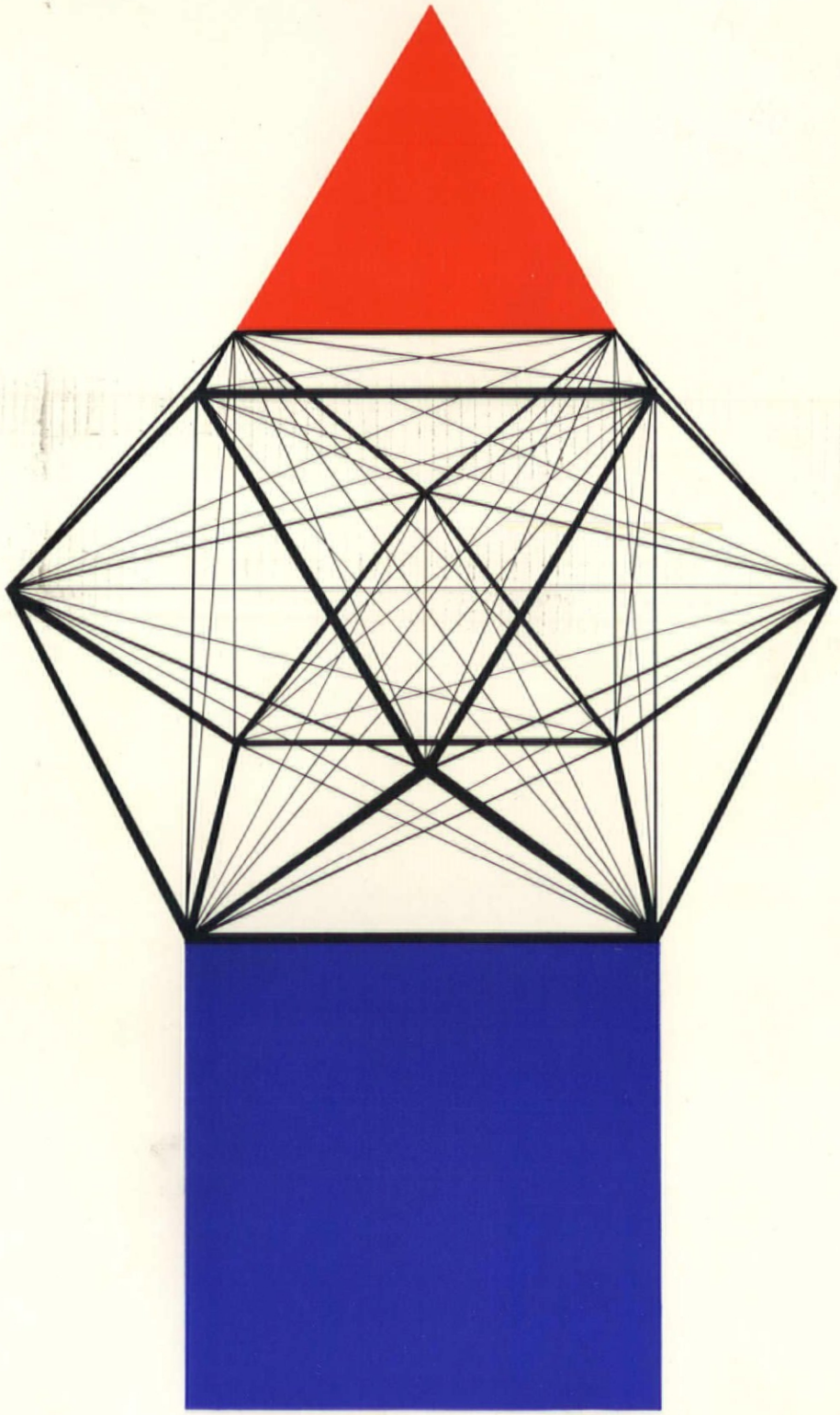
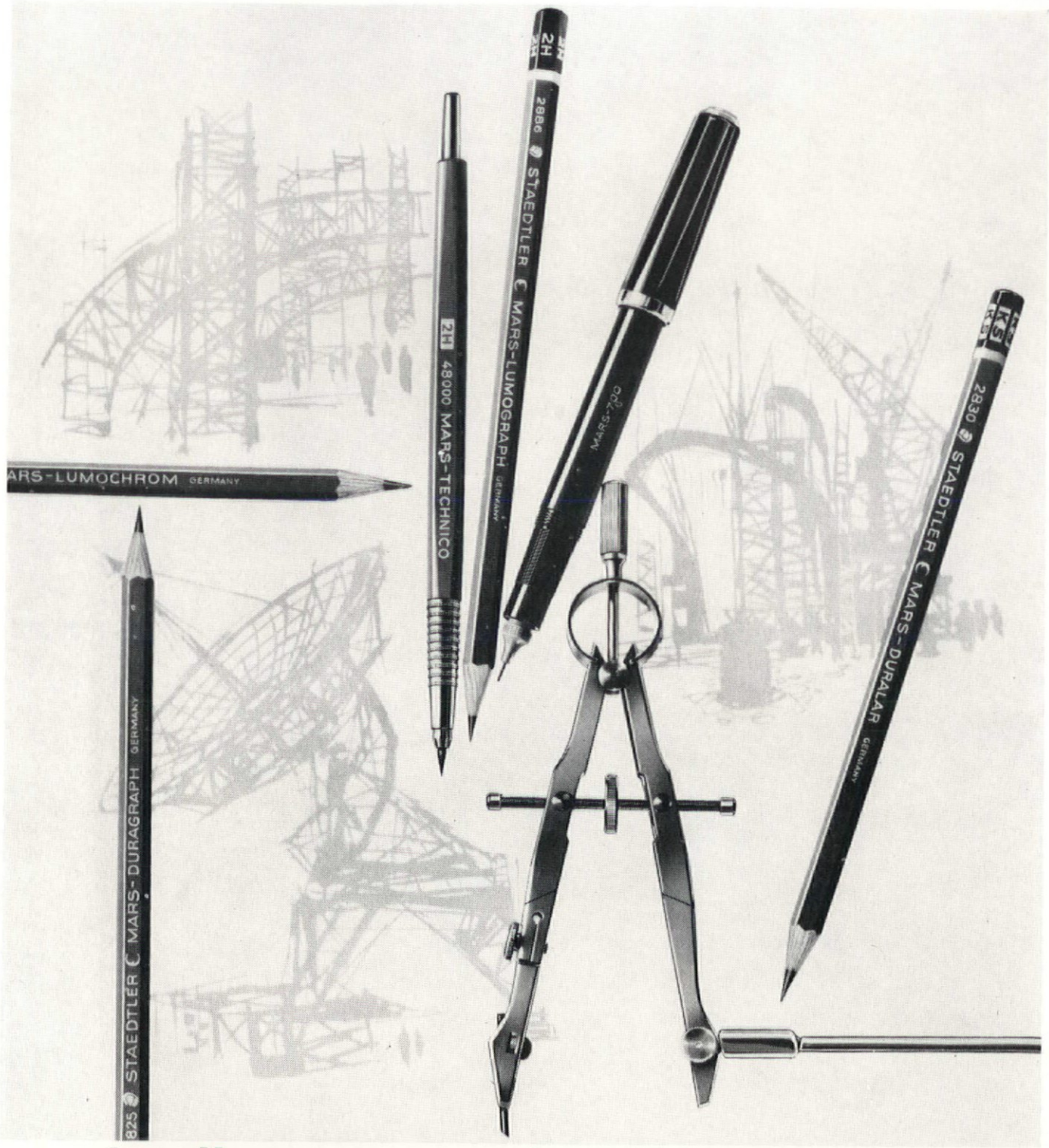
11 ARCHITECTURAL DESIGN

November 1964

Price 4/-





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ad

One of four supplements on the Kitchen

Fitments and Units

SfB (73)
UDC 643.3

1	2
3	4
5	6
7	8





(1) (2) Examples of Formica covered kitchen fitments
(3) Example of an Arborite finished Kitchen

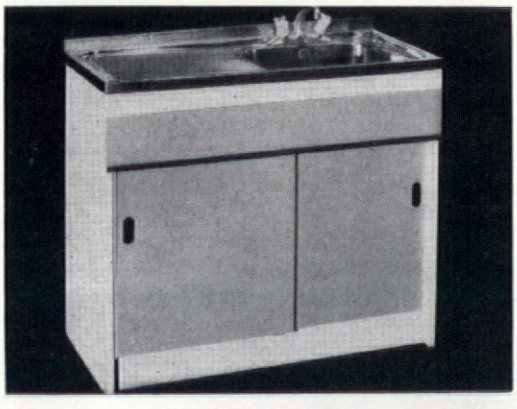




Boulton & Paul (Joinery) Ltd.
Riverside Works, Norwich, Norfolk
Tel.: Norwich 25251

(4)

Construction: Selected timber and plywood in the white. Doors clad plywood.
Finishes: Solid hardwood or Parana pine work tops can be supplied. Formica work tops loose; 4 colours.
Sink Units:—Width: 5ft. 3in., 3ft. 6in.; depth: 1ft. 8½in.; height: 2ft. 11in. Do not supply sinks or drainer tops.
Base Units:—Width: 1ft. 8in., 2ft. 0in., 3ft. 4in., 4ft. 0in., 1ft. 0in.; depth: 1ft. 8in.; height: 2ft. 11½in.
Wall Units:—Width: 1ft. 8in., 2ft. 0in., 3ft. 4in., 4ft. 0in., 1ft. 0in.; depth: 1ft. 0in.; height: 1ft. 0in., 2ft. 0ins., 2ft. 4ins., 2ft. 8ins.
Also available 1ft. 8ins. deep.
Also suppliers of corner units, store and broom cupboards.



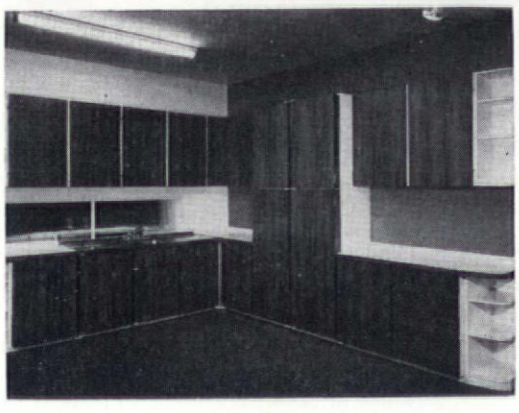


Cooklin Kitchen Fitments Ltd.
Great Western Trading Estate,
Park Royal Road, London, N.W.10
Tel.: Elgar 2306

(5) (6)

Kenco:

Construction: ¾in. laminated blockboard and seasoned timber
Finish: Doors cellulose paint plain or reeded. Cabinets white and 9 colours.
Sink Units: Leisure or any other top quality sink top.
Size:—Width: 22in., 36in., 42in., 54in., 63in.; height: 36in.; depth: 18in., 21in.
Base Units:—Width: 42in., 54in., 63in.; height: 35¾in.; depth: 18in., 21in.
Wall Units:—Width: 30in., 36in., 42in.; depth: 21in.; height: 30in.





County Furniture (London) Ltd.
First Avenue, Denbigh Road,
Bletchley, Bucks.
Tel.: Bletchley 2693

(7) (8)

KD64:

Finish: Base units finished with plastic faced splash backs, backs and plinths.
Work tops in variety of plastic finishes, Formica or Wareite. Drawers and door faces can be in Teak Belfort or Melamine vertical veneers. All interiors finished in high grade thermo plastic material.
Sinks: Vitreous enamel or stainless steel.
Sink Units:—Width: 42in., 63in.; height: 33in.; depth: 21in.
Base Units:—Width: 42in., 21in., 63in.; height: 33in.; depth: 21in.
Wall Units:—Width: 42in.; height: 33in.; depth: 10½in.
Also suppliers of tall cupboards, shelves and corner units.

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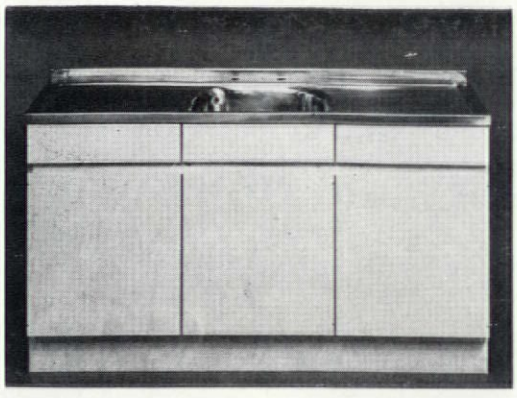
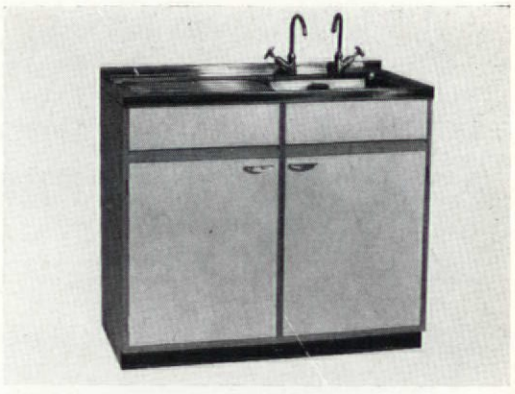




Dennis & Robinson Ltd.
Bestwood Works, Drove Road,
Old Portslade, Sussex (1) (2)
Tel.: Hove 46261/2

Manhattan Luxury Range:

Construction: Hardwood overlaid.
Birch ply.
Finish: Wareite laminate 9 colours.
Interiors sprayed special white paint.
Sizes: All base units conform to 21in. wide module with work tops 36in. from floor.
Available: Sink units, base units, wall units, oven units, broom cupboards.
Sinks in stainless steel.

New England Range:

Cheaper version of above. Not sprayed inside, sliding doors. Front faces two coats of teak oil.

Flushline Range:

Standard 21in. module size, swing doors.
On site painting.



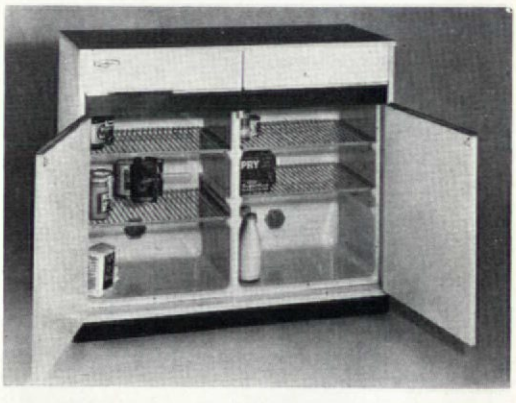


Easiclene Porcelain-Enamel (1938) Ltd.
Woden Road, Wolverhampton (3) (4)
Tel.: Wolverhampton 24973/4

Princess:

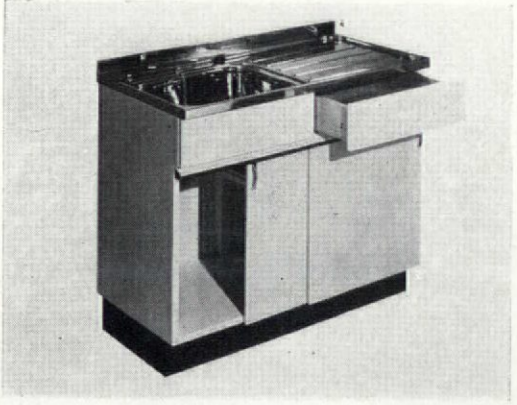
Stainless steel or porcelain enamel sinks.
Construction: Timber.
Finish: Laminated work tops, 4 colours.
Paint 5 colours.
Sink Units:—Width: 63in., 54in., 42in., 36in.; depth: 21in., 18in.; height: 36in.
Also supply base, wall and corner units, cupboards.





Thomas Eastham & Son Ltd.
Holmes Road, Thornton, Blackpool
Tel.: Thornton 3178 (5) (6)

Construction: ¾in. double sided panels.
Hardboard faces: Waterproof glued to kiln dried core.
Finish: Worktops melamine surface.
High gloss enamel drawer and doors.
Sink Units: Base Units:—Width: 21in., 42in., 63in., (also 84in. sink unit); depth: 18in., 21in.; height: 36in.





English Rose Kitchens Ltd.
Warwick, Staffs. (7) (8)
Tel.: Warwick 41221

Construction: Hardwood.
Arborite Laminates 15 colours.
Side panels and interiors are painted matt white.
Steel base plinths, stoved black, built-in levelling screws.
Sinks: Stainless steel.
Sink Units:—Width: 42in., 63in., 84in.; depth: 21in; height: 35⅞in.
Base Units:—Width: 10½in., 21in., 42in., 63in.; depth: 21in.; height: 35⅞in.
Wall Units:—Width: 10in., 21in., 42in.; depth: 10in.; height: 23in.
Also available: tall units, broom cupboards, heater units.

'P' Range:

Construction: Timber, polyester and plastic faced, Formica work tops 4 colours.
Sink Units:—Width: 42in., 63in.; depth: 21in.; height: 36in.
Base Units:—Width: 42in., 21in., 63in.; depth: 21in.; height: 35⅞in.
Wall Units:—Width: 42in.; depth: 10in.; height: 23in.





Ezee Kitchens Ltd.
Alloa, Scotland (9) (10)
Tel.: Alloa 641 or Trafalgar 2821

Steel cabinets.
Satin smooth double backed finish.
Formica worktops.

Gleneagles:

Zinter rust proofed steel. Drawers insulated, 5 colours.

Lovat Kitchen:

Wooden doors and drawers. 5 colours.

Braemar:

Wood grain, laminated doors and drawer fronts. Colours, cabinets white or cream.

Holyrood:

24in. depth range designed to fit mechanical appliances. Cabinets 5 colours.
Sizes: Sink Units:
21in. range:—Widths: 42in., 60in., 63in.; depth: 21in.; height: 36in.
24in. range:—Widths: 42in., 60in., 72in., 84in.; depth: 24in.; height: 36in.
21in. range:—Base Units: 12in., 18in., 21in., 24in., 30in., 36in., 42in.; depth: 21in.; height: 36in.
Wall Units:—Width: 12in., 18in., 21in., 24in., 30in., 36in.; depth: 12in.; height: 24in.
Also available, broom cupboards, corner units etc.

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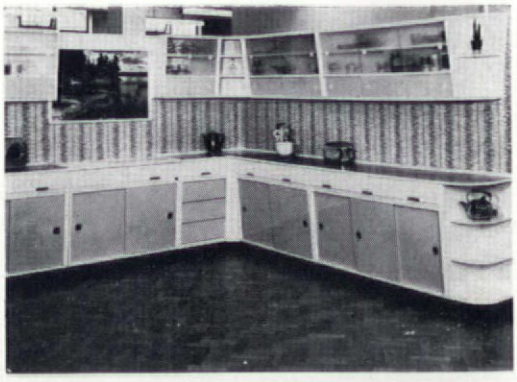




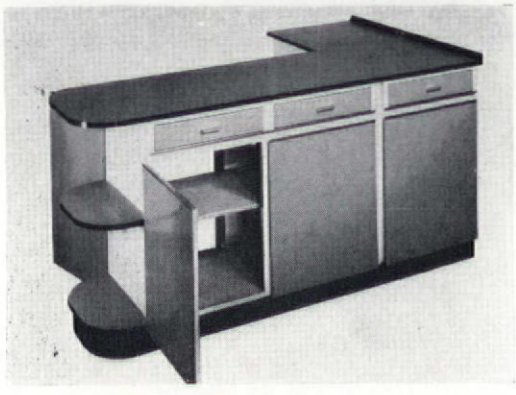
Fleetway Manufacturing Co. Ltd.
Charlton Road, Edmonton, N.9 (1) (2)
Tel.: Howard 5051

All sink units 'Leisure'. Curran enamel; also variety of stainless steel. For the following four ranges the sink units are all the following sizes. Width: 36in., 42in., 54in., 63in.; depth: 18in., 21in.; height: 36in.

Belvedere:
Construction: Seasoned timber.
Finish: Drawers white or cream.
Doors, tops and splash backs golden Maple formica.
Base Units:—Widths: 21⅛in., 35⅝in., 53⅞in., 41⅝in.; depths: 18⅛in., 21⅛in.; height: 36in.
Wall Units:—Widths: 23⅝in., 35⅝in., 41⅝in., 53⅞in.; depth: 11⅝in.; height: 23⅝in.

New Napoli:
Drawers white or cream. Doors, tops and splash backs choice of 7 cellulose colours.
Base Units:—Widths: 21in., 35⅝in., 41⅝in., 53⅞in.; depth: 18 $\frac{5}{16}$in., 21 $\frac{5}{16}$in.; height: 36in.
Wall Units: Sizes as 'Belvedere'.

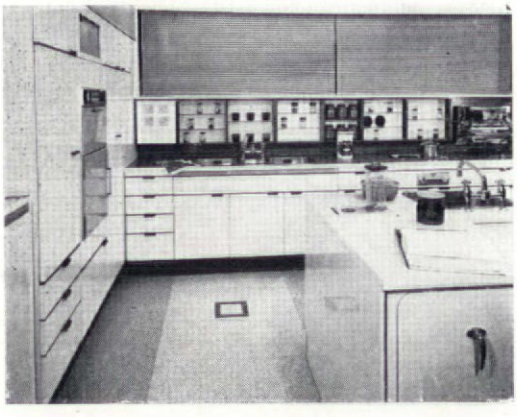
Connaught:
Drawers white or cream, choice of 7 cellulose colours.
Base Units: Size as Belvedere except depth: 17⅛in., 20⅛in.
Wall Units: Size as Belvedere.
White wood range of the Connaught is also available. Broom cupboards also available.

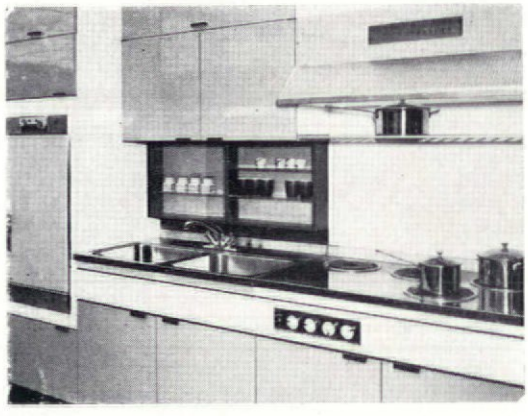




Grovewood Products Ltd.
Tipton, Staffs. (3) (4)
Tel.: Tipton 1848

Construction: Timber seasoned hardwoods.
Finishes: Enamel 10 colours, working tops 10 patterns.
Arborite. Formica.
Sink Units:—Width: 42in., 36in., 63in., 54in.; depth: 21in., 18in.; height: 36⅛in.
Sinks: Leisure.
Base Units:—Width: 16½in., 21⅛in., 31in.; depth: 21in.; height: 36in.
Wall Units:—Width: 29½in., 40½in.; depth: 12in.; height: 27in. 42in.
Also suppliers of corner units; end shelves; tall cupboards, split level housing units; bar returns, folding leg table.





Hygena Ltd.
Kirkby, Liverpool, (5) (6)
Tel: Simonsword 3501

Construction: Timber.
Finish: Enamel, 8 colours, formica 8 colours carcase white only.
Sink Units: Leisure:—Width: 54", 63"; depth: 21"; height 36".
Base Units:—Width: 15", 18", 21", 30", 36", 42", 54", 63"; height: 36"; depth: 21".
Wall Units:—Width: 15", 18", 21", 30", 36", 42"; height: 20⅛"; depth; 12".
Also supplies of tall units, cooker and oven housing units, refrigerator units, midway units and peninsula arrangements.

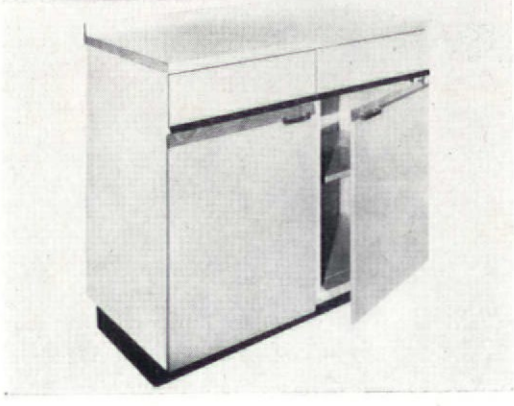


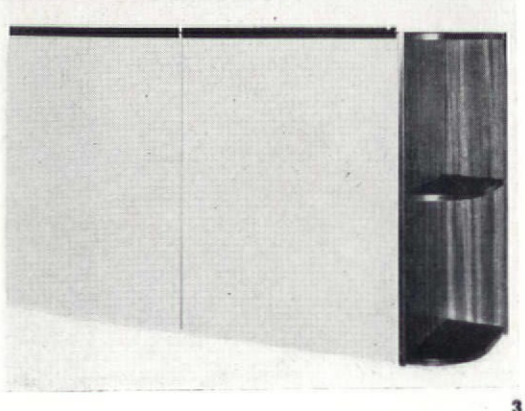


Jayanbee Joinery Ltd.
Uxbridge, Middlesex (7) (8)
Tel.: Uxbridge 38222

Paragon 100:
Construction: Timber.
Finish: Cellulosed inside and out, worktops plastic veneered.
Sinks not supplied.
Sink Units:—Width: 42in., 63in.; depth: 20⅞in.; height: 34⅛in.
Base Units:—Width: 21in., 18in., 30in., 42in., 36in.; depth: 20⅞in.; height: 34⅛in.
Wall Cupboards:—Width: 18in., 21in., 30in., 42in., 36in.; depth: 12in.; height: 27in., 32in.

Paragon 200:
Same as 100, but plastic faced doors and improved ironmongery.
Also available, corner units, refrigerators and washing machine, cupboards and panel units for built-in cookers.





Allied Ironfounders Ltd.
Leisure Kitchen Equipment Division,
Nottingham Road, Long Eaton,
Nr. Nottingham. (9) (10)
Tel.: Long Eaton 4141.

Construction: Timber and stainless steel.
Finish: Worktop laminated plastic, 13 colours. Enamel inside and out, 8 colours, two-tone combination available.
Sink Units: Leisure stainless steel or vitreous enamel (3 colours).
Width: 42in., 63in., 84in.; depth: 21in.; height: 36in.
Basic Units:—Width: 42in., 21in.; depth: 21in.; height: 36in.
Wall Units:—Width: 21in., 42in.; height: 27in.; depth: 21in., 12in.
Also available: corner units, tray racks, dining units.

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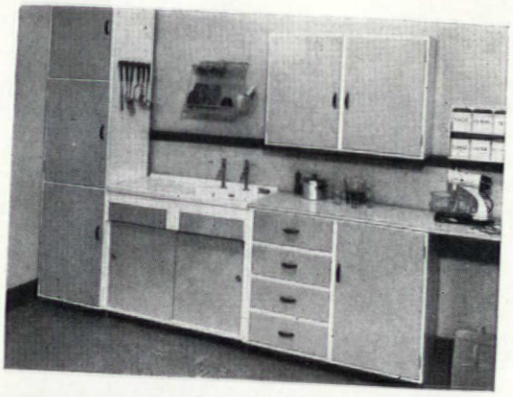
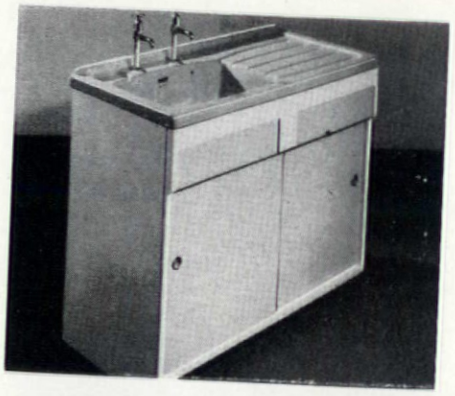
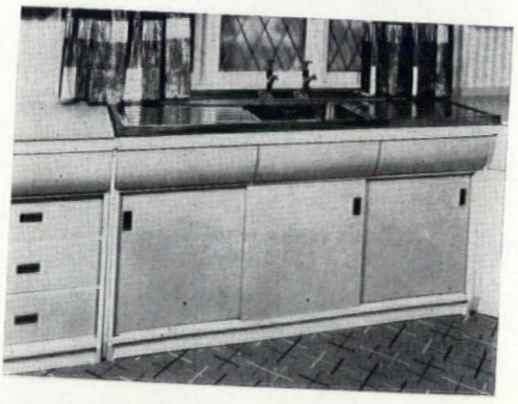
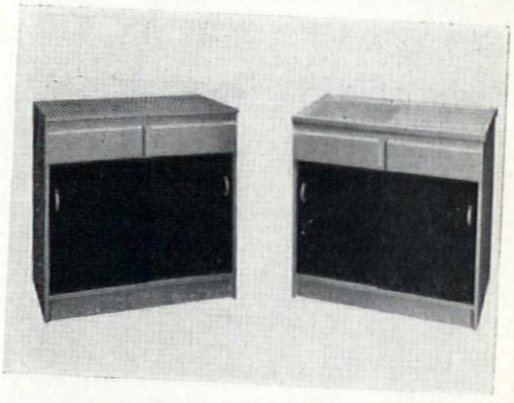




















Geo. A. Moore & Co. Ltd.
Thorp Arch Trading Estate,
Boston Spa, Yorkshire (1) (2)
Tel.: Boston Spa 3125

Sink Units:

Construction: Timber, sturdily framed.
Finish: White wood or two tone cellulose enamel.
Sink: Ceramic Glazed Fireclay.
Sizes:—Width: 42in., 36in.; depth: 21in.

Units:

Construction: Timber.
Finish: White wood or two tone enamel with plastic work top.
Size to EIMA 4in. module and pattern.

Peerless Built-in Furniture Ltd.
Western Avenue, Perivale, Greenford,
Middlesex (3) (4)
Tel.: Perivale 1128

Dovetail:

Assembled on site.
Construction: Solid or laminated hardwood.
Finish: Worktops Formica, soft glow, 3 colours.
Sink Units:—Width: 42in., 63in.; height: 36in.; depth: 21in.
Base Units:—Width: 21in., 30in., 42in.; height: 36in.; depth: 20in.
Wall Units:—Width: 21in., 30in., 42in.; height: 27in.; depth: 12in.
Also available: broom, store cupboard and tables.

Remploy Ltd.
415 Edgware Road, Cricklewood,
London, N.W.2 (5) (6)
Tel.: Gladstone 8020

Construction: Hardwood.
Finish: White and 3 colours.
Worktops: Wareite 5 colours.
Sink Units: Leisure (vitreous enamel or stainless steel).
Sizes:—Width: 42in., 63in.; depth: 21in.; height: 35½in. to working top.
Base Units:—Width: 10½in., 21in; depth: 21in.; height: 35½in.
Wall Units:—Length: 26in., 21in., 31in., 42in.; depth: 13in.
Also available: cupboards and tables.

Stoneham & Son (Deptford) Ltd.
Powercroft Road, Footscray,
Sidcup, Kent. (7) (8)
Tel.: Footscray 8181.

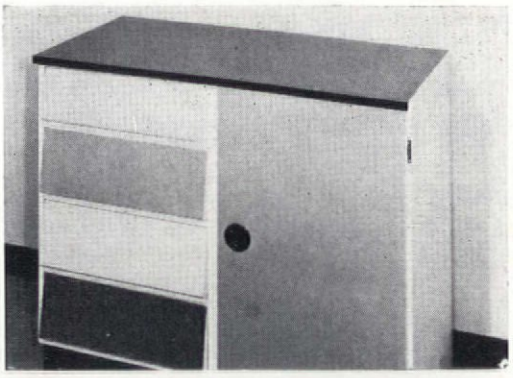
Construction: Softwood frame with 9mm. plywood shelves. Worktop particle board.
Finish: Formica worktops, exterior cellulose enamel.
Sink Units:—Width: 36in., 42in., 54in., 63in.; depth: 18in., 21in.; height: 36in.
Base Units:—Width: 19½in., 35½in., 41½in., 53in., 62in.; depth: 18in., 21in.; height: 36in.
Wall Units:—Width: 12in., 17½in., 23½in., 29½in., 36in.; depth: 12in.; height: 21in.
Also available: broom cupboard and corner units.

Twyfords Ltd.
Stoke-on-Trent, Staffs. (9) (10)
Tel.: Stoke-on-Trent 23411

Sink Units: Enamelled Fireclay.
Construction: Timber.
Finish: Unpainted or enamelled.
Sinks in 3 colours.
Sizes:—Width: 36in., 42in.; depth: 18in., 21in.; height: 36in.

Wren Craft Furniture Ltd.
Jason House, Grove Crescent Road,
Stratford, London, E.15
Tel.: Maryland 7226

Assembly on site.
Construction: High quality solid wood chipboard and plywood.
Finish: Unpainted.
Worktops available 10 colours of melamine plastic.
Sink Units: Easiclene sinks not available from manufacturer:—Width: 63in., 36in.; depth: 18in., 21in.; height: 36 in.
Floor Units:—Width: 18in., 36in., 21in., 42in.; depth: 18in., 21in.; height: 36in.
Wall Units:—Width: 18in., 36in., 21in., 42in.; depth: 13in.; height: 27¾in.
Also available: corner units, broom cupboards.

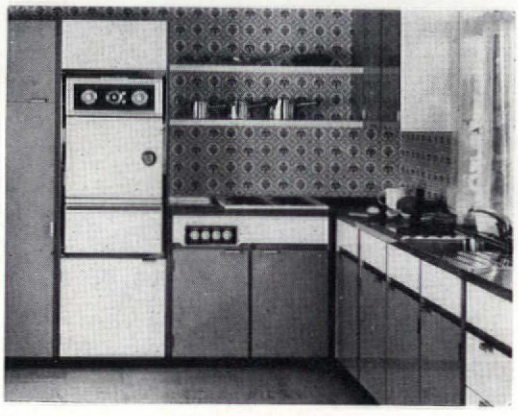




F. Wrighton & Sons Ltd.
Billet Road, Walthamstow, London, E.17
Tel.: Larkswood 5521

Standard California:

Construction: Seasoned timber. All edges veeneered in steam resistant laminate.
Finishes: Laminated plastic 12 colours (work surface). Decpol Polyester 12 colours for other surfaces.
Sinks: Leisure, stainless steel or vitreous enamel.
Sink Units:—Width: 42in., 63in., 84in., 36in.; depth: 21in., 18in.; height: 36in.
Base Units:—Width: 20 $\frac{15}{16}$ in., 30 $\frac{1}{16}$ in., 36 $\frac{1}{16}$ in., 41 $\frac{1}{16}$ in., 53 $\frac{1}{2}$in., 62 $\frac{1}{16}$ in.; depth: 21in., 21 $\frac{3}{4}$in., 41 $\frac{1}{16}$ in.; height: 36in.
Wall Units:—Width: 20 $\frac{15}{16}$ in., 29 $\frac{15}{16}$ in., 35 $\frac{15}{16}$ in., 40 $\frac{15}{16}$ in.; depth: 12in.
Also available: refrigerator housing oven, and hot-plate housing broom and larger cupboards.



Californian de Luxe Range:

As the standard range with special handles. All interiors lined with laminates; costs approx. one third extra.



Californian Contract:

Construction: Seasoned timber.
Plinths plastic laminate.
Work surfaces in 4 colours. Finish decpol in 5 colours.
Sinks Fisholow.
Sink Units:—Width: 41½in., 62½in., 83in.; depth: 20½in.; height: 34½in.
Base Units:—Width: 20½in., 29½in., 35½in., 41½in., 62½in.; depth: 20½in.; height: 34½in.
Units as in standard range also available.

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BLOCK CAPITALS PLEASE

KENCO



The long-life polyester range

The long-life polyester range has a finish that adds a touch of luxury and gives a scratch and acid resistant surface that stays bright and shining without polishing! What's more, the entire units, *inside and out*, have this long-life polyester finish.

The new 'Royal' Range

The new 'Royal' range has the same polyester finish, but it has in addition the attraction of cross-rails in natural polished beech. All three finishes are available in a wide range of harmonising colours. Words alone can never do justice to the polyester and 'Royal' ranges—you *must* see their high-gloss finishes for yourself. Plan your dream kitchen *today*.

★ *Sturdy construction from ¾" laminated blockboard and finest seasoned timber ensures maximum strength and durability.*

★ *Only special, water-resistant glues are used in the construction of these units.*

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Volume XXXIV
November 1964

11

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Cover Design by Anthony Stockbridge based on the solid cuboctahedron from which the structural elements of the Bat Yam civic centre are taken

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Correction

Suspended Ceilings Supplement, Published August 1964

Owing to an ommission would you please cut this information out and paste it in the above supplement.

Stramax Ceilings (G.B.) Limited, 19, Rea Street South, Birmingham, 5

Construction: Reinforced gypsum plaster tiles suspended from a 'secret' $\frac{3}{4}$in. × 1$\frac{3}{8}$in. galvanized T-bars at 2ft. 0in. centres hung by $\frac{3}{4}$in. × $\frac{3}{4}$in. × 18 G. galvanized angles at 2ft. 0in. × approx. 4ft. 0in. centres. Tiles for radiant heating incorporate aluminium alloy panels clipped to and in contact with $\frac{1}{2}$in. bore all welded steel pipecoils. Tiles, easily demountable, are available plain, various types of acoustic and a wide range of embossed decorative finishes in a range of sizes, 2ft. 0in. × 2ft. 0in. standard.
Weight: 3$\frac{1}{2}$–4 lb./ft.^{2} unheated.
6$\frac{1}{2}$–7 lb./ft.^{2} heated.
Acoustic:

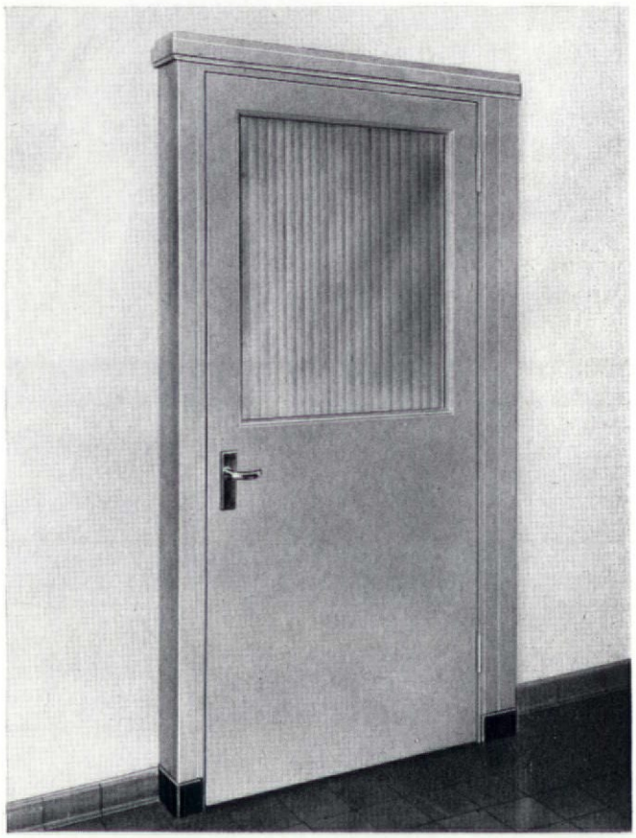
Frequency c.p.s.	125	250	500	1000	2000	4000
Absorption	·50	·70	·80	·80	·65	·45

Lighting: Whilst all proprietary fittings, modular and otherwise, can be accommodated a special range of modular fittings is available.
Heating and Cooling: Proportion of heated tiles vary according to requirements using water temperatures up to 180°F. Chilled water circulated through the coils absorbs a good percentage of the normal cooling load.
Relationship to other services:
Access: The removable tiled system allows easy access to services above.
Ventilation: Special modular diffusers.
Lighting fittings: Takes proprietary modular and recessed fittings. Special recessed continual lighting troughs with diffusers available.

In-situ plastered

Construction: A system of special corrugated expanded metal lath plastered with $\frac{3}{4}$in. thick gypsum plaster with no other reinforcement, suspended by $\frac{3}{4}$in. × 1in. × $\frac{3}{8}$in. × 16 G galvanized channel lathing bars at about 16in. centres carried by $\frac{1}{2}$in. × 2in. × $\frac{1}{2}$in. × 16 G galvanized main suspension channels at 3ft. 2in. centres from galvanized angle hangers at 3ft. 2in. × approximately 4ft. 0in. centres. The ceiling contains $\frac{1}{2}$in. bore all-welded steel pipecoils carrying aluminium alloy panels bonded into the plaster. A plain or rough under-finish may be employed.
Weight: Approximately 11 lb./ft.^{2} unheated, approximately 13$\frac{1}{2}$ lb./ft.^{2} heated.
Heating and Cooling: As tiled version. Both systems may be employed on the same water circuit.
Particularly suitable where a monolithic appearance is required of a sealed void such as Operating,Theatres, Fume Laboratories, etc.

This door is fitted with the **LANCER Model 7c** completely concealed single arm closer



Model 7C

Completely *concealed* in the closed position. Mortices snugly into the top of the door—can be completely *concealed* in a door of only 1$\frac{3}{4}$ in. thickness. Head channel has overall depth of only $\frac{3}{8}$ in. and can therefore be fitted not only in a solid frame but also in a nominal 1 in. lining. The closer embodies the well-known Lancer dual check control. A specially designed closer mounting plate which gives added strength to the top edge of a door is available for use with flush or similar type doors.

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Carpet laid by Messrs. Maples Ltd., Leeds.

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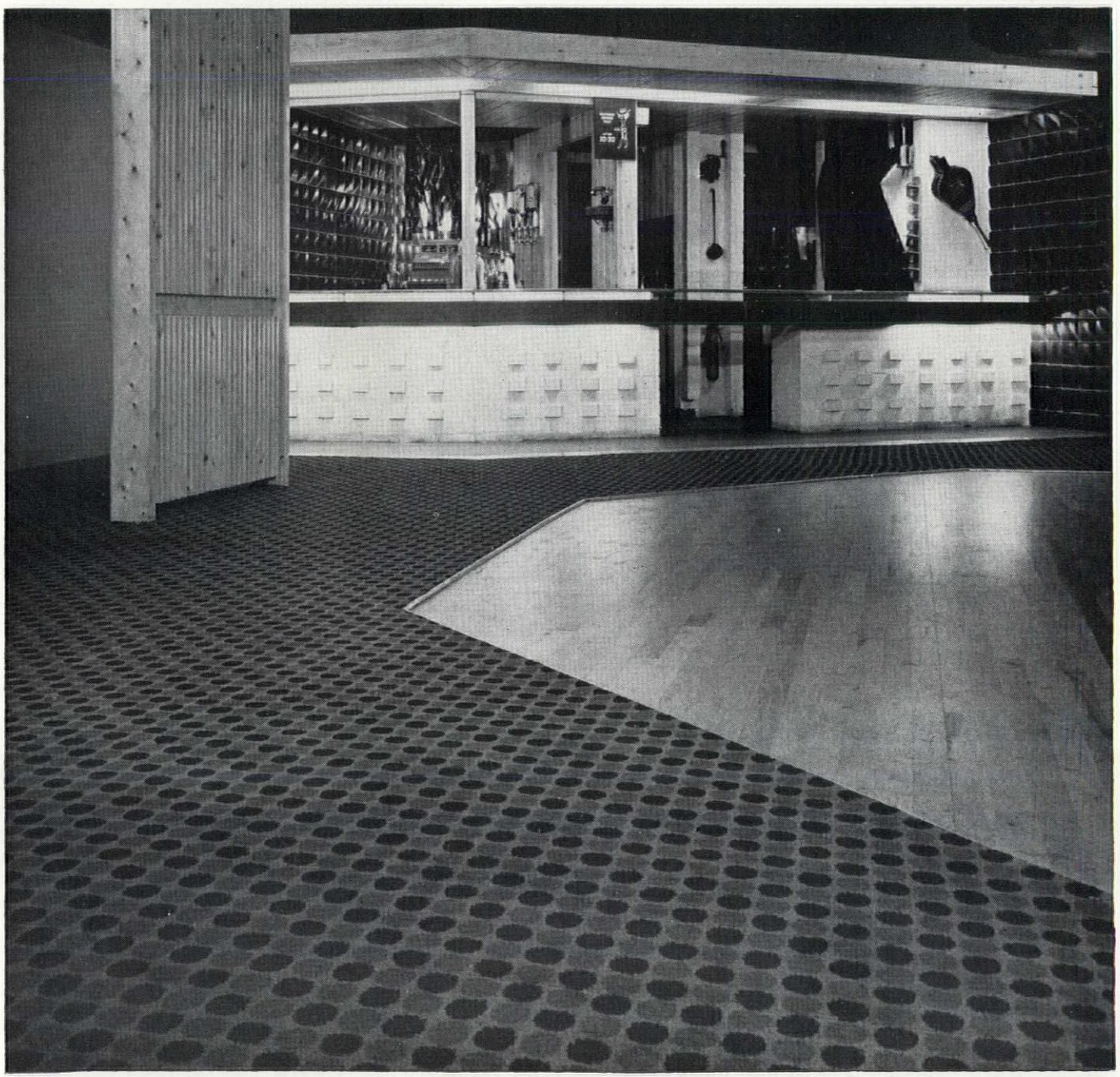



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Quantum Range





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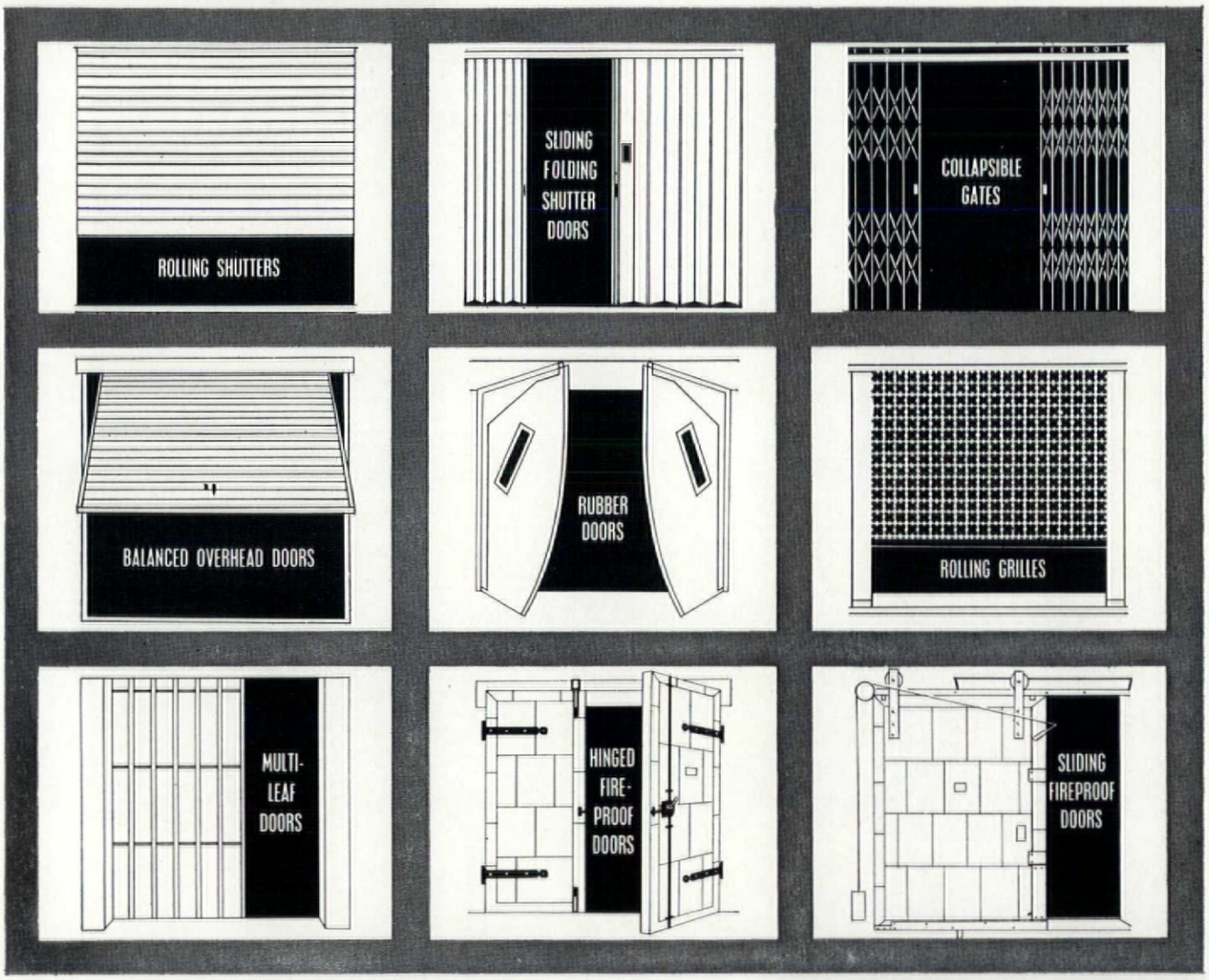
thinking of closing an opening?





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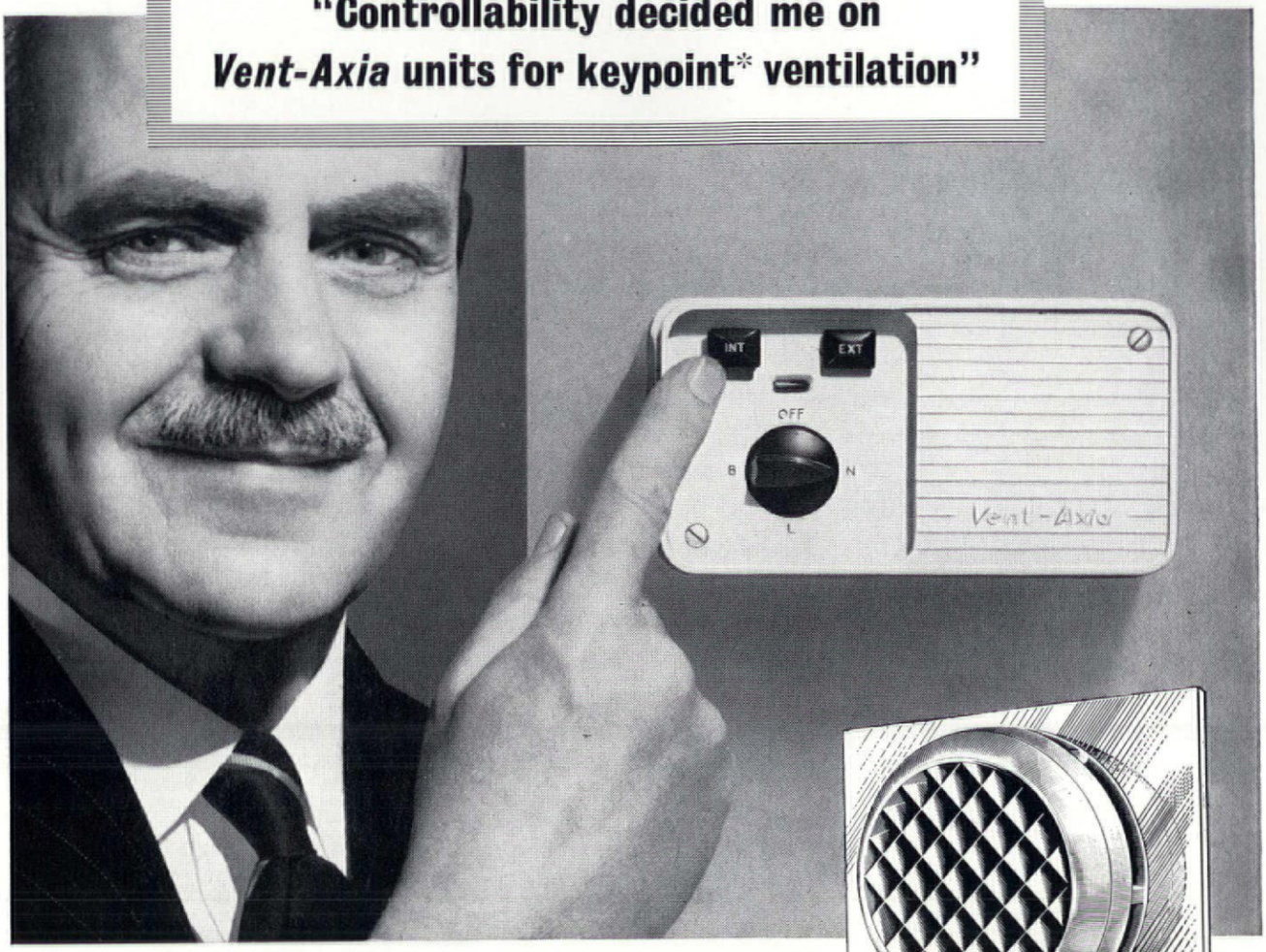

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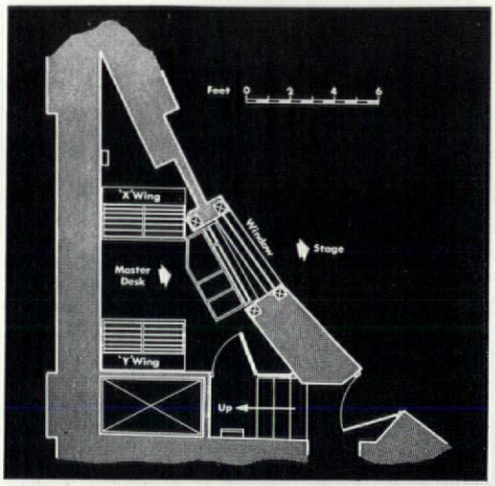

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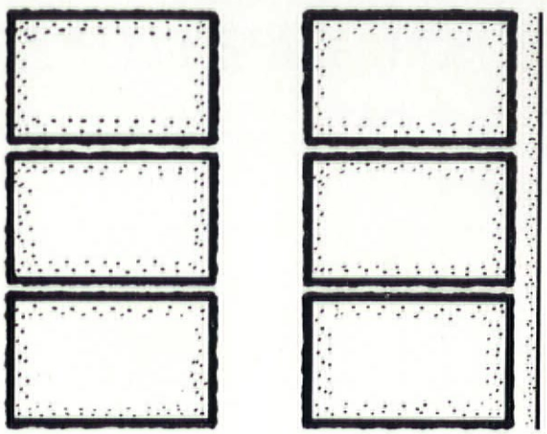

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inner skin 4½″ brick
with 2″ cavity

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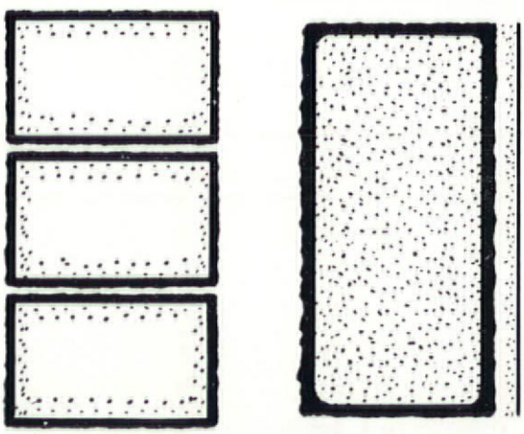

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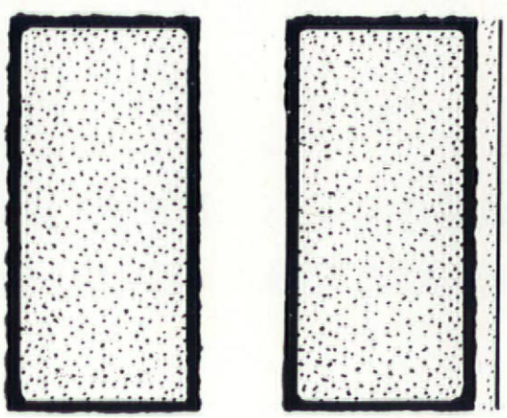

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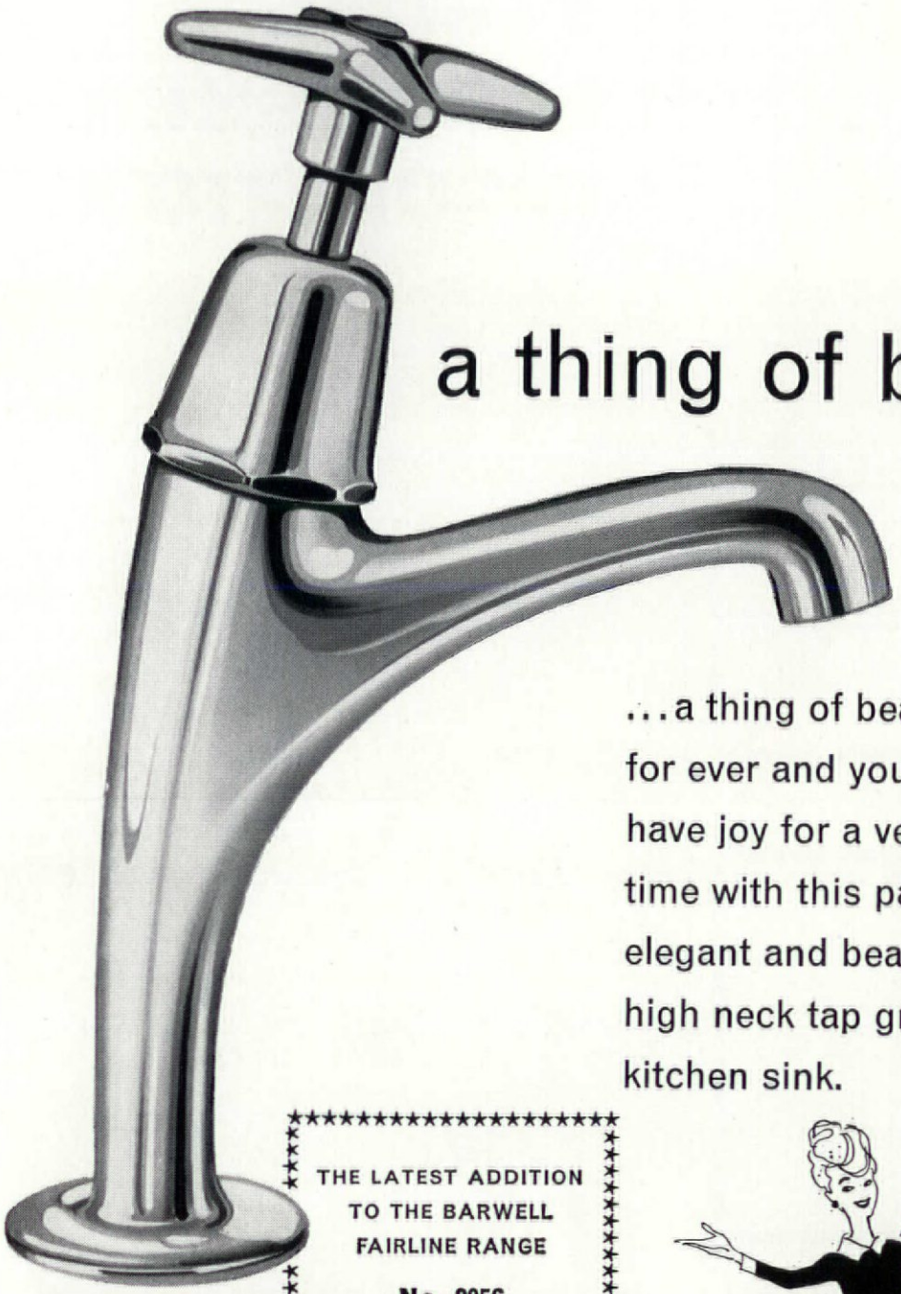

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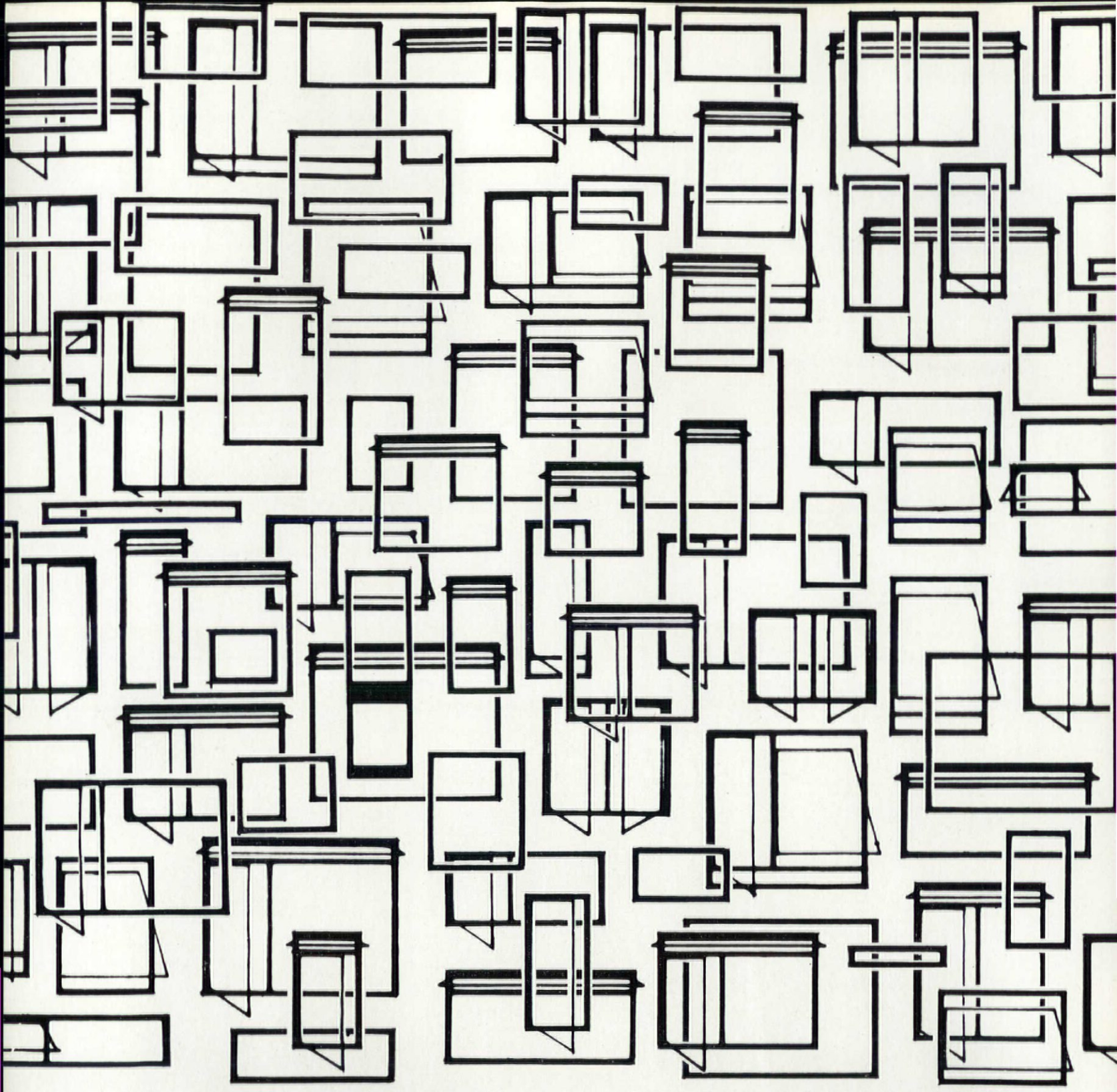

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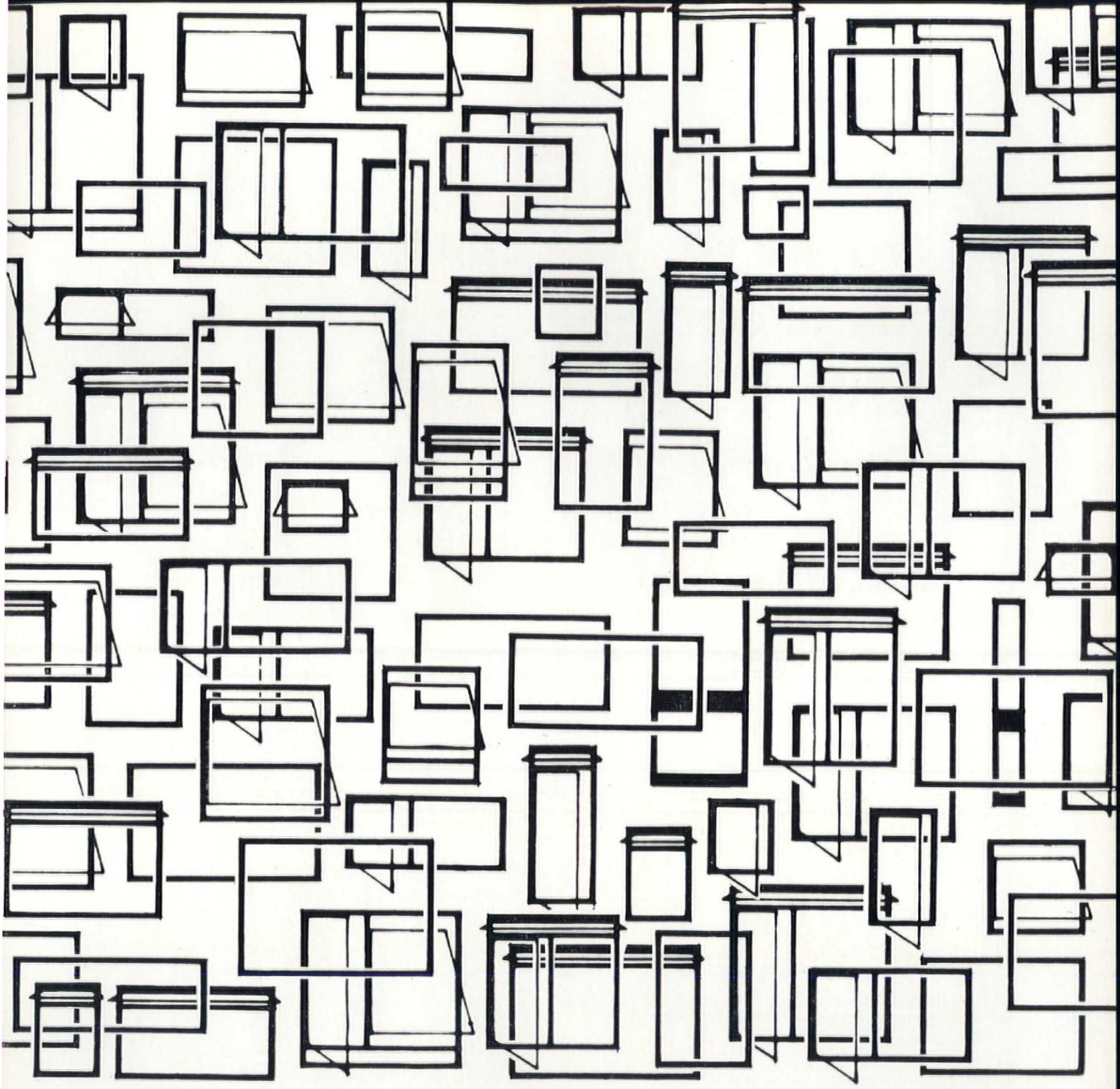

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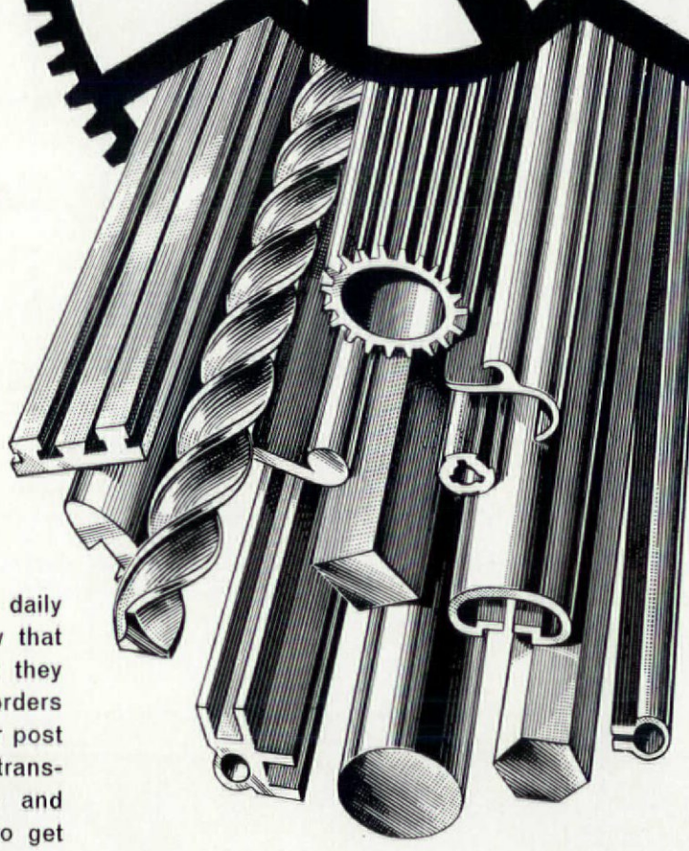

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The Designer: Jack STAFFORD has already won the Design of the Year Award, besides leading the field in the recent British Aluminium furniture competition. Perhaps the finest accolade on his achievements is the demand for his work in design-conscious Denmark...

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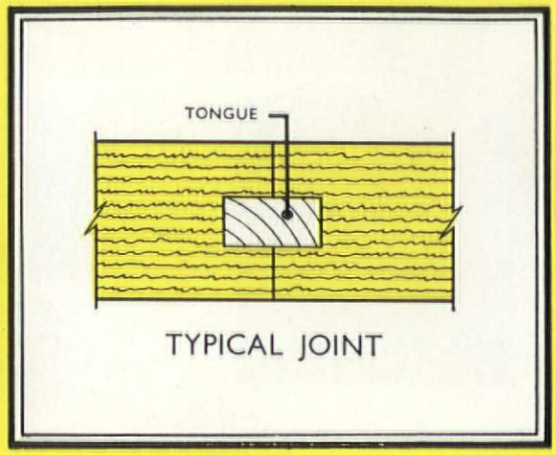

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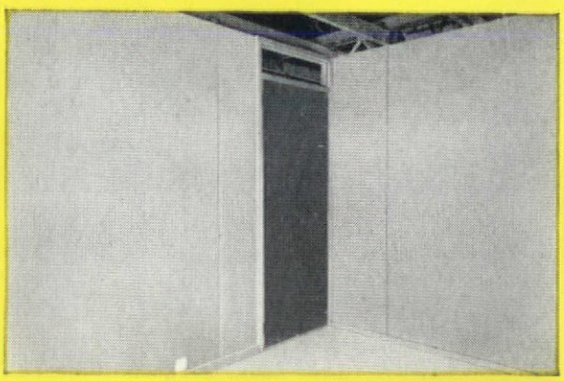
STOCK SIZES: Grooved Stramit is supplied in storey-height slabs 4ft wide x 2in thick. Special sizes made to order. Unlimited production capacity to meet bulk requirements.

LITERATURE: Technical literature available on request. Barbour Index File No. 225 or Gorco Bureau Section 21/7



Grooved Stramit partitions require framing at top and bottom only. They are particularly suitable for domestic buildings, or wherever flush partition walls are desirable.

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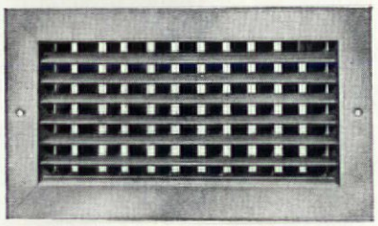

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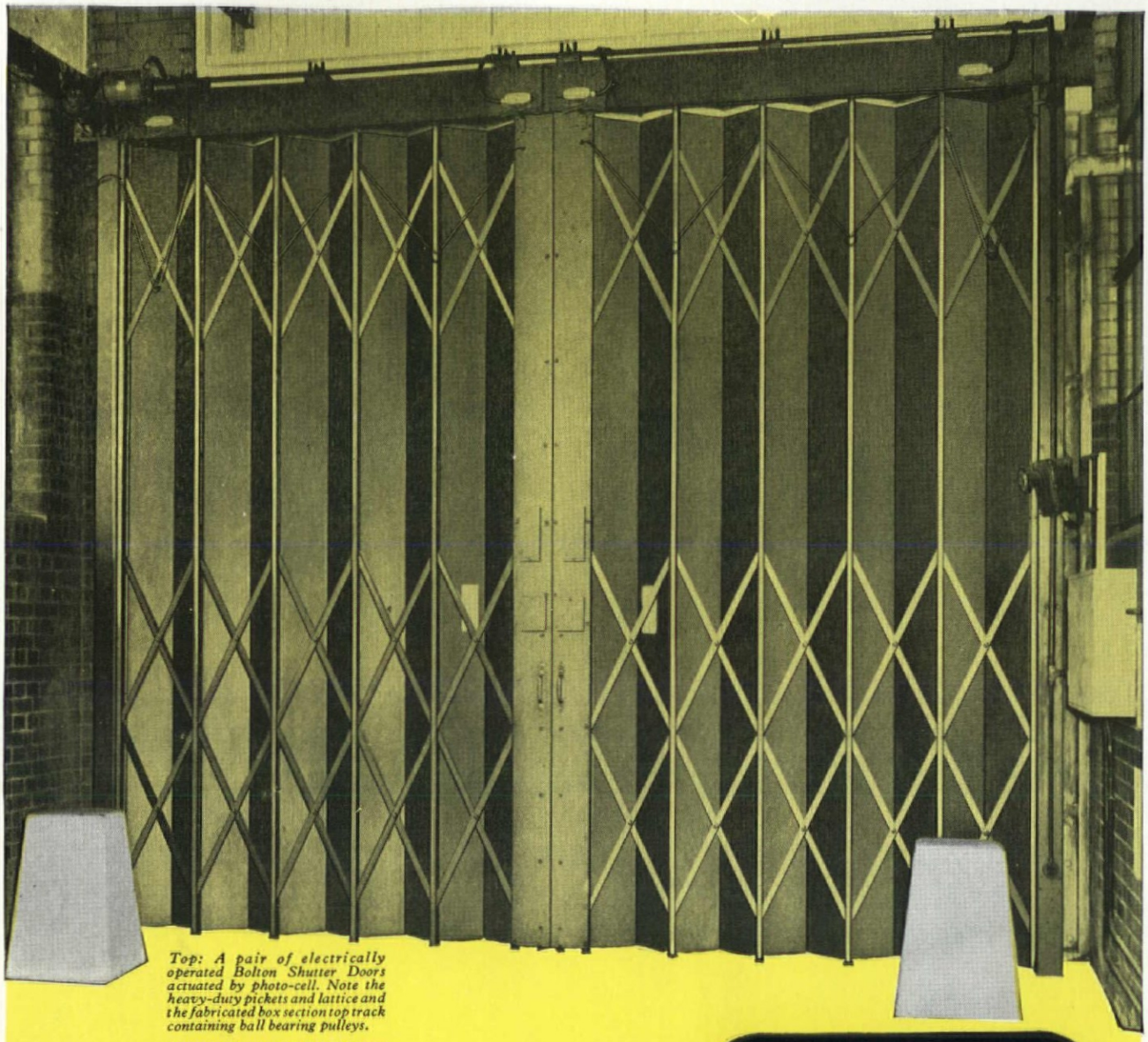

Top: A pair of electrically operated Bolton Shutter Doors actuated by photo-cell. Note the heavy-duty pickets and lattice and the fabricated box section top track containing ball bearing pulleys.

Bottom: A run of Bolton Shutter Doors with shutter leaves, cover plates and shutter fronts of aluminium alloy.

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SfB 32

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That's more than a claim—it's a statement of fact. A fact supported by these outstanding features.

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- ★ Shutter leaves of 16's gauge steel rust-proofed by the Sherardising process—superior to other methods because the surface is penetrated by the zinc coating. Ends of leaves rolled round $\frac{1}{8}$" reinforcing wire providing great vertical strength and perfect hinging.
- ★ Manufactured only from top-quality tested materials, Manganese bronze or aluminium alloy hinging strips. Doors built on $\frac{3}{4}$" to 1" steel pickets and $\frac{3}{4}$" x $\frac{1}{4}$" to 1$\frac{1}{4}$" x $\frac{3}{8}$" lattice. End panels, where required, fabricated from $\frac{1}{8}$" sheet steel.
- ★ Ease of operation and minimum maintenance ensured by totally enclosed, fabricated box-type top track and self-cleaning bottom track. Ten times faster in operation than other types of door.
- ★ Hand or power operated—a variety of push-button, floor pad and photo cell control systems are readily installed.
- ★ Available in a wide variety of finishes from cellulose to stelvetite plastic coated leaves. Remember, too, that Bolton Shutter Doors form a dust-resisting, draught-resisting and fire-resisting screen.

1 *A pair of electrically operated Bolton Shutter Doors more than 32 ft. wide and 17 ft. high at a bus depot.*

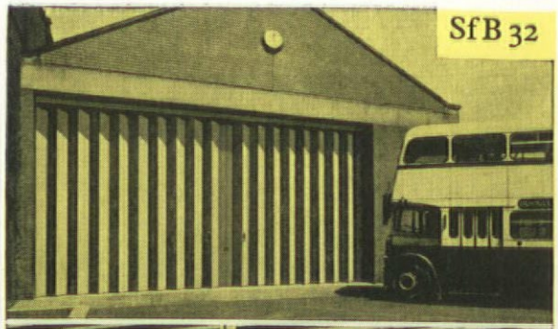
2 *A pair of Bolton Shutter Doors at Waterloo Station.*

3 *Two pairs of Bolton Shutter Doors at a British Railways maintenance depot — note the track clearance.*

4 *A Bolton Shutter Door on a private garage—arranged to bunch in either direction or to the centre.*

5 *Bolton Shutter Doors at Sutton Fire Station, Surrey. All the doors open automatically in seconds—actuated by a signal transmitted from the switch board receiving 999 calls.*

1



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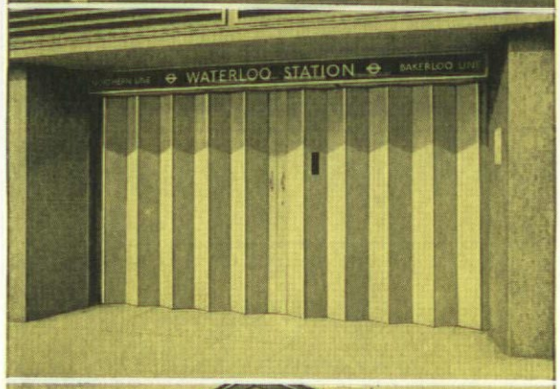

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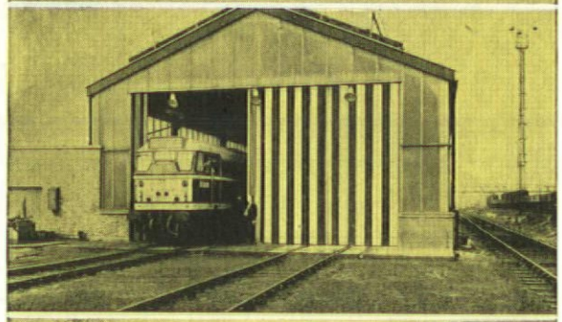

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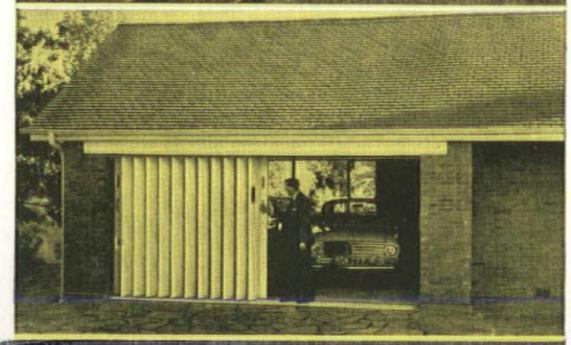

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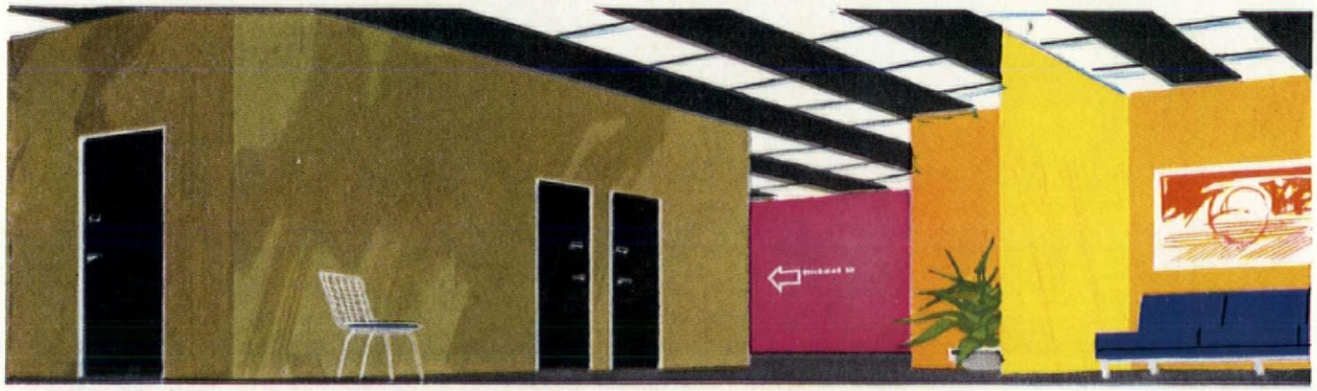

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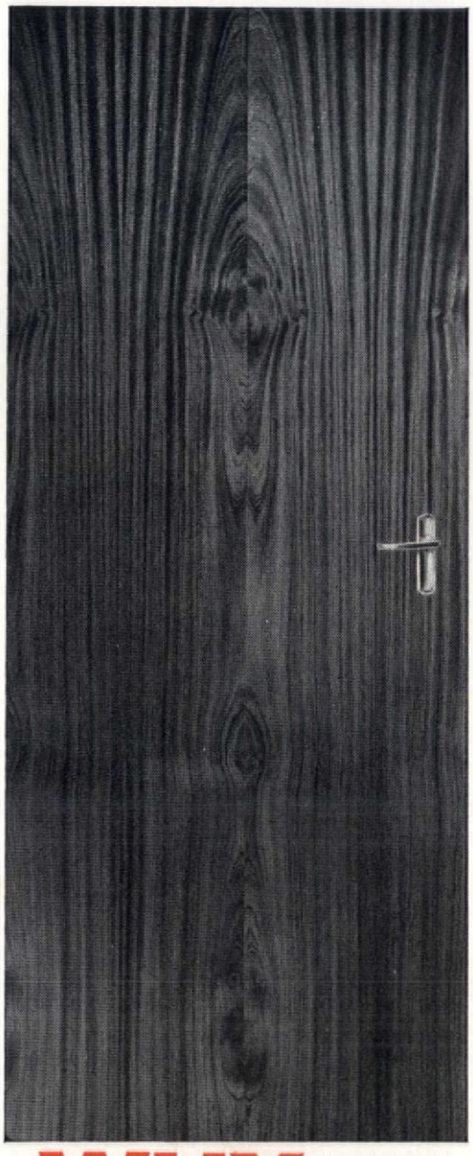

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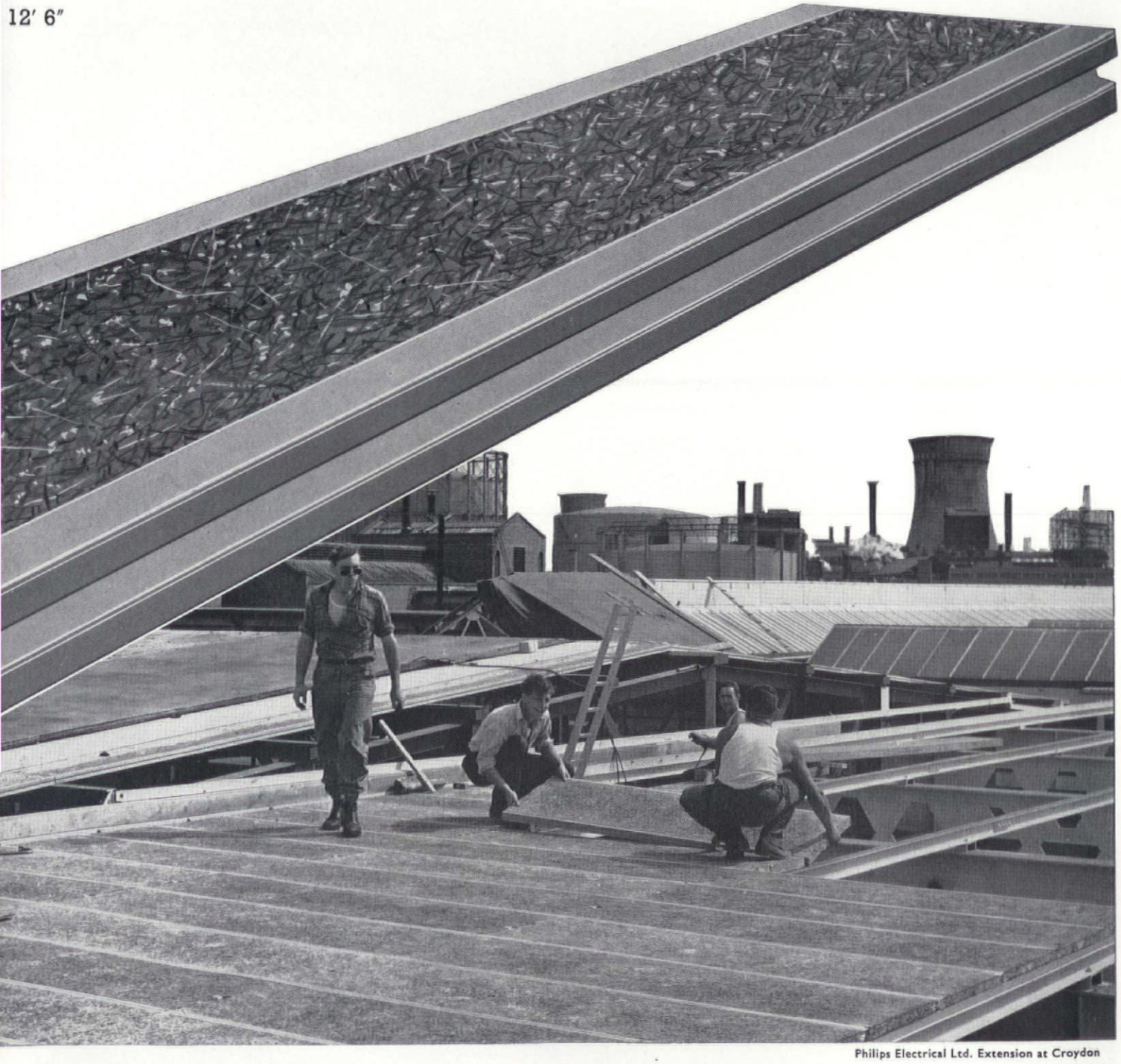

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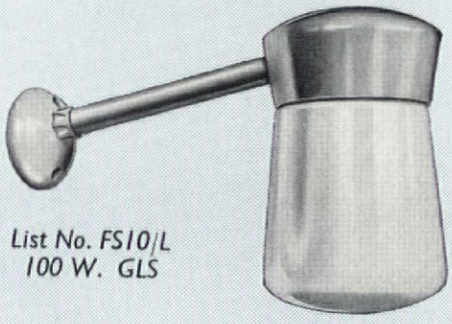

List No. FS10/L
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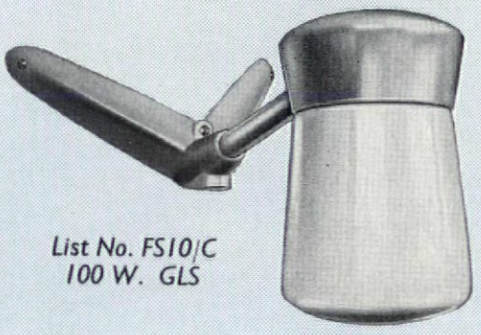
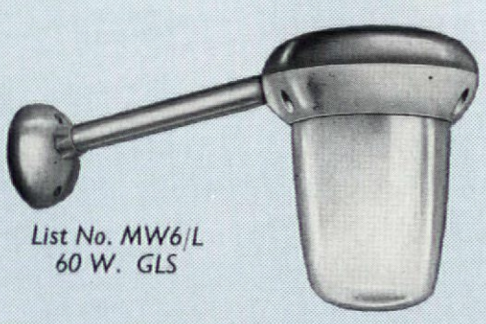


List No. FS10/C
100 W. GLS



List No. FS10/S
100 W. GLS



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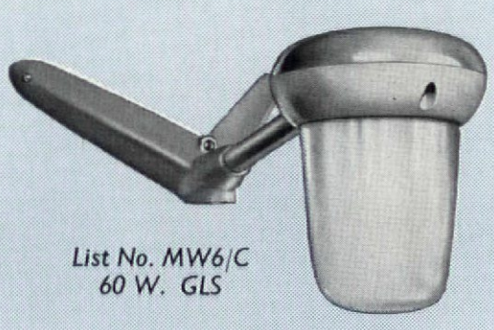

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List No. FS10/T
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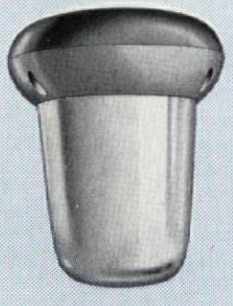

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Detailed Leaflet 17C sent on request

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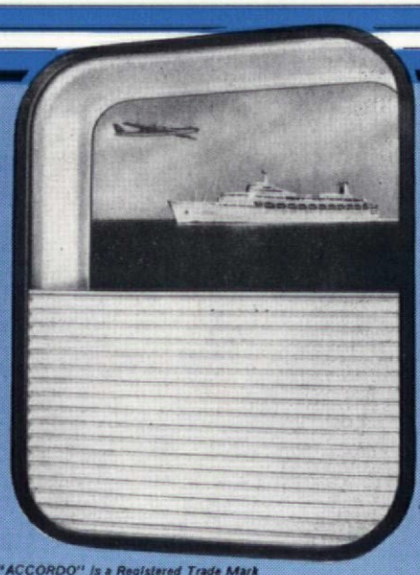

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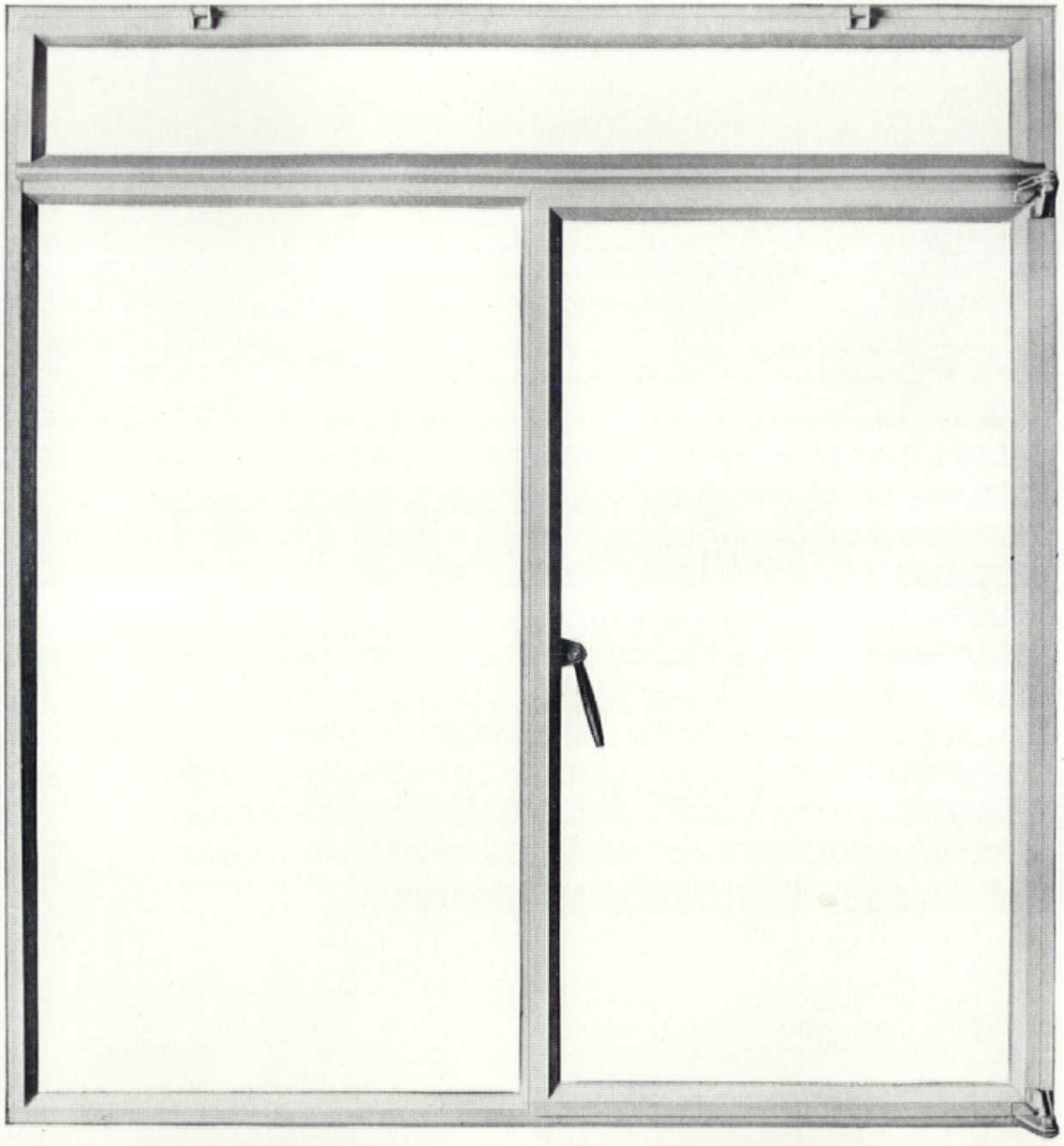
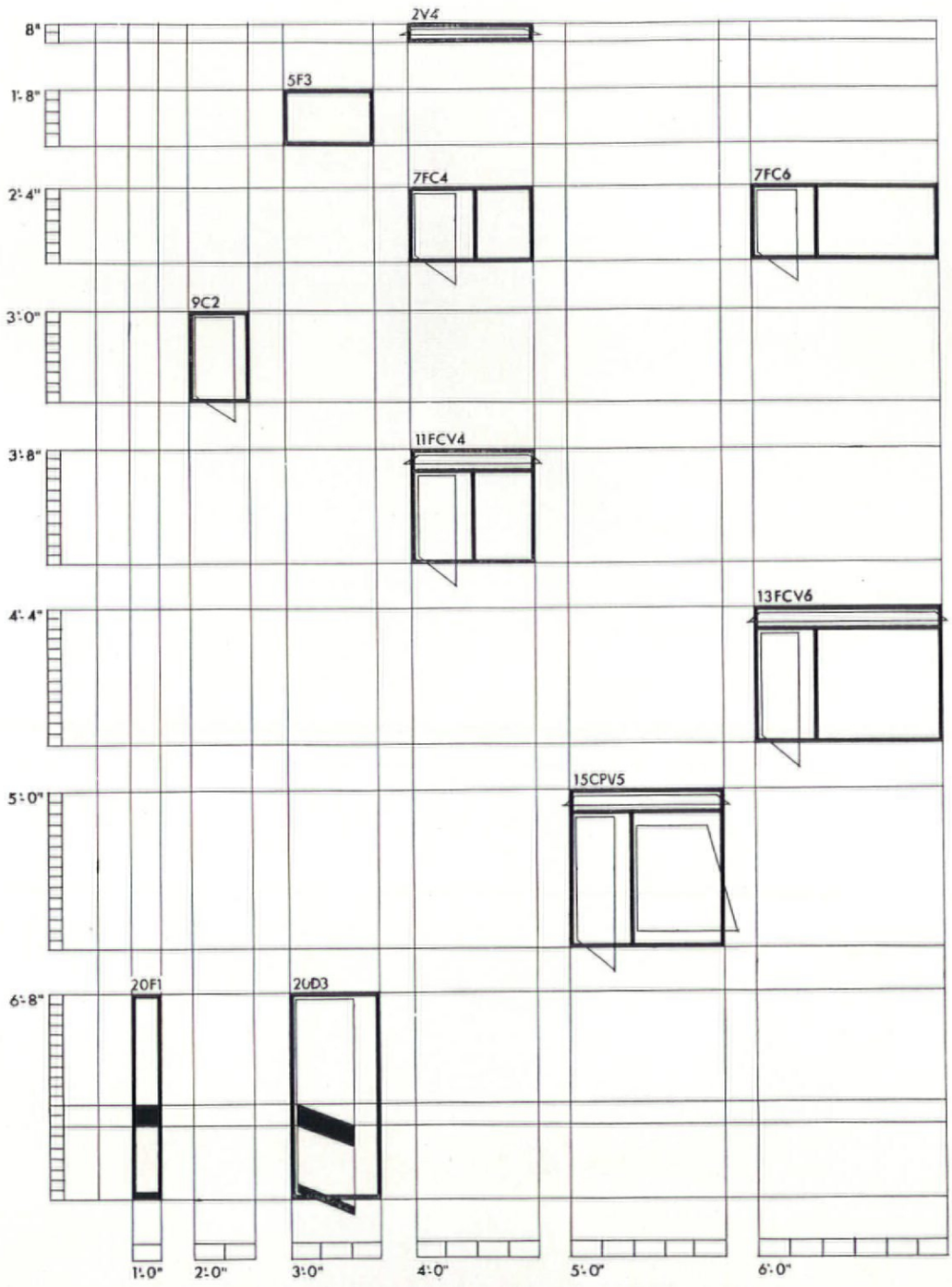


New proportions in standard steel windows



Now the Module 4 range brings modular co-ordination to window design

This is important news about the standard steel window. The Metal Window Association is introducing the Module 4 Range, designed by their consultant architects Edward Armstrong & Frederick MacManus. This range is new in its shapes, its design, its dimensions and new in that it conforms with DC1 and DC2 recommendations.

There are 135 basic types. The use of coupling members gives an almost infinite number of combinations.

The Module 4 range is made of steel, so it is tough and durable. Hot-dip galvanizing makes it completely rust-free and the whole range can be supplied weather-stripped. Modern line production keeps the cost right down.

February 1965 is the first delivery date. As the range conforms to modular dimensions specification is easier as all types and composites will fit into modular openings.

If you want to know more about the Module 4 Range of standard steel windows, write for a data sheet to

The Metal Window Association Ltd., Dept. No. J. 2. Burwood House, Caxton Street, London, S.W.1

MODULE 4

N.B. The Module 4 Range conforms to the 1962 RIBA Council Recommendation on the use of the 4 in./10 cm module for industrially produced building components as described in RIBA Industry Note 3.



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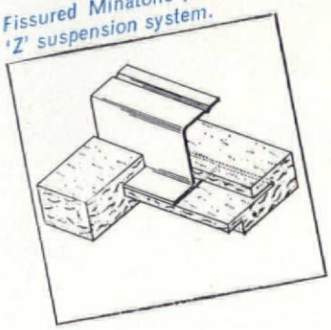
Fissured Minatone fitted to a 'Z' suspension system.



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AT41

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For sizes larger than 50″ x 70″, for one-off purpose-made windows where the added clarity of Float or Plate glass is required, or where the added strength of thicker glass is needed specify the "Insulight" Mk VI metal edge. These are made by special techniques, which Pilkingtons have developed, to give a triple seal and have a metal-sheathed edge to give complete protection. Mk VI units are available up to a maximum superficial area of 88 square feet in 1/4 inch Float or in larger sizes in 3/8 inch Clear Plate.

Mk VI units, which are purpose-made to individual order, can also be supplied with combinations of specialised glasses, e.g. incorporating "Antisun" heat-absorbing glass or various types of obscured glass.

Both types of unit are efficient insulators. Glastoglas has a nominal 'U' value of 0.62 Btu and Mk VI units have values down to 0.52 Btu, dependent on the width of air space. For full technical details and any guidance needed on the selection of types for a particular use please telephone or write to your nearest Pilkington office or depot.

"Insulight" is a registered trade mark of Pilkington Brothers Limited. Supplies will be available through the usual trade channels.

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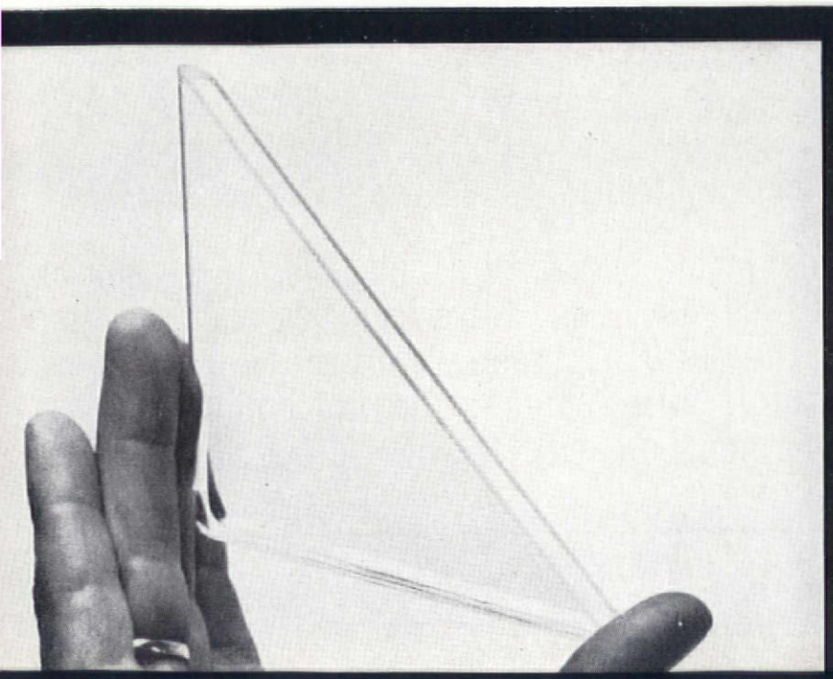

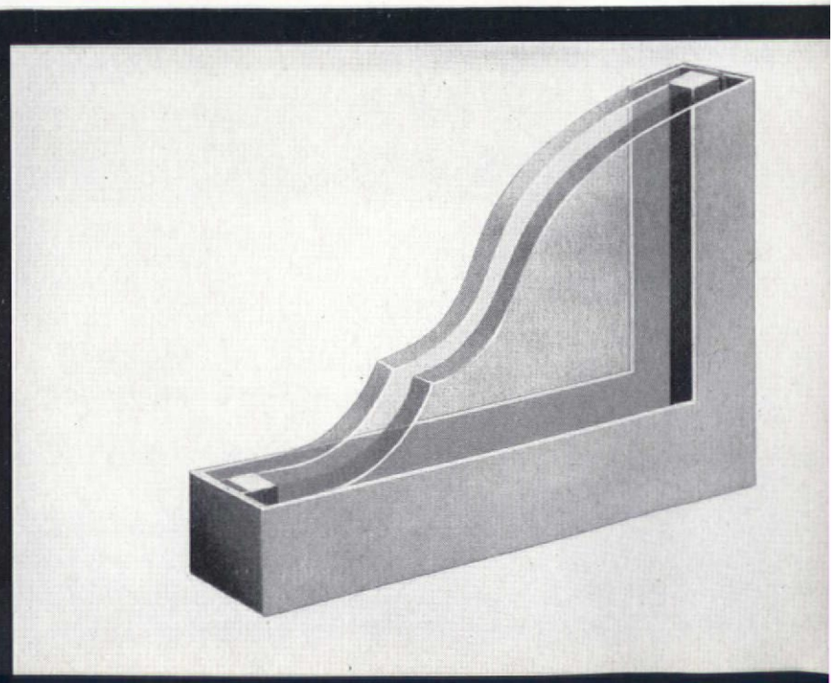



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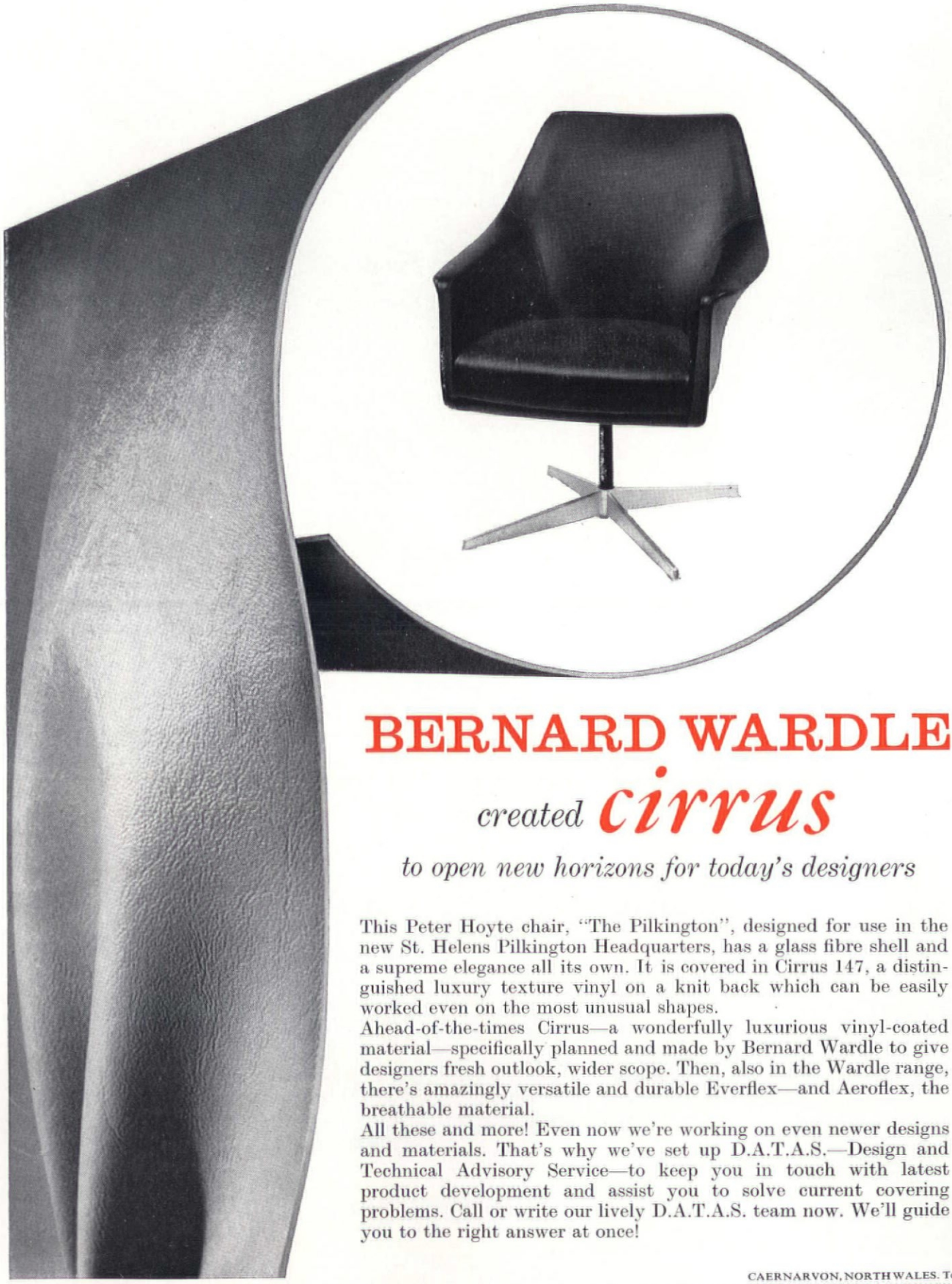

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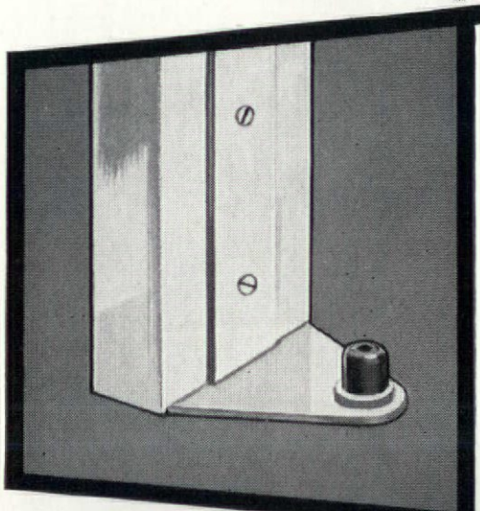

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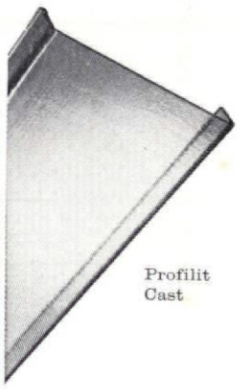
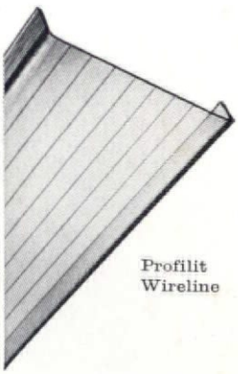
Continuous walls of Light

with 'PROFILIT' GLASS



Profilit
Cast



Profilit
Wireline

Glass plays a dramatic part in the new I.C.T. Building at Stevenage. 'Profilit' sections form continuous glazed walls of exceptional length without the need for glazing bars, flooding the interior with light and helping to maintain the dust-free atmosphere which is essential to a modern laboratory. In a climatic room, where computers are tested under varying conditions of service, the advantages of double-glazed 'Profilit' are utilised. Clark-Eaton, the Specialist Fixers, have unrivalled experience in the detailing and installation of 'Profilit' and can help you to make the most of its valuable characteristics. Please ask for literature DP3.

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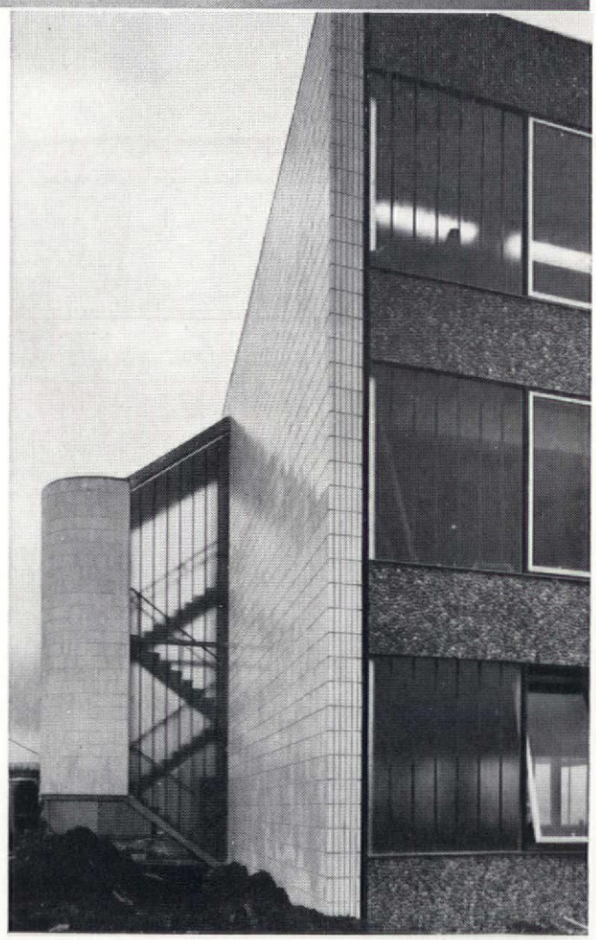



CLARK-EATON

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TENONFLEX

DEMOUNTABLE PARTITIONING

Barbour Index 21
ASC SfB (22



Self-retaining alum-inium beads allow glass of any pattern and substance to be fitted into Tenonflex double glazed units. The advantages of natural lighting are preserved — without jeopardising privacy or sound insulation. The system is manufactured and erected by:

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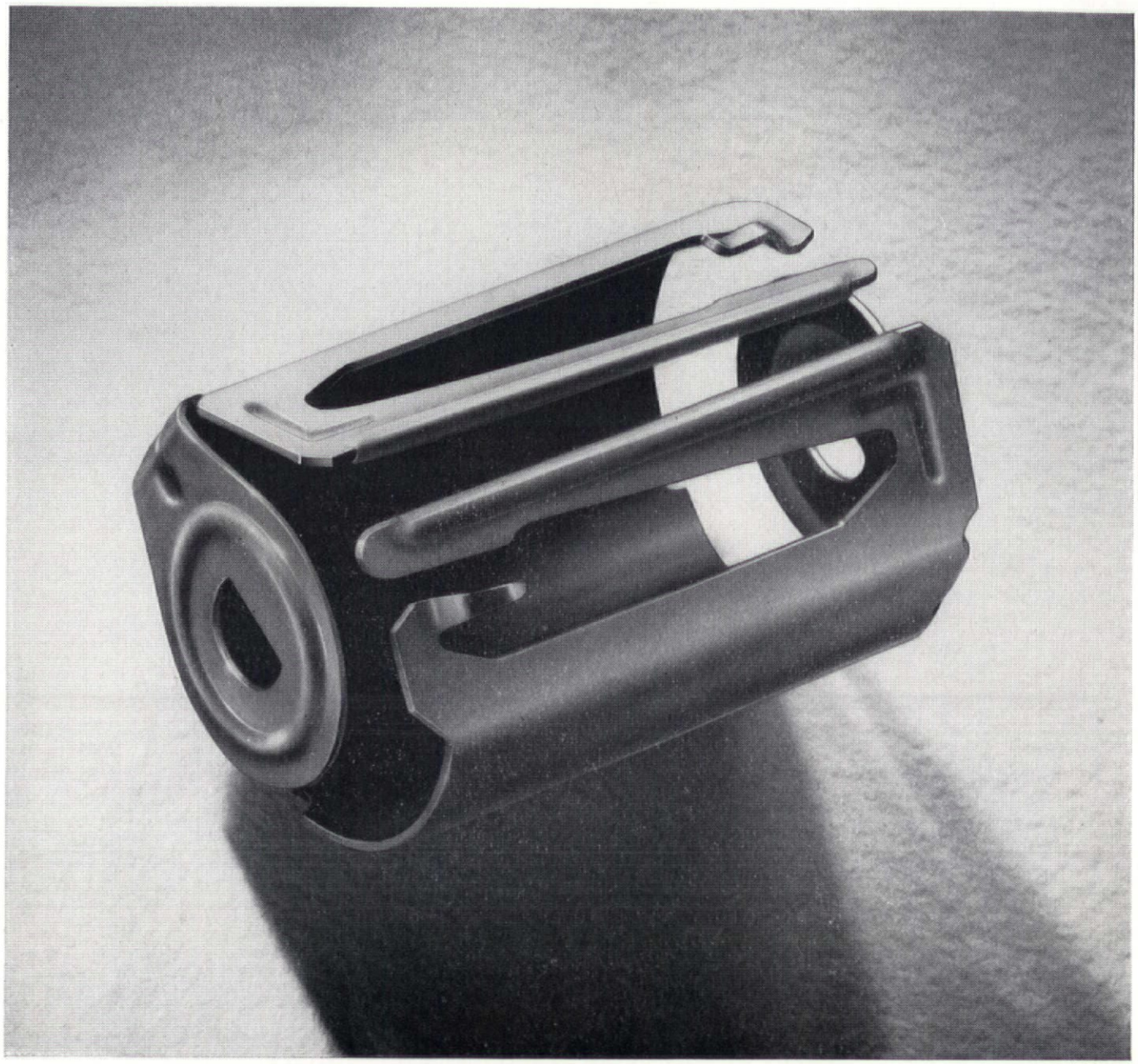
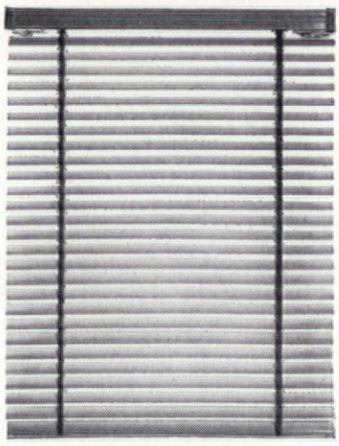


Your client will never see this part of his venetian— so why is SEAWRIGHT so proud of it?

This is the tape drum for a Levolor SEAWRIGHT venetian blind. It will not—*it cannot*—fray tapes, because the finger on the drum folds over on itself, presenting a smooth, round radius. It has only one finger, too, giving perfect weight distribution. Tape life is therefore measurably increased with this SEAWRIGHT component.

So why are SEAWRIGHT so proud of it? Because it exemplifies the attention to detail given to *every* part of *every* Levolor



SEAWRIGHT Venetian Blind. It is made of heavier gauge metal than most other drums, it prolongs the overall life of the unit, it is itself protected by anti-corrosive material.

SEAWRIGHT know a great deal about blinds—Venetian and otherwise. Before you specify, send for the SEAWRIGHT Architect's Manual. *Now.*

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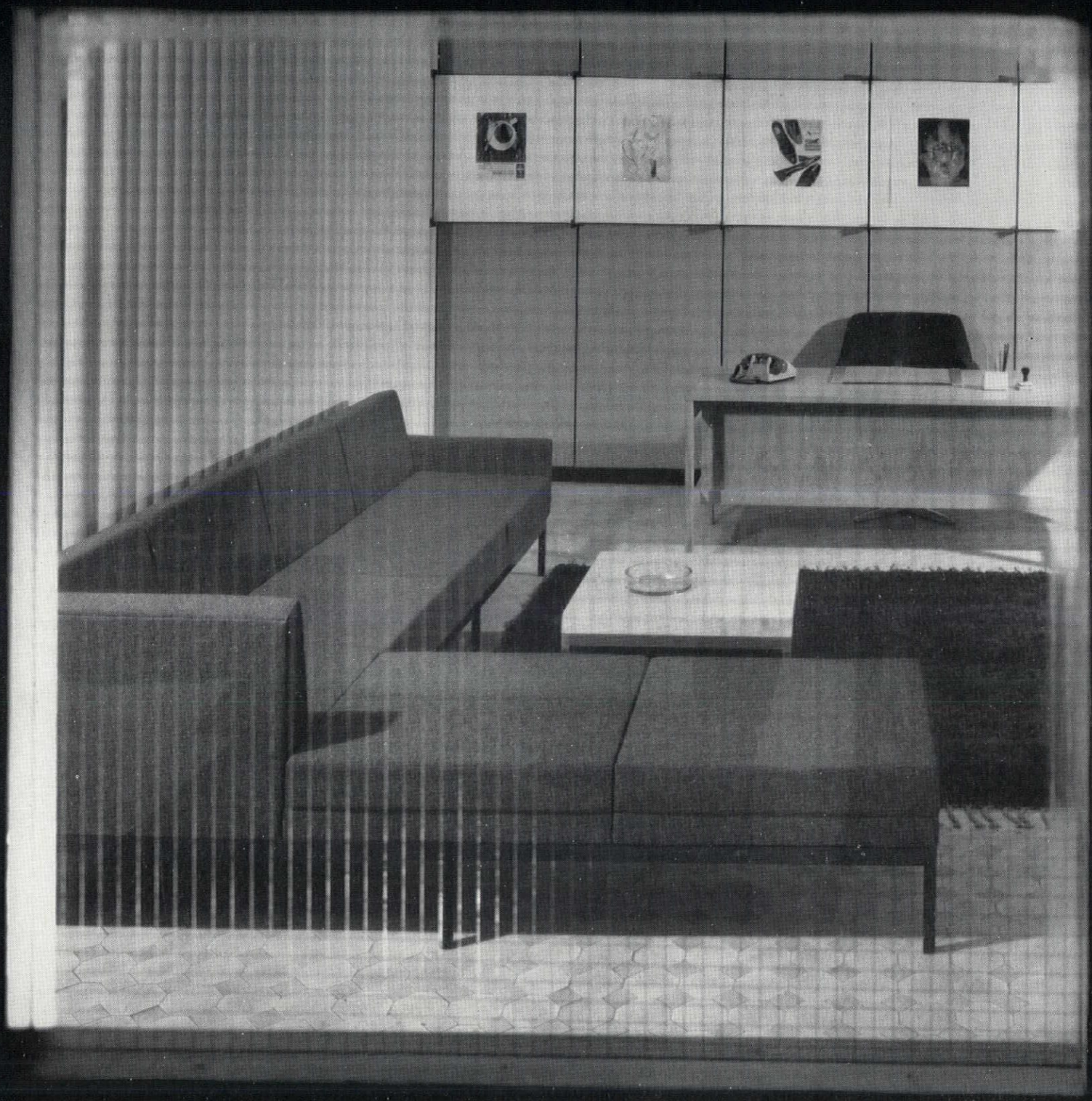

private view

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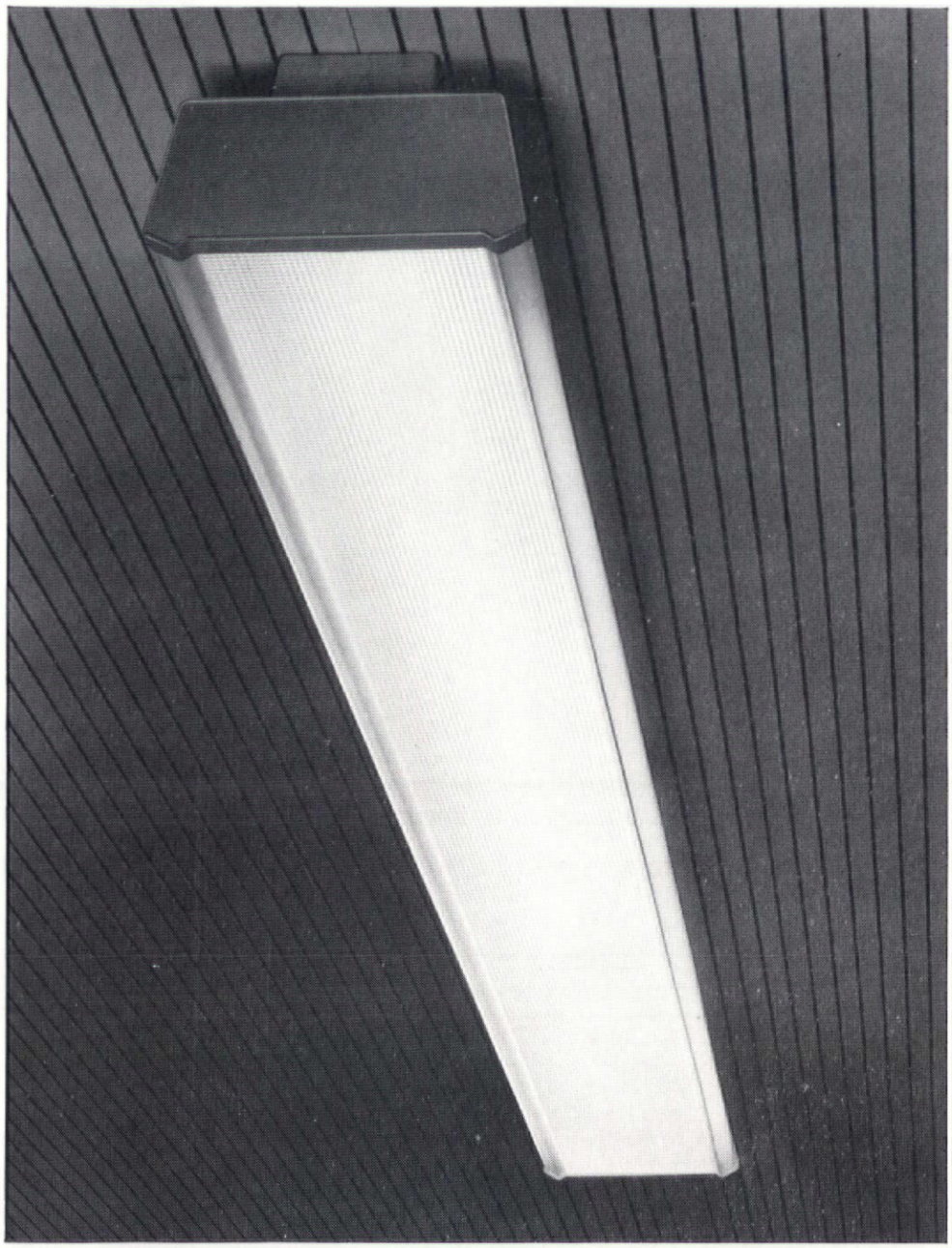
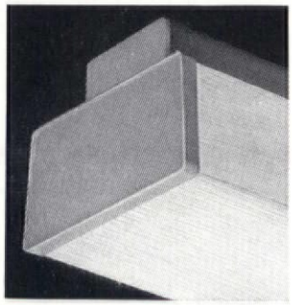
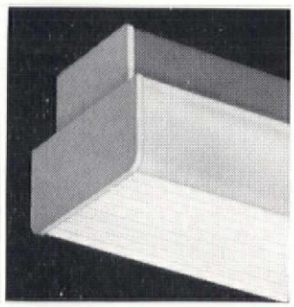


A3D series This new truly efficient prismatic diffuser has extruded opal sides and a prismatic bottom to give a high light output with minimum glare.

A3C series An extruded opal diffuser, reeded on the outside for good looks and easy cleaning. The design also features detachable clip-on white plastic end plates.

A3E series A two-tone, opal-sided and reed bottomed diffuser, **just** one of the many new attractive designs in the Atlantic 3 range.





atlas atlantic 3

with a new truly efficient prismatic diffuser!

The Atlas prismatic diffuser successfully combines a high light output with minimum glare. It is one of a number of diffusers in the new Atlas Atlantic 3 range of fittings, which represent the very latest and best in fluorescent lighting design.

This Atlantic 3 range is primarily for use in commercial and industrial installations, where efficiency and appearance are the most important considerations.

The spine contains many new features that have been designed to cut installation and maintenance time and costs—including such innovations as a side entry fuse; a quick-fix lampholder assembly and a new rocker-lampholder. The Atlantic 3 also features the current saving 'Super 5' 65w. and 'Super 8' 85w circuits.

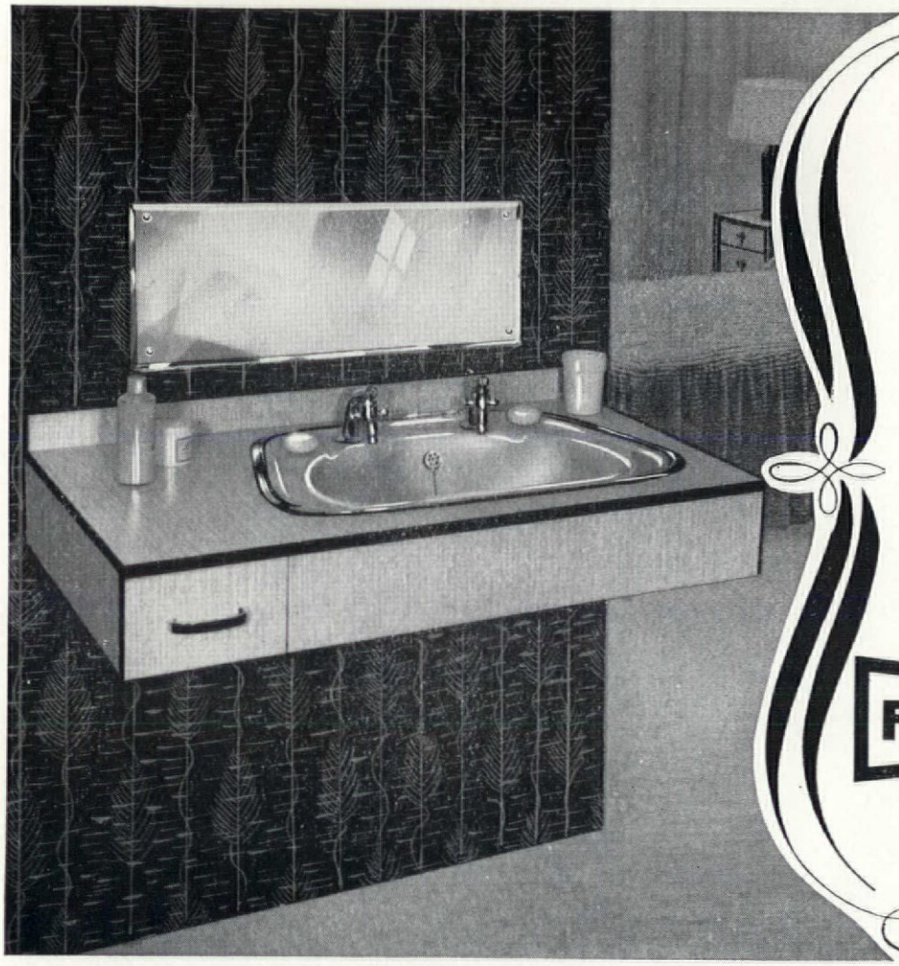
8 OTHER ATTACHMENTS

In addition to the prismatic diffuser, the Atlantic 3 range features 8 other attachments that have been designed for use on single and twin-tube 4 ft., 5 ft. and 8 ft. fittings.

atlas lighting

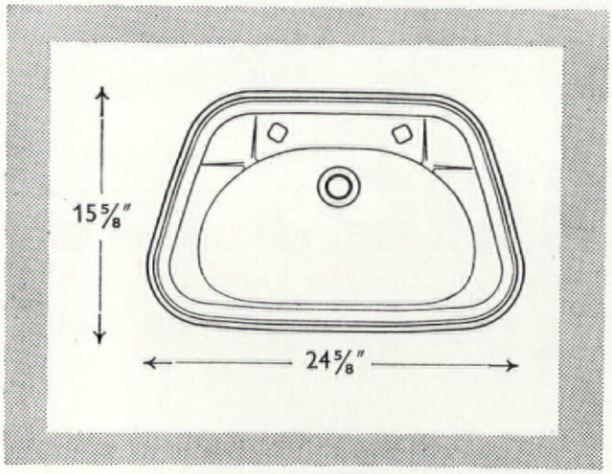
Atlas Lighting Limited, Thorn House, Upper Saint Martin's Lane, London WC2
A subsidiary company of British Lighting Industries Ltd.

DTV



Basins for vanitory units by

FISHOLOW



SPECIALLY DESIGNED for flush fitting, the modernly-styled Fisholow Basin is ideal for Vanitory Unit installations in bathrooms, bedrooms, cloakrooms etc.

Available in either white, cream, green, blue, primrose, turquoise or coral pink vitreous enamel, and surrounded by a polished stainless steel fixing rim, the basins have integral overflows and can be pierced either 4″ or 8″ centres for pillar or mixer taps.

Overall Dimensions 15⅝″ × 24⅝″.

Supplied complete with template, polished stainless steel surround, sealing strip, cam-action clamp assemblies, chainstay assembly and installation instructions, all packed in a strong cardboard carton. External measurements 25″ × 17″ × 9″. **Price £5.15.0**

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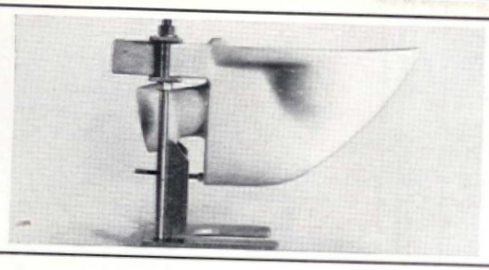
adamsez

Adamsez supply their C411 corbel, rimless WC with a special cantilever stand for installations where a clear floor is required but the back wall is inadequate for supporting the pan.



The wall and floor are built around the stand so that the effect is that of a normal corbel. A special socket trap permits jointing from behind, or the fitting can be supplied with an ordinary spigot P-trap. The fitting shown is adult size (14" high). Also available for juniors with 12" high pan.

For more detailed information on this and other developments in the interests of better sanitation telephone or write to:
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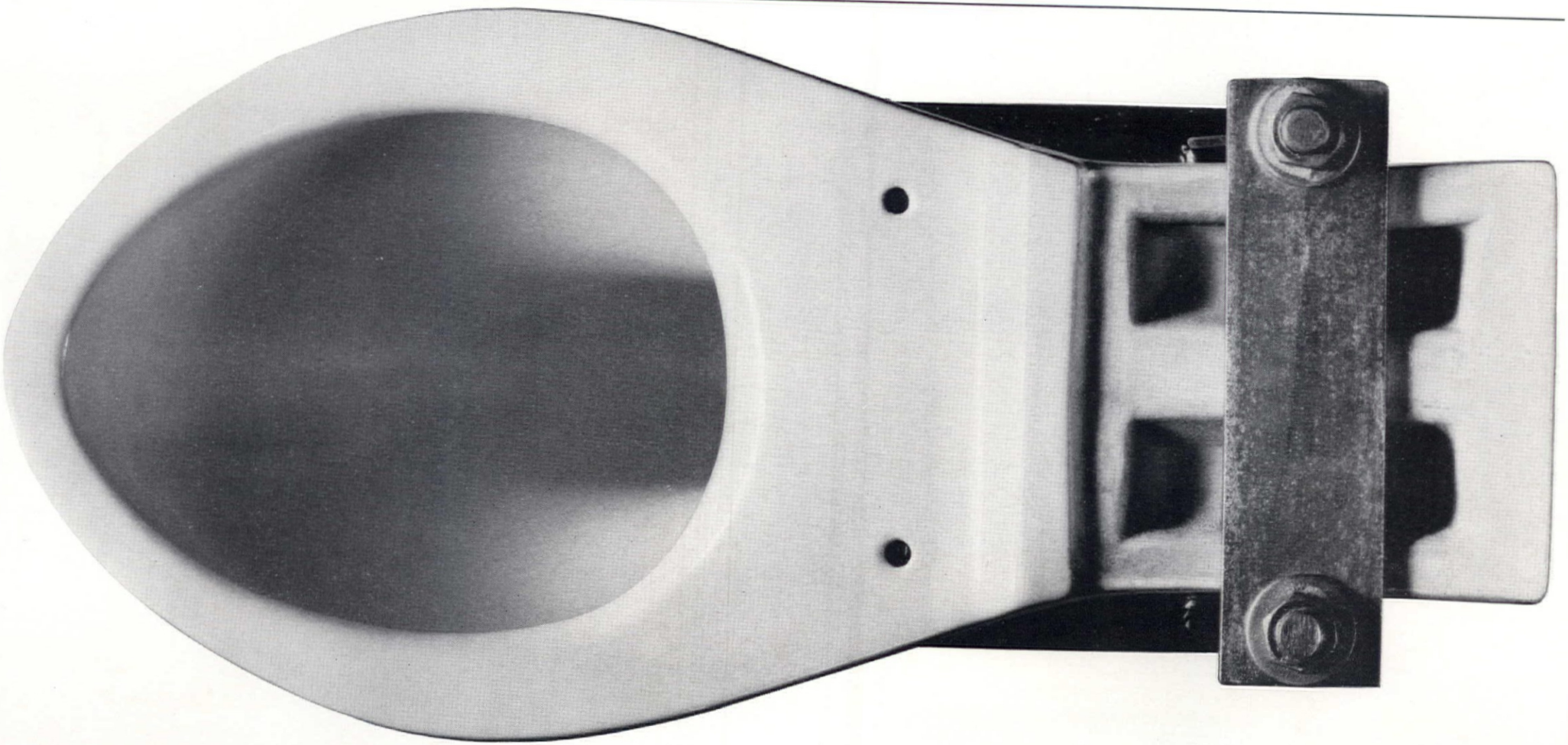
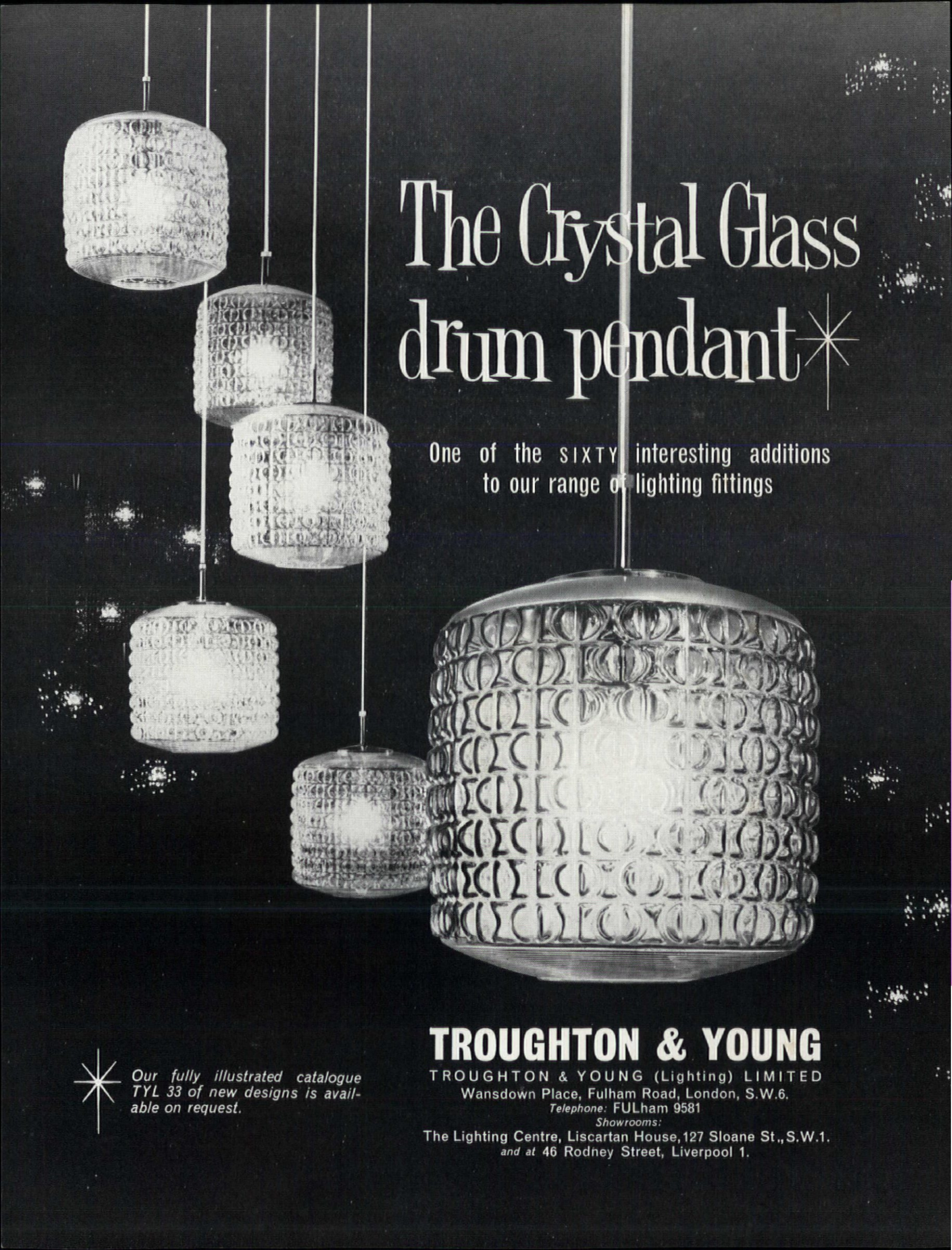
75 Victoria Street London SW1
Telephone: Abbey 5846/8
or Fireclay Works, Scotswood-on-Tyne
Telephone: Newcastle 67-4185/6/7





Our fully illustrated catalogue TYL 33 of new designs is available on request.

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UK news

Terence Bendixson

Museum

In 1928 the Royal Commission on Museums and Galleries stated that the expansion of the British Museum library was urgently needed. Only 37 years later something is happening. At the Government's behest Sir Leslie Martin and Colin St. John Wilson have prepared an outline scheme to meet the Museum's needs, and the Minister of Public Building and Works has approved it. The new buildings **1** are grouped in two powerful blocks flanking Hawksmoor's Church of St. George, and the piazza in front of the Museum has been extended to give it a scale more in keeping with Smirke's formidable Ionic portico. As a result the Museum will be visible from Bloomsbury Way and approachable on foot via the flanks of St. George's. Under the piazza will be parking and a link between the two new buildings—the library to the east and an exhibition building to the west. The present bookishness of the Museum precincts will be kept by providing for shops and offices in the westernmost block. This courtyard building which has façades stepped out on fins in the manner of Sir Leslie's Caius College court will also contain 106 flats. It is hoped to start work in the 1970s.

Churchill College

The married students' village, two groups of residential courtyards and the major social buildings **2** of Richard Sheppard's Churchill College are complete. The contrast between its slowly unfolding plan and tweedy finishes and the clearly stated silkiness of Jacobsen's St. Catherine's could not be stronger. Churchill is much larger. The hall, with overtones of baronial splendour in its triple-barrel vault roof, the lavish suite of common rooms and the informal courtyard planning all serve to create an ambiance that has the introvert expansiveness of older colleges.

Architectural Review September 1964

Palaces are for fun

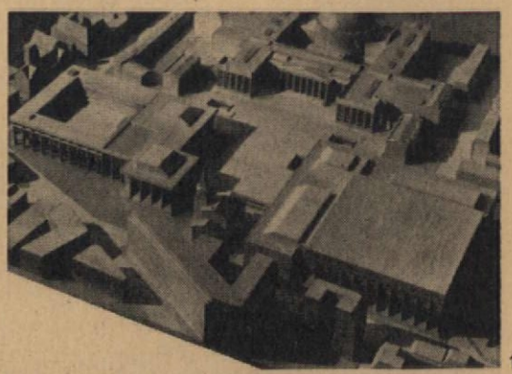
Arrive and leave by train, bus, monorail, hovercraft, car, tube or foot at any time *you* want to—or just have a look at it as you pass. The information screens will show you what's happening. No need to look for an entrance—just walk in anywhere. No doors, foyers, queues or commissionaires; it's up to you how you use it.

Choose what you want to do—or watch someone else doing it. Learn how to handle tools, paint, babies, machinery, or just listen to your favourite tune.

What time is it? Any time of day or night, winter or summer—it really doesn't matter. If it's too wet that roof will stop the rain but not the light. The artificial cloud will keep you cool or make rainbows for you. Your feet will be warm as you watch the stars . . .! This is Joan Littlewood's 'First Great Space Mobile' or Fun Palace, **3**. Cedric Price, who is working with Frank Newby on turning the idea into architecture, envisages the palace as a shipyard-sized assembly of steel lattice constantly being adjusted to satisfy the changing demands of its users. Everything would be flexible and movable, even the lift towers and escalators. This is the tradition of the new given architectural form.

London guide

Ian Nairn, in his *Modern Buildings In London*, published by London Transport at 5*s*., pushes through the city's architecture with the breeziness of a big red bus dodging minis at Hyde Park Corner. Two hundred buildings from Stevenage to Crawley are made as tasty as draught Bass.



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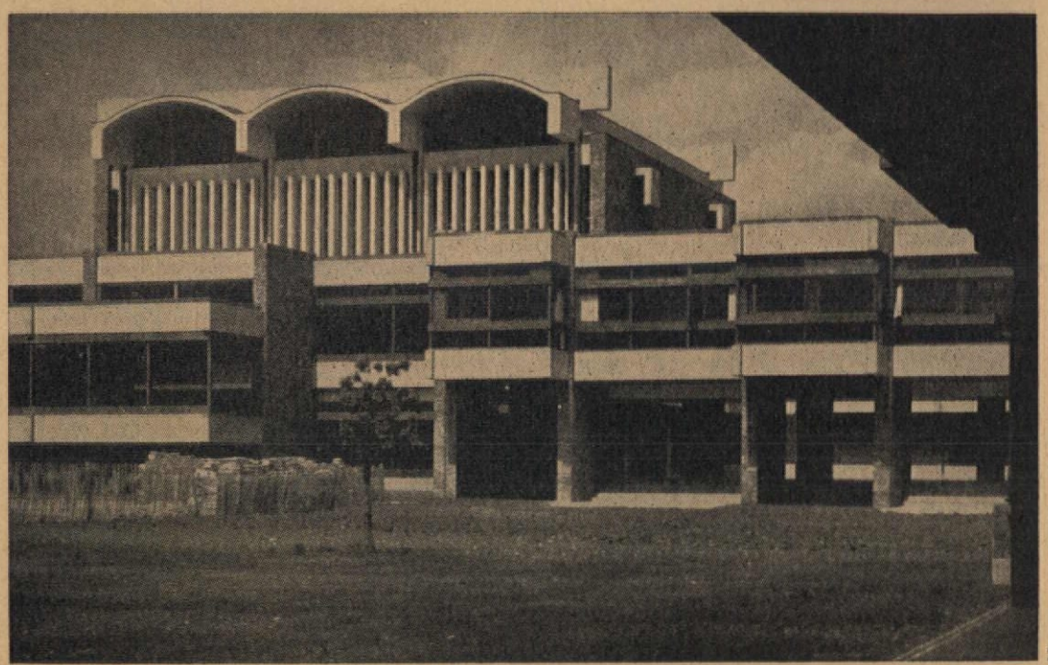

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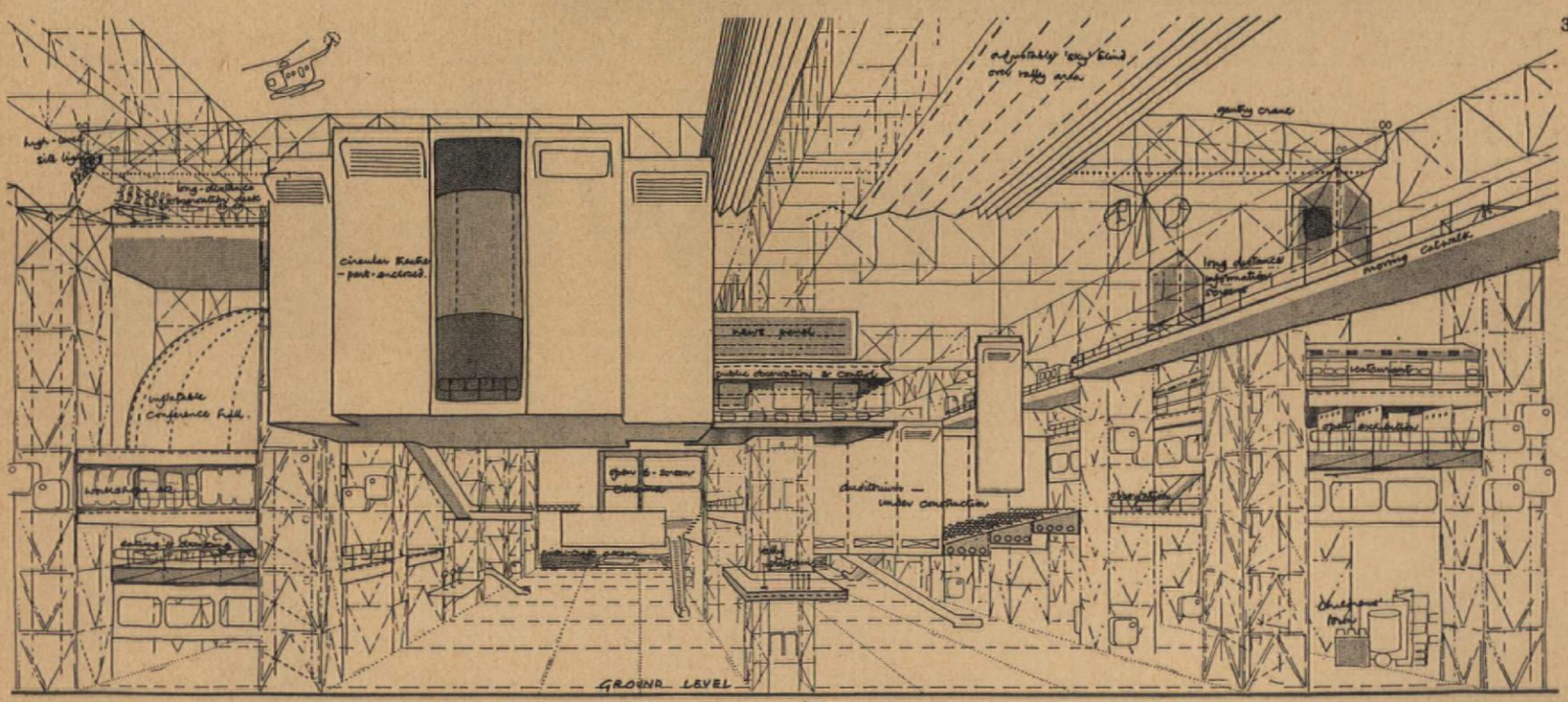


3



newflex

Newflex is an entirely new type of cable gear incorporating a unique swivelling thrust design that ensures a direct thrust on the windows throughout the opening cycle.
Neat in appearance and efficient in operation Newflex is designed to operate up to 4 lights from 1 gear box, giving an opening of 9".
It is also suitable for louvres and window ventilators. A simple flip over cable release allows the window to be quickly detached for cleaning. Newflex is manufactured by Newmans, specialists in window control for more than half a century.

William Newman & Sons Ltd., Wellhead Lane, Birmingham, 22B

NEWMANS

Women and bricks

At Oxford the undergraduates of St. Anne's living in the Wolfson building **4** by Howell, Killick, Partridge and Amis, must be the only girl students in the country pinning (if they can push pins in) their travel posters onto exposed brickwork. The building contains 45 study bedrooms and two fellows' sets fanned out at four-degree intervals to create a lozenge-shaped internal space. It contains a big circular staircase and service rooms. The gentle curving corridors that result from this plan are particularly elegant. Outside, the textures of the board-marked in-situ concrete of the stair and kitchen towers contrasts with the brighter granite aggregate finish of the pre-cast wall panels and balcony frames. Surprisingly the 2-ton boldly modelled balcony frames, far from echoing the toughness of the interior brickwork, have a crisp, cardboardy lightness.

Architect and Building News, September 16th, 1964

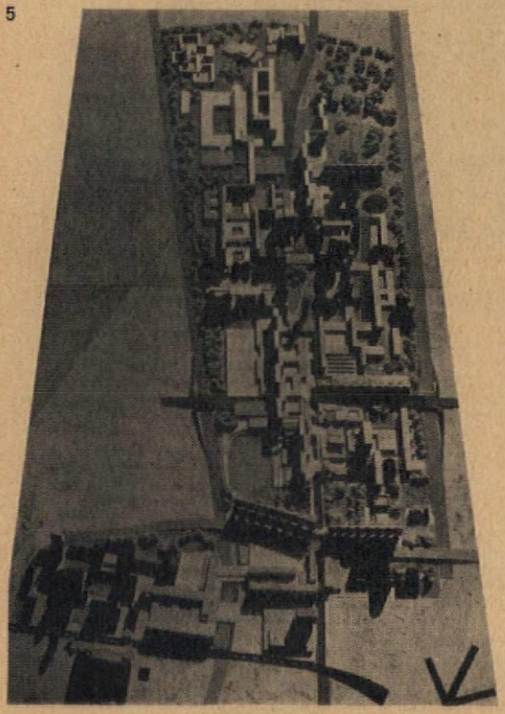
Reports, reports, reports

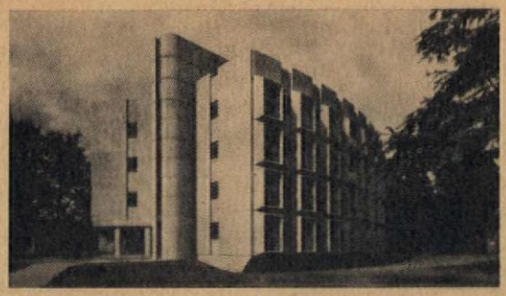
Hugh Wilson and Lewis Womersley have produced an interim planning bulletin about Manchester's 280-acre education precinct **5.** They are greatly troubled by the city's road plans which are at present based on widening but likely to become more radical after a district survey. The sheer size of the precinct is also a bother. To stop it from being an academic ghetto it will have a shopping centre capable of attracting people from the adjoining neighbourhoods. Linear slabs of deck-served student quarters, presumably developments of Park Hill, also appear in the master plan.

The Mancunian Way, a 4200ft long pre-cast elevated road which will cross Manchester's southern radials and the education precinct, will probably start construction in 1965 **6.** Two of Wilson and Womersley's linear halls are backed up to this road. Judging by the engineer's perspective, the creation of this sort of bold scale relationship between road and city is not being attempted further along the flyover. G. Maunsell and Partners are the consulting engineers.

Two other reports, one from Liverpool City Planning Department and one from the Department of Architecture and Planning at Coventry, deal extensively with the decades 1961 to 1981.

5





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Liverpool is faced with the need to reconcile vastly increased public expenditure with a population reduction within the city boundary of 100,000. Coventry expects an increase of 370,000ft² of downtown and suburban shopping space in 1981, more than a quarter being devoted to 'large quality shops' in the town centre.

Marina

Brighton Corporation has given its blessing to a £10 million, 2500-berth marina, designed by Derek Head of Overton and Partners **7.** The only obstacles that the developers have to overcome are the Ministries of Transport and Housing, Parliament (a Private Member Bill) and the present frontagers whose sea view will vanish. The marina has everything in it that one would expect to find in such a place—nylon skiing, shark pool, cross-channel ferries, gambling, shopping centre, teenage centre and vast amounts of car parking. Understandably the architects have not been able to weld this pot-pourri into a unified design. Nor is the marina related in any way to the town. Like the piers of yesteryear it starts and finishes on the foreshore.

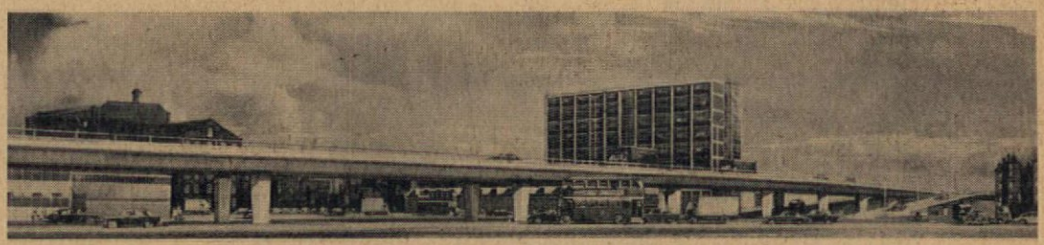
Nuclear power station

The spherical pressure vessel and the cylindrical heat exchangers of Hunterston nuclear power station on the Firth of Clyde are clothed in a shell of glass **8.** Howard Lobb and Partners wanted to put these vast bits of engineering out in the open in oil refinery fashion, but the needs of weather and radiation control made protection necessary. Wired polished plate glass was too expensive, and so Georgian wired glass was used interspersed with slots of polished plate to give the catwalking engineers a view of the Clyde. Apart from glass and steel, the only other primary material is a light grey brick bonded to give vertical stress.

Correction

We regret that in our October issue on page 474 we omitted to give the name of the architect who designed the Paradise Bay Hotel in Malta. It is Richard England.

6



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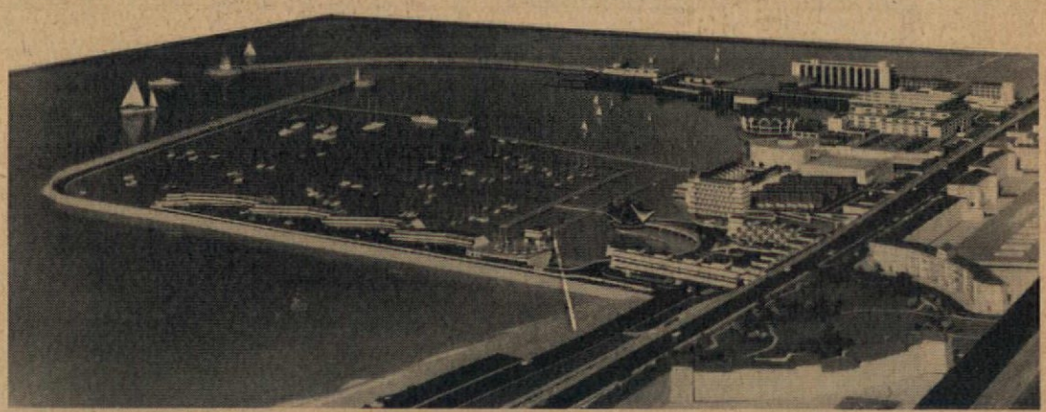

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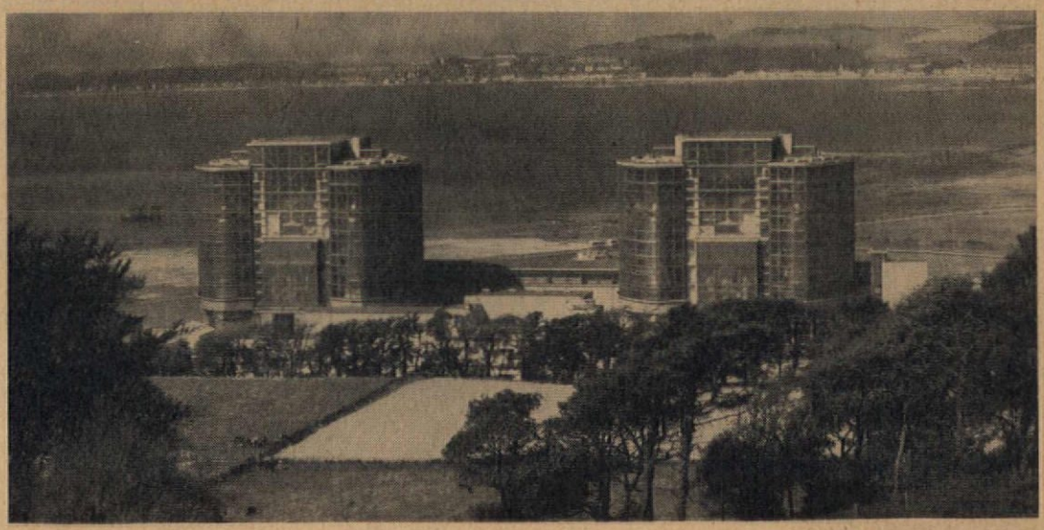

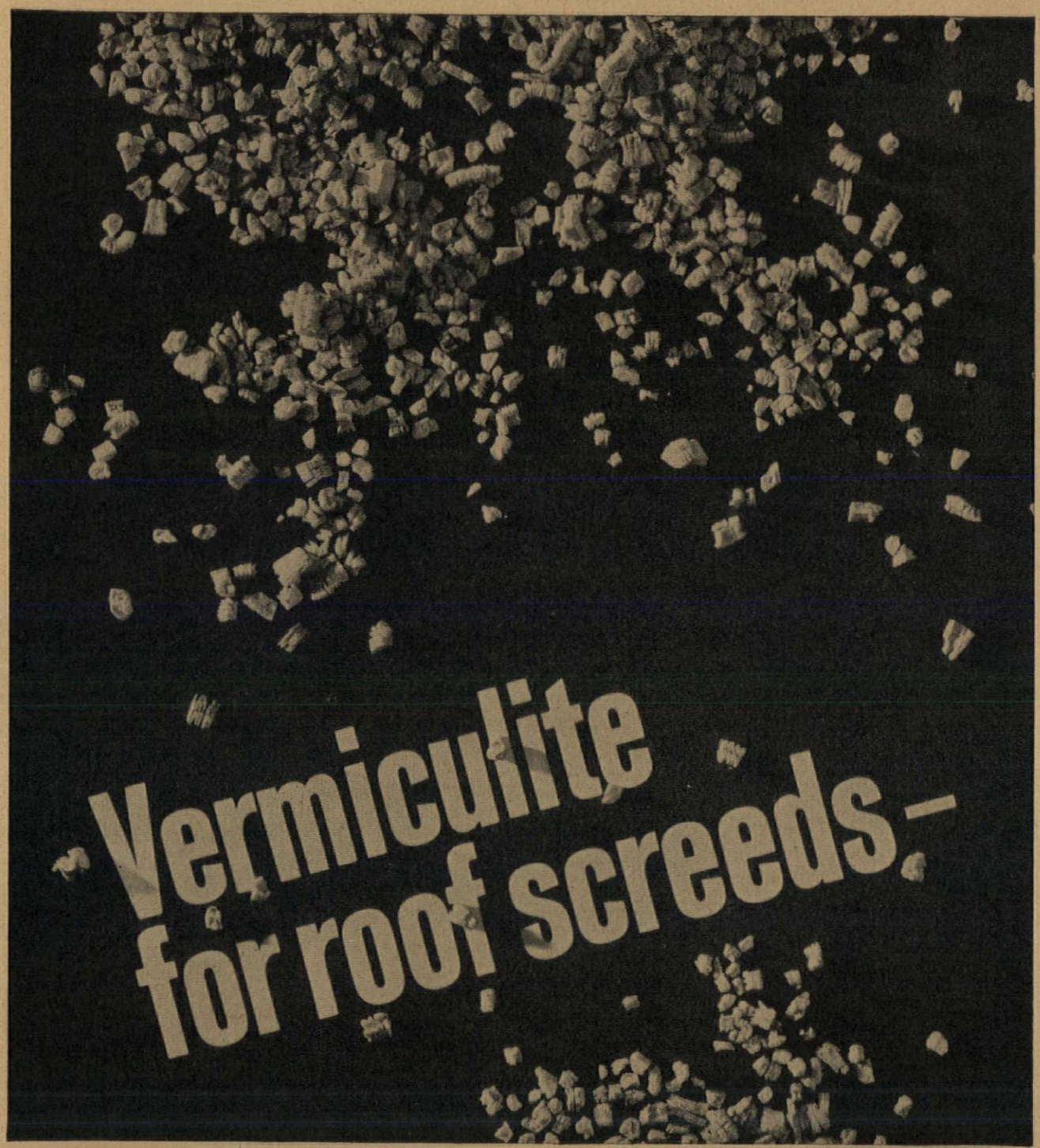

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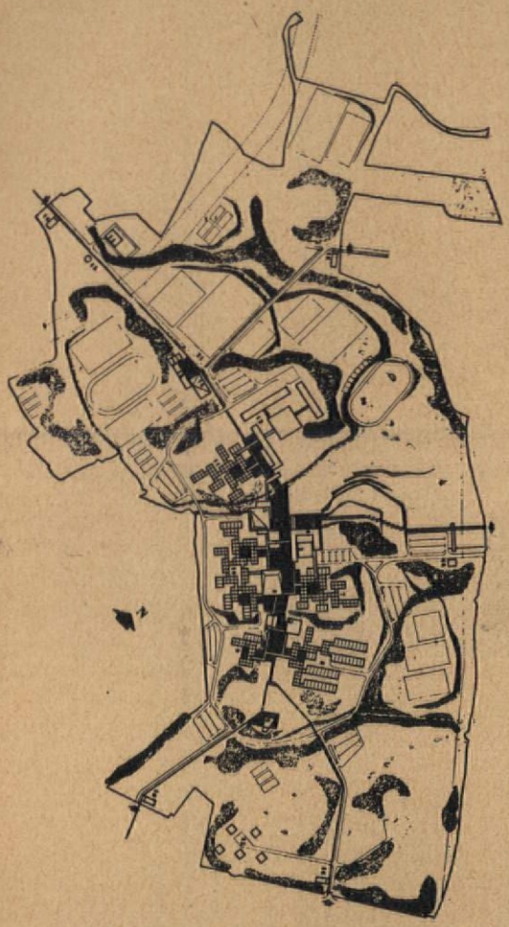
StB:Dp3

World news

Eire

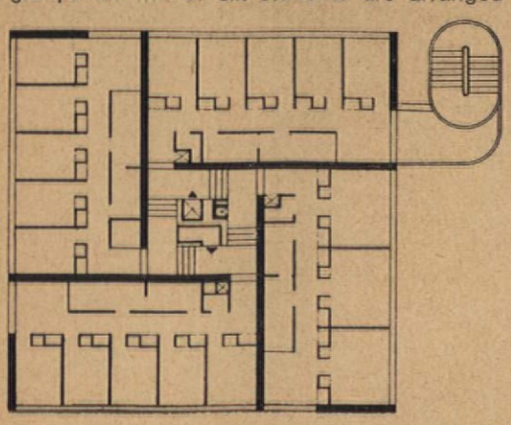
Competition. University College, Dublin **1 & 2**
The Dublin results finally emerged and many were probably a little shocked by the 'cool' scheme that carried off the first prize. Nevertheless if well detailed this building could prove to be an impressive solution to the complex problem of growth. The essential concept of this scheme by Andrzej Wejchert is a partially covered cranked pedestrian mall that extends from the Stillorgan Road entrance to the site. This mall is about 500m long (five minutes' walk from end to end) and the major elements are concentrated along it. The second prize was won by Brian Crumlish and Don Sporleder.



1

Austria

Students' hostel—Graz **3 & 4**
The students' hostel in Graz, built by the Austrian Students' Beneficial Endowment, is situated at a distance of a 10 minutes' walk from the School of Technology. Homogeneous living-groups for five or six students are arranged helically around a central stair well and two elevators. Each living-group comprises several students' rooms and a service core, i.e. a cooking recess, a bathroom, a toilet and a room for shoe-cleaning. Accommodation for 355 undergraduates is provided in 18 storeys.
The construction consists of reinforced concrete floors and columns with parapet upstands. The building is faced in artificial stone. An emergency concrete staircase is attached to the west side of the building. The architects are the Werkgruppe Graz, Dip Ing's, E. Gross, F. Gross, W. Hollomey and H. Pichler.



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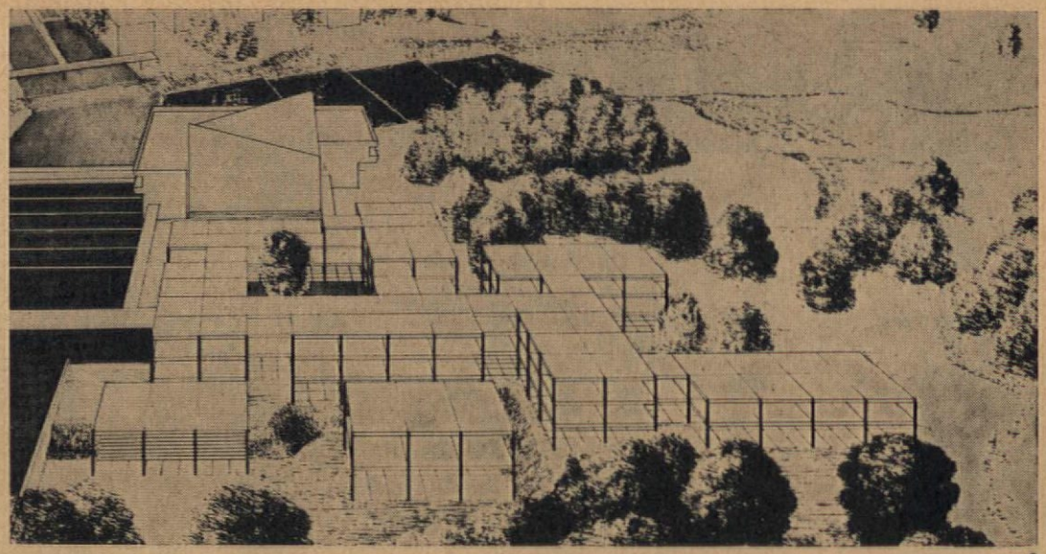

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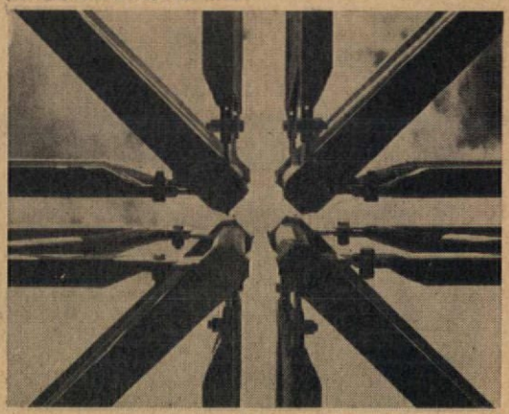
4

Italy

'Edilizia Moderna/Italia' **5 & 6**
After three remarkable, encyclopaedic issues, under the editorship of Vittorio Gregotti, this magazine now devotes its penetrating and all-embracing pages to a study of Italian architecture over the past 10 years. All the works and projects are grouped and classified in the following manner: either because they are identified with a common paradigm, or because they grow out of a common matrix, or because of an inherent discursive relationship which exists between certain works. We are illustrating a block of flats in Sardinia, by the architects Baldi and De Luigi, which is one of the few buildings which continues the pre-war Italian functional tradition **6**. It seems that the only work to move forward in a positive and clear manner is the recent structural work carried out by Vittoria, Zanuso, Benevolo, Guira Longo, Melograni, Mangiarotti, Giordani, Favini and Morasutti, of which **5** is a detail example.
Edilizia Moderna, No. 82–83



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W. Germany

Ulm **7 & 8**
The current issue of the Ulm (*Hochschüle für Gestaltung*) magazine is one of the most lively recent issues of this publication. It contains, amongst other things, an interesting exchange of correspondence between Walter Gropius and Tomas Maldonado, arising out of the latter's appraisal of Wingler's study of the Bauhaus. The main issue of the exchange revolves around Hannes Myer's contribution to the development of the Bauhaus. The difference between Maldonado and Gropius turns primarily upon the manner in which they each interpretate the



THE works brass band seldom appears in public now, but more and more furniture from Hunter and Smallpage Contracts Division is finding its way into public places throughout the country. Our range, combining our own designs with exclusive pieces from Scandinavia, offers a very wide choice indeed to the architect, designer and contract buyer. Hospitals, hotels, universities and technical colleges are among our regular clients. And when the music stops, these teak chairs are on their way to a contract, at the modest price of £8 19s. 6d. each.*

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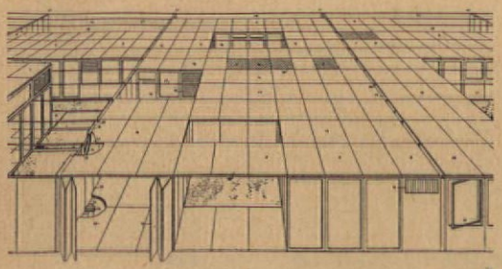
political aspects of Myer's directorship at the Bauhaus. The magazine also contains interesting examples of work by both present members of *HfG* and past students, including studies of a house style for Lufthansa by Otl Aicher **7** and industrialized building studies by Willi Ramstein. Ramstein's study includes a flexible court house system based on standard panels supported by tension cables at ceiling level **8.**
Ulm 10/11



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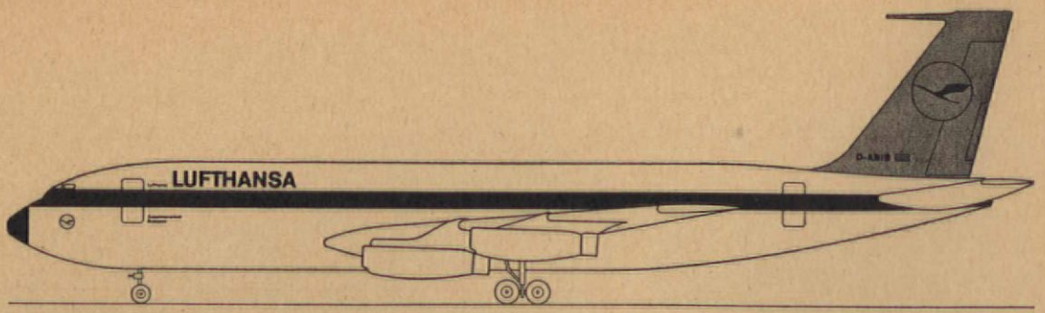


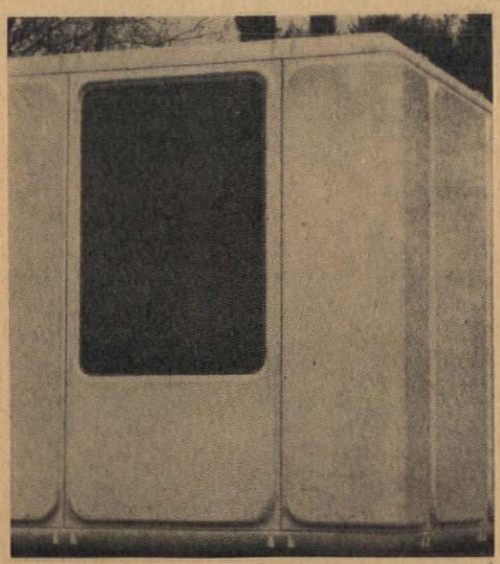
7



11

Switzerland

Polyester unit system **9**
An extremely elegant unit system, rivalling the *ecole de Prouvê*, is out of polyester and has been designed and brought to the prototype stage by the designer A. Christen. The system is built out of a basic panel size, 120cm wide by 240cm high by 5cm thick. This panel provides the basic size for both internal and external interchangeable partition elements. Similar panels exist with preformed openings that provide door, wall and window openings.
The panels are of sandwich construction consisting of insulating foam layer between two external layers of reinforced polyester.
The floor and roof elements are similarly made out of reinforced polyester with a cardboard honeycomb core filled with chippings. It is intended that this syetem should be used for small houses, holiday houses, motels, etc.
Techniquer et Architecture No. 3



9



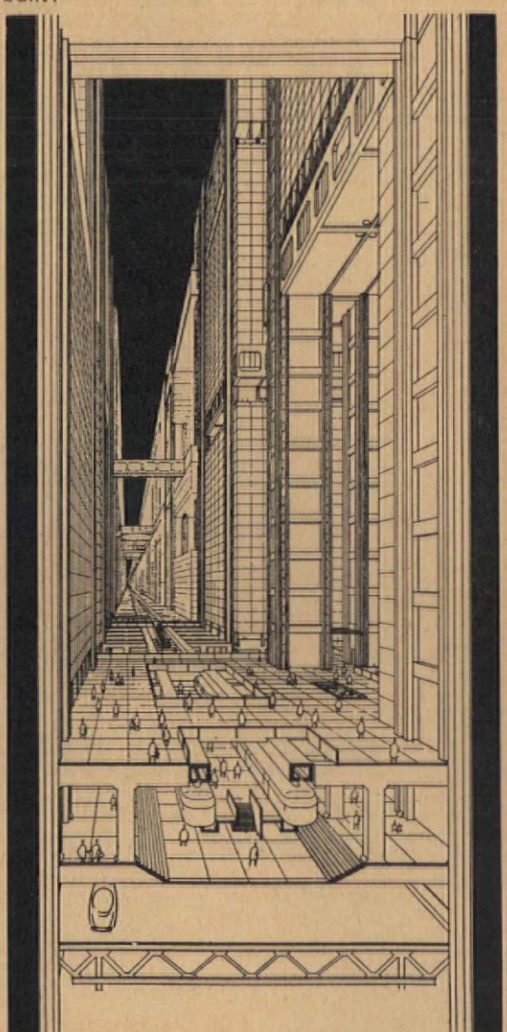
10

Australia

Flats, NSW **10**
Harry Seidler once again. The high rock cliffs bounding Sydney's Pacific Ocean front offer a dramatic setting for his 10-storey, 60 unit housing block. Orientated north-east, every flat has a balcony view overlooking the bay. There are 20 one-bedroom flats, 20 two-bedroom flats and 20 three-bedroom flats, one-third of each type. Two of each type are arranged on every floor symmetrically with two vertical access cores, an open access hall and projecting firestair. The exterior walls are of white facebrick. The ground floor of the building contains laundries, screened outdoor drying areas, storerooms and car shelters with additional cars accommodated in an excavated open lower ground floor.

USA

The demise of 'Forum' **11 & 12**
So the *Architectural Forum* finally folded up and all the recent fears and rumours were, after all, well founded. It seems paradoxical that a magazine with a circulation of 64,000 should be an uneconomic proposition, but there it is. There seems to be little hope of it now being published by a university in another form.
Forum in its present form was first established in 1932 when it was taken over by Time Inc. to become a magazine with a broad appeal to both financiers, builders and professional men alike. In January 1938 it devoted an entire issue to the work of Frank Lloyd Wright, and by this act it earned the first publication rights on all of Wright's subsequent work. It came to be known locally as 'Wright's Own' magazine.
Appropriately the final issue of the *Forum*, August/September 1964, carries articles by Douglas Haskell and Peter Blake. The one, short, by Haskell looks back over the past 75 years of building in America, taking in a shot of New York in 1903 on the way; the other, long, ranges about with discrimination over the recent past, the present and the future as the 'architectural scrapbook' of the *Forum's* last managing editor, Peter Blake.
This 127-page bumper rumination on the inevitable preoccupation of an architect/writer—the built environment—ends on an admonitory note. At the head of a short review—of a planning project produced recently in the architecture school of Cooper Union, Manhattan—Blake quotes a telling sentence from Wolf Schneider's book, *Babylon is Everywhere!*: 'Our grandchildren may no longer be able to decide whether they want to live in cities or not: there may be no other place for them to live.' It is presumably with this thought in mind that three Manhattan students have dreamt up their 'megacity', an 800ft high grid structure complex that quintuples the present East Side density **12.** This is the Reno Levi 'super block' scale and more. It pairs well with Haskell's illustration of New York in 1903 **11** —and forms a fitting endpiece to 75 years. As Blake writes, the question remains, could a civilization thrive in such mega-structures, for there is no doubt technically that they could be built?



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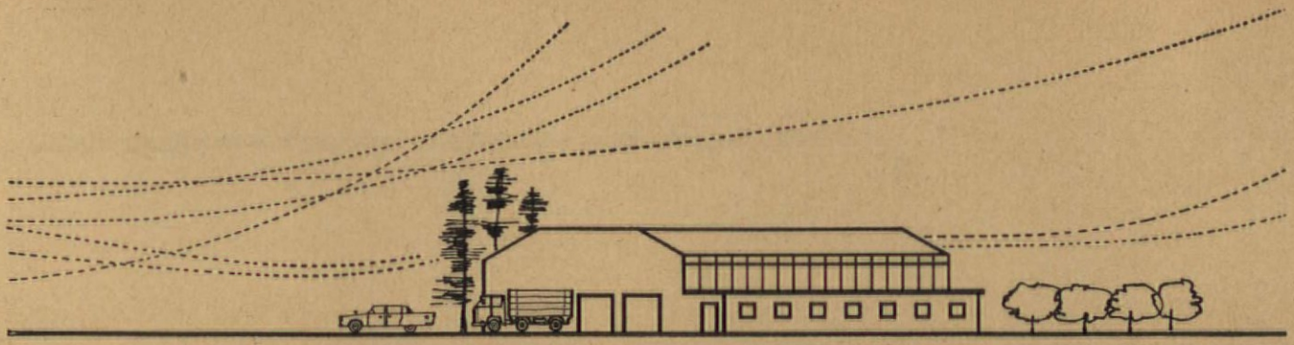

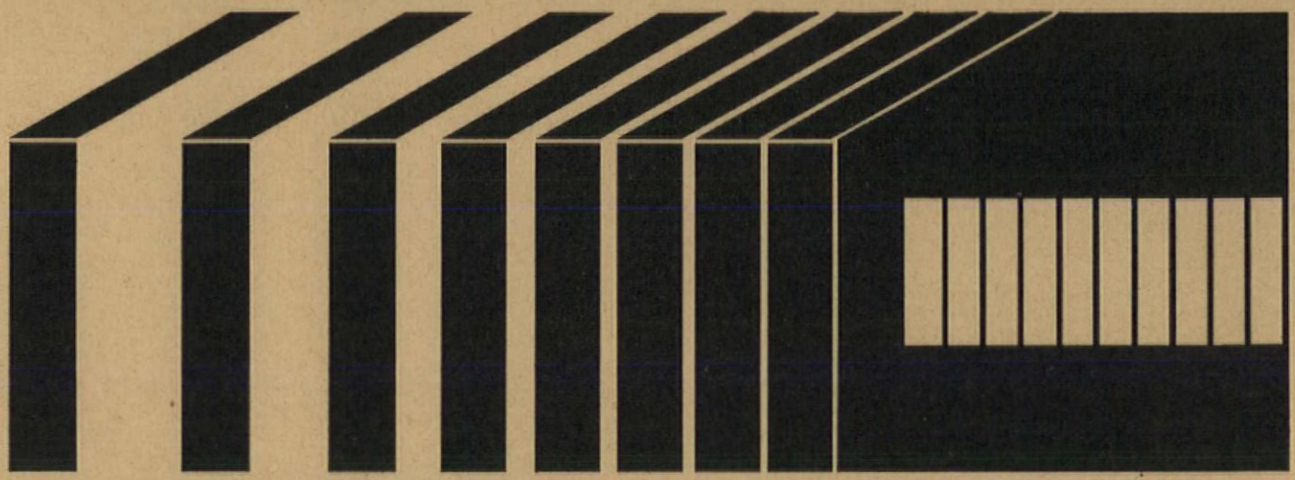

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Olympic sports arenas, Tokyo, 1964

We show here recent photos from *Japan Architect* of the two sports arenas designed by Kenzo Tange with Yoshikatsu Tsuboi and Uichi Izone. The larger of the two houses the swimming and diving pools and is used for judo. There are 11,112 fixed seats with a further 2134 movable seats for use when the swimming pools are in use, or 5134 for use when the pools are covered over and the arena is used for judo.

The roof of this building is supported by a double curved net construction suspended from two pillars sweeping down to the entrances at each end. Openings at the highest point provide adequate natural light for competitors and spectators.

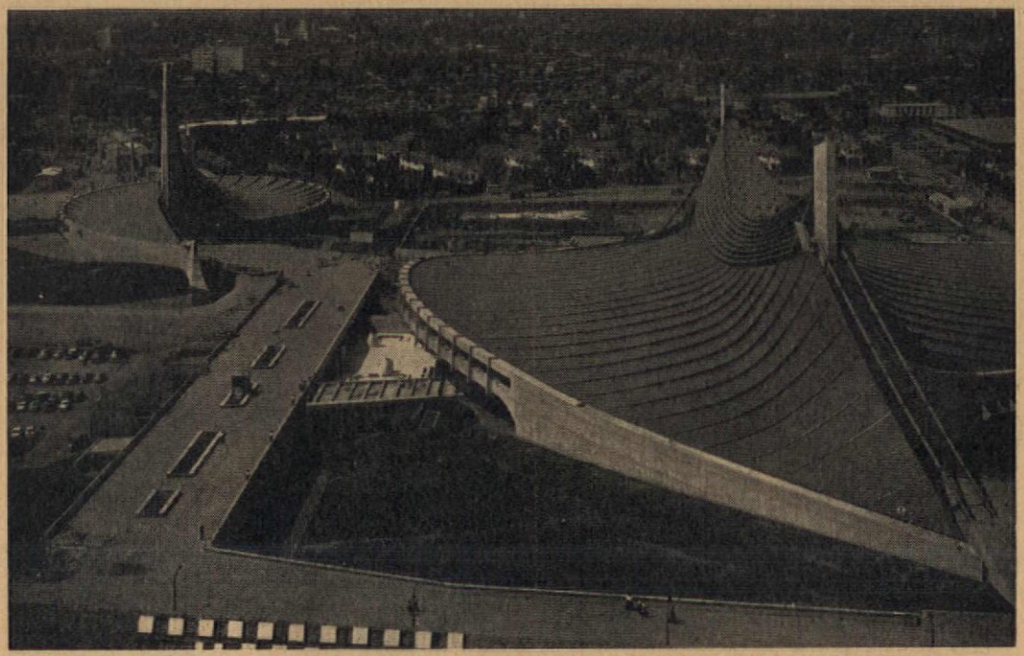
The smaller building, in the shape of a helix, is reserved for basketball and boxing, and seats between 3931 and 5351 people.

Project Awards 1965

Inserted in this issue is a leaflet outlining the conditions of entry, etc., for the *AD* Project Awards scheme for 1965.

An application form is attached to the Readers' Service Card opposite page 52.

1
Exterior of both arenas; the roofs are supported on steel cables
2
Interior of the larger arena showing the swimming pool, beyond which can be seen the diving pool



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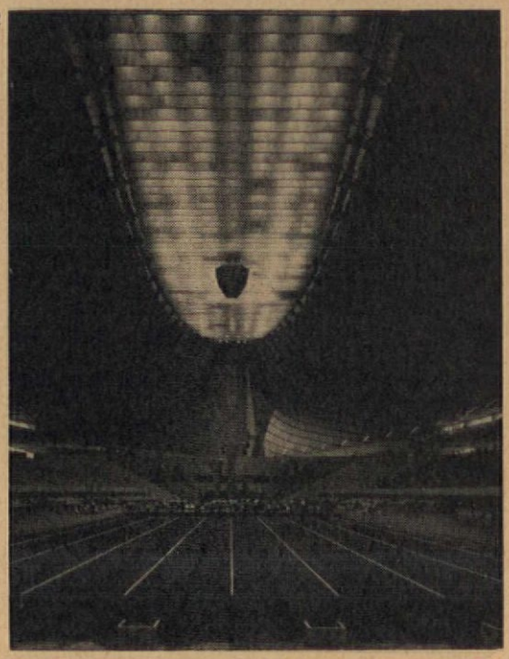


2

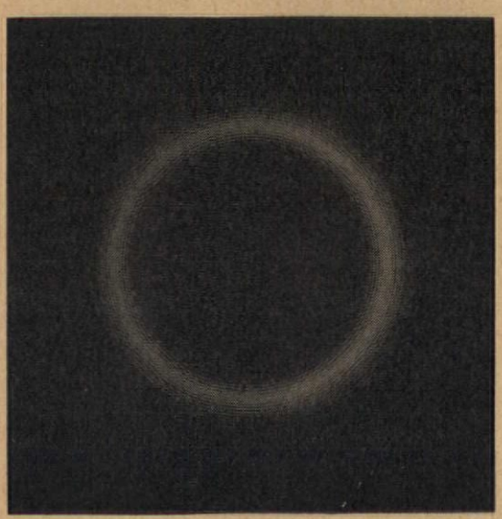
Art

The disappearing circle

The rectangle of the conventional canvas has been considered a limiting factor by artists of very different aims and techniques. In the work of the constructivists the rectangle often became simply a base for a three-dimensional structure, thus avoiding the presentation of the illusion of three dimensions within the rectangle itself. Its flatness and outline became subsidiary to other elements. The object-makers have avoided the flat rectangle except as a background, in the theatrical sense, for some three-dimensional configuration or event. The kinetic artists, many of whom use the flat rectangle exclusively, have conquered its obvious limitations by creating optical illusions and provoking movement, colour and perspective in the mind of the spectator. The term kinetic applies generally to the type of work in which movement is implied, i.e. it only takes place as an illusion, as opposed to the work where movement is mechanical and independent.

Peter Sedgely, one of the seven artists, most of whom work in the kinetic idiom (recently at McRoberts and Tunnard Gallery), seeks the sort of effect on the viewer which can best be compared to that of the cinema. When watching a film, one is rarely aware of the fact that what one sees is a projection on a flat rectangular format, which is accepted as part of the convention towards an involvement in the film itself. It is this involvement that causes the spectator to forget that he is looking at a black rectangle with a circle of blue and red lines, when the image becomes luminous and later disappears completely. Sedgely, whose work has never been shown before, is involved with a volatile ephemeral image which exists apart from the image one sees initially. As Vantongerloo provoked colour in his constructions made of prisms, Sedgely provokes an event within a painting. Optical illusion is neither the reason, the end product, nor a technical demonstration, but simply the means one employs of creating something else. Of the seven artists in this exhibition, no other deals so specifically with the disappearing image; but Bridget Riley's paintings, which demonstrate her great resourcefulness, undulate and shift through discs in perspective ranging from black to pale shades of grey. Jeffrey Steele is still preoccupied with the syncopated rhythm of subtly changing patterns in black and white, and Michael Kidner, Gordon Hart, Frederick Carver and Richard Allen deal with the various possibilities of the chromatic aspects of colour.

Jasia Reichard



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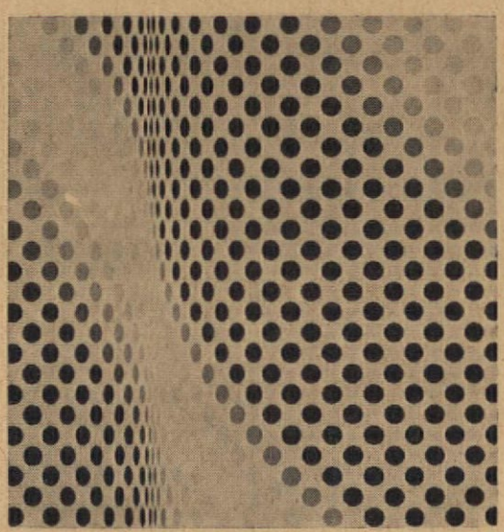

2

1
Peter Sedgely/*Manifestations*
2
Bridget Riley/*Pause*

In the best buildings nowadays you'll find Sisalkraft building papers all over, and under, the place. Sometimes they are keeping things in, like heat. More often they are keeping things out—like damp and dirt; cold and fire; wind and wet. Occasionally they are keeping things apart: preventing bonding or chemical interaction. Shown here are five of the Sisalkraft papers widely used as building membranes*. For details of these and all other building grades of Sisalkraft, just ask J. H. Sankey.

*Sisalkraft for sarking. Sisalation reflective insulation. Pyro-Kure fire resistant moisture vapour barrier and insulant. Copper Armoured Sisalkraft. Moistop polyethylene faced waterproof underlay plus slide layer.

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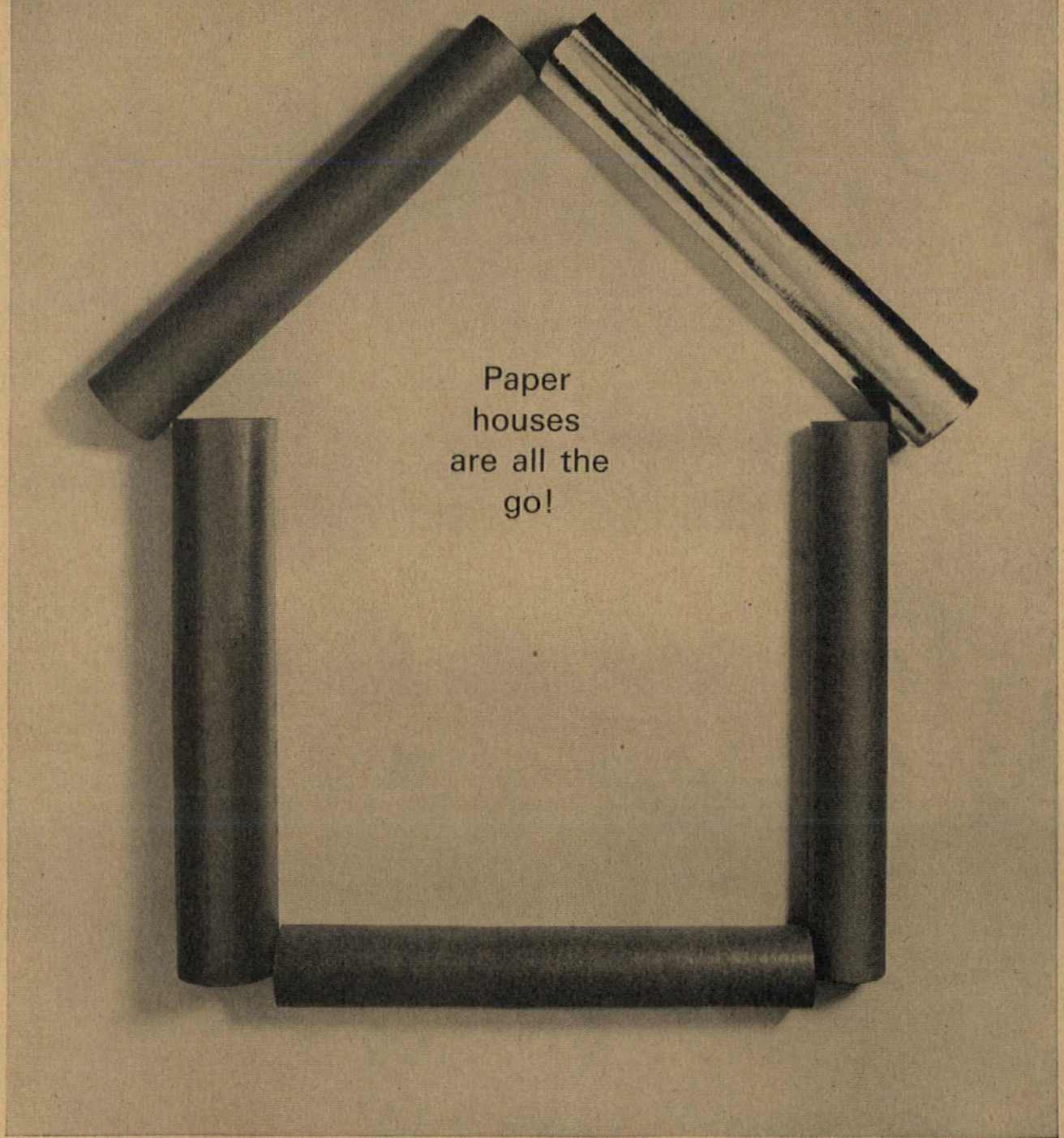

Dans ce numéro

Clowes Memorial Hall, Butler University

Page 542

Cette salle où 2200 personnes pourraient se réunir était prévue pour divers usages tels que: concerts, opéras, représentations théâtrales, conférences, chorales, et servirait aussi d'atelier pour les étudiants.

Les raisons déterminantes pour cette conception furent:

(1) Les nécessités acoustiques pour les concerts.

(2) Il fallait que les sièges soient aussi près que possible de la scène lors des opéras; et

(3) pour répondre aux besoins des règlements quant aux incendies les sorties ne devaient pas être à plus de 4,57m les unes des autres. Il y eut une seule solution à ces trois problèmes, c'est-à-dire des éléments muraux de 4,57m de large, les murs intérieurs en béton de 18,28m, 23,55m et 27,43m de haut et de 4,57m de large, les murs extérieurs recouverts de pierre calcaire. Les effets d'éclairage sont aussi intégrés dans les éléments muraux—la lumière du jour s'infiltre et la lumière artificielle sortira la nuit.

Centre Charles, bloc théâtral

Page 546

De manière à utiliser ce bloc au maximum du point de vue financier, on a prévu un ensemble d'usages, parmi lesquels deux étages au sous-sol pour le parking de 200 voitures combinés avec un étage entier au rez-de-chaussée de 4645m² qui sera partagé entre magasins et restaurants puis au-dessus se trouve le théâtre de 1500 places et ses fonctions supplémentaires.

Bureaux de l'Ambassade Américaine à Dublin

Page 549

La structure de cet immeuble consiste de deux façades qui soutiennent les trois étages avec trois tours où se trouvent les escaliers et les ascenseurs. La façade est composée de béton précontraint puis recouverte de pierre calcaire. Même le sol est composé de sections en béton précontraint mises en place.

La forme circulaire est un motif bien connu celtique-chrétien. Les bureaux sont disposés selon un module, pour que toutes dispositions soient possibles en déplaçant les cloisons mobiles qui peuvent être fixées à l'arcade extérieure tous les 2,28m. Aucune colonne n'apparaît à l'intérieur de l'immeuble pour obstruer l'espace réservé aux bureaux. La façade à arcades est prévue pour des balcons une baie sur deux.

Hôtel de ville et centre civique de Bat Yam, Israel

Page 552

Bat Yam est une ville au sud de Tel Aviv dont l'expansion industrielle est rapide. Après avoir gagné le concours public pour l'Hôtel de Ville les architectes proposèrent un nouvel emplacement pour le centre commercial et civique. L'Hôtel de Ville a la forme d'un ziggourat inversé, placé sur un espace octaédrique cubique dont les côtés ont 262cm de large. L'immeuble est à un angle de 45° par rapport à la place, disposé lui-même sur une grille structurale de 262cm répétée en plan et transversalement pour donner une unité à la conception. Chacun des trois étages dépasse celui en-dessous ce qui protège les murs du soleil et de la pluie; ainsi l'espace autour de l'immeuble est-il toujours à l'ombre, ce qui aménage une transition naturelle entre la place en plein soleil et l'ombre fraîche à l'intérieur de la cour centrale. Celle-ci est d'ailleurs aérée et éclairée par quatre tours en béton sur le toit.

Les surfaces horizontales des plafonds en béton à l'intérieur comme à l'extérieur sont peintes en couleurs vives Byzantines, c'est-à-dire rouge, bleu et or alors que les murs sont en blocs de silice blanc.

Eglise à Eller, Düsseldorf

Page 564

Le but de l'architecte a été de développer un système de parties industrialisées pour la construction d'églises et autre salles. Le système devait avoir un prix fixe, et serait simple et rapide à ériger et à démonter et dont le degré de flexibilité serait très élevé. Pour démontrer les combinaisons possibles de ce système on érigea une église à Düsseldorf.

La structure de support comprend des structures MERO bien connues.

Le matériau en plastique laminé de recouvrement des murs, comprenant des feuilles supportées à partir du centre, de Dekaphan de 2,00m×2,82m, ce matériau dont les propriétés de combinaisons sont nouvelles: isolement de la chaleur comme le liège et 70 pour cent de transparence.

Une tour pour Milan

Page 569

Un immeuble élevé est un point de reconnaissance dans l'horizon d'une ville.

La ville a aussi son influence sur l'immeuble car à chaque niveau le rapport change: si bien que le but de l'architecte a été de créer un immeuble dont la formation essaierait de créer des rapports à son échelle immense; ce qui à son tour a amené la conception d'une forme variable aux orientations différentes selon que l'on monte de niveau en niveau.

Bureaux, magasins et appartements à Swiss Cottage, Londres

Page 572

Ce projet comprend l'utilisation aussi étendue que possible d'un terrain restreint et forme le premier stade d'un développement en trois phases.

Le premier stade comprend une série de magasins sur deux niveaux. Une banque, dont la salle sera sur deux niveaux, complète le coin. Au-dessus s'élève cinq étages de bureaux et cinq étages d'appartements.

Les nécessités de la planification ont permis aux architectes d'exploiter la nature du développement et d'exprimer les différents usages de l'immeuble. La nature cellulaire des unités résidentielles a été exprimée aussi bien visuellement que structuralement grâce à un système de support sur un demi-étage de service et une grille de poutres à partir desquels une structure à colonnes supporte la charge en passant par les bureaux et les magasins jusqu'aux fondations.

Tous les niveaux, à l'exception de celui des magasins, sont recouverts de plaques précontraintes lourdes, moulées, articulées et composées de fragments de granite.

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Code 66



damned elephants!

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But, can anything **really** be done about upstairs NOISE? You can prevent it, but floating floors and sophisticated insulation are expensive. Very.

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

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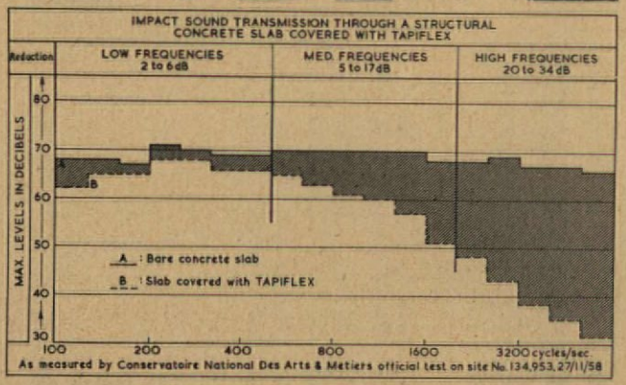

TAPIFLEX and TAPISOM do a number of things better than conventional floorings, but one of the most appreciated is absorbing noise. Quietly. We have tests and laboratory comparisons to prove it. In fact, if you'd like to give us your name, we **will** prove it to your complete satisfaction.

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

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In dieser Nummer

Clowes Memorial Hall, Butler University

Seite 542

Dies Auditorium ist als Mehrzweckhalle geplant, mit einer Platzzahl von 2200. Es ist geeignet für Sinfoniekonzerte, Oper, Schauspiel, Vorlesungen, Chorgesang, Filmvorführungen und dient gleichzeitig als Arbeitsraum für die Studenten.

Die Hauptrichtlinien für den Entwurf waren: (1) die akustischen Erfordernisse für Sinfoniekonzerte, (2) die kleinstmögliche Entfernung der Sitze von der Bühne für Oper, und (3) kontinentale Sitzanordnung, bei der die Feuersicherheitsbedingungen verlangen, daß die Seitenausgänge nicht weiter als 4,57m voneinander entfernt sind. Diese drei Probleme wurden in einem Zuge gelöst: mit den 4,57m Mauerelementen; diese sind 4,57m breit und 18,28m oder 23,55m oder 27,43m hoch, aus Beton, die äußeren Flächen sind mit Kalkstein, die inneren mit Gips verkleidet. Beleuchtungskörper sind ebenfalls in die Wandelemente eingebaut, so daß das Tageslicht nach innen und das Kunstlicht des nachts nach außen dringen kann.

Theaterblock, Charles Center

Seite 546

Um den Bloch finanziell aufs Günstigste auszunutzen, wurde ein Vielzweckbau entworfen, bei dem zwei Stockwerke unter der Erde als Parkplätze für 200 Wagen vereinigt wurden mit einem Erdgeschoß von 4645m² Mietfläche für Geschäfte und Restaurants und darüber dem Theater mit 1500 Sitzplätzen und den zugehörigen Nebenräumen.

U.S. Gesandtschaftsgebäude, Dublin

Seite 549

Die Gebäudestruktur besteht aus zwei Fassaden, die drei Stockwerke tragen, drei Türme enthalten Treppen und Fahrstuhl. Die Fassade ist aus Betonfertigteilen zusammengesetzt, mit imitierter Kalksteinverkleidung. Auch die Fußböden sind aus Betonfertigteilen hergestellt, die einzeln an Ort und Stelle gehoben werden.

Die Kreisform ist ein wohlbekanntes keltisch-christliches Motiv.

Die Büroräume sind nach einem Modulsystem ausgelegt, sodaß jede Aufteilung und Neueinteilung möglich ist, einfach durch Versetzen der Trennwände, die in jeweils 2,28m Abstand an der Außenarkade befestigt werden können. Im Innern sind keine Säulen, die den Büroraum beeinträchtigen. Die Arkadenfassade ermöglicht einen Balkon an jedem zweiten Austritt.

Bat Yam, Rathaus und Gemeinschaftshaus, Israel

Seite 552

Bat Yam ist eine schnell wachsende Industriestadt. Die Architekten schlugen, als sie 1958 den Wettbewerb für das Rathaus gewonnen hatten, einen neuen Platz für Gemeinschaftshaus und Einkaufszentrum vor.

Das Rathaus ist wie eine umgedrehte Ziggurat geformt und basiert auf einer achtseitigen Würfelraumeinheit von 262cm Diagonale. Das Gebäude steht im Winkel von 45° zur rechtwinkligen Piazza und ist aufgebaut auf einem Baugitter von 262cm Diagonale, das sich in Grund- und Aufriß wiederholt, sodaß der Entwurf einheitlich ist. Jedes der drei Stockwerke kragt vor über das untere und gibt den Wänden Schutz gegen Sonne und Regen. Dadurch liegt der umgebende Raum immer im Schatten, sodaß ein natürlicher Übergang aus dem hellen Licht der Piazza zum Dämmer des Innenhofes gegeben ist. Dieser erhält Tageslicht und Frischluft durch vier Betontürme auf dem Dach. Die Horizontalflächen der Decken innen und außen sind in kräftigen byzantinischen Farben gestrichen, in rot, blau und gold, während die Wandflächen in weißen Silikatblöcken ausgeführt sind.

Kirche in Eller, Düsseldorf

Seite 564

Das Ziel des Architekten war, ein System von Industriebauteilen zu schaffen, das geeignet ist zum Bau von Kirchen und ähnlichen Hallenbauten. Das System sollte preislich genau festgelegt sein, schnell und einfach auf- und abzubauen sein und möglichst große Vielseitigkeit aufweisen. Als erstes Beispiel der zahlreichen Kombinationsmöglichkeiten wurde in Düsseldorf eine Kirche gebaut.

Das tragende Gerüst besteht aus den bekannten MERO-Teilen.

Das plastizierte Verkleidungsmaterial besteht aus 2,00m × 2,82m großen mittelunterstützten Dekaphantafeln, einem Material mit folgender neuer Kombination von Eigenschaften: Wärmeisolierung wie bei Kork und 70% Lichtdurchlässigkeit.

Ein Turm für Mailand

Seite 569

Ein hohes Gebäude ist ein Merkpunkt in der Horizontlinie einer Stadt. Die Stadt hat aber auch Einfluß auf das Gebäude, denn die Beziehungen zueinander wechseln auf den verschiedenen Ebenen. So war es das Ziel des Architekten, ein Gebäude zu entwerfen, dessen Form danach streben würde, Beziehungen in seinem eigenen großen Maßstabe zu schaffen. Dies führte zur Idee einer Gestaltung, die nach verschiedenen Richtungen hin variiert, je nach der erreichten Gebäudehöhe.

Läden, Büros und Wohnungen in Swiss Cottage, London

Seite 572

Der Entwurf umfaßt volle Ausnutzung eines begrenzten Raumes und bildet das erste Stadium eines dreiteiligen Bauplanes.

Dies erste Stadium umfaßt eine Reihe von Läden auf zwei Ebenen. Ein Komplex von Bankräumen auf zwei Ebenen vervollständigt den Eckbau. Darüber liegen fünf Bürogeschosse und weiter fünf Wohnstockwerke.

Die Planungsbedürfnisse haben es den Architekten erlaubt, die Schichtenstruktur des Neubaus zu nutzen und schon in der äußeren Form die verschiedenen Zwecke des Gebäudes aufzuzeigen. Die Zellenstruktur der Wohneinheiten ist sowohl im Äußeren als in der Struktur ausgedrückt durch ein Kreuzmauersystem über einem Halbgeschoß mit Versorgungsleitungen und Gitterträgern, von dem aus eine Säulenstruktur die Last durch Büro- und Ladengeschosse hindurch auf den Fundamenten ablastet.

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ANNOUNCEMENTS

Miss Evelyn Salisbury, A.A.D., American Architectural and Interior Designer, has joined the staff of Eliot Grant, Interior Decorators and Designers, of High Street, Cobham, Surrey. Trade literature invited.

Messrs. Howard V. Lobb & Partners (Howard V. Lobb (F), John Ratcliff (F) Brian Leather (A)), of 20 Gower Street, London, W.C.1, announce that they have taken into partnership a former Associate, Mr. Gordon Lavington (A), and that Mr. J. Cutlack has become an Associate. The style and address of the firm remain unchanged.
They also announce that the section of the practice based on Cowes, Isle of Wight, has now been made into a separate partnership into which Mr. Eric C. Sweetman (A), also a former Associate, has been taken as a partner.

The style of this partnership is to be known as Howard V. Lobb, Sweetman & Partners (FF/AA) and the address will be: 16 Bath Road, Cowes, Isle of Wight.

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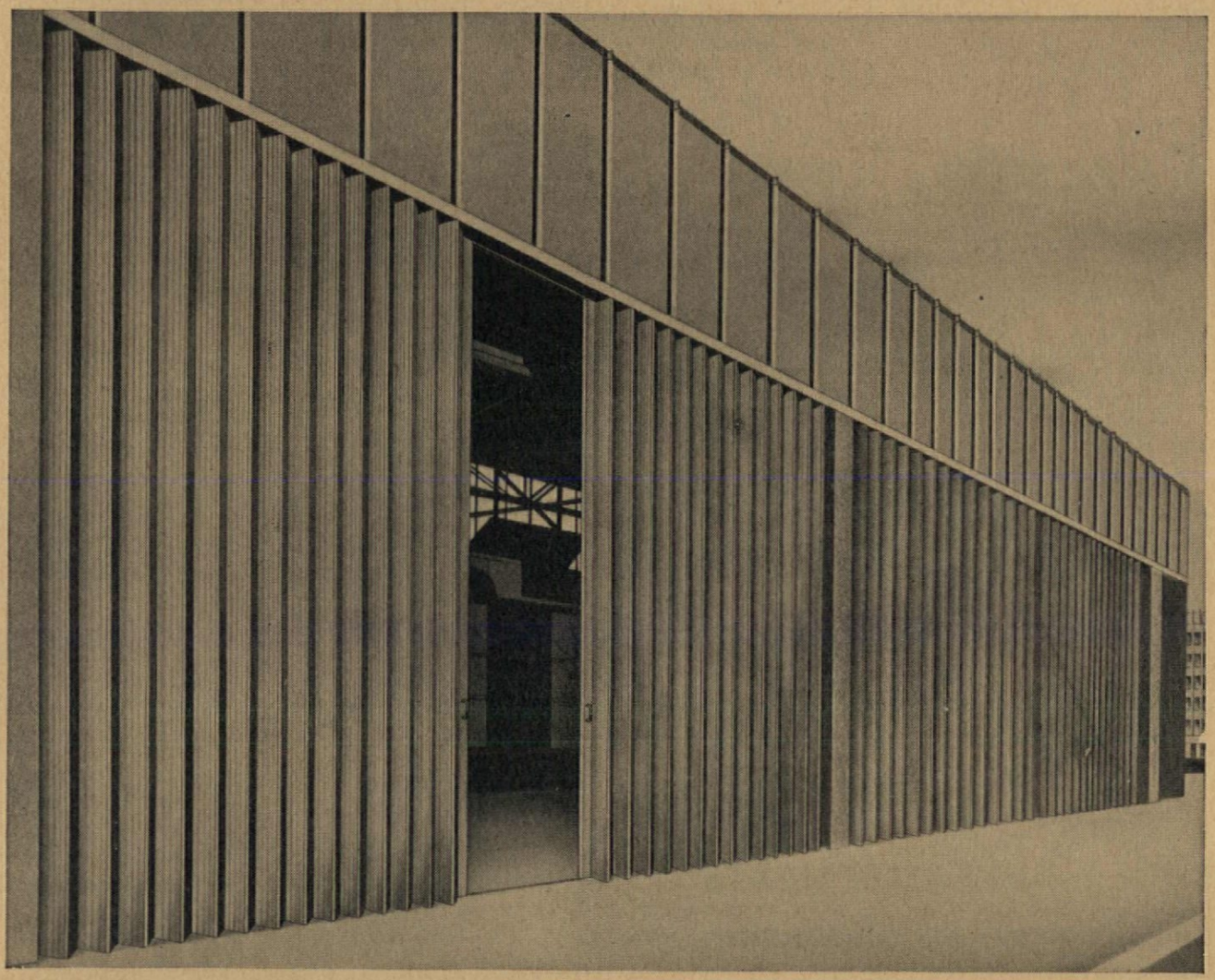

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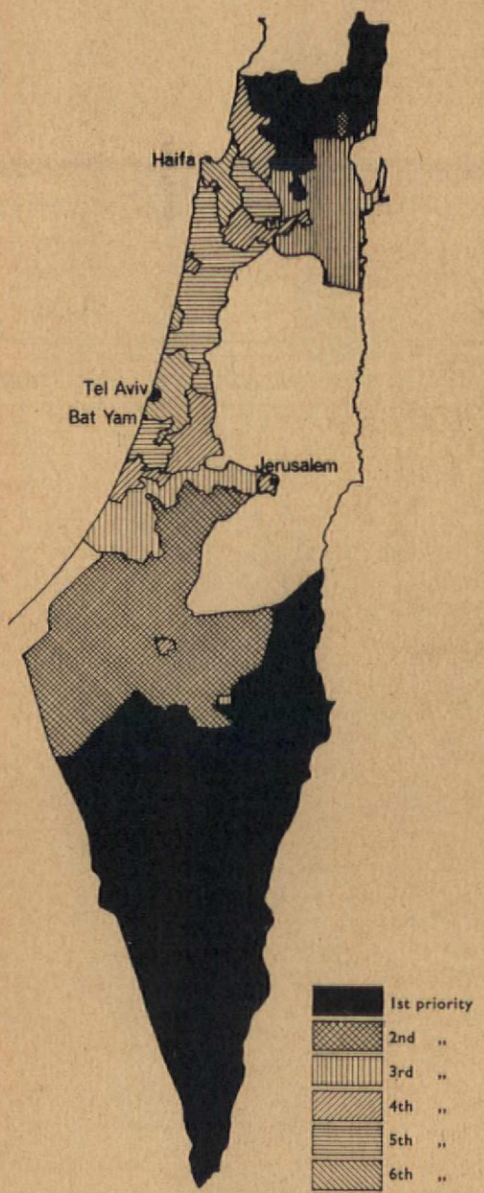
Planning in Israel

Walter Bor



1
Map of Israel showing the regions of priority for directed development

National and regional planning

There can be few countries in the world where historical, physical and political circumstances have combined to create a situation bristling with problems which can only be solved by concerted planning on all fronts.

The partitioning of Palestine, the irrational national boundaries which were drawn as a result of the armistice with the neighbouring Arab countries and the continuing threat to Israel's very existence from these neighbours have forced this country, during the past 16 years of its independence, into intense efforts in national, regional and urban planning.

The country has been classified into 'regions of priority for directed development'**1**. There are six categories of priorities for regions. Top priority areas are the whole of the Negev district in the south and the northern district bordering onto Lebanon, Syria and North Jordan, while the lowest priority areas are the already over-developed districts of Tel Aviv–Jaffa and Haifa. This priority regions plan acts as a guide for Government departments and development agencies to provide assistance in a number of ways: priority in the erection of immigrants' housing, grant of favourable financial conditions for settlers, establishment of industrial zones and encouragement of private investment in industry, grant of larger allocations to the local authorities for development purposes, including priority in the erection of schools and hospitals, preferential scales for water rates (an important item in Israel), tax deductions and other incentives.

Like most countries, Israel must plan for dramatic population increases and a better distribution of people and work places. The population of Israel increased from over three-quarter million in 1948 to well over two million in 1964; of this present population only about one-third were born in Israel and the bulk of the post-war immigrant population is of non-European origin. According to official forecasts, Israel's population should reach the four million mark by 1982. Apart from the expected quite considerable natural increase, the vast majority of this extra population will result from further immigration. The Priority Regions programme helps to guide new population by Government inducements away from the over-populated central coastal plain (where two-thirds of Israel's people live at present) to the under-developed hinterland and border areas. The immigrant willing to settle in a development area is offered a home with basic furniture and equipment, food for a week to start him off and a guaranteed job. This policy applies particularly to the Negev district, which is the country's mainland reserve and makes up 70 per cent of Israel's territory, with only 8 per cent of the total population.

Flying over the Negev desert crested with fantastic sand formations resembling a lunar landscape, I saw small Kibuzzim (collective settlements) surrounded by thin, green belts of reclaimed land but still engulfed by a sea of waste land and rocks. Yet there are huge areas of the Negev which could be as fertile as any in the country if it could only be irrigated.

Thus water is the key to Israel's land and redevelopment problems and prodigious efforts are being made to irrigate the arid regions by collecting and storing water in numerous reservoirs and by leading water from those parts of the country where there is an ample supply. The National Water Project will transfer a considerable part of the Jordan waters of the Sea of Galilee to the Negev by means of a giant-sized conduit and pumping stations and will amalgamate all regional water projects into one system incorporating their water surpluses and supplying them with water when needed.

New rail, road and air communications are planned to assist the redistribution of population and industry, and to link old and new centres. For instance, a new railway line is proposed from Beersheba (in the northern part of the Negev) and the Dead Sea area (which is being developed with extracting industries) to the new port and city of Eilath on the Red Sea, and 11 new local airports are projected. The main road proposals include major improvements along the coastal strip and connections with the new towns of Ashkelon and Ashdod where a new deep water port is being built. A 16in pipeline now runs from the Haifa oil refineries in the north to the port of Eilath in the extreme south.

Israel's landscape is very varied, ranging from the fertile coastal plains to the arid mountain regions. But between these two extremes is much land which had been neglected during the last six centuries but which is being rapidly reclaimed. Hills are being terraced in many parts of the country to stop erosion. But perhaps the most outstanding effort in this field is being made by planting trees on a really massive scale. Some 400 million trees have been planted in Israel in the past 60 years.

In spite of great pressure from developers, Israel's national planning safeguards the conservation of the characteristic natural landscape which in turn is associated with the establishment of recreation centres for the urban population. To this effect, a National Parks and Nature Reserve law was passed in 1963.

Israeli town planning legislation is modelled on the lines of the English 1947 Town and Country Planning Act, but enforcement of planning control is tougher (penalties include heavy fines and imprisonment); land is acquired by public authorities by means of compulsory purchase, based on current market value but one-quarter (a recent amendment increases it to one-third) of any one owner's land can be taken without compensation for road widening, new roads and recreation grounds. However, side by side with what appear to be socialist measures, the free market flourishes to an extent inconceivable in England. For instance, I understand that the whole of the new town of Ashdod is being built on privately owned land, although recently the Government has amended the contract terms to the extent of becoming equal partners in the venture.

Planning in Israel is the responsibility of the Minister of the Interior. The State is divided into six administrative districts for each of which a District Building and Town Planning Commission is appointed, together with a number of representatives from municipal authorities. These District Commissions exercise overall control of town and country planning and co-ordinate the activities of some 60 Local Building and Town Planning Commissions which as a rule are the Municipal Corporations of these areas.

continued overleaf

continued from previous page

Urban planning

According to the national plan, Israel will have only four major cities with a population of 200,000 and over, i.e. Tel Aviv-Jaffa, Haifa, Jerusalem and Beersheba. These four cities represent in many ways the diversity of character, form and function typical of urban life in Israel.

1
DAN hotel/Tel Aviv-Jaffa
2
General view of Tel Aviv towards Jaffa
3
Development/Haifa
4
Town development/Beersheba



1



2



3



4

Tel Aviv (population 700,000) is by far the largest city in Israel and houses at present almost one-third of the country's population. Yet, only 55 years ago the site of this city was covered with desolate sand dunes. Tel Aviv has been the gateway of immigration and the seat of settlement agencies since the beginning of this century and has grown dynamically ever since. Because of rising land values, development, particularly in the central area, has been intense, and today Tel Aviv shares its problem of congestion with other major cities in the world, but hopes to do something about it. (See April issue 1964 of *AD* referring to recent competition for the redevelopment of the old town of Jaffa to the south of Tel Aviv, and two schemes illustrated in the August issue of *AD*.) The strong European influence which shaped much of the architecture of the city up to the last war is now giving way to increasing American influence as some of the recent buildings, like the luxurious, air-conditioned DAN hotel show **1.** Tel Aviv has no high buildings policy and several high blocks which have risen haphazardly on restricted sites appear to be more the result of over-development than of a carefully considered town planning policy **2.**

Today Haifa (population 370,000) is Israel's chief port, the capital of the north, and possesses the country's heaviest industries, best engineering institutes and a very good school of architecture in the campus of the Technion. The centre of the city consists of busy shopping streets with a profusion of cafés, cinemas, etc., but the administrative centre is somewhat divorced from it and diffused. The plan recognizes these shortcomings and envisages the establishment of 'a proper town centre'. Some of Israel's best examples of contemporary architecture can be found in Haifa which, with its dramatic slopes and fine views, opens up exciting architectural possibilities. Unfortunately much of the work is still humdrum **3** and the decision to allow a new hotel in form of a tall square box ruining the crown of Mount Carmel is, I think, deplorable.

Jerusalem, the capital (population 180,000 in Israeli Jerusalem, plus 50,000 in Jordanian part of the city) is, of course, one of the world's most ancient cities, dating back to a period before the Israelite conquest in the thirteenth century B.C. Today the new Jerusalem is a rather formless city stretching over the hills in the wedge of Israel territory with the old city at its apex, with the exception of Mount Zion, in Jordan. The most important new public building complexes like the new Knesset (Parliament), university campus and hospital have all been sited on the west edge of the city but will eventually be surrounded by new development. A major unifying element of this rather disjointed city has been the insistence of successive city administrators that buildings in Jerusalem must be faced with stone or at least reconstructed stone. However, owing to high costs involved, the zones in which these regulations apply have been reduced. While the great building boom in form of new residential suburbs and large public building complexes may not so far have produced outstanding works of architecture, the Knesset, the new Congress Hall, the new Museum and Library, and several university buildings are of a good architectural standard. The University precinct which is being developed on top of a hill with magnificent views over the city is, even in its half complete state, very promising. Jerusalem is planned to almost double its existing population to 350,000 on the basis of compact neighbourhood units with their own cultural, commercial and educational centres each on one of the hills, leaving the valleys in between as open spaces.

This type of English neighbourhood planning permeates all New Towns in Israel, the largest of which is Beersheba, the capital of the Negev. Since 1948 new areas were developed around the old city and the population rose from 4000 to the present figure of 50,000. English trained town planners were inspired by the English Garden City idea, but whatever its merits in England, this approach to town development has certainly proved incorrect in the semi-desert climate of Beersheba, and considerable efforts are being made to rectify the earlier mistakes **4**, although the neighbourhood conception based on 5–10,000 people, remains. This town is planned to expand to 200,000 people as part of the drive to re-settle the Negrev.

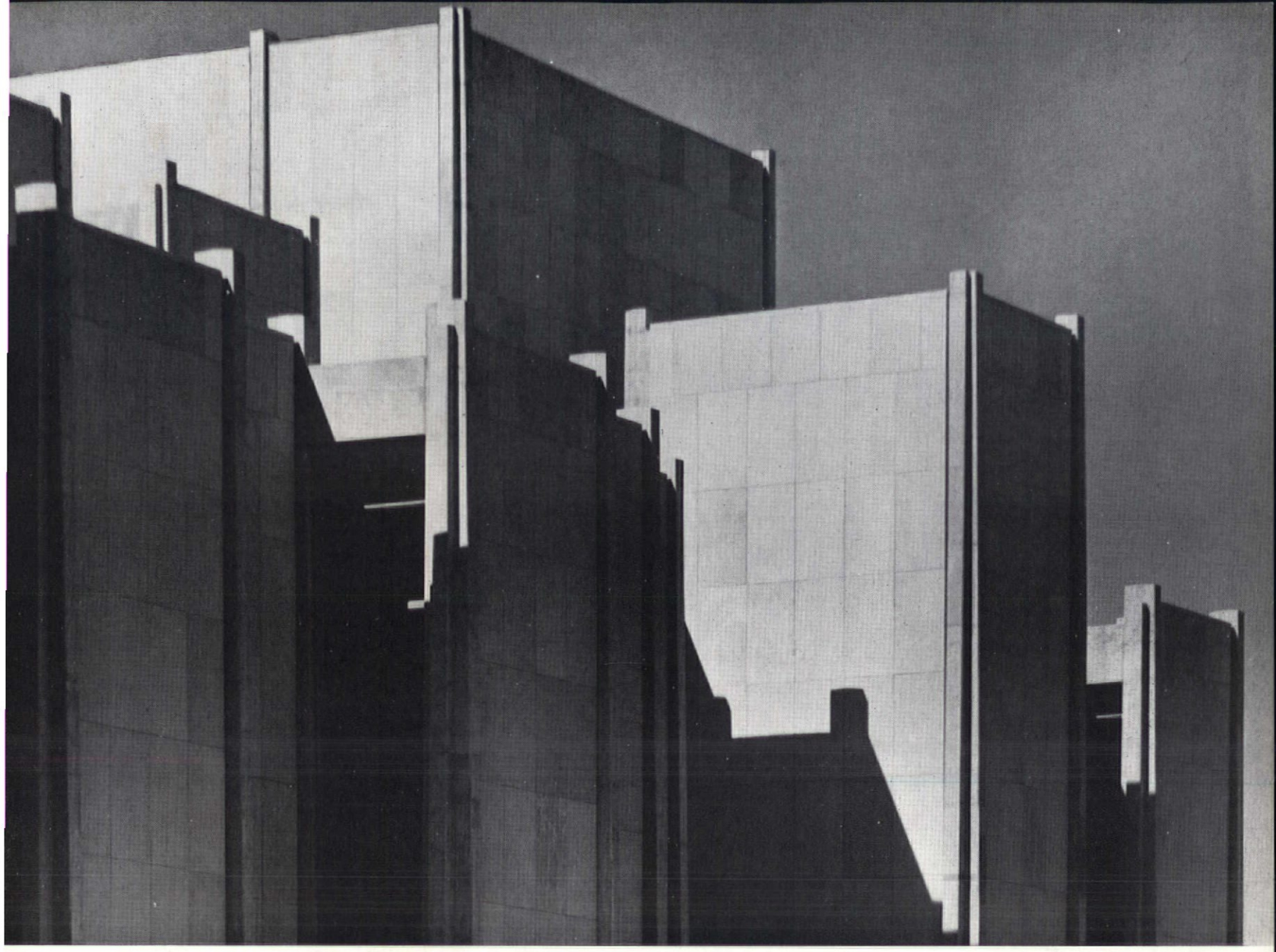
The town of Eilath on the northern shores of the Red Sea stands out as a supreme act of faith and courage. Built on the southern pin-point of the Negev triangle between Egypt and Jordan, exposed to the blazing sun and a hot north wind from the desert, Eilath has been developed since 1956 as Israel's second deep sea port in reply to Egypt's refusal to allow ships carrying cargo to and from Israel through the Suez Canal. Thus new markets have been opened up to Israel's ships in East Africa, South Asia and the Far East The outline plan for Eilath is the most compact, probably because of the limited land available for building between the sea and the mountains to the west, and sea, air, rail and road transport will be well integrated. The existing population of about 15,000 will be expanded to 50,000 and a French prefab system is being used to counter the lack of skilled building workers.

The national plan envisages a considerable expansion of medium-sized and small towns and the building of two new towns in Galilee and four in the Negev, in addition to new towns which are well on their way, such as Ashdod, built on the sand dunes, halfway between Tel Aviv and the Gaza strip. Unfortunately none of these new towns go much beyond the Mark 1 of English new towns in their conception, though the architecture, particularly of the neighbourhood centres is much more vigorous.

Housing in new towns is generally of a reasonable standard, though space is still restricted; layout techniques are improving, as some recent developments in Nazareth show and I saw an excellent scheme for Arad on the drawing board in the office of David Best.

No picture of urban planning is complete without some reference to preservation and rehabilitation. The care with which old Roman towns, such as Caesarea, or the Crusader's strongholds at Acre, are being rehabilitated, is remarkable considering the limited resources available which have to be diverted from other pressing demands. In Caesarea, a fine Roman amphitheatre is being reassembled, while in Acre, a subterranean Crusaders' castle of staggering proportions is being excavated in the vicinity of the picturesque oriental bazaar and the graceful mosque of Jazza Pasha.

Israel is an interesting example of how a small country with big problems can plan effectively a rational use of its land and natural resources and a sensible distribution of its projected growth of population and industry.



Clowes Memorial Hall, Butler University, Indianapolis, USA

Associated architects: John M. Johansen and Evans Woollen

Fred S. Dubin Assoc., Mechanical Engineer
Fink, Roberts & Petrie, Inc., Structural Engineer
Bolt Beranek & Newman, Acoustical Engineer
Ben Schlanger, Seating Consultant
Richard Kelly, Decorative Lighting Consultant
Jean Rosenthal, Stage Lighting and Rigging Consultant

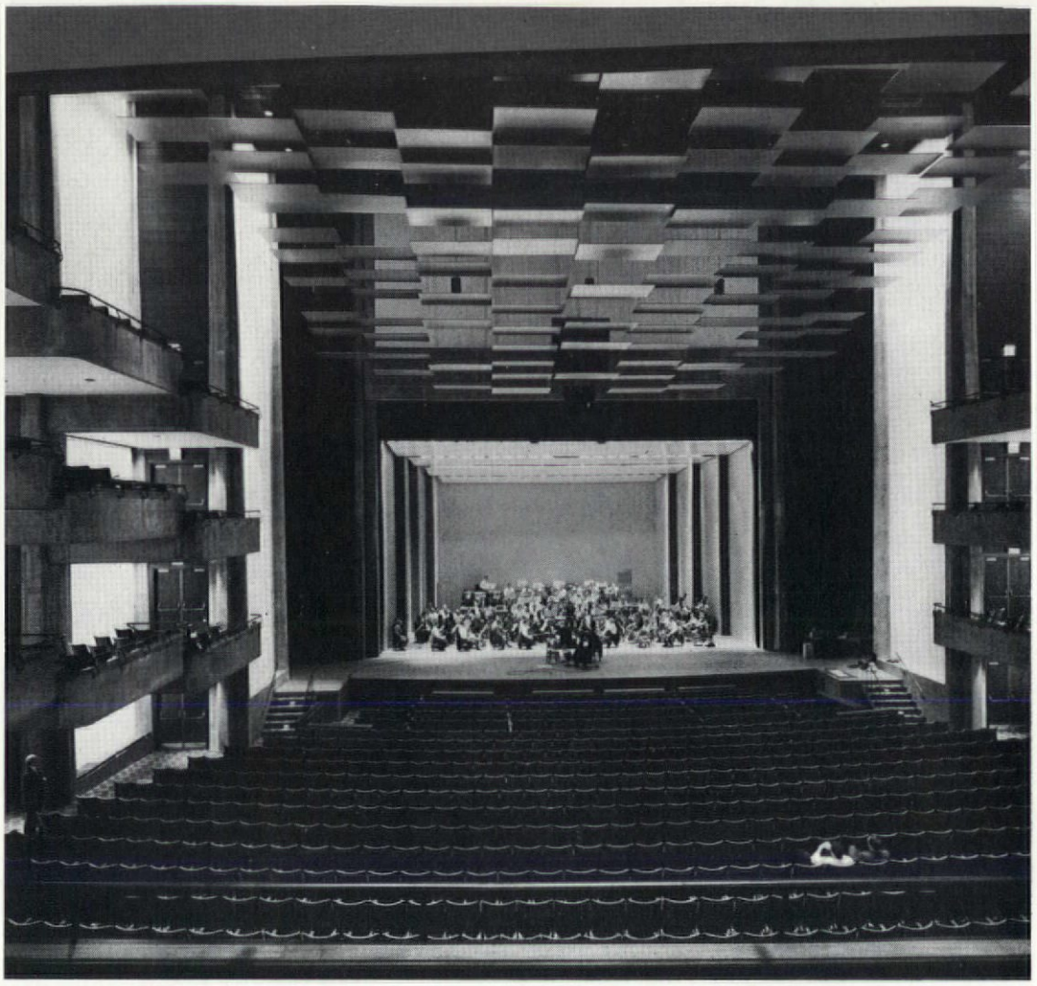
This auditorium was programmed as a multi-purpose hall to seat 2200. It accommodates a symphony orchestra, opera, dance, dramatic performances, lectures, choral groups, cinema, and serves as a workshop for students. In this day of careful specialized design for the various theatre arts, one may ask if this is not too much to attempt. However, encouragement from a number of prominent men in theatre production has even suggested that for many smaller cities that cannot support a Lincoln Center, and for many universities, a new prototype for the multi-purpose theatre should be developed.

The primary determinants of the design were: (1) the acoustical requirements for symphony—a shoe-box shaped hall with parallel side-walls, much volume and hard surfaces for high reverberation; (2) the closest distance possible for all seats from the stage for opera; and (3) continental seating for which the fire code requirement is side exits not more than 15ft apart. These three problems were solved in one device: that of the 15ft wide wall elements. These elements were first used to shape the hall, or inner building, providing parallel walls, allowing a circular hall shape for closest seating, and providing exits between each offset of wall. Secondly, these wall elements became the motif, or 'building block', in a sense, of which the outer building was to be designed. Out of these elements stair towers were made, and even the stage tower and walls, giving the building a unity and handling successfully the basic cleavage between stage tower, hall, and front lobby which defeats so many theatre designs. The wall elements, 15ft wide and 60, 75 and 90ft high are of concrete with exterior walls faced with Indiana limestone; interior

walls, plaster. The wall ends are of rough cast concrete finish, forming pilasters 44in broad at base tapering to 20in at their parapet roofs, giving an active, irregular line against the sky. Lighting effects are integrated with the wall elements also. The offsetting of these walls modulates the light as a lantern—daylight will filter in, artificial light will filter out at night.

Although not an 'experimental theatre', there are certain flexibilities at the forestage area. Two pits have been developed, either of which can be used for orchestra, raised to seating level, or raised to stage level to extend the action 28ft into the audience. In addition, side stages with access from two levels make possible a variety of staging possibilities. Another feature of the building is a suspended ceiling for the hall. The many technical matters involved with an auditorium ceiling always pose a serious task for the architect. In this case a pattern of suspended panels hides air conditioning grills, down-light sources, serves as acoustical reflective surfaces, and, by indirect light, forms an extensive abstract cloud effect.

A careful study of acoustics and sight lines lead to a three-balcony scheme in which balconies and side boxes could be shallow. The boxes, with their lively pattern, and the audience they accommodate, were designed to effect an intra-audience consciousness which is so much an element of pageantry. The dramatic experience of entering this building, moving between the great walls in narrow, irregular spaces, some 60ft high, and filtering through from the outer building into the inner building, was for the purpose of involving the audience itself, as well as the actors, in a total theatrical performance or pageant.



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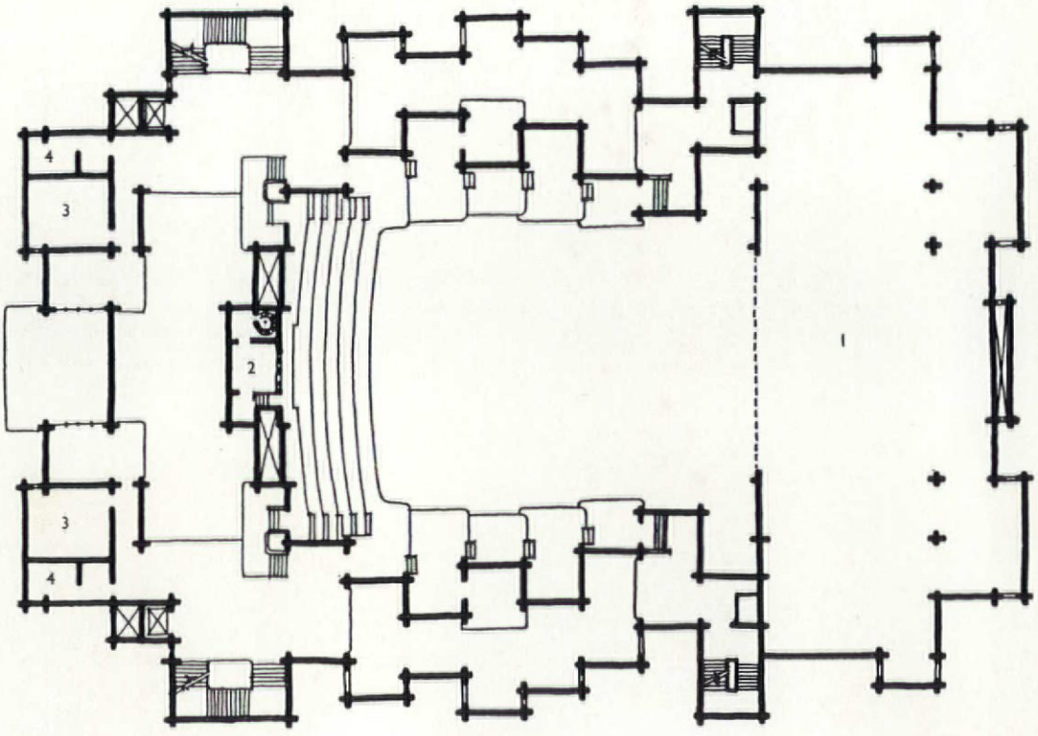


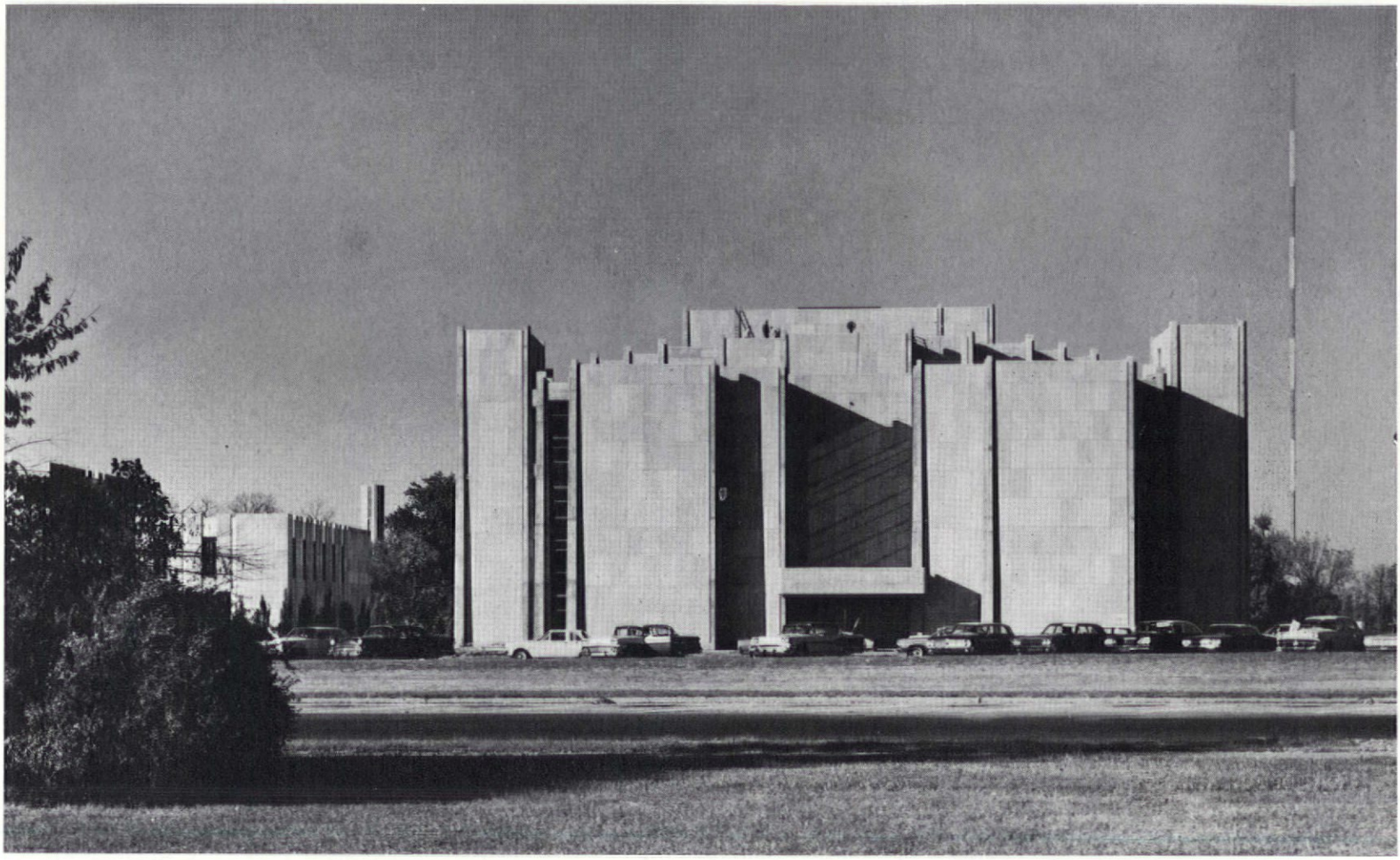
2

1
View of auditorium showing part of the pit raised to stage level; also the suspended ceiling which acts as acoustic reflector

2
First floor plan
1 fly gallery
2 projection room
3 office
4 toilets

3
View of the theatre from the south

4
Ground floor plan
1 stage
2 pit
3 coats
4 office
5 toilets



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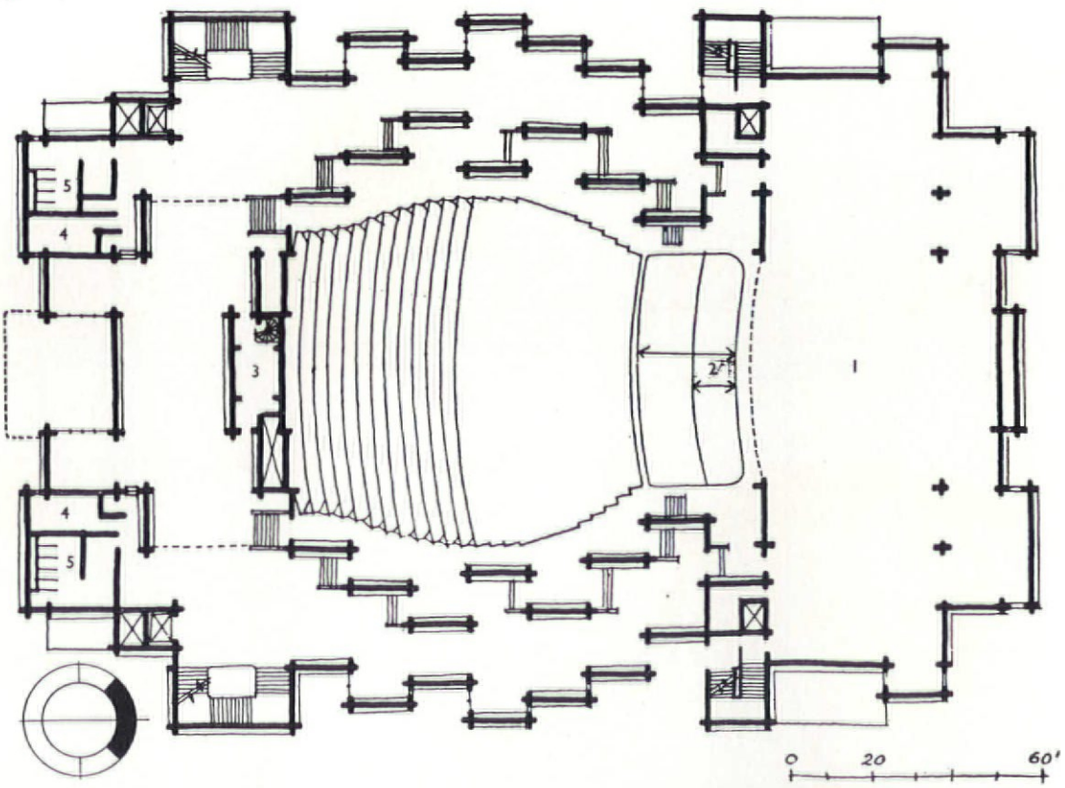
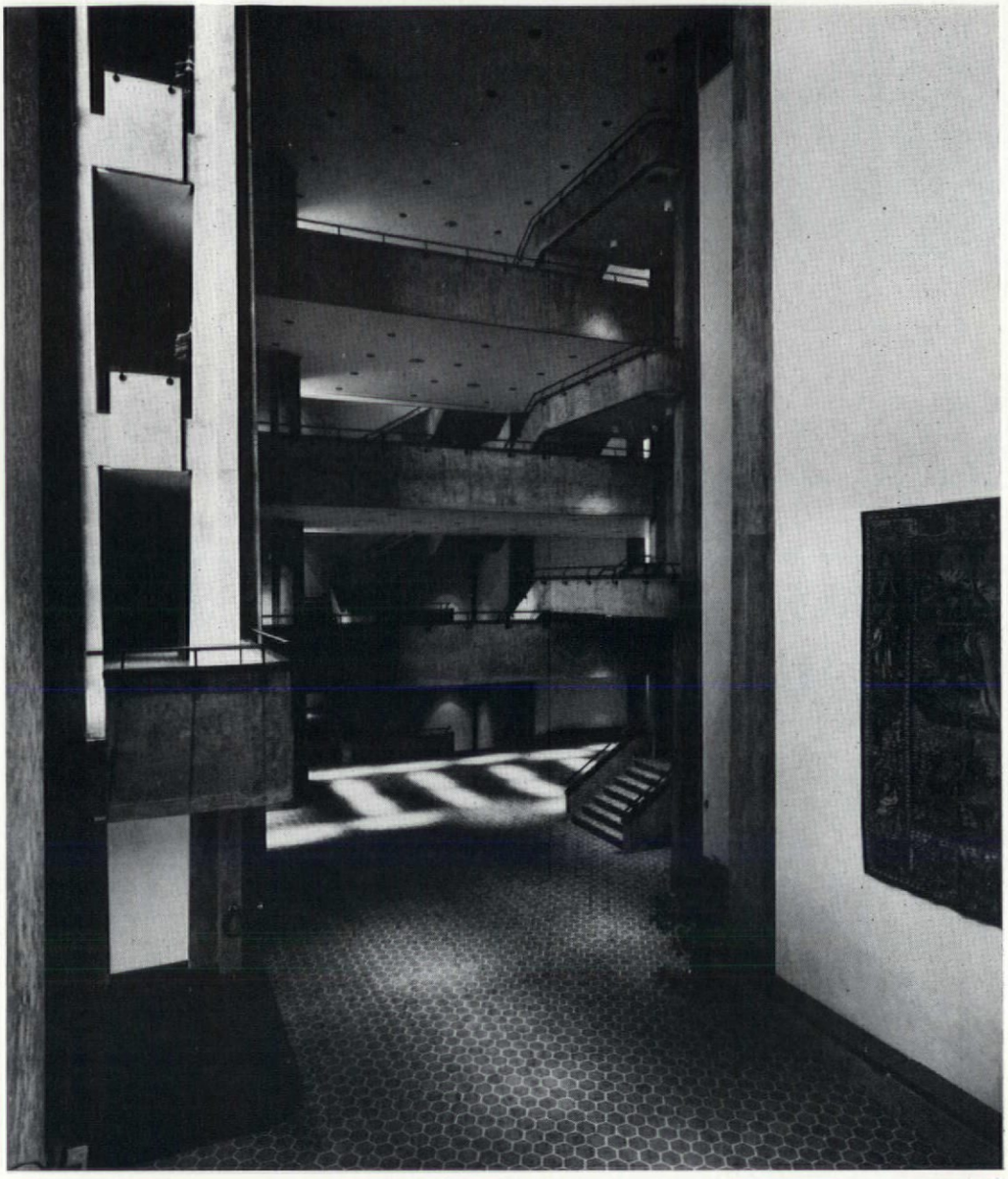


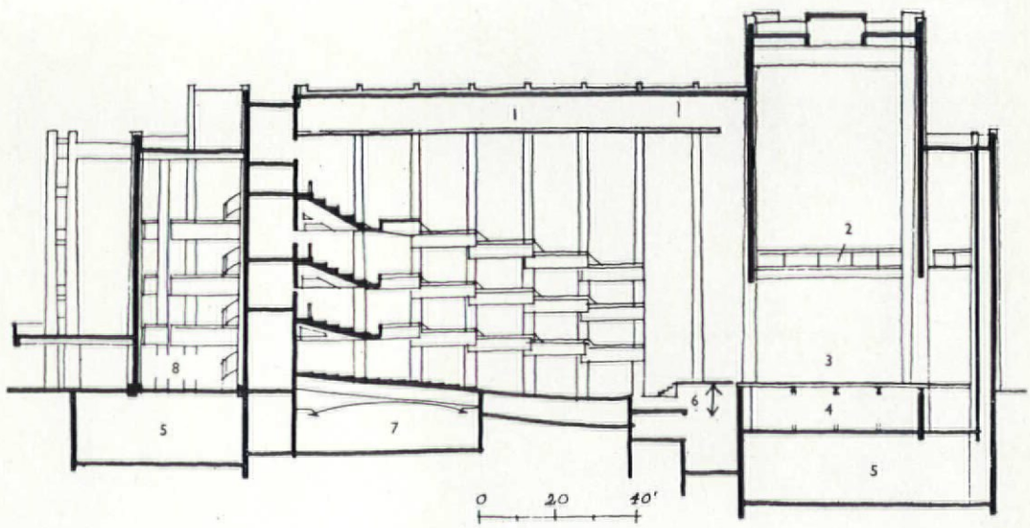


1

1
View across the lobby from the east showing access to the upper floors

2
Longitudinal section
1 truss space
2 catwalk
3 stage
4 dressing rooms
5 mechanical
6 elevating pit
7 reception hall
8 lobby

2



Theatre block, Charles Center, Baltimore, Maryland, USA

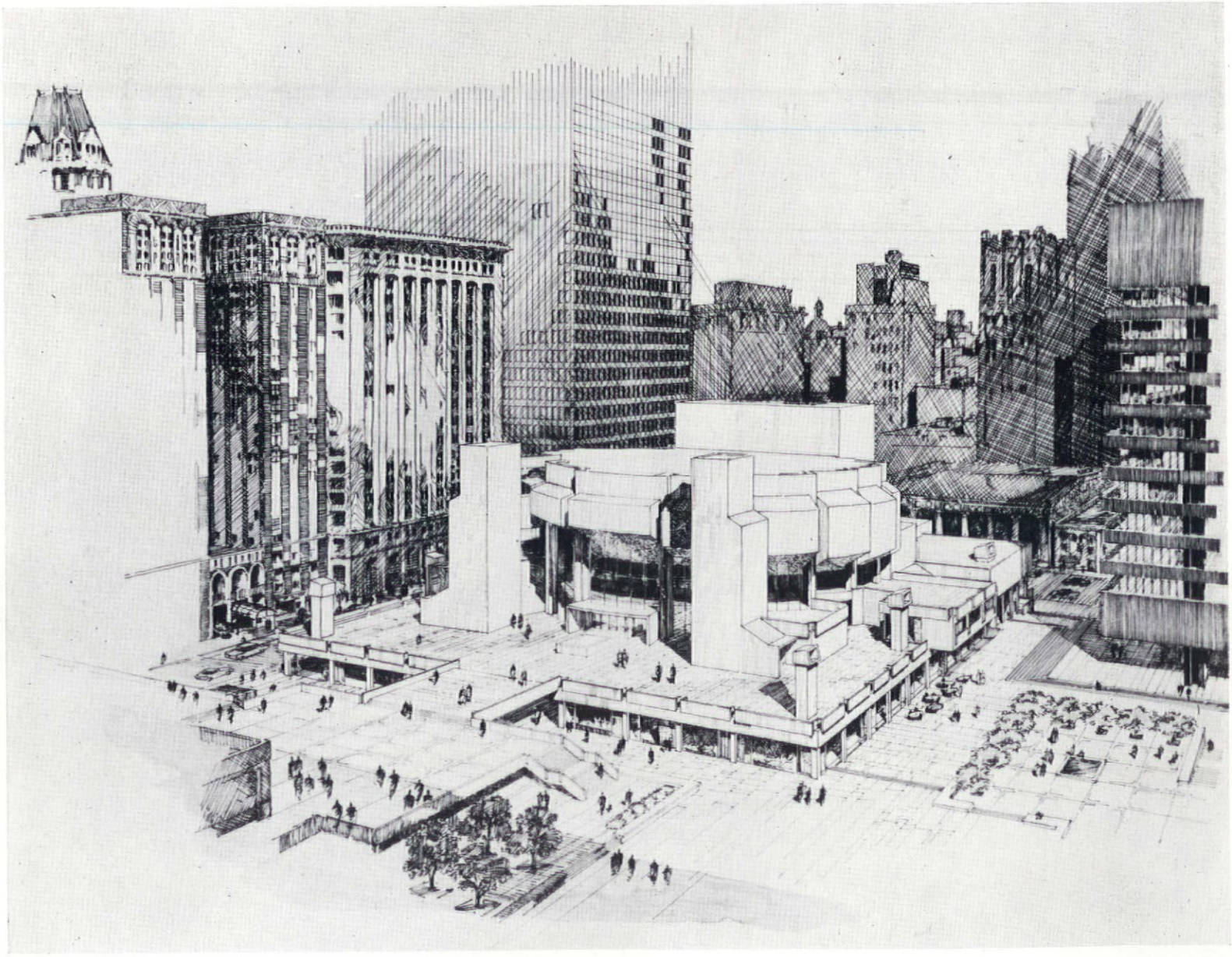
John M. Johansen

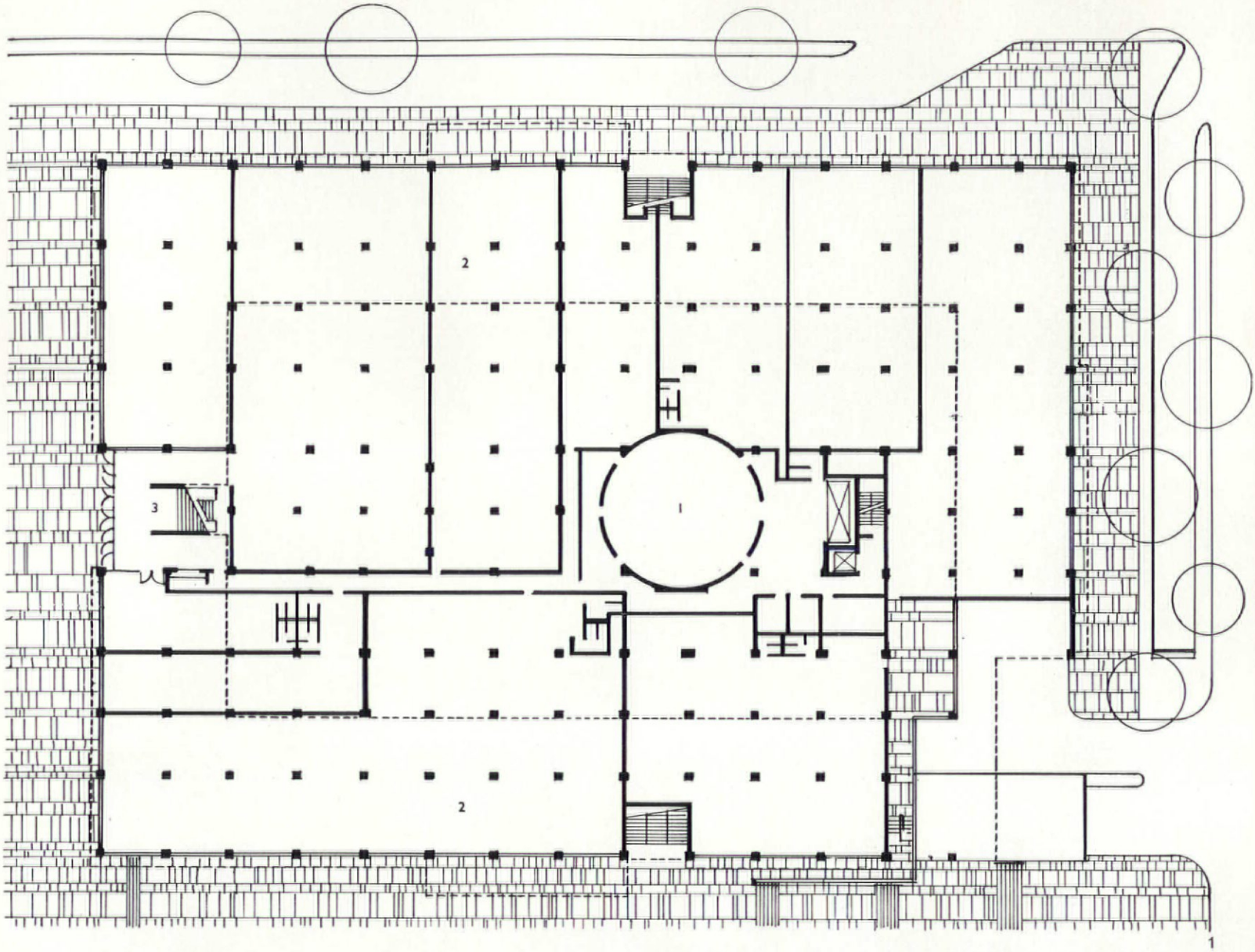
This block, a part of the total Charles Center Redevelopment project sponsored by the Greater Baltimore Committee, is in the central business area of the city, off the main plaza. A new theatre for Broadway-type shows was a civic need.

In order to make best use of the block from a financial point of view, an assembly of uses was made in which two levels below ground for parking 200 cars was combined with a complete floor at street level, 50,000ft² of rental space for shops and restaurant, and above this the theatre with 1500 seats and its supplementary functions.

The street level rental space forms a generous platform as a setting for the theatre. This platform forms extensive terraces which on the plaza side, connect by bridge to the extensive inter-block system of elevated walkways. A broad stair leads to the terrace from a shopping arcade off the plaza, and the terrace allows entrances to the theatre lobby and side lounges. The theatre itself faces the plaza. Its stage tower and off-stage functions are developed away from the plaza. Four massive stair towers, two flanking the entrance and one each side of the stage, rise above the theatre roof. Servicing

continued overleaf





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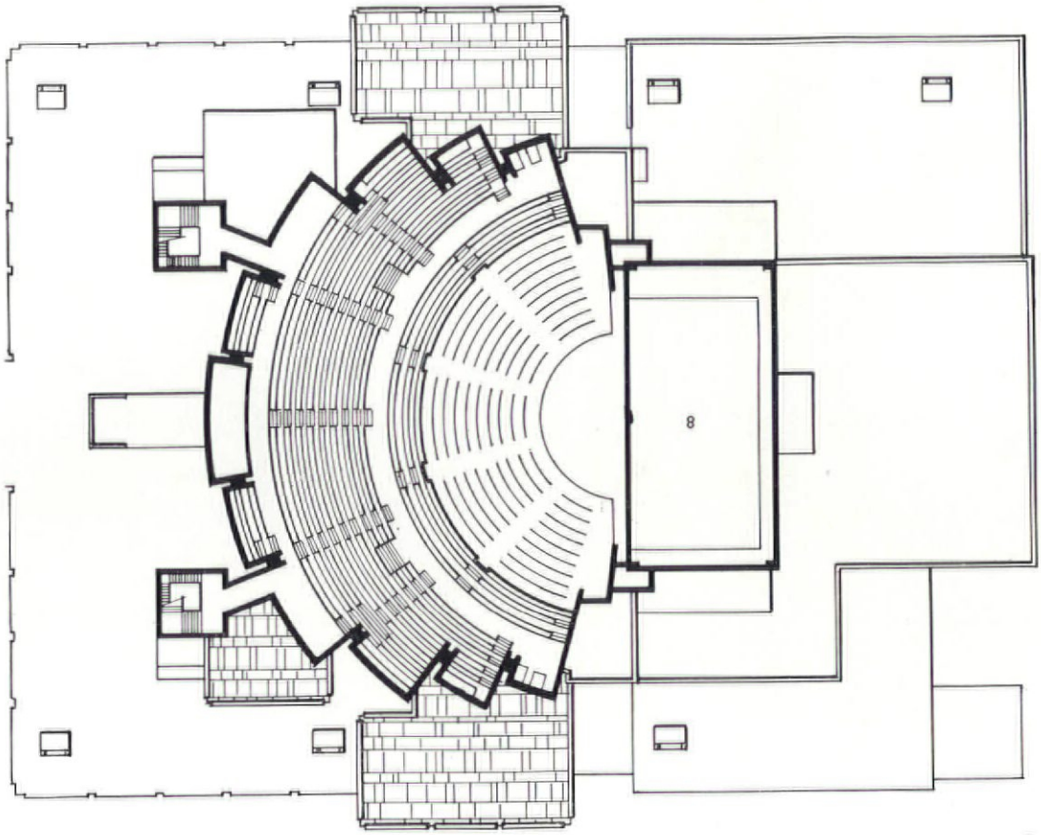
of the theatre takes place at street level at the rear, where truck-loading platforms accommodate the shops as well. Scenery is brought up in elevators to stage level or to the understage area as required.

An interesting feature of the theatre is the experimental stage. This combines the conventional orchestra pit with trapped areas of the stage, to form one circular area which is sunken, but which can be filled in as partial seating, orchestra pit, or stage in any combination or at any level. It is possible that as an entire acting area, performers can approach from below from any direction, or staging can be constructed to be conventional or to be of any design whatever. The hall seating is derivative of the Greek theatre, although the marginal seats at the sides are eliminated and the circular form is less than half round. But this form, with the balcony, gave the best results in an effort to bring the greatest number of seats close to the stage. At the rear rows of the floor seating, there are boxes, with floors raised for improved view. It is the intention that these less valuable seats at the rear, if properly featured, can be made quite popular.
Because this is a low budget theatre project taking its place in the financial balance of the entire block, little money could be spent on the design of a theatre as a building within a building; or on the design of an outer architectural form. For this reason, the inner form, i.e. the shape determined by seating and acoustics and circulation channels, horizontal and vertical, had on its reverse side to become the outer form. The result then is a rather mighty, fan-shaped structure, flaring out as it rises, and held up by strong concrete piers in radial arrangement. The seating groups within are expressed outside as segments of the hall form, breaking out between the piers. Under this flaring shape, huddle the lounges, and service elements. The great tower work with the stage tower to surround, unify and hold the theatre hall itself. To further express the stair functions, the towers pitch out at their bases in various directions, suggesting the spill out of theatre-goers who will use them.

By giving expressiveness to all functions of theatre attendance, it is intended that an atmosphere of pageantry be experienced, in which by participation the theatre-goers, or audience, become performers themselves in a larger drama; the drama of theatre attendance as distinguished from the stage performance itself. The entire city block will be a continuous monolithic concrete structure.



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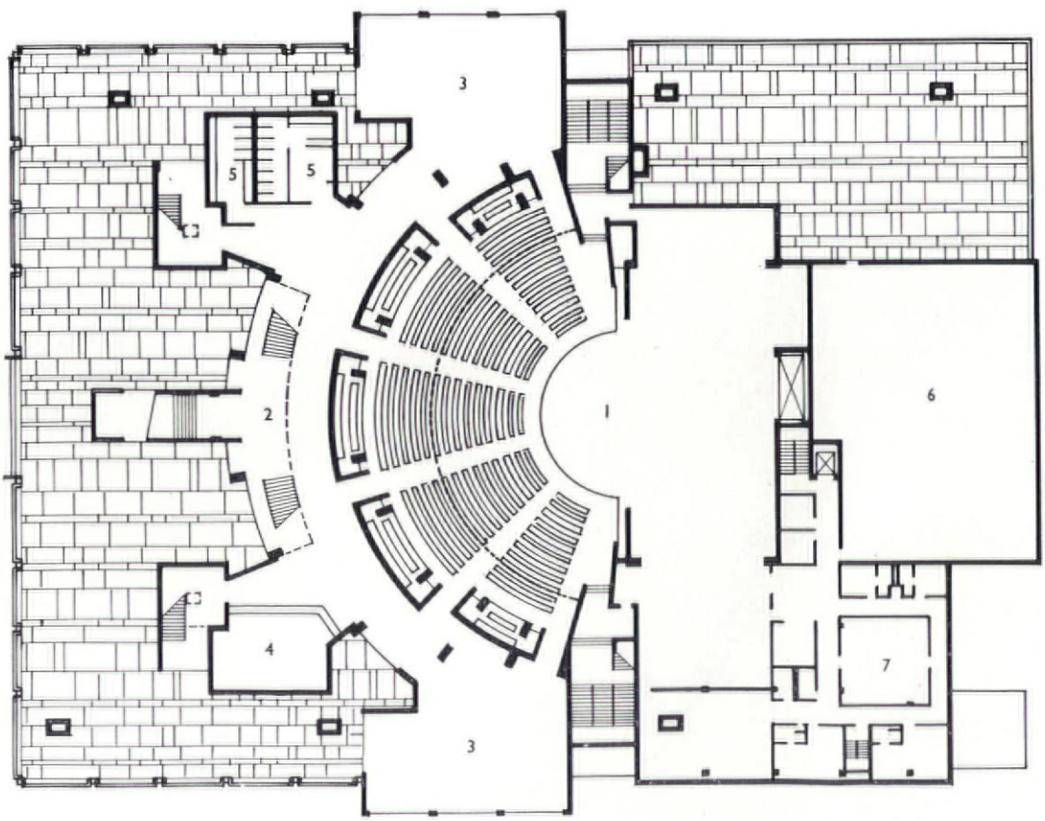


1
Site plan
1 stage pit
2 retail spaces
3 lower lobby

2
Ground floor plan

3
First floor plan
1 stage
2 lobby
3 lounge
4 coats
5 toilets
6 mechanical
7 back stage
8 fly gallery

United States Embassy Office, Dublin

John M. Johansen

The site for the new Embassy building is at Ballsbridge, at the intersection of Elgin and Pembroke Roads.

The architect found that the civic beauty of Dublin with its high architectural standards presented a serious challenge. In view of this he had to consider what would be appropriate to Dublin, what would be a representative architectural statement from the United States, what would satisfy the functional requirements and intricate operations of an embassy office building, and what would be of significance to the architectural profession. Study of the early monuments and crafts, and the revival of these by the the Gaelic League in 1893, revealed a very strong and truly native style. Although some stylistic similarity can be found between this building and eighteenth-century buildings, the effect in general is more that of earlier culture. Technically, the design may be considered an advance in architectural thinking in the use of precast elements.

The building site with its triangular shape, made it necessary that this be a free-standing building, and since it is difficult to align the new building with façades of both streets it had to be a shape independent of the surrounding buildings. The circular building faces in all directions, is friendly and inoffensive from all approaches. There are at least four approaches by streets which justify this. Two entrances facing two major streets provide access to the consulate and the embassy quarters. Had there been a major entrance facing Ballsbridge, nearly all the magnificent trees would have had to be cut to see the building. As it is, the building can be seen from any direction and nearly all the trees have been preserved.

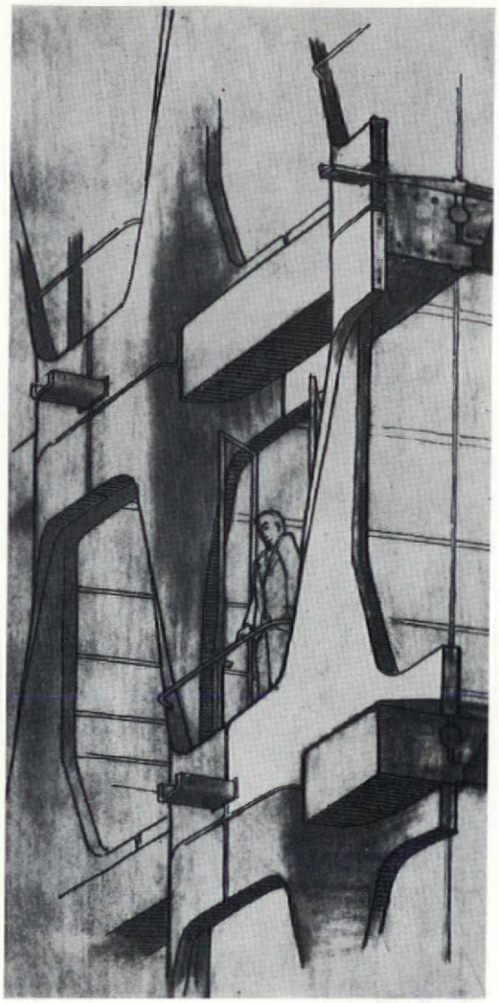
The building is surrounded by a sunken garden to give it a sense of privacy. Ramps at the rear from each street lead down to a parking area generally out of sight, and to garages at basement level. One enters the building by crossing the sunken garden on bridges, and continuing through the continuous façade into a rotunda, with similar façade, which is four storeys high and 50ft in diameter. Around the rotunda is an ambulatory, or circular corridor, serving the offices on the three floors.

The structure of the building consists of two façades which support the three floors; with three towers enclosing stairs and elevator. The façade is composed of precast concrete with reconstructed limestone finish. Even the floor slabs are made in precast concrete sections, to be lifted into place.

The circular form is a well known Celtic-Christian motif. It has also been for centuries considered symbolic of unity, timelessness, tranquility and order. The circular motif also appears in the Celtic cross, the brooch and the round towers. Further precedent for the circular building can be found in the circular colonnade of the Parliamentary buildings, the semi-circular element of the National Library, and the building known as the 'Rotunda' off O'Connell Street.

The office layout provides for, on the entrance level, a large reception area in the rotunda, and the complete consulate, including the visa and passport departments which will be opened freely to the public. The two floors above accommodate the Ambassador, his attachés, and their staff. The offices are laid out on a modular system, so that any arrangement or re-arrangement is possible with complete flexibility by moving partitions which can be attached to the exterior arcade every seven and a half feet. No columns appear within the building to obstruct office space. The arcade façade provides for balconies at every other bay, approached through French doors. Every office has one or more balconies.

As to finish materials, floors are terrazzo throughout, of Connemara marble; partitions are plaster and, in certain offices, wood veneer; ceilings are suspended luminous plastic with small circular patterns. An attempt was made to use local materials and crafts. The base of the building is of native granite, the façade of reconstructed limestone. The arcaded façade may be thought of as a revival of medieval 'Tracery'. Technically, the angular streets provide lateral stability to the building, as well as being more expressive of structural forces. They also suggest the interwoven Celtic motive as seen in the *Book of Kells* and elsewhere. The architect has a general dislike of sleek glass and prefabricated steel façades, and has expressed interest in the great structural possibilities of reinforced concrete with the rich sculptural effects it can achieve. The success of the building, he hopes, lies in its simplicity, directness of design, efficiency, and richness of sculptural effect. The sympathy between this and traditional buildings, which he believes exists, is more in quality and in spirit than in imitation.



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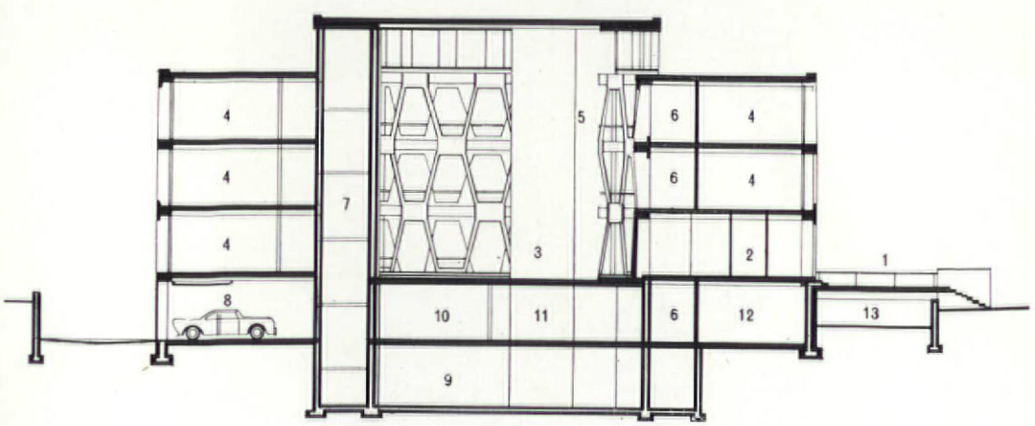

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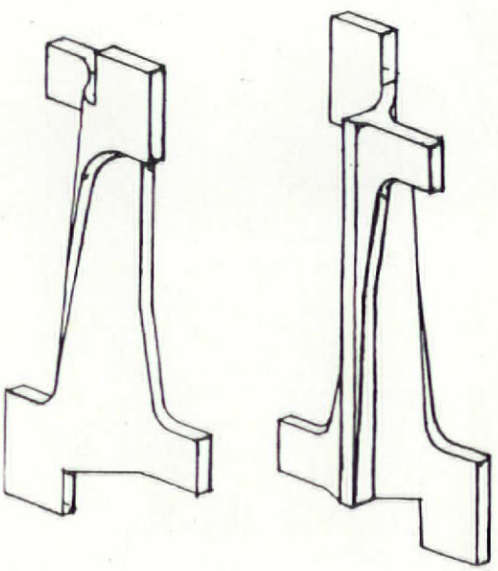

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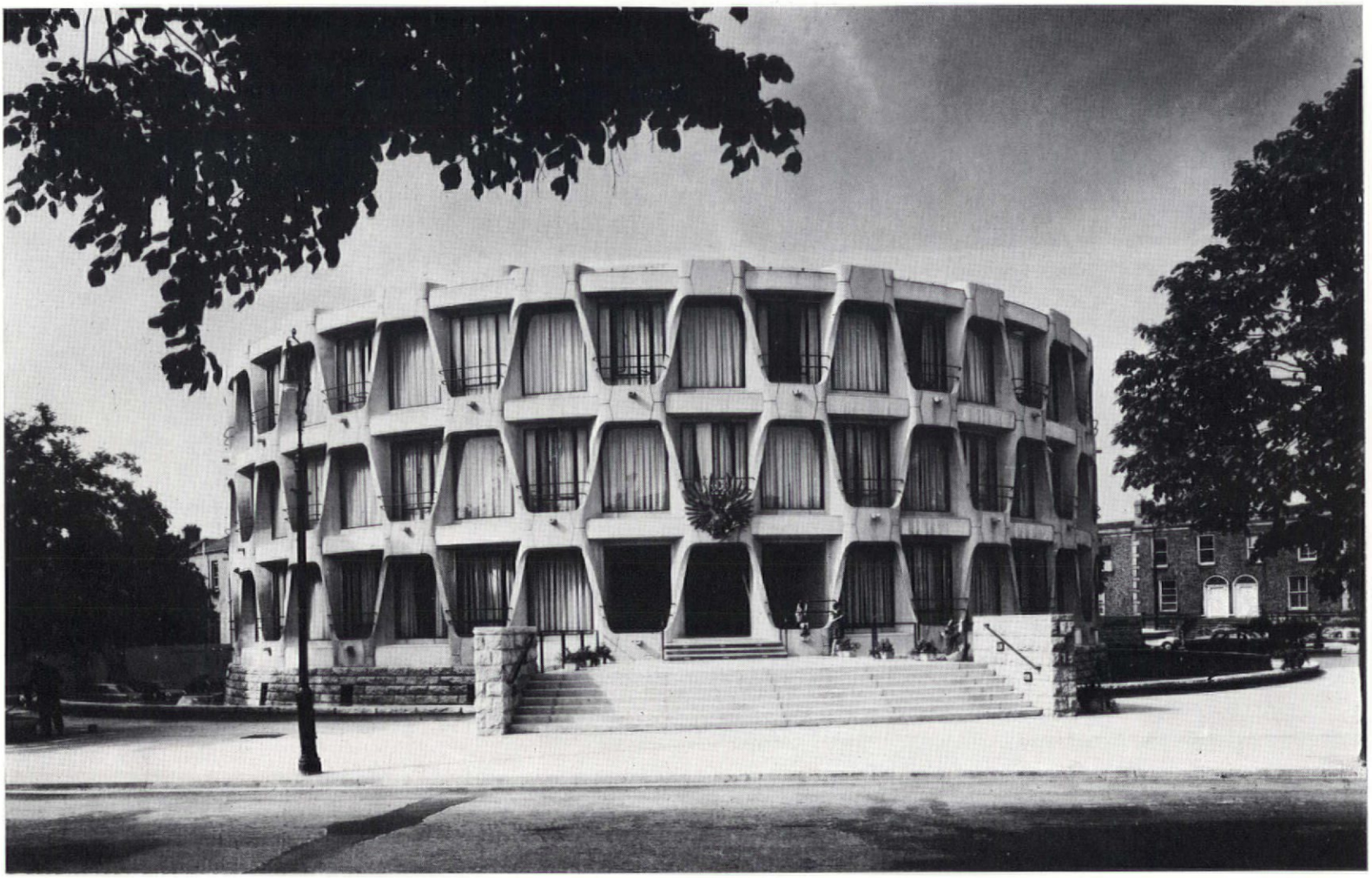

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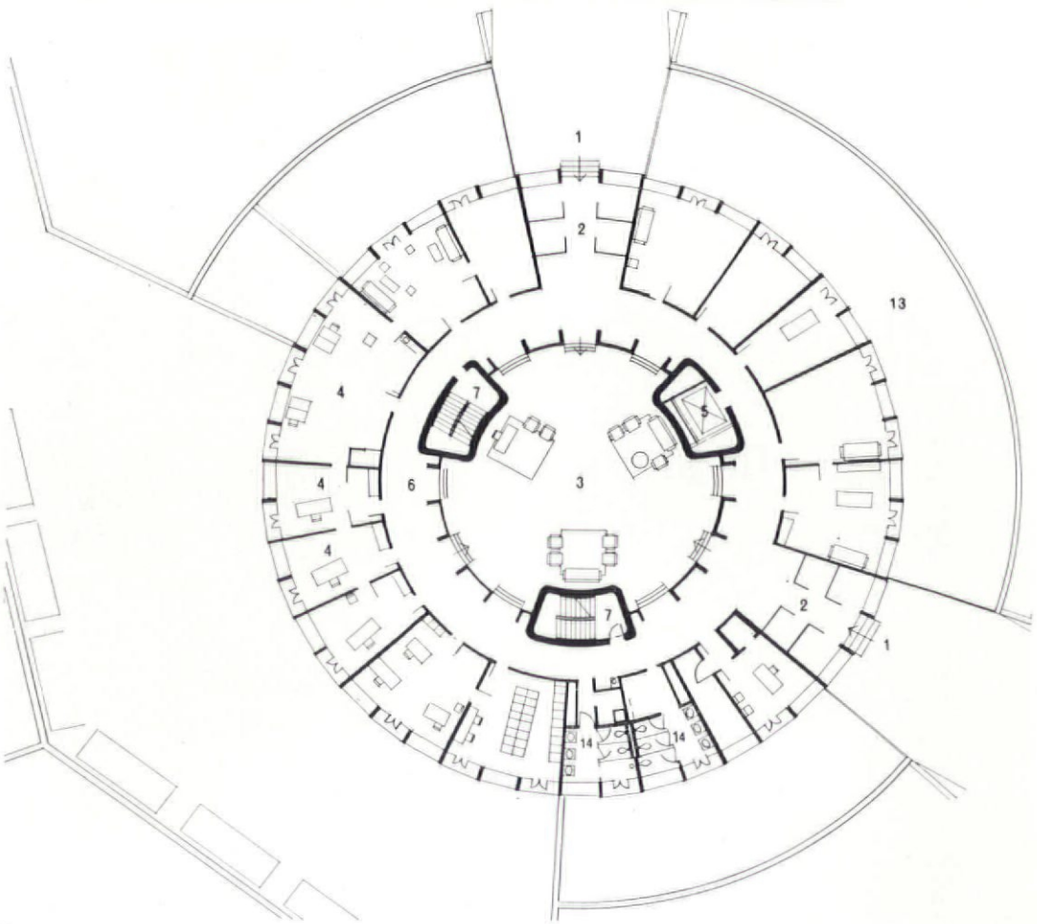


5

1
Detail showing construction of precast units

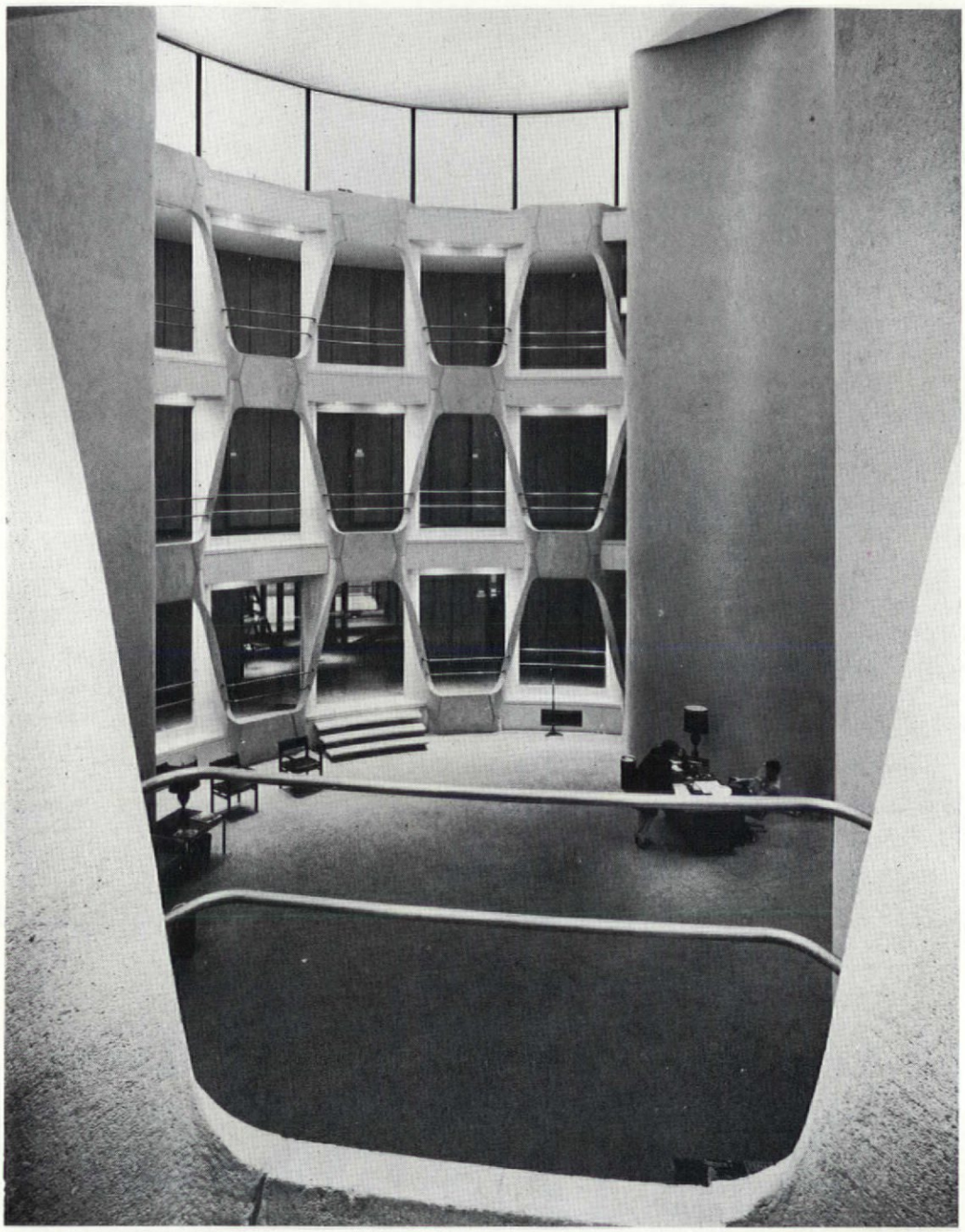
2
Section
1 entrance
2 vestibule
3 Embassy reception and lobby
4 office
5 lift
6 corridor
7 stairs
8 garage
9 boiler room
10 general service shop
11 general supplies
12 auto-telephone equipment
13 sunken garden
14 toilets

3
Isometrics of precast units showing exterior view on the right and interior view on the left

4
Frontal elevation of building showing the main entrance

5
Plan

Photos: Norman McGrath



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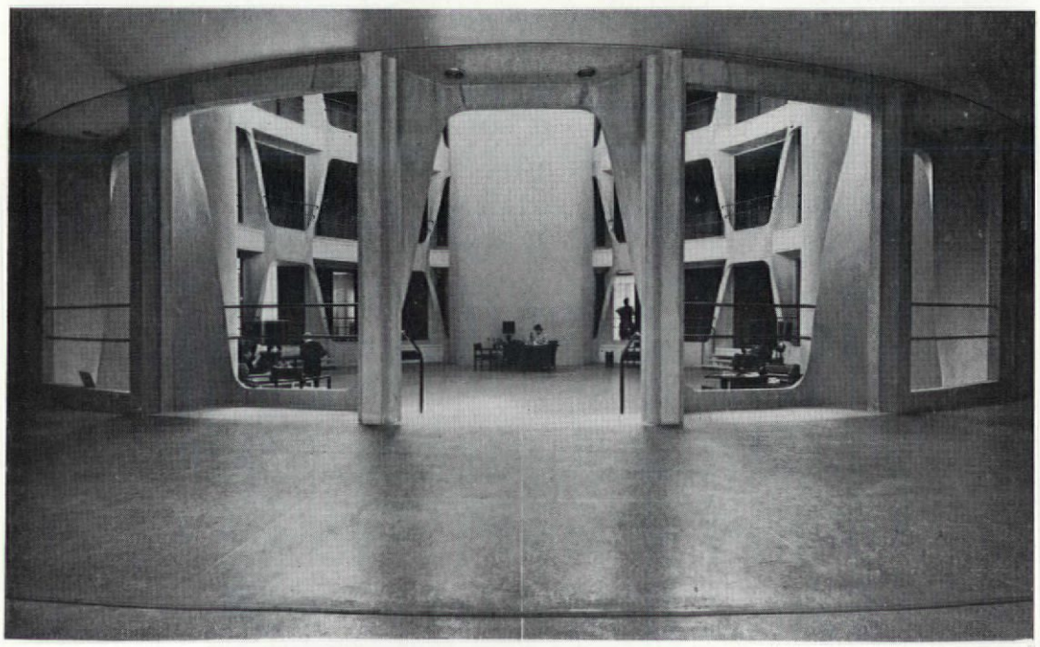


2

1
View across reception area from the first floor corridor

2
View into reception area from the main entrance
Photos: Norman McGrath

Bat Yam city hall and civic centre

Zvi Heker, Alfred Neumann and Eldat Sharon, architects

Bat Yam is a rapidly expanding industrial town (present population 60,000) on the Mediterranean Coast, south of Tel Aviv.

After winning the open competition for a city hall in 1958, the architects sought to enrich the programme maintaining that a city hall should be more than just an administrative ganglion; they therefore proposed a new site for a civic and shopping centre, as at present Bat Yam has no public core. A sandy virgin site 300m from the sea, on the fringe of existing development, was chosen. As the town expands so this will become the geographical, cultural and administrative centre, surrounded by fairly high density three-storey housing and punctuated by tower blocks.

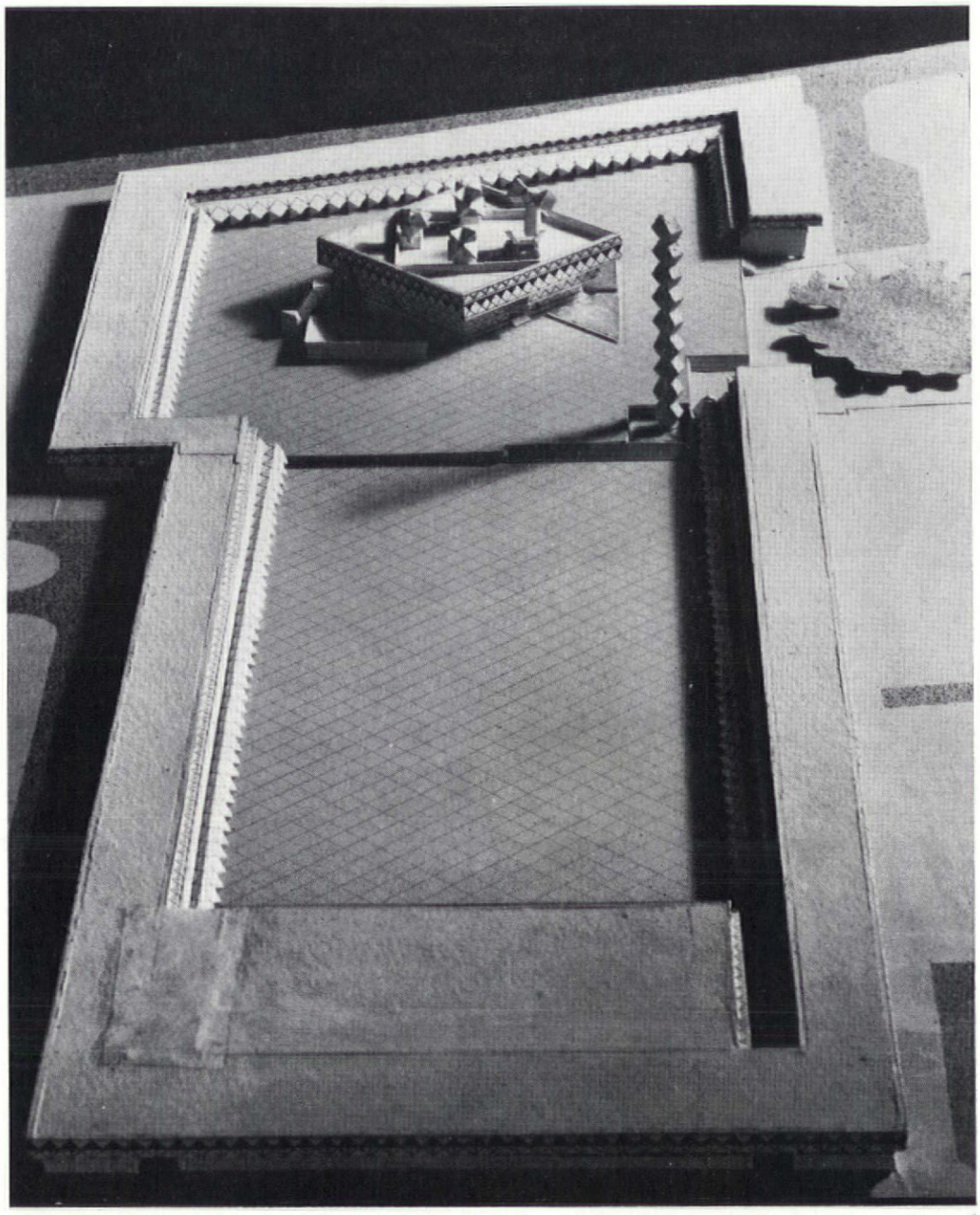
The proposed centre takes the form of a long rectangle, divided into a lower piazza for shopping and entertainment and an upper piazza for administration dominated by the city hall. Two-storey flats and offices over ground floor shops, whose entrances are shaded by a concrete pergola surround the piazza. All openings to the central space are kept narrow to preserve the sense of enclosure, except on the west side of the city hall, where a tunnel-shaped boulevard leads to the sea.

The city hall is shaped like an inverted ziggurat and is based on a cuboctahedral space packing unit of 262cm side. (262cm is a basic dimension in the proportional mϕ system; the result of Professor Neumann's research on modular coordination.) The building is set at 45° to the rectangular piazza, and is itself laid out on a 262cm diagonal structural grid repeated in plan and elevation, to give unity to the design. Each of the three storeys cantilever over the one beneath giving the walls protection from sun and rain; thus the area around the building is always in shade, which provides a natural transition from the piazza's bright light to the cool dark interior of the central court. The offices open into galleries running around the three-storey central court, forming a dramatic extension of the piazza, when it is used for special gatherings. The central court is naturally lit and ventilated through four concrete towers on the roof. These light and wind towers are terminated by geometrical bodies based on the cuboctahedron and serve also to modulate the strong exterior light penetrating to the central court.

Externally a covered staircase directly connects the small amphitheatre to the roof, which is used for evening performances.

The horizontal surfaces of the concrete ceilings outside and inside are painted in strong Byzantine colours, red, blue, and gold, while the vertical walls are white silicat blocks.

The city hall which is a centre for the various town activities, stands out by its highly worked shape against the more uniform background of the piazza's future buildings.

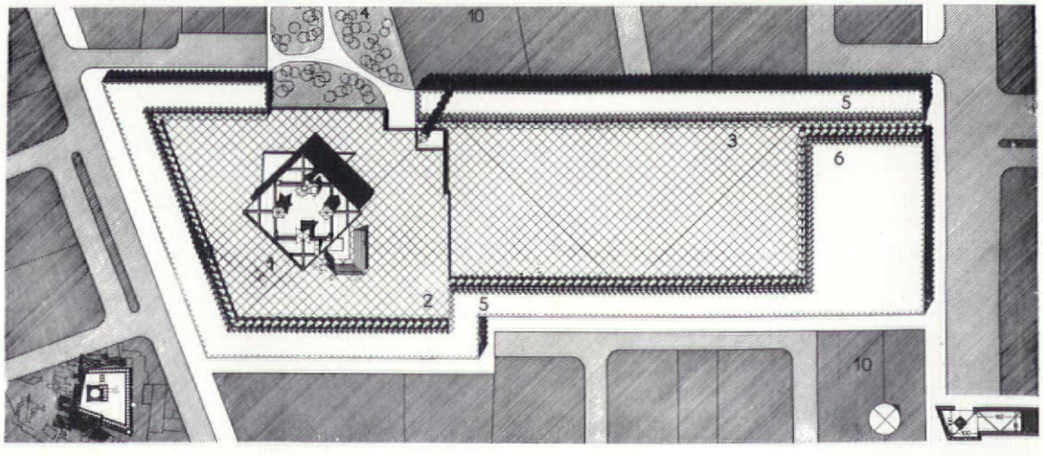


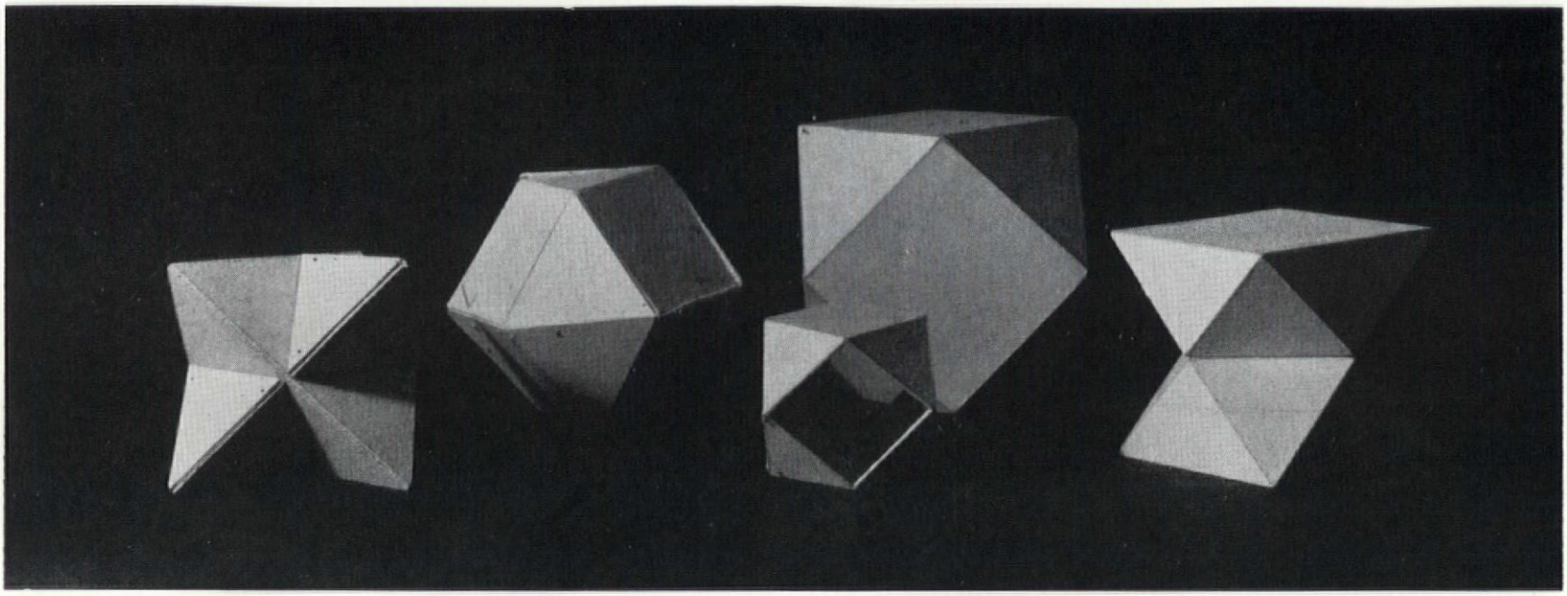
1

1
Model of the civic centre

2
Plan of the civic centre
1 city hall
2 upper piazza
3 lower piazza
4 pedestrian link to the sea
5 shops and offices
6 community building
10 existing parcelation for three-storey housing

2





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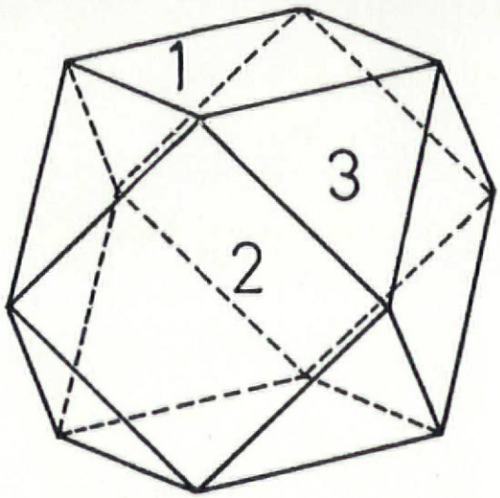

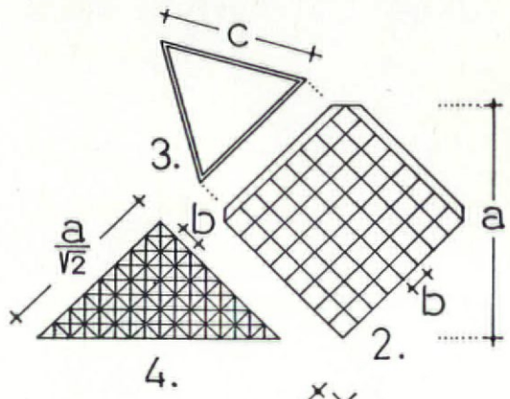

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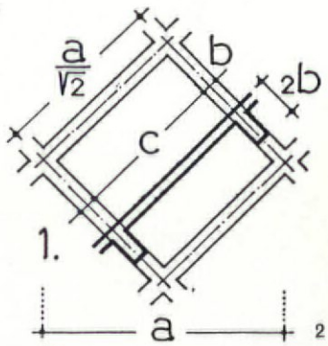
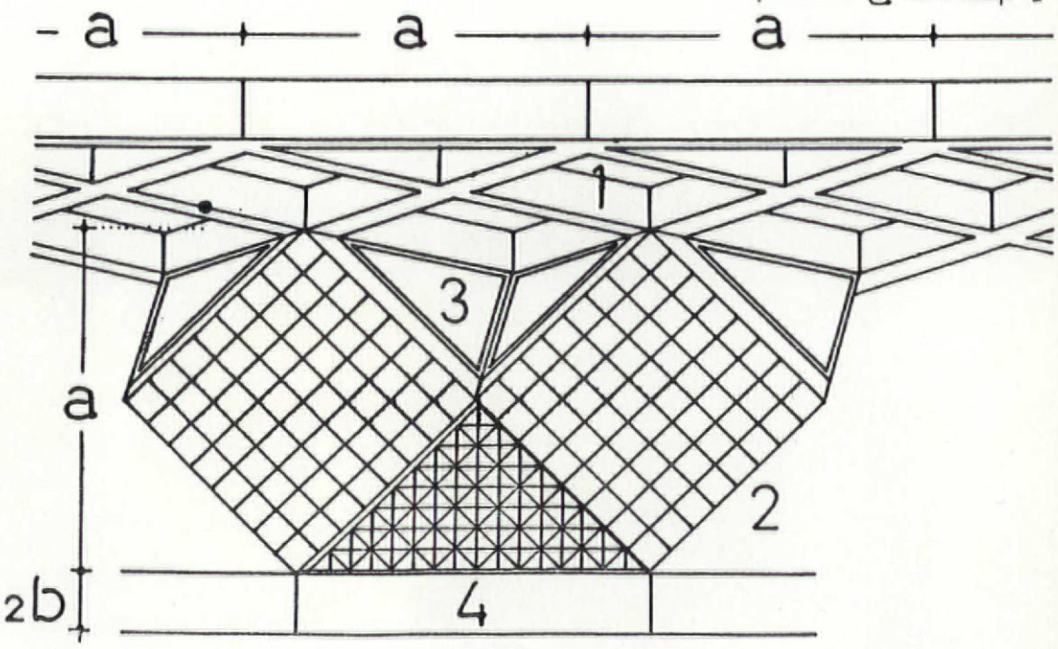


$a = 262,\ b = 23,\ c = \frac{a}{\sqrt{2}} - b = 162$



1
The basic solid cuboctahedron

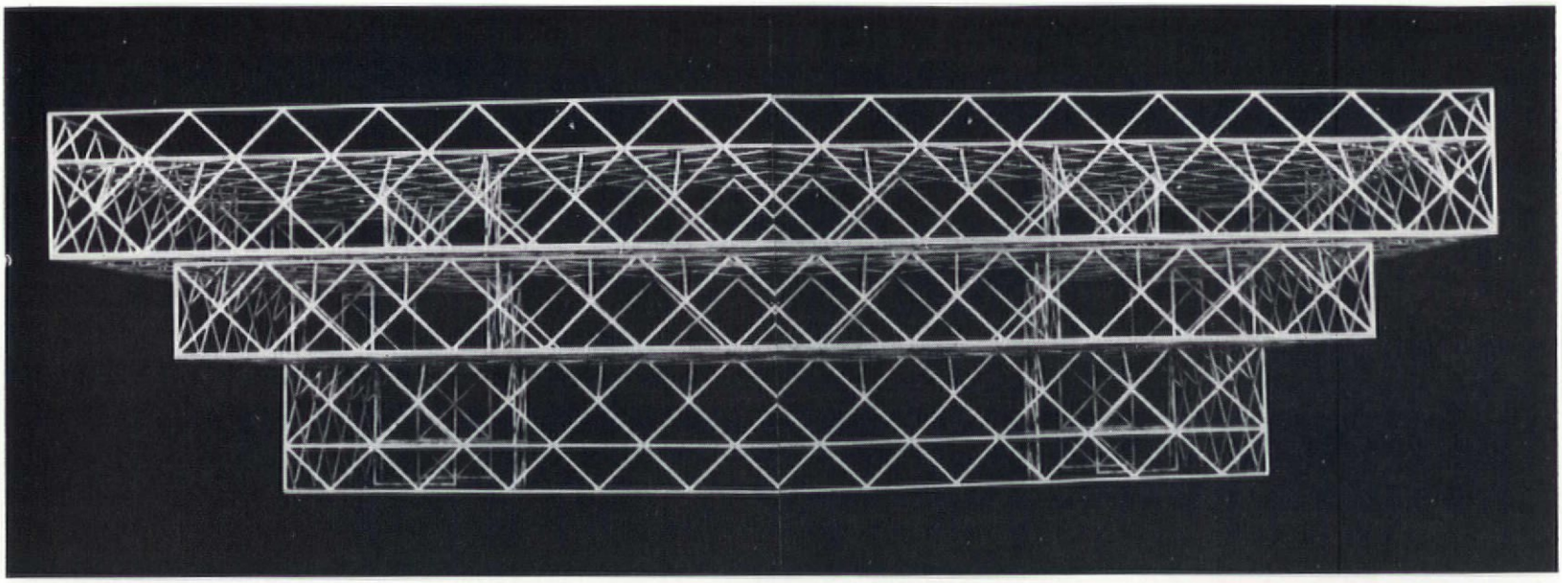
2
Structural elements

3
Part elevation
1 aluminium framed windows
2 dished concrete blocks
3 standard s'licate blocks
4 diagonal in-situ beam structure

4
Model of the structure

5
South elevation

3



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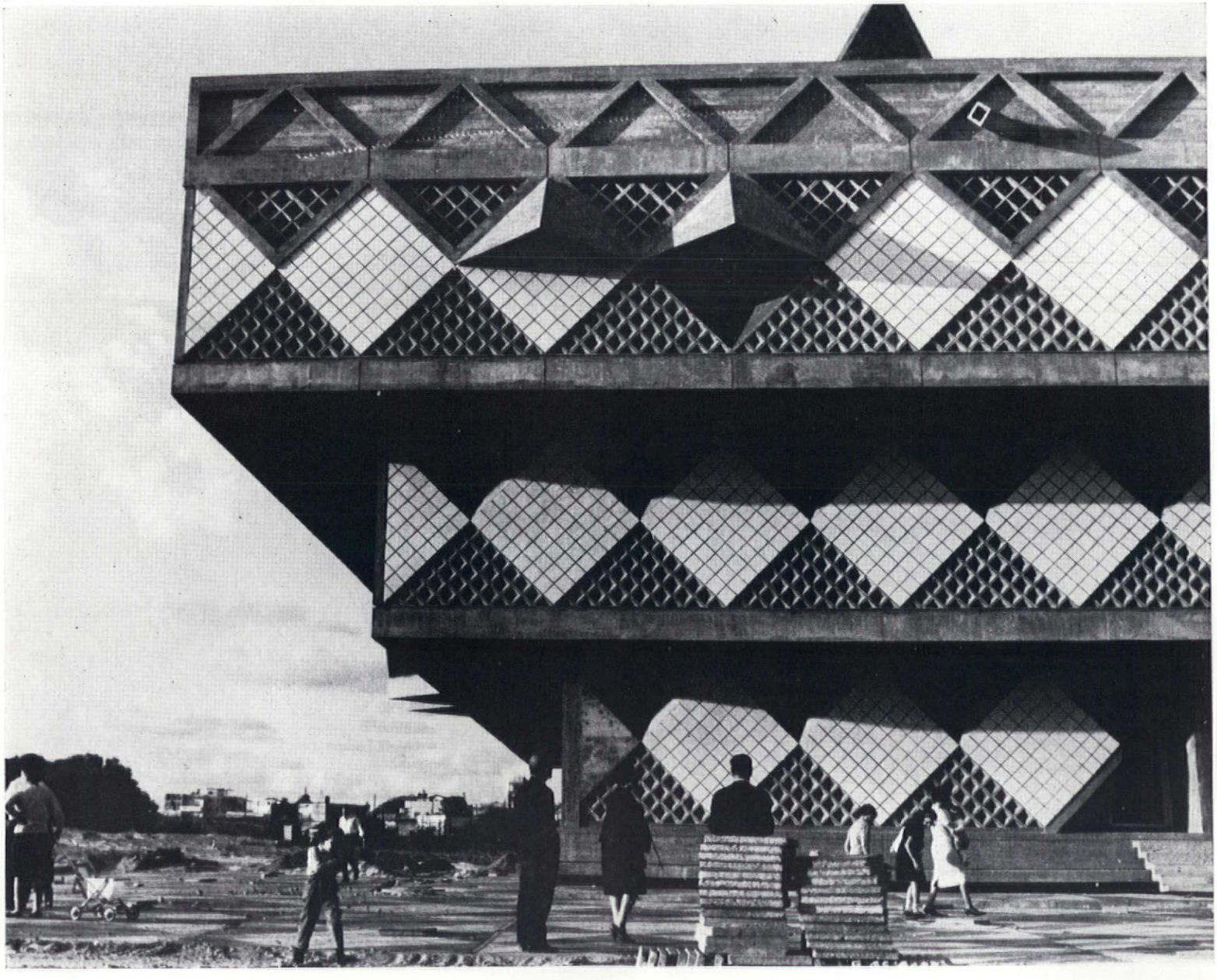
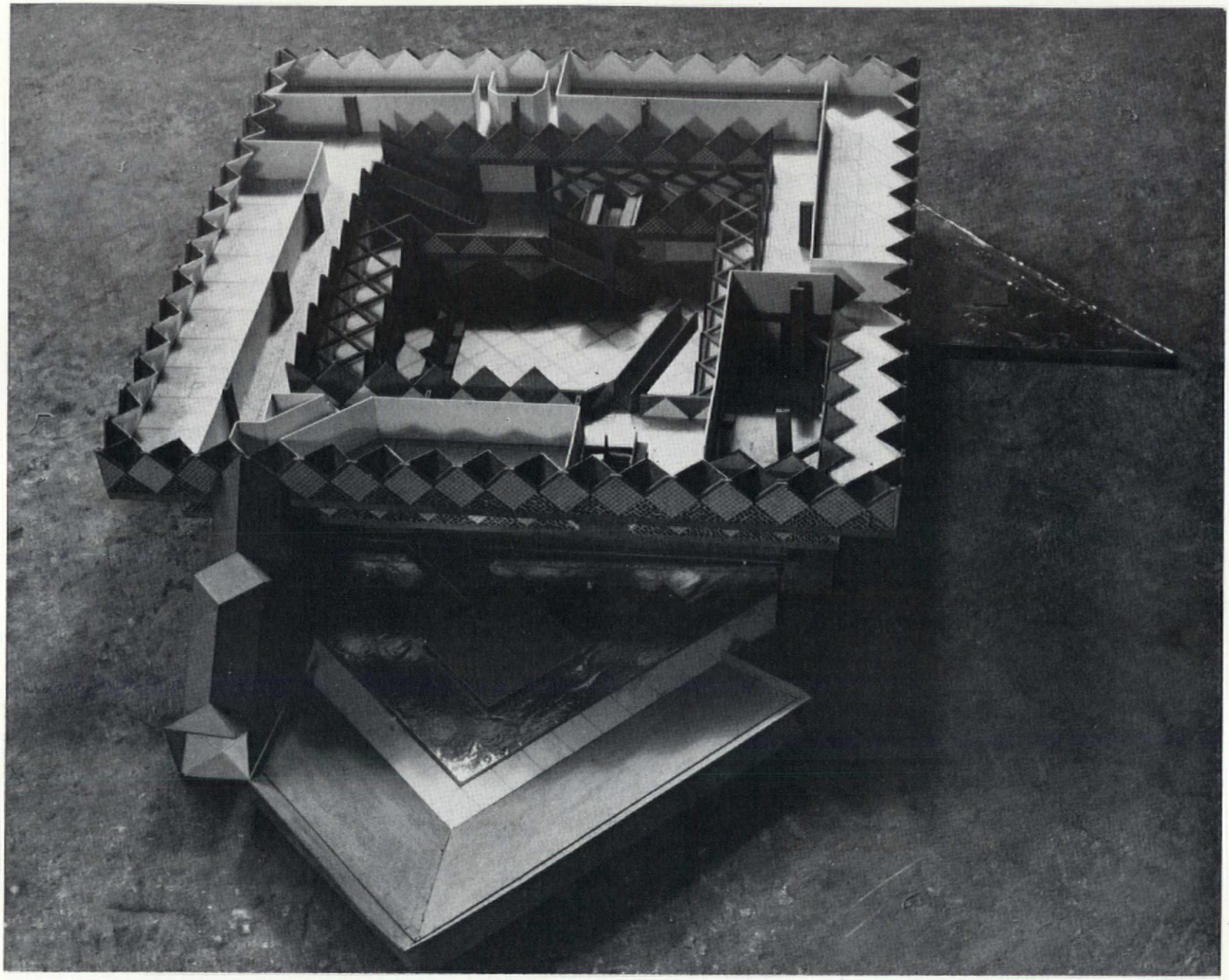




1

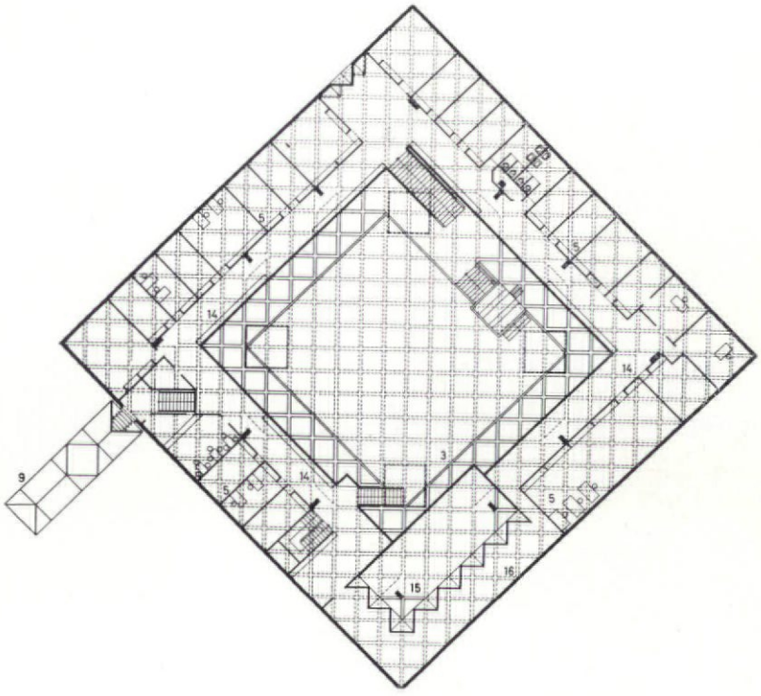
1
Model of the city hall without the roof

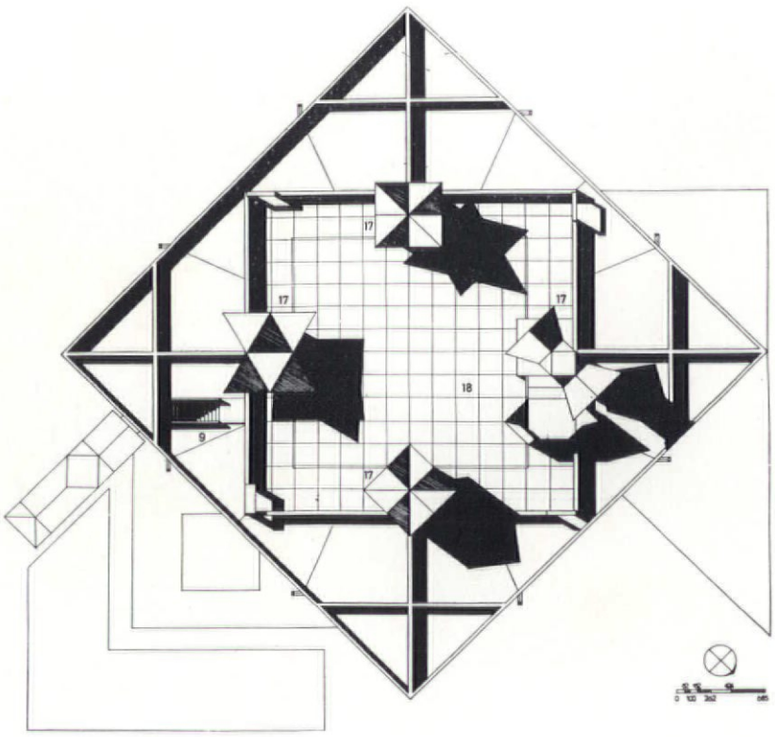
2
Second floor plan

3
Roof plan

4
Ground floor plan

5
First floor plan
1 entrance
2 information booth
3 central court
4 exhibition space
5 offices
6 podium
7 reflecting pool
8 amphitheatre
9 staircase to the roof
10 council chamber
11 balcony
12 Mayor's office
13 secretariat
14 corridor
15 balcony
16 visitor's gallery
17 light tower
18 roof terrace





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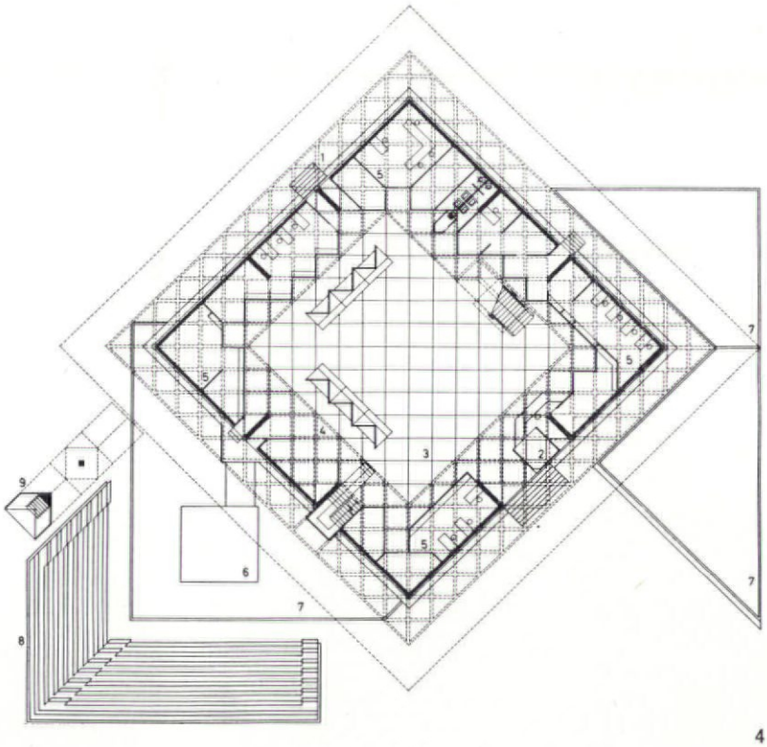

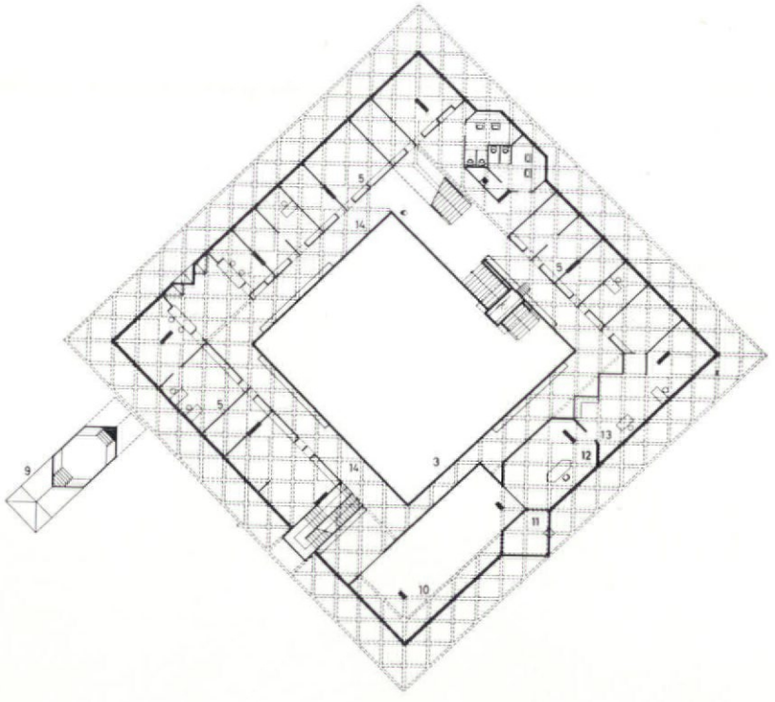

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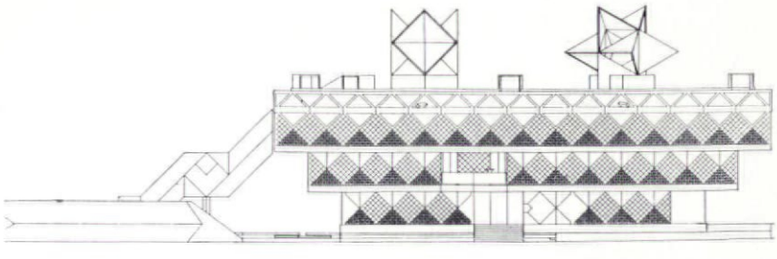

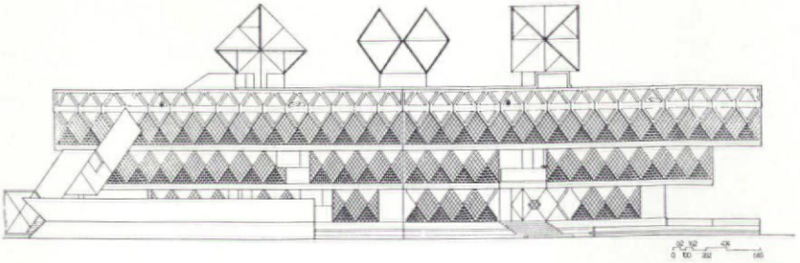

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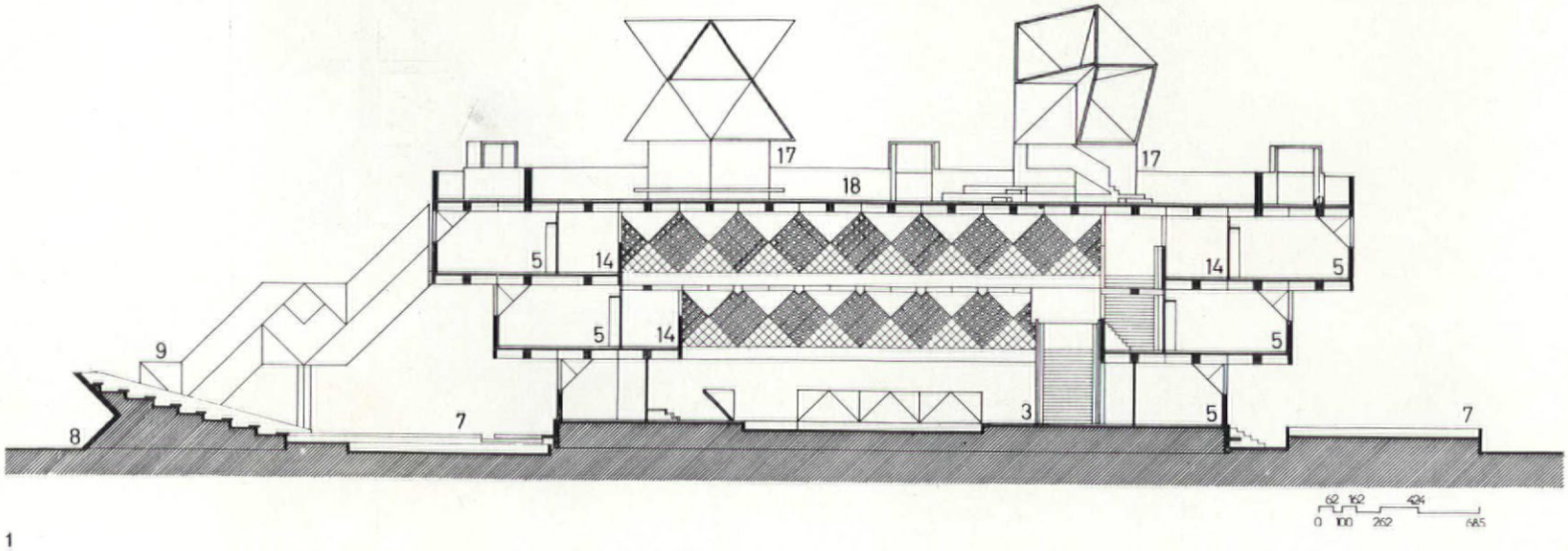

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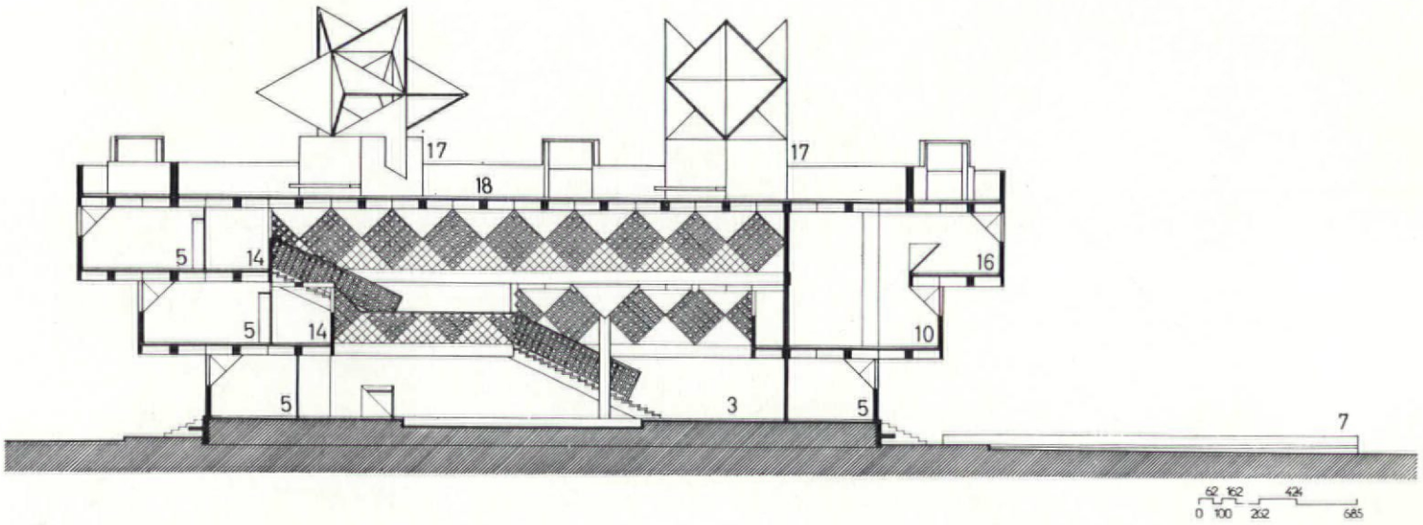

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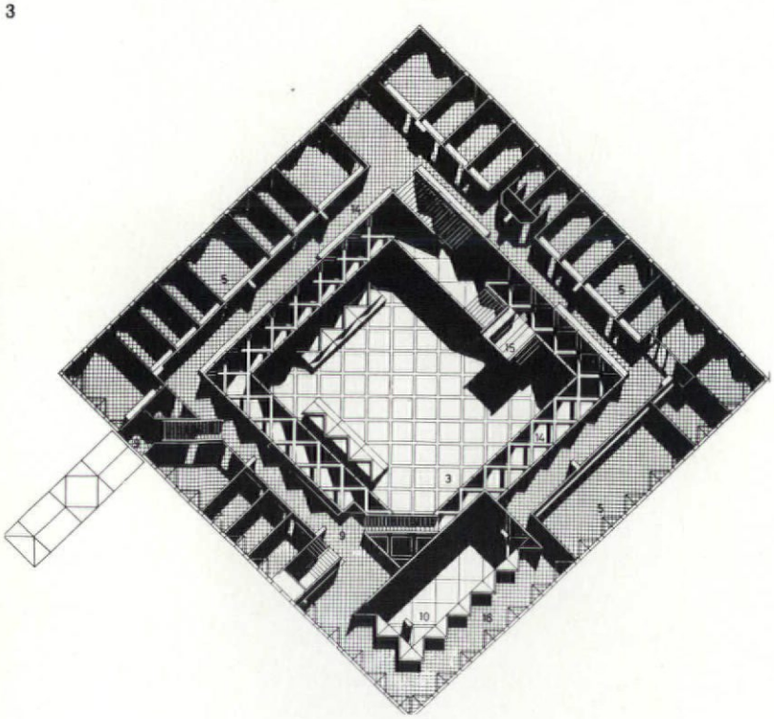


1
Section through amphitheatre

2
Section through council chamber

3
Plan view of interior
3 central court
5 offices
7 reflecting pool
8 amphitheatre
9 staircase to the roof
10 council chamber
14 corridor
15 balcony
16 visitors' gallery
17 light tower
18 roof terrace

4
Central court. Interior stairs leading to the roof through one of the light towers

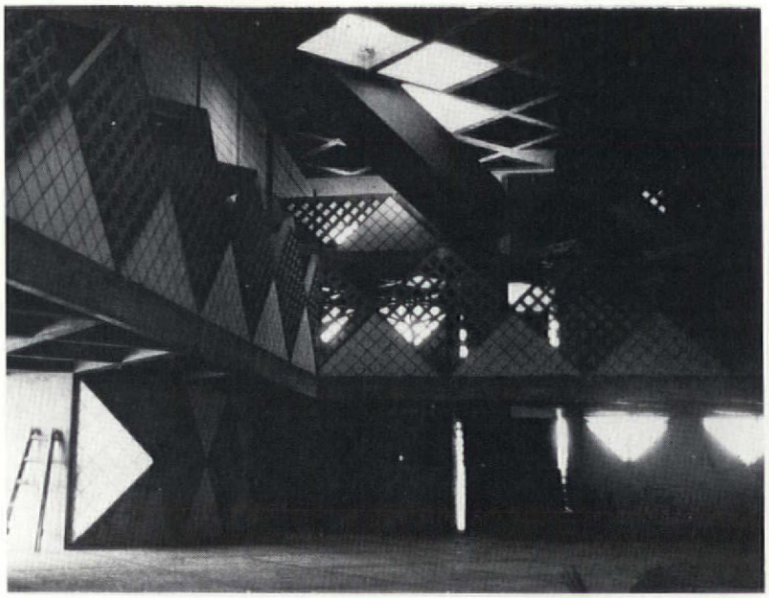
5
View from the central court towards the stairs and the interior triangular balcony

6
Structure of the interior corridor

7
View of the council chamber showing the continuous flow of triangular windows

8
Council chamber. View towards the mayor's office and the balcony

9
Stairs from the second to the third floor



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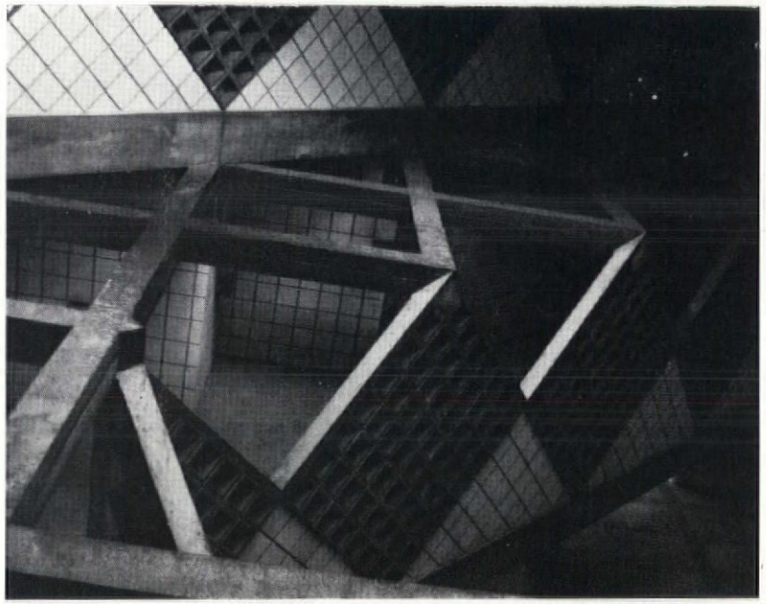

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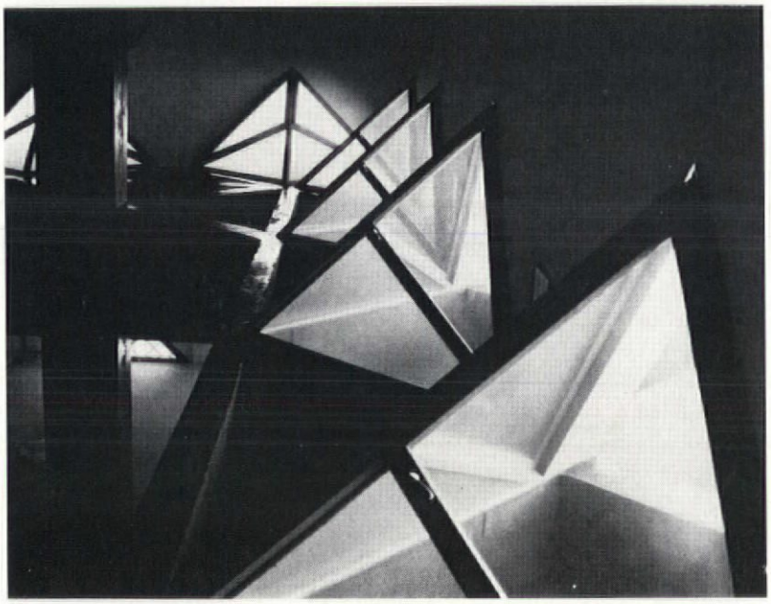

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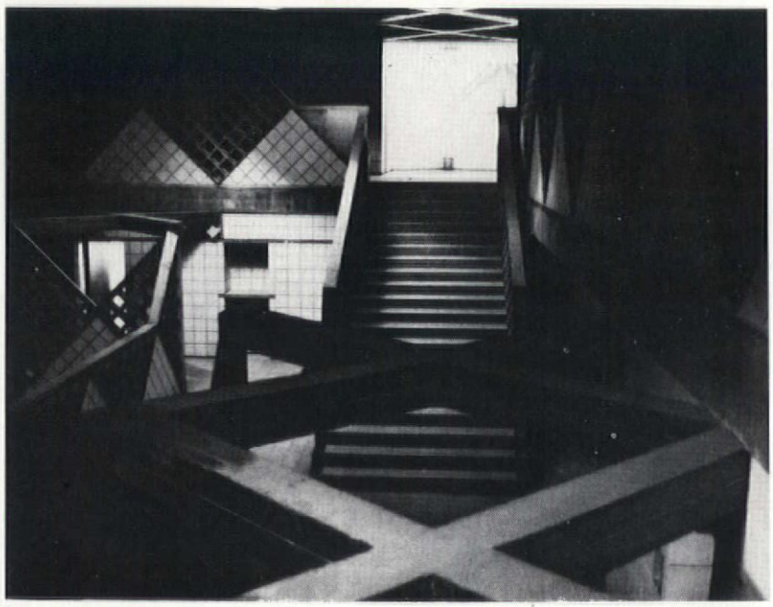

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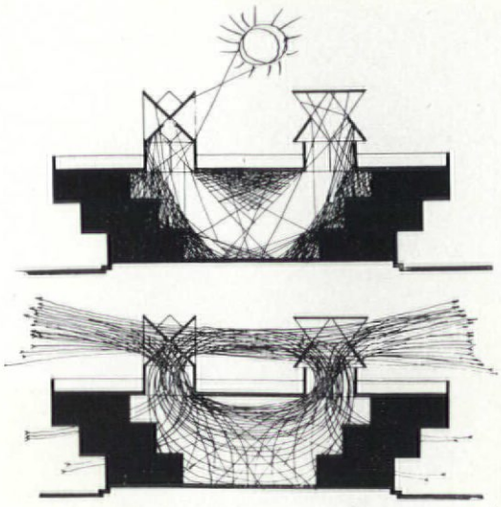

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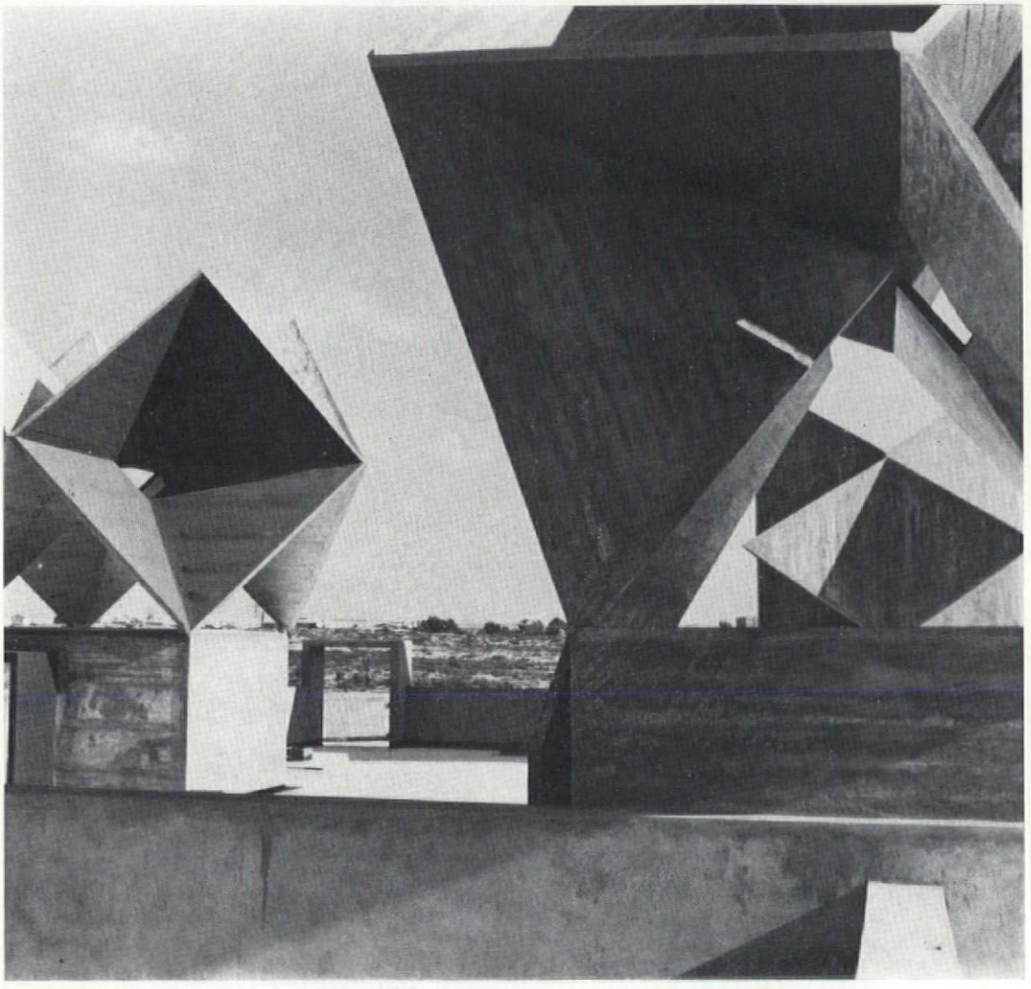


2

1
Diagrammatic sections showing the light diffusion and the natural ventilation systems

2
View of the roof with the light towers

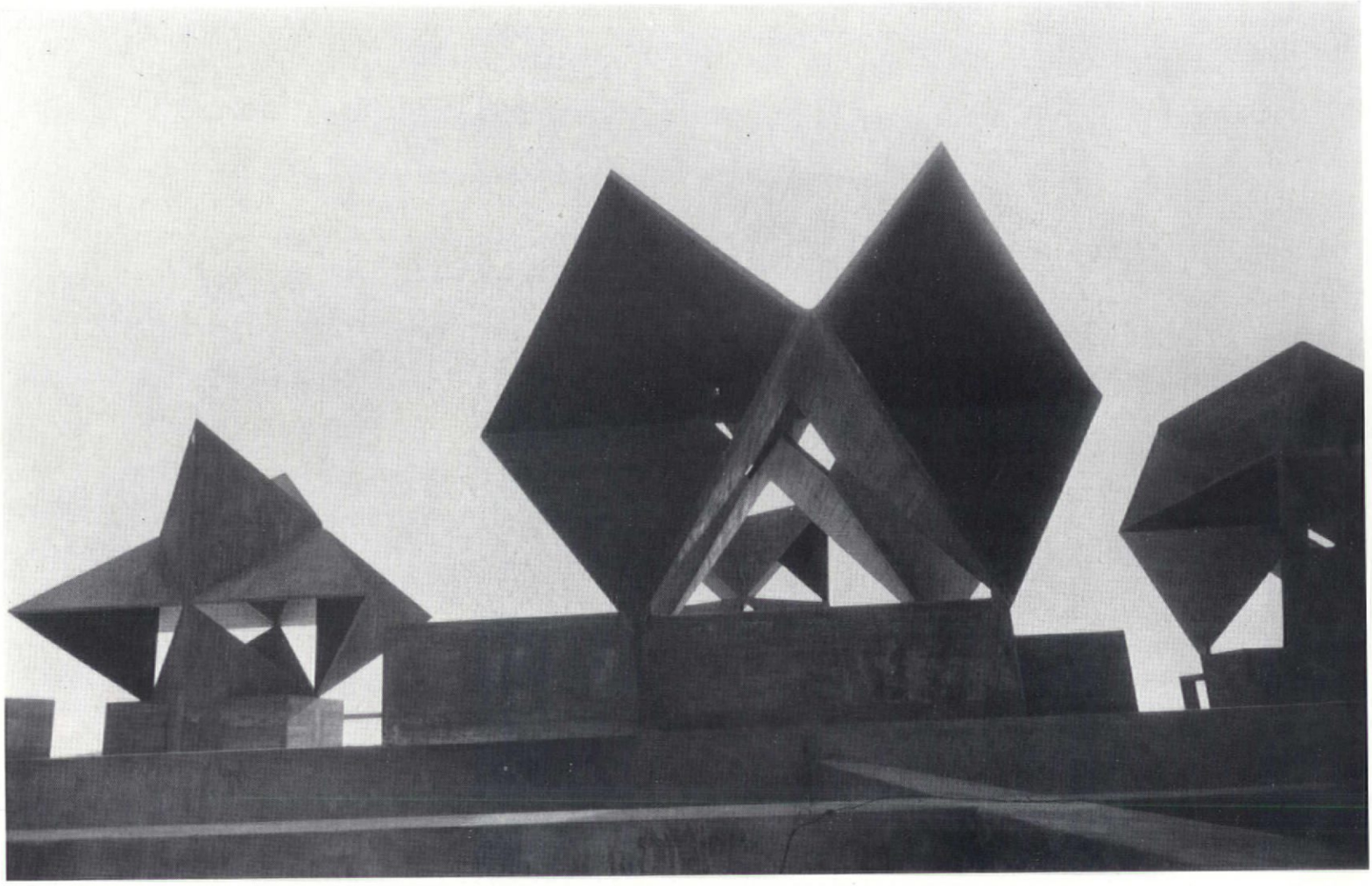
3
Looking up at the interior of the light tower

4
Wind and light towers—the source of ventilation and illumination of the central court

5
View of the wind tower from the central court

3





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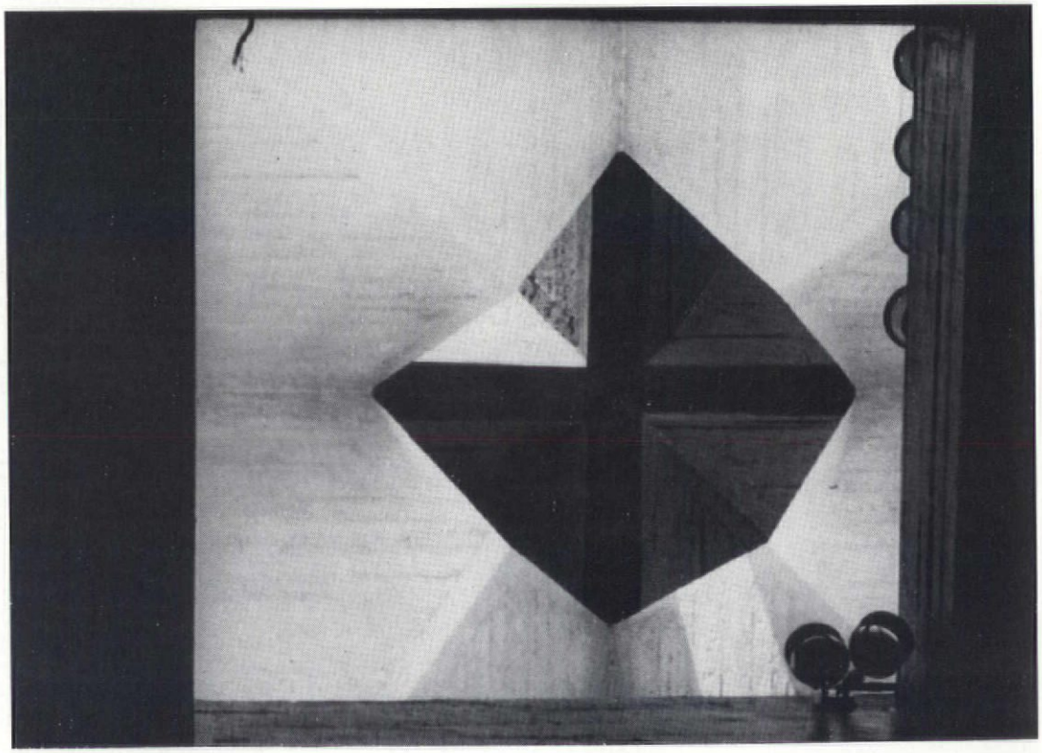
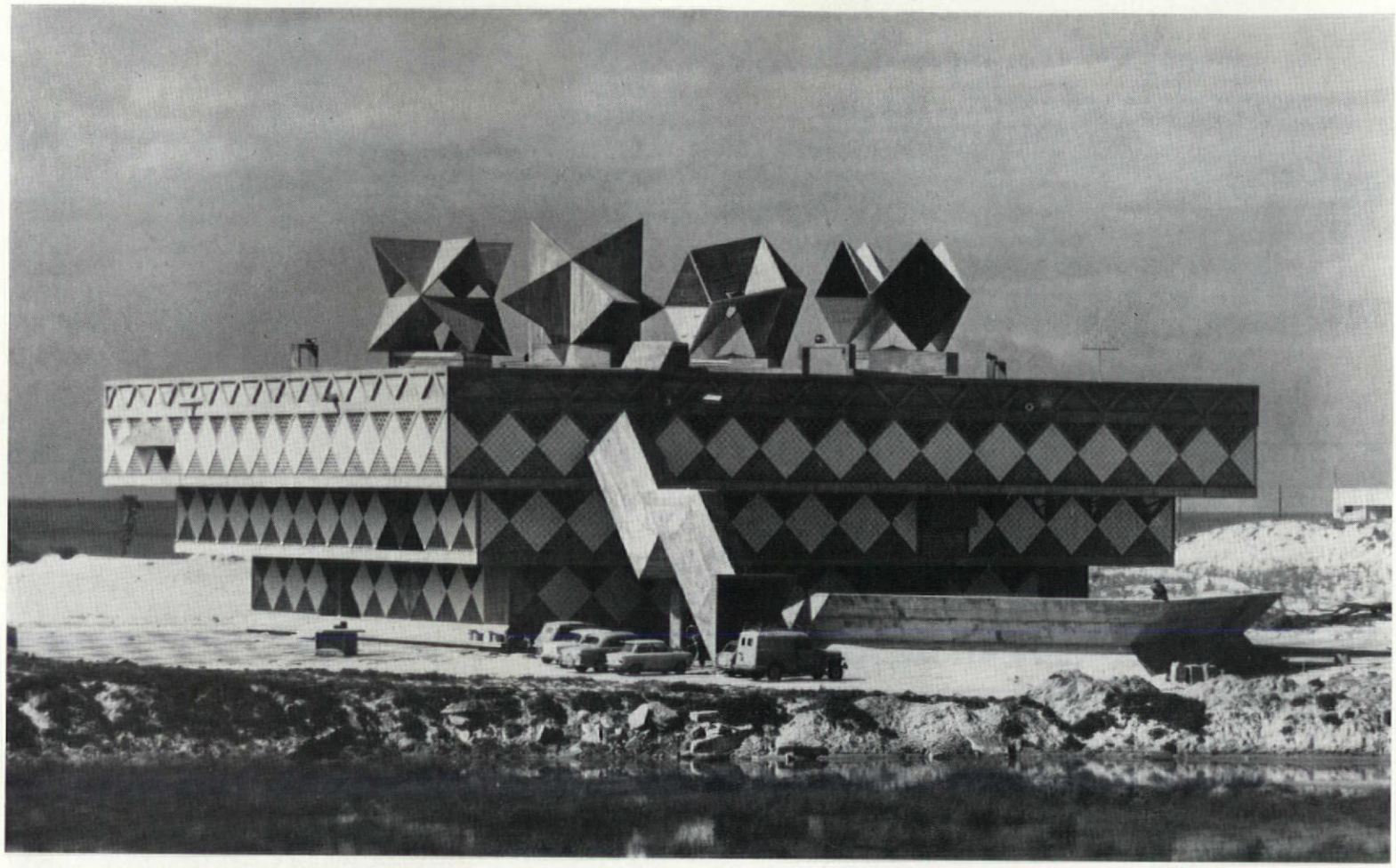




1

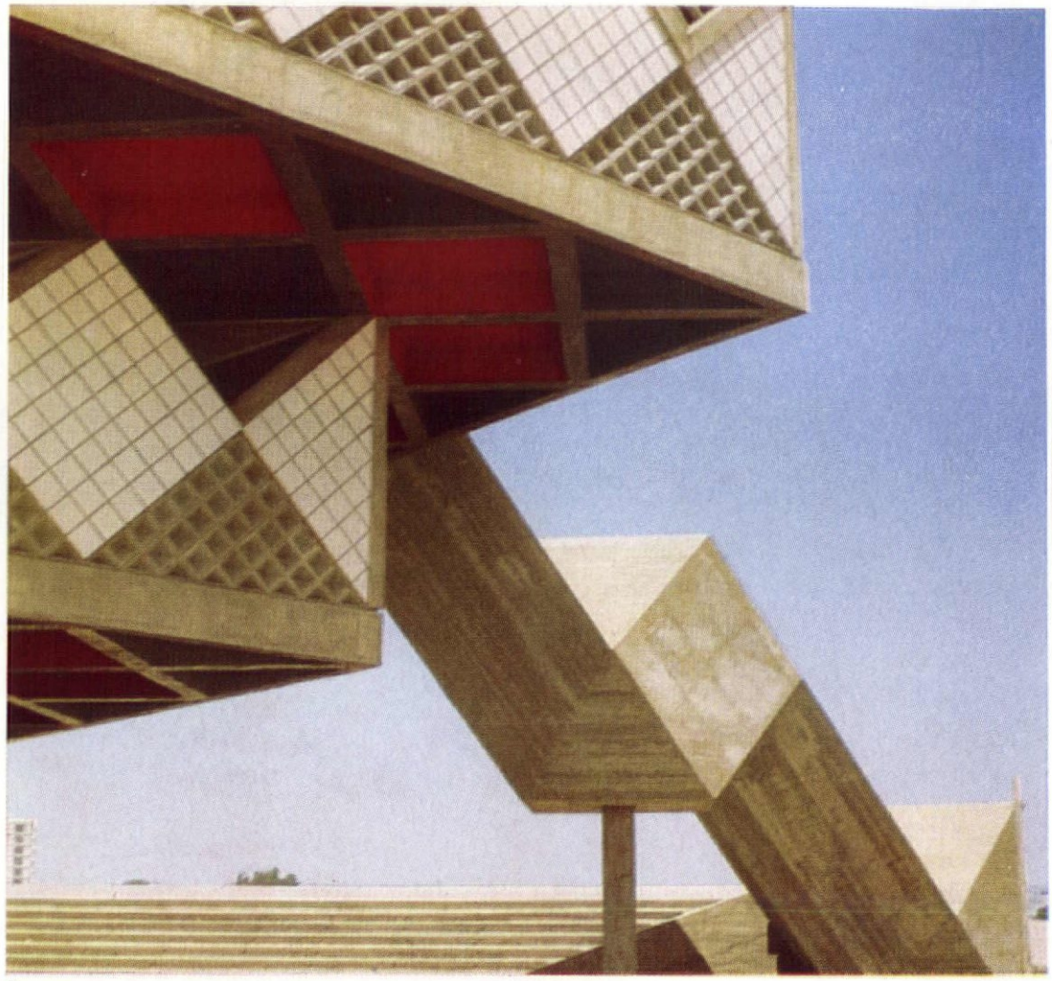


2

1
General view of the city hall showing the stairs bridging the amphitheatre to the roof

2
The city hall at night

3 & 4
Views of the south-eastern corner showing the amphitheatre and stairs



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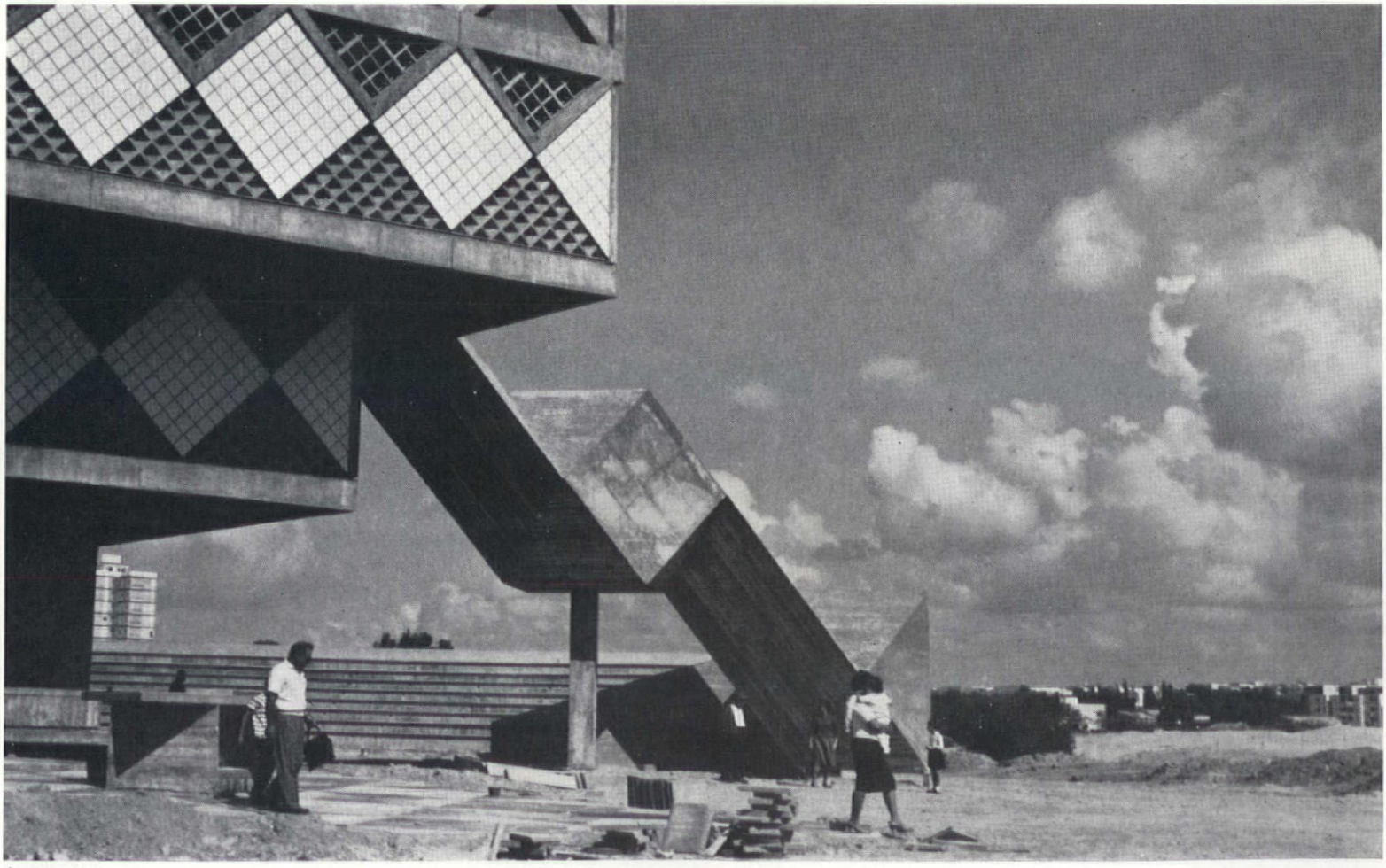

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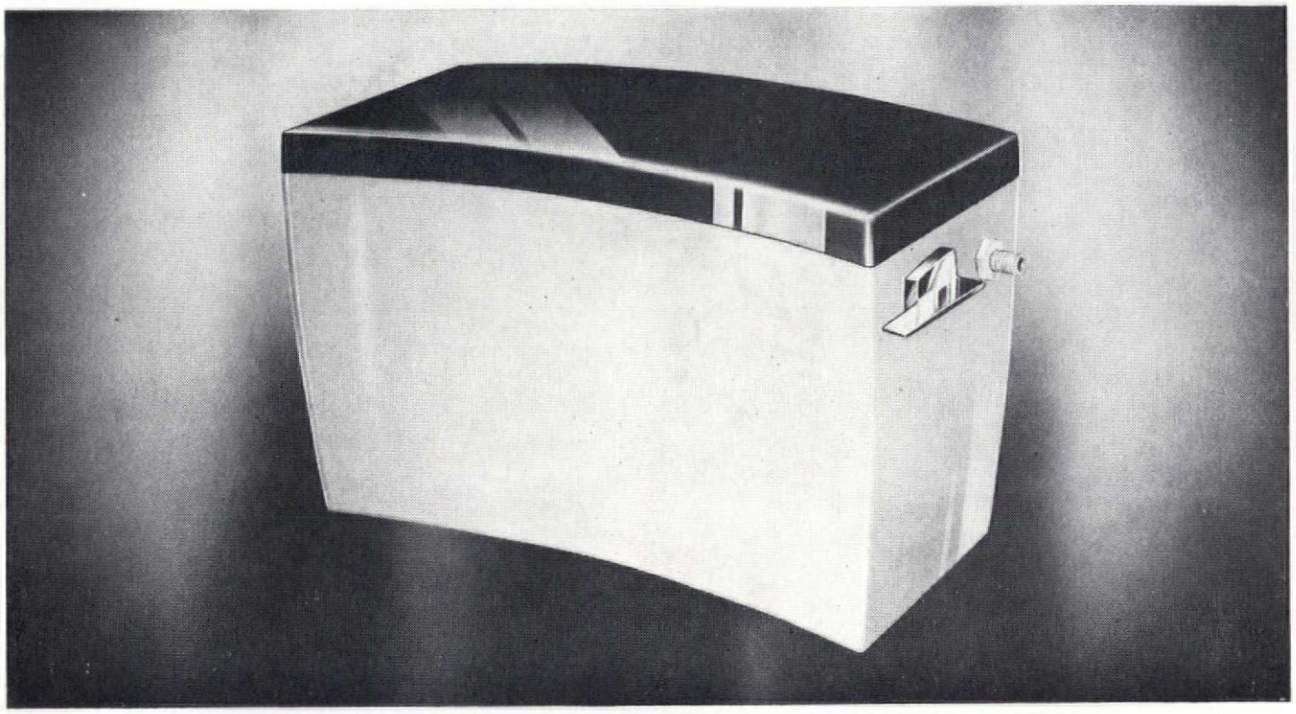

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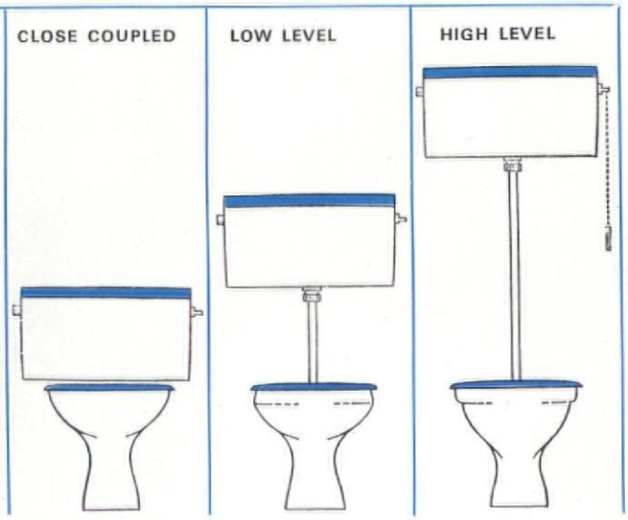
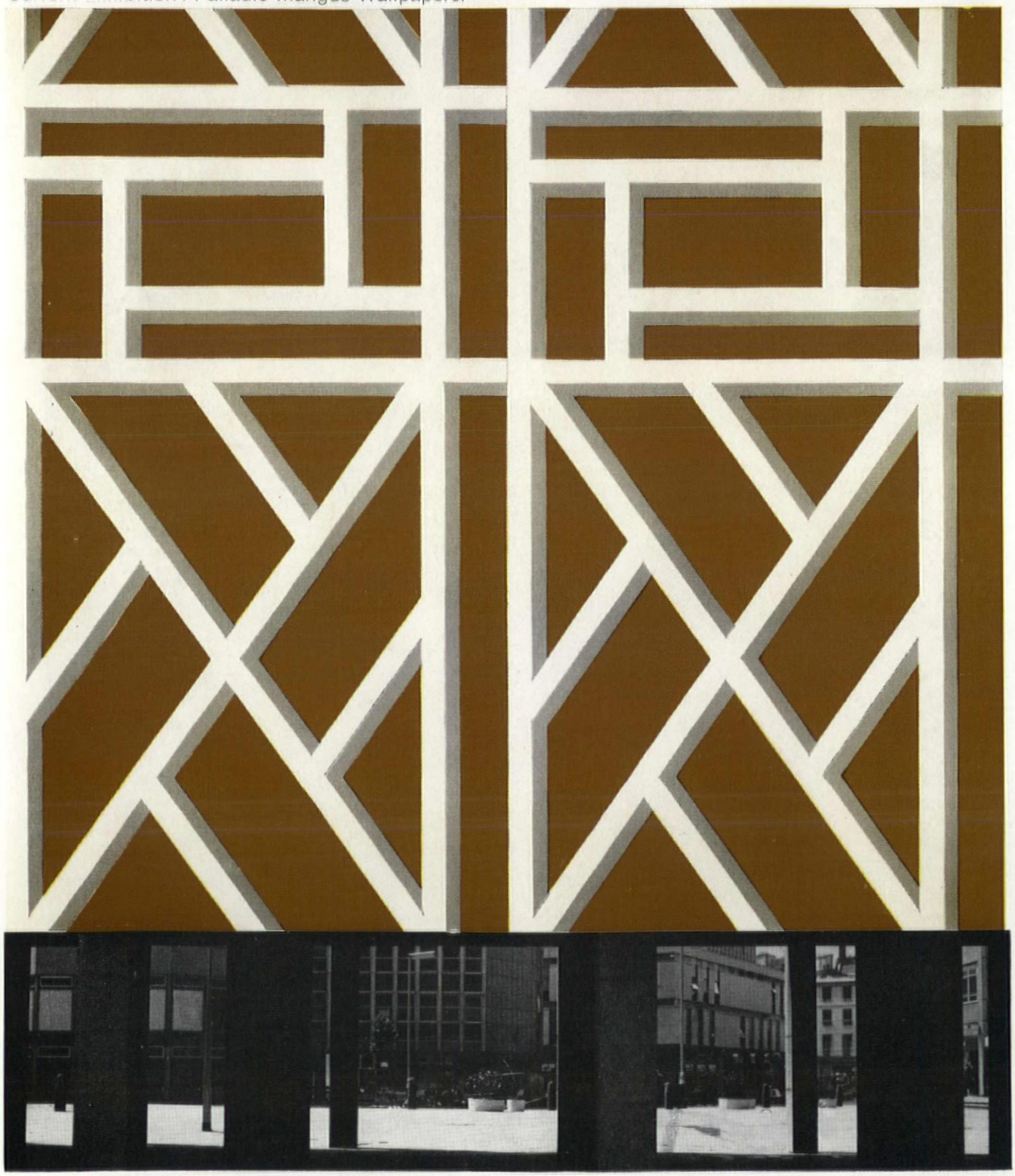


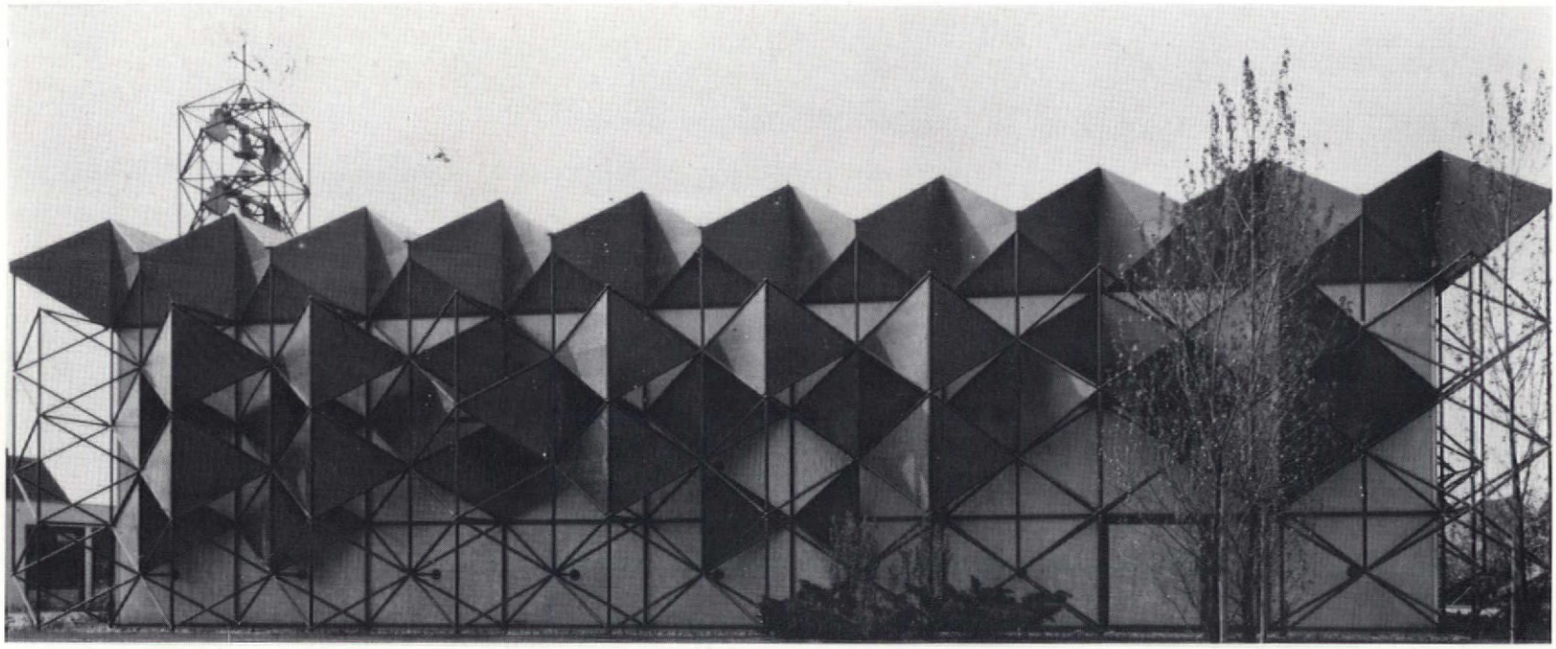
WALLPAPER FOR SCALE

Large scale wallpapers from the new Palladio Magnus collection

wpm

The Wall Paper Manufacturers Limited,
Architects and Interior Designers Showroom, St. Margargets House, Wells Street, London, W.1.
The wallpaper shown is Palladio Magnus No. 44953 'PERGOLA' designed by John Drummond. 1/6 scale
Current Exhibition : Palladio Mangus Wallpapers.





1

Church at Eller, Düsseldorf, W. Germany

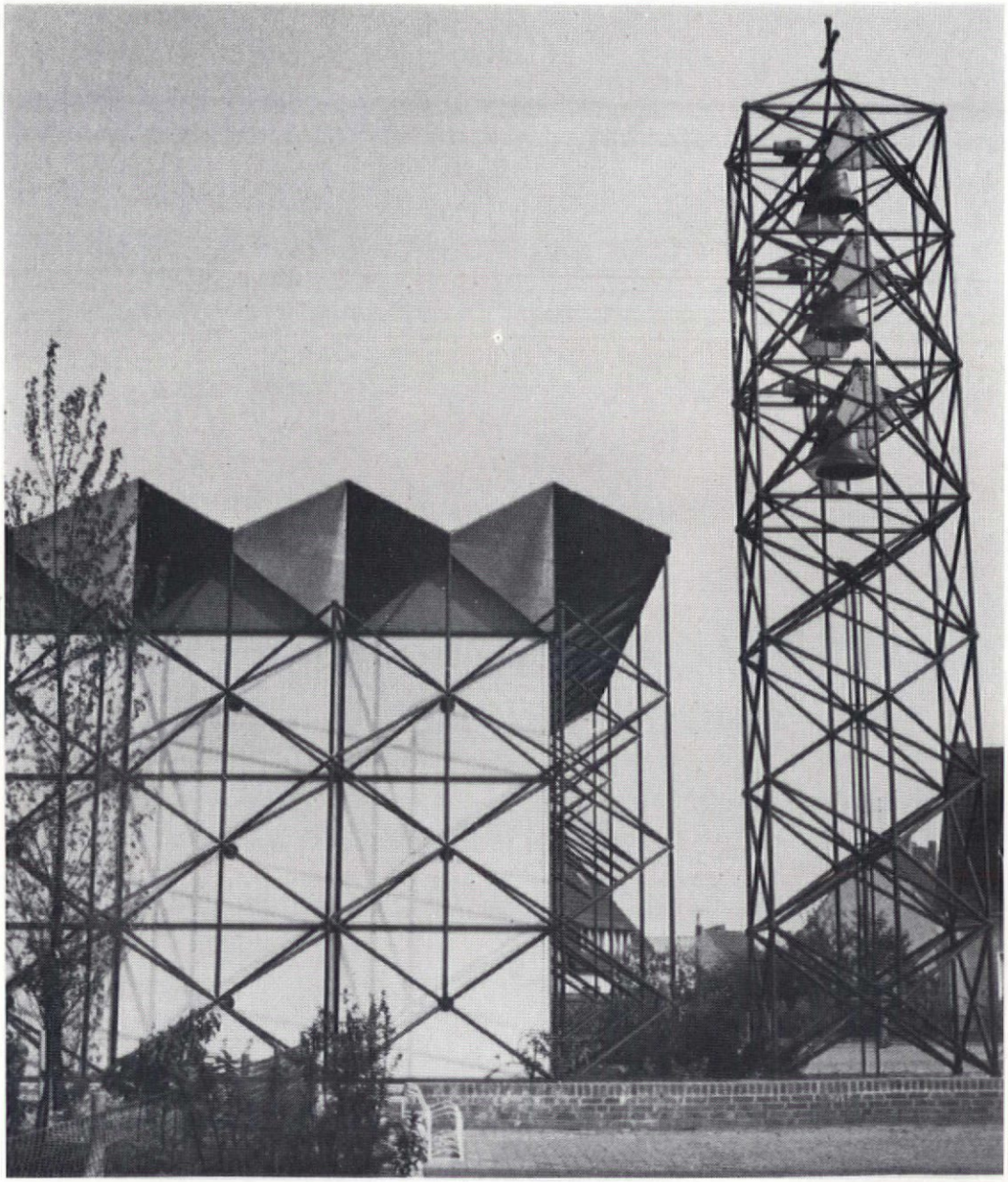
Eckhard Schulze-Fielitz

The architect's aim was to develop an industrialized building components system suitable for constructing churches or other similar 'halls'. The system was to be strictly priced, quick and simple to erect and dismantle, and to have the highest degree of flexibility in respect of size, plan, elevations, choice of materials, and aesthetic treatment.

Freedom of design would result from (1) extension by free addition of relatively small structural parts; (2) the choice of various *categories*, which

continued on page 566

2

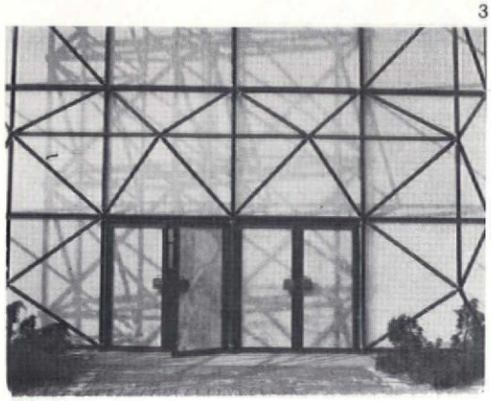


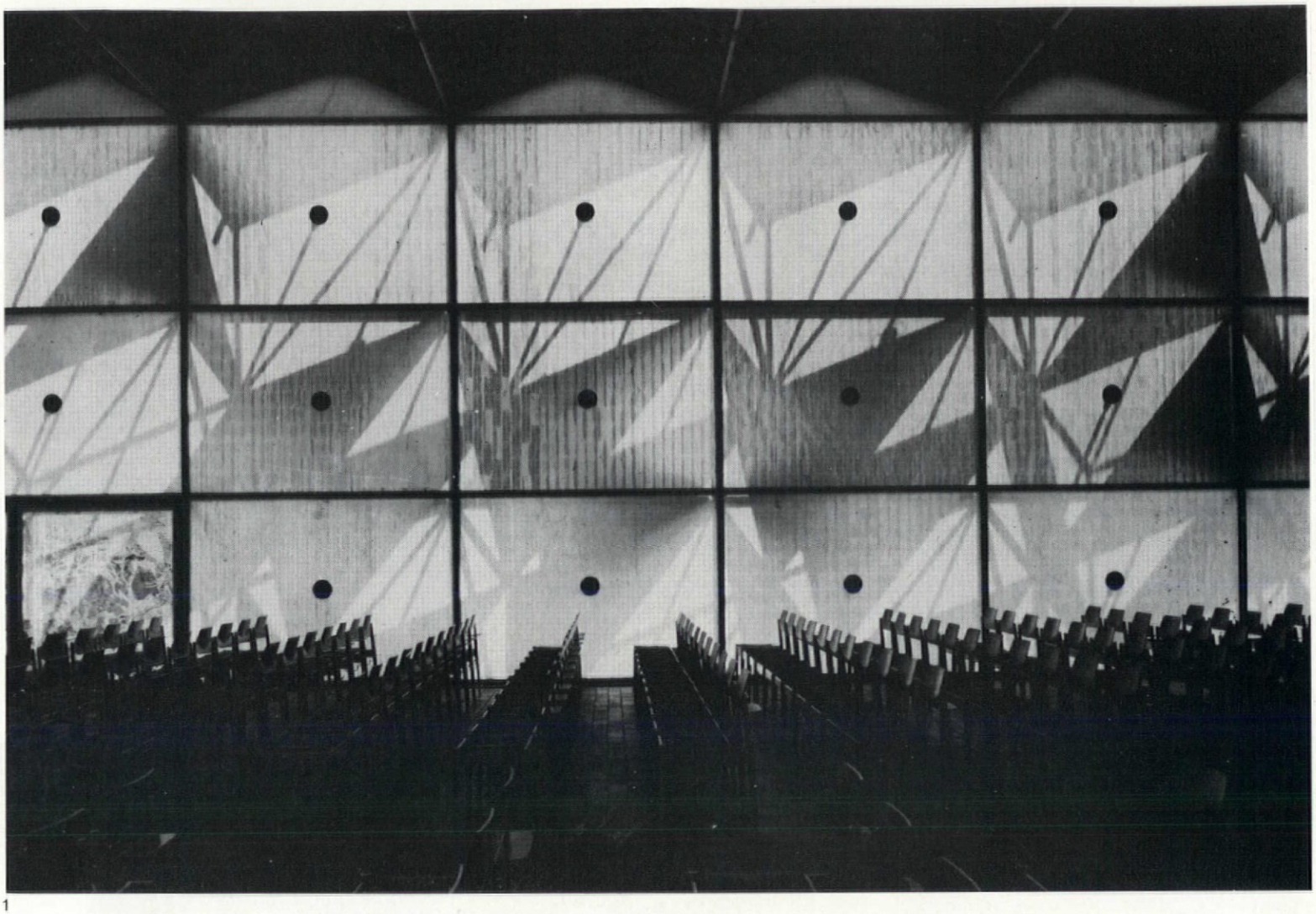
1
The east side of the church is parallel to the road. The whole building is covered with a tubular space frame defined by random brown polyester panels on this side. Cladding is of semi-transparent plastic panels centrally supported by the space frame. The roof is covered with copper

2
The free-standing belfry at the south-west corner

3
The main entrance to the church at the south end

3





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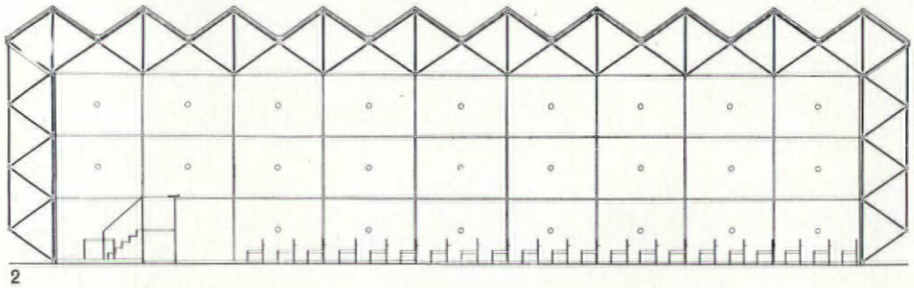

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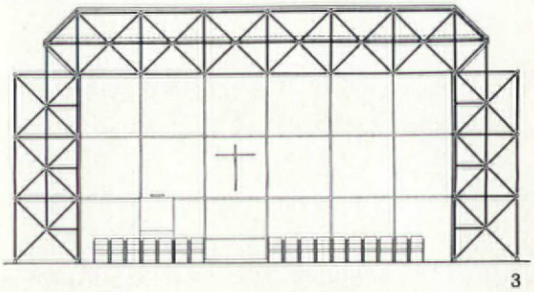

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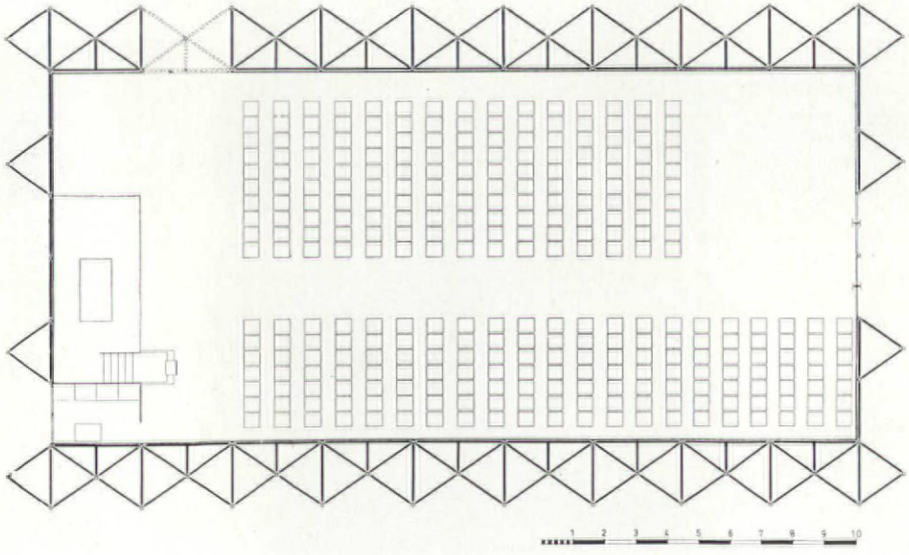
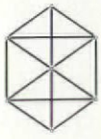




1
Inside the church, the early morning sun causes shadows of the exterior space frame to play on the translucent Dekaphon plastic cladding panels (whose texture can clearly be seen)

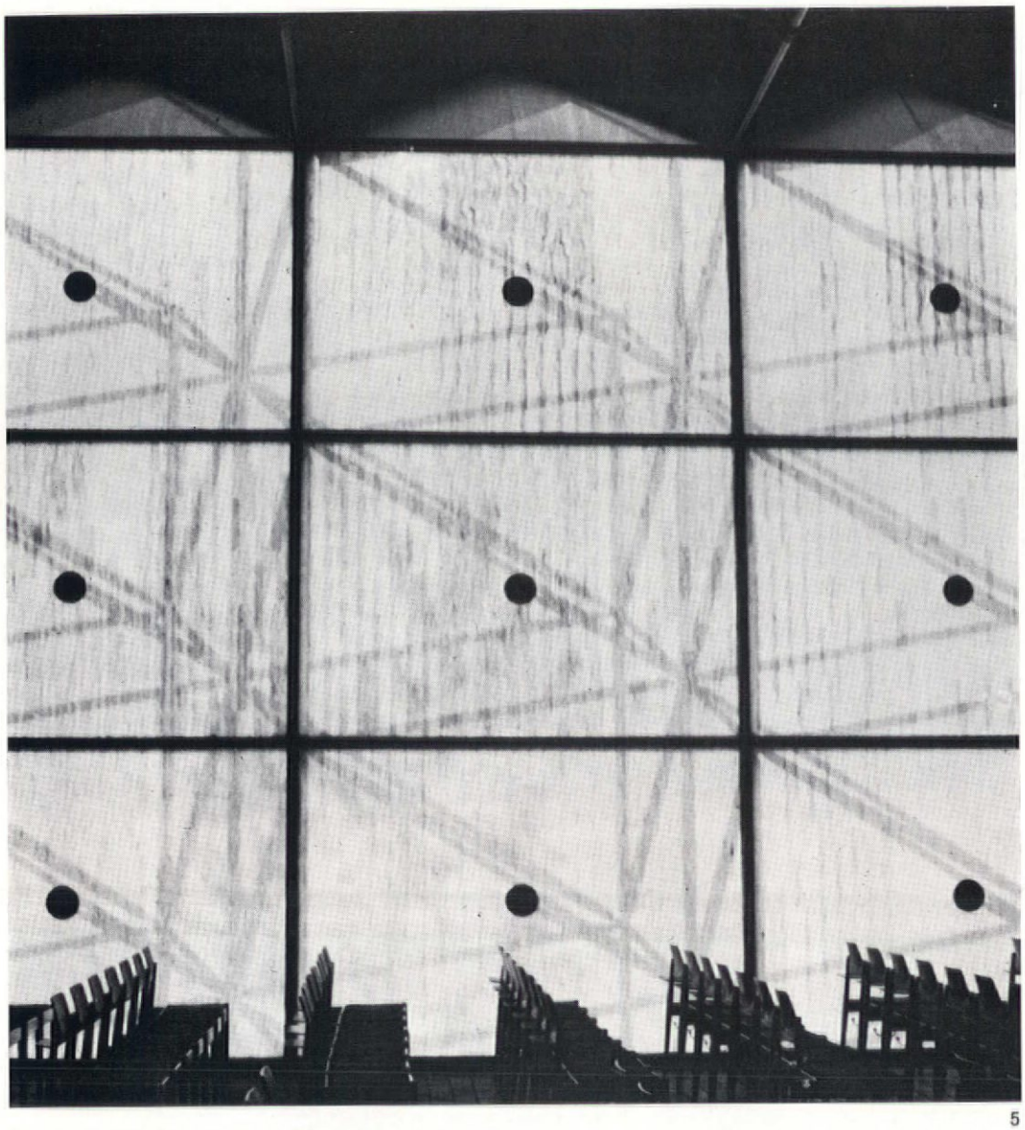
2 & 3
Long and cross sections

4
Plan

5
The afternoon sun causes a slighter shadow pattern on the west wall

6
The altar is a simple metal-framed table. The crucifix is incorporated in the plastic cladding panel

7
A staircase leads to a gallery across the south end and over the main entrance to the church. The ceiling over the space frame is lined with timber boarding



5

continued from page 564

would permit square, rectangular, triangular or polygonal ground plans and, similarly, the varied elevations; (3) the selection of different kinds of structural elements, such as girders, bracing members, flat or curved surfaces, or astragals under certain conditions; (4) the choice of various sizes of elements; (5) the choice and arrangement of different infilling materials.

As a first example of the numerous possible combinations of such systems, a church was erected in Düsseldorf.

The bearing structure consists (here reference was made to an already existing structural system) of well-known MERO structures, namely, 60m girders, 20 partly reinforced (3mm wall thickness), partly normal (1·5mm wall thickness), in lengths of 2·00m and 2·82m.

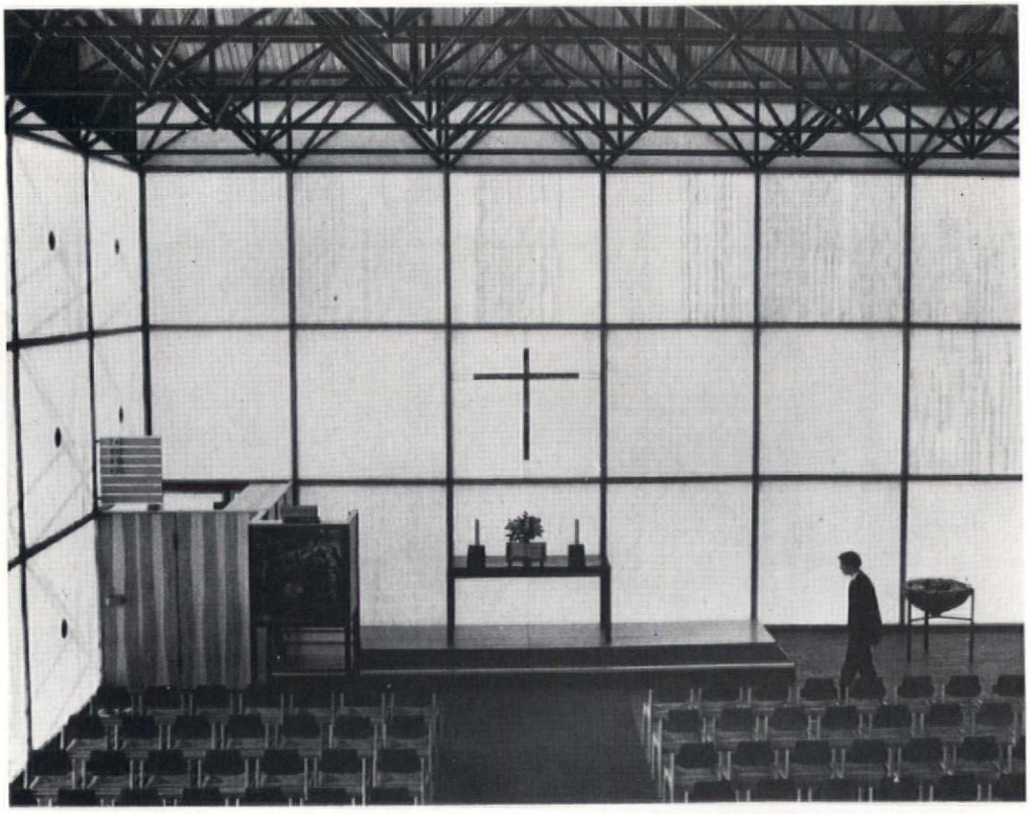
In spite of considerable difficulties, during the building period general approval of the MERO-system was obtained for permanent structures, even when the latter were not roofed.

At spherical junctions of the exterior structure, a section grill was fixed in the simplest way.

The plastic laminated cladding material is produced by Deutschen Kapillar-Plastik (German Capillary Plastics). It consists of 2·00m × 2·82m, centrally supported sheets of Dekaphan, a material which has a new combination of properties: heat insulation similar to cork and a 70 per cent degree of transparency. This material opens up almost unlimited decorative possibilities, by different arrangements and colouring of the capillaries, by the introduction of various veneers, backings or textiles, by the incorporation of pictures or texts, by the moistening or daubing of panels with coloured polyesters.

In the Düsseldorf church, the character of the space is defined by the structure of the polyester panels and the ever-changing play of light and shade on the translucent façade.

6



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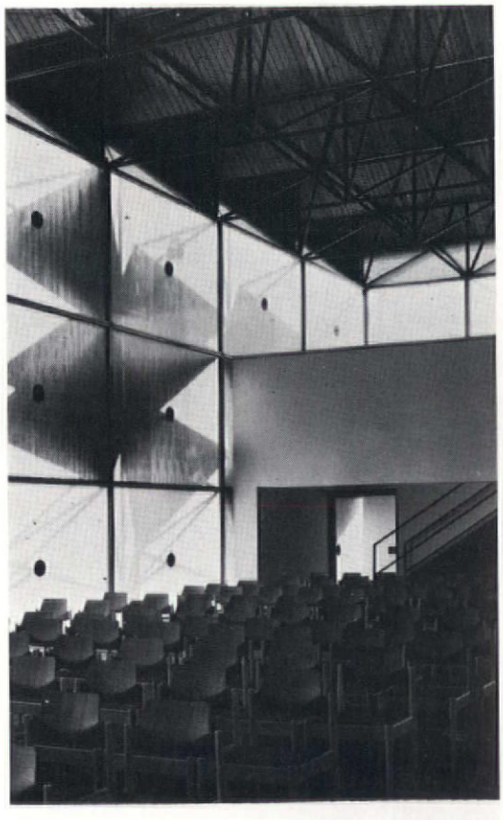

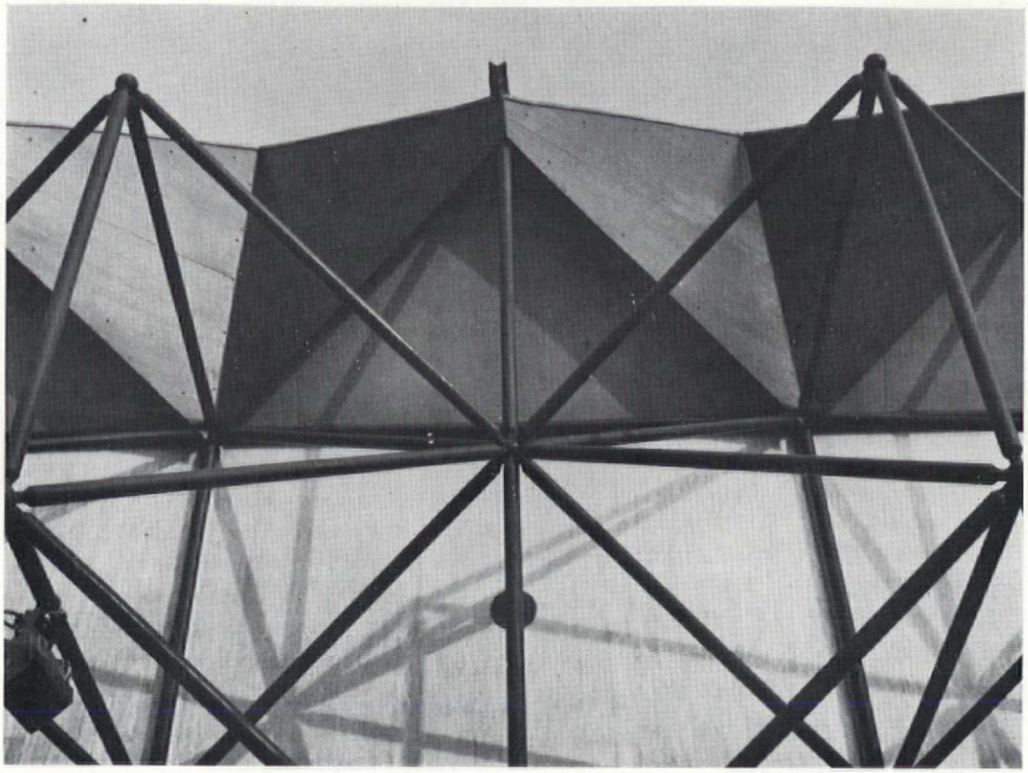

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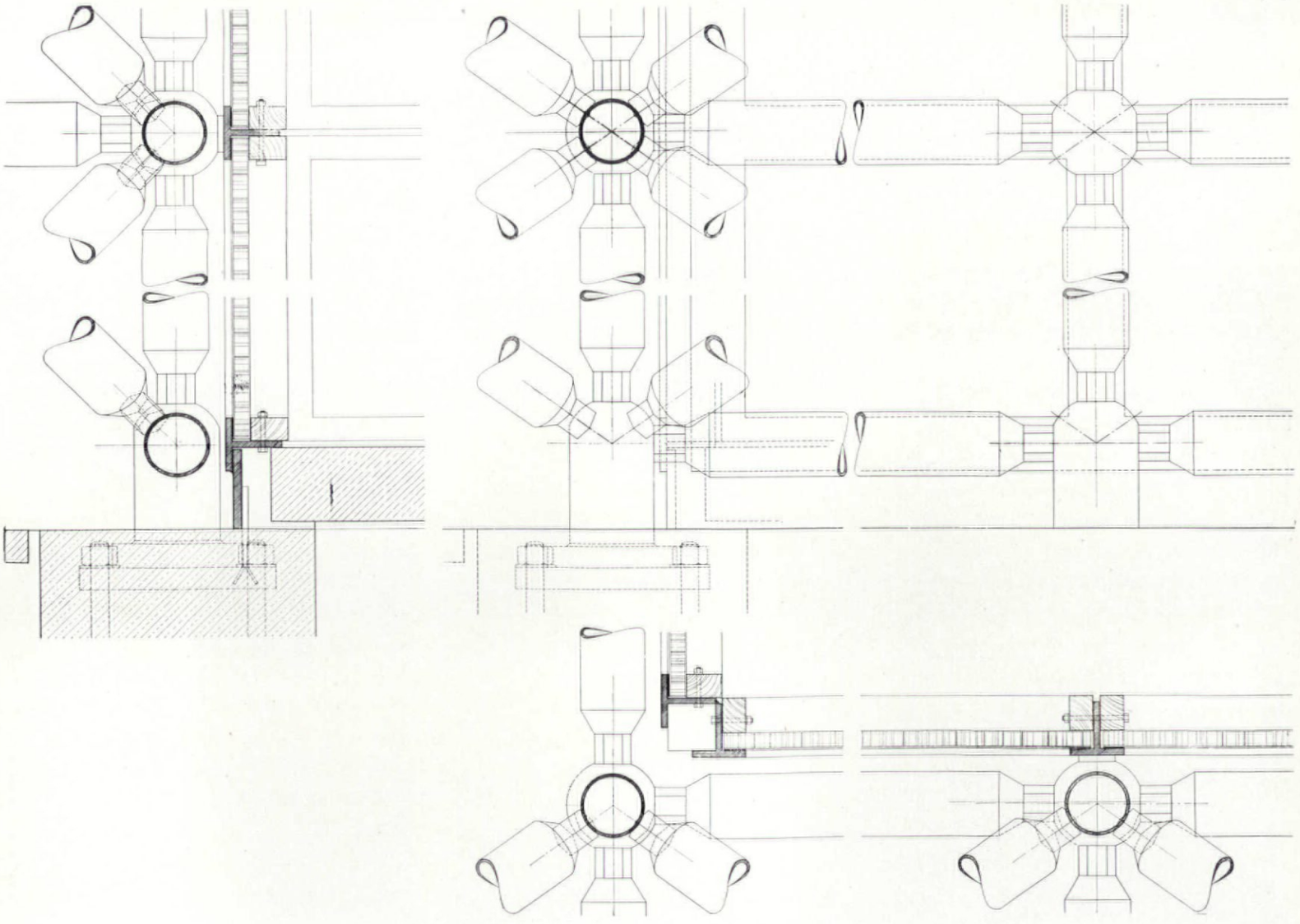
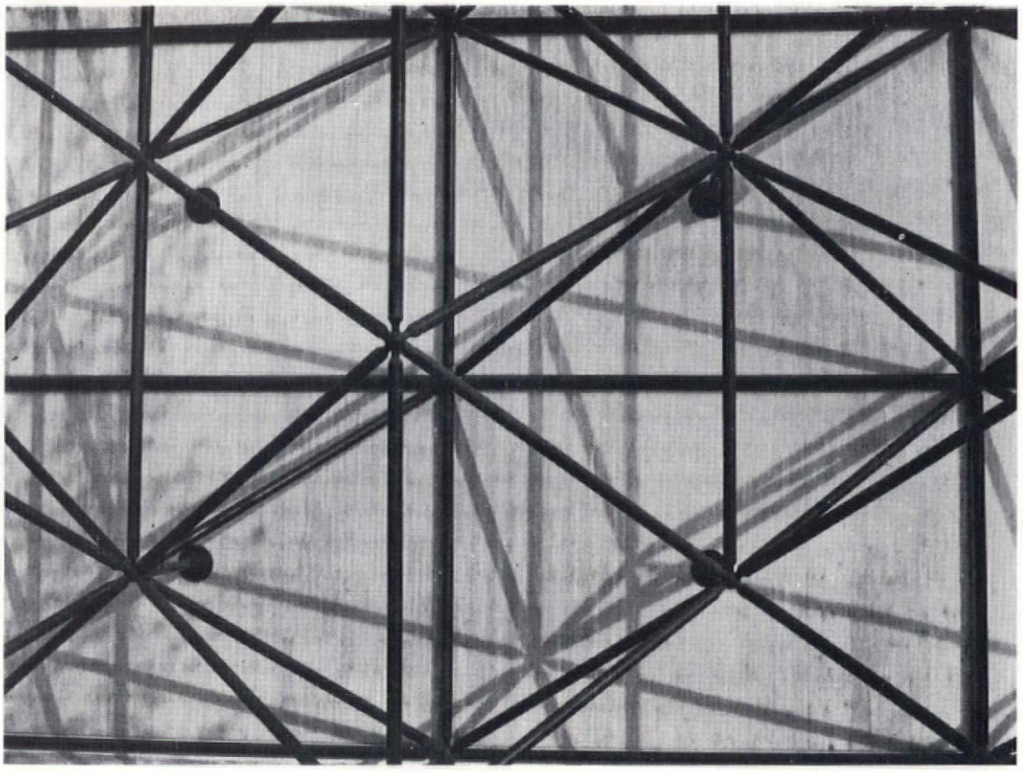




4

1 & 2
The top of the west wall

3
Details of the tubular structure

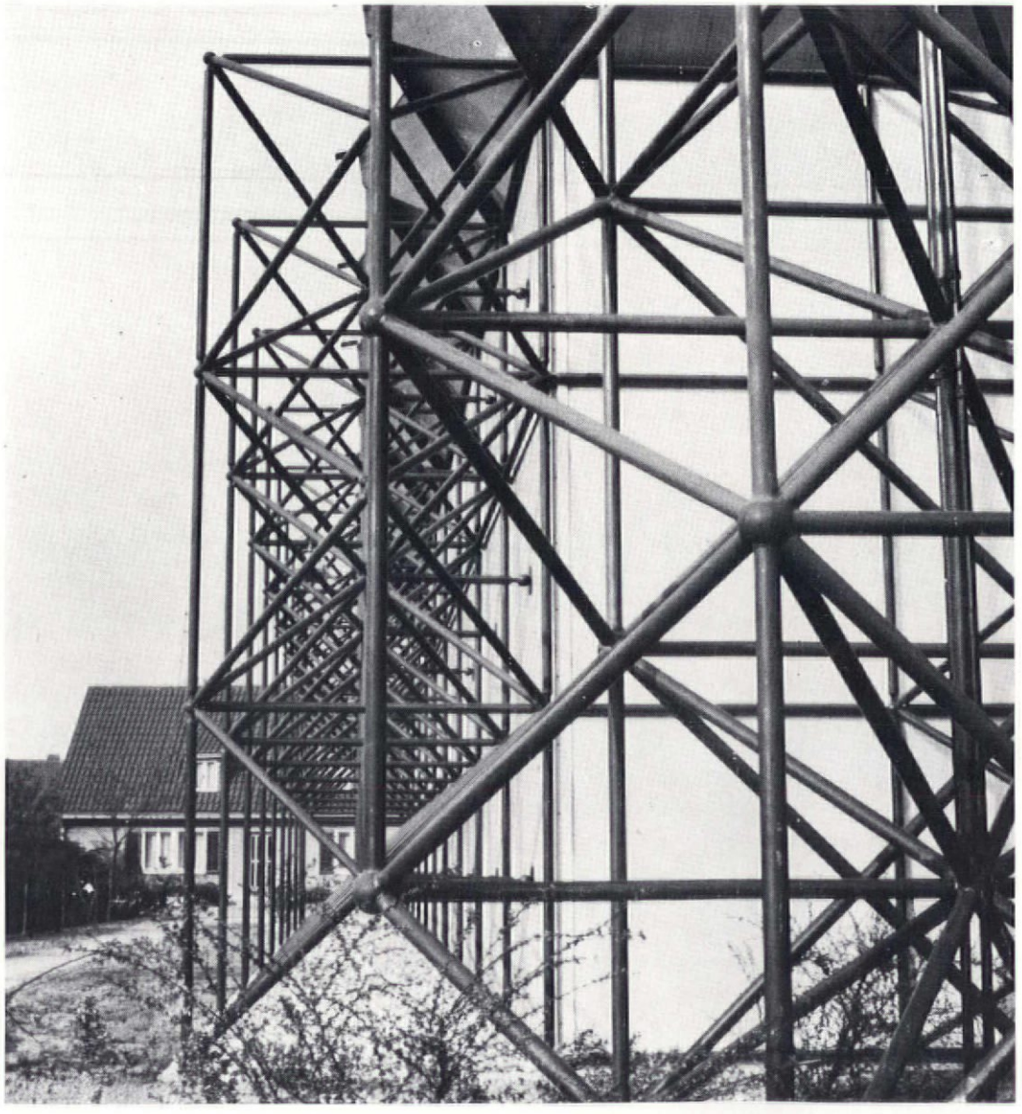
4
Detail of the vertical space frame showing the circular pads which centrally support the plastic cladding panels

5
Looking along the west side from the belfry at the south end

6
The vertical space frame showing the supports for the cladding panels

7
The space frame for the roof

5



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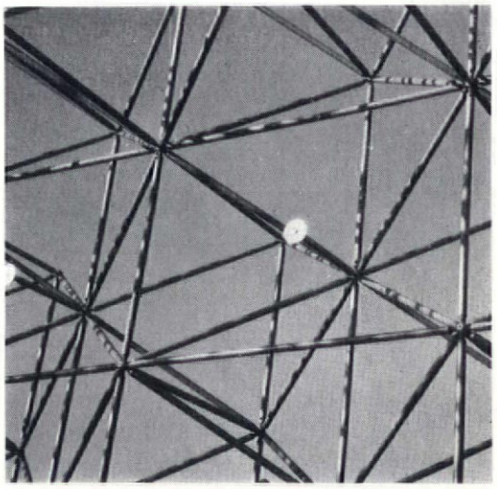

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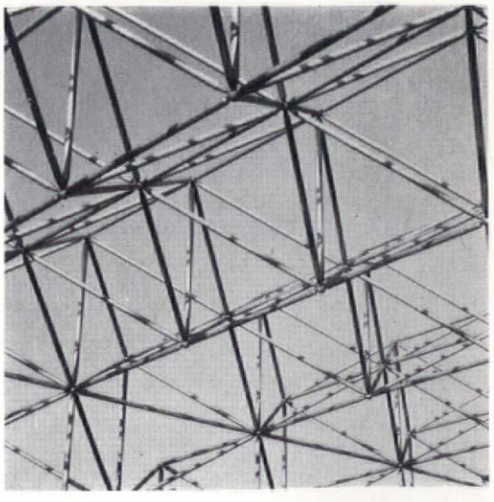



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A tower for Milan

Alberto Rosselli
(Studio Ponti, Fornaroli, Rosselli)

A tower for Milan

A tall building is a point of reference on a city's skyline and its shape has a bearing, not only on the nearby streets and buildings, but on the structure, axes and the essential perspectives of the city. Between the tall building and the city there exists a very special physical relationship; while at the same time a psychological relationship also emerges, a relationship which is more important, and determined by the character and significance of the building. But in return, the city also has its influence on the building—the city and its hinterland—for at different levels their relationship changes: there is that with a green park, that with surrounding mountains, or with the green of the country outside the city. Seen from a height, the size of the city and its significance appear in different ways according to the number of different prospects which the building affords. It is the form of the building therefore which determines the views, just as the sensitive construction of the eye allows us to appreciate the spectacular in nature.

Such arguments convinced me that I should aim at the creation of a building whose formation would involve more than the immediate neighbourhood, and strive to create relations on a more generous scale, on its own large scale; which in turn led me to the conception of a form varied in different orientations, but also varying as it rose above ground, from level to level. I imagined that as one rose in the building, above a certain height, varying views and new horizons would open to the spectator.

The scale of a building is the result—in part—of its very function; but also of an effort to attain a way of life, ways of occupying a building different from the conventional ones of our day—ways which would give individuals—and families—the chance not only of knowing themselves to be distinct and valuable but also of turning themselves to better account.

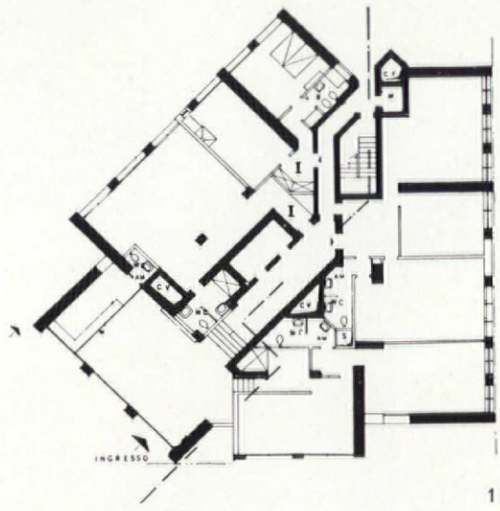
The monotony of buildings today reflects the monotony of people's lives and their inability to seek for a meaning in their occupation of space which would be other than the conventional ones of our day, familiar to all of us. Office buildings accurately mirror the monotony of work, and residential buildings follow suit. So it is not just a matter of varying the scale of a house, but of diversifying the psychological offer made by every volume, by different orientations, by varying views, which would satisfy the inner needs of every individual, or induce him to rediscover it. Our duty as architects at this time is not only that of proposing alternative functional solutions to different problems but also of interpreting the emotions of modern man, and helping him to achieve a new environment.

It is this which convinced me of the need to translate the flexibility of an inhabited volume in a residential building not into a mechanical abstraction, but to express it in a structural vitality, in a variation of elements quite different from that unaccented repetition, that superposition of equal spaces and cells, all this in an attempt to impregnate the building with a conviction about the human scale and man's destiny, reflecting the nuances and the many facets which it might offer. Our habit of submitting to an architecture of regulations, of minimum volumes, of pre-established relationships leads us even further away from a conception of architecture as an expression of life, and which might set itself against both the de-humanized forms of residential building, and crystalline formalism of architects.

In determining the form of the building, the attempt to give vitality to the inhabited volumes coincided, one might say, with the intention of making a building which grows out of its interior needs: structure, volumes, orientation.

The outside appearance communicates the notion of a system, even of an organism, rather than of a closed architectural form; the successive episodes of the plan can be traced in the development of the concrete structure, through the varied disposition of each floor, through the differing orientation in respect of the city, and through the views over the terrain beyond the physical borders of the city proper.

Moreover, it seemed to me that my commitment to give faithful expression in the building to each one of its parts—from the structure to the mechanical services—might also be a way to give force to certain other fundamental statements about the ways of living, of inhabiting this building. The exterior communicating, as it did, images of strong contrast as reflections of the strong contrasts inherent in human life, gives face value to the different themes which were stated within. And this was also a way of treating each problem and theme without allowing any of them to bear too heavily on others, without any undue emphasis, so that nothing might be done to create the image of a structure which goes beyond the limits of its *raison d'être*, a useless monument of our day.



1

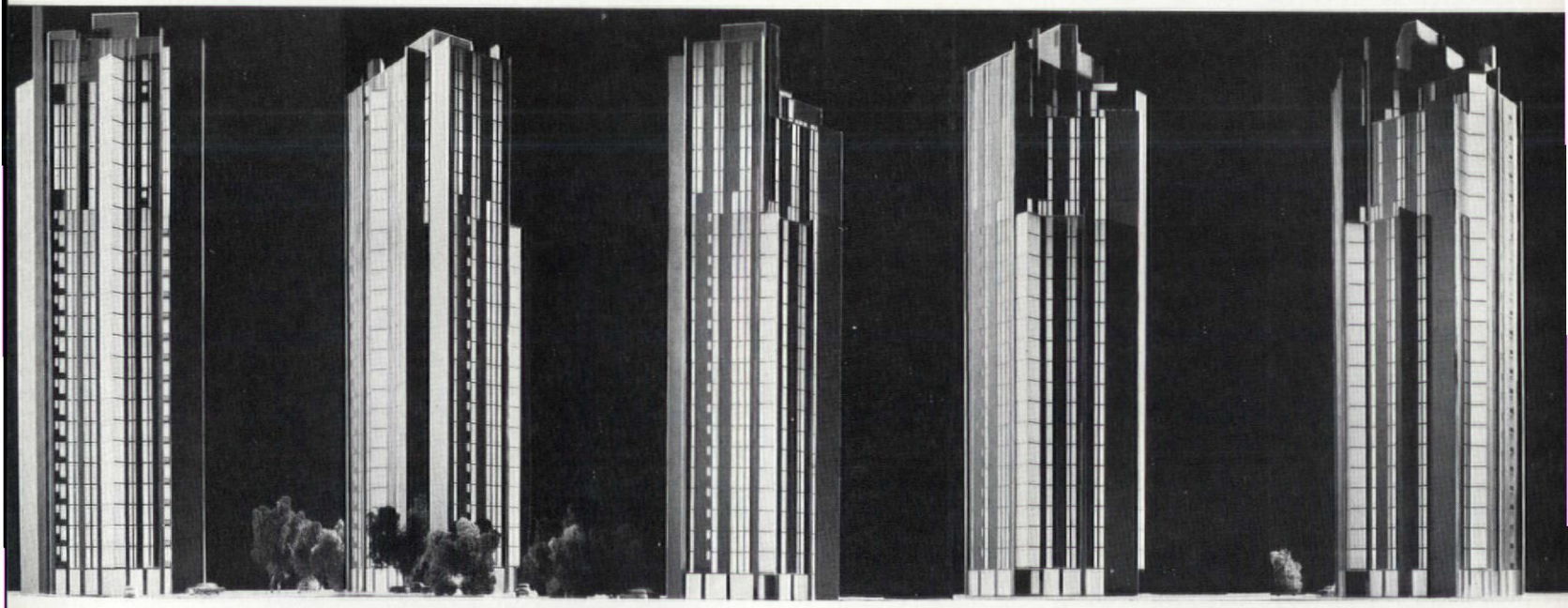
The loadbearing skeleton of the building is projected entirely in reinforced concrete, with the vertical elements cast into a rigid foundation plate of a deep section and with horizontal connections formed by the beams and slabs at the various floors. The foundation slab will be supported in its turn by piles carrying 100 metric tons each.

This high building is calculated for stability on a double system; columns designed to take vertical loads only, and considered as hinged at their ends, and stiffening walls to counteract wind loads in every direction.

As may be seen in the plan, the stiffening elements are the central nucleus, that is the stair tower, and the 'L' walls at the edges. The stiffening walls are not necessarily entirely solid, but can contain openings for passage or ventilation ducts as necessary.

This solution is an entirely new one in terms of statics; but without going into a great deal of technical detail, it is very simple and rational, and it has by no means gone unconsidered in the architectural conception of the project.

Alberto Rosselli





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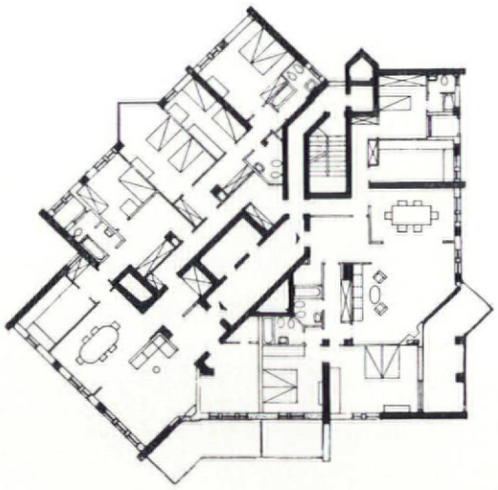

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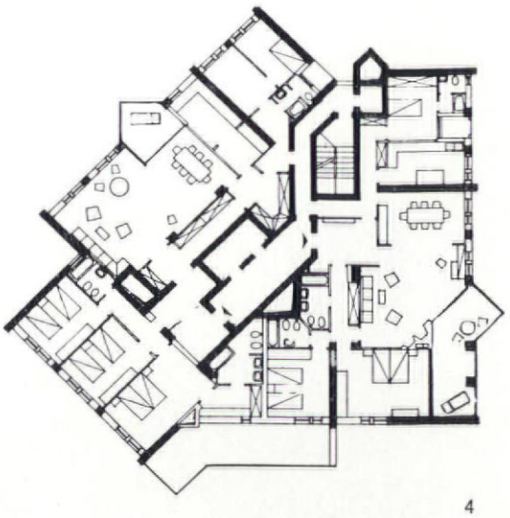

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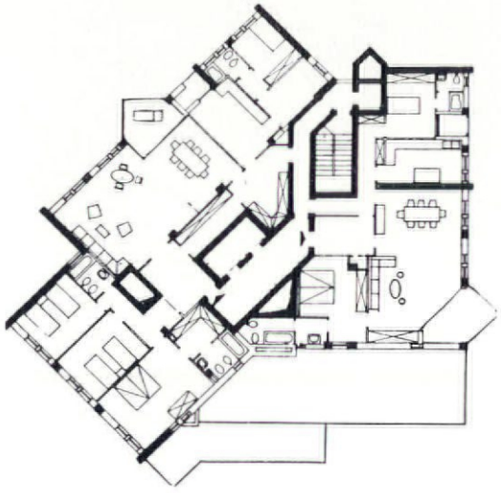

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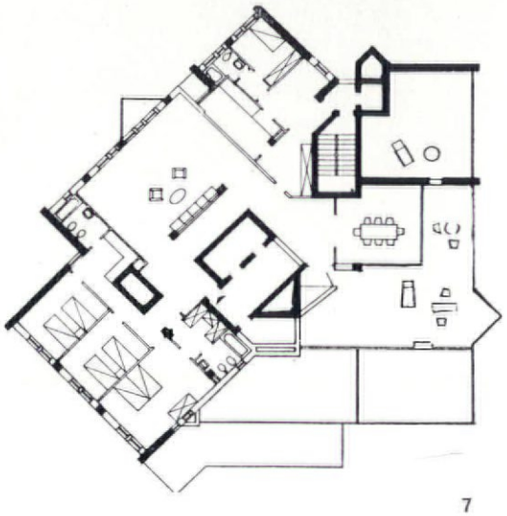


7

1
Ground floor plan

2
1st to 17th floor plans

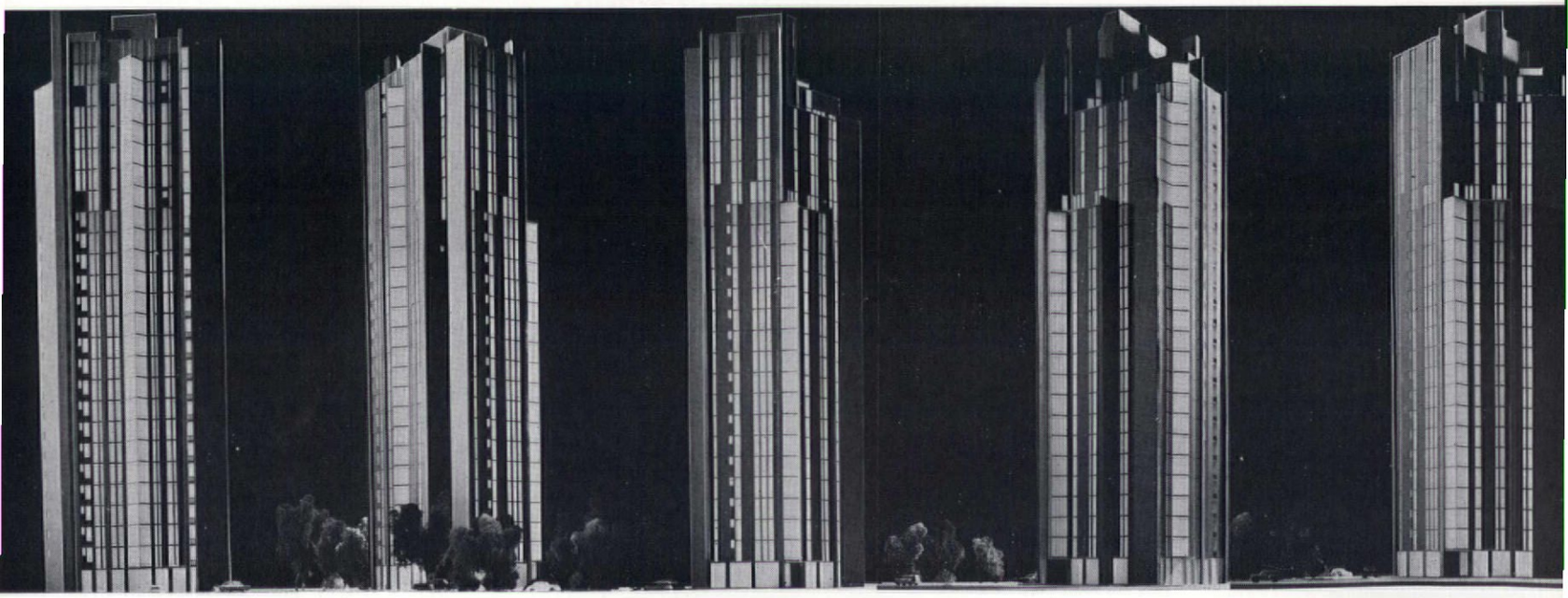
3
18th floor plan

4
19th to 22nd floor plan

5
23rd floor plan

6
24th floor plan

7
25th to top floor plan



Shops, offices and flats, Swiss Cottage, London

Architects: Douglas Stephen & Partners

Partners in charge, Panos Koulermos and Alan Forrest

Assistant in charge, Nigel Whitbread

The scheme is for a comprehensive use of a restricted site bounding Finchley Road and Belsize Road and forms the first stage of the three-phase development to include a shopping piazza with an underground cinema and car park with further offices and flats above.

The first stage comprises a series of shops on two levels, the upper level fronts on to Finchley Road, while the lower level is approached by a service area at the rear, adjacent to, and bounded by, a multi-level car park. A bank complex with two levels of banking hall completes the corner of Finchley Road and Belsize Road. Above this rise five floors of offices with their entrances from Finchley Road, above which rise a further five floors of residential floors of flats and maisonettes with their entrances from Belsize Road. The residential area is composed of:

(i) 4 two-room flats;
(ii) 4 one-room flats;
(iii) 20 three-room maisonettes.

For various reasons the developers were required by the London County Council to develop the site uniformly with commercial and residential use combined and spread over the three phases in an agreed proportion.

The site was complicated by the development of Finchley Road as an extension to the M1 and further complicated by the existence of an underground railway with large ventilation shafts adjacent to the banking areas. The requirements of the London County Council in respect of their planning demands has allowed the architects to exploit the layer nature of the development and express formally the different uses of the building. The cellular nature of the residential units has been expressed both visually and structurally as a cross-wall system bearing on a half-floor of service duct and grid beam from which a column structure carries the load down through the offices and shops to foundation level.

continued on page 576



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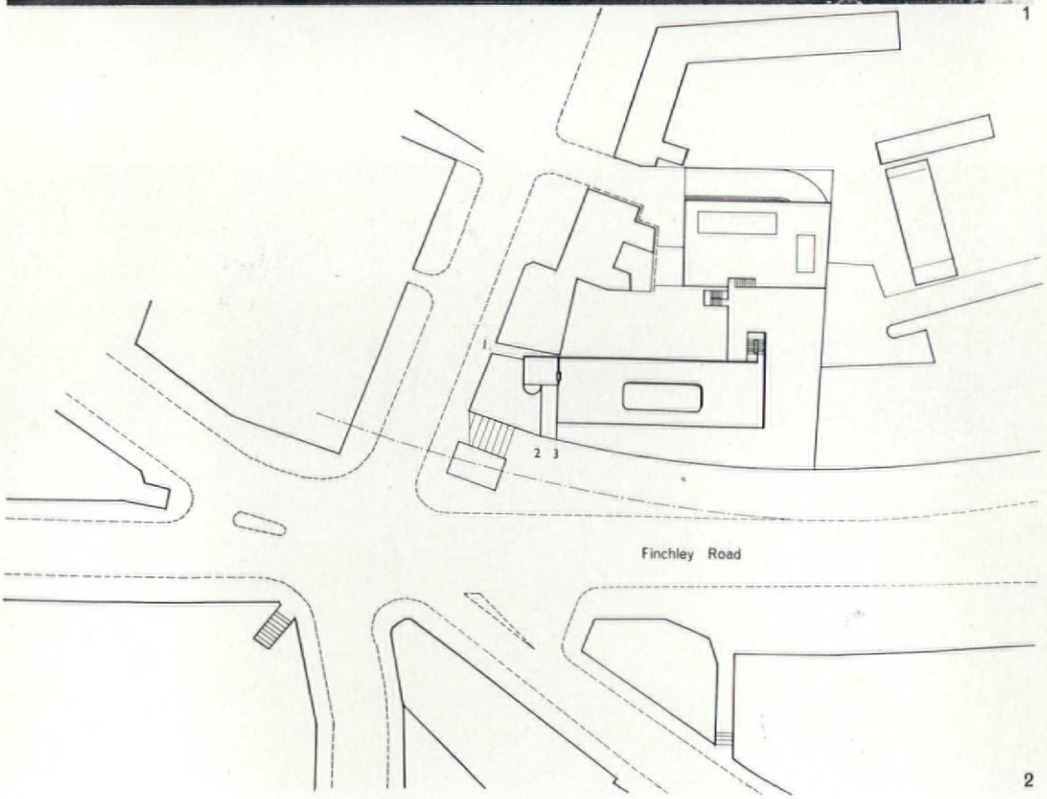


2

1
The east façade on Finchley Road

2
Site plan
1 entrance to flats
2 bank entrance
3 office entrance

3
Rear of building showing access ramp to garage

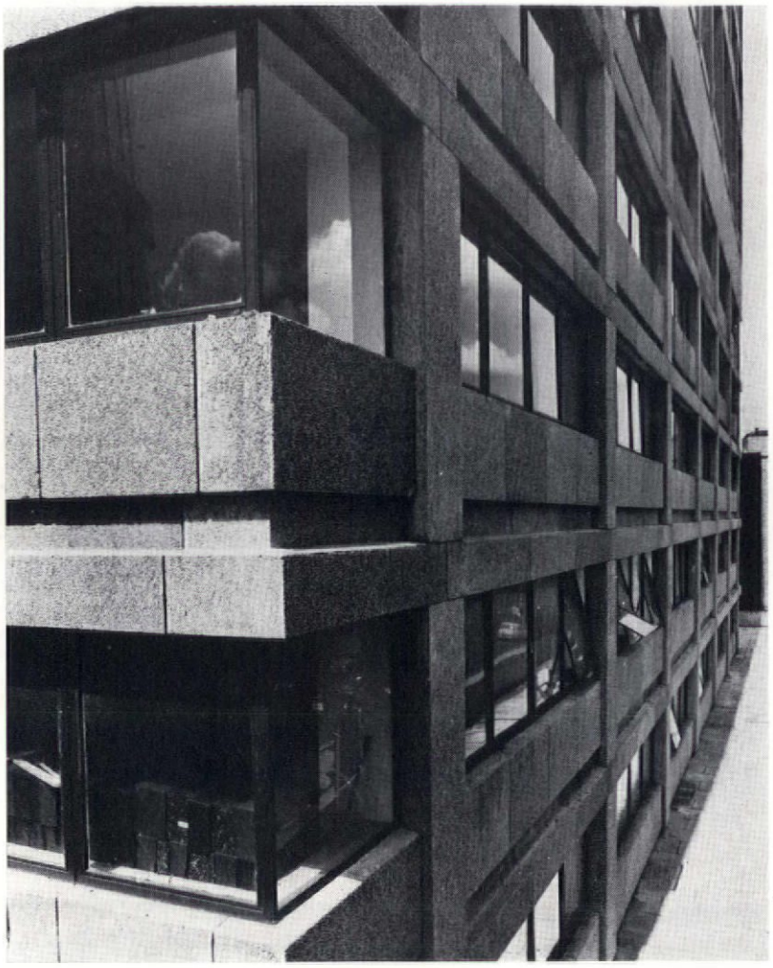
4
Detail of the cantilever corners to the office section clad in pre-cast granite-faced concrete panels

5 & 6
Views of the main stair and the escape stairs at either end of the block

Photos: John Gallagher



3



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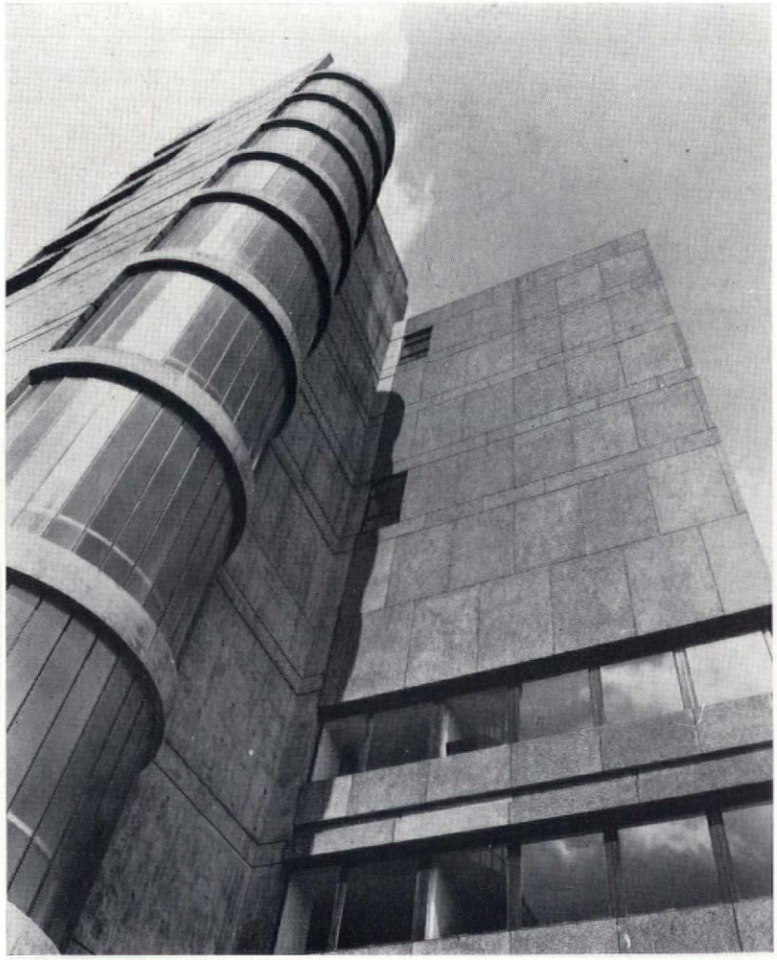

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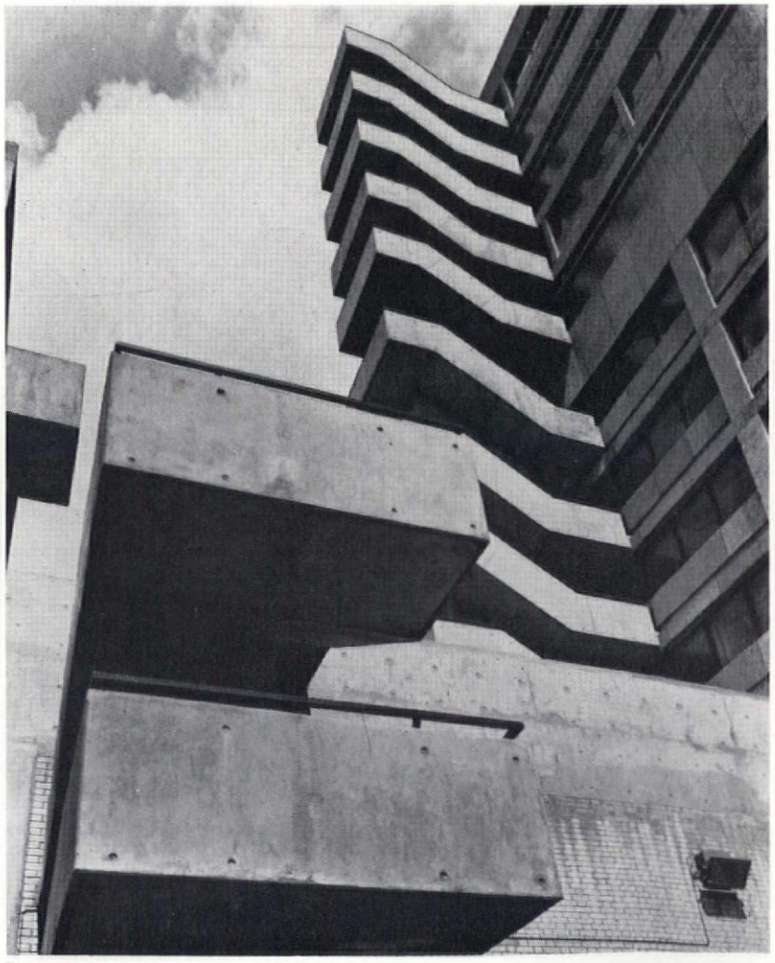

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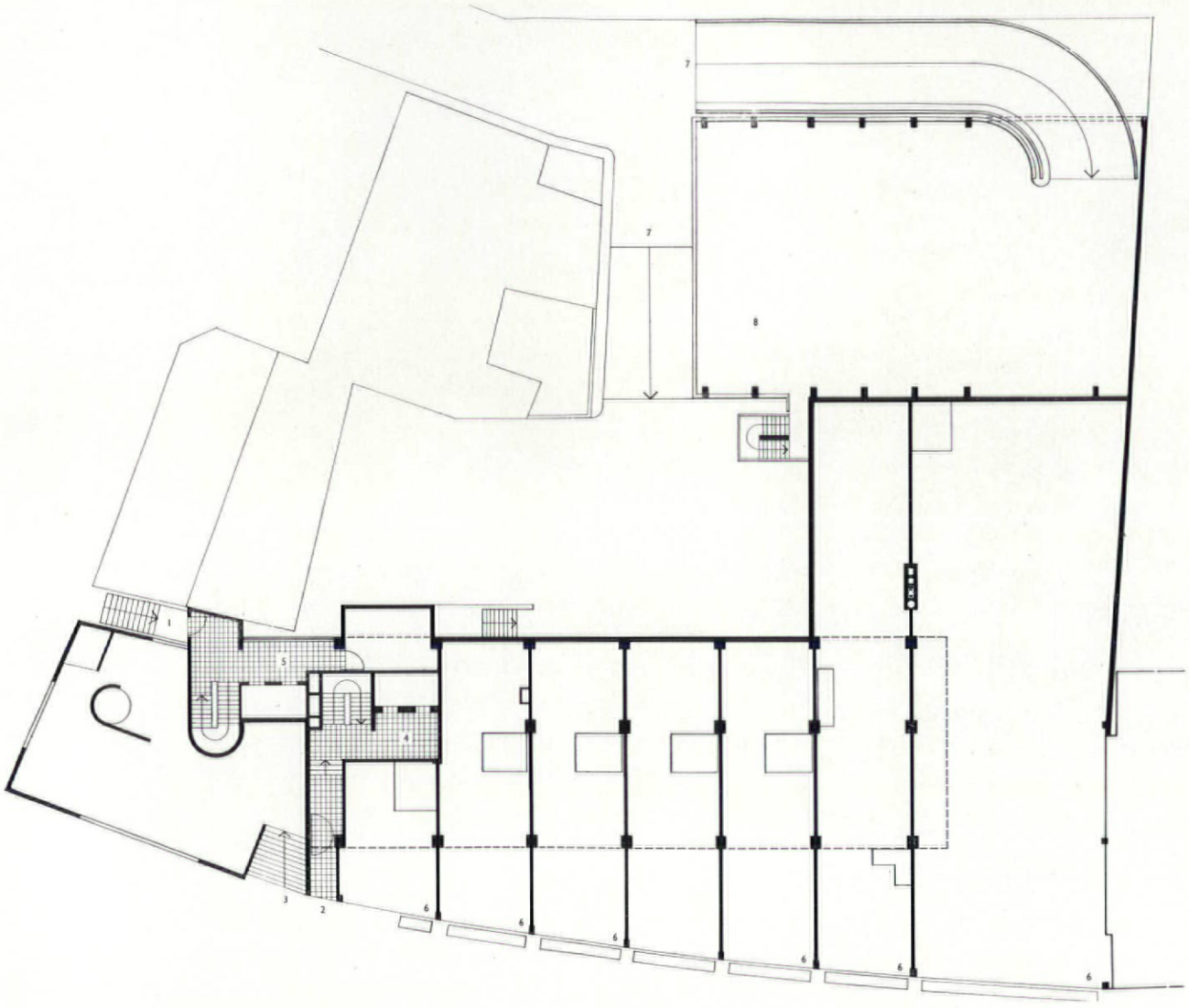

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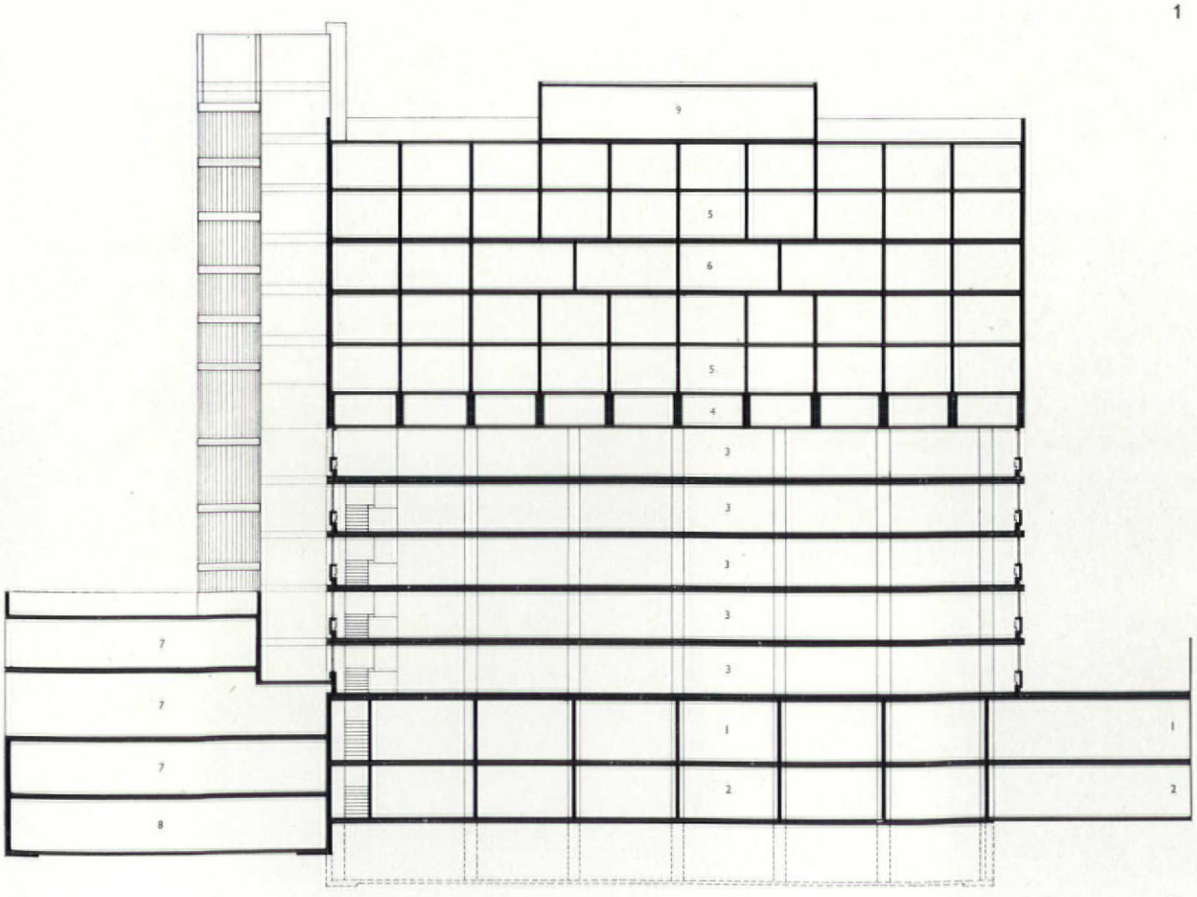

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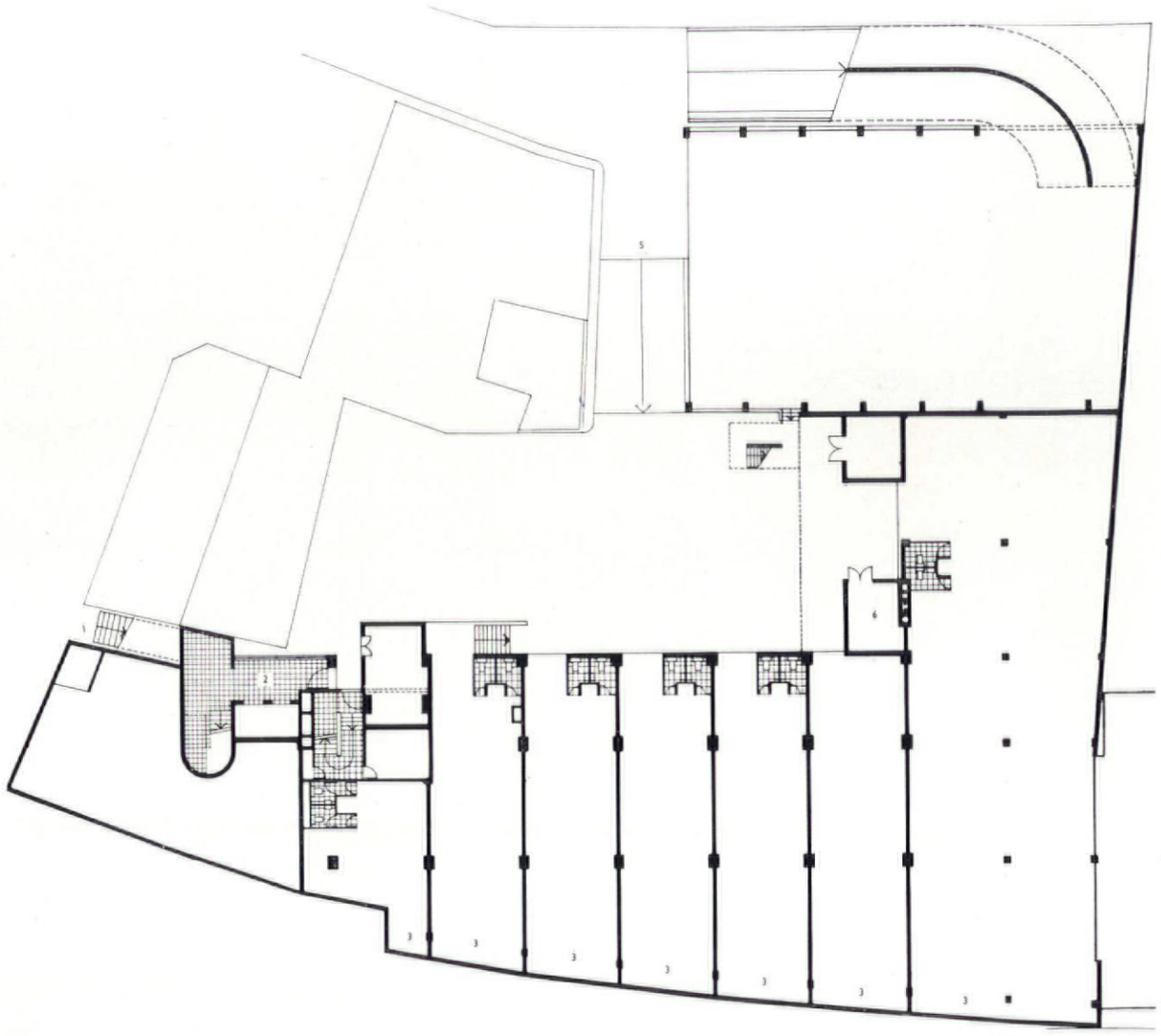

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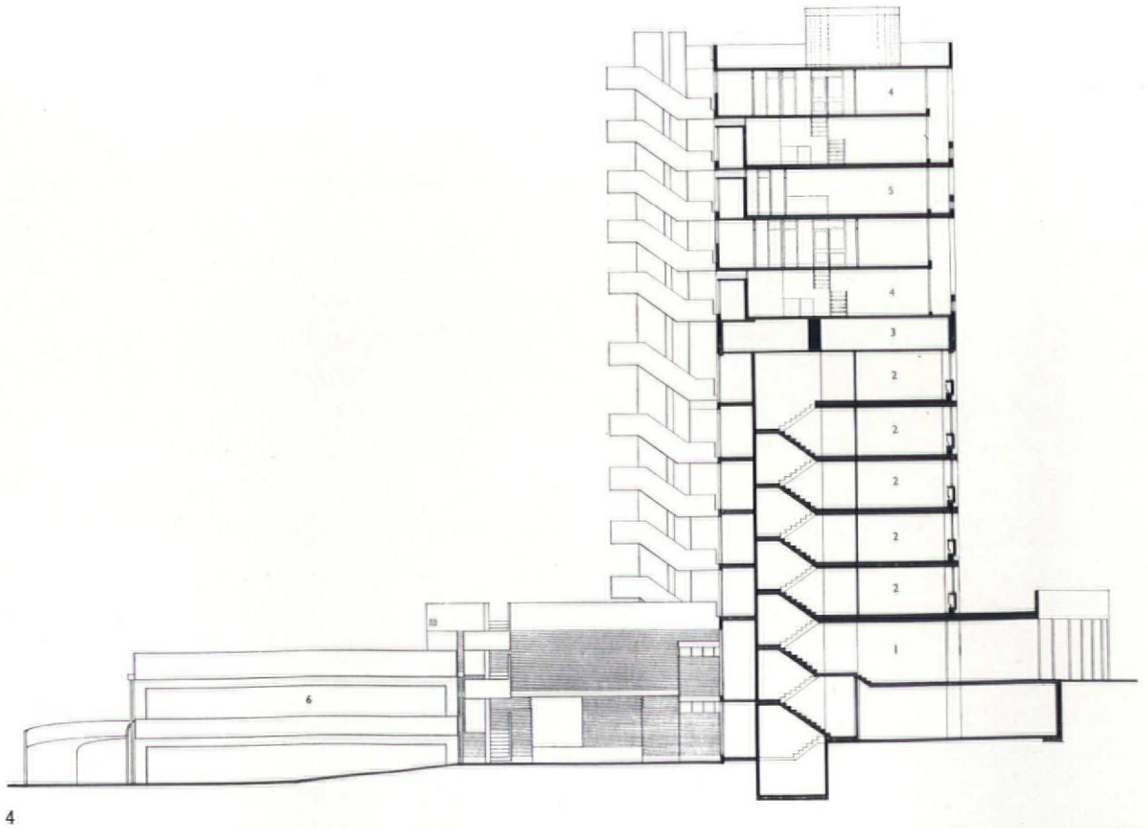


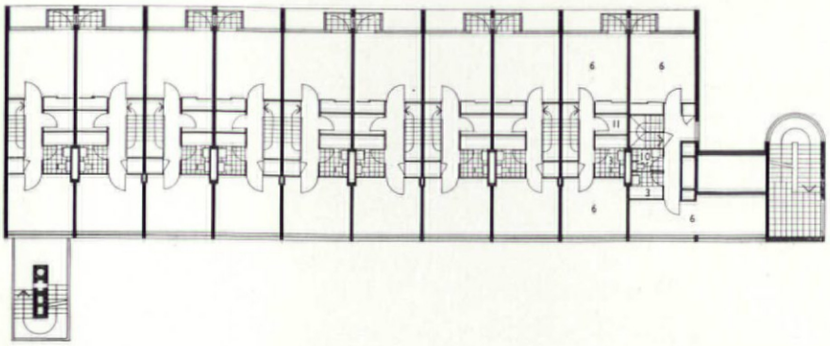
4

1
Ground floor plan
1 entry/flats
2 entry/offices
3 entry/bank
4 lobby/offices
5 lobby/bank
6 shops
7 ramp access
8 garage

2
Long section
1 shop
2 shop basement
3 office space
4 service floor
5 maisonette floor
6 flat floor
7 bank
8 bank strongroom
9 water storage

3
First floor plan
1 entry/flats
2 lobby to flats
3 shop basement
4 garage
5 ramp access

4
Cross section
1 entry/offices
2 offices
3 service floor
4 maisonette floor
5 flat floor
6 garage



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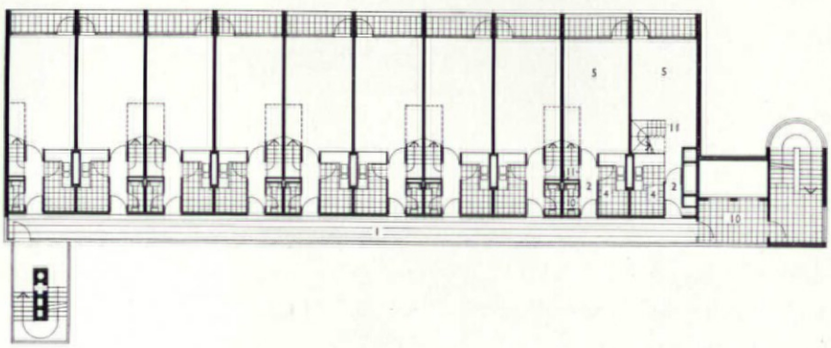

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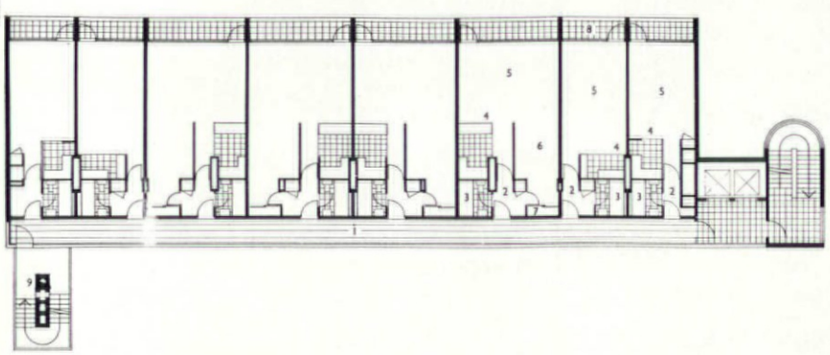

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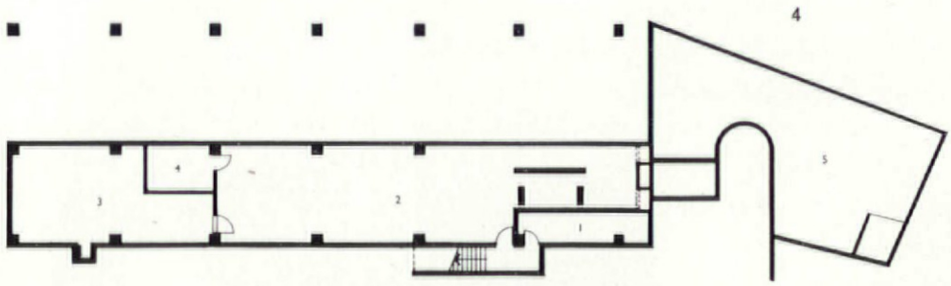

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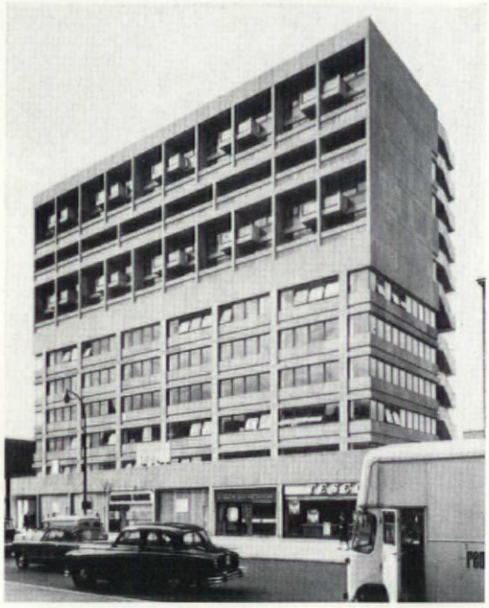

5



6

1
Upper floor plan of maisonettes (7th and 10th floors)

2
Lower floor plan of maisonettes (6th and 9th floors)

3
Floor plan of flats (8th floor)
1 access corridor
2 entry lobby
3 bathroom
4 kitchen
5 living room
6 bedroom
7 wardrobe
8 terrace
9 refuse shoot

4
Basement plan
1 electrical intake room
2 boiler room
3 oil storage
4 pump room
5 bank strongroom

continued from page 572

The section of the domestic floors is interesting for its use of a low glazed access gallery with recessed windows to the kitchens gaining fresh air over the low section. This can be seen in the photographs.

All levels, except for the shops, are faced in heavily moulded and articulated granite chip precast slabs. The shops and bank are faced in polished grey granite with smooth joints. Entrance halls are finished in marble in the case of the offices and terrazzo in the case of the flats. The formal nature of the building was established by the architects to provide a feeling of strength and dominance, the building forming, as it does, the pivot of a road and building complex.

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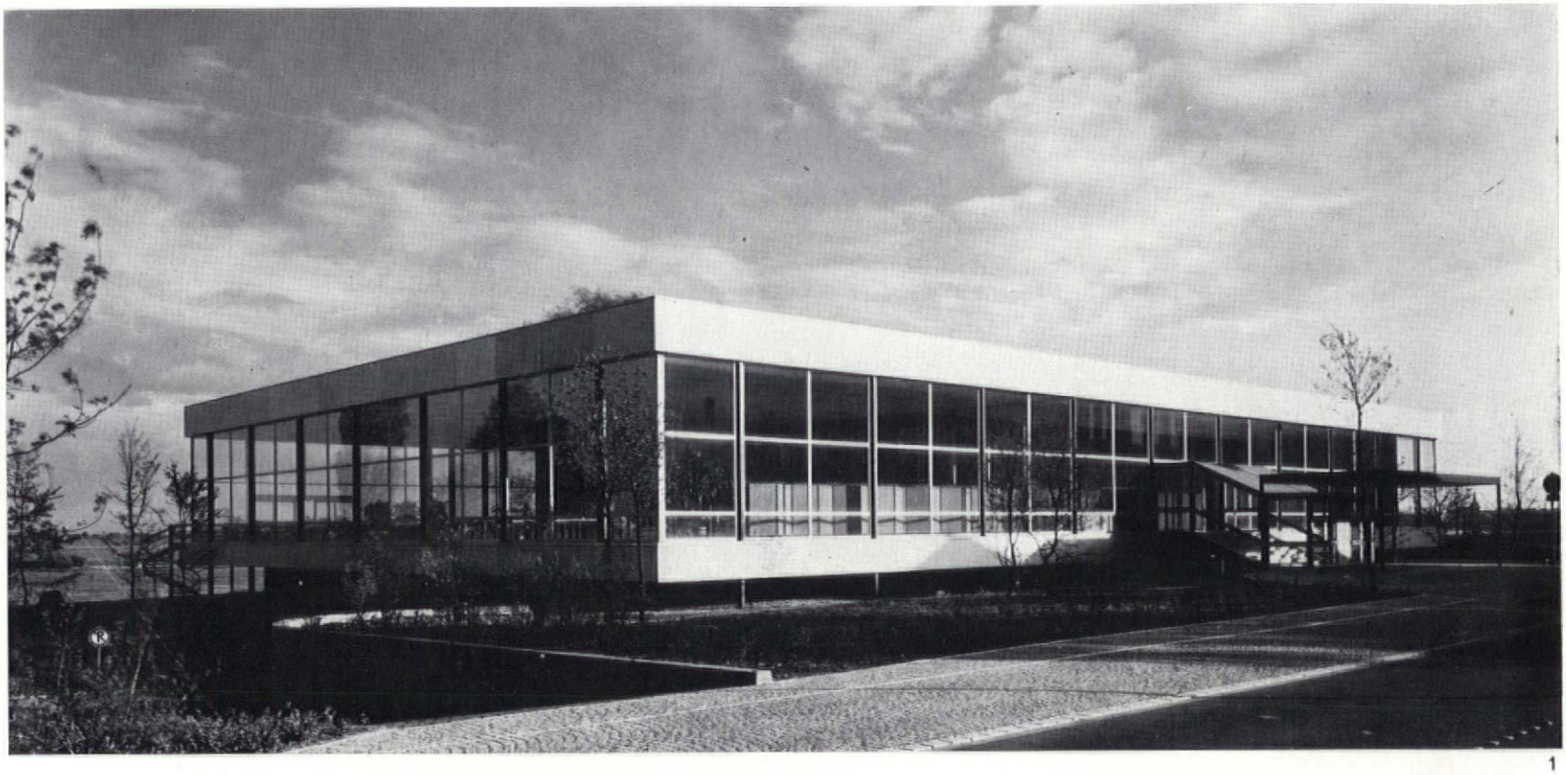


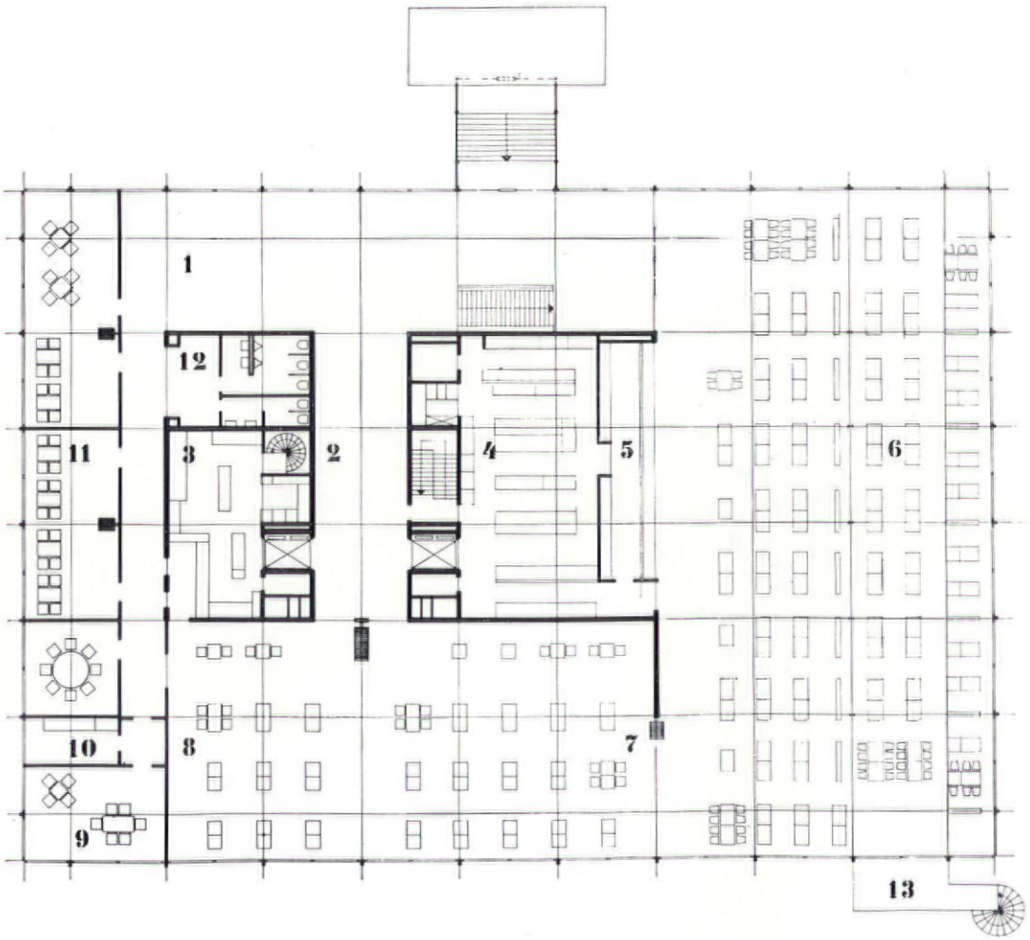
1

Factory canteen, Krefeld-Uerdingen

Hentrich & Petschnigg

H. Hentrich, H. Petschnigg, Fritz Eller, Erich Moser, Robert Walter, Hans Köllges, Hans-J. Stutz.

2



The single-storey employees' canteen for the Bayer A.G. factory on the banks of the Rhine in Krefeld-Uerdingen, stands 2·80m above the ground and is glazed all round from floor to roof. Thus, in all the rooms employees and guests are in direct contact with the enchanting landscape of the lower Rhine.

The building can cater for 1500 persons at each meal in the large rooms, and for 200 persons in the group or guest rooms. For this two separate kitchens have been installed both on the same level as the canteens and each directly connected by lift with the preparation and store-rooms in the basement.

The delivery of goods and the staff entrance are by ramp direct to the basement.

On account of the danger of flood-water, the basement had to be protected by a 'hull seal' up to the window-sills. The construction of the building is a combination of steel and reinforced concrete. In front, the concrete-ribbed roofs, cantilevered up to 13·80m, are supported at 5·50m intervals (grid) by 11/20cm steel supports. For improved heat insulation, the flat roof is made as a 'water-roof'. The concrete slabs are faced with 2·75m wide smooth aluminium panels. The rigidly glazed Thermopane sheets are carried in aluminium sections between the steel supports. The south and west sides of the building are shielded externally by Makrolon sun-blinds. All rooms are air-conditioned.

1
View of the building from the north

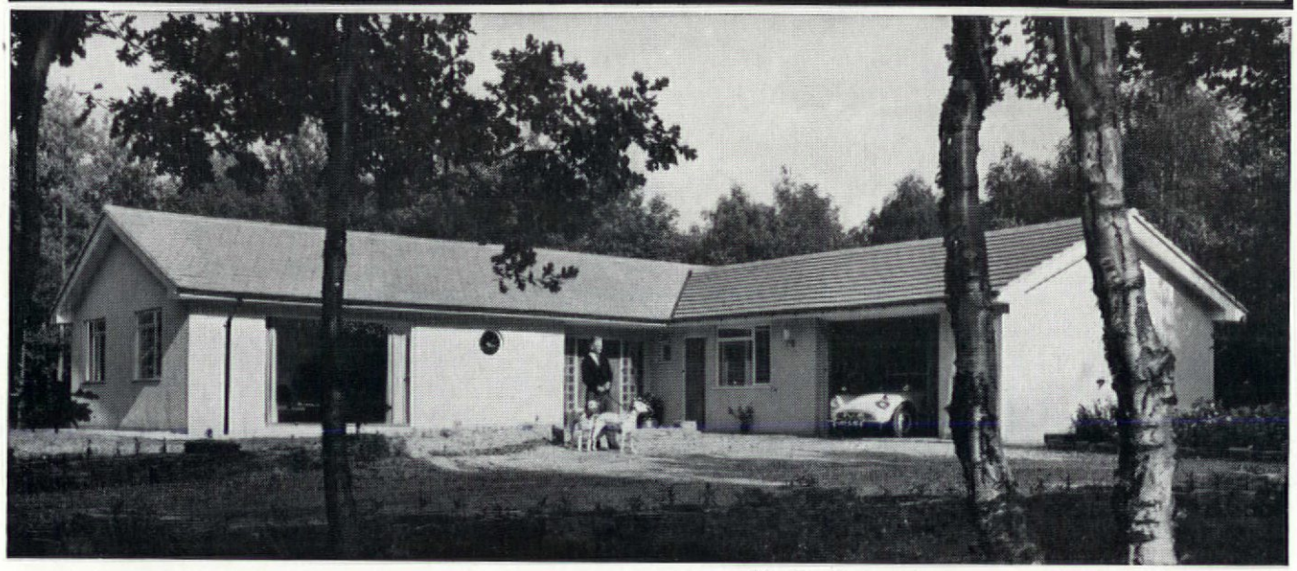
2
Main floor plan
1 entrance hall
2 passage
3 guests' kitchen
4 main kitchen
5 servery
6 large dining
7 group room
8 group room
9 staff dining
10 pantry
11 guest rooms
12 cloakroom, w.c.s
13 emergency exit

Photo: Inge Goertz-Bauer

ELECTRIC FLOOR WARMING

INFORMATION SHEET

31



Mr. Brooks, two dogs, one car—and the L-shaped bungalow

Even the dogs have electric floor warming in the home heating engineer Brooks planned for himself!

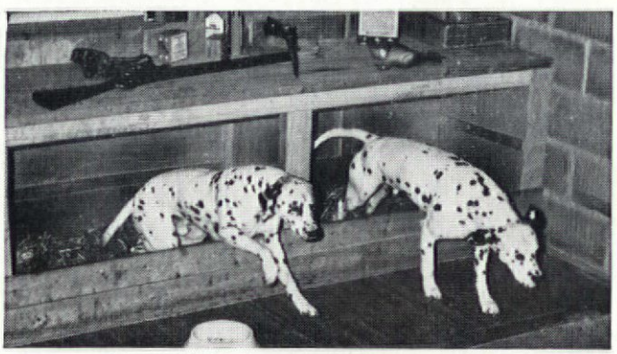
NEARLY every man dreams of planning his own house. Mr. G. A. Brooks was no exception, and when his chance came he was able to put into practice several strongly held convictions. For instance, everything was placed under the roof area. There was no 'aesthetically objectionable' chimney. And electric floor warming was specified.

Why electric floor warming? This had the primary advantage that it could be planned into the structure of the house and then, as part of the building process, be swiftly and cheaply put in.

In Mr. Brooks' house near Wokingham the cables were laid on 5 in. of concrete sub-floor resting on an oversight layer of 1 in. thick insulation, the cables being covered with 3 in. of dense sand/cement screed. The total floor area of 1,900 sq. ft. was cabled, and then divided into eleven circuits controlled by wall-mounted thermostats.

Floor covering. Mr. Brooks has achieved great variety in floor covering. The living-room has "Durabella Acacia" wood-block floor. The hall, with a 3kW circuit, is finished in random marble tiles. The kitchen, dining space and utility room, although on separate circuits which total 4½kW, are controlled by the same thermostat. The flooring here is cork. (By making sure the screed was completely dried out before laying the cork tiles, Mr. Brooks has made sure there will be no lifting or cracking.)

Dogs, too. Finally, the bedrooms and the study have close carpeting. And the garage, next to the kitchen, has two circuits. One of 3kW for frost protection, and a smaller 800W circuit by the workbench. This also provides an electrically warmed base to the box for two Dalmatians.



An 800W circuit warms the Dalmatians' box

Running costs. Mr. Brooks thus has a complete central heating system which involves him in no fuel, maintenance or cleaning problems, and allowed him to plan without having to fit in pipes, radiators, chimneys, fuel storage space, etc.

It is also very cheap to run. Current is taken during the off-peak hours at night, when it is cheap (about ½ to ⅔ normal price) and plentiful. Heat is given off continuously. His first half-yearly bill, which included the winter, was £70.

Efficiency. In the first week, the thermometer on the outside wall recorded below 0°F. Yet inside, the temperature remained steady between 65°F and 68°F.

You may not have the luck to be designing your own house yet, but if you are thinking of installing electric floor warming, consult your Electricity Board as soon as possible. Their experience may save you money, time and trouble.

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



1

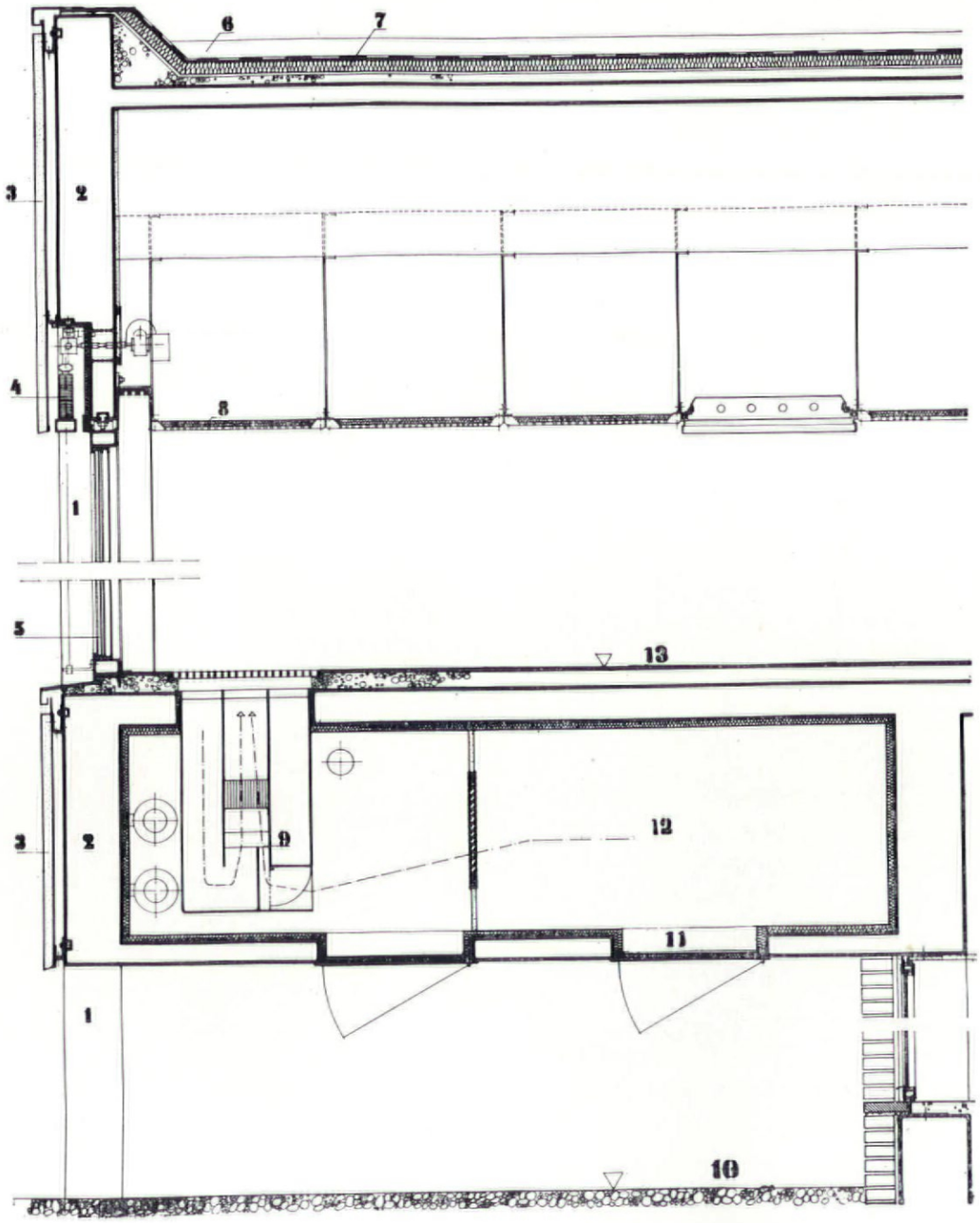
1
Entrance hall on north side

2
Detail section through wall
1 steel column
2 concrete
3 aluminium curtain wall
4 external, electrically controlled suncontrol
5 Thermopane in aluminium frame
6 water
7 roof with cork insulation and vaporbarrier
8 acoustic ceiling
9 space for air-conditioning and heating
10 finished ground surface
11 control doors
12 air-conditioning duct
13 main floor level

3
Photo of north corner of the building

Photo: Inge Goertz-Bauer

2



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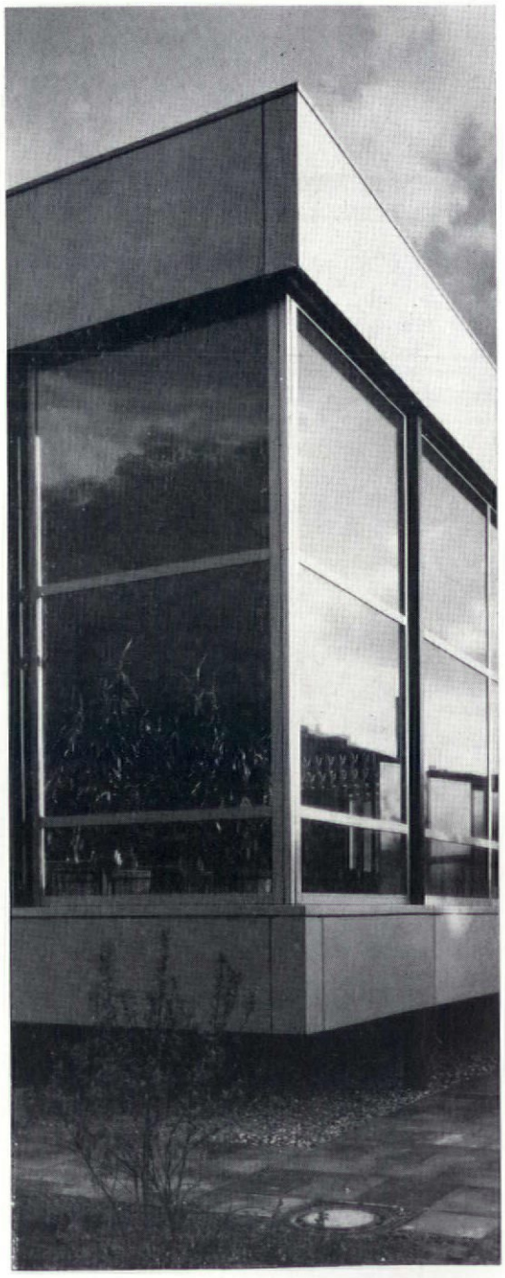
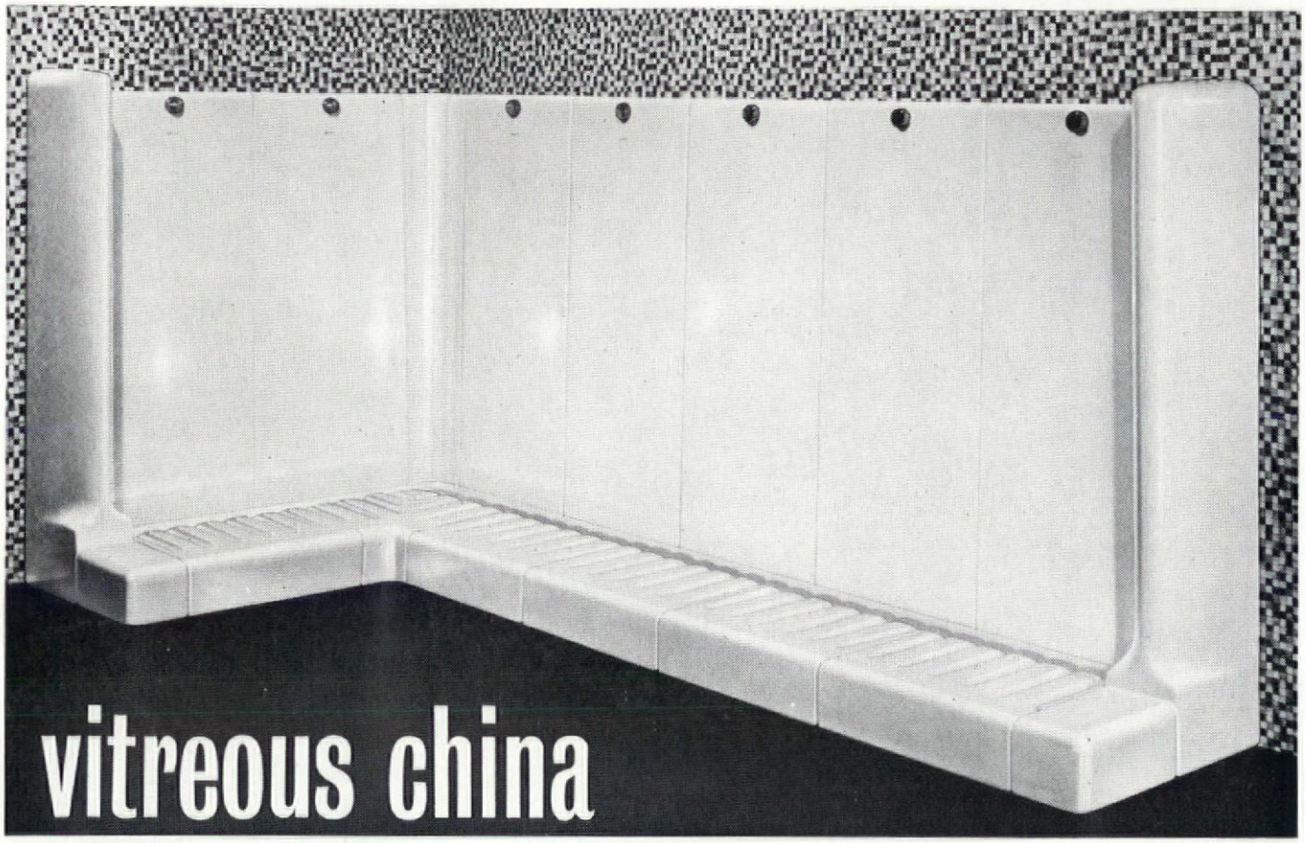
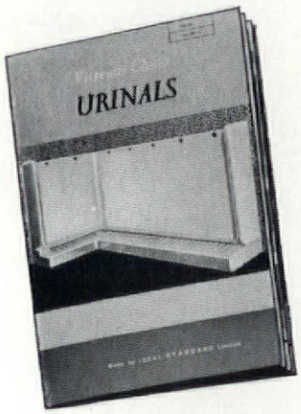


the new "Vitural"



slab urinal now available with corners, risers and treads.



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S.45



1

1
The group rooms which can be separated from the main canteen by plastic concertina screens—seen from the canteen

2
The canteen

Photos: Inge Goertz-Bauer

2



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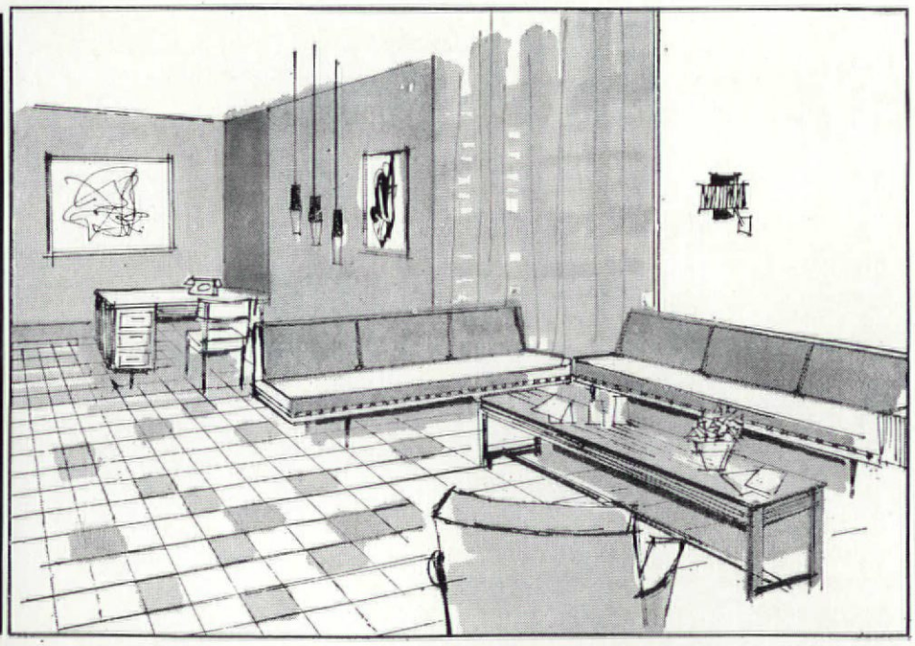

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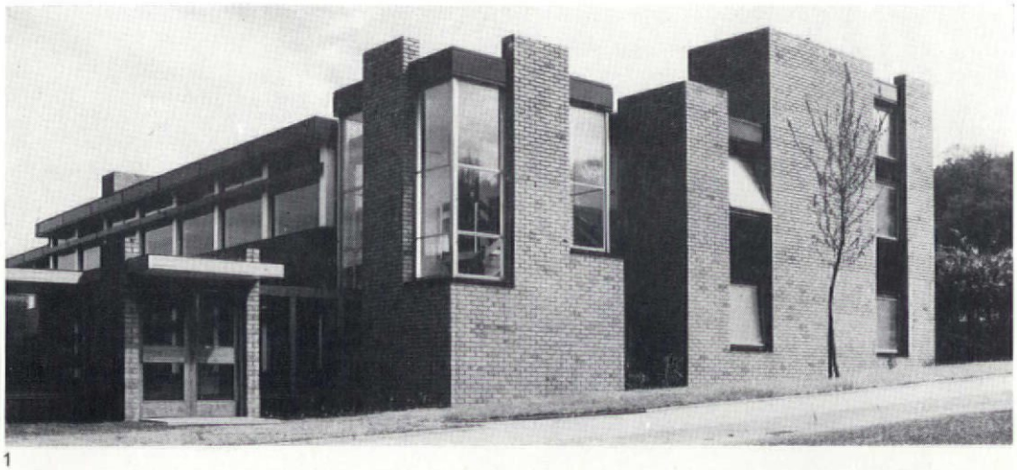
Computer and offices in Worcester

Howell, Killick, Partridge and Amis

The building provides for the housing of a computer together with further office accommodation for the accounts department of The Metal Box Co. Ltd., and is sited adjacent to one of the Company's factories. From the widest aspect this building should not be sited where it is because of the constrictions, but as so often is the case the client was unable for space and cost reasons to present to the architect any other site. This building must be seen therefore in these terms of reference. In fact the site was limited by the main entrance road to the factory on two sides and an existing single storey brick-faced office building on another to which links were required, it being the suggestion that one of these links should serve the purpose of main entrance to both buildings. The resultant proximity of the new to the old limited the height to two storeys except at the north end where levels permitted further accommodation in a basement. Thus the form of the building arises from the space available and, by relating this to the types of accommodation required, the result is, at the north end, a block comprising plant room, computer and general offices, in the centre an office section, and at the south end an ancillary block. These three are joined together by links of circulation which extend at ground level as two covered walkways, one containing the entrance.

continued on page 581



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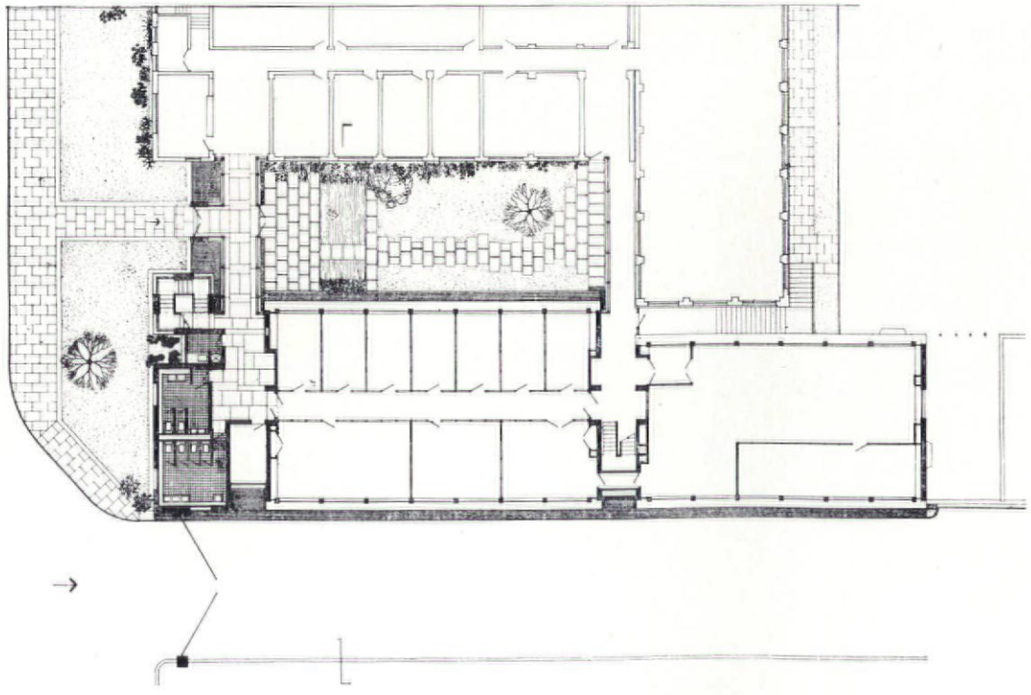


1
The entrance on the south side, leading into the courtyard

2
The break in the long east wall marks the axis of staircase and the break in fenestration; at the north end where the computer is housed. Sunlighting is restricted by the use of deeply shadowed clerestorey windows

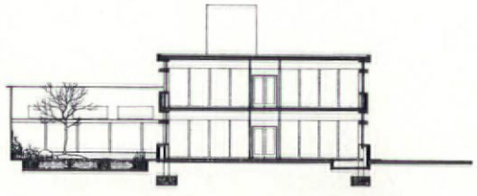
3
Plan. The computer wing projects to the north (right) along the road. The courtyard forms the link between the old building (top of plan) and the new.

Photos: John Donat

4
W–E section through the new building, with the courtyard on the left

5
E–W section through the computer wing

4





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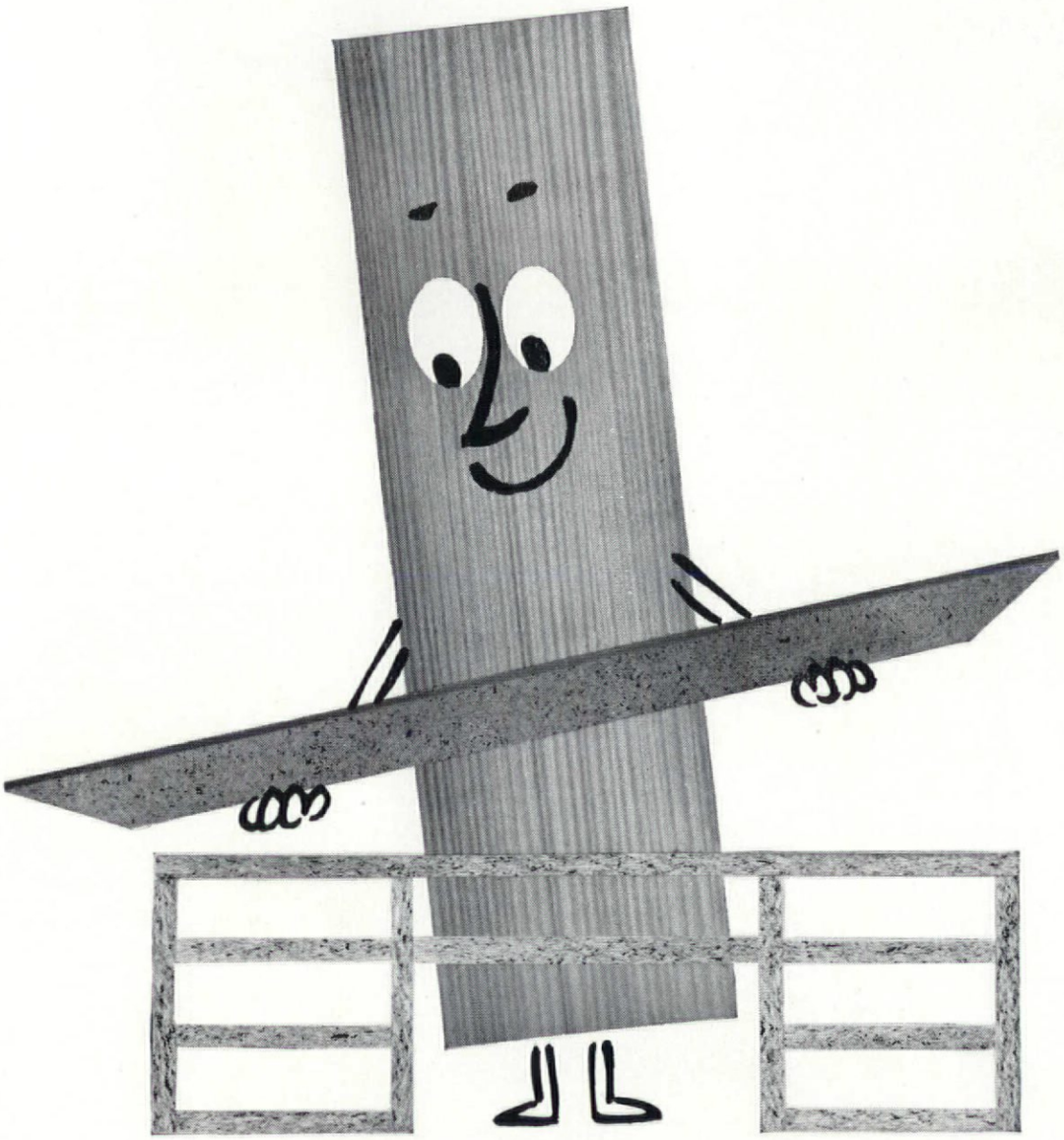

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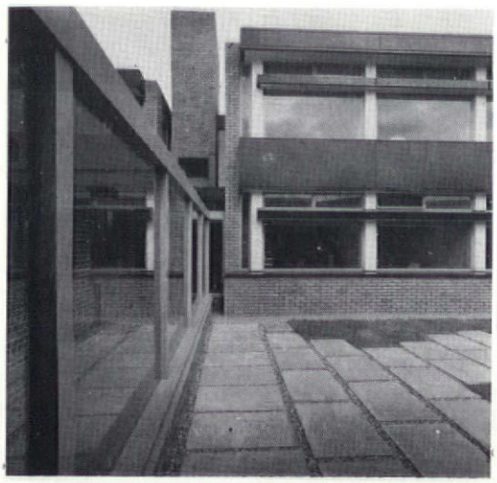

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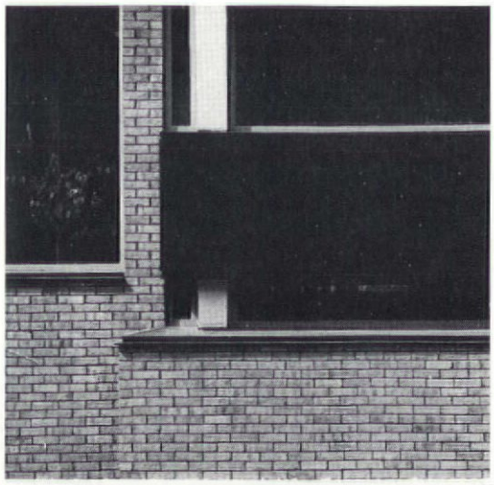

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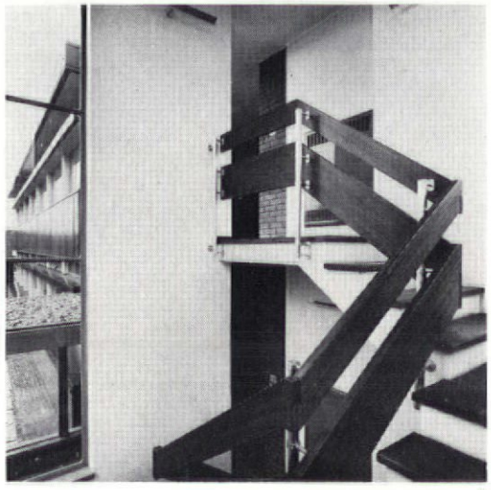

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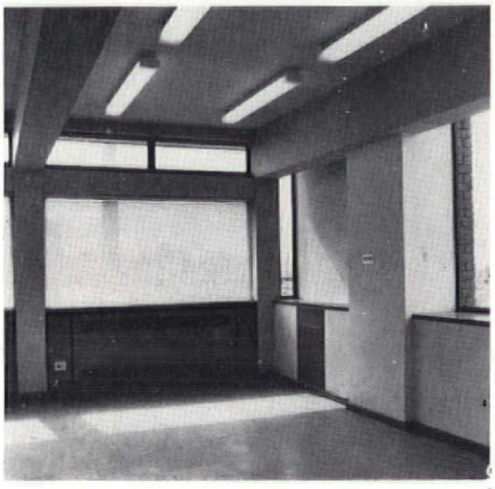

4

1
Courtyard link to new building

2
Detail of break in east wall

3
The main staircase flanking the entrance

4
Typical office corner detail

Photos: John Donat

continued from page 580

The computer needs very accurately controlled air conditioning which lack of solar gain aids. Daylighting has therefore been limited by keeping primarily to deeply shadowed clerestorey windows. The external wall below is outset to allow facility for service ducts, pipes, etc., which device is also used for the office areas. In these, demountable partitions were required giving the usual attendant problem of service flexibility, noise transmission, etc. The projecting under-window form enables services to travel horizontally outside the structural frame as does the gap between end frames and walls. This gap is identified architecturally and solves the difficulty of cladding at the ends of a portal frame system. The downstanding beams spanning the whole width of the building control the positions for demountable cross partitions and thus ensure good sound insulation between offices, although the partitions could have had more mass, and be of the dissociated double skin type, but the client decided for economy not to pursue this. The longitudinal corridor partitions rise to the same height as the transverse with a permanent continuous electrical duct in the head giving full flexibility for the switching of lights in relation to the partition layout. The resultant clerestorey between beams and the ceiling is double glazed giving an organized borrowed light to the corridor.

With regard to the external expression of the building there were early criticisms strangely enough by the client of making a 'metal box', but these were primarily on cost grounds. However the use of metal as a lightweight cladding material where supported from the steel frame was agreed. The original idea was to use the metal also to clad externally the columns and soffits of beams and slabs but this was omitted to achieve further savings. The metal cladding in fact is black anodized aluminium which is initially glossy due to a protective handling lacquer, but this will gradually weather off to leave a matt surface.

In contrast to the metal cladding, brick similar to the adjacent building has been used for all other external walling. This walling was the subject of much discussion with the client, who could not be persuaded in the initial designs to the use of large radius corners and minimum glazing brick in the ancillary block. Further the architects' intention to use bricks on edge as the outer facing skin was disallowed when working drawings were virtually complete. Arising from these decisions the architect was concerned at the loss of scale in the walling but this has in the end been largely retrieved by using raked out joints and a dark mortar using foundry sand. These dark joints contribute a great deal and successfully tie in with the black anodized aluminium. So far as the ancillary block is concerned the relation between the brick walling, the windows and cladding has been carefully designed to achieve a sculptural quality. In the framed sections of the building external modelling is obtained by the transom beams on the typical office bays which serve to divide ventilating hoppers above from fixed glazing below, each being in $\frac{1}{2}$in plate glass on the road side to reduce ingress of traffic noise. It is only necessary to have sun blinds on the fixed and lower glazing because of the upper part being shaded by the projecting slab.

Further modelling is achieved in the links in the way the covered ways 'slide' in, and also in the identity given to the cooling tower. This latter was originally designed as a circular concrete funnel, but in the event is undoubtedly better for being rectangular and of brick.

This building demonstrates a deliberate attempt to keep away from the flat faced building so often associated with curtain wall types, at the same time providing in office areas a controlled flexibility of layout and a much improved noise defence. It is an example of the general view held that for a building to be successful the number of materials and colours used should be carefully controlled. In this case, for the former brick, metal, glass were used, but with the addition of the concrete for encased columns—a material possibly better excluded in this particular building. For the latter, reddish brown, black, grey and white.

No building can be complete unless the surfaces up to it and around it have been designed sympathetically. At Worcester in the early designs the wall plinths grew in a curve from the brick paving against the building but this was abandoned for cost reasons. However a compromise of this is achieved in the paving adjacent to the office sections which on the courtyard side is level with grass, paving and water, in an effort to 'keep the level up' so that the building really sits in the ground rather than on it.

Quantity surveyors: Wakeman Trower and Partners. Consultant structural engineers: Ecrofnier and Partners. Main contractors: Joseph Wood and Sons Ltd. Heating and air conditioning: G. N. Haden and Sons Ltd.

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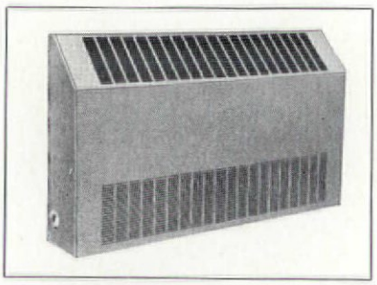
Firstly, Forceflo fans are so quiet you can scarcely hear them. What's more, we'll be specific as to just how quietly an installation will operate. Every unit has been tested through all audible frequencies and comes with a guaranteed noise criteria rating.

Secondly, the range of sizes provides outputs from 16,000 to 62,000 Btu/h. Even if the heating demand is exceptionally high, a low noise level can still be assured by selectively planning the unit capacities.

And thirdly, Forceflos take precious little space. The freestanding models are only 28 inches high by 9 inches deep and by using recessed, remote or ceiling mounted models even less valuable space is occupied.

Is it any wonder that Forceflo users are well contented too!



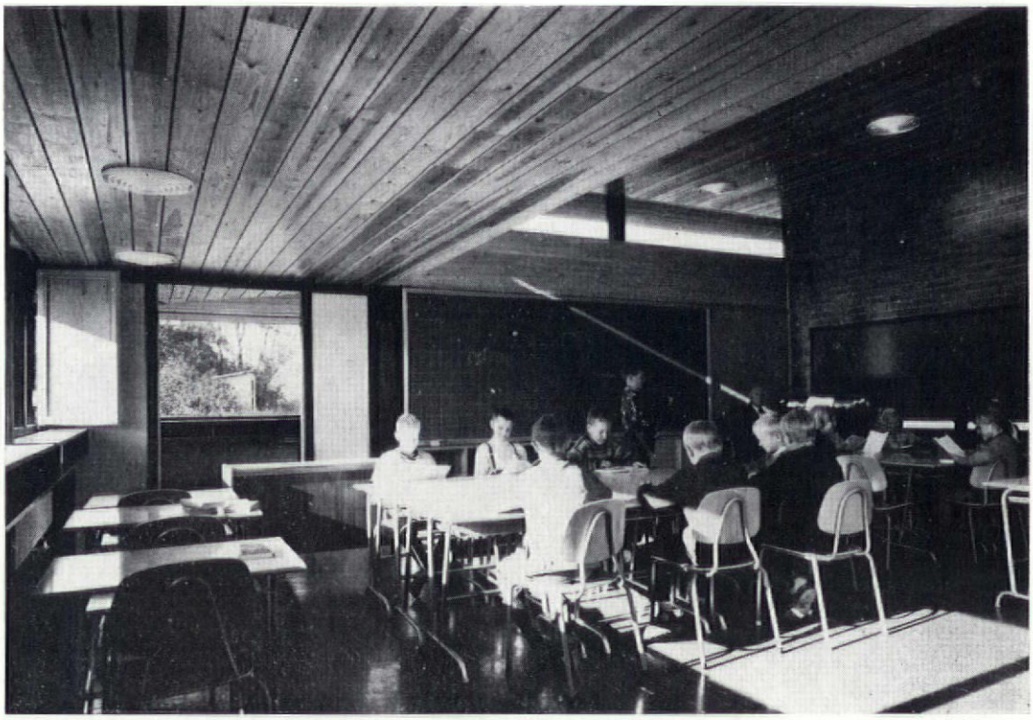
biddle

F. H. BIDDLE LIMITED
16 Upper Grosvenor St. London W1
Hyde Park 0532

Vik primary school, Norway

Kjell Lund & Nils Slaatto
Assistant architect Arne Berg

The school is situated near the Oslo–Hönefoss road, and overlooks the Steinsfjorden lake.
The theoretical and practical classrooms are grouped around the gymnasium, the natural-science room and the vestibule—a compact solution that proved to be very economical.
All classrooms are lighted by windows at two levels which give good light to all the desks. The gymnasium has clerestorey lighting only. These different roof levels give the building a rhythm as well as a horizontal character.
Externally, black hammered concrete is used up to window-level. Windows are of dark creosoted pine with insulating glass. The horizontal roof boarding is also in dark creosoted pine. The roof is a laminated wood construction, with ceilings of untreated pine.
Walls between classrooms and enclosing the gymnasium are loadbearing brick cavity left untreated. Partition walls separating classrooms from corridors are insulated and lined with blackboard on both sides. Floor coverings are PVC tiles and natural stone slabs.



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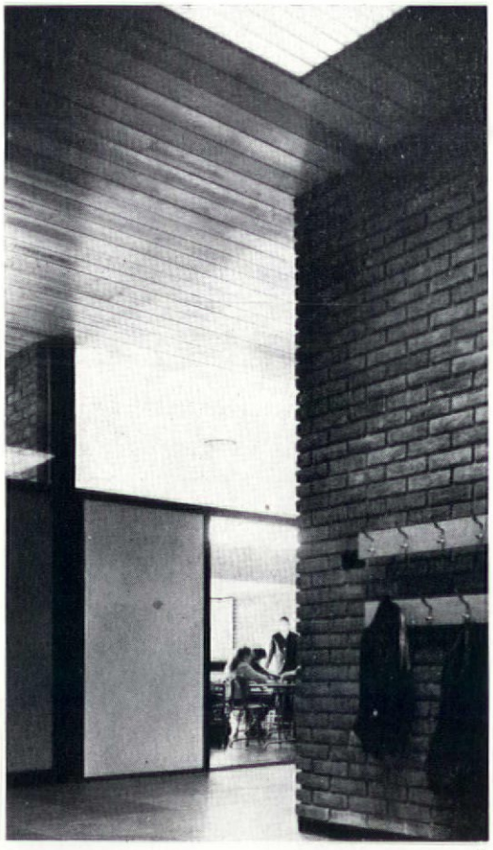

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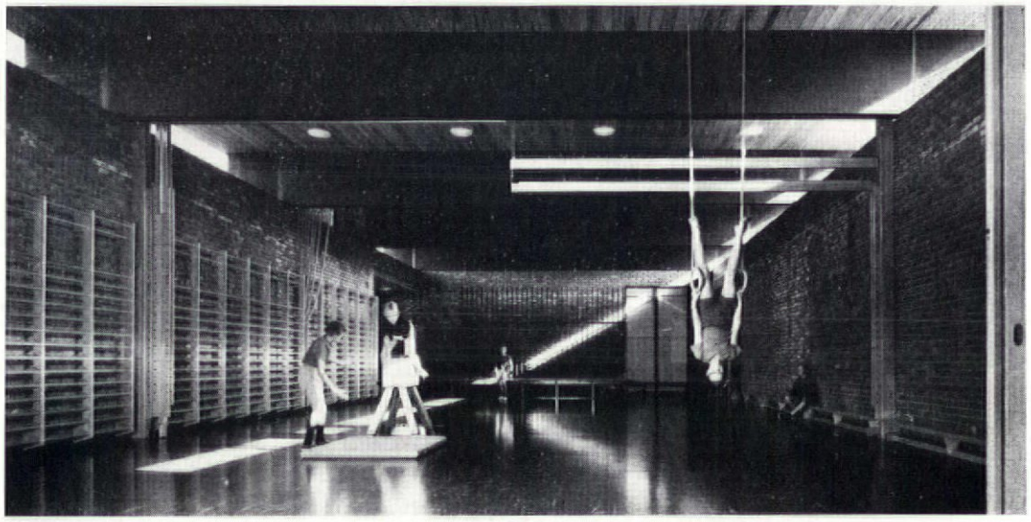

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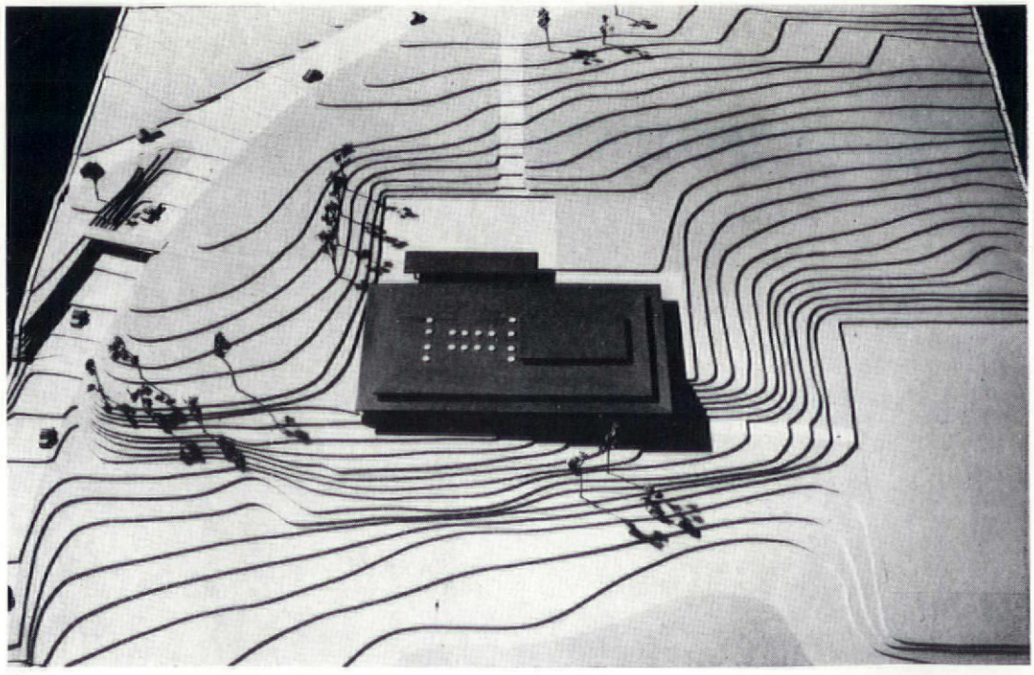
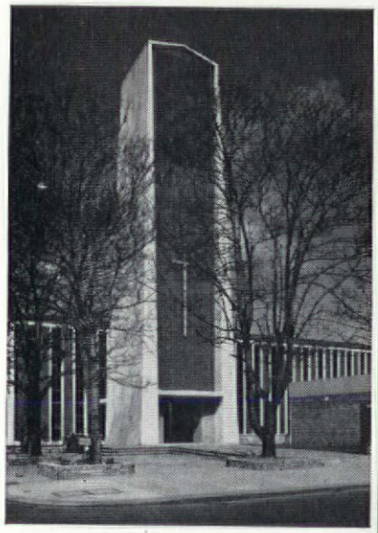


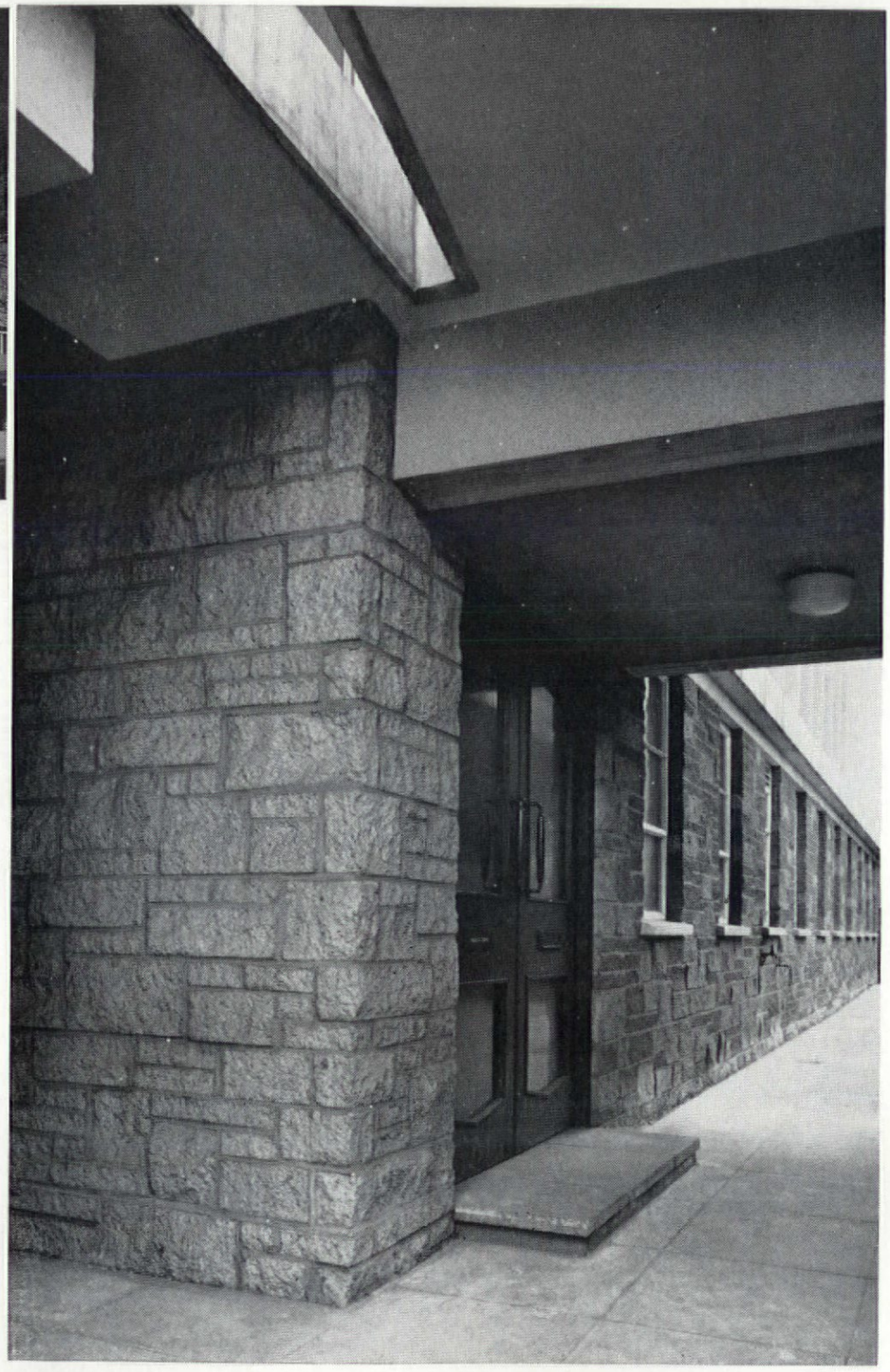
4

1
A classroom
2
Gymnasium
3
View into classroom from corridor
4
Photograph of model
Photos: K. Teigen

Riven block by Atlas Stone
used for the lych gate and plinth of Holy Trinity Church Hounslow

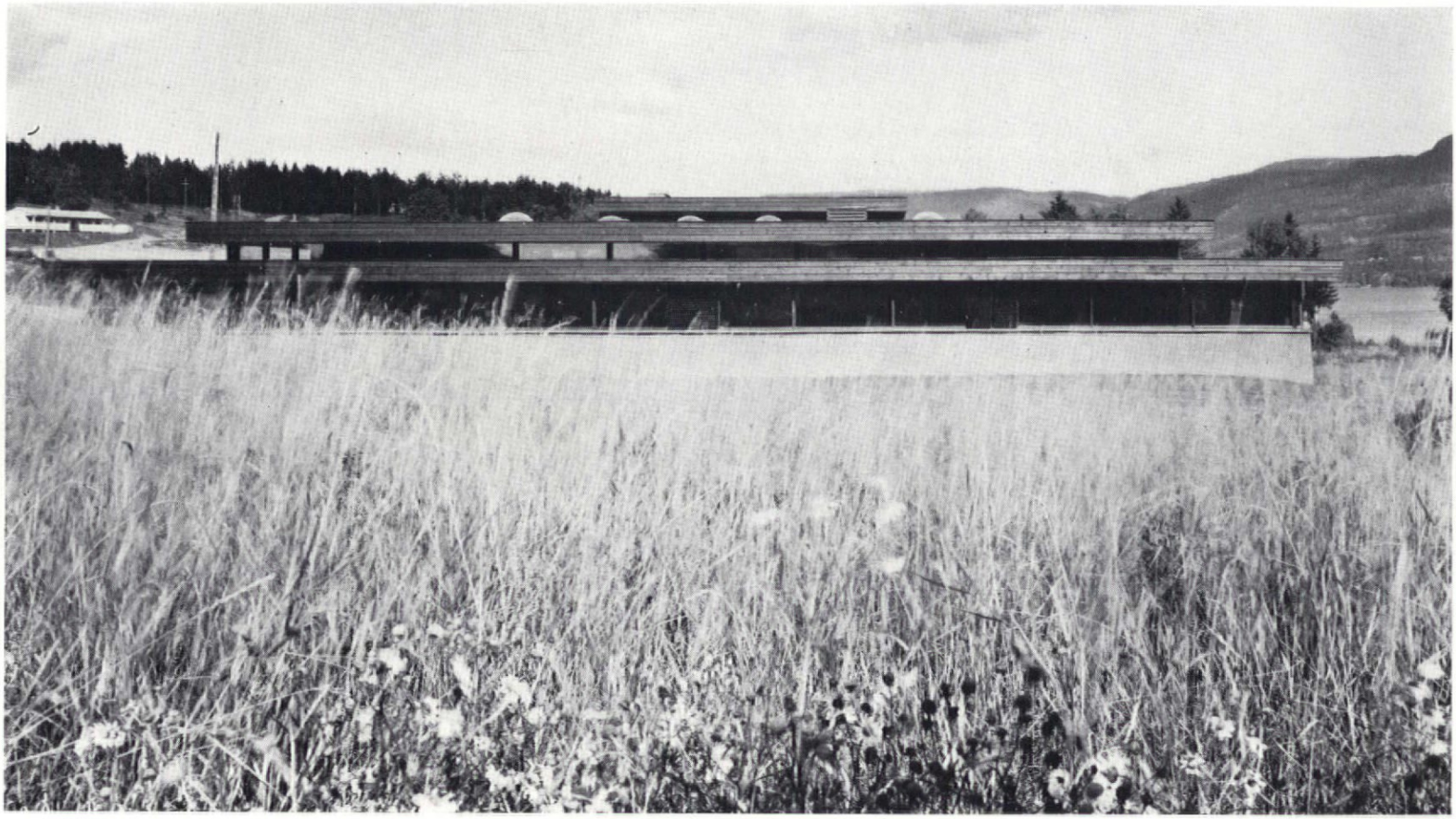


Architect
W E & E M Cross
Contractor
William Lacey (Hounslow) Ltd



The Atlas Stone Company Ltd

subsidiary company The Atlas Asbestos Cement Co Ltd
Artillery House Artillery Row London SW1 Tel Abbey 2091-9



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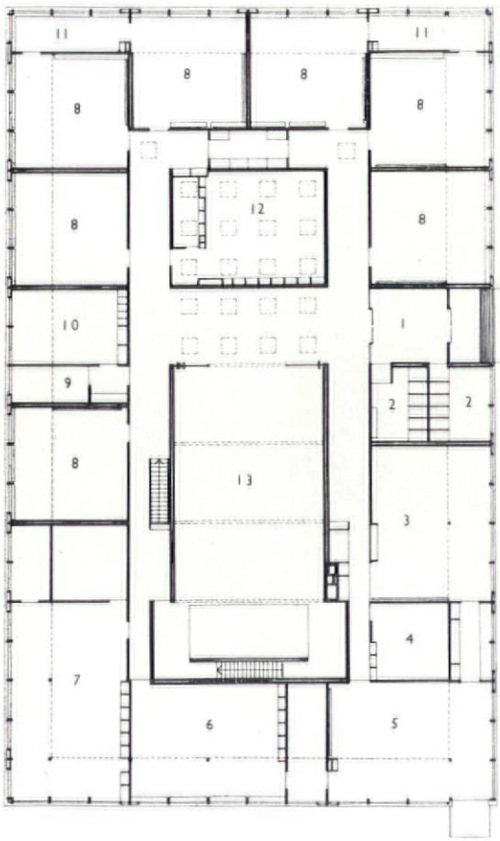

3



4

1
View from the main road

2
Section through gymnasium

3
Ground floor plan

4
Basement plan
1 entrance lobby
2 toilets
3 carpentry room
4 study
5 metalwork room
6 needlework room
7 kitchen
8 classroom
9 office
10 teachers' common room
11 group room
12 natural science room
13 gymnasium
14 corridor
15 store
16 showers
17 changing room
18 medical rooms
19 librarary
20 music rooms and cinema
21 boiler room

Photo: K. Teigen

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AND COMPANY LIMITED

from designs by Noël Villeneuve



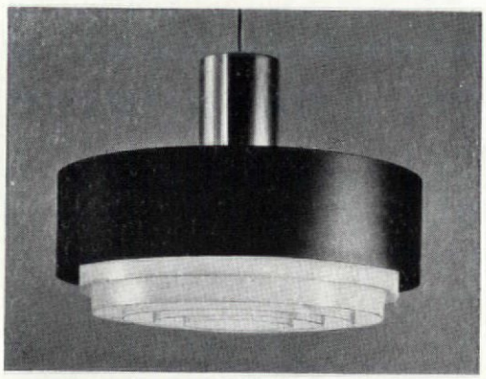
NV 1 SERIES

UK Design Registered No 906619

A 12" diam. plastic fitting for a 150W or 200W lamp

ceiling mounted or suspended

from 27/6



Barbour index file No 263

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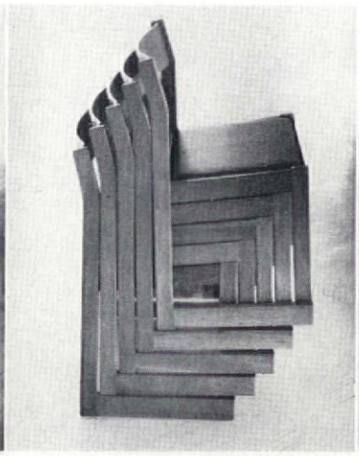

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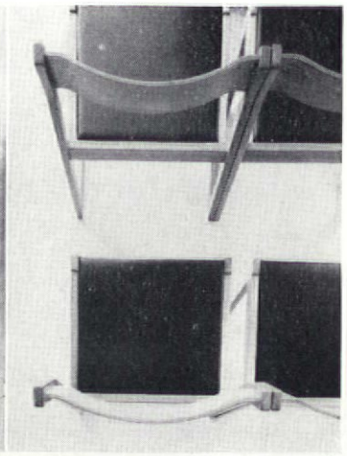

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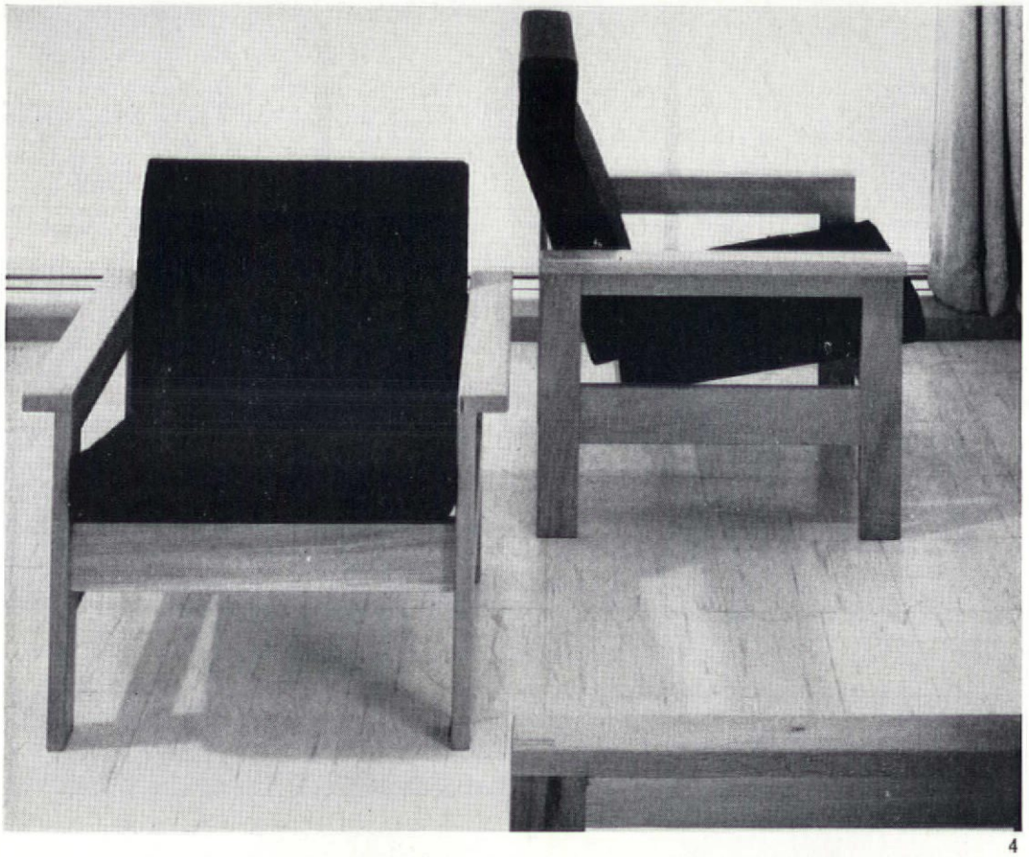

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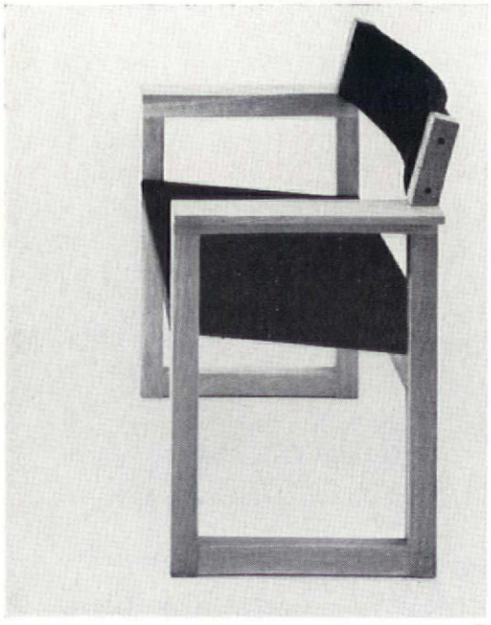

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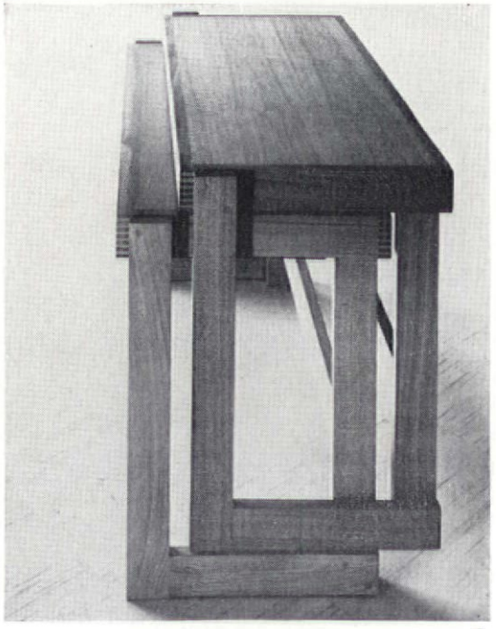


6



7

Design notes

Architect-designed furniture

N. S. Allanson and P. G. Crutch (of Sir Basil Spence, Bonnington and Collins) designed special furniture for the Arts building at the University of Southampton, which has since been put into production by Esavian Ltd.

There are three versions of office chairs—an armchair, an upright chair and a stacking chair. The standard timbers which have been selected for this range are white beech, oak or afromosia. Both the stacking chair and upright chair are available with (i) upholstered seat and back; (ii) upholstered seat and veneered back; and (iii) unupholstered seat and back.

The approximate retail prices are as follows: Stacking chairs **1–3:** from £5 10*s*. 6*d*. for the unupholstered chair in beech, to £8 17*s*. 9*d*. for the upholstered chair in afromosia. Upright chairs: from £7 19*s*. in beech to £9 1*s*. 6*d*. in afromosia, both prices with upholstered seat and back. Armchair **5:** from £10 8*s*. 4*d*. in beech to £12 8*s*. 6*d*. in afromosia.

Easy chairs **4,** are available in high and low back versions, with the timbers the same as for the office chairs.

The approximate retail prices are as follows: Chair with low back: from £12 19*s*. 2*d*. to £19 9*s*. 4*d*. Chair with high back: from £16 2*s*. 7*d*. to £23 10*s*.

Tables are stacking **6,** or non-stacking **7,** standard top sizes being 6ft × 2ft 3in and 4ft × 2ft 3in. Approximate retail prices range from £11 14*s*. to £18. Tables are also available with melamine and linoleum-faced tops.

All prices include purchase tax, and discounts are available for contract use.

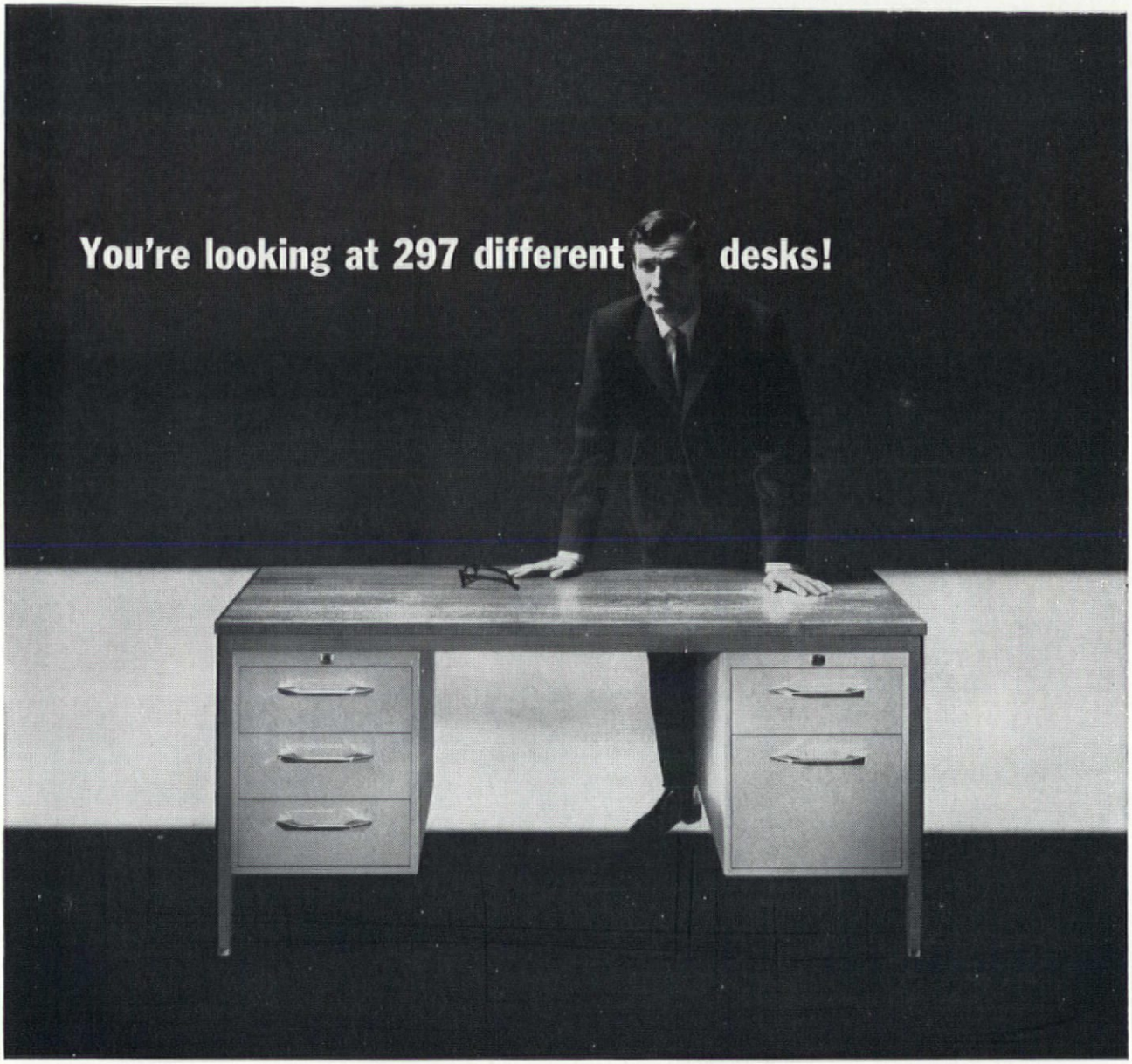
115 Tottenham Court Road, London, W.1

New Harvey office furniture

G. A. Harvey's new complete range of office furniture, recently so advertised in the British press, was designed by the Danish partnership Sigvard Bernadotte and Acton Bjørn (industrial designer and architect).

The range comprises steel desks and ancillary units and accessories (down to the last pen tray) in two series: Series 1 is suited to conference

continued on page 585



Now, in one revolutionary range designed by Bernadotte & Bjørn of Scandinavia, there's a Harvey desk to meet the needs of every office user from managing director to messenger boy—297 in all! And these, with their striking good looks, are only part of a tremendously flexible new family of Harvey desks and companion units . . . each functionally perfect, all in perfect harmony.

Individually they are the clear superiors of all other desks of comparable and even higher price, better suited to their use, and tough enough to last longer.

Abundant choice. Every inch . . . every detail is meticulously planned and engineered to let you pick desks that are tailor-made to your office needs (whether that involves one desk or a thousand). There's a choice of five different pedestals . . . three different surface materials . . . seven different surface colours. With this choice come many radical departures from conventional desk design practice.

Easy to plan . . . easy to use. Ordering is simplified to an extent you will find incredible in a range of this magnitude.

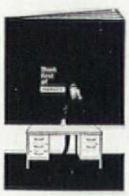
For the full story of this important new range of furniture, send for the 24-page brochure *'Think First of Harvey'*.

Think First of Harvey TO: G A HARVEY OFFICE FURNITURE LTD · SALES HEAD OFFICE · VILLIERS HOUSE STRAND WC2 · PLEASE SEND FULL DETAILS OF THE NEW HARVEY RANGE OF OFFICE FURNITURE.

NAME _____

POSITION _____

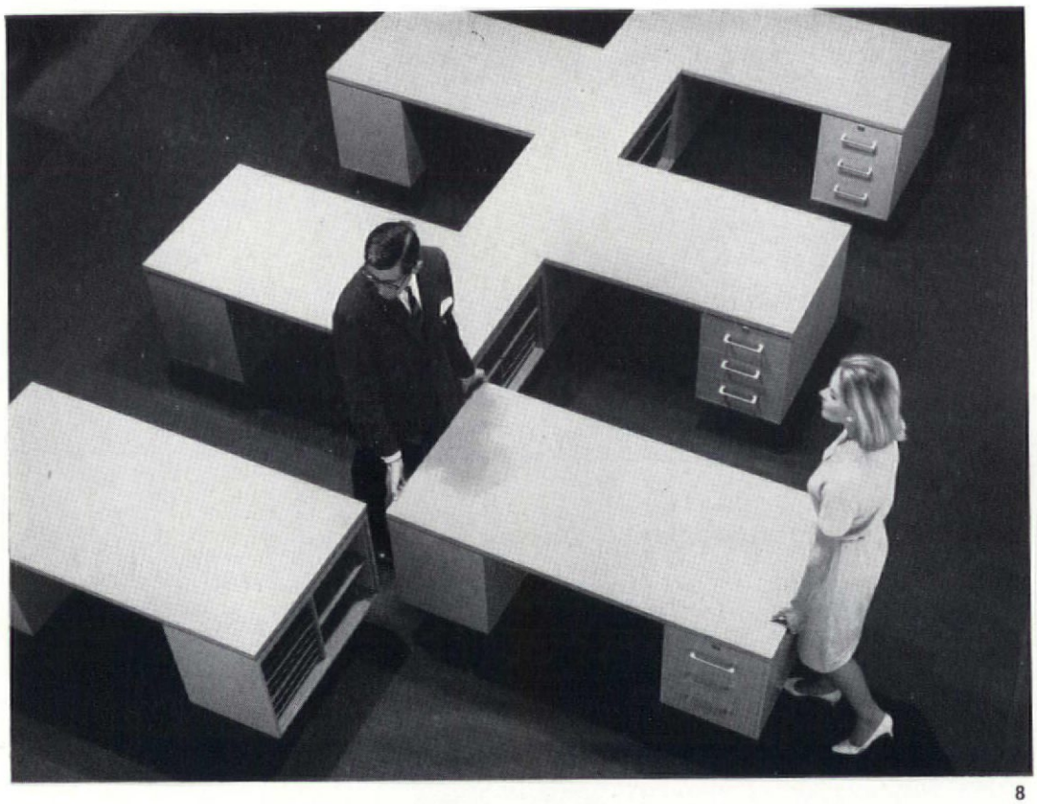
BUSINESS ADDRESS _____



HARVEY

A MEMBER
OF THE G A HARVEY GROUP OF COMPANIES

L5



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9

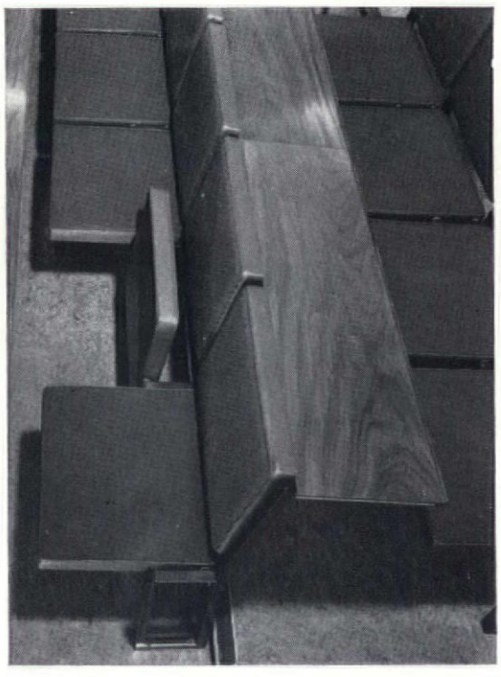


10









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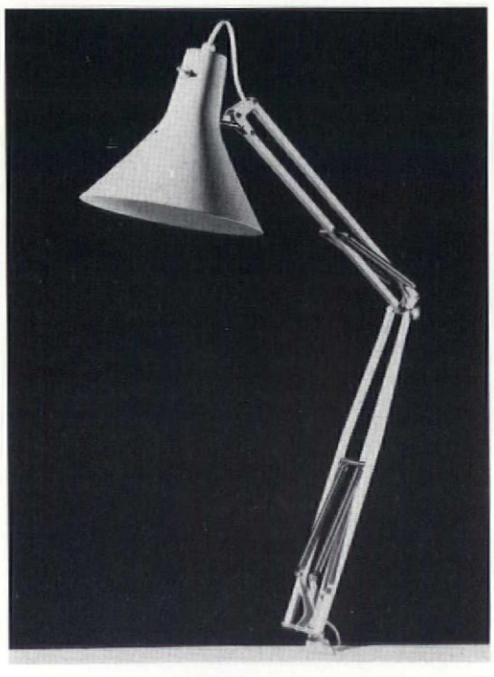


12

continued from page 584

and public rooms and executive suites; Series 2 is functionally the same, but does not include every refinement of Series 1. The same design concept, the same standards in materials and craftmanship, are common in both.

The modular units may be grouped into planned work stations and, as each unit is freestanding, changes are easily accomplished. Desks are demountable to facilitate installation and removal. Shown here are Series 2 desks **8.**

Unit tops are available in teak, Formica and polytone for Series 1 and in polytone for Series 2.

Prices range from £12 to £100.

Sales Head Office, Villiers House, Strand, London, W.C.2

Auditorium seating

Last month we showed Race's tip-up seating. Now we have a new range to meet any auditorium and lecture hall requirement—the TU series which has been developed by PEL Ltd., of Oldbury, Birmingham, **9–11,** on two basic frame designs, one suitable for fixing to stepped floors and the other to level or shallow stepped floors. These frames may be fitted with any one of several seat and back designs with or without arms and, together with a free-standing tip-up armchair, gives a total permutation of 17 possible types of seating.

All units arrive ready for assembly on site and can be fitted in straight or slightly curved rows.

The frames (except the freestanding model) measure, at point of floor contact, $7\frac{1}{4}$in from front to back, thereby giving maximum access and cleaning space between rows of tipped seats. Frames for the stepped floor versions rise from single column supports used for securing the seats to the riser. The level and shallow stepped floor version has vertical supports with cross members through which they are secured to the floor.

All frame construction is in square section tubular steel and 'T' section mild steel, finished in either stove enamel, heavy duty PVC plastisol or nylon coating.

The six alternative types of seat and back are graded in comfort and price from a simple unit in polished plywood without arms to a moulded latex interior upholstered unit with arms.

Each row of lecture hall seating, designated TUL, is supplied with an inclined and fixed writing shelf for the row behind. These can be surfaced and edged in the customer's choice of decorative laminate and are fitted with a book stop in polished mahogany. A special writing unit with a panelled front is available for front rows.

Oldbury, Birmingham

Mail-order drawing office lamp

A direct rival to the *Anglepoise* is now available from Scandinavia, imported by Design Equipment who are retail distributors of internationally renowned drawing office equipment. The lamp, of which there are some nine variations, is made in black, white, grey and cream (satin chrome or other colours, extra price). There are also six varieties of base, whether clip-on or standard. So prices (including tax, postage and packing in U.K.) range from £4 7*s.* 6*d.* to £7 5*s.* The model shown **12,** is Type 1, which has two movable arms, has a total length of 3ft, and sells at £4 15*s.* or £4 17*s.* 6*d.*, depending on the base holder.

4 Blenheim Street, New Bond Street, London, W.1.



This chair (the Compass)
warrants a place in the highest office.
Covered in hide or fabric,
it swivels and the seat height is adjustable.
The independently sprung back offers comfort
never before known in a chair of this type.

Undeniably HK

Available from December onwards.
Exhibited at our factory showroom.
H K Furniture Ltd, Omega Works, Hermitage Road,
London N4 (phone Stamford Hill 5458)
Catalogue available on direct request



Logically simple in design and construction, the Ventura series provides at low cost, efficient and glare-free lighting.

Ceiling and pendant types are available in two sizes—9″ dia. 100 watt and 12″ dia. 150-200 watt.

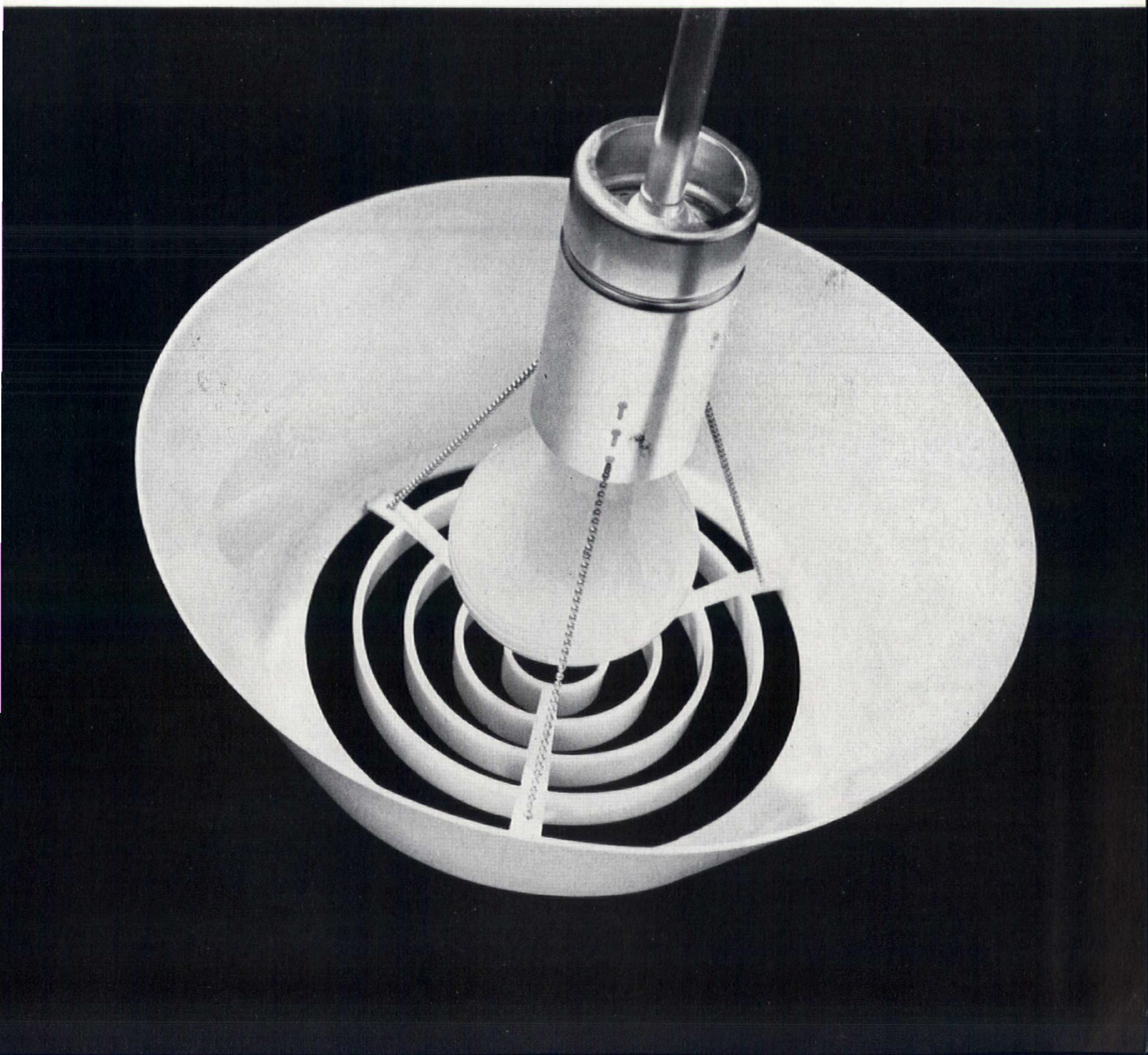
Ask for publication BTV/5

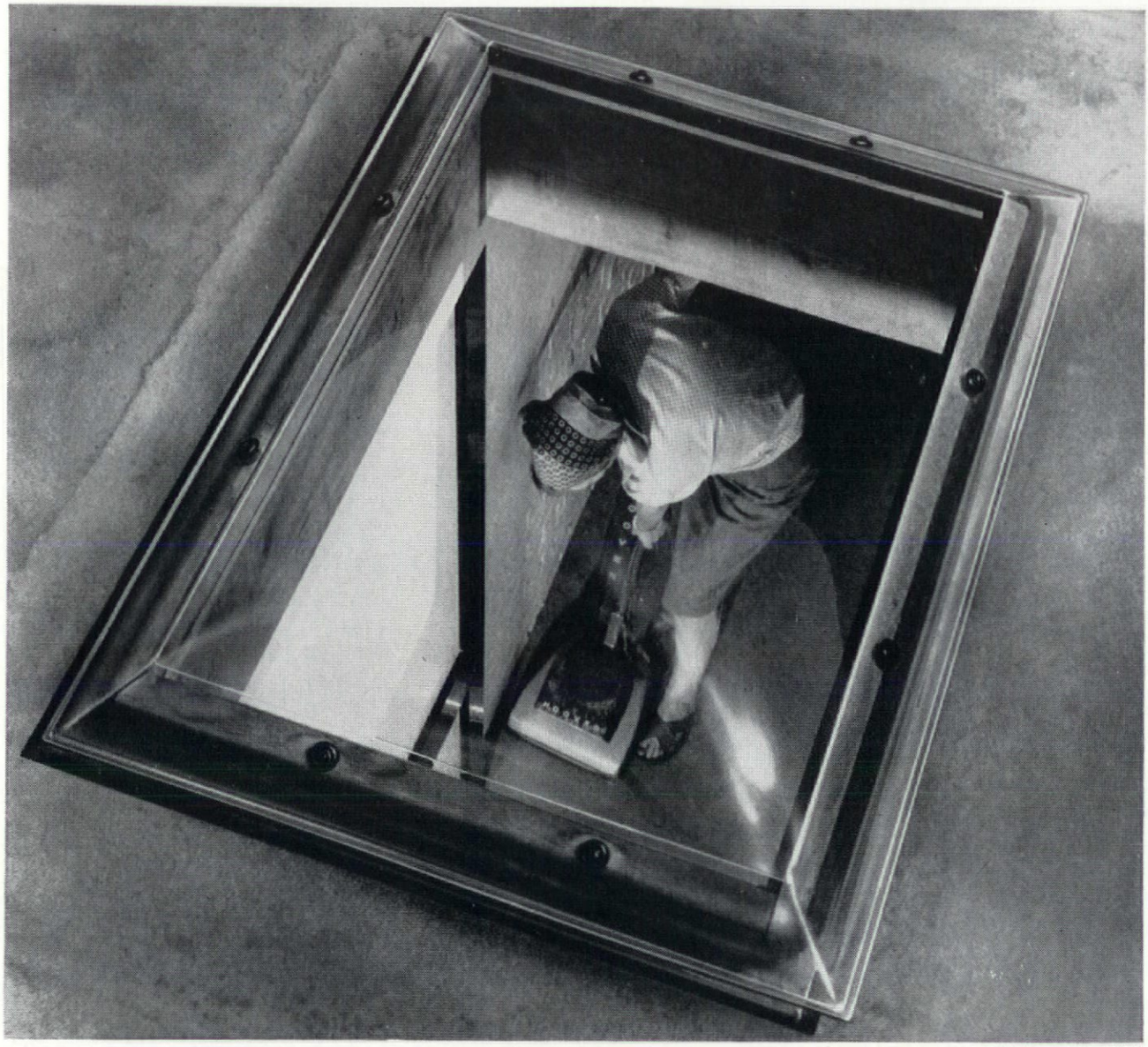
Merchant Adventurers Limited

Feltham Middlesex (FEL 3686)

London Showrooms:
231 Tottenham Court Road, W1

MA LIGHTING





P1203

It's very clear

Top domelights are made from 'Perspex'

'Perspex' is tough, durable, resistant to staining and corrosion and above all extremely clear. Where diffusion of light is desirable, specify domelights made from opal 'Perspex'. The light weight of a domelight made from 'Perspex' makes it easy to install and once in position it is easily kept clean with soap and water.

These are good reasons why top domelights are made from 'Perspex'.

DOMELIGHTS ARE MADE FROM 'PERSPEX' BY:

Williaam J. Cox (Sales) Ltd.,
London Road, Tring, Hertfordshire.

Henry Hope & Sons Ltd., Smethwick, Birmingham.

Duplus Domes Ltd., Chatham Street, Leicester.

Hill Brothers Glass Co. Ltd.,
61 Chester Street, Birmingham 6.

Cordar Ltd., 34 Dean Street, Newcastle-upon-Tyne 1.

Robin Plastics Ltd., Ponteland, Newcastle-upon-Tyne.

Niven-Roy Ltd., Copley Hill Works, Leeds 12.

Orbex Ltd., Duke Street, Failsworth, Manchester.

ICI

'PERSPEX'

'Perspex' is the registered trade mark for acrylic sheet manufactured by IMPERIAL CHEMICAL INDUSTRIES LIMITED · LONDON · S.W.1

P.L.42.R (cubed)

Composit Furniture have an excellent formula for an economical executive chair. But, the proof of the product is in the seeing, sitting - and buying.

Composit Furniture present the PL42R chair. Upholstered in black 'Cirrus' and on a castored revolving base, it is available, as shown, at £16.2.5. retail.

Composit Furniture is functional and attractive, economical and adaptable - a complete range of compatible components for all office needs.

For contracts exceeding £500 in value, leasing arrangements are available which can include carpets, panelling, accessories etc.

The Composit range is designed by J. W. Leonard FSIA.

Esavian Limited,
Esavian Works, Stevenage, Herts
Telephone Stevenage 500

London Showrooms
185 Tottenham Court Road W 1.
Telephone Langham 3436

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Telephone Tipton 1631

Glasgow Showrooms
101 Wellington Street C 2
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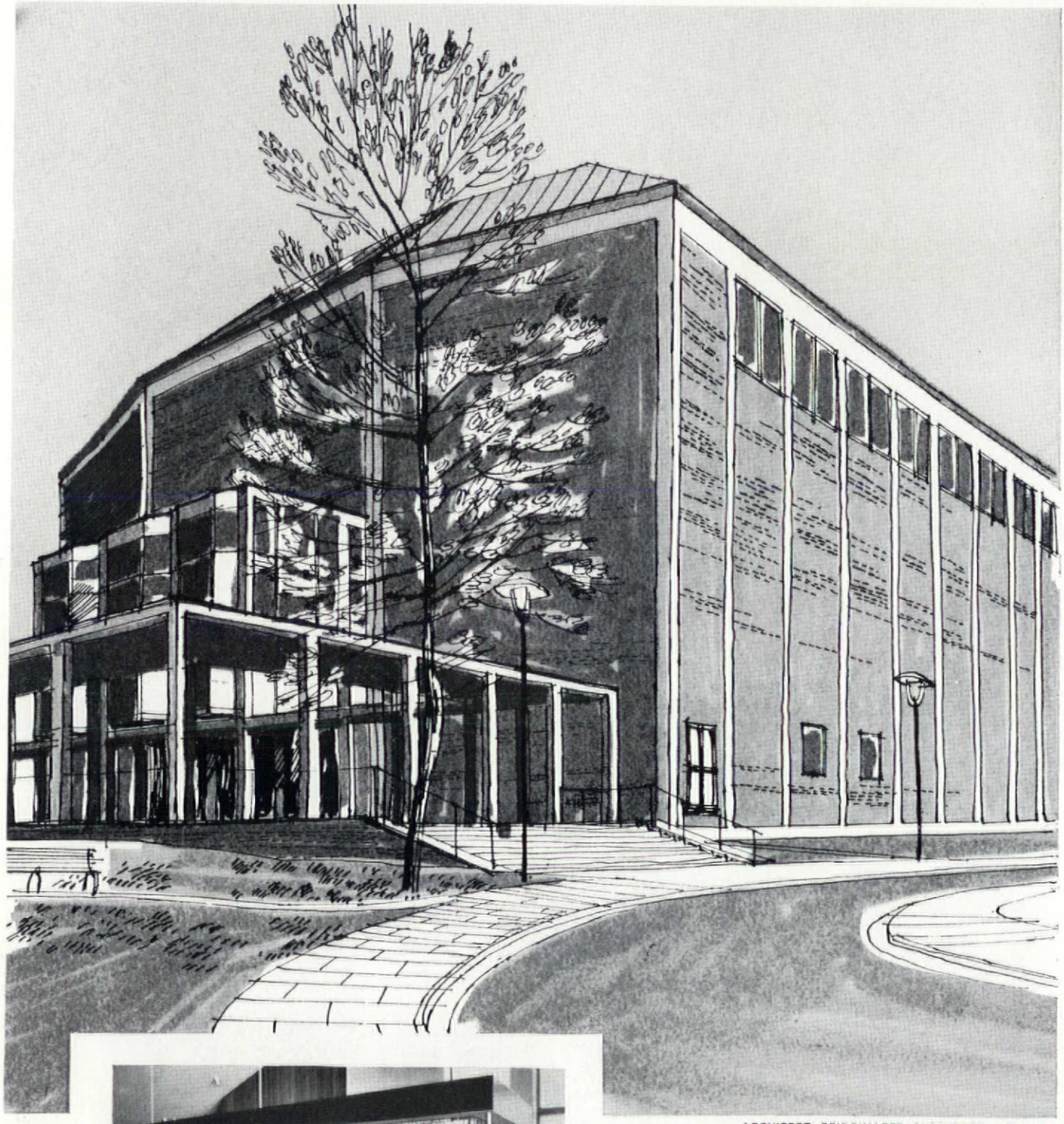
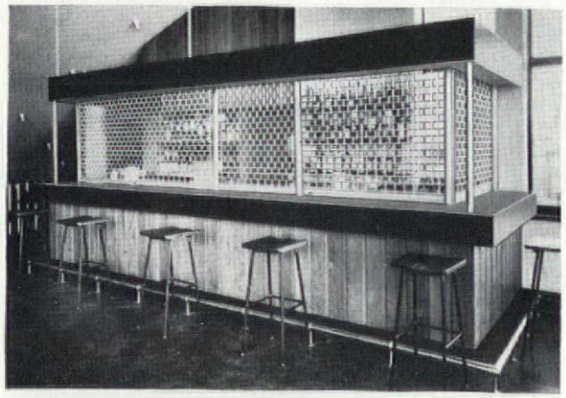
COMPOSIT FURNITURE is manufactured by ESAVIAN Ltd



ARCHITECT: BRIDGWATER, SHEPHEARD & EPSTEIN



Inside story . . .

. . . of the Guildford Civic Centre. The people of Guildford are proud of their new Centre with its amenities. We are proud that they chose R-B grilles to protect the bars. R-B grilles blend with any decor yet keep out unwelcome visitors.

RELY-A-BELL BURGLAR & FIRE ALARM COMPANY LIMITED

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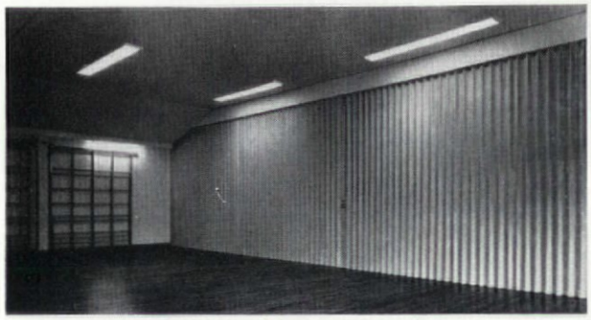
Branches at: Birmingham, Glasgow, Manchester and Southend. *Agents throughout the British Isles.*

R/B



LUCAS FURNITURE executive swivel chair, model ESC. Designed by Herbert Berry FSIA and Christopher Cattle MSIA. It swivels, tilts, and the height is adjustable. Upholstery is of latex foam, supported on resilient webbing. The cover is in black Ambla. £38 15s including tax. Lucas provide furniture for all contract needs from four ranges of desks to tables, storage, plan chests, beds, and a wide range of chairs. On show in The Design Centre, London, and in our showrooms. Write or telephone for details to Lucas Furniture, Old Ford, London E3. Advance 3232. Barbour Index File Number 410

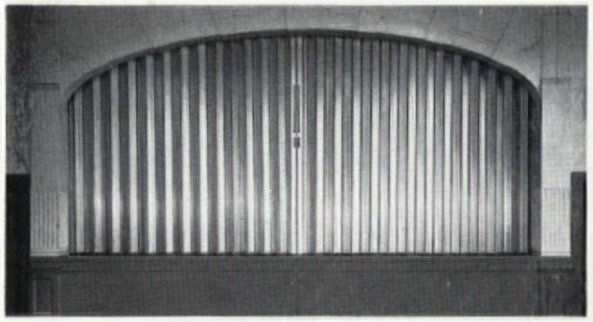
MODERNFOLD *installation in the new Assembly Hall at the Canoness of Holy Sepulchre, Hungerford. Architect: Sutton, Griffin, & Sweetman.*



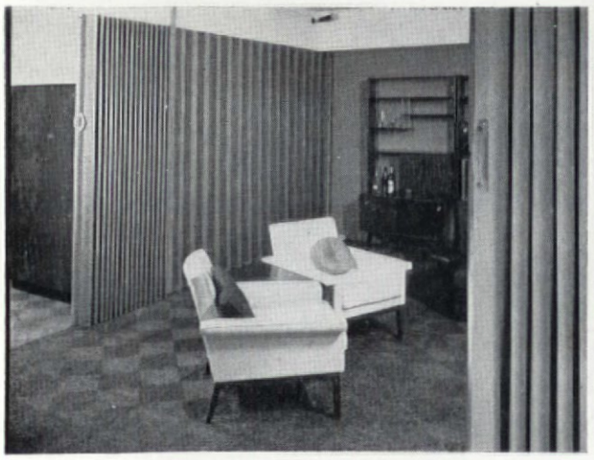
SOUNDMASTER *installation at the Medway Technical High School for Girls, Chatham. Architect: T. T. ASHLEY SMITH F.R.I.B.A.*



SPLENDOOR *installation at Napier Hall, Hide Place, S.W.1.*



WALLFOLD *installation at TREND HOUSE, WOLFE & HOLLANDER'S BRADFORD STORE.*



MODERNFOLD

Walls and Doors will fold open or shut at the touch of a finger; they glide, smoothly and quietly, on an easily fitted overhead track. Precision engineered to give years of trouble-free service. Made in a wide range of colours.

Available either as a single unit or as pairs with equal or unequal leaves, fully floating with no fixed jambs and fully floating for recess fixing. Will fit openings up to a maximum of 120′ wide x 20′ high.

Fully illustrated ARCHITECTS' BROCHURE will be sent on request. Ideas and details in respect of specific interior space problems will be willingly submitted.

Brief Specification

Framework Hinged plates of 16 SWG thickness. Steel Rods $\frac{3}{8}$″ diameter. Trolleys fitted with nylon rollers on standard doors, trolleys with ball bearings and nylon rims for heavy duty doors. Cold rolled steel track. All metal parts are galvanised and rust-proof. No oiling or maintenance of the framework is required.

Covering Luxurious EVERFLEX 131 Vinyl Coated Fabric specially backed and tested to comply with the B.S.S. 3424/1961 in a range of fourteen colours including the five latest additions—Caenarvon Yellow, Blue and Grey, Beige and Green. Flexible rubber sweep-strip is attached to the lower edge of the leathercloth to take up any irregularities in the floor and also to ensure perfect draught exclusion. The covering is washable, mildew proof and has been fire-proofed to the highest B.S.S. Standard 476-part 2-1955.

External Jamb post attached to door jamb by U-shaped metal clips 1¼″ wide with sides ½″ deep. Jamb posts drilled at 14″ intervals throughout the length. Clips slotted for easy location of self-tapping jamb post screws. Lead post of door fitted with half round P.V.C. Gasket, which engages with a concave aluminium moulding to ensure draught-proof closure. Handles available in polished wood or in silver or B.M.A. metallised finish.

Track Three types of track are used according to the load they carry. Track curvatures with minimum radius of 3′ 6″ may be applied to Standard Track and of 5′ to Heavy Duty Track.

TRACK SWITCHES

Pivot Switch Enables the partition, when stacked, to be pivoted through 90 degrees of arc so that it may be extended in more than one direction, or swung out of the way when not in use. The stack size of the door determines the size of the Pivot Switch to be used.

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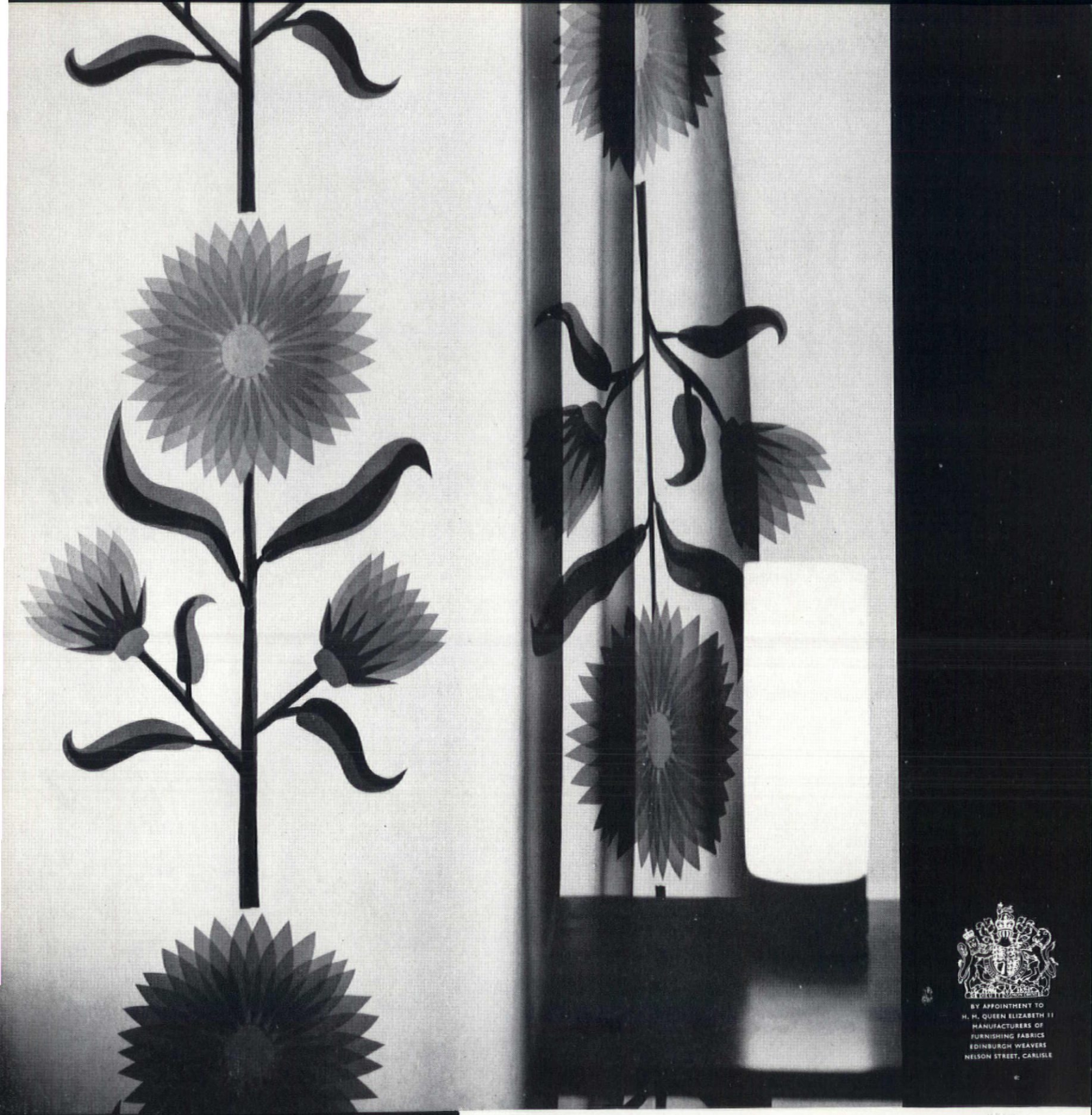

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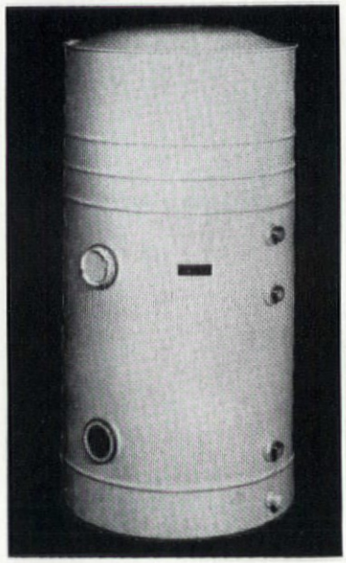

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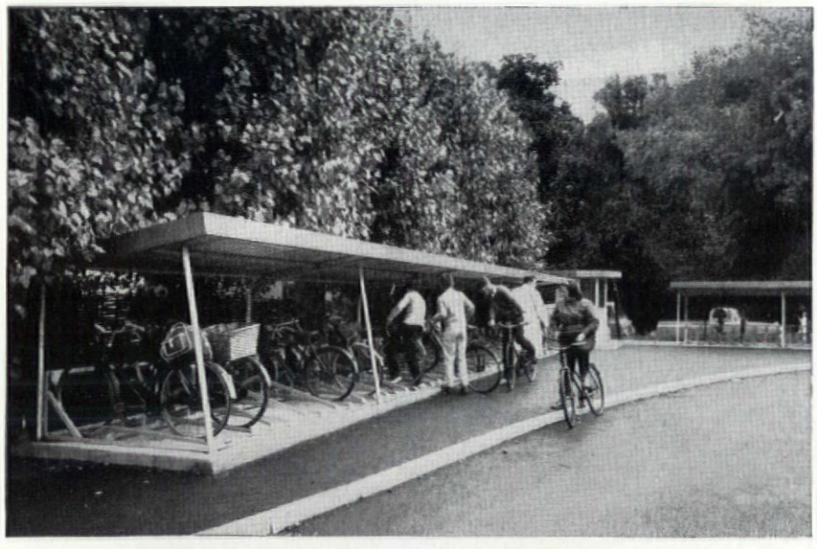

Type TD2AR-LR (Half Section) Shelter R.D.912592 with type 4 Odoni patent "All Steel" Bicycle Stands at Whipsnade Park Zoo. *By courtesy of Zoological Society of London. Architect: F. A. Stengelhofen Esq., LRIBA*

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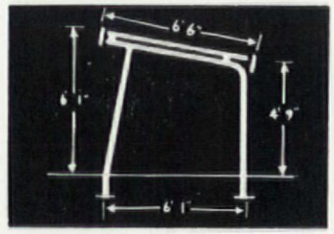

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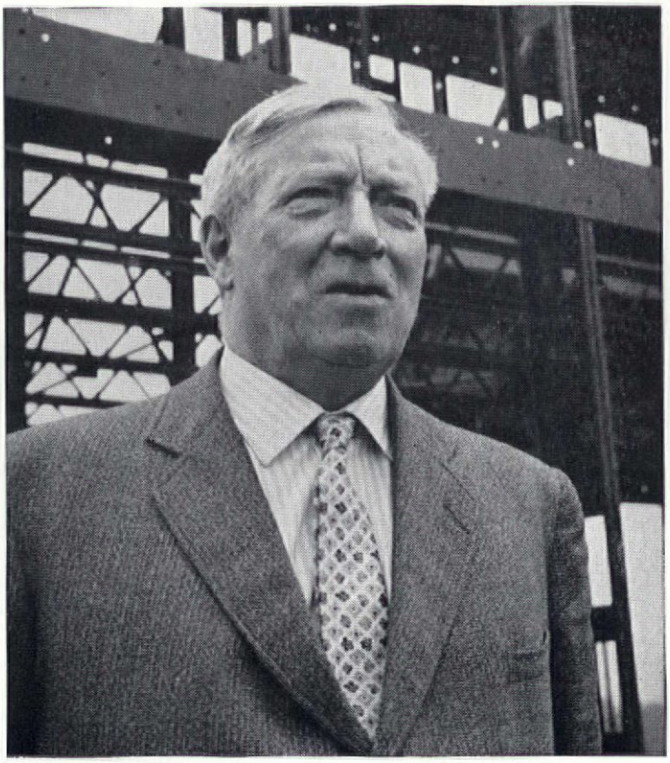

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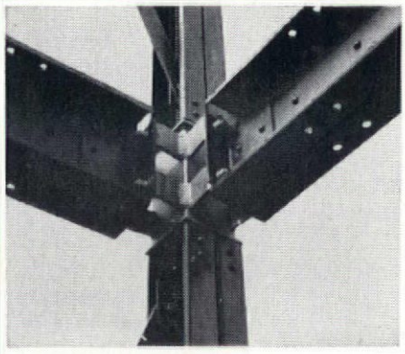
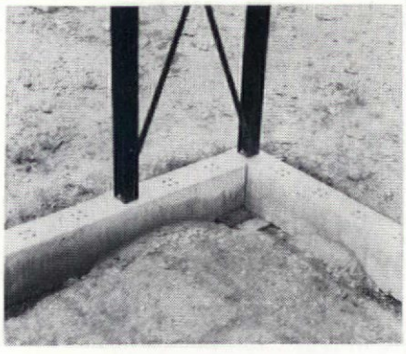
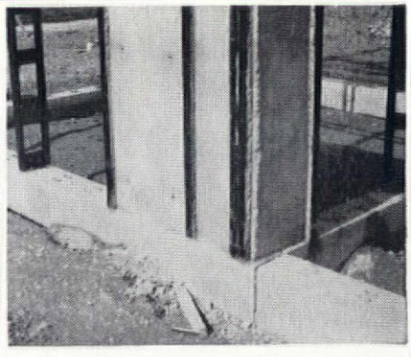


Intersection of main stanchions and main beams showing use of 2-way connector unit.



Precast concrete ground beams and braced panel of steelwork.



Demonstration corner section of concrete party wall as used on interlocking 'L' shaped plans.

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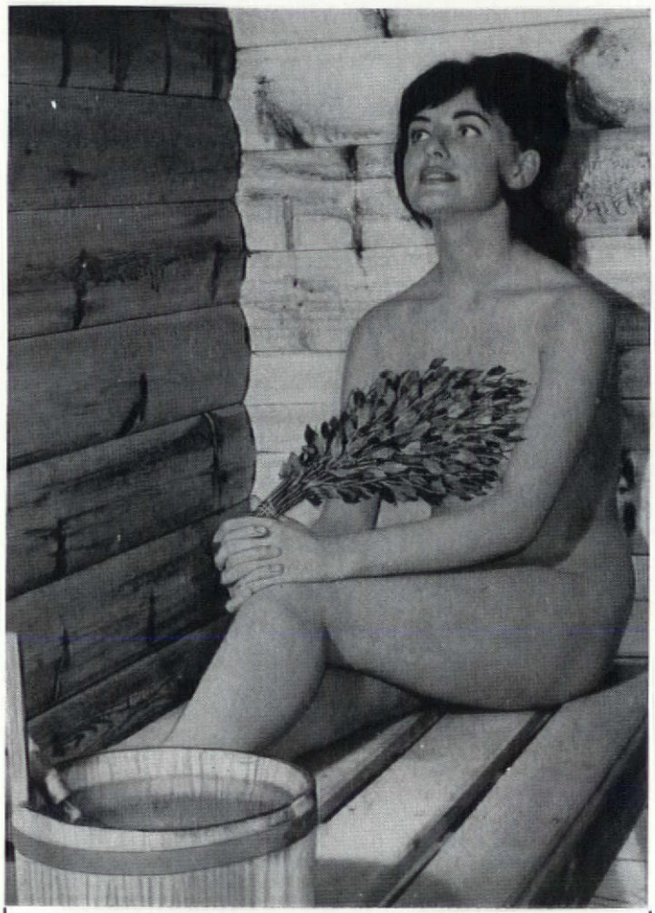

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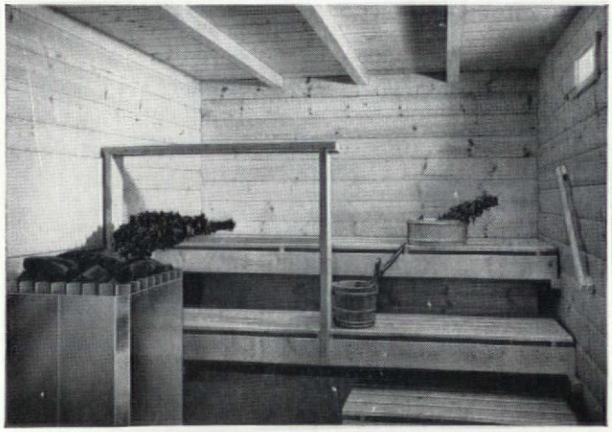

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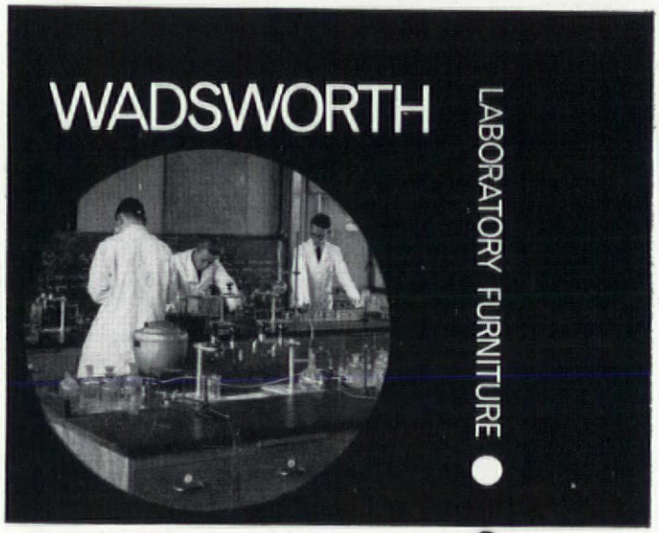

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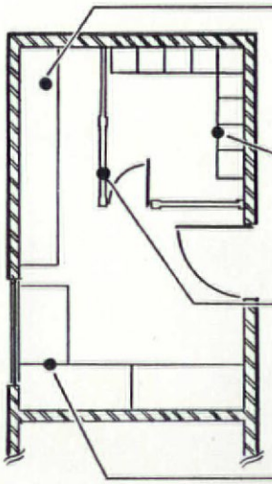

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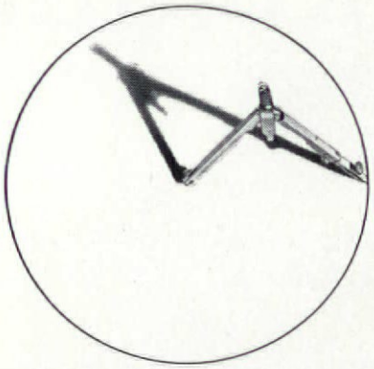

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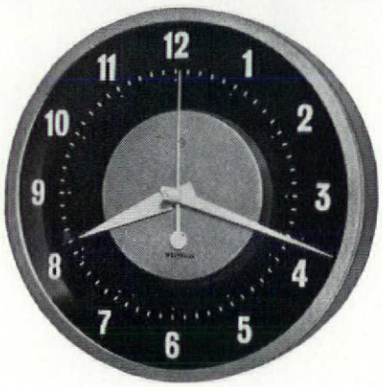
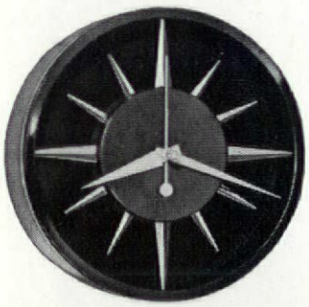


EXECUTIVE 10

A 10" electric wall clock. Accepted for Design Index. Black plastic case fits flush to the wall, recessed at the back to take cord and plug. The movement is self-starting, 210-250 volt A.C. 50 cycle. Two models: one with black hands, and black numerals on glass over a white face, the other with black and white reversed. Price £6.10.0.



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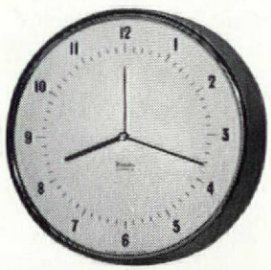
A 10" electric wall clock. Black case with red centre and gold coloured hour radials. White hands with a reset knob at the centre of the dial. 210-250 volt 50 cycle A.C. Height 10½". Price £7.



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An electric or transistorised battery wall clock in red, blue or white. Black hands and numerals, red second-hand on electric. Accepted for Design Index. Height 7½". Electric £2.9.6. Battery, without second-hand £4.19.6.

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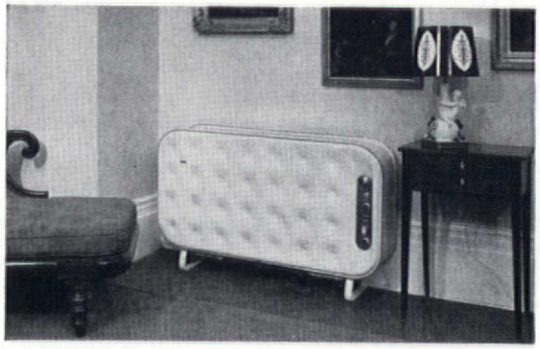

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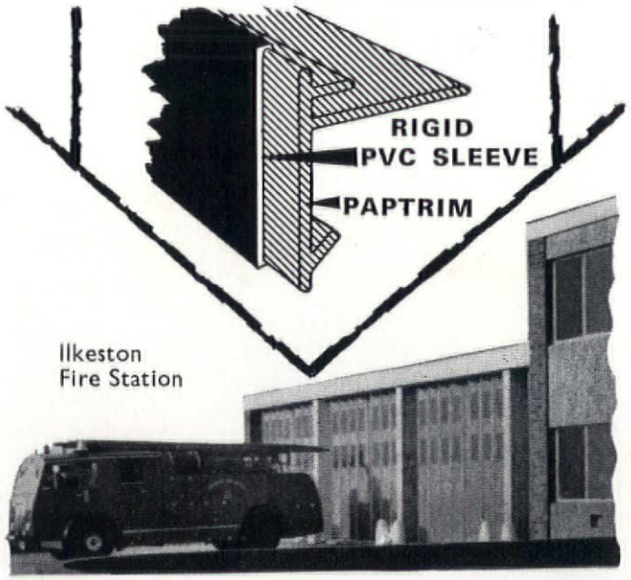

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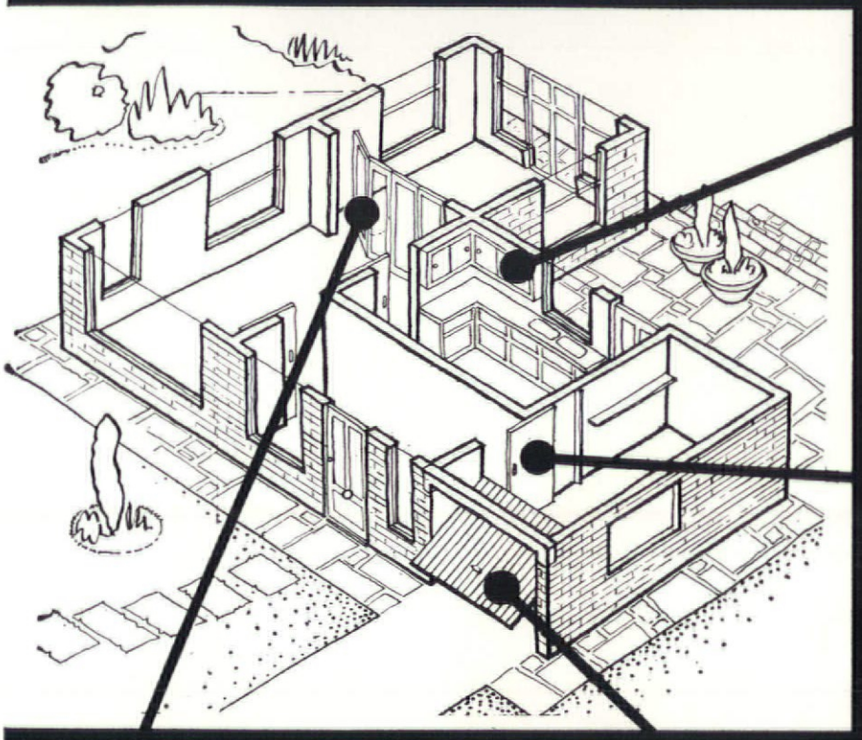



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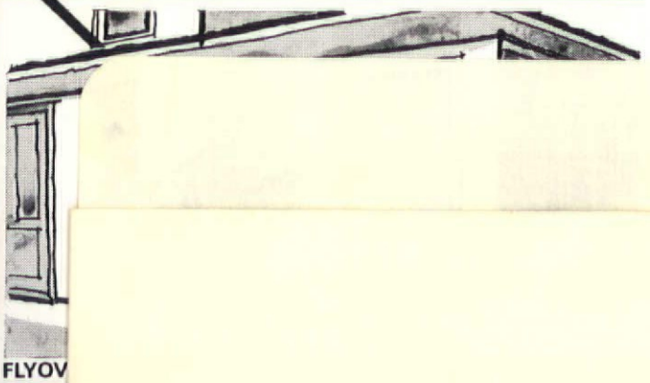

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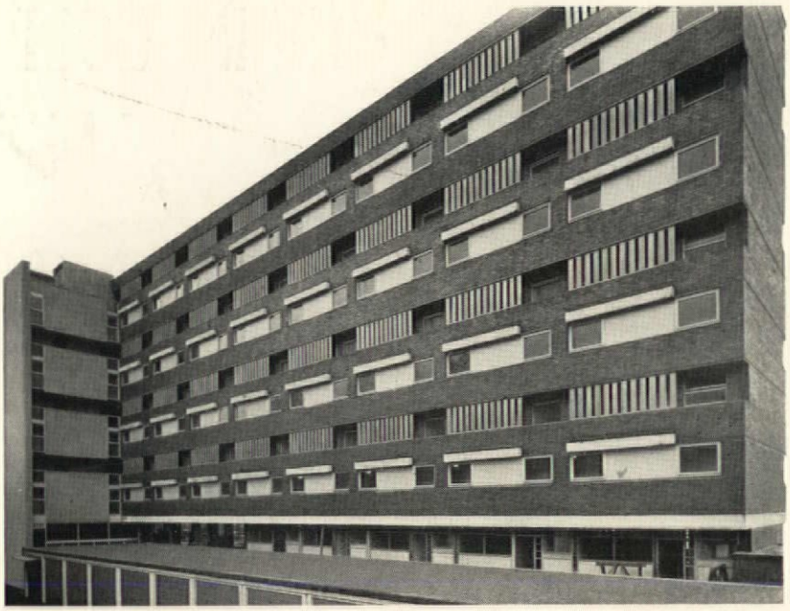
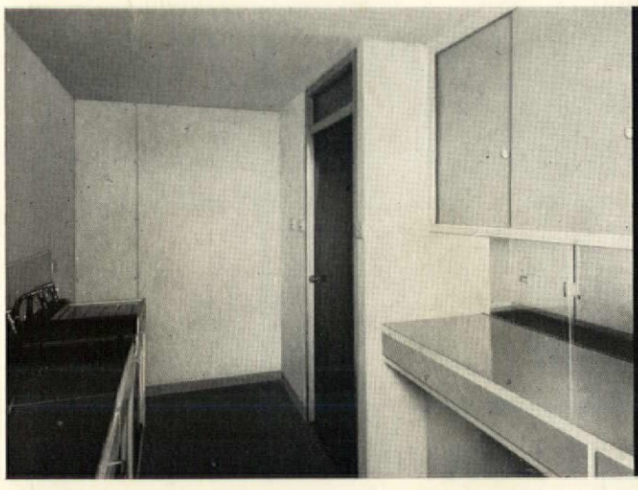
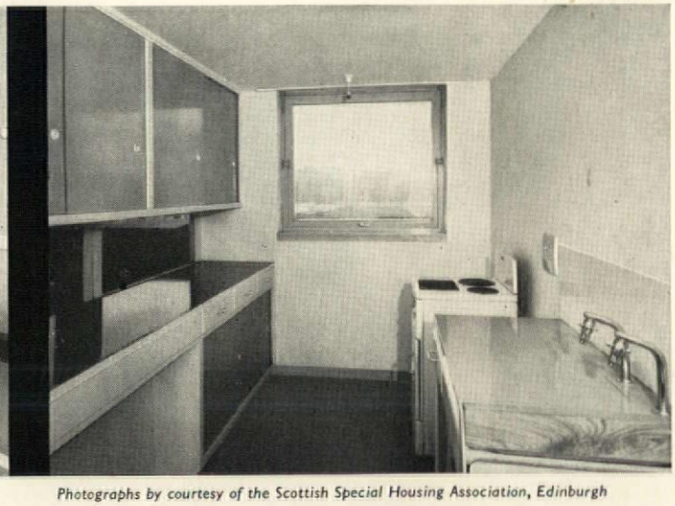


LUXOL POLYURETHANE FOR SCOTTISH SPECIAL HOUSING ASSOCIATION FLATS

Fortrose Street Multi-Storey Flats, Glasgow





Photographs by courtesy of the Scottish Special Housing Association, Edinburgh

Luxol Polyurethane—one of BPL's new two-pack coatings—dries to a deep rich gloss that is almost as hard as stoved enamel. It was used in the flats on kitchen units and working surfaces, balcony screens for washing areas, and metal screens for stairways.

Presenting no application problem, Luxol Polyurethane Coatings are available in pigmented form and in clear finish for floors and woodwork. Send for full details.

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