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2 ARCHITECTURAL DESIGN

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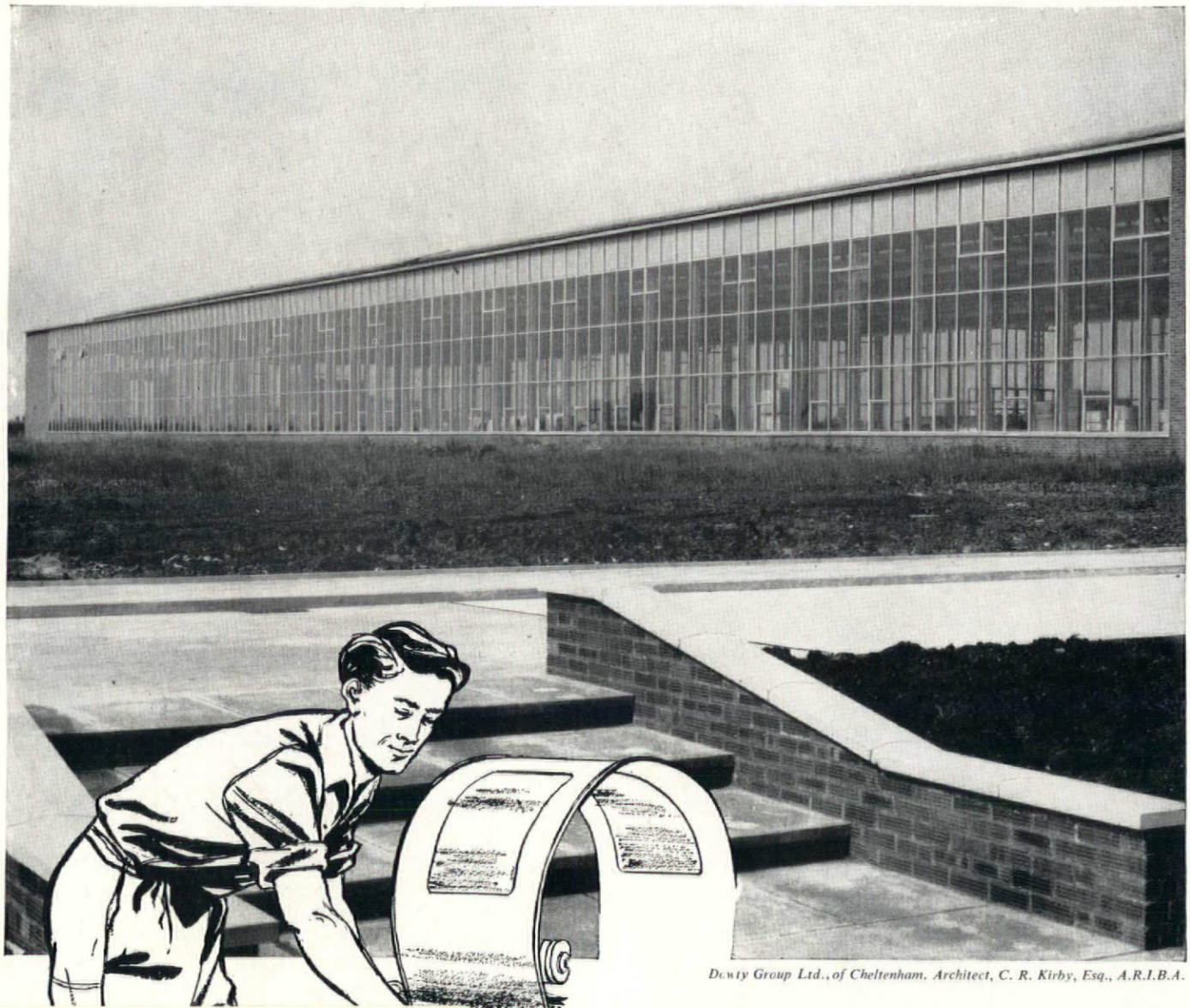

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Volume XXXI

February 1961

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CONTENTS

Five California architects

Esther McCoy. Reinhold. Chapman & Hall. £4.

Esther McCoy is a well-known U.S. writer on architecture and an advisor and regular contributor to *Arts and Architecture* over many years. The five architects about whom her book is concerned are Bernard Maybeck (1862 to 1957), Irving Gill (1870 to 1936), the brothers Charles and Henry Greene (1868 and 1870 to 1954 and 1957), and R. M. Schindler (1887 to 1953), all but the last American born, and all established in practice in California. Mrs. McCoy, a native of that state, worked in Schindler's office at one point in her career.

Maybeck, trained at the École des Beaux Arts, is remembered for his experiments with new materials—a laminated timber arch in 1899, the great hinged arch spanning Berkeley's Christian Science Church in 1910, monolithic concrete, asbestos wall panels, etc., all before 1910.

Gill, who was in Sullivan's office, practised the theory of elimination—flush interior detailing, lack of exterior ornament. He was concerned, too, with the relating of buildings to their surroundings by the use of trellises and arcaded walks.

The Greene brothers, inspired by Japanese timber craft, treated buildings and their interior fittings and furnishings as total design and created a great style in wood.

Schindler, who came from Vienna and worked at Taliesin with Frank Lloyd Wright, considered himself a space architect, and concerned himself with structure and, like Cubist or Futurist artists, with the breaking up of forms and light.

Copiously illustrated, the book consists of monographs on these great men whose work has been seminal to Californian architecture today.

In his introduction, John Entenza says 'It would be impossible to understand the admittedly great influence of Western American architecture without an appreciative knowledge of their work. . . . The least that can be said of this architecture is that it has always exhibited an enormous curiosity, vitality, and a willingness to experiment resulting, for better or for worse, in a body of work that stands up to the controversy in which it always seems to be involved.'

The synthetic vision of Walter Gropius

Gilbert Herbert. Witwatersrand University Press, and Tiranti. 19s. 6d.

Walter Gropius has recently been much neglected and ignored. In the 'thirties he was the father figure, with all the combined social and architectural solutions firmly in his grasp. His many activities, as an educator, designer and planner, and above all his synoptic vision of the unity of the arts, made him an apparently unshakable figure. Mr. Herbert points out his close relationship to his philosopher contemporaries, Whitehead and Smuts, with their concepts of wholeness and organic unity. This essay goes on to analyze the application of the concept to art, architecture and education, and preaches the theme of collaboration, co-ordination.

Now it is true that much of Gropius' theory, and his application of the theory in planning and architecture have been shown (by Reyner Banham and many others) to have been inadequate (though this is in no way discussed here); yet it remains nevertheless the only really sane architectural philosophy, with a committed social basis. As we get closer to the actual realities of mechanization, the necessity for the architect's participation at the highest level becomes imperative.

The Witwatersrand University Press on the other hand might well have taken a short course in integration of the arts before undertaking the production of the book. There are endless footnotes, a short biographical note, and an introduction by Walter Gropius himself.

Mr. Herbert is to be congratulated in carrying on the enlightened and scholarly precedent of Rex Martienssen at the same school of architecture.

Pier Luigi Nervi

Ada Louise Huxtable. Mayflower. 32s. 0d.

The work of Nervi has been the great discovery of the 'fifties; he has somehow enlarged the vocabulary of modern architecture in a delicate and meaningful way. His solutions, too, have been general ones, capable of extension and development, not the

continued on page A/7

ontinued from page A/5

esult of personal eccentricity, but of a profound study of naterials and forces. The development of ferro-cements (the rocess is explained here) is crucial to his later work, because it rovided an alternative to the timber-into-concrete æsthetic that ad been worked out by Perret, and which was (and mostly still s) the stock in trade of the architect or engineer who uses oncrete.

his short essay forms an excellent introduction to the man, and o his work. The numerous photographs give a cross-section of is achievement. The whole is well produced, as in all the olumes in this series, with a bibliography and an index.

arly architecture in Britain

. and R. Leacroft. Methuen. 10s. 6d.

o interest a young mind and hold it, a subject should be intro-uced in its widest possible terms, with more detailed matter rought in fairly sparsely. When this wide general picture is issing, in this case environment and tradition, the remaining natter tends only to be a list of architectural terms, aggravated by eir being in italics, and trying reading for a child.

he diagrams in this book are well drawn and very clearly labelled, nd for this reason alone it should find a place in the junior brary.

Design and detail of the space between buildings

lizabeth Beazley. Architectural Press. 42s. 0d.

well-produced book to help the designer avoid the incon-ruities of detail which in the past, and even now, spoil many therwise distinguished schemes—architectural or otherwise.

he author puts her finger on many points which have long eeded saying, but fails to draw the conclusion that in a society here the field of technique of both the architect and engineer s ever increasing, surely a hard landscape should be designed y a landscape architect; as were in point of fact many of the ubjects which she illustrates.

his excellent book, clearly illustrated by photographs and dia-rams, also lists the availability and wearing qualities of materials, nd, most useful of all, the relative merits of constructional ethods.

econdary schools

rchitektur Wettbewerbe-Stuttgart. November 1960

he November issue of the German publication, *Architektur Vettbewerbe* has been devoted to the results of competitions or the design of secondary schools in both Germany and witzerland.

Within such a comparatively restricted space it would be impos-ible to include detailed plans; however, site plans, models and eneral layout of buildings have been beautifully reproduced, ith a summary of comments, in English, by the adjudicating anel.

he judges for the competitions were particularly interested in nsuring that the solutions put before them fulfilled city planning equirements, and had taken into account both topography of ite and climatic conditions, as well as pure school functionalism.

feeling for the site, and the arrangement of buildings within hat area so that they sit comfortably within their landscape, and ake full use of it, is one of the many factors which British archi-ects could learn from their German and Swiss counterparts. his very useful publication brings out these points with great larity, and is recommended for anyone embarking upon the roblem of school layout.

ew housing in Great Britain

fans' Martin Bruckmann & David Lewis. Tiranti. 50s. 0d.

he British contribution to post-war mass housing is impor-ant; apart from school building, it is the only real contribution ve have been able (or allowed) to make to world architecture. ts value is based firmly on an ideal of social usefulness, some-hing that is often lost sight of in the maze of planning controls, ommitteemanship, minimum standards and so on that have rown up in the last fifteen years. David Lewis' clearly written ntroduction brings out very precisely the social, economic and esthetic forces behind our post-war housing. As a summary, it ould hardly be bettered, and it covers a lot of ground: from the

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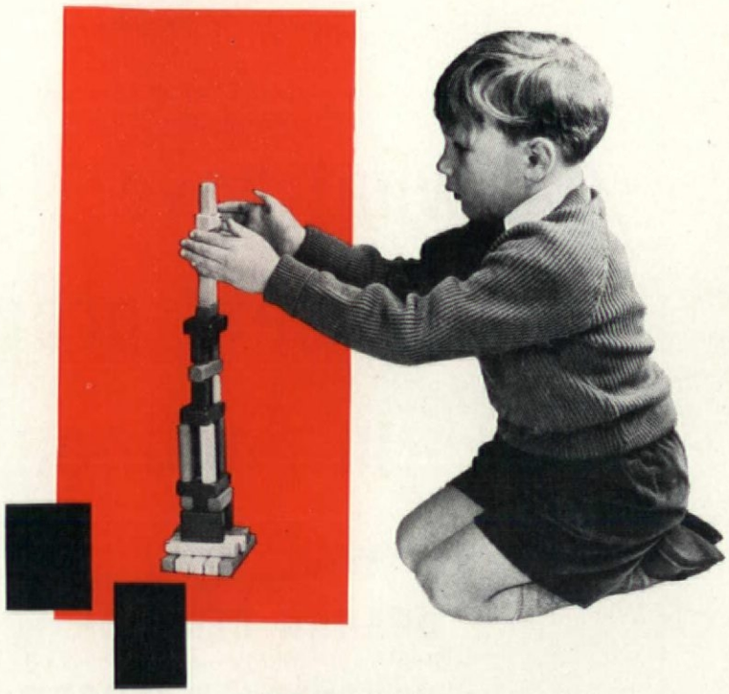

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heory and practice of the New Towns, the reconstruction of war amaged areas to the rise of private enterprise speculative build-ng in the last few years. The importance of the key examples such s the Alton Estate, London and Park Hill, Sheffield are empha-ized and carefully analysed.

he second half of the book is a collection of plans and photo-raphs of the best work of the past years, nicely laid out and, hough lacking the literary distinction of Mr. Lewis' contribution, backs up his arguments very well. Those buildings and com-lexes have a certain honesty, clarity and Englishness that is very ncouraging, until one realizes that the architects who created hem, often enthusiastic young men fresh from school, have ostly moved on to other fields, and that many painful lessons ave somehow been ignored. We very much need a greater ontinuity and refinement in our housing programme, more esearch and more intelligence, if the promise of 'New Housing Great Britain' is to be fulfilled.

he text is in English and German, production is excellent.

nteriors book of restaurants

Villiam Wilson Atkin and Joan Adler. Whitney Library of Design, .Y.

his is an American book, showing very beautifully the interiors f American eating places in the main, although there are some uropean examples.

he text is directed mainly at the restaurateur, and the problems hich he and the architect or interior designer will have to face hen evolving a new luncheonette or cafeteria. The result, how-ver, should convince him, and he has only to see the sumptuous ustrations shown, that it is worth his while.

ood must surely be of primary importance in a restaurant, and ables therefore from which to eat it are more or less standard om New York to San Diego, but there the similarity ends. he pages of this fascinating book lead one through Georgian hoppe Houses, Venetian cafés and pseudo French interiors, esigned to take the customer 'out of himself'. But also illustrated re many fine interiors in context, evolved through the uniting of n architect, interior designer, even landscape architect, and good anagement.

ersonally, I seek no great emotional experience with my food, nly a relaxed atmosphere and congenial surroundings, but the uthors do say that 'the total concept and design should be such s to attract the largest possible number of the particular clientele esired.' *J.B.*

lotif 5

dited by Ruari McLean. Shenval Press. £1 2s. 6d.

s always, *Motif* continues to make an evening's happy reading, nd contains sufficient excellent and varied illustrative material be a desirable member of the bookshelf—some so desirable, fact, that it seems a crime even to close the book: for example, lichael Rothenstein's three double-spread combined wood and no cuts in brilliant colour.

f the reading matter, most interesting are the features on four culptors (Dalwood, Warren-Davis, Bates, and Hoskin) with n introduction by de Saumarez; on the Guggenheim Museum as een by Phillip James; on a new typeface, Univers, to improve n Grotesque; and on early zoological illustration. For those nterested in the Slade School, Andrew Forge continues his ccount of its history.

his thrice-yearly stiff-covered magazine is a pot-pourri of elightful talent. No particular line of thought is pursued—all stes are catered for—which remains its weakness as a power in ne world of art. Nevertheless, it continues to be a most welcome ublication.

ypographica *New series* **1 & 2**

dited by Herbert Spencer. Lund, Humphries. 12s. 6d. each

he new series of *Typographica*, which comes out twice a year, s to be welcomed. There are very few magazines which show ypography, and this occasional is very good value. The first ssue contains a review of the Royal Arms by Charles Hasler, ve Polish photographers, the work of Franco Grignani, and a ost interesting history of numerals by Henry Friedlander. In ne second the work of the printing house of de Jong, Hilversum, s shown (the very model of an intelligent press) with work by rownjohn, Chermayeff and Geismar. The production is always upremely efficient, and the impagination excellent.

FACTS

A new type of Wallspan makes its debut on the tower of Castrol House—a prefabricated Wallspan designed in collaboration with the architect that goes up more quickly than any curtain walling system yet devised. Williams & Williams developed it specially to fit in with a tight building schedule—18 months from start to finish.

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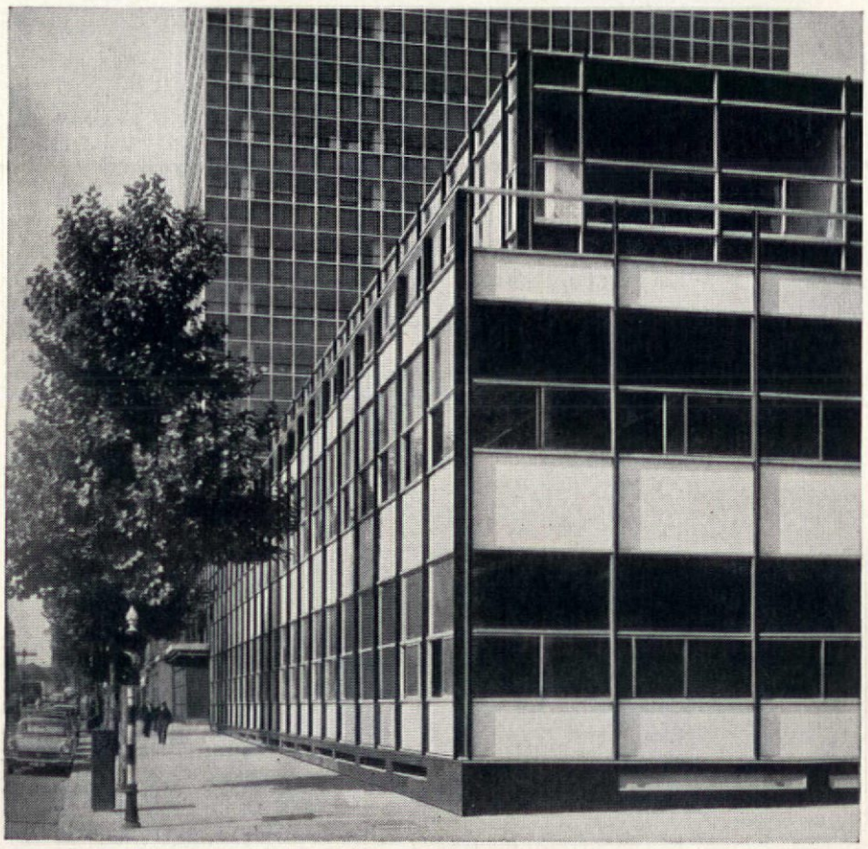
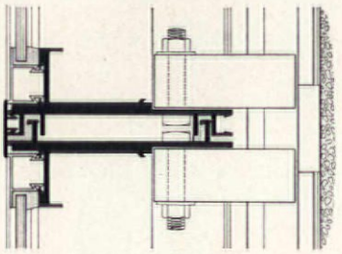
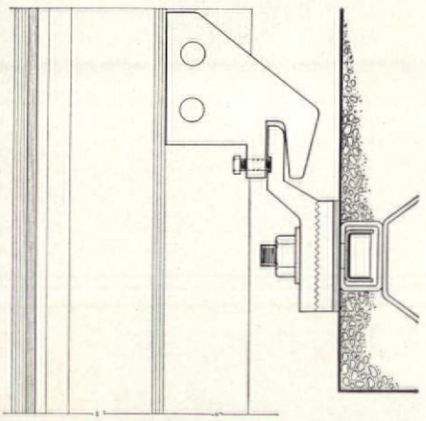
The vertical section shows how the prefabricated Wallspan is literally *hung* on to the frame. It is curtain walling in the truest sense, and although designed in the first place specifically for Castrol House, the system is now generally available—a classic example of co-operation between the architect and the curtain walling specialists.





Horizontal section at infill level. Each half mullion forms the edge of a prefabricated panel. When the two panels are brought together, the joint is sealed with Thiokol mastic and an aluminium capping is then clipped on to seal the joint finally.



Vertical section showing fixing detail. As the floor slab is cast, bolts are built in ready to receive the fixing spigots. These are adjustable vertically and horizontally to allow for slight inaccuracies. Hooks on the Wallspan panels engage over the spigots and are kept firmly in place by compression bolts.

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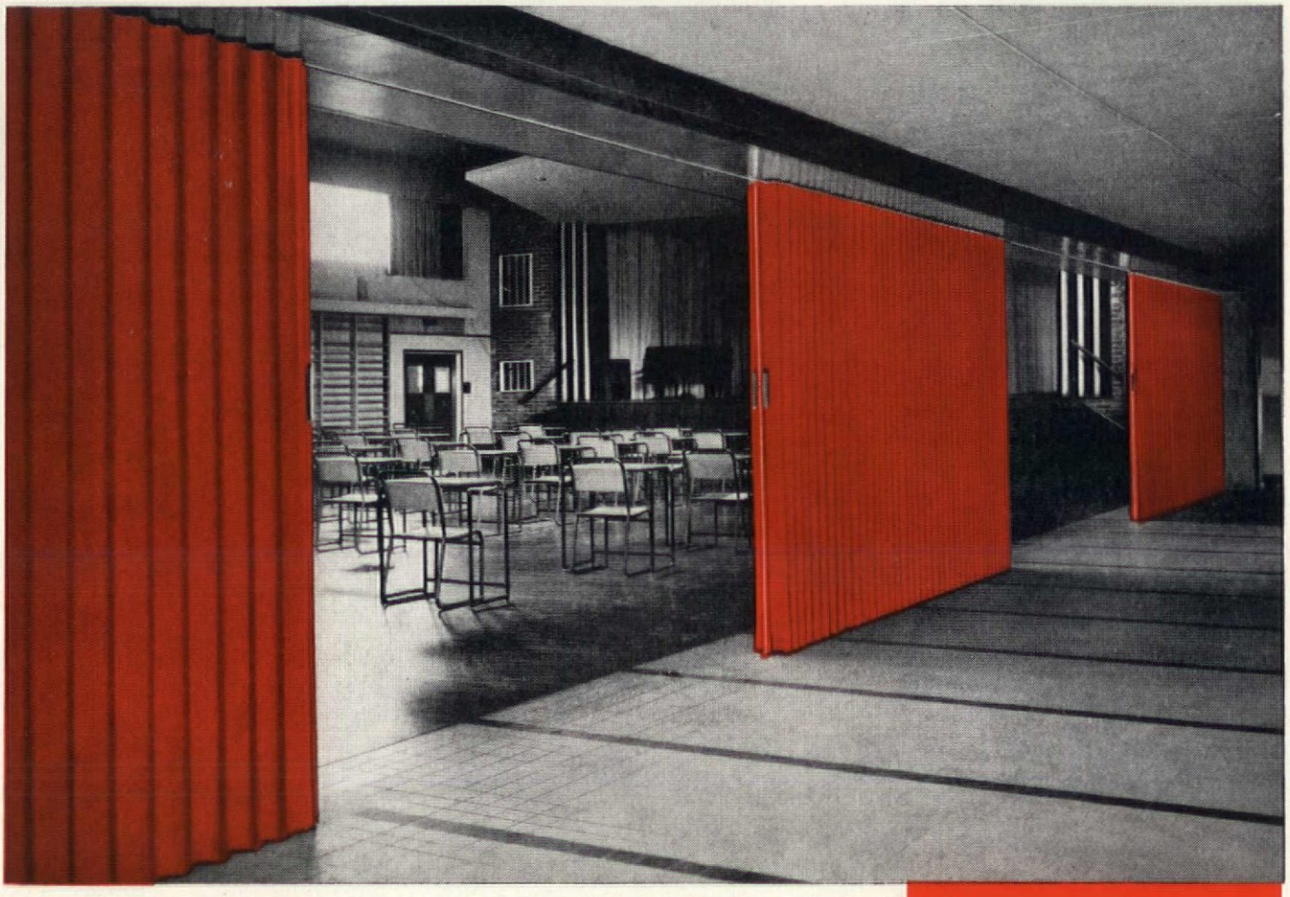

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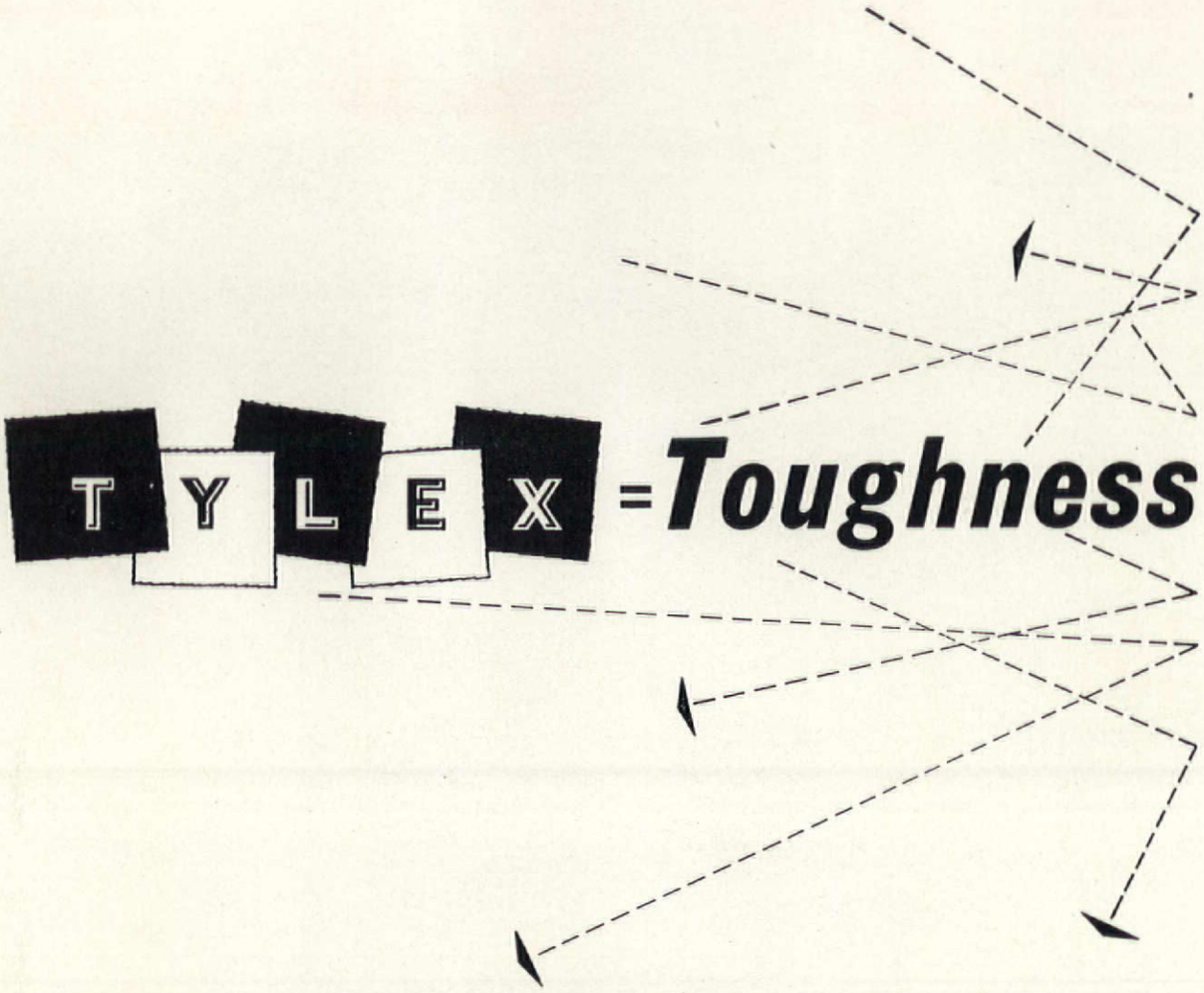

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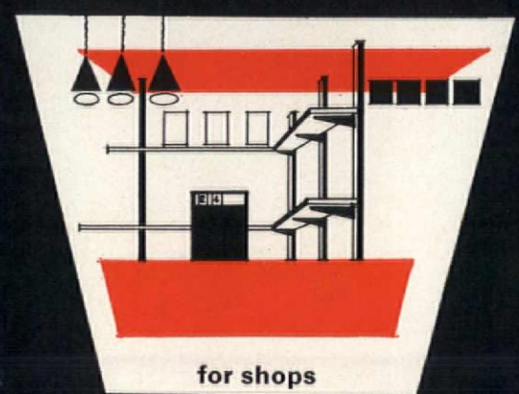

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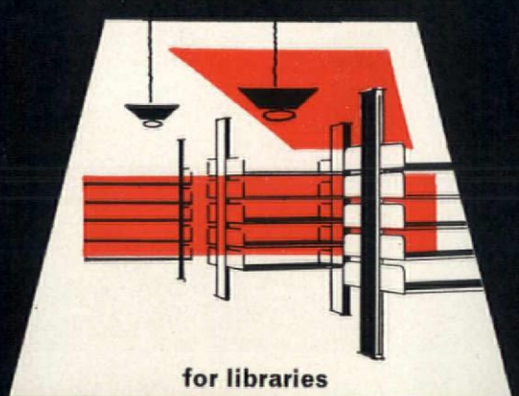

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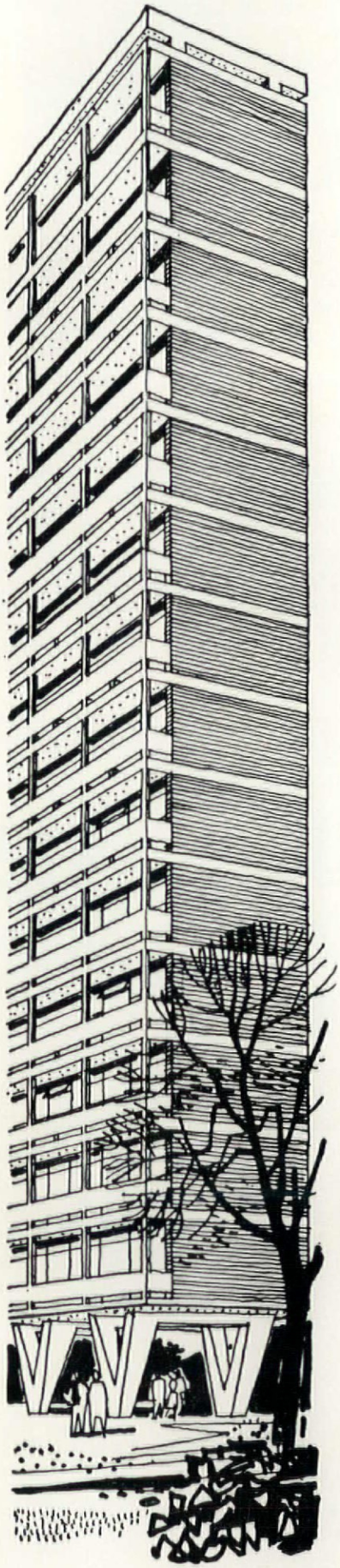

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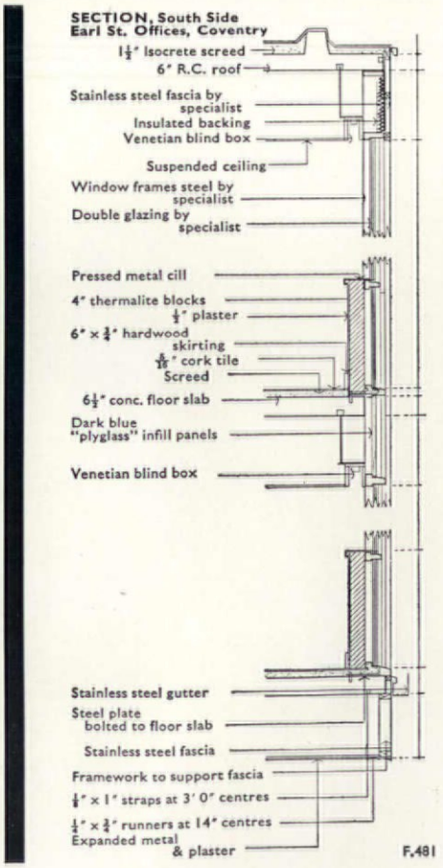

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Additionally, Wednesbury have installed electronic monitoring equipment for the detection and elimination of any process or material faults which may occur during manufacture.

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Code 19

glass for depth of colour

in cladding

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For full information write to the Technical Sales and Service Department, Pilkington Brothers Limited, St. Helens, Lancashire. Tel: St. Helens 4001;
LONDON OFFICE: Selwyn House, Cleveland Row, St. James's, S.W.1. Tel: WHItehall 5672-6.

Supplies are available through the usual trade channels. "ARMOURCLAD" and "MUROGLASS" *are registered trade marks of Pilkington Brothers Limited.*

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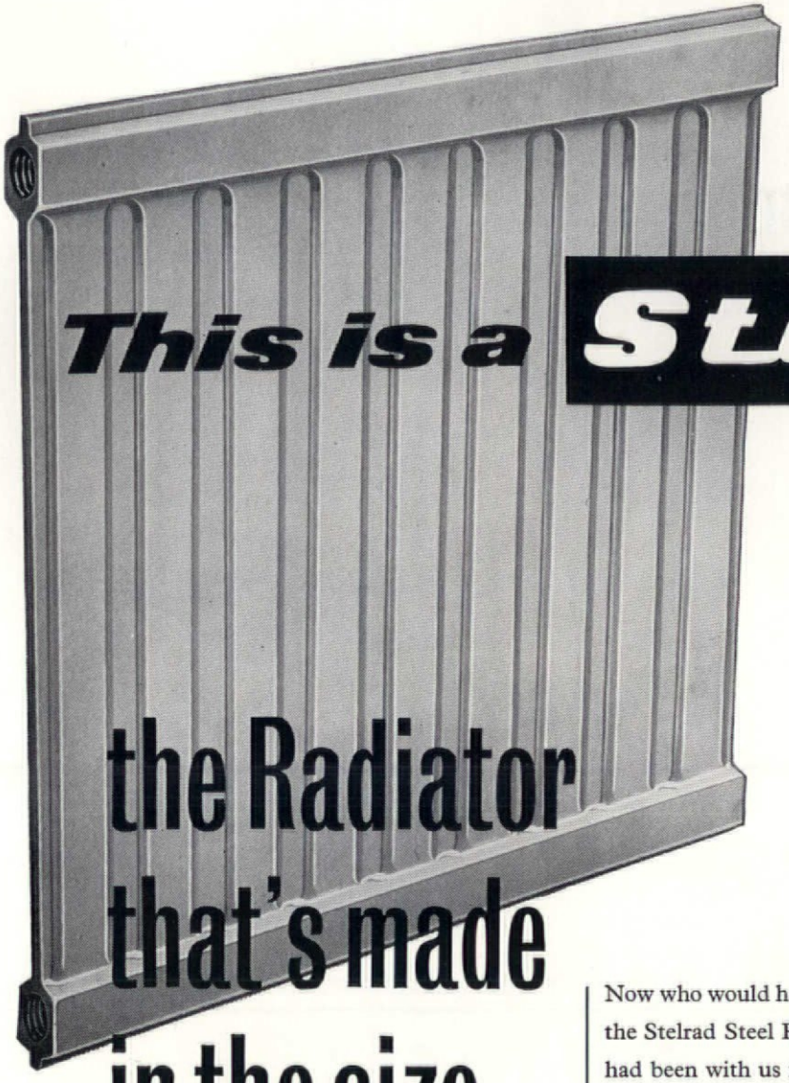
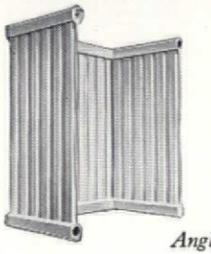


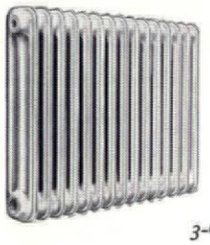
This is a Stelrad

the Radiator that's made in the size you want, and in the shape your client likes

Double Wall



Angle-Wall



3-Column

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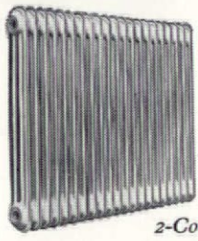
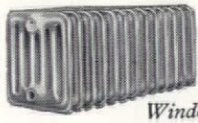
Some were doubters, holding forth about steel and how the only Radiator to use was one that was not only heavy to handle but ungainly to behold. But where is the Stelrad today? In buildings large and small throughout the length and breadth of the land, and in a range so wide there is not a single nook a Stelrad cannot heat.



2-Column



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Photograph by courtesy of the United Kingdom Atomic Energy Authority

Claddings for Industrial Buildings

Chapelcross Atomic Power Station at Dumfries is yet another example of the contribution being made by Turners Asbestos Cement Co. Ltd. to modern industrial building development.

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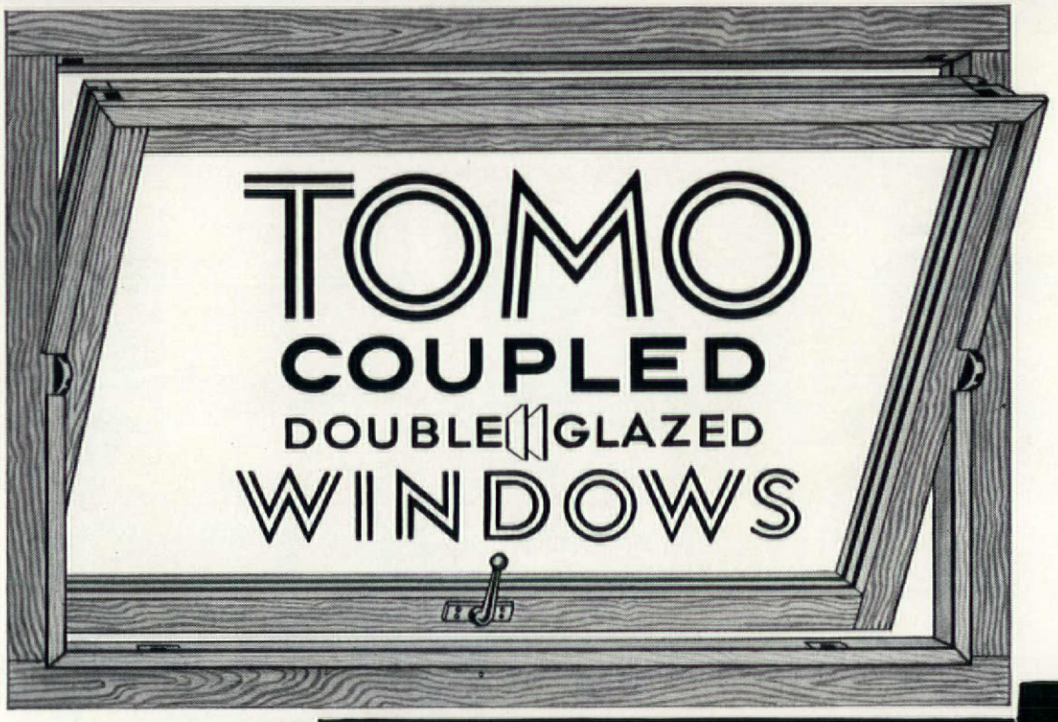

...PURPOSE-MADE IN FINEST TIMBERS TO ARCHITECT'S SIZE, STYLE AND FINISH

BUILDING RESEARCH STATION TESTS

When a standard-production TOMO WINDOW WALL-unit (8 ft. × 8 ft.) was tested at the Building Research Station, Garston, the mean thermal transmittance of the complete unit was found to be 0.31 B.Th.U./sq. ft./ h/°F. This is equal to the thermal transmittance of a traditional 11-in. cavity brick wall! This impressive result was further improved to 0.29 when the TOMO Pleated Blinds, fitted between the panes, were lowered.

The U-value of the window-area only was found to be 0.38: with TOMO pleated blinds down, it became 0.35. At 0.38, TOMO double-glazed WINDOWS are substantially (29%) better than the U-value of 0.47 quoted for conventional double windows in the I.H.V.E. Guide to Current Practice, 1955.

The excellent thermal-efficiency achievement of TOMO double-glazing (amply demonstrated in the report of recent B.R.S. Tests, quoted on left) is one of many good reasons why architects specify these superb windows.

Another is the ever-increasing need for maximum sound reduction. In this respect, TOMO WINDOWS afford a reduction in sound level of approximately 40–50 decibels.

The marked success of TOMO double-glazed WINDOWS is due to the fact that two panes of ordinary glass are carried in separate sashes, which in turn are coupled together in such a manner that air filtration can take place between the panes. This time-honoured method of coupling, which is used extensively throughout Scandinavia, not only prevents condensation forming between the panes, but allows the sashes to be opened for the purpose of cleaning the insides of the two panes and for gaining access to TOMO pleated blinds that can be housed between them.

TOMO double-glazed WINDOWS also offer the advantages of finely-controlled ventilation and total indoor window cleaning. They are suitable for inward or outward opening and can be top-hung, bottom-hung, side-hung or pivot-hung.

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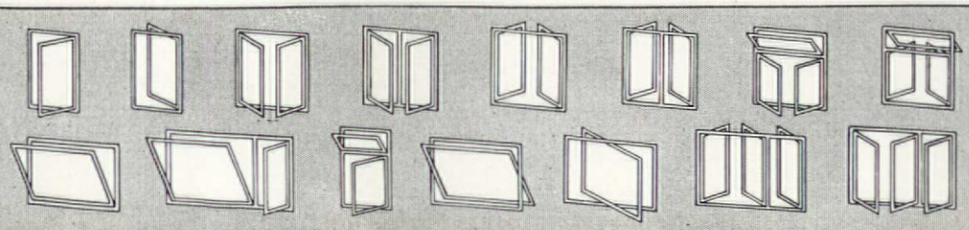

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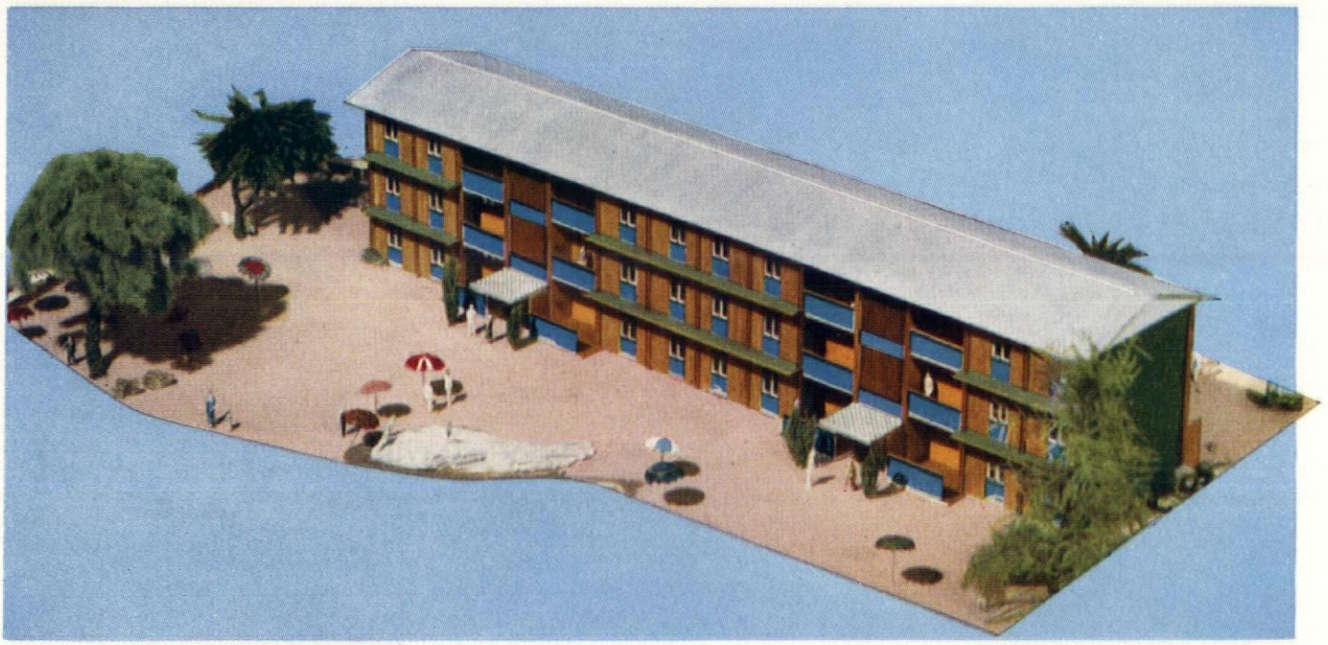

Simms C-DA system of permanent timber panel construction

Model of a three-storey block of married quarters in **Simms C-DA System of Permanent Timber Construction,** in course of erection together with other buildings for the Air Ministry for Army and R.A.F. personnel in Aden.

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Code 28

NEWS FROM HULL

SKYWAY HOTEL AT LONDON AIRPORT

Chartered Architects :-
Fitzroy Robinson & Partners

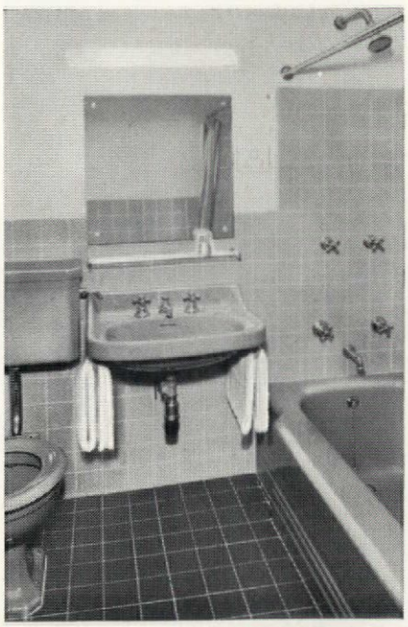
Main Contractor :-
Bernard Sunley & Sons Ltd.

Plumbing Sub-Contractor :-
Ellis (Kensington) Ltd.

A BATHROOM WITH EVERY BEDROOM AT THE SKYWAY HOTEL

Vitreous china used

After having travelled halfway round the world the guests at the new Skyway Hotel near London Airport will find it easy to have a refreshing bath within minutes of booking in. Every bedroom suite has its own bathroom —planners considered this to be an essential feature of an airport hotel. The bathrooms are small, compactly designed and practical. They are easy and quick to clean—with a high turnover of guests this is vitally important—the appliances used are durable and long lasting. The baths, with shower fitments, are 'Standard' Master Classic, modern in design and coated with high quality porcelain enamel. The wash basins and low level closet suites are also 'Standard' products made from vitreous china. Vitreous china has a high resistance to harsh treatment and fracture and is recognised by most Public Health Authorities to be more hygienic than other ware. This is because vitreous china is fired at a much higher temperature. As a result it is a dense and non-absorbent material which does not depend upon its glaze to make it watertight. Being non-porous and non-absorbent it is impossible for germs to lodge and breed in it.



A Skyway Hotel bathroom. Tiled walls and floor, 'Standard' bathroom equipment. Long lasting, attractive, easy to keep clean.

New bathroom suite for low cost housing

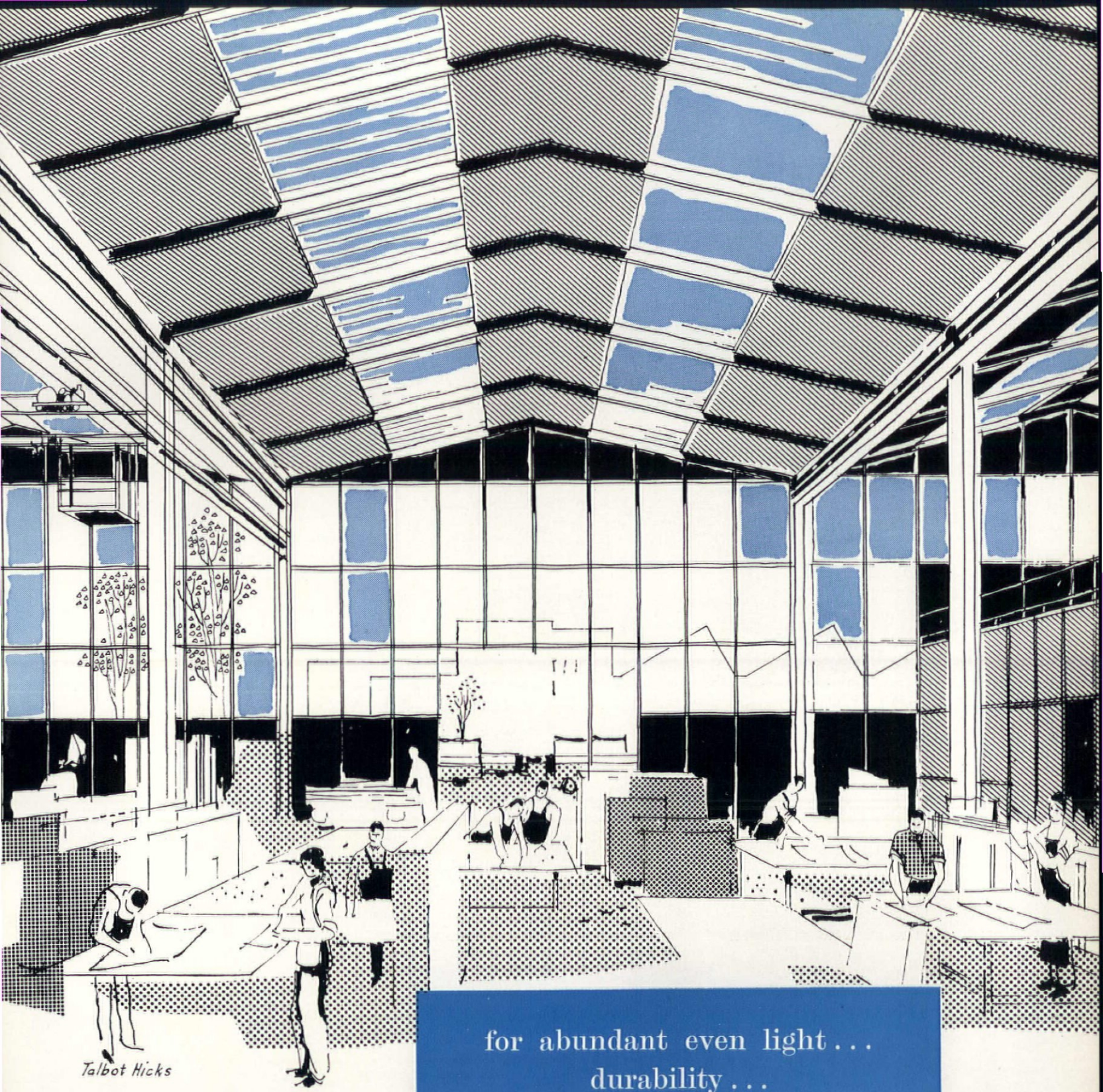
A new economical bathroom suite has been designed by Ideal-Standard especially for the demands of low cost housing schemes. This suite, called the Trimline, consists of a wash basin, which is available on cast-iron wall brackets or a pedestal (as illustrated), and a wash-down closet coupled to a low-level cistern. It is distinguished by a high quality of design not common in low cost sanitary appliances. Made from non-porous vitreous china it is strong and permanently hygienic and has all the advantages of more expensive luxury suites. Many local authorities are already using vitreous china equipment for new dwellings—the Trimline suite figures prominently in these developments.

Clean lines, attractive overall appearance, low cost, vitreous china hygiene and durability are features of this Trimline wash basin and closet.

Architects design packaged bathrooms

Several well-known architects and interior designers have been commissioned by Ideal-Standard to design bathrooms for a range of representative modern houses. The bathrooms—plans of which will be available to architects, the trade and the general public—are complete in every detail. Wallpapers, paints, carpeting, linoleum, lighting, heating, accessories and appliances are all specified in the plans and alternative colour schemes are suggested. Helen Challen ARIBA, MSIA, who was voted as having designed the most interesting and attractive living room in last year's Ideal Home small house project, and Robert Heritage, Des. RCA, MSIA, who won a Design Centre award for a piece of furniture and submitted a successful design in the Ideal Home competition, are among the designers of these bathrooms. The designers had to bear in mind that the overall cost was to be kept within given limits, and that the plans would possibly have to be adapted. Despite these difficulties, a high standard of decor and design has been obtained at a realistic outlay. These plans will soon be available from Ideal Boilers & Radiators Limited, Ideal Works, Hull, on request.

Code **29**



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See Architects Journal Information Sheet No. 29B4 for detail specification.

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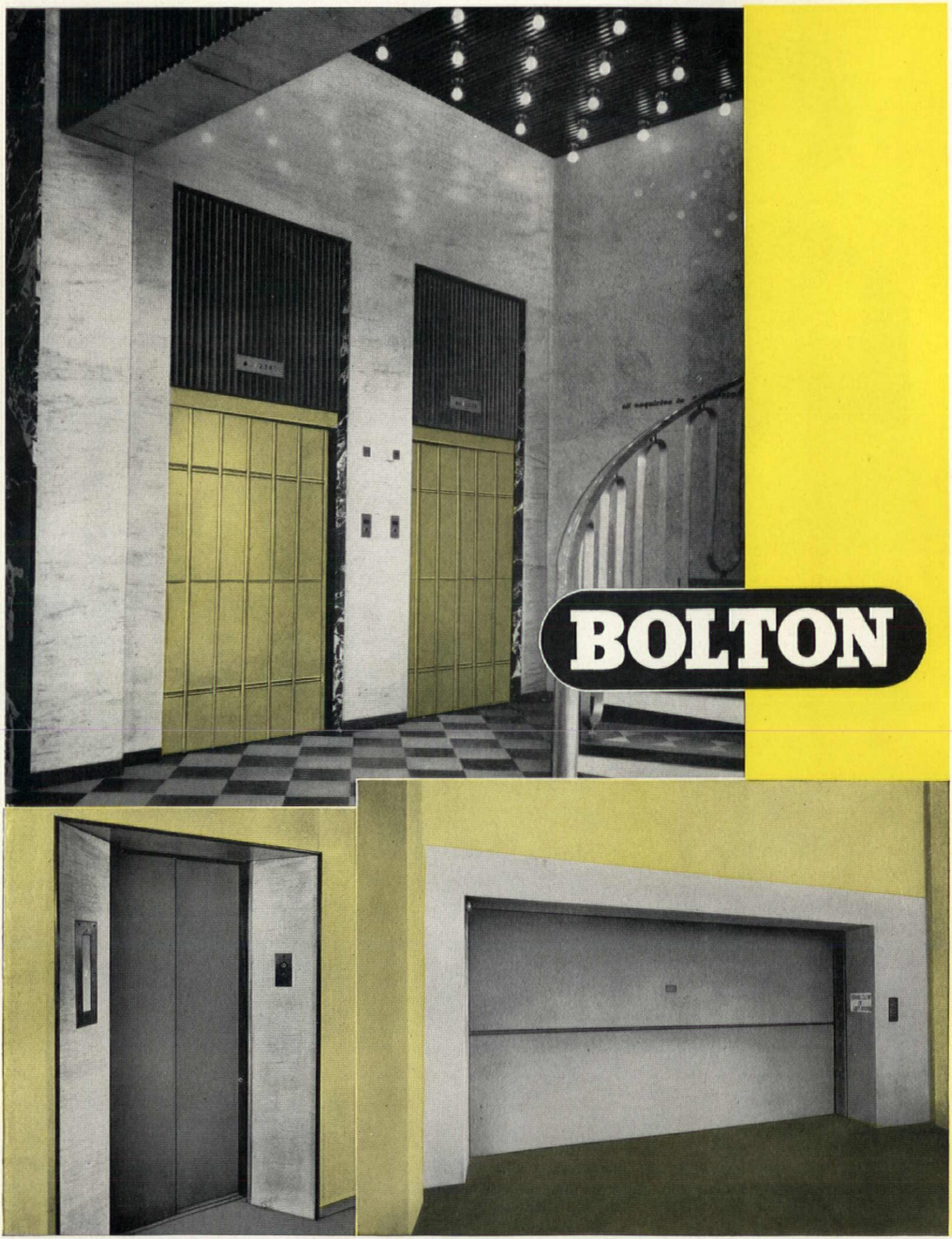

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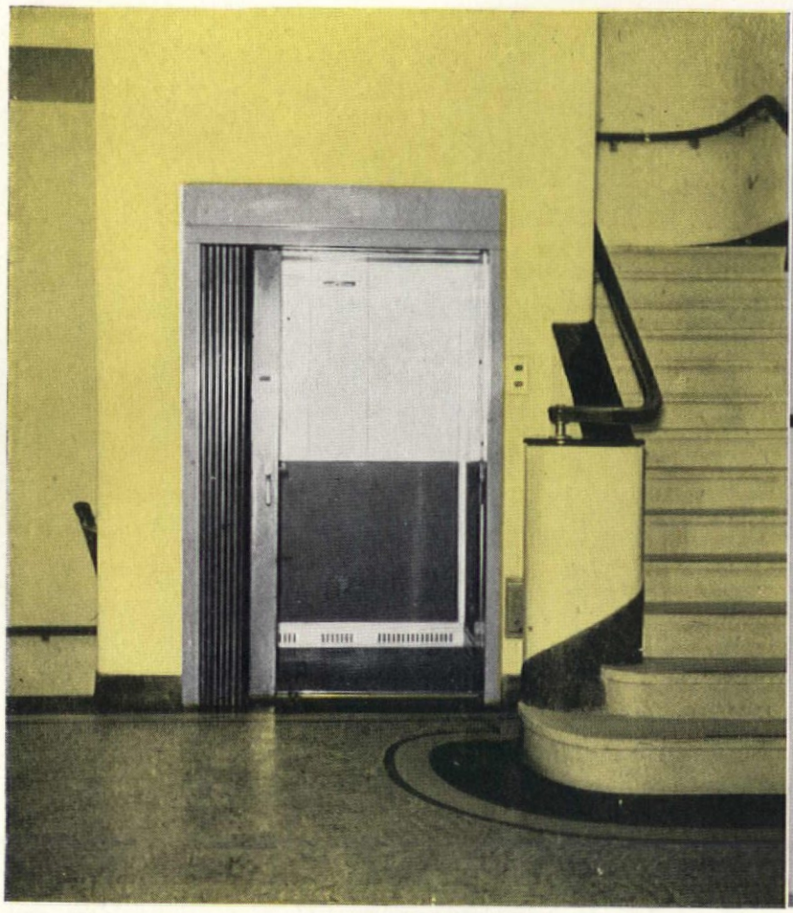

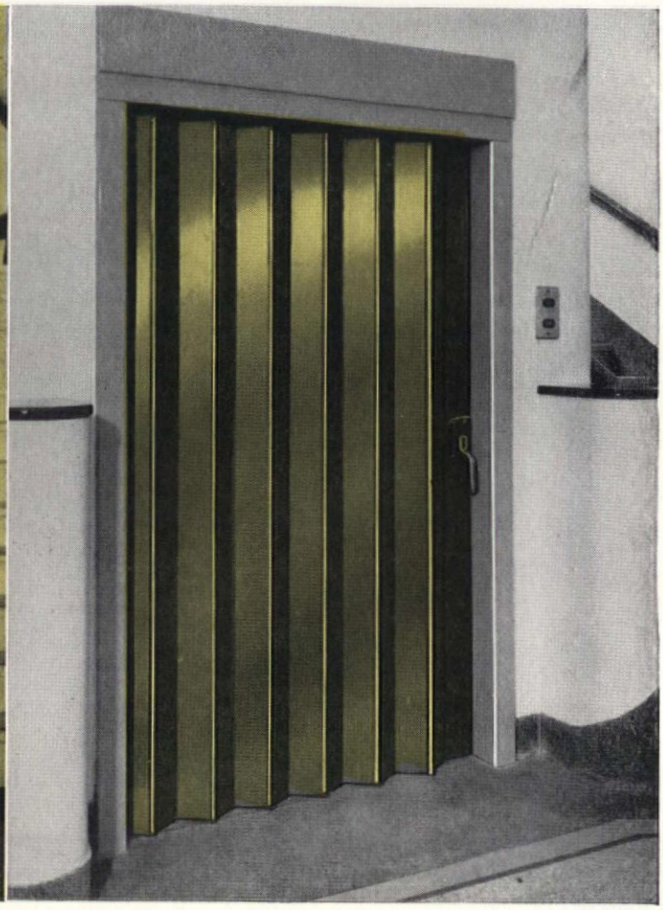

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BG 352

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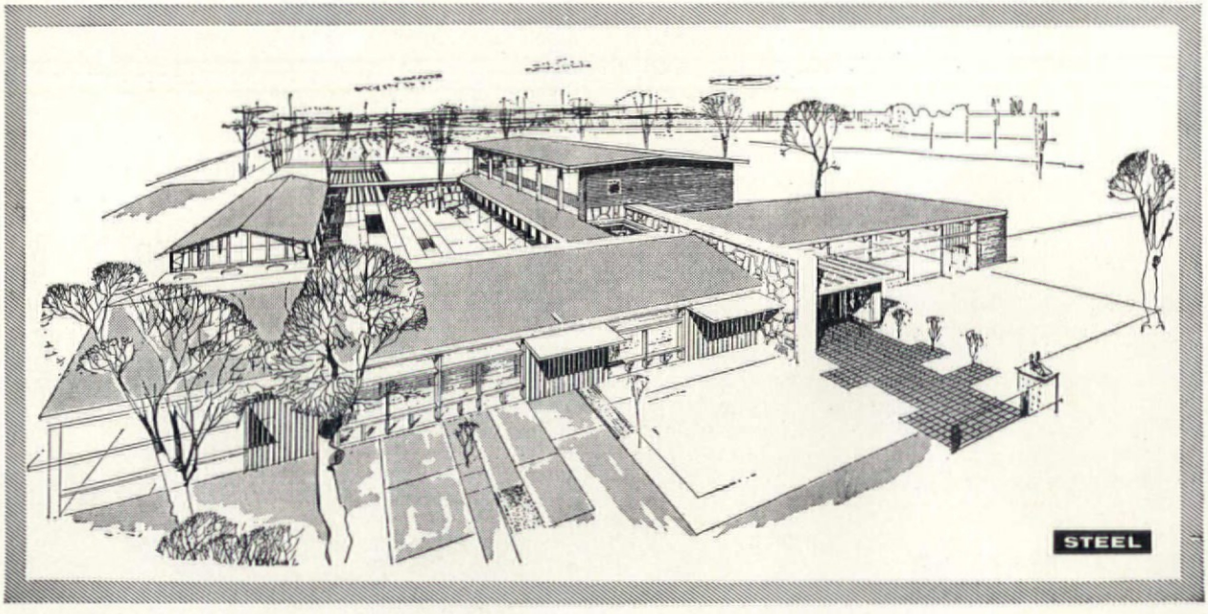

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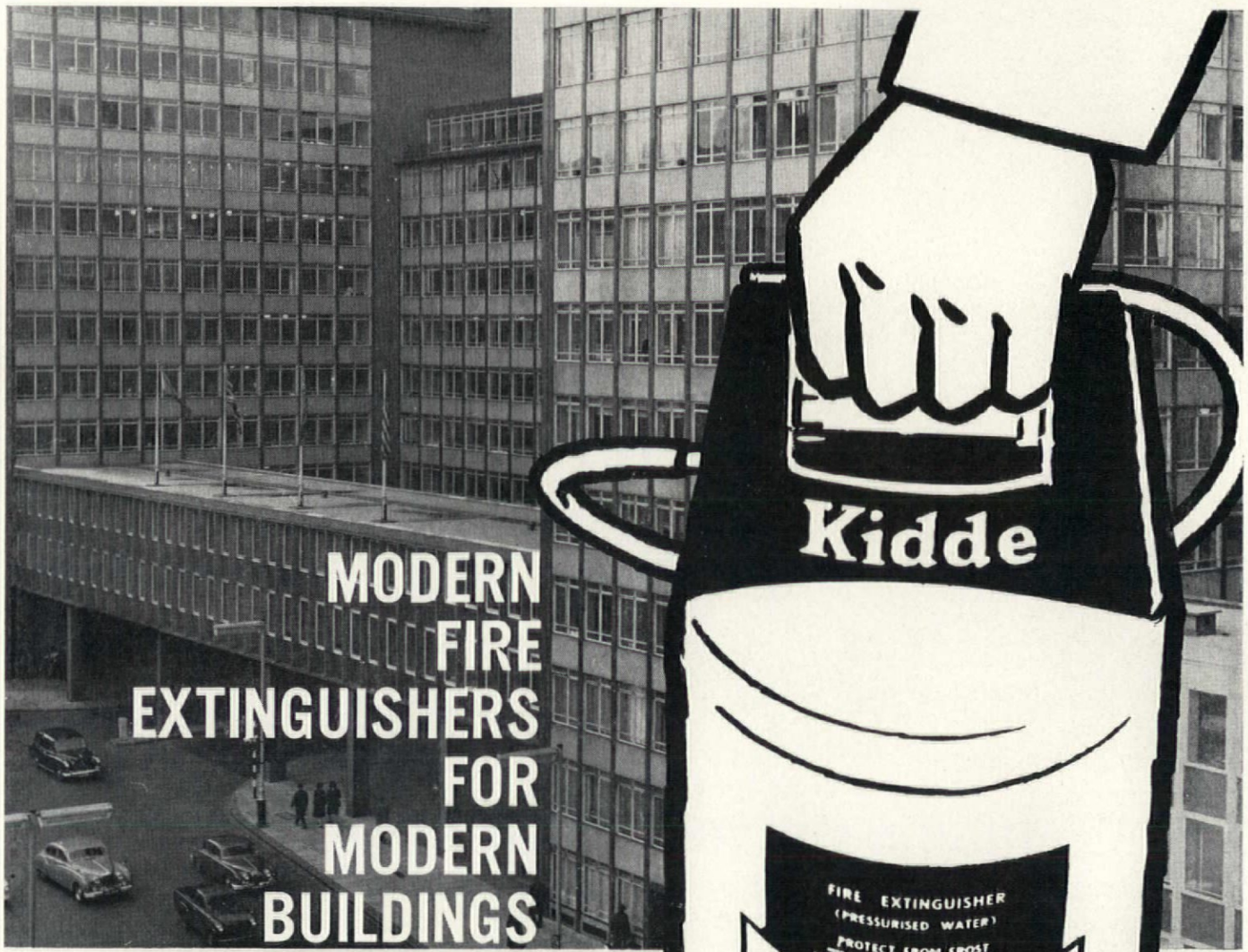

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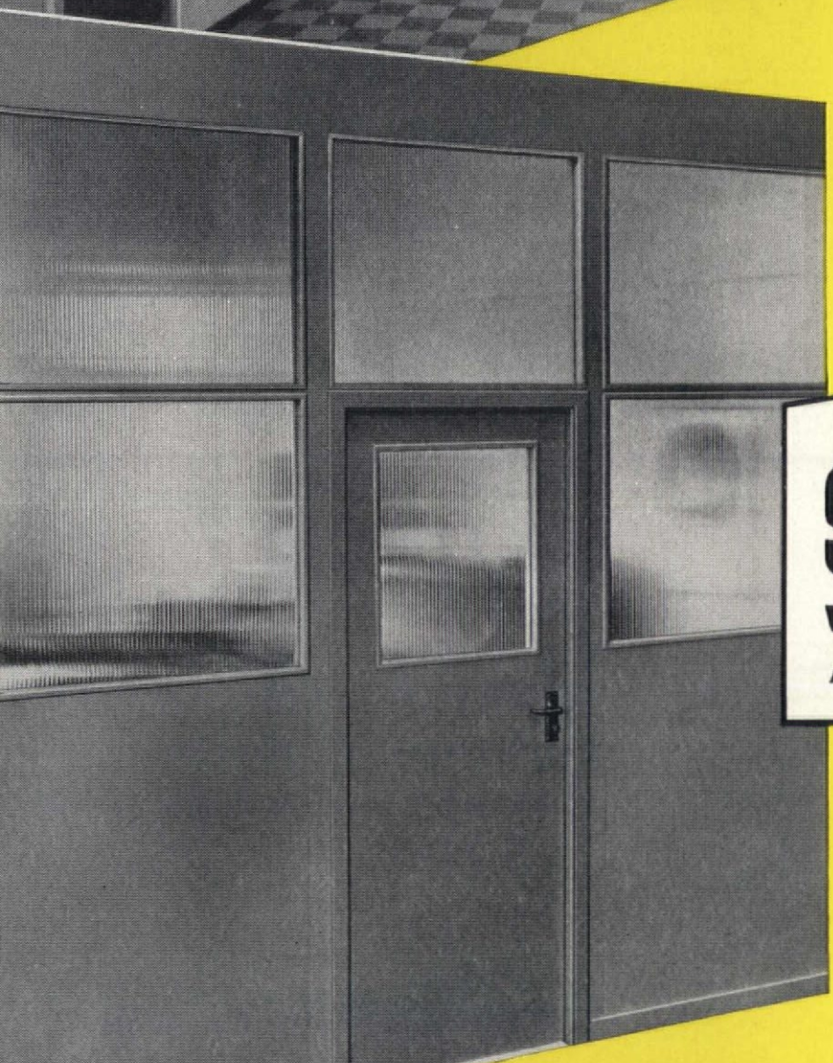

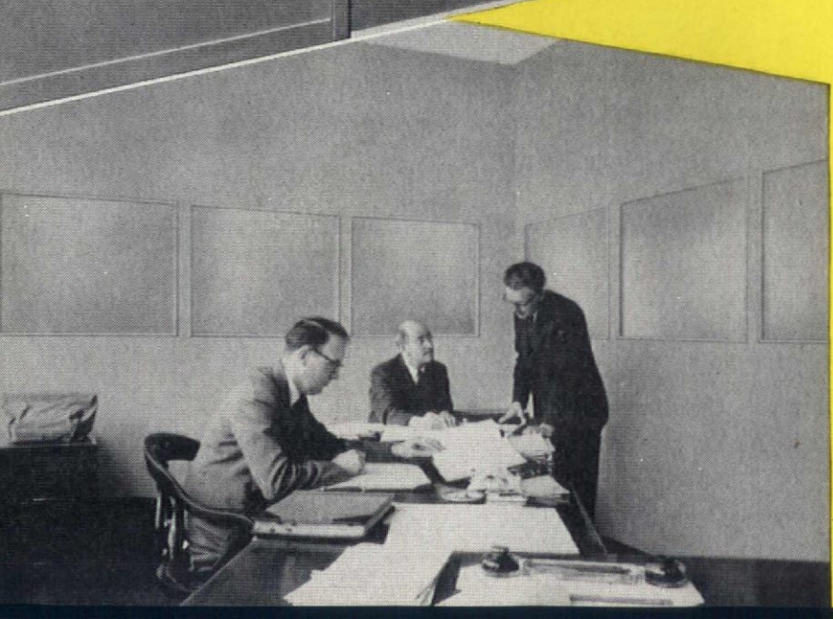

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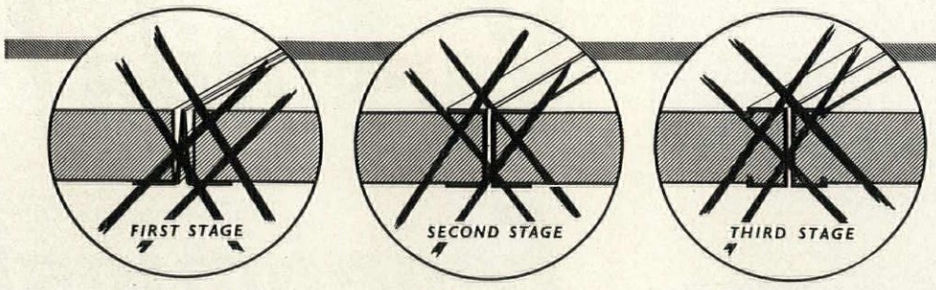

OBSOLETE

Having no top flange the ⊥ Section makes a poor beam. Not only does it deflect easily but tends to overturn with uneven loading and *cause shearing of the roofing felt.*

OBSOLETE

There is no connection between edges of slabs. One channel can deflect with normal loading and *cause shearing of the roofing felt* followed by a leaking roof

OBSOLETE

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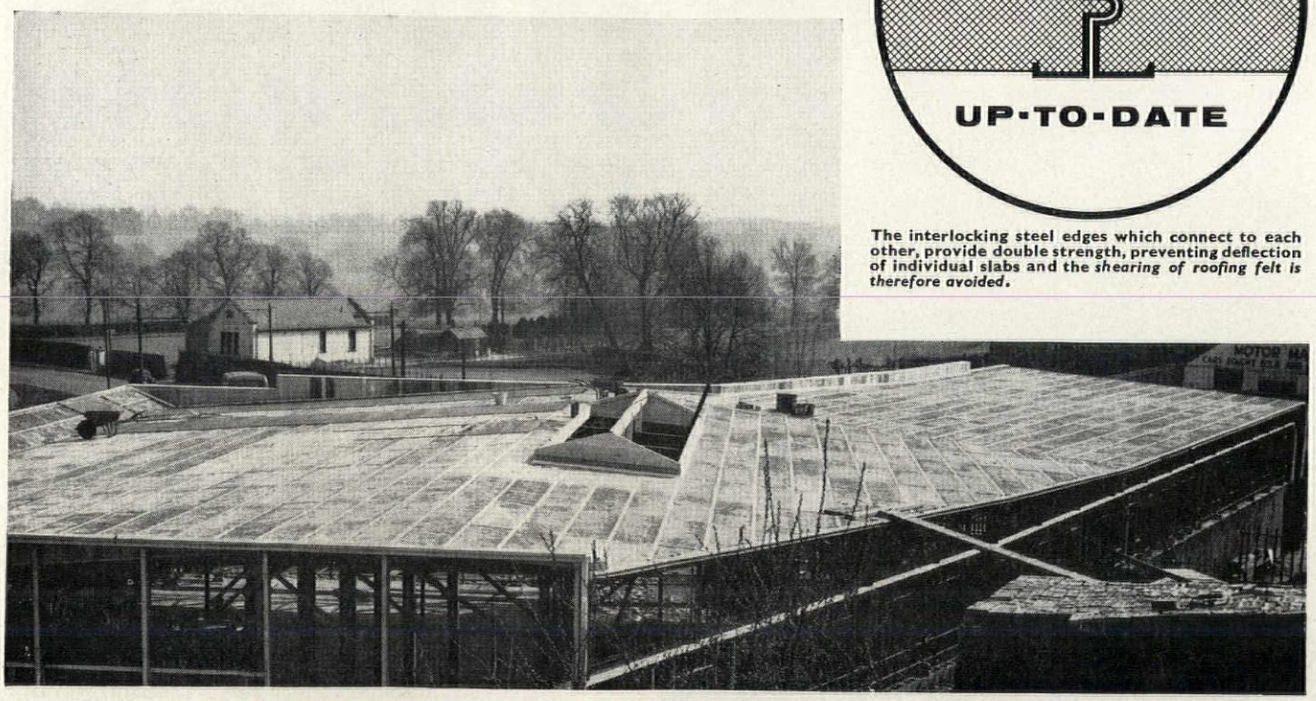

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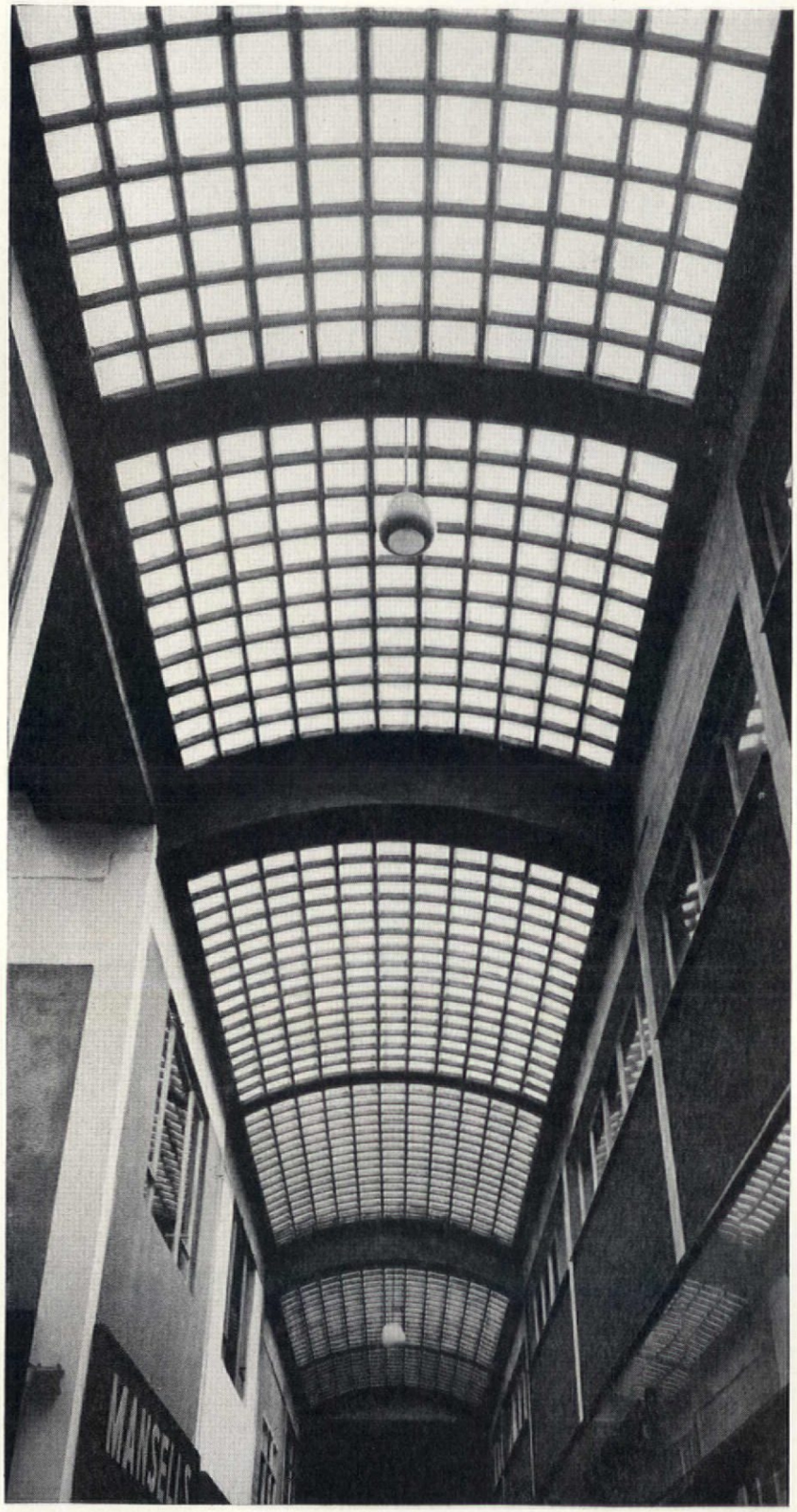

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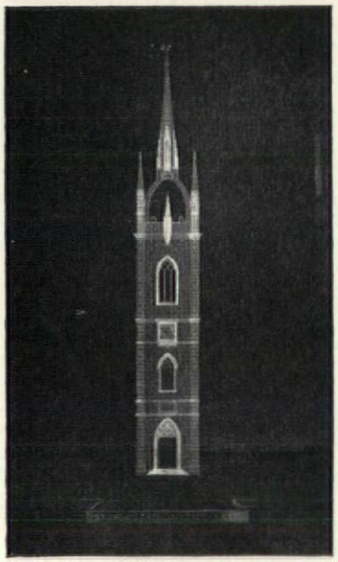

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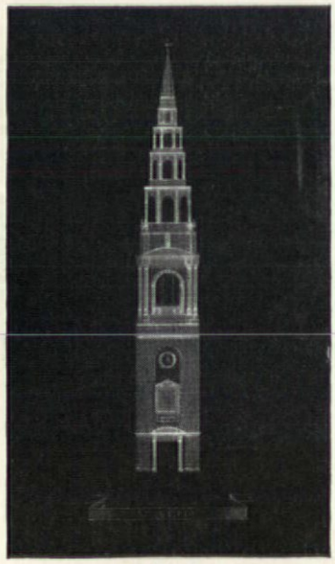

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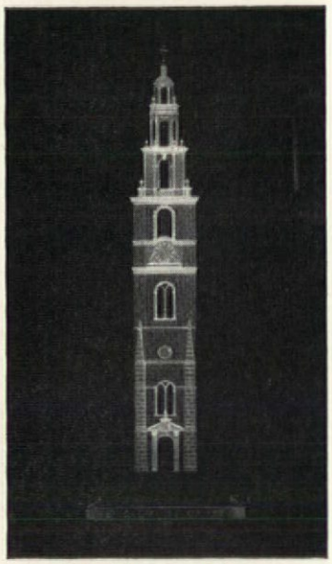

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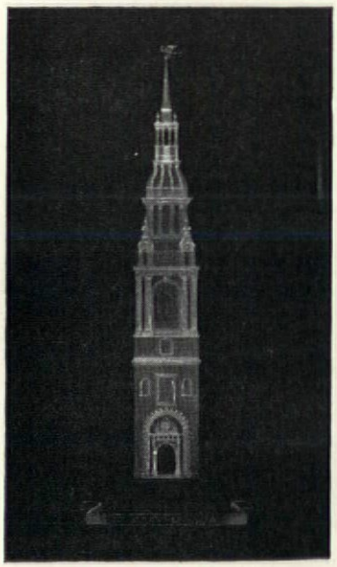

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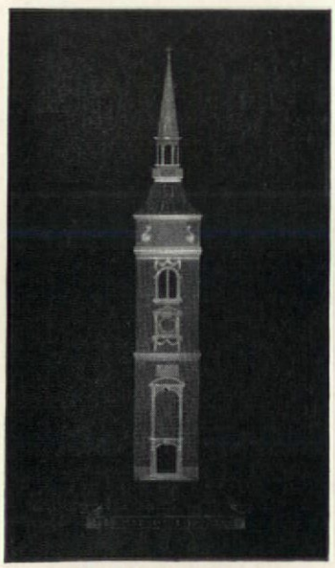

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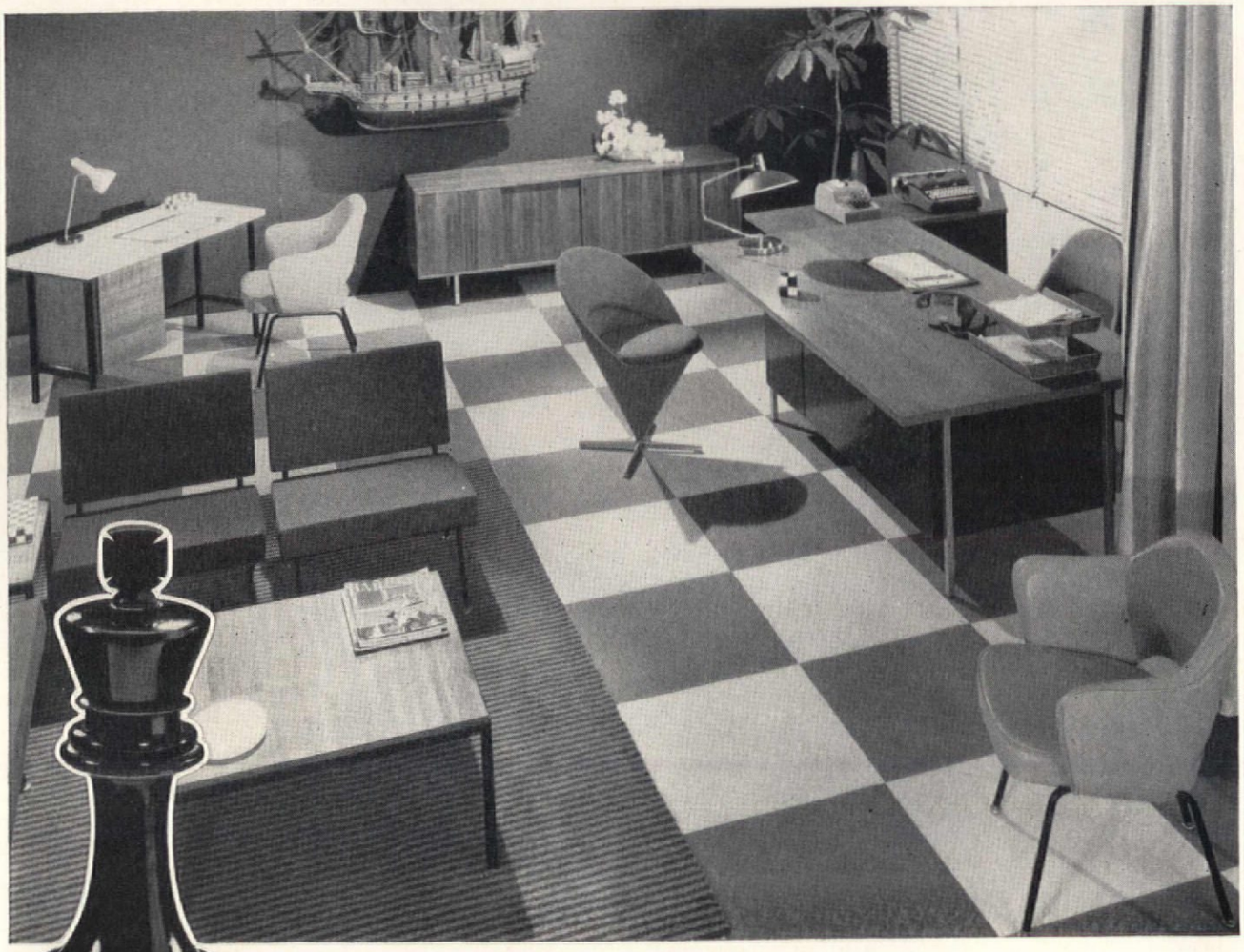

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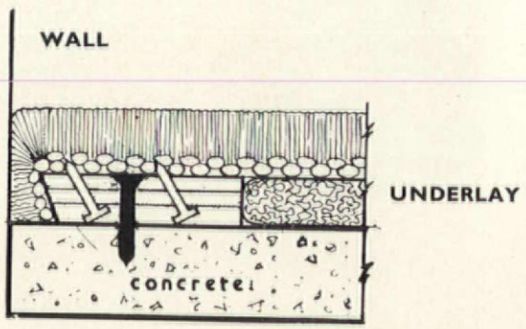

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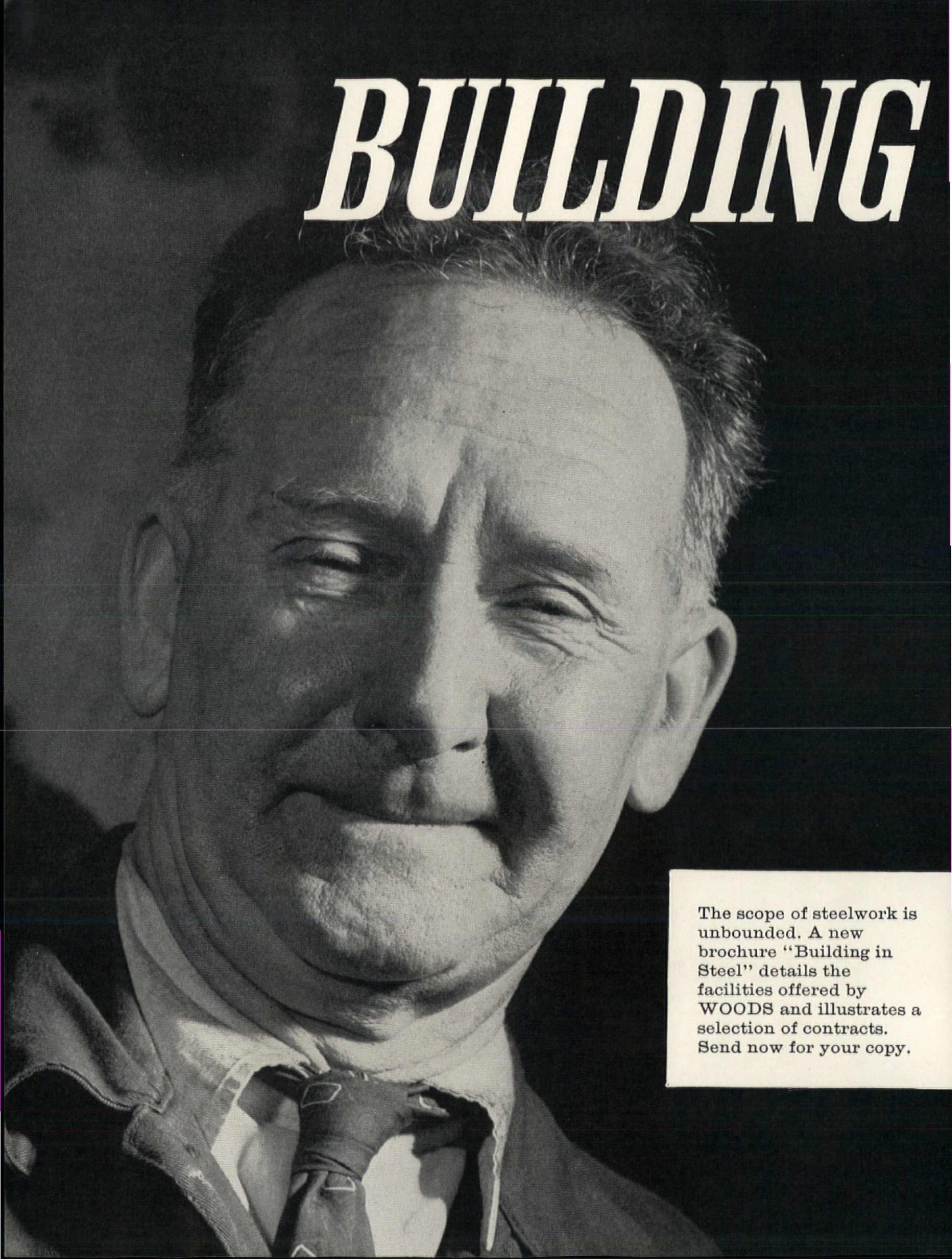

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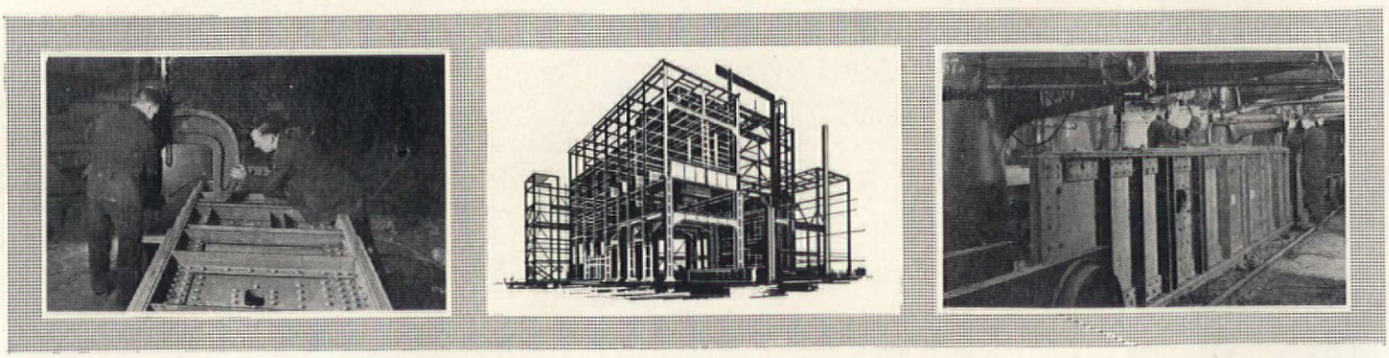

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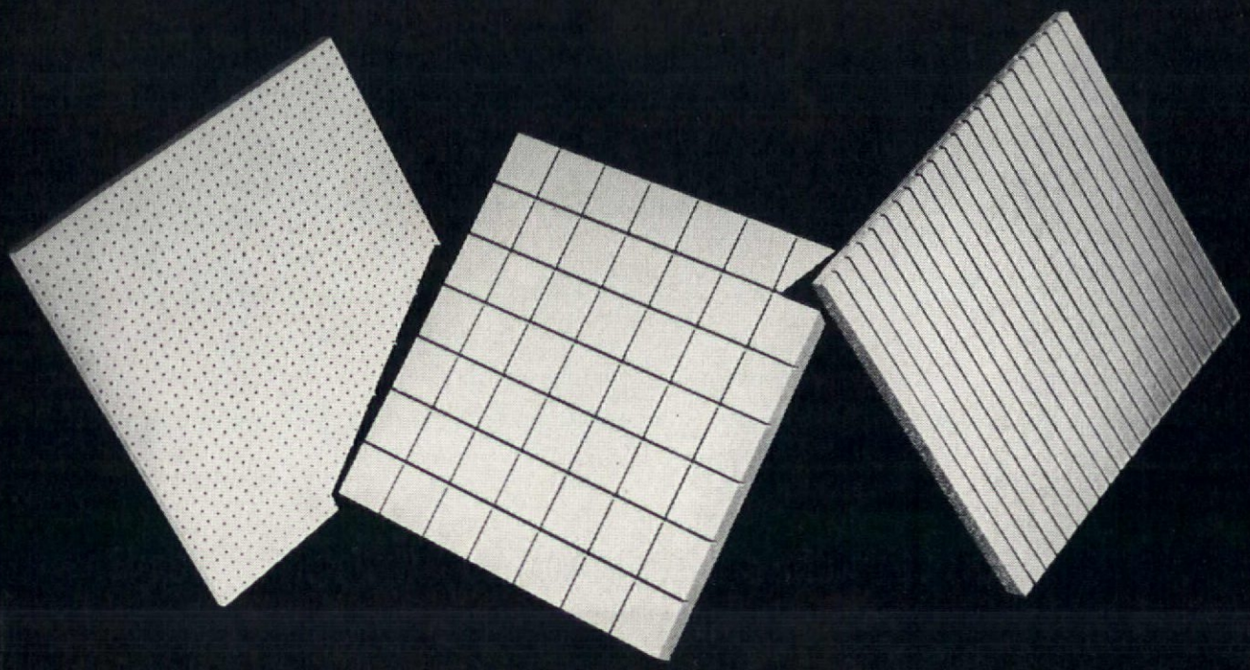

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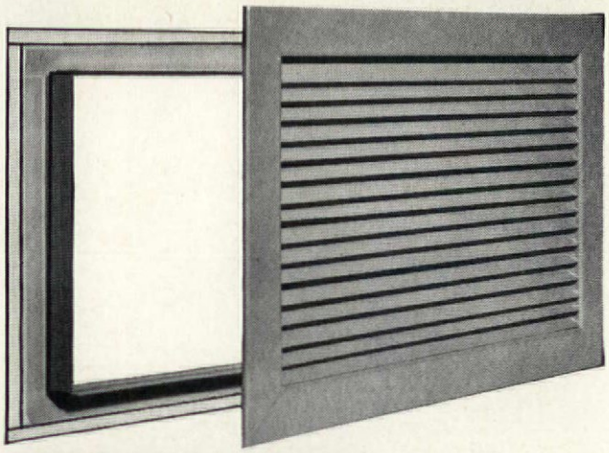

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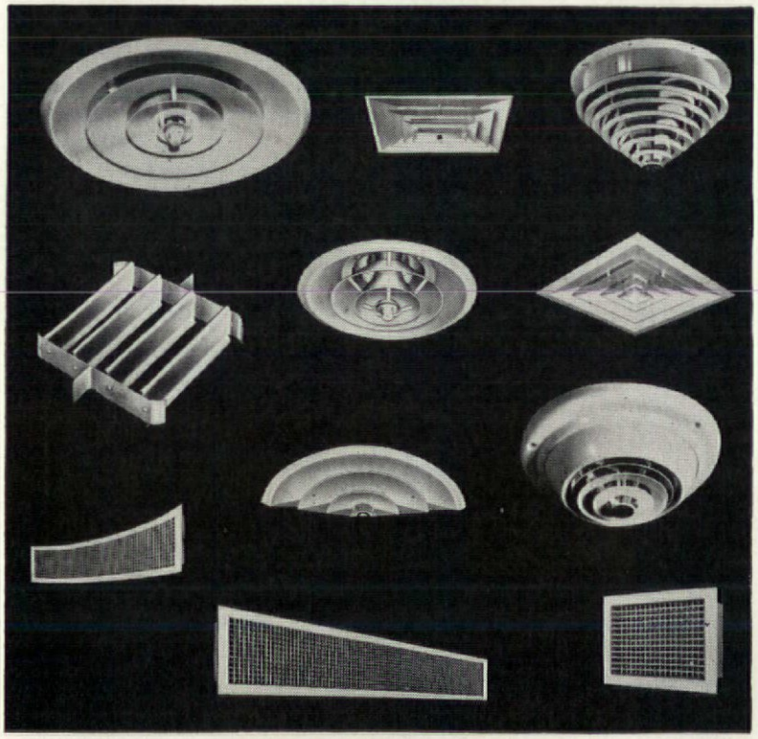

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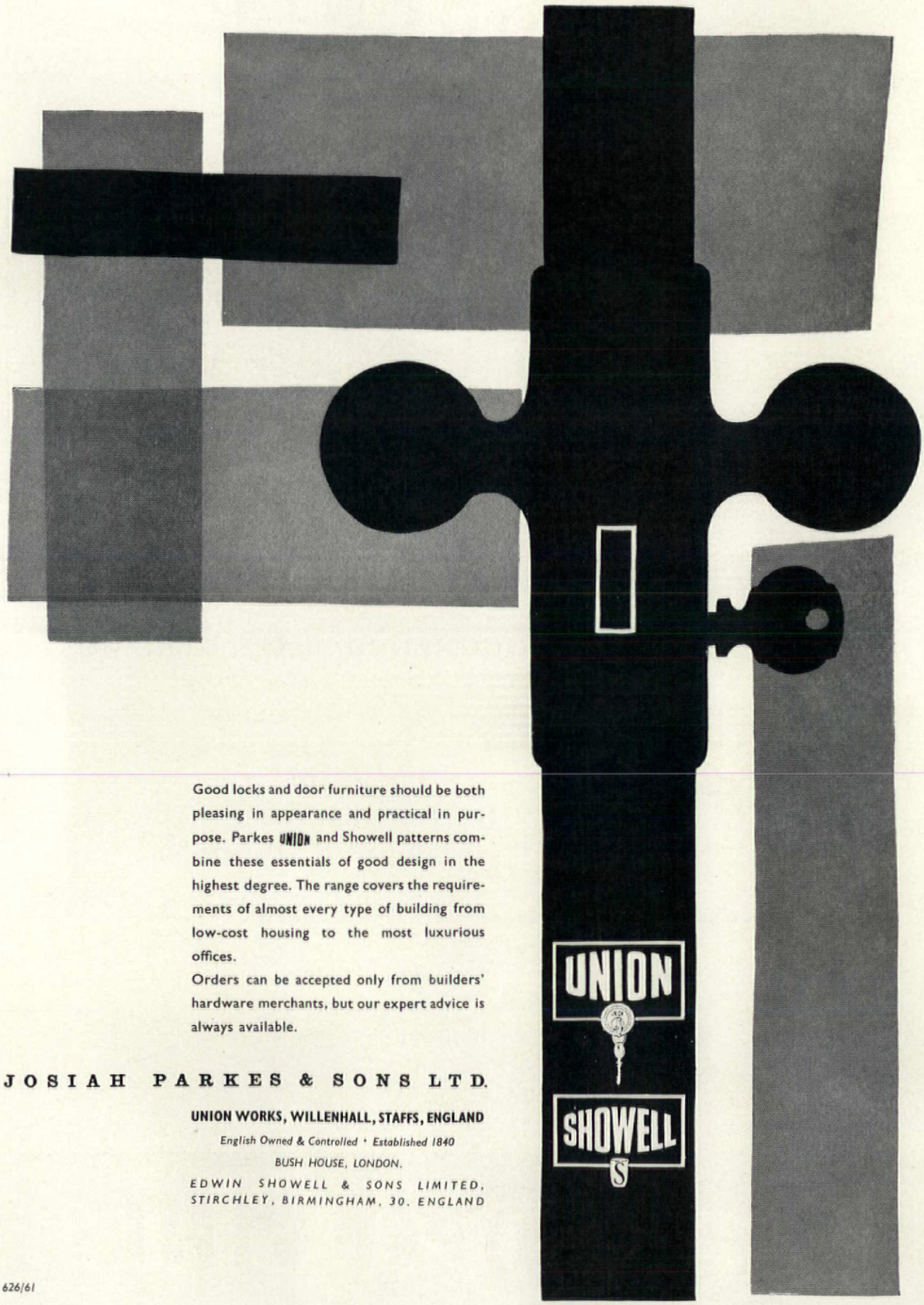

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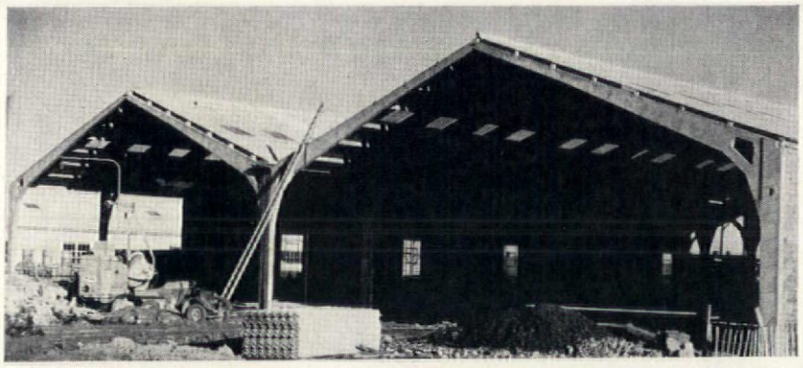

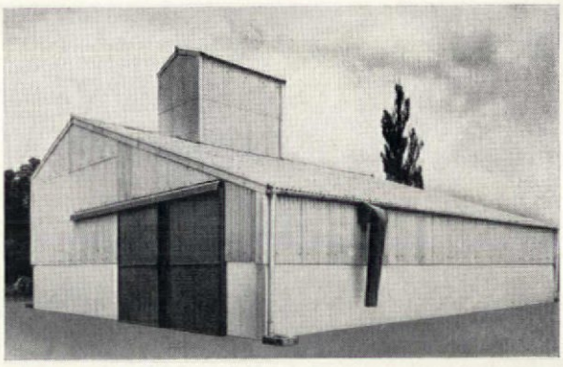

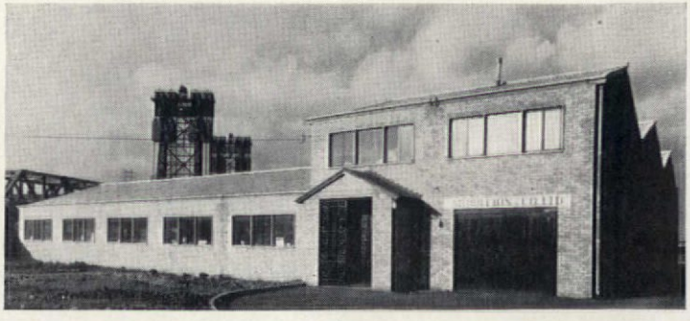

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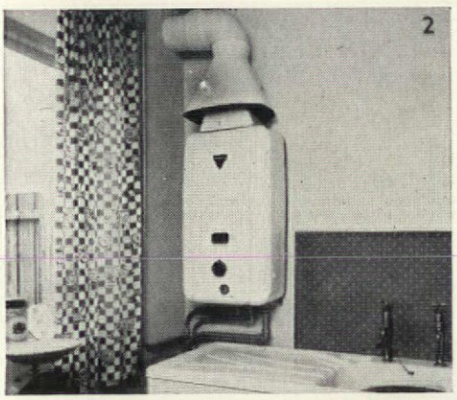
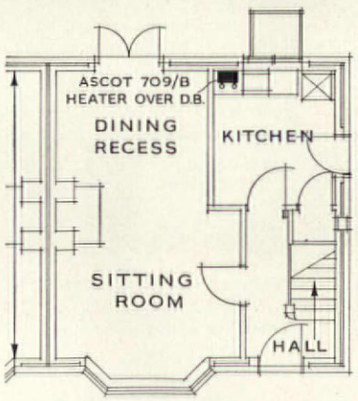
This is the first of a series of building case-histories illustrating the installation of Ascot instantaneous gas water heaters in private enterprise housing of all kinds in every part of Britain. Each example in the series will show graphically the ease and flexibility with which an Ascot hot water system can be installed in private building schemes at the lowest cost compatible with complete efficiency.





Floor Plan showing installation of Ascot 709B multipoint water heater in the kitchen to supply hot water to sink, bath and bathroom basin.

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2. *An Ascot 709B instantaneous multipoint installed in a kitchen.*
3. *General view of the Estate.*

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Code 58

Mies van der Rohe

To commemorate the 75th birthday next month of Mies van der Rohe, we are publishing a special issue of *AD* devoted to his work.
The feature has been prepared by UK architect Peter Carter, who has been working for the past two years in Mies' office.

UIA LONDRES 1961

UIA 6th Congress

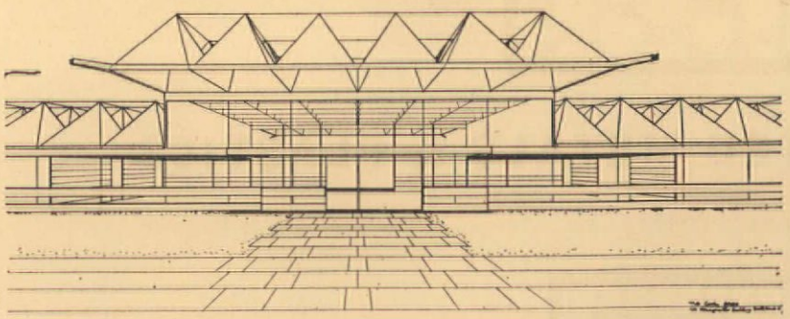
July 3rd to 7th

Interpreters and guides are required for the duration of the Congress. Also ladies who would be willing to act as guides to foreign delegates' wives on shopping and other such expeditions. Would anyone who would like to offer their services, please contact soon the Congress Secretary, 66 Portland Place, London, W.1.

Hospitality from London architects on the evening of Monday, July 3rd, is requested. Will anyone who has not already offered, and who would like to entertain foreign delegates in either their home or their office, please communicate with the *AD* Editor or with the Secretary of the Architectural Association, Bedford Square, London, W.C.1.

New reception and exhibition buildings. Architect and sculptor, Theo Crosby, *AD's* technical and art editor, is the designer of the temporary congress buildings to be erected on London's South Bank (the 1951 Dome of Discovery site). The larger of the two buildings will house the Congress photographic exhibition, which Crosby is also designing. Both buildings will be based on the same constructional principle, the space frame. A 4ft. sq. steel tube space deck is used in the larger building, with a polythene covering, while the headquarters building has an 8ft. sq. unit of aluminium sheet pyramids which has been developed in consultation with *AD's* engineering consultant Frank Newby (Samuely & Partners) and Dr. Z. S. Makowski of the Imperial College of Science and Technology. The headquarters building **1**, steel framed with timber rails, is clad in glass, and has asbestolux partitions. The exhibition building **2** has steel columns and walls of scaffold-boarding.

A number of painters and designers have been invited to collaborate: Kenneth and Mary Martin, John Ernest, Anthony Hill and William Turnbull in the headquarters building; Richard Hamilton, John McHale, Peter Stroud, Bernard Cohen and John Plumb in the courtyards of the exhibition building; while Edward Wright has designed striking external typography **2**, and John Ernest has created a scaffold and asbestos tower for the river side of the building. Sculptures by Paolozzi, Adams, Kneale, Wall, Turnbull and others will be placed in the courts, while a large new sculpture by Anthony Caro will be placed between the buildings.



1

2

UK

Royal Gold Medal for Architecture 1961 goes to Professor Lewis Mumford, Hon.A.R.I.B.A., eminent American critic and writer. A disciple of the late Sir Patric Geddes, his books have greatly influenced current town planning thought.

Competition

There is still time to prepare entries for the Westminster Flats Competition, comprising a 2 million pounds development on a 12-acre site in Vauxhall Bridge Road. Assessor Phillip Powell. Prizes £1,500 to winner and to each of up to five runners-up. Conditions from Town Clerk, Westminster City Hall, Charing Cross Road, W.C.2. Deposit 3 guineas. Design by July 10th, 1961.

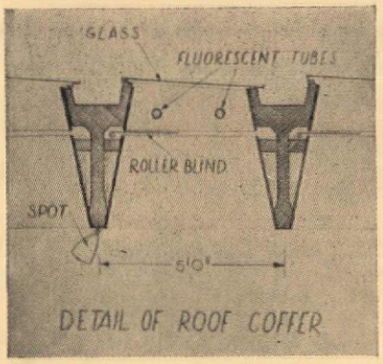
The Institute of Advanced Architectural Studies

The programme of activities for 1961 at Micklegate, York, is now out and includes 16 new courses on various subjects from urban renewal to waterscape and factory design.

Commonwealth Institute Art Gallery 3, 4

This projected art gallery by Robert Matthew and Stirrat Johnson-Marshall incorporates innovations that should make a major contribution to standards of gallery viewing.
Basically a single rectangular room 94ft. × 44ft. and 13ft. high, it has three main features.
The roof will be composed of a grid of 144 coffers, each incorporating natural and artificial lighting and a blackout blind. During daytime, sunlight will be diffused through special two-layer glass top lights to each coffer. As daylight fades, colour corrected fluorescent tubes will automatically light in each to maintain a constant level of illumination. The blackout blind will make it possible to adjust the level and direction of lighting to suit any exhibit. Each coffer also contains a spotlight.
The floor will be socketed in a pattern to match the ceiling grid to allow about 75 movable screens to be arranged in any number of sections and alcoves. The screens can be painted in different colours and are interchangeable so that while some are in use others can be prepared for the next exhibition.
The north wall will be entirely glazed and provide a magnificent vista across a cricket field towards Holland House. As the visitor is guided through the arrangement of screens this window will provide long views to ease 'exhibition fatigue' and relief from continuous top light.

3

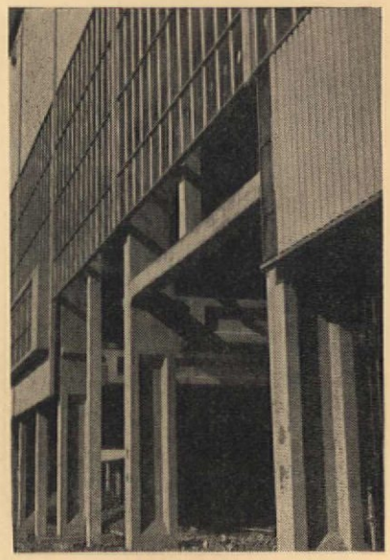


4

Glass factory extension 5

Consisting of four buildings, a grinding and polishing shop, sand grader, rouge plant and storage building, for Pilkington Brothers Ltd., at Kirk Sandall, Doncaster. Close co-operation in the project has realized completion in a very short time. Work started in May 1959. The superstructures were assembled from nearly 2,000 prefabricated concrete units.

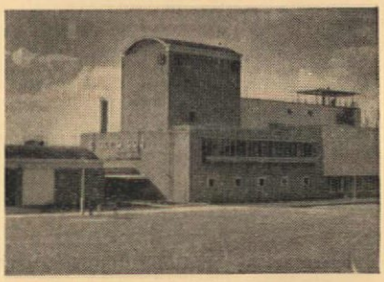
Main frames are at 25ft. spacings with a double column and expansion joint in the length in all buildings, except the small rouge building, which is constructed of simple precast, prestressed and reinforced concrete units.



5

An interesting problem in the construction of the grinding and polishing shop, was the construction of a machinery deck to carry heavy loading at 18½ft. above ground level, be independent of the main structure and provide maximum rigidity.

Throughout the building choice of materials has been made to minimize painting and maintenance, and there is virtually no painting in the main building. Architect Gerald R. Smith; main contractors Holland & Hannen and Cubitts; consulting engineers A. J. & J. D. Harris.



6

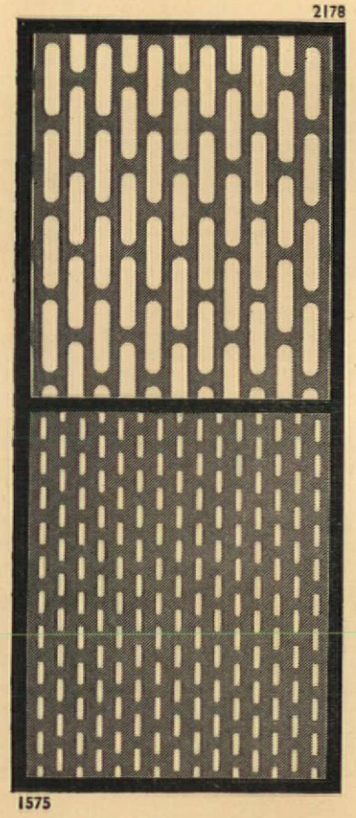
Chemical plant in Norfolk 6, 7

A chemical plant for Dow Agrochemicals Ltd. at King's Lynn, Norfolk, has recently been completed (architects Fry, Drew & Partners). The site consists of 83 acres of reclaimed land, very much exposed to the weather, and the buildings consist of a plant for manufacturing Dowpon (a salt used to control the growth of couch grass and weeds), a warehouse and a small office and library block. The latter, a steel-framed structure on massive concrete foundations, is faced, on the ground floor, with blue Staffordshire bricks, and on the first floor with white painted boarding.

7

continued on page 51

Variety performance



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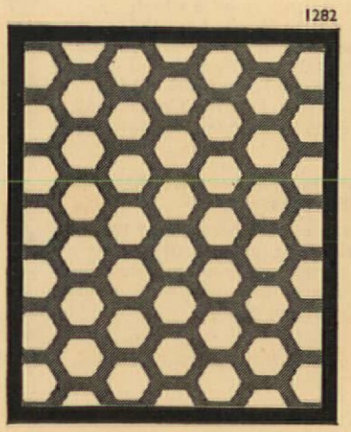

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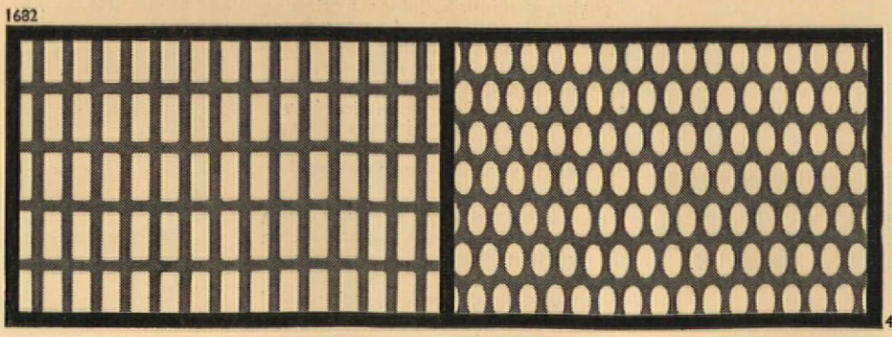

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Code 59

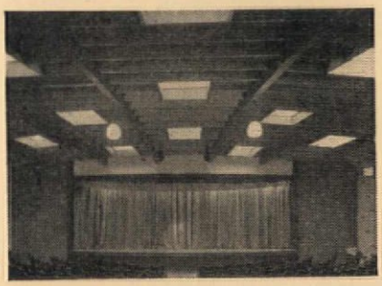
continued from page 50

8

Timber theatre in N. Wales 8, 9

Built over an existing open air auditorium, the Coliseum at Rhyl has six two-pinned laminated timber arches to support the roof structure. The laminated timber arches, which radiate from a steel cradle above the proscenium, were fabricated from ¾in. thick Douglas Fir laminæ. The arch between the back of the leg and the roof line on each arch is built up solid in laminæ to provide a fixing for the laminated timber canopy supports, which extend some 7ft. and provide a covered way round the front of the building. The front elevation comprises seven timber infill panels set between the arches. The gable walls are 11in. brickwork. Architect was F. H. Arthur, consulting engineer Ian H. Paxton.

Photo Kingston (Architectural Craftsmen) Ltd.



9

Banks for Barclays

These two new banks, one at Maidstone **10** by Sir William Holford & Partners and one at Croydon **11** by Hubbard Ford, do not promise the emergence of a house style or even an integrated design policy.

10

The Maidstone branch is the first stage of a reinforced concrete framed building clad in brick with Portland stone parapet, window surrounds and dressings. Door and window frames are of bronze and the plinth of Belgian fossil marble. The Croydon branch has a series of fins clad in glass mosaics and capped with black granite. Ground floor columns are of North African silver-grey marble and the plinth is of sawn black granite.

11

St. Christopher House, Southwark

Despite the pleas for decentralization, this building, the largest office block in Europe (for the moment), has been erected in travel-choked Southwark for occupation by the Ministry of Transport. **12**

Designed by Morris de Mete in four competently arranged main blocks, it is somewhat spoiled by a monotonous arrangement of glazing bars.

Structure is borne on 2,000 piles and

12

consists throughout of in situ R.C. columns and flat slab floors. Construction proceeded at a rate of one completed floor every two weeks. Main cladding is in precast concrete panels with exposed green granite aggregate. Flank walls similar with Red Harden stone aggregate. Facing at ground level is dark-green marble.

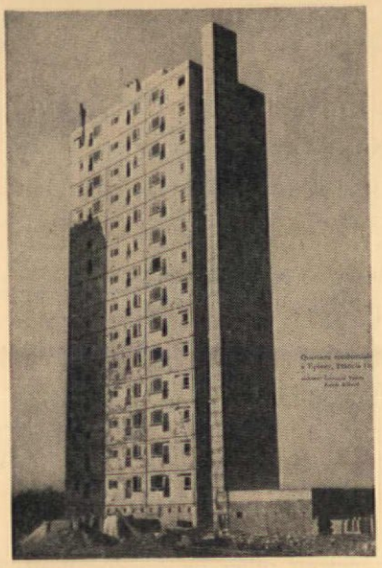
Landscape for Living

An exhibition arranged by the Institute of Landscape Architects in association with the Arts Council, explaining with pungent clarity the necessity today of an integrated community within its surroundings—its landscape. Buildings—from a house to a power station, roads and wires—all need siting with the greatest sensitivity if we are to preserve the characteristic British countryside. The exhibition traces pictorially the zenith of the landscape movement and its subsequent deterioration when the Industrial Revolution got out of control, and industry developed without regard to the countryside. The maxim is simple—today we must realize that change need not mean destruction but renewal; today we must reintegrate.

FRANCE

Prefabricated panel system for flats

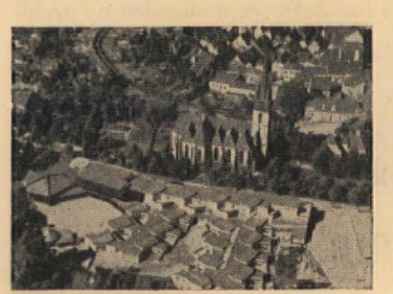
Every French city seems nowadays to be surrounded by vast areas of new housing, usually slab blocks set at right angles to each other and looking the very image of the old modern architecture. Yet some spectacular projects have been built, and in the field of large-scale prefabrication French methods are advanced and often surprisingly sophisticated. The large panel system used by Vedres and Ailland at Epinay-sur-Seine **13** seems



13

particularly elegant; this was Giovanni Vedres' last work. He was an Italian, for many years an assistant to André Lurçat, and after the war formed a partnership with Emile Ailland, which resulted in some of the best French low-cost housing, at Bobigny, Asnières and Epinay.

L'Architectura, January 1961



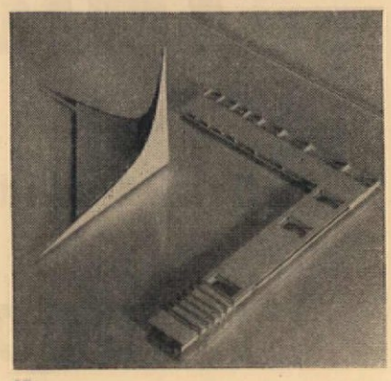
14

WEST GERMANY

Scharoun school 14

The degree of complacency in England about the school programme is becoming (what with prizes in Milan and eulogies in the *New Statesman*) alarming and it was salutary to come across a special issue on new schools in Europe and America. There are a variety of solutions, but none further out than the veteran Hans Scharoun's Geschwister-Scholl-Gymnasium in Lünen.

Baukunst und Werkform, January 1961



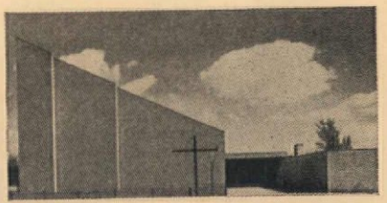
15

FINLAND

Religious centre 15

Work is soon to begin on a striking church at Lauritsala, situated on the south-east edge of Lake Saimaa, some 125 miles east of Helsinki, designed by Toivo Korhonen and Jaakko Laapotti. It won first prize in a competition staged in 1957 for a religious centre comprising a church, parish hall and various other administrative and small meeting rooms.

The church is treated as a separate form of striking simplicity, the altar being lit by a tall window in the pinnacle, and is accentuated by the low subsidiary L-shaped block containing the other accommodation. The plan of the church is practically an isosceles triangle and the altar is in the right-angle. The pews radiate from this in a semi-circular pattern and the main entrance and vestibule is in the long side opposite the altar. Ancillary rooms are in the remaining two angles. The two walls enclosing the right angle extend beyond the third wall to form fins which give the plan an arrow-like formation. The scheme is yet another example of the new breakaway design of recent Finnish ecclesiastic architecture.



16

Church at Lauttasaaren 16

A distinguished new church, at Lauttasaaren, by Keijo Petäjä creates with simple means a very potent civic situation by taking the pedestrian entrance way into the courtyard formed by the church and its auxiliary accommodation, and using this strong, paved area as a link element to a group of existing buildings. Petäjä shows how an architect can transform an existing situation by thinking always in terms of the urban context.

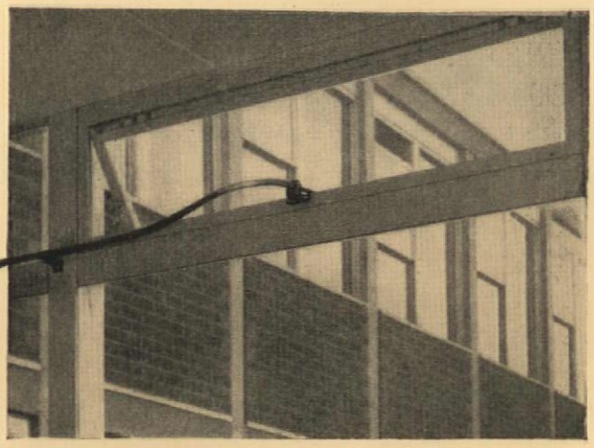
Ark, March 1960

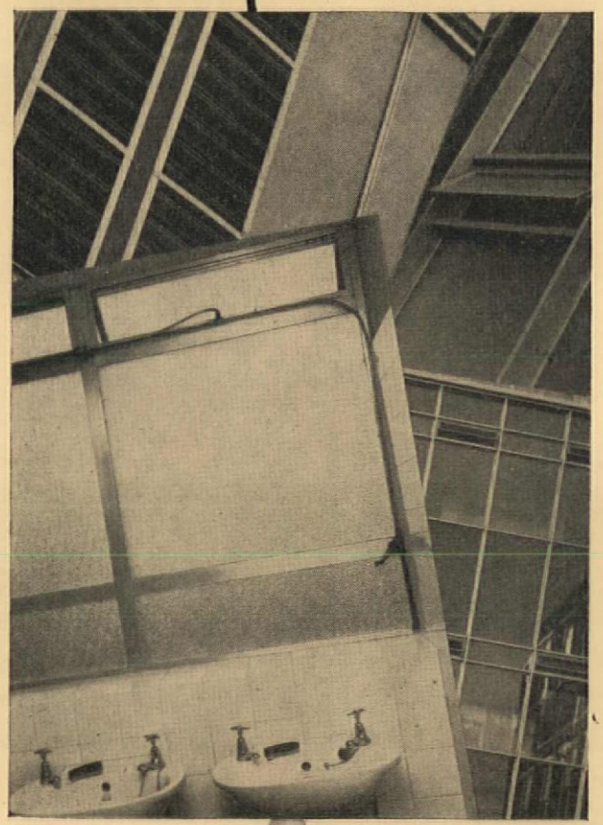
continued on page 52

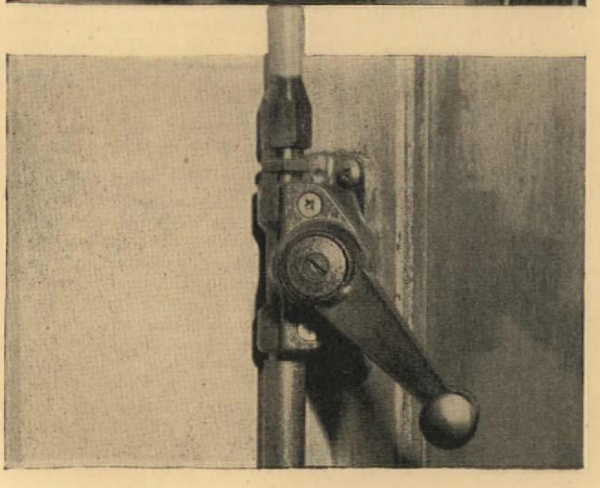
Teleflex

Brings windows within reach

Window Gear







On the outskirts of Hereford, Henry Wiggin and Co. Ltd., members of the Mond Nickel Group of companies, are in process of completing the most modern metallurgical plant in Europe for the production of high nickel alloys. Offices, laboratories, canteens, a medical centre, stores, boiler-houses and metal processing shops will have cost, when the project is completed, millions of pounds. Consultant Engineers for this project are W. S. Atkins & Partners.

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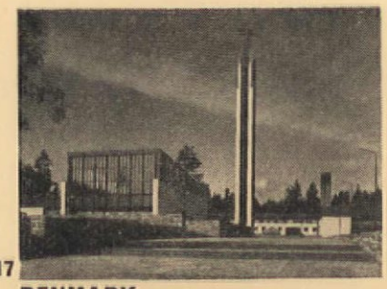


17

DENMARK

Church at Huidovre 17

Equally urban is the Sankt Nicolaj Church at Hvidovre, near Copenhagen, by J. O. van Spreckelsen. This catholic church is planned on liturgical lines, and is of an extreme simplicity and consistency of detail.

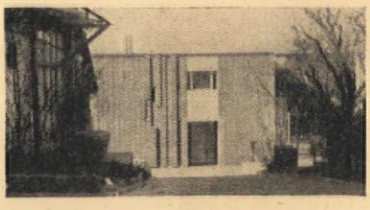
Arkitektur, May 1960

SWITZERLAND

House at Witikon 18

Eduard Neuenschwander is well known for his book on Alvar Aalto, and in his recent house in Witikon, near Zurich, it is obvious that the master's influence has remained with him. The patterned brickwork characteristic of Aalto is here allied to a Swiss rectilinearity, with a fine sense of careful detail.

Werk, December 1960



18

SPAIN

Church at Vitoria 19

Miguel Fisac is a leading member of the new wave of Spanish architects who have quietly and subtly taken their places in the forefront of modern architecture. The room at the Triennale in 1951 was the first indication, and the pavilion at Brussels was a masterpiece. In Fisac's church at Vitoria the same qualities of order, space and sense of mysterious unease are evident.

Moebel and Decoration, December 1960

GREECE

Hotel at Mykonos 20

The Aegean Islands are becoming popular tourist resorts, to the distaste of the old Phil-Hellenics who loved their isolation, and Mykonos is the centre and boat-changing point for tourists who wish to go to Delos and Naxos. The new tourist hotel by Aris Constantinides is well up to the excellent standard of the simple but intelligent building programme of the Tourist Ministry. No attempt has been made to copy the style of the island's scattered houses; instead a coherent little cluster creates a sense of place and order in a wild landscape.

Arkitektoniki, September-October 1960

21

USA

Urban redevelopment 21

Madison Square Garden is to move for the third time into a $38 million new complex on Manhattan's Westside. Designed by Charles Luckman Associates, the main arena will seat 25,000; there will be several subsidiary buildings, smaller sports arenas, bowling and ice skating rinks, restaurants, etc., with parking for 3,000 cars in two levels under the main pedestrian plaza.

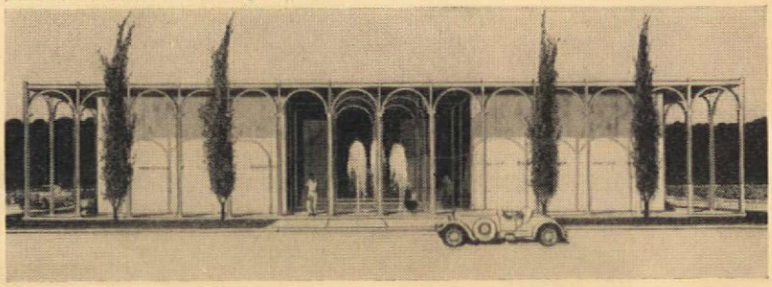
Progressive Architecture, December 1960

Office building, Texas 22

This office building reminiscent of the Crystal Palace was designed by architects Neuhaus and Taylor at Houston. Constructed in steel with 1½in. galvanized pipe columns and 3in. arched galvanized T-sections supporting a 6in. channel fascia, the exterior walls are of Tuscan travertine and grey polished plate glass.
Floor and roof decks are poured in lightweight concrete finished with a built-up tar and gravel surface.

Bank in Texas 23

In this rather monumental small bank, William R. Jenkins the architect has attempted to express architecturally the refinements possible in a primary medium of steel. The orthodox cross plan for traditional stability expressed in a nomenclative concurrent with today's trade-skills and materials. The perspective shows an interesting diversion from current steel detailing.



22

Institute for Houston, Texas 24

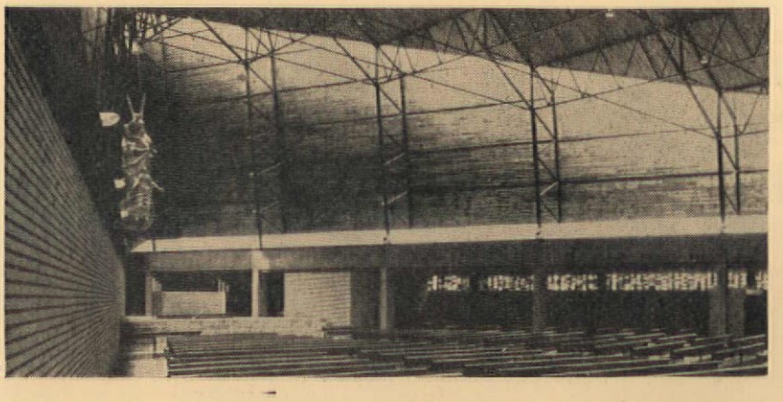
Architects George Pierce and Abel B. Pierce's design for the Institute of Psychiatric Research and Education is based on a rectangle 153ft. × 255ft. with an internal court 50ft. × 84ft. There are two main floors with a basement and penthouse. The first floor overhangs the ground floor and provides a continuous covered walk-around. The Ed Stone type brise soleil hides diverse fenestration demanded by function, reduces sun glare, the load on air conditioning and eliminates venetian blinds. The R.C. roof vaults are 3in. thick and each spans 34ft. x 7ft.

25

Kaiser Center 25

The Kaiser Center, Oakland, California, is a complex of buildings surmounted by a 28-storey curved tower beside Lake Merritt. Most of the materials used in the building were produced by the Kaiser industrial empire. The architects are Welton Becket & Associates.

Architectural Record, December 1960



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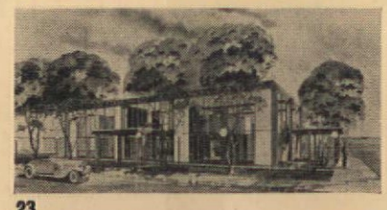

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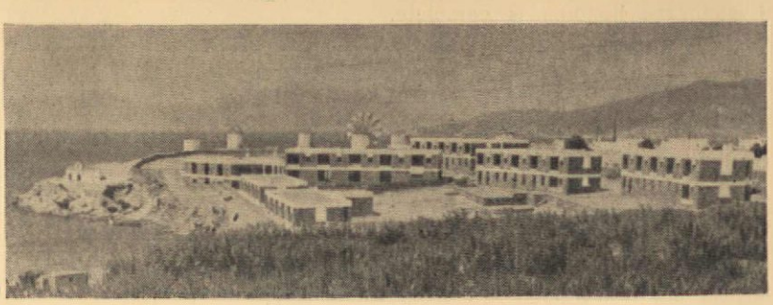

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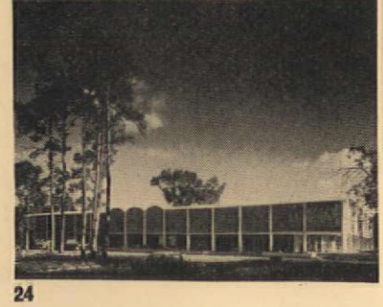
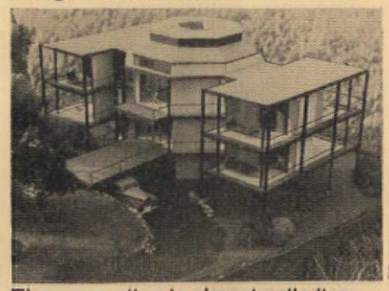


24

House in Connecticut 26

This house at Newhaven was designed by architects Bolton and Barnstone as the winter home for a client possessing a large seaside estate.



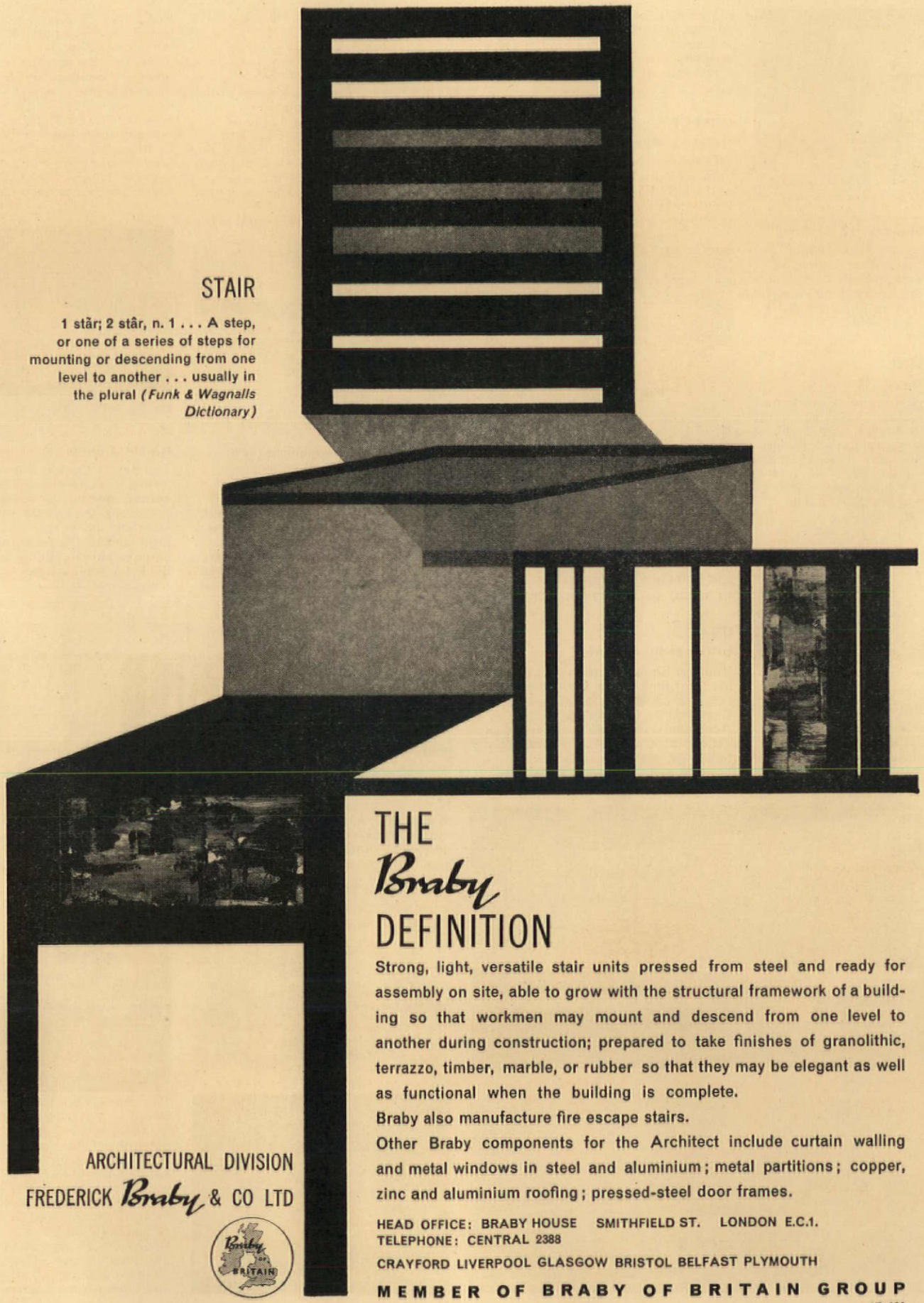
26

The conception is almost palladian, based on a rectangle enclosing an octagon, which materialized as an octagon with two rectangular pavilions. A full height galleried living-room is entered at first floor level over a bridge which forms the roof of a carport beneath. The blank gallery walls of the living-room are lined from floor to ceiling with books.
Bedrooms are contained in the side pavilions, master on one side and children's on the other with playroom and dining-room and kitchen beneath.

continued on page 53

STAIR

1 stăr; 2 stâr, n. 1 . . . A step, or one of a series of steps for mounting or descending from one level to another . . . usually in the plural ***(Funk & Wagnalls Dictionary)***



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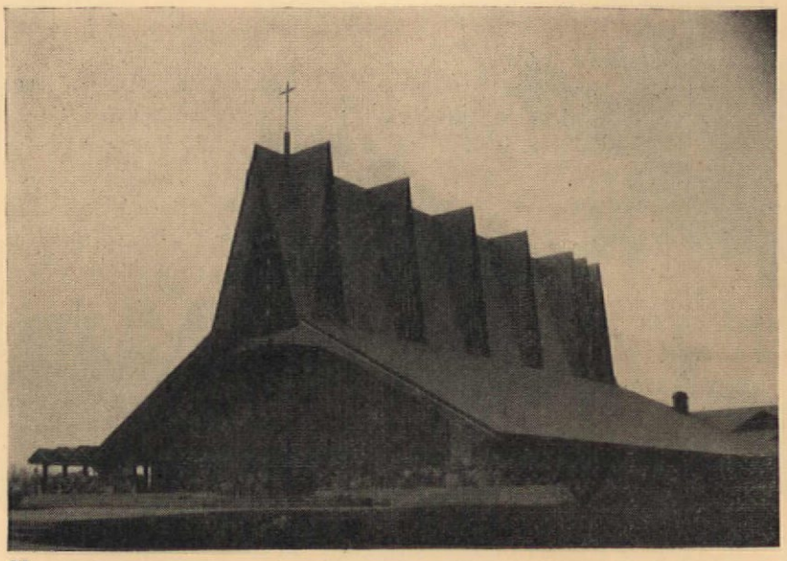
continued from page 52



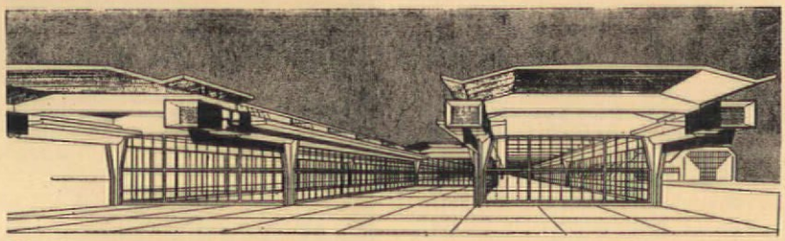
27

CANADA

Church at Montreal 27

Built on an open surburban site, this Roman Catholic Church designed by Roger D'Astons was built to harmonize with the country-like character of the area.

Materials are mostly wood and stone, left exposed and the high gabled peak was designed to provide controlled natural light internally. This light is evenly distributed over a wide nave devised to bring the congregation close to the main altar.



28

ARGENTINE

Olivetti factory 28

Marco Zanuso, the well-known Italian architect, has built the new Olivetti factory in Buenos Aires, based on a most interesting structural idea. Concrete columns support tubular concrete beams, which also function as ventilation ducts. The end elevation shows the conditioning mechanism applied to the ends of the ducts, a technical necessity becomes an architectural feature.

Neustra arquitectura, October 1960

BRAZIL

Brasilia 29

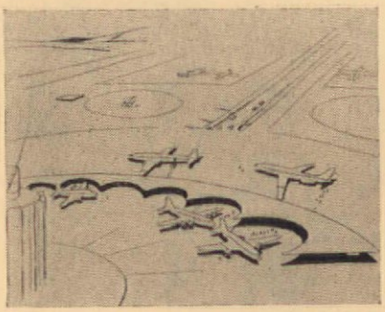
The news that the new President of Brazil is to slow down the building of Brasília is disappointing though not unexpected. Kubitschek has gambled the nation's prosperity on the erection of this fabulous city and a truly remarkable amount of building has been done. It would be a tragedy for Brazil if this great project is not pushed to a successful conclusion. Douglas Haskell, reviewing progress in Brasília, is enthusiastic about the social benefits of the new capital and eloquent about its architectural felicities.

Architectural Forum, November 1960

New airport 30

Designs for the new airport, by Sergio Bernades, show a splendid alternative to the usual box with fingers. Passengers move from a central hotel/control tower underground to the planes, a very tidy solution.

Modulo, 19

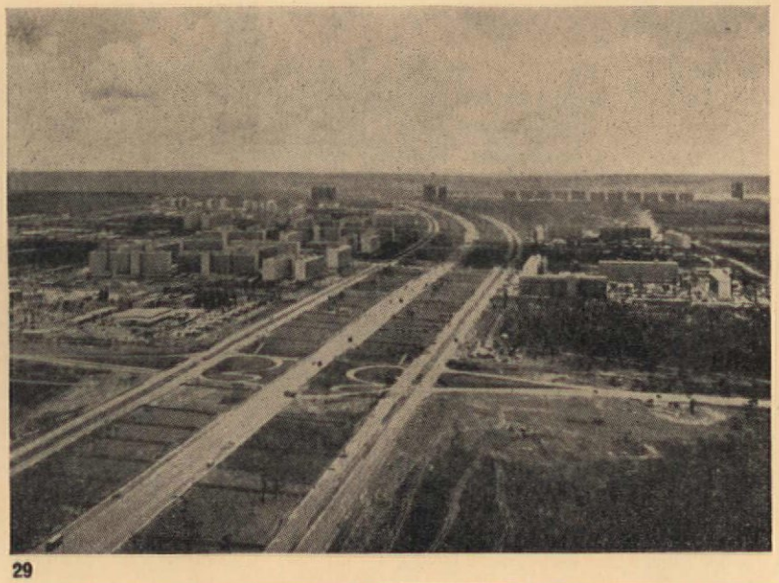


30

ERRATUM

Eames chairs by Hille

On page 44 of the January issue of *AD* the chairs shown in the Liverpool offices were erroneously credited. In fact they are Eames' chairs supplied by Hille of London Ltd. Also on page 38 Arborite Canadian decorative laminate by the Arborite Company (UK) Ltd was wrongly credited to Fablon Ltd.



29

The truth about CIAM A reply from Bakema

Last month, under the heading *The Truth about CIAM*, we published a letter from J. L. Sert, W. Gropius, Le Corbusier and S. Giedion. The following answer has now come from J. B. Bakema, a CIAM Council member and the central coordinating member of Team X:

As no one at the meeting at Otterlo came, after an evening and night full of discussions, to a clear conclusion about this meeting, I offered to write a basic paper, *which was accepted as a statement by all participants in open discussion the next day.*

Later on, when it was given to the press, there came different opinions about the consequences of this statement.

The Italian colleagues and Tange had to leave a day before, although I had asked them not to leave at a decisive moment about organization matters. If Giedion writes in his letter: '. . . about a statement issued at Otterlo to the press by a minority group of members of Team X . . .' and if he thinks that the majority thought *in Otterlo* was other than what was written in the statement, I suppose that he is writing from wrong information.

Also if Kenzo Tange writes: '. . . the day after I and many of my friends left the meeting, Team X announced CIAM dissolution . . .' I simply don't know what he means because, in my opinion, CIAM can continue where it likes and Team X never can dissolve CIAM so long as there are members who like to continue.

For that reason such a statement never could be made in Otterlo!!!

I would like to state: Those who left the meeting were those who had no time to stay at Otterlo at the decisive moment for organization matters, and these were the Italian and Japanese colleagues.

No one blames them for it, but please don't report (about the day you could not join us) in a way quoted by Giedion. *There is only one statement and this has been introduced in open discussions and later on it was sent to all participants.*

In this paper the name CIAM was dropped because in Otterlo, where since a long time real discussions of all participants were possible about the architecture they introduced, it became clear (what already began to be evident at Bridgwater, Hoddesdon, Aix-en-Provence and Dubrovnik) that the architectural problems of the world around 1920, when the new technics had to be introduced, were quite different from those of the world around 1960, *when the moral function of architectural expression has to be introduced.*

The aims of 1960 have to be stated and this cannot be covered by the name Modern Architecture. That was the main point in Otterlo, and there was general agreement about it.

Of course everybody in Otterlo agreed also '. . . that we need mutual stimulation, help and encouragement . . .' and I hope that this will be done in all areas where people still don't know how architecture can function as a tool for getting familiar with the ever-extending universe. But first we must try to stay in contact about the way in which to define our actual problems, and let us avoid wasting time about prestige-names. The name will come of its own accord the moment that the around-1960 problems have been defined.

In Otterlo we made 'Post Box', so as to have a means of communication about our methods of defining the architectural problems around 1960. It is available for those who want to exchange views on the subject of the development of Habitat.

Your Postman Bakema.
(Posthoornstraat 12B, Rotterdam, Holland.)

Of his new US Embassy building in Grosvenor Square, US architect Eero Saarinen recently stated in London that he and the State Department had done their best not to disturb the equanimity of the rapidly-being-transformed Square. 'We tried to be good neighbours,' he said. 'We could have thrown our weight around but what would have been the point?' The report printed below is a transcript of some statements which he made, in the presence of the editors of AD, *during a discussion with the UK architect James Stirling.*

The US Embassy, Grosvenor Square, London, by Eero Saarinen

Eero Saarinen

According to Stirling, a meeting was held in Philip Johnson's pavilion some time ago, attended, among others, by Saarinen, Bunshaft, Johannsen, etc., allegedly 'to fix the style of US architecture'. About this, Saarinen said:

'All we really wanted out of the meeting was an opportunity to talk about US architecture. Nevertheless, there is an element of truth in what you say—there was a similarity in our approaches to design at the time. But we really made this move to try to get out of the confines of the design straight-jacket we found ourselves in, and not to create a new one. Of course, I can only speak for myself.

'But such a meeting is really part of a total historical movement which started in 1880, and progressed through to our time via such important events as the Bauhaus. When we met, we felt that everybody in the US was looking for a style and we also felt that the movement of ideas in our times was equally as strong as the movement of ideas in Renaissance or Gothic times.

'But it did seem to me that, because of the Bauhaus, which culminated in the marvellous steel architecture of Mies, this type of architecture became an easy thing to copy. Architecture was losing its creative force. We had the feeling that, by and large, the whole world of architecture had stopped thinking.

'Of course you had the influence of Corbusier as well—particularly in the South American countries—but the trouble was that everything was codifying too fast. Then Mies built his little church at IIT which was really designed with the same detailing as he would use for a laboratory. I had the feeling that we should not codify our ideas so much—particularly as we had really only faced the possibilities of steel in the US and not concrete.

'In my own work I tried to think out solutions in which it was accepted that there were other considerations than pure style. And also there was this strong feeling that there were other materials to be used than steel. Particularly as, at this time, there was beginning to be a great deal of evidence that concrete was a good building material.

'We felt also that we must take into account the influences of living in this very complicated civilization of ours. At the same time you must remember that the domestic building is very different from the others and that each building has its own different character. But even speaking in general, is there not something legitimate in different expression of different architectural solutions?

'One thing that I have come to believe very strongly in, is the influence of the surroundings of a building on the building itself. This concept of the nature around a building exerting a force on the design process had really only been used by Frank Lloyd Wright—and that mainly in his houses. I am not talking here about regionalization. I am talking about the immediate surroundings. It was Wright who put forward the proposition that you don't just build the same thing on a prairie that you would build in a city.

'If you add the influence of the immediate surroundings to the three fundamental rules of modern architecture (commodity, firmness and delight) the final forms of the buildings inevitably become different—not at all the same.

'The influence of the site, to a greater or lesser degree, depends on the strength it can validly exercise in the early stages of the design. It might be unreasonable, for instance, to expect that a particular city site in a crowded downtown area should be expected to exercise as powerful an influence on a building as would an open campus or a field. There are, too, considerations of the special function of the particular building that you are going to put up. Some buildings should be considered as special buildings with special functions (a church is a good example) and this often overrules the site or other considerations.

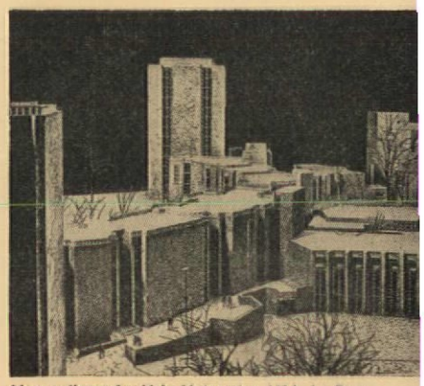
'On the question of researching into new materials, and the use of new materials (like neoprene at the GM Centre) this may well be said to be an attempt to retain for all time the "newness" of the look of a building that is by and large machine-made. I don't think that it is contradictory thinking if we capture the feeling of the "hand-made" (as at Yale) in a building to be constructed by modern techniques.

'Also, in the Deere building, we have allowed the steel to rust, to controlled limits, to form a protective surface to the material. This is in no sense a romantic harking back into the past. It simply takes about six months for the metal to assume an overall consistent colour so that by the time that the building is finished it will be integrated in its appearance.

'The Yale building, I would like to add, is constructed to relate it in character—not in actual appearance—to the old buildings. We wanted something impressive and we felt that there is no valid reason why we should not make the walls of rough aggregate and as thick as we wanted to, if we wanted to. It is, quite simply, a case of applying different solutions to different problems. This particular building started by being strongly influenced by its surroundings and what I can only call the spirit of the college. The way I see the design of a college is to create a make-believe world. A college *is* an unnatural world. I think that the more you can keep the world of the outside out of the life of the student, while they are studying, the more they become interested in the involvement of their studies.

'On the question of whether the architect is an artist or a technician, I think that the architect can often talk himself out of a job by talking too much about architecture being a question of art. In a problem which is so involved with structure, you can easily see that this can be a world which is too involved for an artist. But you can approach design in this way when you are dealing with small jobs—like a church for example.

'I used to believe that there was a much greater place for ornament in buildings than I think now. I have, you see, changed quite a lot since I talked some time ago at the London Architectural Association. You can look at the top freize on the Grosvenor Square Embassy. It is there, I know, but I don't think I would put it there again. But I do think we will continue to have ornament; although, as far as I am concerned, it is likely to come out far more from the structure itself.



New colleges for Yale University, USA, by Eero Saarinen

'I think that ornament for ornament's sake is a very tenuous thing. The direction in which I am interested in going is towards an architecture that is bold and which is strong—buildings in which large-scale structure is expressed, but which is related to man. S. Sophia is a beautiful example of a large scale which is related to the small scale of man.

'In the collective sense, perhaps the greatest problem we have to face is the building of cities. In the US we still have a long way to go to understand how to build cities. The automobile has destroyed the city. On the architectural level we do not yet understand the concept of the space of a city. But I, myself, do not know how the city is going to be organized in the future.'

Peter Rawstorne

THE REBIRTH OF JAPANESE ARCHITECTURE

Guest editors, Alison & Peter Smithson

The revival of architecture in Japan can be regarded as the direct result of Le Corbusier's work in India. His first work there was designed and known a surprisingly long time ago. Le Corbusier first went to India in 1950. The definite plan for Chandigarh was arrived at in 1951, and by the time of the publication of the Oeuvre Complète 1946-52 in 1953 most of the buildings there had been conceived, as had '4 houses' and a museum at Ahmedabad. In this volume also were published the photographs of the completed Unité d' Habitation at Marseilles, which photographs enabled what was intended in the Chandigarh projects to be understood.

All Le Corbusier's work at Chandigarh has been revelatory in one way or another, and there is no doubt that it has given an understanding of the nature of architecture and a feeling of hope to all the post-war generation of Japanese architects.

It seemed therefore that for a proper understanding of Japanese architecture a visit to Le Corbusier's India was an obvious prelude: and once in India it was found that the old architecture held the key to many of the things Le Corbusier has done there.

Le Corbusier at Chandigarh
Photo Achal Rangaswami. Courtesy *Time*

It is to illustrate this thesis, and these observations, that this special number of *A.D.* takes the form it does.

The first part is about India—the India of the Moghuls and that of Le Corbusier.

The second part is about Japan, with an introductory dialogue between Antonin Raymond—whose *Readers Digest* Building in Tokyo first brought a revived Japanese architecture to the notice of the architects of the world—and Kenzo Tange, whose work has kept it there.

Antonin Raymond's *Readers Digest* Building was the first building in which Le Corbusier's post-war style was translated into a specifically Japanese form. It is the *source* of that particular use of finely shuttered concrete which has become *the* characteristic of the new Japanese architecture, and is regarded by Japanese architects themselves as their first post-war building.

It is an interesting historical point that Antonin Raymond went to Japan with Frank Lloyd Wright in 1920 to build the Imperial Hotel, but it is his (Raymond's) first post-war building that has had the effect of 'a starter' for Japanese architects' own architecture, rather than Frank Lloyd Wright's Imperial Hotel—whose only effect was one or two sawn off pieces of it which occurred as big houses in the suburbs.

Antonin Raymond as a person, also has a special place in the development of Japanese architecture. His feeling for the Japanese scene emerges from the dialogue between him and Tange printed overleaf.

The importance given to Le Corbusier in this schema is not due to a naïveté about the other influences that are at work in Japanese architecture (there is for example a bit of Miesian seriousness, as well as some of his language in Tokyo Town Hall) but is a recognition of indebtedness that Japanese architects themselves acknowledge.

There is also the historical fact that, in a way, the younger Japanese architects had been specially prepared by Maekawa and Sakakura—both ancient *élèves* of the Rue de Sèvres—to be able to receive the full message from Le Corbusier's buildings when the twist of events brought him into their half of the world. *A. & P.S.*

Dialogue

Questions by Mr. Kenzo Tange and answers by Mr. Antonin Raymond broadcast on April 27th, 28th and 29th, 1960 in Japanese.

Raymond

Tange: Having lived here for many years, you have a profound understanding of Japanese architecture. When you introduced modern architecture into this country, I believe you embodied in it the good points you discovered in Japanese architecture. Please tell me what aspects of our architecture you were most interested in and you valued most highly.

Raymond: As you mentioned 'modern architecture' it is necessary for me to explain the original and true meaning of modern architecture 'as I understand it'. I am referring to the clearly defined concepts and principles which the young architects in Europe laid down at the beginning of this century and in which I participated. It was a heroic departure from the miasma into which the architecture of the nineteenth century had fallen. This departure was in reality a philosophical search into the fundamental principles of architectural design. By the end of the nineteenth century western architecture became an agglomeration and collection of past so-called styles, which for a long time was recollected, recopied and the result was a collection of senseless façades and interiors, without strict regard to function, built of false materials and designed from the outside in a dishonest manner and without any principle, expressing only the whim and preference of the owners. During the reign of Queen Victoria in England, European architecture sank to the lowest level of æsthetic understanding in European history. Young architects revolted and started an almost hopeless struggle for new architecture. How difficult that struggle was is witnessed by the fact that even to-day the Victorian is alive in many places in Europe and even in Japan and is a favourite in communist countries. The first thing was the cleaning process in design, the elimination of unessentials, arriving at simple, pure, clean, almost ascetic forms and spaces, designing structurally and functionally from inside out, not from outside in—I repeat, from inside out, not from outside in.

The *Readers Digest* building by Antonin Raymond, the first truly modern post-war building in Japan, and one with a very considerable influence

As I was a participant in the new movement in Europe and practically alone at that time, 1920, in U.S.A., imagine my surprise on arriving in Japan to find here expressed in Japanese farms and 'shinto shrines' like Ise, all the features which we so ardently desired to re-create in the new architecture, but which we were still far from realizing and perhaps never will be able to realize. A Japanese farm at the time of my arrival in Japan forty years ago was a marvel of integration, complete and perhaps not to be found anywhere else in the world. It grew out of the ground like a mushroom or a tree, natural and true, it developed from the inside function absolutely honestly; all structural members were expressed positively on the outside, the structure itself was the finish and the only ornament, all materials were natural, selected and worked by true artist artisans; everything in it and around it was simple, direct, functional, economical. The people, their dress, their utensils, their pottery, paintings, gardens all expressed a marvellous unity of purpose clearly developed through ages by a natural process like anything else in nature. It clearly showed to me an unparalleled love of nature and a Divine guidance. Ever since then, I tried to learn from it, grateful for its existence and realizing that it contained *absolute principles*, which were always, are and will always be the same, immutable, unchangeable and which must guide us in trying to attain true beauty in architectural design. Those principles could be expressed in a simplified version to be: the *simplest*, the *most natural*, the *truly functional*, the *most direct* and *the most economical* only, is truly divinely beautiful. To attain that one must design from inside out, honestly, not from outside in.

Tange: People talk much about tradition these days. It seems to me that what you have understood as the tradition of Japanese architecture is different from that conceived by our young architects. I would like to hear your critical comment on the works of young Japanese architects in which they have employed in some respects what they believe to be the tradition of their country's architecture.

Raymond: It seems to me that I expressed my idea of Japanese tradition by mentioning the impression of a Japanese farm building on me upon my arrival in Japan and deducing from it the principles of good design. I want to restate that I find true Japanese tradition in exact agreement with the principles of good design as formulated by the founders of modern architecture early in this century. True tradition is a treasure of knowledge and experience, the result of centuries of natural development. I fail to understand your use of the English word tradition. I suspect that you mean by it a *new direction*, or perhaps a *reactic* to some aspects of traditional architecture of the Tokugawa and Meiji period. I am forced to criticize the work of some of the your Japanese architects because their work seems to be the very opposite of the immortal principles mentioned by me before. Their work is designed from outside in, like sculpture. It is not simple, it is not natural, it is not truly functional, it is too sophisticated and it is criminally *uneconomical*, for a poor country like Japan, in using more materials than necessary.

Complexity as compared to simplicity, unnatural as compared to natural, sophisticated as compared to direct, wasteful as compared to economical, is not beautiful.

Tange: That is quite a severe criticism. But there really is a tendency such as you have just pointed out among our young architects including myself. It is possible for us to consider our tradition in the abstract. But to take it up as a concrete subject, we think it necessary to make it a property of the common people through our movement. We believe there are two tendencies or aspects in our tradition. One may be called aristocratic, being shown in things which are delicately refined but not durable, and the other is those, like the farmhouse Mr. Raymond mentioned, which have been handed down among common citizens. Rather than being beautiful, these latter are things making us feel at ease in living among them. We certainly began to pay attention to our tradition of this sort that has been developed by and among commoners as they lived over a period of centuries. I think Mr. Raymond has some opinions on this matter.

The primary motive of our taking up our architectural tradition was that we wished to make this tradition a property of the common people through our movement. We are more interested in a tradition of common citizenry shown by articles which were plain and stoutly-built and lasted over a period of many years withstanding rough handling, rather than that of an upper class who valued delicately refined objects, looked beautiful but not durable.

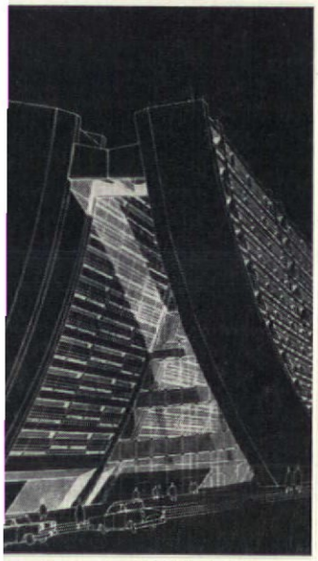
I believe we should take up our tradition on a world-wide scale, although we are to popularize it in this country. Young architects of this country began to pay attention to the aspects of our tradition different from those which hitherto have been upheld. They are much more interested in something solid than those like, for instance, 'shoji' and 'sudare', which are refined in form but easy to break and hardly retain their shapes and colours for a long period. Such interest or emphasis of these men is reflected in their works.

In the post-war world Japanese style has been very popular in many things. But these young architects have taken up our tradition in their attempt to make it a popular property, not as something to be exported abroad like a souvenir. What do you think about these aspects of our tradition they emphasize?

Raymond: The need of the youth for a return to strength after a period of decadence reminds me of the creation of a virile and strong government in Kamakura to replace the effete and sensual one in Kyoto. The new spirit is clearly expressed in the arts and architecture of those times. To-day, I feel with the youth the growing social consciousness and a definite need to share all one can give with the people. I certainly advocate building reasonably solid structures and objects away from the over-delicate and refined, but I do not see any object in designing in the other direction, massive, over-designed, oppressive, giving the impression of a diseased desire of reaction to the Tokugawa period or an unhealthy influence of Corbusier's latest church. I must once again express my serious interest in tradition only as a principle of life. I adopted 'shoji' 35 years ago because I found it to be an excellent insulator and it cut my bill for heating in half. It also replaced the stupid and dirty Victorian curtain and it is also beautiful when sunshine casts shadows of morning leaves on it.

I admire the hardihood of the Japanese, their discipline, their capacity to endure, to retain human dignity and nobility, where other races became abject and ignoble. Their closeness to Nature, feeling themselves at one and integrated with Nature. Their reliance on their *heart* rather than mind, their intuition rather than brain. To make durability an essential seems to me frightfully materialistic in a Nature-loving people who recognize the exquisite significance, as no other people on earth, of the permanent and impermanent qualities in things. There is, in fact,

Tange



A project for the World Health Organization building by Kenzo Tange

something German, opposite to the Japanese philosophy, in the worship of durability and heaviness. From the technical point of view, the heavier the mass in a structure the bigger the weight on the foundations, the bigger the moment of earthquake to overcome and the structure becomes extremely uneconomical and therefore a drain on the national economy of Japan. I do not even believe that the combination of structural steel and reinforced concrete, a regulation of the Keishicho, is good and economical design. I believe that more economical structures could be designed by truly good engineers and architects in concrete only. I also believe that a light structure, a result of sound and clever engineering is just as strong or stronger and certainly more economical than a clumsy monster of rather common engineering. Do not forget your duty towards your country which is rather poor at present and help its economy rather than hinder it by unnecessary extravagances.

Tange: I have listened to your speech with a great interest. One thing I find specially interesting is that there is, you have said, in our tradition an ingenious combination of features of being strong, durable and unchangeable and those of being changeable with times. In the present day world things change too fast. Things that would remain unchanged seem to get ever more scarce. If some architectural work can endure, I believe it is by its structures.

You were the first man to introduce into this country the technique of concrete construction as well as to use concrete as a medium of expression. I would like to hear your opinion about concrete with which you have a great deal of experience. Some time ago, I saw Mies van de Rohe in Chicago. To my question what he thought of steel and concrete, 'both are the same substantially' was his answer. What will be your answer if I ask you the same question?

In my opinion, steel is linear but concrete is plastic. For this reason I see greater possibility and have more interest in concrete than in steel.

Raymond: I most emphatically agree with you on the question as to steel and concrete. Concrete is plastic and should be treated as such, but because it is plastic it is quite different from stone and brick which are heavy masses, its principal quality is its amazing strength and flexibility even when light. Nervi in Italy and Candela in Mexico and myself believe in that.

Tange: You adopted shell roofs for several of your designs. I have also used this structure several times. In using concrete beams and columns together to produce spaces, some Japanese architects applied the traditional technique of exposing these structural members as found in native wooden buildings. In some of their works an excess is seen in the use of this technique. They are criticized for making concrete buildings appear like wooden structures because of oversized structural members. I do not regard these examples in the least as those worth being followed. Concrete architecture should be developed so that its plastic nature could be fully utilized.

Raymond: As I stated before, I have true sympathy with the young and I admire their courage, but I do not believe, being old, in violent revolution, but I would rather see a violent evolution, not necessarily calm and orderly, but truly clear and purposeful like ours was 50 years ago. The Japanese architect engineers have made an amazing progress in every direction in the last 12 years and their work, in spite of my criticism, is definitely a display of great artistry, which is inherent in the Japanese people and which is their true tradition.

I have no doubt that they will eventually be world leaders in a new direction, treating materials old and new according to their nature and achieving absolute values in their creations.

Tange: I do not think much can be accomplished by our discussing each individual work of architecture. I feel a building is of little value unless it is viewed and studied as one component in the whole structure of a city, the shape of which is ever changing. Each building is to change, keeping pace with the change of the city in which it is built. *The shape of modern architecture in the first half of the twentieth century seems to be of no value in our consideration of the shape of cities in the last half of this century. How we should consider it, is a problem challenging us for solution. I would like to hear what Mr. Raymond thinks about this problem.*

Raymond: The architects should be guides and initiators in creating a better and better environment for living. That certainly is more important than the creation of any individual beautiful building or buildings. In order to achieve this, they should lure the populace to elect cultured and unselfish legislators instead of the politicians, lawyers, etc. who form the majority in legislative bodies. Then a Ministry of Planning for the whole country could be created, with country and city planning research centres with the following goals in mind.

Not only the city but the country properly zoned, with industrial cities where workers would live in garden cities in close proximity with the places of work; with shopping districts and centres; with civic centres and recreation centres and grounds, with their workers living nearby and with similarly organized business centres, with pedestrian traffic separated from vehicular traffic; with smoke and air pollution strictly controlled; objectionable commercial advertising signs and posters banned; excellent schools for every type of education provided free, and health promotion and hospitals to take care of the population also free. Just imagine how many hours of fatiguing travel would be saved to all workers.

In principle the above stated aims of architects are correct, but in reality they are illusory under present circumstances and certainly difficult of achievement, but any improvement in the directions indicated would be of immense value to Japan or any other country. The above is also a valid argument against what you call permanent structures, because in a higher development of our society those structures surely would become useless and even dynamite could not rid you of the extremely heavy and well-built monstrosities which the young architects mistakenly consider as masterpieces.

* * *

I would like to hear your opinion, Mr. Tange, on a matter I have been concerned about for quite a long time. That is the reclaiming on Tokyo Bay. Have they seriously taken up this problem to carry it out? Besides the actual physical town planning problem in the idea of reclaiming land to build another more modern Tokyo City, isn't there another angle to this task and that is the political organization of such a city? I am given to understand that the present political set-up of Tokyo City is none too satisfactory.

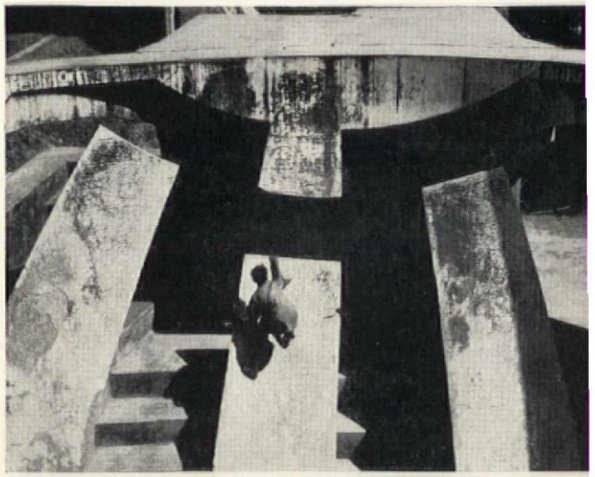
Tange: I understand that you have asked these questions because you are concerned not only about the reclaiming work for Tokyo Bay, but also about various other problems we have in this country. For example, that development project for the old water cleaning bed in the Shinjuku area causing a lot of argument, constructions involved in the Olympic Games to be held in Tokyo, and so forth. You should have been concerned about the political or administrative system for planning and construction of cities in this country. To take the matter of Tokyo Bay reclamation, for example, Tokyo has no other choice than to spread out far into the areas where there are no adequate means and facilities for communications and daily life to cope with such a situation. This reclaiming project has been seriously taken up by Mr. Kano and other influential people and various recommendations have been made for it by young architects and engineers. Actually, however, reclaiming work is going on as it has been for years without any particular plan or consideration in relationship with the general city planning for the metropolis. The areas of the land so far reclaimed present the most undesirable conditions for citizens to work and live in. The conditions are not much better in the areas into which Tokyo City is rapidly spreading, unrestricted by any set plan. So long as an ideal plan proposed for the reclamation for Tokyo Bay remains ignored by the authorities concerned, conditions will become worse, I am afraid, with greater speed. Although the citizens of Tokyo have the sea, it will not be for them to enjoy. On the contrary, the maritime areas will be dreadful places. That development project for the site of the Yodobashi water cleaning bed may fall into a similar fate. For Tokyo, the largest city in the world, therefore, it should be most urgent to have good city planning. And for its execution, rules should be established so that the whole project can be carried out speedily in a just and fair manner. We have no such rules yet. With your co-operation architects in Tokyo must fight against these evils. Otherwise the state of things in Tokyo will keep on becoming worse and worse.

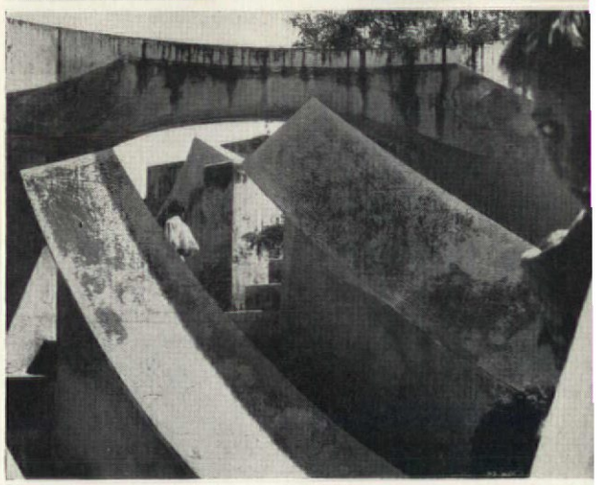
Thank you very much indeed, Mr. Raymond, for many useful views you have expressed on various subjects.

INDIA

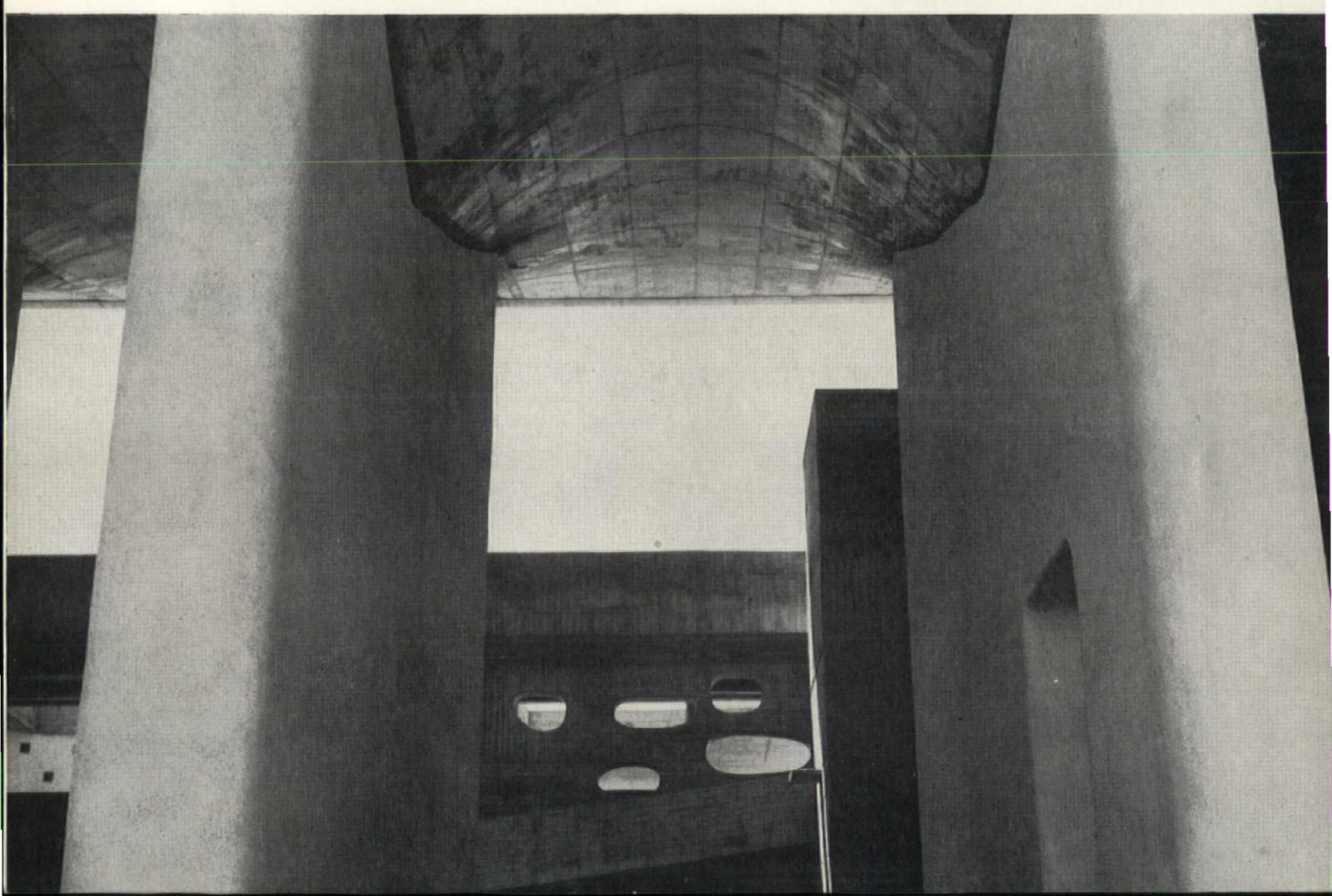
Although there are planning techniques—such as the self-cooling, small-windowed, access ramp in the Amber Palace at Jaipur—which Le Corbusier has taken from ancient Indian sources, what is more important is that his Indian buildings exhibit a space geometry which truly creates in his own words 'L'espace indicible', and this sort of space manifests itself with self-evident purity in the great astronomical instruments at Delhi and Jaipur. The way in which the astronomic geometries are cut into by the geometries of human use—steps, cut-backs, curves to stop one barking one's shins, curves to fit one's shoulder, and curves for the convenience of stone construction—present finally a space system which is only experienceable; it cannot be described.

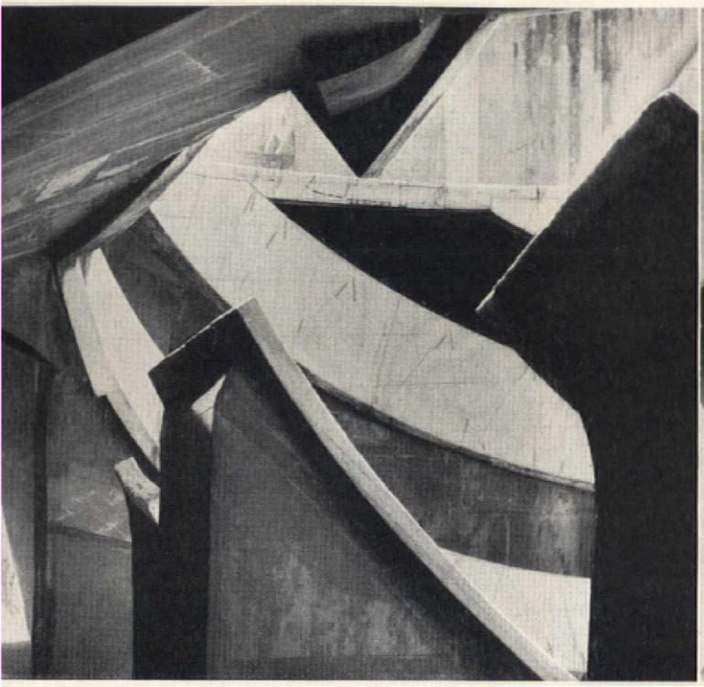
This is the quality that much of Le Corbusier's work in India has, which has been captured in part in the one photograph of the High Court at Chandigarh (below). The buildings which exhibit it most powerfully, notably the Shodhan House and the Mill Owners' Association Building at Ahmedabad, it seems impossible to capture in photographs. One records only the banalities and errors—the wonder of the space has escaped. For this reason the photographs of these buildings have been eliminated from this article. You must go there and see for yourself or guess at it from the drawings.

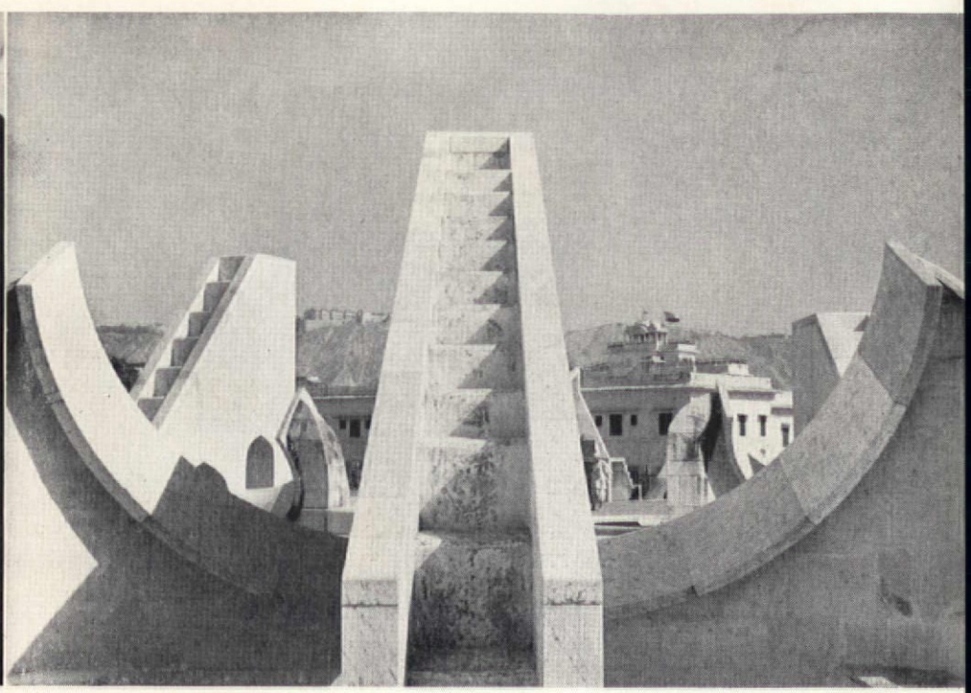




Above: giant astronomical instrument at Delhi
Below: the High Court, Chandigarh by Le Corbusier

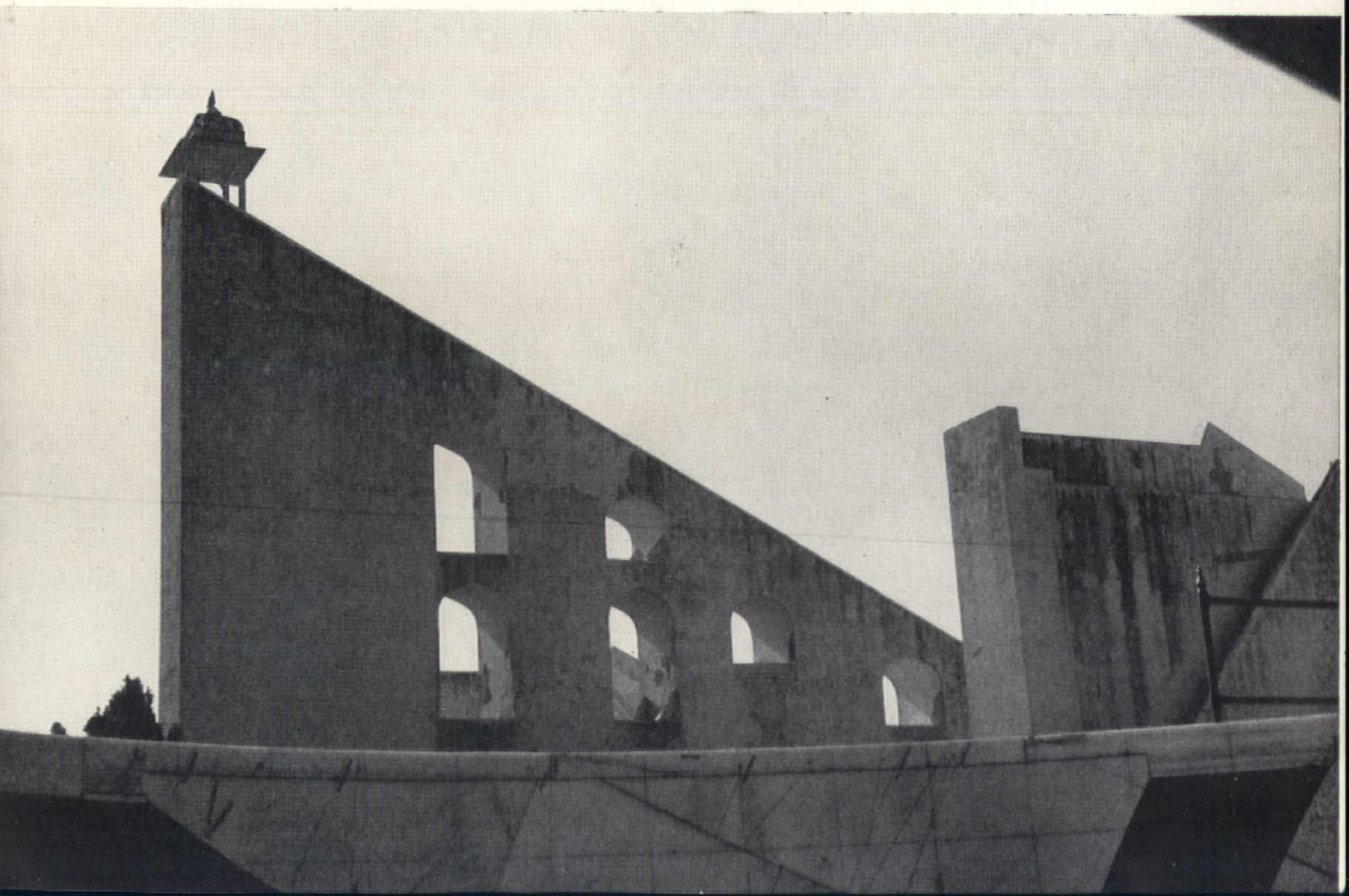






Above and below: giant astronomical instrument at Jaipur

In the background the City Palace, and on the hill in the distance one of the innumerable fortress palaces which surround Jaipur—one of which is the Amber Palace



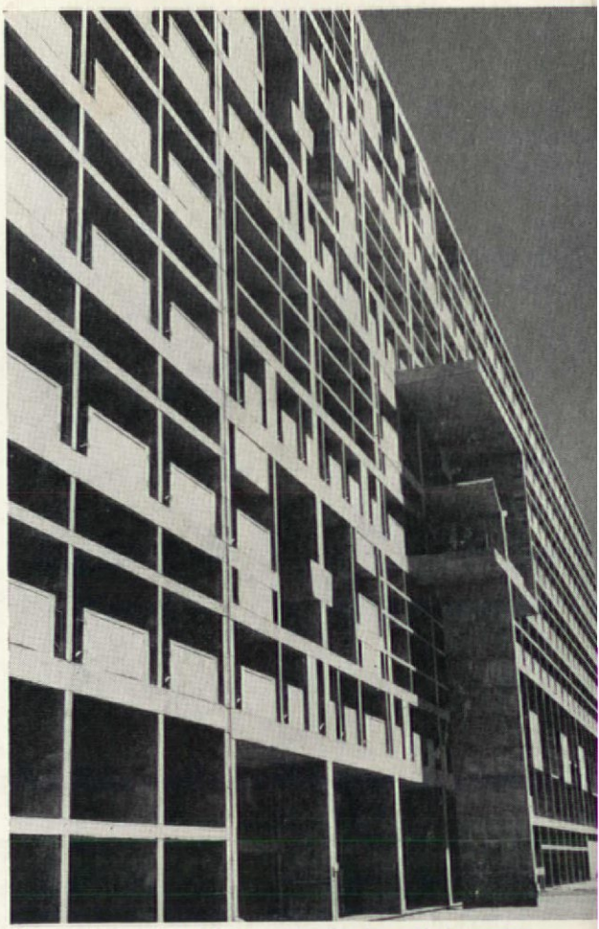
Chandigarh

The Secretariat

The Secretariat at Chandigarh is almost all surface—a *tour de force* of how to handle an immensely long (900ft.) building, without it becoming endless or meaninglessly broken up. The modelling of the façade at times verges on the mad (the relationship between Ledoux and Le Corbusier has been pointed out before as far as their love of simple geometric shapes is concerned, but there is no doubt that the mannered chunkiness of his latest work also reminds one of the maniacal detailing of the Salines de Chaux. Notice, for example, the vast wedge-shaped solid blocks of concrete about 6ft. cube in the double-height spaces). What is amazing about this building is how it can hold one side of an immense space in the even more immense space defined by the foothills of the Himalaya. One can now begin to see—with the starting of the Assembly Building and the completion of some of the modelling of the ground for low-level roads and artificial hills—the part the individual buildings play in the whole composition of the Capitol Group. From the wooden model in the Le Corbusier exhibition it was obvious that the effectiveness of the Capitol buildings was dependent on the conclusion of the ground works, and that all judgment had to be suspended until these were carried out and the planting established.

The Capitol Group is of course a 'Closed Composition', and it is interesting to see the measures that have had to be adopted now that additional accommodation is required. Additional courts are being added near the High Court Building, and bicycle sheds and covered car parking have been provided at the foot of the Secretariat. All these needs are being met by single-storey brick buildings laid out to make them as inconspicuous as possible. It is also said that the rumoured 'same again floor area' for the Secretariat would be met in the same way.
In the case of the brick bicycle sheds at the base of the Secretariat there is no doubt that their proximity, and the fundamental scale change of their construction, is already diminishing the impact of the main building itself.

Chandigarh will be the last *great* piece of urban architecture in the Versailles tradition, in which the intention is communicated by a closed system of symbolic buildings.



Above and below: details of the entrance elevation to the Secretariat