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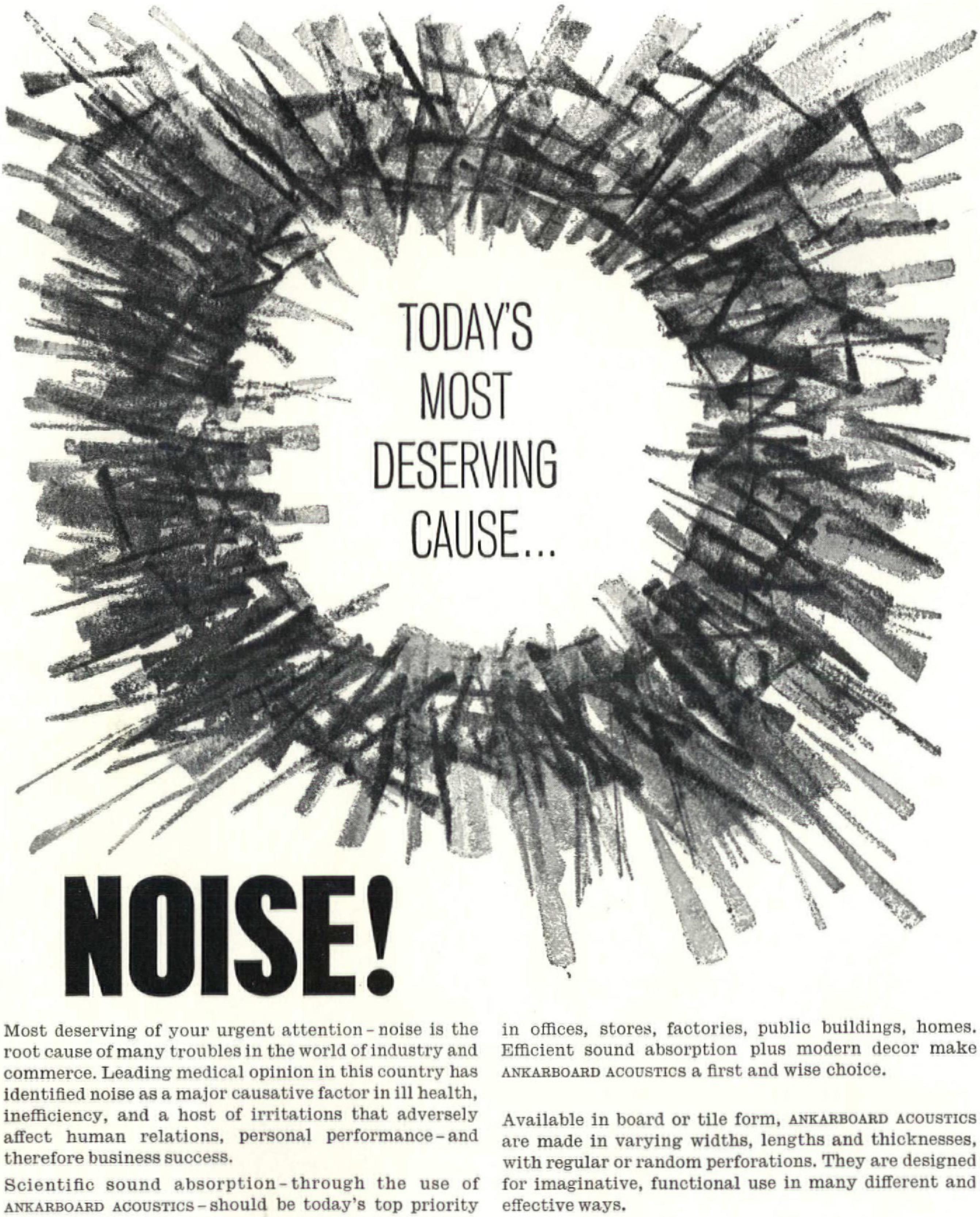

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Volume XXXIV

June 1964

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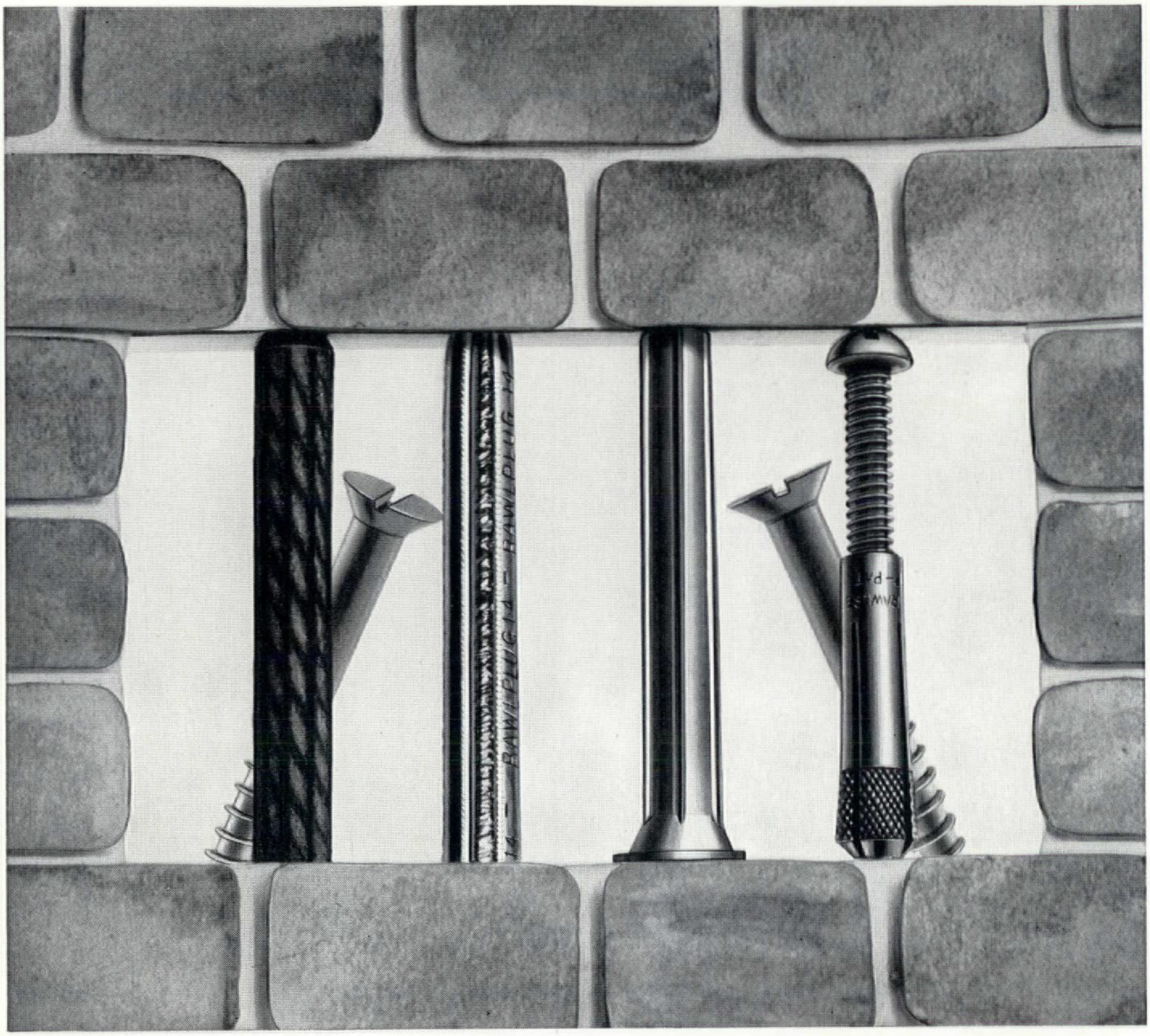

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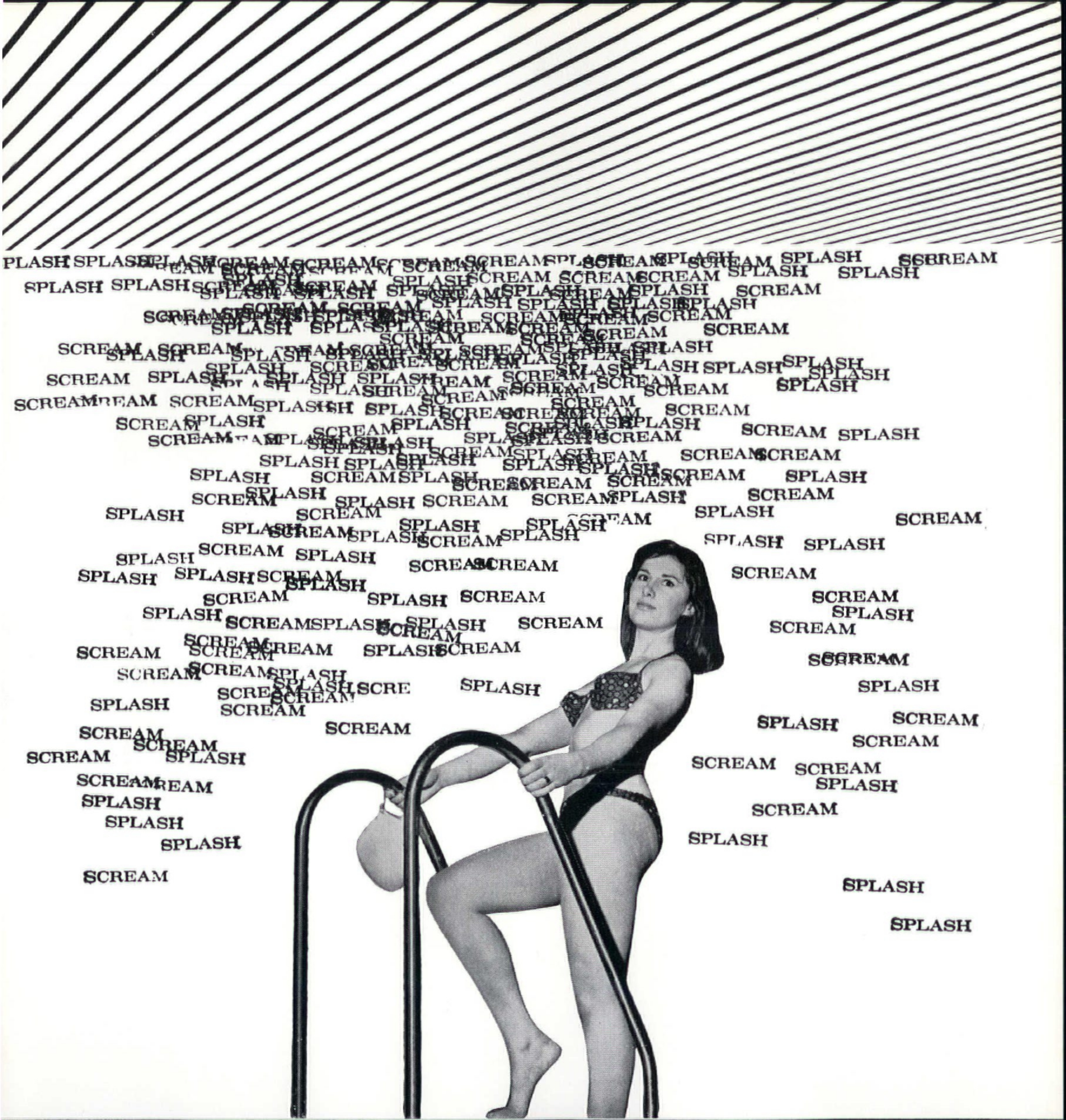

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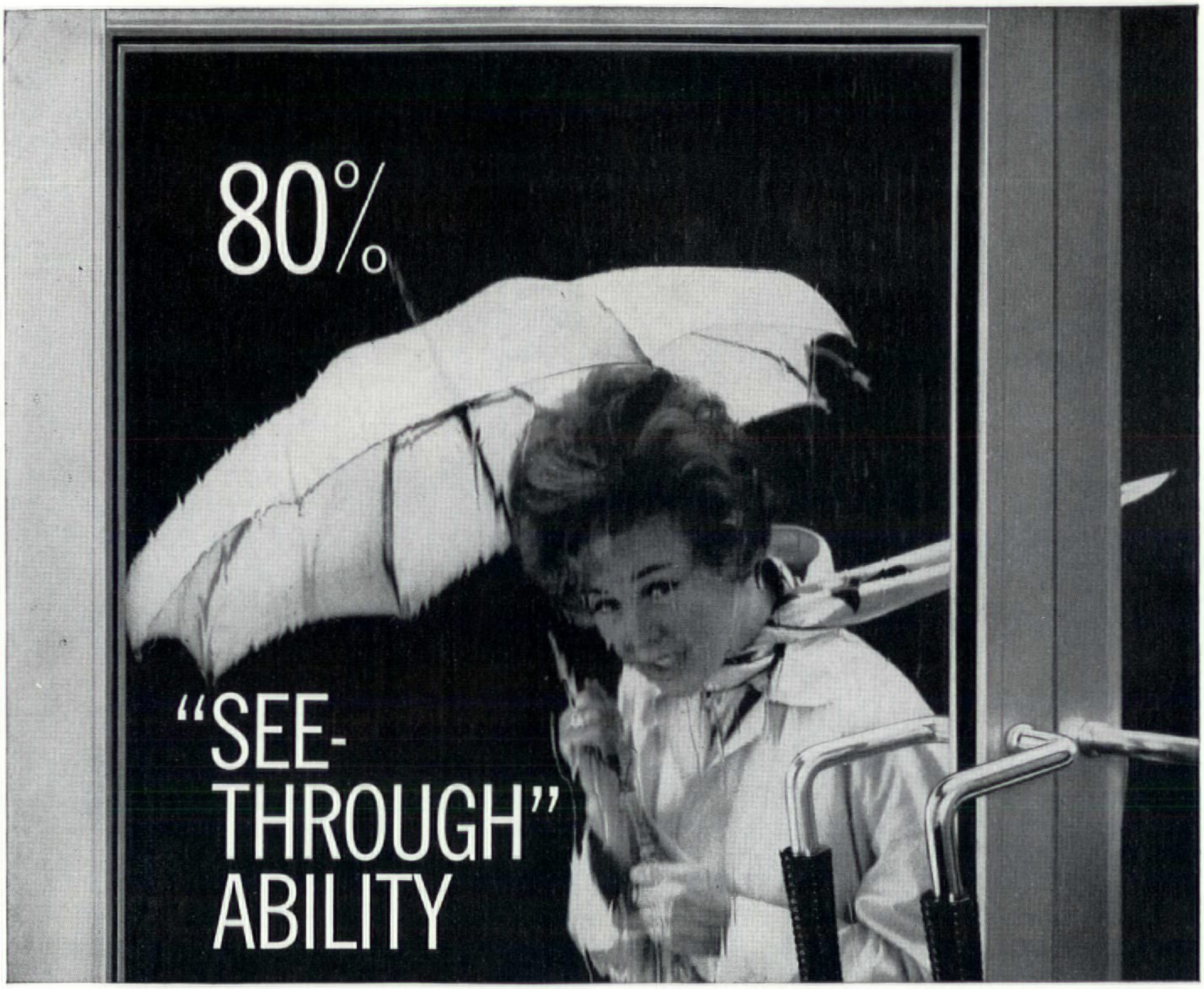

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We would like to thank all those architects who submitted projects for our first annual awards. The excellent total of 198 entries being recorded. The task of the jurors was formidable and the opinion of the jurors was that the standard was above average. After 3 days of judging the jurors were unanimous in their choice. To those architects who were unlucky we look forward to receiving an entry from you for our 1965 awards.

Exhibitions

The Building Centre, Store Street, W.C.1. June 11-19. All entries and award winners.

Engineering and Building Centre, Broad Street, Birmingham 1. June 22-26. Award winners.

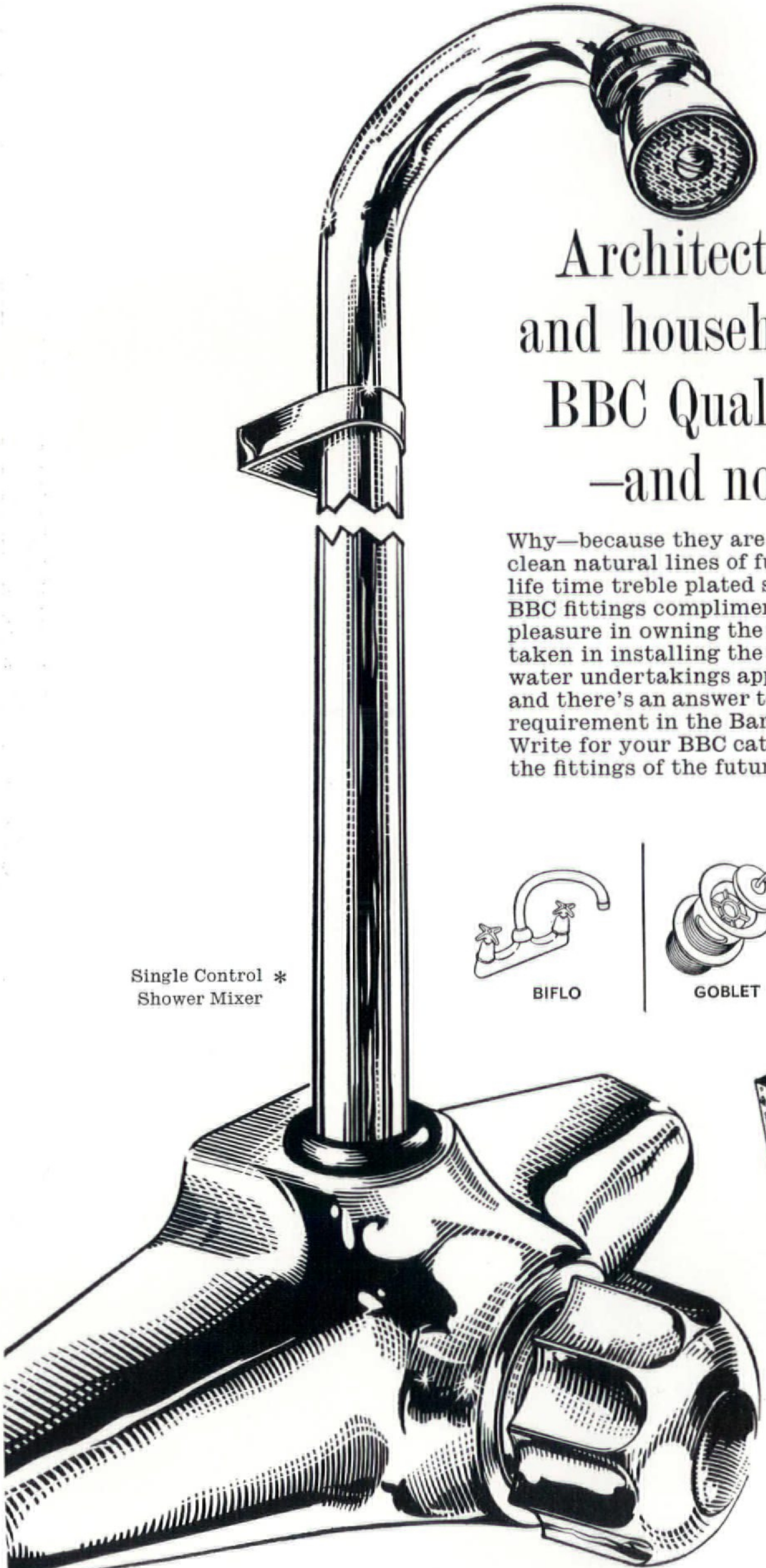
Manchester Building Centre, 115 Portland Street, Manchester 1. June 29-July 3. Award winners.

Scottish Building Centre, 425 Sauchiehall Street, Glasgow C.2. July 6-10. Award winners.

Bristol Building and Design Centre, Colston Avenue, Bristol 1. July 13-17. Award Winners.

Award winners for our first PROJECT AWARDS SCHEME

GRAND PROJECT AWARD	**Peter Womersley, ARIBA, FRIAS, AA Dipl(Hons)** Gattonside, Melrose Roxburghshire,	The Nuffield Transplantation Surgery Unit Western General Hospital, Edinburgh
Category: Hospitals	Client South-Eastern Regional Hospital Board	
PROJECT AWARD	**Peter Phippen in Association with D. Parkes & P. Randall** 65 Victoria Avenue, Surbiton, Surrey	Housing, The Ryde, Hatfield
Category: Housing	Client The Cockaigne Housing Group Ltd.	
PROJECT AWARD	**Owen Luder, A/ARIBA** 140 Tachbrook Street, S.W.1	Charlotte Street Development Portsmouth
Category: Town Redevelopment	Client E. Alec Colman Group of Companies	
PROJECT AWARD	**Gillespie, Kidd & Coia** 20 Park Circus, Glasgow, C.3	Our Lady's Girls' High School, Cumbernauld
Category: Schools	Client County Council of Dumbarton Education Committee	
PROJECT AWARD	**Hubert Bennett Esq., FRIBA** London County Council, County Hall, S.E.1	College of Architecture and Advanced Building Technologies, Luxborough Lodge Site, St. Marylebone
Category: Technical Colleges	Client Education Committee, LCC	
PROJECT AWARD	**David Roberts & Ptrs.** 33A Bridge Street, Cambridge	New building for St. Hugh's College St. Margarets Road, Oxford
Category: Universities	Client The Principal & Fellows, St. Hugh's College	



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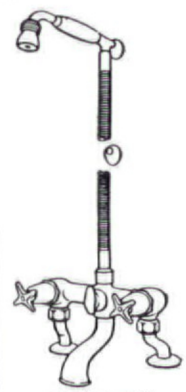

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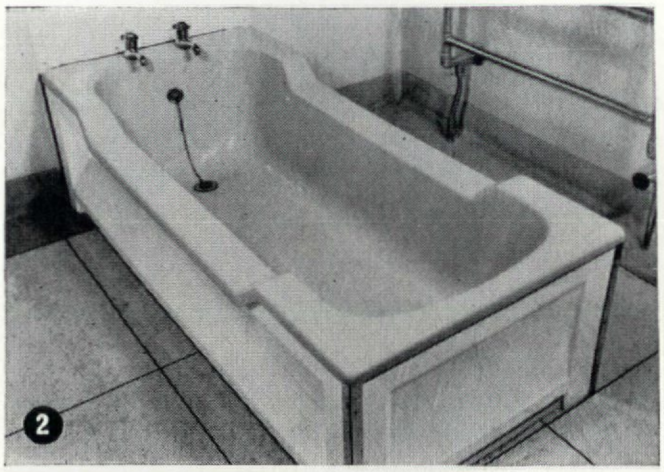

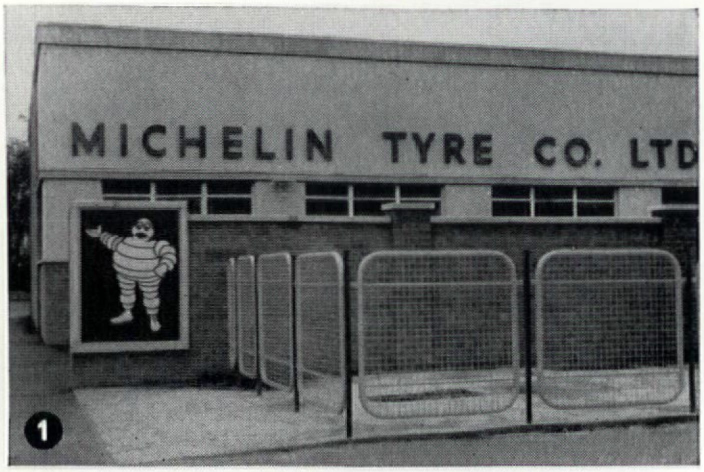

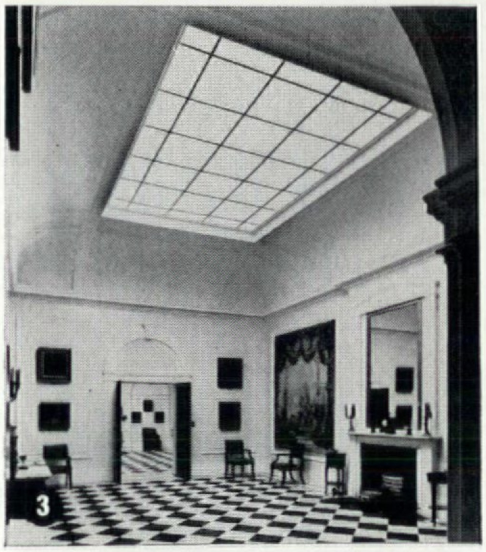

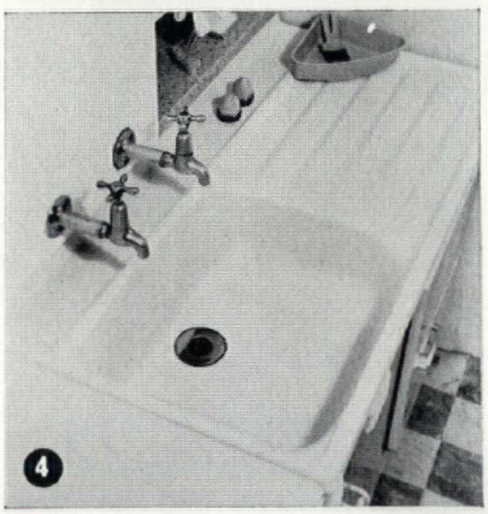

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3. Galvanised Steel laylight, glazed with Opal 'Perspex' made and installed by Henry Hope & Sons Ltd., Smethwick, Birmingham, in a picture gallery for the Earl of Bradford, Weston Hall, Weston-under-Lizard, Shifnal, Shropshire.
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5. Wall Bracket lighting fittings made by Tucker & Edgar, Berkeley Works, Berkley Road, London N.W.1, installed in the Chapel at Ratcliffe College, Leicester. Architects: Sandy & Norris, 134 Newport Road, Stafford.
6. Cordar Skydomes by Cordar Ltd., Newcastle-upon-Tyne. 260 of these domelights, size 8 ft. 8 ins. x 4 ft. 8 ins. have been installed in the No. 3 (South West Face) Passenger Building at London Airport. Architects: Frederick Gibberd, C.B.E., A.R.A., F.R.I.B.A., M.T.P.I., F.I.L.A. General Contractors: Taylor Woodrow Construction Ltd., London W.1.

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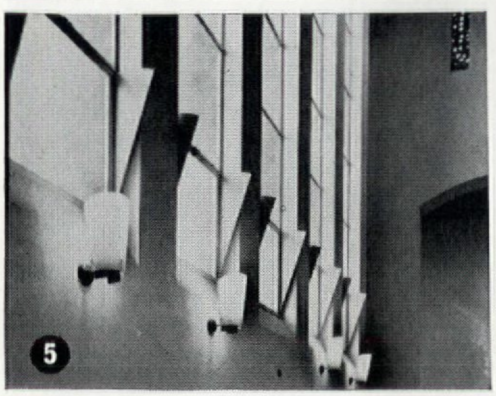

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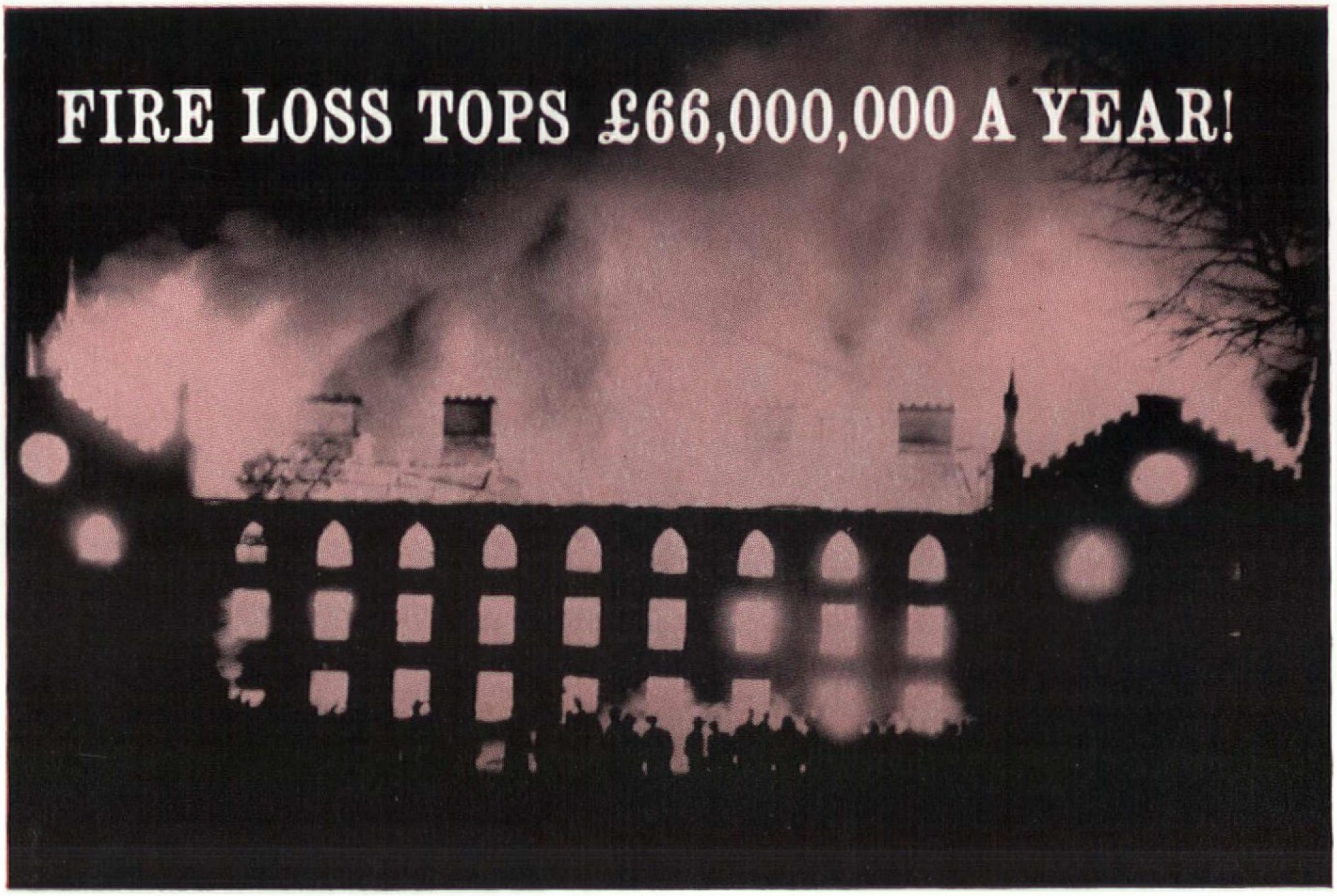

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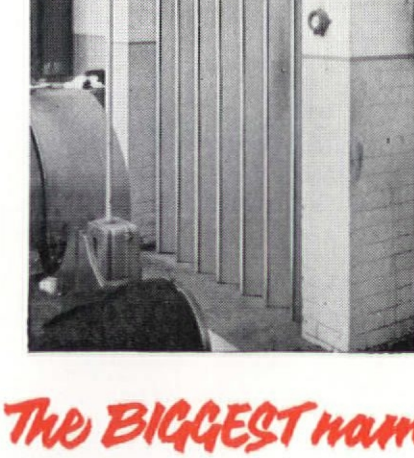

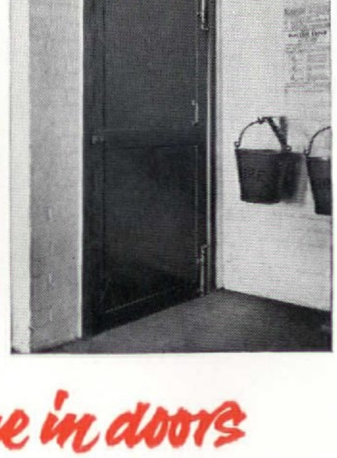

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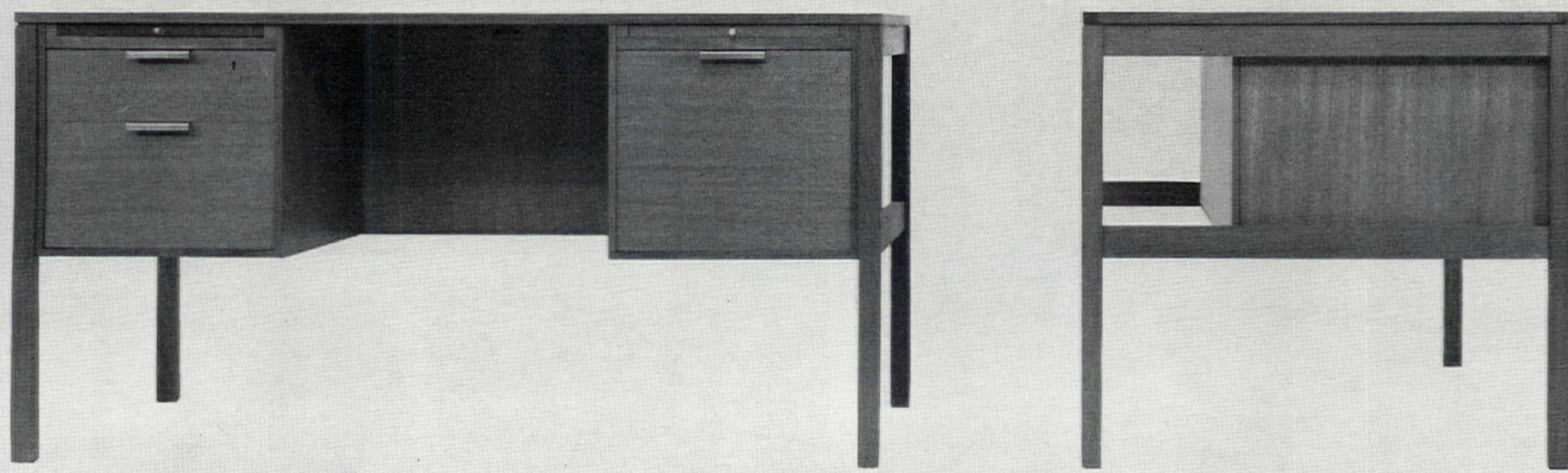

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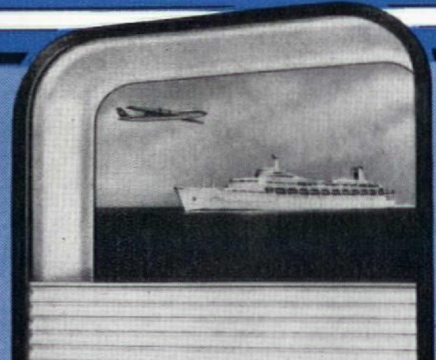

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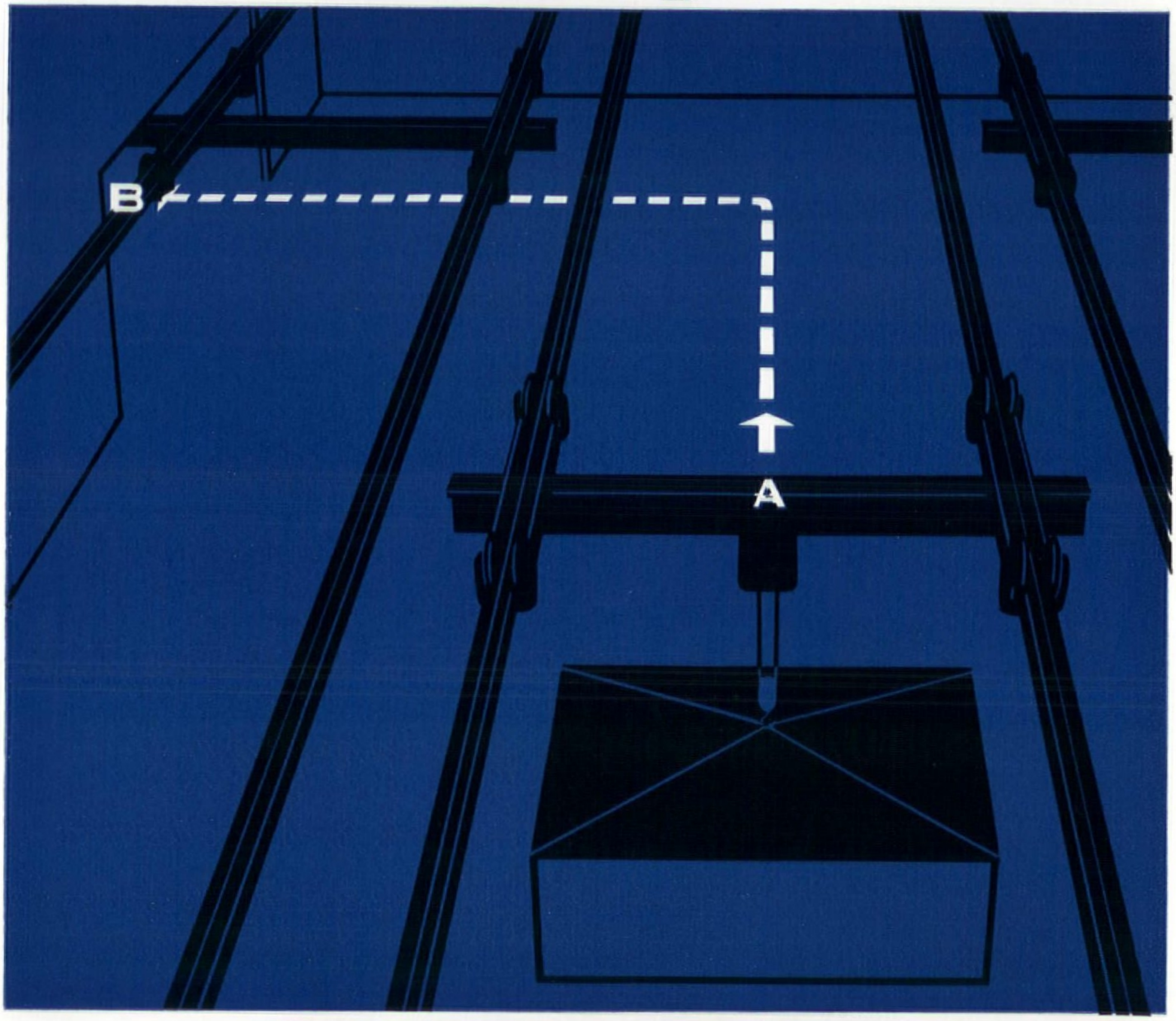

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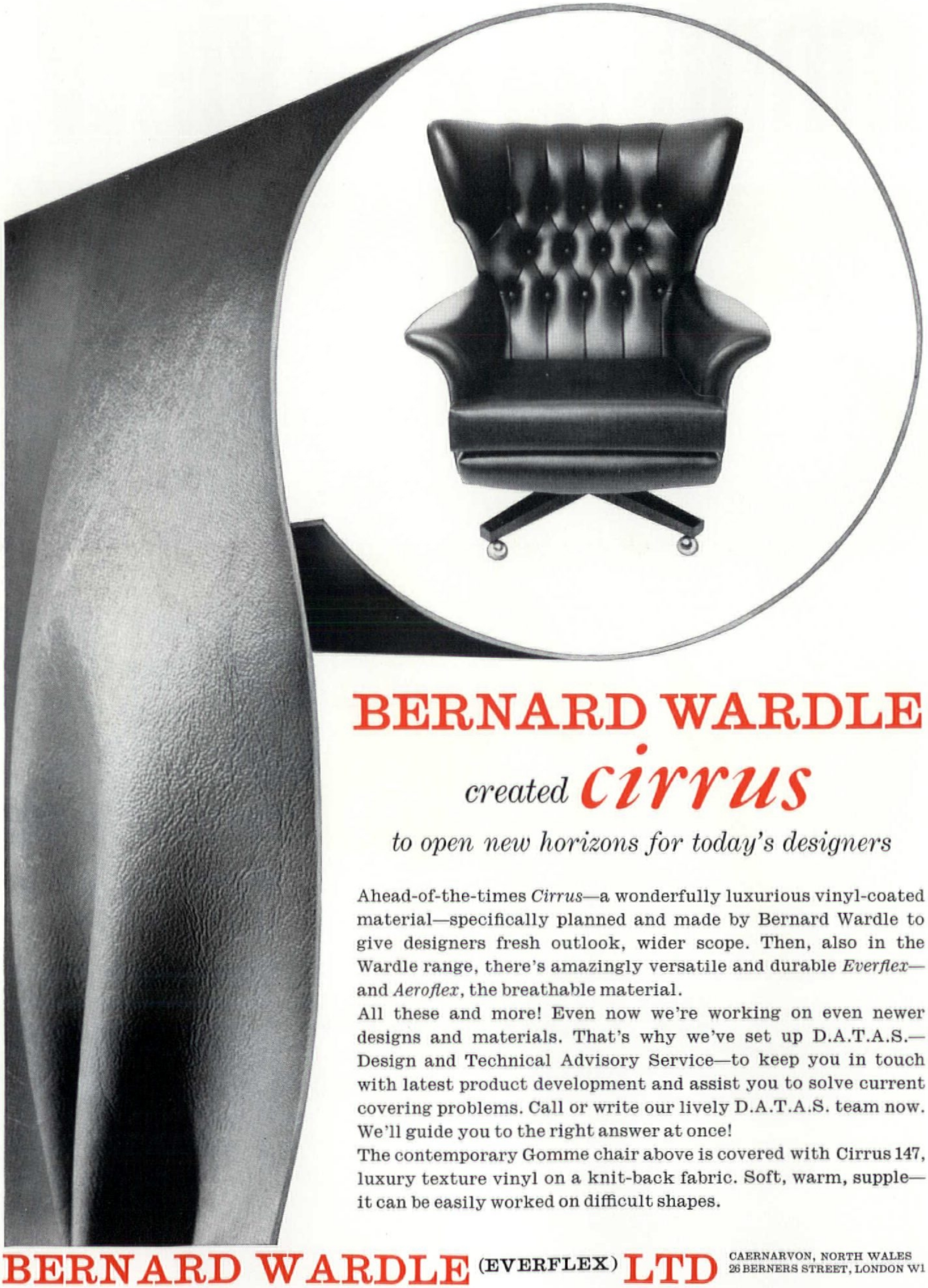

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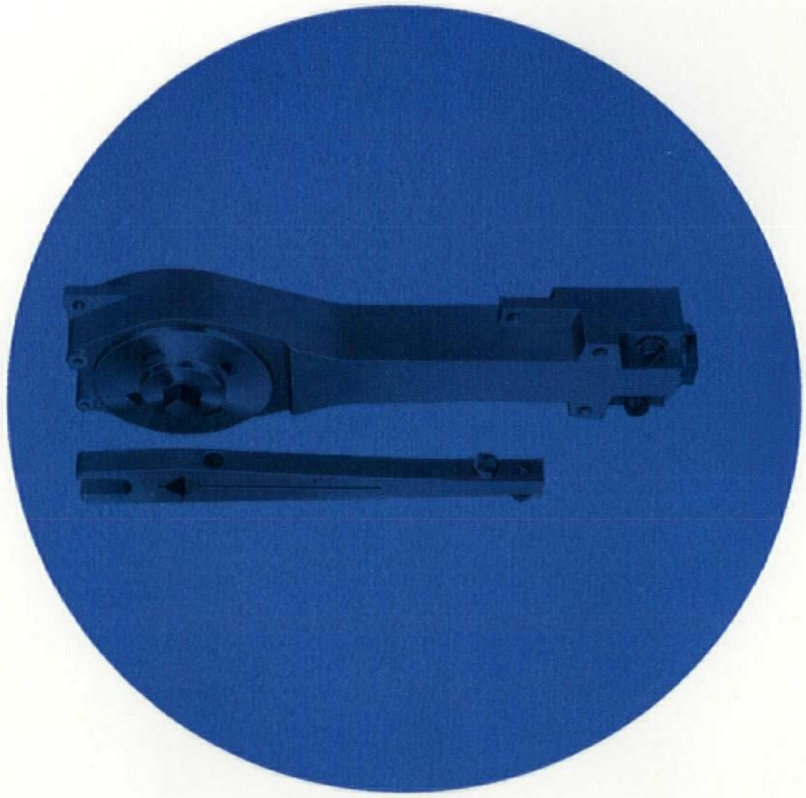

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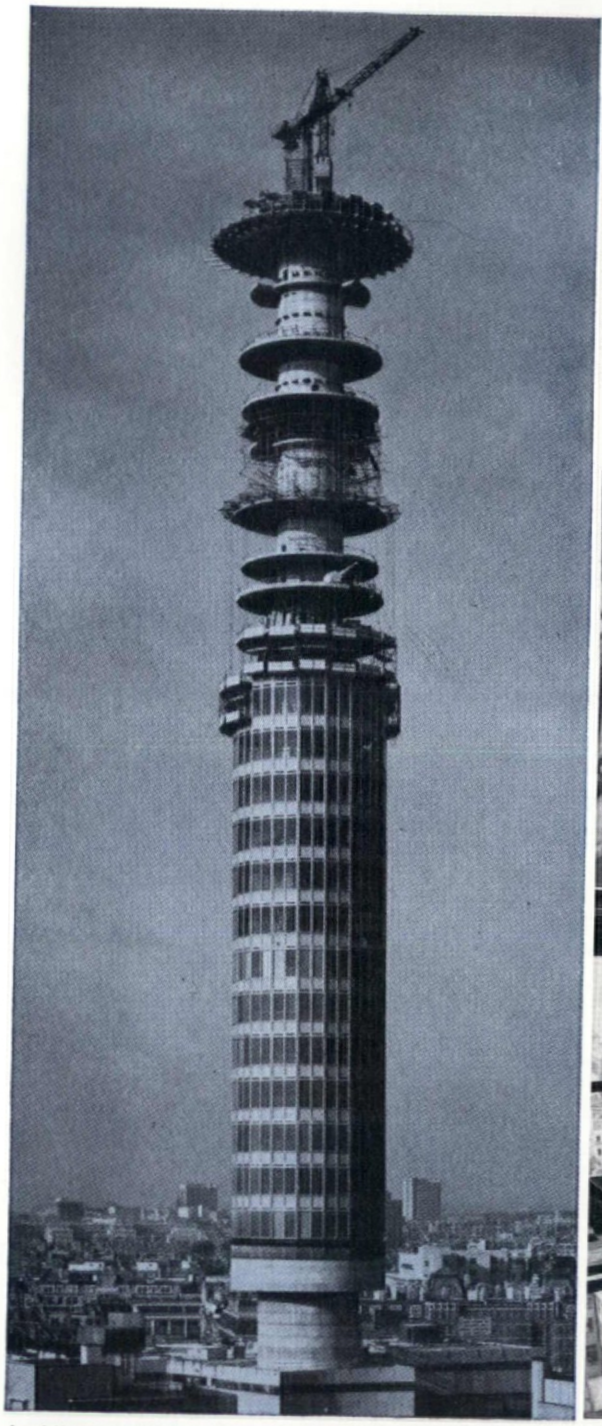

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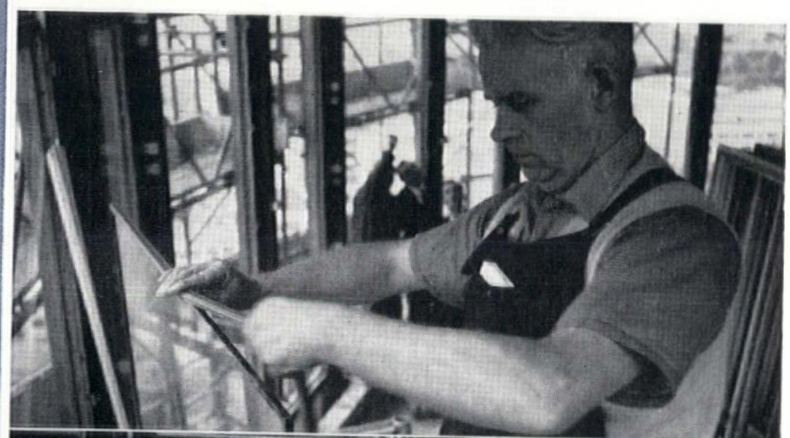

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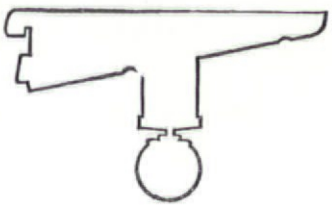

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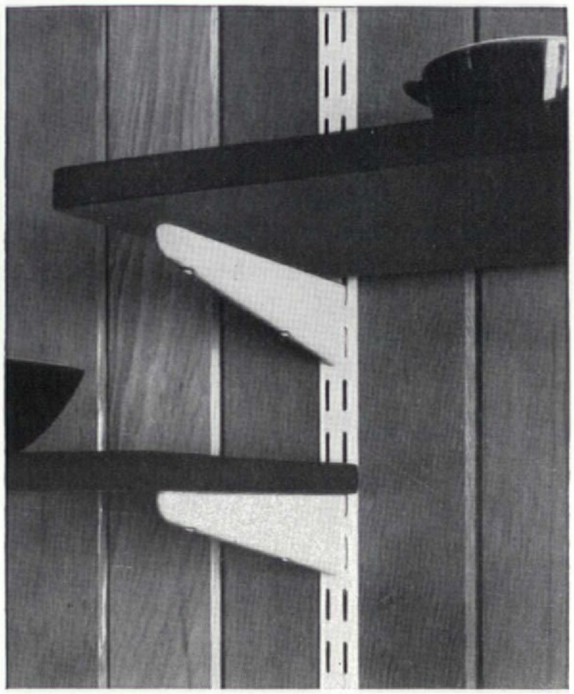

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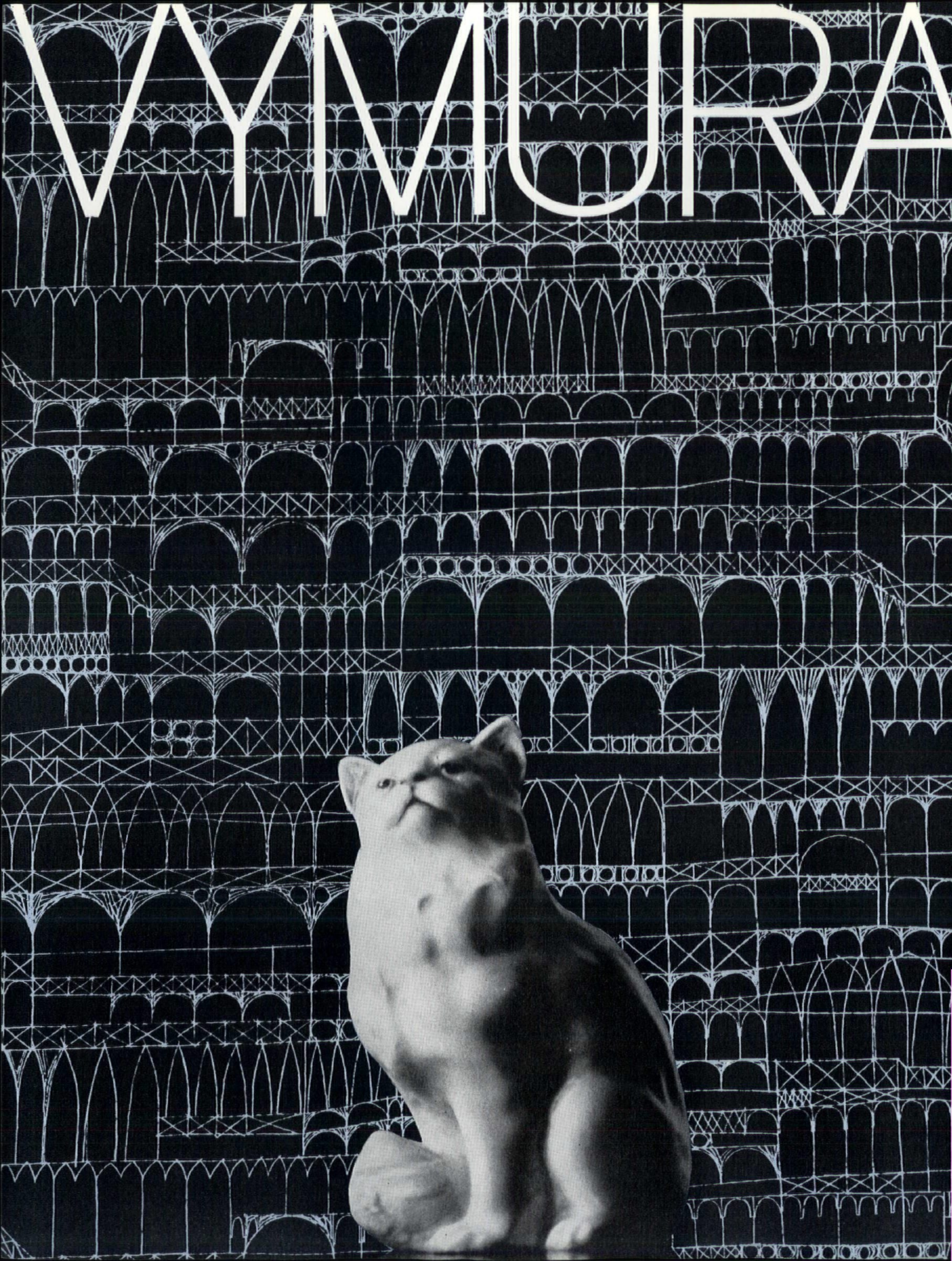
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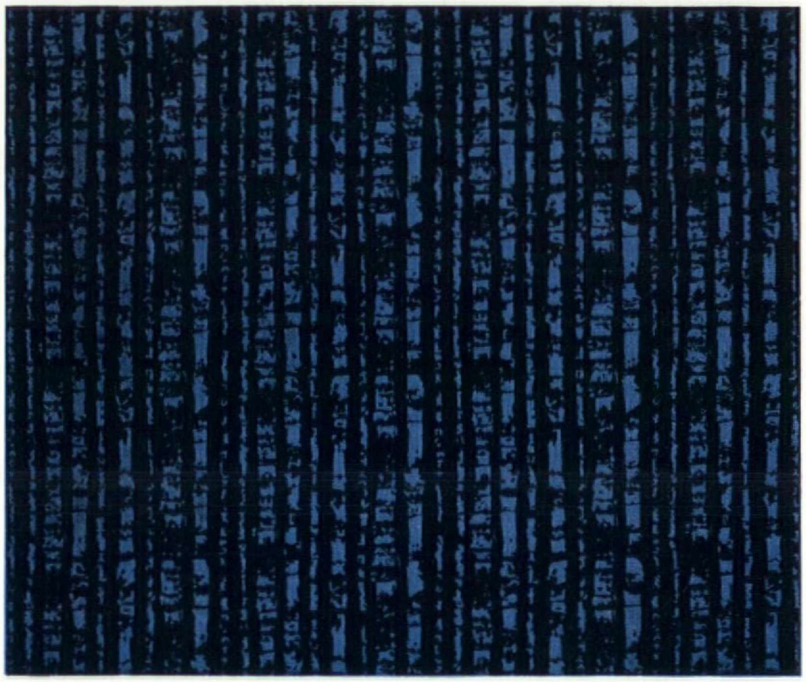

BAMBOO

◀MEMPHIS

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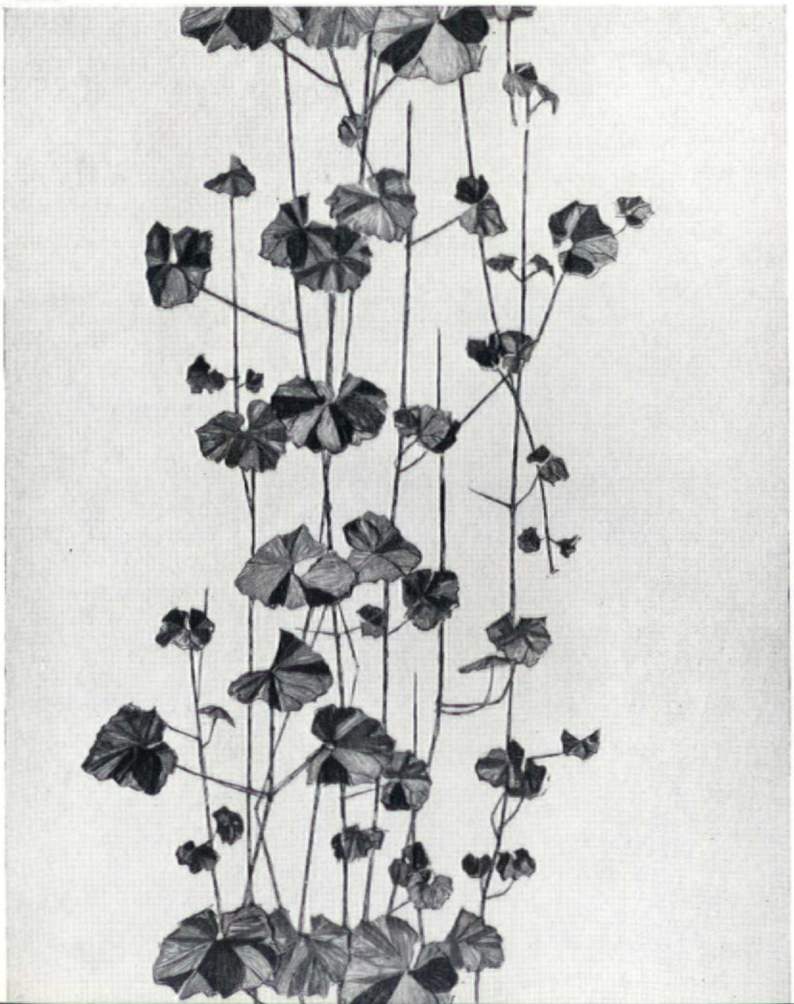

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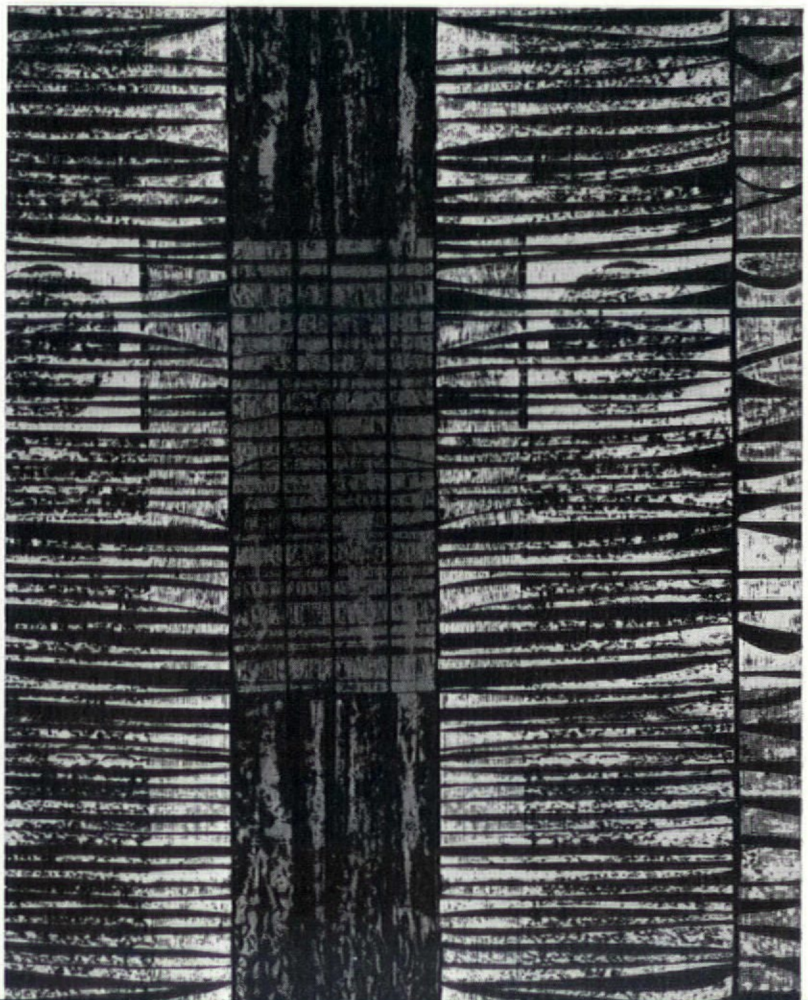

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saves decor costs and reduces maintenance

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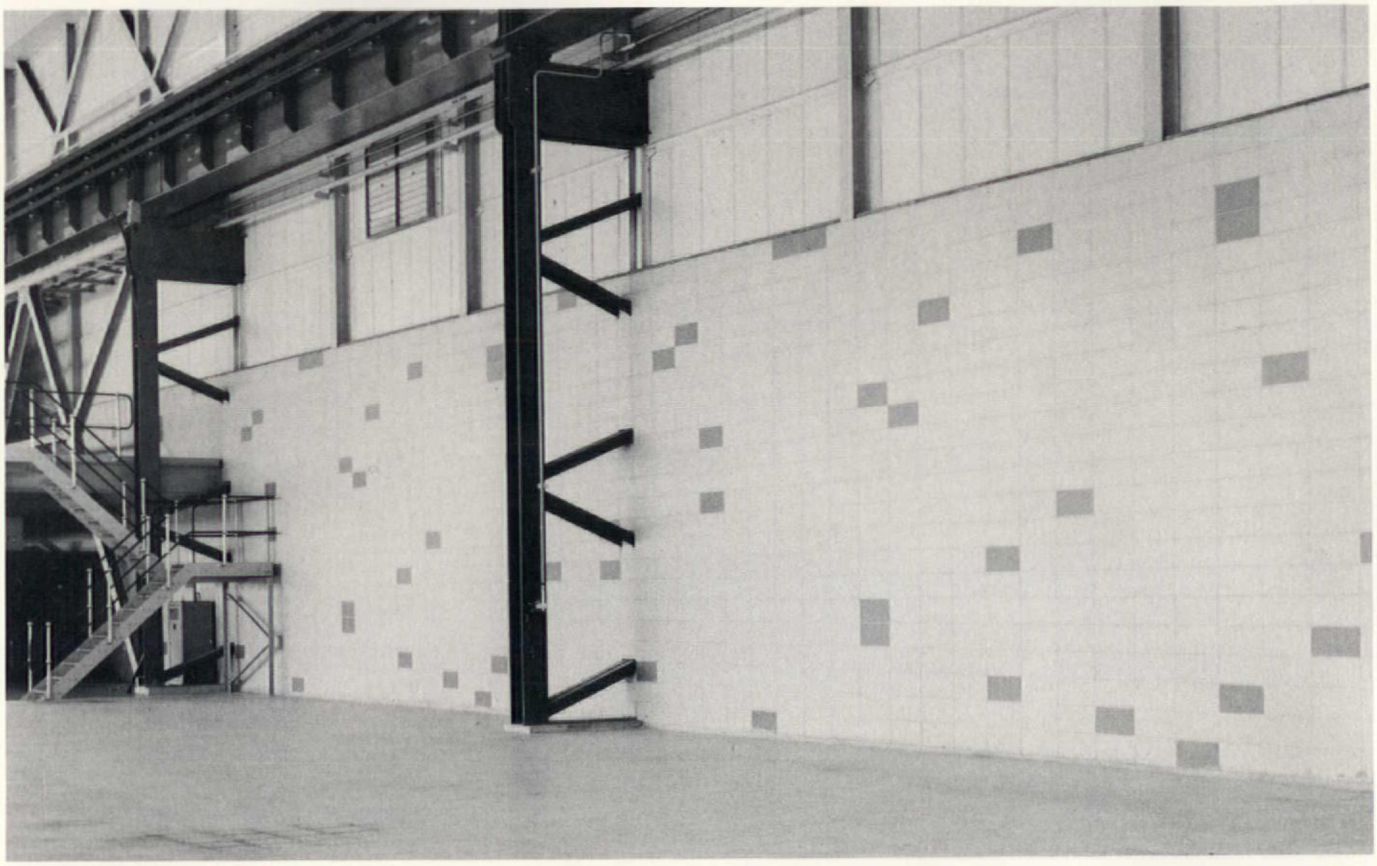

ENGLISH STEEL CORPORATION, LTD., Sheffield
CONSULTING ENGINEERS: W. S. Atkins & Partners, Epsom, Surrey
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More than sixty thousand SPECTRA-GLAZE® Structural Masonry Units were used for the walls in the Motor Rooms of the new 32″ and 42″ Mills, the Bar Mill, and in the Amenity Block at the English Steel Corporation Ltd., Tinsley Park Works, Sheffield.

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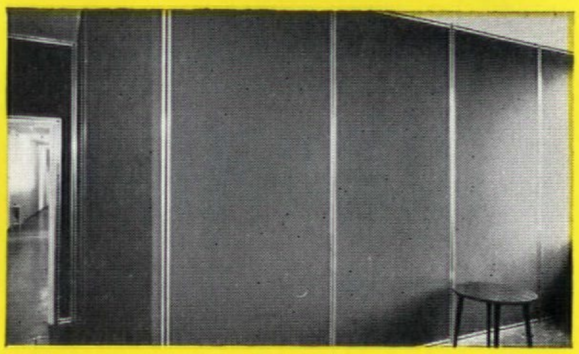
INDUSTRIALIZED BUILDING?
ALL SYSTEMS GO with STRAMIT
Off-site fabrication and other "industrialized" construction techniques are certain to be employed when it comes to building in space. Whether Stramit will be there remains to be seen; but the value of these large structural building slabs in more down-to-earth situations is becoming increasingly obvious, as more and more architects and contractors incorporate them into their own "industrialized" construction systems.

STRAMIT
AND INDUSTRIALIZED BUILDING

The aim of industrialization is to reduce on-site work to a minimum and thus speed up construction—which is what Stramit has been doing for 20 years! The large size of the slabs, the ease of application by modern "dry" methods, plus the fact that the slabs are immediately ready for decoration or weathering, all ensure that wherever Stramit is specified a valuable cost advantage is felt in terms of speed and efficiency. Whether specified as structural roof-decking, internal wall-linings, or non-load-bearing partition walls, Stramit provides a high standard of thermal insulation, sound reduction and fire resistance. It combines equally well with orthodox building methods or with the new "systems" employing prefabricated framework of steel, concrete or timber.


Stramit slabs as roof-decking to precast concrete framework


Stramit partitions in aluminium framing—a system within a system for large blocks of offices and flats

INDUSTRIALIZED BUILDING SLABS
for roof-decking, wall-linings and partition walls

SPECIAL STRAMIT CUT-TO-SIZE SERVICE FOR INDUSTRIALIZED SCHEMES

In view of the increasing emphasis on off-site fabrication, Stramit are extending their well-known cut-to-size service. Complete partition or wall-lining runs for a scheme of flats or houses can now be delivered in "sets" pre-cut to the exact dimensions required. Measurements can either be taken by our Technical Representative on site or, where there is strict control of overall dimensions, from your own working drawings. Each slab in a "set" is lettered and numbered and a key-plan provided to facilitate assembly. Special "packaged-deal" quotations prepared for extensive building schemes.

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LITERATURE: Comprehensive Technical Brochure STC. 1004 available on request. Barbour Index File No. 225 or Gorco Bureau Section 21/7 (partitions) 20/14 (roof-decking).


Stramit slabs used as wall-linings to steel framework with outer cladding of brickwork


This newly erected house, of otherwise orthodox design, has a Stramit roof, and Stramit as internal wall-lining on the first floor

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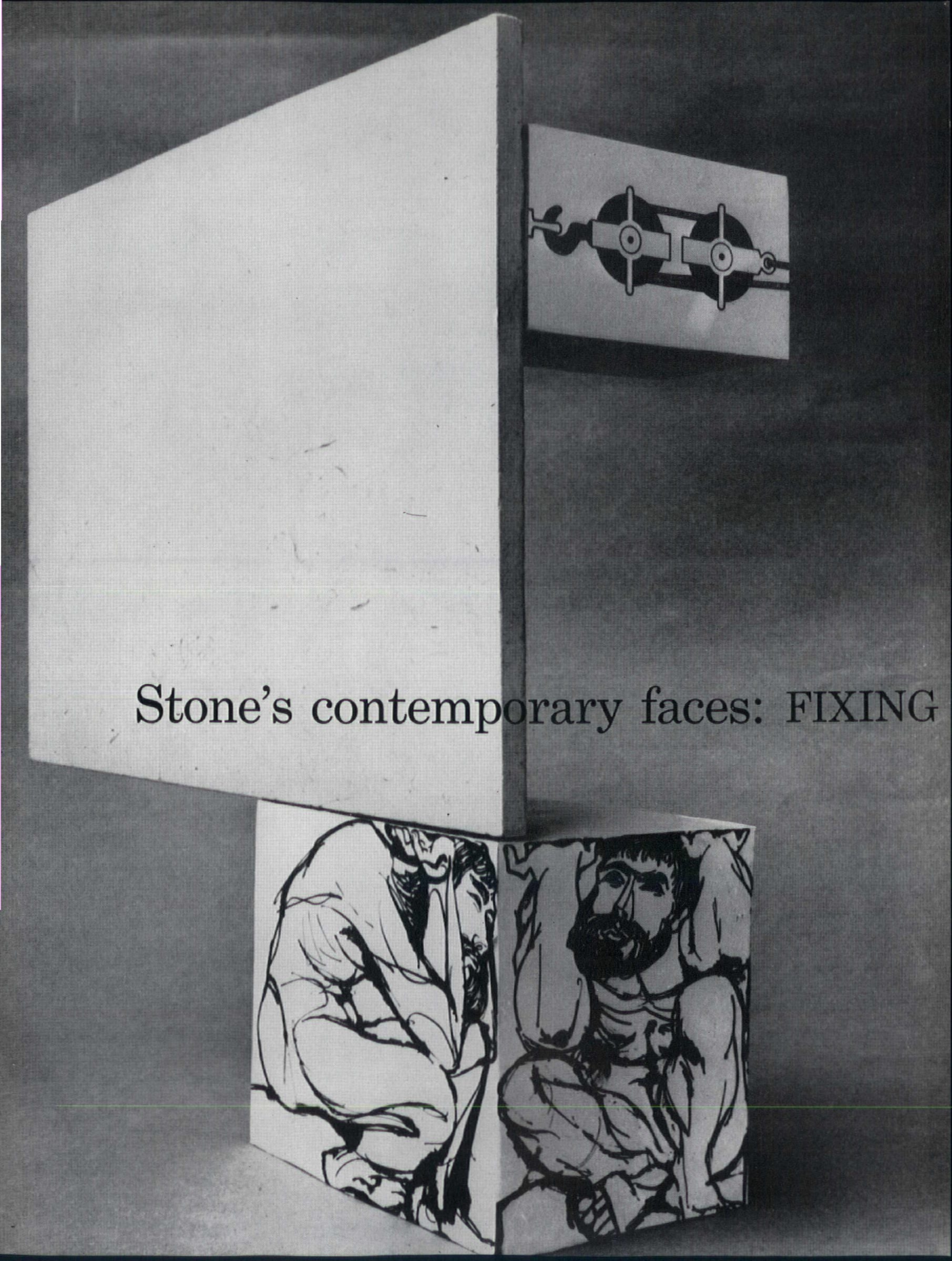
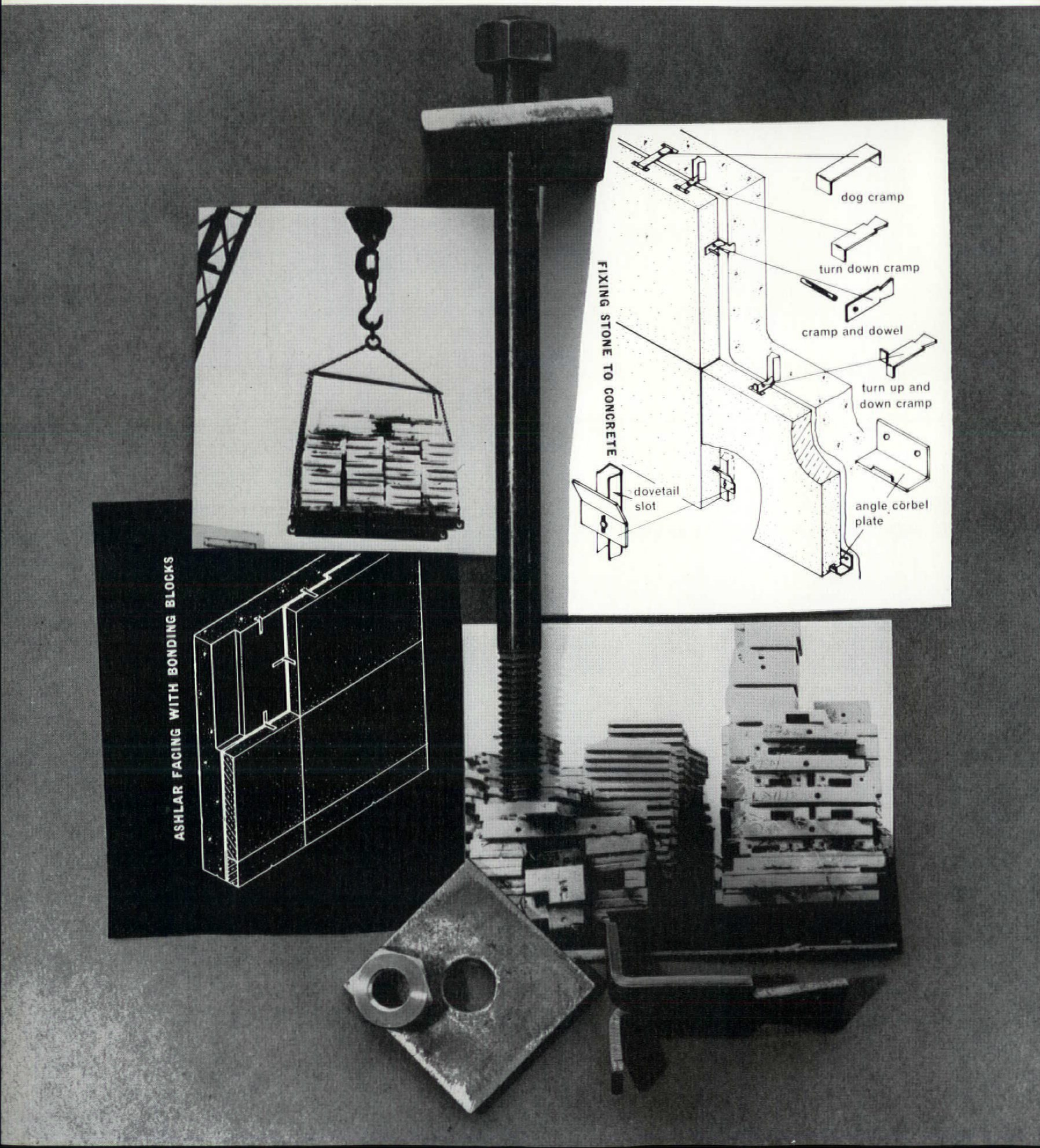
Stone's contemporary faces: FIXING



Stone
...A REVOLUTION

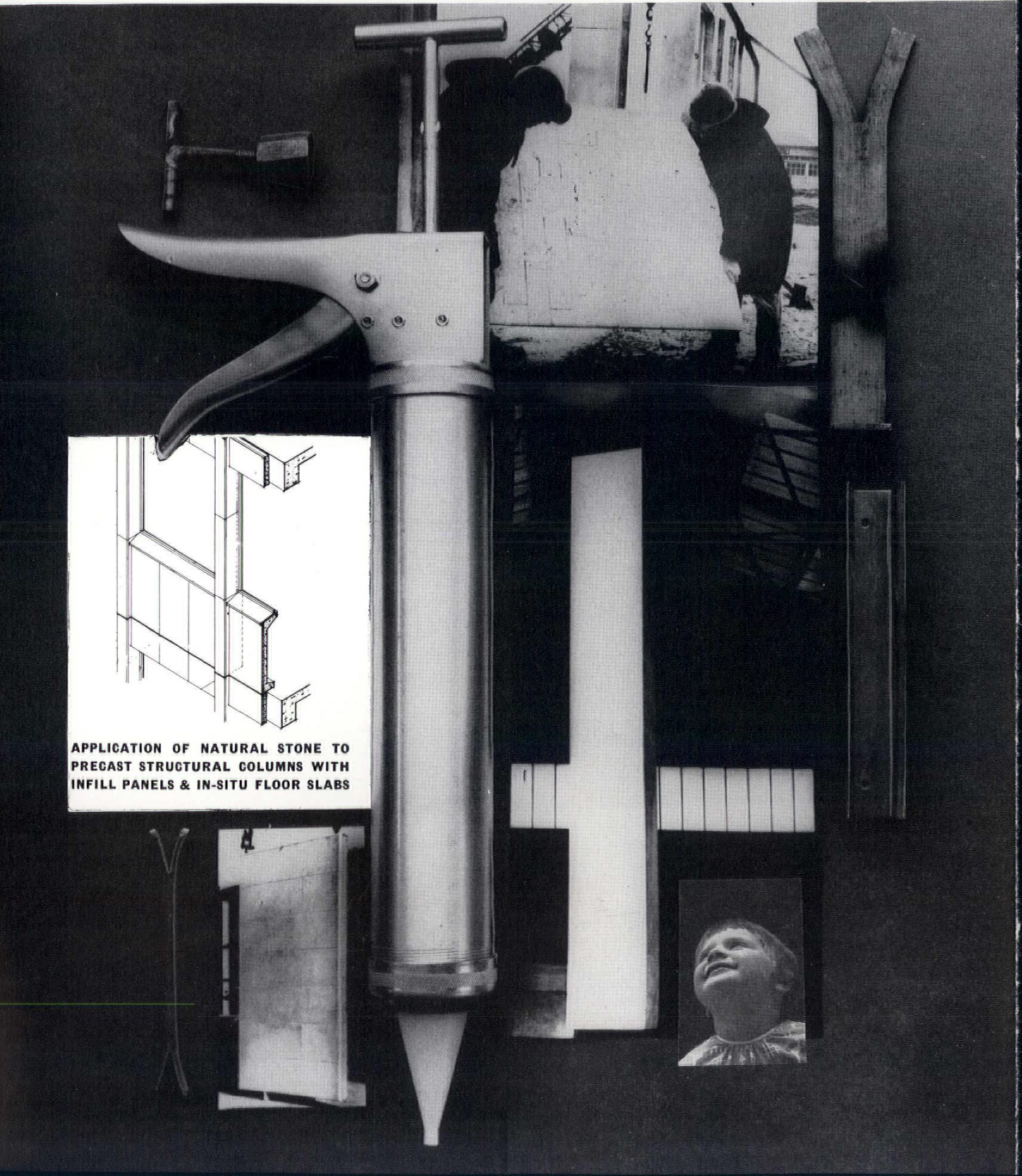
Code 52

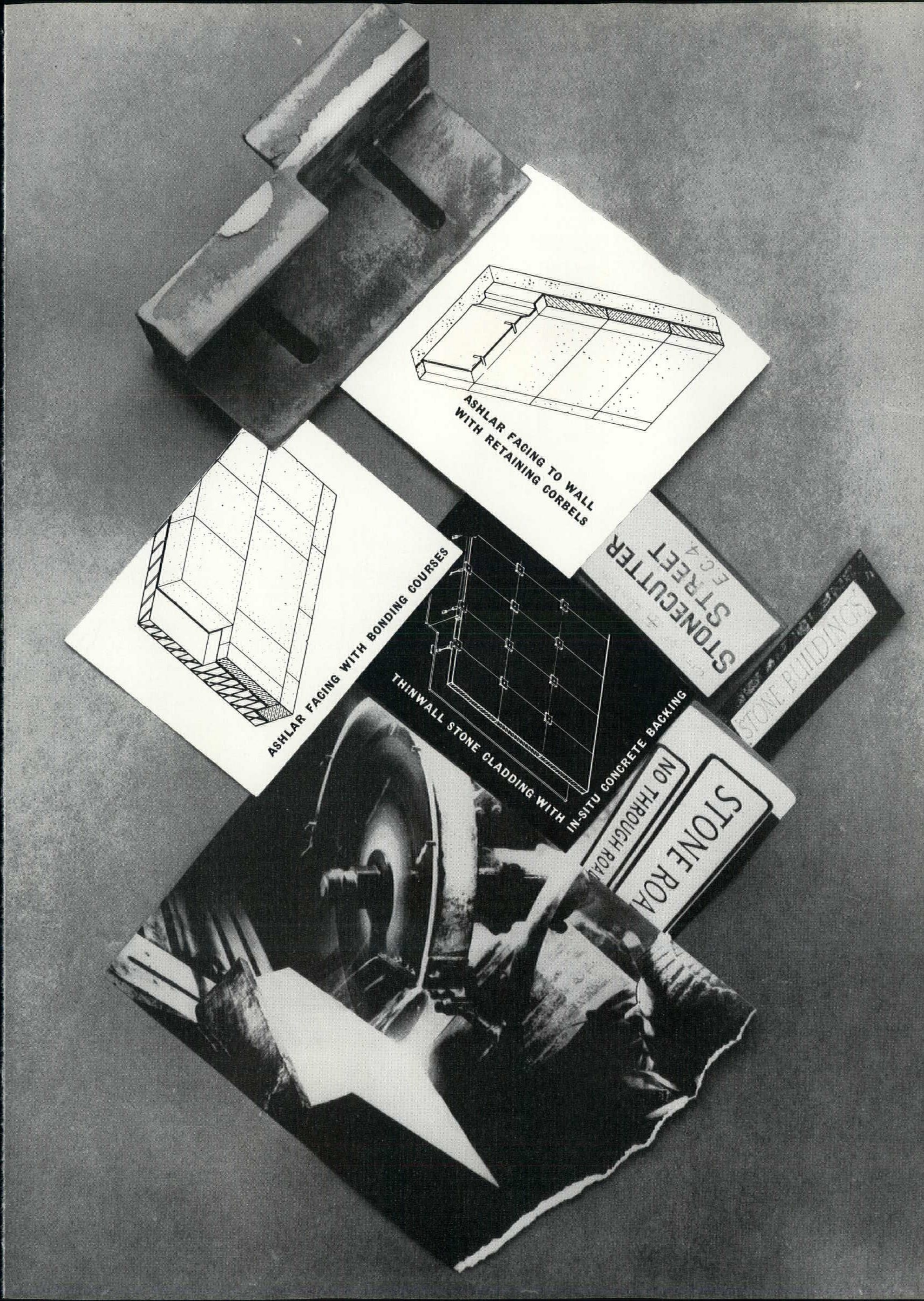
Stone, one of the oldest, probably the finest, certainly the most universally appropriate of building materials is passing through a revolutionary phase of research and development . The applications it now presents, the potential it reveals, are so extensive as to warrant the closest possible study.



Stone
A RE-APPRAISAL

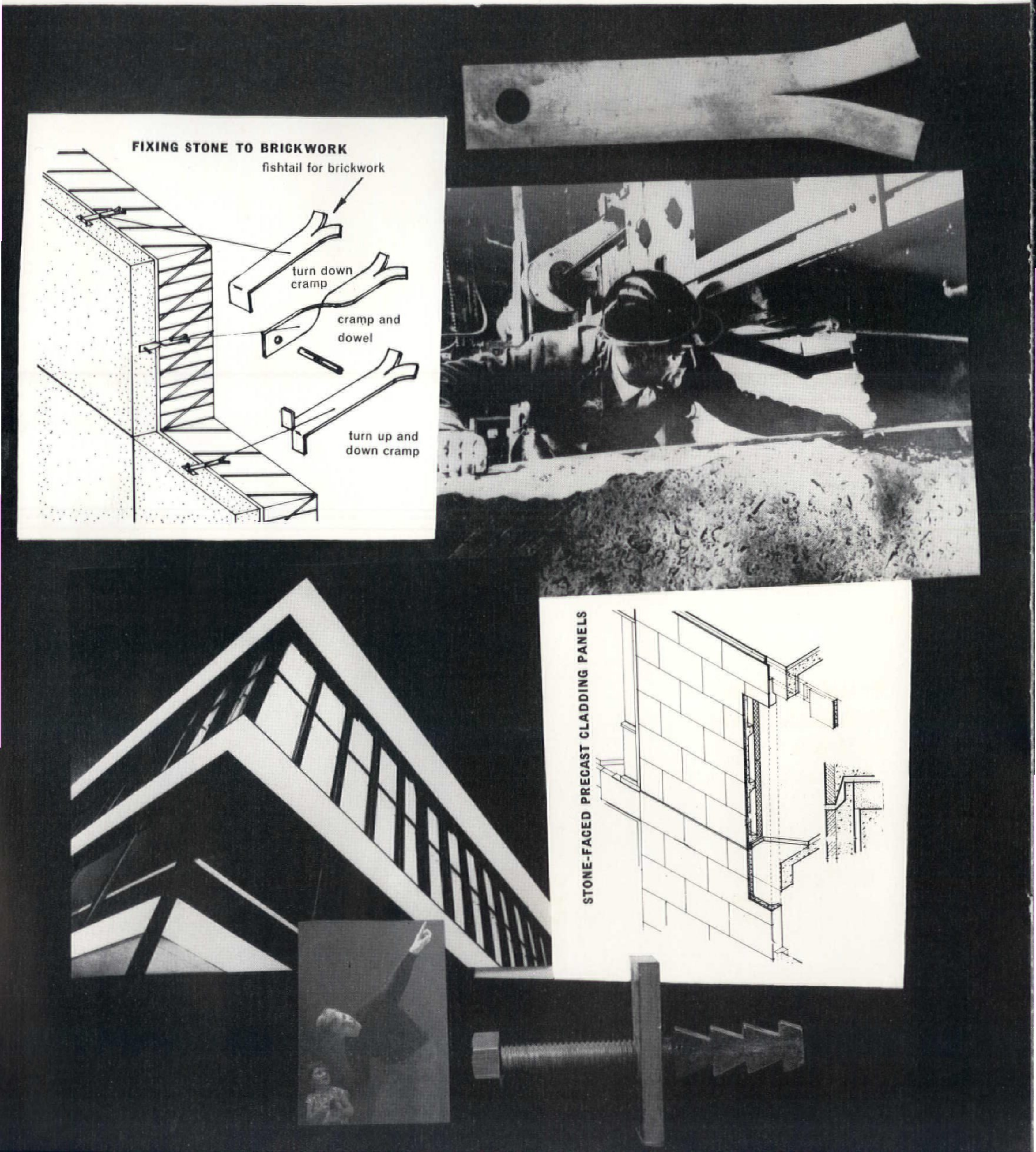
Stone has become a modern material geared to a modern industry. It is cut at high speed and to precise tolerances, it can be worked on automative assembly principles, it can be given machined patternings. It can be rapidly erected. And it is the subject of extraordinary developments, which include: pre-cast storey-high stone faced panels, stone units utilising sandwich techniques for high thermal resistivity, direct epoxy resin bonding, in-situ self-shuttering thin-wall developments . . . and *stone in workable thicknesses down to $\frac{3}{8}$".*




ASHLAR FACING TO WALL
WITH RETAINING CORBELS
ASHLAR FACING WITH BONDING COURSES
THINWALL STONE CLADDING WITH IN-SITU CONCRETE BACKING
STONECUTTER
STREET
E C 4
STONE BUILDINGS
STONE ROA
NO THROUGH ROA

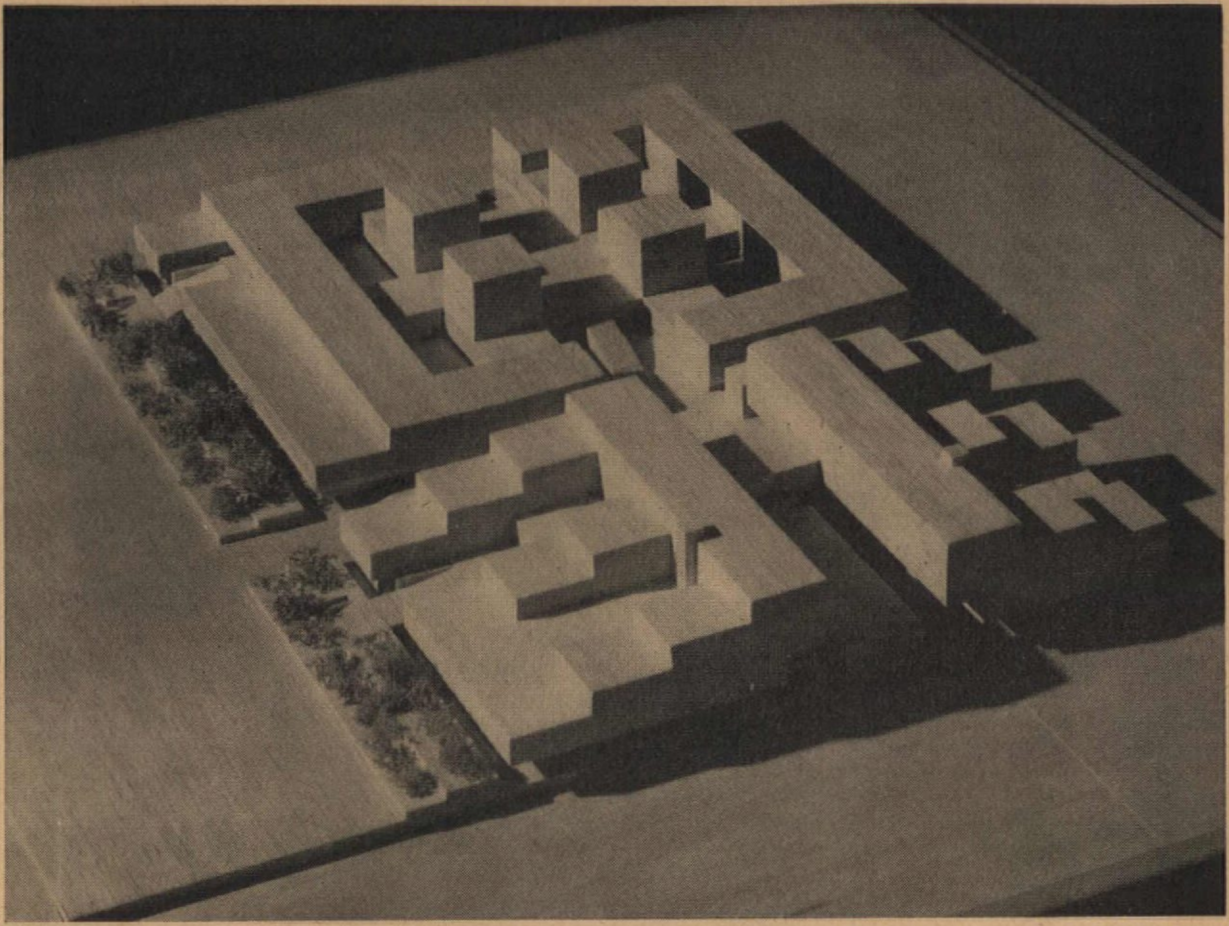
PARADOX

Today an architect may, if his client wishes, design in stone in the solid, using the time-honoured techniques which stem directly from classical antiquity . But if he designs in brick or reinforced concrete with stone as a cladding material a quite different situation exists . Paradoxically this, the modern application, will call for fixing techniques which, even in ten years, have changed quite radically.



UK news

Diana Rowntree



1

"The architect and the community" Glasgow '64

The toast to 'the Press' at the RIBA Conference Dinner, and the answering speech by the Editor of the *Guardian*, can be compared to the signing of the contract in a major work of communication. Sir Robert Matthew asked not for an unpaid public relations officer but for informed criticism from the Press. Mr. Hetherington's speech showed understanding both of the real importance of environment and of the comprehensive nature of the architect's job. It is often said that the RIBA Conference ranges too widely. How can it, when to survive the profession must expand its whole thinking and functioning? At Glasgow Anthony Goss and Arthur Ling examined in concert the relation of architect and planner. Hugh Wilson took up the educational implications, while Sinclair Gauldie tackled the central mystery, 'the Impact of Architecture' on the sub-conscious mind. Hugh Wilson reported that the Board of Architectural Education is having difficulty in deciding to what extent the profession can safely be expanded without fear of unemployment in future generations. The answer seemed to be that while, on a national basis, over-expansion might be conceivable, on a world basis there is no foreseeable limit to the number of architects needed. Now is the time for architects to give the Board their views on educational questions.

Further aids to public understanding are *the Intelligent Voter's Guide to Town and Country Planning* (T & CPA), and Penguin Books' shortened version of the Buchanan Report, which is to have an introduction by Sir Geoffrey Crowther. The first gives a fair showing of the declared intentions of the Conservative, Labour and Liberal Parties on planning, land use, towns and traffic. The Penguin should help the citizens to assess what the government has done to implement planning according to Buchanan principles. The answer is almost nothing. According to Sir Robert Matthew the Report is in danger of being buried under a mountain of praise. This is particularly ironic in view of the loving care with which the Glasgow Conference considered Lord Esher's detailed study of 'Preservation After Buchanan'. The Penguin should clearly be compulsory reading for MPs. Mr. Selwyn Lloyd's proposals prove that even the brightest of them succeed in ignoring not only the basic facts of twentieth-century planning and aesthetics, but even an important mechanical invention called the Motor Car. The house is actually engaged upon the Battle of the Styles, which even the most pessimistic historians believed to have ended with the First World War. Normally this other-worldliness would not surprise us, but it was announced only on April 20th that Sir Leslie Martin had been appointed consultant for the Whitehall area. Does this area not include the House of Commons?

Science buildings 1

Sir Leslie, who has yet to make his impact on Whitehall, has made a break-through in the design of science buildings. The problem can be summarized as Flexibility versus Servicing. Flexibility is called for by the nature of the scientists' discipline, which involves discovery. Yet the apparatus of discovery includes dangerous voltages and fumes as well as a jungle of ducting and wire. For Oxford, Sir Leslie has designed linked departments for Psychology and Zoology, in which he will test the validity of a system of repetitive cells. Forty feet square units, always separated laterally by a space ,for vertical service runs, can be assembled into ground floor spaces of any required dimensions. By massing the cells in stepped form top-lighting can be brought into upper storeys wherever it is needed. In the Oxford example the two departments will share circulation space, lecture rooms and one laboratory. Further extensions with the same kit can produce entirely different buildings. The design group at the Ministry of Health has produced its first design for a complete hospital. The new District Hospital at Greenwich can offer 800 beds on a site of less than 8 acres. Sterilization, laundry, and nurses' flats will, however, be on different sites.

2

Appointments 2

Chief Architect to the Ministry of Education, to carry on Anthony Pott's good work, will be Dan Lacey from Nottingham. President of the RIBA 1964–5: Sir Donald Gibson.

Publications

World design science decade 1965–75

Document 2. Phase 1 (The Design Initiative) is now published, and obtainable from James Meller, 14 Upper Berkeley Street, London, W.1. Document 1 was announced in *AD*, October 1963, and reviewed December 1963 when it was named *The Book of the Year.*

Zoom, a novel architectural magazine for those whose minds are in a 'Go' condition, is published at 59 Aberdare Gardens, London, N.W.6

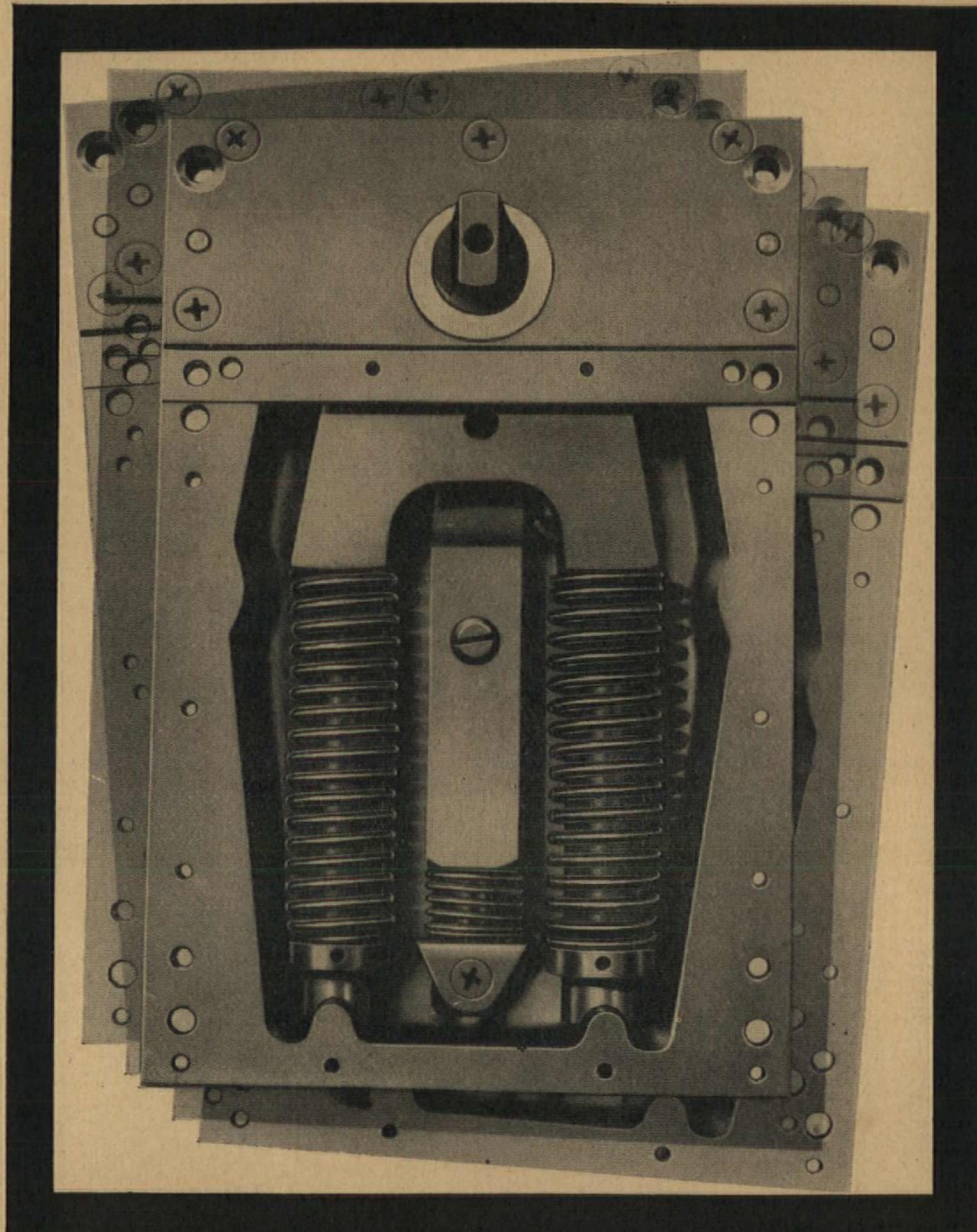
Building Research Station has published a technical statement on 'Assisted Resonance for Concert Halls'.

Ministry of Health bulletin on *The Design of Children's Wards.*

Cambridge New Architecture, a highly professional guide to projects, published at Trinity Hall, realized and unrealized from Gropius' scheme for Christ's College 1937 to James Stirling's History faculty, now under construction.

Not to be missed—Peter Carter's interview with Mies van der Rohe in the spring number of *Twentieth Century.*

continued on page 260



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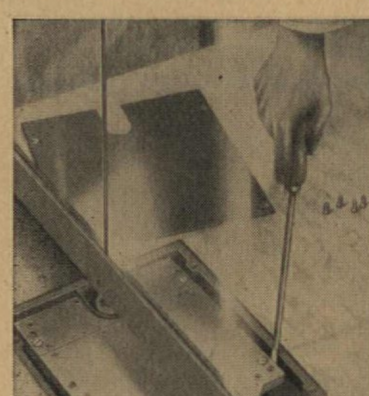
The 'Adjustabox' is available for Newman's Monarch, Britannic and No. 900 Floor Springs.



NEWMANS *Makers of the famous Briton Door Closer*

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continued from page 259

Gulbenkian Tate exhibition

The Gulbenkian exhibition 'Painting and Sculpture of a Decade. 1954–64' at the Tate Gallery owes much of its success to lavish architectural support, in the form of the Smithsons with £10,000 to spend. They expressed the exuberant comprehension of the selectors, Philip James, Alan Bowness and Lawrence Gowing, by looping up the exact amount of space required by each 'constellation' of artists by means of a continuum of white wall. The usual nightmare flatness of Tate fluorescent they replaced by bunches of tungsten bulbs hung from metal tubing in tin boxes. Having used their eyes to good effect they decided to defy the prevailing tide of lighting technology. It was a good idea to stress the temporary nature of the arrangements if temporary they must be, but it would be a better commission to these architects to design a demountable kit so that future exhibitions could be as kindly served.

AA President 6

Leonard Manasseh has been elected President of The Architectural Association for its 118th session commencing June 1964.

Somerville College, Oxford 5

The new Graduate block at Somerville College, Oxford, by Philip Dowson of Ove Arup & Partners, is now complete structurally. The structural frame has been brought outside the building to give the depth and shadows that are a feature of the architecture in that stone city, and, from the outside, very fine it looks. Soon we shall be able to get inside and assess the extent of the sacrifice demanded of those graduates whose view includes a piece of structural frame.

Ulster Museum competition 1–4

The Ulster Museum competition has produced at least six entries of a standard to re-establish the tottering esteem of the competition system. The problem was very difficult, since it entailed completing the classical winner of a competition held in 1912. One cannot help envisaging a new Foreign Office building designed to this standard. The assessor, Sir Leslie Martin, recognized three types of solution:
(1) The attempt to integrate the new design with the old;
(2) integration of the plans but the establishment of a clear break on elevation;
(3) reliance on contrast between old and new.
The winner, Francis Pym (method 1) **1** planned his addition as an ascending spiral. Externally he has produced a pattern of horizontals subtly in scale with the old building, and plans to mix the concrete to match the colour of the existing stone. Inside he intends to use concrete blocks both for partitions and as shuttering to the structural walls. Dark ceilings will produce a simple pattern.

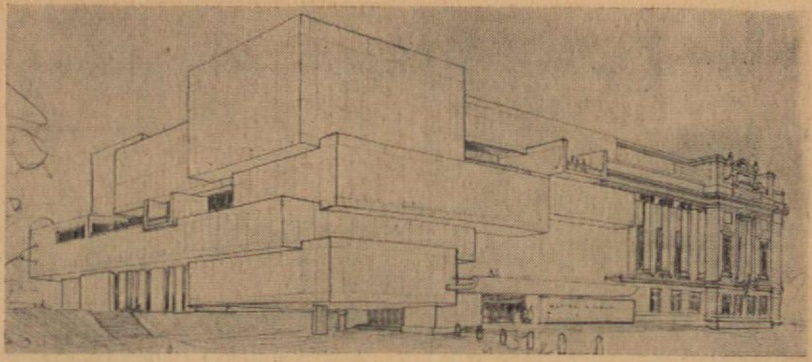
The second prize was shared between three entries all elevationally more exciting than the winner. John C. Randall **3** made a clear division between gallery, storage and administration areas, with the individual spaces three-dimensionally expressed on elevation. Frank B. Harvey and Ron Herron **4** echoed the verticality of the classical façade by means of magnificent drums enclosing the various spaces, and delineated their lifts and stairs as towers. Charlotte Baden-Powell and Albert Ponis **2** did far the best by the existing building, without conceding a jot of the modernity of their own design. They carried on the existing cornice line to complete the cube, and extended the background plane. Whereas the rustications and orders appear in the existing façade as decoration applied to this skin, it is the voids that indicate the spatial content of the new building. They have also made a very successful attempt to relate the form of the park outside to their interior planning.

Three other schemes were commended with good reason; Gordon Bowyer's framed box, a striking essay in classicism 1964 by Robin Clayton and M. E. Martin, and a modern scheme by Napper, Errington, Lee, Barnett, Allott, that managed to repeat some linear characteristics of the old museum, though not its cornice line.

Livingston New Town housing 7

The very mixed development at Livingston new town should start to rise above the ground a year from now. Peter Daniels' scheme is to be carried out in Laings 12M version of the Jesperson system. Work is to start on the factory for components, to be built on land leased from Livingston Corporation, next month.

6



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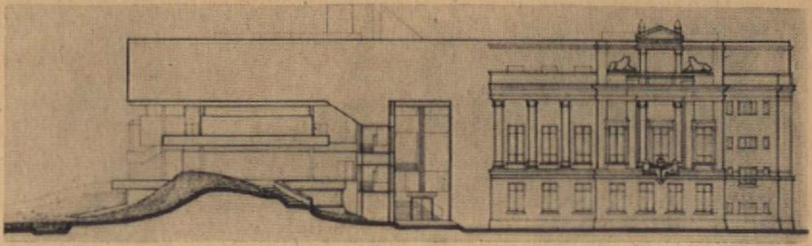

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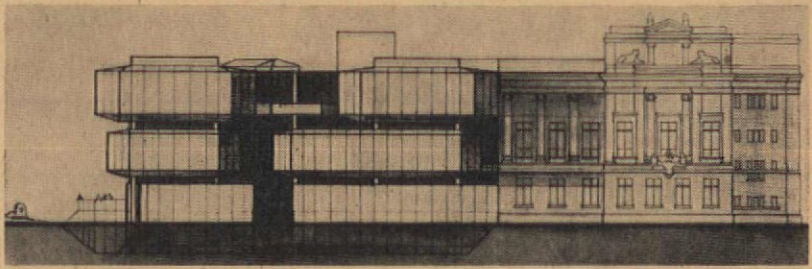

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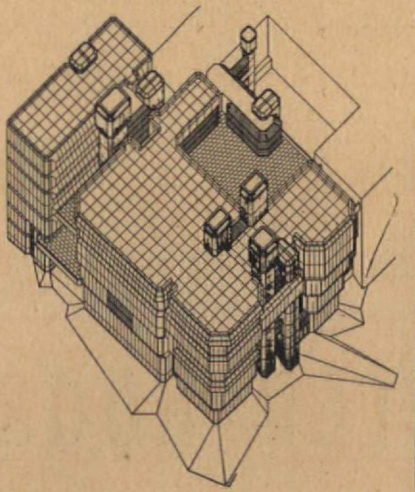

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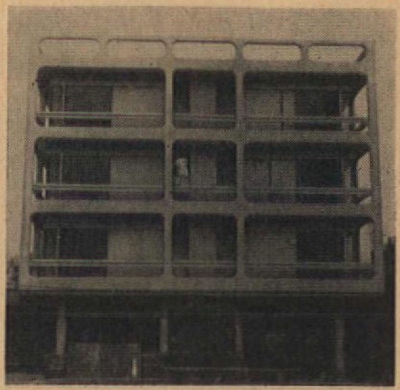

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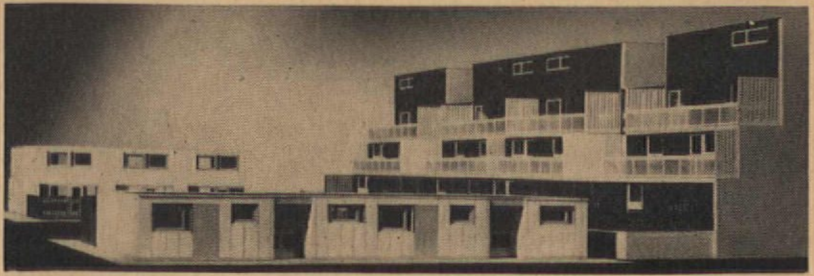


World news

France

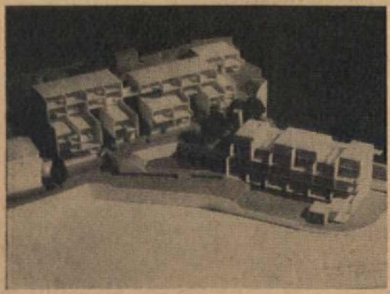
Flats, Paris 1

It is refreshing to find a French architect, indeed a Parisian, who is capable of putting up buildings made ostensibly of one material. In effect Pucinelli is a dedicated neo-plastic architect of considerable talent. Here we have an architecture envisaged early by Van Doesburg, and later developed by ATBAT Afrique and André Studer. Critics of the opacity of most modern façades such as Joost Bajlieu will surely welcome this work.

1

Housing Villefranche 2

Michel and Nicole Antheman have attempted in this housing project for Villefranche to produce an architecture sympathetic to the morphology of the site and the surrounding landscape. One block of these houses is a series of living units with garden terraces set into a hillside. The other block is deliberately set at an angle, thus making a reference to a swimming pool lying between the two blocks. This pool forms the core of the scheme, making an urban image reminiscent of the old villages of the Haut Vars.

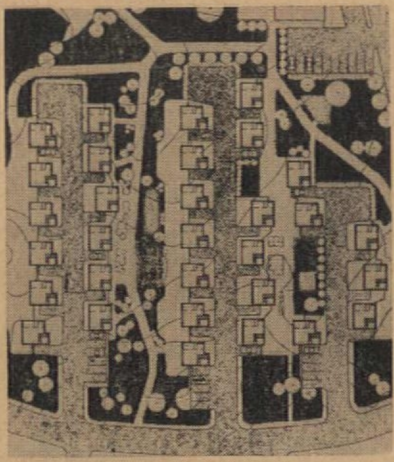


2

Sweden

Sundbyberg town 3–6

The April issue of *Architectural Record* publishes an extensive feature on the work of Markelius. Of particular interest is his recent project for the development of the Ör area of Sundbyberg, one of Stockholm's satellite towns. This project is distinguished by the manner in which Markelius has housed the whole 12,000 population in single family houses on two levels. These single family houses provide accommodation not dissimilar to Markelius's own house of 1929, but they are interlocked in an ingenious manner and built out over ground level pedestrian routes to achieve a high density.



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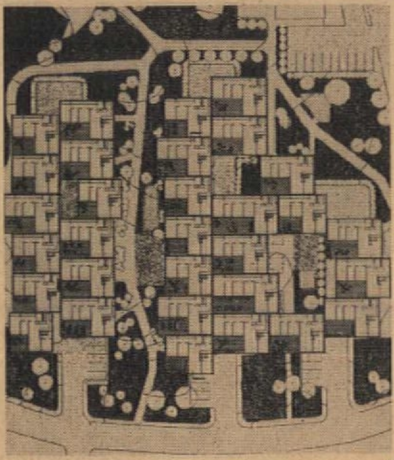

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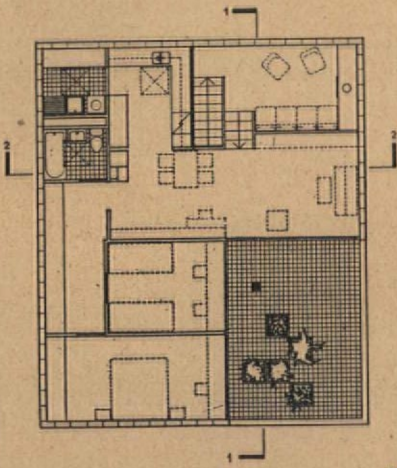
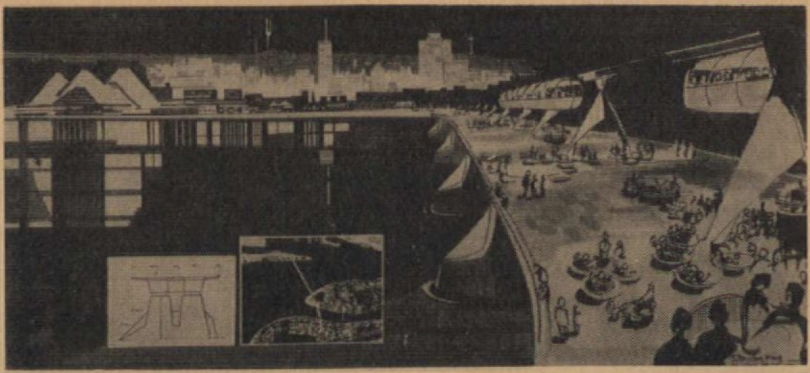


5

Austria

Tower 'greenhouse' 8

'Mechanization', having taken command is certainly here to stay, but all the same it is slow in entering certain fields, horticulture being one of them. Since October last year when a 65ft high tower glass-house was built at Langenlois, 50 miles from Vienna, things (this time plants) have been on the move. The principle is a glass tower of theoretically unlimited dimensions, which houses a series of vertical conveyor belts. The plants are grown in pots secured to belts which are kept constantly on the move, and thus subject the plants to continual variations in light and shade. These variations appear to be beneficial to the growing process, and at the same time facilitate heating, etc., save labour, improve control and enable crops to be taken all year round at pre-fixed dates. In short, one more system has been devised for practically augmenting the extent of the earth's surface. Our illustration shows a 130ft high tower, with a growing area of 10,000sq. ft, built for the 1964 Viennese International Horticultural Exhibition. The engineer and patentee of the system is O. Ruthner of Vienna.



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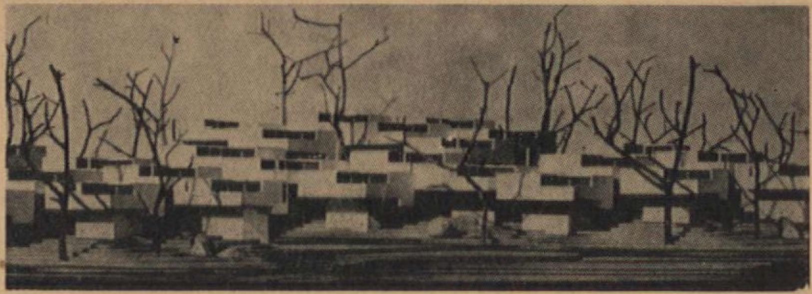

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8

World Exhibition 1967 7

The first tremors are beginning to come through of the Canadian World Exhibition which will be held in Montreal from April 28th until October 27th, 1967. This will be the third (world) exhibition of the category sanctioned by the International Bureau of Exhibitions; the others were Paris in 1937 and Brussels in 1958. The first structure to go under way is a 2255ft span orthotropic steel plate deck bridge linking the Mackay Pier on the Montreal waterfront, with the Île-St.-Hélène.

The bridge will handle six lanes of traffic or various combinations of traffic lanes and rapid transit systems. Its designs will therefore accommodate a variety of possible traffic contingencies before, during and after the exhibition. With four piers in the water carrying three spans of 525ft and two of 340ft, it will be the longest orthotropic steel plate deck bridge in the world and the first of its type in Canada. Its width will be 94ft. The orthotropic design was chosen because the water flow is very rapid in this part of the St. Lawrence river and it was considered necessary to use a minimum number of piers for the crossing.

The final road surface needs only 2in of asphalte laid directly on the steel deck, saving the dead weight of 6 to 8in of concrete. In addition to carrying the live load on the bridge, the deck plate acts as the top flange for both the longitudinal stringers and the cross beams. Construction of the substructure is scheduled to begin on May 1st and to end on November 1st of this year. It will finally be completed by the end of the summer of 1965 and will then link all three sites of the exhibition, i.e. Mackay Pier to the already linked St. Lawrence islands of St. Hélène and Notre Dame. During Exhibition hours no transport other than the rapid transit system will be allowed on the bridge. Until then, however, it will


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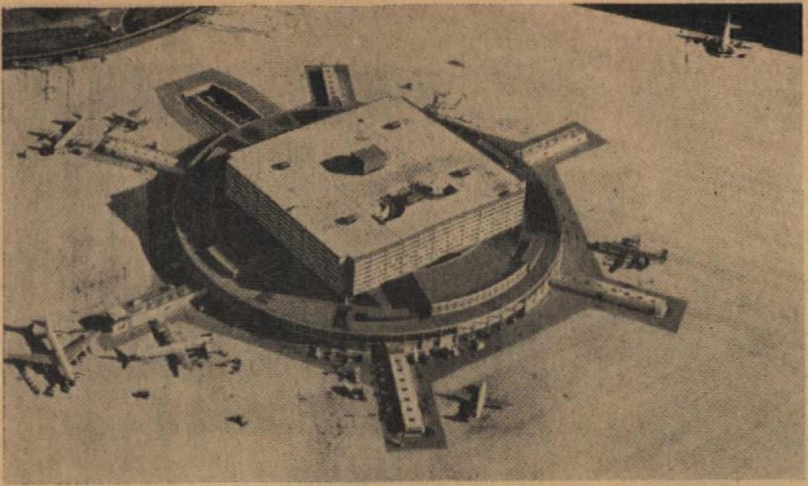

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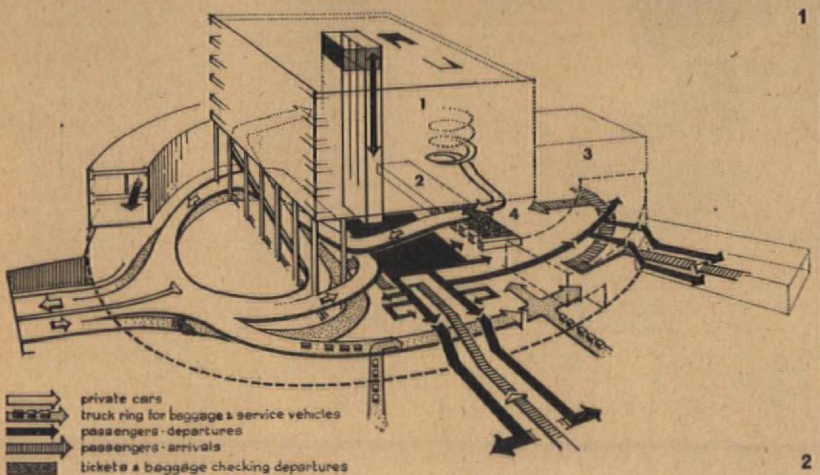


2

be a main access route to the island for construction vehicles. A transit system such as the one shown here may be chosen as the solution to the problem of carrying 30,000 people per hour in each direction over the three-mile Exhibition route. The top left-hand corner of the picture shows the Mackay pier, with the 'habitat' exhibition buildings as they will appear when built.

Canada

Toronto Airport **1, 2**

Since Charles Eames produced his study film for Washington Airport, and since the airport itself became an operational reality, the whole principle of a centralized airport building with a direct link to all aircraft has become a highly debatable concept. The beauty of the Washington idea lies in the increased mobility, convenience and flexibility which a mobile lounge immediately confers. The one problem still to be solved is that of perfecting the telescopic link between the lounge and the aircraft. Despite this technical problem, Washington remains a hierarchical rational solution to the problem of an expanding terminal. Toronto Airport, on the other hand, by Parkin Associates, is the centralized fixed size terminal *par excellence* (i.e. circular) and hence it is in principle no solution at all to the inevitable problem of expansion.

However much this ingenious, multilevel solution may consciously avoid the essentially limitless linear expansion of a Fiumincino or an Orly, the fact remains, even on paper, that once this terminal airport is choked, it will be time to build another, identical structure right next door to it.

The Canadian Architect, February 1964.

USA

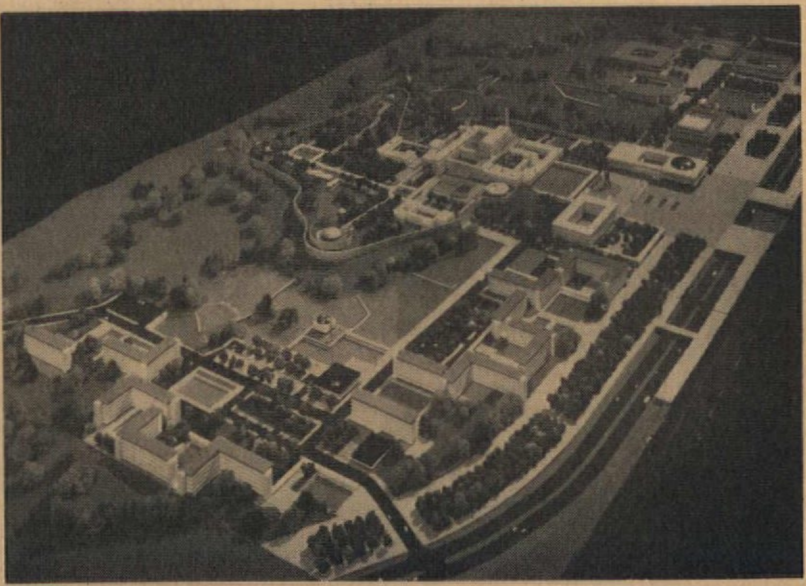
Mailer *vs* Scully

Norman (Advertisement for Myself) Mailer having passionately divested himself of his *obiter dictum* on contemporary architecture, several months ago, in the pages of *Esquire*, now finds himself faced up against the gentle wit and balanced perception of Vincent Scully Jr. in the April issue of the *Architectural Forum*. It is a strange world indeed, that finds a self-styled hipster and the late Sir Albert Richardson holding virtually the same views *vis-à-vis* contemporary architecture. One seriously wonders whether they are not a joint manifestation of similar discontents lying latent within the whole body literate. Naturally, apart from reflections, there is not much for a writer in a SOM façade, but this is not the essential point. It seems that notwithstanding all his blather about 'totalitarianism'—nothing short of an everlasting Gothic Revival beginning now, will see Mailer happy. Mr. Mailer's universal panacea is that apparently we all need to be culturally wounded in our childhood and beyond by the forms of past, up to, say, *circa* 1900. Presumably any 'past' after the date is to be eschewed as pseudo and if there isn't sufficient of the genuine crepuscular past for all of us, then we had better mass-produce it for the good of our undeniably romantic, needy, and masochistic souls (c.f. Stalinism). As Vincent Scully writes, Mailer's argument—'a high school can survive in a converted cowbarn', surely provides us with an answer for everything or at least Scully with an opportunity for a little quizzical anecdote about George Howe. Howe, having become sick while attending the Boston Opera at the tender age of eight, was taken out and straightened out by a female relative who subsequently reprimanded him as follows, 'George, you must learn that everything worthwhile in life takes place in nauseating surroundings!' The moral is, as Scully points out, 'A little horse-shit never hurt anybody. Look at Mailer!'

Pakistan

Islamabad plan **3, 4**

Out of Doxiadis Associates, by Sir Robert Matthew, Johnson Marshall and Partners in association with Percy Johnson Marshall, comes this plan for the administrative sector of the new capital city of Pakistan. As with other capital cities recently created, it is already accredited with top design talent particularly with regard to certain individual buildings. Louis Kahn is to design the President's house, Arne Jacobsen, the parliament house and Gio Ponti the secretariat. The autocratic tendencies of the administration seem to be reflected in the plan. The President's house and garden occupies a central position and a land area almost six times that occupied by the Parliament House. The plan is ingenious in the placing of car feeder roads, in such a way as to provide a continuous pedestrian esplanade, extensive in both width and length, throughout the whole of the centre. All the same the resultant architectural massing is somewhat disappointing; only the Secretariat shows any potential for massing up into a continuum appropriate to the scale of the centre; this and the President's house both afford definite form to the scheme while the supreme court and the parliament building at the SE end are extremely loose in their composition. The factors influencing the design of the Administrative Sector were as follows; firstly the highway pattern as designed by Messrs. Doxiadis Associates; secondly the existing contours and levels of the site; thirdly the grouping of distinct functional elements, and finally the basic principle of traffic segregation.



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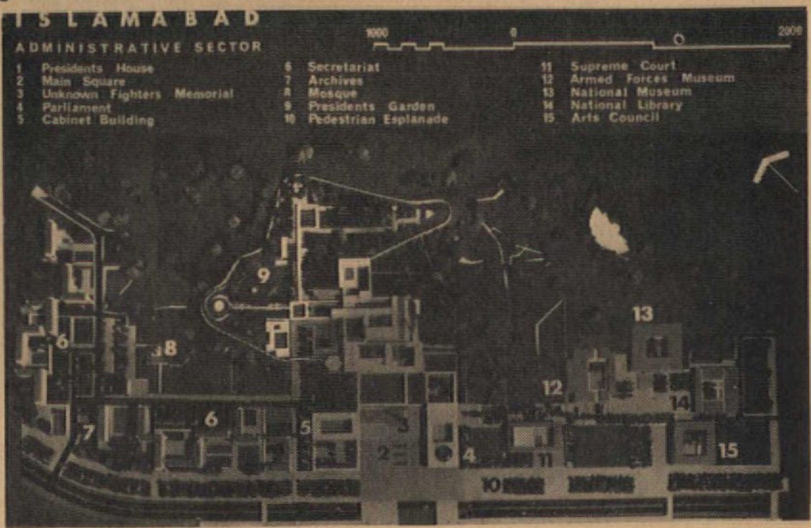
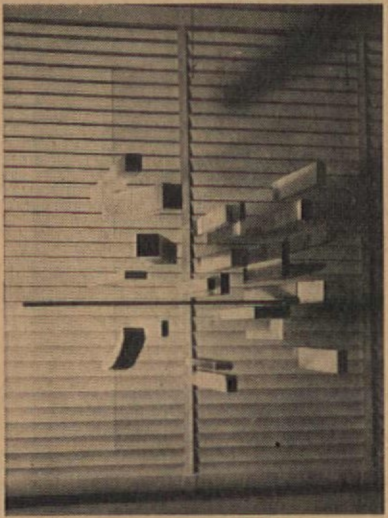


4

Art

Victor Pasmore

When in 1947 Pasmore, for the second time in his career, turned to abstraction, this transition was referred to at the time by Sir Herbert Read as the greatest single event in the history of post-war British art. In the 1940s and 1950s abstraction and figuration were thought of and considered as two rather distinct types of art. It was difficult to accept the fact that what Pasmore was doing at the time was simply to approach his subject matter in a different way. The atmosphere and light evoked in his views of the Thames at Chiswick in the early



1

forties, assumed a different form in his constructions of Perspex and Formica ten years later, although the quality of light, the relationship of forms, were essentially the same. The difference between figuration and abstraction discussed at the time seems to have shrunk remarkably during the past few years, even to the point of becoming irrelevant. This is mainly due to the fact that many recent figurative works stem from obviously abstract concepts or beginnings.

A similarly mistaken distinction has been drawn between Pasmore's characteristically geometric constructions and his very lyrical paintings done since his last exhibition three years ago. Recently he has been painting more, and today his paintings and constructions have an equal importance as a creative activity in the entire procedure to which Pasmore refers to as the organic developing process of a work.

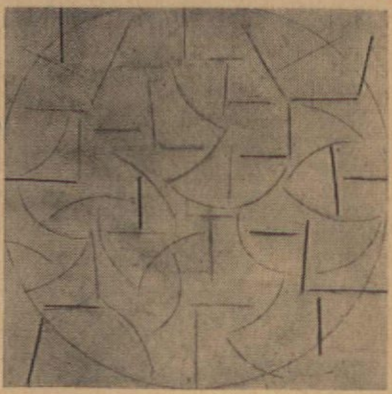
He has often said that both his paintings and constructions are the result of a theme developed organically, i.e. starting with rectangular piece of wood the evolving work will be an orthogonal construction, whereas starting with a round spot of colour with hazy edges the ensuing work will be an orchestration on that very theme. Thus the process remains the same although the result is always different. What Pasmore determines is the starting point and not the result. The beginning—the choice of the first element from which the work will grow is completely neutral; it can give little or no indication of the sort of personality and individuality of the finished work. In this way Pasmore is able to achieve a great variety of images by exploring a single theme or idea.

His exhibition at Marlborough New London Gallery (during June) includes many visual ideas that could be traced as being a part of his vocabulary in his figure and landscape paintings, and the abstracts since.

The spiral theme which was contained in Pasmore's huge mural for the Festival of Britain in 1951, has appeared again as a linear painting; his black and blue abstracts composed of dots might have existed as details in his earlier paintings like the 'Garden in Spring', 1945; and his 'Linear Construction'—a painting composed of curved and straight lines might almost be a reference to the way the artist constructed his painting twenty years ago. From this one can see that Pasmore's development, varied though it has always been, is based on a very logical and fundamental set of precepts connecting the various streams and trends of his inventive mind.

Jasia Reichardt

2



3

1
Hanging Construction 1963

2
Linear Abstract (spiral) 1964

3
Linear Construction 1964

Planning

Population explosion in South East England

The Ministry of Housing and Local Government's South-east Study deals with the likely trends of population and employment increase over the next 20 years in an area south-east of a line from the Wash to Dorset. According to the Study the 18 million population living within this area today is likely to increase by another 3½ million during the next 20 years with the resulting major problems of land, housing, employment and transport. Nearly 2½ million of the anticipated 3½ million population increase will be by the process of natural growth, just over 1 million will be the result of net inward emigration from other parts of Great Britain to seek employment, to retire, and from overseas. Included in the 3½ million net population growth of the south-east is an overspill of about one million from the London conurbation, which it is anticipated will remain at the end of the 20-year period at about its present level of 8 million.

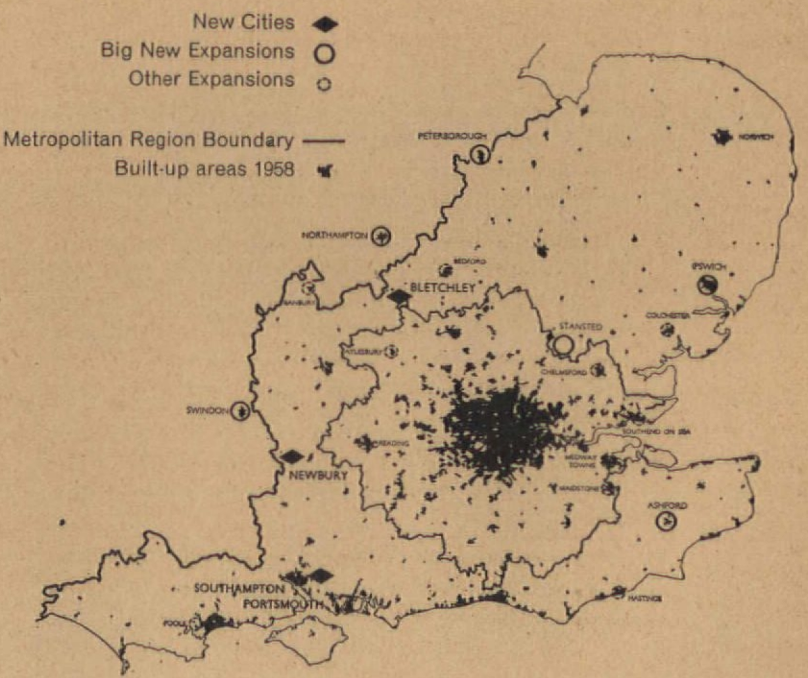
One and a half million new homes will need to be accommodated in the south-east and the Study attempts to redistribute the population growth by relieving the pressure on London and the surrounding countryside through a fresh and larger programme of new and expanded towns. Two new cities of 150,000 each are proposed (Bletchley and Newbury) and one of up to 250,000 at Southampton/Portsmouth, as well as large expansion schemes for Ipswich, Ashford, Stansted, Northampton and Swindon, besides expansions of dozens of smaller towns. The Metropolitan green belt is to be maintained and substantial additions made to it, but 'some fringe land on the edge of London might be developed with advantage or at any rate with no real loss'.

With regard to employment, the Study envisages the continuing increase of employment in Central London by about 20,000 a year which may amount to a further 200,000 jobs during the study period and as many commuters, since these new office workers must find their homes some distance away from Central London. The Study is confident that British Railways and London Transport railways could cope with this additional load of commuters provided sufficient capital is invested in the necessary modernization and changes in the pattern of railway services.

The Study and the complementary White Paper emphasizes the point that this south-east regional plan will not get under way for many years, giving the difficult regions of the north a start.

This Study, while representing a welcome piece of forward-planning on a regional scale by the Ministry, is handicapped from the start in having to deal with yet another region in advance of an overall national plan. It assumes too readily, in my view, that the present trends will substantially continue, whether or not the economic viability and the image of the northern areas is substantially improved during the period of the plan. Many problems resulting from this anticipated population explosion are left unresolved, particularly the staggering transportation problem, superimposed upon the existing congestion, which is likely to result in serious further erosion of what still remains of good urban environment in the south-east.

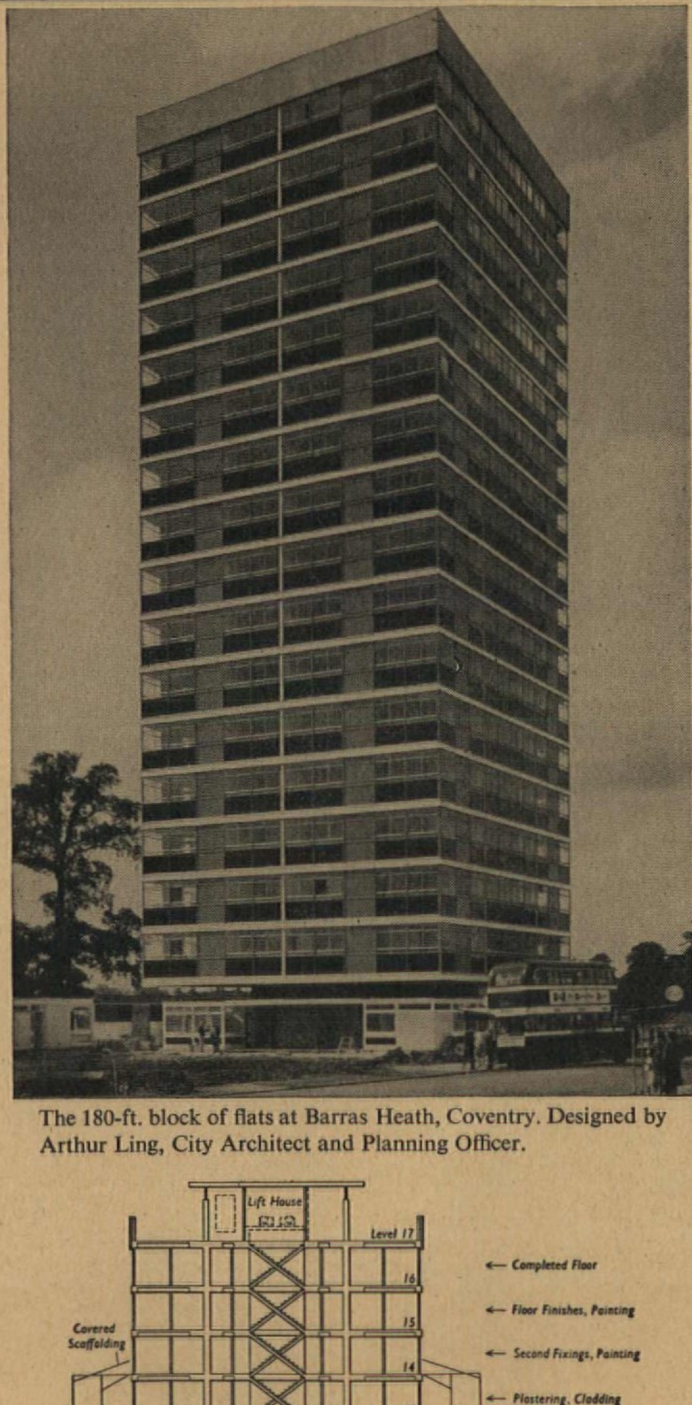
Walter Bor



ELECTRIC FLOOR WARMING

INFORMATION SHEET

29



The 180-ft. block of flats at Barras Heath, Coventry. Designed by Arthur Ling, City Architect and Planning Officer.

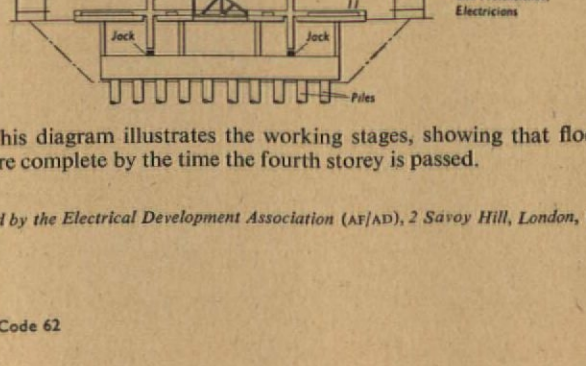
Now electric floor warming helps to make building history

BUILDING HISTORY has been made by Coventry Corporation and Richard Costain (Construction) Ltd. at Barras Heath, Coventry. They have erected this 17-storey block of flats by the new Jackblock method – this is the first time it has been used on any building in the world. And electric floor warming was chosen to heat the living rooms of the 97 dwellings.

Here are four good reasons why this form of heating was installed . . .

1. It's easy to plan. Electric floor warming is part of the basic building structure. There's no need for boilerhouses, flues, radiator points, or any of the bulky accessories that go with central heating. And electric floor warming will go with almost *any* kind of floor finish.
2. It's cheap to install. Floor warming is built in at the start. For new buildings it is the cheapest form of general heating there is – just a simple variation in the floor-laying operation.
3. It's cheap to run. There are no labour overheads. Once installed, floor warming controls itself, by thermostat and time-switch. The cables are buried in the concrete floor, an excellent heat reservoir. And floor warming takes its current at cheap off-peak rates during the night, stores heat, and gives it out during the day.
4. It's clean. Electric floor warming is modern heating at its best. No fumes, no dirt – and it's suited to *any* kind of building.

If you are thinking of installing electric floor warming, consult your Electricity Board as soon as possible. Their experience may save you worry, time and money.



This diagram illustrates the working stages, showing that floors are complete by the time the fourth storey is passed.

Issued by the Electrical Development Association (AF/AD), *2 Savoy Hill, London, W.C.2.*

Dans ce numéro

'Project Awards'*

page 268

Les éditeurs de 'ARCHITECTURAL DESIGN' ont invité des architectes ainsi que leurs clients à participer dans un nouveau programme annuel de 'Project Awards' qui fut le premier de ce type au Royaume Uni. Le triple but de ce prix était: d'encourager par moyen d'un concours un standard d'architecture plus élevé dans ce domaine; donner une reconnaissance publique au travail des architectes relativement inconnus: et de présenter une évaluation des tendances architecturales au Royaume Uni aujourd'hui.

Le projet est ouvert à tout architecte diplômé du Royaume Uni et les prix sont adjugés sur des projets encore au stage de dessin à la date d'entrée. Les dessins soumis peuvent être de n'importe quelle catégorie de bâtiment ou groupe de bâtiments.

Les chefs de jury cette année étaient Theo Crosby, Ernö Goldfinger et Denys Lasdun et de 192 dessins soumis à leur scrutiné, ils ont choisi pour le 'Grand Project Award' celui pour le meilleur dessin, et cinq autres prix pour dessins de catégories différentes. Ils ont également choisi trois dessins pour recommendation spéciale. Les recommendations sont adjugées selon les besoins du client, la solution conceptuelle et technique.

Cité Radieuse, Briey-en-Forêt, France

page 292

La quatrième et dernière Cité Radieuse par Le Corbusier située dans l'Alsace, au nord-est de la France, bien que les plans étaient faits en 1953, n'était completée qu'en 1961. Elle est, non inopinément, moins similaire en apparence au modèle Nantes Rezé de 1955 qu'au celui de Marseilles. Composée de 339 appartements, la cité est plus petite que celle de Marseilles (350 appartements) mais plus grande que celle de Nantes avec 294 appartements. Elle en diffère par raison de sa location rustique et le fait que les appartements sont loués au lieu d'être vendus. Sa location est au milieu d'un bois d'hêtre un peu plus d'un kilomètre du centre de Briey, un petit village pittoresque à origines romaines, 50 Km. au sud du Luxembourg et 30 Km. au nord-est de Metz. La location y était choisie afin de donner aux ouvriers industriels un endroit qui puisse contraster la fumée, la saleté et le bruit des heures de travail. Le bâtiment est orienté dans une direction nord-sud. Le bloc est composé de 17 étages reposants sur 51 piloti. Les encombrements sont 110 m. de grandeur, 19 m. de largeur et 62 m. d'hauteur. Il y a 339 appartements qui varient d'une à huit pièces (sans compter la salle de bain) qui sont placés le long de six corridors artificiellement éclairés. La présente population est de l'ordre de 1350, dont 400 ouvriers, 300 autres adultes et 650 enfants.

Le bâtiment est construit du béton armé, à balcons et escaliers en éléments préfabriqués. Il y a trois échelles de sauvetage. Le chauffage s'effectue par le sol, par moyen d'une installation de chauffage du quartier qui donne une température de 18°C. a l'intérieur quand la température dehors se baisse en dessous de 15°C. Les étages sont servis par deux ascenseurs à 16 personnes. Les sols sont chauffés et recouverts de caoutchouc insonorifique. Les murs et les plafonds sont en plâtre brut. Les intérieurs ainsi que les balcons sont peints dans des couleurs choisis par Le Corbusier lui-même. Ces couleurs ne peuvent pas être changés. Les parois intérieures sont fabriquées en contreplâqué verni. Les cuisines sont toutes situées soit au dessus, au dessous ou à côté de la salle de bain afin de permettre d'incorporer tous les services dans un seul canal vertical à chaque côté du corridor. La parois contreplâquée entre les deux chambres avoisinantes est fabriquée sous forme d'une porte à coulisse. L'étendue de la cuisine, à l'interieur, dont la salle de bain et la toilette sont separées, portent une ventilation à extraction forcée, ainsi que les six corridors principaux. Tous les canaux d'installation verticaux sont groupés dans un conduit technique en dessous du premier étage. La disposition des ordures est accomplie par moyen d'un dévaloir avec une aperture située dans le hall. Les ordures sont centralisées dans une boite à ordures suspendue en dessous du bâtiment que l'on évide journalièrement.

*Prix pour la competition de projets.

En este numero

Proyectos Premiados

paginá 268

Los editores del 'Architectural Design' convidaron unos arquitectos con sus clientes para participar en un nuevo programa anual de Proyectos Premiados; el primero de este tipo en el Reino Unido.
El objeto de estos premios es triple: para inspirar por medio de concurso un standard más alto en general, de arquitectura en todo el país; para dar conocimiento público al trabajo de los arquitectos relativamente desconocidos y para presentar una valoración de direcciones arquitectónicas en Gran Britaña hoy día.
El esquema está abierto a todos los arquitectos titulados en el Reino Unido, y los premios son dados por projectos todavía en la etapa de diseño en la fecha de entrega. Diseños presentados pueden ser para cualquiera catagoría o porte de edificio o conjunto de edificios.
El jurado est año era de los arquitectos Theo Crosby, Ernö Goldñnger y Denys Lasdun y de los 192 projectos presentados para su examen escogieron uno para el Gran Proyecto Premiado—el premio para el mejor diseño de todos—y cinco para Proyectos Premiados (de los seis premios permitidos para diseños en distintas catagorías). También seleccionaron tres diseños para recomendación especial. Los premios fueron dados en base a la solución del programa del cliente, la solución conceptual y la solución técnica.

Cité Radieuse, Briey-en-Forêt, Francia

página 292

La cuarta y ultima Cité Radieuse de Le Corbusier, situada en Alcace, nordeste de Francia, aunque fué diseñada en 1953, fué completada en 1961. Por lo tanto es más similar en aspecto al modelo de Nantes-Rézé 1955 que al bloque más anterior de Marsella. Con 339 departamentos es más chica que Marsella que tiene 350 pero más grande que Nantes con 294 departamentos. Es diferente de los dos por razón de su ubicación rural y el hecho que los departamentos son arrendados, no vendidos. Está colocada en el centro de un bosque de haya, a un kilómetro y medio del centro de Briey, una quieta y vistosa ciudad pequeña con orígenes romanas, 50 kilómetros al sur de Luxemburgo y 30 kilómetros nordoeste de Metz. El sitio se escogió para proveer a los trabajadores industriales con una protección contra el humo, la suciedad y el ruido durante las horas de trabajo. El edificio está orientado de norte a sur. El bloque consiste en 17 pisos reposando encima de 51 piloti. Las dimensiones totales son: 110 metros de largo, 19 metros de ancho, 62 metros de altura. Hay 339 departamentos, de una pieza a ocho piezas (no incluyendo la sala de baño) las cuales están distribuidas a lo largo de seis corredores centrales iluminados artificialmente. La población actual es 1350 personas: de las cuales 400 son obreros asalariados, otros 300 adultos y 650 niños.
El edificio está construido de concreto armado con balcones y escaleras prefabricados. La calefacción de entre-piso está suministrada por una planta central, diseñada para dar 18°C adentro cuando la temperatura de afuera está en 15°C bajo cero. Los pisos están servidos por dos ascensores con capacidad para 16 personas. Los pisos calefaccionados están tapados con una goma gruesa para insulación contra ruido. Las murallas y cielos no están enyesados porque salieron de los moldes del concreto. Están pintados adentro y afuera, y los balcones tienen colores seleccionados por Le Corbusier. Estos colores no pueden ser cambiados. Las murallas interiores de separación son de madera terciada banisadas. Las cocinas siempre están colocadas encima, abajo o al lado de los baños para que todos los servicios puedan ser llevados en un ducto vertical común en cada lado del corredor. La muralla de madera terciada entre dos piezas de dormir vecinas está hecha en forma de una división corrediza. El área de la cocina, el baño y lavatorio interior separados tienen ventilación de extracción forzada y también los seis corredores principales. Todos los ductos de servicio están juntos en una galería técnica abajo del último piso. La disposición de la basura es por un incinerador en el hall de los ascensores.
La basura llega a una tolva suspendida abajo del edificio, la cual se vacía diariamente.

New British buildings

Vincent Scully

During a recent visit to England I happened to see the following new buildings and was impressed by them: the engineering laboratory[1] at Leicester University, by Stirling and Gowan; the building for Caius College[2], Cambridge, by Martin and Wilson; the Economist[3], by Peter and Alison Smithson; and the housing group at Roehampton[4] by the LCC—the latter not so recent as the others but new enough to me. Like every brief visitor, I was moved by this experience to formulate a number of broad generalizations which I am glad to have an opportunity to communicate. Even worse, I was struck, like all foreign art historians from Focillon and Frey to Pevsner and Boney, by the Englishness of the whole business, a topic already well treated by those gentlemen and one with which the English themselves must by now be thoroughly bored.

Yet what struck me particularly was the fact that while all the buildings mentioned above may in the broadest sense be considered to have derived from earlier works abroad—some from the Continent, others from America—they are at the same time peculiarly themselves and at one with their English surroundings. Stirling and Gowan, for example, were said in *Architectural Design* to have been directly influenced by Wright's Johnson Wax Building. Accepting this, one should note some differences: Wright's tower has a fluidly rounded mass, a continuous surface; Leicester's is sharply chopped at the corners, chamfered back and in like a Victorian Gothic pier. Wright moves toward the soft edge; Stirling and Gowan to the sharp. The same is true in the associated horizontal building: Wright's is plastically flowing, its glass sections tubular; the light off and through them is warm. But Leicester's splendid meringue freezes up into a prismatic sea of sharp-edged, icy crystals, white as snow. Wright's building is expansive and gentle, Stirling and Gowan's taut and cutting. Wright's is also continuously spatial; its roundness is engulfing and derives from that intention. Stirling and Gowan's is toughly structural-sculptural, partly bony in the tower, generally planar elsewhere. The long diagonal axes of its glass roofs cut across the spaces within and are therefore not expressive of them, while the two crossed cantilevered volumes in the tower are indeed lecture rooms but give an athletic, not a spatial, effect; a 'handstand', the young architect, Tom Holzbog, called them. In all this, true enough, there is something of the Continent and its various Expressionisms; Poelzig was mentioned by *Architectural Design*, for example. But in my opinion there is also much that is traditionally English. The linearity has been stressed elsewhere; I feel a general violence, hardness, and sharpness, such as seems to crop up often in English work: Ely, Hawksmoor, Butterfield. There is also a rather cocky eccentricity, brilliant and slightly disquieting, which seems most English in an immediately contemporary sense, like the prose of Anthony Burgess, for instance, musically crackling with versatile menace.

Quiet Caius, with its solemn piers, represents a complete contrast; but so broad are the generalizations involved that I can call it very English, too, here because of the smallness of the scale in relation to that of the buildings with which it is most intimately connected: Aalto's Pensions Building in Helsinki and Le Corbusier's La Tourette, from both of which it partly derives, and Kallmann, McKinnell, and Knowles' Boston City Hall, which it clearly inspired. Indeed, the historically double English relationship to the Continent and to America seems almost archetypal in Caius: on one side the careless, masterful urbanity and sculptural force of Aalto's and Le Corbusier's prototypes, on the other the exploded mass scale of the American derivative; finally the rather tentatively urban, suburban-sited, tight little English building, which yet actually seems to have served as the vehicle of cultural exchange between the other two. The tentative character of Caius undoubtedly derives from the change of site and function which its design reveals: a closed mass with an interior court, ideal for the Cambridge street for which it was originally intended, less so perhaps as a dormitory on an open lot across the Cam. The submerged breakfast room is worthy of a U-boat, but the corridors and so on are subtly designed for whatever sense of spatial freedom such can afford. But there is not much interior space in the building as a whole, as there is not at Leicester either. Function has of course much to do with this, but the question persists: where are the memorable interior spaces in contemporary English work? Have English architects lost, for any number of possible reasons, the capacity to think in terms of interior volumes? Was English architecture ever very strong in that line? Despite a couple of spectacular exceptions, one thinks perhaps not. It may be that the English are somewhat embarrassed inside; like the ancient Greeks, they obviously prefer to be out and, like the Greeks, their finest spaces are exterior ones.

Like Caius, the Economist is calmer and simpler than the work which would appear to have been its prototype: Rudolph's Blue Cross Building in Boston. The platform, the court, the broadly bevelled corners, some of the detailing, all suggest such a relationship. Yet one can never think of the Economist as derivative, since it is so marvellously right in its place. Rudolph's siting in Boston is excellent; that of the Economist group strikes me as positively brilliant. The height of its tallest tower in relation to the hill slope is especially fine; it locks the whole complex to the larger earth shape of the district while at the same time preserving the intermediate street scale of the adjacent buildings. Here the relationship to Boodle's is wholly delightful, and the diagonally slanted corners come into their own both as an echo of that feature in many of the pre-existing structures round about and as a method whereby the pedestrian is led into the platform-plaza and drawn through it. With them, too, as with the substantial sections of the skeletal members, the three buildings of the complex become volumes rather than boxes and so gain enough mass to play their parts in defining the streetscape as a whole; such had probably been Rudolph's intention as well. The glass-screen-walled, thin-planed box, now ubiquitous, cannot so define a street, as Park Avenue in New York now joins many other ruined streets in proving all too clearly.

The 'Englishness' of the Economist seems to me to reside in that special unemphatic quality which is characteristic of London's scale as a whole and which enables it to take its place without strain among London's buildings. Unlike a distinguished colleague of mine, I do not believe that the Economist is unduly respectful of its surroundings, but only correctly, civilly so. It therefore seems to me to be one of the most successful examples of urban design to be seen anywhere—which means, I suppose, that it should be classed among the most important buildings of the decade, since it is obvious that design of and for the city is the most pressing architectural concern of the present time.

In that urbanistic movement the housing scheme at Roehampton surely occupies a special position. Here the relations are all with the Continent; America has nothing comparable to show. The sociological concepts upon which Roehampton is based have come under increasing attack in the past few years. Formally, too, its grouping of apartment slabs and towers in an open park has recently been brought into question. In both cases its solution is deprecated in favour of denser and in a way more traditionally urban street groupings. I should think, however, that there is surely a place for the street, especially where it presently exists, but also a place for towers in a park, especially where the latter pre-existed, so that no functioning sector of a city need be laid waste to provide the space for it.

Roehampton's derivation, at least its larger and final one, is from Le Corbusier, and the result is far more complete and stirring than that of any housing which Le Corbusier himself has been permitted to construct. In this connection there is a most illuminating study of what can only be called 'the principles of design' to be made at Roehampton, where the first campaign of building, partly inspired by Scandinavian sub-æsthetics, shows a welter of indecision in form, with too many materials, structural ambiguities, embarrassed intersections, nervous asides and so on, while the second programme clarifies and integrates everything: one material, clear structural decisions, big simple shapes, unity and confidence in the whole.

That development is a heartening thing to see. In fact, Roehampton finally becomes so clear, uncrotchety, and monumental that—despite its linearity when compared to the late work of Le Corbusier—one is almost tempted to question its Englishness, especially in terms of our beloved generalizations. But of course it is English indeed, in terms of the biggest and truest generalization of all: the English 'pact of friendship' with the land. Pevsner concluded the illustrations in his book of 1955 with Roehampton in its early stages. His instinct was exact. For me only Greece shows a comparable set of relationships—one, alas, long since gone by. But the English tradition has seemed constant and always renewable. Stonehenge, Salisbury and Blenheim all show much the same special balance between the constructed and the natural, between men and the place. All the more monstrous, one supposes, was the proletarianization of so many Englishmen through the Industrial Revolution; all the more frightful that anti-natural ugliness into which England, as leader of the Revolution, rapidly tumbled more wholly than any place else, and of which Englishmen from Morris to Lawrence soon became the most determined adversaries.

Because of all this one cannot, I think, avoid feeling the most intense emotion as the

continued overleaf

[1] *AD* February, 1964
[2] *AD* November, 1962
[3] In St. James's, London. Not yet completed.
[4] *AD* January 1959

continued from previous page

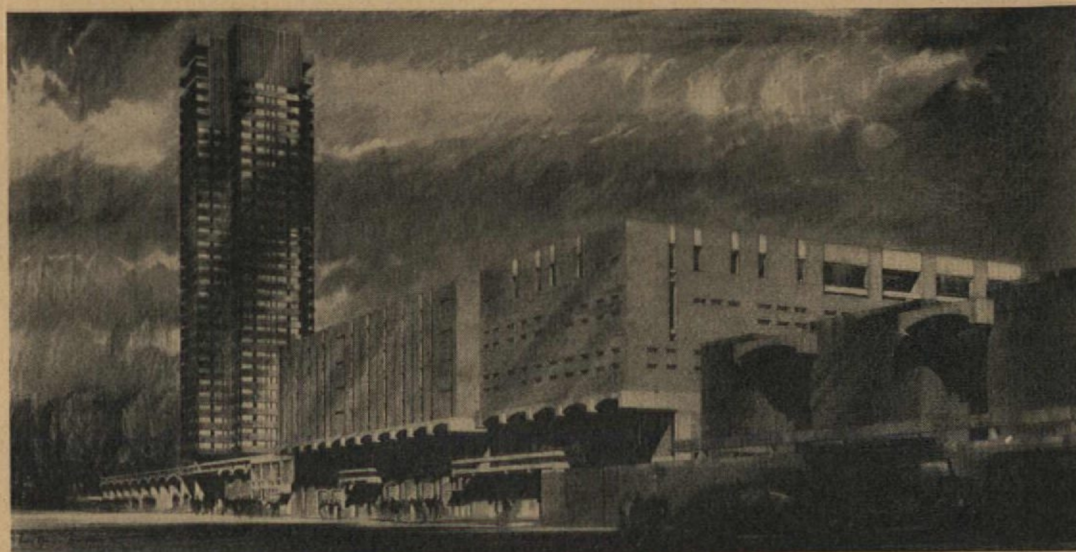
columned slabs of Roehampton step out from the crest and the point blocks rise from the hollow. Packed with people, the great masses neither overrun the park nor crowd it, but are in perfect scale with it and create an environment more noble and complete than that which existed before they came. As once temples functioned, generously enhancing the sanctity of a place, and cathedrals (English ones at any rate), and, in their own way, great country houses, so now a minimal-cost apartment grouping is enabled to act. Roehampton thus seems to me to be a telling victory at several levels: for the welfare state in general and English Socialism in particular, for modern mass humanity as a whole, which is here brought back into the only kind of contact it can have—an emblematic not a working one—with its natural heritage. Its intensely English heritage.

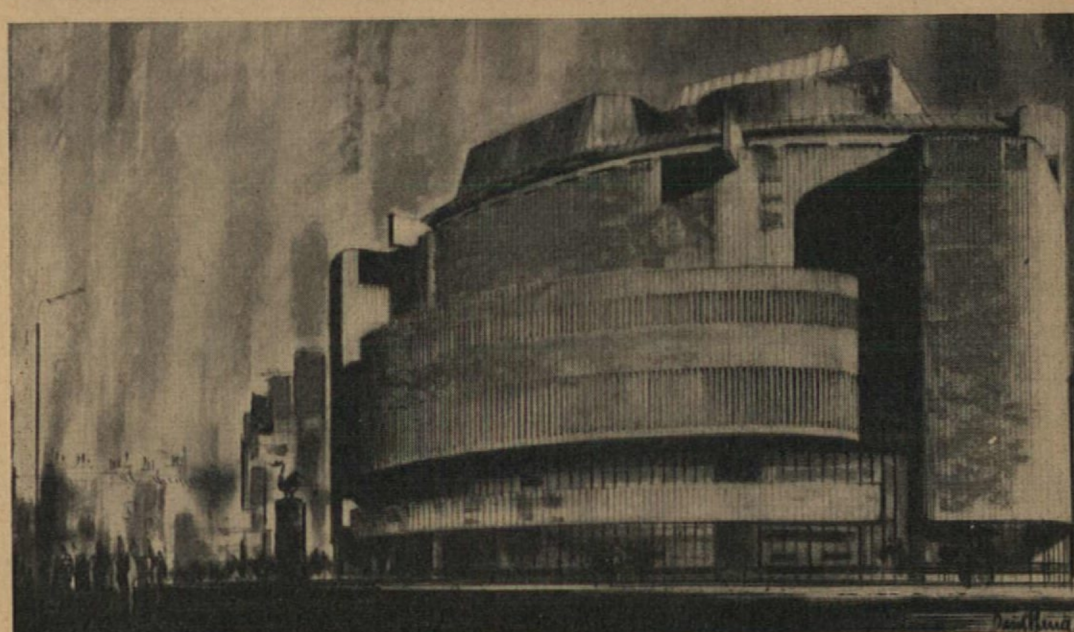
Three projects shown at the Royal Academy Summer Exhibition

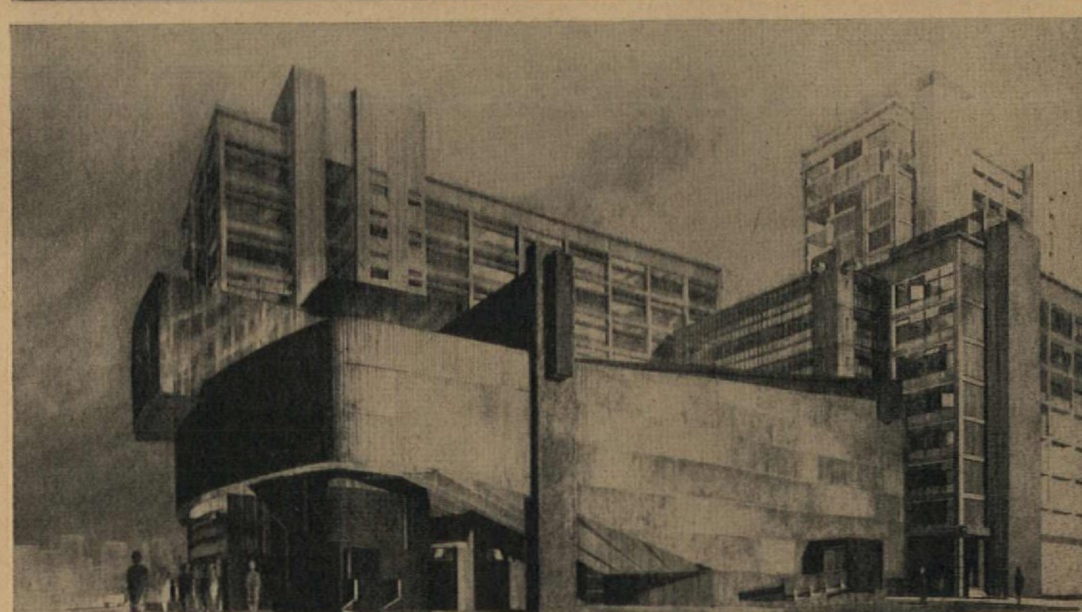
1
Proposed redevelopment of Hyde Park Cavalry Barracks, London, for the Ministry of Public Building and Works. Architect, Sir Basil Spence

2
Proposed theatre at Notting Hill Gate, London, for the Royal Shakespeare Theatre Company and the Mercury Theatre Trust. Architect, Sir Basil Spence

3
Odeon Cinema at Alexander Fleming House, Elephant and Castle, London. Architect, Ernö Goldfinger








Peter Womersley


Hubert Bennett


Frank West


Michael Powell


J. Coia


A. MacMillan


I. Metzstein


R. Walkinshaw


David Roberts


Owen Luder


Rodney Gordon


Dennis Drawbridge


Peter Phippen


David Parkes


Peter Randall

Grand Project Award

Transplantation surgery unit, Western General Hospital, Edinburgh

For the South-Eastern Regional Hospital Board, Edinburgh

Architect: Peter Womersley and assistant architect, Joseph Blackburn

Project Awards

College of architecture and advanced building technologies, St. Marylebone, London

For the London County Council

Architect to the LCC, Hubert Bennett; Deputy Architect, Frank West; Schools Architect, Michael Powell

Our Lady's girls' high school, Cumbernauld

For the County Council of Dumbarton Education Committee

Architects, Gillespie, Kidd & Coia; Architects in charge, A. MacMillan, I. Metzstein, R. Walkinshaw

New building for St. Hugh's College, Oxford

For the Principal & Fellows, St. Hugh's College

Architects, David Roberts & Partners

Charlotte Street development, Portsmouth

For E. Alec Colman Group of Companies

Architects, Owen Luder (Owen Luder, Dennis F. Drawbridge, Rodney Gordon). Senior Assistant in charge, Norman Wilson

Housing, The Ryde, Hatfield

For the Cockaigne Housing Group Ltd.

Architects, Peter Phippen in association with David Parkes & Peter Randall

Mentioned

Canteen, offices and weighbridge house

For the British Oil & Cake Mills Ltd.

Architects, Munce & Kennedy; Architect in charge, J. F. Sheldon

Blackwall Tunnel ventilation buildings

For the Roads Committee of the London County Council

Architect to the LCC, Hubert Bennett; Deputy Architect, Frank West; Senior Architect of Special Works Division, G. F. Horsfall

Waterfront housing, Pill Creek, Feock, Cornwall

For Marcus Brumwell

Architects, Team 4

The publishers of *Architectural Design* invited architects together with their clients to participate in a new annual Project Awards programme—the first of its kind in the United Kingdom.

The object of these awards is threefold: to encourage by competition a generally higher standard of architecture throughout the country; to give public recognition to the work of relatively unknown architects; and to present an assessment of architectural trends in Britain today.

The scheme is open to all registered architects in the United Kingdom, and awards are made for projects still in only the design stage at the date of entry. Designs submitted can be for any category or size of building or group of buildings.

This year's jury were the architects Theo Crosby, Ernö Goldfinger, and Denys Lasdun, and out of the 192 entries submitted for their scrutiny, they chose one for the Grand Project Award—the award for the best design of all—and five for Project Awards (out of the permitted six awards for designs in different categories). They also selected three designs for special mention. The Awards were made on the basis of the solution of the client's brief, the conceptual solution, and the technical solution.

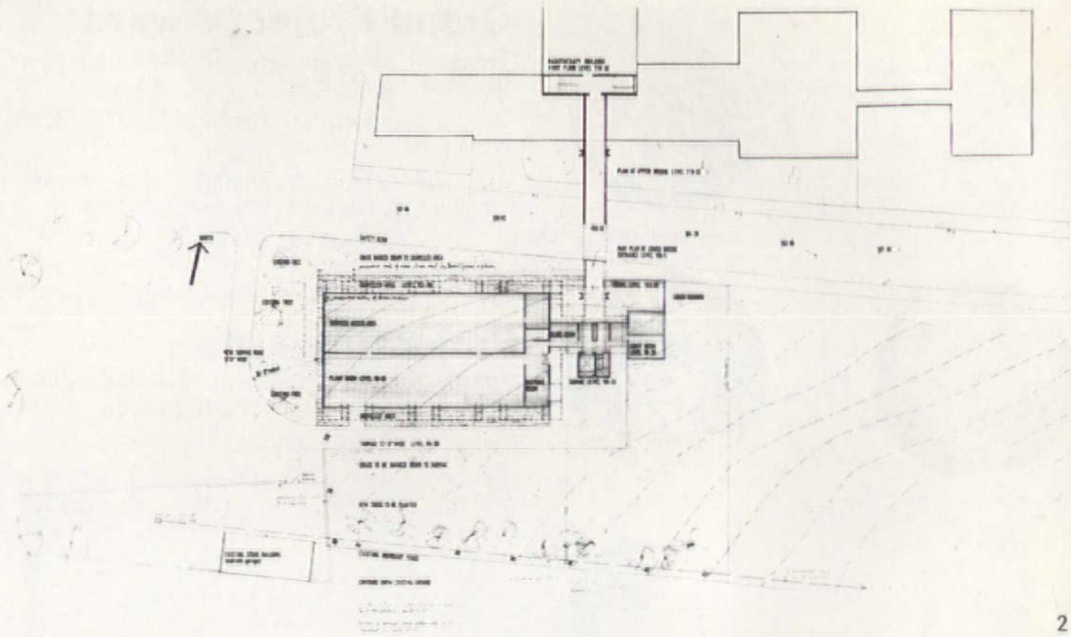
All the entries will be on view at the Building Centre, London, from June 11th to 20th.


Jurors Crosby, Goldfinger and Lasdun

The Nuffield transplantation surgery unit, Western General Hospital, Edinburgh

For the South-Eastern Regional Hospital Board, Edinburgh

Architect, Peter Womersley; assistant, Joseph Blackburn



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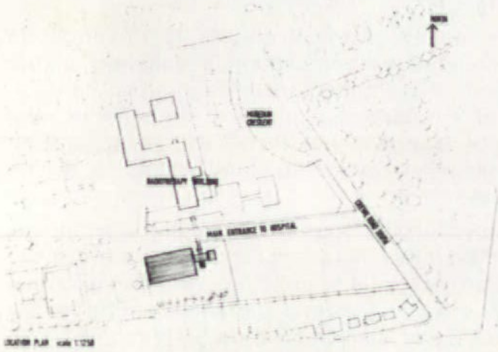


1

1 & 2
Site and block plans

3
NW elevation ('dirty' corridor side)

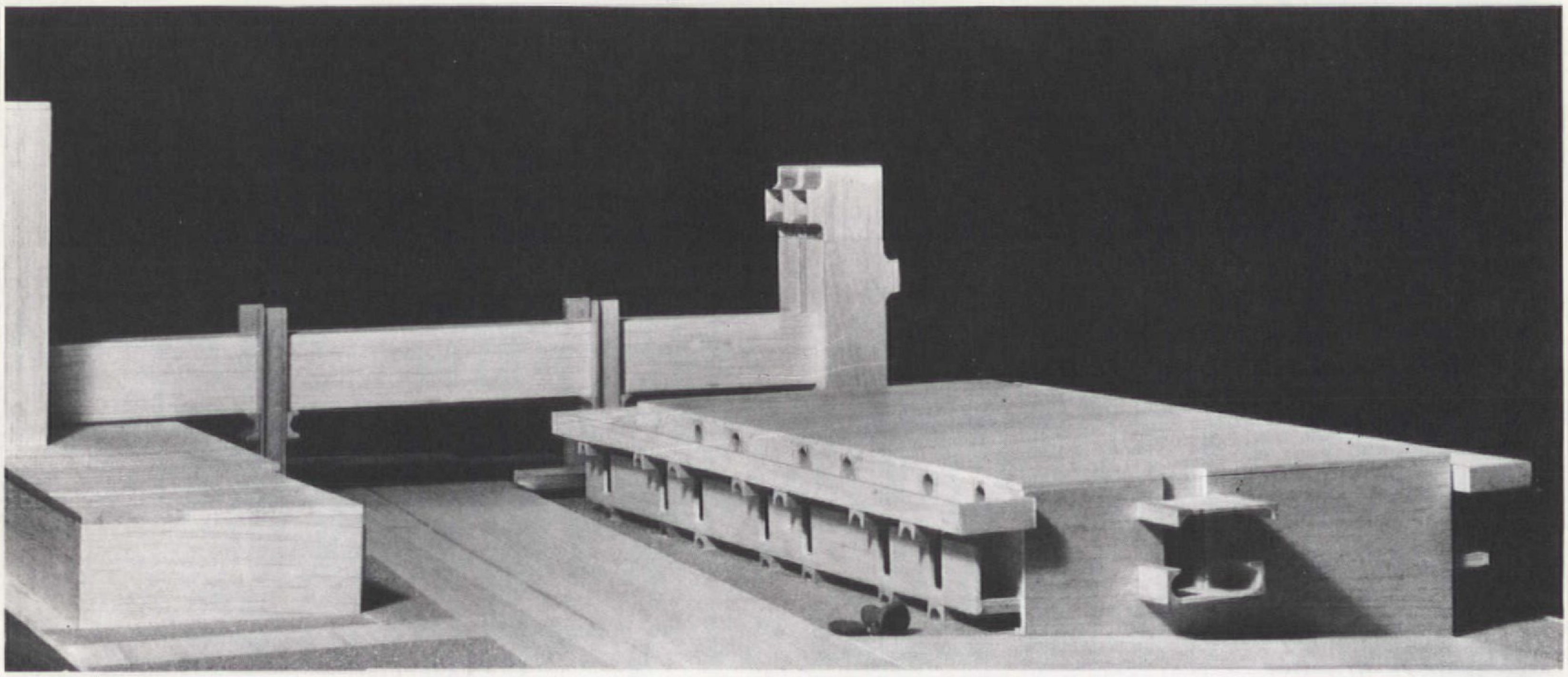
4
Office block, with tower housing bed lift and main stair

Brief

This will be a building specifically for the transplantation of human organs (in particular, kidneys) from a healthy donor to a patient needing this surgery. For a transplant to be successful there must be a lowering of the immunological reaction inherent in every human being to oppose the acceptance of any foreign body, in this case usually a kidney graft. Suppression of this reaction leaves the patient susceptible to any form of bacteriological invasion and accordingly the patient must recuperate for a period of four to six weeks in a special unit which is as sterile as possible with no outside contact, except with the nursing staff (who have undergone a sterilizing process), and breathing a completely bacteria-free atmosphere.

Conceptual solution

Much preliminary research was done by the South-east Regional Hospital Board architects, engineers, together with bacteriologists, surgeons, radiographers, chemists, etc. The plan evolved consists of three basic units—the Unit itself for six patients and nursing staff; office accommodation; and a bridge linking the new building to the existing Radiotherapy Building, this bridge spanning the main approach to the Western General Hospital. The Unit consists of various zones graded for sterility, surrounded by a 'dirty' corridor on three sides, the fourth being open for future extensions. The completely sterile zone consists of the aseptic corridor for nursing staff on duty and six patients' rooms with bathrooms *en suite*. Nursing staff only enter this zone by undergoing a process of changing, showering, towelling and dressing in sterile clothing. Personal contact between staff and patient is reduced to a minimum by full use of closed circuit television, intercommunication systems and monitoring services. Machinery used in connection with the patient's treatment X-ray and Artificial Kidney is operated from the 'dirty' corridor side of the patient's room through two-way plug-in points or through the perspex screen separating patient and 'dirty' corridor. All servicing of the entire aseptic area is effected from above or below, no maintenance personnel being allowed in the Unit. For this reason, advantage has been taken of the sloping site, to incorporate a plant room and services solum for access to air conditioning, plumbing, traps, etc., and a deep steel truss used to span the aseptic area and provide access to all lighting, air-conditioning, patients' T.V., etc. Planning is further complicated by having to pressurize each room, so that the flow of air is always from a 'clean' to a 'dirty' zone. This necessitates in locks, out locks, airtight doors, etc. With all this emphasis on isolation, every effort has been made in planning the unit to maintain contact between patient, nursing staff and outside world with floor to ceiling glazing internally wherever possible, particularly between each patient and the physiological monitor where the duty nurse supervises two patients, and between each patient and the outside, although his view of the world has of necessity to be across the 'dirty' corridor (this controlled by electrically-operated curtains covering each patient's window, again on the dirty side). This is probably a unique building technically and certainly the first where the creation of a sterile environment has been the prime consideration. An attempt has been made to dramatize this unique quality visually by basing the design on these technical refinements, but at the same time it was considered essential that patients and nursing staff, confined within its walls for long periods, should be stimulated on entering it, and reassured once inside. The external walls of the Unit itself, which determine the appearance of the entire scheme are of course largely screen walls, but they attempt to suggest what happens behind large glazed openings in front of each patient's room, solid wall before bathrooms (on the south), and more completely opaque to the north which is pure access corridor, sunless and parallel with the busy main approach road to the hospital. The vaulted beams supporting the main floor of the building and the corridor roof above are positioned opposite the main air conditioning ducts to each patient's room and the Operating Theatres, and by their shape, attempt to express the idea of ducting. The 16in radius of these vaulted beams was subsequently used throughout the scheme for entrance hall vaults bracketed filter openings in the tower, and bracketed television housings on the south wall, etc. In section the double cantilever of two floors was arranged because less accommodation was needed on the basement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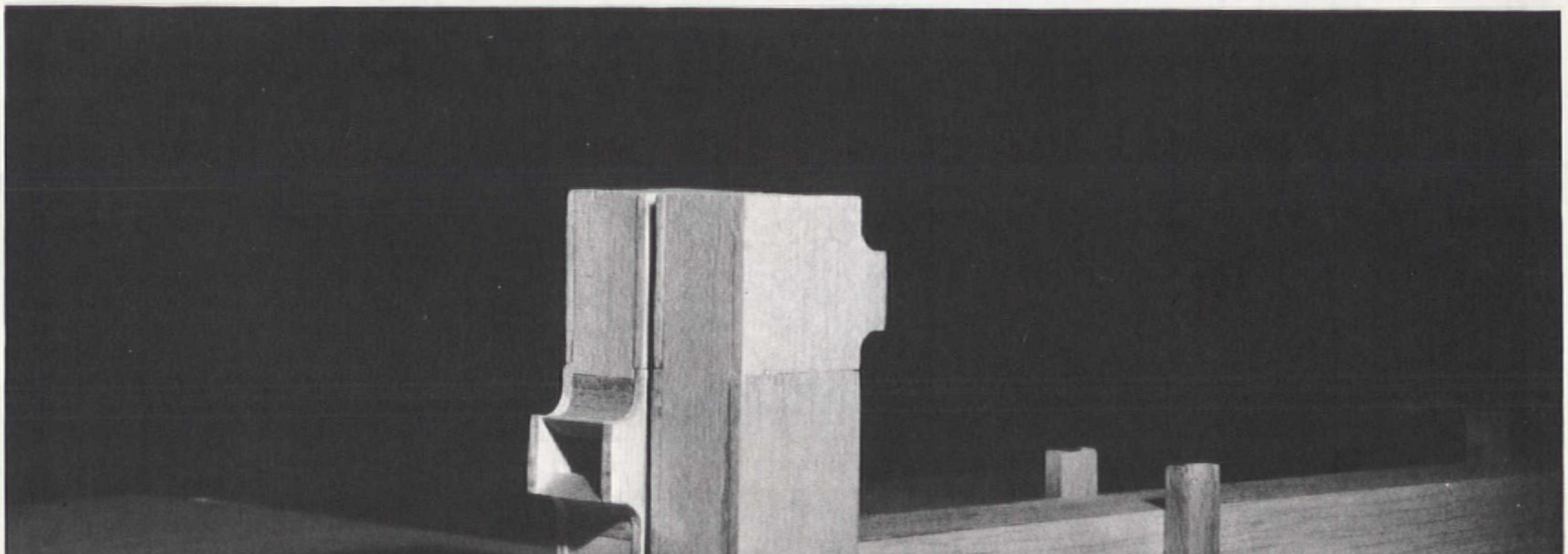
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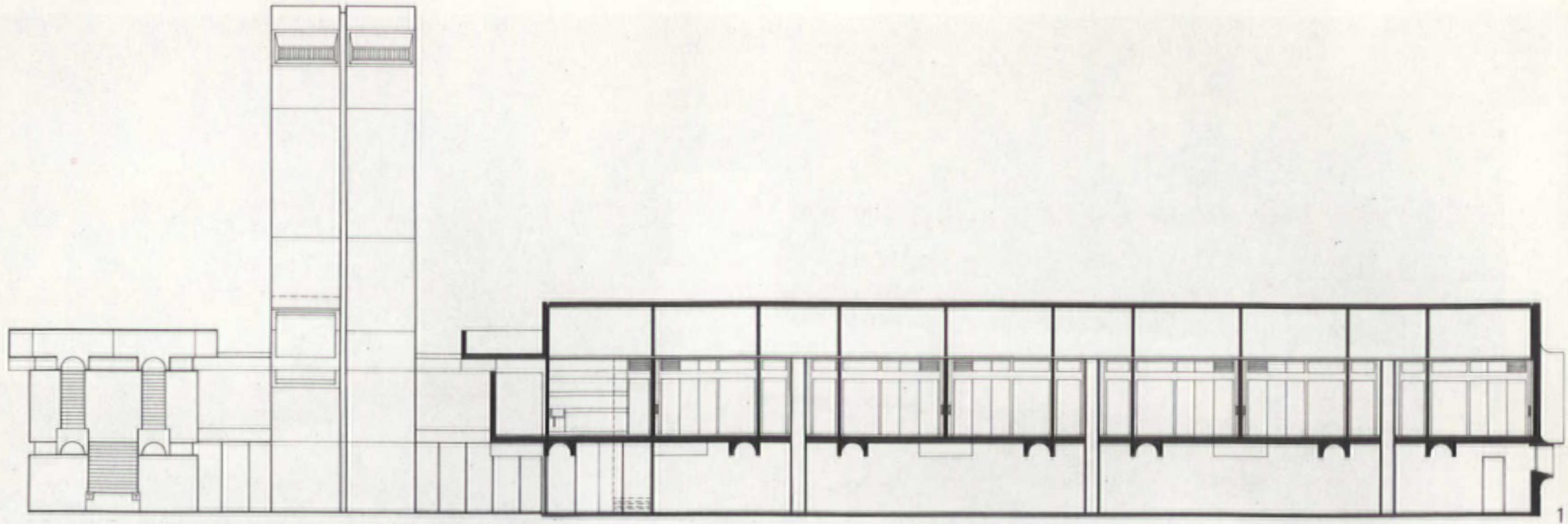

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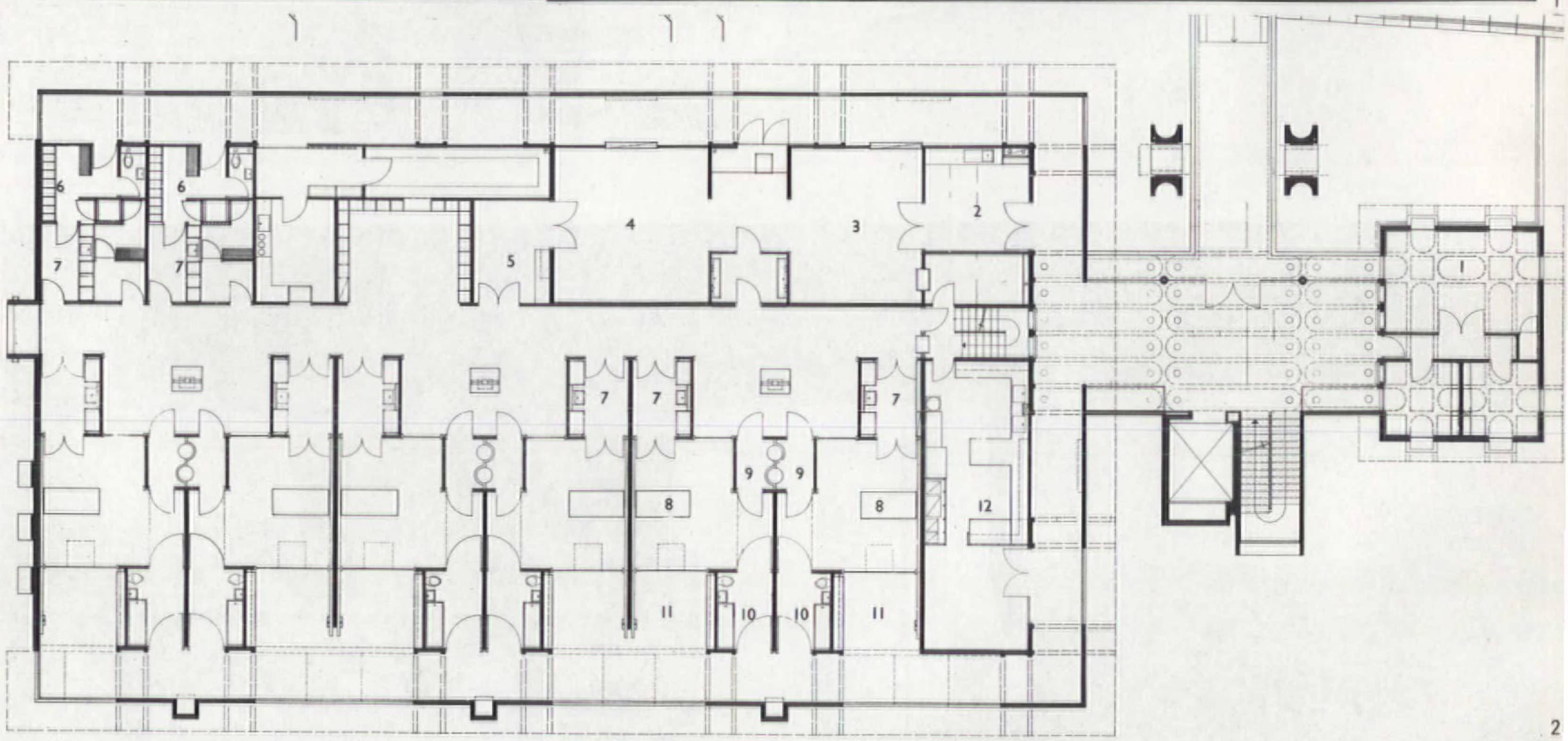

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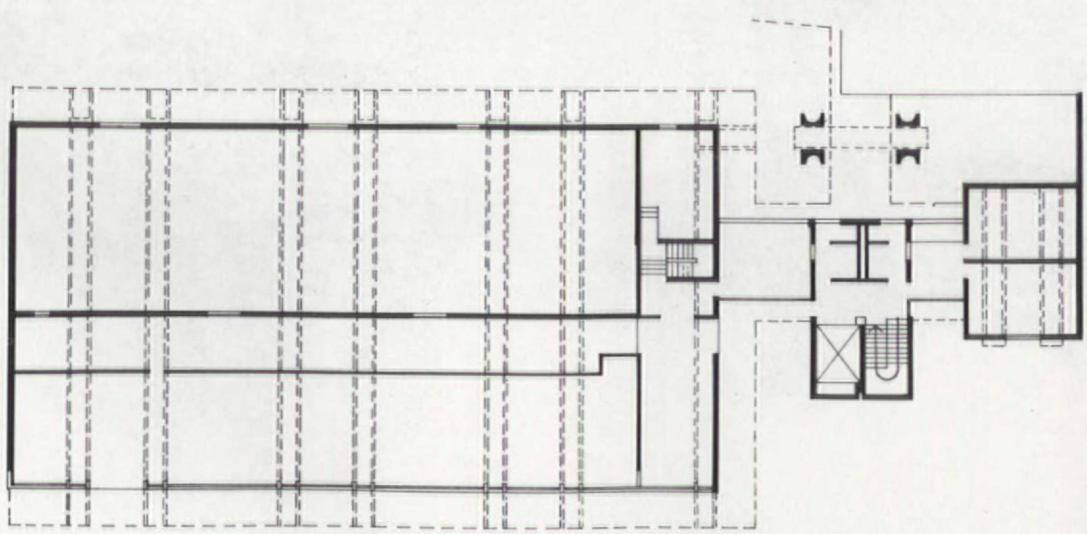

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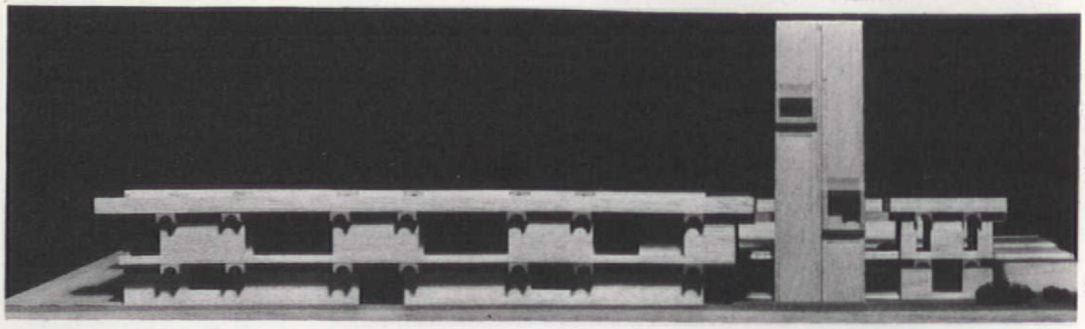
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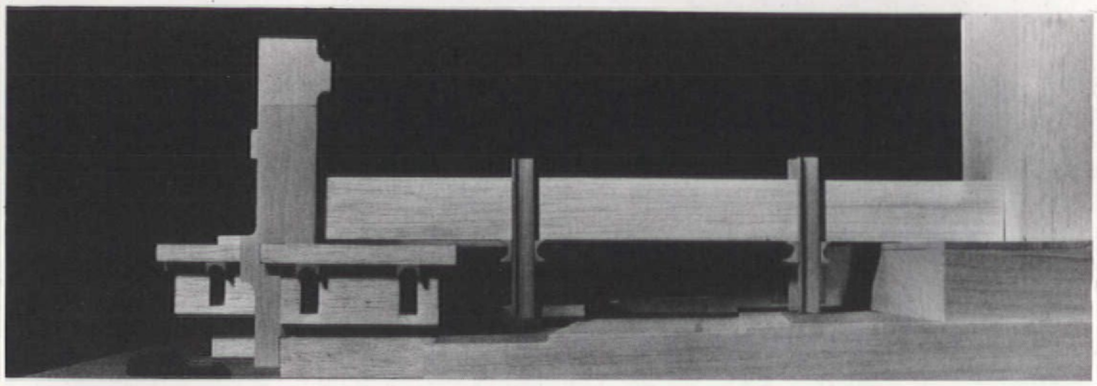
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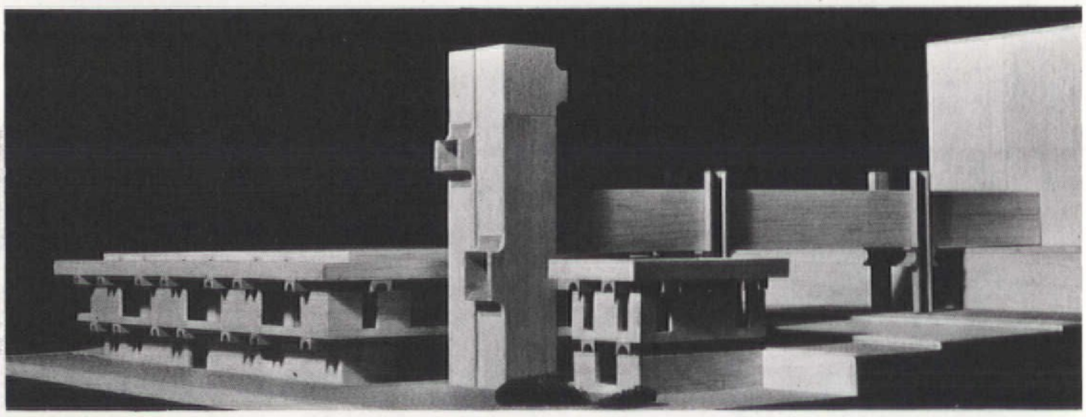
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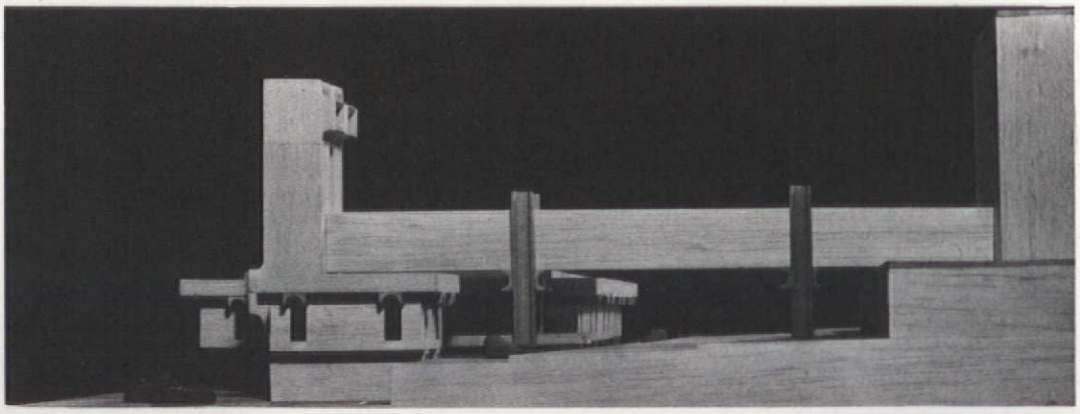
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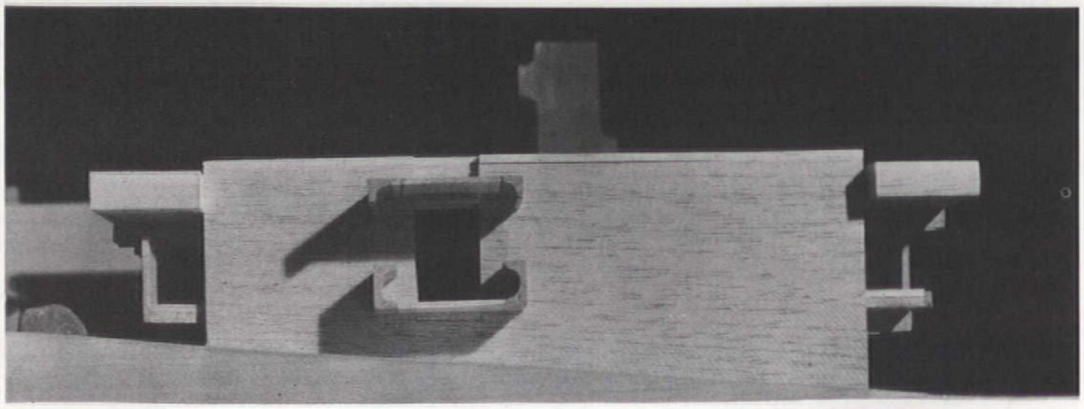
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floor (plant room) than on the main, and there was an absolute necessity (even in Edinburgh) for sun screening of the windows opposite the patient's viewing window. The recessed basement floor also suggests both the main line of the building above, and its peripheral corridor, which in turn forms a concrete ring beam for the 'hollow' steel roof over the Unit. The ring beam itself acts as access for maintenance to all ducting, lighting, etc., in that accommodation above for lift machinery room, filter chamber and water storage; and to make it visually effective as one 'abutment' of the bridge connecting the Unit to the hospital. The building is planned on a 3ft 2in grid.

Technical solution

In this kind of building technical and conceptional solution inevitably merge. What follows is a summary of the construction and the servicing.

Structure. Reinforced concrete poured in situ against fibreglass lined shuttering. The cement is golden brown in colour, and together with the marble-like finish it is hoped to achieve, will match closely the stone-clad gable wall of the Radiotherapy Building at the other end of the bridge.

Roof. Screeded insulation board on steel trusses 4ft 6in deep. The bottom member of the truss supports a catwalk for 75 per cent of its area and a plastered ceiling. The circular openings in its side wall, house access points, extract and intake fans.

Finishes. Floors PVC sheet (antistatic linoleum in theatres). Walls plastered, timber-panelled, or fairfaced concrete.

Services. Complete air conditioning in Unit with Stramax corridor heating, convectors in the entrance and skirting heating in the office block. Stand-by generator in basement.

Bridge. Steel truss, since the main hospital access must be kept open. Precast concrete cladding panels. Skirting heating.

Construction expected to commence July 1964.

1
Long section

2
Ground plan of transplantation surgery unit
1 conference and administration
2 decontamination
3 donor theatre
4 recipient theatre
5 anæsthetic
6 changing
7 in/air lock
8 patient
9 out/air lock
10 bath
11 visitors
12 laboratory

3
Basement plan containing solum and plant room

4
View from south

5
Main approach to general hospital

6
View from SE/bridge to radiotherapy

7 & 8
East and west elevations

Architectural Design Project Award

College of architecture and advanced building technologies, St. Marylebone, London

For the London County Council

Architect to the LCC, Hubert Bennett; Deputy Architect, Frank West; Schools Architect, Michael Powell

Brief

1. To provide a College where the following disciplines will be trained in one environment: architecture, town planning, engineering, surveying, building.

The accommodation to include studios, drawing offices, laboratories, classrooms, lecture theatres and a large construction hall, together with common rooms, kitchen and dining rooms, library and administration suites.

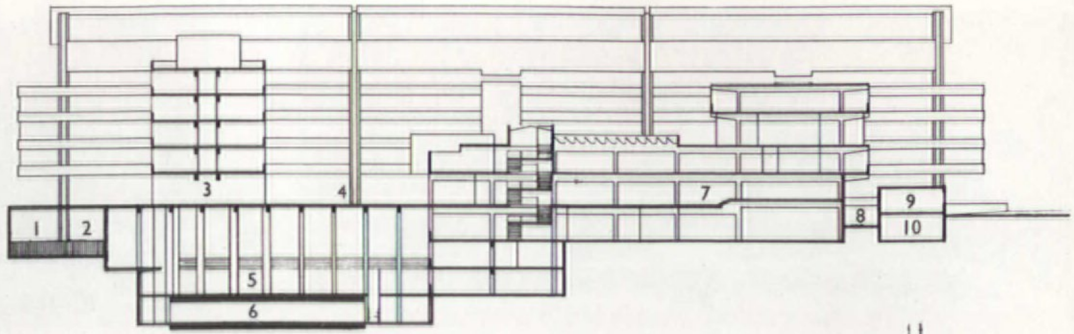
2. A separate School of Management Studies with its own kitchen, dining and common rooms and accommodation for 40 resident students.

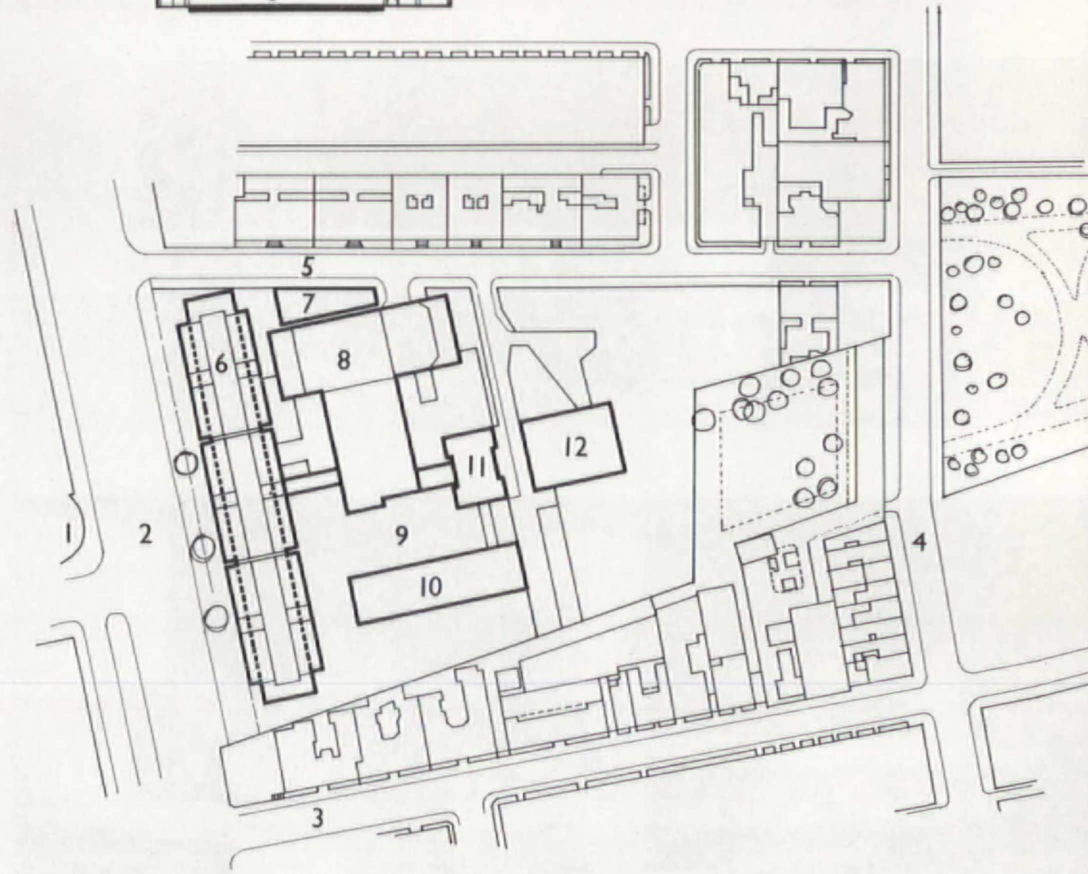
3. A Hall of Residence for 178 students, with staff quarters.

4. The site to be apportioned between education and housing with a physical barrier between, and the provision of 100 dwellings at a density of 200 persons to the acre, with special care to be taken to ensure no overlooking by either user.

5. Rehouse the District Surveyor whose office is at present on the site.

The College to be flexible in structure to allow for future changes in size of courses.





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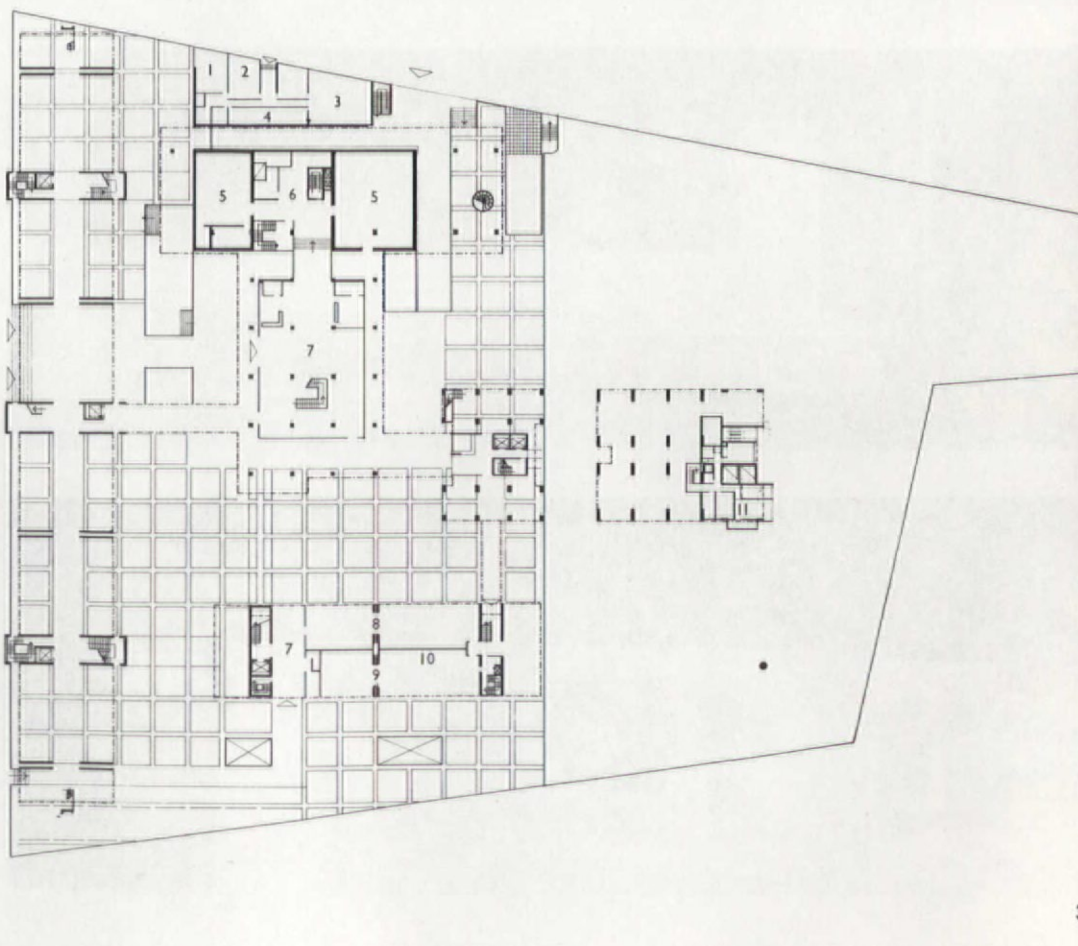


3

1
Section
1 car park
2 ramped road
3 management block
4 podium
5 construction hall
6 hollow reactant floor
7 communal block
8 road
9 district surveyor
10 car parking

2
Site plan
1 planetarium
2 Marylebone Road
3 Chilten Street
4 Paddington Street
5 Luxborough Street
6 CAABT teaching
8 CAABT communal
9 podium
10 college of management
11 hostel
12 housing

3
Ground floor plan
1 district surveyor
2 general office
3 technical office
4 filing
5 lecture room
6 cloaks
7 hall
8 dining room
9 kitchen
10 stores
11 two-bedroom flat

Conceptual solution

It was evident that there would have to be some high buildings to achieve the density required. It was decided that as the hostel and housing were similar accommodation, these would be taken up to 200ft and placed 'back to back' to solve the problem of overlooking. Town planning requirements dictated a central position on the site with the mass having a north/south axis. The study bedrooms in the hostel block and maisonettes in the housing block face east or west, and there are flats facing south.

Because of existing basements, it was decided to reduce the level of the site generally to about 11ft below normal ground level. On the Education site this will be roofed over a slab forming a podium about 3ft above street level to provide a pedestrian precinct accessible from Luxborough Street and Marylebone Road, the edge of this podium forming the barrier between the two sites requested by the client.

Under this slab, with access from Luxborough Street, is a peripheral road with car parking off. This road also serves the kitchen to the students' communal block above, plant rooms, heavy laboratories and the Construction Hall, which is a large testing laboratory measuring 110ft × 110ft × 30ft, clear height, where full size or model structures can be erected and tested in a controlled atmosphere.

The various parts of the building will have direct access from the basement and podium levels by lifts and staircases and will, in part, be raised some 12ft above the podium to free the site for general circulation and access, and provide vistas through the College precinct to the garden areas on Paddington Street. The buildings will be linked with enclosed pedestrian bridges at first floor level.

The main teaching block of the College occupies the whole of the Marylebone Road frontage. It is served vertically by three lift and staircase cores, around which are grouped various departments, and each floor of the building has a specialist use. The first floor is entirely staff rooms and administration, the second light laboratories and research rooms, and the third general classrooms. The top three floors are all studios and drawing offices. This arrangement of floor use will allow departments to expand or contract within the overall volume with a minimum structural alteration and yet still be served by its same staircase core. The middle floor of the three studio floors is in the form of two galleries cantilevered out from the facade of the building, allowing a central well through which top light can penetrate to the lower levels to ensure that all working spaces will have the controlled quality of daylight required at the drawing board. In these studios five groups of students can be brought together in one large, three-tier volume. This arrangement, together with a system of fixed louvres on the south-facing side to reduce solar heat-gain and strong sunlight, has been the subject of a series of experiments under artificial sky. A double window system will be provided on the noisy Marylebone Road frontage.

The communal block has lecture halls and the main entrance to the college at podium level, and a students' exhibition concourse and criticism room on the first floor, with the Principal's administration suite and the library overlooking the open space to the south. On the second and third floors are dining and common rooms opening out on the roof terraces. One students' common room will be in the form of a balcony to the dining room allowing the whole area to be used as an occasional lecture hall to accommodate 600.

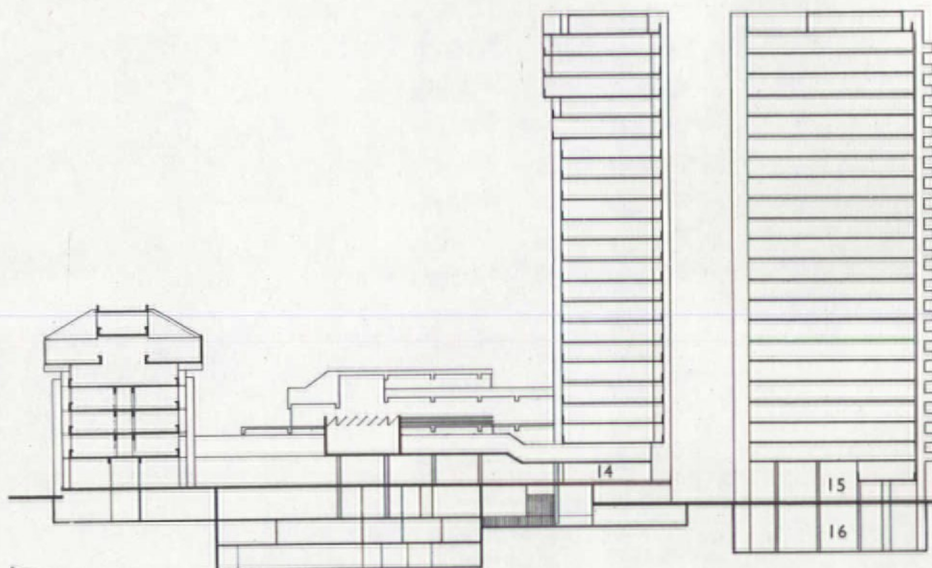
The Hall of Residence contains 178 study bedrooms for college students, arranged 12 per floor, with two sitting rooms, kitchen, utility, and two bathrooms and lavatories. At the top of the block, cantilevered out to give more spacious accommodation there are 40 bedsitting rooms for management students.

The School of Management is planned as a self-contained teaching and communal unit on the west side of the site.

Technical solution

The supporting structure of the teaching block and management block, forming 50ft spans, is of white in situ concrete cores (containing staircases, lifts and sanitary accommodation) and twin cross walls (forming vertical ducts and expansion points). The sill beams are of polished pre-cast Portland stone aggregate concrete 50ft long. The resultant clear floor area of 50ft × 45ft will give the required flexibility in partitioning required by the client.

1
First floor plan
1 staff common room
2 tutors
3 post graduate
4 readers
5 boardroom
6 w.c.
7 principal
8 servery
9 staff dining
10 staff room
11 store librarian
12 technical advisory centre
13 printing room
14 library
15 criticism room
16 exhibition store
17 office
18 staff room
19 students' common room
20 principal and secretary
21 library
22 seminar room
23 bed-sitting rooms
24 flatlet
2 & 3
A detail and distant view of the total complex



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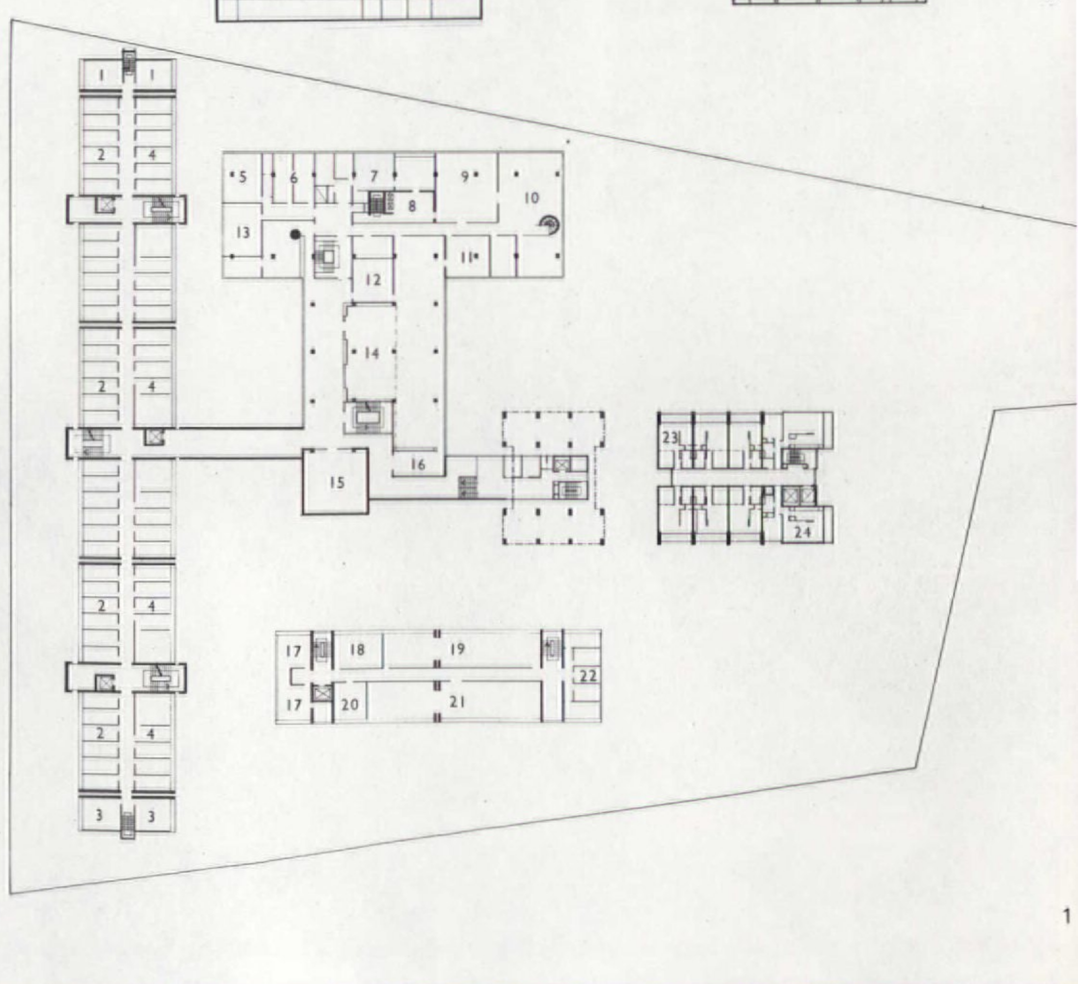

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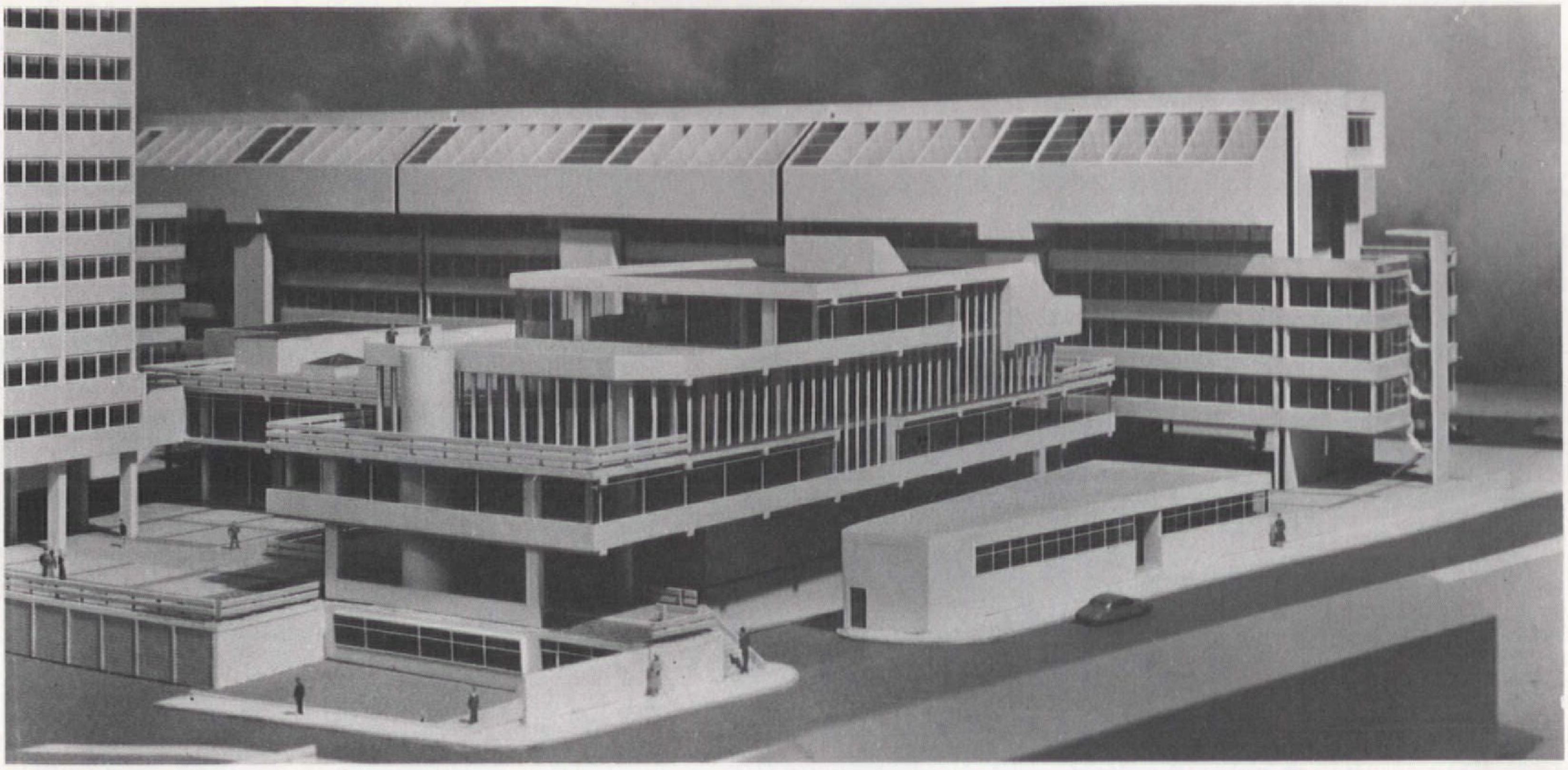

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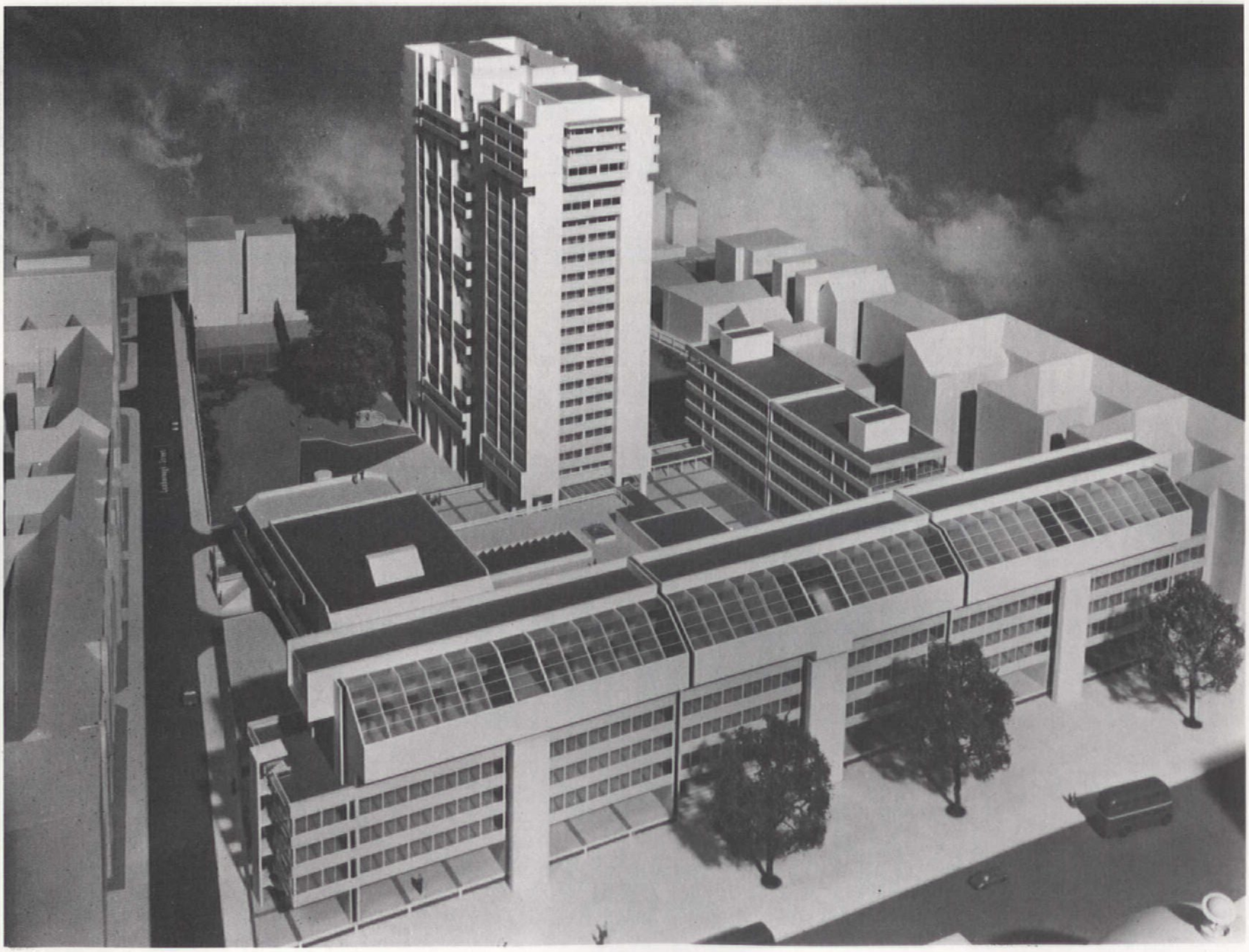

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Building for St. Hugh's College, Oxford

For the Principal & Fellows, St. Hugh's College

Architects, David Roberts & Partners

Brief

Provision was to be made for: study bedrooms for 47 undergraduates; two Fellows' flats; caretaker's flat; students' common room with buttery and pantry adjacent; sewing and ironing room; linen room; laundry and drying room; window seats; variety of room shapes; goods lift; background central heating with boiler room large enough to enable additional plant to be installed for Stage II.

Conceptual solution

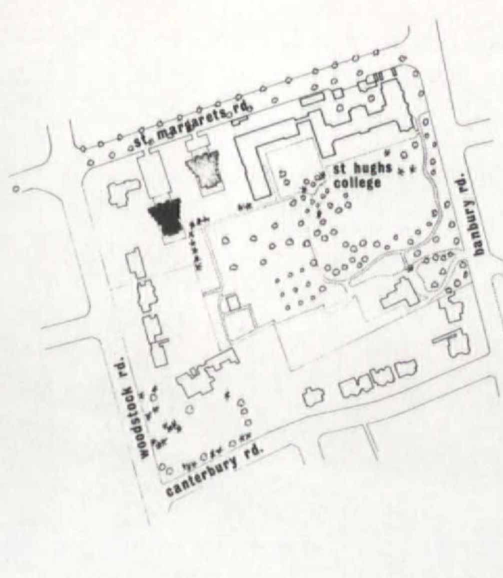
The original intention of the college was to provide for an 'L'-shaped building westwards of the present college buildings. Some time was spent on a proposal of this kind, but it presented three difficulties. There is already in the college, immediately to the west of the original building, a court formed by an 'L'-shaped building containing the library, and it was felt that to repeat this shape would introduce monotony into the college buildings which, in time, would prove disappointing. In the proposed 'L'-shaped block the building running north to south would inevitably have had sitting rooms facing due west and due east and the rooms facing west would have looked away from the college towards Woodstock Road.

This again was felt to be undesirable. The block running north to south would have a very strong tendency to be symmetrical to the existing library wing and it was felt that to balance the present library with bed sitting rooms would never be successful. Lastly, by building an 'L'-shaped block to the west, the lineal character of the college would be maintained which is again a form which implies monotony.

The present form is suggested because it enables every room to have a south-facing window as well as either an east- or west-facing window. The gardens to the houses in St. Margaret's Road will eventually have their boundary walls taken down so that the proposed building will look onto the college garden and towards the proposed Principal's Lodge. The block is so designed as to protrude into the garden space and to balance freely with the existing library wing and the pedestrian and student approach to it normally will be along the path from the south and not from the north, which will be essentially vehicular and service approach.

The semi-basement consists of a caretaker's flat, common room with buttery, boiler house, sewing room and laundry. The remaining four floors are identical with 12 sitting bedrooms on each floor except that on the first floor there are two tutors' sets. Each room has been given a wash basin and dressing cubicle.

There is a variety of room shapes and all the rooms on the flanks can have window seats in the angle windows.



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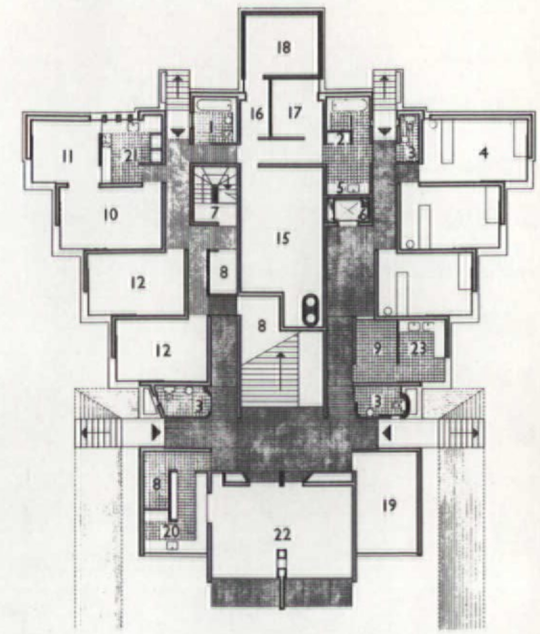

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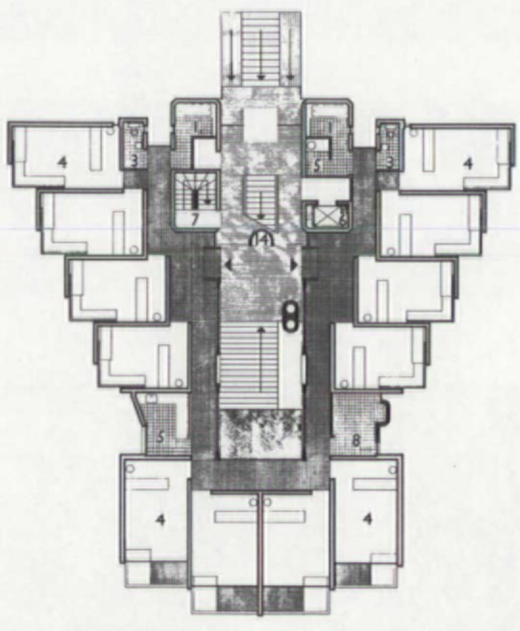

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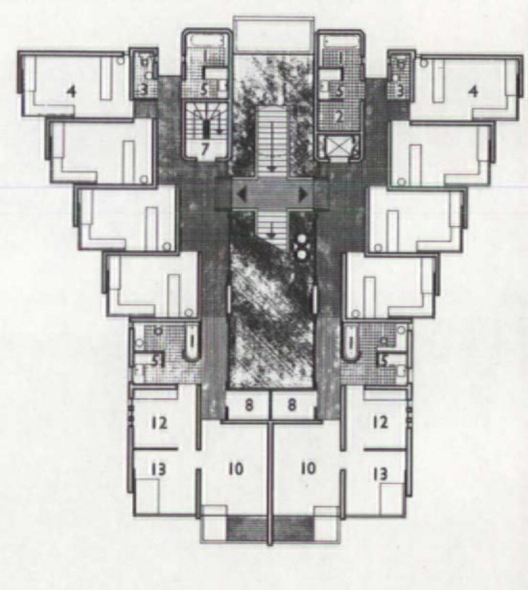

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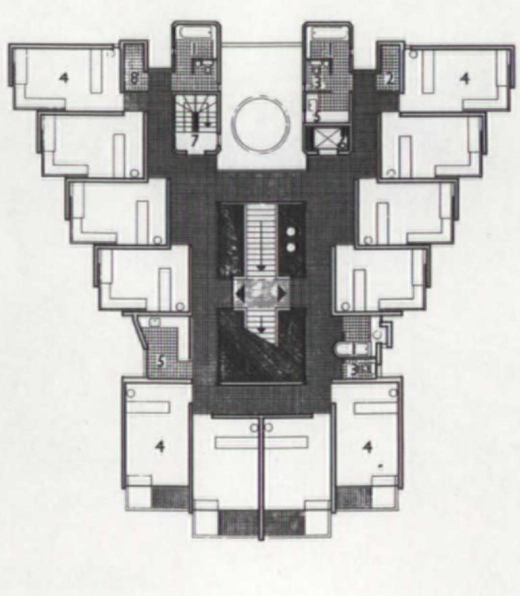

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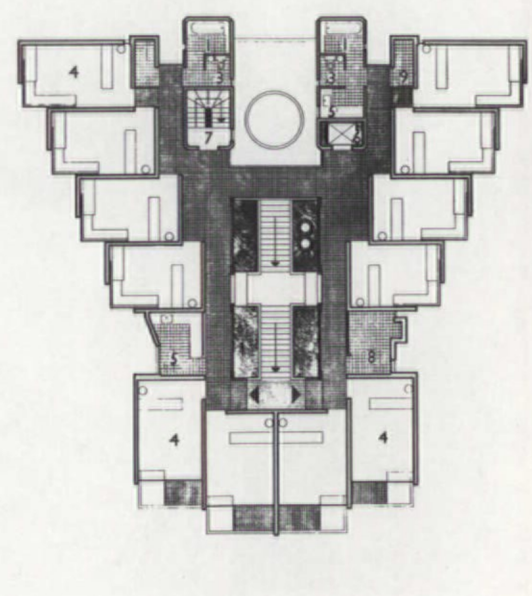

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The semi-basement enables all the bed sitting rooms to be raised above the ground and seems the best way of ensuring privacy.

The staircase is arranged so that staircase traffic never disturbs the movement from room to room. The galleries are amply lit and are only four rooms long.

The attached site plan shows how the remainder of the site might be developed to provide the further 50 students' rooms and rooms in the semi-basement for other purposes.

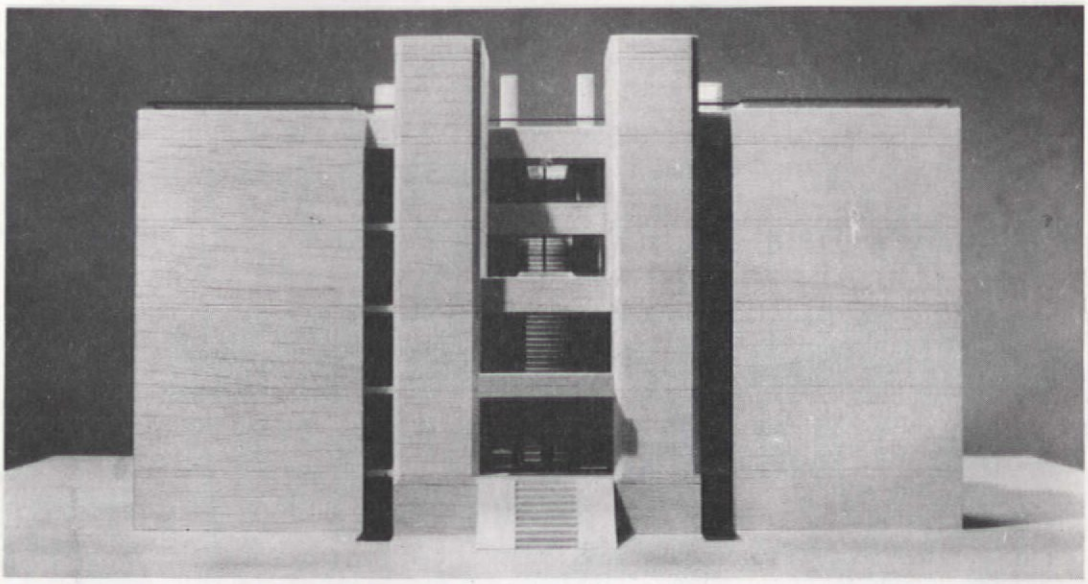
The shape of the building springs from a wish to provide every undergraduate with a south-facing window looking towards the college's grounds together with a window facing east or west. To have faced west would have been to look towards Woodstock Road only and to turn one's back on the college.

All rooms are served by a central staircase leading to corridors which serve six rooms, in no case does the main traffic of the building pass a student's room, and the corridors are well lit. The central stair and the south-facing rooms give to the building a particular form which results from the disposition of the site and the needs of student life.

Technical solution

The building will be constructed of load-bearing brick walls externally, with concrete floors, staircases and balcony fronts. The floors to the bed sitting rooms will be concrete, covered with three layers of felt. The windows are to be black anodized aluminium.

The total cost of the building is estimated to be £111,000, excluding fees.



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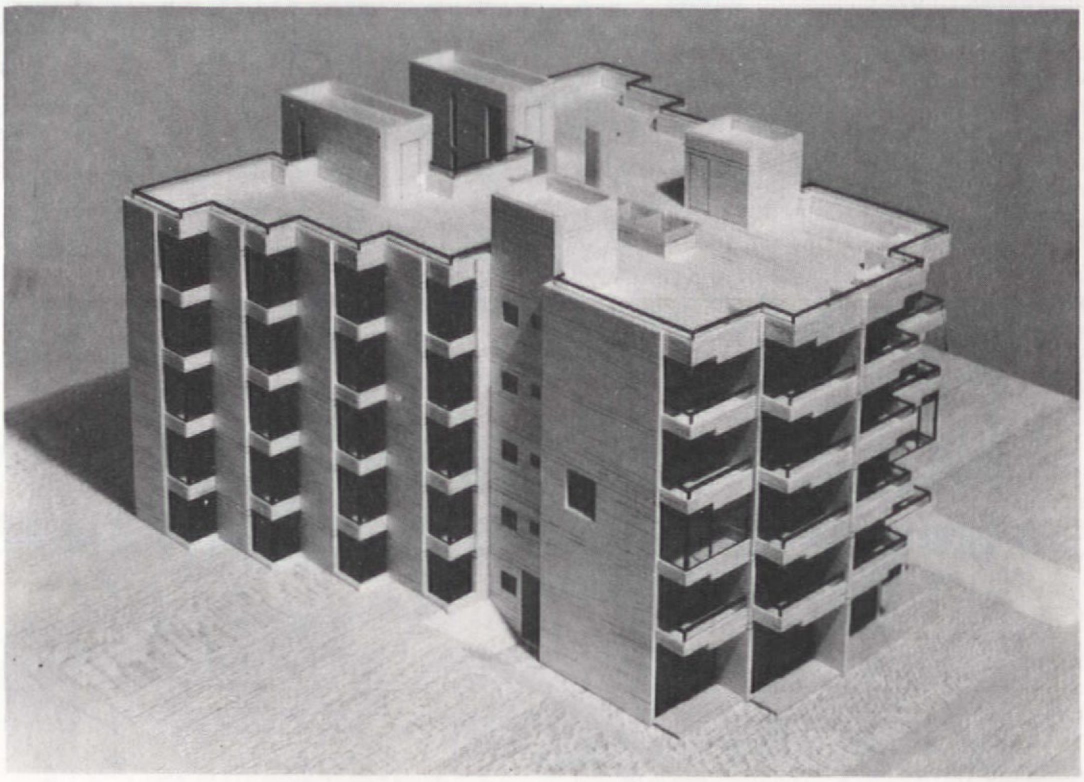

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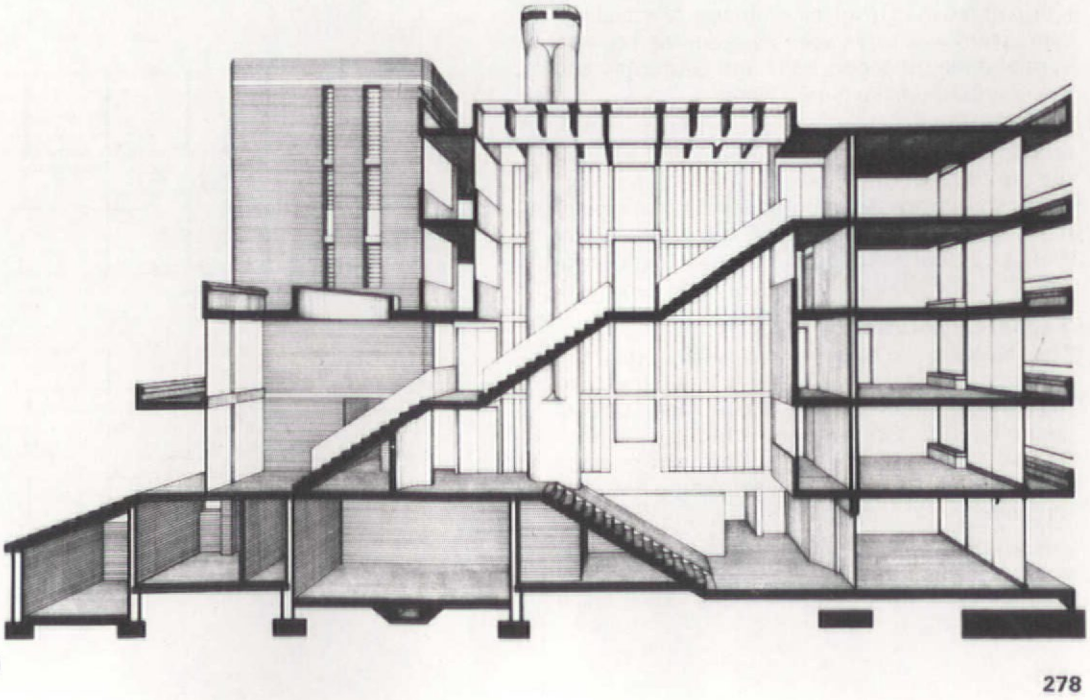

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1
Site plan

2 & 3
Lower and upper ground floors

4, 5 & 6
First, Second and Third floors

1 bath
2 scout
3 w.c.
4 study bedroom
5 pantry
6 lift
7 fire stair
8 store
9 drying
10 sitting
11 dining
12 sleep
13 study
14 telephone
15 boiler
16 electric
17 linen
18 fuel
19 sewing and ironing
20 buttery pantry
21 kitchen
22 common room
23 laundry

7 & 8
Two views of the model

9
Section

ARCHITECTURAL DESIGN PROJECT AWARD

Our Lady's girls' high school, Cumbernauld

For the County Council of Dumbarton Education Committee

Architects, Gillespie, Kidd & Coia; architects in charge, A. MacMillan, I. Metzstein, R. Walkinshaw

Brief

The brief asks for a secondary school for 810 girl pupils to function initially as a mixed school. The accommodation to be to the standards set out by the Scottish Education Department and the cost in accordance with the current allowance for school building. Maximum playing field provision is required and there is a demand from the planning authority for fairly extensive car parking facilities. Two houses for janitors and covered play shelters and cycle stores complete the programme.

Some existing farm buildings on the site are to be reinstated to provide temporary technical classroom accommodation for boys and may be converted later to a school chapel.

Conceptual solution

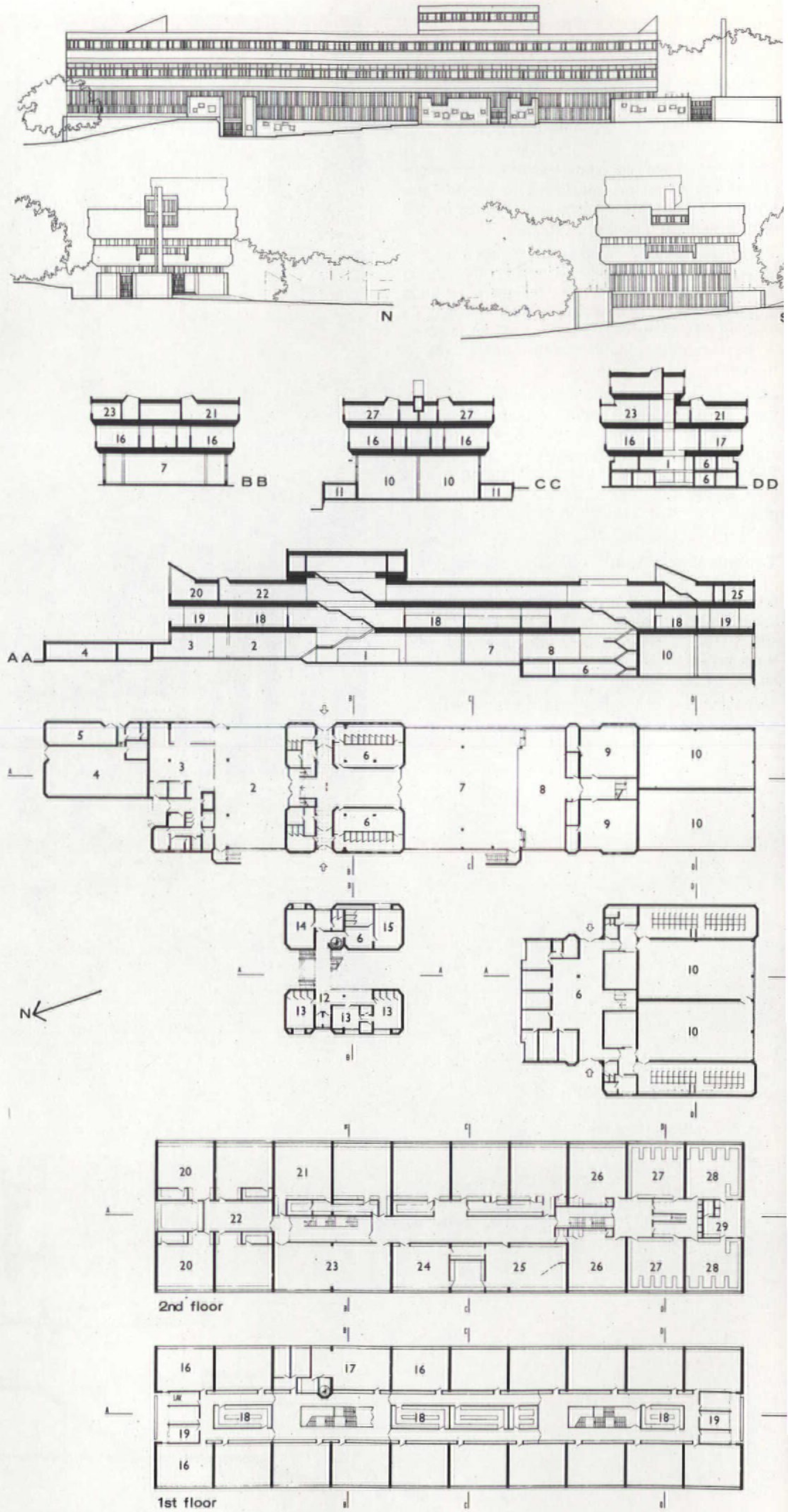
The steeply sloping, east to west contoured site, is severely limited by the provision of playing fields and the need for extensive play areas and car parking, and this determines the general form of the school, i.e. a single complex building with teaching accommodation double banked about central circulation on the upper floors bridging over the large span spaces at ground level, all having east and west aspect and prospect. Arising from this is a deep block with attendant daylight penetration problems and the design responds to the need of maintaining the unity and expression of the external envelope without loss of internal functional flexibility, e.g. variation in room depths and heights, suiting of accommodation, the dispersal and control of daylighting. The resulting building with its internal complex 'corridorscape' and its overhanging facades involves problems of scale and expression which are seen as requiring solution in relation to the topography, the landscape and the character of the New Town.

Both the internal and external use of materials is related to the organization of plan and section, the ground covering elements are revealed as of load-bearing construction isolated by means of fenestration from the upper floors which reveal their 'bridging' nature in the adoption of pre-cast cladding and continuous horizontal fenestration.

Technical solution

The building is steel-framed with reinforced concrete foundations. At the first, second, and third floor levels R.H.S. lattice steel girders spanning 31ft 2in between double cantilever frames support the concrete floor slabs, which have sheet metal permanent shuttering and reinforcement.

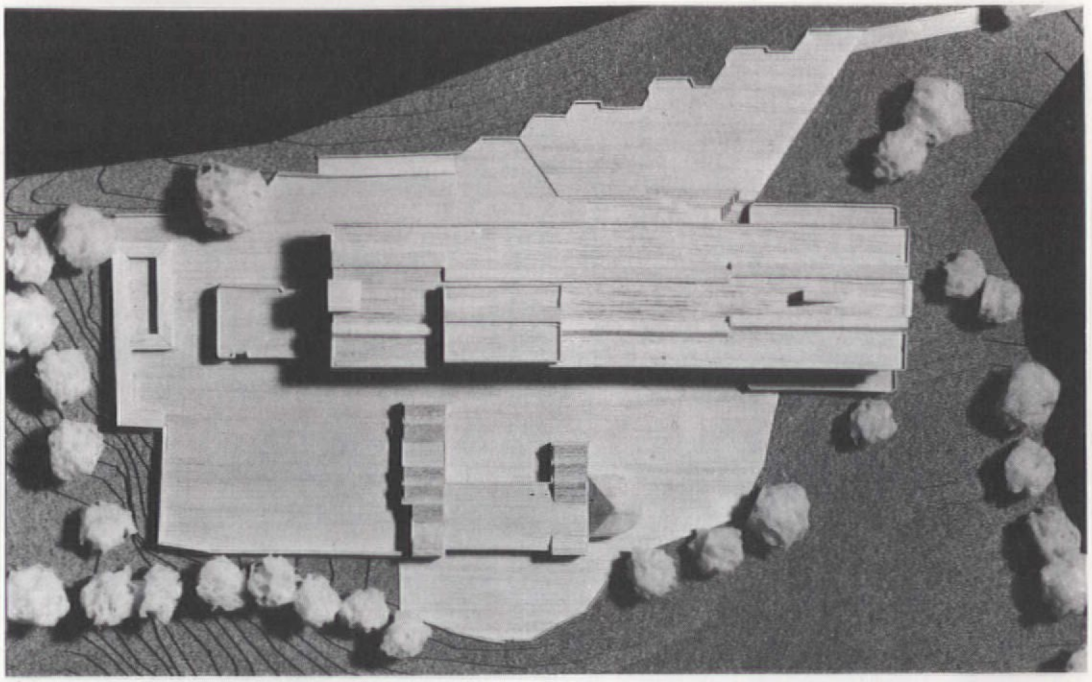
These floors are clad in pre-cast concrete panels supported on steel lattice-edge girders with continuous timber windows and steel inset opening parts.



The main appartments on the lower floors are enclosed by a pressed metal, glazed screen with load-bearing rendered brick walls pierced by metal windows in timber sub-frames supporting reinforced concrete floor slabs between.

The roofs are timber joisted and boarded and finished in bituminous felt roofing. Ceilings are suspended plaster or timber lining.

Oil-fired boilers supply low-pressure hot water to built-in finned tube heating elements and convector heaters.



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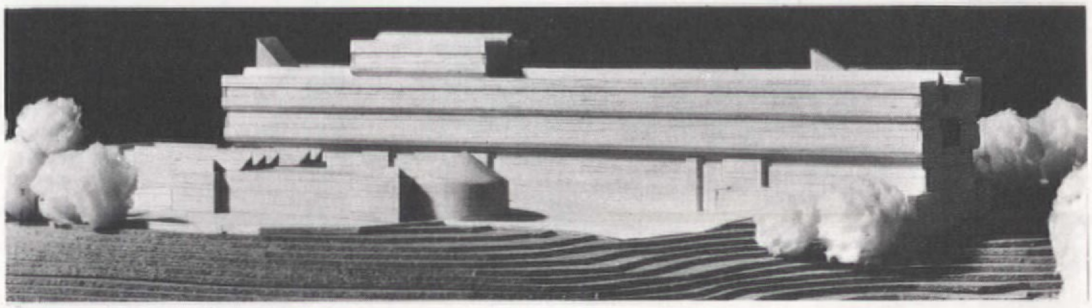

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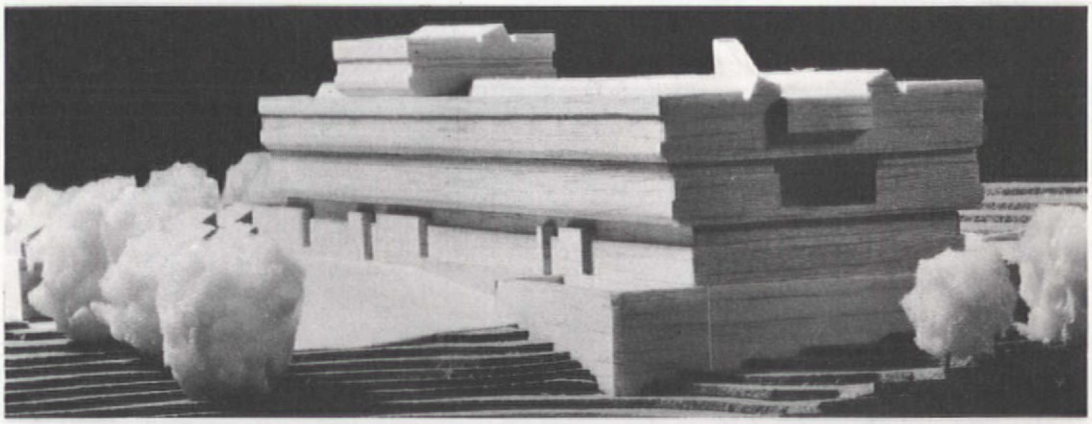

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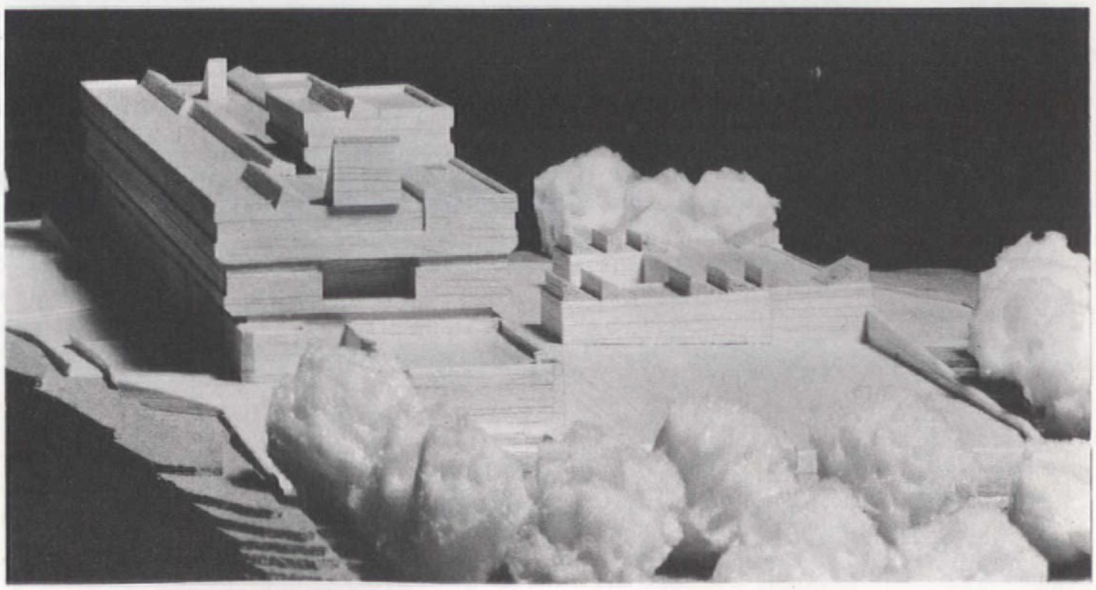

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1
Elevations, sections and plans
1 entrance hall
2 dining hall
3 kitchen
4 boiler house
5 fuel store
6 cloakrooms
7 assembly hall
8 stage
9 music rooms
10 gymnasium
11 lavatories/changing
12 waiting
13 masters' rooms and office
14 male staff
15 female staff
16 classrooms
17 staff lounge
18 storage
19 tutorial
20 art
21 science
22 display area
23 library
24 typewriting
25 commercial
26 needlework
27 dual purpose
28 multi purpose
29 flat

2
Aerial view of model. Entrance court and terraces on the eastern side at the top of the photograph. Playgrounds are situated on the western side. Vehicular access is from the north

3
View from the south

4
View from the south-west

5
View from the north

Charlotte Street development, Portsmouth

For E. Alec Colman Group of Companies

Owen Luder Chartered Architects (Owen Luder, Dennis F. Drawbridge, Rodney Gordon); senior assistant in charge, Norman Wilson

Brief

Although this project is an aggregate of five different functions, its principal aim is to provide shopping and wholesale marketing facilities.

Conceptual solution

Originally the site was scheduled for redevelopment as a wholesale market and car parking area, but through close co-operation between the developer and the city authorities it has been possible to develop in three dimensions and increase the density over the site to include shopping, entertainments and domestic requirements, in addition to the market.

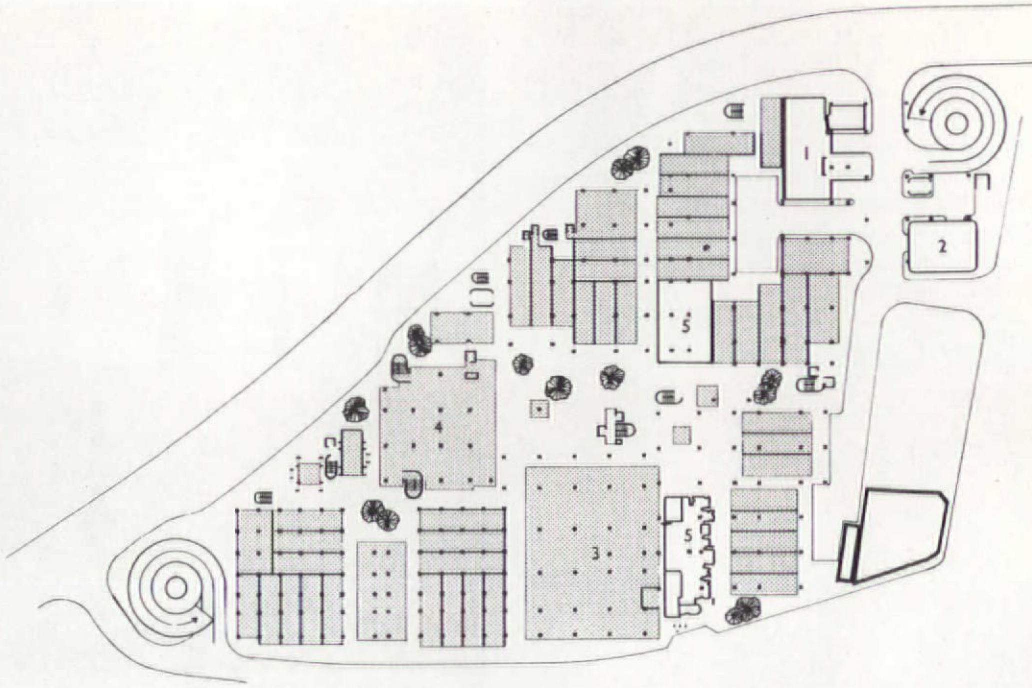
Much attention was devoted to the overall circulation pattern and the separation of vehicular and pedestrian traffic. Apart from this separation of servicing, which became a basic feature of the scheme after the sketch stage, it was considered important to reduce the scale and add interest to the scheme by introducing differing sizes of precinct and varying the amount of high level cover to bring about individuality and special interest in the various space elements produced.

Basically, however, the scheme resolved itself into a ground floor precinct arrangement, given over almost exclusively to shopping and pedestrian use, a first floor wholesale market with stores and servicing for shops below, and at second floor overflow car parking has been provided to take overspill from the multi-storey car park, with the traffic access to the upper floors by way of circular ramps at extreme ends of the site. Other elements have been organized into functionally separate but aesthetically integrated units to modulate the scheme generally.

Technical solution

Traditional methods would have involved beam and floor construction of various depths and thicknesses, and clearly such a system would be wasteful and unnecessarily difficult as well as complicated to erect. The solution eventually was found to be large span grids and a constant suspended floor thickness throughout the site, thus giving unrestricted and fully flexible potential to the shop arrangements on the ground floor.

Constructionally the problems were shear, and the dead load resulting from the constant economic depth of floor to be used throughout the site. Shear requirements were resolved simply by using capitals. The problem of saving weight was investigated, and much consideration was given to using light-weight pots and similar materials, but was not finally solved until we determined upon the method of coffering the slab with fibreglass formers. Curiously enough, although formers were available in this country, none which we investigated could be used for a 3ft 0in module without excessively wide and uneconomic ribs. Eventually the American standard



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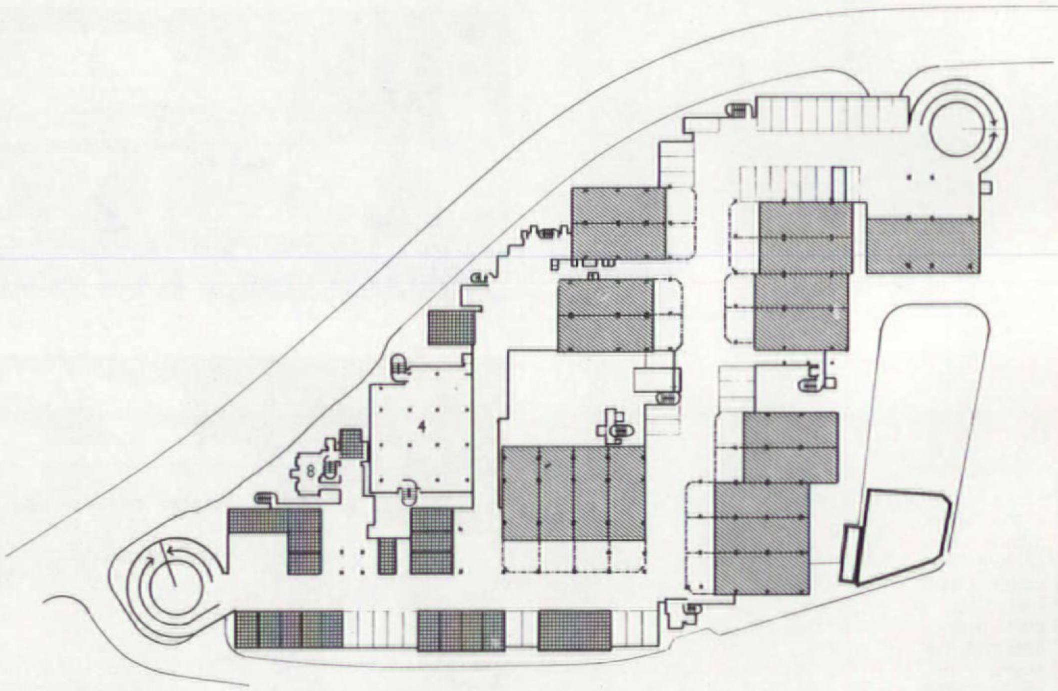

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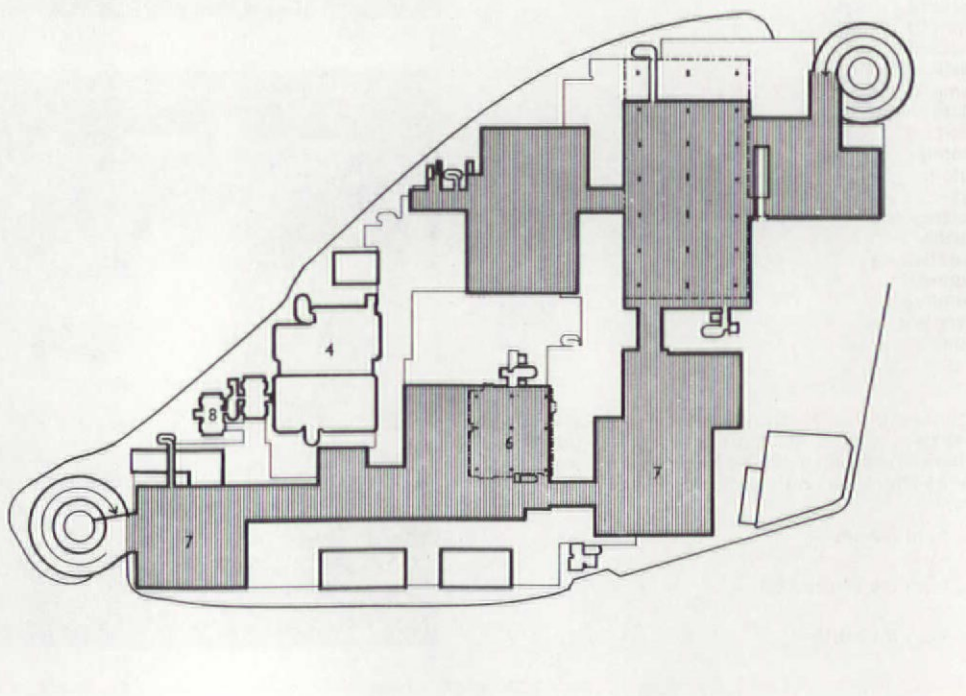

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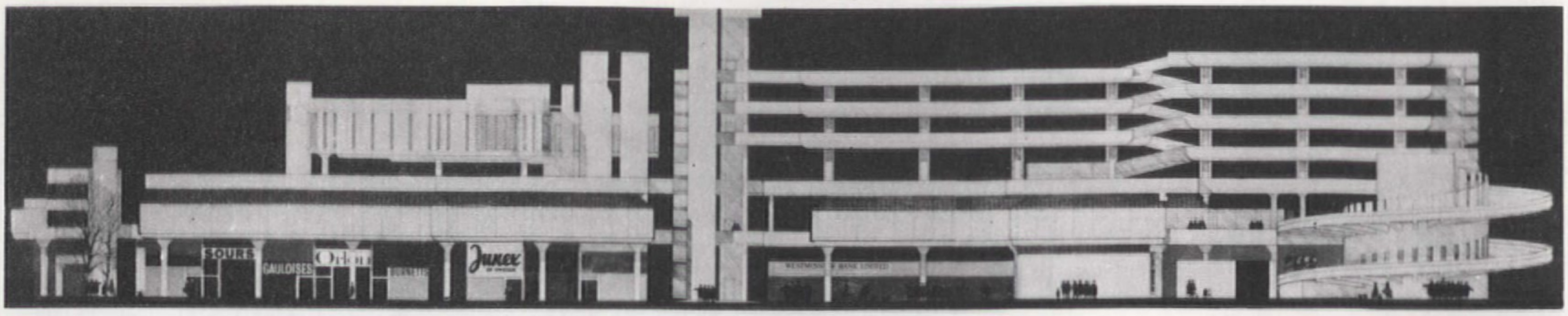

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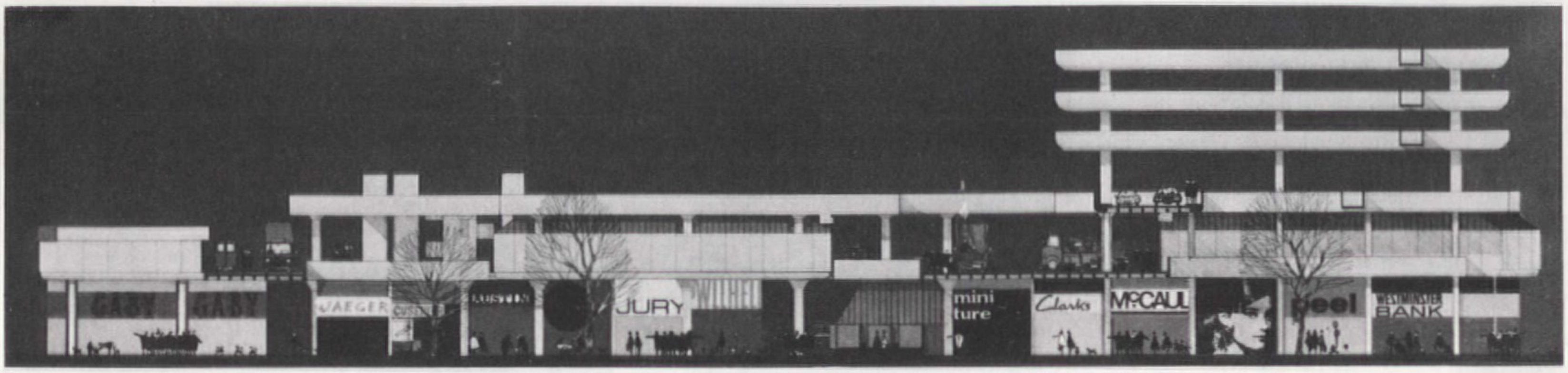

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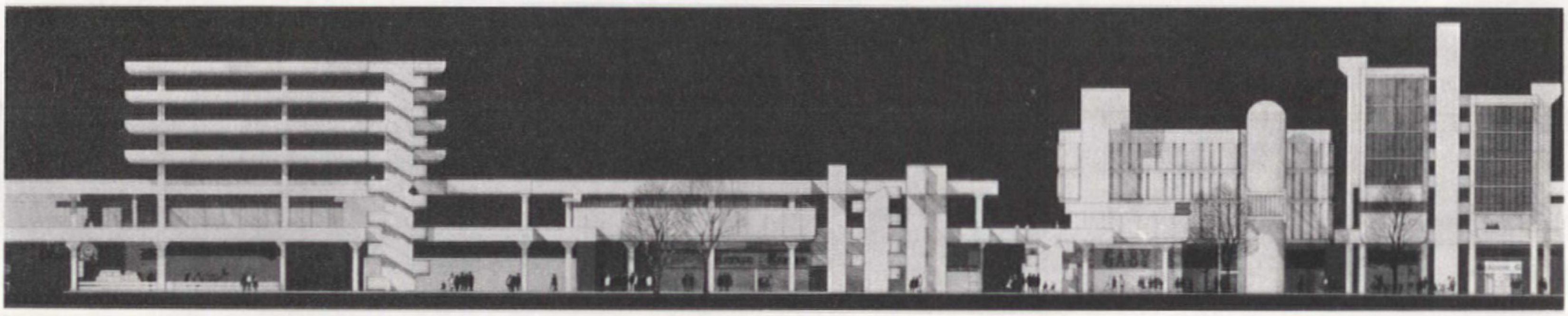

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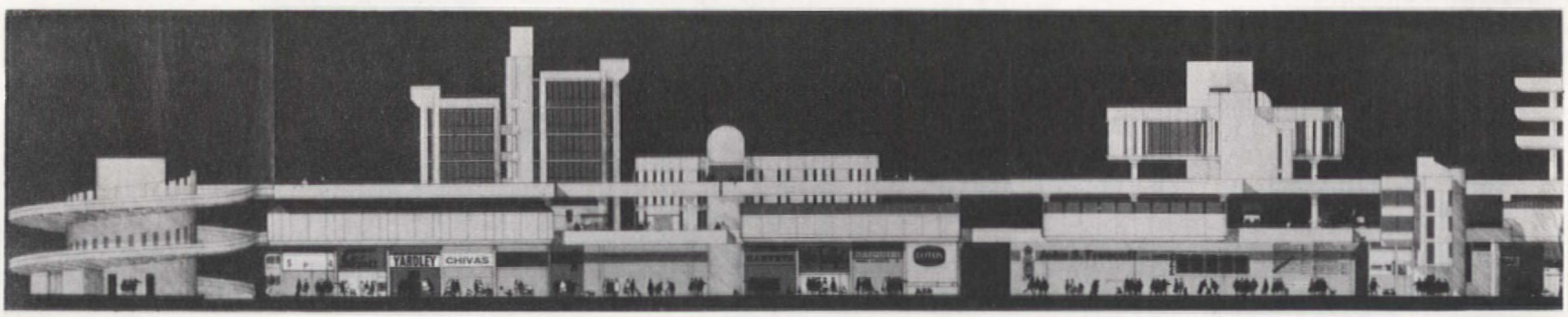

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former was made available to us by Messrs. Sommerfield, who flew in the original models from the States.

The project, which was the subject of a negotiated tender with Messrs. Taylor Woodrow, started on site in spring 1964, and is expected to last 19 months, for completion in October 1965.

1
Ground floor plan; shopping level
1 garage
2 car wash
3 supermarket
4 department store
5 public houses

2
First floor plan, wholesale market level
4 department store
8 flats

3
Third floor plan, car park level
4 department store
6 restaurant
7 parking
8 flats

4
Pye Street elevation

5
Section through precinct looking north

6 & 7
North and Charlotte Street elevations

Housing, The Ryde, Hatfield, Herts

For the Cockaigne Housing Group Ltd.

Architects, Peter Phippen in association with David Parkes & Peter Randall

Brief

The aim of the Cockaigne Housing Group was to develop a site of 2¾ acres at old Hatfield. The site was originally intended to be sold by the Development Corporation as plots for 12 individual houses. The Group's scheme would consist of 30 houses and at the same time provide a large common garden with tennis court, paddling pool, sandpit and a Common Room which could be used for parties, meetings or a nursery play group.

The site is part of a recently developed surburban area surrounded by houses built to individual owners' requirements. There are no trees or other interesting natural features. The outlook from the site to the west is restricted by a corn mill and by the railway, both of which are unsightly and generate noise.

The houses would have generous space standards, at least those laid down by the Parker Morris Report, be planned for flexibility and family change, have a higher degree of privacy than is customary and be centrally heated. The majority of houses would have a garage immediately adjacent.

Conceptual solution

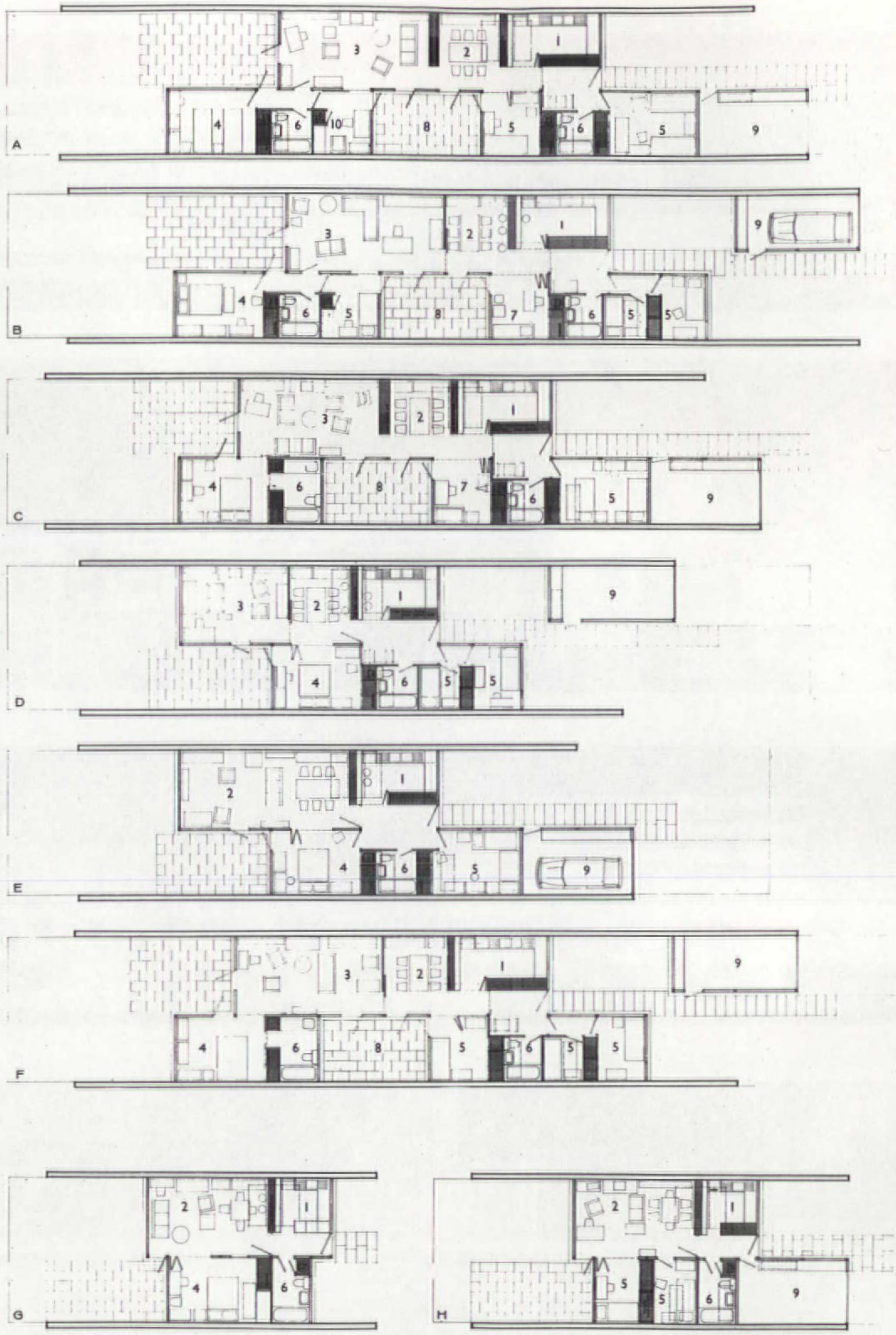
Because of the nature of the site it was necessary to create an interesting environment within its confines. It was decided to screen the railway and the mill with a wall and planted screen. A single-storey solution was adopted as this would achieve privacy to the garden areas with no overlooking from upper floors. It would also enable a high degree of privacy both visual and acoustic to be obtained.

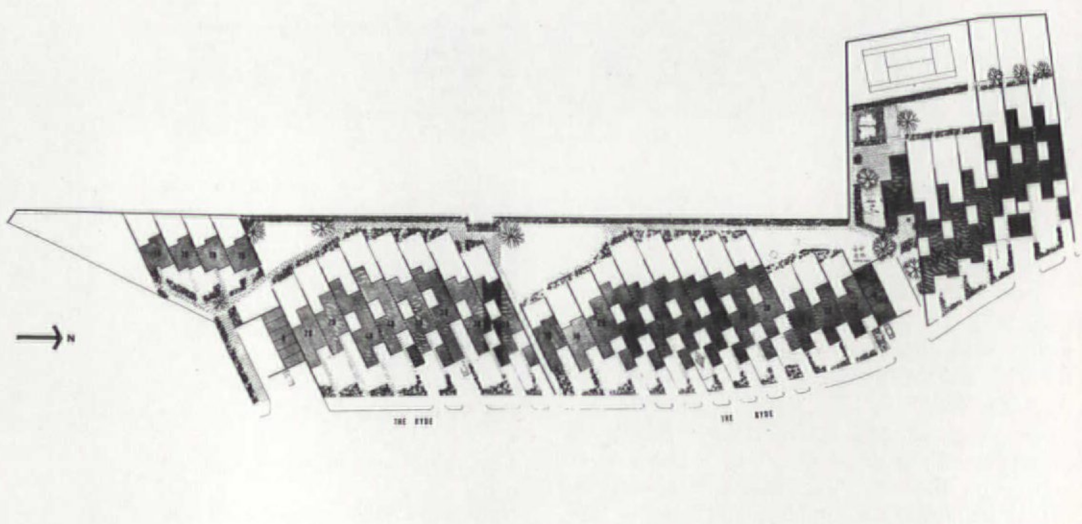
The idea of this scheme is an attempt to strike the right balance between areas of common and of private use. The areas of common use being visible to and maintained by everyone in the Association, the areas of private use being separate, within which the individual can live in any way he likes without interrupting the common order.

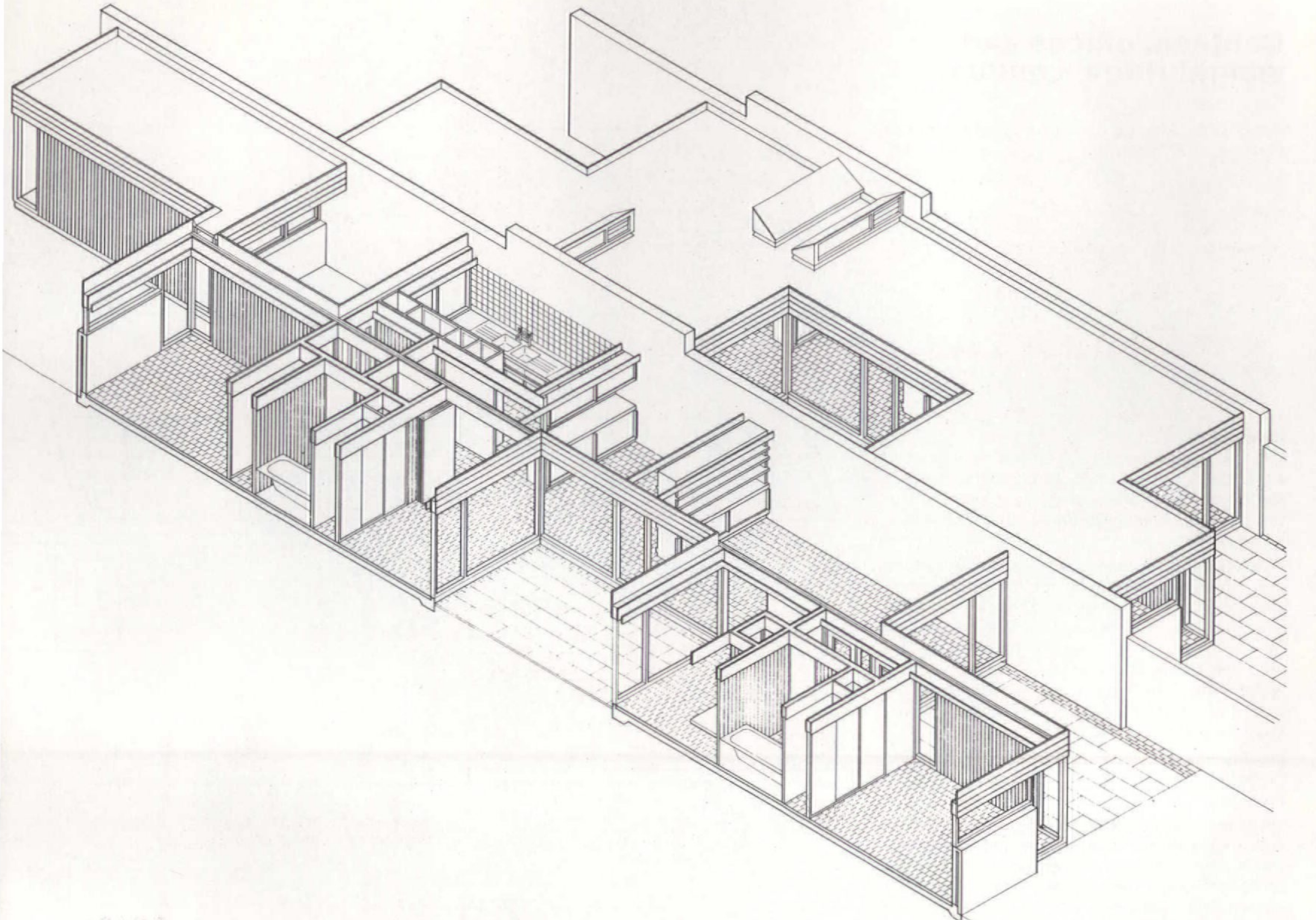
The scheme has a framework of cross walls extending the total length of the house and garden between which the houses fit. These walls, at 23ft centres, are enclosed at the ends with planting and provide a framework of enclosures within which the individual family is autonomous.

By their nature the individual house plans have a high degree of adaptability and flexibility to suit changing family needs. In the case of the four-bedroom house for example, this can be used as a three-bedroom house with a study, or as a three-bedroom house with a playroom. In all cases the extra accommodation opens directly off the main living room.

The large front bedroom in the two-, three- and







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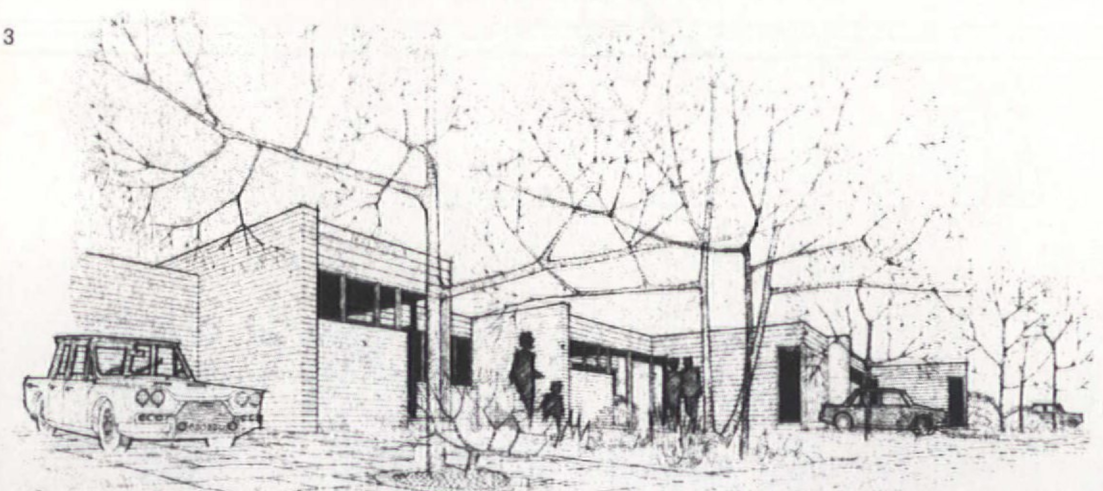

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four-bedroom houses can be subdivided with a specially designed cupboard unit to form two small bedrooms or, alternatively, would be ideal for use as a bedsitting room by an aged relative, or student. In addition to the entrance court and the private garden to the rear the larger houses enclose an internal court which opens directly from the childrens' bedrooms and the living area of the houses. When used as a playspace this is easily supervised from the kitchen. The private garden at the rear in turn opens on to the common garden.

All rooms apart from main bedrooms have doors opening direct to the outside. Dining room and kitchen obtain additional sun through rooflights. The houses are so orientated as to receive sun throughout the day, in the kitchen and bedrooms in the morning, in the internal court during the midday period and in the living room in the evening.

Technical solution

The cross walls and undercill aprons at front and rear are of white painted concrete blocks both internally and externally. The roof is of timber construction and spans between cross walls. It is supported on a spine beam carried on boarded timber frames. The roof is covered with asphalt and chippings. All internal partitions are of timber boarding. Windows are vertically sliding aluminium sashes. Water is heated by electricity and heating is electric underfloor throughout, boosted by storage heaters to living areas. Timber is clear finish internally and treated with Solignum externally.

1
House Type Plans
1 kitchen
2 living
3 dining
4 master bedroom
5 bedroom
6 bathroom
7 workroom/playroom
8 patio
9 garage
10 study

A
4 bedroom house/type 1 (4B)
B
4 bedroom house/type 2 (4B)
C
2 bedroom house/type 1 (2B)
D
3 bedroom house (3B)
E
2 bedroom house/type 2 (2B)
F
4 bedroom house/type 3 (3B)
G
1 bedroom house (1B)
H
2 bedroom house/type 3 (2B)

2
Site plan of whole housing group showing the position of various types

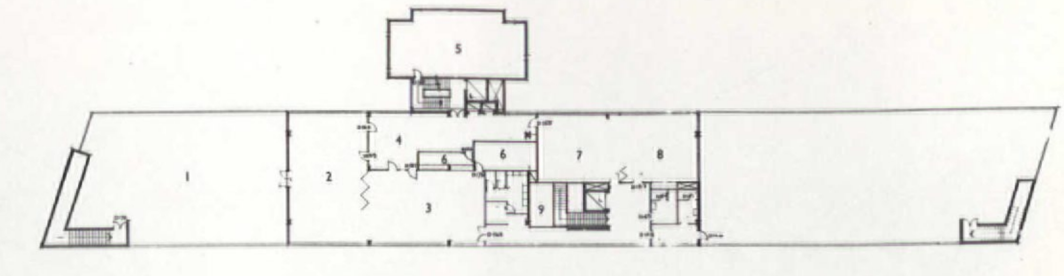
3
Axonometric of a typical 4B house partly cut away to show layout

4
A general perspective of a section of the scheme

Canteen, offices and weighbridge, London

For British Oil & Cake Mills Ltd.

Architects, Munce & Kennedy; architect in charge, J. F. Sheldon



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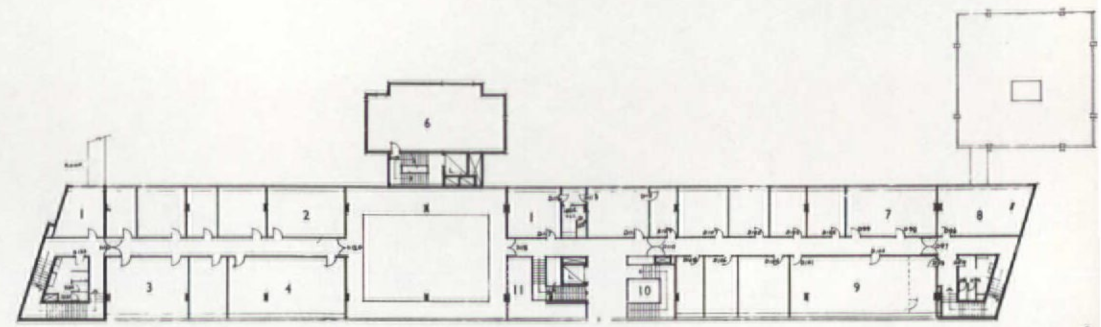

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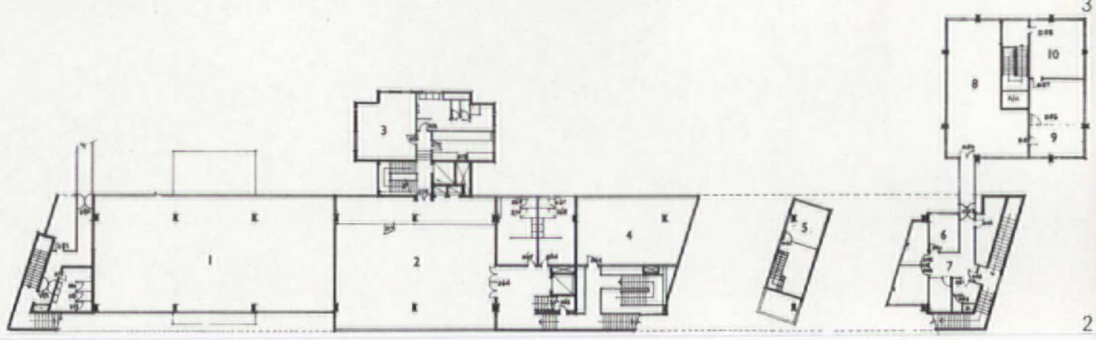

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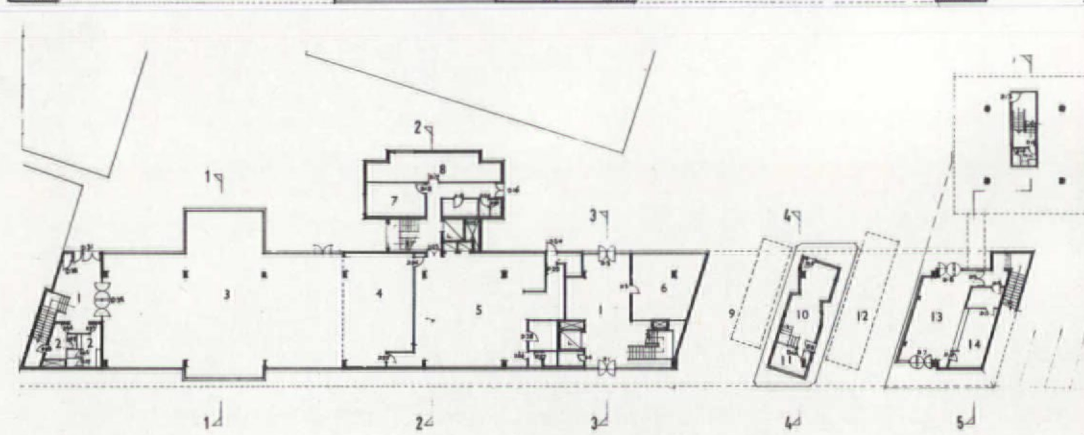

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Brief

B.O.C.M. asked in the brief for the provision of a works canteen to seat 225 and an office canteen for 120 persons. Further office space to augment the existing, a weighbridge house and a despatch office.

The new facilities were to be planned within the mill premises, allowing for the future expansion of the mill and/or the offices. There were certain essential requirements to be incorporated into the overall plan, which were to have a considerable effect on it. These were: (1) that at least one weighbridge has to be working throughout the period of reconstruction; (2) the works canteen must be on the ground floor.

In addition, the local authority asked for the provision of a car park for 55 cars, within the mill premises.

On study of the brief it was apparent the whole mill area was extremely congested as regards traffic, vehicular and pedestrian, and that the areas for suitable development were extremely limited. It was obvious that an efficient overall plan for the traffic flow on and off the premises, and within the mill, would form a major part of the overall design.

On further consideration of the brief, and discussions with the client, only one area was suitable for all these new facilities. This was a long narrow strip of land about 80ft wide along the northern boundary of the mill. This length of the site, included the existing office block and main vehicular entrance and exit to the mill, and increased the area of new office space required. The project now involved the demolition of the existing offices and increased the areas of new offices to be provided.

Conceptual solution

The main factors which now formed the basis of the planning were: the necessity for a smooth and efficient flow of pedestrian and vehicular traffic on the mill premises, the provision of a car park for 55 cars, and the necessity of having at least one of the weighbridges open throughout the construction period, and the requirement of having the works canteen on the ground floor.

The congested nature of the mill premises, and the first three factors, fixed the position of the main vehicular entrance and exit of the premises, and the position of the weighbridge house. This meant that the works canteen had to be planned away from the traffic streams in the eastern part of the site.

It will be noted that with these fixed positions of the four main areas on the ground, with suitable pedestrian entrances, leaves very little space for further accommodation on the ground floor, except for the main kitchen, and a service block.

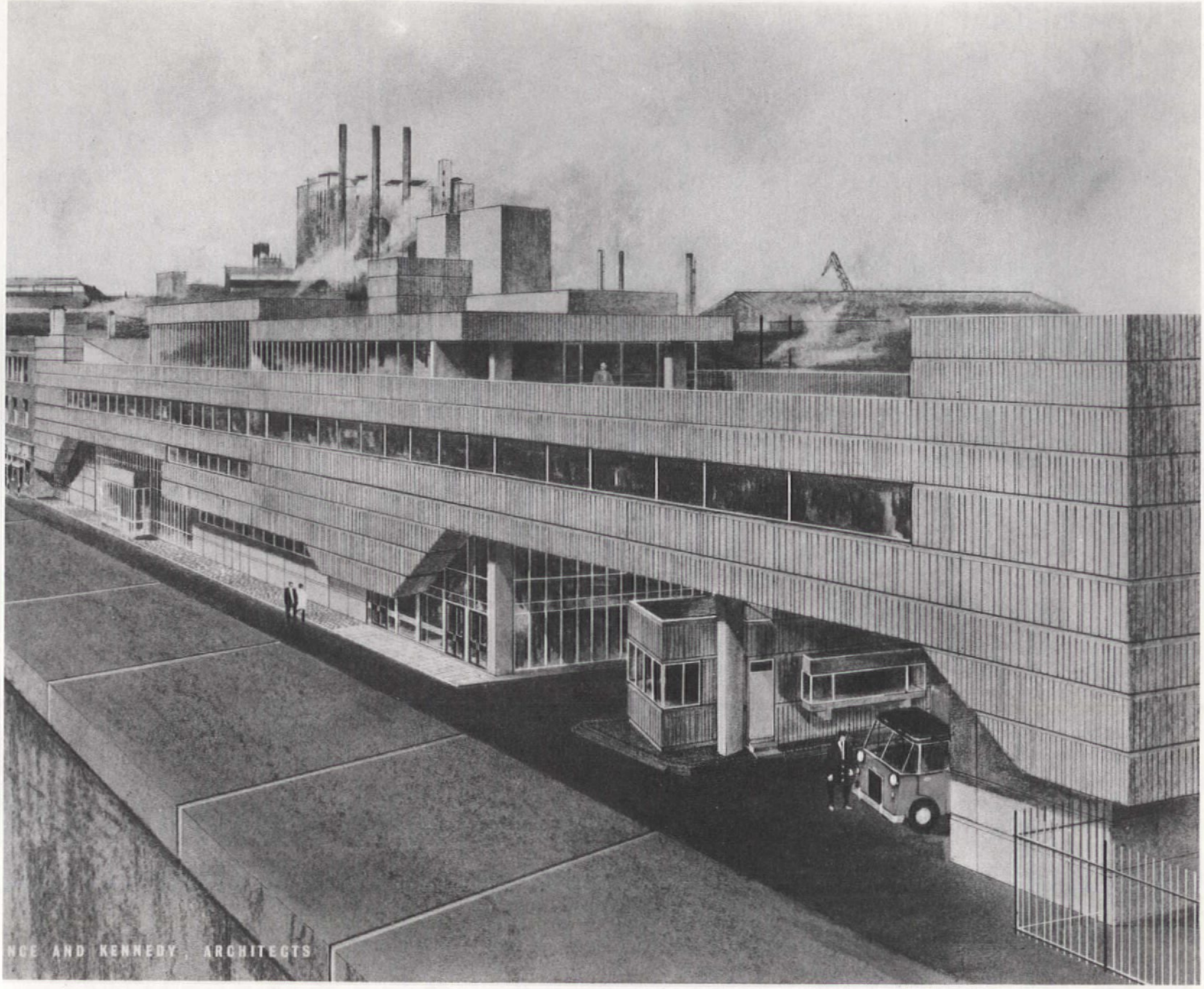
1
Ground floor
1 entrance
2 w.c.s
3 canteen
4 servery
5 kitchen
6 PBX
7 supervisor
8 dry goods store
9 in
10 weighbridge house
11 gate house
12 out
13 timekeeper
14 security

2
Mezzanine
1 upper part of canteen
2 office canteen
3 rest room
4 staff rest room
5 staff
6 welfare
7 waiting
8 despatch
9 transport office
10 drivers

3
First floor plan
1 offices
2 meeting room
3 work study
4 drawing office
5 upper part of office canteen
6 ventilation and calorifier
7 production planning
8 stock control
9 general office
10 void
11 waiting

4
Second floor plan
1 roof
2 guest dining
3 lecture annexe
4 servery
5 plant room
6 store
7 special dining room
8 conference
9 void
10 w.c.

5
Perspective drawing of the factory



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The planning on the floors above the ground was based on three points of vertical circulation along the long site, one at each terminal, and the main vertical circulation in the centre of the building. The angle of approach to the weigh-bridge house was deliberate so as to facilitate the multiple use of the new and existing weigh-bridges during the period of reconstruction. The high clearance necessary for the vehicular entrances was conveniently utilized in the two adjacent pedestrian entrances and weigh-bridges by a mezzanine floor for offices and recreation room, and was reflected in the works canteen by a high ceiling.

The kitchen and adjacent stores are linked by the lifts and stairs which form the vertical food supply to the other canteen and dining facilities above. The office canteen is located above the kitchen on the mezzanine floor, for easy access from the office areas on the first floor, thus allowing a large enough cube for a gallery and exhibition area between the two office areas.

The second floor has been planned around the main stair and lift, and allows for the greatest flexibility of varied use throughout the year.

The roof areas on both sides of these facilities will at a later date be used for extra office accommodation.

The despatch office, is at mezzanine level for easy access to office areas, and also to make more area available for car, cycle parking on the ground floor.

Technical solution

The environment of Silvertown is bleak and majesterial, with the docks, mills, warehouses, and causeways all on a grand scale. The problem was to design one building, incorporating three totally divergent architectural elements in keeping with the environment, and yet to preserve its own scale and integrity and to provide an architectural solution of sufficient character.

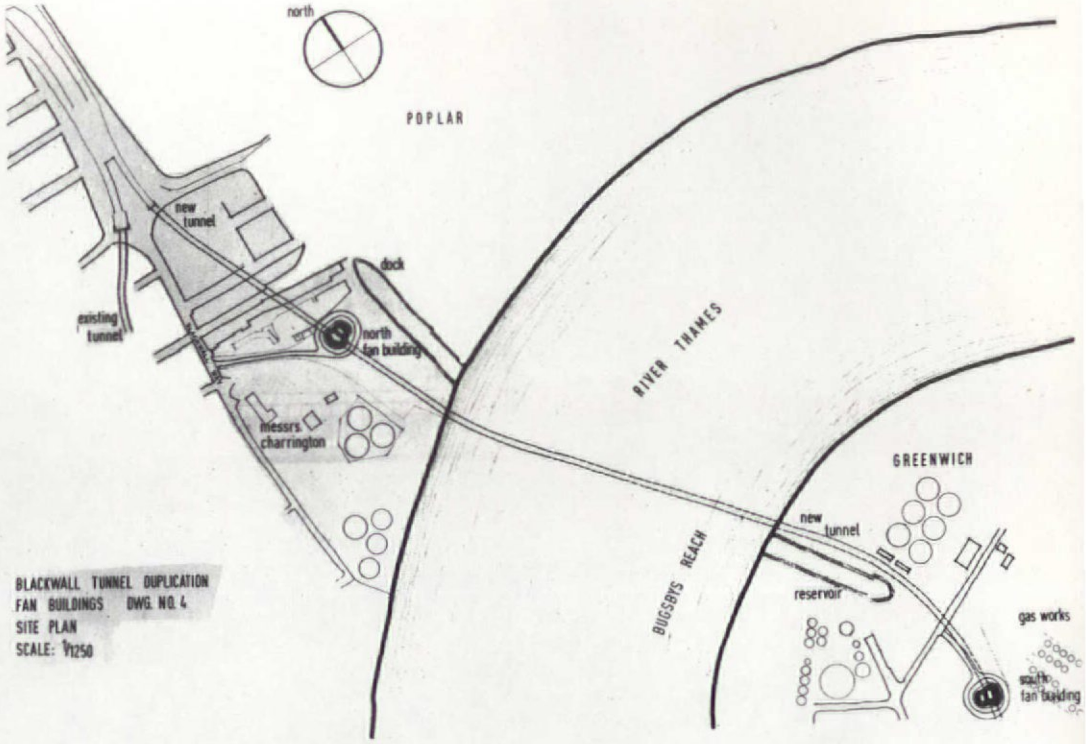
External materials had therefore to be simple and direct and in conjunction with the structural solution of the problem concrete was selected as the principle external material.

External walls are 6in concrete with a board-marked face and lift heights defined by a recessed groove. Structural 'A' frames are 24ft or 39ft centres with hollow tile floor slabs. Windows are of aluminium and double glazed. Canteen and kitchen areas are ventilated, office areas being air-conditioned.

Blackwall Tunnel ventilation buildings, London

For the Roads Committee of the London County Council

Architect to the LCC, Hubert Bennett; Deputy Architect, Frank West; Senior Architect of Special Works Division, G. F. Horsfall



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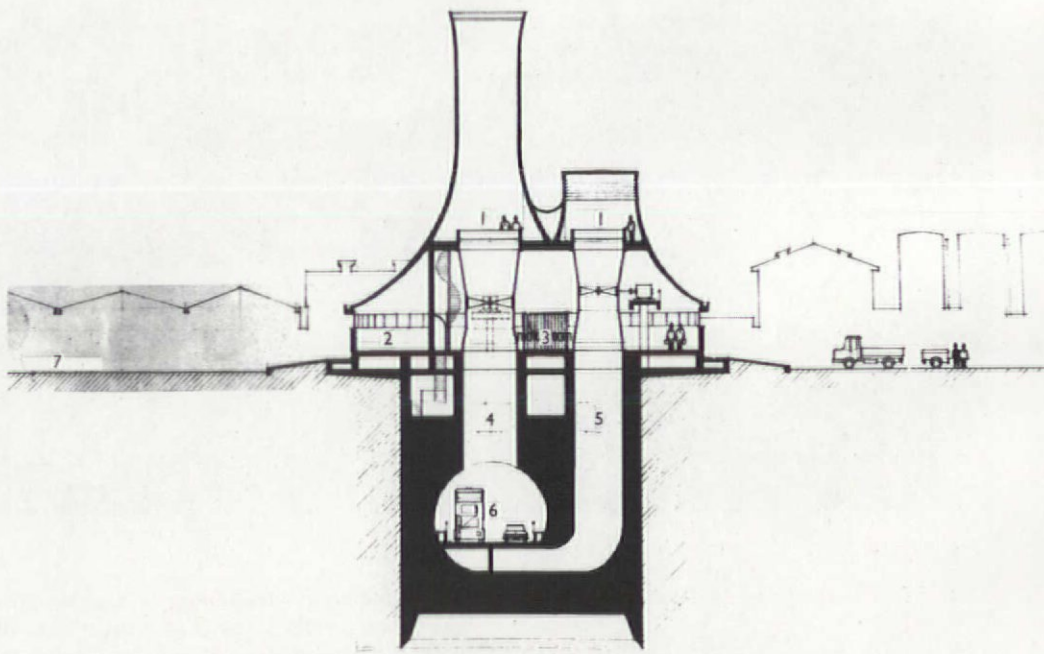

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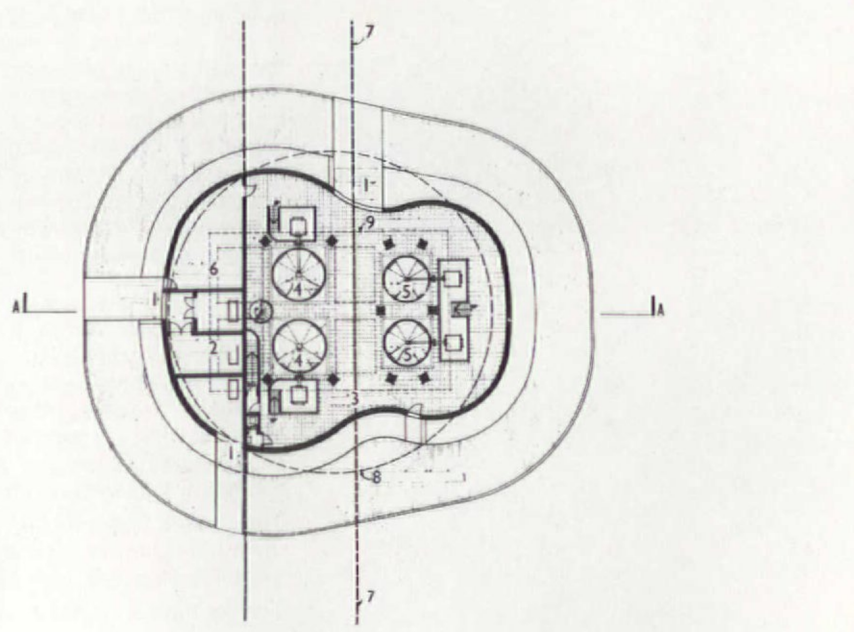


3

Brief

Two buildings were required to house the mechanical and associated electrical equipment which will provide continuous forced ventilation to the new tunnel under the Thames between Greenwich and Poplar now under construction by the Council's Chief Engineer.

The structures sited over the tunnel access caissons on each side of the river are almost identical and the equipment encompassed is in the form of two blower fans discharging foul air from the tunnel at a height of 90ft.

Conceptual solution

The functional necessity to enclose the circular fan housings and their associated motors, produced the curvilinear form on plan, and the aerodynamic characteristics of the air flows of the intakes and extracts produced the flowing form of the roof shapes enclosing the venturies.

Both buildings being disposed and orientated in accordance with the tunnel caissons and within undefined sites, the treatment of environmental space is related strictly to the plan forms of the structures.

Technical solution

The shell roof form, supported completely from the instrument gallery slab, will be of sprayed concrete on stressed cables conforming to spiralling catenaries centred on axes associated with the two elliptical shafts.

The concrete grillage cantilevering from the caisson supports the perimeter blue brick wall and provides a crawl-way ducting system for the electrical installation to the motors from the switchroom and transformers and contains an airlock access to the tunnel below.

Instruments measuring the air-pollution density will be stationed on the gallery slab and be accessible through air-locks. The slab is supported directly from the caisson and grillage by concrete columns.

The heavily polluted sulphur dioxide atmosphere in the vicinity of these buildings has called for special protection to exposed materials and particularly the concrete of the roof shells which will be spray-coated with bitumen and cement paint to resist corrosion. This will be light grey in colour.

The cost per building, excluding the mechanical and ventilation installations and associated electrical plant is estimated to be £117,500.

1
Site plan showing relation of northern and southern fan buildings to the Blackwall tunnel

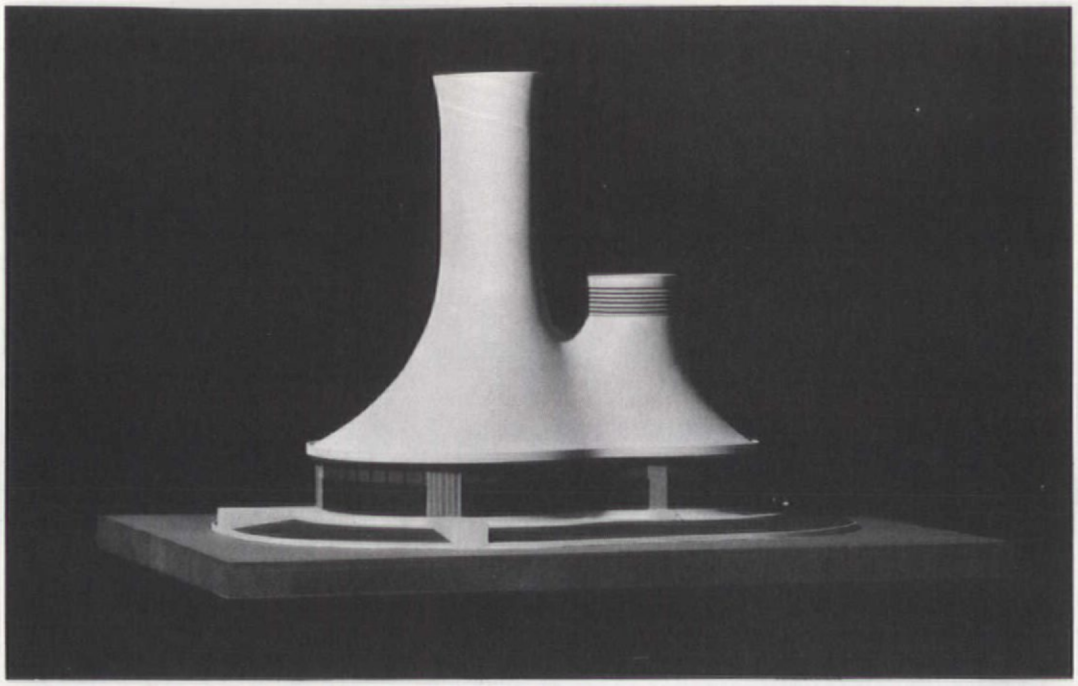
2
Cross section through the vent building
1 gallery
2 transformers
3 motor room
4 exhaust shaft
5 blower shaft
6 tunnel
7 ground level

3
Plan of vent building
1 loading bay
2 transformers
3 motor room
4 exhaust
5 blower
6 switch room
7 line of tunnel
8 line of cofferdam
9 line of caisson

4
A side view of the vent building model

5
Interior view of model showing arrangement of plant room

6
A general view of the model of the vent building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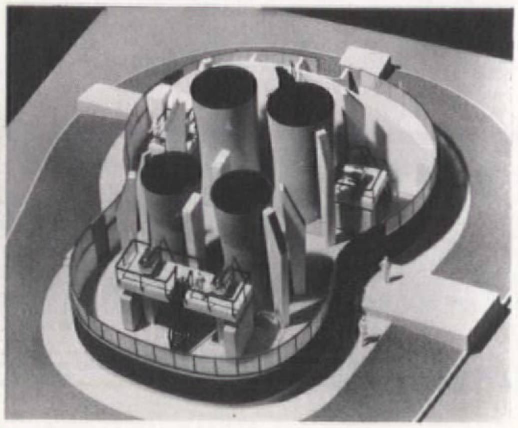
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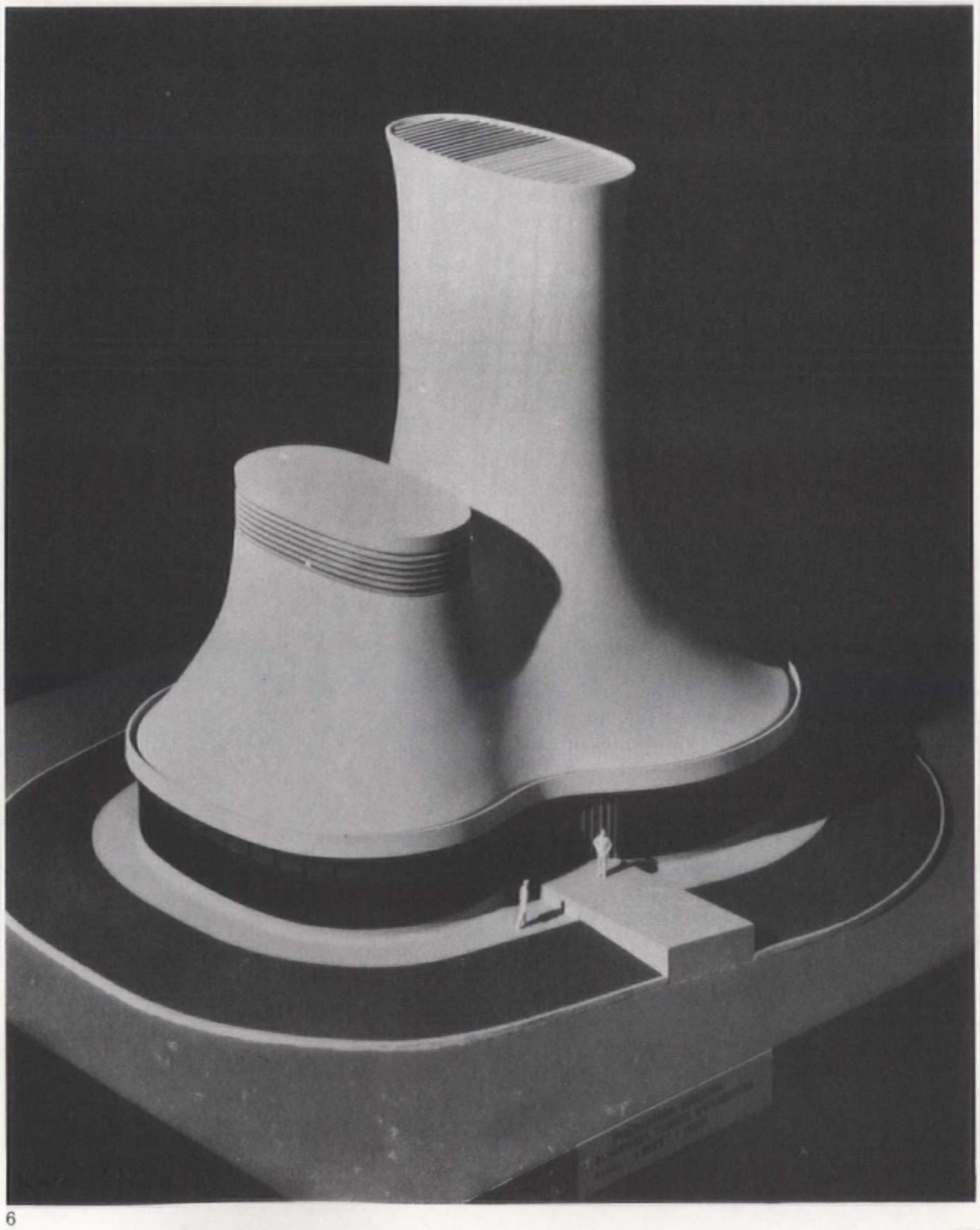
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Waterfront housing, Pill Creek, Feock, Cornwall

For Marcus Brumwell
Architects, Team 4

1

Brief

The client is an enlightened business man who is retiring to a new house on the opposite side of Pill Creek (see entry for 'House in Pill Creek').

The site is a sloping three-acre strip bounded on its long sides by the Creek and a county road. Most of the site is covered by trees and dense undergrowth. The other part is built upon with an unsightly wall of sheds and three dilapidated buildings.

The client wishes to replace these existing buildings with a development appropriate to the Creek.

Conceptual solution

After many interviews with local estate agents the architects' consultants reached the following conclusions:

1. There is an unfulfilled need for housing for the retired semi-retired professional group, with the following facilities: moorings, view and car access.

2. This group were not particularly interested in the individually owned garden, as long as the needs of privacy were met.

3. The demand for accommodation generally is growing out of all proportion to the availability of sites.

After a study of housing by the sea, both in the area and elsewhere, the architects came to the following conclusions:

1. Traditional buildings offered many valuable lessons, i.e. that high density could be achieved within compact groups of buildings which complemented the landscape.

2. That all recent buildings used maximum land for minimum units, i.e. concept of one house—one site—half an acre.

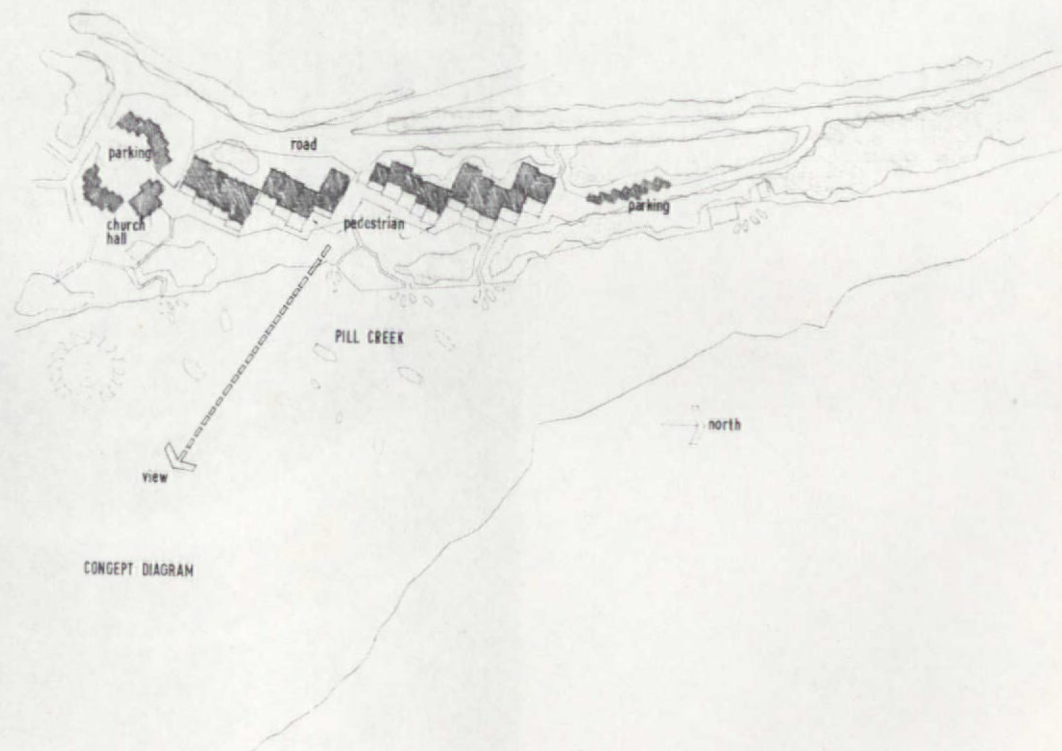
3. That this type of development destroyed the special qualities of the countryside, (at its best the so-called modern development is an overall spotting of houses, each perhaps quite tasteful individually; at its worst a monotonous spec-builders sprawl reminiscent of the suburbs. Either extreme is a visual disregard for the special and rooted qualities of the place.

After a study of the site in question, in the light of the foregoing, the architects found that it was possible to:

1. Leave the wooded part of the site untouched.

2. Remove the line of existing dilapidated buildings and sheds which follow the contours and occupy the prime building land.

3. Two small existing roads at either end of the site are modified to lead to parking and service 'nodes'. These are screened by earth mounds. This avoids any congestion of the narrow main road.



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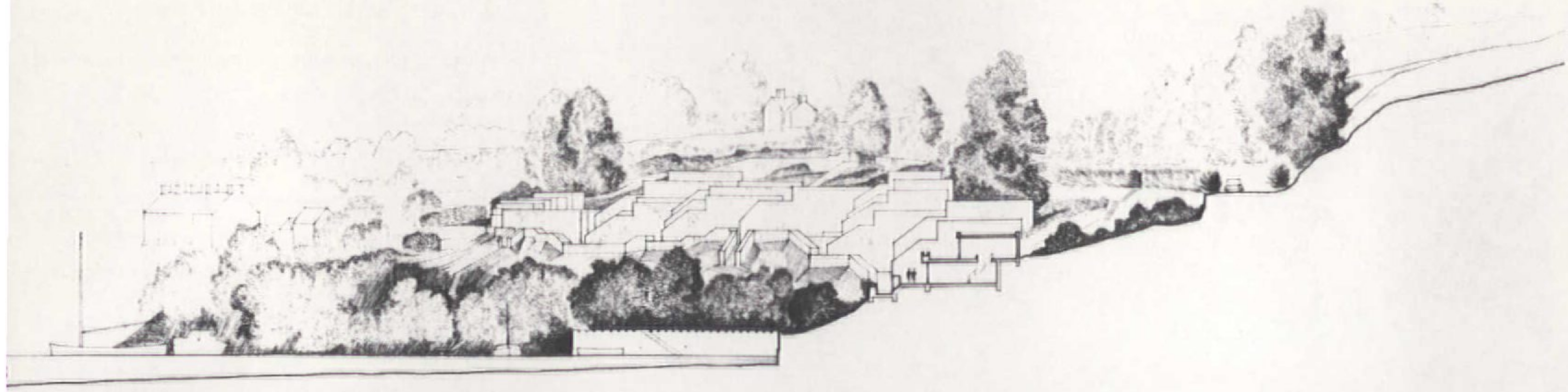


. A strongly landscaped pedestrian way links ıese two nodes and relates to a line of houses /hich replace the original buildings.

. This housing is 'dug-into' the site resulting in staggered section. Several types of units are eing developed to answer varying needs.

. By manipulation of levels each house looks eyond its own private court, over the pedestrian ootpath below, and diagonally out to the view nd sun.

. The whole scheme has been conceived in andscaping terms from large scale tree massing nd strongly mounded pathways to individual lanted boxes.

. The provisions and maintainance generally vill be provided within the terms of a 999-year ease.

'his system of high density clusters allows free ublic movement through the site.

'he resulting section clearly defines public and rivate areas, car and pedestrian segregation, nd movement through the site from car to house o boat.

Technical solution

.oad-bearing concrete block cross walls extend eyond the house to give privacy to the courts nd avoid overlooking.

'he intention was to expose the concrete block inish, but the planning authority insisted on endering, which would be painted white.

'loors are boarding on timber joists.

Roofs and terraces are in situ reinforced concrete, allowing growth of plants on roofs.

'ootpaths and steps are local stone.

Services form a spine along the line of the footpath and relate to the Development's heating unit at the south end of the site and a sewage disposal plant at the lower north end (sited in the trees).

.aybys for delivery vehicles are provided on the main road, above the house as well as at the two 'nodes'.

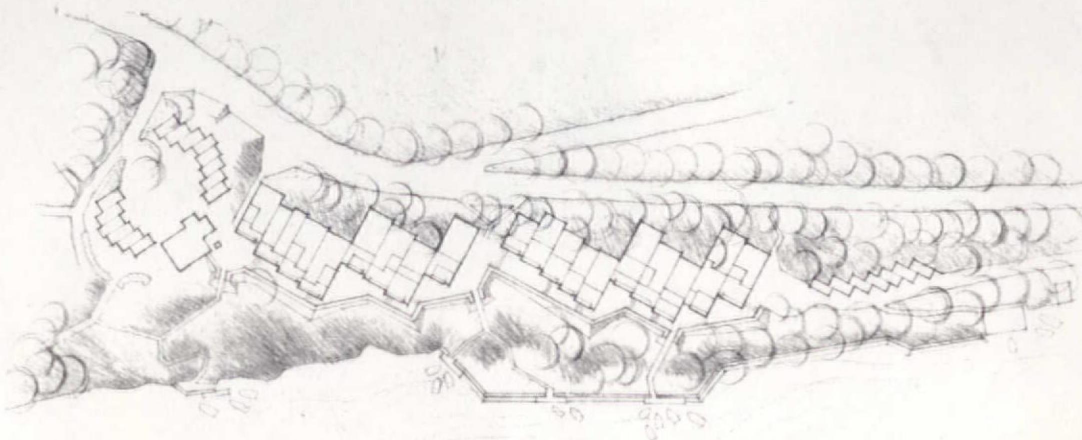
1
A general plan of scheme in relation to the surrounding landscape

2
A site plan

3
An elevational of the whole scheme

4 & 5
Architect's sketches showing the walkway in front of the housing

6
A drawing showing the various site and organizational factors which influenced the design of the scheme



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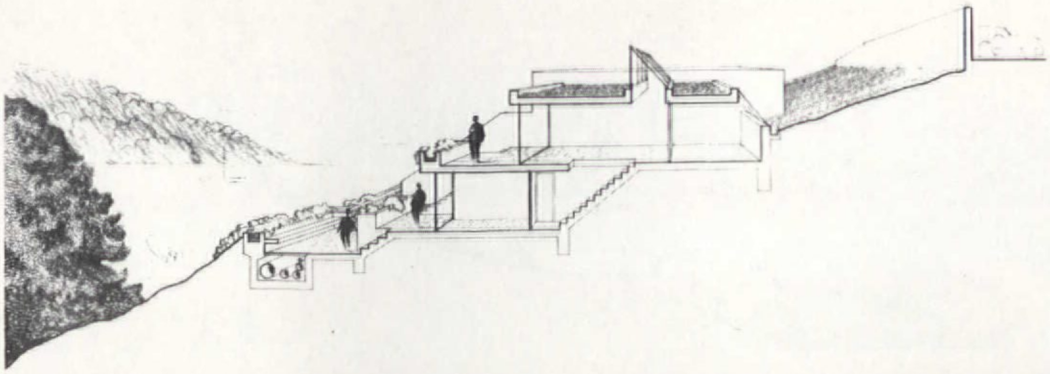

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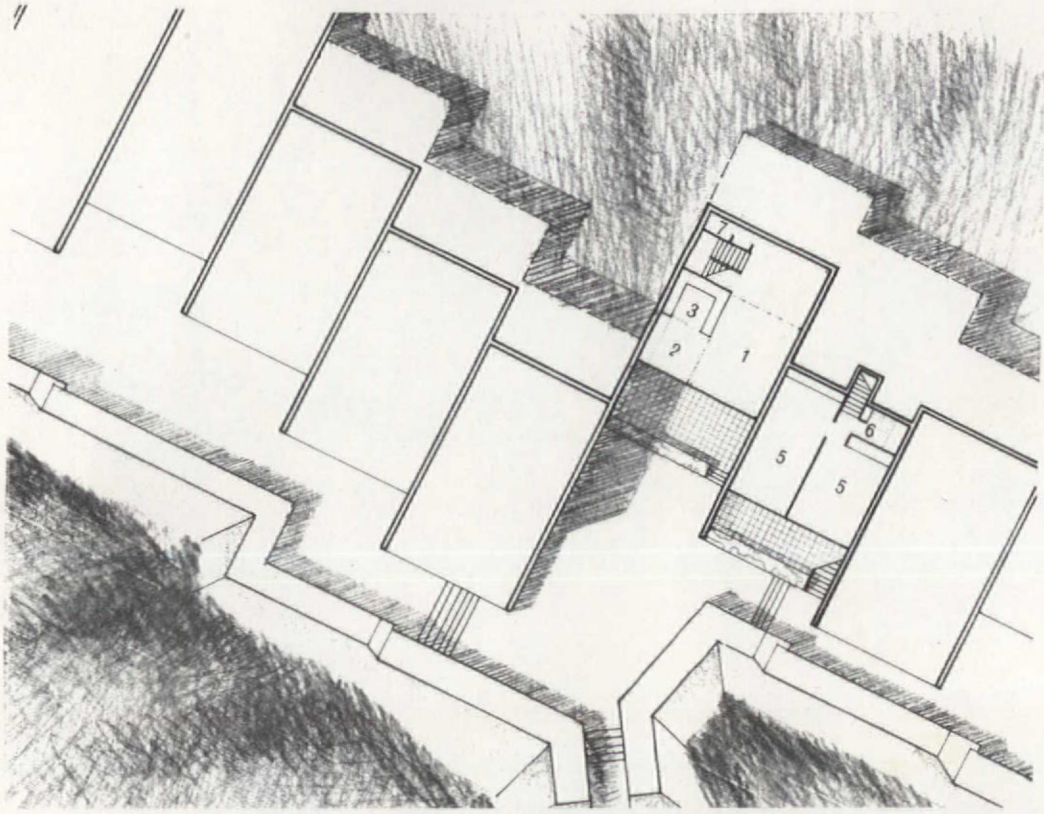

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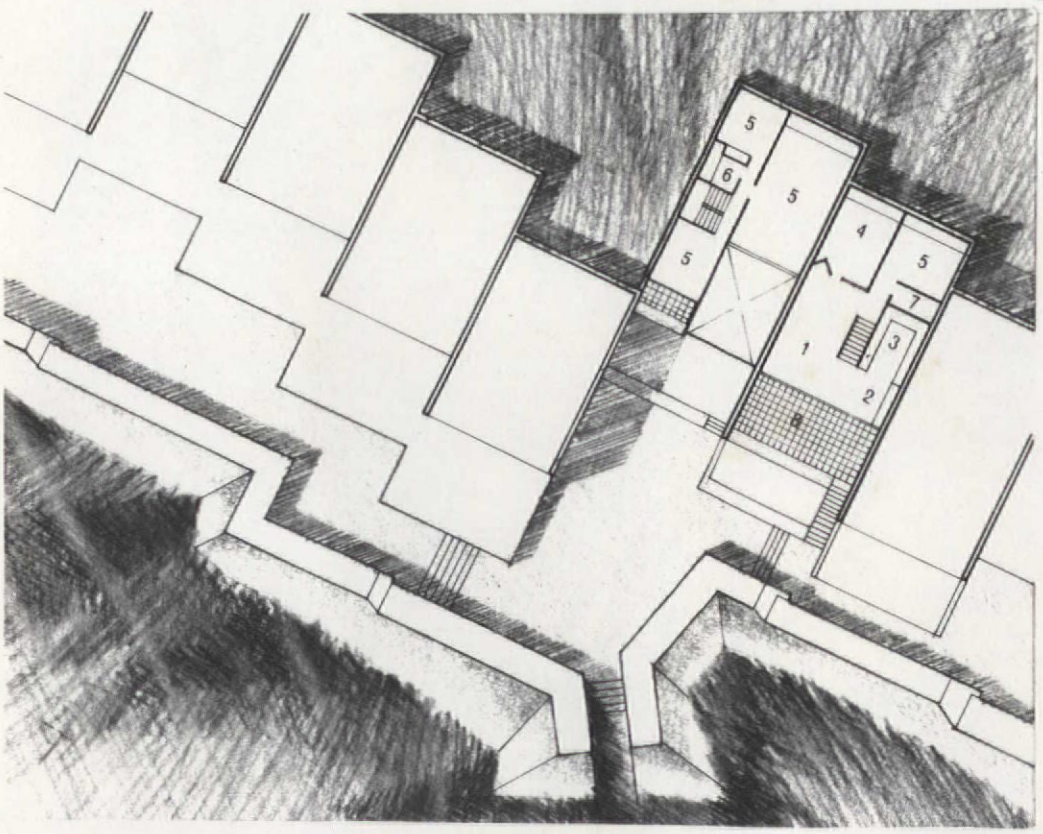
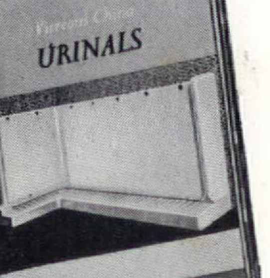


3

1
A typical cross section through the site

2
A typical plan through a terrace house at low level
1 living
2 dining
3 kitchen
4 study
5 bedroom
6 bathroom
7 w.c.
8 court

3
A typical plan through a terrace house at high level
1 living
2 dining
3 kitchen
4 study
6 bathroom
7 w.c.
8 open court


Vitreous China
URINALS

All photos unless otherwise stated are by Sam Lambert

Cité Radieuse, Briey-en-Forêt, (M. et M.) France

Le Corbusier

Architect in charge, M. Wogenscky

Le Corbusier's fourth and last Cité Radieuse, located in Alsace, north-east France, although designed in 1953, was only completed in 1961. It is not unexpectedly more similar in appearance to the 1955 Nantes-Rezé model than the earlier Marseilles block. With 339 apartments it is smaller than Marseilles (with 350) but larger than Nantes with 294 apartments. It differs from both by reason of its rural setting and the fact that apartments are rented and not sold.

Its location, in the middle of a beech wood, a mile from the centre of Briey, a sleepy and picturesque little town with Roman beginnings, 50km south of Luxembourg and 30km north-west of Metz, appears curious at first sight. The town contains no obvious reason within its boundaries which would call for expansion to the extent of adding a 17-storey block housing 1500. The answer, in fact lies 6km further away in the valley of the river Orne, where the giant iron smelting combines have spawned the grubby industrial towns of Homecourt, Joeuf and Moyeuvre. These provide the source of employment for many inhabitants of the Cité.

This Cité has been severed from its *raison d'être* on purpose. The site has been chosen in order to provide industrial workers with a foil to the smoke, dirt and noise of their working hours. The building is orientated north–south and the most effective view of it is to the west from the Longuyon–Briey road, where both Briey and the industrial mess are effectively hidden. The view from the west is further enhanced by the fact that the site falls away to the River Woigot on this side. The Cité was in fact the first building to be built in the township of Briey-en-Forêt, which at this time also includes four two-storey terraces of housing, the district heating plant, nursery and primary schools and a temporary shop, a hut used as a café and church hut. The completed township will include shopping and cultural centres, a permanent church and six further three- to six-storey housing blocks. The local architectural firm in charge of area development foresees an eventual link-up with Briey. The site is fairly confined as mining has made the surroundings liable to subsidence.

Credit for this conception of a Cité (the word can mean both city and block of apartments) must go to mayor Pierre Giry and deputy Phillipe Serre, who, in 1949, were among those forming the local OPIHLM (Office Public Intercommunal d'Habition a Loyer Modéré, a French institution equivalent to our local housing authorities. Each of the several hundred offices is autonomous, makes its own programme for which it gets approval from the Ministry of Construction, which authorizes a loan, repaid over 45 years with 1 per cent interest.).

The block consists of 17 storeys resting on 51 piloti. The overall dimensions are, length 110m, width, 19m and height, 62m. There are 339 apartments ranging from one room to eight rooms (not counting bathroom), which are disposed along six central artificially-lit corridors. Many apartments span the width of the building in the approved Corbusier manner although those at the south end of the building face in that direction only. There are 51 one-room flats of 23·62m²; 57 two-room (43m²), 223 four-room (80m²), 7 six-room (110m²), and one eight-room apartment (138m²). The total habitable floor area is 20,239m² and the area of the loggias is 1700m². Rents are 82.46 NF* per month for a one-room flat, and between 199 NF and 225 NF for a four-room apartment, depending on the location. The present population is 1350 of which 400 are wage earners, 300 other adults and 650 children.

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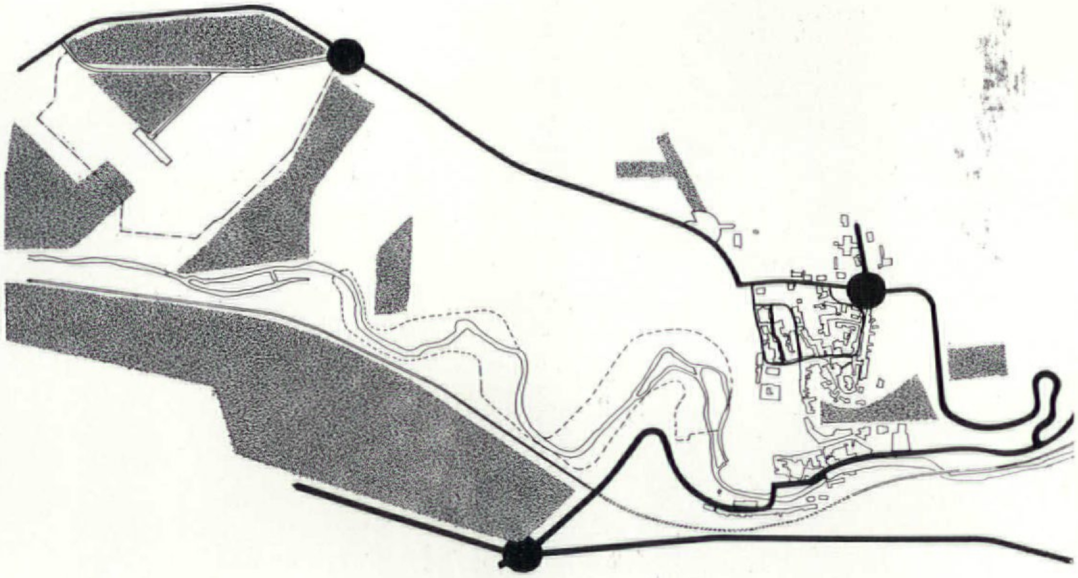

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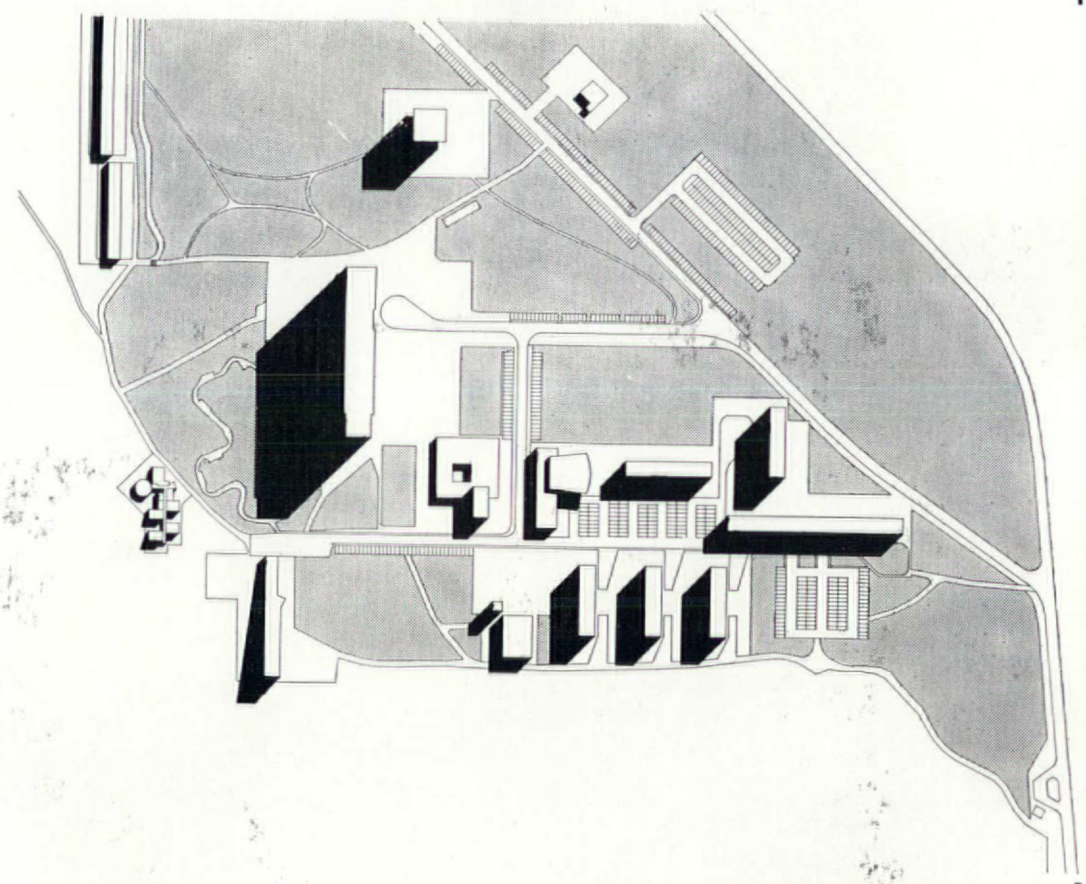

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* One new franc equals 1*s.* 5*d.*

1
A district plan showing the relation between Briey and Briey-en-Forêt. The old town of Briey is situated on the right of the plan. The thick black lines show main road links. The shaded zones are heavily wooded areas. The unité is shown as a single block in the top left hand corner.

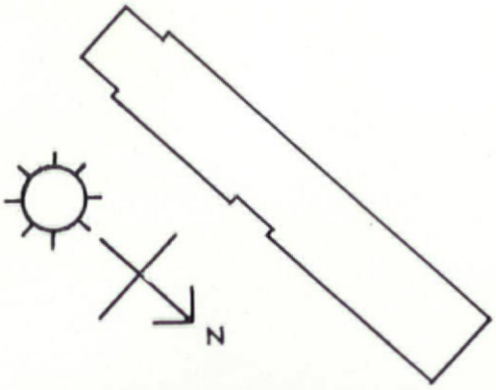
2
Briey-en-Forêt plan. A cultural and commercial centre are projected to the left of the unité. The unité is orientated north–south

3
Unité/Marseille Michelet

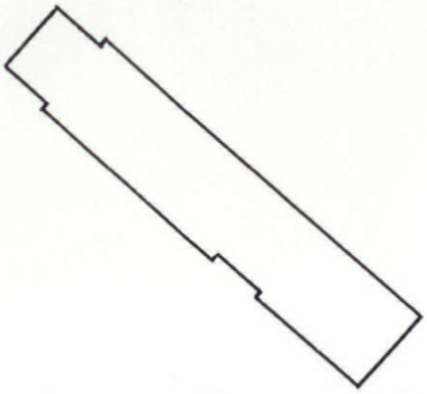
4
Unité/Nantes Rezé

5
Unité/Berlin (Charlottenberg)

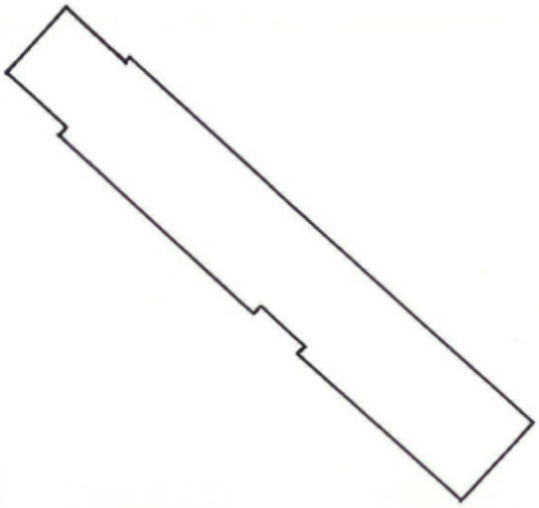
6
Comparative plans of four unités to the same scale



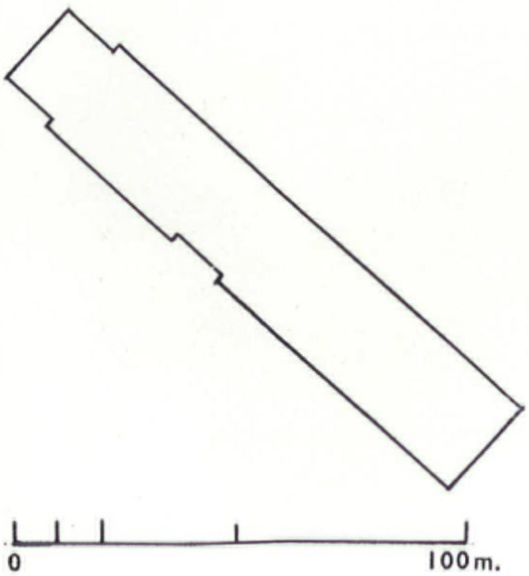
Unité/Briey-en-Forêt. Length 108 metres, width 18 metres



Unité/Nantes-Rezé. Length 107 metres, width 21 metres



Unité/Berlin. Length 140 metres, width 23 metres



Unité/Marseille Michelet. Length 135 metres, width 24 metres

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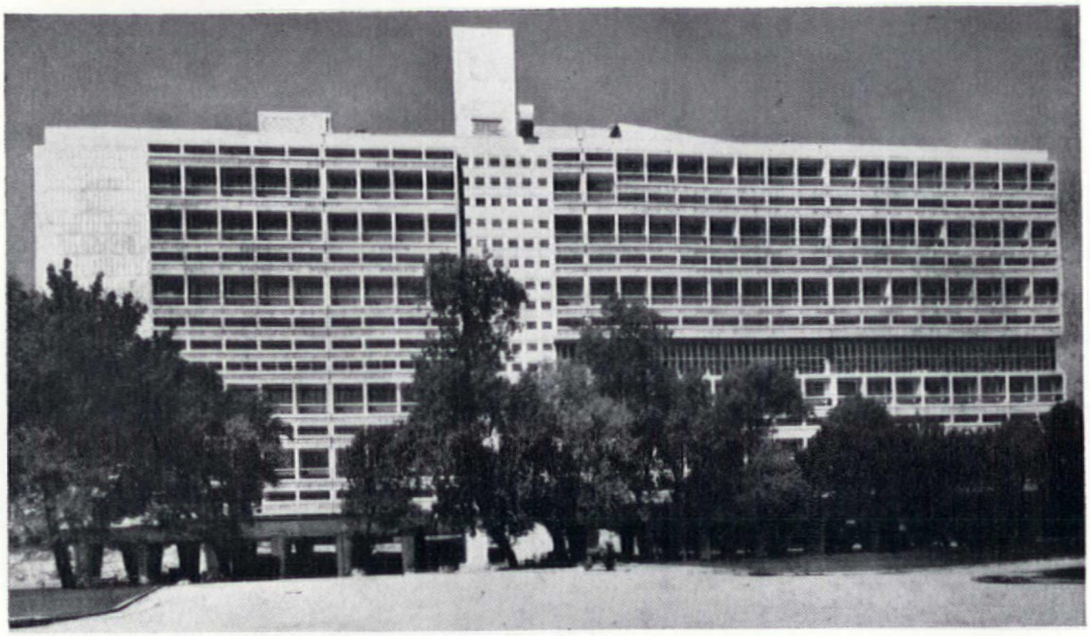

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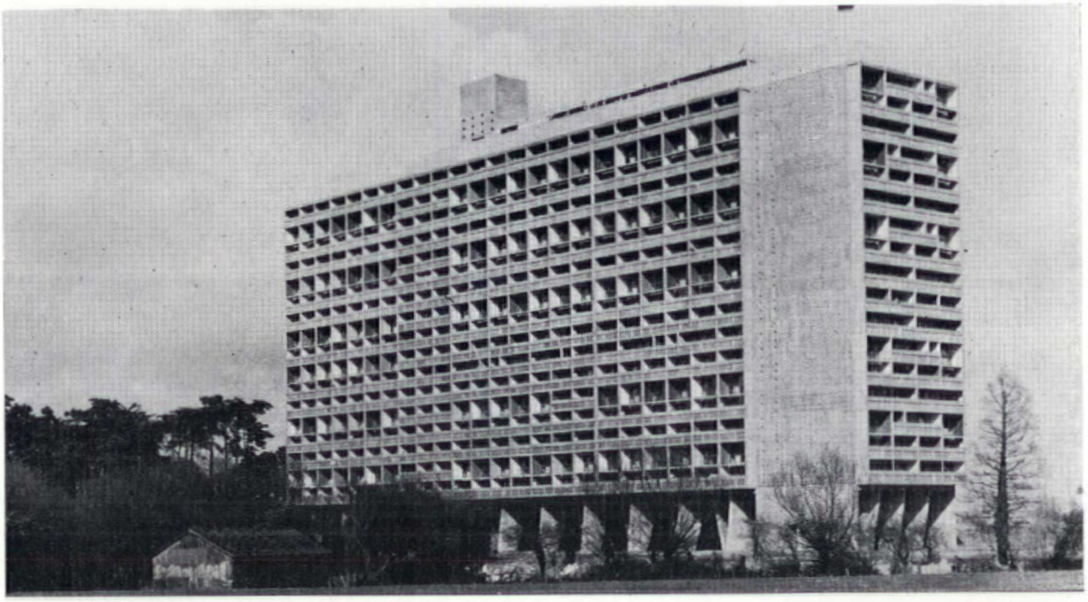

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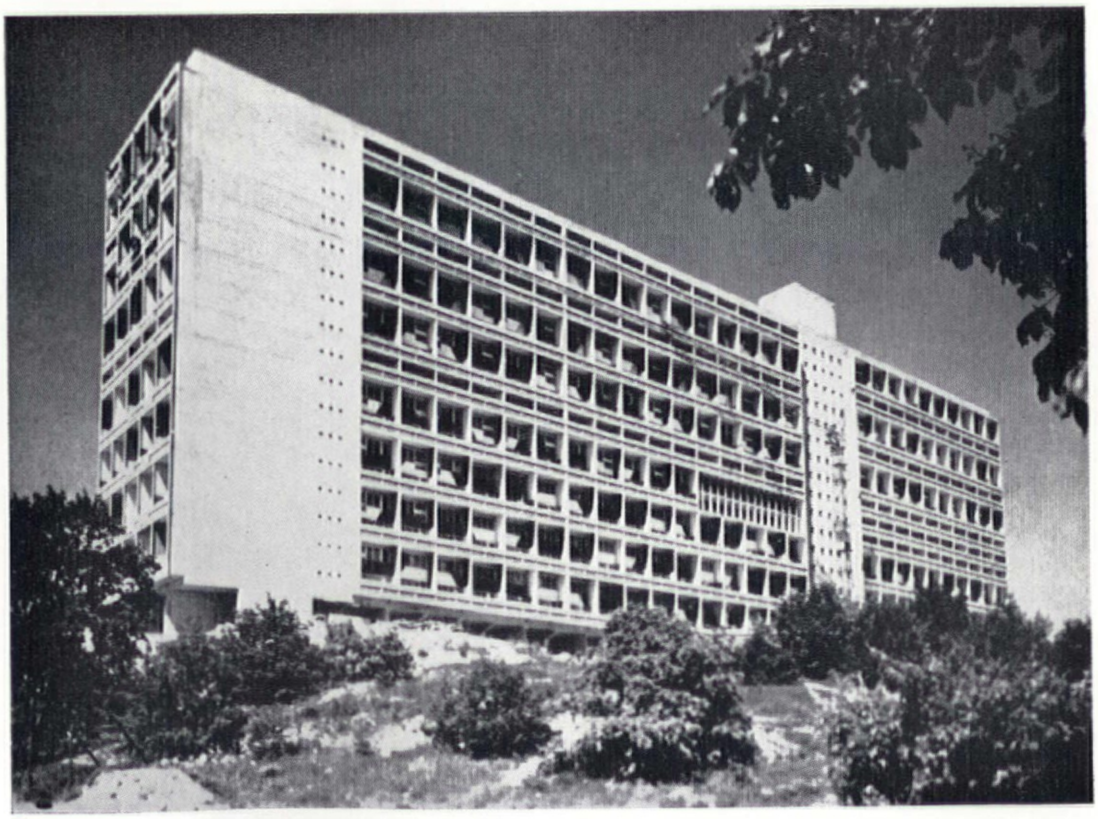

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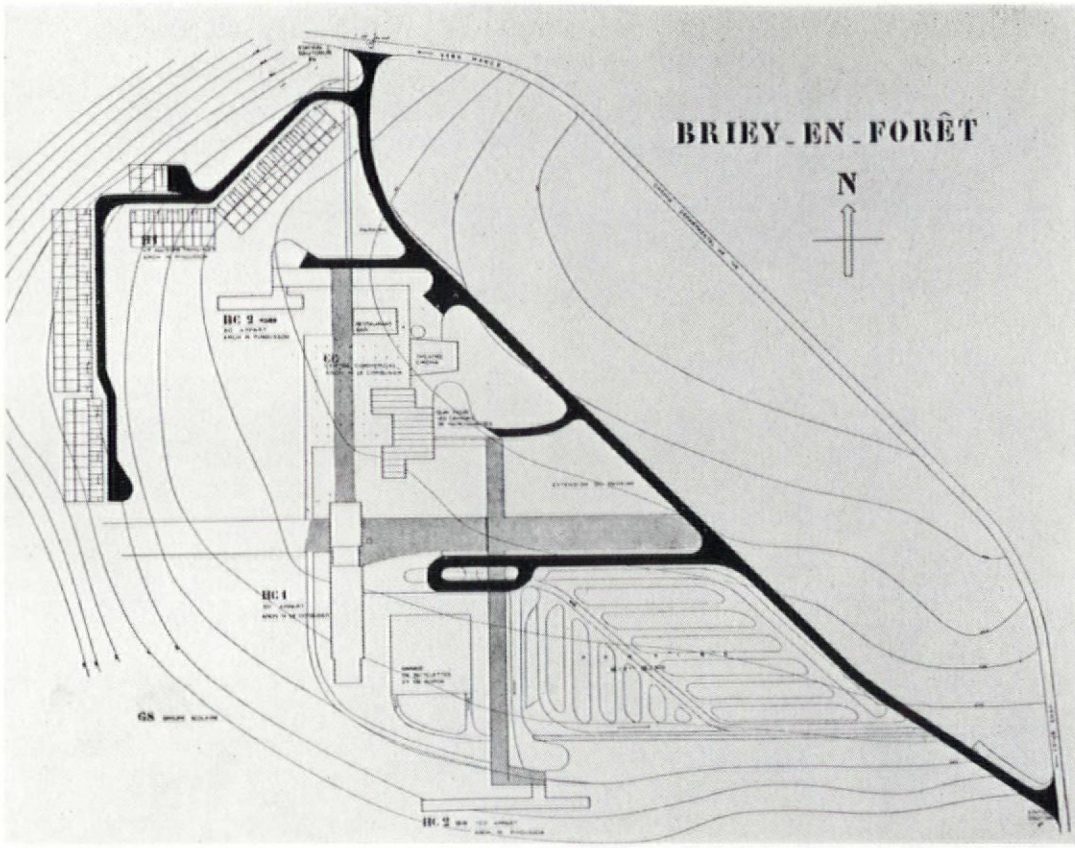
1
Le Corbusier's original site layout for Briey-en-Forêt. (Oeuvre Complète 1952–57)

2 & 3
Two views of the model of the original layout. Le Corbusier was to have been the architect of both the Unité and the cultural and commercial centre. Pingusson was to have been the collaborating architect on the remainder of the scheme

4
Plans and sections of the maisonettes in the Marseille-Michelet Unité. Le Corbusier maintains that this is the only size at which the maisonette provides appropriate living space

5
Night view of the Briey Unité as built

6
View of the Briey Unité during the day



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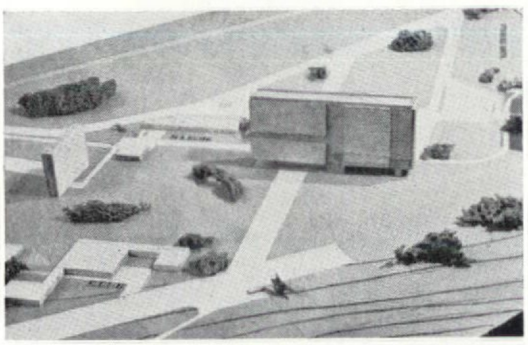

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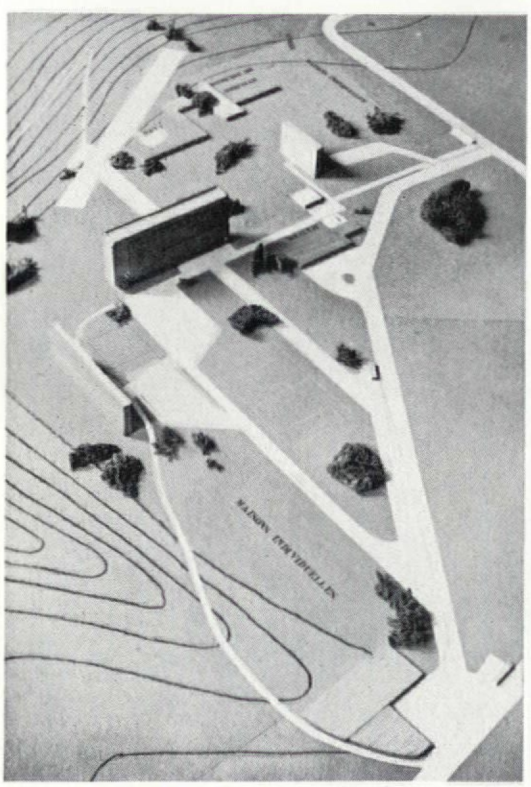

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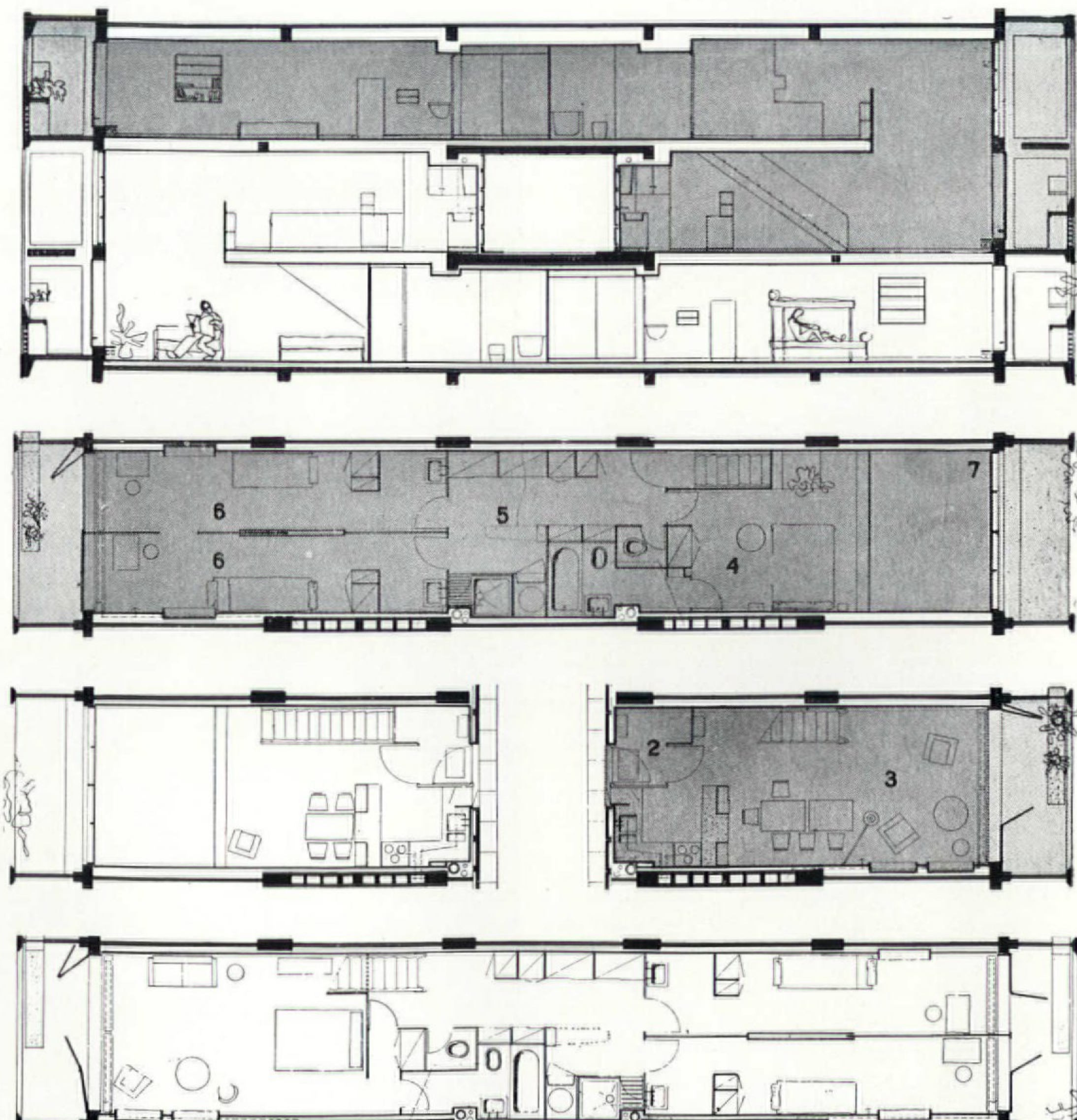

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6

1
Cross-section through block showing typical Unité internal street access system

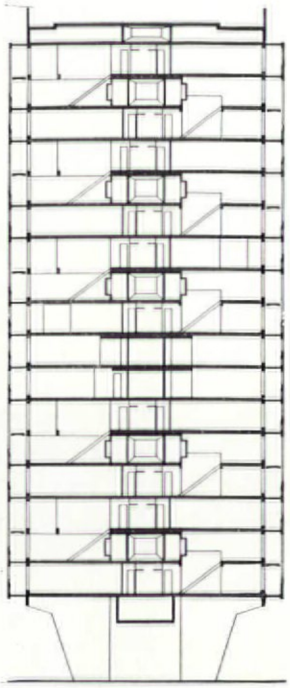
2
Cross-section taken through vertical ducts

3
Cross-section taken through stair shaft in centre of block

4
General view of the block from the south-east

5
Floor plans at levels 7 and 8 of the block. Top plan/level 8. Lower plan/level 7. The apartments running through these two floors are small two-room apartments. None of the units on levels 7 and 8 run through the block

6
Axial view from official parking lot towards the main entrance of the Unité



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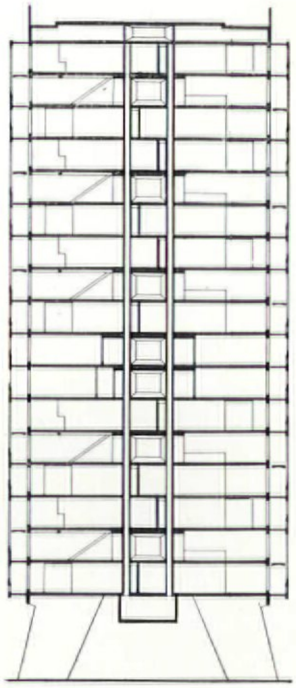

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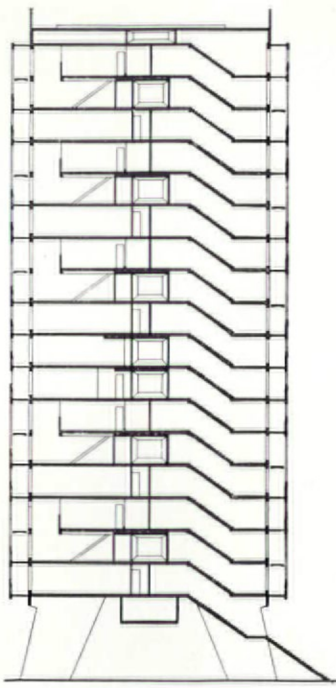

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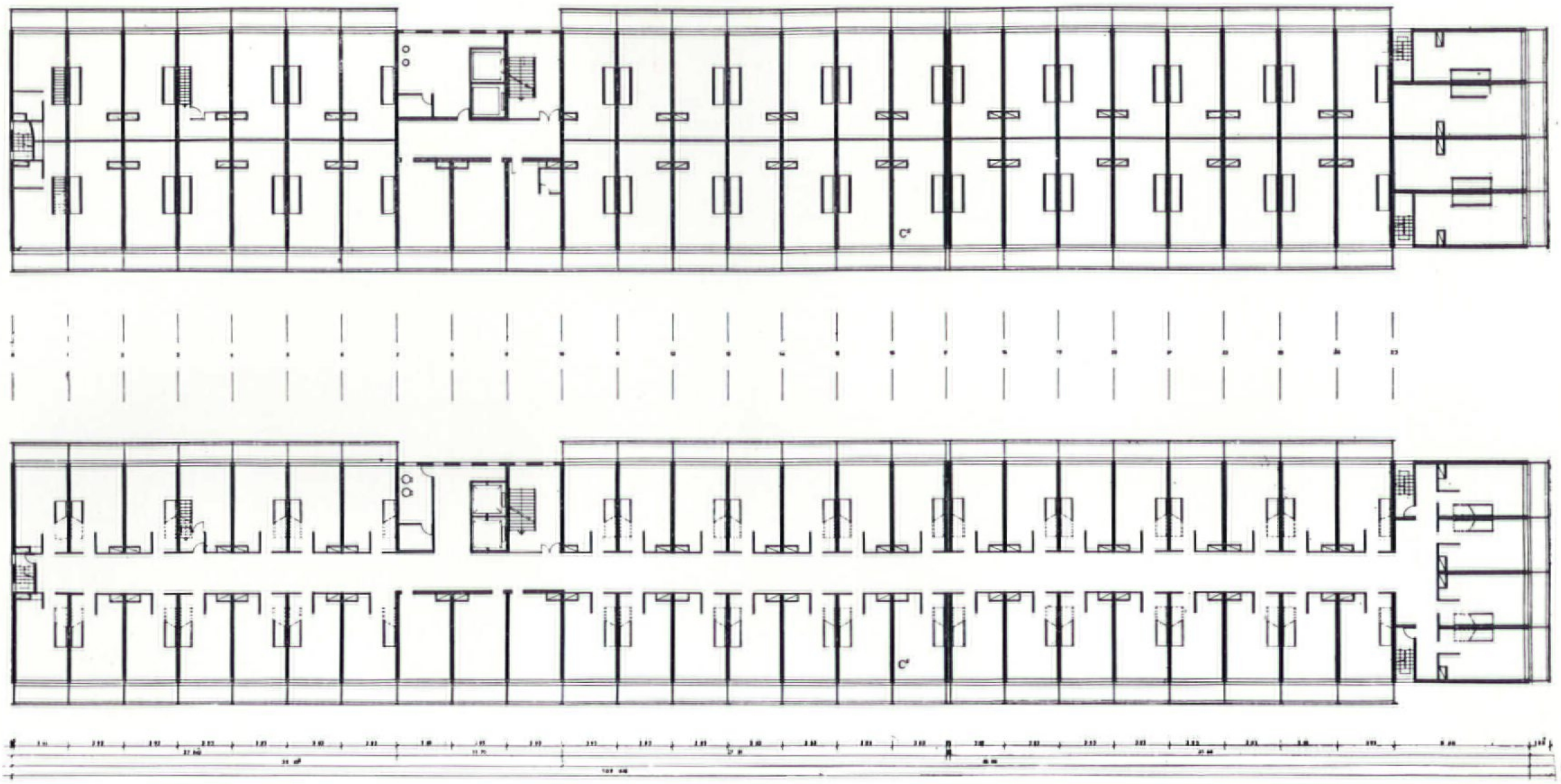

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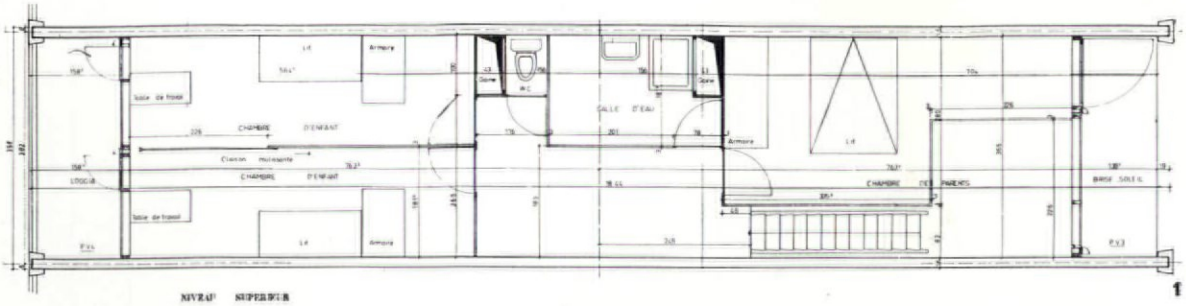
1
Top floor of through apartment. These apartments are similar, but of a slightly smaller size than those of the Nantes block

2
Living floor of the same apartment



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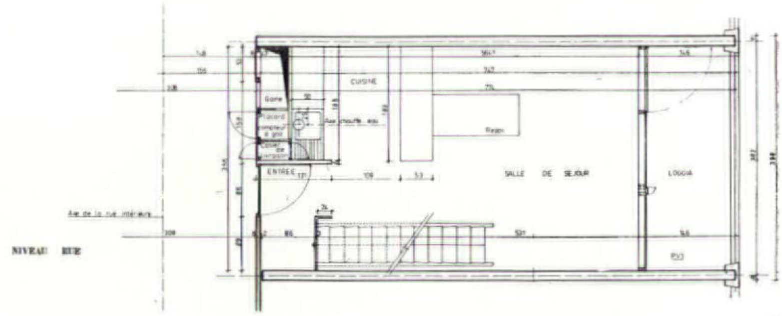
3
Plan at levels, 3, 6, 11 and 14. Plan of typical through apartments

4
A general view of the unité



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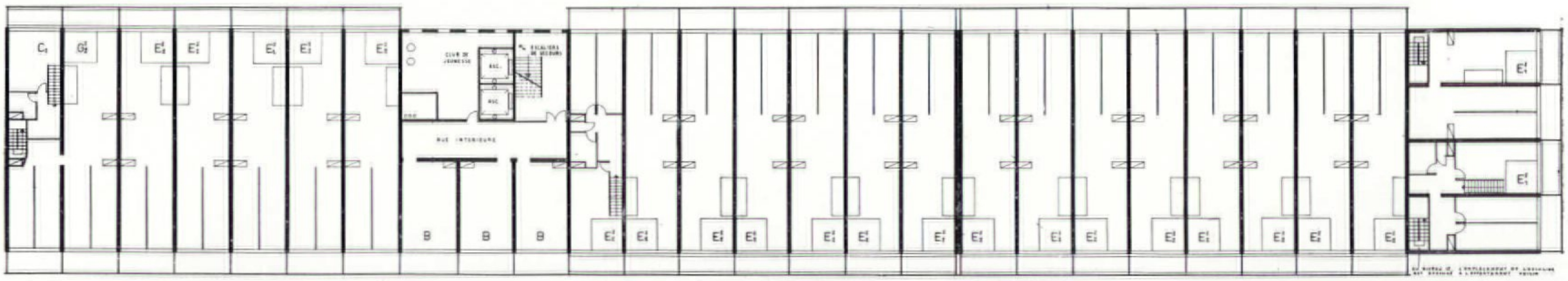

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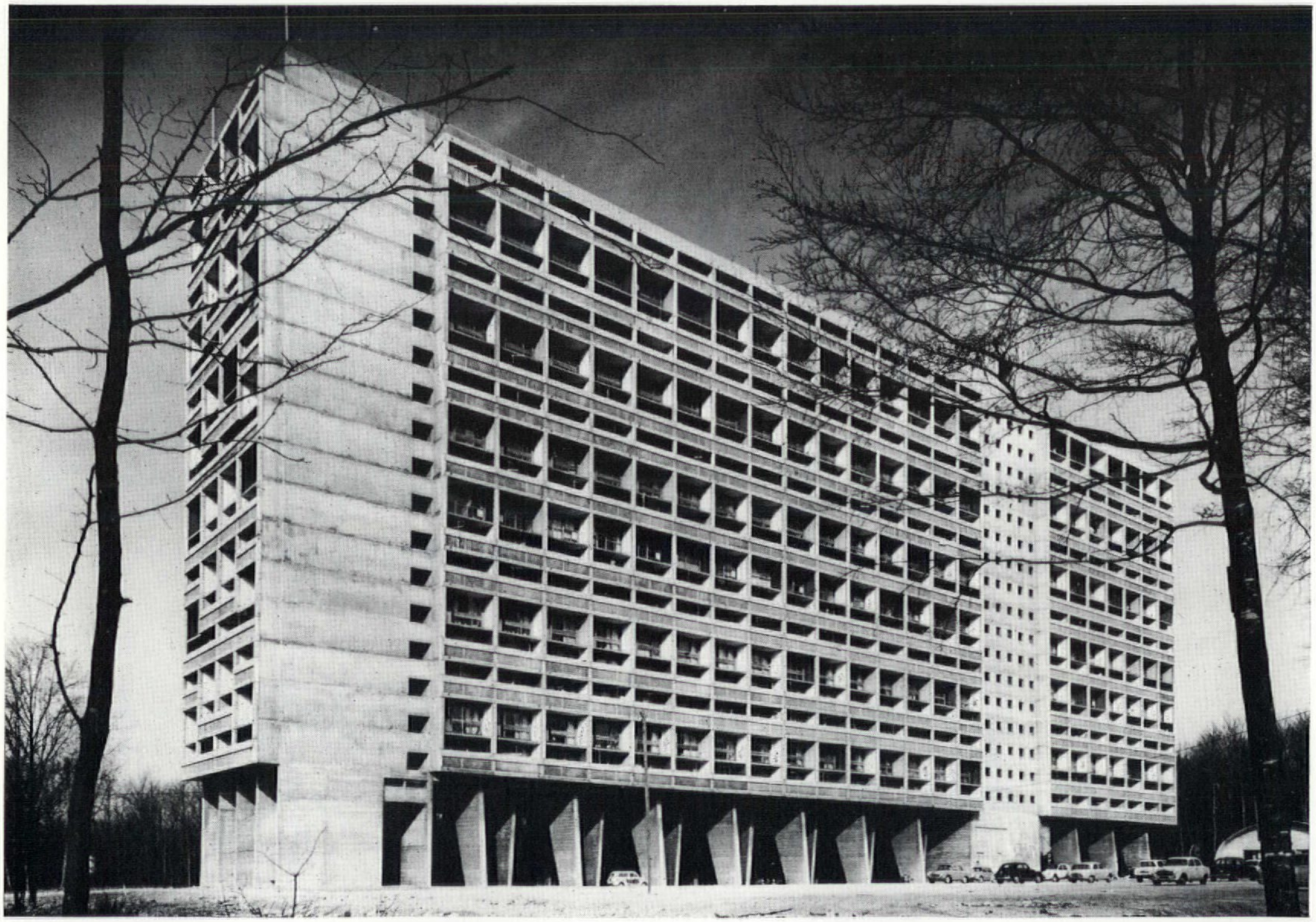

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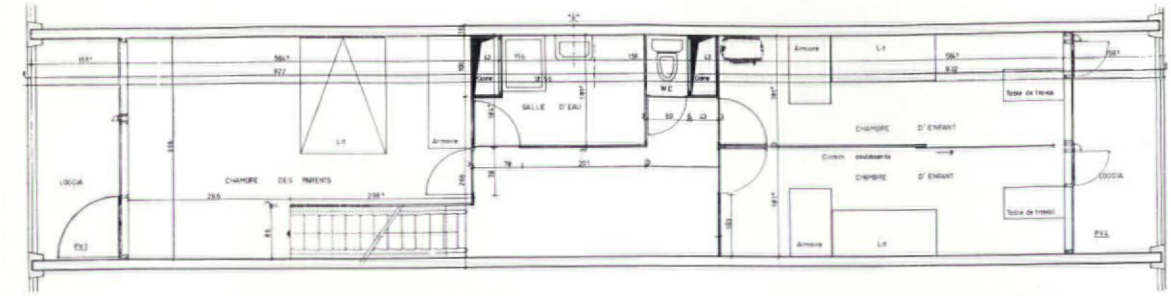

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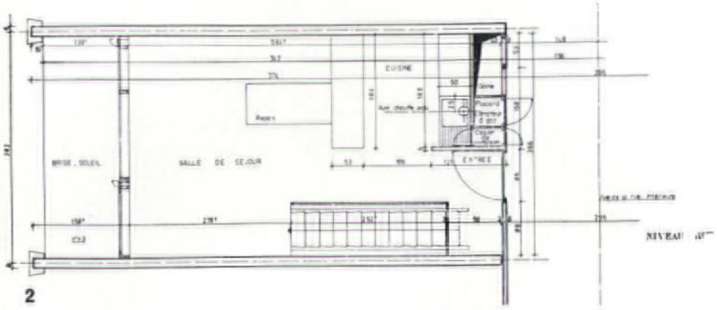

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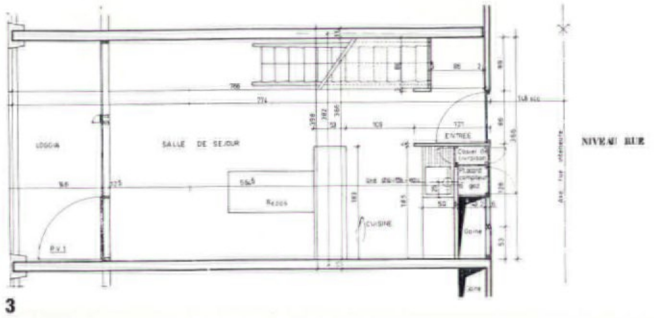

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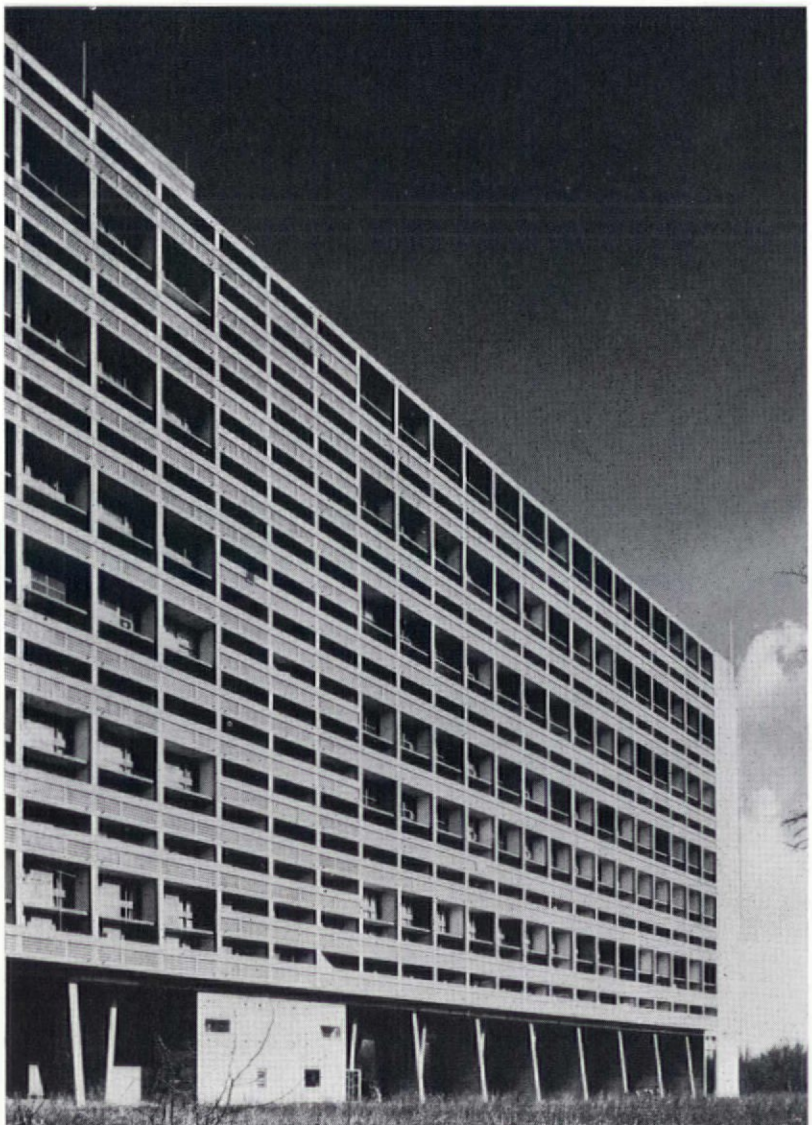
1
Top floor of a through apartment where the sleeping floor is below the living floor

2
The living floor of the same apartment

3
The living floor of a similar apartment, with stair going up. Le Corbusier considers that these apartments are totally inadequate in the dimensions, and in their services. He regards the Unité-Marseille Michelet to be the only block of appropriate dimension and finish. In general he considers all three unités at Nantes, Briey and Berlin to be the products of circumstances foreign to architecture

4 & 5
Two detail views of the block



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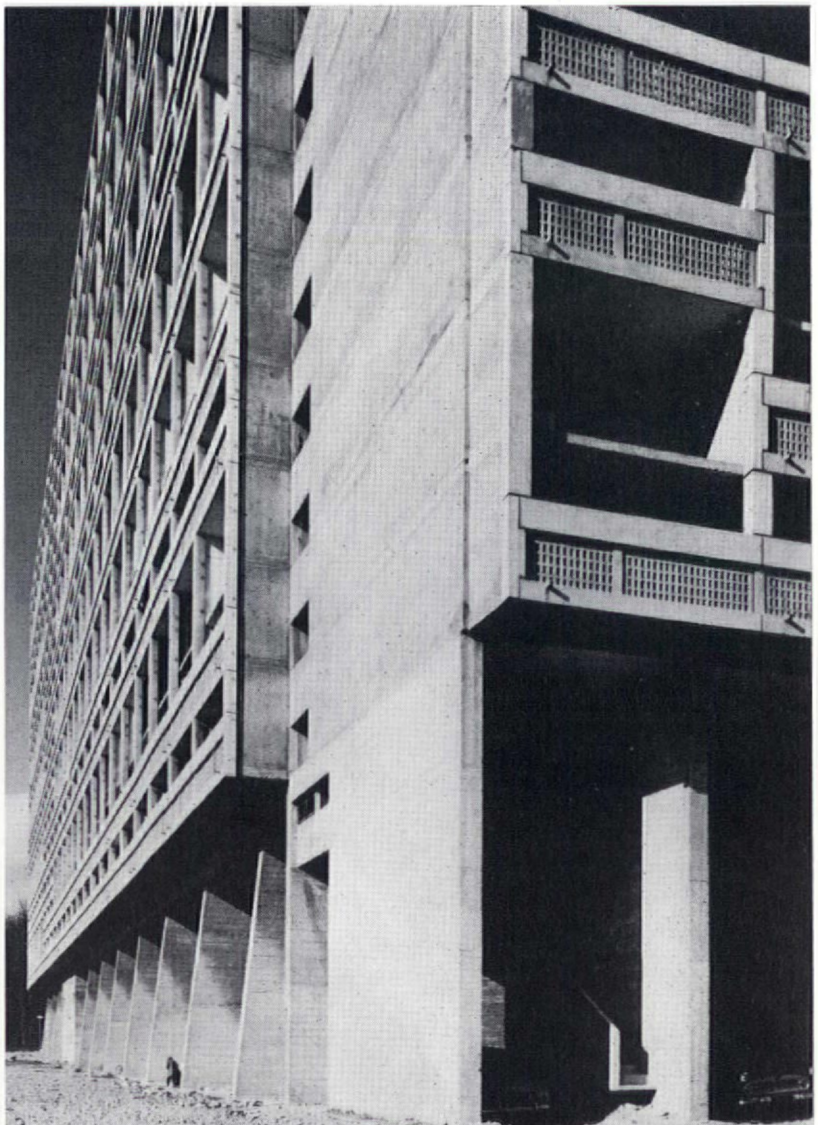

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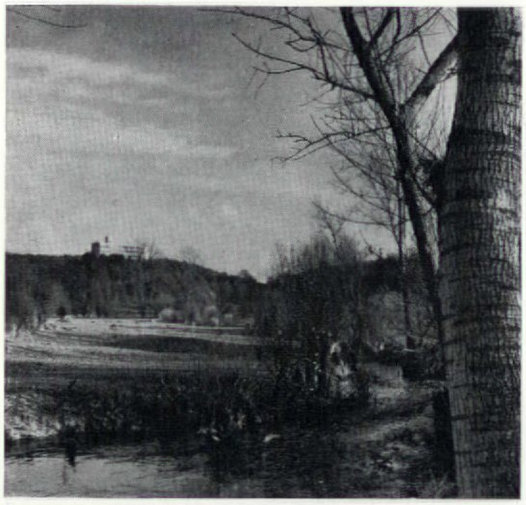


1

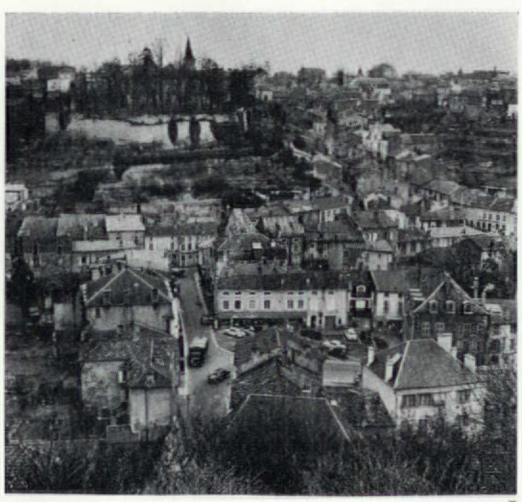
continued from page 293

The concept of an apartment is extremely basic. It can be visualized as a lateral concrete box divided horizontally, open at either end and stepped in most cases to butt onto the corridor. There are balconies at both ends, but on one level only, so that the second balcony level is treated as a horizontal exterior concrete slab. In some cases the second level is pierced inside the window to provide a portion of double-height room. Floors are heated and covered with heavy rubber for sound insulation. The walls and ceilings are left unplastered as they came out of the shuttering. They are painted, both inside and on the balconies in Corbusier selected colours; interior walls white, ceilings and balcony walls red, blue, green, yellow and in some cases brown. These colours may not be changed. Floors are connected by wooden open-tread staircases with metal handrail. Interior partition walls are of varnished plywood. All flats and apartments are provided with a kitchen sink gas water heater, which also serves the small square bath and bathroom handbasin by means of swing tap. Lighting outlets are all fixed to partition walls. Kitchen areas back onto the corridors and there is a two-door delivery hatch. Kitchens are always placed above, below or beside bathrooms so that all services can be carried in a common vertical duct either side of the corridor. The plywood wall between two adjacent bedrooms is made in the form of a sliding partition. The only piece of furniture provided is a cupboard room-divider separating kitchen and dining areas. The cooking area, interior and separate bathroom and lavatory have forced extract ventilation and so do the six main corridors. All vertical service ducts are gathered in a technical gallery under the lowest floor. Rubbish disposal is by means of a common vertical chute with a tip in the lift hall. Refuse gathers in a suspended hopper under the building, which is emptied once daily. The building is constructed of reinforced concrete, with prefabricated balconies and staircases. There are three escape stairs. The underfloor heating, provided by a district heating plant is designed to give 18°C inside when the outside temperature is minus 15°C. Floors are served by two 16-person lifts.

In spite of its similarity to previous Cités, this building deserves special recognition. The concept of a 200ft high slab block housing 1500 persons is still remarkable, even after the fourth repetition, even though it is a copy rather than an evolution of those that have gone before. In this case the rural setting makes it even more outstanding. It has been described as an industrial prototype. This could well refer to the type of tenants or the prefabricated components or the extreme modesty of the interior finishes. In any case it is likely to remain a prototype because although there were plans to build a group of twenty near Paris, these plans did not materialize, and this may well be the last such Cité for want of enlightened clients.

Idyllic as the setting is and grand as the proportions are, closer inspection reveals many features which go to mar the pleasure given by this scheme. These faults may be due to a lack of respect for the concept by the people who now run it, and a certain shortsightedness on the financial side. It is particularly unfortunate to find that very few if any people who live there enjoy it. The average occupant who stays two to three years regards it as a rather uncomfortable stepping-stone on their way to getting a house with a piece of garden. The Italian immigrant families (45 of them) want to be as near the ground as possible and therefore can be found on the lowest corridor, where they knit in doorways (not allowed) where they also prop their bicycles (not allowed either). Those with the most appreciation, congregate on the top corridor. But can you expect anyone used to a decent living standard to appreciate a three-ply sliding partition between two bedrooms (think of the noise), a bath which takes half an hour to fill (and then requires a contortionist to be comfortable in it), a red or blue living room ceiling (no changes allowed), and a strictly do-it-yourself approach to lighting fixtures?

It is curious that so many restrictions and controls exist within the building, but so few outside. Whether the present administrators like the building or not, now that it exists one is almost shocked to see it treated so insensitively. Such features as the profusion of TV aerials, the rubble that still litters the site, the cars parked on the playground, the temporary shops and cafés, the power cables slung on poles, are all casual elements which contribute to the destruction of a fine image. The worst is yet to come though. No one would deny Briey the right to further housing if that is the need, but to place it so as to destroy the one thing that matters here, namely the trees, for the sake of an ordered and painfully conventional project, seems stupid. The Cité imposes the only conscious discipline necessary; all else should have a casual and informal appearance that blends, not conflicts, with the forest.



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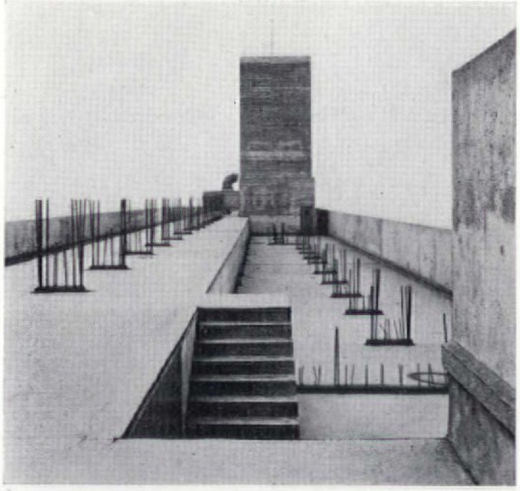
1
The Cité from the bridge over the river Woigot at Mance, to the west

2
Briey Town (50km south of Luxembourg and 30km north-west of Metz)

3
Jœuf, typical of the industrial belt along the river Orne, 6km away



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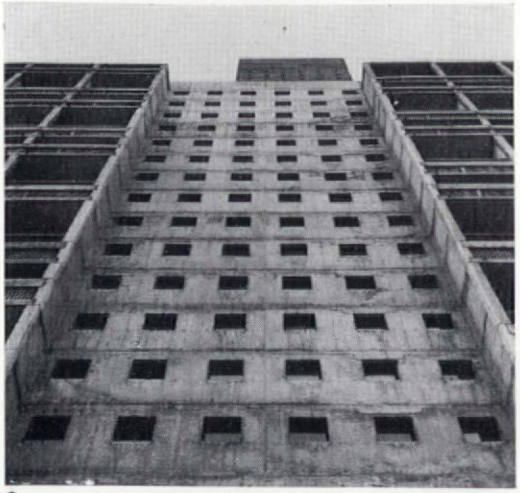

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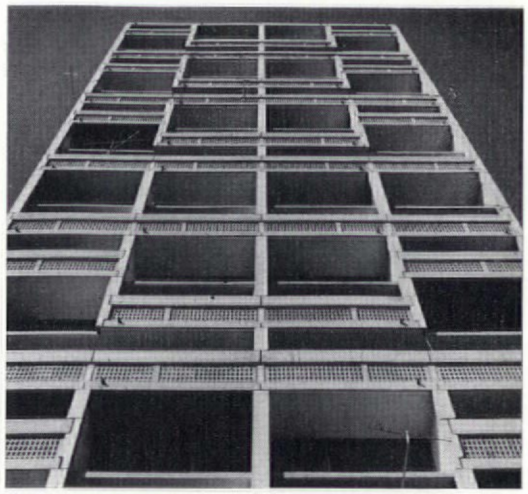

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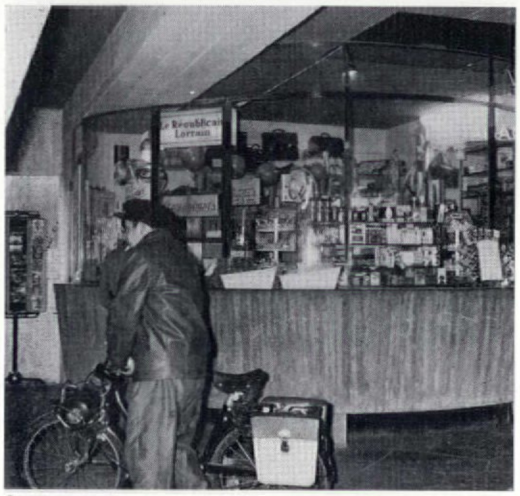

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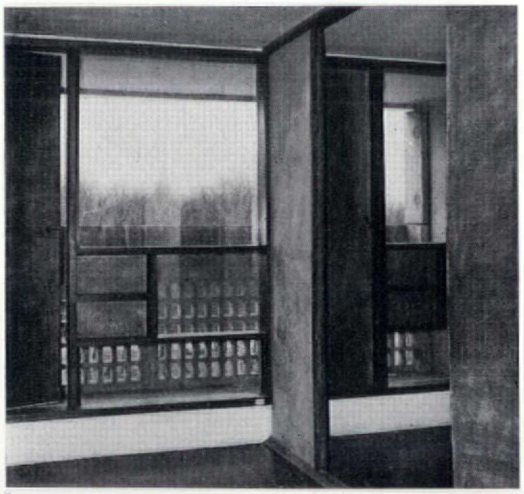

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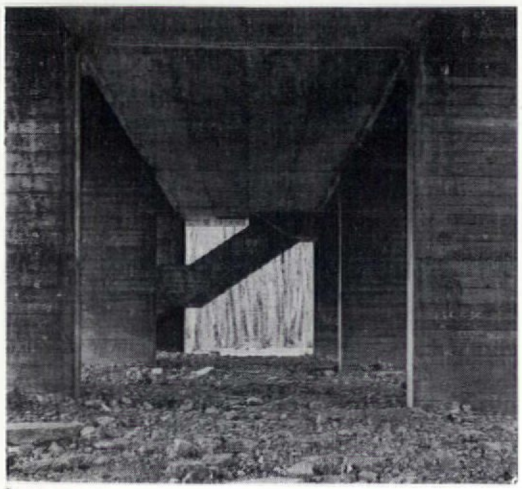

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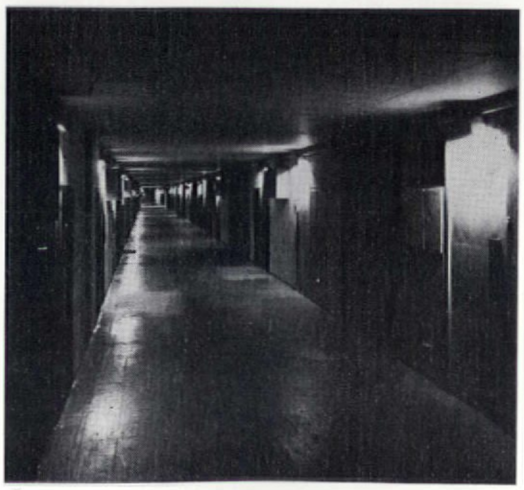


9

1
Vacant site. Originally the roof was to be used for a nursery school. There are vague plans of building a hotel and restaurant which would be magnificent. Centralized ventilation extract for kitchens, bathroom and corridors at either end of building

2
A detail view of the staircase tower

3
South end. Lack of master TV aerial has led to a remarkable profusion of aerials

4
Corb's concrete counter proved unusuable. Glass and framework added to make newsagent's shop in entrance foyer. Bicycles, etc., not allowed in building but this man is on the way out with his

5
Children playing against entrance mural. Stricter control could be exercised by the authorities in relation to trading which from time to time is carried on against the mural

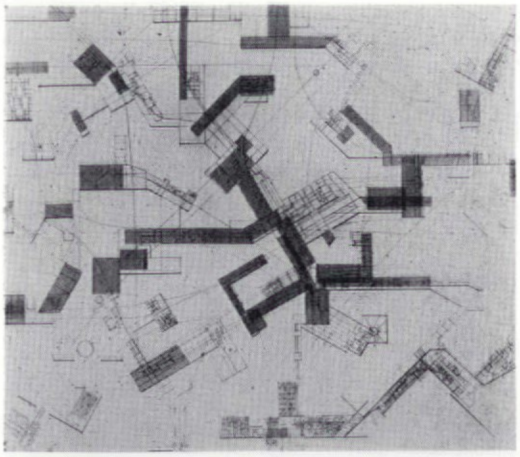
6
A typical apartment interior. Note the nature of the partitioning

7
Batchelor apartment. Kitchen alcove curtained off and used as store. Room divider, which is the only piece of furniture provided, has been pushed to wall

8
Escape stair under the block. Area under the building has been left unfinished and very carelessly handled

9
Interior street

1
A general view of the Briey-en-Forêt Unité from the south-west



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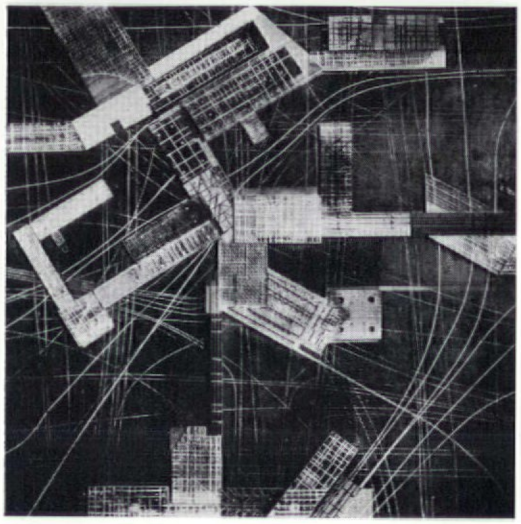
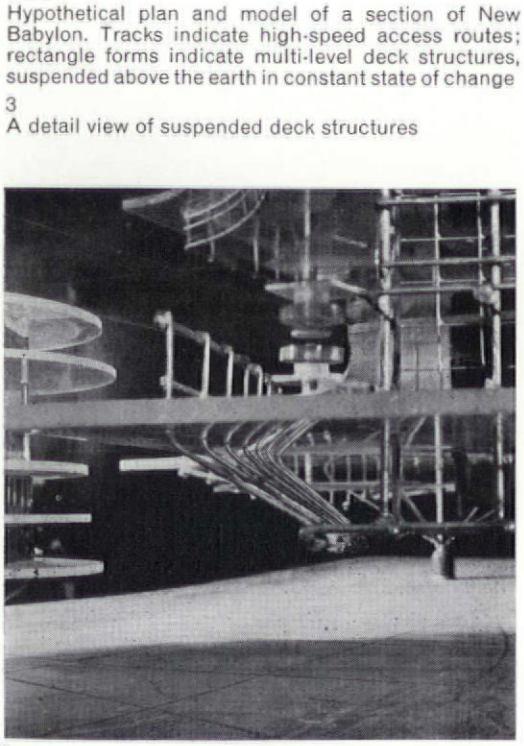


2

Constant Nieuwenhuys is a Dutch painter and sculptor who now is almost exclusively involved in the creation of both the imagery and the supporting theory for a future urbanism. He now regards the individual art work as virtually obsolete. His thinking initially arose out of association with the situationist movement in Paris; his ideas have been influenced by Huizinga's book Homo Ludens. *The adjacent text is an abridged version of a lecture given at the ICA, London.*

1 & 2
Hypothetical plan and model of a section of New Babylon. Tracks indicate high-speed access routes; rectangle forms indicate multi-level deck structures, suspended above the earth in constant state of change

3
A detail view of suspended deck structures



3

New Babylon/An urbanism of the future

by Constant Nieuwenhuys

Since the beginning of this century there has been constant discussion about the creative faculties of the human race, and more than one *avante-garde* movement has declared itself in favour of a *poésie faite par tous.* The realization of such a mass-culture does obviously not depend on the intentions of artists only, and would demand thorough changes within society.

If this is so, we can begin to understand the critical situation the artists have come into since the industrial revolution.

The effects of machine-production are leading slowly to a reduction in human labour, and we can state already with certainty, that we will enter a new era, in which production-labour will be automatic. For the first time in history, mankind will be able to establish an affluent society in which nobody will have to waste his forces, and in which everybody will be able to use his entire energy for the development of his creative capacities.

We can already say that there is no repeatable action that theoretically cannot be done by machine. The only activity that will remain beyond automation is the unique act of the imagination by which a human being is distinguished. The only field of activity unaccessible for the computer is the unforeseeable creativity that makes man change the world and reshape it after his capricious needs.

There can be no doubt about the progressing of mankind towards this prospect. No force on earth can possibly prevent humanity from seizing the affluence of automatic production that will enable man to live a creative life instead of being merely an instrument of production.

The question is, how the free man of the future will use his unlimited energies. It is clear that no comparison can be made to the artist of the past or of the present. The *homo ludens* of the past, like Johan Huizinga described him, was a man in an exceptional situation, a man who escaped reality in substituting another dreamed 'reality' that should help him to forget the unsatisfying circumstances of his actual life. No real contact was possible between him and the others who could not follow him into his substitute reality, being confined themselves in utilitarian lives. His thoughts and his morals had to be different from the normal, and even when society recognized him, he remained a lonely man, sometimes an outcast. The new *homo ludens* of the future on the contrary, will rather be the normal type of man. His life will consist in constructing the reality he wants, in creating the world he conceives freely, no longer bothered by the struggle for life. We will see that this means a complete revolution in the field of social behaviour. If man is no longer bound to production-labour, he also will no longer be forced to stick to a fixed place, to settle down. He will be able to circulate, to change his environment, to enlarge his area. His relationship to space will become as free as his relationship to time is already becoming now.

The *homo ludens* of the future society will not have to make art, for he can be creative in the practice of his daily life. He will be able to create life itself and to shape it in correspondance with still unknown needs that will emerge only after he has obtained complete freedom.

New Babylon represents the environment the *homo ludens* is supposed to live in. For it should be clear that the functional cities that have been erected during the long period of history in which human lives were consecrated to utility, would by no means suit the totally different needs of the creative race of the *homo ludens.* The environment of the *homo ludens* has, first of all, to be flexible, changeable, assuring any movement, any change of place or change of mood, and any mode of behaviour.

It follows that New Babylon could not be a determined plan. On the contrary, every element would be left undetermined, mobile and flexible. For the people circulating in this enormous social space are expected to give the space its ever-changing shape; to divide it, to vary it, to create its different atmospheres, and to play their lives in a variety of surroundings.

There are two connected circumstances that have caused, especially in the past ten years, a critical situation in the highly industrialized countries. The first and most important is an increase of population that is leading to an almost complete urbanization of the landscape, destroying the land that originally was used in common. The other circumstance, related to this, is the growing importance of mechanical traffic that enlarges enormously the living space of each individual. These developments represent a new social situation no one can deny. The facts are simply there as a reality, and we have to deal with them. But we cannot allow traffic to destroy the social space of the cities, like it is doing now, and we cannot let the population growth be responsible for changing all landscape into one uninterrupted townscape, boring and dead, without any possibility for creating a more interesting way of living.

Every plan for the future that is as free as the New Babylon project, has to solve the problems that are posed by these circumstances, and any failure in solving them may be considered as an attack against the freedom of life. The urbanization consists of a coherent system of covered unities that I call sectors, and in between remain extensive open green spaces where nobody lives and where no buildings are to be found. This network-like system is unlimited, and could, theoretically, cover the entire surface of the earth. Because of the intensified use that is made of space, this means that the field of activity of each individual has practically no limits.

The sector itself—whose dimensions are much bigger than those of any present building—is a spatial system of levels, that leave the ground-level free for an intensive fast traffic. On top of it there may be airports or heliports, to assure the quick passage to sector-groups in other parts of the world.

The sector-floors are primarily empty. They represent a sort of extension of the earth-surface, a new skin that covers the earth and multiplies its living space.

The unfunctional character of this playground-like construction makes any logical division of the inner spaces senseless. We rather should think of a quite chaotic arrangement of small and bigger spaces that are constantly mounted and dismounted by means of standardized mobile construction-elements, like walls, floors and staircases. Thus the social space can be adapted to the ever-changing needs of an ever-changing population that is passing the sector system.

continued overleaf

continued from page 304

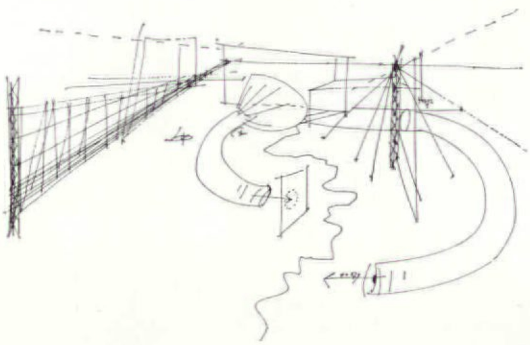
There would be no question of any fixed life-pattern, for life itself would be as a creative material. The unfunctional and fantastic way of living would demand the rapid passage from one place to another, from sector to sector, and life in New Babylon would be essentially nomadic. In New Babylon people would be constantly travelling. There would be no need for them to return to their point of departure as this in any case would be transformed. Therefore each sector would contain private rooms, (a hotel) where people would spend the night or rest for awhile.

1
A suspended deck structure with cars travelling beneath

2
A detail of another suspended structure

3 & 4
Two sketches for New Babylon by the artist dated 1961 and 1962. These give some indication of the constant movement state envisaged

5
A high level of a typical structure, showing its surface divided by ever-changing mobile elements. The lines indicate trajectories of movements actually taking place or past. All of Constant's models are made out coloured elements of Perspex and metal



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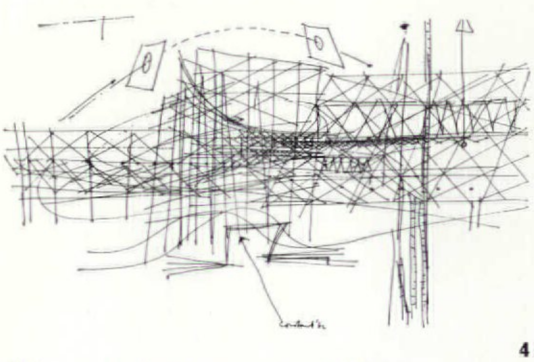

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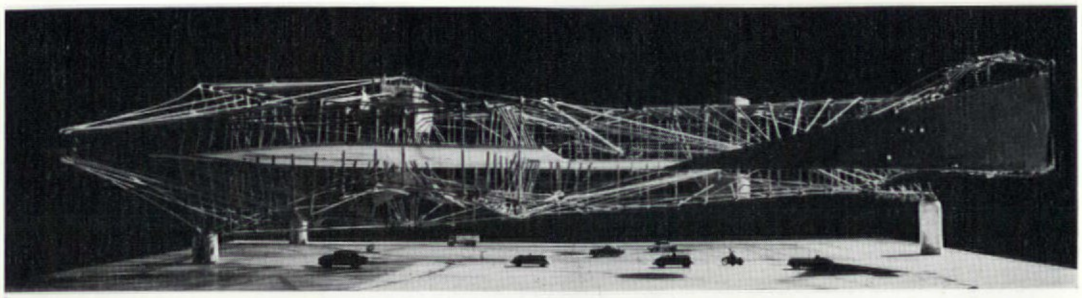

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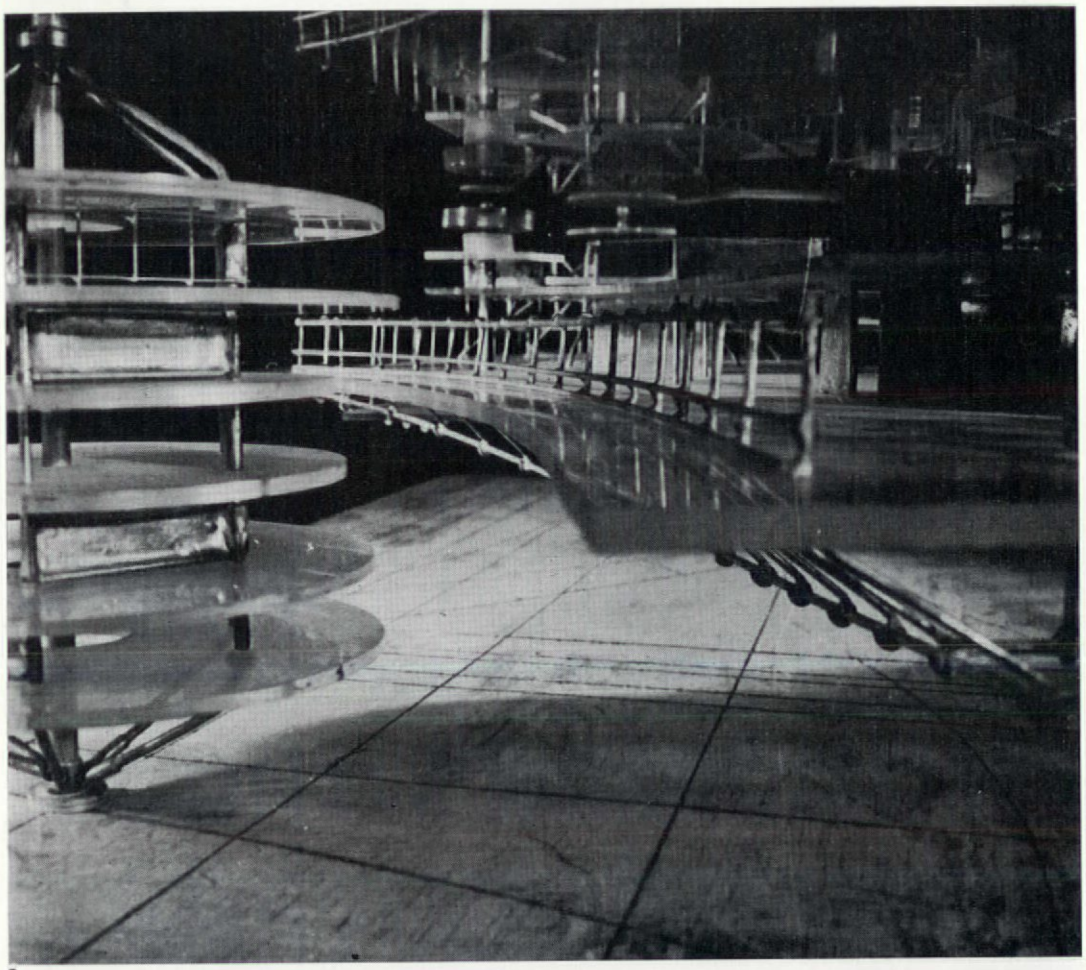

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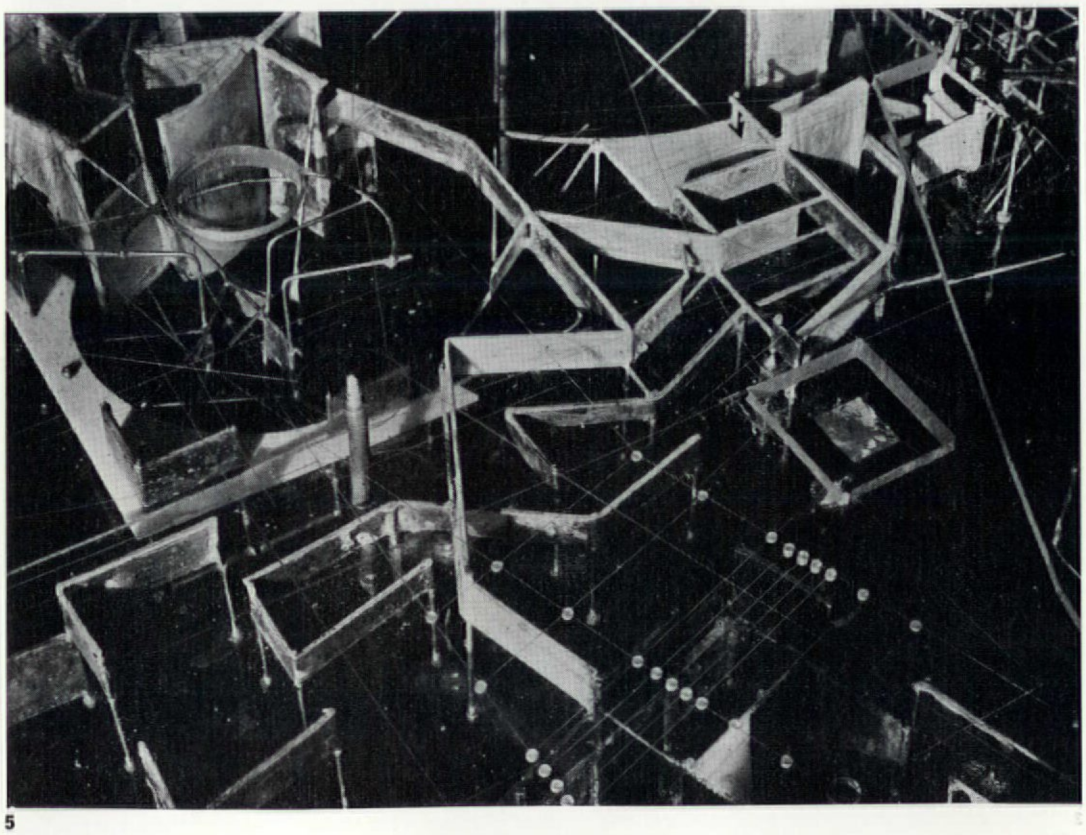

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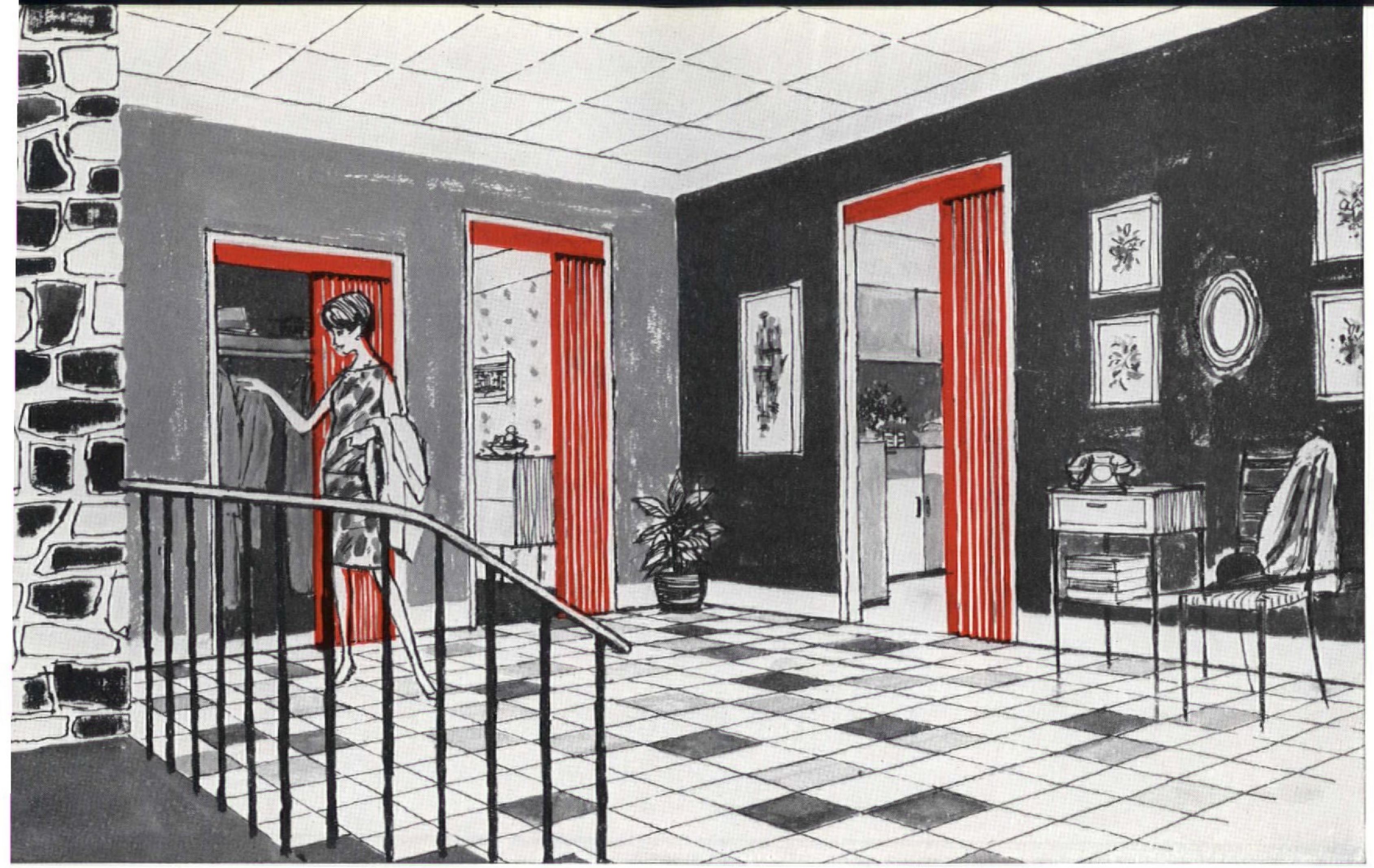

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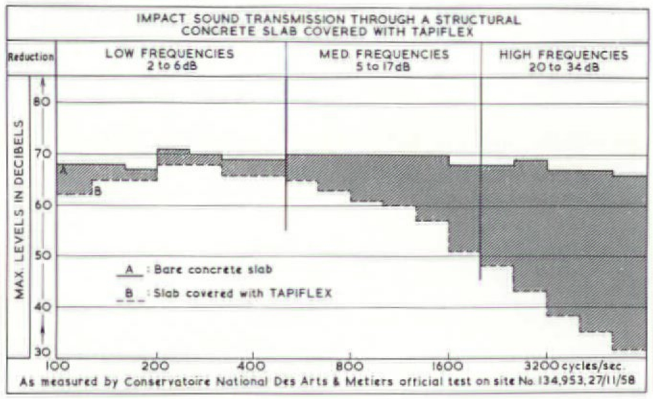
Architects like the sound absorbing (and other) qualities of TAPIFLEX so much that once they try it, they usually keep right on specifying it. Sommer are making over a million square feet of TAPIFLEX a day to keep up.

Or, consider TAPISOM. Soft, real, pure horizontal nylon fibres tightly needled to that same dense, noise-hushing felt. Noise reduction rating—even better, so again no floating floors.



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But, if that's not necessary, won't you simply do this: next time you are designing a structure where noise and budget are problems (aren't they always) remember TAPIFLEX and TAPISOM. Designed by Sommer to soak up distracting, inevitable NOISE. You'll like TAPIFLEX and TAPISOM. Your clients will, too.

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PROFESSION OR TRADE AD.5

The Theatre Royal, St. Helens, Lancs

B. & N. Westwood, Piet & Partners

The original theatre was built some time in the Victorian period and was reconstructed at the beginning of this century, and was typical of its kind. Into the auditorium were crammed as many seats as the designer could devise, the galleries sloped very steeply and bench seating enabled some 1400 people to be squeezed in, and there were five separate bars. The variety of entrances required for the many categories of seats reduced what space there was in the front of the house, while backstage the accommodation for the players was dingy and cramped. Despite these shortcomings, the usual florid decoration gave the place an air and there was little doubt that audience participation was fine.

The theatre was bought by Pilkingtons after it had been closed for a few years. Although neglected, it was by no means derelict. The purpose of buying it was to provide a focal point for the social activities of the firm, thus bringing to life a building with a local history instead of adding another unit to the new headquarters buildings. When the building scheme was more than half completed, it was decided to adapt it for letting to local dramatic clubs and societies of various kinds. This meant fitting in bars, ticket offices, etc. at rather a late stage.

In order to give reasonable space for seats and to provide circulation space where the local audience could enjoy to the full the meetings with friends on an evening out, it was clear that the only satisfactory course open to the architects was to gut the auditorium and front of the house and start again. The existing gilded decoration was not so special as to require preservation at all costs.

Starting backstage and working forward, the extent of the work the architects were required to undertake was as follows:

(a) Provide new dressing rooms planned and fitted to modern standards; new heating and ventilating plant; new equipment for the stage. A normal proscenium stage was specifically required and there was a preference for hand-operated gear so that as many people as possible could participate in putting on plays. (The stage dimensions are 57ft wide × 38ft deep, with a proscenium opening 27ft × 20ft.)

(b) In the auditorium, a complete re-organization of seating to give good sight lines and reasonable comfort to an audience about half the size of that in the original building, with simplified entrances and exits giving more space, and conforming to modern ideas of safety. A single balcony was all that would be required.

(c) Demolish the greater part of the front of the house, leaving at a reduced height only the solid side sections of the main façade. Provide a spacious entrance foyer and bar/rehearsal room.

The main structural problem in carrying out the scheme was the insertion of a new steel frame within the existing walls. This had to support the new balcony and also give stability to existing walls while work was progressing. The main supporting girder for the balcony spans the full 65ft width of the theatre. It weighs over 40 tons and had to be brought into the building in three sections. They were slid in on rollers and hoisted into position before being joined together. Five raking beams, each 44ft long, were then cantilevered over the main girder and tied into the steel grid to complete the frame for the balcony.

The new auditorium, as will be seen from the illustrations, is treated in a simple, almost brutal way, but it is of a size to give a sense of intimacy. The underlying conception was that in the auditorium attention should be focused on the stage. Elsewhere, as decoration, the people frequenting the building would be complementary to simple surfaces and colours.

1
The balcony. The acoustic requirements of the auditorium have inspired the wall and ceiling treatment. The slatted pine wood on the walls hides heating elements which provide a change of heated, filtered air 12 times every hour. Plaster 'boomerangs' which form the ceiling, designed by the architects and the acoustic consultant Hugh Creighton, distribute sound scientifically

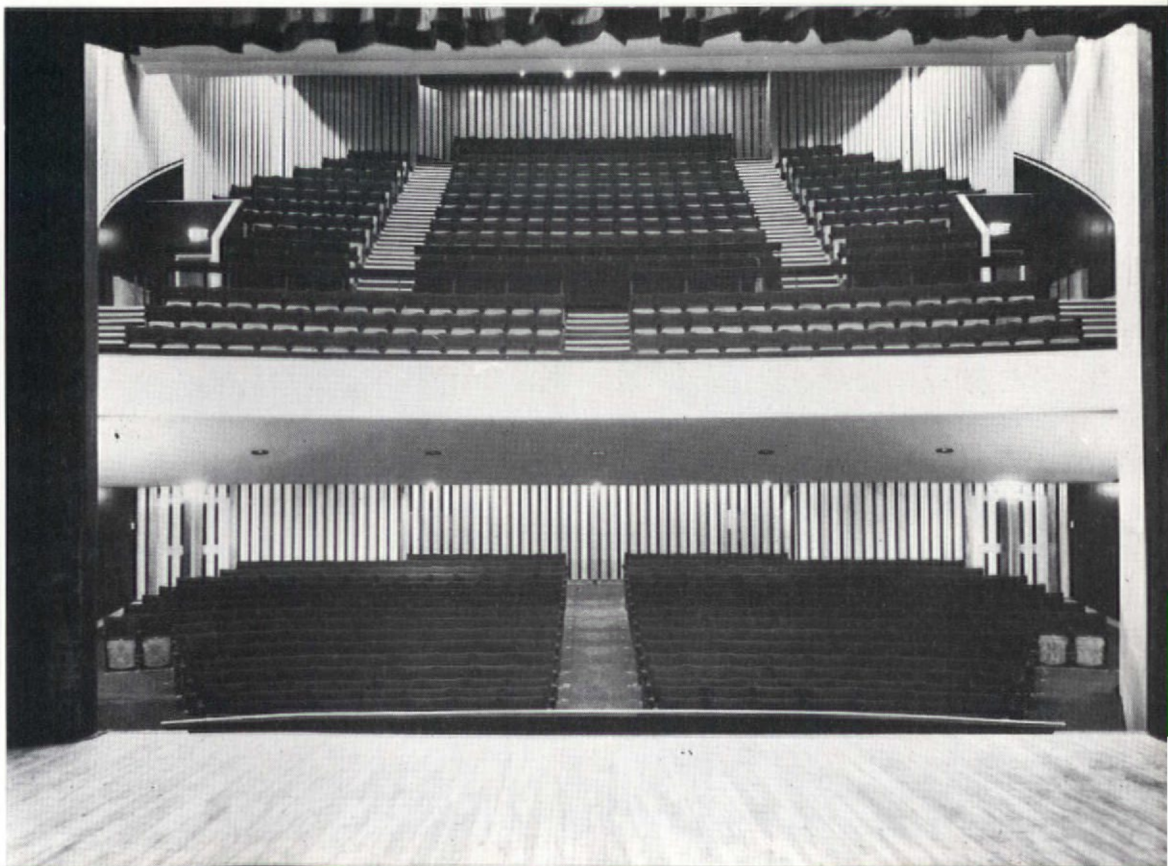
2
The auditorium for 700 people seen from the stage

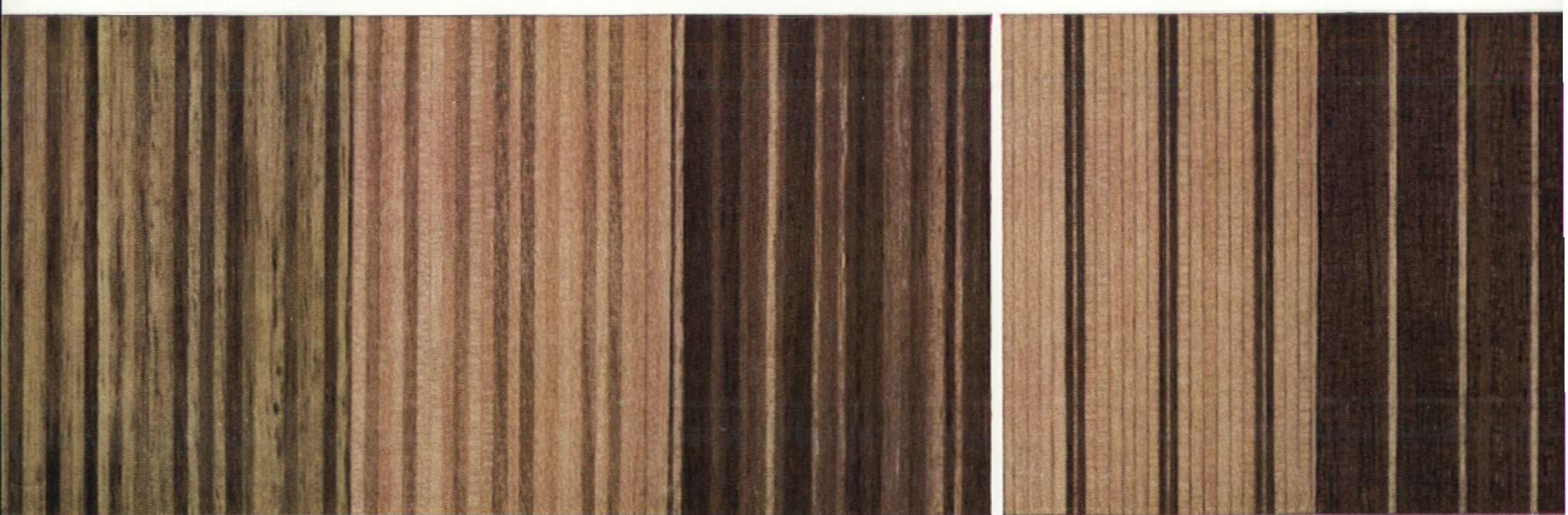
Photos: Colin Westwood, 1

continued on page 307

1

2





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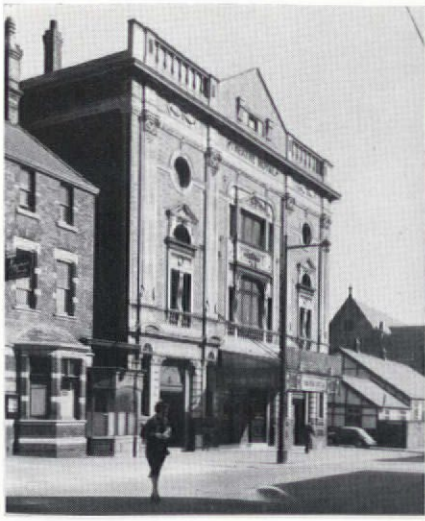


1

2

1
The original theatre front

2
The converted front, with polished plate glass in structurally self-supporting black anodized aluminium sections, separated from the entrance doors by a deep canopy counterbalanced over the doors

3
Night view of the entrance foyer seen from the street

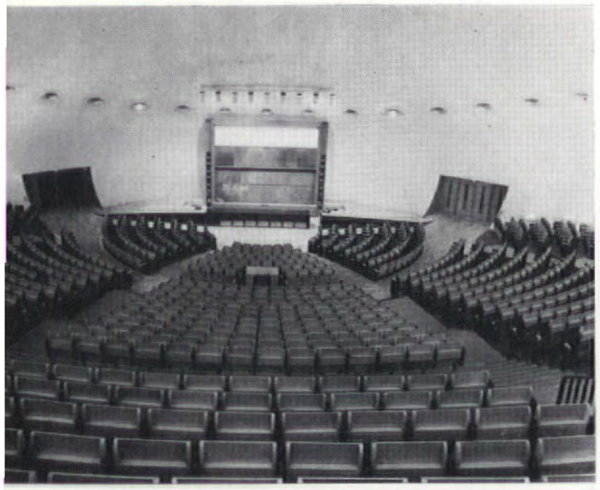
4
The entrance foyer, with moulded plaster wall on the left by John McCarthy

5 & 6
The first floor bar over the entrance foyer. The green glass-ball light fittings were designed by the architects

Photos: Colin Westwood 3–6

3, 4

5, 6



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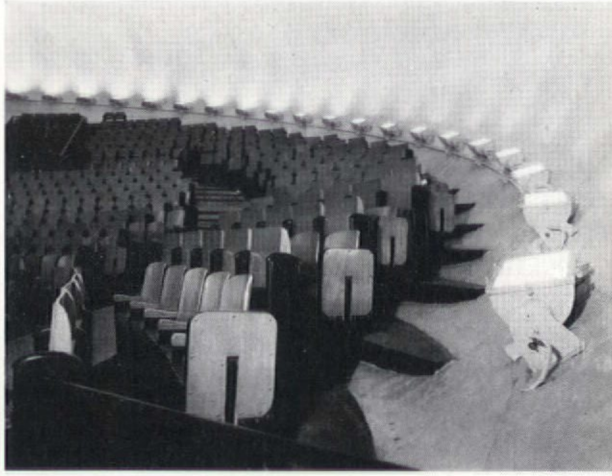

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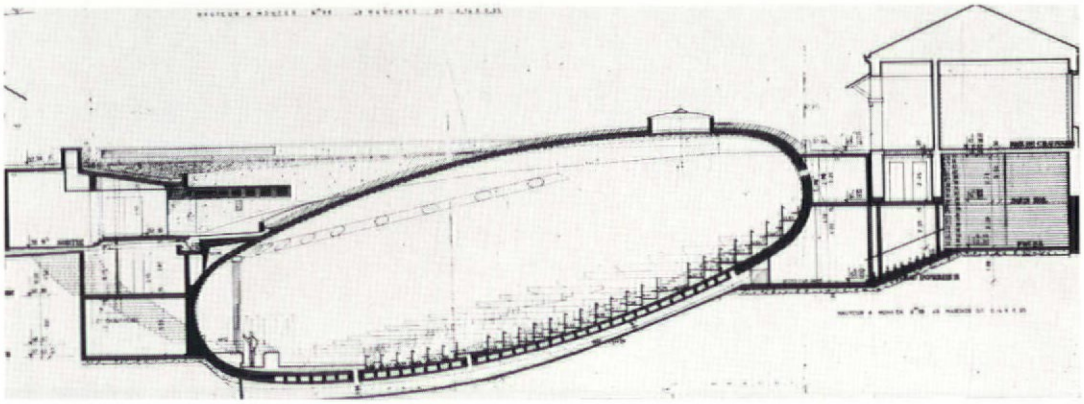


Lecture hall, School of Engineering, Paris

Louis, Luc & Thiérry Sainsaulieu

The lecture hall for the School of Engineering, with accommodation for 1000, which is also for the Conservatoire National des Arts et Métiers, was built underground, to avoid cutting off light to the surrounding buildings.

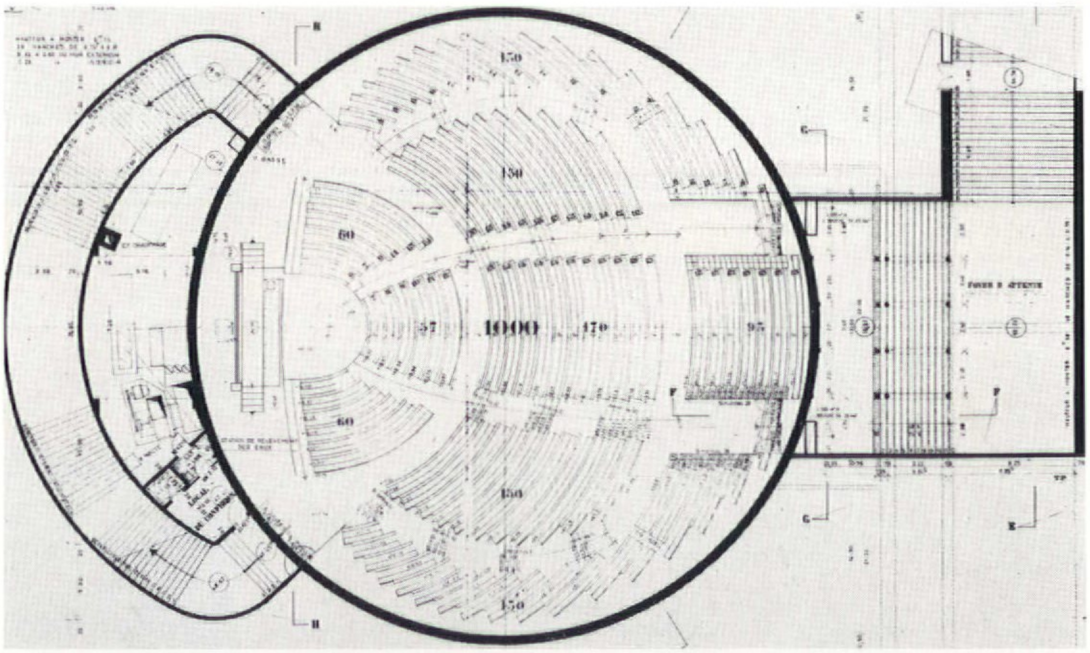
The elliptical shape chosen was designed to sustain localized pressures and earth movements caused by the many surrounding buildings, and the sloping axis ensured perfect visibility from all levels in the lecture hall.

From the entrance, a flight of steps 6 metres wide leads to the foyer, 5 metres down, from which lead the gangways to the upper half of the lecture hall. The curved roof is lined for acoustics.

Ventilation and central heating come through a series of circular holes from an exterior vent over the entrance ramp. The lighting is indirect, coming from projections in the ceiling placed in such a way as not to interfere with the audience's visibility but giving a uniform degree of lighting all through the ceiling.

The diameter of the interior is 32 metres, the maximum height of the axis, 10 metres.

5



6 7

1
The elliptical lecture hall, looking towards the lecturer's bench

2 & 3
The hall, with floodlit ceiling

4
Section

5
Plan

6 & 7
The lower and upper levels of the entrance foyer

←Code 73

Design notes

COID Design Awards

Some of the judges' comments sum up exactly what we feel about this year's Awards of the Council of Industrial Design.

They agreed that the general level of design in Britain has been rising appreciably in the last few years. Moreover the steady improvement in standards of design in many industries seems to have tended towards a desire for conformity at all costs on the part of consumers, manufacturers and designers alike.

Whilst this conformity has eliminated many of the worst designs, it has also to some degree inhibited new and vigorous thought, which again makes the task of a panel to select designs of outstanding merit more than usually difficult.

This year, the more they (the judges) saw, the clearer it became that designers themselves must recognize a new challenge to their creative abilities.

An exception to the above criticisms is the Award-winning 'Moulton' bicycle, designed by Alex Moulton and manufactured by *Moulton Bicycles Ltd.* **2**. There are five variations in production:

M1 Standard, costing		£26 9*s*. 6*d*.
M2 Deluxe	,,	£31 19*s*. 6*d*.
M3 Safari	,,	£43 19*s*. 6*d*.
M4 Speed	,,	£27 9*s*. 6*d*.
M5 Stowaway	,,	£26 19*s*. 6*d*.

The specification is: the front suspension is single telescopic, with rubber column and coil spring; the rear suspension is of rubber in compression and shear. The frame is flat-sided oval and tempered tubes of mild steel. The wheelbase is 44½in. The saddle is adjustable by a permanent lever, and the low crossbar at the centre of gravity forms a carrying handle and makes the bicycle suitable for the family to ride. The Stowaway model divides ahead of the crossbar and fits with a locking device.

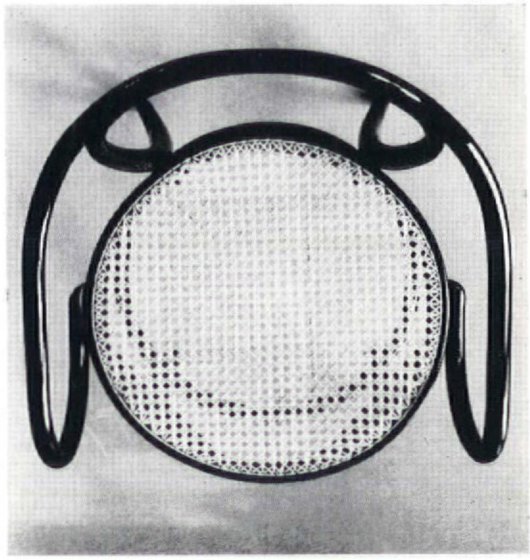
The judges concluded that this radical re-thinking of conventional bicycle design was inhibited only by the need to incorporate stock accessories.

Bradford-on-Avon, Wilts.

Bentwood furniture

Goods & Chattels opened their showroom in Covent Garden with an exhibition of bentwood furniture from 1836 to 1964. This is essentially a history of the work of Michel Thonet illustrated by examples and photographs. (The exhibition remains open for a further two weeks.)

When Thonet first began experimenting with laminated veneers in his small workshop in 1830 (preceding Aalto's 1930s bent plywood furniture by 100 years) he was primarily concerned with producing a chair which would be lighter, tougher, cheaper and easier to transport than the hand-made products of his trade. When he died in 1871 he left behind showrooms in 25 capital cities, vast forest holdings, an industrial empire of factories and saw mills and a new industry which by 1900 employed more than 35,000 people. His designs were forerunners of the revolutionary designs of this century by Corb, Breuer and Mies. His Vienna chair (1859) epitomized the Thonet design keystone: *interchangeability of parts and a knockdown construction.*



1

2

Goods & Chattels feature bentwood and now re-introduce the famous B9 chair **1**, together with the original bentwood rocker and other designs.

B9 chair, first produced about 1870, combines lightness of construction with elegance of form. It was chosen by Le Corbusier and Pierre Jeanneret for their famous Pavillon de L'Esprit Nouveau at the Exposition des Arts Decoratifs in Paris 1925. Explaining his choice Le Corbusier said, 'We have introduced the humble Thonet chair of steamed wood, certainly the most common as well as the least costly of chairs. And we believe that this chair, whose millions of representatives are used on the Continent and in the two Americas, possesses nobility.'
B9 is available in black, white, natural beech or walnut with cane seat. Retail price: approximately £9 14*s*. 7*d*.

26 Neal Street, London W.C.2

Self-adhesive fabrics

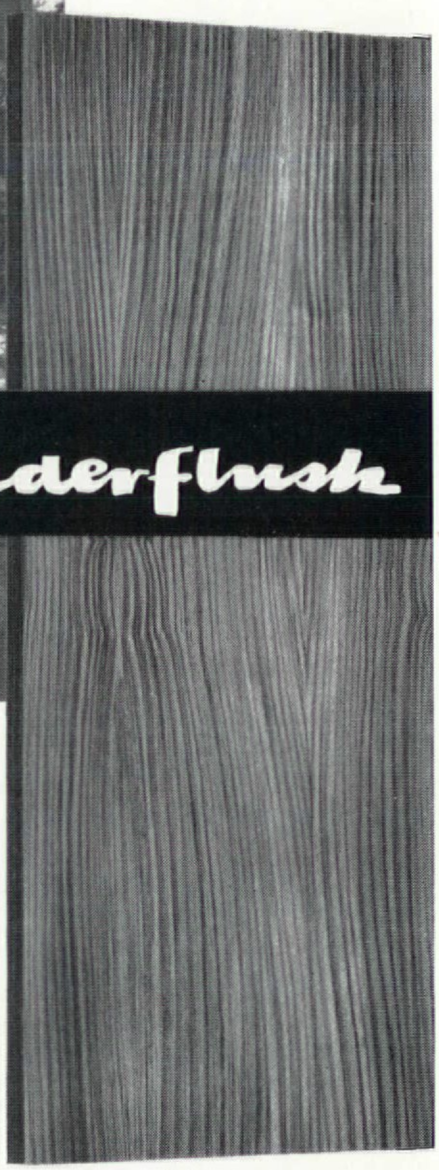
The *Crest Weaving Co. Ltd.* now offer a range of fabrics (linen-cotton-rayon mixture) in 19 different shades (plain or with self-colour stripes) which have an adhesive backing which will stick to practically any surface—uncoated or varnished wood, treated or untreated plaster, brick, glass, etc. The fabric, which is 50in wide (127cm), comes on a backing paper in rolls from 10 to 40yds long. The price is approximately 30*s*. the yard.

112–114 Hilltown, Dundee
continued on page 310

First the Tree..

MAGNIFICENT
IN ITS
NATURAL
BEAUTY

Then...



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Barbour Index File No 138

continued from page 309

Flame-resistant velvet

Edinburgh Weavers have developed a luxurious, flame-resistant long-pile curtain velvet called 'Yester', which consists entirely of Dynel mod-acrylic fibre. The velvet is also mothproof, mildew-proof and washable. Its approximate retail price is 84*s.* the yard, 50in wide, and it is available in twelve colours.

102 Mount Street, London W.1 and Nelson Street, Carlisle

Student furniture

The architects Ahrends, Burton and Koralek were the designers of some student furniture which is already being used extensively in universities and colleges, including Imperial College, London, Churchill College, Cambridge, and Brasenose, Oxford. The furniture **1** came into existence because the architects were unable to find any consistent range on the market which satisfied them. In designing the new range, they arrived at clarity, strength and economy.

The furniture is all built in Finnish Birch plywood, laminated to different thicknesses to suit varying functions. End grain in expressed.

There are no screws, all bonding is with urea-formaldehyde resin. The finish is generally acid catalyst lacquer (spirit and heat proof). All drawers are colour lacquered internally.

The dimensions of the furniture have been decided with small rooms in mind. However, certain dimensions can be varied to suit other situations.

The divan bed (DSF/1), 6ft 7in × 2ft 10in overall to fit a 6ft 3in × 2ft 9in mattress, has a ply baseboard ventilated to suit a Dunlopillo or polyurethane mattress. The legs at one end are fitted with gliders, at the other with rubber stops. The contract price is £14 15*s.* + 10 per cent tax. The occasional table (DSF/2), which has a ply top, costs £7 17*s.* + 10 per cent tax. The desk (DSF/3), which measures 4ft × 2ft 1in × 2ft 4½in high, has a top in ply or lino inlay, and a drawer to take A-sized paper. It costs £15 10s. + 10 per cent tax.

Book shelves (DSF/4), 4ft long and hooked to plates fixed to brick on block partition, cost 3 guineas + 10 per cent tax.

There is also a 4ft wide hanging desk (DSF/5) at the same price as the other desk.

The figures quoted are for contract orders. The price of a single item is 15 per cent extra. The manufacturers are *Durrant & Sons Ltd.*

Northchurch, Berkhamsted, Herts.

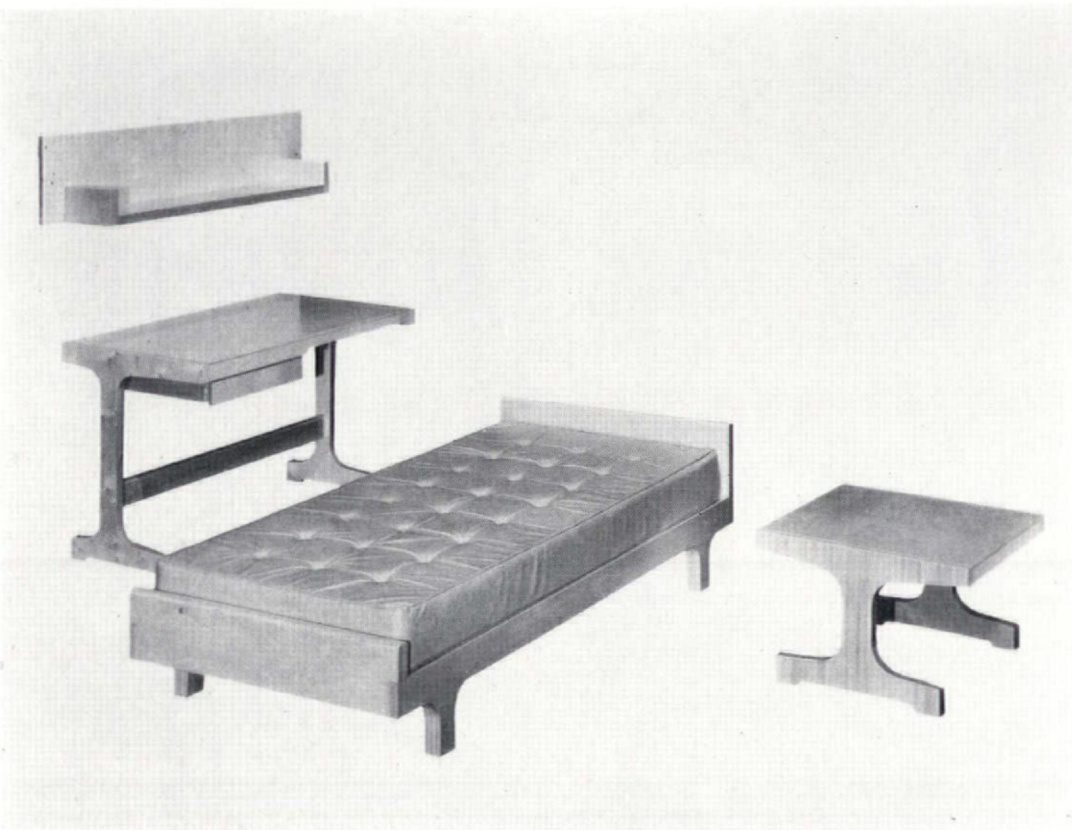
Chairs

Roderick Broad and Co. Ltd. offer a convertible chair, the '2-Timer' **2**, designed by architect Norman Plastow and developed by Design Venture Ltd. It can be used either as an upright chair or, by lowering the seat and turning it back to front, as an easy chair with arm rests. The frame is satin chrome steel, and the seat unit is in black Superlon 513 supported PVC over polyether foam. The retail price is £19 12*s.*

2–3 Ludgate Circus Buildings, London E.C.4

Shown in the Danish section at the Cologne Furniture Fair earlier this year was the leather chair **3** on a strong steel support. It was designed by Preben Fabricius and Jorgen Kastholm for the firm Poul Bachmann.

Courtesy *Mobilia*



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Trade notes

Gontran Goulden

Single frame aluminium windows 4

Hinchliffe single frame aluminium windows are designed to be fitted direct to timber sub-frames. The manufacturers can supply the sub-frames, or, alternatively, the working drawings for others to make. The windows can be supplied with or without the 'Bonaire' rotary ventilator which is fitted the full width of the window at its top. The window has a continuous aluminium hinge and a sturdy opening device known as a 'Duplex cam stay'. The edges of the window have double weather strips. Sashes can be side hung, top hung or projecting top hung, and can be supplied in anodized or mill finish. Costs are claimed to be comparable with galvanized steel.

E. Hinchliffe & Sons Ltd., Hall Street South, West Bromwich, Staffs.

Double windows for fixing to existing frames 5

United States designed aluminium frame double window units for internal or external use with existing windows are now being made here under licence by Aygee (Metal Windows) Ltd. Two types are available. The Alaskan, in which the glass-plates slide vertically, and the Oslo, horizontally sliding. Both are purpose-made to fit into existing frames. A 4in cavity is recommended between inner and outer glass. The edges of the aluminium lights are weather-stripped. Removal of lights and replacement of glass is claimed to be simple. Price approximately 13*s*. 9*d*. per square foot glazed.

Four Seasons Window Co. Ltd., c/o Aygee (Metal Windows) Ltd., Century Works, Havelock Road, Southall, Middlesex.

New double glazed windows 2, 6

The Braby-Stott range of horizontal sliding windows includes 16 different shapes and sizes. Windows are made of Canadian timber and vinyl enamel finish aluminium. Fly screens can be provided. Moving parts are nylon mounted and all windows are weather-stripped. This range is intended mainly for domestic work. A second range for hospitals and office blocks has counterbalanced double hung sashes, again with timber sub-frames. Both ranges incorporate the best features of Canadian double glazing methods and are claimed to be competitive in price.

Frederick Braby & Co. Ltd., Braby House, Smithfield Street, London, E.C.1.

PVC lining for ornamental lake at York University

BX Plastics Velbex PVC has been used to line the 14-acre lake at York University. The plastics sheeting was prepared in half-acre sheets and folded concertina-wise for transport. The sheets were welded together on the site. This is claimed to be the largest PVC lined reservoir ever built. The contractors, who specialize in this type of work, were Gordon Low (Plastics) Ltd., Denne Parade, Horsham, Sussex.

Bideford bus shelter 3

Simple and serviceable bus shelters have recently been made in laminated wood construction for the Bideford Borough Council by a local firm, Laminated Wood Ltd. The Douglas fir laminations are glued with CIBA's Aerodux resorcinol resin and the shelters which have corrugated aluminium roofs require next to no maintenance.

Films about concrete construction

The Cement and Concrete Association has a library of films on concrete. Nine of the most up-to-date ones are listed and fully described in a current booklet. They include Standard Beam Sections for Prestressed Concrete Bridges; The Medway Bridge; and the Hammersmith Flyover. The films are available on loan and the list gives details of how to borrow them.

Cement and Concrete Association, 52 Grosvenor Gardens, London, S.W.1.

A cement makers' handbook and more

In spite of the standards set by their trade association, cement makers' literature has not always been very good. However, the Blue Circle Group has recently published a Data Sheet Manual which is difficult to fault in production or content. The manual contains information on aggregates and fillers, cements and limes, adhesives and mastics, admixtures, bricks, plastering products and decorating products, so it is something more than a cement makers' handbook.

The Blue Circle Group of Companies, Portland House, Stag Place, London, S.W.1.

Concrete facing slabs

One of the most admired sections at the C & CA's Wexham Springs establishment deals with facing slabs. A new edition of a publication, much of which is in colour, illustrates the work which the Association and others have done on this subject. The production, as always, is to very high standards. It is not just a picture book, but contains detailed drawings and much useful technical information. The booklet was prepared by Mr. J. Gilchrist Wilson, FRIBA.

New showroom 1

The Merchant Adventurers, a firm which embodies almost the whole of the remarkable Boissevain family, has now been on the go for over 40 years. They started as importers of modern pottery, glass, and lighting fittings, but soon developed the lighting fitting side to the exclusion of the others. They first made to their own designs in 1931. Since the war they have made great strides and may be said to have put themselves firmly on the map with their exciting display at the Building Exhibition in, was it, 1947? One of the disadvantages of the firm from the users' point of view has been that hitherto they have had no accessible showroom. This has now been put right. Paul Reilly, Director of the CoID, with an apt and witty speech, recently opened the new home of MA in what was once Shearn's in Tottenham Court Road, W.1, just round the corner from the Building Centre.

The new showroom is very neat and simple and, in spite of its light colouring, produces no glare even when all the many fittings are switched on. Designed by Paul Boissevain, architect brother of the directors of MA, and senior partner in the firm of Boissevain and Osmond, the Osmond being his wife, the showroom has nothing to distract the visitor from the fittings except perhaps the table on which a number of those fascinating Danish model sailing ships are arranged. Paul Boissevain has been consultant to MA for the past 15 years and it was he who designed their stand at Olympia. He has had a hand in all MA fittings. These fittings have shown a continued excellence of design that is unequalled in the industry. It is, however, a great pity, as Paul Reilly said, that the firm has never seriously catered for the domestic market through the retail trade.

The Merchant Adventurers Ltd., 231 Tottenham Court Road, London, W.1.

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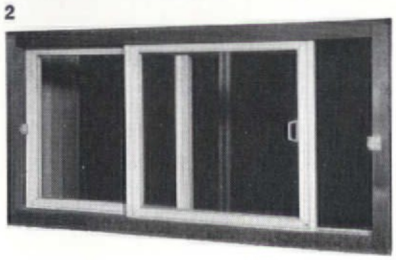

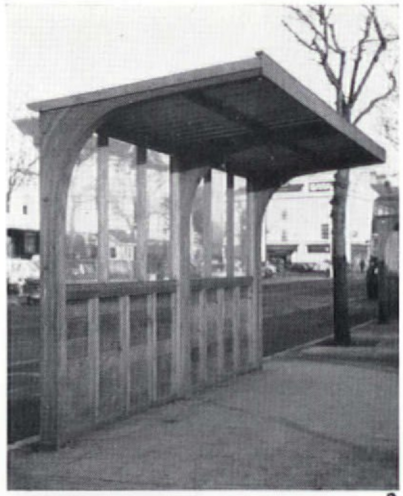

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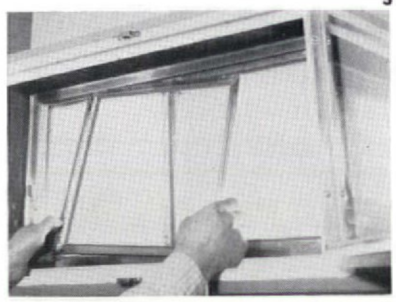

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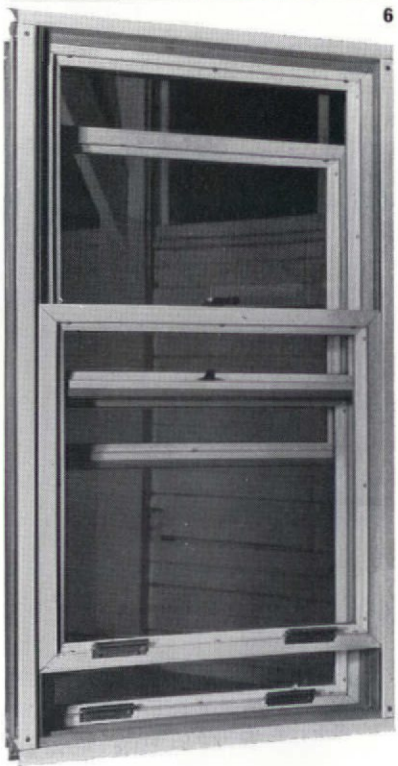

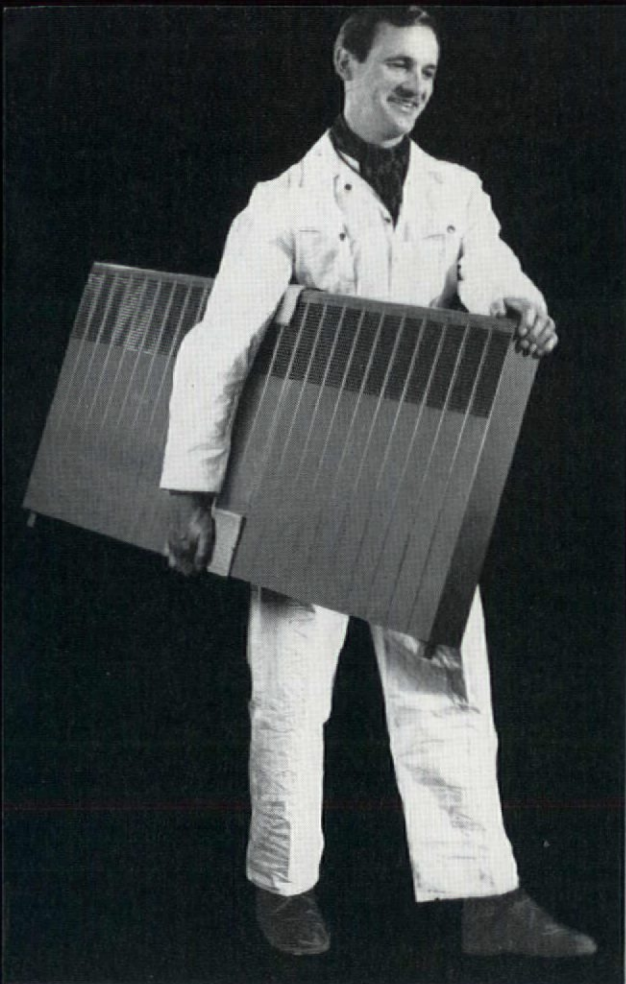

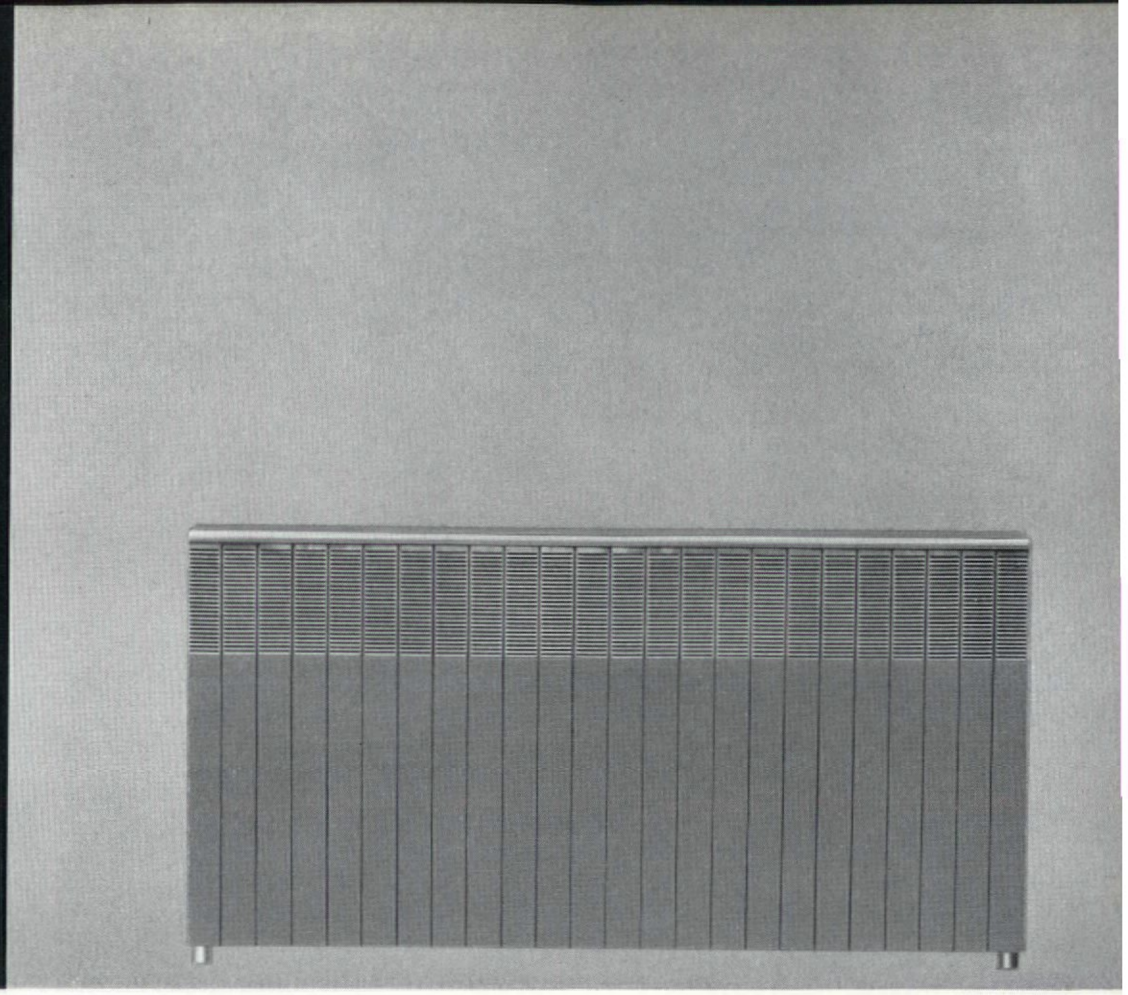

Conrad is full of features to help you solve space-heating problems

Biddle's inspired research produces a surprisingly simple heating technique that combines radiation and convection. It is good-looking too.

CONRAD stands fixed to the wall, looking handsome, remaining silent, spreading warmth. Conrad makes its influence felt. Biddle helped, of course, by marrying the principles of convection and radiation to give birth to a highly effective and universally successful heating unit. It is really quite simple: room air enters the heater near floor level, is then evenly warmed and distributed throughout the room by convection which, combined with radiation from the front panel offers hitherto unavailable new comfort and climate control. Examine the points that make Conrad so simple, yet so different from any other unit.

so light

Conrad is nearly as light as it looks. One man can install it in less time than ever before (here go your labour costs) and what is more, its lightness enables it to be fixed even to partitions and cladding. 2 or 3 wood screws are sufficient to secure its lightweight efficiency firmly. No need for built-in wall brackets as with ordinary radiators. Conrad is extraordinary. 6′ of Conrad weighs only 49 lb. It can go anywhere.

so unobtrusive

Conrad is smaller than standard radiators so it fits snugly under most window sills. Where other units are bulky, Conrad makes a virtue of *slimness* projecting only 3″ from the surface to which it is fixed. Its elegance has been endorsed by the Council of Industrial Design. Standard garb is a smart mid-grey matt lustre enamel, a hard-wearing undercoat ready to be painted in any colour. And if that colour is the same as the wall, Conrad becomes near-invisible.

no stratification

Conrad is so designed that the panel temperature is the maximum possible to maintain a high degree of radiation. Conrad's low water content ensures rapid heating up to the desired room temperature, and offers quick response to water temperature changes. Conrad is suitable for all two-pipe accelerated hot water systems. It is tested to 1,300 p.s.i. The fast response, coupled with positive airflow means the end of stratification. Conrad warms every corner of a room, *from floor to ceiling you get the same even warmth.*

nine sizes to fit your design

Conrad is available in nine sizes rising in 6″ increments from 24″ to 72″. It should be fitted not less than 4″ above the floor level. It fits flush to the wall, need never be removed for decoration.

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the inside story

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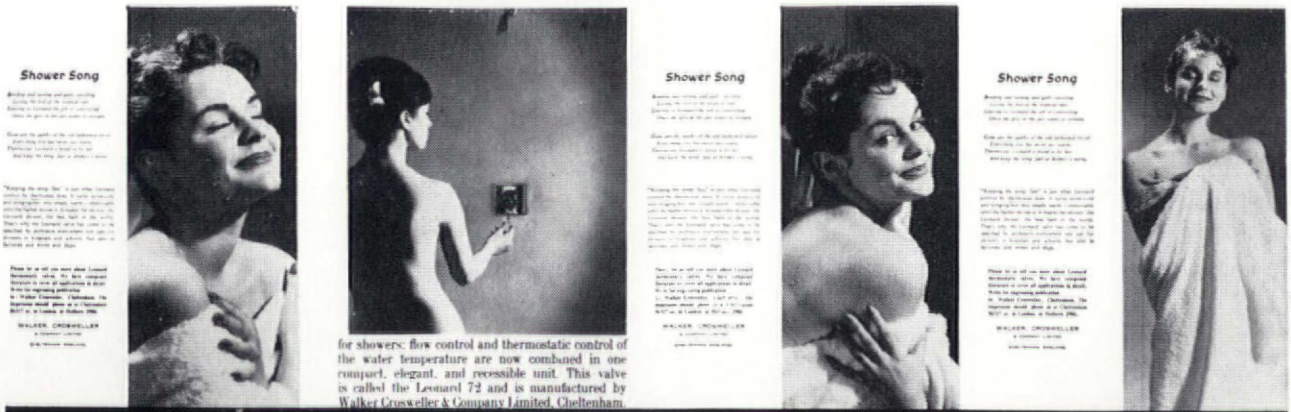

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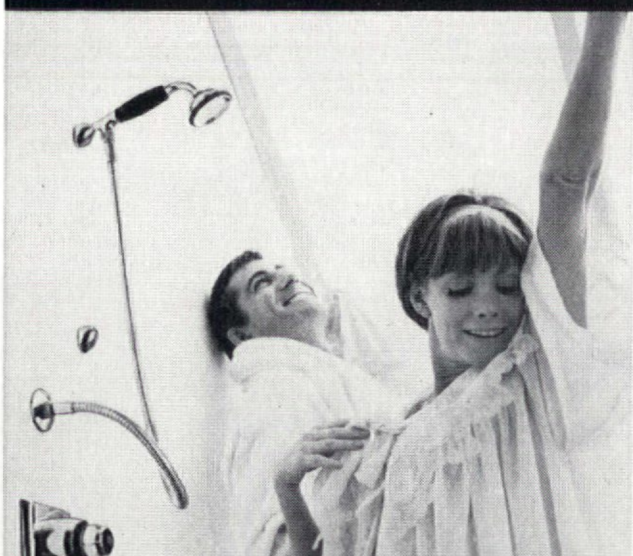

A modern shower

must be thermostatic: the water temperature you want and choose is the temperature you get, and go on getting—reliable, constant, certain.
A modern shower must include both thermostatic control **and** a separate choice of the force of the water. And both these choices in the one valve.
A modern shower must allow you the choice of installation you want: perhaps a completely flexible outlet which you can use overhead, at shoulder level, or as a hand shampoo.

The new Leonard thermostatic shower

is all these things, and works at a water pressure as low as 3 feet.*

**If you are not too certain about this then please write to us for explanatory literature, and the name of your nearest stockist.*

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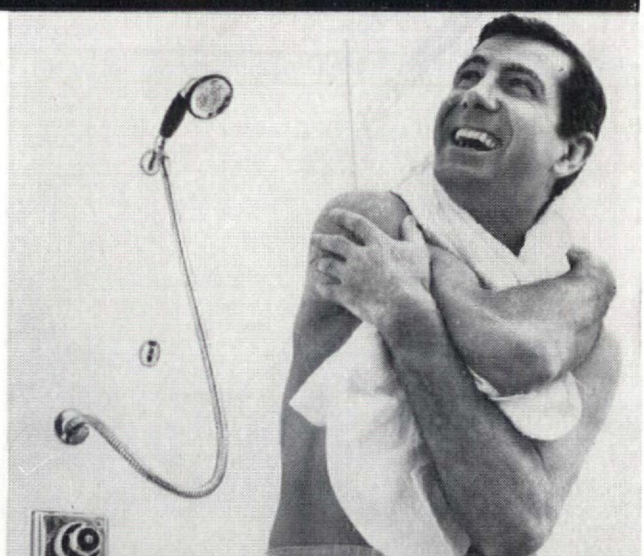

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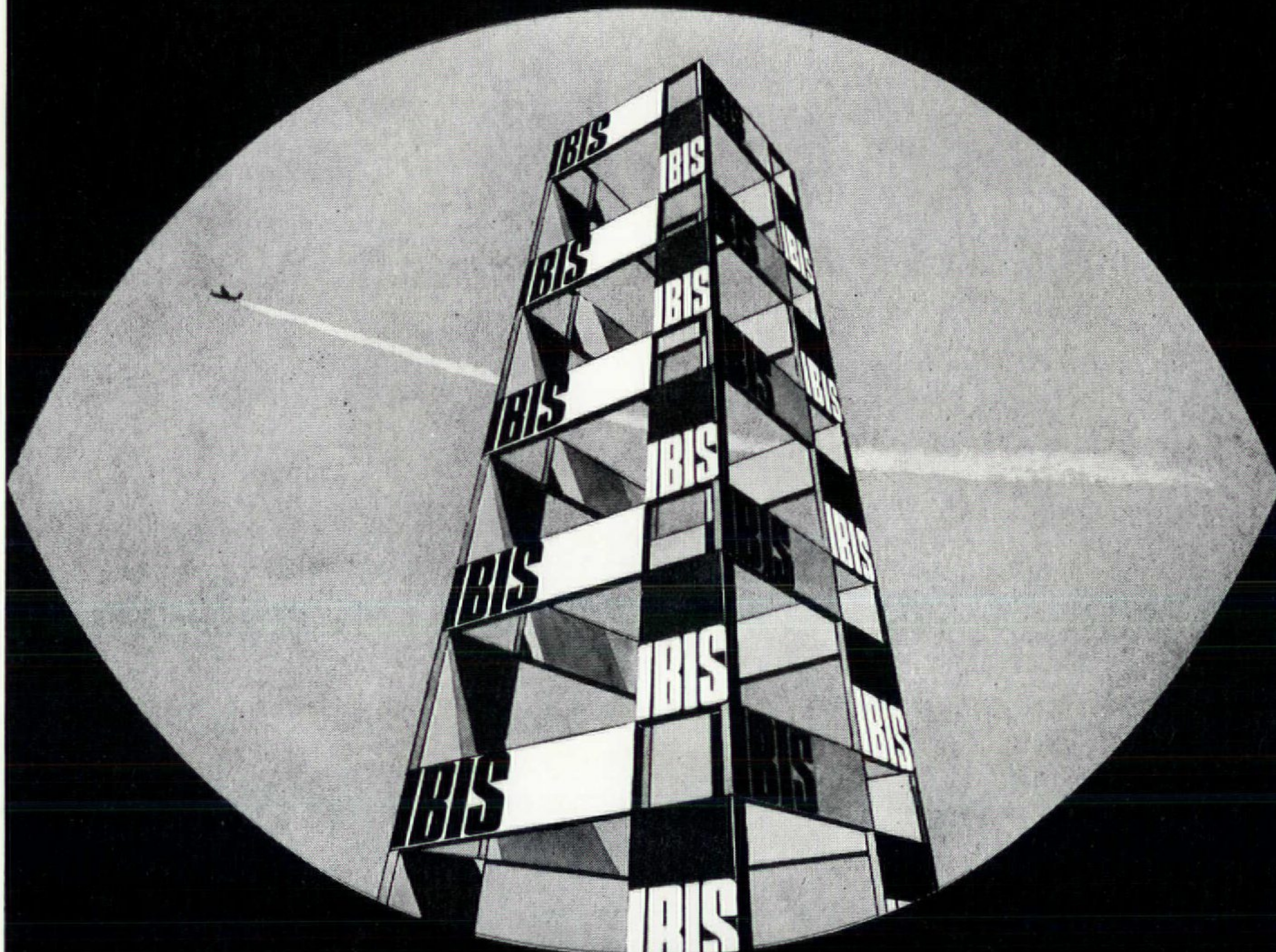
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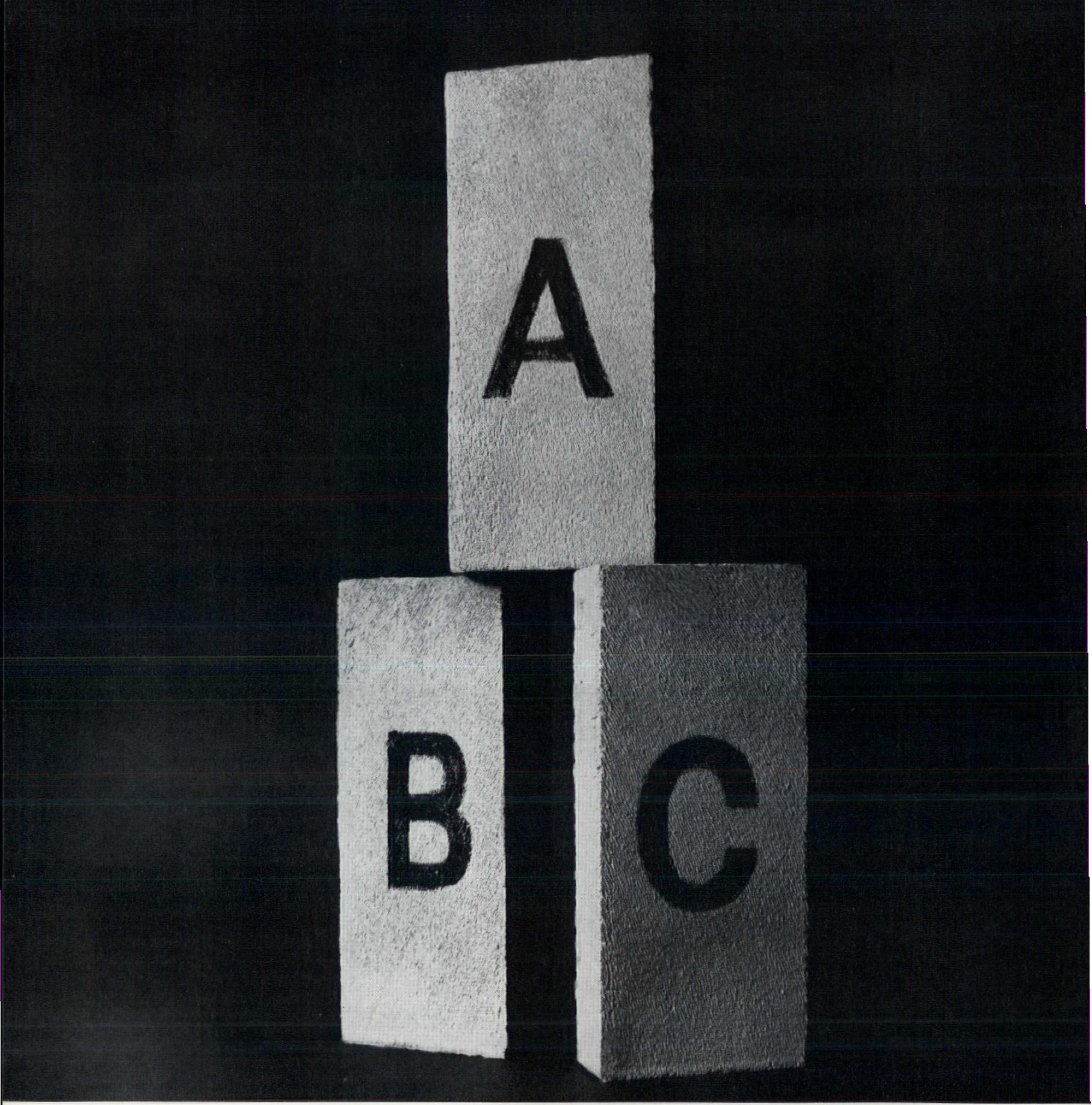
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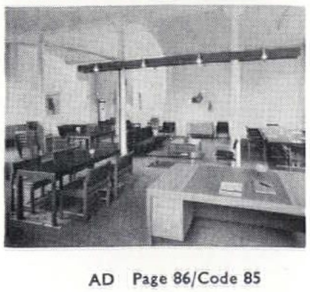

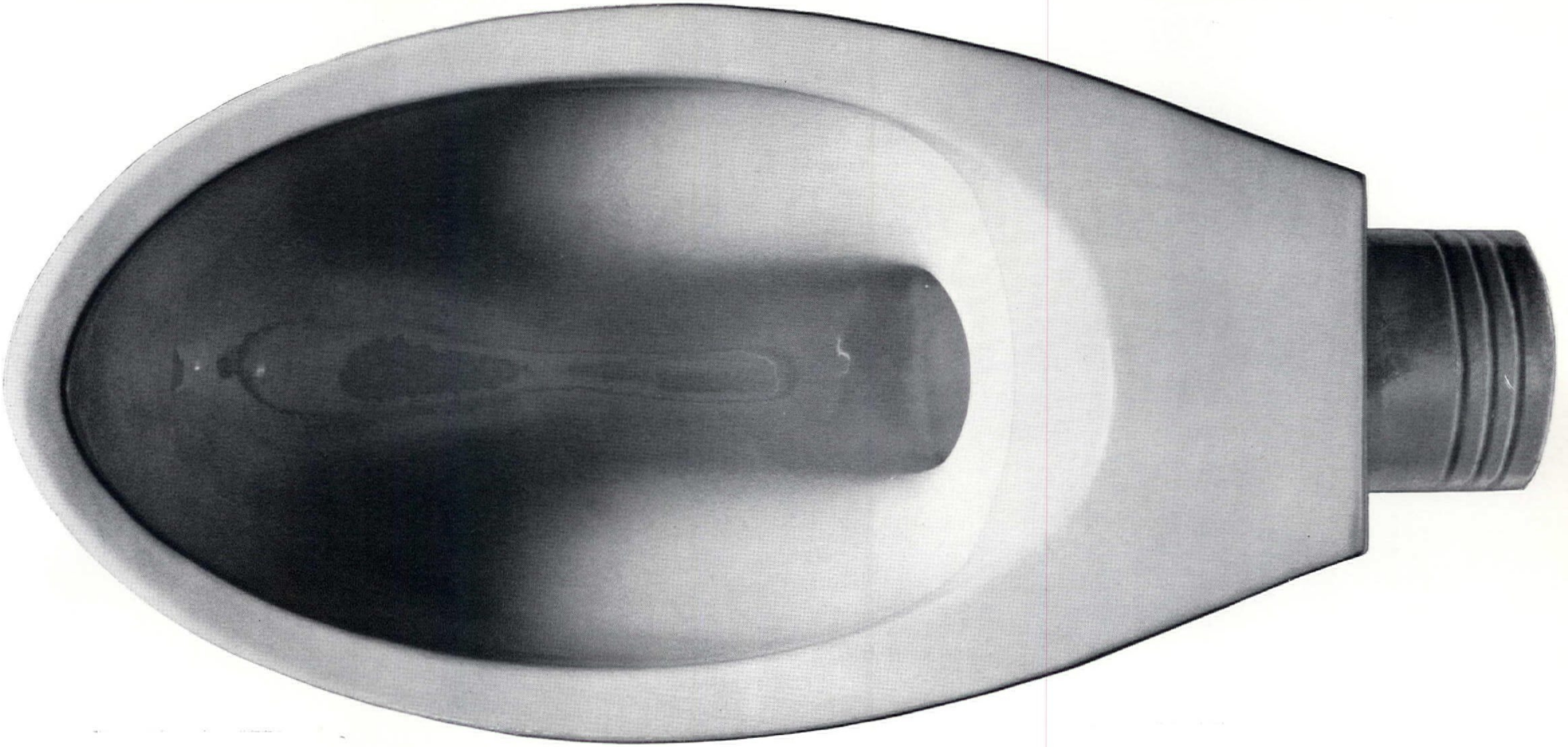

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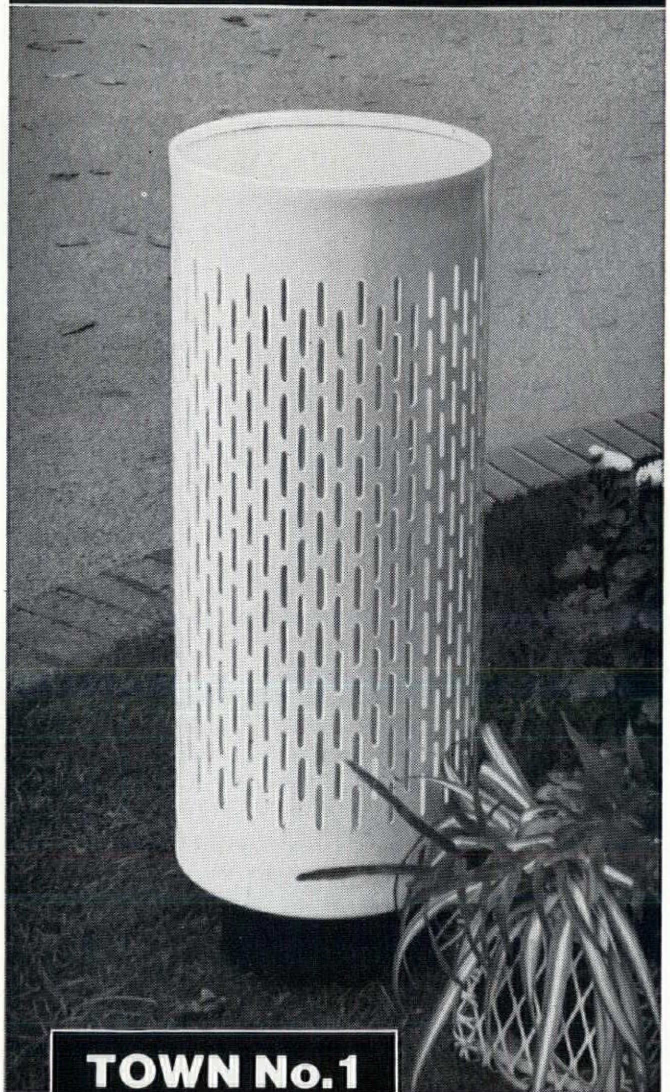

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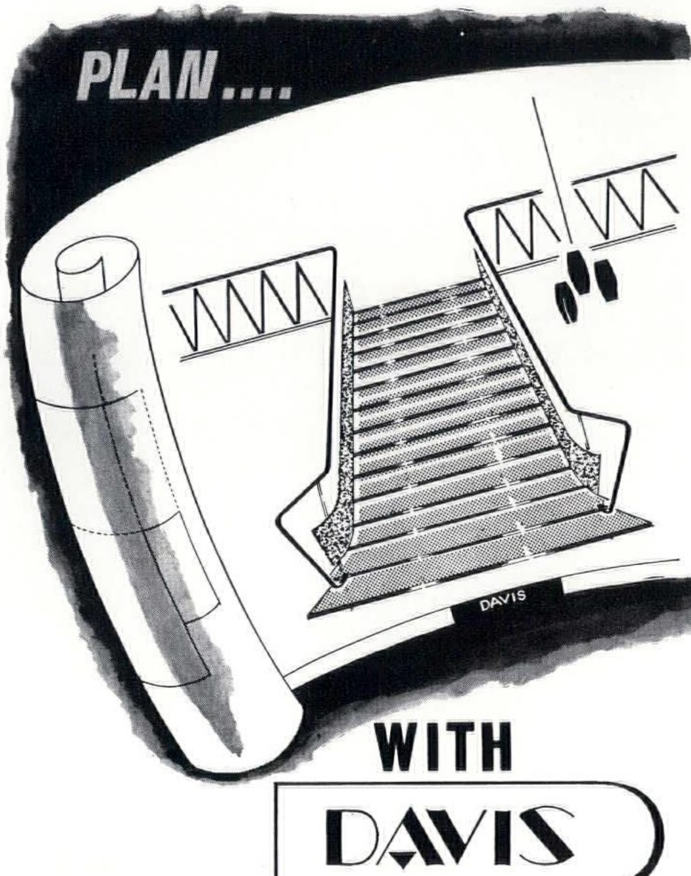

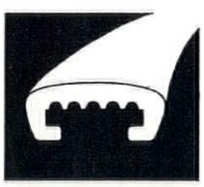

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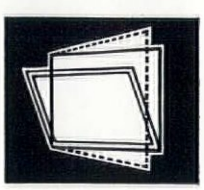

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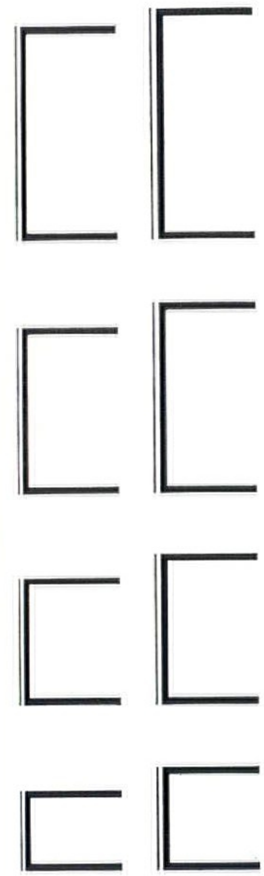

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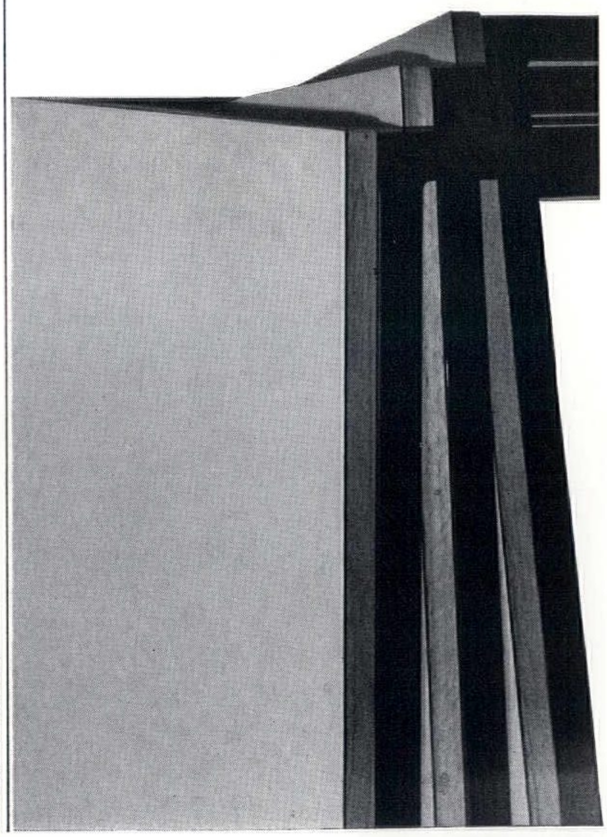

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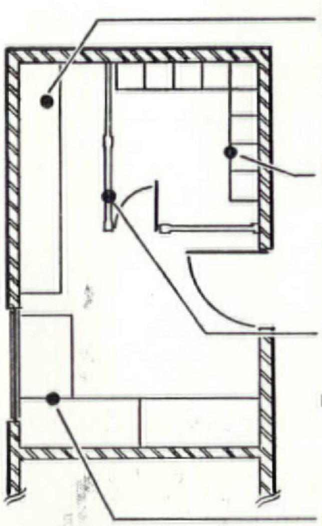

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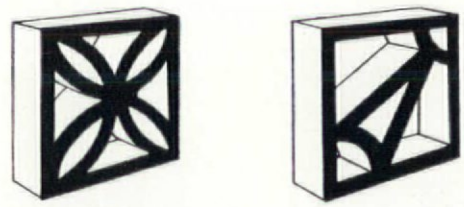

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