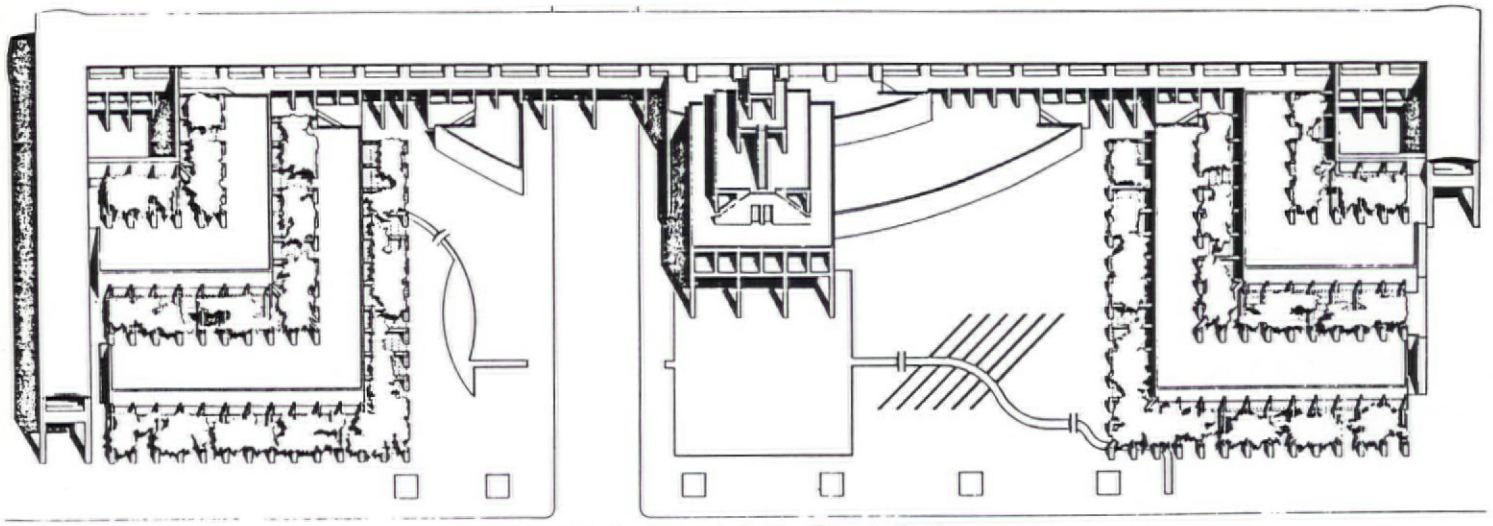
The Municipal Court Building.



Interior view of the City Council Chamber.

The Fire, Criminal Justice & Municipal Centre Building showing Phoenix Bridge.





The City Sanctuary including Phoenix Pavilion

lightwells along Washington Street, and pedestrian exits have also been provided leading directly into Phoenix Garden.

With the Phoenix Pavilion (itself a monument to the city) at the centre of the north colonnade, the concentration of new and existing cultural buildings together with the development of other facilities centred on the Garden should ensure the revitalization of the day and night-time life of the downtown and Municipal Centre areas.

Phasing

Isozaki has divided the development of his project into four phases of construction. Phase One includes the FCJMC Building (with underground parking), part of the colonnade connecting to the Municipal Building and the Palace West Theatre, and the renovation of the Dorris Opera House (and its integration with the FCJMC Building). This stage completes the core of the complex.

Phase Two adds the magnificent new domed Council Chamber Building and the renovation of the elegant Palace West Theatre. Isozaki also suggests renovating the old Council Chambers for use as a multi-purpose space. The third phase of construction includes the Municipal Court Building, the Water & Wastewater Building, the south section of the colonnade and Phoenix Garden, and the first of the proposed areas of retail outlets and offices.

Phase Four sees the completion of the City Room with the construction of the northern colonnade and the northern half of the Garden. This phase of construction also includes those buildings which, although not requested within the competition brief, Isozaki feels to be necessary in order to contain Phoenix Garden as the nucleus of the entire complex and for it to be fully exploited as a centre of day and night-time activities in the city. These are the Pavilion (an art gallery), the mixed-use facilities at the northeast and northwest corners of the Garden (including exhibition spaces, restaurants and retail units) and the General Office Building.

Design concepts

The City Sanctuary adopts the stepped form inspired by the historical collective dwelling of the Pueblo Indians as seen in Taos, Tewi, Zuni and so on. The stepped-form structure opens in descent towards the Garden, with a broad terrace at the front of each step covered by a pergola – the perfect setting for restaurants, cafés and bars.

Isozaki has designed a separate building, also in stepped form, composed entirely of frames, which is the centre of the Garden. This is the Phoenix Pavilion, which he likens to the 'Terrace of Wind' of Phatepure Sicre in India, similarly made of red sandstone. It is to house the city museum/art gallery and Isozaki envisages various artistic activities, including art exhibitions and performances, taking place around it in the Garden.

An important concept underlying the design of the municipal buildings is the City's desire for more open government. Public lobbies, open spaces and multi-purpose areas feature strongly within these buildings as well as around their exteriors, and access to all of them is positively encouraged by the well-designed interconnecting network of promenades and entrances.

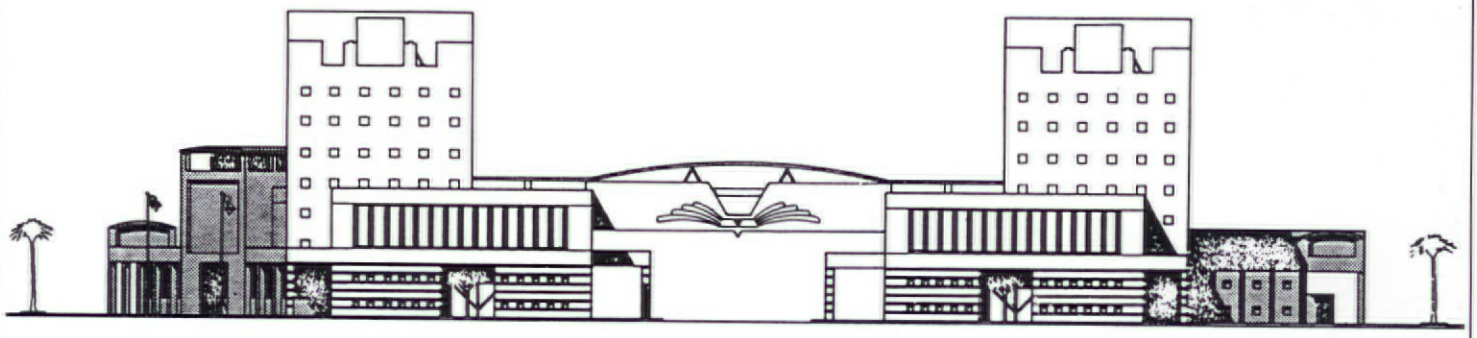
The City Council Building is of special significance within the Municipal Government Complex, being the heart of the democratic process. It is given a prominent position and distinctive form and is the only building off horizontal alignment, rotated at an angle of 45° and facing out over Phoenix Garden. Its large and spacious Council Chamber is intended not only for council meetings but also as a public forum for the citizens.

Even the Municipal Court Building is readily accessible through the main lobby which opens onto the internal court, although here two circulatory systems have been provided to ensure security. The large mass of the building has been divided into two parts, reflecting the programmatic requirement for traffic and criminal divisions. The solid walls with small punched holes, deeply recessed tall windows and the stepped nature of the building's volumes away from the Garden, again recall Pueblo Indian architecture.

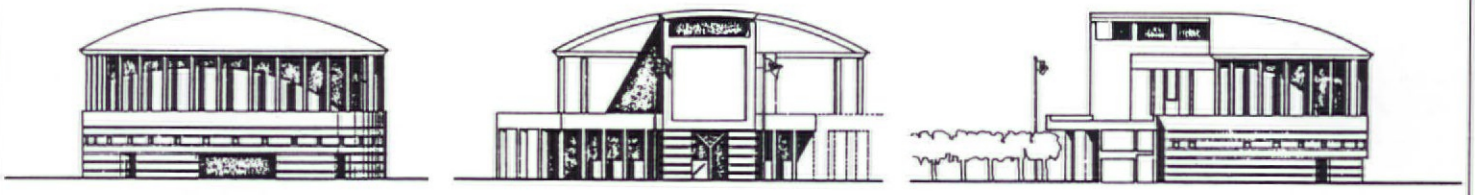
The FCJMC Building is also divided into two parts – the Fire & Criminal Justice section and the Municipal Centre – but they are joined by the double-level bridge, strikingly adorned with the Phoenix bird. Its integration with the Dorris Opera House and City Council Chamber ensures these buildings are seen as part of one complex.

The Water & Wastewater Building has been designed with plenty of open space for visitors. The offices are centred around a large circular drum which acts as a spacious double-height entrance hall on the ground level, with natural light penetrating from a skylight in the centre of the roof garden. The entrance hall is finished with marble walls and floors and has a pool in the middle, reflecting the function of the building.

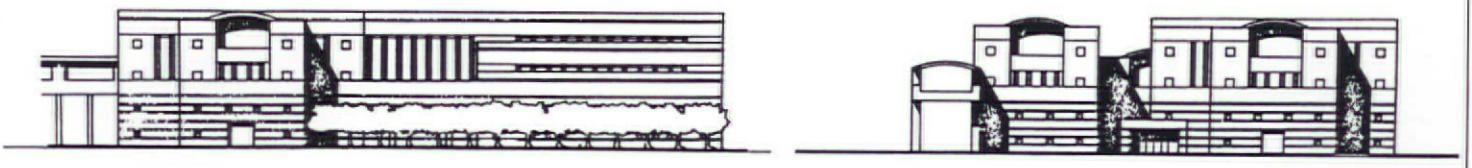
Collaborators: Arata Isozaki & Associates, Tokyo (Architects), Gruen Associates, Los Angeles (Associate Architects). Magadini-Alagia Associates, Phoenix (Structural Engineers), Baltes/Valentino Associates (Mechanical/Electrical Engineers), Joseph Holgate, Phoenix (Civil Engineers), A. Wayne Smith & Associates, Phoenix (Landscape Architect).



The Fire, Criminal Justice & Municipal Centre Building: east elevation



The Council Chamber: northwest, southwest and northeast elevations



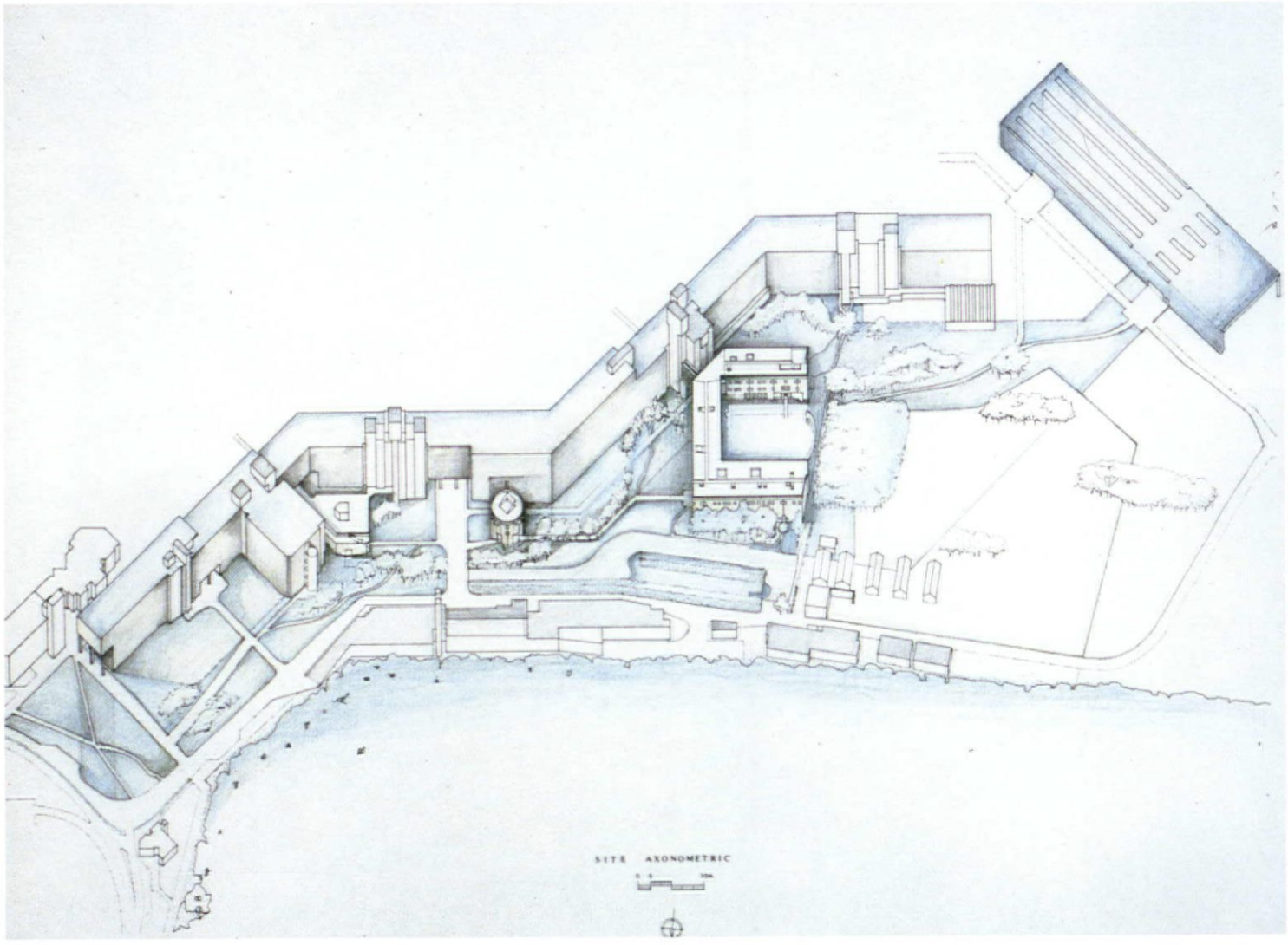
The Municipal Court Building: north and east elevations

The Municipal Court Building: south and west elevations

The Water & Wastewater Building: north and south elevations

Rick Mather Associates

UNIVERSITY OF EAST ANGLIA NEW BUILDINGS



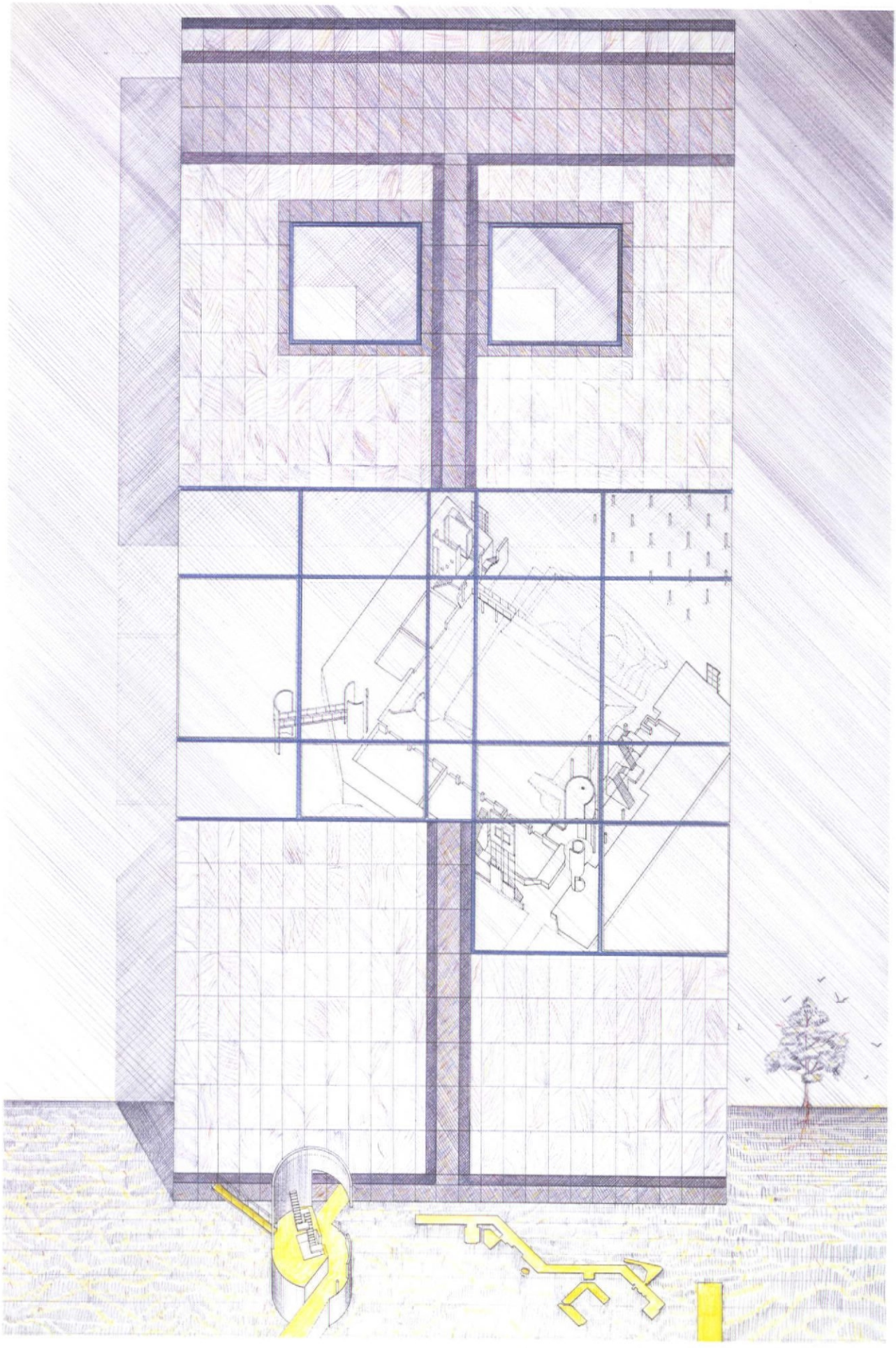
Site axonometric

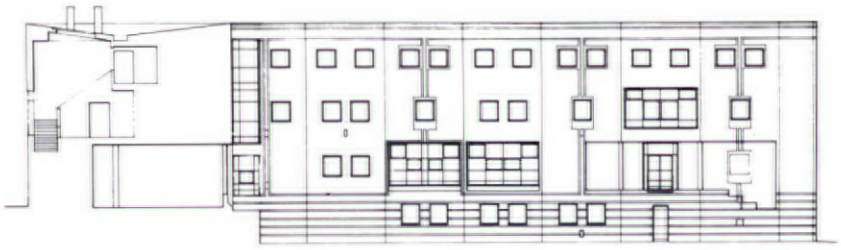
Opposite: Elevation detail, cut-away axonometrics and site plan

The project comprises an enclosed garden, gatehouse and pathway to organise the forgotten north side of the campus; a cylinder and plane to play off the continuous wall of the existing spine building, appropriate the space in between and set up a frontal approach; lines on a flush facade to indicate depth, embellish windows and define large-scale blocks to terminate movement from the campus entrance; a double-scale recess and big stair excision to denote a major entrance to the spine buiding and a local entrance to the interior, garden and Sainsbury Centre beyond; recessed windows to refer to an arcade and a route around, rather than across, the garden; and two skylit stair-halls each associated with the schools to identify the interior organisation.

Site

The School of Education on two sides and the School of Information Systems on the third side make up a new 'U'-shaped block in an area on the campus previously dominated by the north face of the teaching wall and a makeshift parking lot. The new small round building in front houses the Climatic Research Unit (CRU). This new complex provides an opportunity to organise what was a vague and forgotten side of the campus. Parking is relocated in a simple strip parallel to the road to free

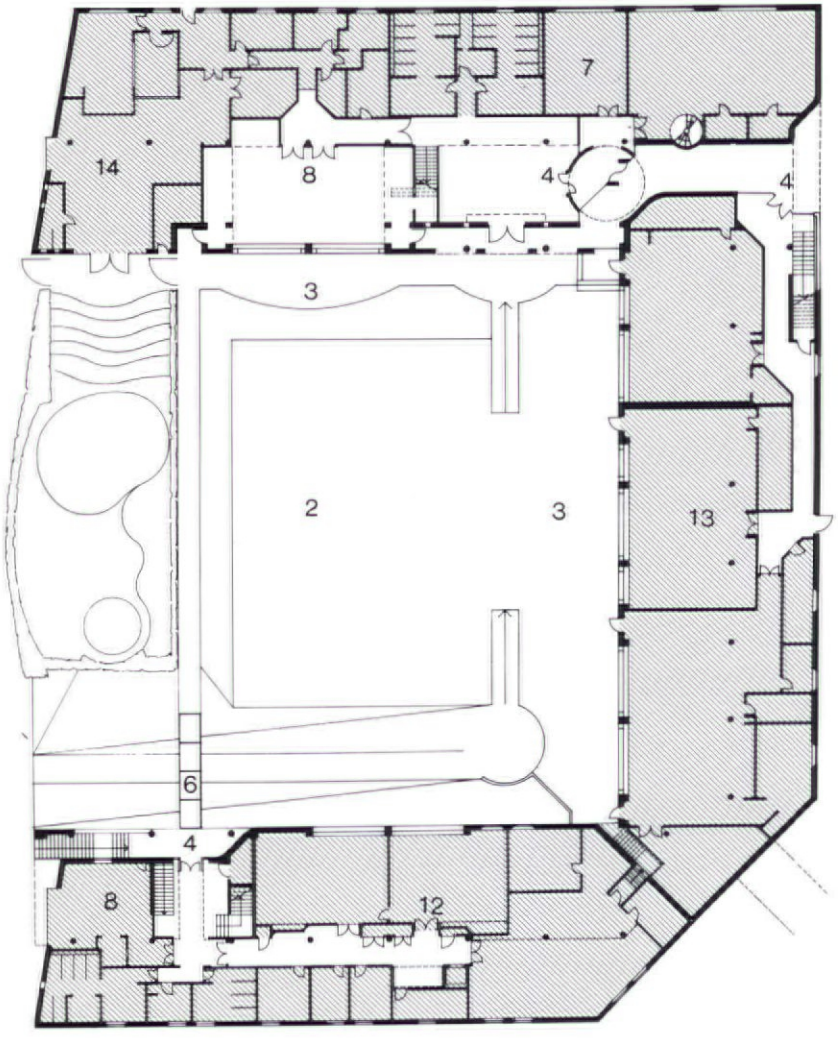




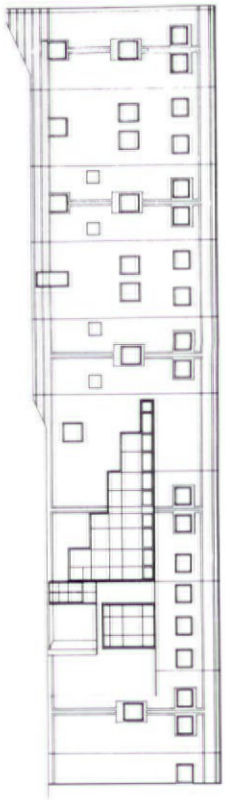
North elevation

West elevation

Ground floor plan



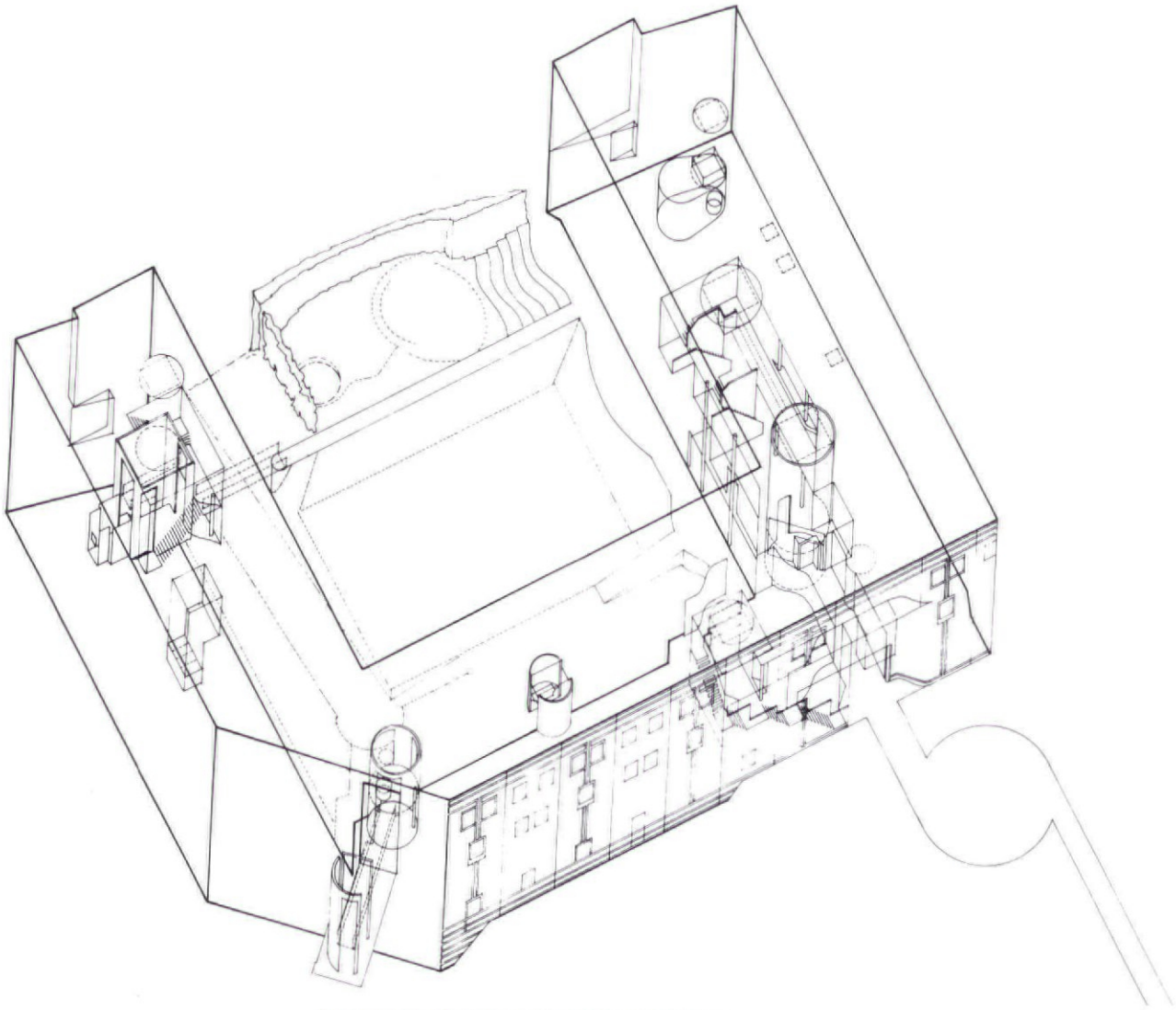
East elevation



KEY

1 EXISTING TEACHING WALL
2 COURT
3 TERRACE
4 ENTRANCE
5 VOID-ROOFLIGHT ABOVE
6 BRIDGE
7 CONFERENCE ROOM
8 COMMON ROOM
9 ADMINISTRATION
10 OFFICES
11 COMPUTERS

South elevation



Axonometric showing the internal organisation

Overleaf: Views of the south and east elevations and stairwell, School of Education, and view of the entrance to the Climatic Research Unit Building.

the remaining land for building and landscaping. New pathways from the entrance and centre of the campus are brought together in the CRU 'gate house' and directed frontally to the east wall of the EDU Building. This otherwise smooth wall curves back to make a proper public entrance not only to the block itself, but also to the teaching wall (there is only an obscure service entrance on this side of the teaching wall) and forms a gateway on the 'north' route to the Sainsbury Centre.

Exterior

A glass box just above emphasises the entrance and locates the major room of EDU, the Curriculum and Resources Centre. To the left is the stair marked by a stepped window pointing towards the link to the teaching wall. To balance the new building against the mass of the teaching wall, various devices are used to 'scale up' the building. Grey shading on the facade suggests depth, a base, a top, and combines windows into vertical strips giving a building height, rather than storey-height scale. The 'Spectraglaze' blockwork is laid vertically to double the height of each course. The windows are individual and sized for each room rather than a generalised band of windows masking all distinction behind. Viewing the facade it is possible to gain a fair idea of the location and size of the rooms, and the building's internal organisation.

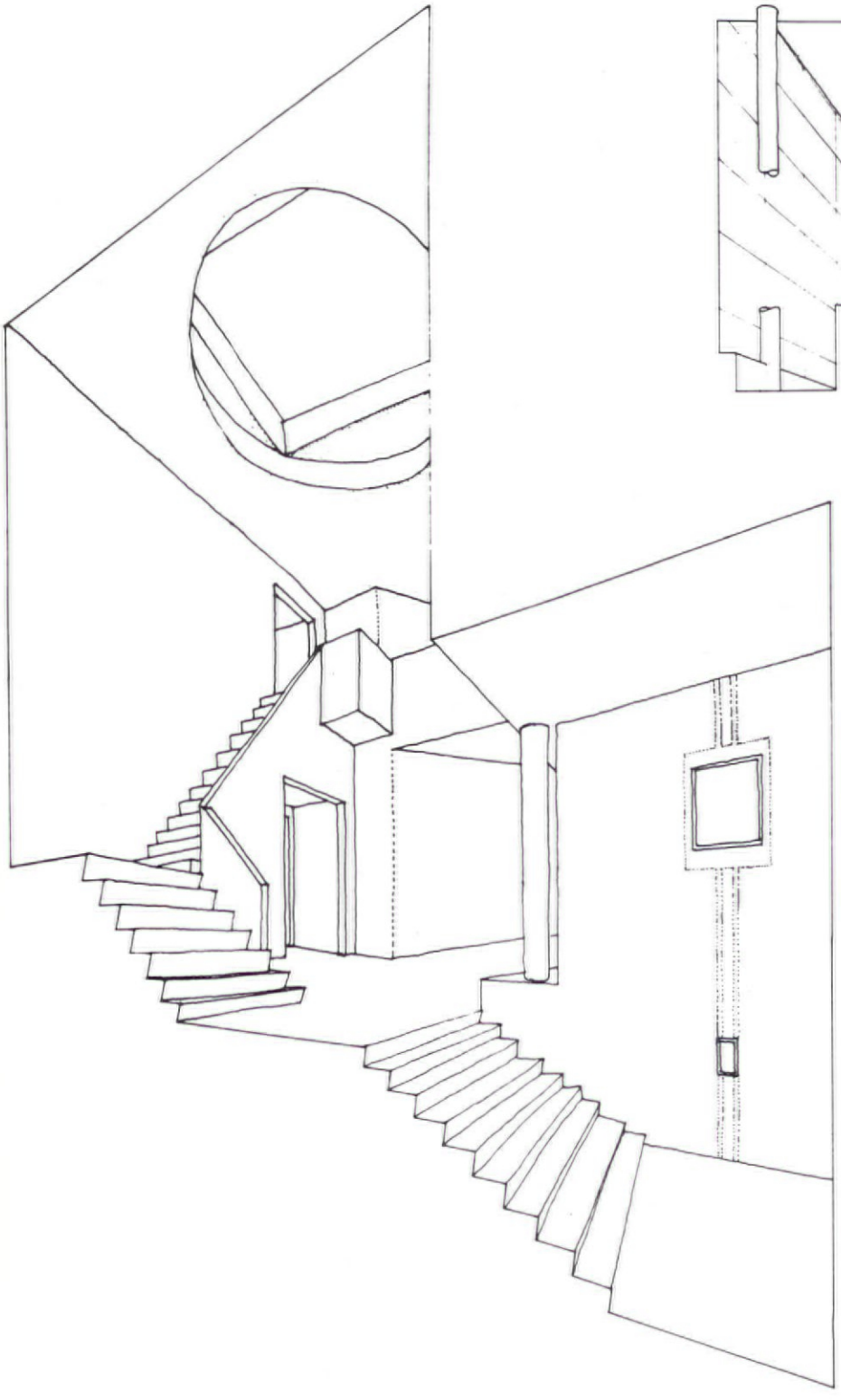
Interior

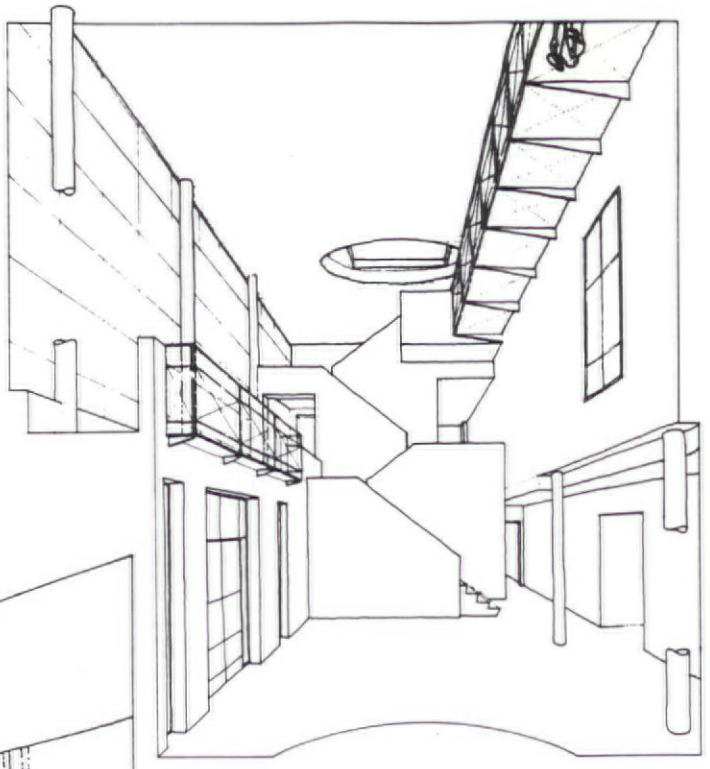
The major elements in the internal organisation are a series of squares in circles or cylinders that rise vertically through three storeys to rooflights echoing the shape of the CRU building in front. These mark important places, bring in natural light and sunshine and provide visual connections through all three floors of the building. The stairs, teaching wall, link, Curriculum and Resources Centre, reception and entrances are all marked in this way.

Technical

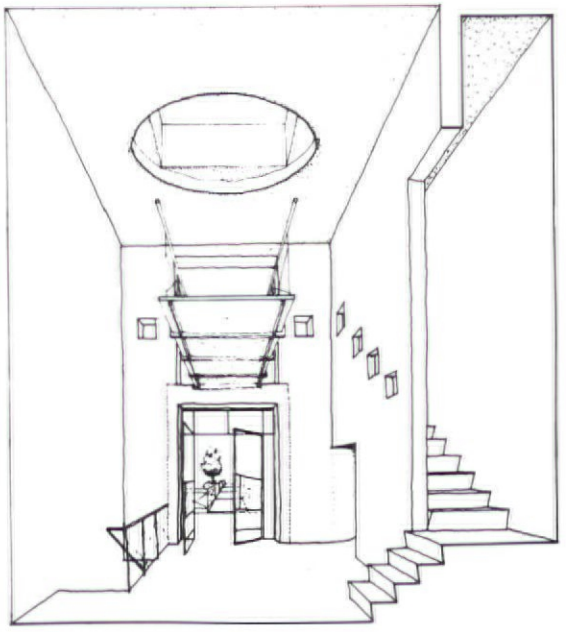
The round columns are exposed wherever possible to articulate the interior and allow the concrete grid to be seen and understood. Spiral lines on the columns are also evidence of the cheap cardboard 'Sonotubes' used to form them – a method commonly used in the United States, but not yet widely used in the UK. The cladding block too has been in use for some time in the US, but this is one of the first large exterior uses of 'Spectraglaze' in this country. Its glazed surface is guaranteed not to discolour or fall off. A good standard of insulation, combined with a low-temperature hot water system using excess heat from the computers in SIS, means the

Patrick Shanahan





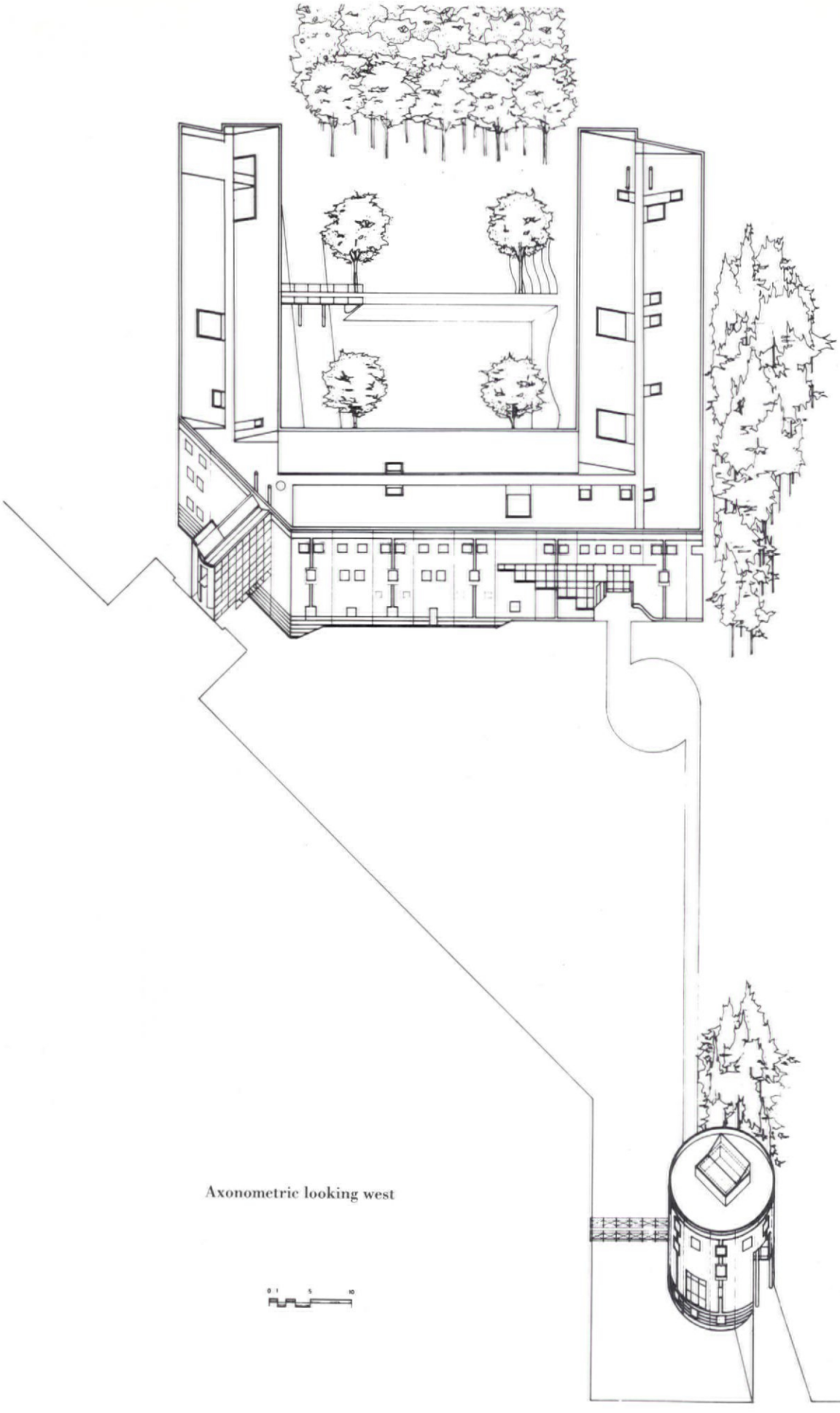
Above: the main stairhall looking west
Left: The East stairhall
Below: the South stairhall looking towards courtyard



building complex requires little or no additional energy to heat it.

Layout

The positions of rooms has been based as much as possible on the logic of the brief. The Administration facilities and staff office related most closely to the teaching wall are adjacent to the two-storey link. The more specialised and independent CARE research unit is located at the opposite, remote end of the EDU 'L'. The corner position on the middle floor is occupied by the largest room and a major focus of EDU, the Curriculum and Resources Centre. Adjacent is the main stairhall which unites the pathways on each of the three storeys, the main approach and entrance from the east and, through its glass wall, the courtyard. This new protected and sunny (weather co-operating) outdoor room, is surrounded by activities that benefit particularly from direct access to the outside – the Arts Studios, the Common Room and the Children's Centre. This courtyard garden provides the alternative focus on the north side of the campus to the lake view and park enjoyed by the buildings to the south of the teaching wall.



Axonometric looking west

Hydraulics Research Station, Wallingford. Architects, Architects Design Partnership.

GLC Changing Rooms, Victoria Park, Hackney.

Limehouse Studios: Architects, Terry Farrell Partnership

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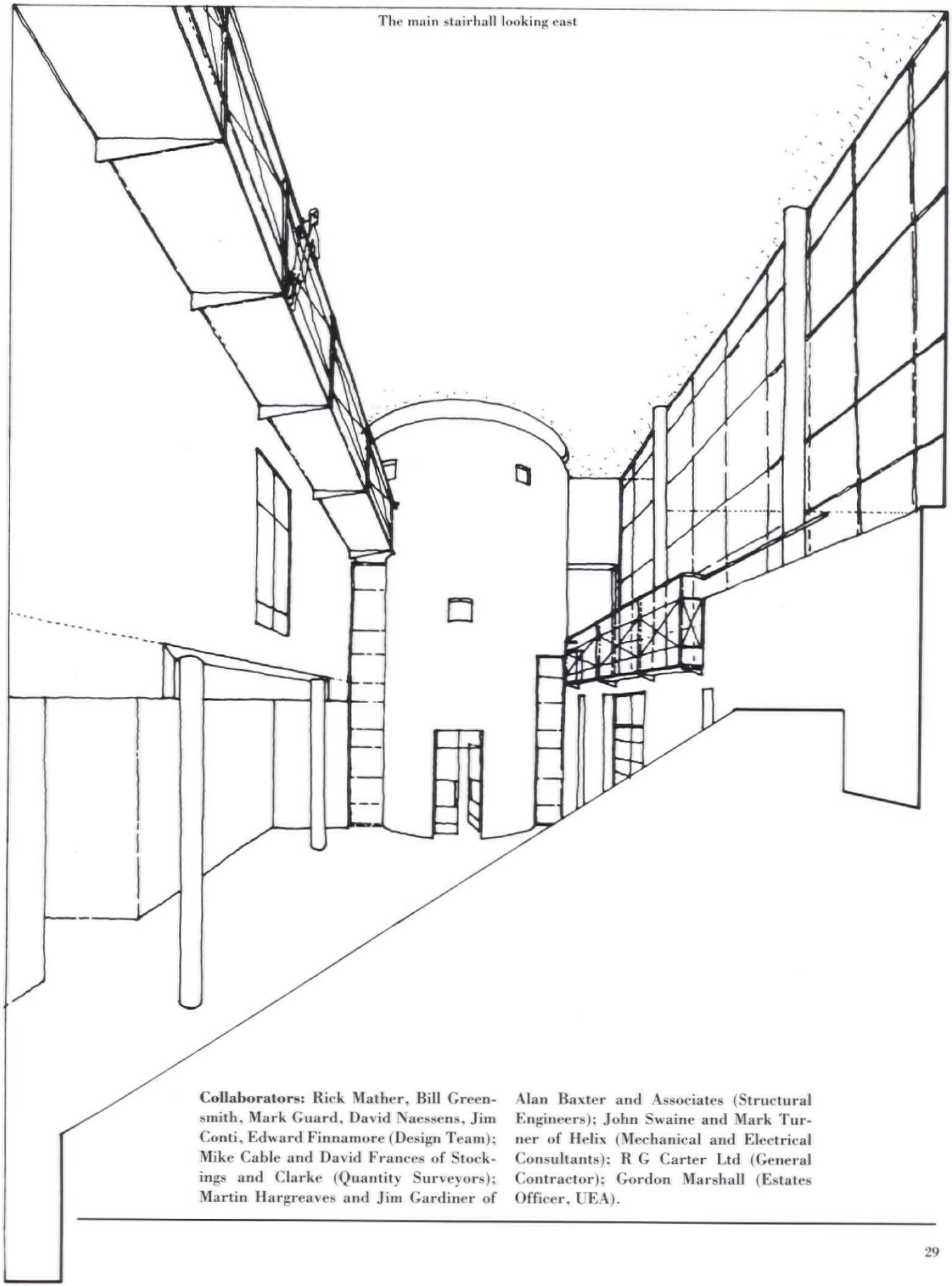
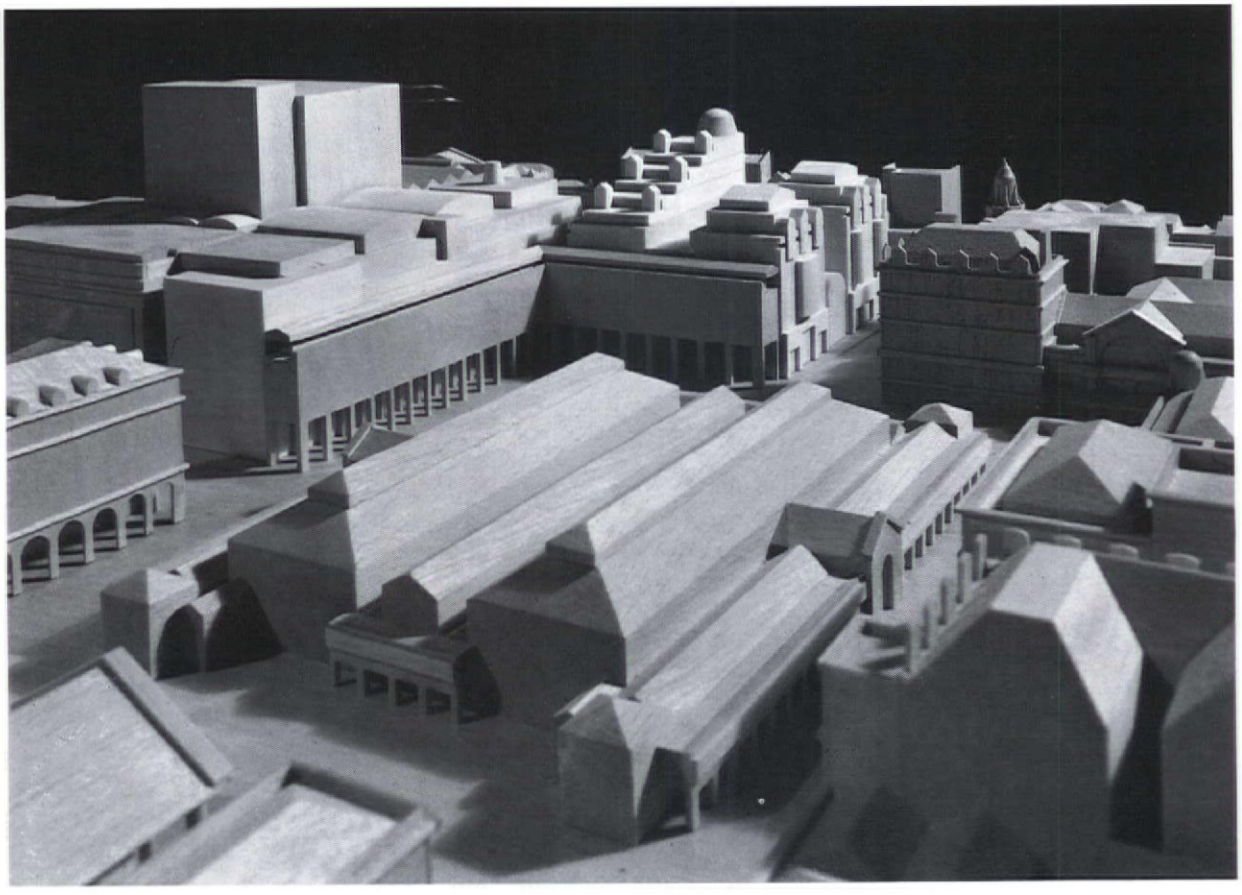
The main stairhall looking east



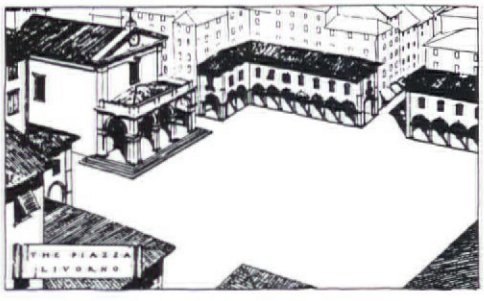
Collaborators: Rick Mather, Bill Greensmith, Mark Guard, David Naessens, Jim Conti, Edward Finnamore (Design Team); Mike Cable and David Frances of Stockings and Clarke (Quantity Surveyors); Martin Hargreaves and Jim Gardiner of Alan Baxter and Associates (Structural Engineers); John Swaine and Mark Turner of Helix (Mechanical and Electrical Consultants); R G Carter Ltd (General Contractor); Gordon Marshall (Estates Officer, UEA).

Jeremy Dixon · BDP

UPDATE



The model is one of a number of studies undertaken during the development of the Royal Opera House project. It illustrates a way of completing the square by isolating an 'arcade building' that forms a foreground ordering device behind which the diversity of Opera House and commercial buildings can be allowed to develop with relative freedom. The arcade building provides an accessible loggia overlooking the square at roof level. The character of the surrounding streets, with their variety of building types and absence of larger scale ordering, is seen as something to contrast with the repetition and orderliness of the regular arcade forming the re-entrant corner of the square. The new second entrance to the Opera House becomes the focus of the two wings of the arcade. The arcade building also serves to blur the distinction between commercial and Opera House functions. At one level the arcade leads to the Opera House, at another it creates a commercial edge to the pedestrian life within the square. The drawing reconstructing the piazza in Livorno shows the arcade and church front that influenced Inigo Jones at Covent Garden. It also shows the idea of the detached arcade building forming a picture frame round the square.

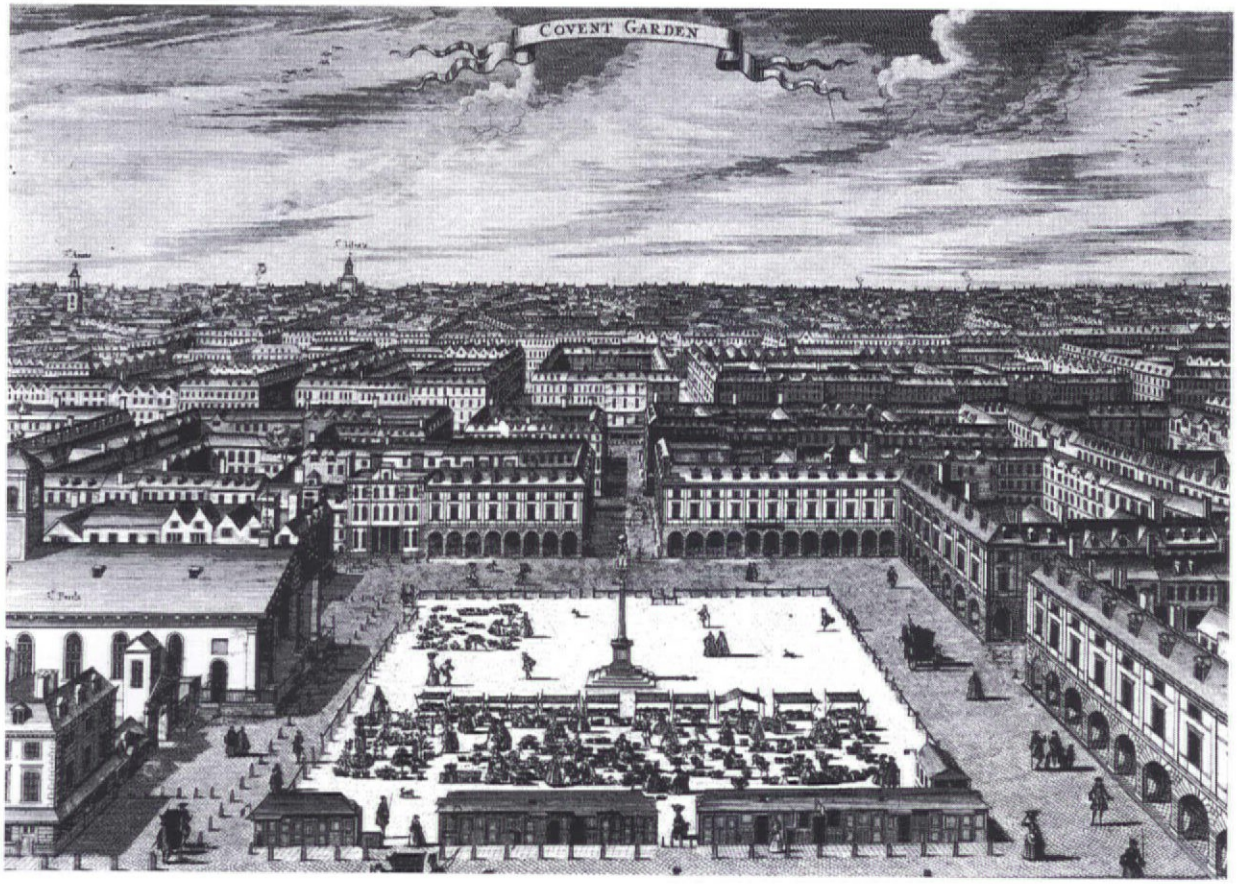


Architects: Jeremy Dixon and William Jack of Building Design Partnership.

Terry Farrell Partnership

THE ROYAL OPERA HOUSE

Extension Site Development Project



In 1980 I was commissioned by Jacob Rothschild to design the second Clifton Nurseries Building. This time the site was the land owned by the Opera House opposite the market buildings at Covent Garden. During discussions with the Opera House on the granting of permission for the Clifton's Building the subject of what was to happen to the land came up. The land was earmarked for an extension to the Opera House which it was thought would not be for many years due to the high cost of the big works and the lack of funds for such a venture.

I suggested that rather than regard this as land solely for Opera House use it should be exploited for other developments such as shopping and offices which would pay for the Opera House extension as well as bringing life to the facades facing the market buidings (the recent back stage extension certainly presents very blank walls to the adjacent streets). The reaction of the Opera House was that they thought it couldn't be done – there was not enough space on the site. But for the next four years I developed in detail a scheme with the Opera House's encouragement and advice which culminated in a proposal being submitted in mid '84 on behalf of developers London Land Investment and Property Co Ltd and builders Bovis Construction Ltd. This proposal (shown in these drawings) contained a central shopping complex surrounded by offices. In return the Opera House got various improvements and extensions at no cost as well as continuous support income from rentals etc.

Within two months the Opera House decided to proceed independently to an architectural competition – but the basis of the brief was very close in many respects to that which I had worked out over four years. *TF*□

TERRY FARRELL

COVENT GARDEN IS AN AREA, UNIQUE IN London, of complex architectural history and major European cultural significance. By a combination of pioneering estate development and management, historical trade and professional association, public interest and participation, this square mile of the northern tip of the City of Westminster is now one of London's most important and best preserved historic neighbourhoods.

Centred on the Piazza – conceived as an innovative commercial enterprise by the Bedford family, and laid out by Inigo Jones in 1630 as Britain's earliest example of formal town planning – it represents a unique and cohesive (if now incomplete) architectural design. Its development over the next two and a half centuries was dominated by the growth and changing fortunes of two great phenomena: the central Market Building and associated development in the surrounding Piazza, and the series of theatres in two adjacent sites which are the Theatres Royal, established by authority of the Davenant and Killigrew Patents issued by Charles II in 1662/3 ten years prior to his charter for the market itself.

Two themes run through the development of these three sites. One is a striving for architectural form and excellence, the two theatres emerging from their original landlocked sites to provide larger auditoria, better equipped stages, and to present imposing facades to major thoroughfares; Fowler's Market Building summoning architectural order out of the chaos of the original market place with consummate skill. The other is the commercial pressure introduced by the major Bedford Estate freehold and the extremely complex pattern of leases, subleases and ownership of the two Letters Patent.

Particularly on the Bow Street/Piazza site the creative interplay between commerce and theatre has been at the centre of the building's physical development; the Shakespeare's Head Tavern and Bedford Coffee House were essential elements in John Rich's original speculative proposal, and even Robert Smirke's fine Greek Revival redevelopment of 1809 retained the link of Edward Shepherd's original main entrance from the Piazza. In theatrical terms this creative relationship could be characterised by the spectacular success of John Gay's 'Beggar's Opera' which 'made Rich gay and Gay rich', and prompted Rich to build his new theatre on this site. In architectural terms, it is seen in the almost organic growth of the three theatre plans themselves, the dynamic changes introduced to the Piazza by the roofing between the three ranges of the Market Building in 1875 and 1889, and the almost surreal juxtaposition of the vestige of Frederick Gye's pre-Crystal Palace dream (of a gigantic glass arcade linking Bank to Trafalgar Square) next to his 1858 theatre.

This final commercial joint venture partly contains the seed of the Royal Opera House's current problems: whilst Gye was able to lease additional land from the Bedford Estate – thereby fitting both buildings on the site by changing the orientation from north/south to east/west – the new theatre was a considerably smaller building than its predecessor. Although it contained a larger stage and more spacious auditorium, these improvements were only achieved at the expense of very cramped circulation and back stage space.

Although serious plans for rebuilding or removal work were first broached in 1870, it was not until a 100 years later that the Market finally moved. By this time, market uses had spread well beyond the Piazza itself to form a very substantial landholding in Covent Garden which, together with printing and traditional theatre support activities, had occupied the vast majority of non-residential buildings within the area. With the simultaneous removal of the major printing uses, this situation seemed to present a once-in-a-lifetime opportunity for substantial redevelopment and megalomaniac urban restructuring. However in 1973, mainly as a result of a vociferous and sometimes violent debate – as much popular and emotional as architectural and historic – a Comprehensive Development Area of nearly 100 acres was designated by the Secretary of State for the Environment, who simultaneously listed an additional 300 buildings within its boundaries. This signalled the beginning of a more responsive planning process culminating in the adoption by the GLC in 1978 (for a period of ten years) of a new Action Area Plan which involved extensive public participation and the recognition of the architectural, historical and resource value of existing buildings and infrastructure.

One of the first manifestations of this changed attitude, and the opportunities created by the move of the market, was the acquisition in 1972 on behalf of the Royal Opera House of the extension site south to Russell Street, and the possibility it produced for the Opera House to be able to contemplate plans for its very necessary expansion within a framework more directly related to its enclosing street pattern.

However, more than ten years later, the plans are as yet substantially unrealised as a result of central and local government financial structures. Sad as this is for the relatively small number of Opera House patrons, and restricted and cramped as back stage and operational conditions may be, the saddest loss – and that experienced daily by the large number of residents of and visitors to Covent Garden – is that this important site remains substantially underused: an essential element in the architectural concept of the Piazza remains missing, and the Royal Opera House itself remains separated from the vitality which has now been reintroduced into and is the new heart of Covent Garden.

The proposal outlined in this report attempts to reconcile the separation which has developed between the Opera House and the Piazza by the construction of a building which: will provide sufficient value to substantially fund the Opera House's own development plans for radical improvements to stage and auditorium, and provide the desperately needed sidestage, enhanced foyer, circulation and other back-up accommodation; will provide a building of quality related to and completing for the first time in over 100 years the spectacular overall concept of the Piazza; will reintroduce commercial activity onto the site, and by its relationship with the Opera House and the proposed new small auditorium in particular, bring back the vitality of the north-east corner of the Piazza which used to exist as a result of the association between theatre and market from 1730.

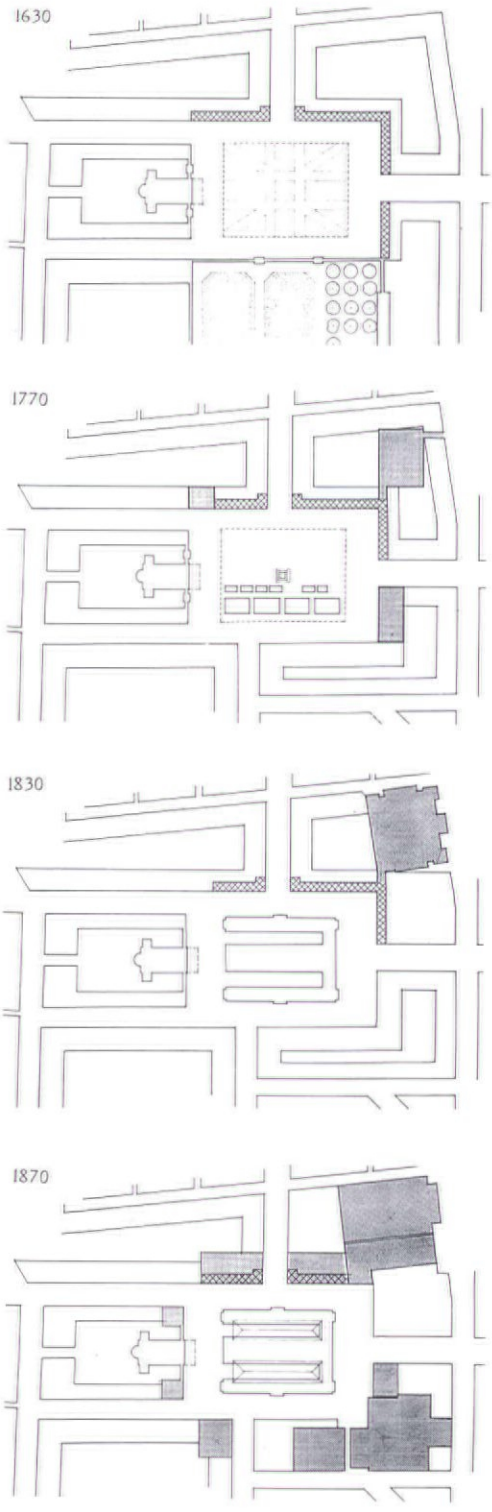
Unlike Seven Dials – Covent Garden's other major example of formal planning – the Piazza, though it has been subject to more change and development, has been able to retain more of its character.

Sir Thomas Neale laid out Seven Dials in 1691 in strict imitation of fashionable French models. However, his speculative venture on the marshy St Giles' Fields to the north of the Bedford Estate soon failed, and was continued as a series of unco-ordinated and progressively unrelated developments by separate freeholders or major leaseholders. By contrast, the substantial landholding of the Bedford family enabled them to initiate a major development which was then controlled by a continuous process of effective estate management from the early seventeenth century until after the First World War.

The fourth Earl of Bedford's plan to build a speculative residential area on his own land to the north of Bedford House in the Strand was in flagrant breach of current building legislation which sought to prevent 'suburban' development north of the highway linking the City with the Palace of Westminster. It is therefore not surprising that the Earl commissioned the Surveyor of the King's Works to lay out and design the buildings. Inigo Jones' plan comprised a spacious development of 'houses and buildings fit for the habitation of Gentlemen and men of ability'. At its centre was the Piazza; bounded to the south by the Bedford House garden wall, it was surrounded on the north and east by four terraces of houses. To the west, St Paul's Church was set into a further residential development equal in size to the Piazza, which was bounded by King Street and Henrietta Street: 'if he built the church, it did advance his houses' rents'.

The residential buildings enclosing the Piazza were conceived on a grand scale; four terraces of houses contained four floors plus attic and basement storeys. Architecturally, the piano-nobile and upper floors were conceived as having widely spaced windows in a brick elevation divided by pilasters underneath a deep eaves cornice and dormered upper storey; below, a massive rusticated stone arcade and walkway concealed a recessed ground and mezzanine floor.

New roads completed the formal plan; James Street to the north and Russell Street to the east forming the large landlocked site to the north-east which was to be leased to John Rich for the construction of his theatre 100 years later.



In 1631 a licence was issued to the Earl of Bedford sanctioning this breach of building control in return for substantial payments to the Privy Purse, and the entire development was completed in 1639. Bedford and Jones initiated the development by building the church, three sample houses, and laying out the entire scheme; it was completed by issuing a large number of building leases to craftsmen and speculative developers which contained clauses controlling design, heights, materials, thickness of walls, and the right to inspect building plans.

The scene was then set for the continuing involvement of the Bedford Estate in the architectural, social and commercial development of this part of Covent Garden for the best part of the next 300 years. By exercising their powers to approve the design and use of all buildings – especially at the termination or renewal of leases – they were able to maintain a flexible control over the progressive development of the Piazza which was just as important as the making of the spectacular plan.

The first major physical change was the loss of four bays of Jones' arcading in the north-west corner, and their replacement in 1717 by a grand tripartite mansion with Corinthian pilasters – thought to be designed by Thomas Archer.

In 1670 the right of the fifth Earl of Bedford to hold a market for fruit, flowers, roots and herbs in the Piazza was recognised by Royal Charter. At first these wares had been sold in a series of shops and cellars built against the garden wall of Bedford House, outside the Piazza itself. However, the charter applied to the entire area of the Piazza and, at the beginning of the eighteenth century when Bedford House was redeveloped and laid out as Southampton Street and Tavistock Street, these shops were rebuilt inside the Piazza, and stalls rapidly began to spread northwards. Within twenty-five years of the establishment of the main market area, John Rich built his theatre on its north-east corner.

Growth of the market during the eighteenth century was rapid, and relatively uncontrolled. The loosely worded Act of 1813 did little to stop numerous lawsuits, or to restore the Duke's authority to collect tolls or to control the use of the market area. Consequently it required a new Act in 1828 to enable the Bedford Estate to entirely redevelop the market with Fowler's masterly building. This phased building contract was completed in June 1830 when the conservatories on the eastern terrace (the first garden centre) opened for trading. Fowler's building – with its enclosing granite colonnades, central portico and corner pavilions – not

only proved to be a fitting companion for Inigo Jones' grand arcade but, with the two open aisles between its three ranges of building, and the smaller central aisle to allow for the introduction of a proportion of retail trade amongst the hurly-burly of the wholesale trade, produced an architectural masterpiece from commercial and utilitarian necessity.

At this stage, the original architectural context to the north-east and west was virtually intact; the next sixty years saw the greatest rate of change. By 1860 the north-west range of the Inigo Jones' arcade had been demolished to make way for the Tavistock Hotel, and to enable Frederick Gye to attach the Floral Hall beside his new Opera House; by 1875 its last vestige between Henrietta Street and James Street had been replaced by Bedford Chambers – to a sympathetic design by Henry Clutton which faithfully reinstated the stone arcade and attempted to reproduce the two main upper floors, but added an additional fourth floor above a large cornice at original eaves line. The Fowler building had also undergone a metamorphosis of scale by the addition of the first of its massive cast-iron enclosures; and the Bedford Estate had sanctioned the first of many later extensions outside the original market area by the construction of the Flower Market in 1872. Both these iron structures were designed and built by Fowler's contractor, Cubitt. The decade 1880-90 saw the enclosure of the second hall in Fowler's building, and the rebuilding by Clutton of four corner buildings also loosely influenced by the Inigo Jones/French renaissance style, but with only false arcades at their base.

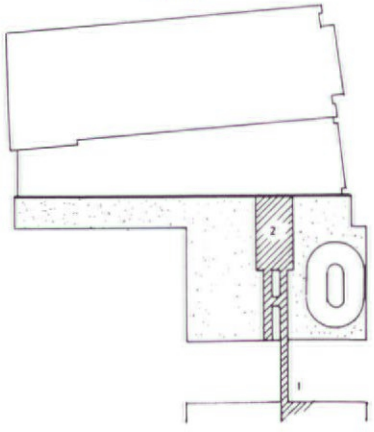
In all this flurry of commercial activity, it was the site to the south of E M Barry's new Opera House which failed. The architectural success of Barry's Floral Hall, either as it bursts into the Piazza or sidles up to the Opera House, is questionable; the Bedford Estate's insistence on its massive 104 foot dome at the 'crossing' was a substantial financial disaster for Gye; finally, the Bedford Estate even refused him permission for its designed use and built their own larger and better serviced Flower Market. Had Gye been able to obtain their consent, or had the building been acoustically suitable for the promotion of concerts or other popular public entertainments, then the spectacular domed and aisled interior could have been a success. It was not until after his death that the building reverted to the Bedfords and was used to supply the insatiable demand for market space at the end of the nineteenth century. The dome and vaulting were not replaced after a fire in 1956, and upon the market's removal in 1974, the Floral Hall reverted to the Opera House to provide primitive, but much-needed, expansion of back stage and scenery space. Apart from one recent and temporary '*jeu d'esprit*', the remainder of the site has contained no buildings of any significance since the demolition of Jones' arcade.

The Development Concept

This scheme proposes a major extension to the Royal Opera House which can be achieved without imposing its larger scale on the Piazza, and at the same time allows the Opera House to regain its traditional link with the commercial activity within the Piazza; it includes sufficient commercial development to fund the expansion of back and side stage space, and the provision of improved stage and auditorium within the Opera House itself. In architectural terms, it proposes the completion of the Piazza and its enclosing arcade, and the creation of a new building of quality which will also make an important contribution to Bow Street and Russell Street; it contains a central atrium space which will provide exciting possibilities for links to, and views from, the new foyer spaces.

The history of the development of the Piazza has been shown to be one of continual change prompted by commercial pressure, yet responsive to context. Most major redevelopments have been based upon the original Inigo Jones layout; however, with Bedford Chambers, Clutton developed a building form (capable of hous-

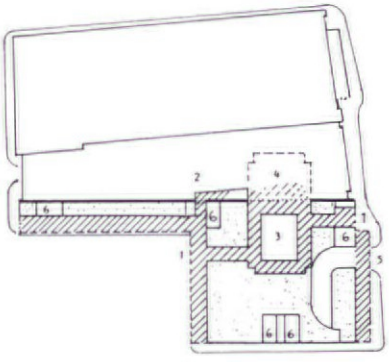
Basement



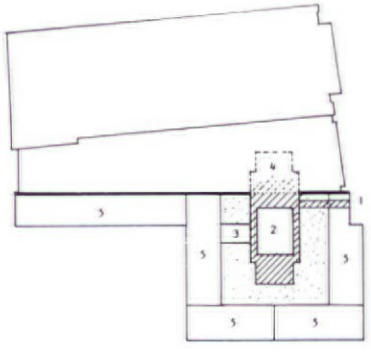
1. Entrance to shops from theatre museum
2. Escalator to ground and first floors. Lift to car park

Ground floor

1. Entrance to shops from street and arcades
2. Historic entrance to Opera House reinstated
3. Escalator to first floor and basement shops through atrium. Lifts to car park
4. Possible direct link between Opera House foyers and shopping atrium
5. Car park entrance
6. Entrances to office suites

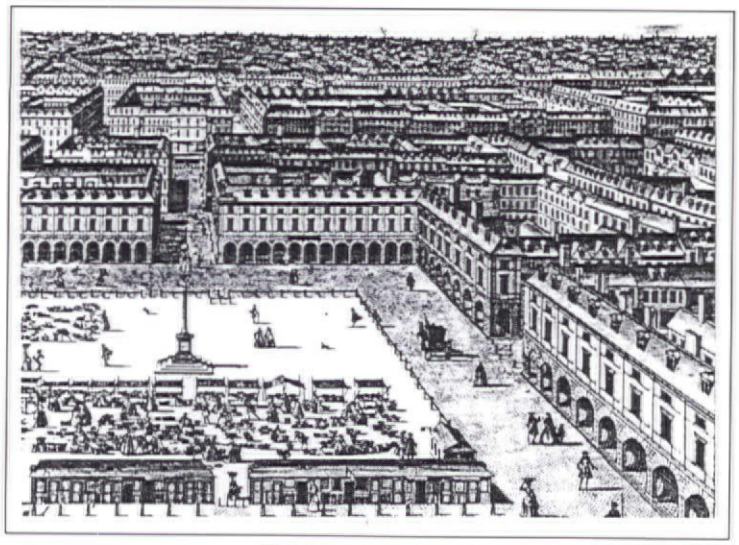


First floor

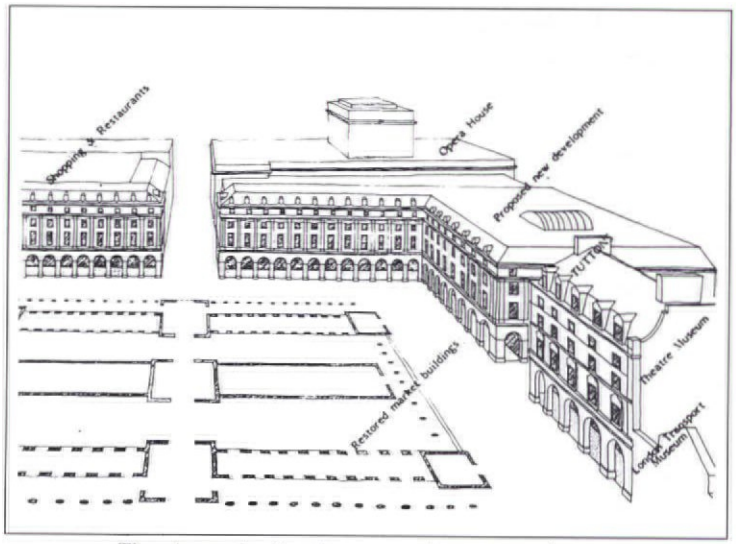


1. Access from Bow Street to shopping gallery
2. Escalator to ground and basement shops through atrium. Lifts to car park
3. Entrance to studio theatre
4. Possible direct link between Opera House foyers and shopping atrium
5. Perimeter offices

Shopping concept showing potential links to Opera House foyers



The piazza circa 1717



The piazza showing the proposed reconstruction of the N.E. corner – after Clutton.

ing such diverse uses as shops, warehouses, a hotel and residential flats) closely derived from Jones' original residential buidings, but with the addition of a further storey above the original eaves cornice and with a more pronounced attic dormer. He was criticised at the time for not designing '*de nova*', but his assured solution has withstood the test of time and provides good flexible accommodation of a grand scale and character well suited to the Piazza.

When plans to restore the Fowler market building were first mooted, there was considerable discussion as to whether to keep the large cast-iron roofs or to attempt to return to the original Fowler design. In the event the roofs were retained; together with Bedford Chambers they now set the scale for future developments in the Piazza. The opportunity presented on the Opera House extension site to complete again the enclosing arcade is of unique importance; there is also an inevitable logic in doing so with a building based soundly upon the Bedford Chambers reinterpretation of Inigo Jones. In the case of the two Piazza elevations these are proposed as accurate facsimiles; in Bow Street and Russell Street the arcade, eaves lines and materials should continue, but the detailed elevational treatment should be varied – responsive to their specific context.

The commercial half of this scheme has two main elements: first, the enclosing ten-metre strip containing five separate office buildings, over and entered from the restored arcade; second, the enclosed space – designed around a central atrium lighting a new shopping development on three floors over two levels of basement car parking. The upper floors of this central space contain a volume sufficiently large to provide a new experimental studio theatre, entered through the shopping but related to the Opera House. The main circulation through the shopping is at ground level – linking the Piazza and Bow Street; however, the scheme takes advantage of the vertical movement generated by the atrium to locate some shopping at basement level, and to propose a tunnel link under Russell Street to the Theatre Museum.

This new development is contained south of a line running roughly parallel with the existing stage and auditorium axis which has been determined to allow adequate space for the incorporation of the full 'Munich' wagon stage plan, whilst also allowing for the rebuilding of the Piazza arcade. The wedge of space contained between the existing and new building thus allows the Opera House to construct within this volume its own preferred arrangement of side stage, rehearsal rooms, scenic handling space and other technical and administrative accommodation.

Finally, it allows for the creation of generous entrance booking and foyer space – retaining the Barry Floral Hall elevation to Bow Street – linked to the shopping mall and car park, connected to the half landing of the Grand Staircase serving the piano-nobile Crush Bar. This revised and improved circulation pattern will allow the removal of the conservatory currently contained within the main portico, and the reversion of the now enclosed Carriageway to its original function; it will also allow the Piazza doorway to be reinstated.

In architectural terms, this scheme achieves four main objectives: it completes the original Piazza concept, in its grander scale now represented by Bedford Chambers and the additions to and restoration of Fowler's Central Market Building; it allows a major extension to the Royal Opera House to be achieved without imposing itself on the Piazza, but at the same time re-establishing their traditional links with each other; it presents the opportunity for a major new internal space – combining shopping, pedestrian movement and a new theatre – planned around a central atrium which could achieve the popular success that so consistently eluded Gye; finally, it presents the opportunity to adapt this architectural language in the design of a new building of quality in Russell Street, and particularly in Bow Street to give a better balanced expression to the Opera House and its new foyers.

In financial terms, the commercial content of this development provides sufficient value to fund the theatrical extensions and improvements so desperately needed. 20% of the office context is to be reserved for theatre support activities traditionally located within Covent Garden; the remainder is to be let in fairly small suites, again traditional to the Piazza. The introduction of the shopping content and over 200 car parking spaces will provide a valuable resource, not just for the Opera House but for the whole of Covent Garden.

The implementation of this scheme will require not only the combined skills and talents assembled to produce this report, but extensive consultation with planning/conservation and other interested bodies; it will also need to be developed very closely in consultation with the Opera House's own technical staff. A major project management task will be to ensure that these complex but challenging strands are pulled together to achieve a unified architectural, theatrical and commercial whole.

The Royal Opera House
Theatre Planning

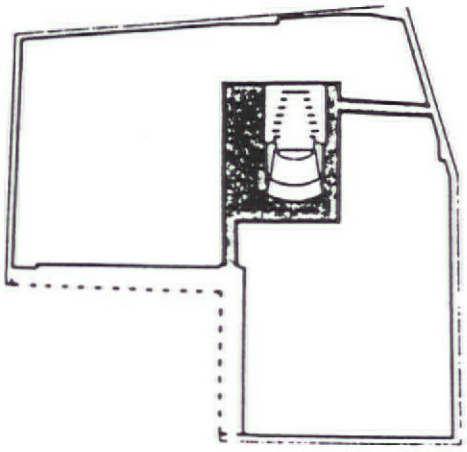
There have been six Theatres Royal Covent Garden: Shepherd, 1732-1782; Richards, 1782-1792; Holland, 1792-1808; Smirke, 1809-1846; Albano, 1847-1856; and Barry, 1885 until the present day. Of these all but the present theatre could be entered from the Piazza, the 1732 arch in the north-east corner being the main entrance until 1808. (While the Smirke/Albano theatre had its principle entrance in Bow Street it was still possible to approach from the Piazza.) It was the nineteenth-century expansion of the vegetable market that led Frederick Gye and his architect Barry to turn the Opera House's back on the Piazza, leaving only the oddly shaped Floral Hall of uncertain purpose to provide a token and short-lived link.

These present proposals aim, amongst other things, to re-establish that connection, both in the form of a Piazza entrance with enclosed route to the Royal Opera House foyers, and in the sense of providing a pedestrian link between the Piazza and Bow Street through a shopping arcade which would cut out the detour round Russell Street. Since the much-needed modernisation of the Royal Opera House back stage areas is the reason for the development, nothing has been allowed, even at this preliminary stage, to inhibit modernisation in the manner chosen by the Royal Opera House.

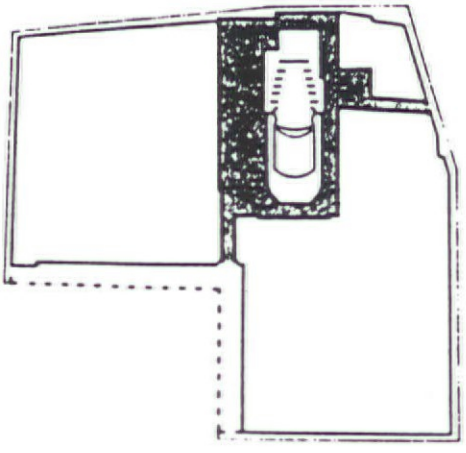
However, there are two theatrical aspects of the scheme that require some explanation. The first is the technical interface between the development and the Royal Opera House's stage extension. The second is the provision of space for a studio theatre within the development.

The back stage layout has been sketched in order to establish a realistic place to draw the line between Royal Opera House modernisation, and the development which must pay for that modernisation; certain strategic planning assumptions about the Royal Opera House modernisation have been made in order to establish this line. These are as follows: a 'Munich' wagon stage plan; equalising lifts in all positions for the wagons; stage to soffit height over wing stages of 11 metres; ballet rehearsal rooms over wing stage of 1100m² gross; administrative, or low-height technical service areas, of 2,700m² gross; scenic handling basement with floor to soffit height of 9 metres; the option of taking whole pantechnicons into the building at both Bow Street and James Street ends with facility of dropping the trailers to basement scenic handling level at both ends and lifting to stage level at the James Street end; reinstatement of Floral Hall Bow Street facade; provision of back stage and scenic handling route from the Royal Opera House areas to the studio theatre which, however, can also operate in a completely independent manner.

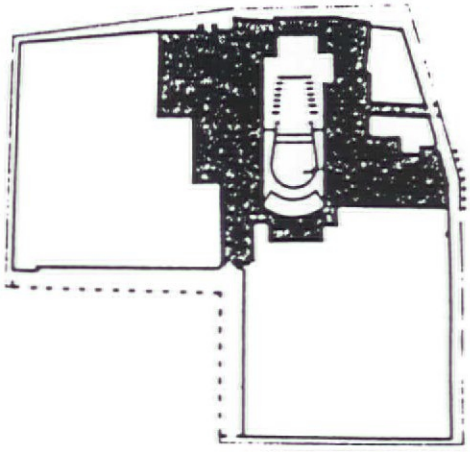
Shepherd 1732



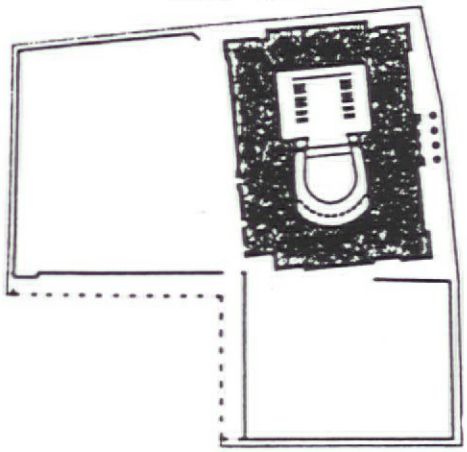
Richards 1782



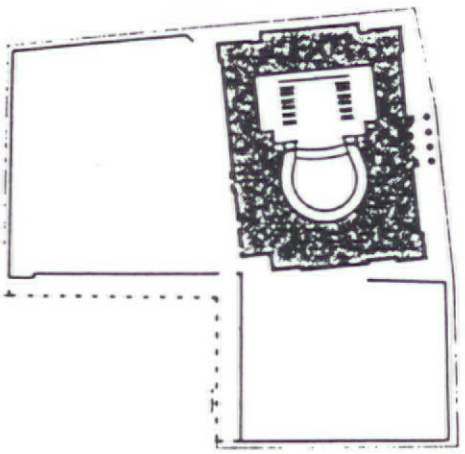
Holland 1792



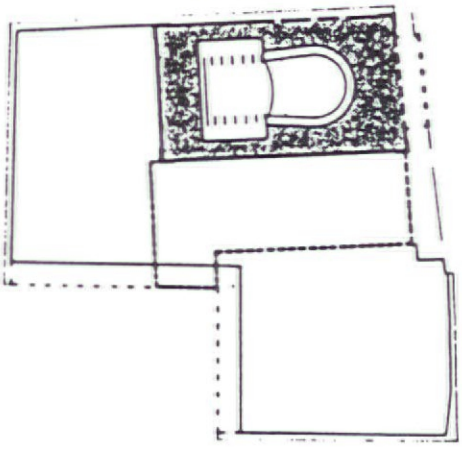
Smirke 1809

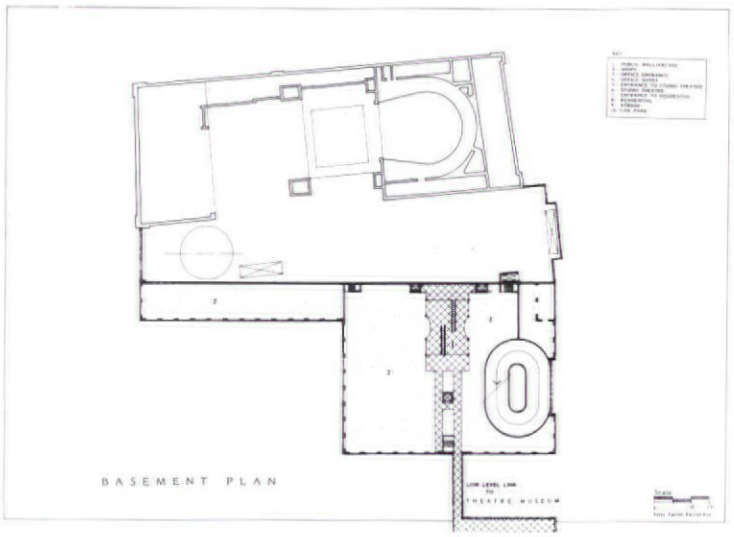


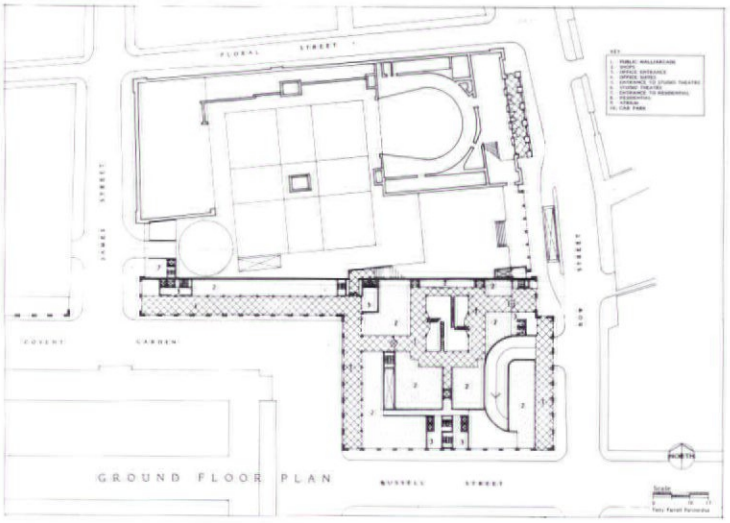
Albano 1847

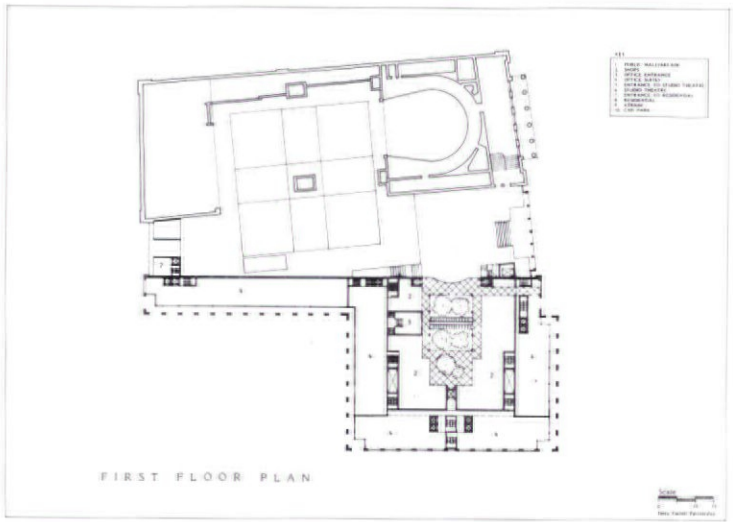


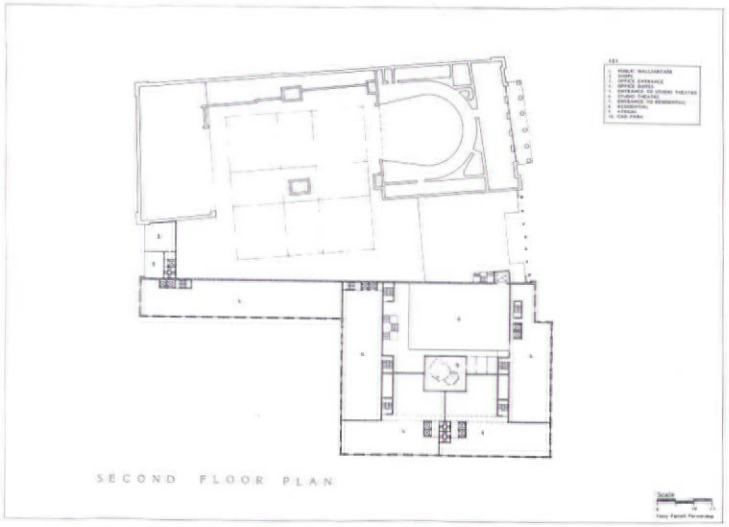
Barry 1858

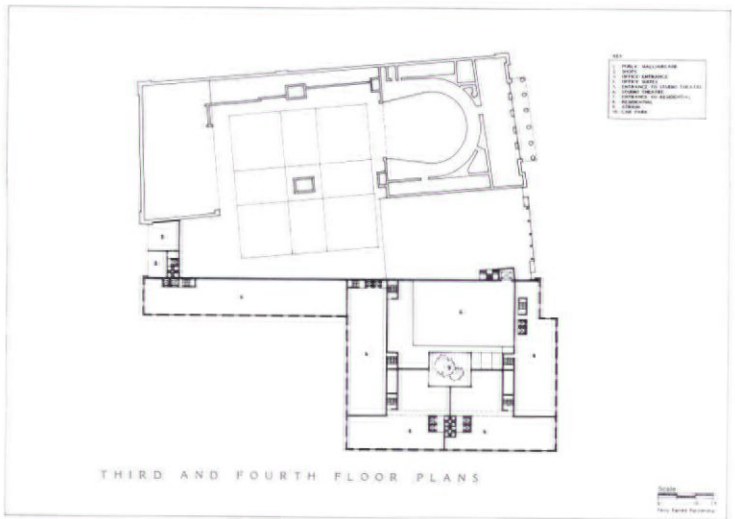


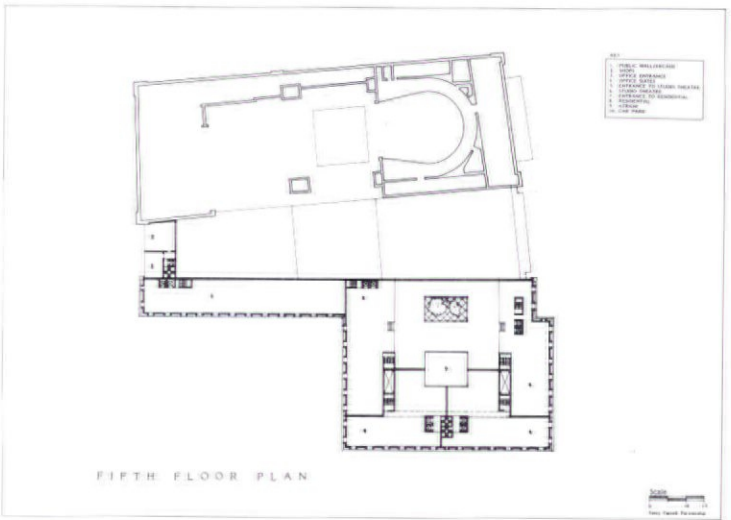

BASEMENT PLAN

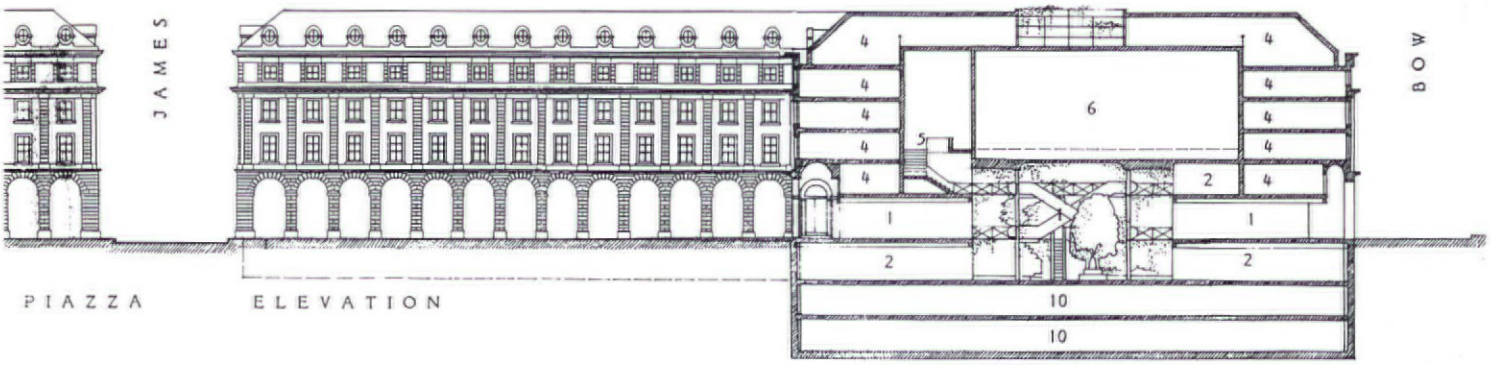

GROUND FLOOR PLAN

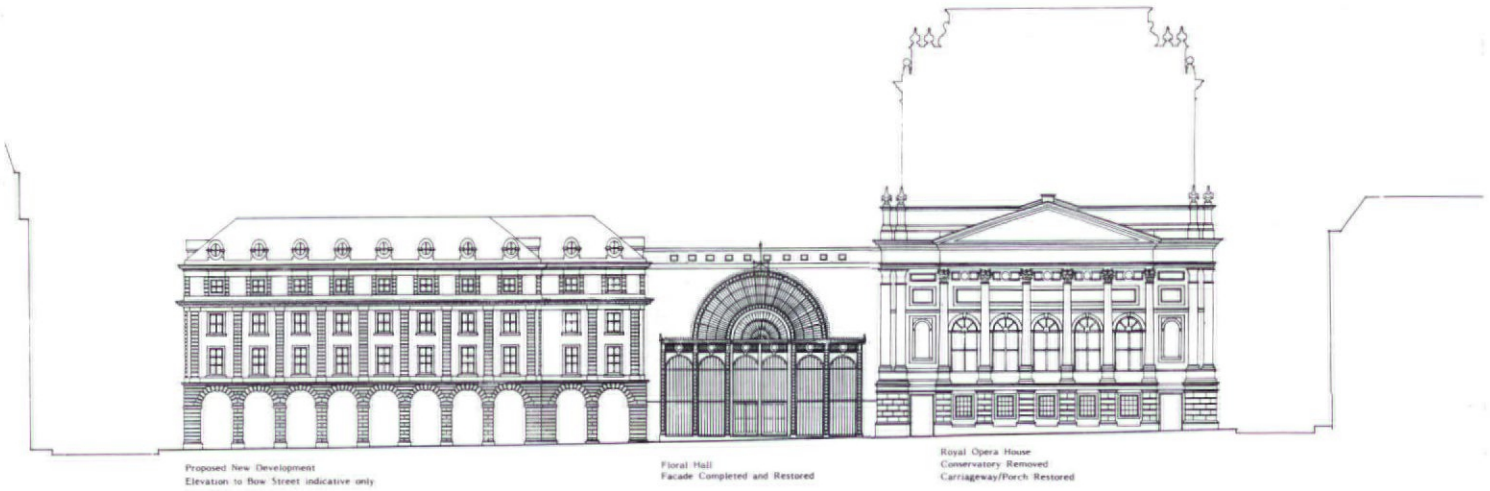

FIRST FLOOR PLAN

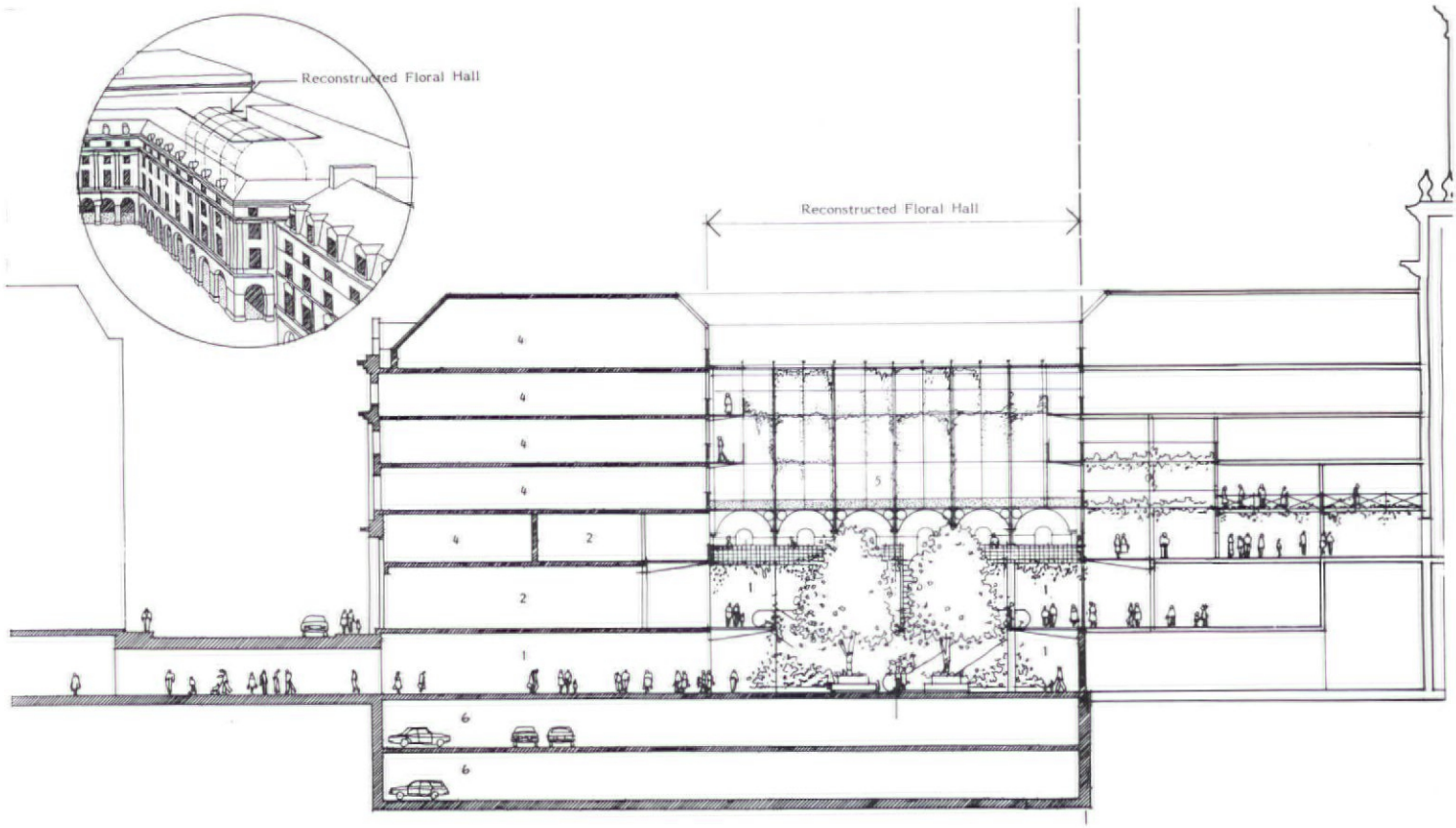

SECOND FLOOR PLAN


THIRD AND FOURTH FLOOR PLANS

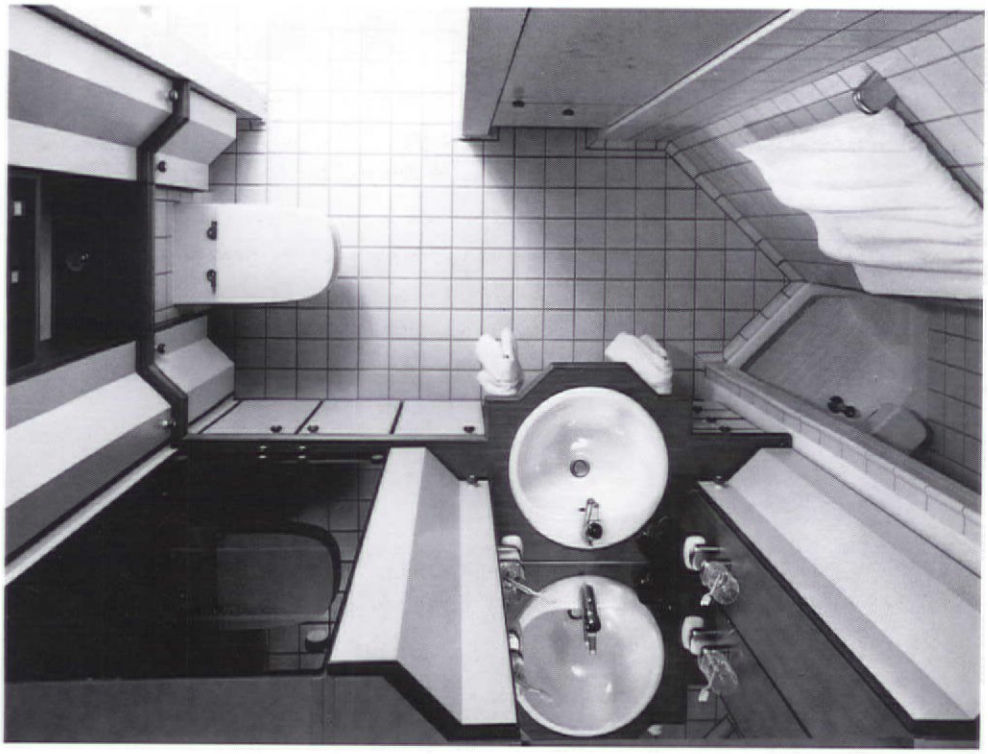

FIFTH FLOOR PLAN


JAMES
BOW
PIAZZA
ELEVATION
4
6
5
2
1
10


Proposed New Development
Elevation to Bow Street indicative only
Floral Hall
Facade Completed and Restored
Royal Opera House
Conservatory Removed
Carriageway/Porch Restored


Reconstructed Floral Hall
Reconstructed Floral Hall
4
2
1
5
6

NEW PRODUCTS



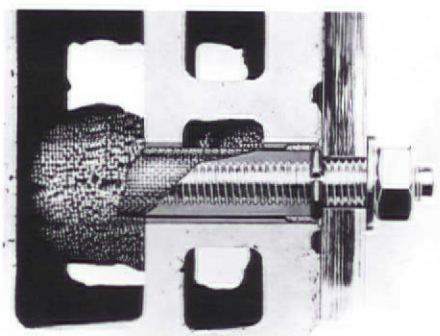
Allmilmö Bathrooms

Allmilmö, the leading German kitchen manufacturer, featured some elegant designs from its exclusive built range of kitchen, bathroom, bedroom and living room furniture at the Interbuild Exhibition. The new 3-D Concept offers endless design possibilities with its space saving third dimension, while Zeilostar incorporates an ingenious folding door system which requires no grips or handles. That 3-D achieves the best in advanced design of bathroom fittings in the minimum space is shown in the picture by this fully functional bathroom complete with shower. The bathroom takes up only 4-5 square metres of the area – a small bathroom perhaps, yet it clearly bears the recognizable stamp of sophisticated Allmilmö appeal.

Contact: Allmilmö, 30 Farringdon Street, London EC4A 4EA, (01) 6341000.

Hilti Fastening Systems

Hilti, world leaders in power tools and fastenings, launced five major new products at Interbuild. Shown here is their new HIT injection system which overcomes the problem of fastening products to hollow masonry. Once a hole has been drilled into the masonry surface to the required depth, a sieve is inserted to take the fastening. Resin is then injected and the fastener inserted. Also on show were Hilti's shear connectors, rotary hammer drilling machine, electronic jigsaw and two types of single speed screwguns. Hilti claim that all of their products are not only easy to use but are safe too.
Contact: Hilti (GB) Ltd, Trafford Wharf Road, Trafford Park, Manchester M17 1B4, (061) 872 5010.



INTERBUILD
BIRMINGHAM

Chainport's Glass Shelf

Two new developments herald the appearance at Interbuild 85 of Cliffhanger, the unique shelf support from Chainport Ltd. In response to demand, the range has been expanded to include a version to accept 6mm glass shelving and another to house 19mm laminate bonded board. Both new products signify a major drive on the contract market by Chainport, who believe there is untapped potential for Cliffhanger's versatility. Since its exhibition debut only two years ago at Interbuild, Cliffhanger has rapidly captured a substantial share of the UK shelf support market and is now sold or manufactured under licence in 14 countries. The Cliffhanger glass shelf support joins the standard 15mm range to provide a quick and aesthetically pleasing system for fixing shelves to walls, in a wide range of installations. The new 19mm contract range of Cliffhanger, suitable for laminate bonded boards, opens up new applications for the product which, in its standard size, is already being specified extensively in the contract market.

Contact: Chainport Ltd, 8 Fletchers Square, Temple Farm Industrial Estate, Southend-on-Sea, Essex SS2 5RN, (0702) 613135.

NEW PRODUCTS

Glostal's Patio Doors

Glostal, part of the RT2 Group, have always been an innovator in designing systems that meet the needs of both stockists and end users. Their new 404 patio doors and turn and tilt windows attracted favourable attention on the Axe Systems, Mila and Adams Rite (Europe) stands at Interbuild. The doors feature three locking options which range from standard to high security and open on either the left or right side. Glostal's turn and tilt windows are arranged for inside bead glazing which can accommodate either single or double glazing up to 24mm thickness with retained and wedge gaskets. They are available in either thermally broken or solid aluminium construction.

Contact: Glostal Ltd, Ashchurch, Tewkesbury, Gloucestershire 9L20 8NB, (0684) 297073

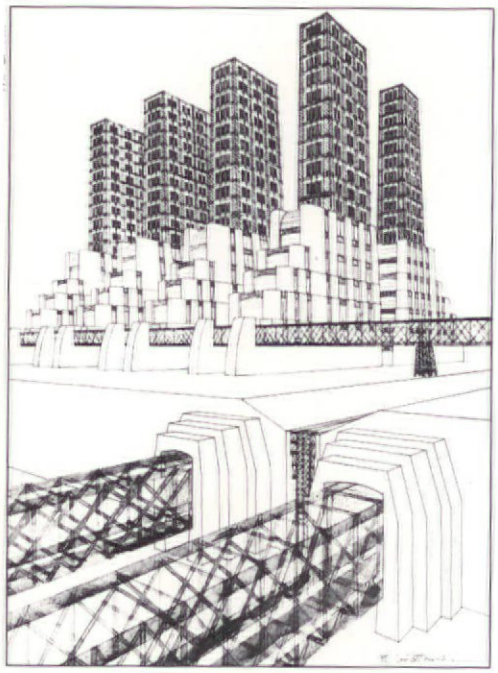
Bolton Brady Doors

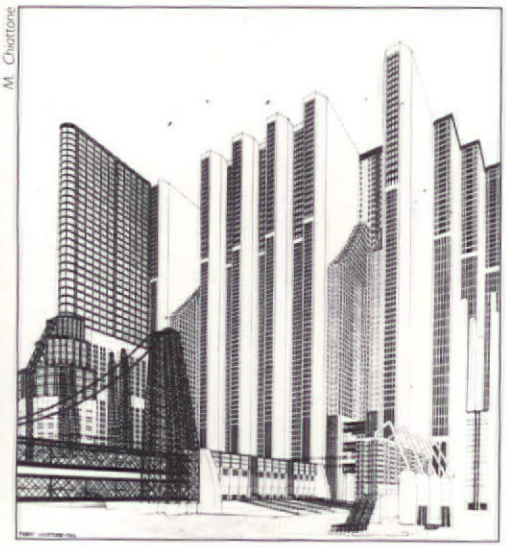
Bolton Brady, the largest manufacturer of industrial doors and shutters in the UK, gave their 'Developer' 600 insulated overhead door its exhibition debut at Interbuild. The new door incorporates polyurethane foam injected insulation panels offering a 'U' value of 455 w/m²°C, probably the best insulation value of any sectional overhead door currently available. An in-plant powder coat paint facility installed at the company's Bolton premises now allows doors to be supplied and finished to clients' exact requirements. The company's network of maintenance depots has been enlarged; now seventeen strategic locations provide UK national coverage on a 24 hour call basis.
Contact: Bolton Brady Ltd, Peel House, Turton Street, Bolton, Lancs. BL1 2SP, (0204) 32111.

Hydro-Air Church Steeple

Hydro-Air International (UK) Ltd are European market leaders in the field of timber engineering design using the most up to date computer aided design technology. At Interbuild they featured a 6 metre church steeple in trussed rafters as the focal paint of their stand. The model is a scale reproduction of the church steeple at Orgy, Luxembourg, designed by Hydro-Air, and highlights the possibilities and virtually unlimited scope that building designers now have with the Hydro-Aim trussed rafter system. Digital computers shown on their stand are capable of designing over 28 million individual trusses and a new contour roof design/layout programme was on show for the first time.
Contact: Hydro-Air International (UK) Ltd, Midland House, New Road, Halesowen, West Midlands B63 3HY, (021) 501 2767

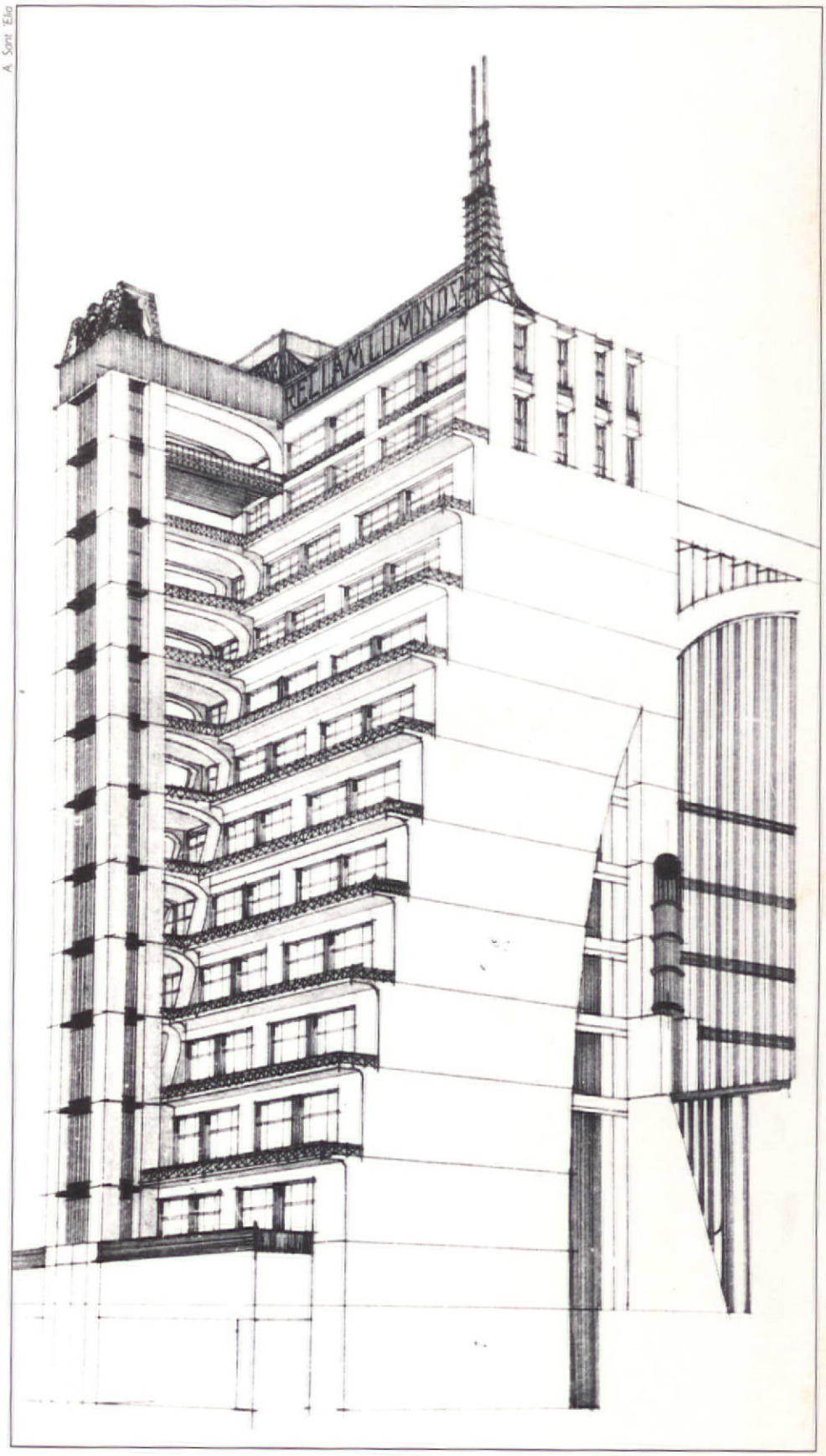
FUTURISM & FUTURISMS





M. Chiattone

A. Sant' Elia



Futurist architectural dreams by Antonio Sant'Elia and Mario Chiattone, showing the visionary arrogance of those builders of the future whose work rarely got beyond the drawing board – from an exhibition on Futurism at the newly-restored Palazzo Grassi in Venice. A review of the exhibition appears in the June issue of *Art & Design*.

Futurismo e Futurismi
Palazzo Grassi
San Samuele 3231
30124 Venezia

The exhibition is on show until October 12th 1986. A number of symposia and ancillary events will also be organised in conjunction with it.