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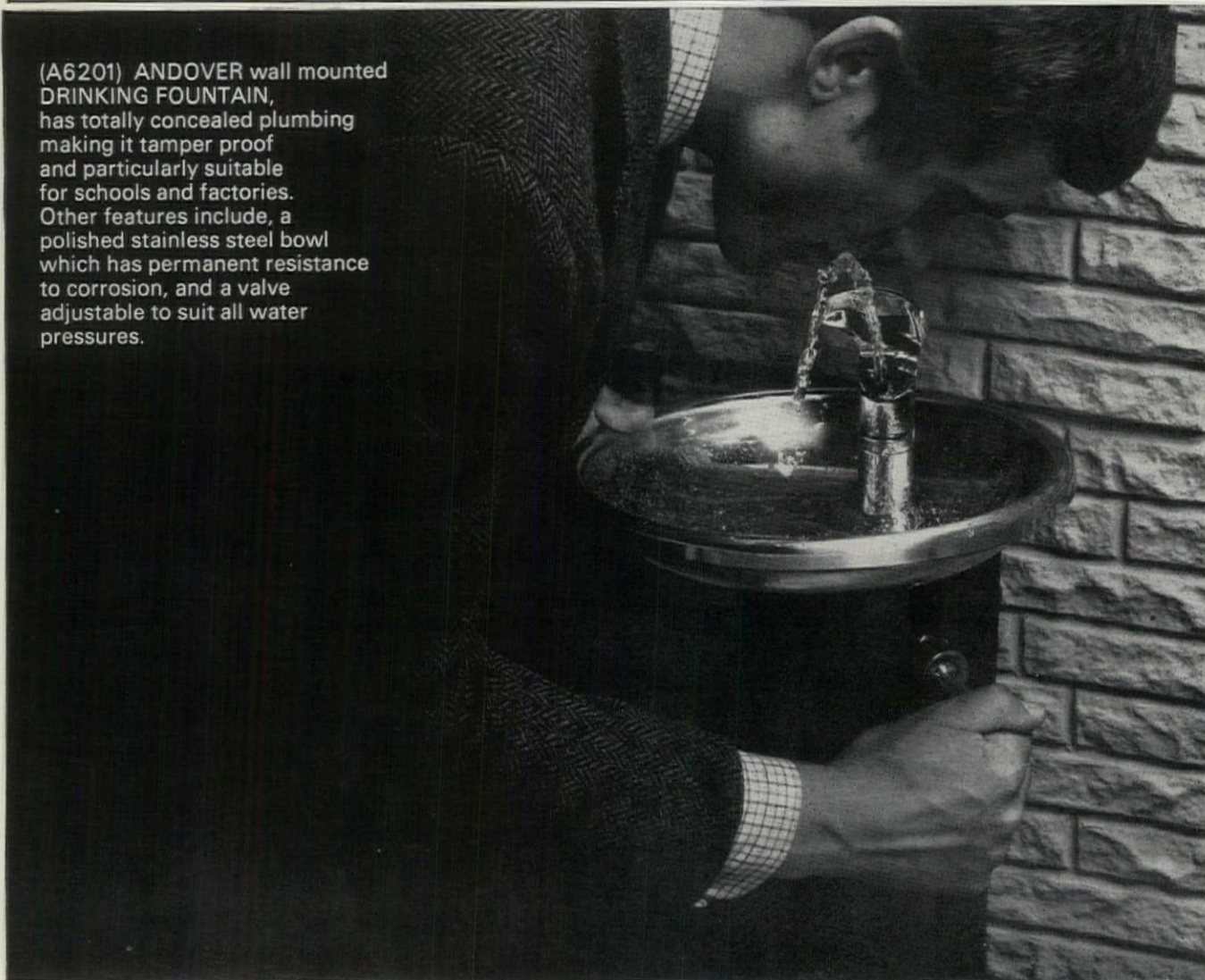
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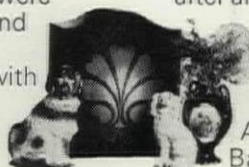
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To find out more about Alcan Weatherboard, write to:
Alcan Industries Limited,
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ELECTRICAIRE—electric warm air central heating

In the London Borough of Haringey you will find two impressive blocks of flats—Dylan Thomas House and Hollam House—stage 1 of the Haringey Grove redevelopment. Both were completed in 1966 and Electricaire heating was installed throughout. Today these flats are striking examples of how really efficient and economical Electricaire can be. Dylan Thomas House, 16 storeys high, has 60 one-bedroom flats and 30 with two bedrooms. Hollam House, 4 storeys high, consists of 6 one-bedroom and 18 two-bedroom flats.

Up went the flats...in went Electricaire!

Both blocks were built on the 'Allbetong' industrialised system—designed and

developed in Sweden. An interesting feature is that the Electricaire units were actually lifted into position while the building progressed.

The Electricaire units go in by crane



the building progressed, by the same tower crane used to lift the prefabricated 'Allbetong' sections. The Electricaire units were specially provided with feet so that a stillage truck could lift them while still on the delivery van and wheel them straight into the crane cradle. Projecting steel joists on the cradle floor acted as locating rests—both when loading from the van and off-loading into the flats.

What Electricaire means to the tenants

The Electricaire unit in each flat supplies warm air to the living room, bedroom and hall. In some cases, the kitchen and bathroom are also heated. In the main, stub ducts are used to convey the warm air, with

overhead radial extensions where necessary. The units are tenant controlled—each tenant selecting the level of heating he requires by varying a room thermostat.

Special tariff arrangements for tenants

After moving in, each tenant was visited by a member of the Electricity Board staff who explained the simple controls of the Electricaire system and advised on probable running costs. A method of spreading the winter heating bills over twelve equal monthly instalments was offered to the tenants and this has proved extremely popular.

Economical to install

The complete installations proved very economical. The 6kW Electricaire units

Dylan Thomas House and Hollam House, designed and built by Bernard Sunley & Sons, Hambrook House, Brixton Hill, SW2, in association with G.A. Pentecost, A.M.I.C.E., M.I.Mun.E., A.M.T.P.I., (Borough Engineer and Surveyor) and F.Ley, A.R.I.B.A. (Chief Architect)—both of the then Borough of Hornsey. Borough Architect to the London Borough of Haringey: C.E.Jacob, A.R.I.B.A.

LEFT Another view of Dylan Thomas House



—a big success at Haringey Grove, London

were installed in the one-bedroom flats at a cost of £125 each, while the two-bedroom flats were fitted with 8kW Electricaire units at a cost of £132 each. Off-peak water heating was provided in all flats at an additional cost of £28 per flat.

Economical to run

Running costs for the first year have been completely satisfactory, both for the Council and the tenants. Here are the average running costs, over the year, for both Electricaire central heating and electric water heating.

Dylan Thomas House

1 bedroom flats 11/7d a week.
2 bedroom flats 14/9d a week.

Hollam House

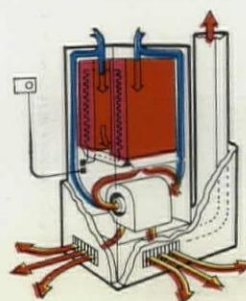
1 bedroom flats 14/5d a week.
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A typical Electricaire unit

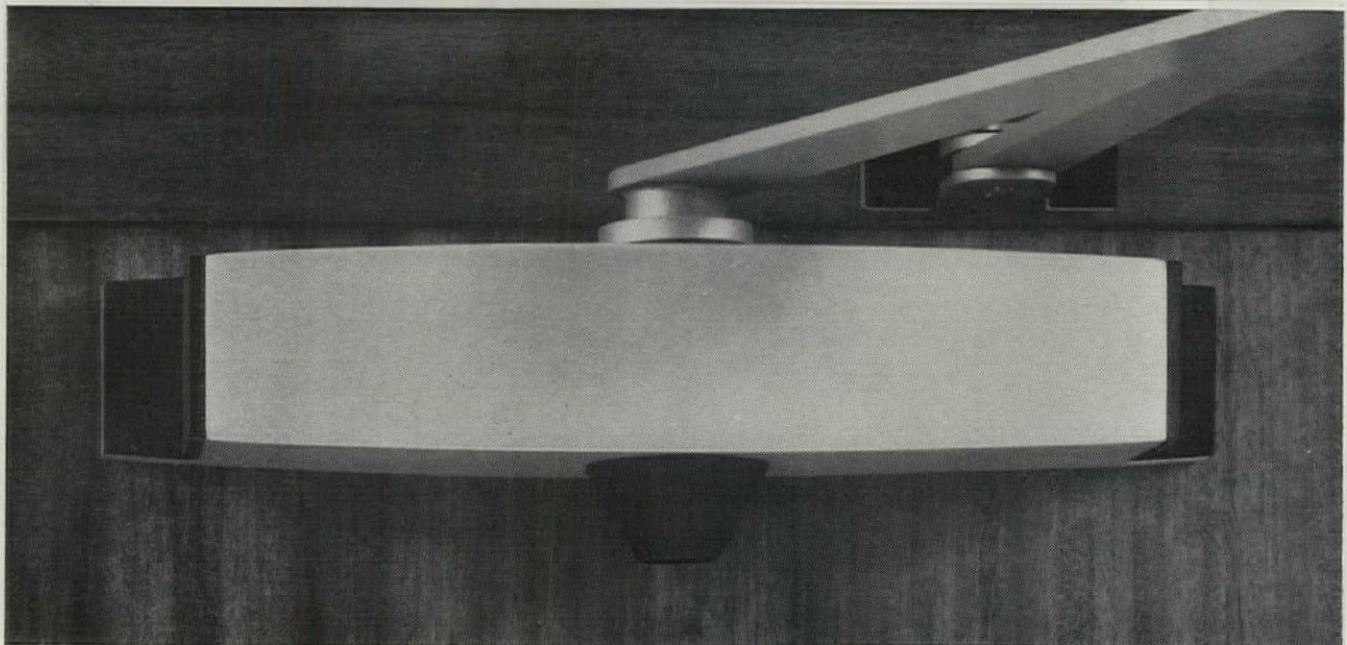
warm air, as and when required. The fan can be manually or thermostatically controlled. A special boost ensures a rapid warm-up when the unit is first switched on. A thermostat controls the air temperature at the level desired by the occupier. No other system of central heating requires so little attention.

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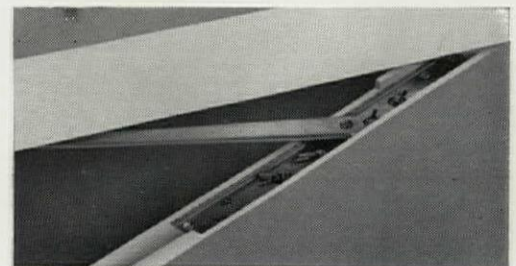


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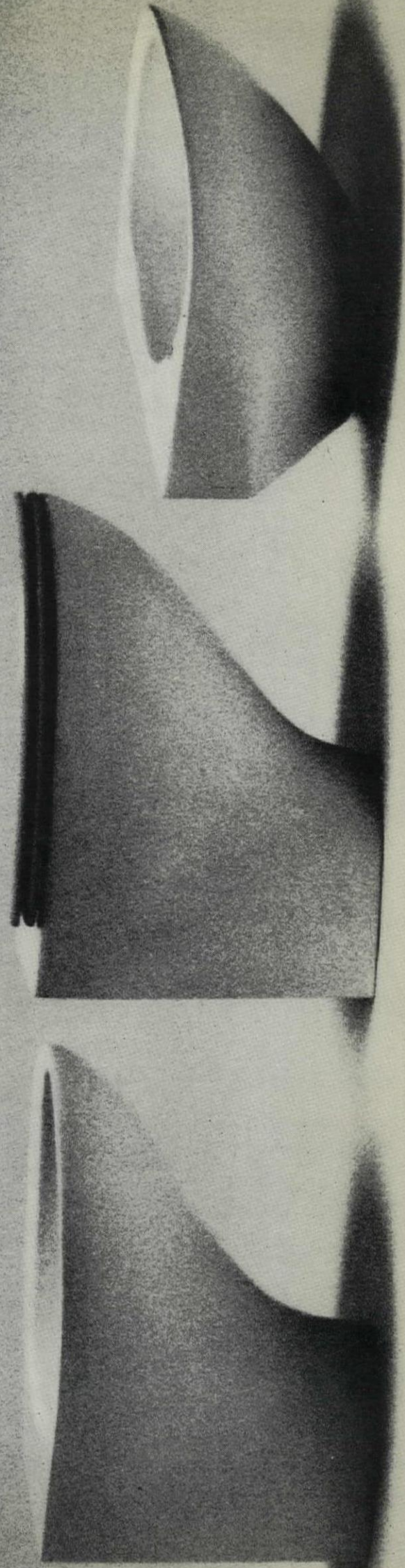
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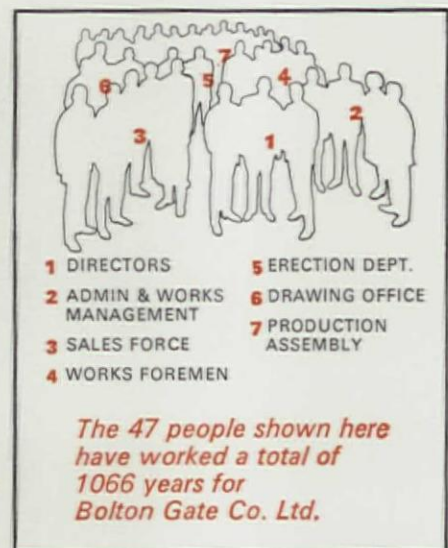
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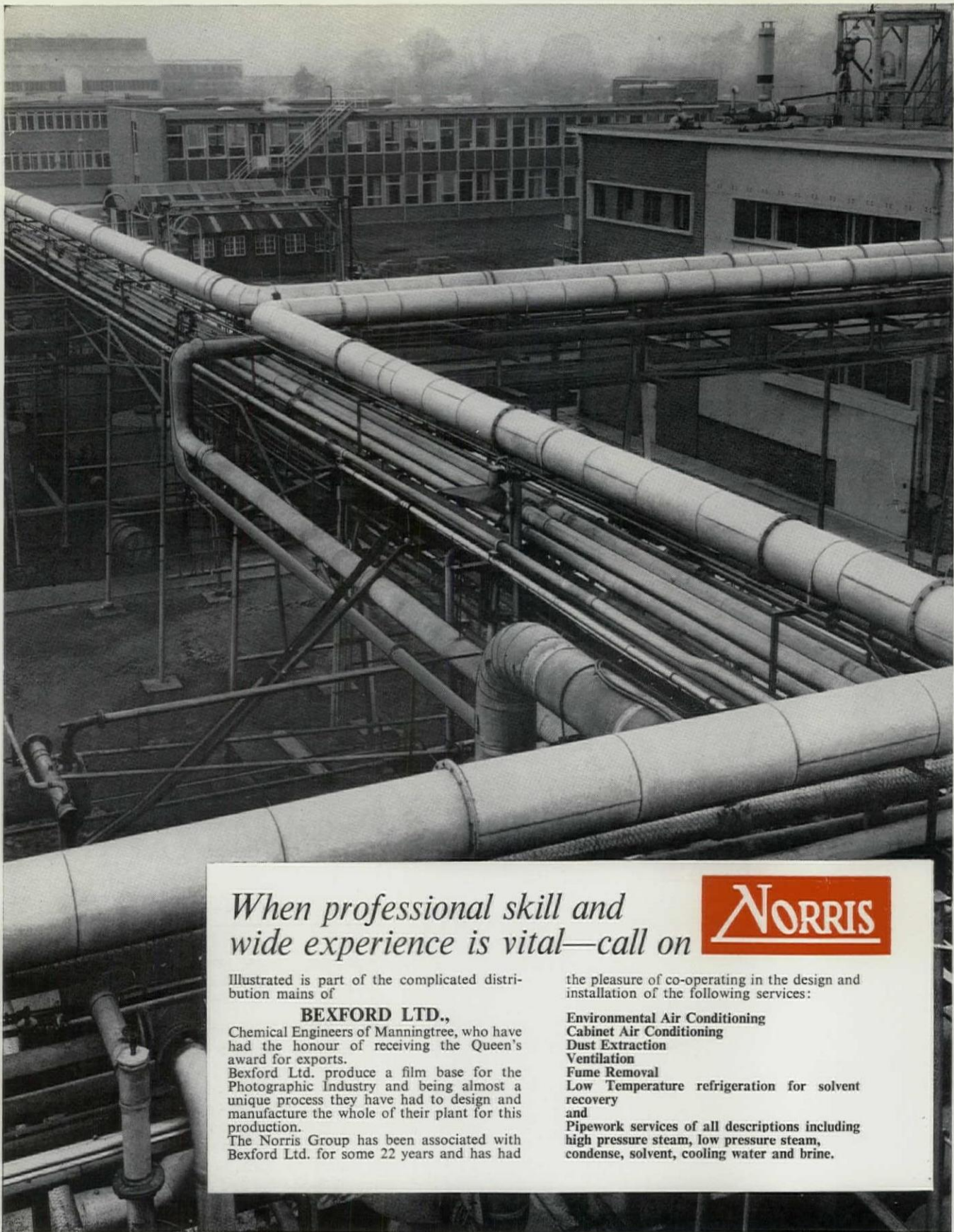
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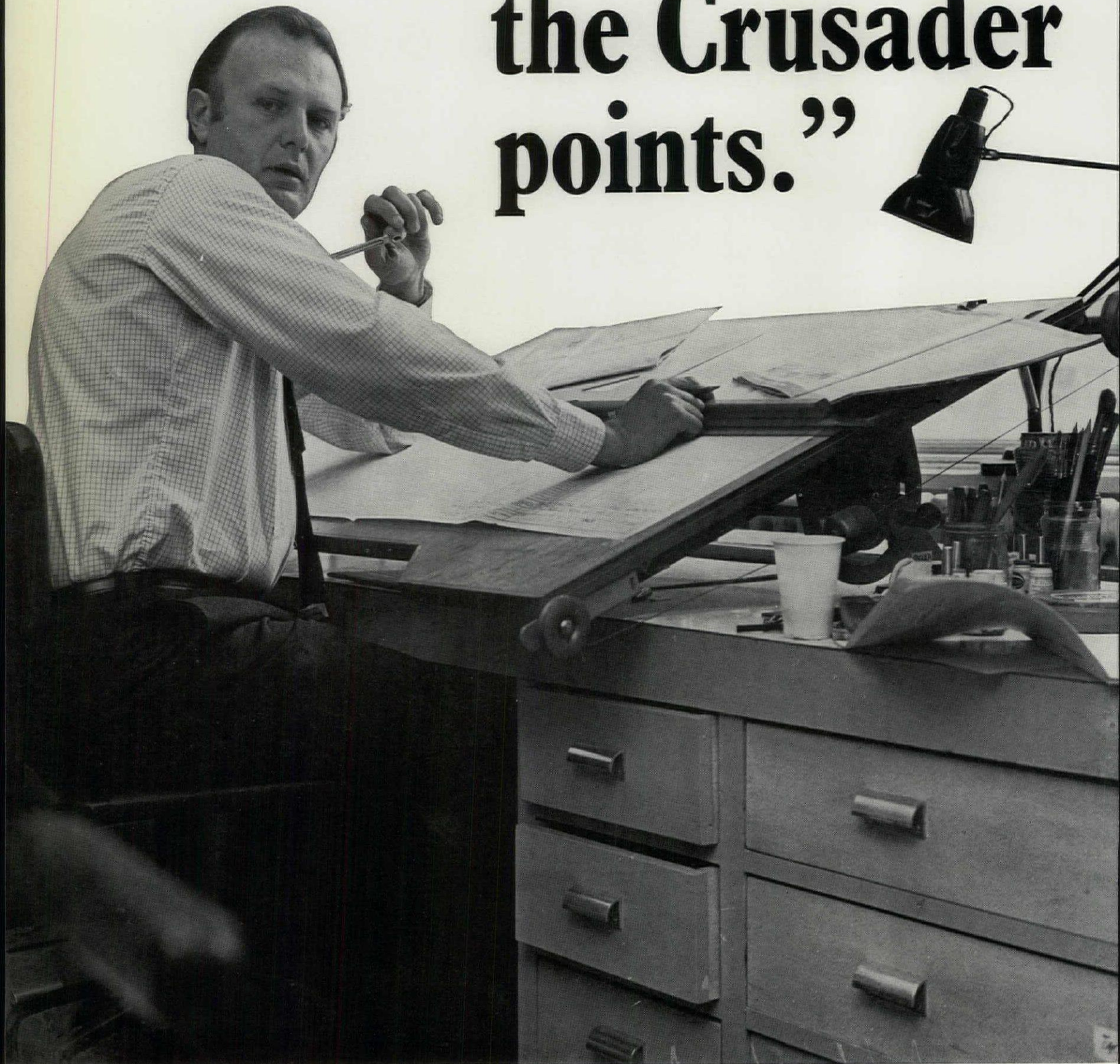
James Booth Aluminium Limited, Dept AR5K2 Kitts Green, Birmingham 33. Telephone: 021-783-4020-

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Canteen was erected under the supervision of the Authority's Director of Engineering, Mr. G. A. Wilson C.B.E., M.Eng., C.Eng., M.I.C.E.



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More and more companies are turning away from regular teabreaks and installing automatic vending, resulting in *greater efficiency and a happier, more productive staff*. Refreshment areas should be planned in all new buildings, and it is advisable to provide for service points (water and power supply) even if vending is not immediately scheduled.

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The Commodore

A Fresh Leaf Tea machine providing tea as good as from the pot at the push of a button.

The Sovereign

This is a cold drink machine providing instant cold drinks in a choice of four flavours.

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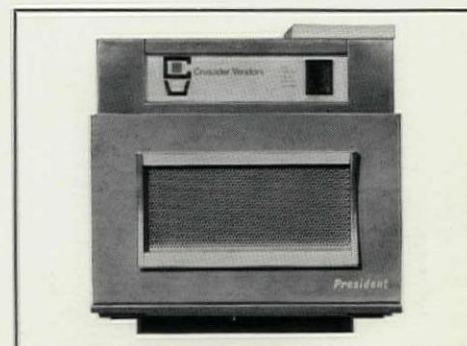
This elegant machine provides cold snacks, and fitted like the Viceroy, has a 'first in first out' mechanism.

individually, or as a bank.

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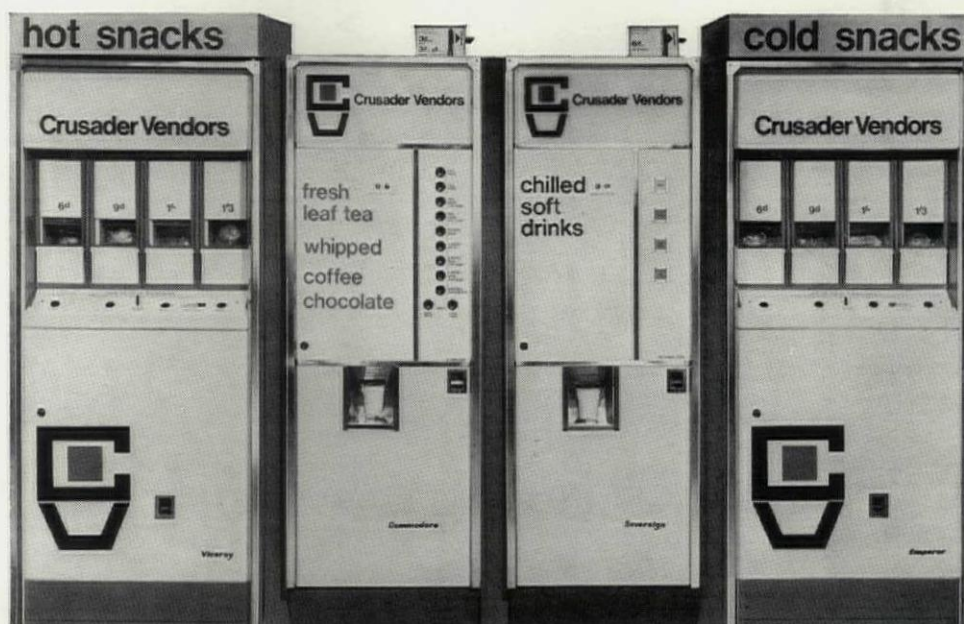
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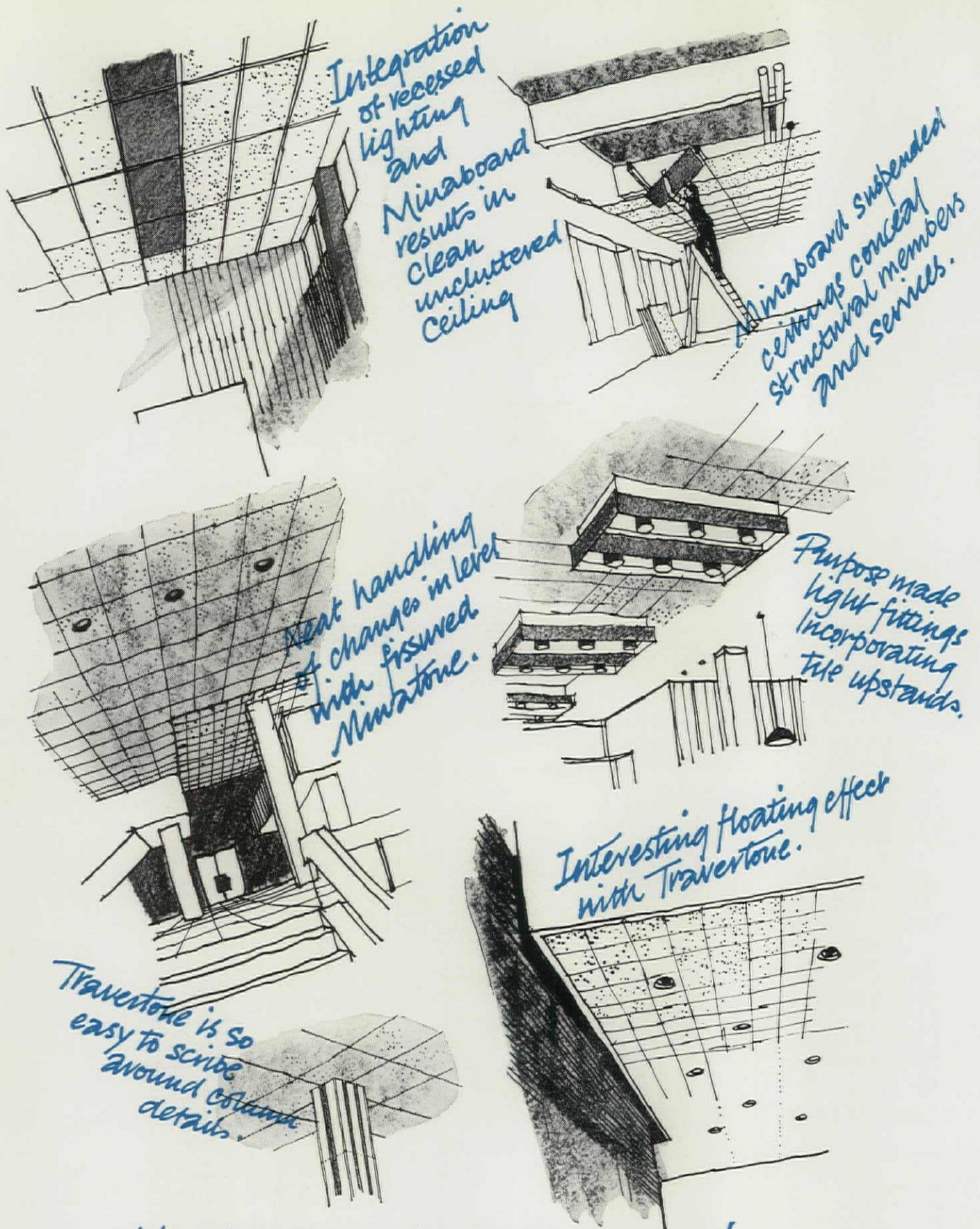
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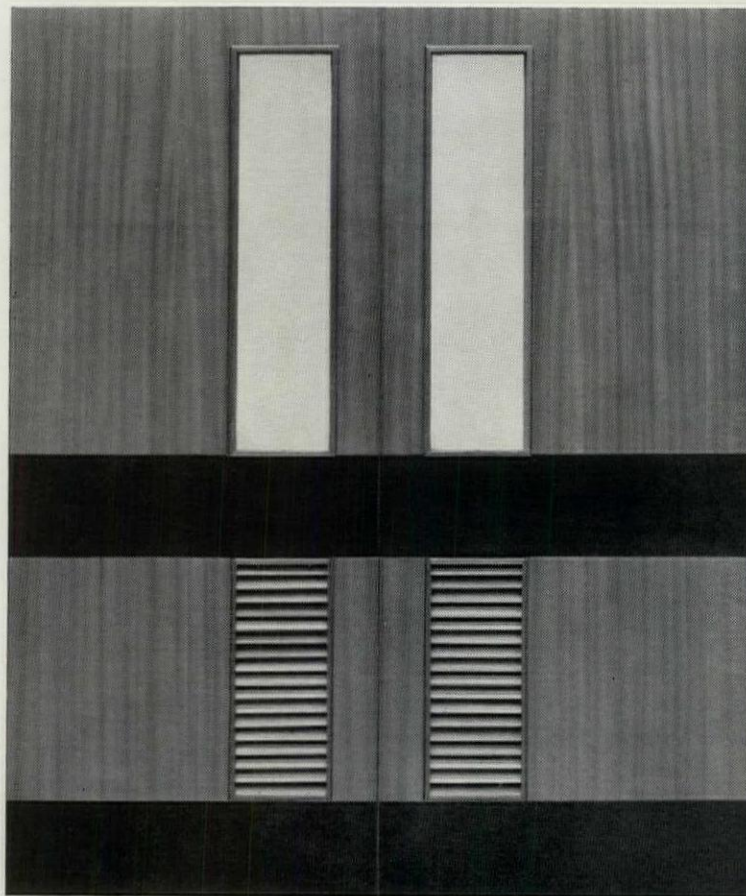
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MAY 1969
VOLUME CXLV NUMBER 867
FIVE SHILLINGS

COVER

This is the time of year when English eyes begin by tradition to focus on the seaside. In this month's cover the sea is seen through the iron bracing beneath Clevedon pier, a splendid surviving example of the piers, ornamental and functional, with which seaside resorts were embellished in the last century. It is the subject of a study on pages 325-328 of this issue by John Raynor and Keith Mallory, who took this photograph.

CONTENTS

- 316 Frontispiece
- 317 The Twenties
Lord Kinross
- 325 Clevedon Pier
John Raynor and Keith Mallory
- 329 Mexican Granaries
- 331 Hornsea Tower
- 332 School of Education
Birmingham University
Architects: Casson, Conder & Partners

- 339 Fantasy and Archaeology
Michael Greenhalgh
- 345 Denys Lasdun: Evolution of a Style
- 349 Ideas for Future Cities
John G. Pickles
- 353 Interior Design
- 363 Townscape: Clerkenwell Green
Kenneth Browne
- 366 Chapel and Swimming-Pool
Shorncliffe Camp
Architects: B. & N. Westwood, Piet & Partners

- 369 Gallery: Interpretations
Robert Melville
- 373 The Palace of Ishak Pasha
Godfrey Goodwin
- 376 Van Doesburg Belongs to Today
Maurice Agis and Peter Jones
- 378 Architectural Victoriana
- 379 World
- 384 Views and Reviews
- 390 The Industry
- 392 Contractors
- 393 Stop Press



317



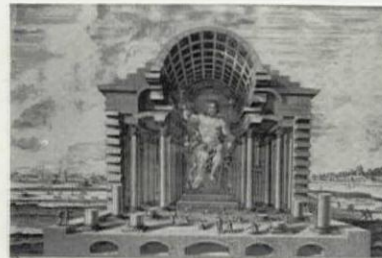
329



331



332



339



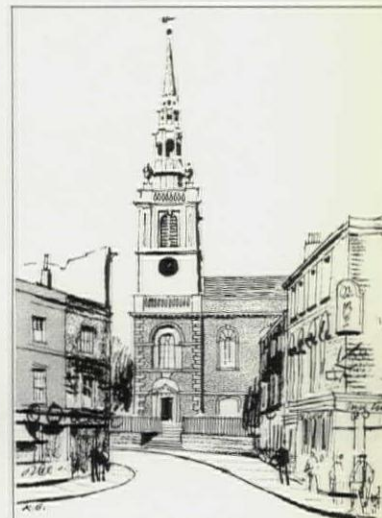
345



349



353



363



366



369



Facing page: Denys Lasdun's University of East Anglia, outside Norwich, is now well advanced and will be illustrated in the AR early next year. It exemplifies the use of interlocking spaces—of systems of stratification—which is, together

with the conception of architecture as urban landscape, a recurrent theme through all Lasdun's work. An analysis, by means of cross references, of the occurrence of this and related themes in his work over twenty years, appears on page 345.

the twenties

The nineteen-twenties are now history; their attempt at evolving an original style of their own, a phenomenon which was scorned by the pre-war puritans and found culpably irrelevant by the post-war social enthusiasts, now with the passage of time takes up its place in the changing cavalcade of taste and has become a fit subject for objective study. A sign of its new status is the number of books on the period that have recently been published, and the anthology of designs of the twenties and early thirties that follows is largely taken from three of these books, which are also referred to by Lord Kinross in his introduction to the pictures, below. To the examples collected by the books' authors, THE ARCHITECTURAL REVIEW adds some photographs, taken at the REVIEW'S request by Eric de Maré, of two of the period's best and most typical architectural interiors, the Whitehall Theatre and the entrance to the Strand Palace Hotel; and it is another sign of the twenties' new status that the latter, demolished last month, has been acquired by the Victoria and Albert Museum.

Decoratively speaking, the nineteen-twenties and thirties were a period of experiment, contradiction and diffusion, through which it is hard to trace a single cohesive trend. To her book on the thirties, Madge Garland gives the title, *The Indecisive Decade*.^{*} Indecisive indeed it was, as the decorative arts drifted this way and that at the mercy of a tide of shifting social, economic and political pressures, from a world depression to a second world war. The decade of the twenties, from which it sprang, was a degree more decisive, showing a certain vigour of spirit and more positive trends of conflicting direction as it awoke from the first world war, exploring new designs for living in a world which seemed to promise security and prosperity.

These trends came to a head in the Paris 'Exposition des Arts Décoratifs et Industriels Modernes' of 1925. In this exhibition Bevis Hillier finds a focus for his book, *Art Deco*,[†] while Giulia Veronesi leads up to it through the previous decades in her *Into the Twenties*.[‡] From its source as a reaction against Art Nouveau, both writers trace Art Deco through its various evolutionary phases to this goal, in Paris, of what Le Corbusier described as 'an international marathon of the domestic arts.' It was an amalgam of such antithetical elements as Cubism, the Russian Ballet and the Bauhaus.

In so far as Art Deco can be defined, Mr. Hillier defines it as 'a classical style in that, like neo-Classicism but unlike Rococo or Art Nouveau, it ran to symmetry rather than asymmetry, and to the rectilinear rather than the curvilinear; it responded to the demands of the machine and of

new materials such as plastics, ferro-concrete and vitaglass; and its ultimate aim was to end the old conflict between art and industry, the old snobbish distinction between artist and artisan, partly by making artists adept at crafts, but still more by adapting design to the requirements of mass-production.'

Such were its aspirations. In fact it emerged as a hybrid product, ranging from Cocteau, Frenchifying the Russian Ballet, at one end of the scale, to Le Corbusier, designing machines to live in, at the other. Mr. Hillier quotes Cocteau: 'Since the days of Cubism I see a surprise-packet emptied over Europe: hypnotic trances, delicious enchantments, lace that walks, impudence, scarecrows, aerogynes, smoke-rings, snow-ploughs, jack-in-the-boxes and Bengal lights.' Influenced though he was by Cubism, he still breathed what Signora Veronesi describes as 'the far-off essence of Parnassus and his paradoxes.' Le Corbusier, on the other hand, protesting against all decoration and relegated, at the 1925 exhibition, to a vacant lot on its perimeter, sought to elevate the mind and pursue the rational life through his own 'white dream' of architectural emptiness and functional simplification. In between these poles the Cubists still influenced taste through the work of Léger; the Expressionists through that of Franz Marc; and later the Vorticists through that of Wyndham Lewis and McKnight Kauffer, who brought new life to the art of the poster. But there ran also a confusion of currents and cross-currents, appropriate to the effervescence of the twenties, whose symbol Mr. Hillier defines as 'the iridescent bubble about to burst.' Foreign influences made their appearance—Negro art, already transfigured by Modigliani and now personified

^{*} *The Indecisive Decade*. By Madge Garland. Macdonald. £3 3s.

[†] *Art Deco*. By Bevis Hillier. Studio Vista/Dutton. 12s. 6d.

[‡] *Into the Twenties: Style and Design 1909-1929*. By Giulia Veronesi. Thames and Hudson. £4 4s.

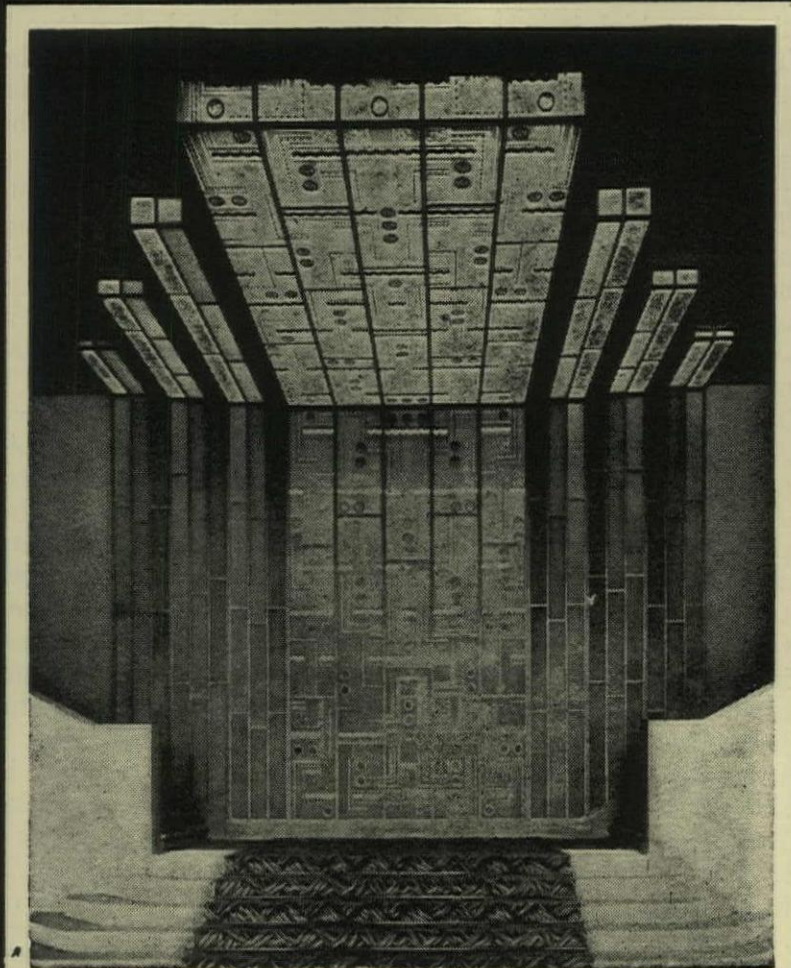
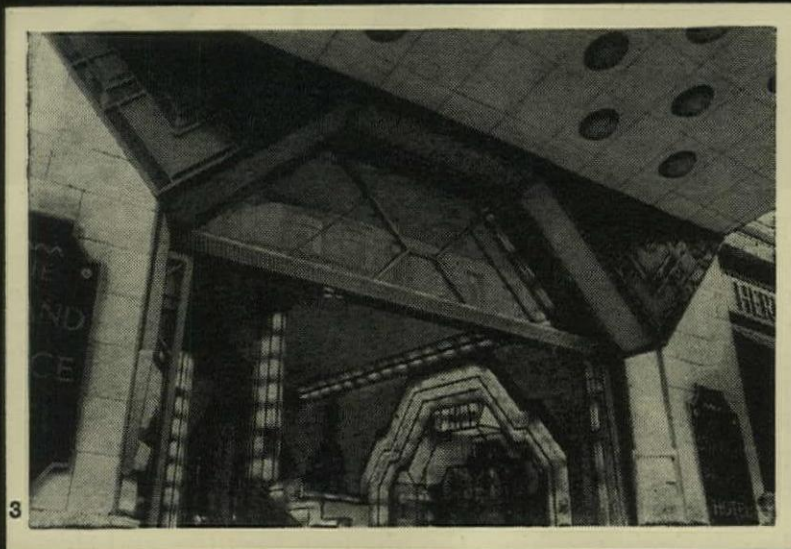
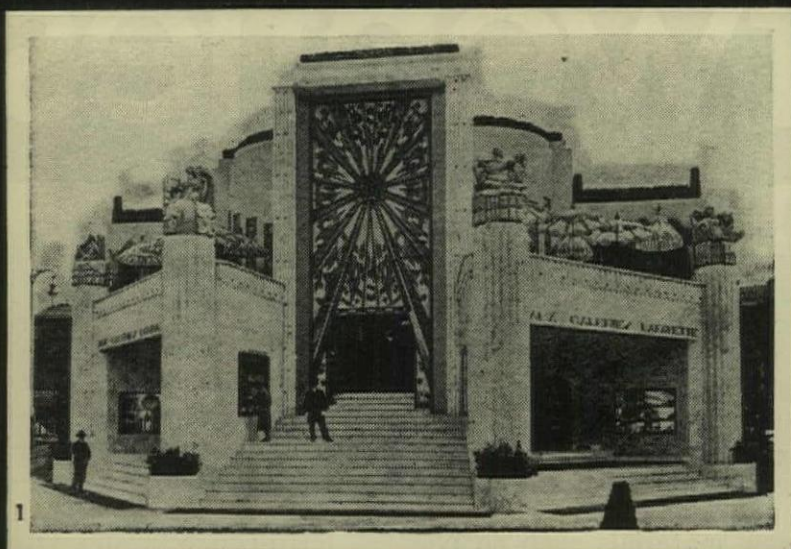
by Joséphine Baker, swept into Paris on a wave of American jazz; American-Indian art, with its Aztec temple shapes and its rich semi-precious minerals; and, inspired by the opening of the tomb of Tutankamen, ancient Egyptian art, with its progeny of architectural pyramids, decorative Sphinxes, chairs like Pharaonic thrones and Ptolemaic ear-rings for women.

Both American-Indian and Egyptian influences combined, in incongruous alliance with that of the Russian Ballet, in such industrial works of architecture as the Ideal Boiler building in London and the Hoover factory on the Great West Road. The Hispano-Mauresque competed with the Egyptian in sumptuous cinema palaces,

while the New Victoria reflected a more rugged, proletarian trend. Superior as an example of Art Deco was the prismatic glitter of the entrance to the Strand Palace Hotel, and the floral and other fancies in the murals of the Whitehall Theatre—now vanished or condemned.

But Art Deco, soon corrupted by the pursuit of decoration for decoration's sake and representing in essence a debased neo-classical tradition, degenerated into the 'modernistic'. In the 1925 Paris exhibition, as Signora Veronesi concludes: 'The decorative commitment was carried out to the letter. No solutions were put forward for domestic design. The whole exhibition was an immense shop window crammed with knick-knacks, (continued on page 323

1, Pavillon de la Maîtrise at the Paris exhibition of 1925. 2, shops in Paris, 1923; architects, Azema, Edrei and Hardy. 3, entrance to the Strand Palace Hotel, London. 5 (facing page), within the entrance to the Strand Palace Hotel. 4, illuminated glass panels in the hall of the Grand Hotel, Dax; architects, P. Genet and L. Michon of Paris.

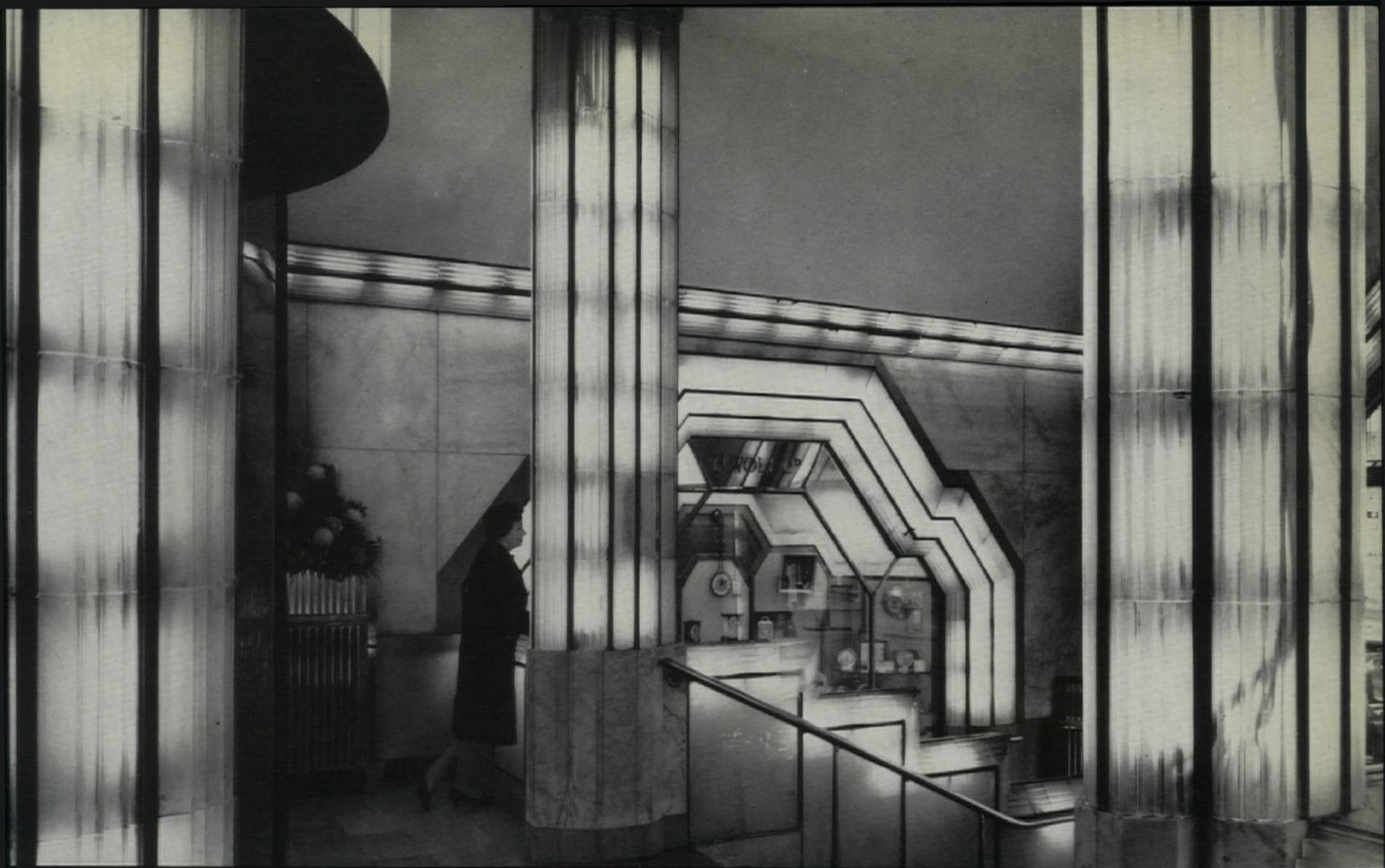




the twenties



The two interiors on these pages are classic examples of the jazz-modern style of the nineteen-twenties. 6 and 7 (and 5 on the preceding page) show the entrance to the Strand Palace Hotel, London, designed in 1929 by Oliver Bernard, architect to J. Lyons & Co. It combines all the favourite elements of the style: angular shapes, the glitter of stainless steel; ribbed glass illuminated from within. Although as this issue goes to press the entrance is being demolished by its owners, it has been acquired by the Victoria and Albert Museum. 8 (and 9 and 10 overleaf) show the interior of the Whitehall Theatre, London, designed in 1929 by E. A. Stone. It reveals the influence of the Paris exhibition of 1925 the importance of which Lord Kinross describes in his article





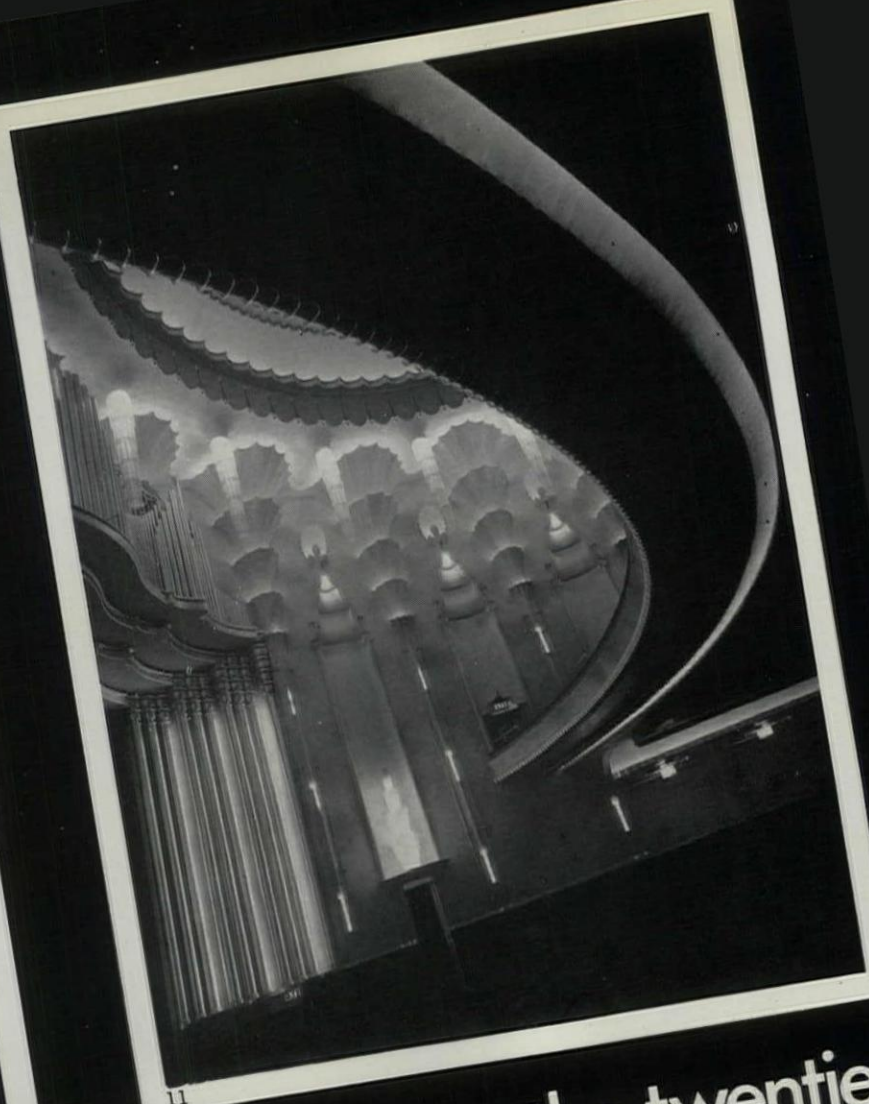
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the twenties



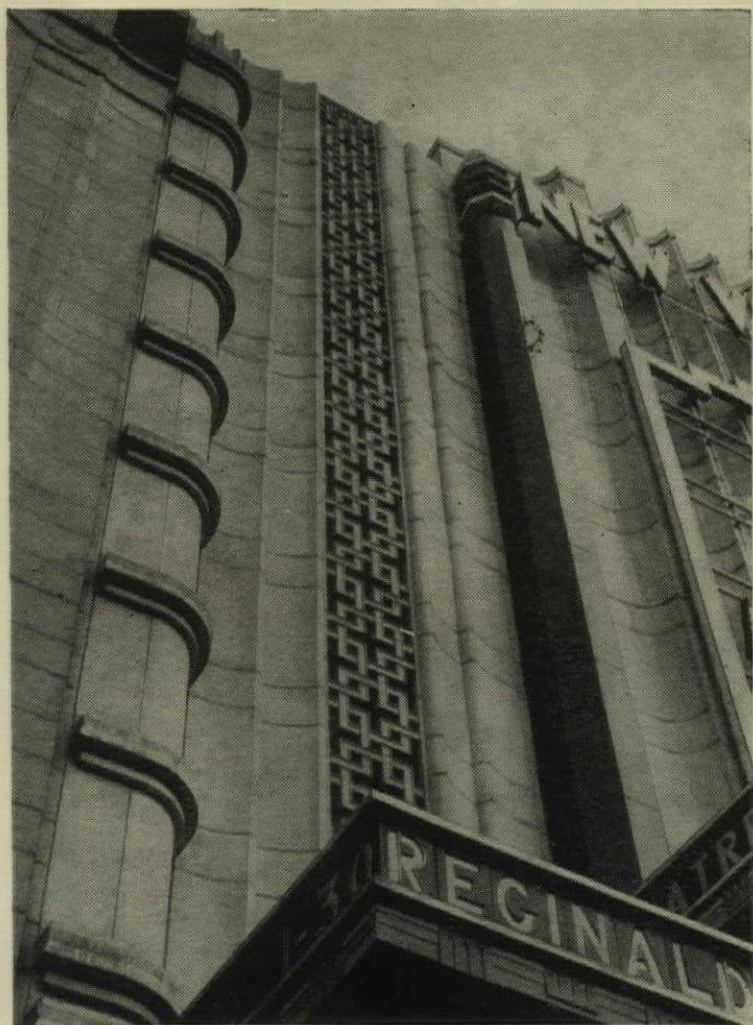
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little pieces of furniture and useless trifles of decorative art.' Art Deco died, in short, of popularization.

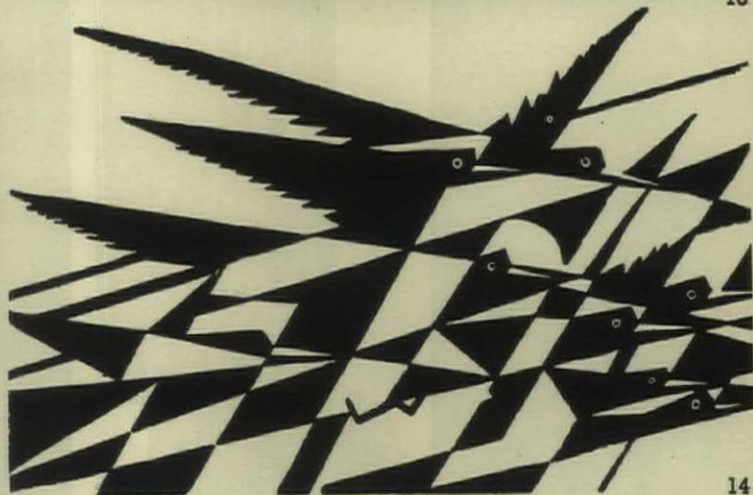
The true modern spirit of the age was to evolve, not from France (apart from Le Corbusier) but from Germany, in the shape of the Bauhaus. In Germany 'the decorative arts were already either relics of the past, or the badge of the new bourgeoisie. From Expressionism to the Bauhaus, from inflation to the republic and revolutionary movements, the reality of life with its hunger and demands for rights was pressing close behind the more decorative façade, indicating the true shape of things to come.' Inherent in this was an essentially anti-Deco trend: 'the production of useful objects whose formal essence saved

them from the conventional classification into decorative arts.' The future lay in the resolution of the conflict between art and industry, which Paris had failed to achieve. As Gropius saw it: 'The artist enters industry with the specific function of creating the "form" of the products, defining and controlling the style so that never again would it be a question of superimposing an "embellishment" on the structure.' The solution of Gropius and his colleagues left a long-term imprint on this century. Meanwhile the Bauhaus itself was dissolved by Hitler in 1932. What was left for the thirties? An insipid echo of functionalism, penny plain and tuppence coloured; a reaction against its austerity which Wyndham Lewis

9, 10, the Whitehall Theatre. 11, 13, New Victoria Cinema, London, 1930, by W. E. Trent & Walmesley Lewis. 12, Ideal House, London, 1929, by Jeeves and Hood. 14, E. McKnight Kauffer poster, 1920. 15, foyer of the great Schauspielhaus, Berlin, 1919, by Poelzig. 16, 17, screens by Brandt, c1920. 18, cigarette boxes by Sandoz, c1930.

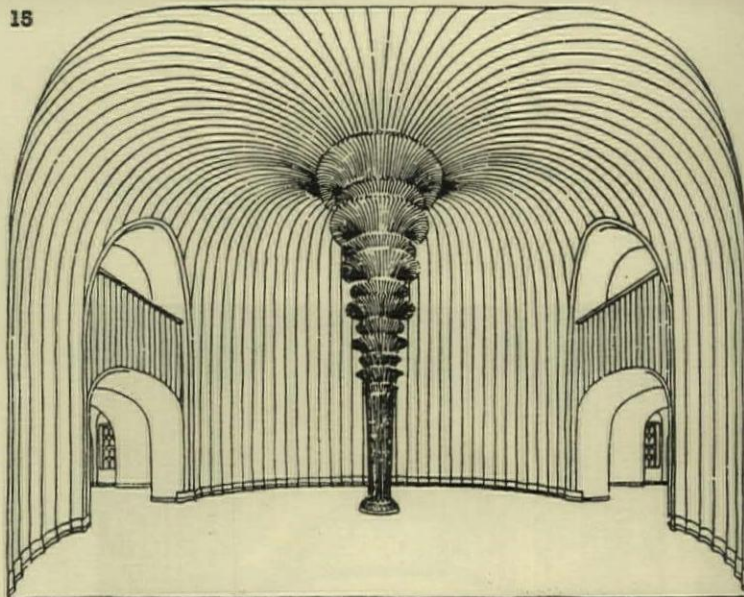


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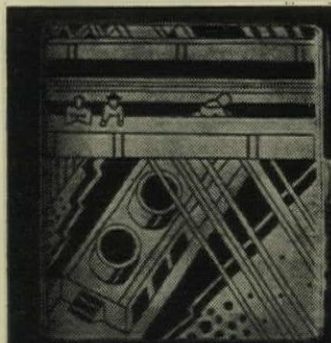
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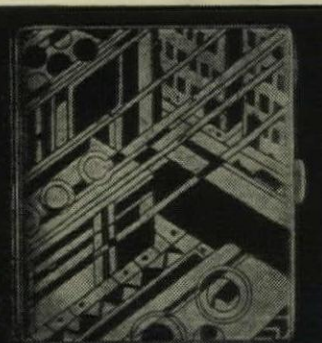
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17



18



(as Miss Garland quotes) had likened to a bitter pill 'in the nature of paregoric or cod-liver oil to the oversweet Anglo-Saxon palate.' Miss Garland does her best with what was left, concentrating rather on the field of women's fashions and the sprouting of new 'smartistic' trends in interior decoration. It was a scrappy, transitional decade, and she sensibly recalls it in scrap-book form, wielding her scissors and applying her paste, on cuttings and pictures, with the professional experience of one well trained in the school of *Vogue*.

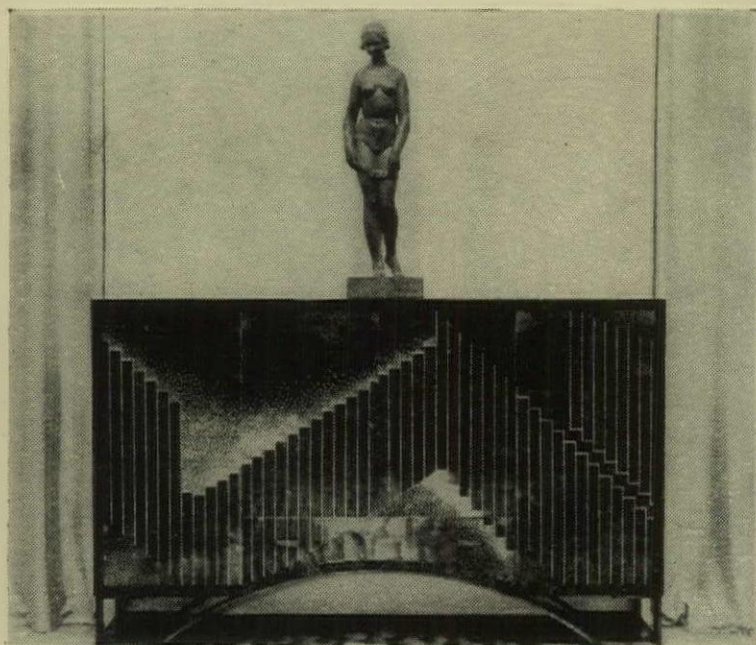
But there emerge from her pages some names which deserve to be remembered: Boris Anrep for his mosaics, Marion Dorn for her rugs, Curtis Moffat for his furniture,

Allan Walton for his fabrics, Rex Whistler for his murals, Jack Beddington, the 'Lorenzo' of Shell, for his patronage of art as a medium of advertising. Diverting scraps recall also the early ventures into the decorating trade of such since-famous artists as Giacometti, with his sculpted columns for indirect lighting, and Francis Bacon, with a 'constructivist' room, its rugs woven into 'thought-forms' and its curtains made of surgical rubber.

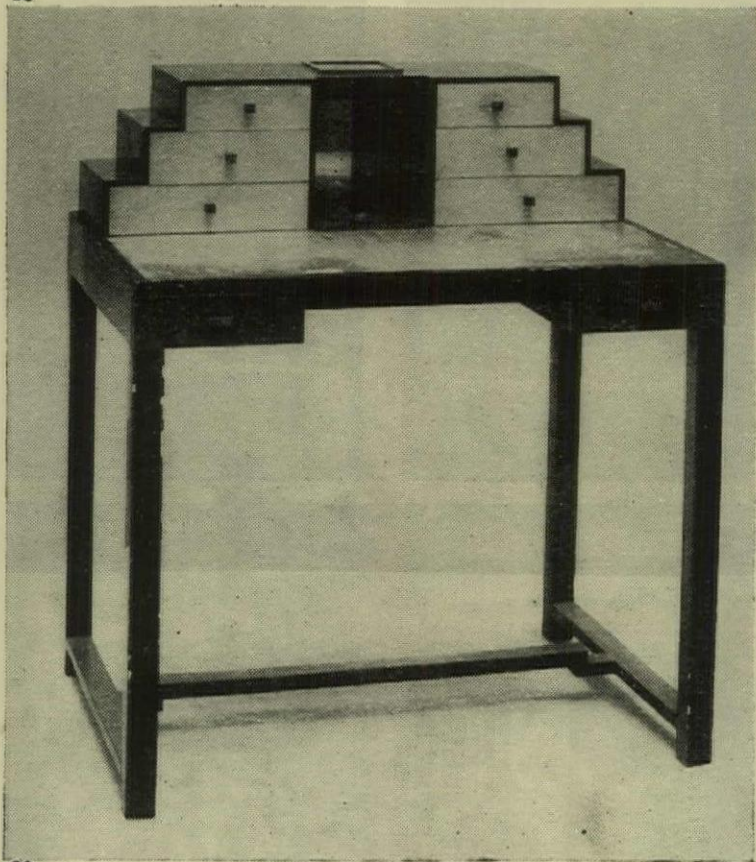
Meanwhile it is chastening to recall that, in this Indecisive Decade, the magazine *Apollo* wondered, at a one-man show by Paul Klee, why people 'should rejoice in these pickings-up of unconsidered trifles.' The answer came when they failed to sell, at £20 apiece. KINROSS

19, cocktail cabinet with spangled lacquer decoration, c1930. 20, 'Aztec temple' bureau de dame. 21, French pottery vase with iron mounts and bright enamel decoration, signed by d'Argyl. 22, 'clocktail cabinet,' c1930. (Illustrations 1, 4, 14, 16-22 are reproduced from Bevis Hillier's *Art Deco*; 2 and 15 are from Giulia Veronesi's *Into the Twenties*.)

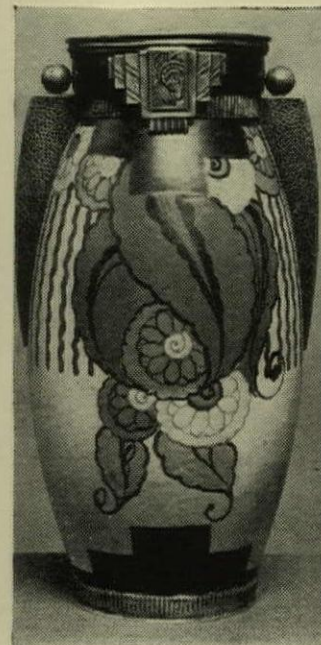
the twenties



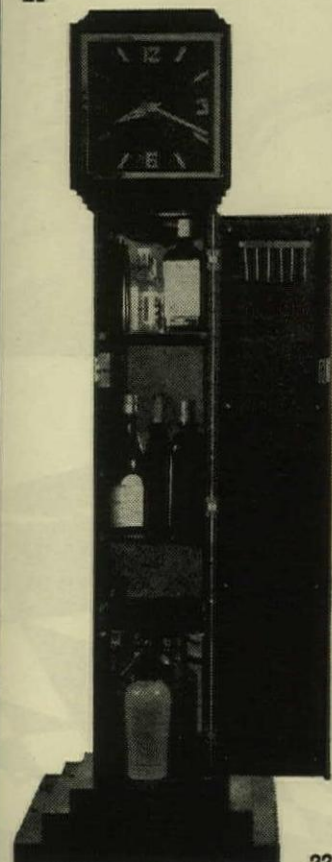
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20



21



22

Photographs and text by
John Rayner and Keith Mallory

CLEVEDON PIER

The seaside pier is an accepted part of English seaside culture yet it infiltrated into this context quite by chance. The first pier was built in 1823 primarily as a landing point for the Brighton-Dieppe packets. Brighton was already a resort in 1823 and its pier became sufficiently popular with visitors to suggest that piers could be financially attractive. The first pier at Brighton set a precedent which was followed by the construction of piers designed mainly for pleasure. Their use as a jetty became only of secondary importance and a pier soon became an essential amenity for any fashionable resort.

Clevedon in Somerset was just such a resort; having developed from a farming community of 334 inhabitants, in 1800, to a population of 1,147 in 1831. Its position on the River Severn, fourteen miles west of Bristol, was the main reason for this growth. It was within stage-coach distance of Bristol and subsequently became popular with Bristol's middle class. In 1846 a railway was built linking the two towns, and Clevedon mushroomed in size, with the result that in November 1866 a pier was suggested for the town and was optimistically planned as a direct communication with the catchment area of South Wales in addition to being a pleasure attraction. A board of directors was formed and sufficient capital was raised in a few months. The scheme adopted for the pier structure was almost industrialized in concept, factory-made components being assembled on site rapidly, and by March 1869 the pier was opened and in use.

In 1872 it was used by 48,000 people, but by Brighton standards the facilities it offered were distinctly limited. There were no *camera obscura* or wine and spirits, yet the pier with its pier-head café must have had a character of its own. Gradually however the pier became less profitable and its value increasingly limited. The only trace now remaining of the use intended by its nineteenth-century financiers is the twice-weekly pleasure cruises up the river to such places as Tintern Abbey and Chepstow. Its decline was caused by better transport and longer holidays, which allowed people to travel further from Bristol, but this has at least meant that the monopoly of Victorian architecture in Clevedon has remained intact. The pier and its environment remain almost completely unaltered.

The pier provides a point of integration between townscape and seascape, stretching into the Severn Estuary from the base of a small saucer-

1, the pavilion at the pier head.
2, part of the landing stage underneath the pier head, showing the cast-iron piles (see also 325

the cover of this issue).
3 (fold-out pages), the pier seen from the shore and, 4, elevation with the toll-house on the right.



shaped bay formed by the town behind. The town, curved and raked behind it like an auditorium, focuses on the pier from all points.

Rather than a single structure, the pier forms a group of buildings, consisting of the toll-house and abutments, the pier structure, the pier head, and finally the pier head superstructure. They are separate entities, yet they have a harmonious and integrated relationship due to massive and dominant horizontality. The stone toll-house is the most discordant part of this relationship. It is frivolous compared with the pier structure and its backcloth of Victorian domestic architecture; yet if the turrets are taken away there remains a surprisingly functional work. Its total spatial concept makes no real concession to the arbitrary forms imposed by its Scottish Baronial exterior. The pier structure itself has a simplicity and elegance which are more obvious. Its textural qualities (those of rust, barnacles, worn decking and rotting benches) are comparatively recent, but a mathematical economy of structure has existed throughout its life. It is an early, yet sophisticated, example of industrialized wrought ironwork. Alterations to the original structure have fortunately been few; the 1948 piles added to the first bay being the worst offenders. The most significant alteration is invisible—the corrosion of part of the vertical structure has resulted in the spreading arches becoming cantilevers.

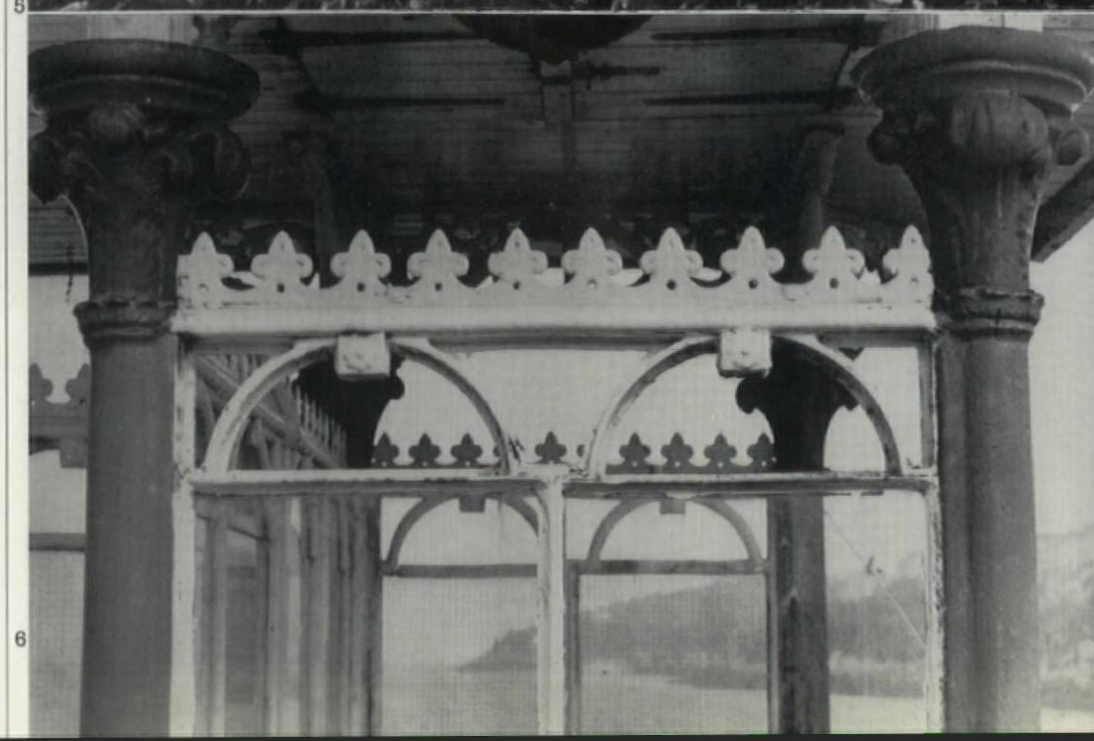
The existing pier head was opened in 1891 and is comparatively new. Its typically straight forward cast-iron pile and joint details make a subtle comparison with the flowing forms of wrought ironwork in the pier. The original timber landing stage of 1891 was for some reason considered as a separate problem, and its replacement by a more recent reinforced concrete mediocrity has not improved this anomaly. The pier head superstructure makes a more conscious effort to continue the vernacular instigated by the pier and pier head. The café and shelters combine a decorative yet restrained cast-iron framework, and illustrate yet another aspect of the same material, with a more exotic use of wrought iron—namely the pagoda style roofing. The total form and spirit create a successful crescendo to the pier run, and a subtle interrelation of materials.

In Clevedon pier, as in many other structures of the time in which both architect and engineer worked 'together', the contributions of the two professions are in fact harshly separated. Although not as harsh as the separation found at St. Pancras, the conflict of aesthetics was a bitter one. The toll-house and abutments are pure Romantic Victorian; the pier structure is an honest piece of structural ironwork; the pier superstructure compromises between the two. Clevedon was a Victorian resort, and this was a Victorian pier. Neither typifies the extravagance of the more publicized resorts where both pier and town have been obscured by a veneer of twentieth-century brashness and commercialism. In a sense the simplicity and straightforward approach of its pier sums up the whole environment of Clevedon. Both pier and town typify the restrained indigenous simplicity which must have existed at other small resorts of the nineteenth century and illustrate a relatively unconsidered aspect of Victorian culture.

5, one of the wrought-iron supports of the pier at Clevedon.

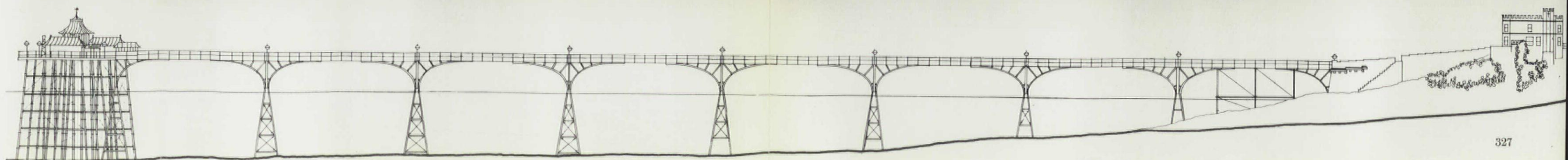
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6, cast-iron decoration on the pier head pavilion.





3



1

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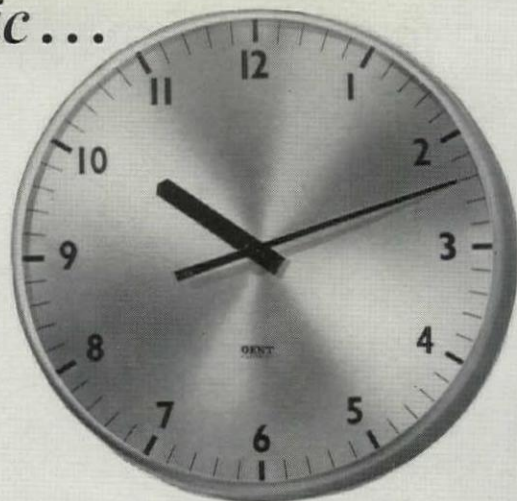


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Arabic...



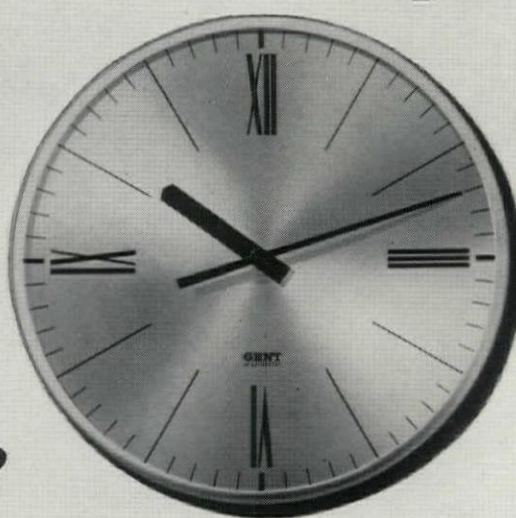
Roman...



Symbols...



Composite...



or the bare minimum?

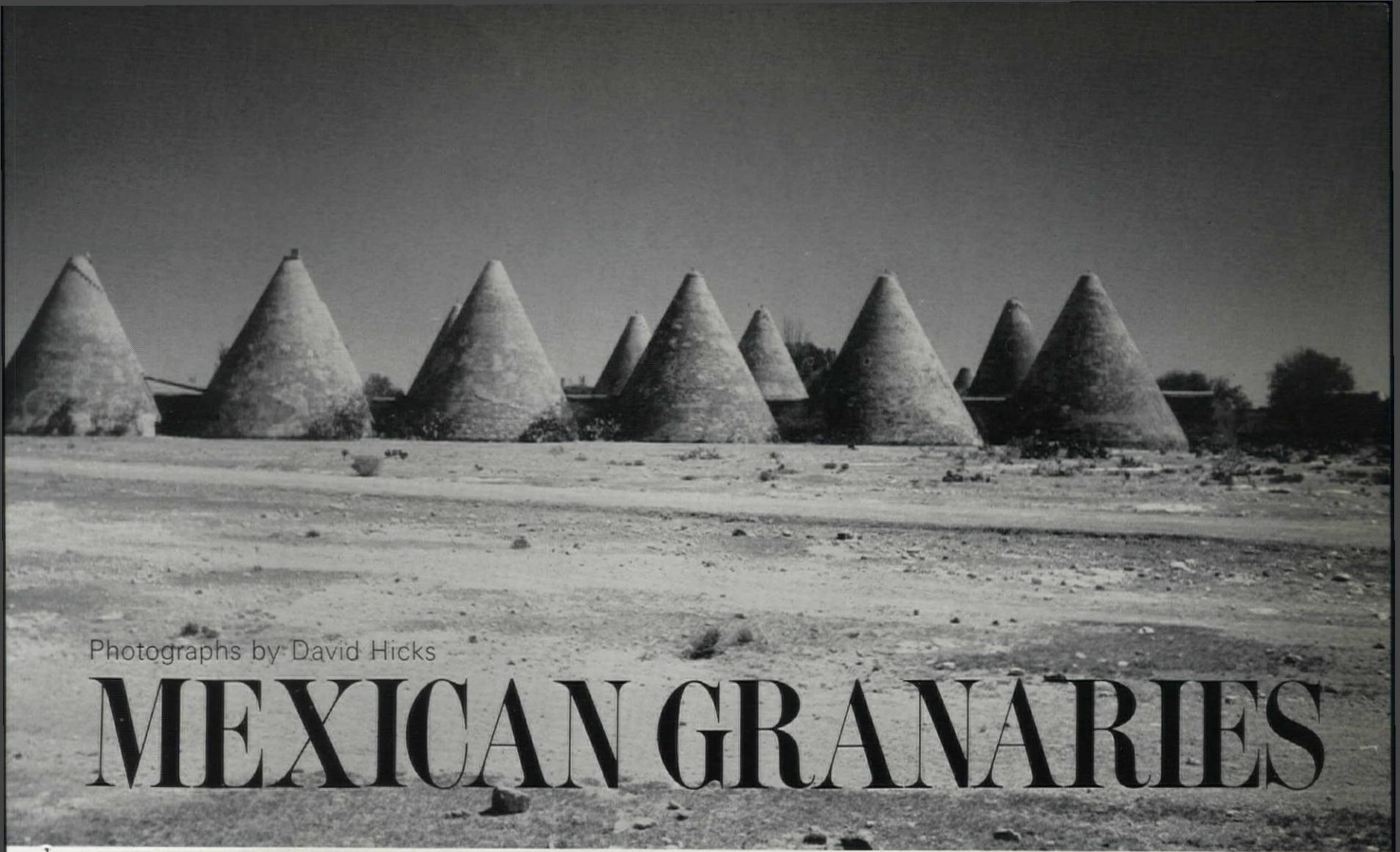


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Photographs by David Hicks

MEXICAN GRANARIES

1

Los Conos, the cones, the group of structures in 1 and 2, are at a small village called Tacoleche (or Santa Monica), near Zacatecas, the capital

2

of the arid state of the same name in northwestern Mexico, halfway between the national capital and the United States border. They are

thought to have been constructed under Spanish direction 350–400 years ago to serve as granaries, but they have subsequently had several





3

other roles. They have been used as houses, and more recently some of them were converted into a motel called 'Campo de los Indios'. This scheme was not however successful, in spite of the novel character of the accommodation. The door and walls shown in 3 are the result of this short-lived conversion.

This picture also shows how prickly pear and organ-pipe cactus have now claimed back parts of the site. Another variation was the use of four of the granaries for storing mercuric ores. 4 is a close-up of one of these masonry-built granaries with a brick portal and wooden door of herring-bone design. The granaries were filled

through holes near the top—some of which are visible in 3. In the adjacent Indian village is a smaller conical granary, 5, built of mud bricks, now used as a rather dark separate kitchen for a dwelling. The idea of the conical granary is still current in Mexico. Mr. Hicks has seen one under construction in Michoacan State.



4



5

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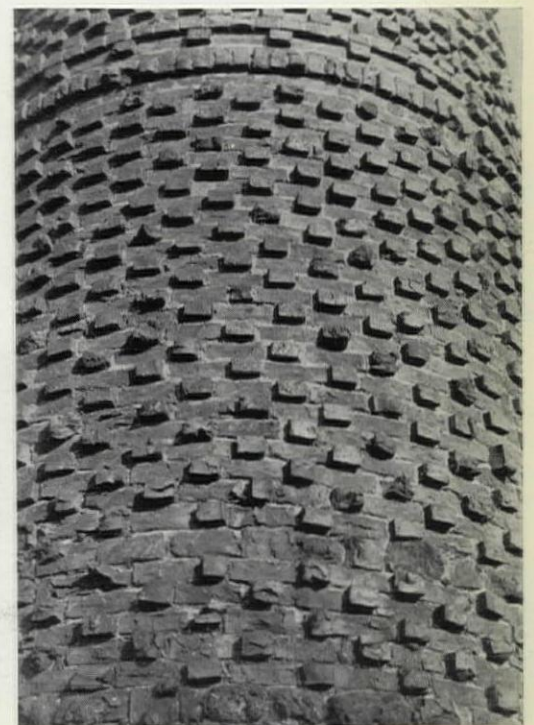
Photographs by Peter Bush

HORNSEA TOWER

To those who visit Hornsea on the Yorkshire coast, fifteen miles north of Hull, the old tower at Newbegin appears at first glance to be some kind of folly. A closer examination reveals a fascinating cylindrical building with a sparkling brickwork texture, and enquiries from older residents reveal that 'Bettison's Folly' really has quite a functional origin. Mr. Bettison, owner of a Hull newspaper, built the tower in 1844, just twenty years before the railway reached the town. Each evening his man-servant would use this vantage point to catch a glimpse of the master's carriage returning home down Southorpe Hill on its journey from Hull, and so ensure that dinner would be waiting ready on the table.

Folly or not, the tower gained its name when a local wag, reputedly the sailor son of the local Congregational Minister, took advantage of the easily climbable brickwork to place a board with the name 'Bettison's Folly' for all to see. In the late nineteenth century members of the Hornsea town band would play from the top of the tower to herald the first of May.

The railway serving the town was closed just one hundred years and seven months after its arrival, and Tower House itself was demolished in 1966 to make way for an old persons' home built by the county council; but the tower remains, pensioned off to watch the traffic coming home down Southorpe Hill.

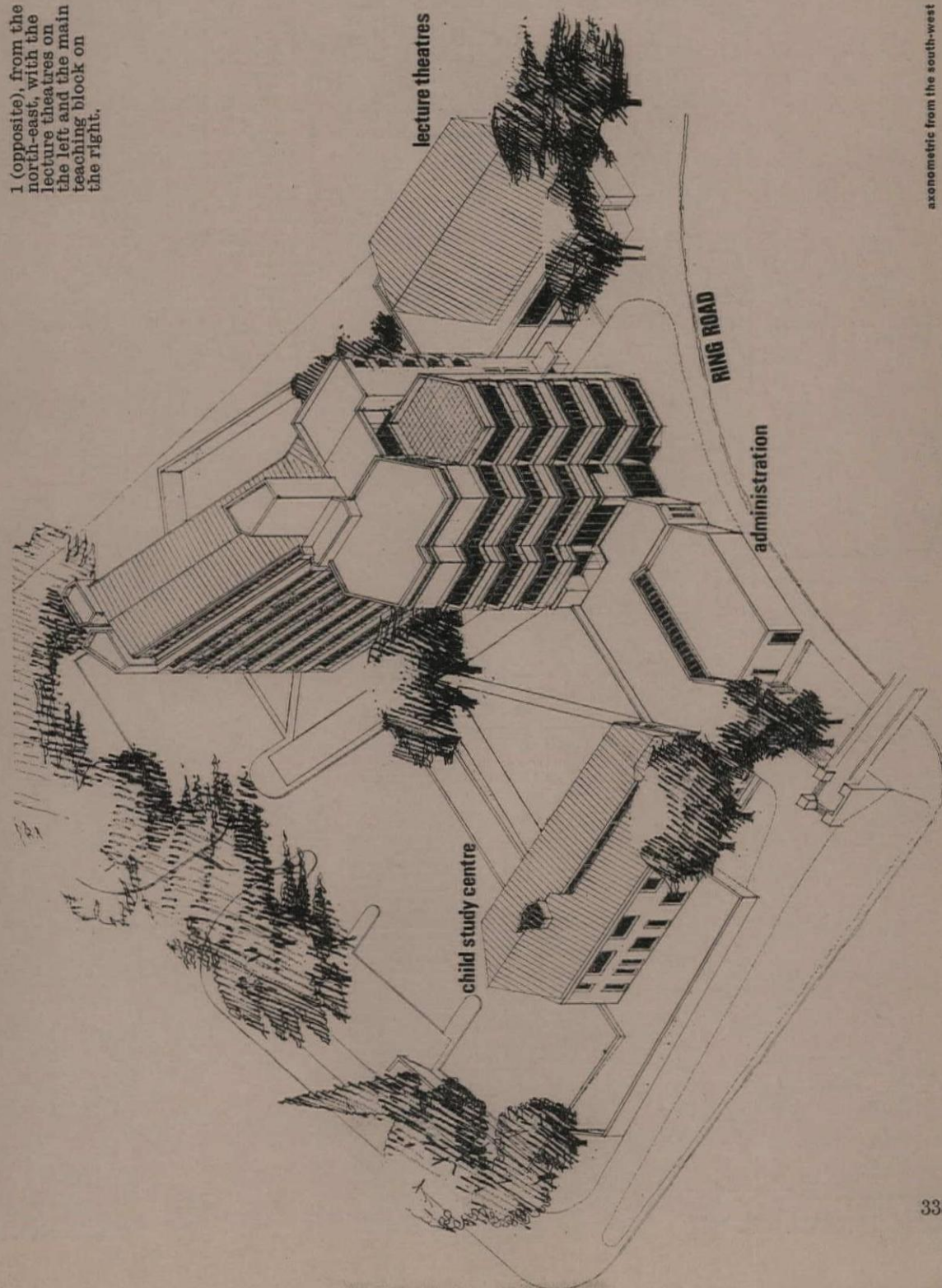




THE SCHOOL OF EDUCATION BIRMINGHAM UNIVERSITY

ARCHITECTS: CASSON, CONDER & PARTNERS/PHOTOGRAPHS: HENK SNOEK & H. DE BURGH GALWEY

1 (opposite), from the north-east, with the lecture theatres on the left and the main teaching block on the right.



This building was designed at a time when two separate organizations—the Institute of Education and the university's Department of Education—were being merged to form a new School. The administration is now centralized, but many of the functions remain separate, and this has had its effect on the arrangement in plan: the Child Study Centre, having a specialized function connected with clinical psychiatric work with young children, is developed as a separate wing with a domestic scale and with its own entrance and play area; the lecture rooms have been built aside from the main block to allow them to be separately used for outside functions; two separate main entrances are provided—one, for students, at high level linked by a bridge over the ring road to the university itself, and the other at ground level, allowing teachers and educationists from the region to use the building without entering the university-controlled road system. This last requirement dictated the siting in relation to the university's overall plan.

Those parts of the building that serve big audiences or that need to be easily accessible to visitors are placed at low level: the Child Study Centre; the administration offices; a conference room; lecture halls seating 400 and 150, and a library placed behind a walled garden to ensure seclusion and protection from traffic noise. At higher level a seven-storey framed block contains study offices of different sizes with laboratories and teaching rooms. This teaching block is the main focus of interest. The groups of smaller and lower rooms had to be closely associated with the relevant teaching rooms that were not only bigger in plan but required greater height. This led to the evolution of a slab block expanding to the south as a cluster of hexagonal teaching rooms, and developing in section to provide two levels of teaching room to each three levels of studies.

Three separate needs for expansion are foreseen, each being allowed to take place independently. The library can expand at ground floor level behind the screen-wall to the east and to the north; the Child Study Centre can extend to the north, and the general areas can be increased by building a further block on an east-west axis—closing the courtyard on the north side. It is for this reason that the initial development has been sited against the extreme southern edge of the site.

The building has a reinforced concrete structural frame with external walls of Himley silver-grey rustic facing bricks. The roof of the lecture halls, penthouse and the Child Study wing are covered in copper over a steel and timber construction. All other roofs are asphalted.

Partner in charge, Michael Cain. Associate in charge, Ian McKecknie. Structural engineers, Clarke Nicholls and Marcel. Services consultants, A. J. Smith (Consultants) Ltd. Quantity surveyors, Bond Foster and Partners.

For contractors see page 392.

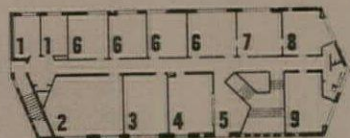
axonometric from the south-west

2, climbing house in the grounds of the child study centre. 3 (opposite), south end of the main block. The window system allows for diversity of room sizes and for cleaning from the outside. Window frames are steel with pressed steel infill panels in front of columns and at the ends of internal partitions.

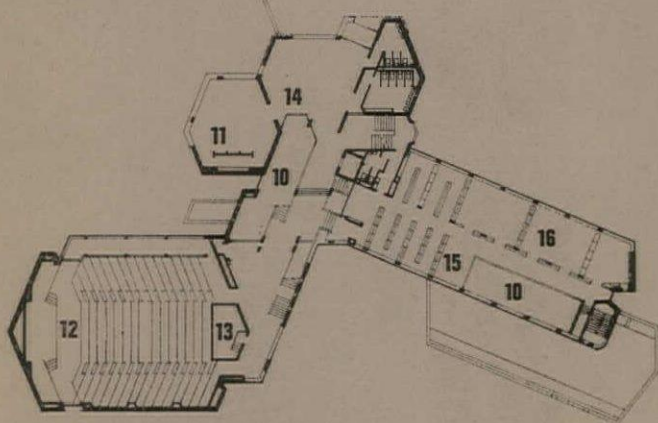


SCHOOL OF EDUCATION BIRMINGHAM UNIVERSITY

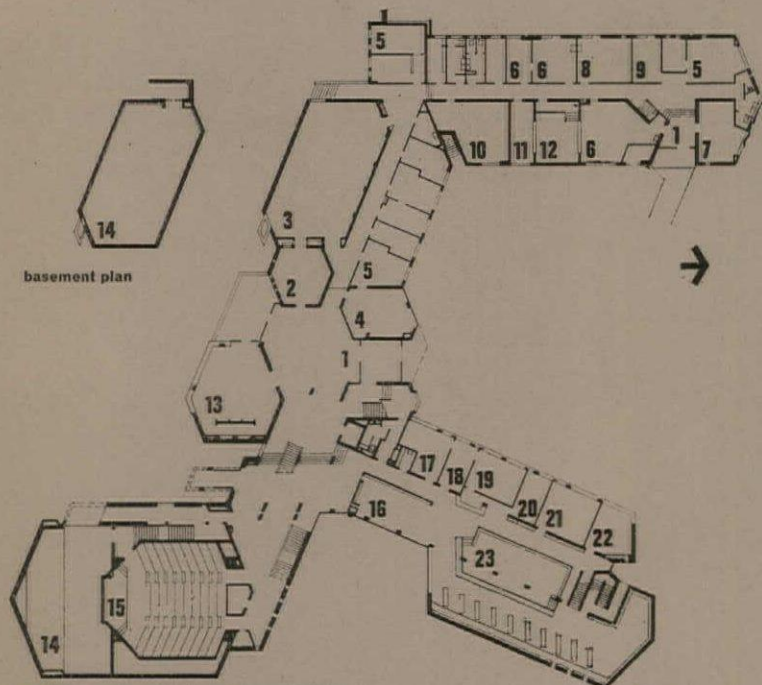
- key**
ground floor
 1, entrance hall
 2, committee
 3, conference
 4, secretaries
 5, administration
 6, play
 7, waiting
 8, crafts
 9, classroom
 10, records
 11, test
 12, observation
 13, staff common room
 14, plant
 15, email theatre
 16, periodicals
 17, workroom
 18, assistant librarian
 19, administration
 20, librarian
 21, special collection
 22, store and despatch
 23, institute library
first floor
 1, research
 2, lecture
 3, seminar
 4, observation
 5, test
 6, tutor
 7, classroom
 8, reading
 9, students
 10, void
 11, student common room
 12, large lecture theatre
 13, projection
 14, cloaks
 15, departmental library
 16, special stack
floor 1A
 1, waiting
 2, students' workroom
 3, offices
floor 2
 1, lecture room
 2, psychology laboratory
 3, machine room
 4, tutors
 5, research
 6, documentation
floor 3
 1, lecture room
 2, science laboratory
 3, technician
 4, darkroom
 5, tutors
 6, special methods (blind children)
 7, optical room
floor 3A
 1, seminar rooms
 2, professors
 3, secretaries
 4, tutors
floor 4
 1, lecture room and visual aids
 2, arts and crafts
 3, language laboratory
 4, music room
 5, tutors
 6, store
 7, speech
 8, piano practice
floor 5
 1, physical education and drama
 2, tutors
 3, plant room



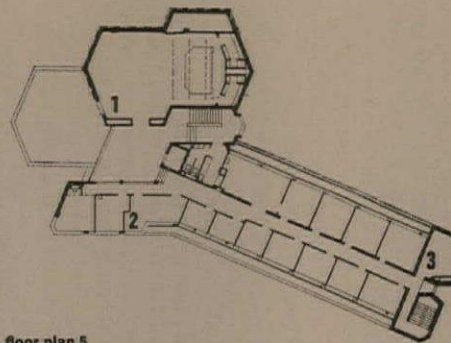
first floor plan: child study centre



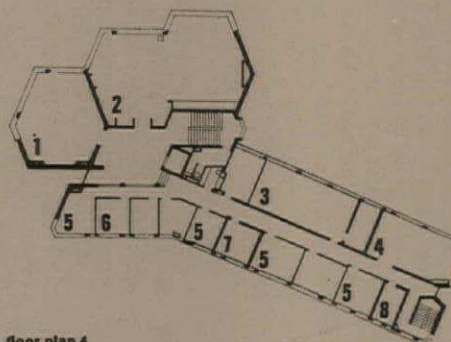
first floor plan: main block and lecture theatres



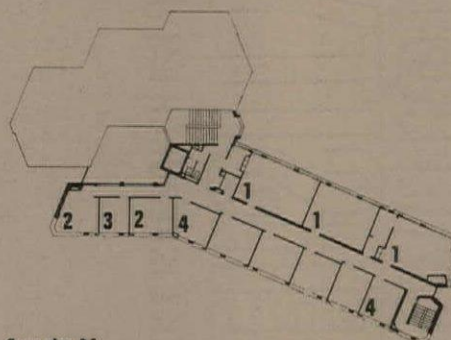
ground floor plan: main block, lecture theatres, administration and child study centre



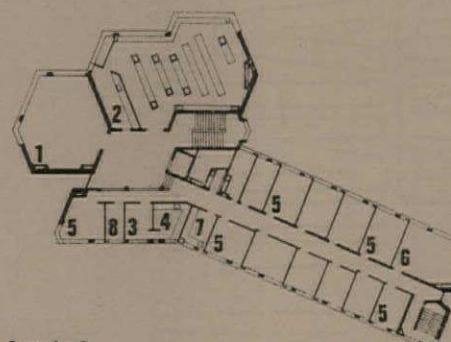
floor plan 5



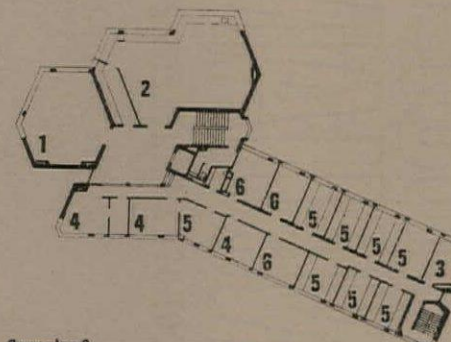
floor plan 4



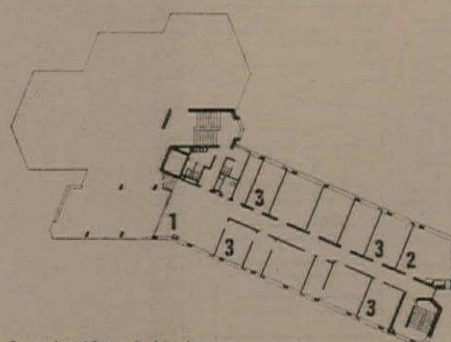
floor plan 3A



floor plan 3

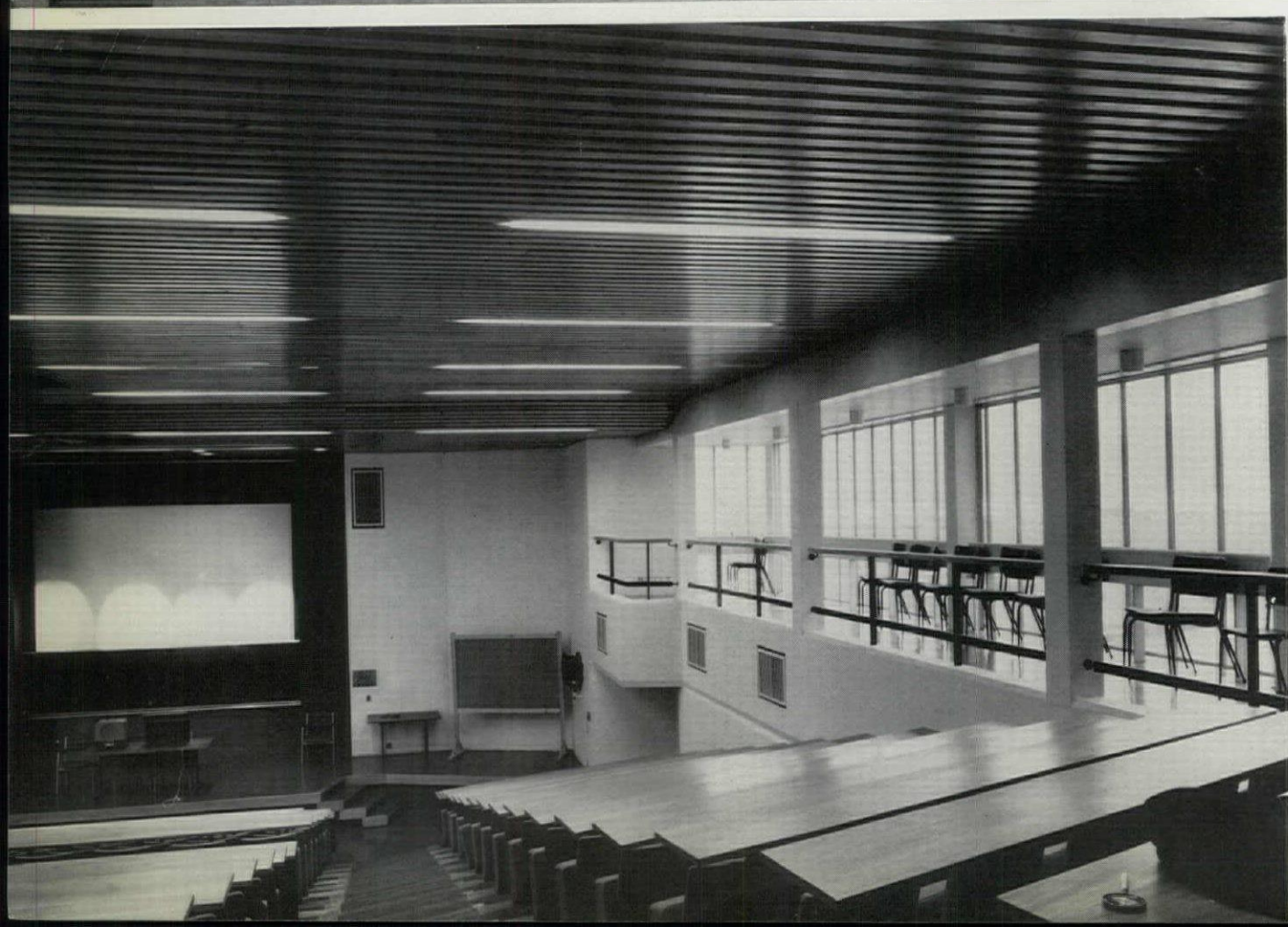
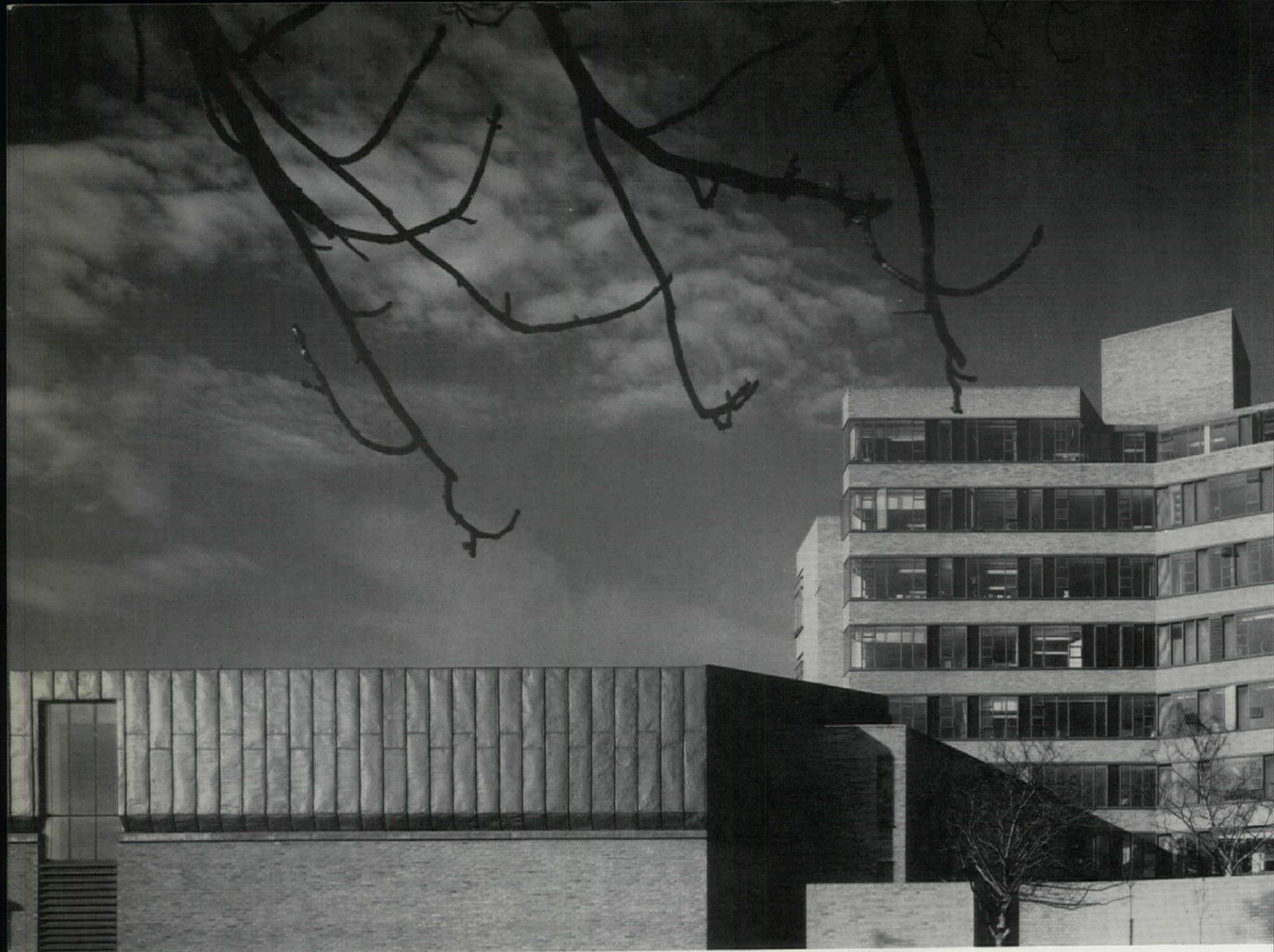


floor plan 2



floor plan 1A: main block





↑
4

5

6



7

SCHOOL OF EDUCATION BIRMINGHAM UNIVERSITY

4 (facing page), from the east, with the lecture-theatre block in the foreground and the main block behind.

5, interior of the large lecture theatre. Both the theatres are air-conditioned.

6, the south-east corner of the main block.

7, looking down on the library from the first-floor stack area.

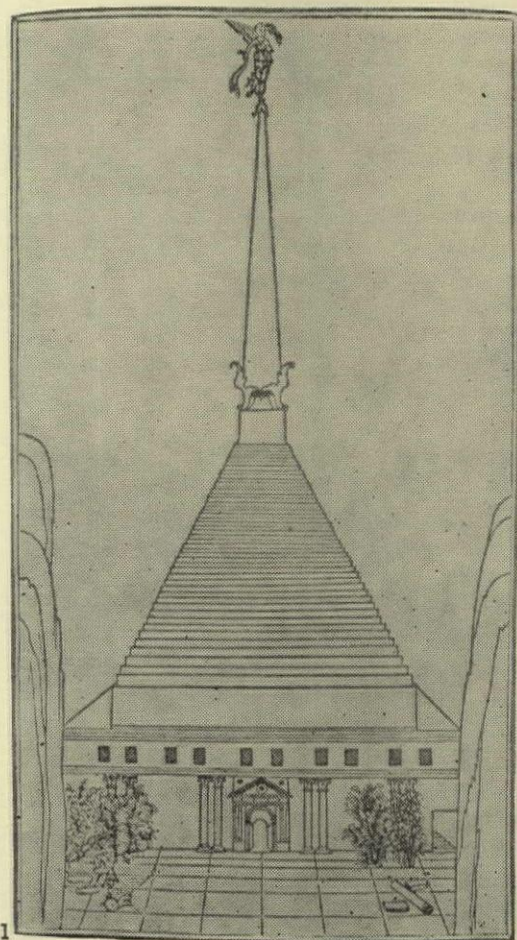
8 (overleaf), the entrance hall of the main block.

The main circulation spaces have painted brick walls with the structural concrete left exposed with a rough board-marked finish. Hardwood screens and door frames are idigbo. Lighting throughout the building is fluorescent. Rooms are heated by convector heaters under the perimeter windows; the library has low-temperature hot water coils embedded in the floor screed.



FANTASY AND ARCHAEOLOGY

RECONSTRUCTION OF
THE SEVEN WONDERS
OF THE ANCIENT WORLD
MICHAEL GREENHALGH



1, monument from the 'Hypnerotomachia Poliphili', 1499.

FROM the Middle Ages onward, the institutions of Antiquity were regarded as prototypes for those of the modern world. Scholars studied and compared ancient politics, philosophy, religion with contemporary affairs, and architects looked in awe at the remaining traces of huge and solid Roman architecture, imitating it in their own creations. But ancient literature (notably Pliny, Solinus and Philo) told of works of architecture even more marvellous than anything still to be found in Europe, namely the Seven Wonders of the World: the Pyramids of Egypt, the Hanging Gardens of Babylon, the Statue of Zeus by Phidias, the Temple of Diana at Ephesus, the Mausoleum of Halicarnassus, the Pharos of Alexandria and the Colossus of Rhodes. All these were of colossal size, of magnificent and costly materials, and showed great engineering and constructional skill. This was just as true of the two statues, the Colossus of Rhodes and the Phidian Zeus, as it was of the buildings.

The Seven Wonders represented, for the modern world, the epitome of all the ancient world had to offer: Florent le Comte, writing in 1702,¹ affirms that

'L'Architecture antique, dont Vitruve, Scamozzi et plusieurs autres ont parlé, n'est autre chose que la mesure des fameux monuments que les Grecs et les Romains ont construits . . .'

The ancient world, as depicted by the favourite authors of Antiquity, was continually re-interpreted in later times for the benefit of contemporary audiences; a well-known example of this being Barthélemy's *Voyage du Jeune Anarcharsis en Grèce . . .*, which gave the eighteenth century a lively description of the Hellenistic world, and also references back to the ancient authors so that the reader could consult the original texts for himself. Such a work entails, for its author, the 'reconstruction' of the ancient world as he conceives it to have been; it is a parallel to the visual reconstructions often to be found as the setting of classicizing paintings and engravings.

The Seven Wonders were reconstructed several times from the Middle Ages onward, both verbally and pictorially, and an examination of such reconstructions will illustrate the varying degrees of knowledge of ancient architecture, as well as the continuous interest in it. We can trace, in fact, the gradual development of a feeling for historical perspective, coincident with the beginnings of archaeological studies, which was to change past misconceptions, and which was helped by the broadening effects of travel, whereby traditions of architecture completely different from that of Rome could be studied.

The Middle Ages, with their love of numbers, compilations and magic, created their own highly original accounts of the Seven Wonders, making them much more marvellous than in fact they were. Indeed, they vie with the Wonders created by God, which one tract gives as the tides, germination, the phoenix, Etna, the fountain of Grenoble, the sun and the moon. In one version,² the Pharos of Alexandria is supported on four glass crabs resting on the sea bed, and the

structure is secured by cement. Similarly, the Temple of Diana is described as a base of four columns, which support a complex and precarious system of ever-widening vaulted storeys, the topmost having 132 columns.

In such medieval accounts, the Seven Wonders are not considered as part of the normal, everyday world, but form part of the semi-magical world of the chroniclers, alongside such fantastic constructions as the Tomb of Camilla and the Tomb of Hector. Some authors varied the classic list of Wonders, not only changing the nature of the originals but adding marvellous ones of their own. In one such list,³ the Roman Capitol comes first, and is said to contain statues representing the nations of the Empire; when any nation rises against Rome, that particular statue's collar rattles. In the *Roman d'Eneas*, the Capitol also has magical properties, for a whisper is audible anywhere on the site. But an even more astounding medieval addition to the list is the Statue of Bellerophon, suspended in the air by powerful magnets.

Medieval notions of the Seven Wonders did not influence later conceptions in any discernible way; rather, the medieval ideas represent one extreme from which the pendulum will swing, as Renaissance architects and antiquaries attempt to reconcile ancient accounts of the Wonders with the remains of Roman architecture around them—to reconstruct on paper monuments which, given sufficient resources, they could actually build. It is only natural that most such reconstructions, at least until the late eighteenth century, should be in the style of, and with the motifs of, Roman architecture. Some artists, however, had sufficient sense of historical perspective to realize that some of the Seven Wonders could not possibly have been built in the Roman style, but insufficient stylistic criteria were at their disposal to avoid their using Roman motifs.

ONE of the first pictorial reconstructions of a Wonder occurs in the very popular but highly eccentric *Hypnerotomachia Poliphili*, first published at Venice in 1499. In his dream, Poliphilus visits a monument which he describes at length, 1. Although he says that it was much superior to the Mausoleum of Halicarnassus, the Labyrinth or the Sepulchre of Ninus, there is little doubt that his monument is in fact derived from Pliny's description of the Mausoleum. It deviates from it in the addition of an obelisk on top of the stepped pyramid, specified by Pliny, but this feature is perhaps explained when we compare the monument with Heemskerck's plate of the Pyramids of Egypt, 2, engraved almost one hundred years later. This shows similar structures—obelisks on top of stepped pyramids (see especially the right background of the plate)—and underlines how rudimentary was the state of knowledge of Egyptian architecture even in the late sixteenth century. The anonymous sixteenth-century Flemish artist of the Kaufmann Sketchbook considered, in fact, Poliphilus's monument to be an Egyptian pyramid; for he copied it carefully, and entitled it 'Piramis Babilonica'. Indeed it seems probable that the Renaissance mind fused and confused the



2



3

characteristics of the Mausoleum and the Great Pyramid. Both were monuments connected with death, both had 'steps' leading to the top (the Great Pyramid was without its outer casing of smooth stone), and both were included in the Seven Wonders of the World, and were the most popular—the Pyramids because they were still standing and were frequently visited and described by travellers, the Mausoleum because of the highly unusual story connected with Queen Artemesia, the widow of Mausolus, who ordered its construction. She mourned him greatly, and drank his ashes mixed with wine, so that, as Boccaccio remarks in his *De Claris Mulieribus*, her very body would be a sepulchre for him. This scene often appears in representations of this Wonder, and gained such popularity that Catherine de Medici, on the death of her husband, was compared to Artemesia in an elaborate poetic and artistic allegory by Nicolas Houel and Antoine Caron, the end-product being a highly successful and popular series of tapestries dealing exhaustively with the life of Artemesia. Caron's drawing of the Mausoleum of Halicarnassus, 3, is a good example of the tendency to use Roman architectural forms for any antique architectural subject; the main mass of the building resembles the Pantheon in shape, while the single row of encircling columns, with balustrade, has affinities with the tempietto of Bramante, shown in Serlio's treatise and considered an edifice worthy to rank with those of the ancients.

THE whole disposition of Caron's monument, with its combined elevation and ground-plan and view of the interior, is in the tradition of the architectural treatises, and its very shape, which completely disregards Pliny's specifications, perhaps reflects the widespread Renaissance belief that the majority of antique temples and tombs were circular and not oblong. Such a belief can best be explained by reference to the Renaissance predilection for central-plan buildings; Vitruvius gives no prominence to the circular temple, neither does Palladio, but we have only to look through the emblem books and other engravings showing historical and mythological scenes, to ascertain the popularity of the round temple, which usually appears with an obelisk or two and a few heaps of ruinous masonry.

Another reconstruction of one of the Seven Wonders will illustrate these remarks: Antonio Tempesta, in his set of Wonders published in 1608, displays, generally speaking, a certain critical maturity in his representation of ancient architecture. For example, whereas the normal Renaissance tradition placed the Colossus of Rhodes astride the port, with a ship passing between its legs, Tempesta shows his Colossus in a much more stable position, with legs together, and next to the port. Similarly, his Temple of Diana at Ephesus, 4, is plain and simple, and of classical style and proportions, especially when compared with the Mannerist vocabulary of Heemskerck's version, 5, and De Vos's, 6. But Tempesta's temple for the statue of Zeus, 7, is circular, and in this he is influenced by current ideas,

as is De Vos with his Temple of Diana.

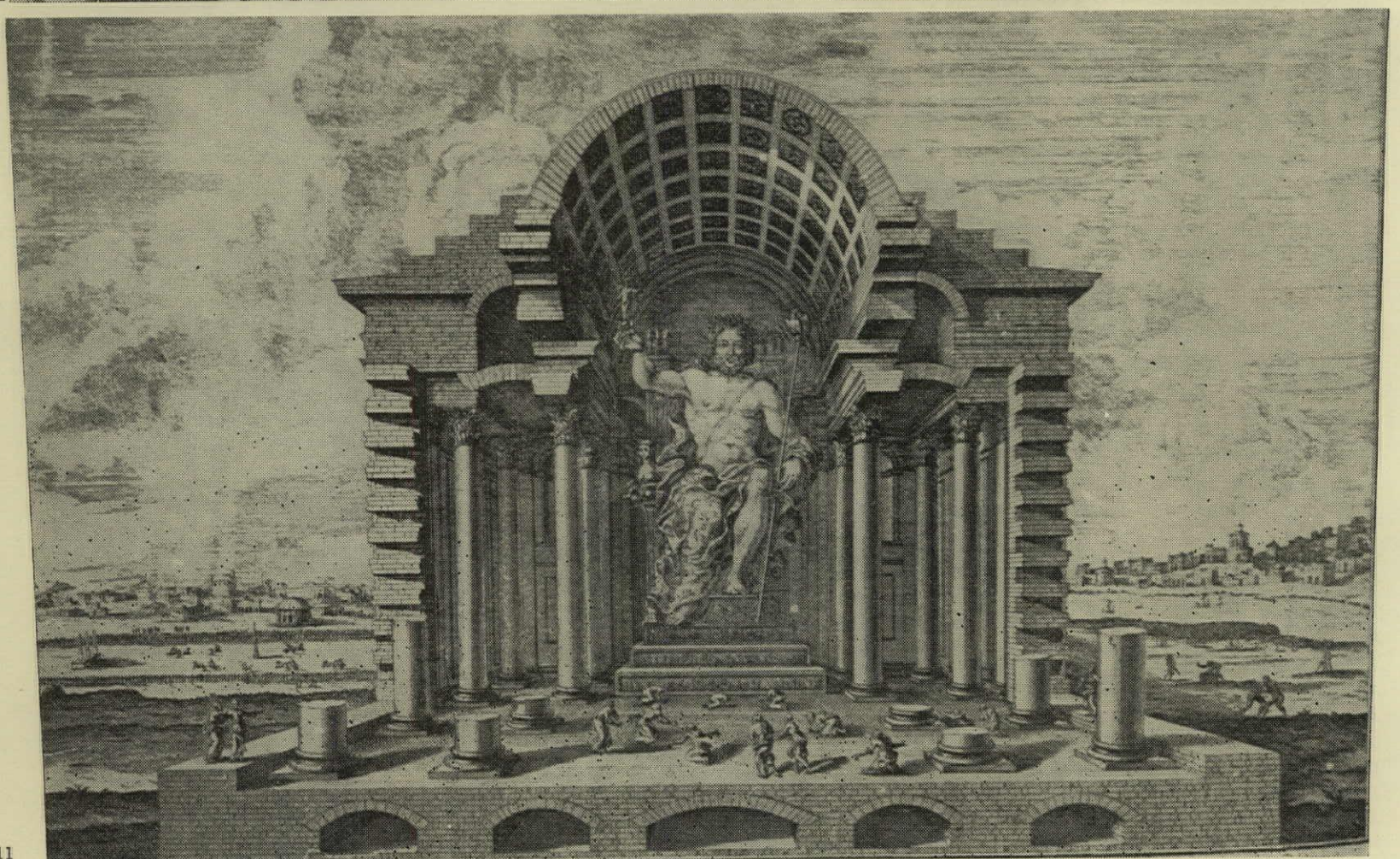
It is clear that Tempesta had read Strabo's comment that the statue '... was so large that, although the temple was very large, the artist is thought to have missed the proper symmetry; for he showed Zeus seated but almost touching the roof with his head'. This, however, is the only particular in which he heeds the ancient authorities; although Pausanias describes in great detail how the god holds a Victory in one hand, and a sceptre in the other, all three early sets of Wonders (by Heemskerck, De Vos and Tempesta) show the god with the habitual medieval and Renaissance attributes of eagle and thunderbolt. It is in fact difficult to find the god represented otherwise during the Renaissance, but Cartari, in his *Le Imagini dei Dei degli Antichi*⁴ does show, 8, what appears to be a reconstruction of the Phidian Zeus, with all the details as described by Pausanias, except for the footstool, supported by four live Victories instead of the specified lions. The tradition of the Seven Wonders was popular throughout the seventeenth century. Engravings of them appear in no less than nineteen guidebooks to Rome published between 1589 and 1725 at fairly regular intervals. The number represents, it is true, but a small proportion of the total production of guidebooks during this period, but it does underline the natural connection in people's minds between the *Mirabilia Romae* and the *Mirabilia Mundi*. Treatises on the Marvels of Rome were frequent during the Middle Ages, and some of the medieval lists of the Seven Wonders of the World 'westernize' them to some extent by including in their number the Roman Capitol or the Theatre of Heraclea (cut out of one block of stone), or 'Christianize' them by inserting Noah's Ark or the Temple of Solomon⁵. The woodcut technique in the guidebooks is usually crude; the architecture elementary. Even in an edition published in 1725, by P. Leoni, the Pyramids of Egypt are still shown, 9, as stepped structures surmounted by obelisks—this in spite of the fact that the true conformation of the Pyramids had been exactly shown by Greaves in his *Pyramidographia* as long ago as 1646.

IN the eighteenth century more attention is usually paid to the ancient authors than was previously the case. Although one might imagine that, with the rise of archaeology, the remarks of the ancients would have lost their value, exactly the reverse was at first the case, the only development being that their texts were approached with a wider knowledge of ancient art, and with more critical acumen. Fischer von Erlach, who gives many famous works of ancient architecture, including the Seven Wonders, in Book One of his *Entwurf einer historischen Architektur* (1st edition, Vienna 1721), can be considered the link between old and new; for in his reconstructions the old Roman motifs appear and reappear, whilst he occasionally shows signs of close study of the relevant texts.

An example of the former is the Tower of Babel in his plate of the 'Spectacula Babylonica', which has the same architectural

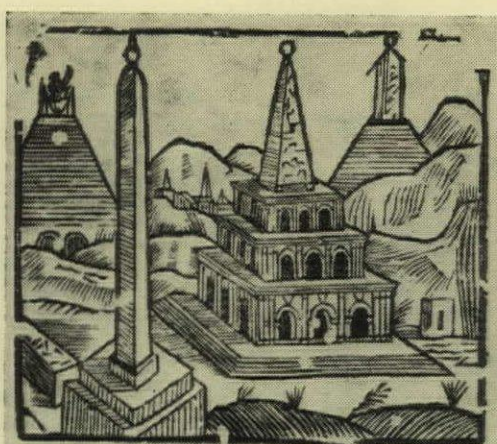


4, Tempesta: 'The Temple of Diana at Ephesus'.
5, Heemskerck: 'The Temple of Diana'.
6, De Vos: 'The Temple of Diana'.



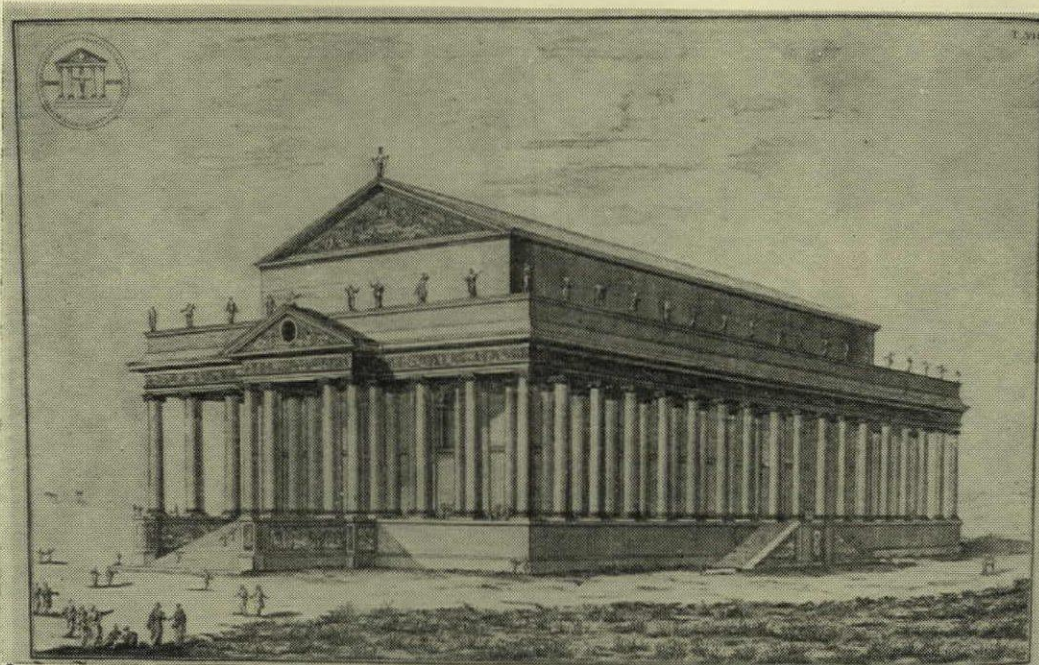


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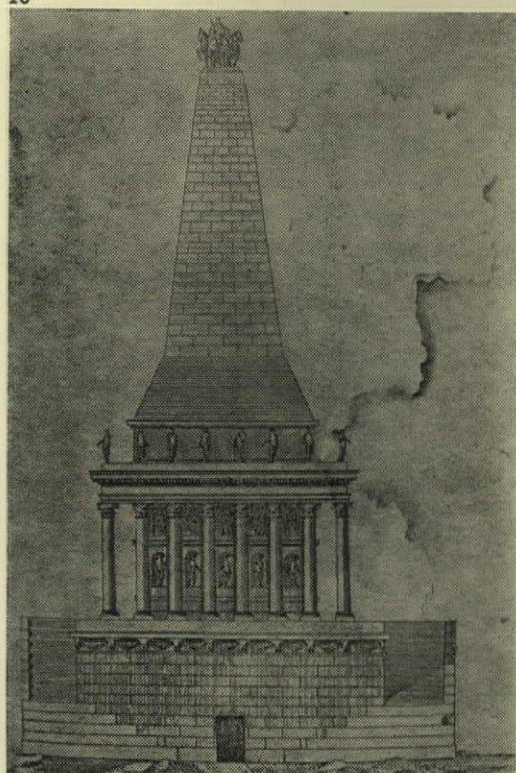


La septième merveille étoit les Pyramides d'Egypte, en forme de Cypres erigées pour Sepulchres des Roys d'Egypte, de diverses pierres en forme de Pyramides, auxquelles on gravoit en hieroglyphes les faits des Roys. Leur merveille étoit de voir des pierres d'une seule piece si hautes, & comme on les avoit pu mettre en oeuvre. A Rome on voit plusieurs Pyramides, Obélisques, ou Aiguilles, comme celle de St. Pierre, d'une seule piece, celle de St. Jean Lateran, & celle du Pape, & autres. Plusieurs Auteurs ont écrit de ces sept merveilles, à sçavoir Plin, Strabon, Pomponius, Mela, Democrite, Ammien, Marcellin, Q. Curtius, Orofius, & d'autres.

9



10



12

7 (facing page), Tempesta: *The Statue of Zeus by Phidias*.
8, Cartari's reconstruction of the Phidian Zeus.
9, the Pyramids of Egypt, from a guidebook to Rome published by P. Leoni in 1725.
10, Fischer von Erlach: *The Temple of Diana*.
11 (facing page), Fischer von Erlach: *The Statue of Zeus*.
12, Caylus: *The Mausoleum of Halicarnassus*.

motifs as seventeenth-century reconstructions of the Septizonium Vetus at Rome, and looks, in fact, like any Roman funeral pyre. On the other hand, Fischer's version of the Temple of Diana at Ephesus, 10, illustrates his respect for the archaeological and literary authorities, for in this case he uses a coin showing the cult statue as the basis for his temple, thus explaining the projecting portico. However, in spite of Vitruvius's assertion that the temple was octastyle, Fischer's elevation is decastyle. Most eighteenth-century reconstructions of this temple (Fischer's excluded; for he gives neither plan nor interior details) are based on Pliny's statement that the temple had 127 columns. Today, it is conjectured that the 'odd one out' supported the huge span between columns at the rear, this expedient being impossible at the front for appearance sake. For earlier centuries, brought up on the strict rules of Vitruvius, such irregularity seemed impossible; and one solution, apparently first advanced by Wren, posits a circular shrine within the temple, supported on seven columns.⁶ Poleni's plan, published in 1742,⁷ is an extension of this idea, following Vitruvius's assertion that the temple was octostyle and dipteral, and giving a circular shrine of seven columns, but placing chapels divided by 'excess' columns down one side of the cella, to use up the full quota of 127. If knowledge of Greek architecture was slight at this time, knowledge of Greek religious practices was even smaller. Thus Fischer's reconstruction of the Statue of Zeus, 11, shows the god in a temple made up of Roman architectural elements but arranged in a Christian manner. The heavy coffered barrel-vault is supported on sturdy outside walls, and the massive Corinthian columns divide the interior into nave and aisles. A glance at any of the architectural treatises would have shown him the correct placing of the naos walls.

BUT Fischer's main mistake is showing a Greek temple with a vault; it was not until the middle of the century that the Greek temples in Southern Italy and Sicily became popular, and these, even in their ruinous state, plainly showed that their ceilings were flat. Pierre Patte, one of the foremost writers on building construction of his age, states unequivocally in 1769⁸ that the vault was unknown before the time of Alexander the Great, but the misconception persisted.⁹

The new generation of scholars reaching maturity in the 1760s and 1770s could draw not only on the huge compilations produced at the end of the previous century, such as the *Thesauri* of Graevius and Gronovius, but also on the results of excavations at Pompeii and Herculaneum. Architectural books of great accuracy appeared, such as those of Stuart and Revett, Chandler and Wood, and the *Mémoires* published by the Académie des Inscriptions, the foremost scholarly body in Europe, provided detailed information on many subjects connected with Antiquity. Of this generation are Barthélemy, the author of the *Anarcharsis*, a great orientalist as well as the leading numismatist of his day, and the comte de



REFERENCES

Gravure. Brussels 1702, vol. 1, p. 11.

² Omont *op. cit.* pp. 47-8.

^b Oumont *op. cit.* p. 50 ff.

⁷ In the *Saggi* of the Accademia Etrusca of Cortona, Rome 1742, vol. 1 part 2, pp. 1-64.

* See especially the theologically based *Recherches sur le Temps le plus reculé de l'Usage des Voûtes chez les Anciens*, by the Rev.

¹⁰ *Recueil d'Antiquités Egyptiennes, Etrusques, Grecques et Romaines*. Paris 1752-67.

1753.

Traces of the Seven Wonders tradition are perhaps discernible in the more imaginative productions of the Revolutionary architects; their predilection for elementary shapes, and their interest in grandiose funerary architecture, maintained the popularity of the pyramidal form. An extreme example of this is the legendary Tomb of Porsenna, reconstructed by Greaves in 1646 as two superimposed platforms supported on pyramids, and topped by five more pyramids of tremendous height. Lequen's version of this monument, 13, is, in its fantastic size and gross illogicality, a worthy successor to the creations dreamed up by the Middle Ages. The wheel has come full circle.

DENYS LASDUN

THE EVOLUTION OF A STYLE

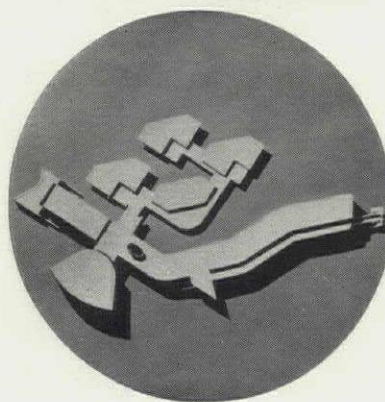
The completion of the first phase of Denys Lasdun's University of East Anglia (which is also shown on the frontispiece to this issue and will be fully illustrated later), together with the news that his National Theatre has now gone out to tender, makes this a good moment to look back over his work and note the developing themes that run all through it and the consequent emergence of a recognizable style. Rather than a number of designs conceived independently, the corpus of his work, covering nearly two decades, can be seen as an evolutionary process based, in Lasdun's own words, on an attempt 'to produce an architecture which inhibits neither the notion of "growth and change" nor advances in technology. It is anti-diagrammatic in that it recognizes that architecture refers to what lies deep in our nature (a sense of belonging, a desire for sensual exploration). It therefore places the enjoyment of space, inside or outside, at the biological centre of architecture. A space can be a monument.'

When we seek expression of this approach to architecture in Lasdun's buildings, we find two dominant themes, both related to his conception of architecture as urban landscape. The first of these is the simultaneous concern of architecture with space, place and time. Given that the individual building is to some extent a microcosm of the city, its role becomes that of an organism, isolated or complex, in equilibrium with its environment, and therefore capable of growth and change. It must attempt not only to capture a private space but also reach out, encompass and respect the wider context.

The second theme is that of stratification. Most activities take place on 'platforms'—floors, paths, terraces, bridges, etc. (see Le Corbusier's pronouncement of 1915: 'The actual ground of the town is a sort of (raised) floor, the streets and pavements as it were bridges. Beneath this floor and directly accessible are places for the main services.') A building can be looked at in the same way, as a matter of platforms and connections and interlocking spaces. Sensitive gradations of levels and heights

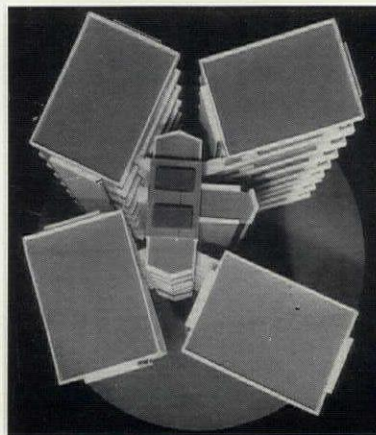
1. Hallfield School, Paddington: 1951

There is an obvious similarity of spatial disposition between this school—the earliest Lasdun building shown—and the University of East Anglia (example 9), designed more than ten years afterwards. Both have a continuous serpentine spine-wall, of teaching units, in reinforced concrete, and in both the focal point is a space enclosed by building—what Lasdun calls a harbour—round which the pattern of growth revolves. Compare also 15, the National Theatre, where the re-entrant space adjoining Waterloo Bridge anchors the whole building to the bridge and guides the eye towards the entrance.



2. Housing at Bethnal Green: 1952-1955

These blocks have a butterfly plan enclosing spaces at ground level of the same urban grain as the surroundings. The vertical core with its services is separated from the dwelling areas, which remain private and quiet. Bridges connect the core with the dwellings, carrying services on their underside (compare the access bridges at the University of East Anglia, (example 9). The idea of cluster-planning as a means of continuing the human-scale urban grain can also be seen in the infants' wing of Hallfield School, 1.



can be made to respond to site and function, creating an endless variety of rhythms and scales, satisfactory in themselves and adaptable to any existing urban situation, including the architecture of the past. The sequence of pictures that follows, illustrating in chronological order Denys Lasdun's more important buildings and projects during two decades, has been chosen to show how these two themes are interwoven through his work, and how they have been developed or elaborated, as building succeeds building, according to the needs of the particular case and the challenge it offered. The explanatory captions identify the contribution made to one or both of these themes by each building. The dates given are those when the design was made, not when the building was constructed.

An important purpose served by the two themes is that they provide a continuing intellectual foundation, a framework within which a number of architects and others, working together in a modern professional partnership, can improvise and elaborate, as well as guidelines for detailing. They are the means of coaxing a unity of expression from the numerous minds which are brought to bear on a modern building, and the consistent development of related themes, creating a consistent style, is in fact one of the things that emerges when we look at Lasdun's work as a whole.

3. Peter Robinson's Store, Strand: 1958

This was primarily an exercise in street architecture, but it also served as a pilot-study for the detailing of the bronze fenestration, with rainwater drainage for each floor, used at St James's Place (example 4) and in the teaching buildings at the University of East Anglia, 9. There is an affinity between this elevation and the street elevations of the Royal College of Physicians, 6, the London University project, 12, and Christ's College, Cambridge, 14.



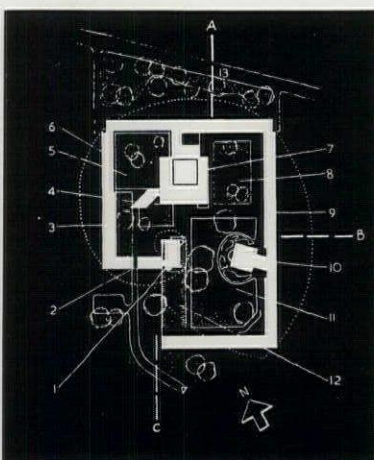
4. Flats in St. James's Place: 1958

In these luxury flats, the floor-plan at each level is flexible, the only structurally fixed elements being the vertical circulation, service ducts, bathrooms and kitchens. The horizontal stratification is organized so that the two-over-three section on the St James's side gives the exterior a relatively small scale, in keeping with the neighbouring small houses and narrow streets; whereas the one-and-a-half storey living-rooms on the Park side, and the balcony slab running right across the facade, introduce an appropriately more monumental scale.



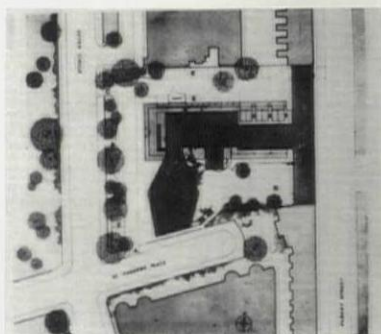
5. Fitzwilliam College, Cambridge: 1959

This was designed in relation to the slow growth that the money available was bound to impose on a new college, in order to create a balanced piece of architecture at each successive stage. The communal buildings—hall, library, common-rooms etc—are at the centre, and the residential accommodation develops from them in a spiral form, gradually enclosing the space round the communal buildings with a continuous wall, but leaving them dominant at every stage. Unfortunately the work had to stop before half the intended first stage had been completed, so that the process of enclosure has not yet begun. Work however is now being resumed. The spiral plan can be compared with that of the Royal College of Physicians, which is the next example, 6.



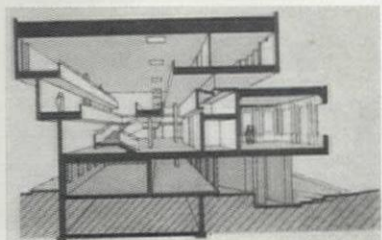
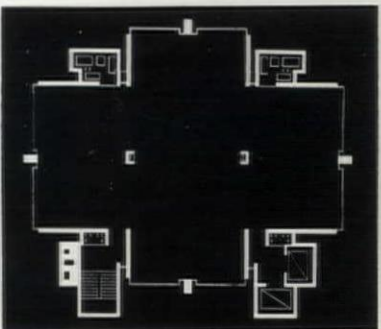
6. Royal College of Physicians, Regent's Park: 1960

In this case the object of the spiral plan, which revolves round the prow of the auditorium block, is to capture a private space enclosed on one side by the existing Nash houses, the small scale of which this side of the building is designed to preserve. Internally, the hall and portrait gallery, which are the dominant spaces, also form a spiral in the sense that the movement of people up the main stair to the *piano nobile* takes this form, allowing them to apprehend the whole anatomy of the building during the process. The stepped section, of which the stair is an integral part, has affinities with the sections of the Surveyors' building (example 8), the residential wings of the University of East Anglia, 9, the London University project, 12, the National Theatre, 13, and Christ's College, Cambridge, 14.



7. Science Complex, New Museums site, Cambridge: 1961

This project, which has since been abandoned, envisaged a cluster of three towers, each floor of which could be subdivided into large or small spaces. These could plug into the necessary services, brought to the outside of each tower and rising within hollow structural concrete columns designed to be extended vertically in the future. The towers and lower perimeter buildings were connected by bridges. The grain, profile and form of the towers were designed to relate the silhouette they created to the existing Cambridge skyline. There is an affinity between these towers and those of the Leicester social centre (example 10) and the National Theatre, 13 and 15.



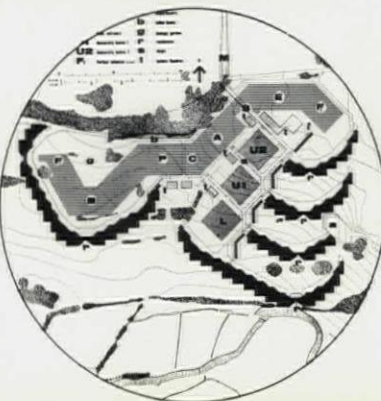
8. Royal Institution of Chartered Surveyors, Parliament Square: 1962

This project, postponed at the time of the design because of the long-term re-examination of the future of the Whitehall area, is expected to go forward before long. The scale is deliberately monumental, to accord with the spacious layout of the square, to which it contributes the solidly built-up corner it needs. The scale is created by the powerful external stratification, which however derives directly from the internal arrangements, including a drive-in entrance recessed behind the main columns. The main projecting floor-slab marks the division between the institutional accommodation below and the offices above. The geometrical resemblance to many completed Lasdun buildings, both in the horizontal stratification (see 4 above) and in the tower, is obvious.



9. University of East Anglia: 1962-68

This is a good example of Lasdun's approach to architecture as urban landscape: built form and the spaces between are part of the same system. Among the spaces—the focal point of the whole—is the semi-enclosed "harbour" repeating the theme originated at Hallfield School (example 1). Another significant quality of this design is that its basic nature—use of levels, pattern of growth etc—is so positive that the project can be modified and elaborated without damage, and other architects, as is likely to happen here, can be called in to contribute to it as new requirements become apparent. The plan is compact, so that it has one identity and so that the landscape is preserved. The bridge connections carry services underneath (compare the Bethnal Green housing, 2), maintaining a horizontal level against the slope of the ground. The stepped section of the residential wings relates to several other buildings—see the London University project, 12.



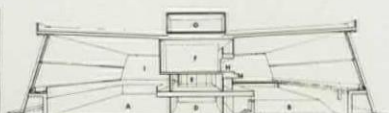
10. Social Centre, University of Leicester: 1963

This building contains restaurants, common-rooms and an examination hall. It has a central service core, the structure of which is carried upwards to form a tower, which can be compared with those in the Cambridge science project, (example 7) and the University of East Anglia, 9.



11. Sports Centre, Liverpool University: 1963

The core of this building, containing squash-courts and changing-rooms, is a three-dimensional system of reinforced concrete walls and floors. This gives structural stability to the larger envelope containing the swimming pool and sports halls on either side, as well as supporting the roof. The roof is also supported by raking precast columns along either side of the building, similar to those along the north side of the National Theatre—second version (example 15).



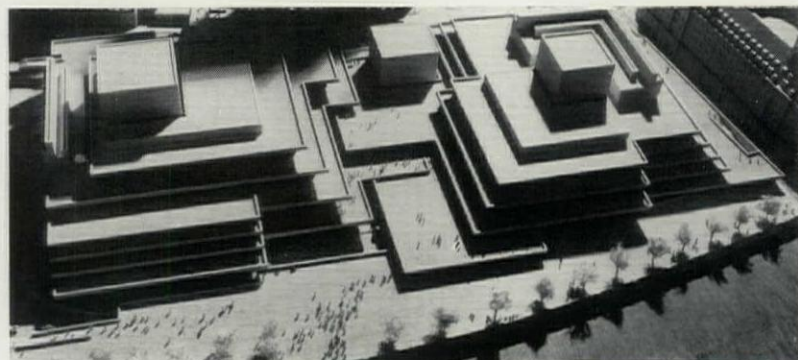
12. Teaching blocks for London University: 1965

This is a project designed for staged growth, developed from Sir Leslie Martin's outline plan of 1959. It is hoped to begin building the first stage in September next. It consists of a long building facing on to Bedford Way with stepped-back wings at right-angles to it, and a separate square building to the east for the School of Oriental and African Studies. The long block is designed to protect the university precinct from traffic noise. The wings project into the precinct and the spaces enclosed link Russell Square, Woburn Square and Gordon Square into one traffic-free area. Elevated bridges, open to the public, are threaded through the whole development. Buildings set back in section similarly form part of the University of East Anglia (example 9), the National Theatre, 13 and 15, and Christ's College, Cambridge, 14. The School of Oriental and African Studies has the horizontally stressed elevations and the skyline broken by service towers seen in several of these examples.



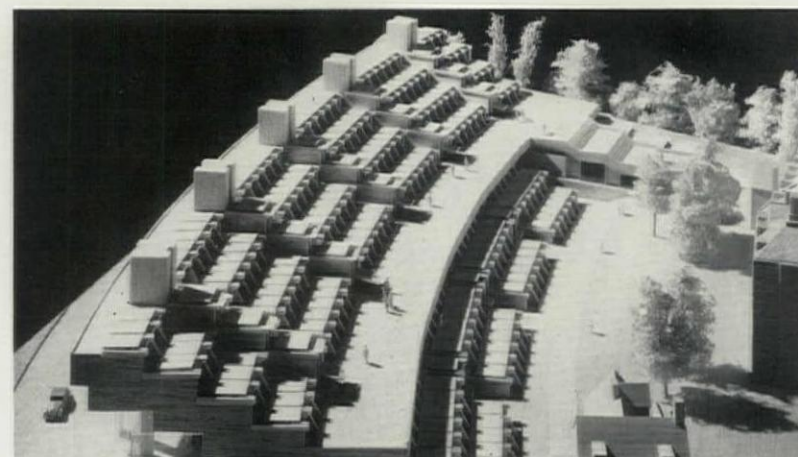
13. National Theatre, first version: 1965

This version, since abandoned, was for the site immediately down stream from County Hall and provided an opera-house as well as the theatres. It is a vigorous example of architecture conceived as urban landscape with its series of set-back terraces carrying on the themes of the different levels of the existing riverside terraces. The major interior spaces are marked by the positions of the fly-towers, and the terraced space separating the two main elements is an enclosed public area with its own civic function.



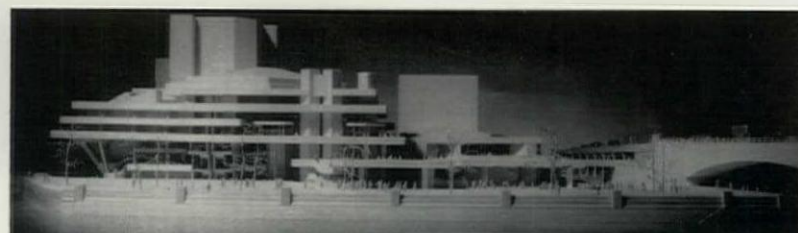
14. Residential Building for Christ's College, Cambridge: 1966

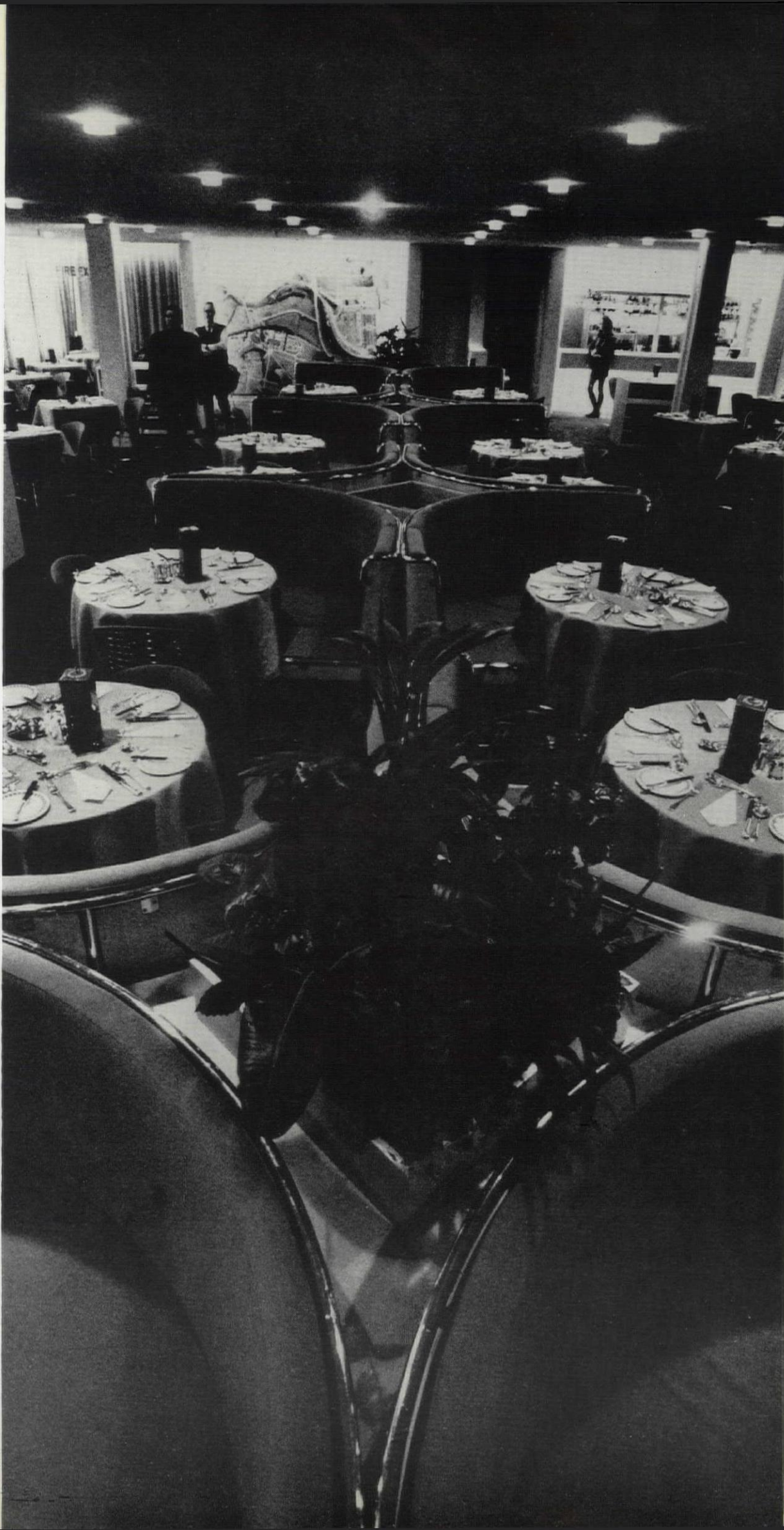
Now under construction, this is another example of Lasdun's use of the stepped-back section and of terraces at different levels. The stepping—compare London University (example 12)—creates space at ground level for a shopping arcade with service road and parking area. At second floor level the stepping back is increased to create a broad landscaped terrace. The east end adjoins the Fellows' garden, and here the terrace widens and steps down to form the roof of a lecture-room and common-rooms, linking eventually with the existing college buildings. Parking space for college use is provided above the shopping arcade at terrace level, from which the five staircases—their positions marked by towers—can be reached.



15. National Theatre, second version: 1967

This is the approved version, sited immediately downstream from Waterloo Bridge and without the opera-house. Building is expected to start next September. Like the first version it combines terraces for public use with terraces that are an extension of the theatre foyers. The stratification given to the building by these multi-level terraces compares with St James's Place (example 4), the Cambridge science project, 7, and the Surveyors' building, 8. They link up with the GLC's existing system of walkways and with Waterloo Bridge, and are designed for a possible future link, on the downstream side, with the GLC's Kings Reach housing development. The auditoria are the generating elements with their positions once again marked by the fly-towers. The lower fly-tower—that of the proscenium theatre—provides a transition in scale to that of the concert halls and art gallery across the bridge.





ID
INTERIOR DESIGN

353 Two store restaurants,
Kingston-upon-Thames
*Designers: Lucy Halford
& Associates*

359 Designs by Louis Osman

Two store restaurants, Kingston-upon- Thames

**Designers: Lucy Halford
& Associates in association with
Bentalls' Engineering
& Research Departments**

1, the waitress service restaurant with the bar in the background (right). The settees were specially designed to be demountable and to seat three people. Foam backs and seats upholstered in a deep cinnamon fabric from Donald Brothers, are held in position with press studs on ash-faced ply. The unit is supported on a tubular chrome frame. The Wilton carpet is beige with two shades of brown, the tablecloths orange Irish linen, and the tableware Wedgwood Royal Tuscan pattern.

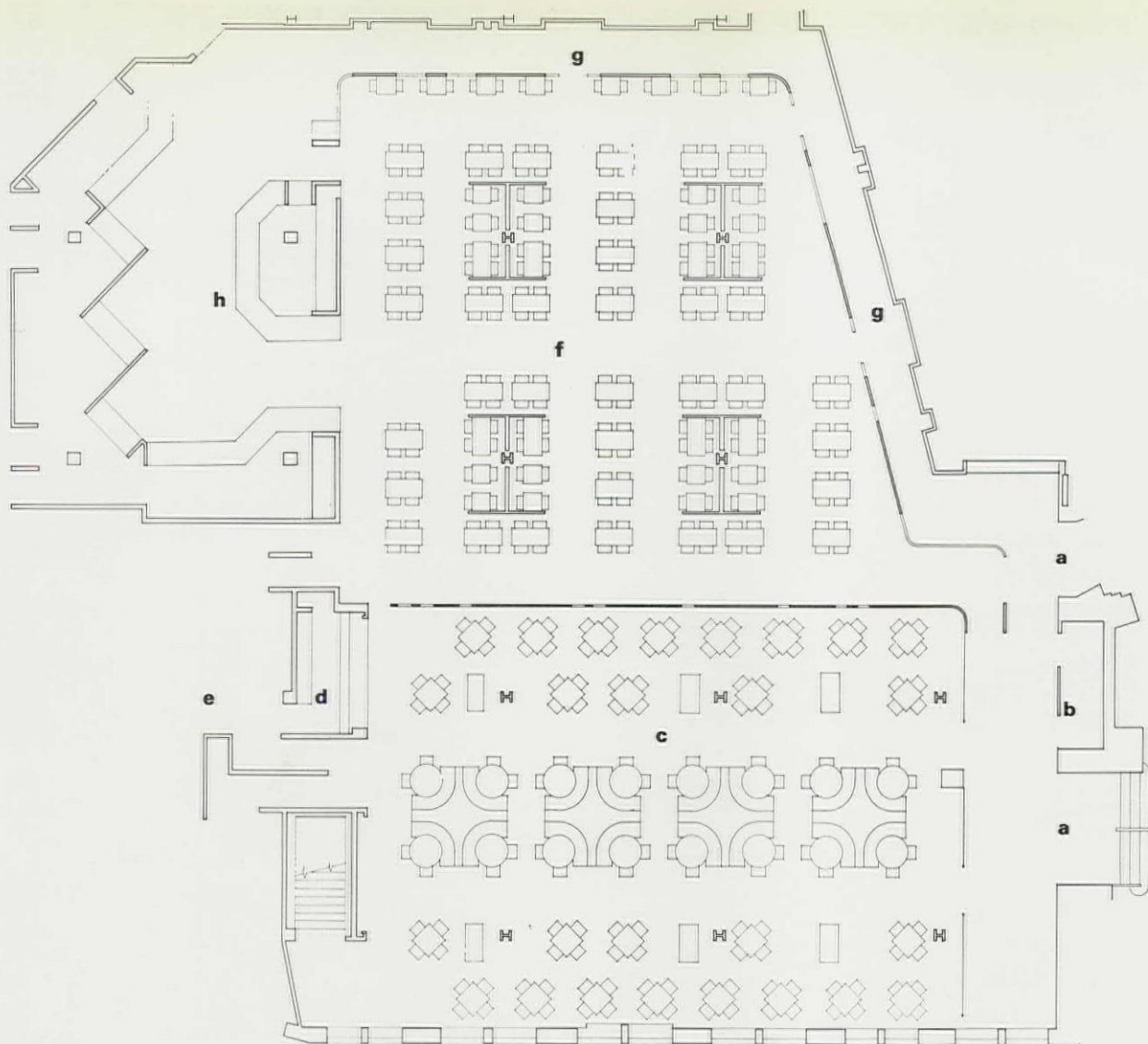
**Two store restaurants,
Kingston-upon-Thames**

Photographs by Tim Street-Porter

The two restaurants are part of Bentalls' store and replace the single restaurant which was there before. The Mulberry Tree is self-service and seats 220 people; the Thames Room has waitress service for 180 people. Except for the chairs, the designers' responsibilities included the design of all the free-standing furniture. They also designed the suspended light fittings in the self-service restaurant, selected the letter faces and typographical layouts, and advised on the choice of china, cutlery, table cloths and waitresses' uniforms. The research into self-service techniques and the modernization of the kitchen was carried out by Bentalls' own staff.

The restaurants are approached from the first floor, or directly from the ground floor by a special staircase. The planning was dictated by the existing position of the kitchen, by the new wash-up installation and by the need to provide plenty of queueing space in the self-service part. The public enter by one of two doors and can leave their coats and prams before choosing their restaurant. The Thames Room (waitress service), with its bar, its carpet and its upholstered seating, is more luxurious, its lighting is more subdued and its colour less provocative. It can be used for dances by folding back the central part of the screen which divides the two restaurants, and by erecting a mobile dance floor in the self-service part.

The Mulberry Tree (self-service) is constructed of harder materials (the floor is epoxy resin and the chairs are fibreglass), and makes use of sharper colour contrasts, although the actual colours used—natural ash, pale beige, siennas, oranges and blues—are the same as in the Thames Room. The suspended acoustic ceiling and the use of ash for all timber work is also common to both restaurants. The planning of the Mulberry Tree was based on the free flow self-service principle which requires a large servery (see also the article on food halls in AR, June 1968). After entering, the customer is channelled down a long carpeted passage, with an open screen on one side to allow him a view of the restaurant, and with menus and large photo-montages to keep his interest while he queues. At the entrance to the servery there is a stack of trays and another large menu board. Counters are arranged in échelon, separating the fast-moving from the slow-moving line and enabling the customer to go straight to the sections he requires before passing through one of the two cash desks. In the restaurant itself the position of the columns has been used to create pen-like compartments for tables and chairs, thus breaking up a large floor area into more intimate spaces.



plan: key
a, entrance
b, prams and coats
c, waitress service restaurant
d, bar
e, kitchen
f, self-service restaurant
g, queue
h, servery area

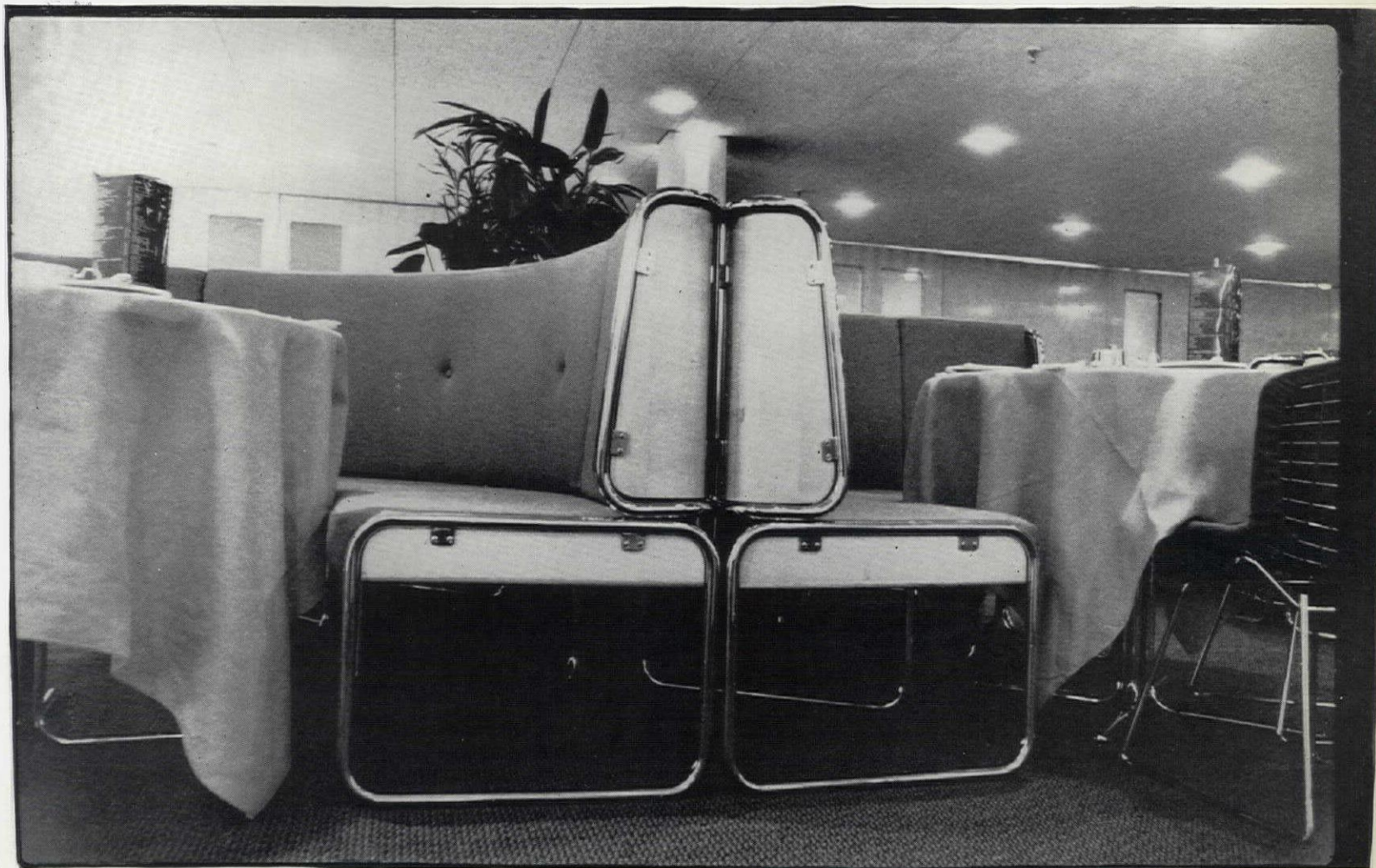
2, the self-service restaurant showing the end of the queueing passage with the open screen of red-stained panels and part of the large servery beyond.
3 (facing page), the self-service restaurant with pen-like compartments for tables and chairs.

4, the end detail of the settees in the waitress service restaurant showing the tubular chrome frame with the fixing tabs made into a feature.

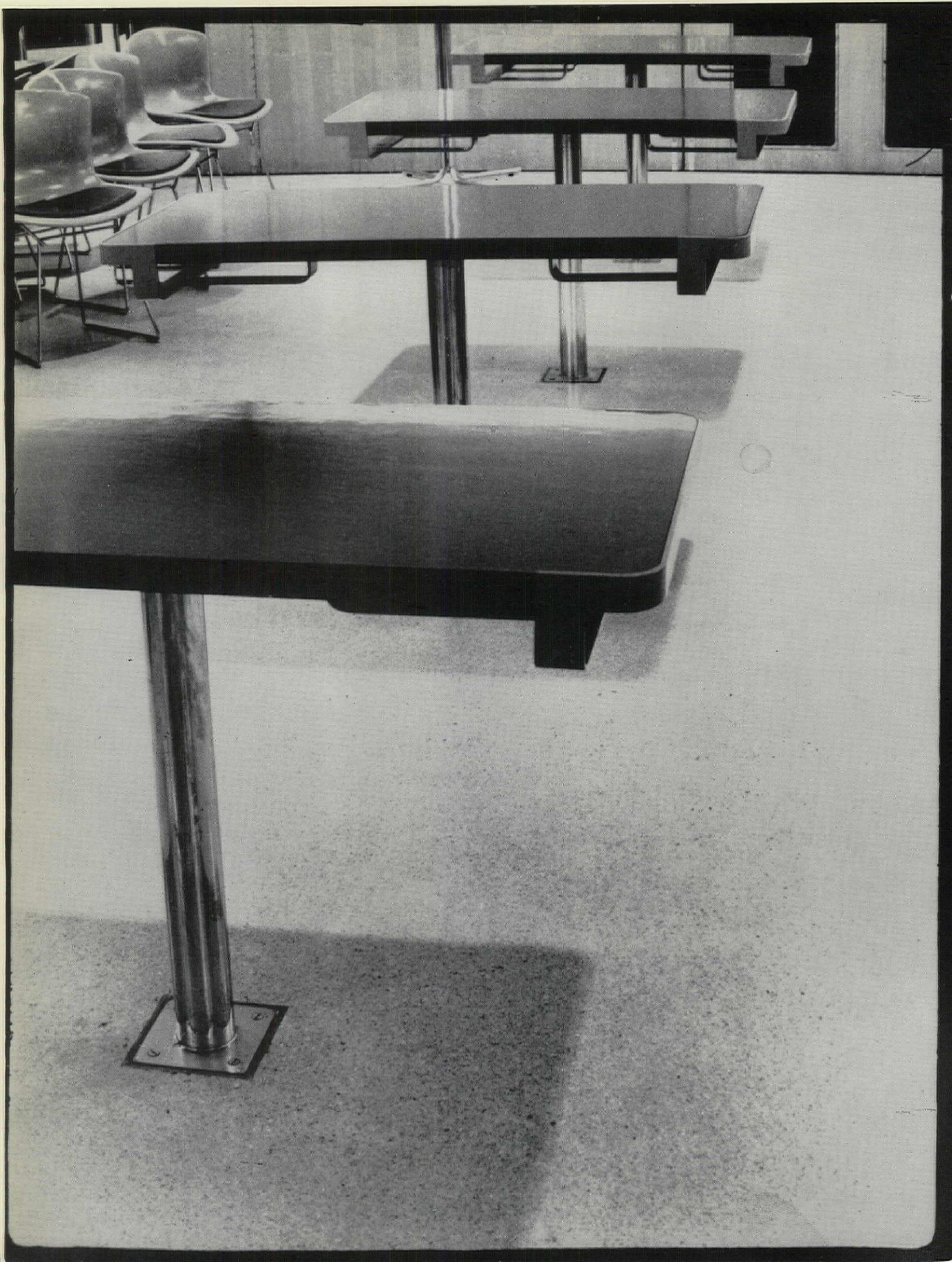


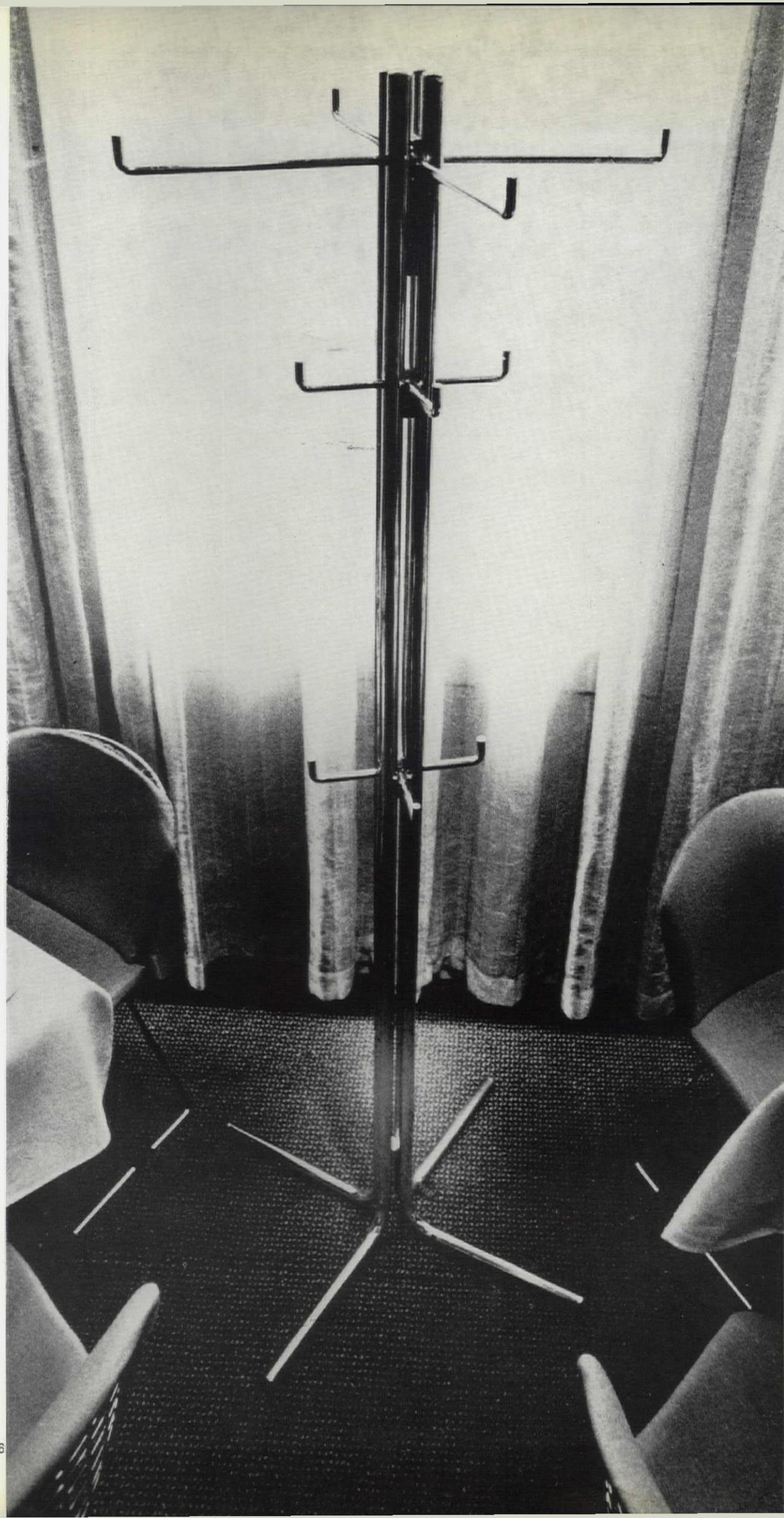


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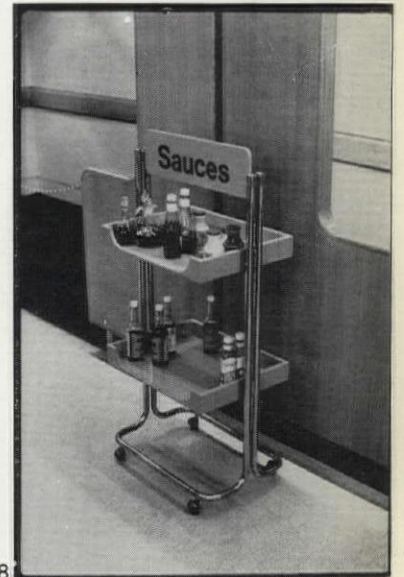


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7



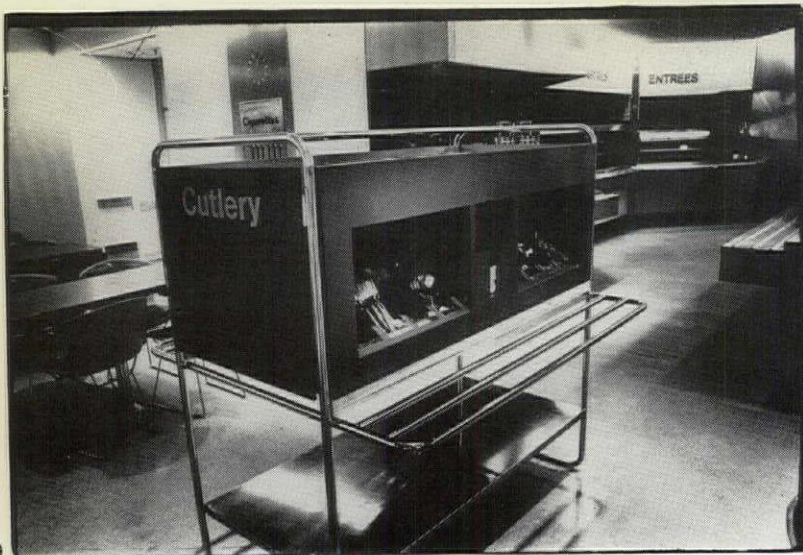
8

5, the specially designed demountable tables in the self-service restaurant at Bentalls have tops of blockboard faced with bright blue melamine and edges of bright red (nylon-dipped) mild steel which are bent under to form tray supports.

6, the specially designed hat-and-coats stand which is used for both restaurants. The curtains behind (in the waitress service restaurant) are a sheer fabric by Tamesa.

7, a detail of the seating arrangements in the waitress service restaurants. The chairs are Bertoia moulded fibreglass upholstered. The tables have tops of blockboard covered with Galon film, screwed to a tubular chrome frame with cruciform legs.

8, the sauce trolley in the self-service restaurant, made out of chrome tube on which two red-painted trays are suspended. The lettering is blue plastic fixed by adhesive.



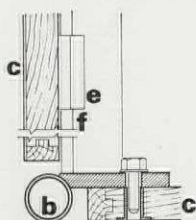
9

9, the cutlery unit in the self-service restaurant at Bentalls, made out of chrome tube and a carcass of laminated board fixed with melamine and lipped with ash (see drawings on right).

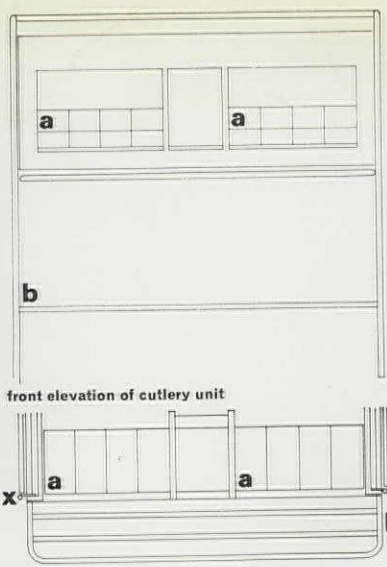
10, the cashier's pen in the waitress service restaurant, constructed in a manner similar to the settees. The screen behind is solar bronze plateglass.

11, the new hand-rail wrapped around the existing Jacobean-style newell of the store staircase.

key
a, inset plastic cutlery holders
b, 1 in. diam. polished chrome tube
c, $\frac{3}{4}$ in. laminated board, melamine faced and lipped in ash
d, bolt fixing through $\frac{1}{2}$ in. m.s. flange into tee nut
e, 2 in. by $\frac{1}{2}$ in. m.s. hooks
f, 2 in. by $\frac{1}{2}$ in. m.s. ties welded to tubing



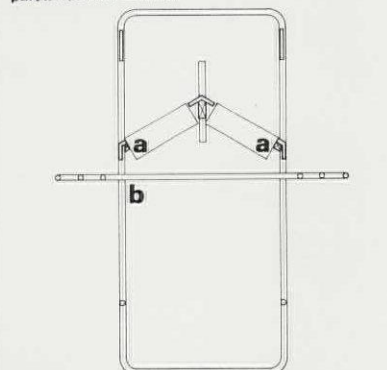
detail at X



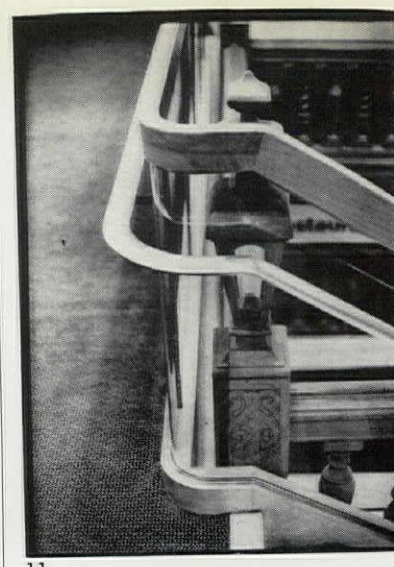
front elevation of cutlery unit



part horizontal section



cross section

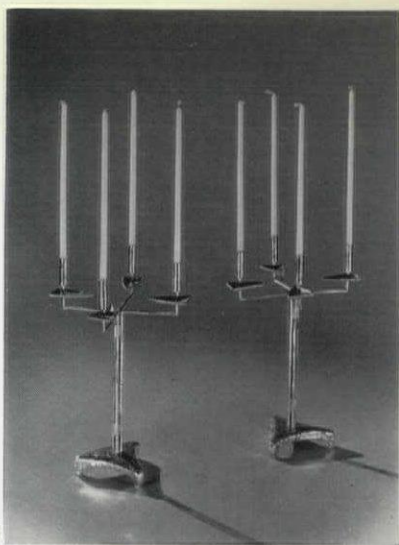


11

Two store restaurants, Kingston-upon-Thames



10



1

Designs by Louis Osman

Original is not a word to be used lightly, but the work of Louis Osman cannot properly be described without it. Architect, designer, jeweller, craftsman, there are few things that need designing that Osman has not set his mind to; there are none to which he would not. In the sphere of architecture his romantic medieval Northamptonshire house is filled with brilliant and abortive projects—a large extension to an Oxford college, an aluminium big top for Billy Smart's circus, a new village in Devon, an all glass house, an underground church beneath a 20-storey block of flats, to name a few.

His largely unfulfilled ability to juxtapose new and old successfully is shown by his rejected designs for the Nash terraces commissioned by London University, and for the church of St. John's, Smith Square (AR April 1961). His irreverent love of the past is a rare quality which few architects outside Italy can claim. Had he built more, Osman might well be rated alongside Scarpa in his brilliant approach to old buildings and old settings. But his frustration in architecture has released his talent to other fields. Self-taught over the last 13 years, he is a master-craftsman: maker and designer of jewellery, gold and silver.

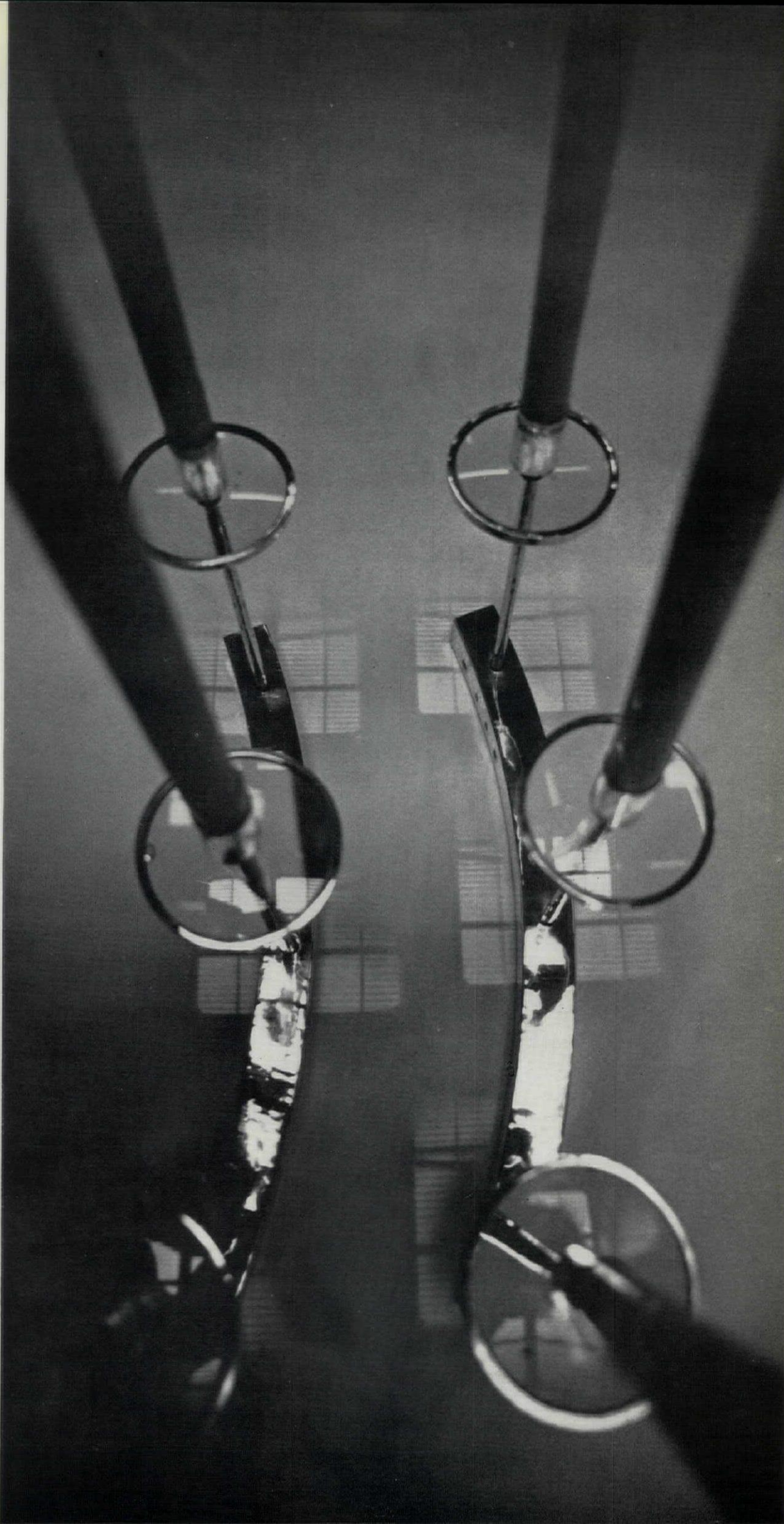
Osman has also proved adept at forming partnerships with artists and sculptors in a number of projects such as the magnificent Ely Cross, 18, which he designed and made in conjunction with Graham Sutherland, the Epstein Madonna and Child in Cavendish Square, 19, for which he provided a bridge link buttressing two ravishing mid-eighteenth-century houses gutted during the war, and with Geoffrey Clarke, another sculptor, in the Treasury in Lincoln Cathedral (AR June 1961), in the Principal's house at Newnham College,

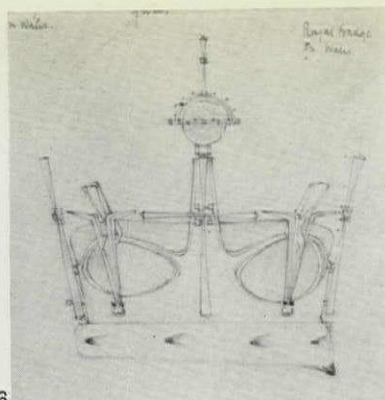
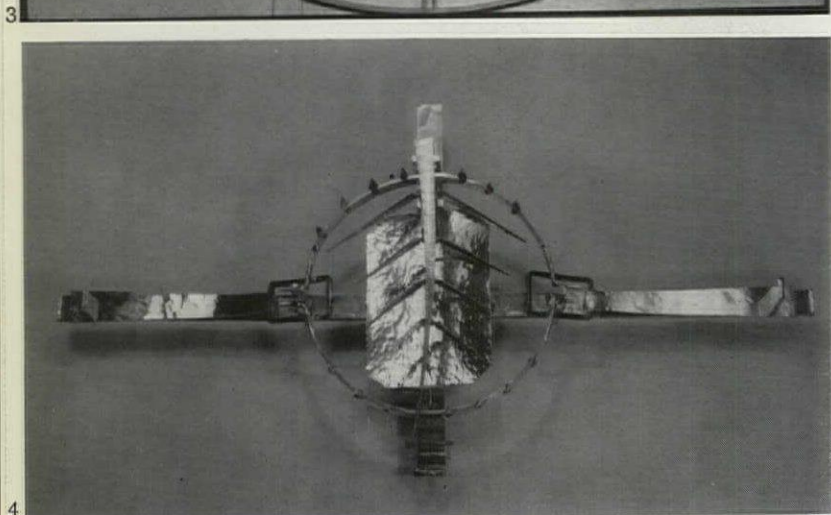
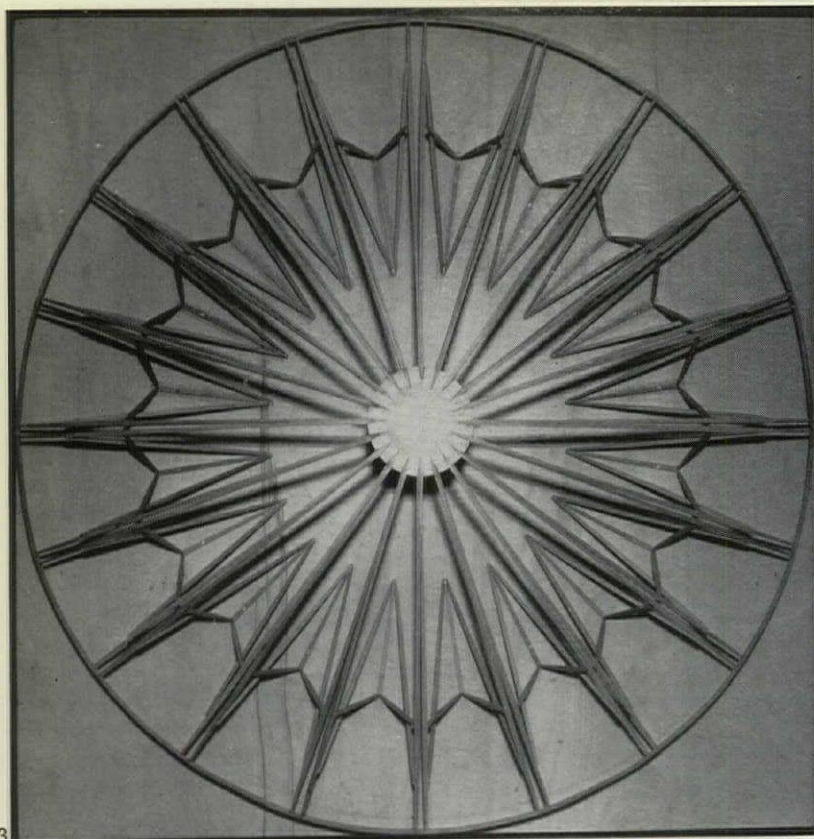
continued on page 362

1. pair of cast and forged silver candelabra. 1965.

2. pair of Britannia silver (magnesium alloy which can be tempered) candelabra with lens drip pans which throw a circular reflection of the candle flame on to the surface below. 1968.

2



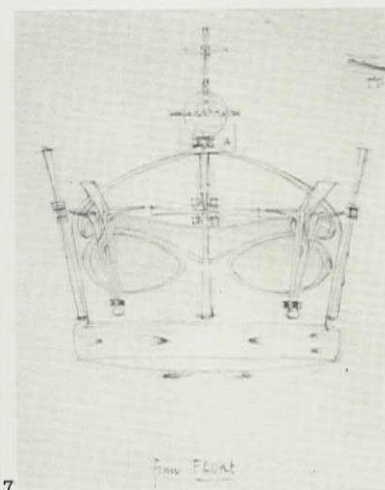


6

3, wooden model of an aluminium 'big top' for Billy Smart's circus which could be erected by harnessing the elephants to it and walking them round and round, gradually winching the top to its full height. 1961.

4, silver altar cross for a silver and perspex altar at King's College, London. Despair and hope are evenly balanced and the working 'mantrap' cannot entrap mankind 'because of the eternal power of the cross'. 1967.

5, gold web necklace set with diamonds which gained first prize in the De Beers Modern British Jewellery Competition 1961.



7

6, 7, electroformed fine gold crow for the investiture of HRH Prince of Wales to be set with 70 small diamonds and 16 emeralds. As a crown for a prince it is of one hoop. Motifs of crosses, pattee and fleur de lys are carried free of the body of the crown. 1969.

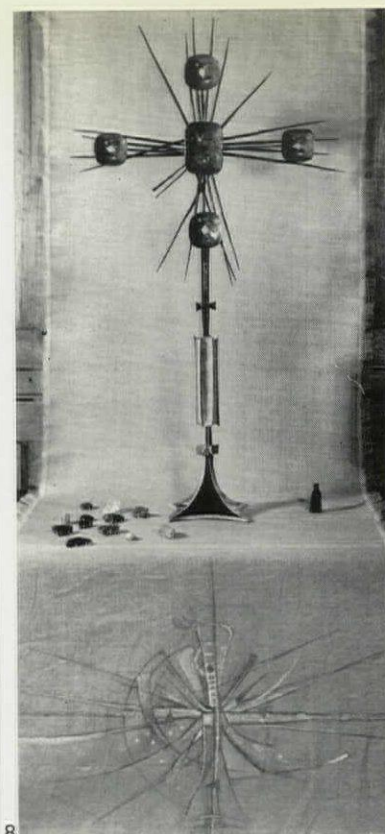
8, gilt iron cross with wood and red leather made for Shere Church Surrey incorporating four Geoffrey Clarke bronzes. The cross is standing on a mock-up for a frontal also designed by Louis Osman embroidered with representations of the 12 stones forming the foundations of the New Jerusalem in the Book of Revelations. 1959.

9, iron and brazing metal processional cross with blue stone set in a crown of Thomas made for Shere church. 1963.

10, stainless steel and ebony processional cross for Holy Trinity Maryland—the oldest parish church still in use in the USA. 1959.

11, one of a pair of altar candlesticks, part of an altar set, with rock crystal feet in the collection of the Goldsmiths' Company, London. 1965.

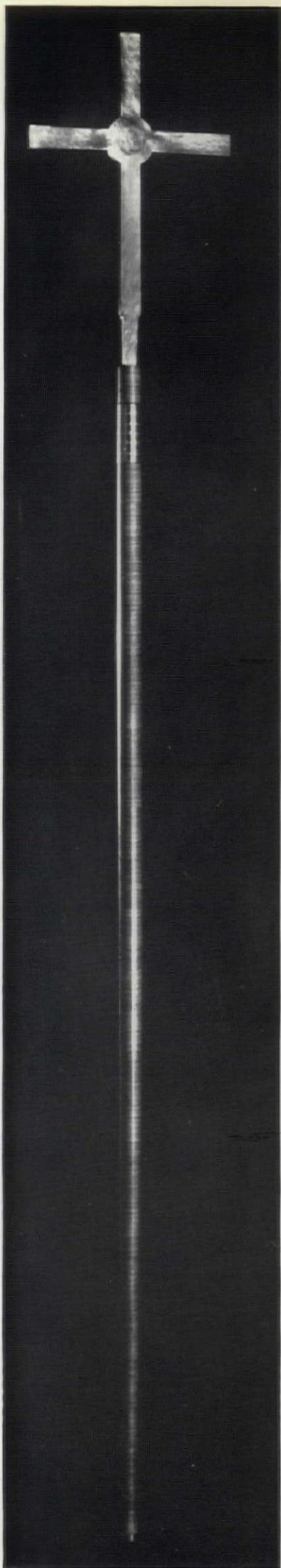
12, 13, altar cross, part of the same set, with a detail of the natural crystal fluoride boss. 1965.



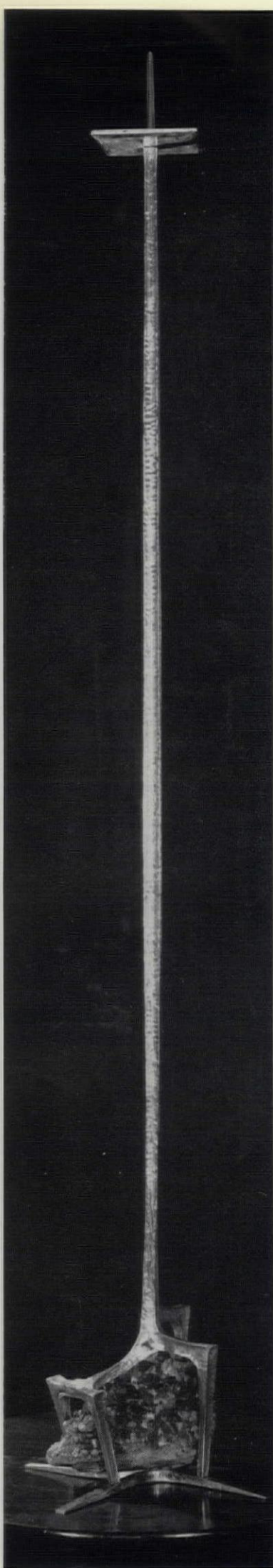
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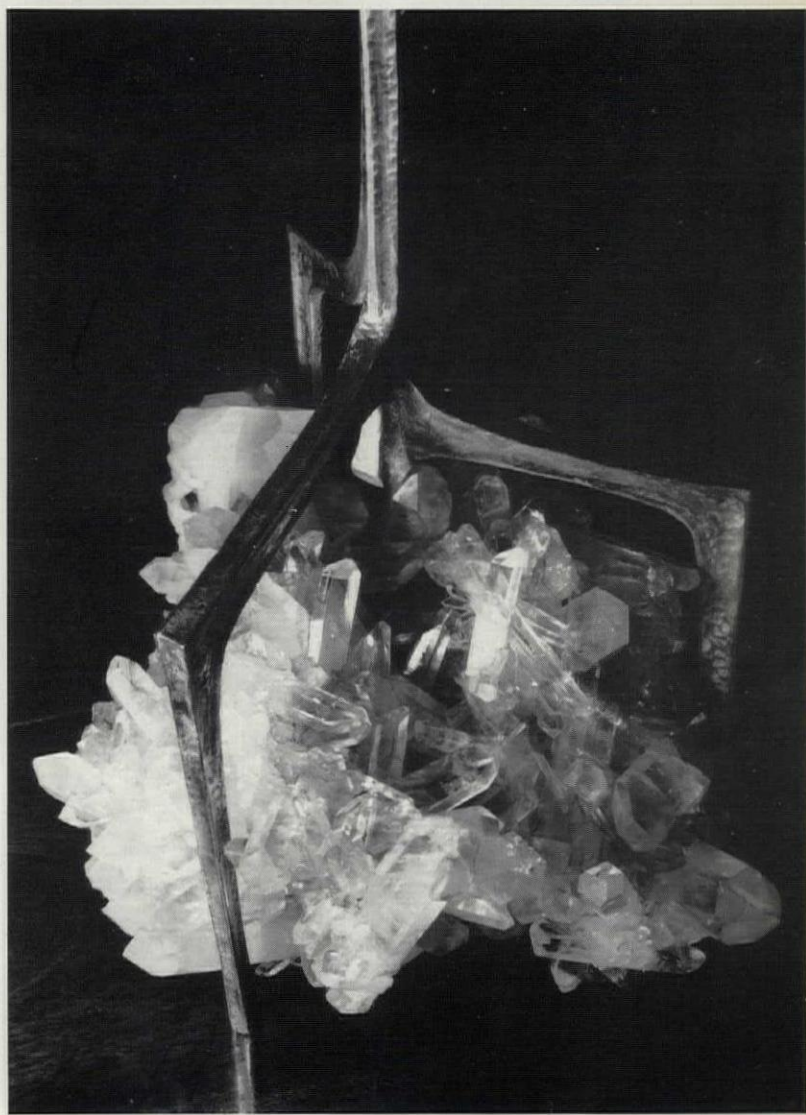
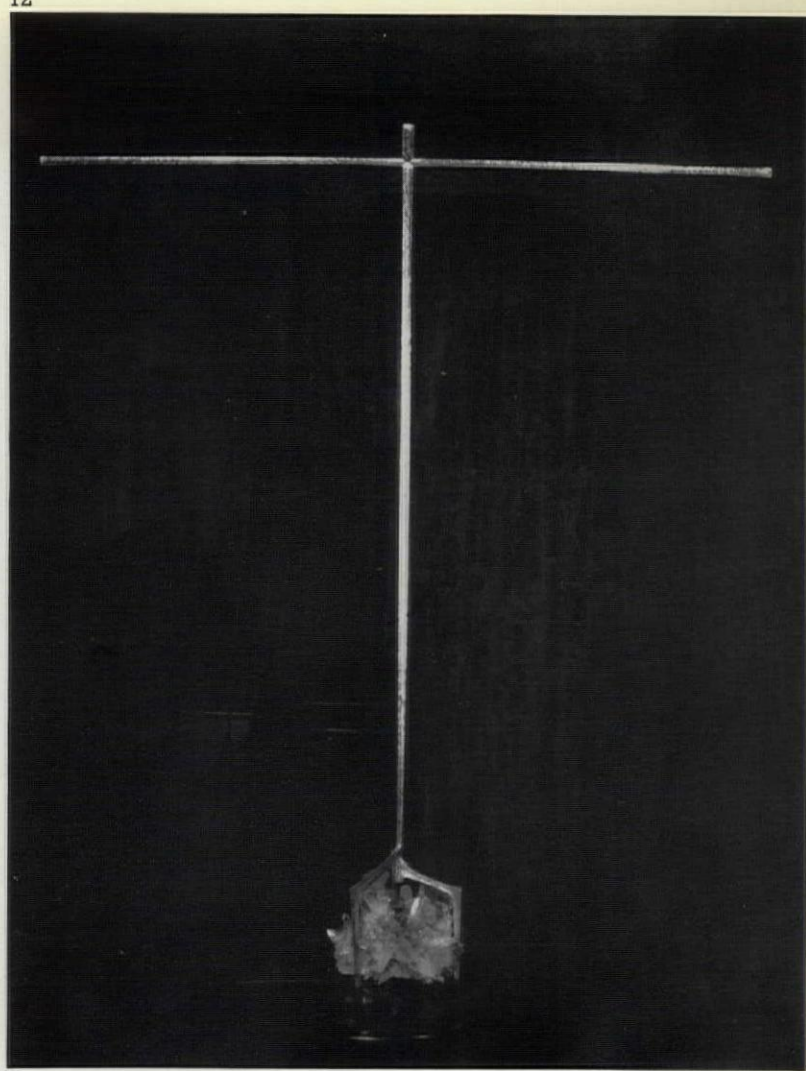
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10



11



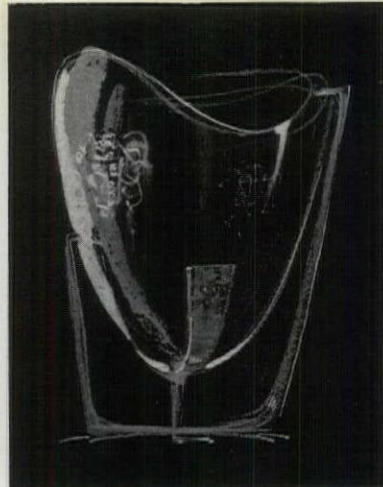
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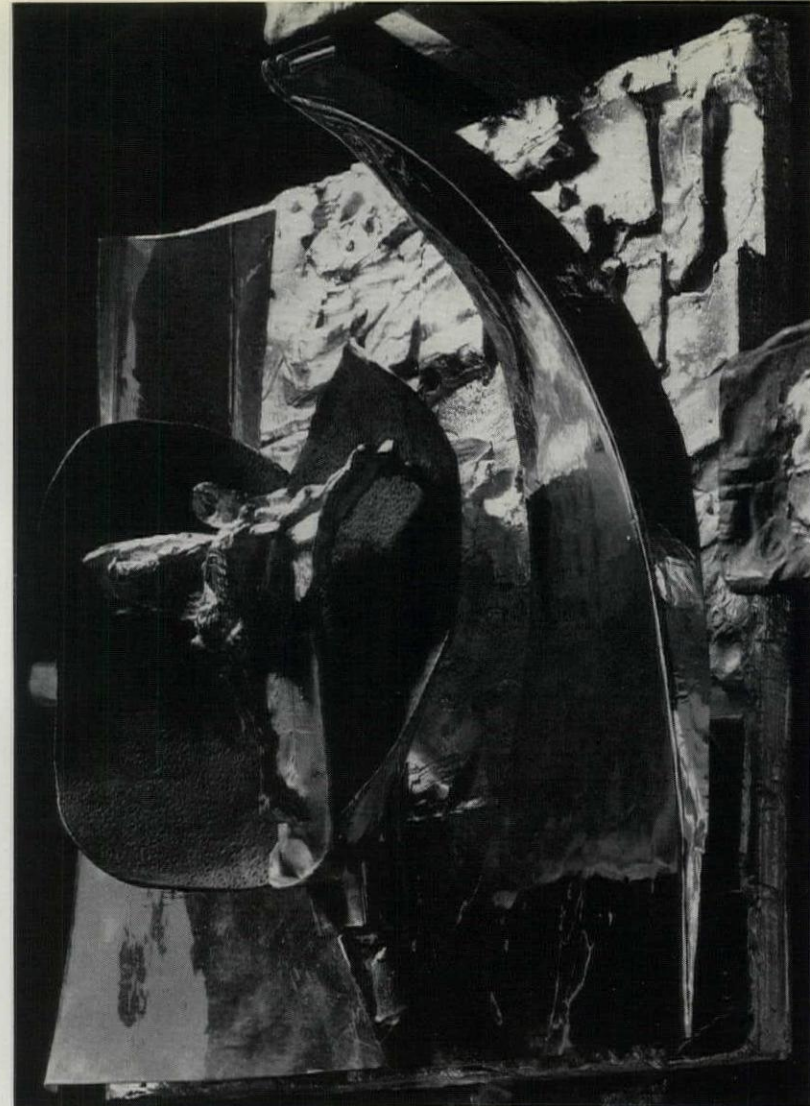
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15



18

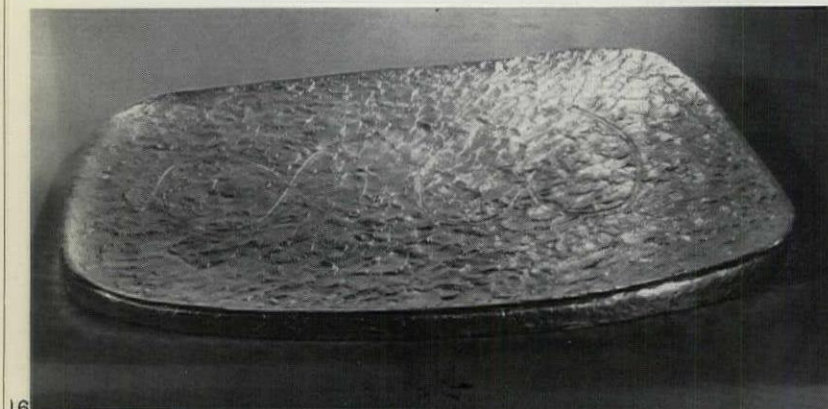


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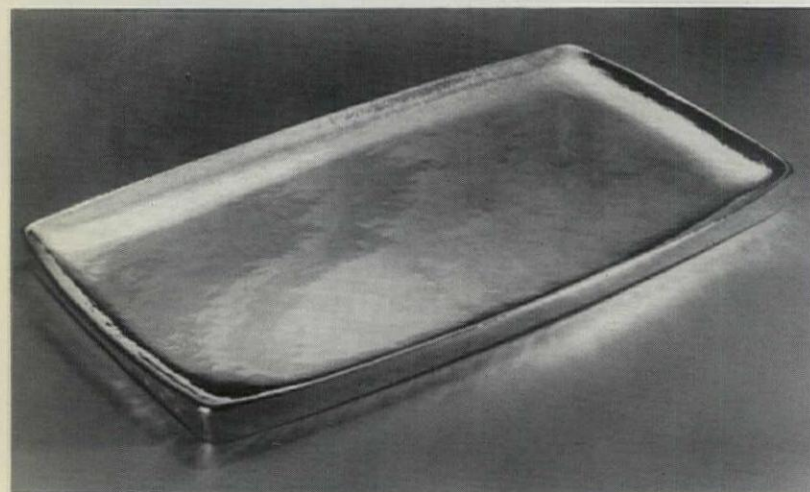
Cambridge, and in Shere church in Surrey, 8, 9.

His most recent commission has been to create a crown for the investiture of HRH Prince Charles at Caernarvon Castle as Prince of Wales—the first such crown to

be designed since the 1380s. Whether in the face of the combined forces of heraldic tradition and regal conservatism the crown can be as original as his other work one can only speculate. What cannot be questioned is his diverse talent.



16



17

14, Cast silver and silver gilt champagne goblet borne by Bacchus 1959.
15, project for a crystal jug held in a silver mount, 1964.

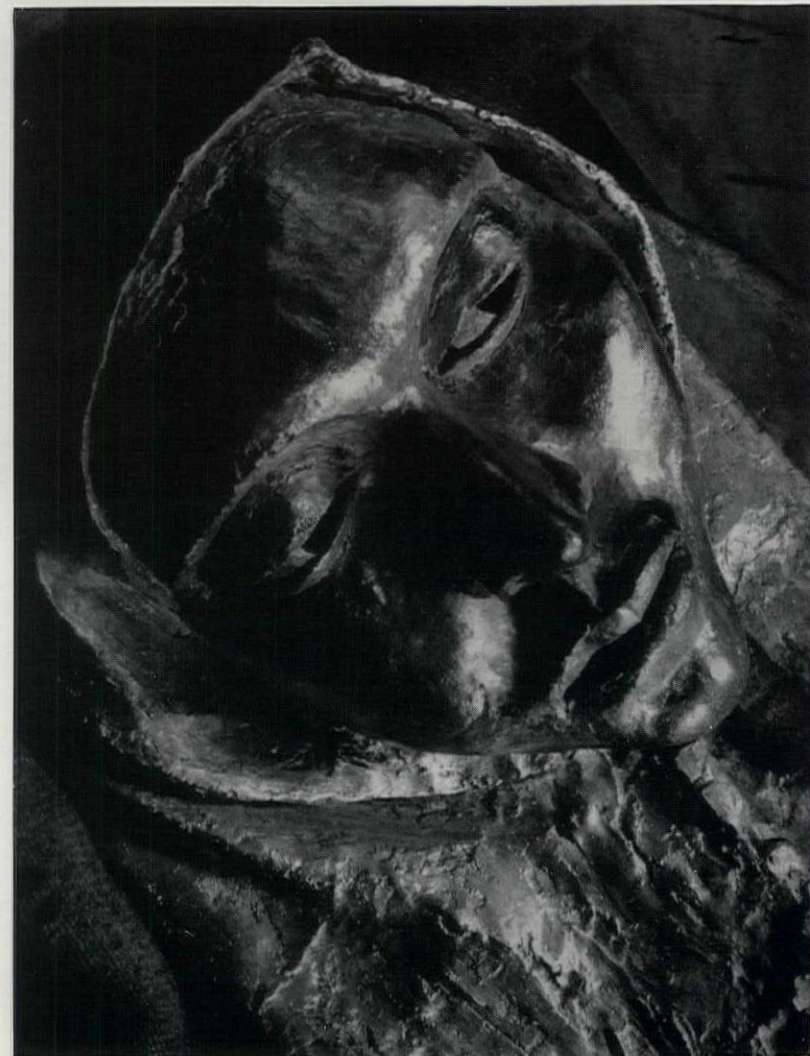
16, large silver alms dish with gilt incised letters alpha and omega, in the collection of the Goldsmiths Company. Cast and hand raised with sledgehammer, 1959.

17, silver gilt entrée dish, hand raised, 1964.

362

18, the Ely cross 'one of the very few twentieth-century Christian statements showing real conviction and originality'. The crucifix by Graham Sutherland is in gold set against a nielloed silver heart. The cross is silver with square silver nielloed slabs as hands, with gold fingers, 1967.

19, lead head of Epstein's Madonna and Child, 1958.



19



100 WATT
Patt 100 Mini-profile Spot



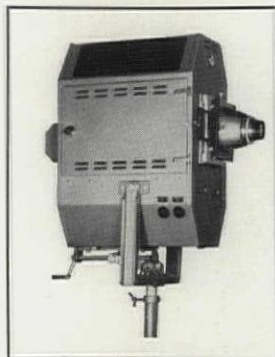
500 WATT
Patt 23 Profile Spot



2000 WATT
Patt 243 Fresnel Spot

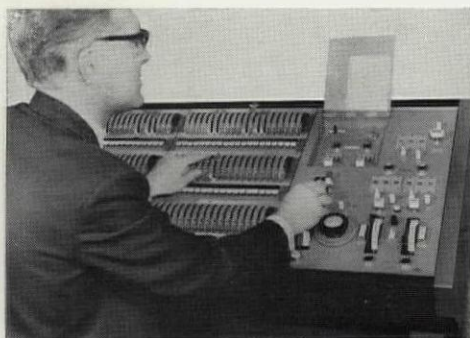


1000 WATT
Patt 263 Profile Spot

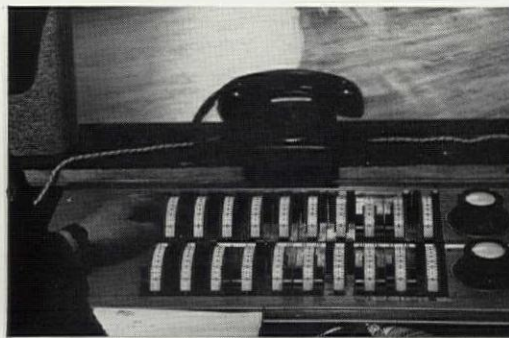


4000 WATT
Patt 152 Effects Spot

Only Strand make lighting units and controls for every theatrical occasion



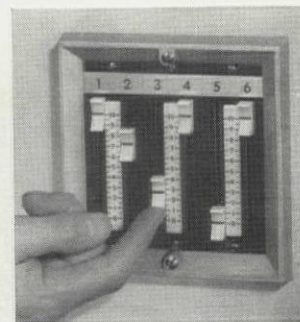
The latest Strand control is the IDM (Instant Dimmer Memory) System which is now going into the London Coliseum. This can provide 250 presets with recording and playback facilities on all channels.



An economic 2-preset system, as this one supplied to a Northern Variety Club, has 20 channel levers and is installed at the rear of the auditorium with a clear view of the stage.



Strand make all sizes of preset controls. The Ten/20 shown here is portable with the variable load thyristor dimmers built in. No separate dimmer room is needed.



Strand also produce miniaturised electronic controls which can give infinite regulation of light intensities required for room lighting in restaurants, clubs and similar architectural lighting situations.

The Strand SP Control system provides control facilities for up to 80 dimmer channels. Illustrated is one for 60 dimmer channels installed for theatre use and providing 3 presets and push button switching to each channel.



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Integration

Once, Lillington Street was remarkable only as a part of Pimlico. Then, in 1968, Rush & Tompkins completed the Lillington Street Housing Scheme, (phase I).

Lillington Street became a complete community. Six blocks of

crosswall construction, using calculated loadbearing brickwork, built on pile foundations.

Six blocks containing 311 varied dwellings; an old peoples' hostel; ground floor communal and administrative

areas; public houses; a large underground car park; and well planned roads, paths and other services.

Six blocks of many parts, but constituting an integral whole.

*Clients—Westminster City Council
Architects—Darbourne & Darke
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The disastrous effects of ill-considered zoning on the conservation of historic places is unsufficiently realized. Harmless looking boundary lines on a development plan all too often sign the death warrant of a valuable environment.

The value in human terms of recognizable places in the fabric of a city cannot be overstated. Without them the city is amorphous, incomprehensible—with them it adds up, it makes sense. Such places may vary in size from large squares to tiny pocket-handkerchiefs of space,* but their character and individuality, how they differ from each other, is all important. Accident often plays a part here and should be respected—if the end result is good, keep it. For surely the art of city planning should consist mainly in the creation of real places—reinforcing those that exist, creating new ones and forging the links

between them, so that serial vision and connected experience become possible. To do this requires first of all recognition (and here the townscape survey is essential) followed by designation as Conservation Areas. Then, reinforcement—filling the gaps, bringing them up to scratch physically.

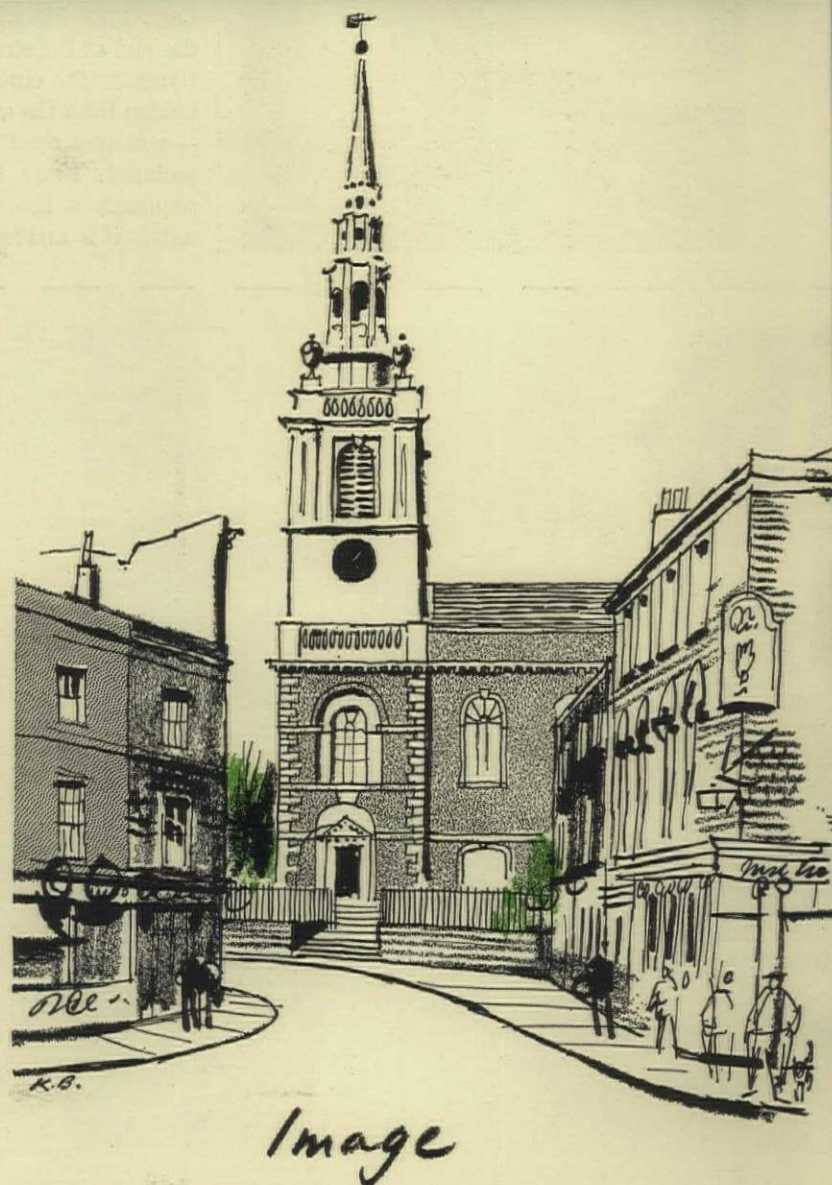
But what in fact usually happens? We find that all too often places are obliterated; generally through a failure to recognize and value them. Roads smash through, enclosure is lost, landmarks are erased.

Perhaps most damaging of all, seen in retrospect, is one of the planner's own tools—the zoning diagram, which divides the map into areas of different uses; industry, schools, open spaces and so on.

Naturally the planner wishes to feel that he has things under control, and the more he can tidy up, the easier it becomes to calculate how many areas of this or that he is dealing with. So with puritanical zeal he makes the crooked ways straight. But, since all this is worked out on a plan, not on the ground, it is not surprising that the very things the planners want to iron out are often the idiosyncrasies we value as townscape. As Jane Jacob 5 has said, 'all too often the planner puts a straitjacket on a living organism'. Furthermore paper planning frequently leads to the swapping of parcels of ground between different authorities quite regardless of what effect it will have on the look of the place. So to-day we are suffering the effects of

[illegible]

A. Plan now: showing areas zoned for public open space and school expansion. The buildings shown in green tint should be kept. **Key:** **A** Clerkenwell Green. **B** Sessions House. **C** St. James's Clerkenwell. **D** St. James's Gardens. **E** Open car park (at lower level). **F** gap in street wall.



1 view up Clerkenwell Close to St. James's Church.



Approaching from the south, the classical facade of the Sessions House, 2, indicates the presence of Clerkenwell Green—the rounded street corner easing you in. The exclamation mark of St. James's Church announces your arrival, 3.



decisions made twenty or more years ago—their deadly effect trundling on regardless. And many of these decisions look as though the person who made them can never have visited the site at all.

EXAMPLE

Take the Initial Development Plan for Greater London (Town Map), a giant red jigsaw puzzle superimposed on the existing plan. It looks impressive—the planners obviously knew what they were about. But did they? Focus down to a small area and you begin to doubt it.

Take CLERKENWELL GREEN. Here is a place (but not a showplace) with strong identity and a long history. In plan (see page 363) it consists of a long triangle, A, the original green, bounded by terraces which contain the space. At the blunt west end it is dominated by the Sessions House, a handsome stone Palladian building of 1779, B. On the north side, to quote Dr. Pevsner, 'the parish church appears up a side lane . . . an effect familiar for example from Amsterdam'. This is Clerkenwell Close and very charming it is too: first-class townscape with the splay entrance happily echoed by the curve of the churchyard's retaining wall. The church itself, C, St. James's (by James Carr, 1788-92) with its handsome tower, fills the end of the street, 1. Next to it St. James's Gardens (the churchyard) D is raised up and hidden from the green by the wall of buildings—a second open space, this time well treed, secluded, away from the traffic and consequently a favourite place to sit. Unfortunately it is marred today by dreary municipal

gardening and asphalt, and by a large car-park at a lower level on the north side, E.

The area has many good buildings which should be kept (tinted on plan A), though they are often in poor repair; also some very bad buildings which could be replaced with advantage, notably Clerkenwell House which is sadly out of scale.

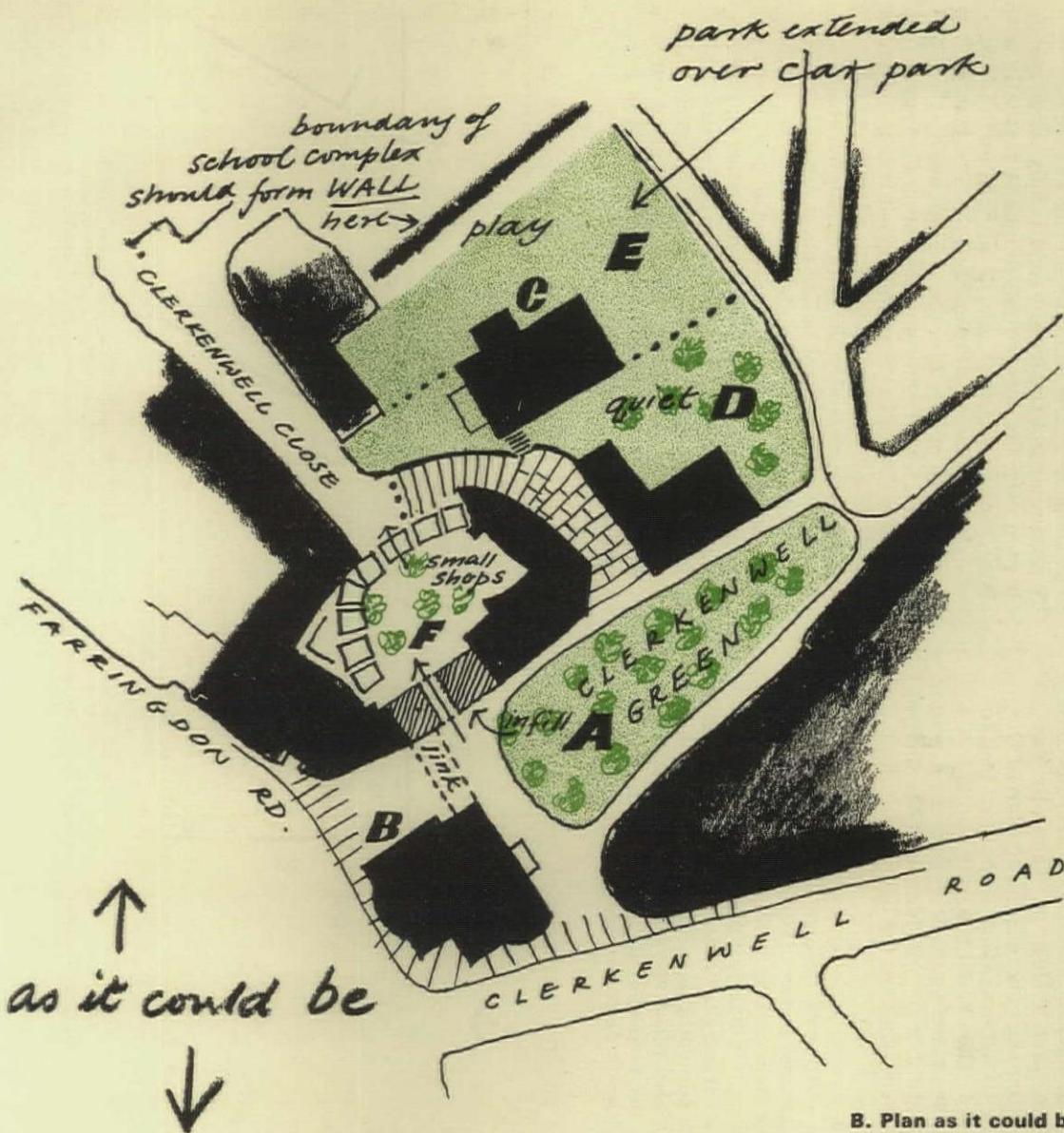
Returning to the green you wonder why there is a gaping hole in the north wall of the square F. A close look at the Development Plan shows why. The whole area outlined in green has been zoned as open space (while that enclosed by a broken line is earmarked for ILEA extensions to an existing school).

What does this mean? Presumably that the planning fetish for opening things up, letting some fresh air in, threatens the whole place. Unless the zoning is changed, the entire north side of the square will come down (hence the hole), including Clerkenwell Close which is the symbol of the whole place, its significant image. Already blight has set in, with many buildings neglected and no doubt condemned, when in fact they could and should be rehabilitated. Just imagine the final scene if the zoners should have their way. Instead of the human, devious, interlocking of spaces and levels we enjoy today, the whole thing will be bulldozed wide open with the church and St. James's Gardens left draughtily exposed to the traffic on the south side and facing a

as it is now



CLERKENWELL



loose collection of school buildings in the north. What a prospect. Then why do it? To raise the quota of open space? Fine, but there are so many other areas which are shapeless, not real places like this one, which could only benefit from such a treatment. And anyway open space could be gained here in a subtler fashion.

SUGGESTIONS

First of all change the zoning and designate this as a Conservation Area with the buildings renovated or sympathetically replaced, and street lines infilled where necessary.

Then, why not make it a green once more? Today the central space is a chaotic dump of parked cars, public lavatories and road signs, 4. Surely it would be possible to exclude the traffic (at any rate from the north side) routing it on to Clerkenwell Road (see plan B alongside).

With trees and suitable landscaping the central space could look like 5, with the west end enclosed visually by an extension to the Sessions building (now offices). At present this end is draughty and off balance.

The second space, St. James's Gardens, instead of being opened out should be further enclosed and extended over the area E and carefully landscaped, with the present car-park put underground. New school buildings on the boundary should then be designed to present a wall tightly enclosing this side.

It is essential that the Borough of Islington should see that something like this happens, but the point is that every borough has its Clerkenwell Green, real places which need to be recognized and revived, not zoned out of existence.

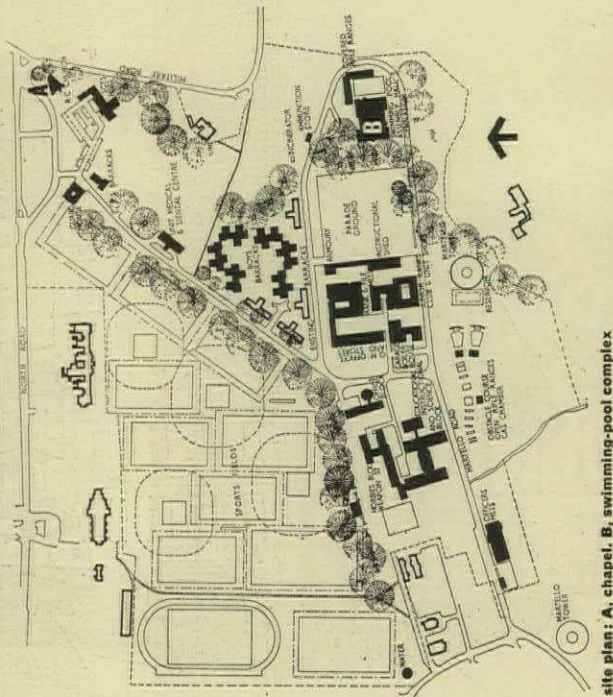


CHAPEL & SWIMMING-POOL SHORNCLIFFE CAMP

ARCHITECTS: B. AND N. WESTWOOD, PIET AND PARTNERS

PHOTOGRAPHS: COLIN WESTWOOD

Shorncliffe camp lies to the west of Folkestone and the army have used a large area of land on this plateau, some 240 ft. above the sea, for many years. Part of it is Moore Barracks, which has now been rebuilt—all except four blocks dating from 1937, which have been retained—to serve the new purpose of a barracks for 750 boy soldiers and 150 teaching staff. The project



consists of a complete range of buildings (see site plan) much like those required for a boarding school.

Only two of the buildings are illustrated here: the swimming-pool (which shares one building with the assembly hall and the gymnasium) and the Roman Catholic chapel.

The cliff-top site is partly covered with trees and partly with rough grass and gorse; it falls gently in a northerly direction. A wooded valley penetrates it from the east and along its base is a public footpath. Being on a cliff top the site is extremely exposed, with strong winds and rain driving almost horizontally at times. The *Roman Catholic Chapel* is a small building, seating only 100, but it occupies an important site, being one of the first buildings seen when approaching the camp. It is triangular in shape with its entrance between the folds of brick walls, and the sloping shingle-covered roof carried nearly to the ground. The base of the building is in the form of a concrete saucer, from which spring the timber trusses forming a

tent-like structure, the interior being lined with softwood boarding. The height of the roof at the apex is raised to allow for the guildroom to be placed above the vestry and sanctuary and, over that again, a small choir gallery. Light enters through amber-coloured cast glass on the eastern side.

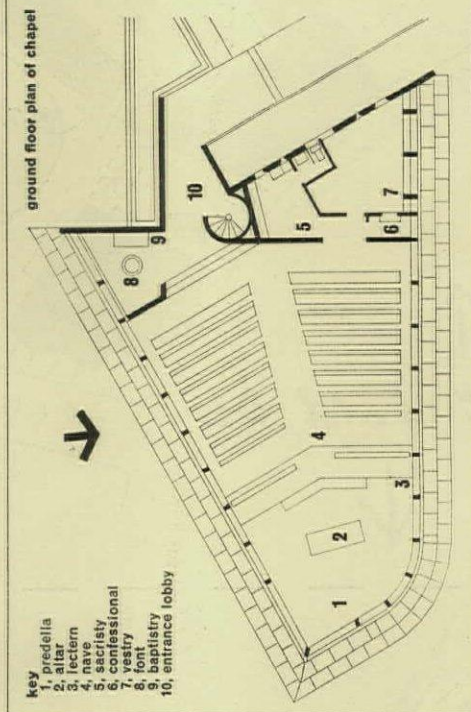
Costs were reduced by using the ground as shuttering for the rim of the concrete saucer. The ground level was raised by using surplus spoil from nearby foundations and left throughout a winter to consolidate. Trenches were then dug in the earth, lined with polythene sheet and the concrete poured in. In due course the earth within the cast walls was dug away, exposing the concrete impression of the trench wall and giving a weather worn marble-like appearance. Inside the chapel the only applied decoration is a bas-relief panel depicting the stations of the cross, stretching the full length of the chapel, and a Madonna; the sculptor for both was John McCarthy.

The Gymnasium, Assembly Hall and Swimming-Pool complex forms a group on its own lying to the east of the three-acre parade ground. The changing rooms form the centre, around which the gym, the swimming-pool and the assembly hall are placed. The low cost allowance imposed set the pattern of construction for the majority of the buildings in the barracks. Load bearing brick walls, often showing fair faced work both sides, are used extensively, particularly in this complex. A Holbrook facing is used, an extruded

perforated brick with an applied sanded surface of a dark reddish brown colour. This type of brick, and strong horizontal bands of concrete forming the capping to the walls and other repetitive details, such as windows, are used throughout the project to give unity to the various buildings. The baths are covered with a folded concrete slab, insulated on top with wool and sprayed internally with asbestos. This reduces the high level of noise normally associated with swimming pools, and is useful in counteracting condensation. As a further measure warm air is blown in at the base of the windows on the west side.

To accommodate the height required by a five-metre board, a raised concrete roof, finished externally with slates, covers this area. At the same time it allows daylight to enter in a dramatic way. The brief laid down a width of 6 ft. 2 in. for the surround at either side, which unfortunately precludes space for spectators. The plant room is placed below the squash court at the deep end of the pool, with ducts for services running under the pool surround. Heat is obtained from a central boiler plant situated in the centre of the barracks complex.

Partners in charge, N. C. Westwood & Z. J. Piet. Associate, D. H. A. Evans. Civil engineer, G. Liffon (Ministry of Public Building & Works). Structural engineer, P. R. Harmar. Mechanical and electrical engineers, Oscar Faber & Partners. Quantity surveyor, C. M. Needleman (Stanley Axtell & Partners). For contractors see page 392.



- key**
- 1, predella
 - 2, lectern
 - 3, nave
 - 4, sacristsy
 - 5, confessionals
 - 6, vestry
 - 7, choir
 - 8, baptistry
 - 9, entrance lobby
 - 10, entrance lobby

ground floor plan of chapel

plan at guild room level

plan at choir gallery level

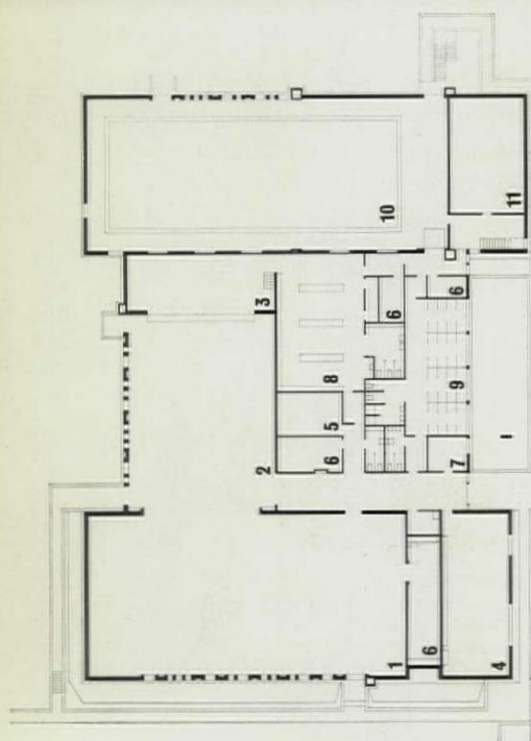
Facing page: 1, the chapel from the north-east. 2, detail of the cast concrete wall inside the chapel. 3, looking towards the altar.



1 2



3



key
 1, gymnasium
 2, assembly hall
 3, stage
 4, lecture or fencing room
 5, instructors
 6, store
 7, office
 8, other ranks' changing room
 9, swimming-pool changing room
 10, officers' or female changing room
 11, squash court

ground floor plan of swimming-pool complex (shown to twice the scale of chapel plan)



4, the swimming-pool complex from the south-west.
 5, the pool hall. The roof rises to accommodate the 5-metre diving board, and is sprayed with asbestos to reduce noise.

CHAPELANDSWIMMING-POOL, SHORNCIFFE



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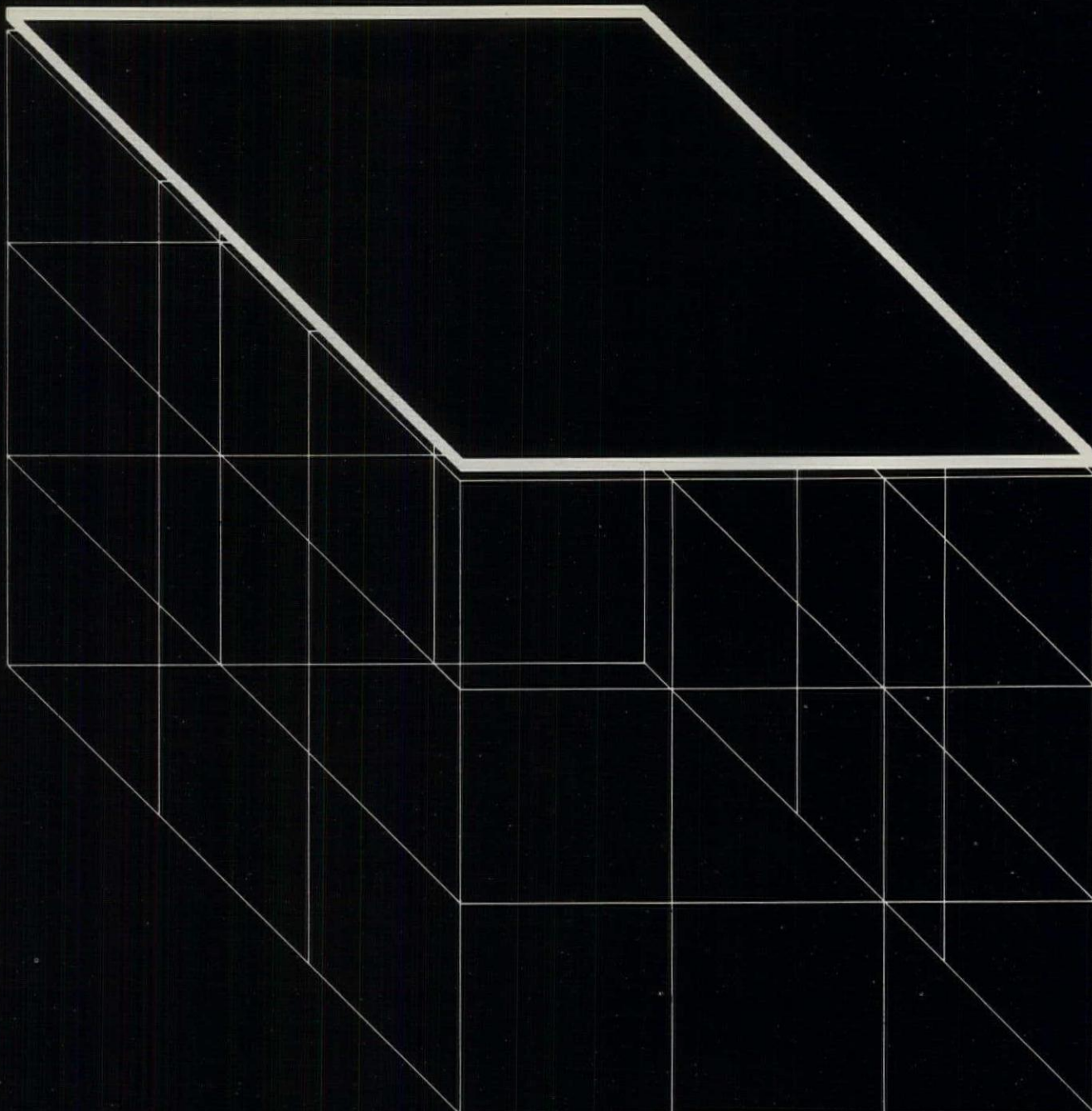


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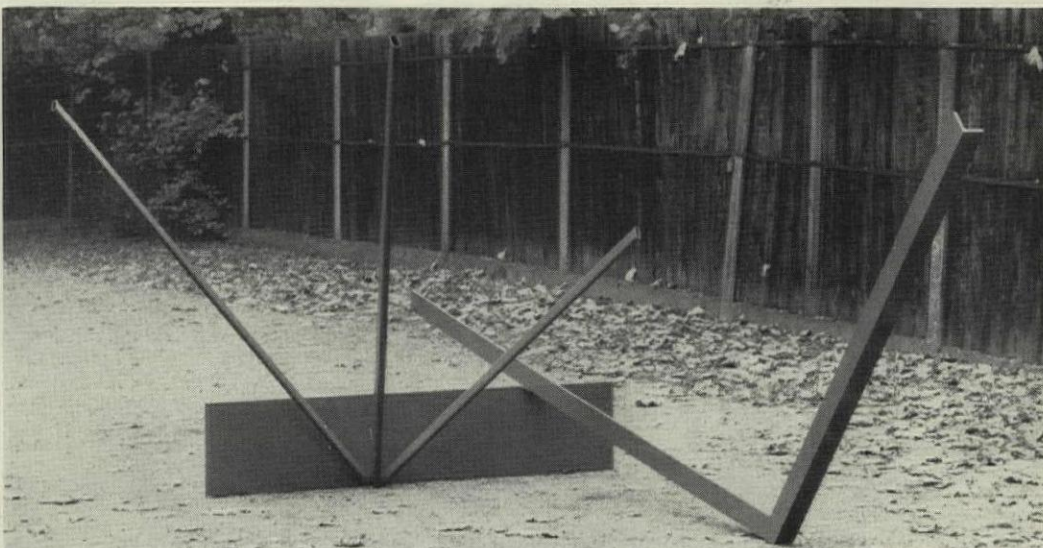
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INTERPRETATIONS

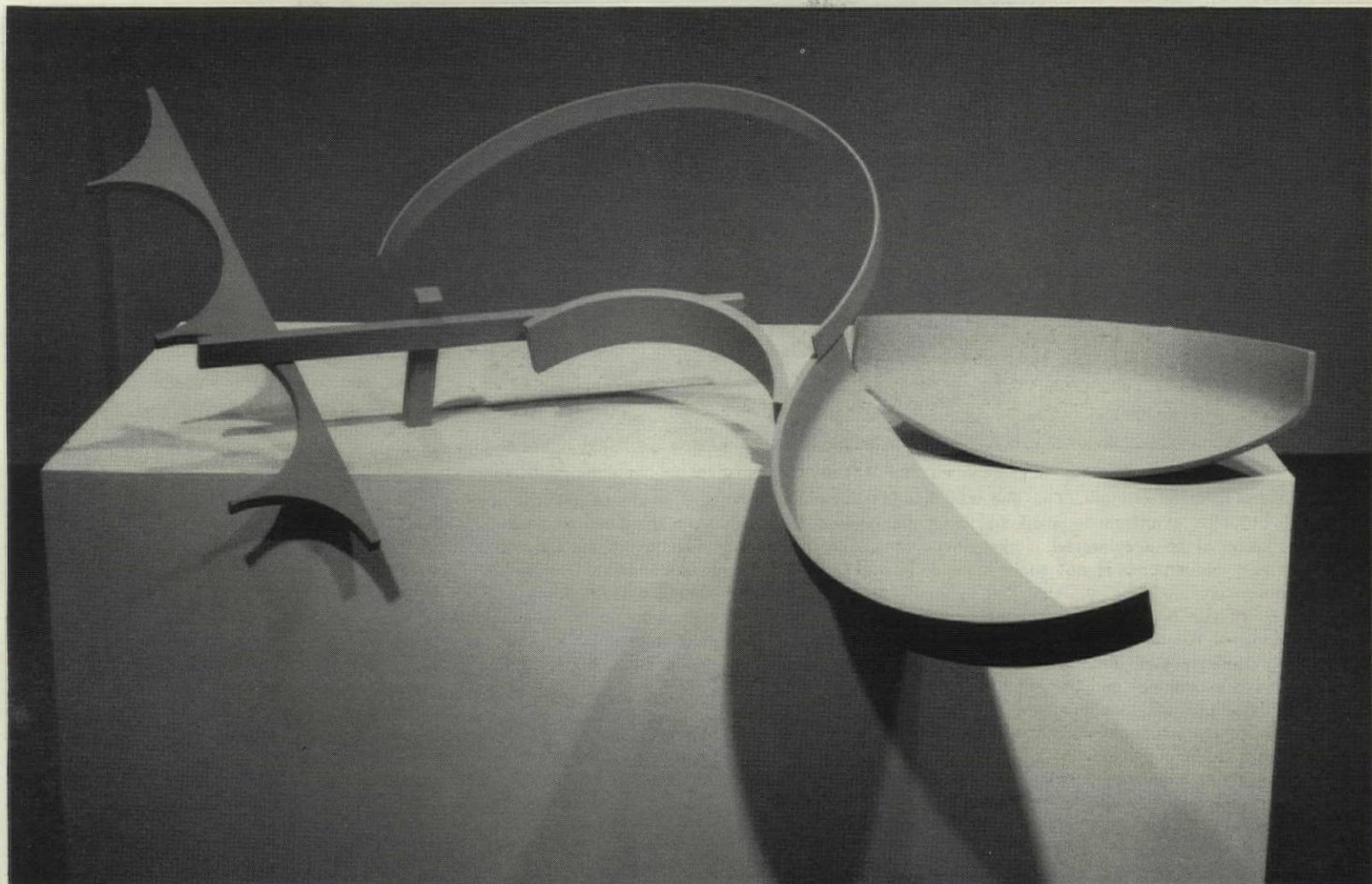
Robert Melville

In a recent ICA *eventsheet*, there was an interesting report on the proposals made by a militant group of New York artists for the reformation of museums of modern art, following a demonstration in the sculpture garden on West 53rd Street, led by Takis, whose kinetic sculpture is not, I take it, featured there. There was a reminder in the report that a demonstration took place at the same museum in 1960 against the domination of the New York art scene by a single style—Abstract Expressionism—and against art critics who had virtually turned into publicists of the style. It also implied that official acknowledgement of Op, Pop and Psychedelia was due in part to the 1960 protest, and if this is true we can expect the latest demo to yield quick results. Modern museums are already centres of frenzied animation, but not,

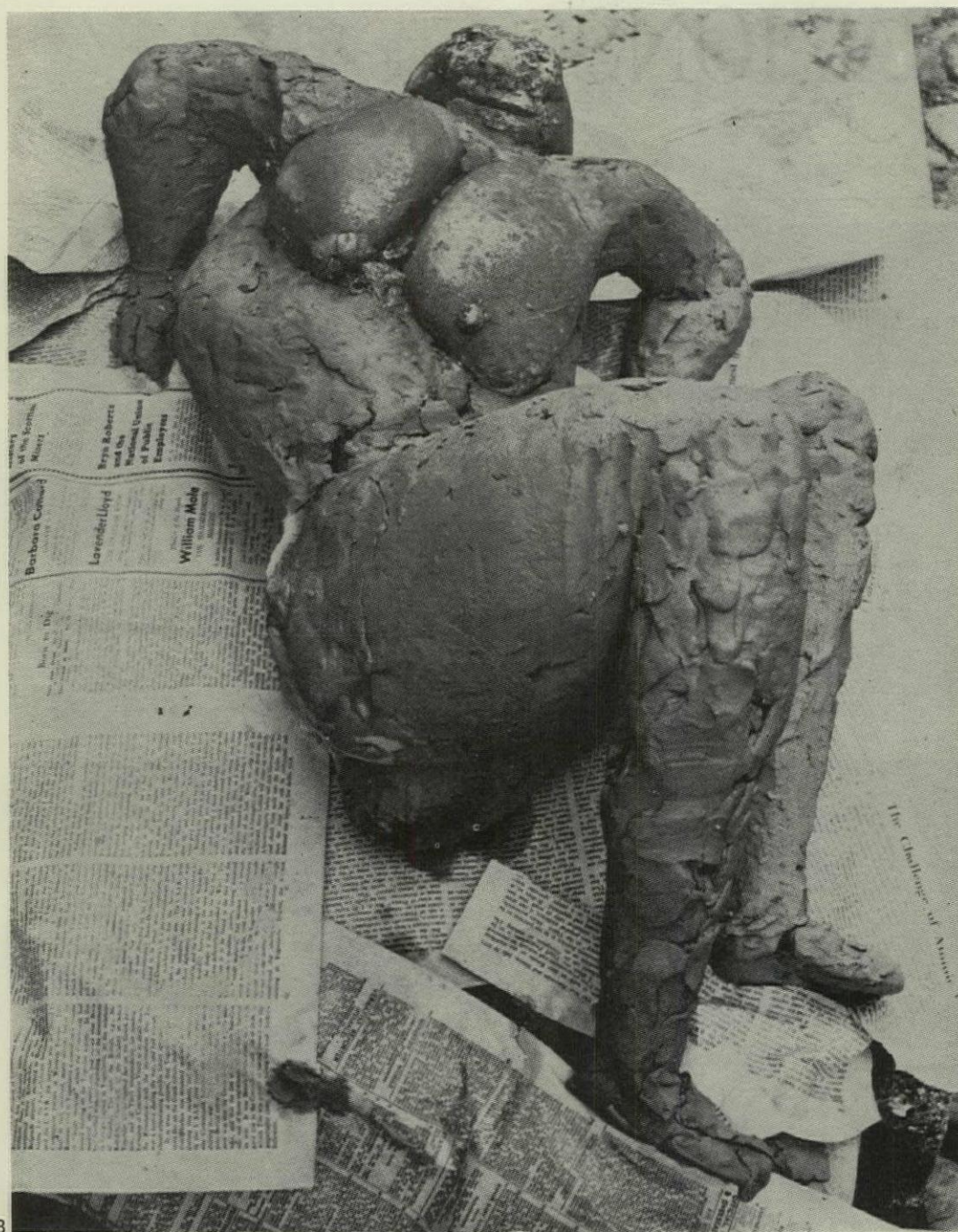


Anthony Caro: 1, 'Wide'. 2, 'LXXIII'.

1



2



3, Anthony Caro: 'Woman Waking Up'.

putting down their prayer mats in front of his pictures. Neither, for that matter, do I see any objection to manufacturing what the report calls 'Tech Art pieces' for the masses, if that's what the masses want, but I don't think that museums should be expected to undertake the job. (In this connection, I'm happy to report that Peter Blake, one of the best of our younger painters, has made a successful invasion of the popular market without a museum subsidy. His 'Babe Rainbow', a portrait of a girl wrestler superbly printed in colour on tinplate and priced at under thirty shillings, is selling in great numbers in the souvenir shops.)

I'm against the pressure that avant-garde artists are putting on museums to turn them into a mixture of art lab and adventure playground. I prefer museums to be more like temples; I want them to create awe-inspiring effects, and I'm sorry that they so rarely do so. In my experience, it has happened only once at the Tate, when the Mexicans staged their own exhibition of pre-Columbian art, but there are many works of art that would reveal untapped reserves of power under similar treatment. It's perhaps a feeling that certain works have such hidden reserves that tempts art critics into flights of interpretation and makes them easy game for the satirist.

A paragraph from a review of the recent exhibition of Anthony Caro's sculpture at the Hayward Gallery was quoted in the 'Pseuds' column of *Private Eye*. The paragraph opened with the contention that certain deviations from the horizontal correspond to specific emotional states, and continued with the admirably acute observation that a feature of many of Caro's constructions is an angle of about 105 degrees. Then came the conclusion that the use of this angle is a way of saying 'Yes' to life, and that in Caro's work it's a means of finding metaphors for 'just about everything from the pure festivity of "Month of May" to the suggestion in "After Summer" that the whole earth is about to open up and a completely new universe come into being.' Without being able to share it, I don't think that this interpretation is altogether incredible. My own view is that a response to the titles of these pieces has played too large a part in the interpretation: the titles introduce an element of romantic evocation which is far less evident in the works themselves.

I find these constructions oddly haphazard, and prefer the more literal titles given to some of them. 'Wide', for instance, seems a suitably unpretentious title for a burgundy-coloured assemblage in which the angle of about 105 degrees is evident enough. In any case, I have always been under the impression that Caro's intention was to be strictly modern and that the work conforms with Susan Sontag's authoritative declaration to the effect that the new abstraction is an attempt to have no content and that therefore there can be no interpreta-

it would seem, frenzied enough. The one-way passage of obsolete avant-garde stuff to the cellars will have to be accelerated if the impatience of new movements is not to be tried beyond endurance.

The demands of the New York group include the provision of rooms and funds by the Museum of Modern Art for the continual mounting of environments, and the encouragement of artists interested in creating prototypes for mass-produced art objects. 'Encouragement' is of course a euphemism for financial support, and in this case might well entail the financing of production and the setting up of a sales organization. It's thought that further demonstrations in museums will be necessary before such demands are met, and the report

adds the pious hope that works of art will not be damaged. Actually, a spot of iconoclasm would be in keeping with the group's avowed hatred of 'the mystique surrounding the original work of art' and its demand that steps must be taken to change the atmosphere given off by museums, which encourages the visitor to look at the exhibits 'in a state bordering on religious ecstasy.'

This is an exaggeration. I have to admit, however, that I have heard that some people who might make good subjects for hypnosis feel very close to Heaven when they gaze at a painting by Rothko, and I think this artist should be kept in mind if the group decides to resort to overt violence. Personally, I have absolutely no objection to Rothko-worshippers



tion. The exhibition included 'Woman Waking Up', 3, and two other examples of Caro's early bronzes, and it struck me that the metal assemblages might be the result of an extremely arbitrary simplification of the additive process of modelling. Some of them go on and on and there seems no formal reason why they should not be extended indefinitely. A number of recent table sculptures were in the show. 'LXXIII', 2, made of steel and painted grey,

is a typically neat piece of craftwork, but I prefer it to the others because it seems to me to be in correspondence, in its harmless and innocuous way, with Giacometti's famous organic abstract called 'Woman with her Throat Cut.'

Private Eye took a rather different tilt at the Arts Council's Magritte exhibition, held at the Tate. It invented a German art critic and quoted his review of the work of an unknown Scottish



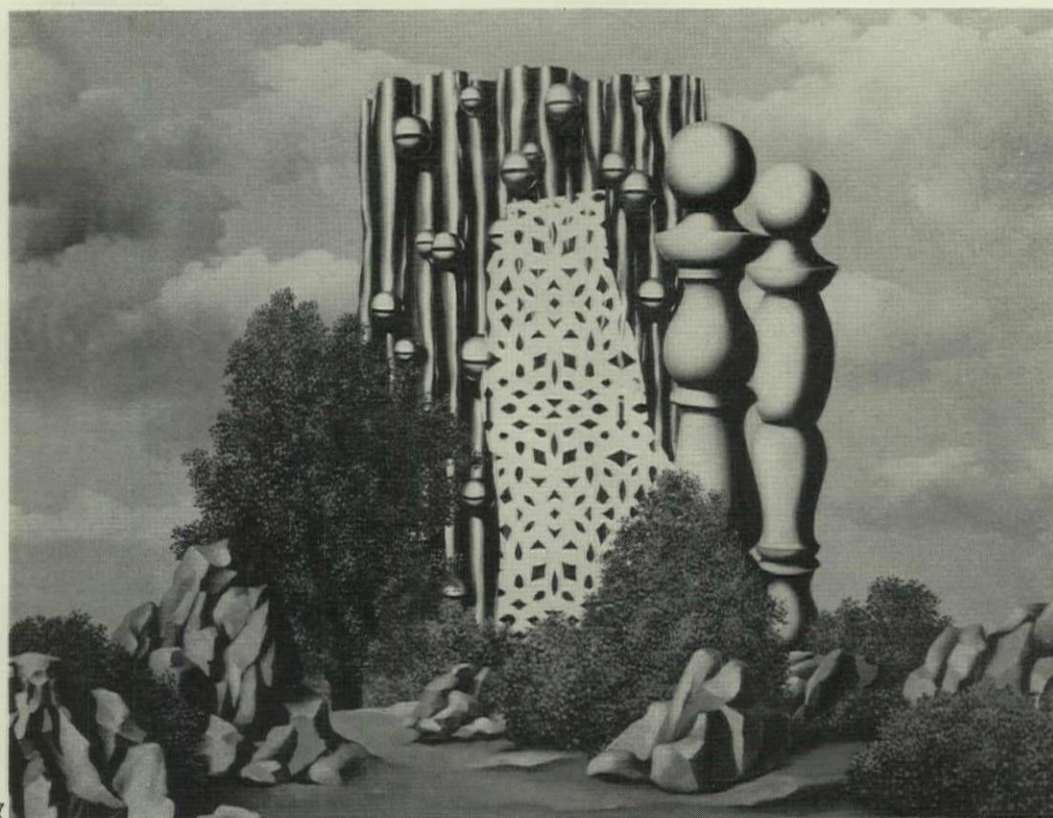
René Magritte: 4, 'The Titanic Days'. 5, 'La Grande Famille'. 6, 'The Golden Legend'.

Surrealist named Rennie McGriffie: 'Here is a men in zis picture viz the head like a turnip und a noze von ein banana. He stands on ze beach viz a kilt made von concrete und playink ze hebpeipz made out of oak triz . . . Hef ve not all seen zis man on ze beach und heard his strange playinks? For he is Mr. Universe no doubt tellink us all is not so gut vot ve are doink. Time to vake up from realitet und jomp back into ze nightmare vere ve all belonk.' It's true that some of René Magritte's pictures are nightmarish and most of them dreamlike, but they are better jokes than those perpetrated by *Private Eye*. They are genuinely black, and we laugh and marvel at the same time. 'The Titanic Days', 4, is jet black. It's a brilliant reversal of the ancient theme of the man with a load of mischief. Based on the collage principle, the image of the male succubus has been imposed on the female nude with fearsome and implacable ingenuity, but there is one enchanting little detail: at the point where the coat-sleeve crossed the gap between the woman's

legs, the cloth has disappeared, taking with it half a button.

In the manner of those American abstracts about which critics make a great song and dance because figure and ground are interchangeable, Magritte's sea bird made of blue sky and white summer clouds, 5, is sometimes in front of the storm clouds and sometimes behind them as if the shape of the bird were a decorative rent in the sky, revealing another sky beyond. 'The Golden Legend', 6, depicts a fantastically plausible squadron of French loaves starting out on a night mission at the close of day. Bearing in mind the significance that has been attached to an angle of 105 degrees in some of the Caro constructions, I feel that I must mention the upward tilt of the loaf top right, which implies that it is about to take up a different position in the squadron. 'The Annunciation', 7, is yet another example of Magritte's astonishing ability to lend an obvious absurdity a strange plausibility. A ridiculous assemblage, composed of a sheet of corrugated metal, a paper cut-out and two wooden bannisters, has arisen mirage-like in a landscape, and in spite of its absurdity it's difficult to call it meaningless because the painter has succeeded in turning it into an enigmatic presence charged with portent.

Wildenstein's recently exhibited a notable



7



8

group of nineteenth-century French paintings which were collected by the Dutch landscape painter Hendrik Willem Mesdag and presented to the Dutch nation in 1903. He was chiefly concerned with the Barbizon School and collected some admirable works by painters who have since been unfairly neglected, including Millet, Daubigny, Theodore Rousseau and Bastien-Lepage. The latter is represented by a splendidly vivid oil study, which would not be unworthy of Manet, 8. But the most marvellous painting in the show was Delacroix's macabrely beautiful study of a battlefield at evening, with a wounded cuirassier rising shadowily between two dead horses. The pelts of the horses are a glorious slaty blue, with rusty patches of dried blood on the flanks. The head of the horse in the foreground is framed in a glowing passage of yellow paint which defies identification—it could be mane or straw or cloth—but one feels that it is primarily a gesture of solicitude.



9

7, René Magritte: 'The Annunciation'. 8, Bastien-Lepage: oil study. 9, Eugène Delacroix: 'Au Soir de la Bataille de Waterloo'.

THE PALACE OF ISHAK PASHA



Dogubayezit is a decrepit town on the Turkish-Iranian frontier with mean and muddy streets. It lies low as if cowed by the great mountain of Ararat and all its load of history and myth and, indeed, the miserable climate is due to the clouds which for most of the year gather about the famous peak, bringing the daily rain which turns the roads to slush. The winters are long and bitterly cold and the snows melt slowly when the laggardly spring arrives. Off the main highway, the country is still lonely and wild and there are many tracks among the mountains by which goods reach Turkey from China and droves of moderate-priced Anatolian cattle are smuggled into Iran where meat is expensive. This is a traffic which has gone to and fro across the ages, openly or secretly according to the political situation, and it will continue for a long time yet since the terrain protects the smuggler and also marauders and bandits. But an army must control the gorge and pass and the territory belongs to the man who holds them.

Here the Assyrians inscribed their authority upon rock; here Selim I built a mosque and a fortress and here, too, a Georgian princely family, recently turned Moslem in order to exploit the political turmoil of the time, established a great palace named after the last important chief of their house, Ishak Pasha. Because of the weakness of the government in Constantinople at the beginning of the eighteenth century, the Ottoman dominions were parcelled out among subject pashas and derebeys, or lords of the valley, whose autonomy was related to the strength of local communications or their lack. In Georgia, the conflict between the Ottoman and Persian empires gave a bold chieftain the chance to establish his sovereignty over the province. He seized lands

illegally and divided them among his satraps until his ambitions were moderated but not completely thwarted by the Porte and his descendants enjoyed the recognition of the sultan into the nineteenth century.

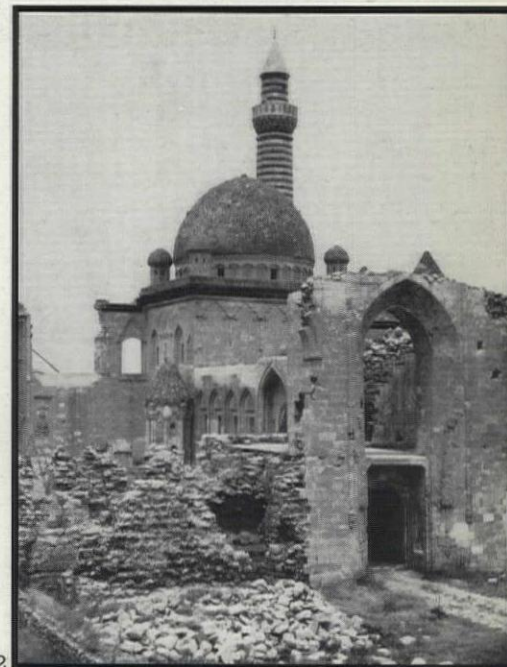
Ishak, for example, was appointed a vizier and his brother viceroy of Georgia. Ishak Pasha's control of the official customs and the less legal levies ensured his family considerable wealth even when they ceased to rule in Tiflis. He had to have a base from which to govern, and it was at Dogubayezit that he established his centre of rule. His palace continued as the seat of local government until after the first world war when it became too expensive to maintain and the capital was moved to Agri, the Turkish for Ararat, 100 kilometres farther west, where the climate is slightly less cruel and the town enjoys a certain prosperity. The country round remains primitive, and the largely Kurdish populace is still exceedingly poor. The abandoned palace was neglected until a government grant was made for the restoration of the handsome gate to the harem during the summer of 1967. The old caretaker had sold the stones until he had amassed enough money to retire, but not to enjoy his ill-gotten wealth since he was struck blind and withered away, in the opinion of the present and very conscientious guardian, in accordance with God's law. The palace is now well defended and lovingly tendered.

It was begun by the father of Ishak Pasha, and probably only finally completed when he himself died. An inscription over the harem gate wishing long life and power to the family is dated 1780, and this is a good indication that the major work of building was completed then. The palace stands on a natural citadel with its own wells within its walls. It lies as if aground along the spur of a mountain above a ravine

cleft by a stream, which becomes a torrent with the coming of spring.

It is the largest private residence in all Turkey outside the capital, and the only one entirely built of stone. There are many interesting features including an elaborate and very necessary central heating system, with main ducts large enough for a man to pass through and repair any damage to the clay pipes running in the cavities of the walls. The tank and furnace are in the first court, along with the stables and servants' quarters. The second court of the selamlık and divan, the guests and the govern-

1, general view of Ishak Pasha's palace from the north.
2, gate to the second court with mosque and tomb beyond.



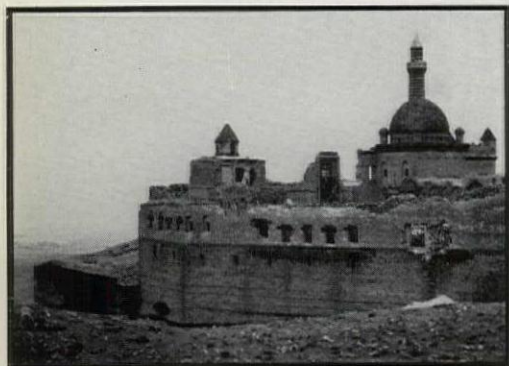
ment, had suites of bedrooms on the south and the state apartments and the hall of justice on the north, above the ravine. Those rooms on the south in particular are carried above spectacular vaults. This is the public court of the palace and it is divided from the family quarters, which were two storeys high, by the kitchens and the dining hall, an innovation in Ottoman architecture. The western harem fronts Ararat across the town and from its windows the mountain is awe-inspiring and majestic even when half hidden in cloud. It is easy to see why it is overburdened with superstition and myth.

The grandeur of this ashlar palace is magnified by its position, but its exceptional interest lies in the ideals which inspired its architecture. This is a late eighteenth-century building, erected when the rest of the Ottoman Empire

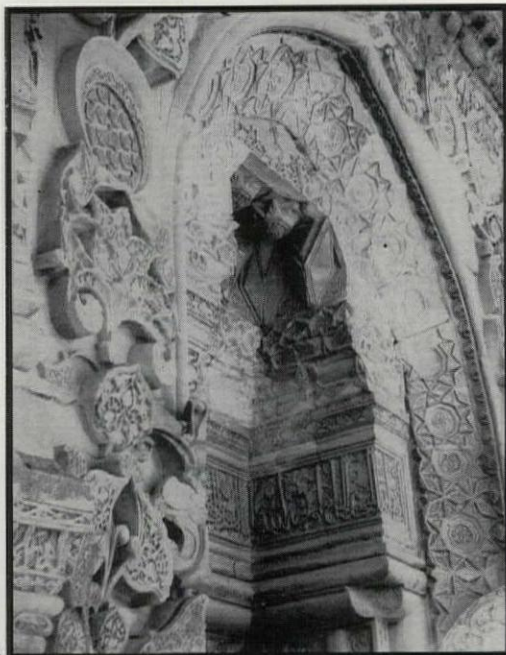
Sivas which dates from the first quarter of the thirteenth century. Other details of the palace are composite or whimsical.

Here in so remote a region of Anatolia a Moslem Georgian prince in the later eighteenth century, living as much by brigandage as by legal means, consciously and with obvious delight built his palace in a romantic spirit of deliberate revival-

ism such as elsewhere created Strawberry Hill or Edinburgh High School. The Georgian elements in the work may be explained by the use of local men brought expressly for the purpose, but other details are more complex. Divrik in itself is a difficult building to define and has been dismissed as decadent by some critics, which to some extent is true. It is still



3 4



7



5 6



3, the selamlık apartments, the kitchen dome and the gate to the harem.

4, one of the great doors at Divrik.

5, detail of the harem door at Dogubayezit.

6, tomb, windows, and the projecting mihrab niche.

7, looking through the dining hall to the harem and the stairs to the garden.

was following the fashion of the Sublime Porte for baroque and rococo. Here and there a few such elements can be found, but almost all the palace, like the west flank above the approach road and the ravine, belongs to the old order. The great door with its honeycomb vaulted half-dome over the porch is a reversion to the Seljuk tradition of over 600 years before, and elsewhere the decoration is flamboyantly Georgian and cut so deeply into the stone in some places that it is three-dimensional and approaches true sculpture. The carving on the gateway to the private apartments or harem alludes directly to such strangely hybrid buildings as the mosque and hospital at Divrik south of

a remarkable monument. The emir who built it was under Seljuk domination and his was decidedly a provincial court. Seljuk Islamic foundations in Persia supplied the plaster ornamental details for some of the building, but the local craftsmen were Armenians habituated to working in stone and unable to work in brick and plaster. So they translated these plaster forms into stone, altering the smooth finish of the vegetation and the stars but keeping the symbolism which is their essence. In addition, one of the two architects involved enlarged the individual elements of the decoration just as a child might blow up a balloon, so that the two major doorways have an oriental opulence which is not in the Anatolian tradition. This magnification of certain details occurs elsewhere among the foundations of the Seljuks of Rum, including the Gok medreses, the colleges of the Sky or Infinite, at Sivas and Erzerum, to name only two; but these forms are used with restraint and do not destroy the underlying architectural form of the building; after Divrik they appear conservative, for there they crowd one upon the other like entwined and entangled jungle undergrowth. Ishak Pasha did not have enough Armenian masons at his disposal to emulate this lavishness. What he took was the spirit of such an architecture and deliberately revived it. He did have craftsmen who were still familiar with the technique of shallow relief carving which is so engagingly flat of face and associated with the Armenian era, and is exemplified by the church of King Gagik at Ahtamar on Lake Van. Other traditional forms appear also, such as

possible diffusion of light from an opening which is kept as small as possible as a defence against the winter cold.

The kitchen dome, still thick with blackened grease, is supported by braces of strap vaults in the manner of the Armenian church of the Apostles at Ani, or the cathedral at Edjmiadzin, but the pantries and service room off it are carefully and originally ordered without reference to the past, as is access to the dining hall which is an anachronistic concept. This fine hall, with its arcades at either end, is handsomely proportioned and in feeling the most eighteenth-century room in the palace. But the arches and the engaged pilasters along the walls, the dado patterns of contrasting shades of stone in the Armenian manner, perhaps inspired by weaving, and the vines which frame the door to the harem, might have been copied from Ahtamar. Yet the cartouches above that door are strictly baroque in appearance.

The dining hall is only rivalled in size by the council chamber in the state apartments of the selamlık, where all the rooms have large casement windows to take advantage of the view, with fireplaces between them to soften the cold breezes and reinforce the central heating. From one there was access to a wooden bower of which only the carved consoles, like Gothic gargoyles, remain. Here again historicism is modified by the need for comfort. Stairs are still set into the wall thicknesses, but they are wider and the treads are shallower than those of the Seljuk period, which force one to double up and stoop under low lintels.

The mosque is square and lofty with a broad

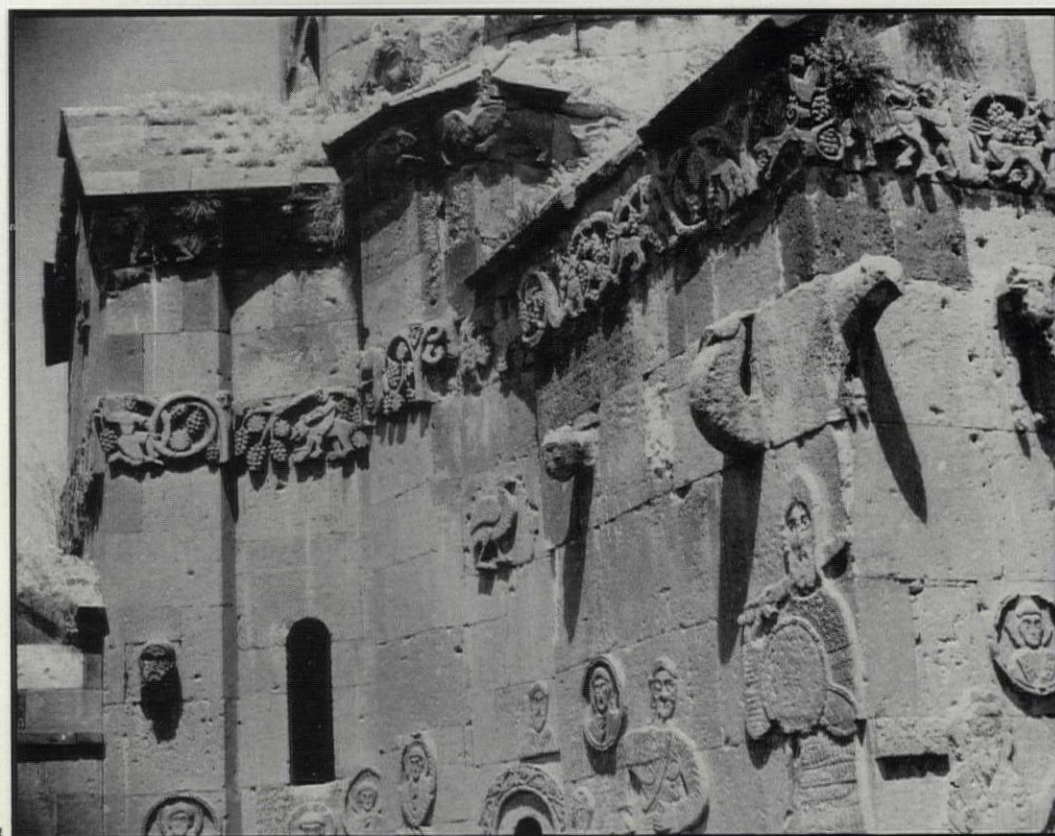
Van region which came under Ottoman domination after the victories of Selim I in the early sixteenth century. The two stair-turrets giving access to the roof are curiously cut away diagonally to follow the descent of the stair. The lesser apartments, the library, the committee rooms and such, follow each other in a row on each side of a central corridor which is not traditional, but those of the harem are grouped with that monotony which was a feature of the earlier Umayyid and Abbasid palaces of Greater Syria.

A deliberate cultivation of the historic past is the result of education and sophisticated nostalgia. It would be interesting to analyse the motives which governed Ishak Pasha when he built such a memorial. In spite of their conversion to Islam, the family would appear to have retained a deep awareness of their Georgian past when for centuries they were Christian princes. The palace had to be functional and serve as the seat of a provincial governor and so it followed the traditional Ottoman plan and was a rational version in miniature of the palace at Topkapi.

The Pasha had whims of his own, as when he designed the false turbe above his father's sepulchre, and he was not afraid to modernize or ignore custom when convenient. Food was not brought to him in the state chamber on a tray but served in a particular dining hall in the western manner. Practical details were carefully studied. The dining hall was on neutral ground between the harem and the selamlık, to which it had an angled entry for further privacy, and the mosque was also so placed. The heating system, which could rarely have been turned off, was extensive but easy to maintain. That form should follow function is a basic Ottoman architectural tradition, but the compactness of the design of this complex is exceptional in secular architecture. The façade on to the ravine is almost Palladian in its ordering of casement windows, and its second storey, which is now in ruins, would have made this even more apparent originally. Monotony is avoided wherever possible. The first great door is squarely grand and elaborate; the second is tall and austere with tapering conifers carved on each side; and the third is ornamental as befits the entry to the quarters reserved for the women of the family.

Not a scrap of the furnishings or any other portable detail remains, but the deep stone sofas in the windows and the large traditional niches for lamps and jugs and flowers indicate that the usual low divans were still in use, at least in the state rooms where justice was dispensed and business transacted, and it is likely that some walls were hung with fine Persian rugs. The lofty proportions and the high stone dado of the dining hall suggest that here chairs and tables may have been used, and this could have been true of the Pasha's own rooms. Information about this unusual man is difficult to find and nothing is recorded of the intellectual interests which he pursued amid the fierce Kurdish tribes and the savage mountains of his domain. With whom did he discuss his romantic ideals when he came to the capital in his capacity as a high officer of state, and whom did he entertain at his palace at Dogubeyazit? For surely he must have taken pleasure in showing round guests who understood the purpose behind the building of his revivalist masterpiece. It is not even known who his architect was, but it is likely that it was Ishak Pasha himself for his personality lives on everywhere among the roofless halls.

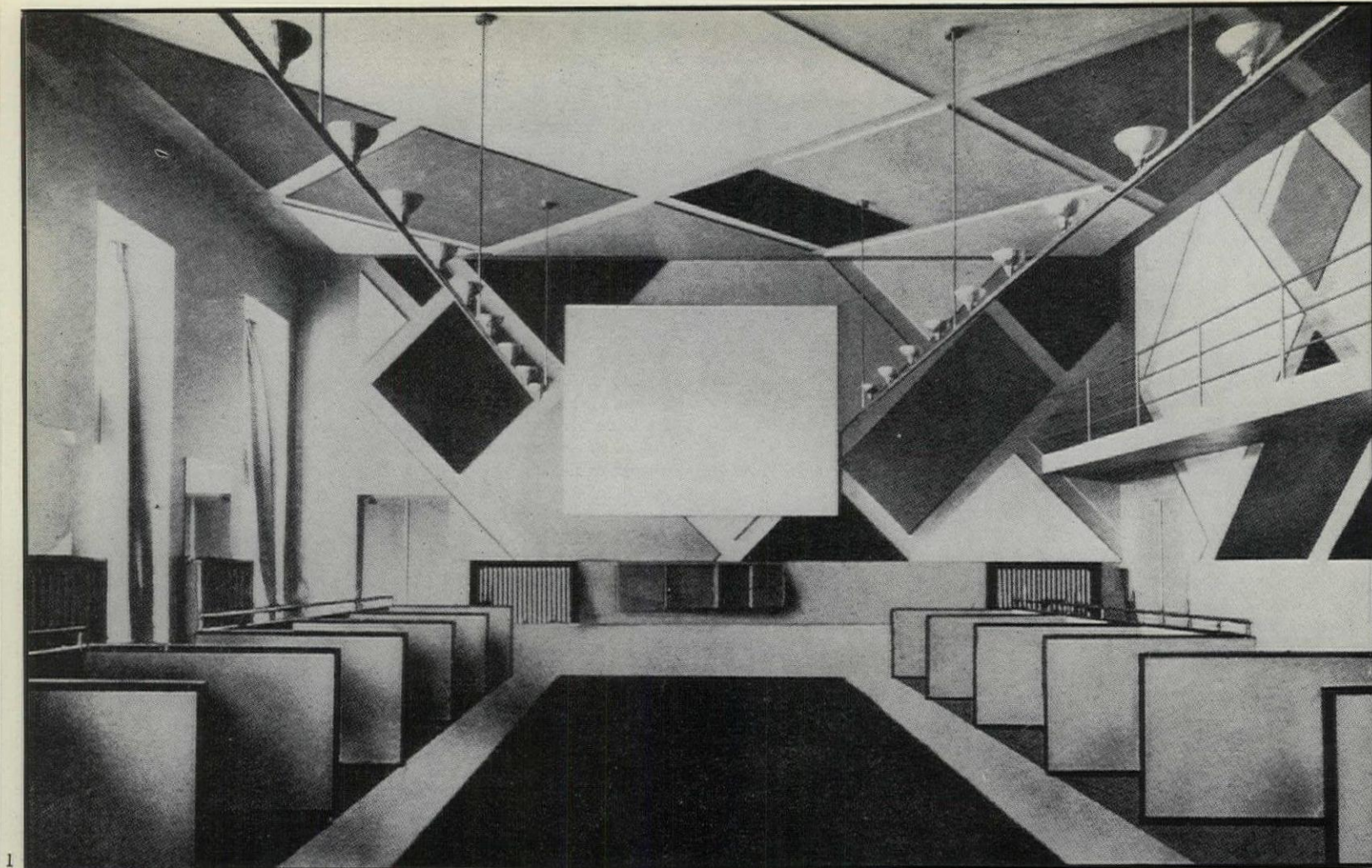
GODFREY GOODWIN



8. carving on the walls at Ahtamar.

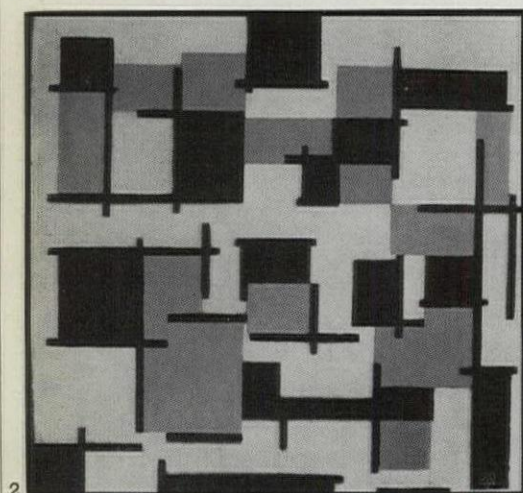
the pleated conical roof of the turbe or tomb of Ishak Pasha's father. But the turbe form was modified, for the little tower is false and without a floor. After stepping over the threshold one descends at once to the rectangular vault below, lit by two windows that stand like dog-kennels beside the tower. These, like other windows in the palace, follow the old tradition: their sills slope sharply downwards like shoots and the flanks and soffits of their arches open outwards like trumpets, thus ensuring the maximum

stone gallery opposite the mihrab wall dividing the mosque from a pillared hall which echoes to a slight degree the forest, or many columned, type of Friday mosque of the early Islamic period. The minber is of stone and forms a hooded balcony, projecting from the wall through which it is approached by a stair. The mosque dome is more Persian than Ottoman in shape, but the minaret, with its Syrian banding in black basalt and honey-coloured sandstone, follows the traditions of the Lake



1

VAN DOESBURG BELONGS TO TODAY



2

1, interior, Café Aubette, Strasbourg, 1928.
2, Composition XIII.

Theo van Doesburg was groping towards a new realization of plastic values in space and time. An artist of vision, cutting right through the middle of the entrenched camps and clearly stating the role of the artist as a public contributor to society's needs. Capitalism has found it convenient to invest in private art. Communism in propaganda through art; but van Doesburg showed the way to an art form that by its very nature could live outside this kind of usage. Since Einstein's theories of relativity any philosophy relevant to today must embody the space/time concept, and after centuries of linear thinking it is virtually impossible to grasp the reality of space/time through written and mathematical language only. Van Does-

burg's most significant contribution is that he made people aware of space and gave us the beginnings of a space/time language.

Last December, Theo van Doesburg was posthumously awarded the 1968 Sikkens Prize, a Dutch award given yearly to an artist or architect for work on colour and space. As his widow ironically remarked 'It is only 40 years too late'. At the same time an exhibition of van Doesburg's work opened at the Municipal Museum, Eindhoven. The exhibition was then sent on tour, being shown at the Hague, Strasbourg and Nuremberg, where it now is. Next month and in July it will be at Basle.

The work shown dates from 1913 to 1931. It was in 1917, when he was 34, that van Doesburg began his significant development, and there followed thirteen years of intensive work. He died exhausted aged 48. He was the driving force of the *de Stijl* movement, editor of the *de Stijl* magazine and its chief contributor. His relationship with the other artists of *de Stijl* was dynamic—he kept them contributing; without him it would not have happened. He was painter, sculptor, architect, poet, pamphleteer, teacher, art critic, architectural correspondent, agitator and chief propagandist for the movement. He had the energy needed; he wanted to see immediate results—to build. *de Stijl* was interrupted by the death of van Doesburg, but its intentions remain a stimulus for today.

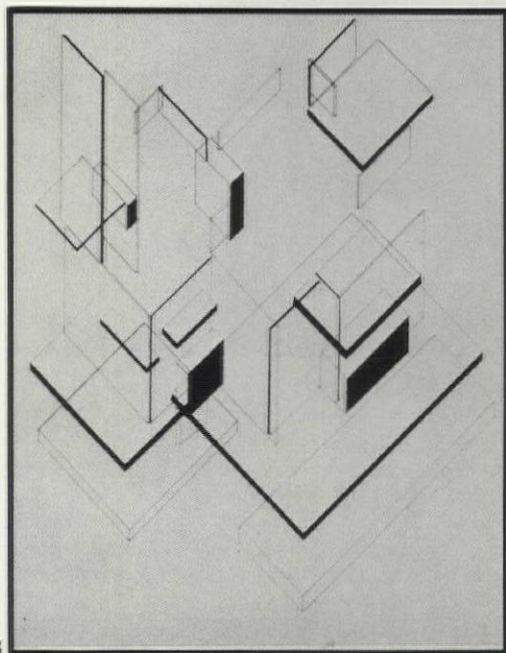
De Stijl was anti-object, and always van Doesburg's work was more than the actual object. He never set out to make a painting an entity in its own right. Painting for him was a means of exploring an idea. Each painting is his understanding taken as far as possible within

the terms of painting. Each is a complete step—sometimes a leap. This is a totally different approach from that of his colleague Mondrian, who was concerned with the idea of painting by developing a theme in two dimensions.

From 1917 van Doesburg had worked on ideas for architecture: floor designs, stained glass, house interiors, and by 1923 painting alone was clearly not sufficient to contain the development of his ideas of space. This was the breakthrough year. 'The real work, the physical making, came first—the ideas or concept followed. The best that happened was the working collaboration of myself and Doesburg.' So said van Eesteren in 1968. In his work with the young architect van Eesteren (models for Rosenberg house, 1922-3; 'private house', 1923; 'house for an artist', 1923) there was an attempt at real collaboration between artist and architect, but like most other attempts since then, there was an enormous gap in basic aims. Van Doesburg did not reformulate the architect's position, task or function. He only used the architect for what the architect could traditionally do. It is surprising that he did not consider collaboration with another type of person, such as an engineer, who could contribute the discipline he lacked, which was structural building experience. He proved that collaboration between artist and traditional architect cannot work today. It had been possible in the past, when the artist's role was to embellish a fully worked-out building. Van Doesburg pushed the architecture of van Eesteren to the limit of the idea contained within architectural terms. What he did not do was develop the space/time concept in its own terms.

'The word art' he said 'no longer means anything—instead thereof we demand the construction of our surroundings according to creative laws. It is impossible to regard these laws as imaginary. They exist. One can only define an experience by collective work.' As the ideas expressed in the diagrams for space/time constructions were not realized in any concrete form, they should be considered as demonstrating his concept. They suggest the handling of plane and colour in space to define space. Van Doesburg never did this himself.

His idea of using asymmetrically placed vertical and horizontal colour planes, balanced freely in space, was compromised in making models



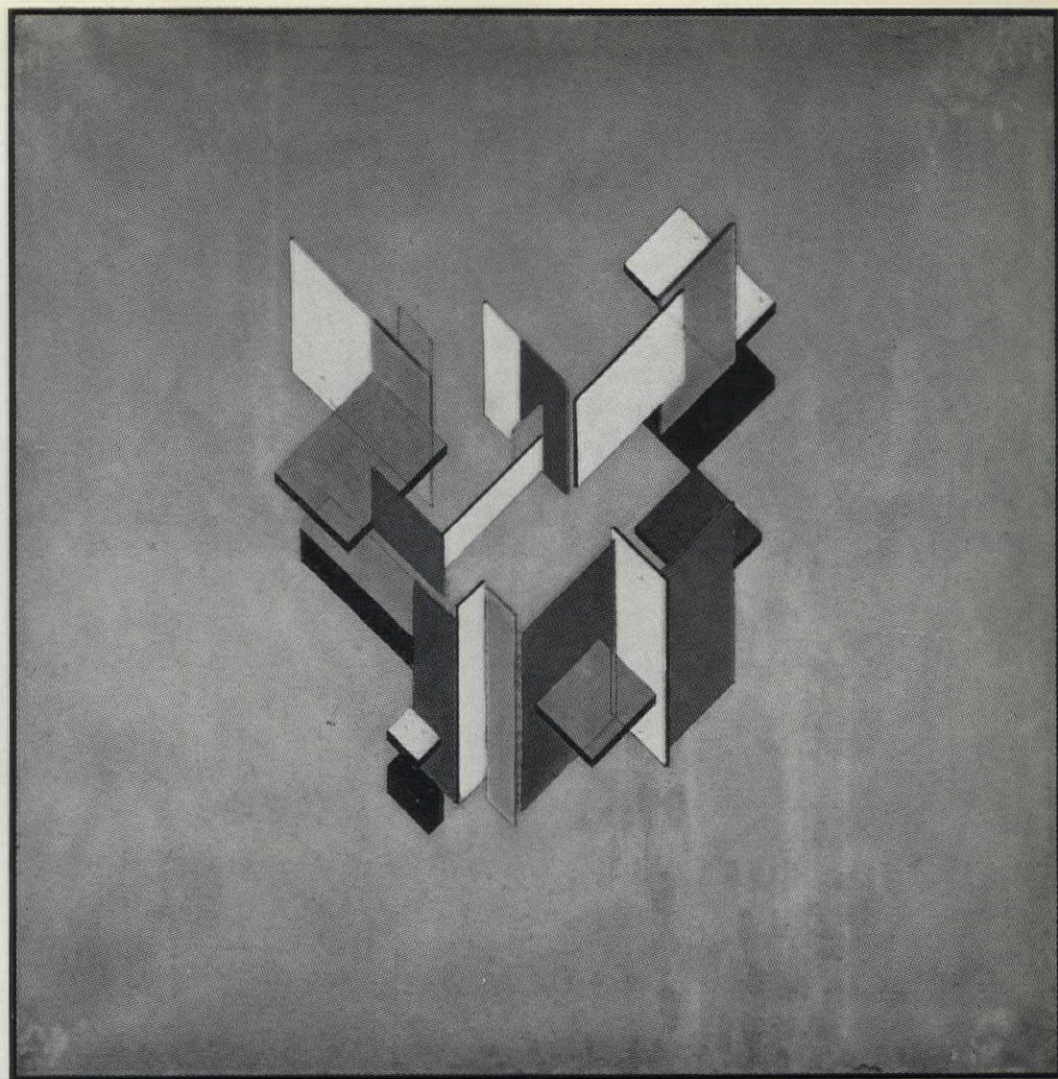
3

3, 4, construction analyses of a private house.

for houses. The first realization of his space/time concept came a year later in someone else's work; in the Schroder House at Utrecht, designed and built by G. Rietveld. It is remarkable that Rietveld managed to demonstrate this spatial concept, within the limits of traditional building materials, more clearly than van Doesburg and van Eesteren had in the comparative freedom of model-making. Rietveld was essentially a maker. He was certainly inspired by the work of van Doesburg and van Eesteren, but unfortunately, as he had not the vision of van Doesburg, there was no follow-up to this momentous start—the Schroder House. It is the most successful construction embodying the space/time concept in spite of being a house. Whilst Rietveld was making the Schroder House, van Doesburg was putting his own architectural ideas into words in *Towards a Plastic Architecture*, 1924*. His 'Composition with Three Paintings', 1920, suggests an infinite number of possibilities with a set of given colour-form units. This idea is used in his concept for a basic architectural language, flexible enough to be applied in many ways.

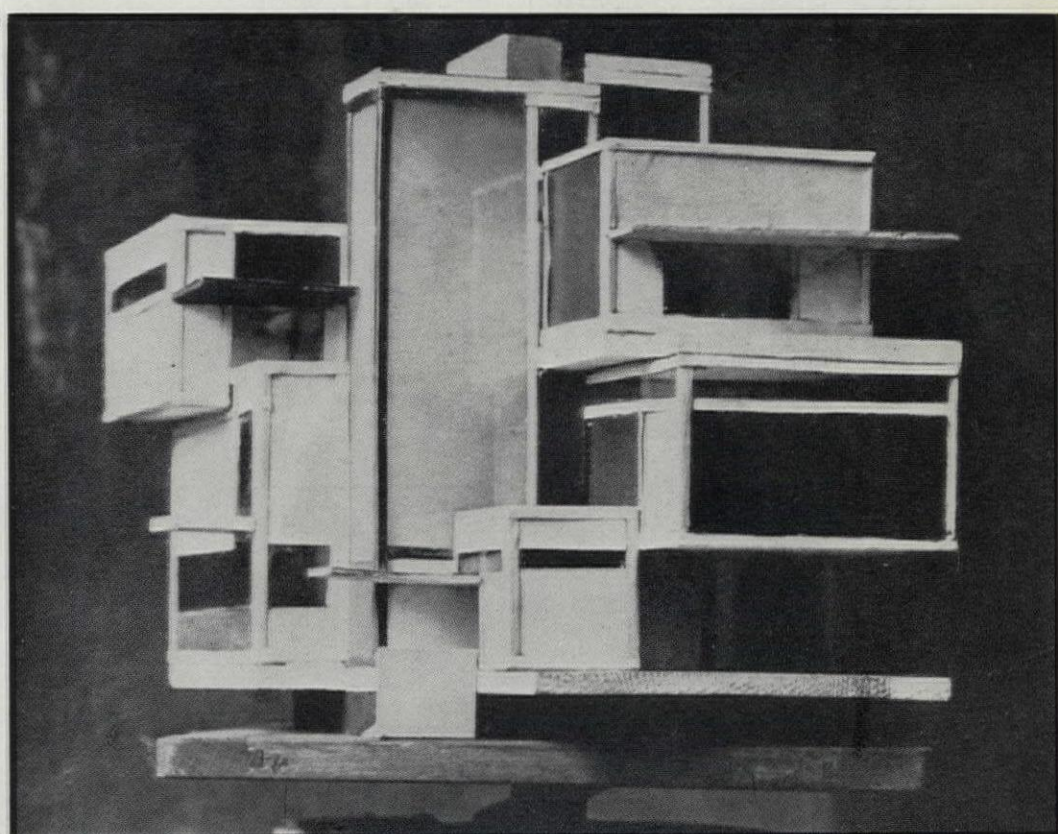
The blind leading the blind has led to the inhuman mess of all twentieth-century domestic architecture (excluding Rietveld's Schroder House). Those associates of van Doesburg who are now called the 'fathers' of modern architecture (Oud, Gropius, Breur, Mies van der Rohe and Co), from whom most 'new' architecture can be traced, were in agreement with the social aims of van Doesburg's concept,

*One of the original Bauhaus books, now being reissued in English, as this article goes to press, by Lund Humphries under the title *Principles of Neo-Plastic Art*; introduction by Hans M. Wingler; price 42s. [The Editors.]



4

5



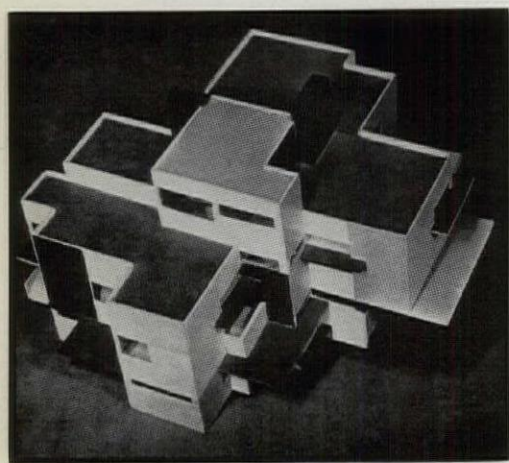
but at first they only used his spatial language in a most superficial way, and then they gave up all ideas of space. In his 'new architecture' van Doesburg was concerned with developing a spatial flow between outside and inside. He suggested articulating separate elements to define space, which when used never formed enclosures. These architects betrayed him.

They made boxes. Large boxes sub-divided into smaller boxes and displaced still remain boxes; even the most elegant box is still a box. People do not want the houses that architects design for them. They do not want to fit into a container. They want to fulfil their needs as individuals. What we need therefore is flexible buildings which we can change according to our

needs and moods. We should have a set of building parts, technologically up to date, flexible enough to be assembled in many different ways, so that we can shape our own environment and avoid the predetermined package that architects are imposing on us. Van Doesburg knew that we are able to influence change. One twentieth-century illness is our inability to accept this.

Van Doesburg's first practical work, which occupied two years, was the reconstruction of two rooms in the Café Aubette, Strasbourg, 1926-28. When painting he treated the canvas as the equivalent of a spatial void. In such works as 'Composition No 7', 1917, the vertical and horizontal colour elements are related to make the space between dynamic. When realizing that the canvas he painted on was in physical reality a plane he used the diagonal to oppose its static nature.

For the same reasons he needed the diagonal to oppose the static box-form of the existing architecture of the Café Aubette to create a dynamic visual entity. If he had worked directly in the void of space, in three dimensions, he would have used the vertical-horizontal means of the space/time construction diagrams to make the space *itself* dynamic by implying organic movements in space and time. Unfortunately the Café Aubette was not reconstructed in terms of his space/time concept. Instead, he extended painting into architecture by working in the Renaissance sense to embellish a building. He realized his personal need of working as a public artist. A year later he attempted architecture by building his own studio-house at Meudon. It turned out to be an ordinary building, far less exciting than the earlier 'House for an artist' model.



6, model of a private house.

The Café Aubette is an outstanding achievement, bold and original. It was worked as a complete whole, an 'environmental' situation. He worked as a painter, not space constructor. In the cinema-room the use of colour and drawing on the fixed surfaces of walls and ceiling is dynamic. The treatment anticipates modern synthetic coloured materials. In the dance-room light is used as a positive visual element, considered equally with the coloured panels as an integral part of the design. The way light is used suggests light-emitting surfaces—yet to be invented.

In the Café Aubette he enforced the original de Stijl idea. By making the general public aware of what the artist is capable of doing, he created a place for people. It functions as café, cinema, dance area, meeting place—a multi-purpose space, creating the new realization between art and society.

MAURICE AGIS
PETER JONES

ARCHITECTURAL VICTORIANA



There have been complaints from the Royal Academy of too little attention being given to its Bicentenary Exhibition which closed at Burlington House at the end of February and was the subject of Robert Melville's Gallery article in the March AR. It is true that the exhibition's title failed to advise the numerous public that now takes an interest in everything Victorian that this was, to a large extent, a representative collection of Victorian art.

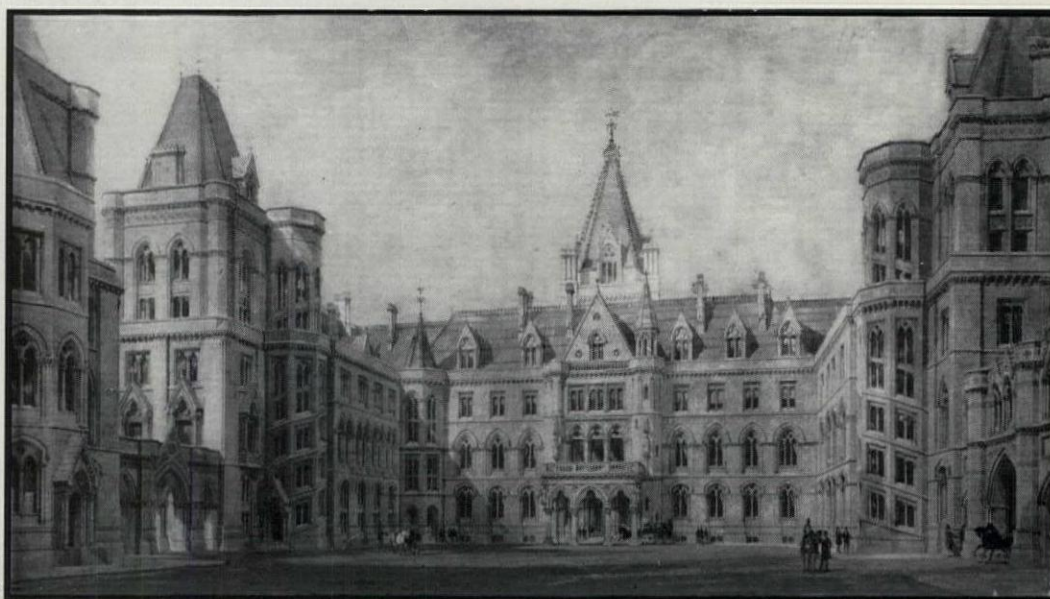
But if the paintings contained in the exhibition were ill appreciated, the architecture was wholly ignored. One room was hung with a splendid display of nineteenth-century architectural pyrotechnics—representing not only Victorian architecture at its grandest but architectural draughtsmanship as well—and here are reproduced two examples, both as it happens from the collection of the RIBA.

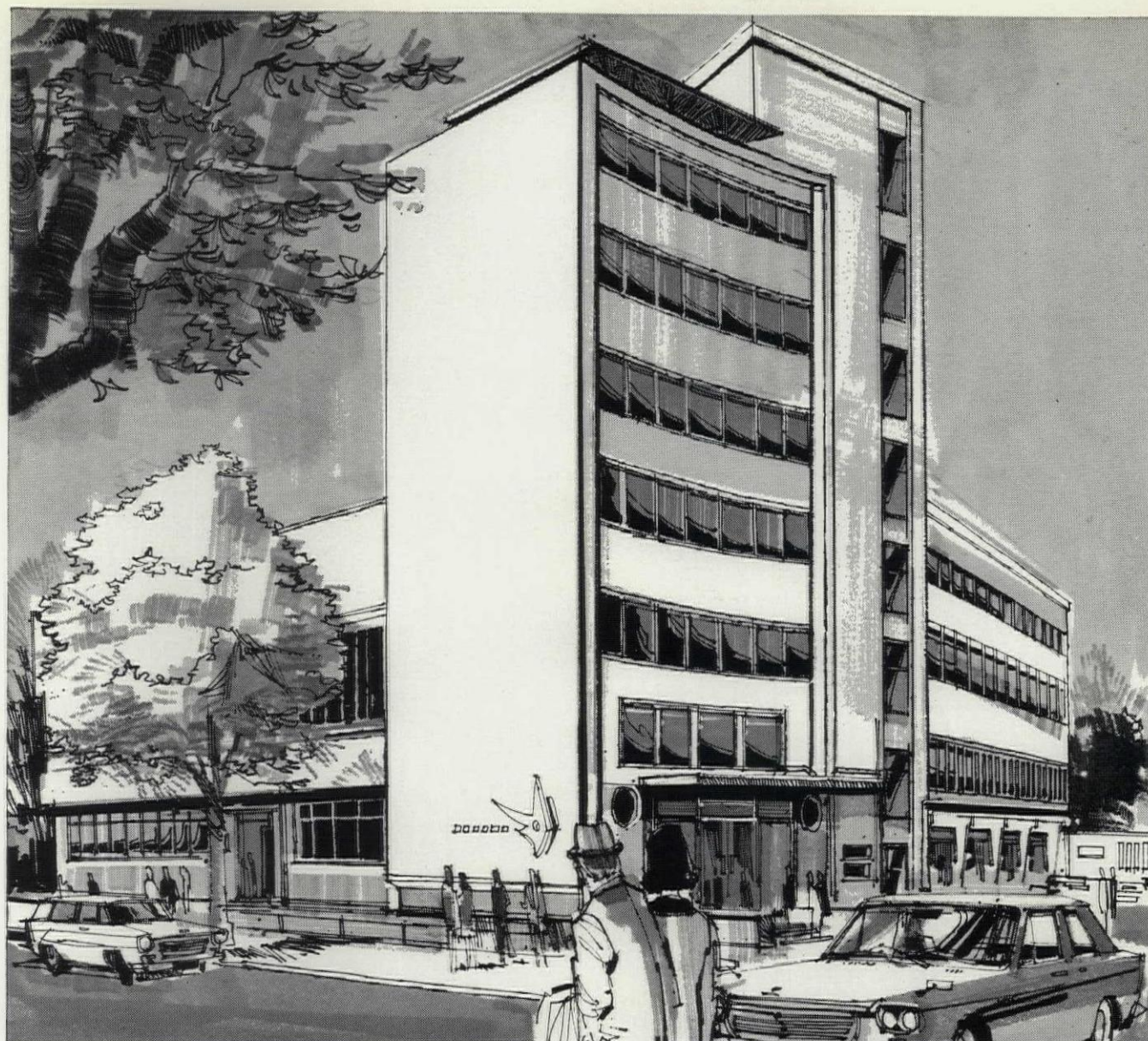
1 is J. M. Gandy's 'Design for New Houses of Parliament', a watercolour of, it is thought, 1836. A different drawing entitled 'Entrance to the New Houses of Parliament' was exhibited by Gandy at the Academy in that year, both drawings presumably having been made in connection with the competition that followed the destruction by fire of the old parliament buildings, which eventually produced the present

buildings by Barry and Pugin.

2 shows Sir George Gilbert Scott's 'Foreign Office Courtyard'. The drawing was exhibited at the Academy in 1861, having been previously (1857) shown at Westminster Hall when the competition drawings for the new Foreign Office were displayed. The 1969 Academy catalogue includes the following note: 'The story of the competition of 1856-7 for a new Foreign Office and a new War Office is well known: played upon by Palmerston, Scott eventually deserted the Gothic style to submit the executed Italianate design—but only after he had tried and failed with the "mongrel" (or semi-Byzantine) affair. The present drawing for the FO Courtyard must have been one of those in the first (Gothic) set which Palmerston so disliked; but of which Scott vaingloriously remarked that they were perhaps the "best ever sent in to a competition, or nearly so". However the draughtsman (? in Scott's office) has not yet been identified.'

The reproduction of this drawing can also perhaps serve the useful purpose of discrediting once and for all the false statement, which ignorant journalists continue to repeat, that the St. Pancras Hotel was Scott's discarded Foreign Office design reused.





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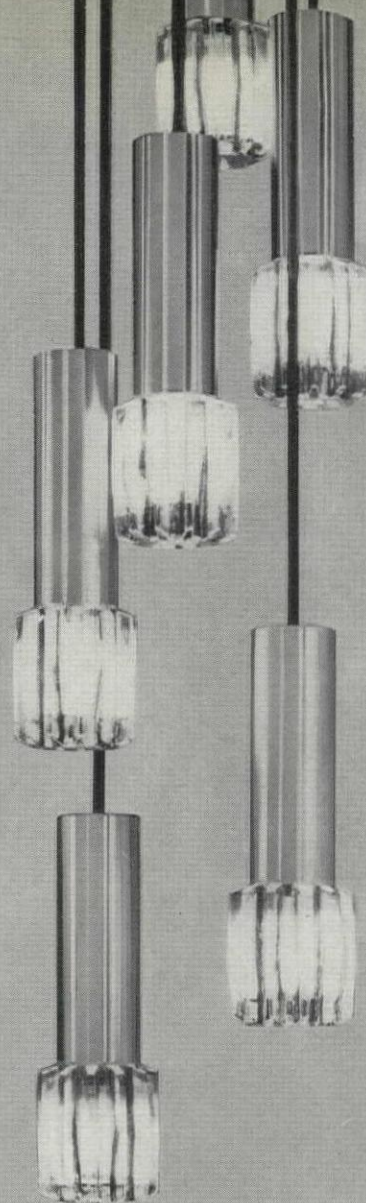
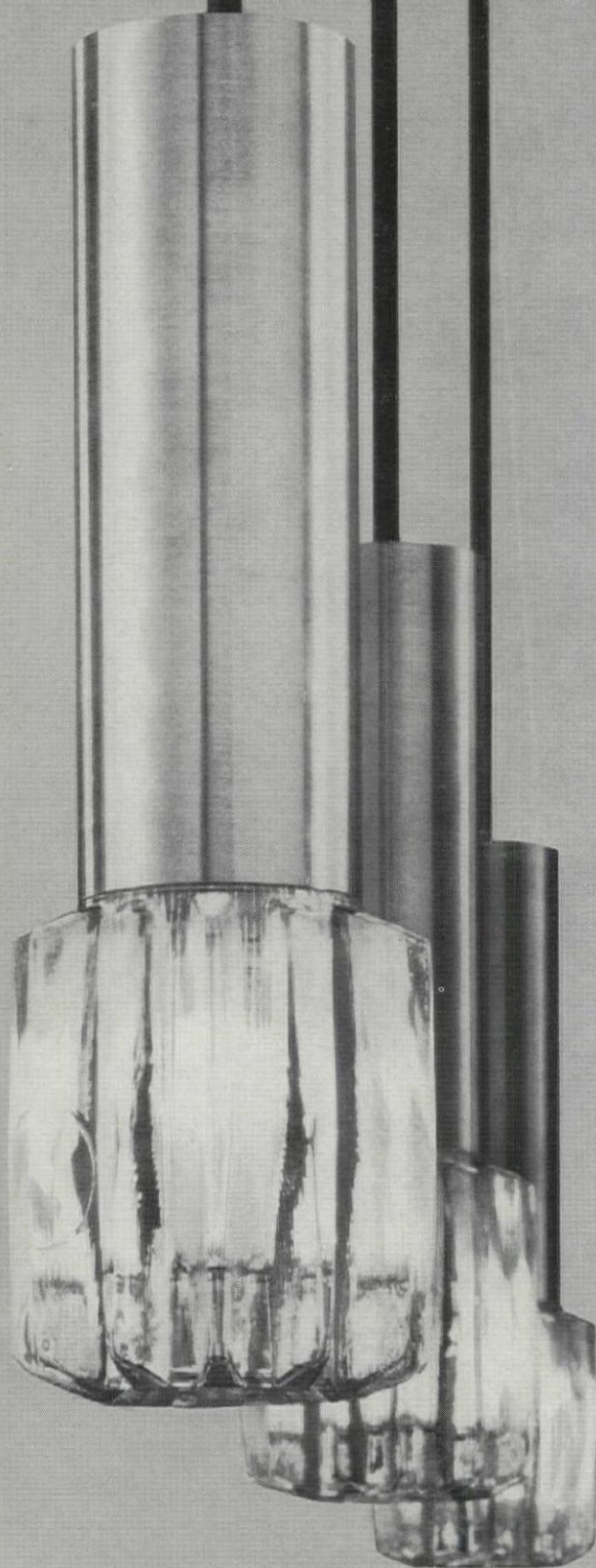
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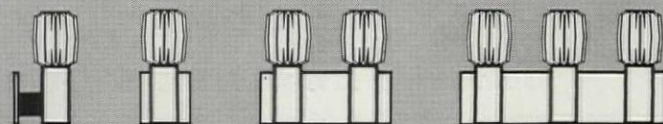
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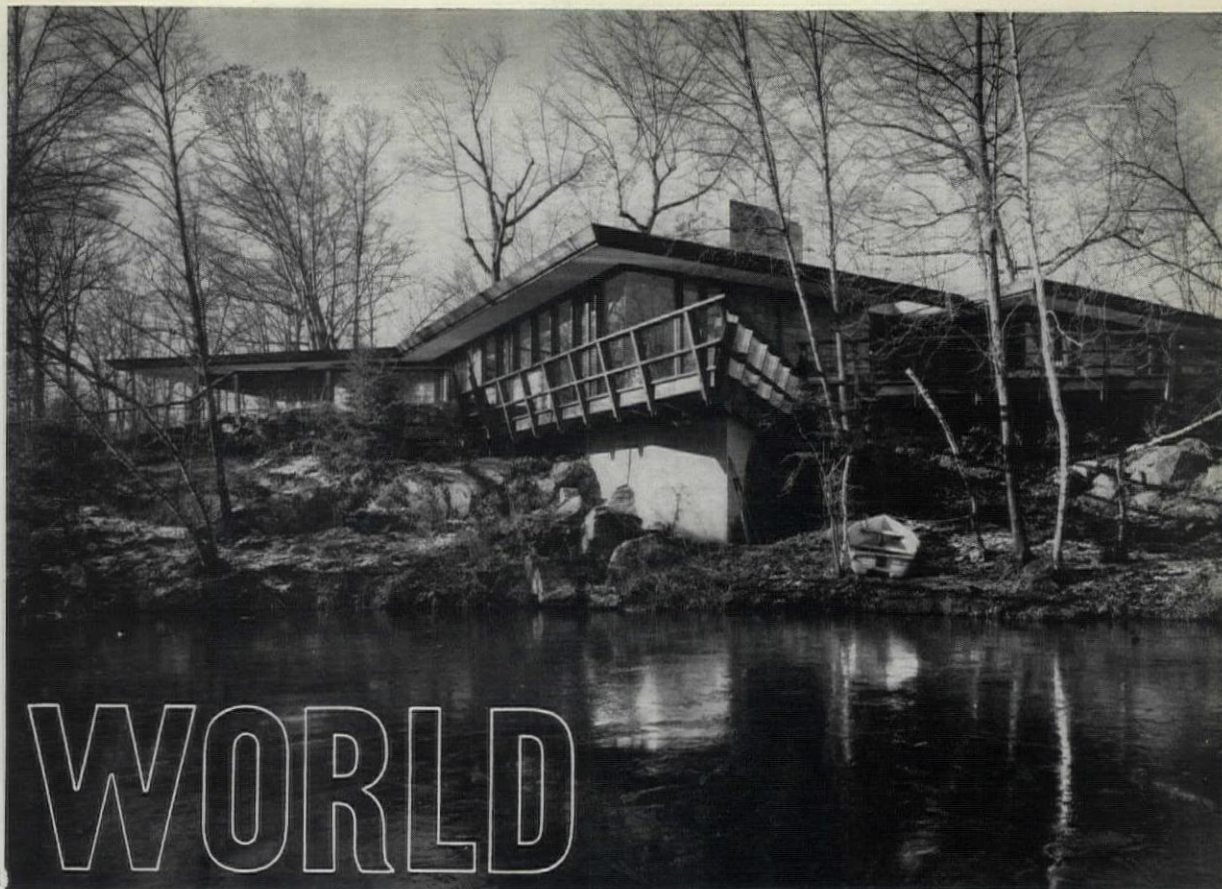
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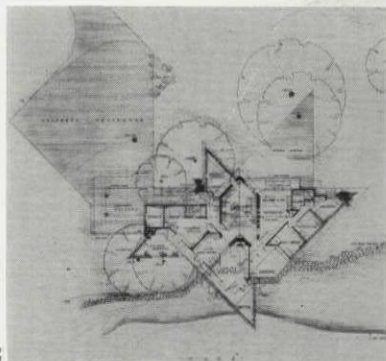


FLW FOLLOWER

Some of Frank Lloyd Wright's humanity prevails in the work of one of his former apprentices and assistants, Allan Gelbin. All three houses shown here reveal a deep understanding of the site. The projecting balcony of the Murphy house in New Canaan, 1, suggests the bow of a ship, while the expansive roof with its deep overhangs (flat except for a central hipped section) is reminiscent of a large bird delicately poised. The triangular units which make up the plan, 2, may help to integrate the building into the landscape, but they also produce awkward internal spaces. The central kitchen, 3, which the owners regard as the most important room in the house, divides the children's accommodation from the master bedroom and living room area. Its axial symmetry, emphasized by the decorative roof truss and skylight, and dominated by a projecting corner chimney breast



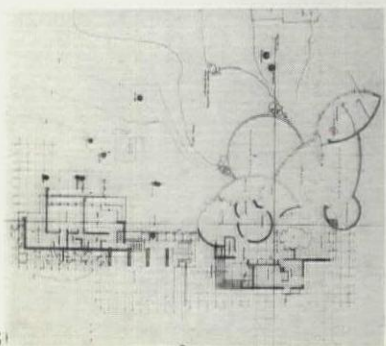
WORLD



2



3



5



4

of random granite, provides a formality which seems inappropriate, and which is in any case contradicted by the furniture arrangement. On the entrance side the plan was deliberately left open-ended for an extension.

Gelbin's insistent horizontality and his use of the hearth as a central feature of symbolic significance come from Wright. So do the vertical and horizontal intersecting forms of his Leuthold house, 4, situated in the mature grounds of an estate also in New Canaan. The circular forms, according

to the architect, were inspired by the gentle undulations of lawns, pools and well-cultivated trees. A trellis links what are really two houses, 5, the single-storey guest house with the owner's studio and sauna, and the two-storey main house which, with the exception of a playroom, relegates the children to the upper floor. In the main house two solid cylinders (in stuccoed concrete block like all the walls) act as pivots, and they are, characteristically, the kitchen and the fire cove off the large living room. Just

as in the Murphy house there was a drop in the floor level as the house advanced down the steep slope, so here the different levels follow the lie of the land.

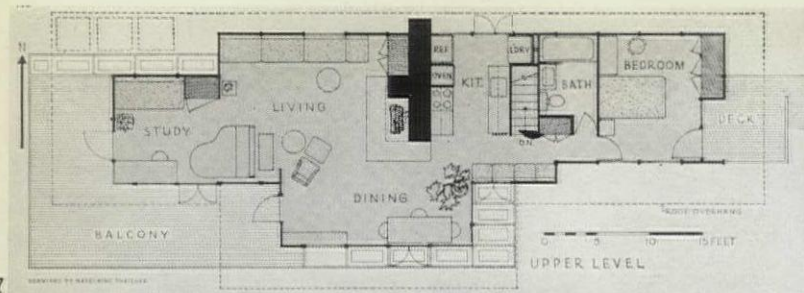
The Leuthold house was designed for an artist and his family as a permanent home. The elaborate brief demanded, amongst other things, a gallery for sculpture, internal and external pools, and a large parking area as well as three car ports. The Johnson house at Danbury in south-west Connecticut, 6, was intended for a single person at week-ends and holidays. It stands on a south slope in a woodland, and has its main floor raised on timber posts and concrete block walls. A limited budget and the need for the house to be maintenance-free led the architect to use asbestos cement panels in timber framing on the upper floor and asbestos tiles on the roof. The wide module and generous proportions of the panels, and the assurance with which the lower panels are extended to form balcony balustrades, give the façade an exceptionally relaxed quality. The plan, 7, is basically a long rectangle,



6

RIGID DEFENSE

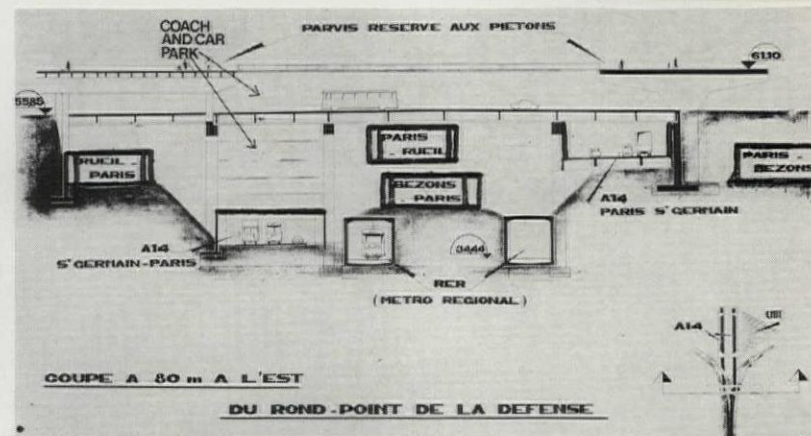
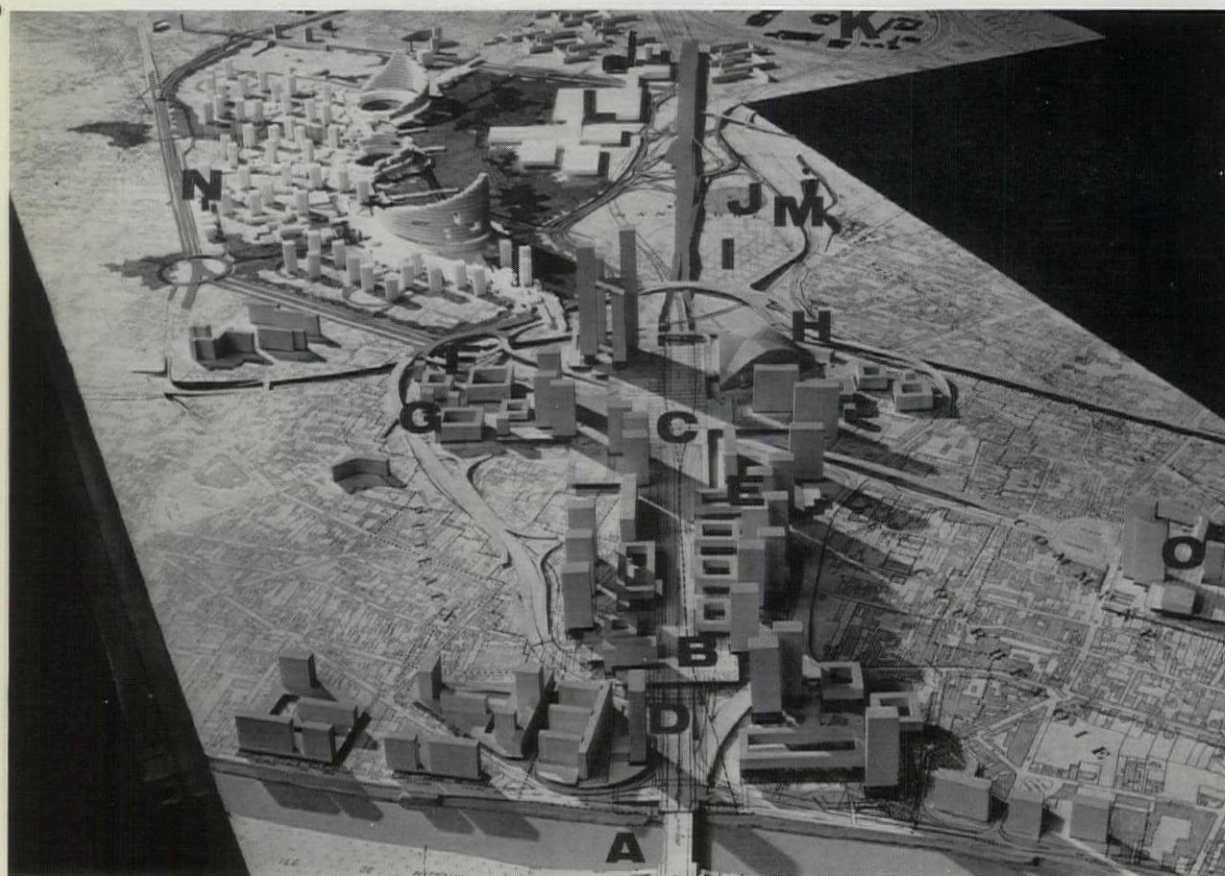
It was ten years ago that the French Government set up the machinery for the development of the vast *Défense* area (one-tenth the area of Paris) as a business centre for the capital, 9. Today more than 6,000 people are working in the eastern zone between the Seine and the old *Rond Point*, though there is little evidence that either the master plan (by Camelot, de Mailly and Zehrfuss with Auzelle as consultant) or the sequence of operations take their existence into account. The journey to and from work has been and will continue to be difficult, with the *Métro* line not yet extended across the river, and car access amid large-scale building operations a real problem. The area also lacks basic amenities, for there are as yet no shops or restaurants. But two of the tower blocks, the *Tour Nobel* for the Central de Dynamite company (by de Mailly



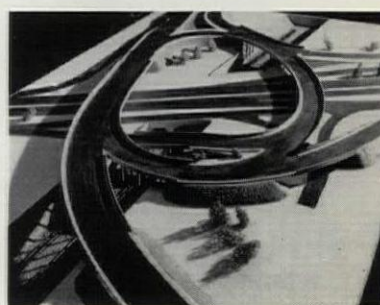
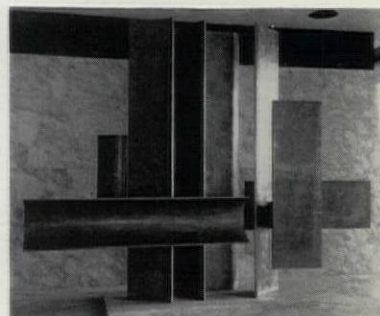
FLW FOLLOWER

with all the rooms facing south. But by skilfully breaking open the rectangular form with balconies and setbacks, and by imposing a tortuous circulation on the open-plan living area (the fireplace again forms the pivot), Gelbin has successfully avoided the monotony inherent in this kind of

plan. The interior, 8, is one with the exterior (the materials are also mostly left in their natural state), and the house as a whole seems to achieve a quality of belonging, despite the use of factory-made elements, which the other two houses try hard to but do not quite attain.



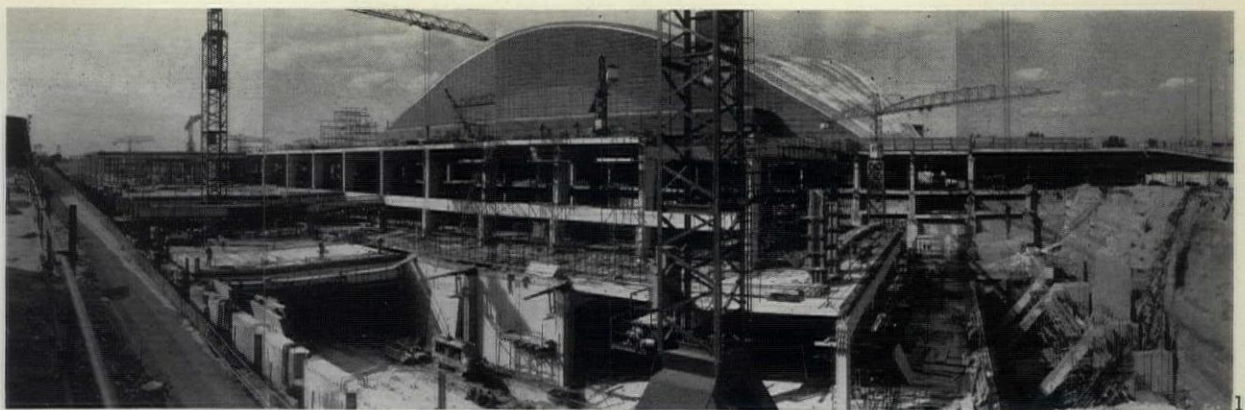
- KEY
- | | |
|----------------------------------|--------------------------|
| A, Pont de Neuilly | H, CNIT exhibition hall |
| B, Avenue Général de Gaulle | I, Nanterre |
| C, Place de la Défense | J, Heliport |
| D, Tour Nobel | K, University o Nanterre |
| E, Tour des Pétroles d'Aquitaine | L, Cultural centre |
| F, Pont de Cherbourg junction | M, Central boiler house |
| G, Palais Royal type blocks | N, EPAD offices |
| | O, Courbevoie project |



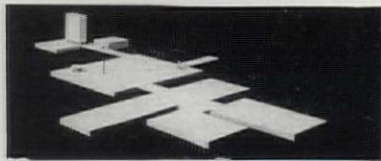
RIGID DEFENSE

and Depussé), 10, and the *Tour des Pétroles d'Aquitaine* (by Luc, Arsène-Henry and Schoeller), centre in 11, provide cafeterias, banks, conference rooms and a medical centre, and are up to the highest American standards both in their air-conditioning and in their vertical circulation, with enough lifts to move 1,000 people every 15 minutes. The *Tour Aquitaine* also contains an impressive number of works of art specially commissioned by the company, amongst them a standard element of beaten copper by Pierre Sabatier, used as a facing for the central core, 12, and a large steel sculpture in the main hall, set against a background of white marble, by Marino di Téana, 14.

The most disturbing aspect of the *Défense* plan is the rigidity imposed by an elaborate system of ring roads, most of which seem to be elevated. The eastern zone appears hemmed in by this formidable barrier (seen in 9), and not surprisingly the buildings themselves, mostly tower and courtyard blocks, suggest the same closed and inflexible form. The *Pont de Cherbourg* road junction and railway crossing seen more clearly in 15, contains in the angle of two of its arms one of the main residential areas (not shown in 15), the blocks admittedly facing inwards on to gardens and known appropriately as the *Palais Royal* type. The eastern zone development clings to a central spine (the *Avenue Général de Gaulle*) which extends westwards to Nanterre and to its university of revolutionary fame. Buried in the spine is an underground network of communications, 13, built on five levels and including the suburban *Métro* line and the Paris-Normandy motorway. Parking, too, is multi-level and underground, with provision for 25,000 cars. The top deck, which extends to the blocks on either side, is for pedestrians only, but



16



17 it remains to be seen whether the architects will succeed in pedestrianizing the scale (a much more difficult thing to do) as well as the street. 16 shows the central spine with the new *Métro* station under construction, and the CNIT exhibition hall in the background.

Within the greater area the achievement so far has been fragmentary, though Nanterre University has been substantially completed, and much housing for people whose homes were demolished has been built. The admirable offices for EPAD, the company set up by the Government to carry out the whole development, were built some time ago on the southern fringe, and have been reviewed in these pages (*World*, January 1966). The large complex to be surrounded on three sides by a park (seen in the distance in 9) is the future cultural centre, and it will include Le Corbusier's Museum of the Twentieth Century, to be realized by Wogensky and Dubuisson. The centre will eventually also house the

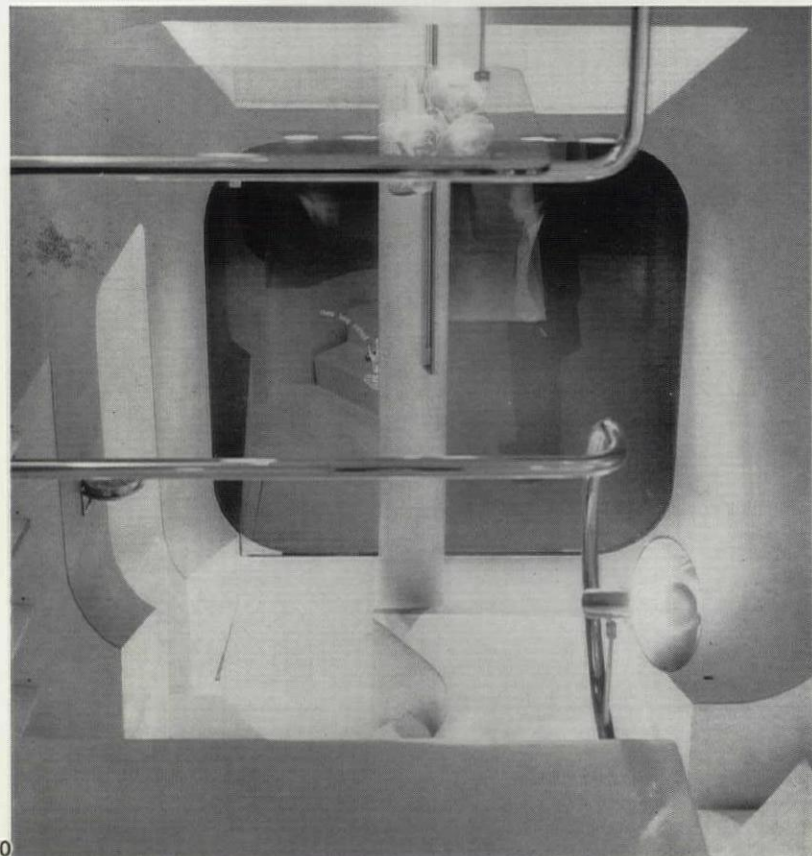


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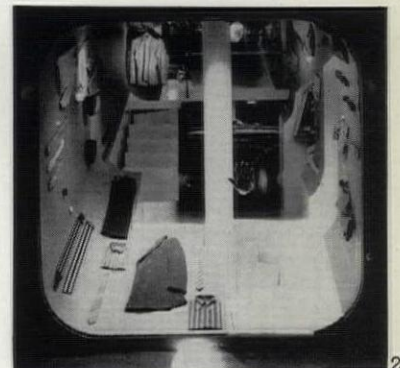
Ecole des Beaux Arts, the *Conservatoire de Musique*, the *Ecole de Radio, Cinéma et Télévision* and the *Ecole des Arts Decoratifs*, 17. Linked to it on the west will be the new *Préfecture des Hauts de Seine*, a tower with a two-storey block, also by Wogensky. Less re-assuring are the two circular blocks south of the park (seen in 9), Pottier's *Courbevoie* project, 18, and the completed central boiler house, 19. Such swagger is characteristically French, and derives no doubt from the Beaux-Arts tradition of thinking big; the aggressive forms of these large buildings will do nothing to help humanize a potentially frightening environment.



20

LARUS

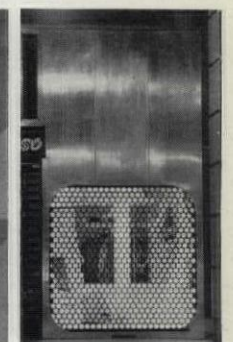
Shops continue to make news, and often the smaller the shop the better. Rizzato, Jacober and Matsunaga (the first two were also responsible for *Altre Cose* in Milan—see ID in AR, September 1968) are the architects for the tiny Larus boutique for men on the Corso Vittorio Emanuele in Milan, 20. The available space, which was narrow and high, has been resolved into a kind of large tube of square section with rounded edges, set out on an upwardly inclined plane. In fact three levels are linked by steps in a setting of beige and white, and the whole space becomes a shop window with the customer on display as well as the goods, 21. The window itself, framed in a thin stainless steel edge, is simply the tube in cross-section. With or without its perforated shutter, it effectively expresses the formal entity of the shop even when seen at a distance from a fast-moving car, 23. The door handle in the form of two



21



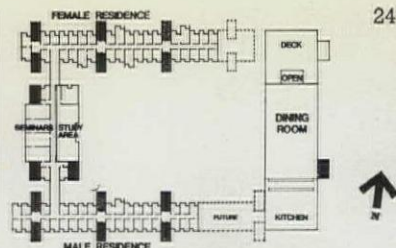
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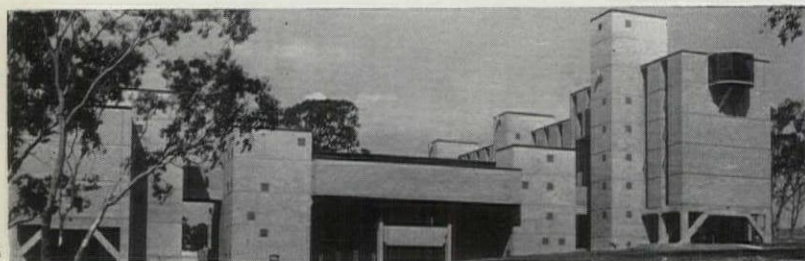
23

hands, 22, suitably designed for pushing on the outside and for pulling on the inside, is a delightful conceit which also provides a human scale.

STARK LA TROBE



24



25

A European may get the impression that most of the interesting new architecture in Australia is concentrated in New South Wales. Two university buildings by Romberg and Boyd suggest that other areas do equally well. At the new university of

La Trobe near Melbourne they have recently completed the first stage of Menzies College, 24, consisting of two residential wings linked to a central administration and seminar room block by bridges. The second stage—a dining hall, recreation and common



26

rooms—is now under construction, and will close the east side of the large quadrangle. The expression is forthright and stark, especially the west façade facing the campus, 25, which has been kept largely 'blind' to avoid the low sun. The consistency of the

design is evident in the relation of structure and materials to function: rectangular concrete pylons for lifts, stairs and services, and load-bearing brick (of a putty colour) on concrete portals (to provide locker space) for the residential accommodation, 26.

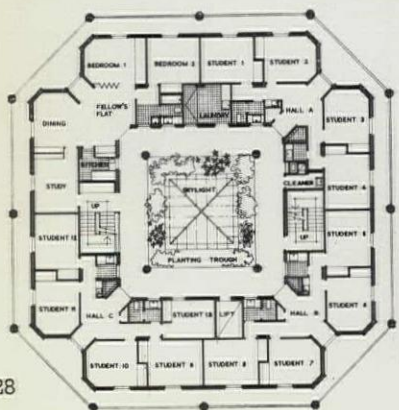


27

SQUARE ORMOND

The other building, McCaughey Court, is a residential block for Ormond College in the University of Melbourne, the first in Australia to provide officially for married students. A multi-storey solution, 27, was dictated by a restricted site, and the choice of materials—an off-form reinforced concrete frame with brick infill walls—was influenced by the colour of stone and slate in the old college buildings. The steel deck roof with its dominant

overhang and hipped cap gives the building a Japanese character (Boyd is the author of *New Directions in Japanese Architecture*), while the plan, 28, maintains a classical elegance with its neat symmetry. A square with its corners cut (two structural bays alternating with one), it manages to

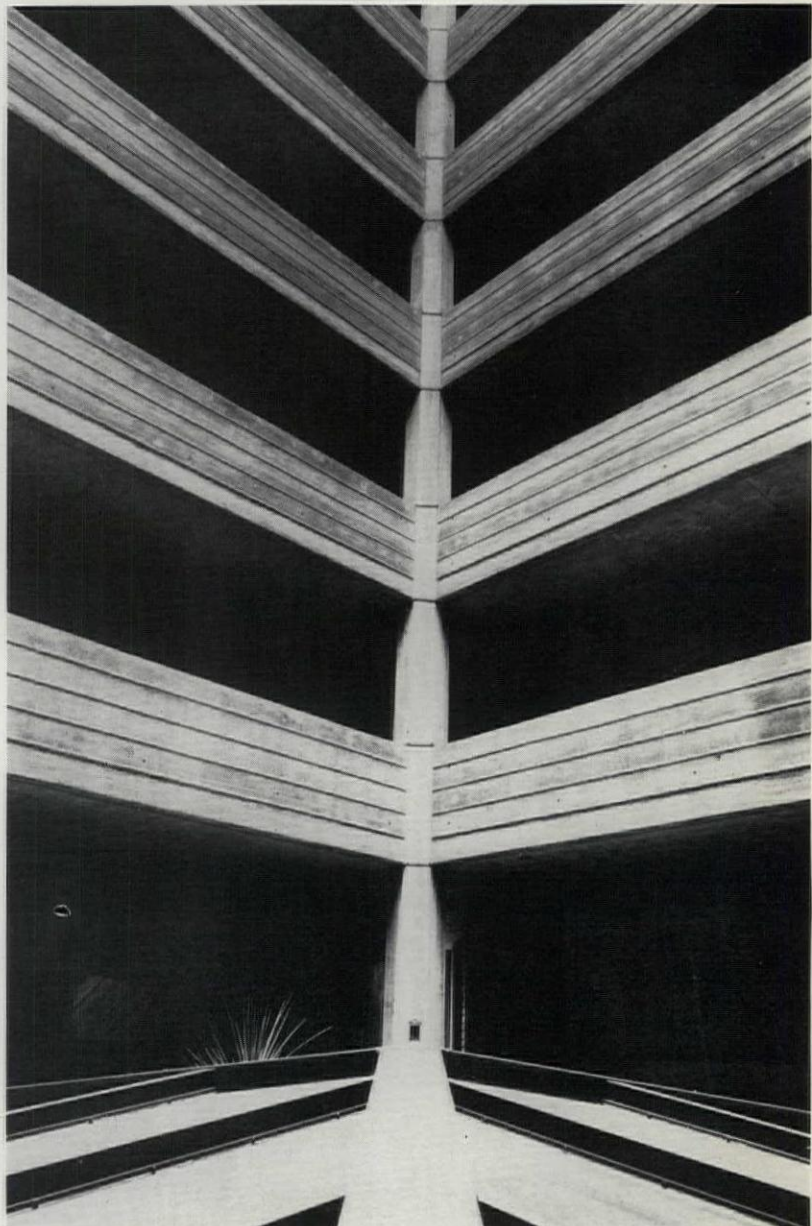


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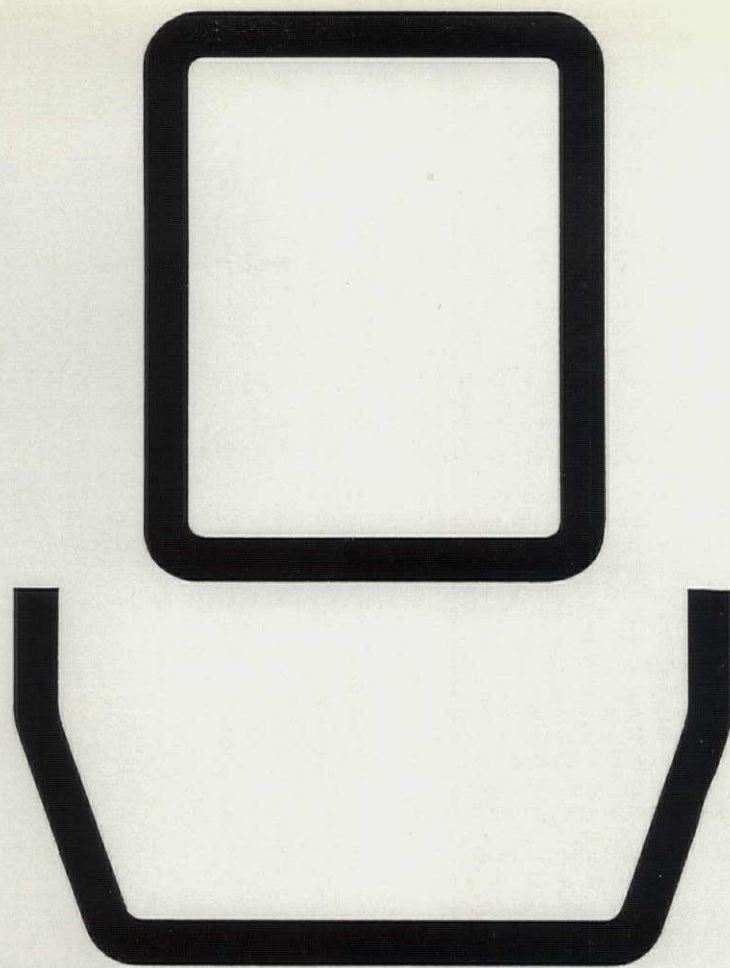
29



30

avoid emphasis on any one of its four axes. The top two floors each have eight flats for married students, while each of the lower floors (seen in 28) contains a tutor's flat as well as the rooms for single students. Internally all this accommodation gives on to

balconies which surround a courtyard of somewhat grim proportions but with a distinguished corner detail where the balcony fronts meet the structural column, 30. The skylight which forms the floor of the courtyard lights a central common room on the ground floor, 29.



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VIEWS AND REVIEWS

marginalia

DRU BIRTHDAY

This month Design Research Unit celebrates its twenty-fifth anniversary. A professional group engaged in architecture, graphic design, interior and exhibition design and product and engineering design, it now runs one of the largest design offices in Europe.

Though two of the founder partners, Milner Gray and Misha Black, had worked together since 1933, and they had been colleagues, together with another senior partner Kenneth Bayes and the group's business manager Dorothy Goslett, in the Ministry of Information during the war, the initiative in setting up the group in its present form came from Marcus Brumwell, who was then (1943) chairman of Stuarts Advertising Agency and had the idea of establishing a shadow industrial design unit ready to meet post-war demands. He became the third founder partner and the late Herbert Read became director.

Others who worked in or with the group in its early days include Bernard Hollowood (later editor of *Punch*) on the business side, the late E. C. Gregory, managing director of Lund Humphries who became chairman of DRU Ltd. and in whose offices in Bedford Square the group began operations, Frederick Gibberd, the late Felix Samuely, Alec Gibson Norbert Dutton and the Bauhaus-trained designer Robert Gutmann.

DRU's first big job was at the Britain Can Make It exhibition of 1946. Since then it has carried out an enormous variety of work, maintained a remarkably high standard and won many awards for design at home and abroad.

VENICE IN NEED

There is still a great need in Venice for volunteers willing to give some time to helping with the surveys that are being made of historic buildings requiring restoration. After the extensive damage by flooding a couple of years ago, Unesco agreed to subsidize restoration work and has provided the Soprintendenza ai Monumenti, Dr. Renato Padoan, with funds to make a systematic inventory of the historic buildings of Venice, and particularly of those in need of repair. This is a vast undertaking, both because of the quantity of such buildings and the condition many of them are in. It is also urgent, because if some buildings are not restored quickly they will deteriorate beyond the point when anything can be done. Dr. Padoan has made an energetic start. Already files have been compiled on 400 palaces

and 100 churches, containing survey notes on their condition and specifications of the work that needs doing. But much work still remains, both to cover a larger number of monuments and to survey the more important ones in greater depth.

It is to take part in this work that architect volunteers are needed. English participation in the work is being handled by the Italian Art and Archives Rescue Fund (which was set up after the disastrous Italian floods of 1966 under the chairmanship of Sir Ashley Clarke). Any architects willing to put themselves at the disposal of this work in Venice, even if they are available only for a short time, should get in touch with the Secretary of the Fund, Mrs. H. Brooke, at 8 Pelham Crescent, London SW7.

PARIS SOS

Les Halles, the great food markets that have long been a feature of the centre of Paris, have just been transferred to a site on the edge of the city at Rungif, near Orly airport—for much the same reasons as Covent Garden market is to be transferred to the edge of London. Schemes are being prepared for redeveloping the site of *Les Halles* when the market buildings have been demolished, but at the same time a campaign has been launched by Paris architects to try to persuade the city authorities to allow the best of them to remain.

They include this pavilion by Baltard, the interior of which is shown in 1, a splendid example of early iron and glass architecture. An effort should certainly be made to find a new use for it and incorporate it in the new layout of the site. To insist on a clean sweep of all the old buildings would be to take a primitive attitude to urban replanning problems that the French have surely grown out of.

ENVIRONMENTAL CONFERENCE

The Centre for Environmental Studies is organizing a conference, to be held at Church House, Westminster, on May 19 and 20 on 'Information and Urban Planning', the aim being to study the use of different types of information in the planning of the physical environment and to identify future changes in information availability.

There will be six sessions, speakers at which will include Professor Peter Hall, Mrs. Brenda White of the Library Association, Mr. Owe Salomonsson of the Central Bureau of Statistics, Stockholm, and Professor Britton Harris of the University of Pennsylvania. Further information can be obtained from the Conference Secretary, CES, 5 Cambridge Terrace, London NW1.

LAMBETH IMPROVEMENT

The more enlightened attitude to the possibilities of rehabilitation (as distinct from the sterile certainties of demolition and rebuilding) that has been in evidence lately is reflected in the study of the Clapham Manor area now being made by Lambeth borough council (borough architect, Edward Hollamby). It is the first of a number of studies the borough is to make of areas in Lambeth that could be improved without complete clearance. The improvements, which will follow discussion with the local inhabitants, will be based on the need for a housing



gain and will include the provision of garages and open space and better vehicular and pedestrian movement. The existing houses in the Clapham Manor area are mostly of two or three storeys, and 2 shows their agreeable architectural character, fully justifying the rehabilitation process. Larger houses will be subdivided and some new dwellings added as well as a new health centre and day nursery. 3 is a sketch by the borough architects of the ultimate result, showing Clapham Manor Street closed off forming a pedestrian shopping area by the Bowyers' Arms public house. This connects with pedestrian walks that cross the site to the existing primary school and the new health centre and day nursery.

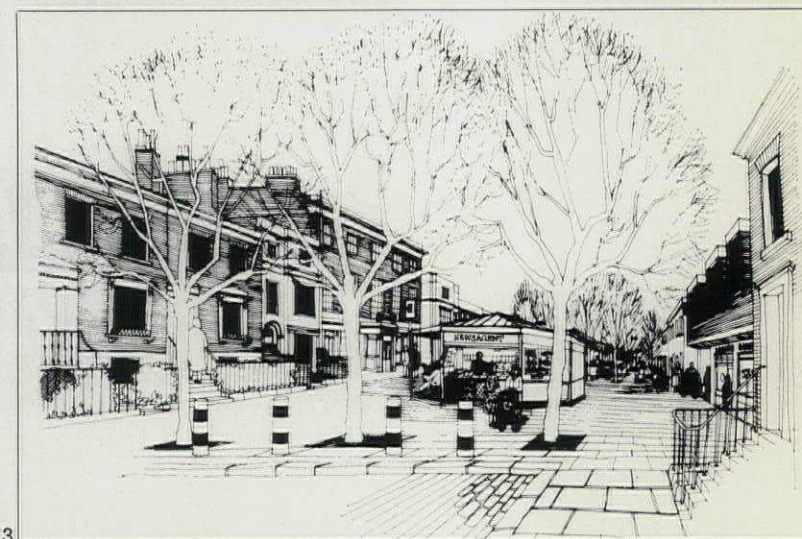
BAUHAUS CATALOGUE

Some visitors to the Bauhaus Exhibition at Burlington House last September and October were disappointed at being unable to obtain a catalogue

as supplies ran short. The German Embassy has now received fresh supplies and copies can be obtained from them at 30s. each including postage. Application should be made to the Cultural Department, German Embassy, 23 Belgrave Square, London SW1.

QE2

The June issue of *THE ARCHITECTURAL REVIEW* will be wholly devoted to the new Cunard liner *Queen Elizabeth 2*. Her unfortunate experiences during the past months, and the publicity given to them, should not obscure the fact that she is a unique ship, magnificently conceived and designed. Differing from the earlier *Queens* in being fitted out more like a classless luxury hotel, she has also had the benefit, in addition to Cunard's strong design team, of two outside co-ordinators, James Gardner for the external appearance, and Dennis Lennon for the interiors, and Lennon has had





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continued from page 384

working under him some of the best interior designers in Britain. The issue will concentrate largely on the ship's interiors, including the large public rooms, a variety of cabins, specialized areas like the hospital and the simple but well-considered mess rooms. These will be illustrated in colour as well as black and white, and will be the subject of a critical appreciation. Sir Hugh Casson writes on the mystique of great ships and sea travel, and broaches some of the interior designer's problems. Kenneth Agnew, in an illustrated article entitled 'Concept to Cunarder,' deals with the design and construction of the ship itself.

INDUSTRIAL CONVERSION

The conversion to new uses of early industrial buildings no longer needed for their original purpose is a recurring problem, and each time the problem is successfully solved it deserves to be put on record for the encouragement of others. Recent examples recorded in the AR are the conversion by Arup Associates of the Maltings at Snape into a concert-hall (September, 1967) and the conversion by Joseph Esherick and Associates of a cannery at San Francisco into shops and restaurants (March, 1969).

Another example—on a smaller scale but sensitively and skilfully done—is shown in 4: an eighteenth-century corn and coal store at Blakeney, Norfolk, converted by Feilden & Mawson into two shops and five holiday flats. Since the building is one of the most prominent in this little seaside village its preservation was essential, and the Civic Trust award given last year to the project was highly deserved.

RIBA PAPERBACKS

The RIBA's enterprise (in conjunction with *Country Life*) in launching a series of paper-back books based on the library's collection of drawings has already been commended on these pages. Now that the eight slim volumes have appeared, they can be welcomed as a very useful series, fully justifying

expectations. They make more widely available the treasures in the RIBA drawings collection, the richness of which is far too little known.

The general editor of the series is, appropriately, John Harris, curator of the collection. The names of the authors are sufficient indication of the quality of the writing and the scholarship. The eight titles are: *Royal Buildings*, by Howard Colvin; *Georgian Country Houses*, by John Harris; *The Greek Revival*, by J. Mordaunt Crook; *Victorian Churches*, by Peter Howell; *Garden Buildings*, by Alistair Rowan; *Monuments of Commerce*, by Nicholas Taylor; *Stage Designs*, by Wynne Jendwine; *Indian Architecture and the British*, by Mildred Archer. They are published by Country Life Books at 10s. 6d. each.

The paper-back volumes have 64 pages, containing a brief text and about 40 pictures (unfortunately rather wanly reproduced) with informative captions to each. It is to be hoped that the series will continue.

correspondence

GRAND CENTRAL

To the Editors.

SIRS: May I comment on the critical remarks you make in your January 1969 issue "World" section, about the piece I published on Breuer's thing over Grand Central Station? Well, of course it is grotesque, though I must admit that a sort of pop perversity has led me to like the idea. But your writer was quite wrong in one respect: except for the fact that this slab would be stuck on top of that neo-classical facade, this is probably the very best possible location for an office tower anywhere in Manhattan.

The reason is that there is no other location where a 10,000-inhabitant building can be plugged into an entire system of suburban trains, into at least two major subway lines, into three bus lines, into automobile routes on two levels, and into an underground



5



6

Pictures 5 and 6 celebrate the fact that the Burlington Arcade is 150 years old this year. Both the most distinguished architecturally and the most successful commercially of London's glass-roofed shopping arcades, it was designed by Samuel Ware, Lord George Cavendish's architect, at the same time that Burlington House was remodelled for him. Both entrances were subsequently remodelled (the Piccadilly one by Beresford Pite) and the arcade was severely damaged in the 1939-45 war but admirably restored afterwards.

book reviews

NEO-CLASSICAL HOPE

THOMAS HOPE, 1769-1831, AND THE NEO-CLASSICAL IDEA. By David Watkin. John Murray. 63s.

As an artist-patron Thomas Hope has been pertinently compared with Lord Burlington. However apt may be this comparison, historians have been reluctant to enquire very deeply into Hope's achievement. An article here and there, much misunderstanding about his furniture, and a somewhat underrated biography by Baumgarten, are all that one can muster. Hope emerges from Dr. Watkin's study as an international figure, a rich collector who possessed a European mind and depth of culture rare in Regency London.

This eccentric son of a Dutch banking family could never quite establish himself with the 'Ton' of town. The aristocracy never forgave him his wealth and (so they thought) his ostentation. There can be no doubt that some of the initiative to create the Duchess Street house, and the Deepdene, derived from a compensating need to balance his lack of a peerage—and, of course, a comparison with Beckford is apt here. At Duchess Street from 1799 he used a form of romantic classicism to produce something like a modern museum, a series of historically composed, symbolical rooms that attracted the interested eye of Sir John Soane long before he created his own fantasy at 13 Lincoln's Inn Fields. Hope acquired the estate of Deepdene in 1807. By 1818 he had built what can only be described as the quintessence of a Picturesque country house. There never was anything like it; it shot up into fairy-tale towers, or by wings out into a bosky garden-scape. Hope was also a prolific writer. There was the *Observations* on Downing College in 1804—a pioneering polemical pamphlet in the history of the Greek Revival; then the influential *Household Furniture* in 1807—literally a guide to the Duchess Street interiors and a pattern-

truck-access as well. Sant' Elia, who was greatly impressed by Grand Central, never imagined a transportation interchange as efficient as this one. It is simply not accurate to suggest that those 10,000 extra people will congest the area. In fact, the proposal vastly improves traffic flow throughout the Grand Central complex. A second scheme, by the way, which does away with the facades of the Grand Central Station, and which will be published shortly, is an ever better solution to traffic flow in the area. However, I think the first one—the absurdity—is really more fun.

Yours etc,

PETER BLAKE

(Editor, *The Architectural Forum*)
New York City.

THONET FURNITURE

To the Editors.

SIRS: May I be allowed to add a corrective note to Mr. Cantacuzino's very useful article on Thonet furniture in your October 1968 issue? Adolf Loos used in many of his interiors true copies—not imitations—of Chippendale and Sheraton chairs until the old Viennese cabinet maker who had made them died (see his article 'Der Alte Veilich' in *Trotzdem*). Loos afterwards used Thonet chairs, copies of Windsor chairs and several very good and comfortable models of wicker chairs. He insisted that Le Corbusier had used the wrong model of Thonet chair—a fact which is also implied in Mr. Cantacuzino's article. Loos enjoyed putting into his earlier and late interiors a copy of a wooden stool from the tomb of Tutankhamen, visible in several illustrations in the Münz-Künstler book on his work, and he liked to show it off as an example of 'functional design lasting through the ages'.

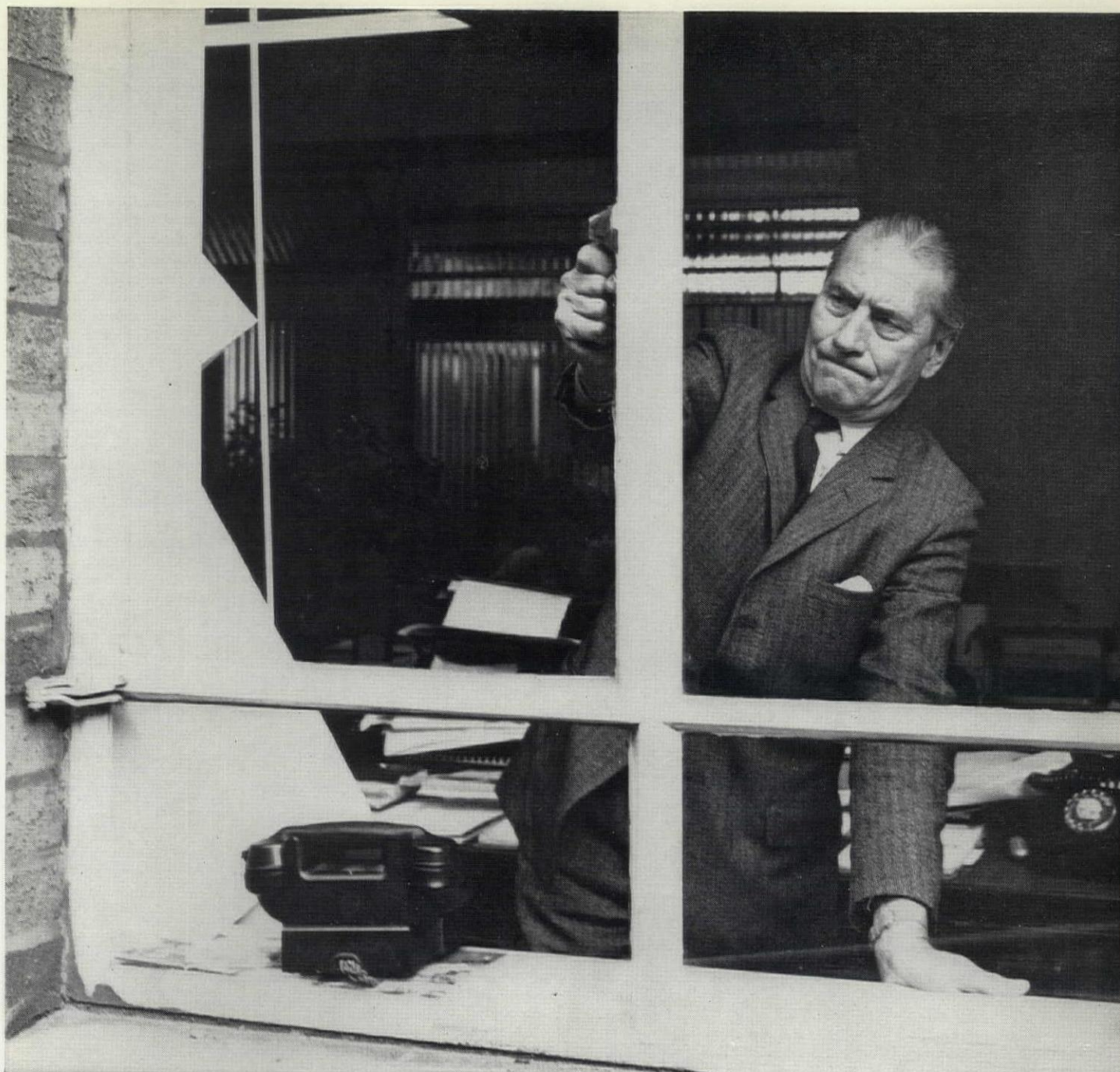
Yours etc.,

Haifa, Israel.

Y. K. UNGER



4



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book for Hope's singular neo-Roman furniture; in 1808 his essay *On The Art of Gardening* appended to Mrs. Hofland's *Whiteknights* in 1819; *Costume of the Ancients* in 1809 and *Designs for Modern Costume* in 1812, both exquisitely engraved by Henry Moses with microcosms of Regency interiors. Then there was the famous novel *Anastasiu*. Like Byron, who 'wept bitterly' that he had not written it, and . . . that Hope had, there may be some who will weep that they had not written this Hope biography and that Watkin did.

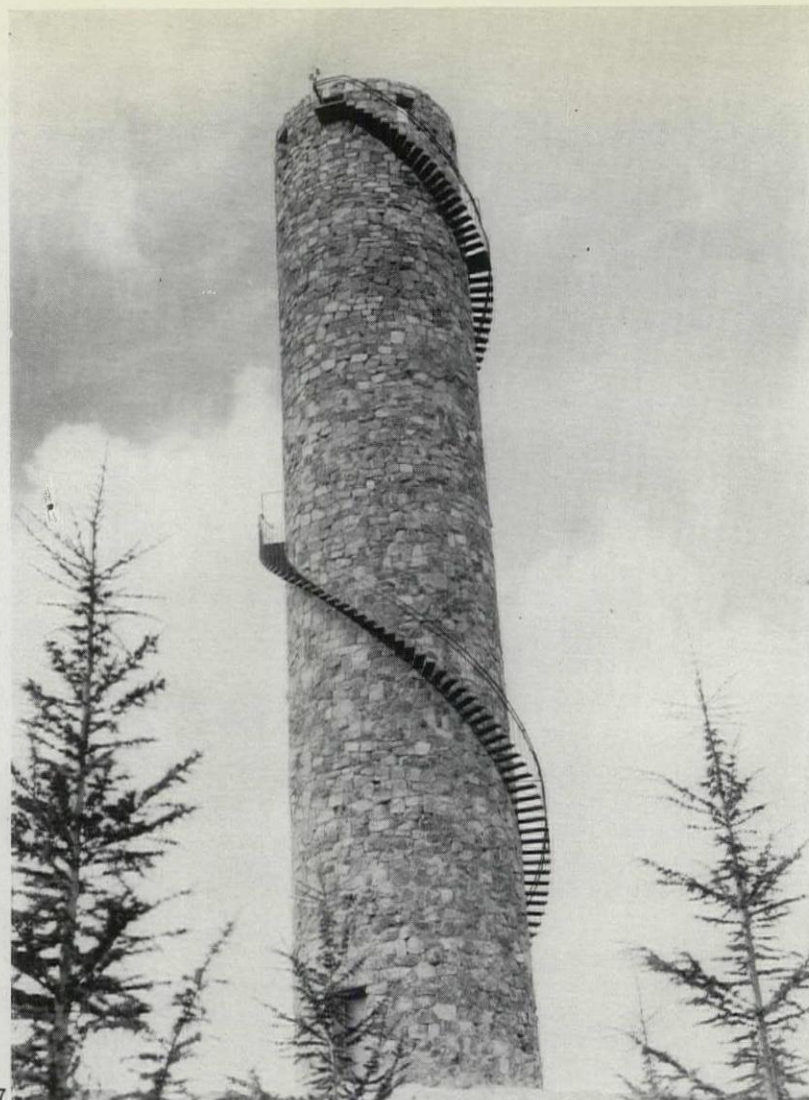
JOHN HARRIS

THE EXECUTION

THE NATURE AND ART OF WORKMANSHIP. By David Pye. Cambridge University Press. 30s.

Professor Pye has written a book that overturns many hitherto unquestioned views about the ultimate dependence of art, architecture, and industrial design on the quality of workmanship. Some books are *mindmarks*, if I may coin such a word, because they jolt the mind, enforce a reassessment of accepted ideas, and compel us to overhaul our habitual beliefs and pet prejudices.

In clear and forcible English the author exposes the mental idleness that takes workmanship for granted and avoids uncomfortable doubts concerning the immensely varied capabilities of the workmen who eventually interpret and frequently change the character of a design. On the first page of his first chapter he compels us to begin our re-thinking, by restating a problem of communication that is either not recognized as a problem at all, or is casually ignored. 'Design is what, for practical purposes, can be conveyed in words and by drawing: workmanship is what, for practical purposes, can not.' Because we have either forgotten or never even considered those distinctions, we have reached a situation when, 'In practice the designer hopes the workmanship will be good, but the workman decides whether it shall be good or not. On the workman's decision depends a great part of the quality of our environment.' The defects of communication between designer and the executant workman are examined in the fourth chapter, where the relationship of technique and technology to workmanship are described. The author defines technique as 'the knowledge of how to make devices and other things out of raw materials.' It is also 'the knowledge which informs the activity of workmanship.' Quite simply, technology is 'the scientific study and extension of technique. In ordinary usage the word is slapped about anyhow and used to cover not only this, but invention, design and workmanship as well.' Workmanship 'is the application of technique to making, by the exercise of care, judgement, and dexterity. As opposed to design, workmanship is what for practical purposes the designer cannot give effective instructions about by drawings or words, although he can envisage it perfectly well. The designer is apt to imagine he has more control over workmanship than he has.' This fairly common delusion is shattered when a designer 'comes up against a firm who do not know their work and finds he is helpless. All he can do is to say "do it again". When the work is bad the second time, his resources



As an unexpected postscript to the AR feature (July 1962) illustrated the varied shapes of modern water-towers comes this picture of an example in Spain. It was recently completed at a new pharmaceutical and agricultural products plant at Alcobendas, near Madrid, belonging to Lilly de Espana SA (the Spanish affiliate of Eli Lilly International). The water, which is scarce in the area, comes from a 600 ft. deep well and, after purification, is raised into the tower (capacity 11,000 gallons) for distribution throughout the plant. The tower is built of granite from the Guadarrama mountains.

are at an end. You cannot compel good workmanship by the terms of a contract.' The word skill is deliberately rejected. 'It does not assist useful thought because it means something different in each kind of work.' The author might have added that the word has been debauched by commerce and the dispensers of emotional twaddle about taste. Professor Pye is supremely quotable: his thoughts are lucid, his ideas minted from a new mould, his reserves of common sense inexhaustible, and his writing free from the insufferable jargon that disfigures and obscures so many works on art and design and architecture. Chapter ten contains a refreshing reassessment of Ruskin. Although 'a man of great insight and a great writer,' he 'preferred rhetoric to the exact analysis of ideas, and much preferred it to the definition of his terms.' But, having made allowance for Ruskin's runaway eloquence, Professor Pye does justice to his flashes of wisdom, and admires his regal impatience with stupidity and ugliness.

There are twelve chapters, the last being a commentary on the illustrations, which have been selected with lively imagination to illuminate points made in the text, and tidily disposed on 31 half-tone plates between the end of chapter 12 and the index. Architects, industrial designers and

teachers should be stimulated by the tonic quality of this outstanding and memorable work, happily untainted by politics or undue reverence for the glitter of transient modes of thought. I commend it to all art and architectural students, who should read it to shake up their ideas and beliefs, before they get 'sot in their ways'.

JOHN GLOAG

BERLIN BUILDS

BAUEN SEIT 1900 IN BERLIN. By R. Rave and H. J. Knüfel. Kiepert, Berlin, DM 14.80. It is at last getting more likely that, if one visits a city to see its twentieth-century buildings, one can acquire a guide book to them. In London the initiative was taken by London Transport a long time ago, and in 1938 Sir Hugh Casson's *New Sights of London* came out. This was followed in 1958 by the AA publishing their annotated Esso Map, and in 1963 LT published *New Architecture of London*. Milan was one of the pioneer cities, first with Bottoni's *Edifici Moderni in Milano* of 1954 and then with Pica's *Architettura Moderna in Milano* of 1964, and there is of course the classic *Hvem byggede hvad?* published by Politiken, the Copenhagen newspaper, in 1952, which contains texts and little illustrations on every building of interest in the whole of Denmark right up to Arne Jacobsen and beyond. In the United States it is the American

Institute of Architects that does the job for where its conventions are held. In Spain Carlos Flores has recently embarked on the enterprise and his guides to Madrid and Barcelona and Toledo (with Eduardo Amann) have been noticed in THE ARCHITECTURAL REVIEW (May and July, 1968).

Now Berlin is coming on with a new volume, following after thirty-seven years Heinz Johannes's *Neues Bauen in Berlin*, which was already in layout and illustration much of what this new vintage has become. *Bauen seit 1900 in Berlin* has 235 items (counting the Hansarviertel altogether as one and the new Märkisches Viertel also as one), all illustrated, and a map with the numbers marked. The arrangement is by areas, centre, E, SE, SW, W, NW, all regardless of the Wall. There is an index of architects with the numbers of their jobs and an index of streets. Although the list is extended backwards to the beginning of the century, nothing appears before 1905 and hardly anything before 1908. Of the early names Grenander, Oskar Kaufmann, Mebes and Emmerich and Straumer are unknown over here. Nazi architecture is simply left out, which is unjustifiable; or is nothing left except the buildings by the Tempelhof Airport? With-it visitors will be thrilled to see that they can search out eleven pre-war buildings by Scharoun.

N. P.

BOOKS RECEIVED

INDUSTRIAL RELATIONS IN CONSTRUCTION. By W. S. Hilton. Pergamon Press. 30s. hardback; 25s. flexi.
GRAPHIC DETAILS FOR ARCHITECTS. By Carl Kemmerich. Pall Mall Press. 55s.
THE MATRIX OF MAN. By Sibyl Moholy-Nagy. Pall Mall Press. 90s.
COOLING TOWERS, PRINCIPLES & PRACTICE. By W. Stanford and G. B. Hill. Carter Thermal Engineering Ltd. 16s.
UNSERE STADT. By Guldner. Wedel Bei Hamburg.
PIANO URBANISTICO DEL TRENTINO. Marsilio Editori.
FOUNTAINS & SPRINGS. By Ernst-Erik Pfannschmidt. George Harrap. 75s.
PLANNING OF SURGICAL CENTERS. By Ervin Putsep. Natur och Kultur. 80s.
CONVENTION DE CAROUGE. By André Corboz. Payot Lausanne.
THOMAS JEFFERSON. By Fiske Kimbell. Plenum Publishing Corporation. 80s.
PIANIFICAZIONE E NUOVI CENTRI DECISIONALI. By Gampalo Andreatta. Marsilio Editori.
MEASUREMENT OF BUILDING WORK. By W. Howard Wainwright and Raymond Whitrod. Hutchinson Educational Ltd. 42s. cased; 25s. paper back.
CHURCH MAINTENANCE. By Vivian Symons. Marshall, Morgan & Scott. 35s.
NEW DIRECTIONS IN BRITISH ARCHITECTURE. By Royston Landau. Studio Vista. 45s.
NEW DIRECTIONS IN JAPANESE ARCHITECTURE. By Robin Boyd. Studio Vista. 45s.
TOWARDS TOMORROW'S ARCHITECTURE. By A. Trystan Edwards. Phoenix House. 45s.
ILLINOIS ARCHITECTURE. By Frederick Koepfer. University of Chicago Press. 90s.
THE OTHER TAJ MAHAL. By John Yeomans. Longmans Green. 42s.
TOWN AND TOWNSCAPE. By Thomas Sharp. John Murray. 45s.
LA CITE DE L'AN 2000. By Michel Ragon. Casterman. 13.50 f.
ARCHITECTURE IN THE AGE OF REASON. By E. Kaufmann. Constable. 33s. 6d.
CITIES IN EVOLUTION. By Sir Patrick Geddes. Ernest Benn. 50s.
THE WORLD OF ART NOUVEAU. By Martin Battersby. Arlington Books. 50s.
BUILDING WITH WOOD. By John I. Rempel. Oxford University Press. £8 6s. 6d.
PIONEER TEXAS BUILDINGS. By Clovis Heimsath. University of Texas Press. £5 19s.
THE AESTHETICS OF CONTEMPORARY ARCHITECTURE. By Michel Ragon. Neuchâtel. Swiss fr. 78.
GARDEN ART & ARCHITECTURE. By J. E. Grant White. Abelard-Schuman. 55s.
EKISTICS. By C. A. Doxiadis. Hutchinson. 8 gns.
ILLUSTRATED INTERNATIONAL. By D. van der Kellen. Ten Hagen.
IPOTESI URBANISTICHE. By C. Beggiunot. Fiorentino Editore.

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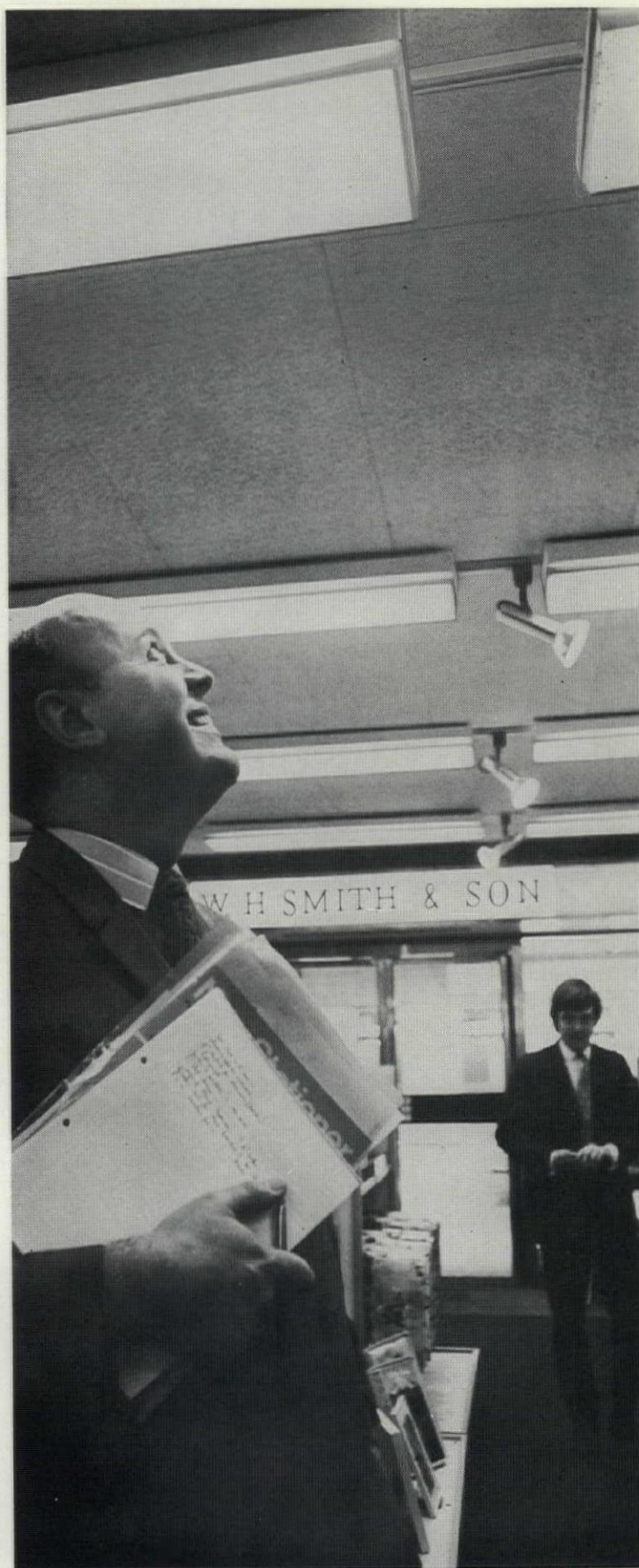
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The Industry

Storey-height gas flues

True Flue have for some time been producing SE-ducts for gas appliances and are now making storey-height units which are supported on bearer units built into the structural floor so that only two joints are needed at each floor and installation is considerably simplified. The units are suitable for use with appliances burning natural gas and are made with walls of 2-in. refractory concrete reinforced with steel mesh and pierced as necessary for the appliances. The storey-height units can be connected to the standard horizontal ducts and roof terminals. It is perhaps worth mentioning that some local authorities demand that the ducts shall be faced with breeze blocks and plaster to give an overall thickness of 4½ in. and prevent damage such as the accidental driving in of nails.

True Flue Ltd, 207 Sloane Street, London SW1.

Frameless window system

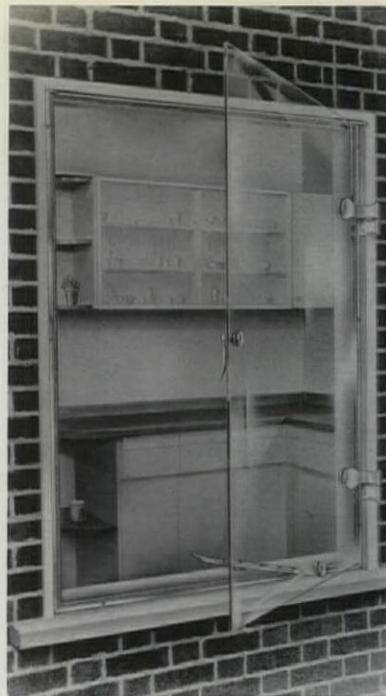
Panoview windows are made with opening lights of toughened glass which are weatherstripped, sealed and frameless, no putty or conventional glazing methods being needed. Handles, hinges and peg stays are patch type fittings fixed through holes drilled in the glass during manufacture. The absence of frames gives an increased light area and the standard range is based on a 4 in. module, heights being based on 8 in. increments, and widths on 12 in. Sub-frames are aluminium extrusions and there is also a range of matching frameless doors. There is a purpose made range in aluminium sub-frames, and side, 1, and top hung windows in timber sub-frames.

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

Contoured baths

The Vogue contoured bath launched by Allied Ironfounders a year and a half ago was relatively expensive and has now been followed by a cheaper version, the 1700 x 700 (the figures refer to millimetres) with the same type of contoured backrest, but holed to take standard taps or shower fittings in the corner of the bath where they are easy for the user to reach and also simplify plumbing connections. The flat bottom of the bath has a raised non-slip pattern and the fittings include a combined waste and overflow unit and a chainless semi-captive plug. There is also a combined headrest and seat at extra cost. The Twingrip model, 2, costs £28 in white, and there is a further model, without the grips, at £22. It is also interesting to see that the original 1700 model has been reduced in price.

Allied Ironfounders Ltd, 28 Brook Street, London W1N 3BD.



Rectangular hollow steel sections

Stewarts & Lloyds, the Northern and Tubes group of the British Steel Corporation, have recently increased the available range of hollow rectangular sizes up to 16 in. for squares and up to 18 by 14 in. for rectangles. The larger sizes are supplied in standard mill lengths of 24, 36, 40 or 45 ft. and in two standard steel grades, though other grades are available against mill size orders. The new sections allow greater loads to be carried on columns and beams or in lattice frames.

Stewarts & Lloyds Ltd, Lloyd House, 2 Colmore Circus, Birmingham 4.

Long life tungsten lamps

Crompton Parkinson's long life tungsten lamps, announced at the beginning of the year, deserve fairly careful consideration. A life of 2,000 hours is guaranteed, as against the average of



1,000 hours for normal lamps, a figure which many users consider to be too optimistic. The new lamps are produced in all ratings from 40 to 1,500 watts and cost about 20 per cent more, while they also produce 7½ per cent less light. The financial saving obtainable by the domestic consumer will depend on the price paid for current, though it is doubtful whether the average user would notice the light reduction from, say, a 60-watt reading lamp, and there is also the nuisance of replacements. For the householder this is an individual decision but for commercial work where replacements have to be paid for in men's time the long life lamp seems likely to win. The National Coal Board's saving of £600,000 a year in lamp changing costs alone is no doubt accurate, but it must be remembered that they have many time-consuming flameproof fittings. A

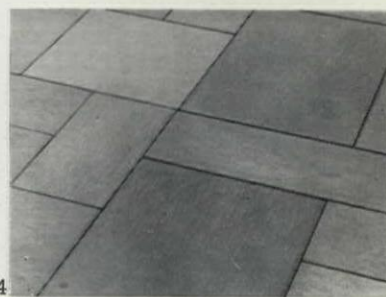
7½ per cent light loss would seem quite acceptable in most situations if relamping costs can be halved.

Crompton Parkinson Ltd, Crompton House, Aldwych, London WC2.

Translucent roofing sheet

BIP Reinforced Products are now producing an all-purpose grade of glass-fibre reinforced roofing and cladding sheet, 3, which replaces the previous general purpose and limited flame spread Filon grades, costing about the same as the GP and less than the LFS. The new all-purpose grade has an AB grading under the external exposure fire test of BS 476 and can therefore be used without restriction for roof light in all buildings irrespective of their distance from the boundary. AP sheet is rated Class III, heavily diffusing, to BS 4154, the new specification for corrugated g.r.p. sheet. Light transmission is 72 per cent and the sheet is made to match all the usual corrugated sheet profiles in steel, asbestos cement and aluminium, and several profiles will be available in a range of standard colours. Flat sheets can also be supplied and lengths up to 60 ft. are possible. The sheet can be used for chequerboard or for completely translucent roofs and double-skin systems are available to reduce heat loss and condensation. The self-extinguishing grade Filon will still be produced for special applications.

BIP Reinforced Products Ltd, Streetly Works, Sutton Coldfield, Warwicks.



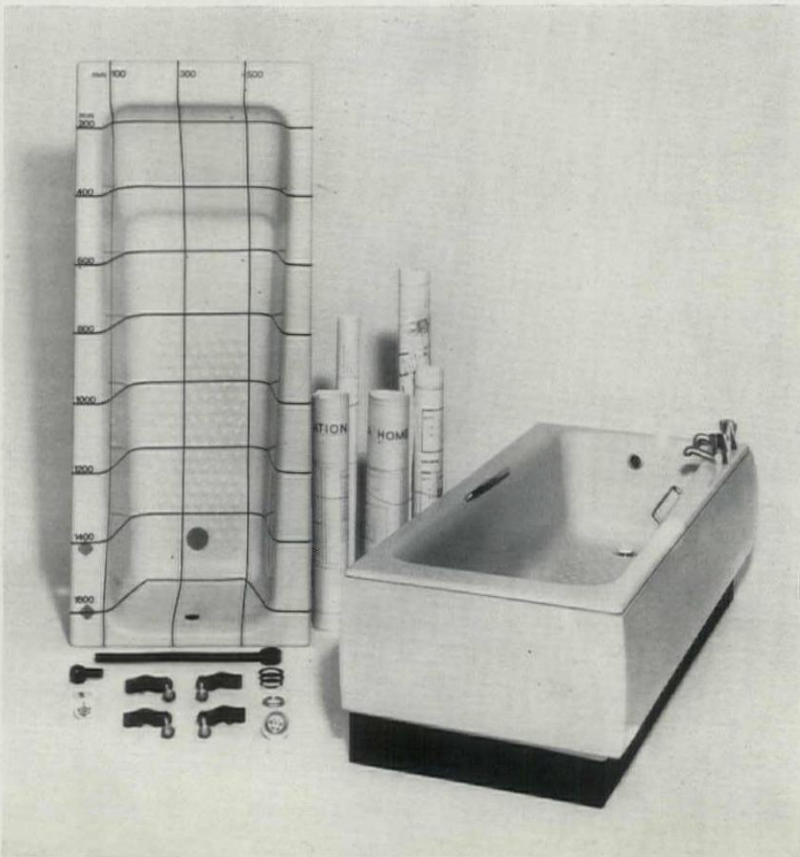
Concrete paving slabs

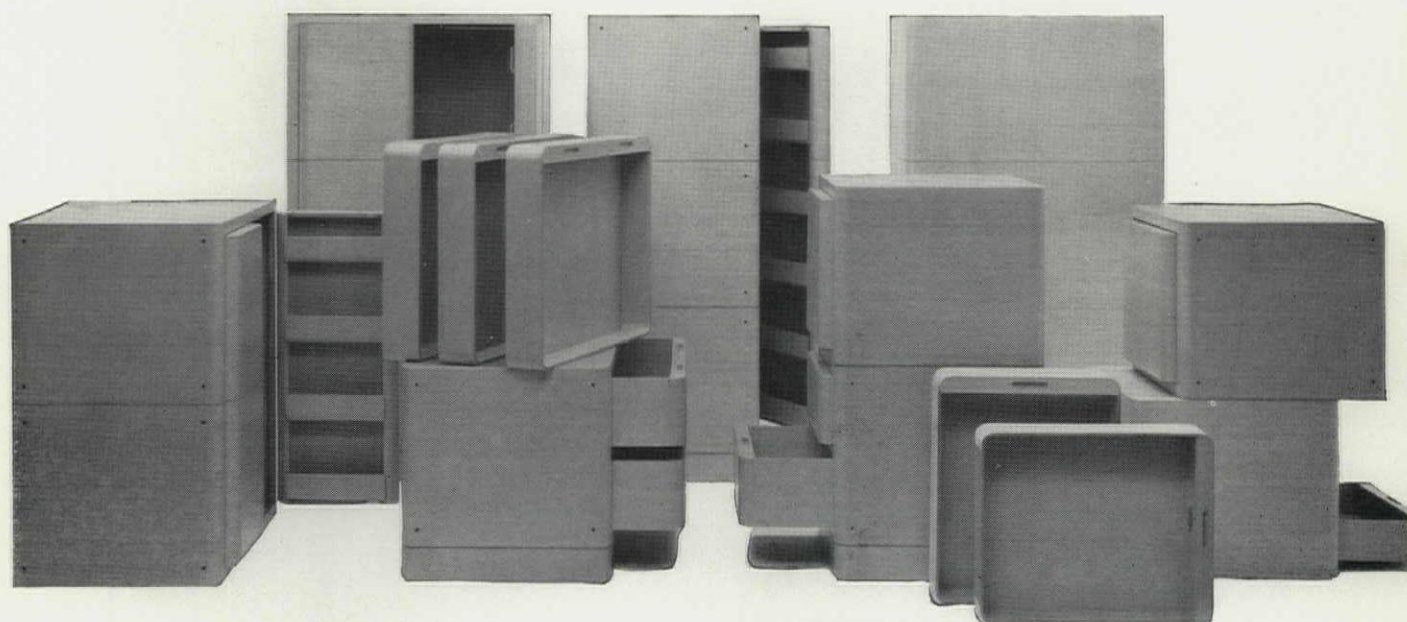
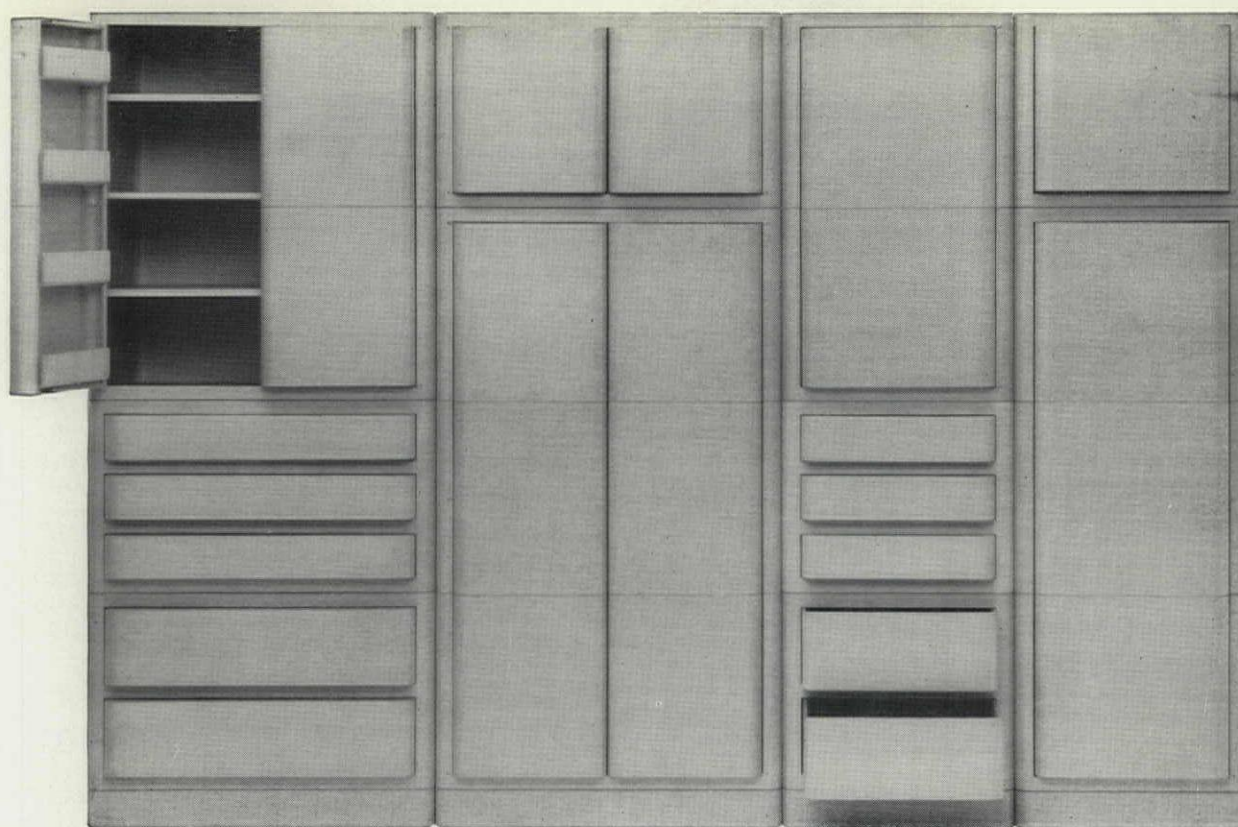
Mono Concrete (Northern) members of the Western Group, are now producing precast concrete paving slabs aimed particularly at the domestic market. The slabs are made in five sizes from 9 in. square to 27 by 18 in., and are finished with a non-slip ribbed surface, 4, called Sherwood pattern. The largest slab is light enough for easy laying and the five sizes together make up an area of one square yard. The slabs are made in five colours, plus grey, off-white or black to special order and the recommended retail price is 23s. a sq. yd.

Mono Concrete (Northern) Ltd, Oxclose Lane, Mansfield Woodhouse, Notts.

Prefabricated bathrooms

Adfast prefabricated extension bathrooms are designed for the improvement of sub-standard property or where there is not enough space in the existing building, and are eligible both for 50 per cent improvement grants and for local authority loans. The units are 6 ft. 4 in. by 8 ft. 4 in., with a ceiling height of 7 ft. 7 in. and weigh only just over 13 cwt. complete. Walls are made of Turnall semi-compressed asbestos boards riveted and bonded to a welded steel frame, the space between inner and outer skin being filled with Stillite insulating fibre. There are two fixed windows in obscured glass and two clear glass opening vents, both in





This outstanding range of modular storage units is now available on a low-cost contract basis for bedroom storage in Housing, Flats, Students rooms and Hotels.
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continued from page 390]

aluminium frames, and the roof is asbestos board covered with aluminium and lined with 2 inches of foamed polystyrene. Equipment consists of a 5 ft. 6 in. bath, lavatory basin, low level w.c. suite and a combination water storage tank and hot water cylinder with an immersion heater, with all the necessary plumbing, electrical installation, vinyl floor finish, doors, shelves and a mirror over the basin. The price of the unit, completely decorated, is £470 and the makers have a 7 day schedule for the complete installation work, including a temporary floor covering in the hall or living room. Installation cost is about £130, and the units can be used in two storeys if houses are being converted into flats, or the upper unit can be equipped as a kitchen.

Ideal Structures Ltd, Shepherds House Lane, London Road, Reading RG6 1 AE.

The change to metric

In the change-over to metric measurements the first necessity is, of course, to have necessary equipment for the survey both of existing buildings and sites. Boxwood rules have been made by Rabone Chesterman for nearly 200 years and their range now includes steel folding rules and pocket tapes as well as cased tapes, 5, for site surveys. Pocket tapes are made in 1 and 2 metre lengths in cases of only 2 in. diameter and are available with metric graduation only, or with metric on one edge and imperial units on the other. Longer measuring tapes up to 60 metres are on steel with a white or black background or on Fibron tape made from multiple strands of fibreglass coated with p.v.c. These tapes maintain their length and



will not deteriorate if wound back into the case when wet.

Rabone Chesterman Ltd, Whitmore Street, Birmingham 18.

Non-reflecting windows

Suspended glass assemblies incorporating patch-fitted vertical glass stiffening fins have become quite common in large entrance halls, and the system has now been adapted for the glazing of non-reflecting shop windows without using any view-obscuring supports. The idea has been worked out with two Adelaide architects, Keal and Jury, who needed an uninterrupted view in a long store window. As built, the window has a total length of 136 ft., and is made up of 18 bent panels, each 8 ft. wide and with a girth of 91 in. on the curved face. Set behind each joint is a vertical fin of 1/2-in. plate glass, curved as required on the front edge, 6, the joint between fin and the two curved panels being made with a silicon rubber sealant. This system is faster and easier than with previous types of non-reflecting window, which usually needed two sets of curved panels mounted on top of each other. Cost is also reduced.

Pilkington Brothers Ltd, St. Helens, Lancs.

Air conditioning units

Harvey Fabrication are now making in this country a large range of French-designed Technobel air conditioning units. There are 42 models covering heat extraction rates from 6,000 to 136,000 BTU per hour, suitable for small one-man offices and large areas. Various ancillaries are available such as ozone generators, humidifiers and germicidal lamp assemblies, while nearly all models can be fitted with heating units, electric or hot water. The usual method of installation is to mount the units in the thickness of the wall, when the projection into the room can be kept as low as 2 in., or at the base of a window. Fan speeds are adjustable and the noise is low. There is a floor mounting model with vertical as well as horizontal blowers to give even air distribution in all parts of the room, and a water-cooled model for use where it is impossible to provide an outside air intake.

Harvey Fabrication Ltd, Technobel Division, Woolwich Road, London SE7.

Contractors

The School of Education, Birmingham University. *Architects:* Casson, Conder & Partners. *General contractor:* Simms Sons & Cooke Ltd. *Sub-contractors:* *Heating:* Hopes Heating & Engineering Ltd. *Electrical:* N. G. Bailey Co. *Lift:* Otis Elevator Co. *Structural steelwork:* R. Smith (Horley) Ltd. *Metal window & Panels:* Crittall Manufacturing Co. *Patent glazing:* British Challenge Glazing Co. *Children's Playground & library furniture:* S. F. Swift and Sons. *Laboratory furniture:* A. Gallenkamp & Co. *Metal balustrading:* Long Metalcraft. *Metal roofing:* Builders Iron & Zincwork Ltd. *Asphalt roofing:* Brindley Asphalt Ltd. *Plastering:* Trumper Brothers Ltd. *Terrazzo flooring:* Birmingham Art Flooring Co. *Lino flooring:* Amalgamated Asphalt Co. *Suspended ceilings:* Dunlop Semtex Ltd. *Tiled ceilings:* Palgrave Brown & Son Ltd. *Motorized blinds & Chalkboards:* Rank Audio Visual. *Lecture theatre seating:* Shephard + Stafford Furniture. *Stage equipment:* Strand Electric & Engineering Co. *Venetian blinds:* Stilsound Blinds Ltd.

Store Restaurants, Kingston-upon-Thames. *Architects:* Lucy Halford and Associates. *Contractors:* *Electrical and plumbing services:* Bentalls Ltd. (Engineering Department). *Air conditioning:* Trembath Refrigeration Ltd. *Shopfitting and decoration:* Samuel Elliott & Sons Ltd. *Wall tiling:* A. J. Tatham & Co. *Flooring:* Art Pavements & Decorations Ltd. *Carpet:* James Templeton & Co. *Sprinkler system:* Automatic Sprinkler Co. *Suspended ceiling:* Clark & Fenn Ltd. *Special furniture:* Frederick Sage & Co. *Servicing equipment:* Oliver Toms Catering Equipment Ltd. *Chairs:* Form International. *Signs and menu board:* The Lettering Centre. *Photographic murals:* Hanchard Photography Ltd. *Lighting fittings:* Rotaflex Lighting Ltd. *GEC Ltd. Cold cathode:* Courtney Pope Sign Co. *Specially designed pendants:* Lumitron Ltd. *Curtains:* Tamesa Fabrics Ltd. *Ashtrays:* Haxby & Wallace Ltd.

Chapel and Swimming-Pool, Shorncliffe Camp. *Architects:* B. & N. Westwood,

Piet & Partners. General contractor: Kirk & Kirk Ltd. *Sub-contractors:* *Structural steelwork:* Lindsay's Paddington Ironwork (1948) Ltd. *Reinforcement:* Rom River Co. *Bricks:* London Brick Co. *Sussex & Dorking United Brick Co. Richard Parton Ltd. Wall & floor tiling:* James Chandler (Lewes) Ltd. *Timber roof trusses:* Felton-Martin Ltd. *Felt roofing:* The Ruberoid Co. *Slate roofing and cedar shingles:* John Williams & Co. (Dover) Ltd. *Lightweight screeds:* Isocrete Co. *Cast iron stairs:* Haywards Ltd. *P.v.c. handrails:* Marley Tile Co. *Patent glazing:* The Puttyless Glazing Co. *Williams & Williams Ltd. Glazing:* Faulkner Greene & Co. *Metal windows and doors:* Aygee (Metal Windows) Ltd. *Sliding and folding doors:* Geo. M. Hammer & Co. Ltd. *Flush doors:* Southern Ltd. *Ironmongery:* Alfred Olby Ltd. *Metalwork:* Burgess Welding & Engineering Ltd. *Joinery:* W. J. Simms Sons & Cooke Ltd. *Sprayed asbestos ceilings:* Turners Asbestos Cement Co. *Swimming pool equipment:* Castle Engineering Products. *Mechanical engineering:* Rosser & Russell Ltd. *Light fittings:* Rada Group of Companies.

Acknowledgments

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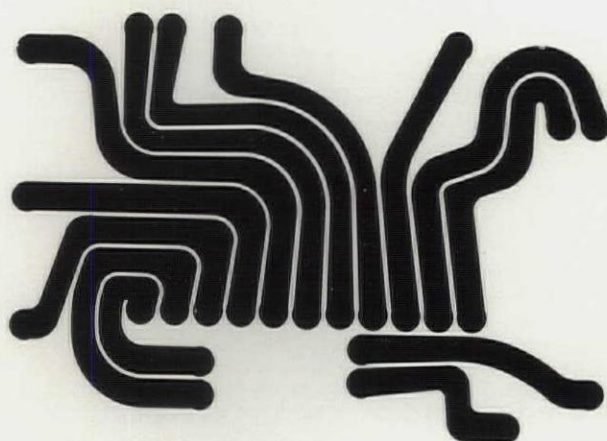
Shown above are Remploy/Stafford MS39 stacking chairs. They have stove enamelled tubular steel frames, upholstered in plastic foam covered with Vynide. Seat height 18". Similar model (MS37) comes with seat and back in Sapele Veneers. Write or phone today for free brochure illustrating the complete REMPLOY/STAFFORD range of Tubular Furniture.



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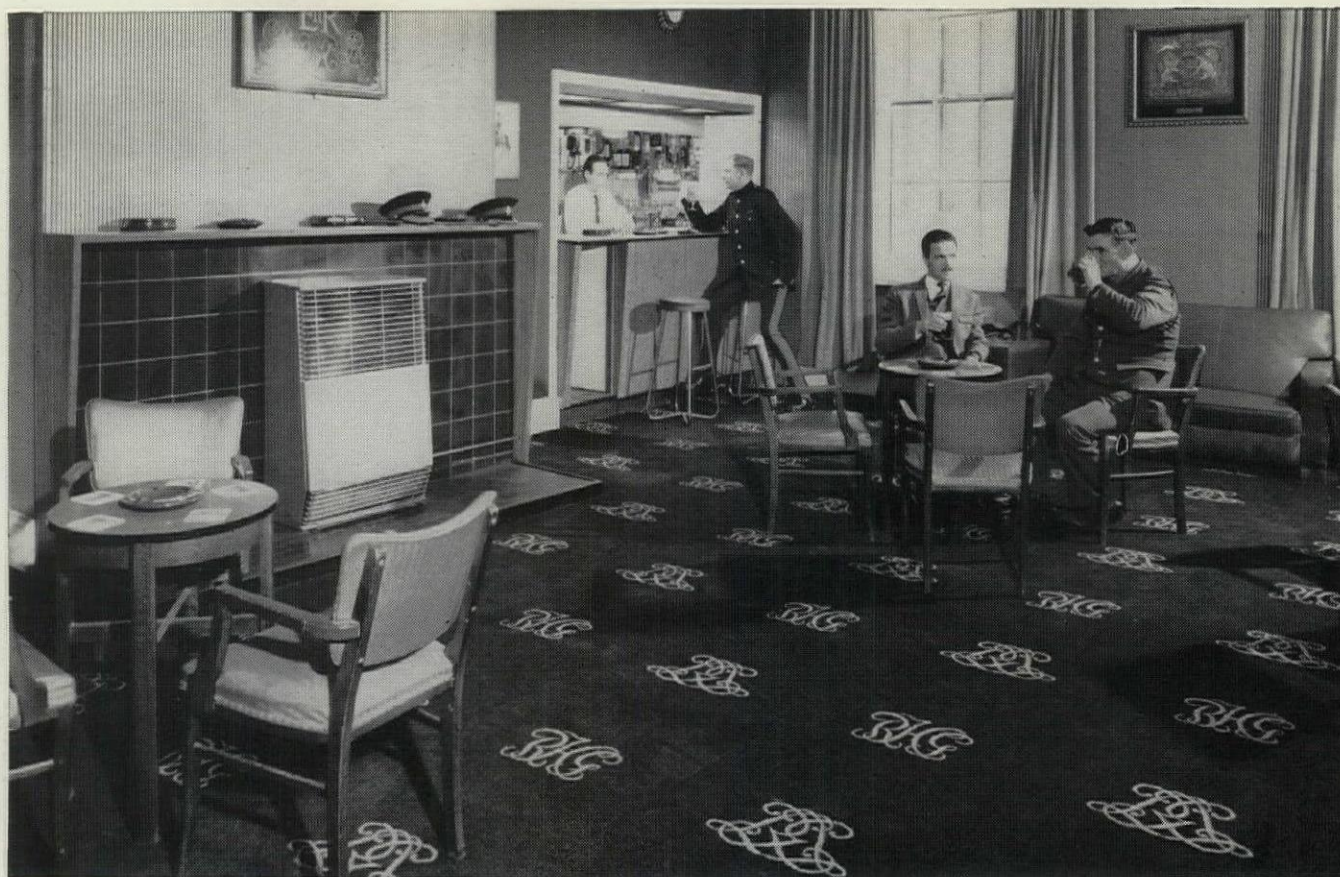
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As much as half the cost and even more of the design effort in some modern buildings goes into mechanical devices for communication, lighting, ventilation, heating and environmental control generally. Yet nothing like half the history of modern architecture that has been written so far is devoted to explaining and chronicling this unprecedented development.

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Warrant Officers and N.C.O.'s Mess, Wellington Barracks.

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STOP PRESS

Townscape problems, outrages and opportunities compiled by Ian Nairn, with drawings by G. J. Nason.

S.O.S.

COMBE FLOREY, NEAR TAUNTON, SOMERSET
A Georgian country house and its Elizabethan gatehouse, for sale together or separately. The gatehouse is a distinguished building in its own right, 1, and is well worth keeping. Not that demolition is just round the corner, in this case, but a timely conversion now might save a lot of trouble later.

ASHBY DE LA ZOUCHE, LEICS
An elegant miniature Grecian house which turns out in fact to be the railway station—now closed up and neglected, 2. Help is needed before it goes the same way as Ashby's Ivanhoe Baths, pulled down a few years ago. Photograph by Peter Burton.

OUTRAGE

RETFORD, NOTTS
An underrated Midland town which has lately lost its Great North Road traffic. But it hasn't lost the 'improvement line' which probably went with it. So a new building is set back, 3, breaking the line of a narrow, winding street: the sort of street that is likely to become pedestrians-only. A *deliberate* setting-back to make a small square would have been another thing entirely.

CAUTION

WHITBY, YORKS NR
A pair of contrasts from Peter Burton, who has a flair for understanding the true quality of what is going under and the ability to photograph it—'before and after' is the best condemnation there is and needs no words to prove its point. Before, 4, the houses, now demolished, create their character naturally, wood versus brick versus pantiles, out of the needs of the site. After, 5, someone is trying to make the alleyways interesting in the way that everyone wants to play Hamlet. Why the complications, why the division between walls and railing, why the stone top to each over-articulated stage? This, at its simplest, is why people are wondering: 'why the architectural profession?' And to say it all appeared in the AR ten years ago is a legal defence but not an answer.



OPPORTUNITY

HAMMERSMITH, LONDON

The waterworks between Chiswick and Hammersmith Malls are now empty, and with the chimneys demolished the buildings look strangely like a Canaletto view of Westminster, 6—the London stock brick conquers all. Behind them, just to the right of the church tower, the council has built three decent blocks of flats. But, sadly, it now proposes to clear the buildings in front for use as an open space—a replica of the disaster further east between Upper and Lower Mall. The waterworks' buildings have great character and are solidly built; they could surely be converted to public use, or even as oddball houses.

CREDIT

GOSLAR, GERMANY

A new building with a familiar name in one of the best medieval German towns, 7. By catching the rhythm of the street and giving a non-obsequious nod at the local materials—slatehanging—it fits in quite easily.

LEYBURN, YORKS NR

Simple fun, but worth recording; blind windows being re-painted, 8, in a Yorkshire market town in 1968. Photographed by Howard Colvin.

WOOLACOMBE, DEVON

A jolly and maybe unintended effect at the Narracott hotel by the head-on collision of two styles, 9. Woolacombe is visually an anything-goes place, so why not? We can learn an awful lot from Belgium in how to use what is almost a kind of urban surrealism in places where the existing character is already chaotic.

R.I.P



10

COLCHESTER, ESSEX

A town which seems to be squandering its assets as fast as it can. 10 was part of the Assembly Room, built in 1807 and demolished by the council last year. 11 shows the vanishing skyline, where the endearing pair of accents provided by the Town Hall and 'Jumbo'—the water tower—is now being joined by a far-from-endearing telephone exchange.

394



6



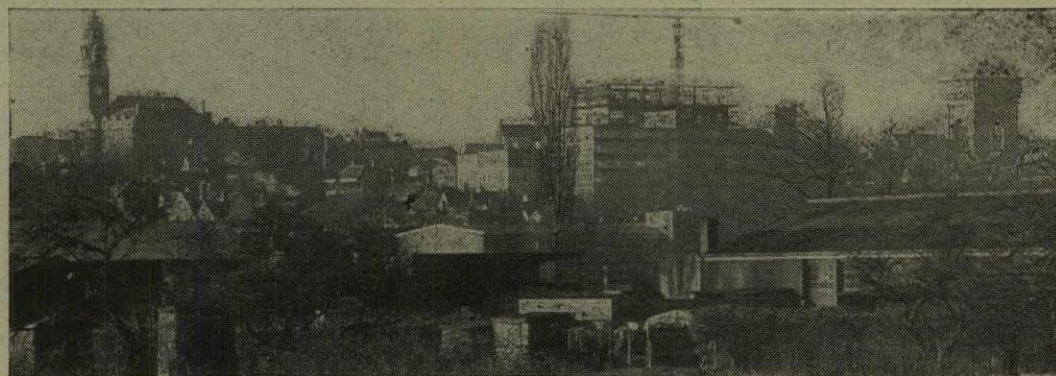
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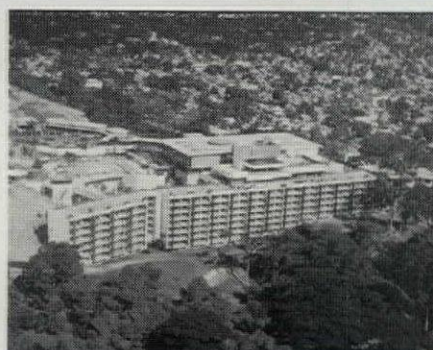
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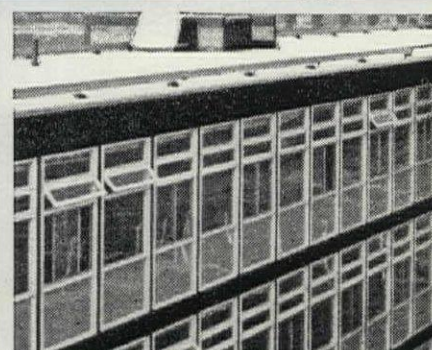
11



PAPTRIM for domestic applications



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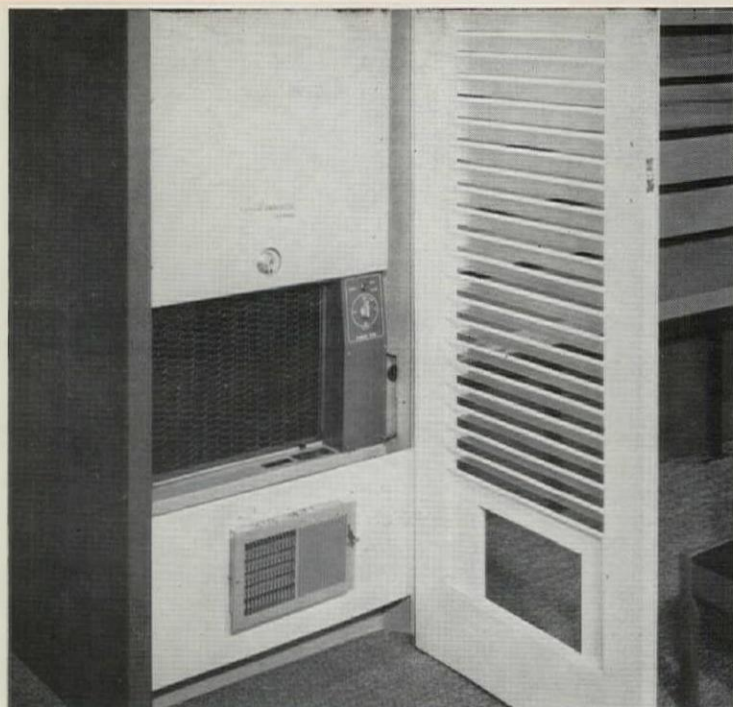
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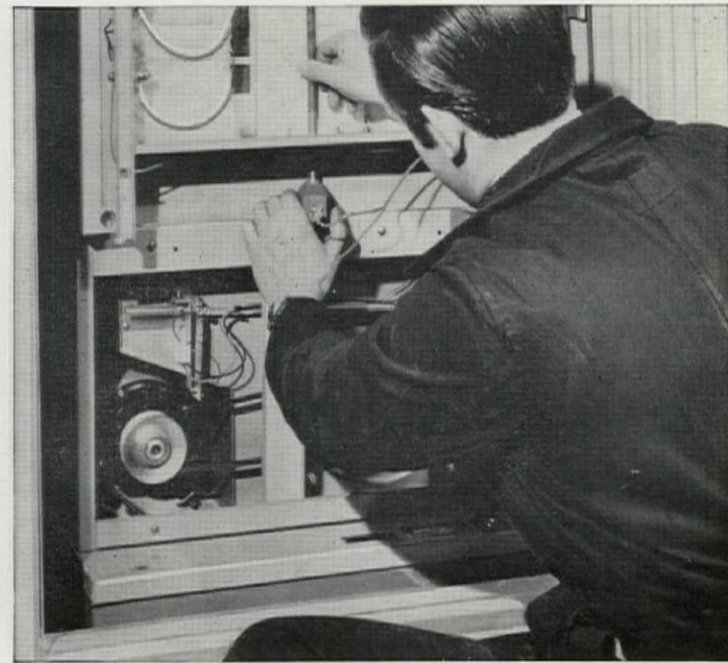
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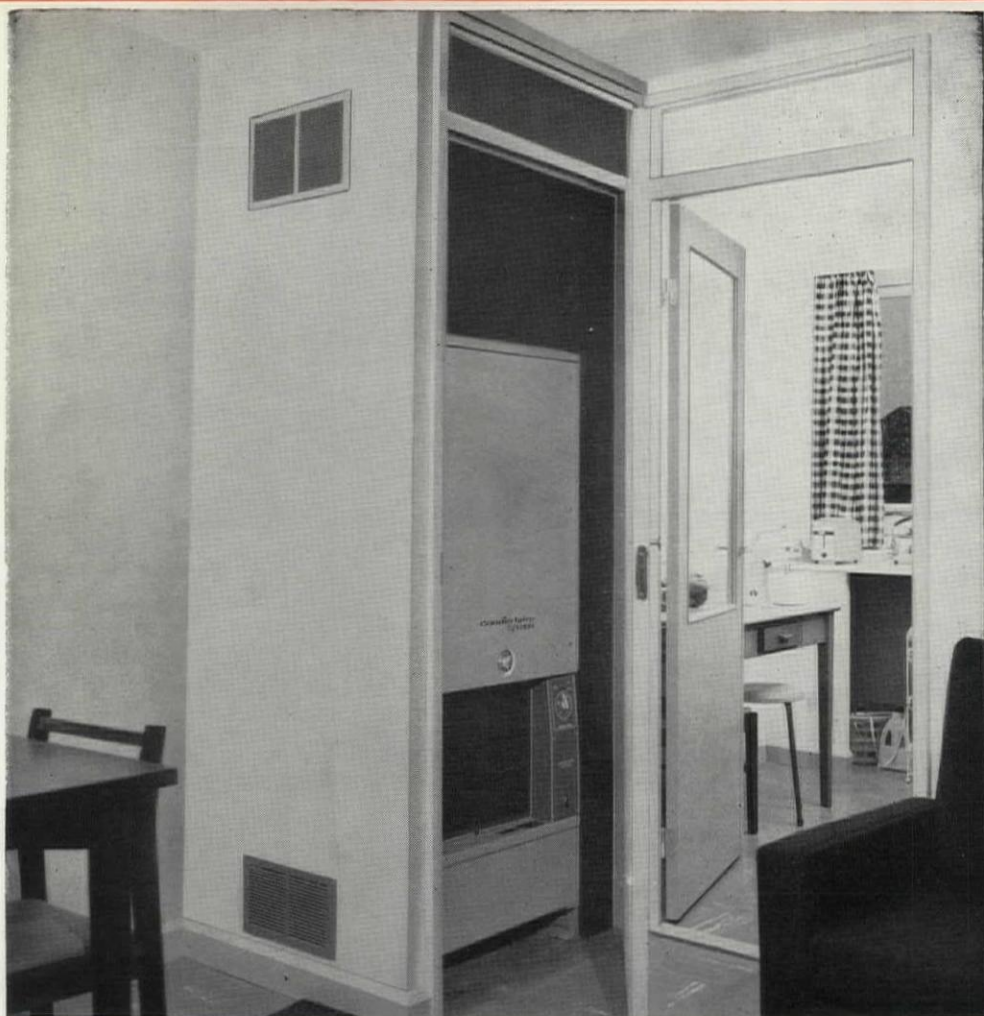
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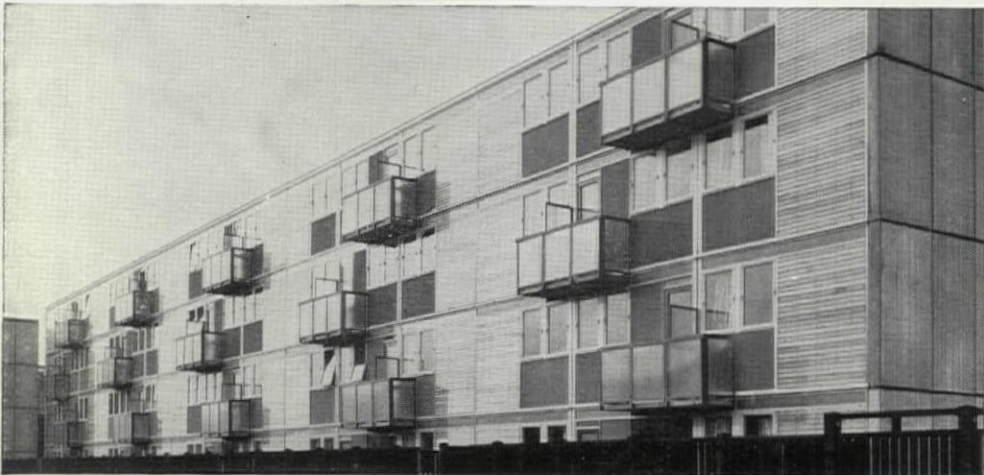
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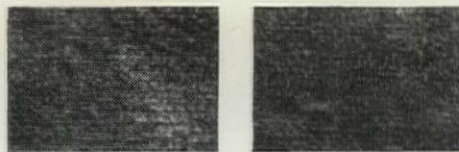
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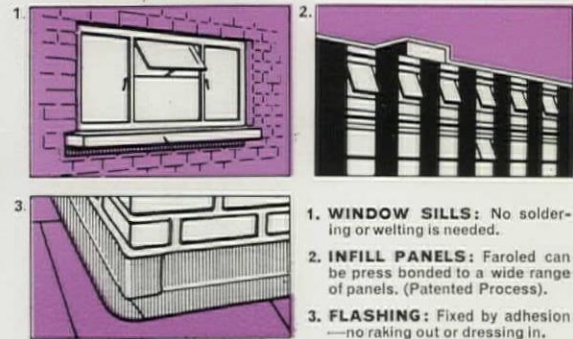


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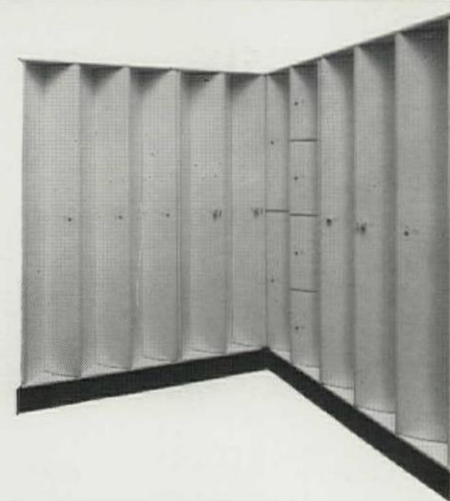
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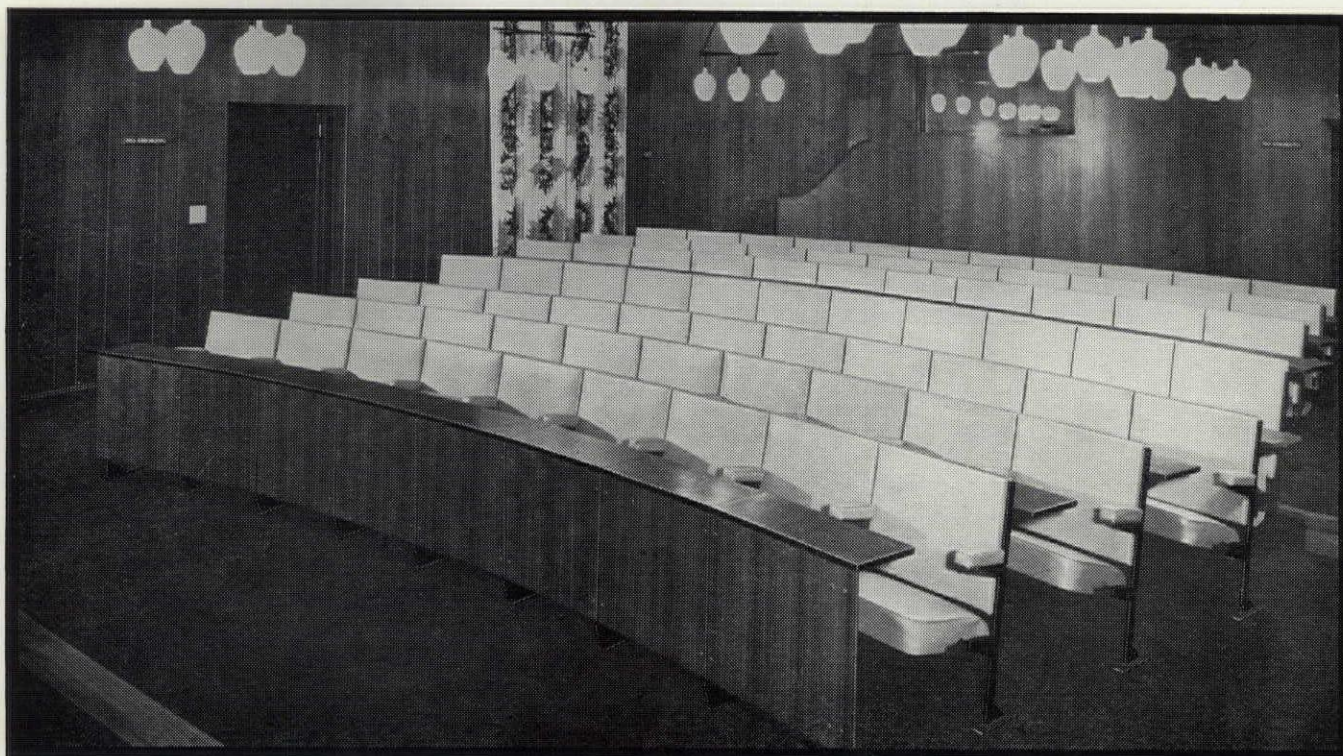


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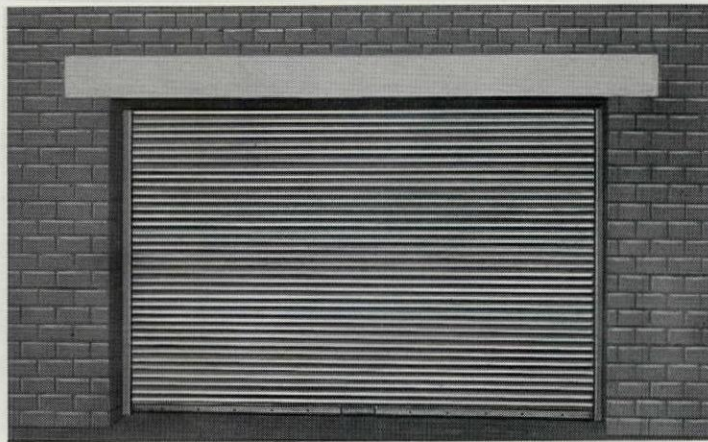
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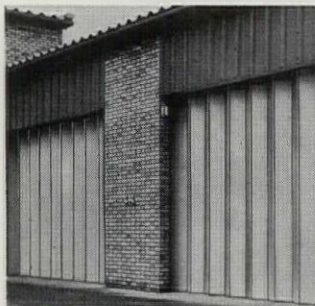
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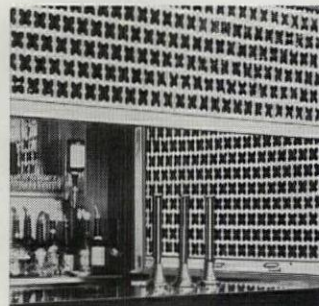
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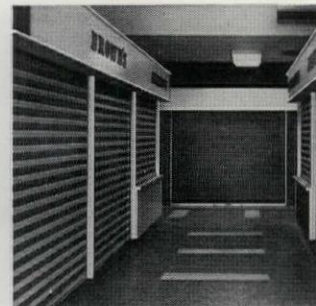
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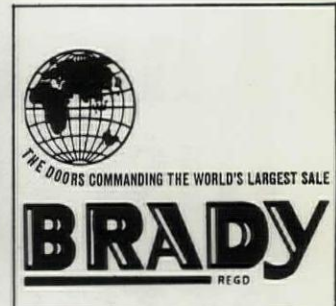
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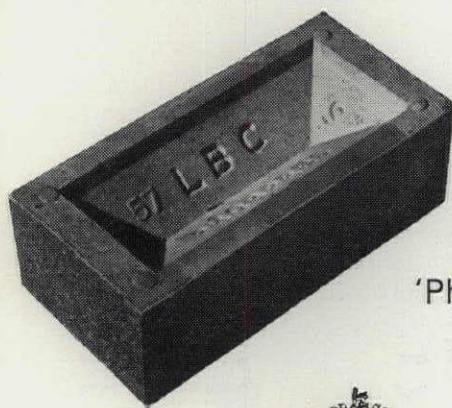


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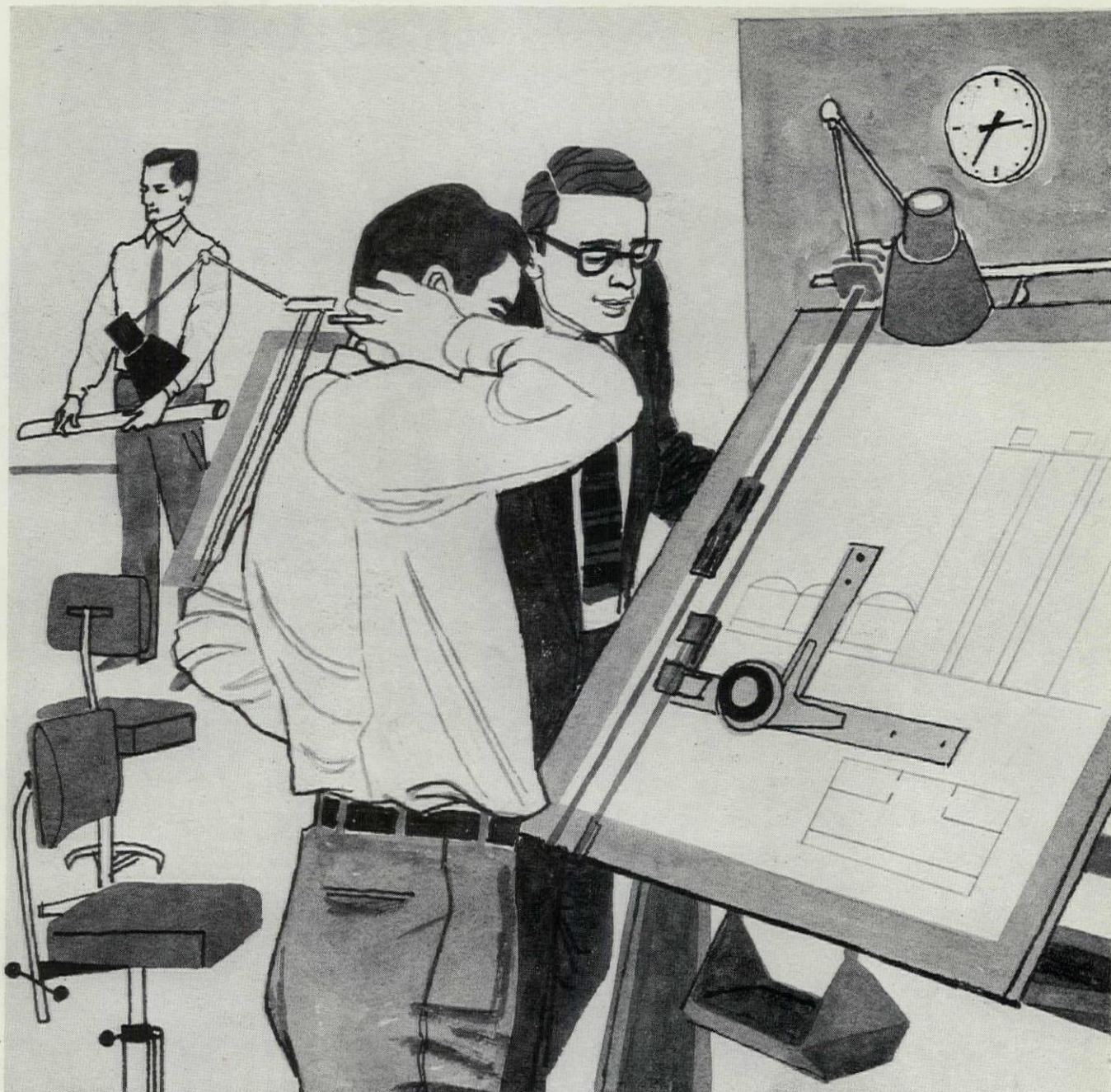
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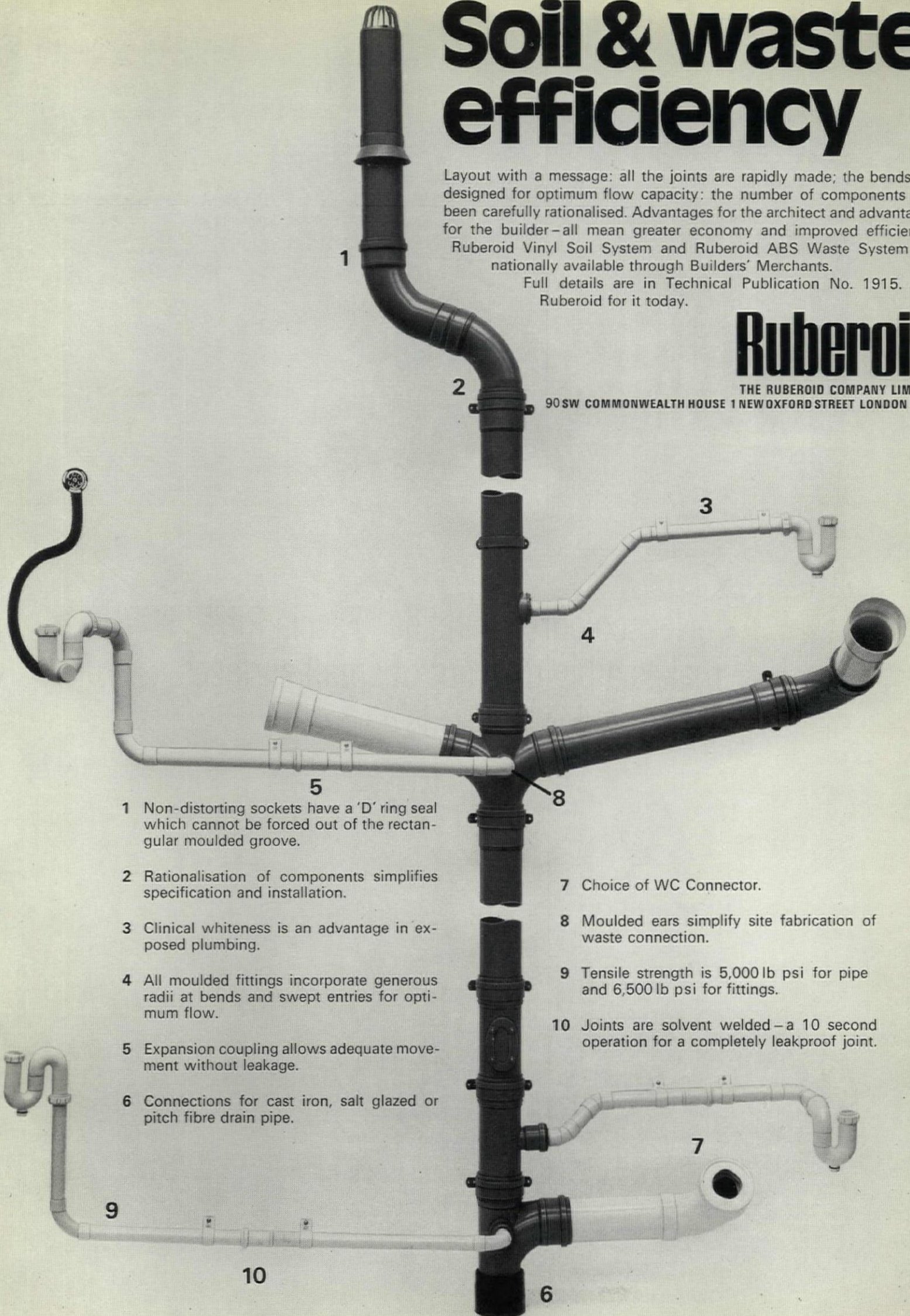
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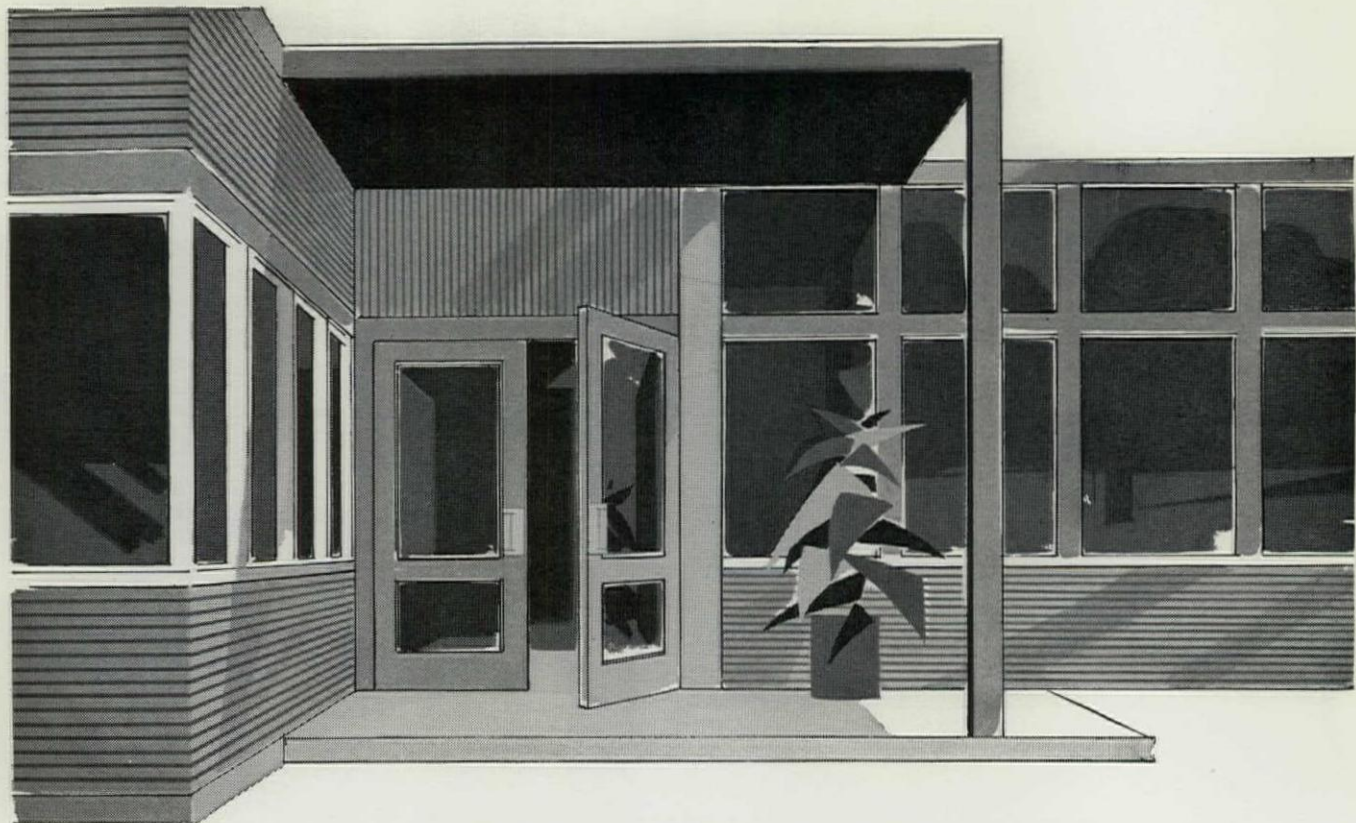
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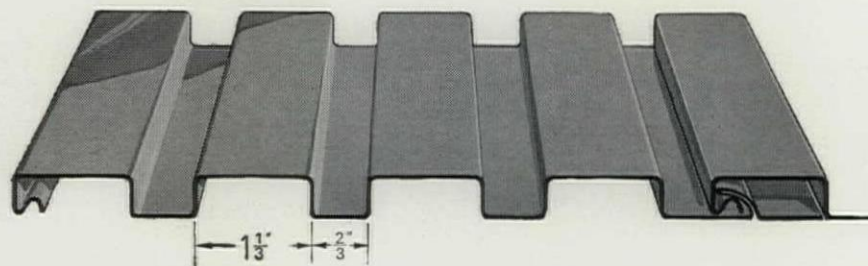
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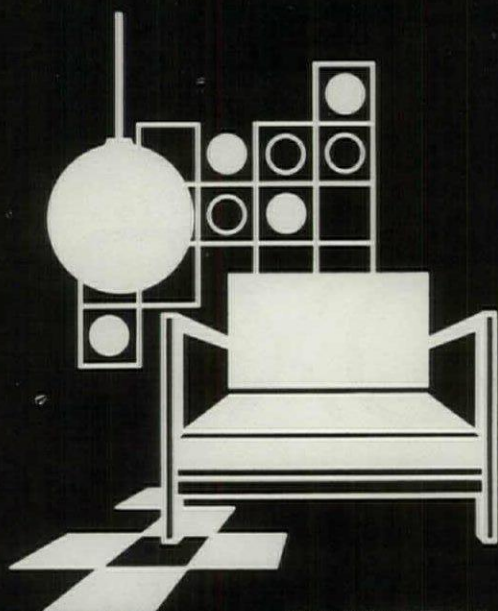


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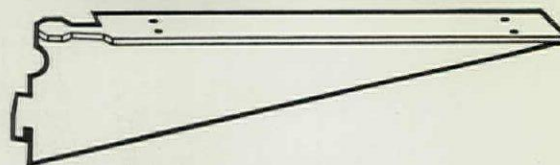
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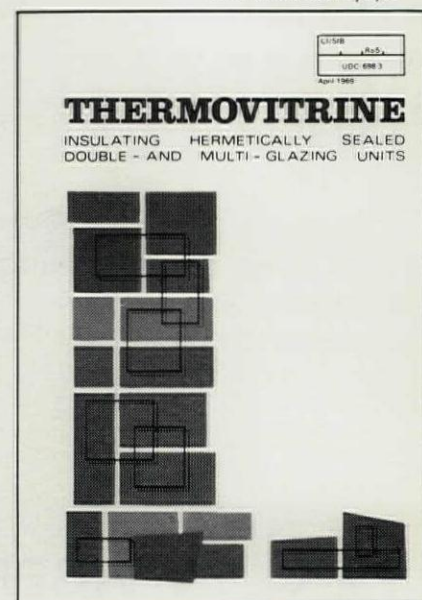
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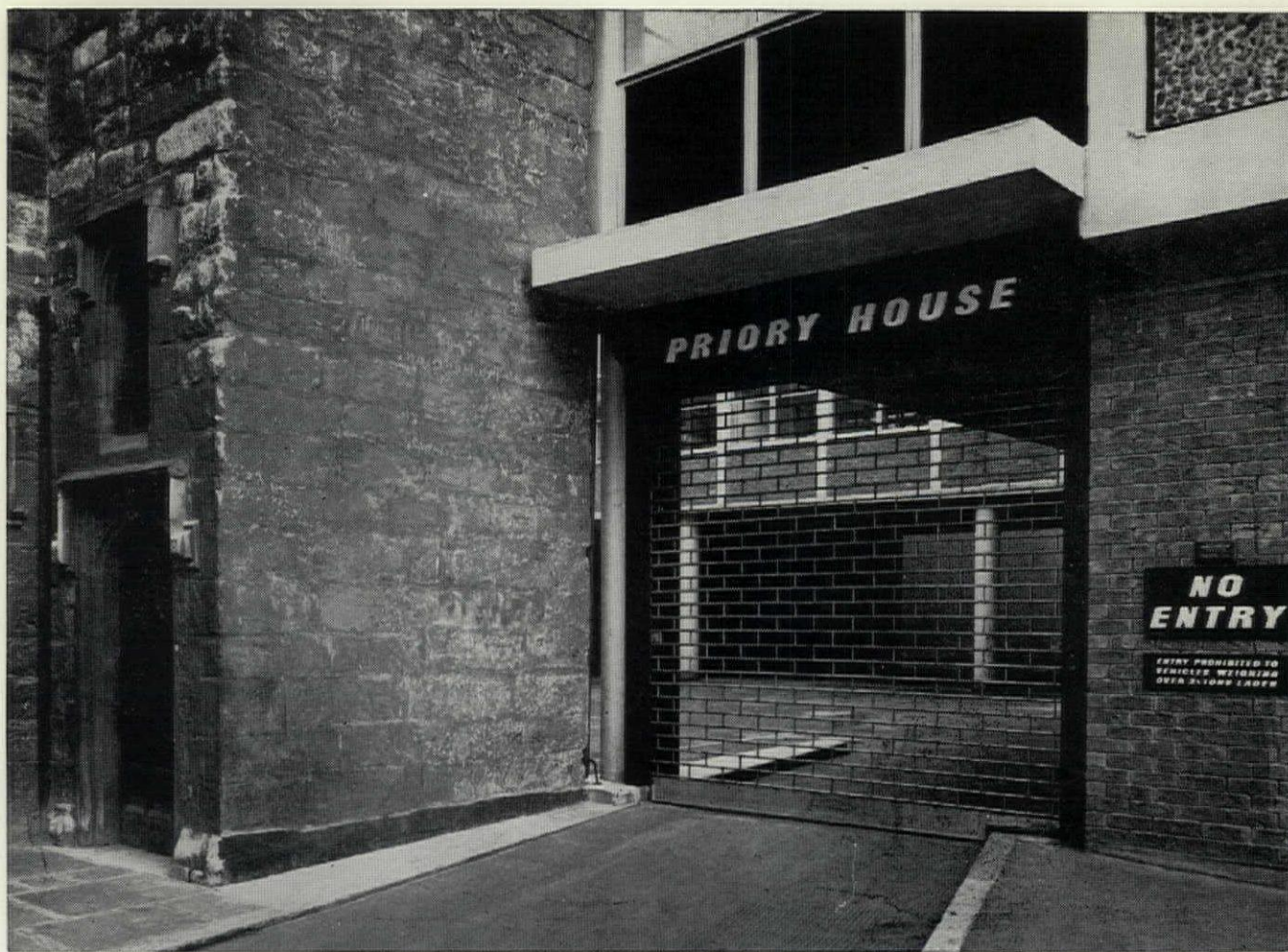
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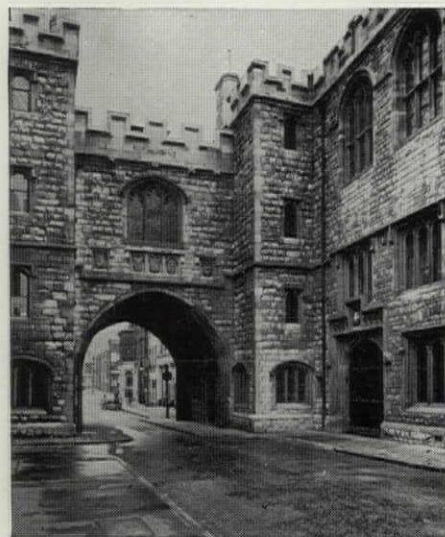
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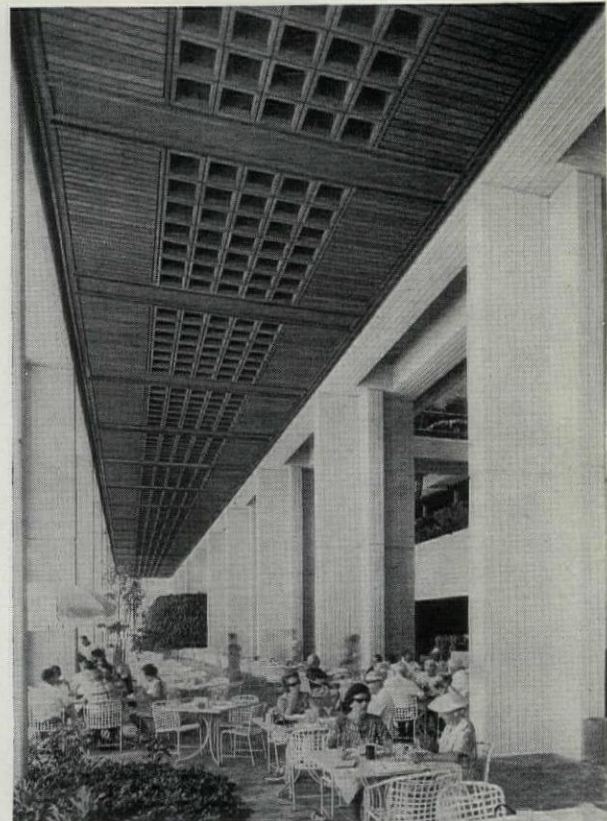
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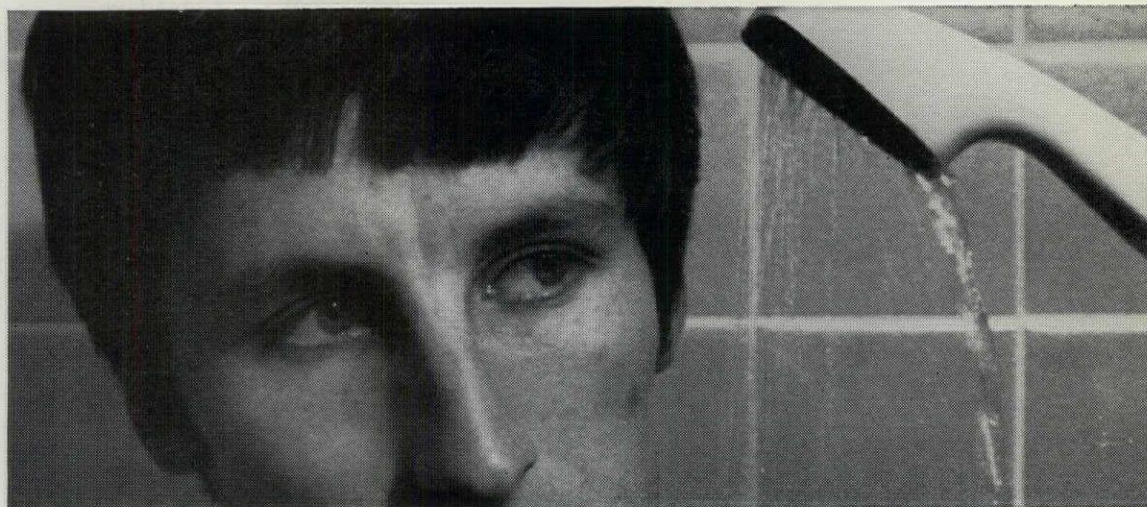
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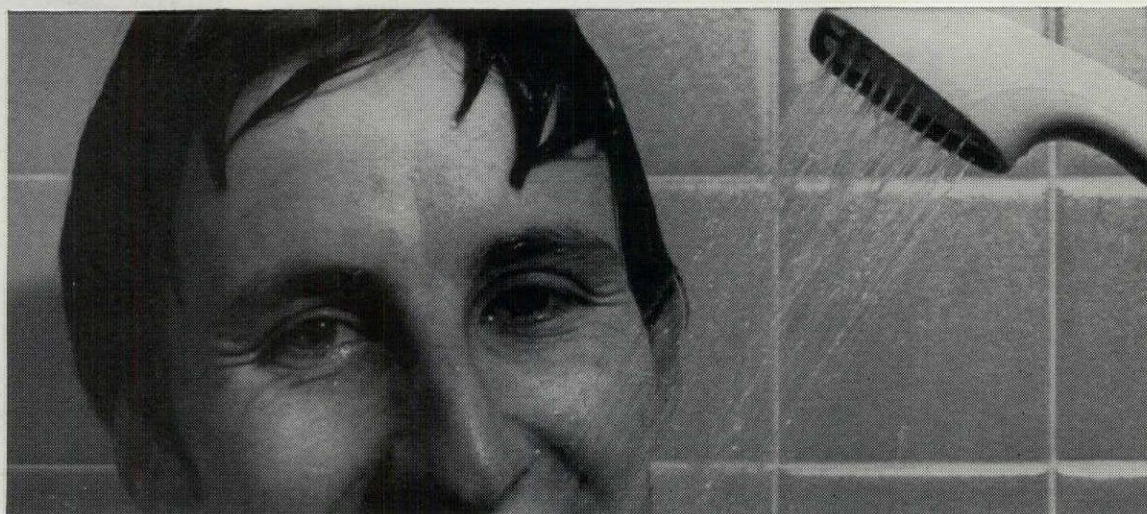
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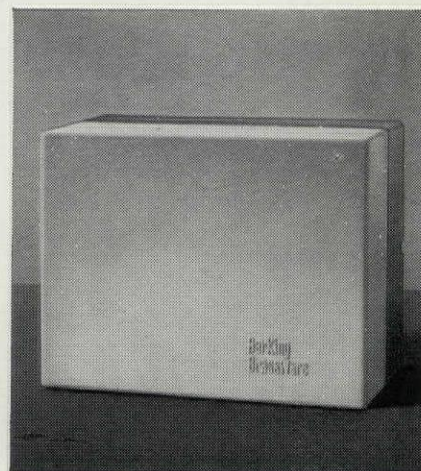
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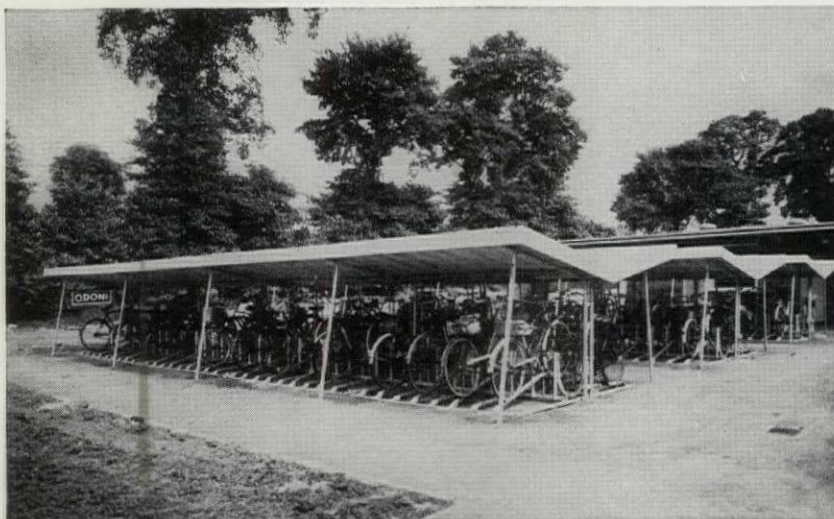
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ALPHABETICAL LIST OF ADVERTISERS

	PAGE		PAGE		PAGE
A		G		O	
Adamsez Ltd.	9	Galon Fabrics Ltd.	65	Odoni, Alfred A. & Co. Ltd.	66
Alcan Industries Ltd.	9	Gent & Co. Ltd.	28		
Architectural Press Books	42, 62, 64	Gliksten, J. & Sons Ltd.	10	P	
Armstrong Cork	22	Greaves & Thomas Contracts Ltd.	41	Perstorp Ltd.	61
Aston Cabinet Co. Ltd.	3	Gregg International Publishers Ltd.	56	Pitchmastic Asphalt Paving Co. Ltd.	45
B		H		R	
Barker, John & Son (Engineers) Ltd.	65	H.M.S.O.	62	Randall, James H. & Son Ltd.	48
Barking Brassware Co. Ltd.	64	Hall, Matthew Mechanical Services Ltd.	60	Rank Audio Visual Ltd.	49
Biddle, F. H. Ltd.	Cover 4	Hille of London Ltd.	Cover 2	Regniers, Enile & Co. (London) Ltd.	Cover 3
Bolding, John & Sons Ltd.	4			Remploy Ltd.	42
Bolton Gate Co. Ltd.	15, 16	J		Ridgeway Potteries Ltd.	25
Bond Worth Ltd.	43	Jens Risom Design (London) Ltd.	27	Riding Hall Carpets Ltd.	23
Booth, James Aluminium Ltd.	19			Roberts, J. W. Ltd.	17
Booth, James Aluminium Ltd.	54			Rotaflex (G.B.) Ltd.	40
Brady, G. & Co. Ltd.	50			Ruberoid Co. Ltd.	53
Byfleet Furniture Ltd.	65			Rush & Tompkins Ltd.	32
		K			
C		Kenitex Textured Coatings Ltd.	35	S	
Cape Universal Building Products Ltd.	34			Sanderson, Arthur & Son Ltd.	26
Cox B. B.	55	L		Simms W. J. Sons & Cooke Ltd.	29
Crusader Vendors Ltd.	20, 21	Leaderflush (Doors) Ltd.	24	Simplex Electric Co. Ltd.	46, 47
		London Brick Co. Ltd.	51	Sound Diffusion Ltd.	52
D		Louvre Centre	48	Strand Electric & Engineering Co. Ltd.	31
Debron Carpets	11-14	Lovell Construction Group Ltd.	38, 39		
				T	
E		M		Tebrax Ltd.	56
Electricity Council	6, 7	Marley Tile Co. Ltd.	37	Thermovitrine Ltd.	58
		Mastex Coatings Ltd.	30		
F		Merchant Adventurers Ltd.	36	V	
Farmiloe Sealants	48	Morris, Singer & Haskin's Ltd.	59	Vigers, Stevens & Adams Ltd.	57
Fox, Samuel & Co. Ltd.	33				
		N		W	
		Newman, William & Sons Ltd.	8	Wardle, Arthur (Shopfitters) Ltd.	63
		Norris Warming Co. Ltd.	18	Westbourne Exhibitions Ltd.	56

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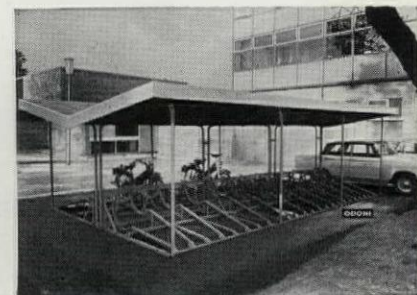
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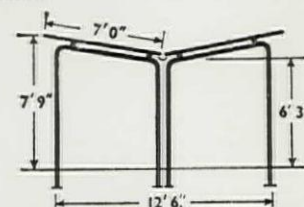
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VOLUME ONE HUNDRED AND FORTY-FOUR JULY-DECEMBER 1968

ARTICLES AND ILLUSTRATIONS

- 179- Agoras and Plateias: The Public Space in
186 some Greek Island Villages (Townscape)
Illustrated article by Margaret Tallet
- 446- Airport, London, Heathrow, Custom House
450 Architects: Manning and Clamp
- 453- Algarve Vernacular (Vilalara
454 Housing Estate Algarve, Portugal)
Architect: Jose d'Almeida Araujo
Illustrated note
- 440 Aluminium glazed screens
(Interior Design)
Illustrated note by Tim Poulson
- 89- Architectural Associationism, J.C.
92 Loudon and
Illustrated article by G.L.Hersey
- 408- Art Gallery, Berlin, New National
414 Architect: Ludwig Mies van der Rohe
- 39- Art Gallery, London, Nash House.
42 (Interior Design)
Architects: Fry, Drew and Partners
- 14- Arts Centre, London South Bank
30 Architect: Hubert Bennett, Architect to
Greater London Council
- 243- Ascension Island, Relics of the Royal
247 Navy on
Illustrated note by J.M.Richards
- 397- Atlas, High (Villages of the Ayt Bu
401 Gemmez tribe in the Atlas Mountains
of Morocco)
Illustrated article
- 321- Axum Stelae, Ethiopia
323 Illustrated note by Stephen Harrison
- 277- Bank, London, Cheapside, Merchant
279 (Interior Design)
Architects: Buzas and Irvine
- 345 Bank, London, Lewisham, Martins
(Interior Design)
Architect: Roger Warboys
- 348- Bank, London, Wigmore Street, Martins
349 Architect: Ernö Goldfinger
(Interior Design)
- 347 Bank, Lowestoft, Suffolk, Barclay's
Architects: Tayler and Green
(Interior Design)
- 372- Bath, Somerset, Factory for Bath
376 Cabinet Makers Ltd.
Architects: Yorke, Rosenberg and
Mardall
- 372- Bath, Somerset, Factory and Offices
376 for Rotork Engineering Co.
Architects: Leonard Manasseh and
Partners
- 159 Bauhaus at Burlington House. Note
- 192- Bauhaus Student, Memories of a
194 Article by George Adams
- 138- Behrens, Peter, and the Theatre
139 Illustrated note by Janet Leeper
- 408- Berlin, New National Gallery
414 Architect: Ludwig Mies van der Rohe
- 34- Bingley, Yorkshire, Burges and Morris
38 at: A Discovery
Illustrated article by Nicholas Taylor
and Anthony Symondson

- 215- Birmingham Central Libraries (Liberal
219 and Literary)
Illustrated note by Nicholas Taylor
- 47 Birmingham, Group Practice Surgery
(Interior Design)
Architect: John Winter
- 200- Boutique, London, Brompton Road, Jaeger
201 (Interior Design)
Architects: Dennis Lennon and Partners
- 199 Boutique, London, King's Road, Just
Looking
(Interior Design)
Architects: Garnett, Cloughley
Blakemore and Associates
- 202 Boutique, London, Sloane Street,
Vanessa Frye
(Interior Design)
Architects: Derek Phillips and Associates
- 195- Boutique, Milan, Altre Cose
198 (Interior Design)
Architects: Aldo Jacobo, Ugo La Pietra
and Paolo Rizzato
- 78- Brasilia, Britain at (Design for
80 British Embassy)
Illustrated note
- 5-7 Brickmaking, Geometry of
Illustrated note (Derelict Brickworks
in Scotland)
- 51- Bridgnorth, Shropshire (Townscape)
56 Illustrated article by Margaret Tallet
- 78- Britain at Brasilia (Design for British
80 Embassy)
Illustrated note
- 94 Bromborough, Cheshire, House
105 Architects: Nelson and Parker
- 427- Building Finance in the 1880's and 1890's:
430 The Jabez Balfour Story
Illustrated article by Peter Ferriday
- 34- Burges and Morris at Bingley: A Discovery
38 Illustrated article by Nicholas Taylor and
Anthony Symondson
- 94, Caldecote, Cambridgeshire, House
106- Architect: John Meunier
107
- 431- Cambridge University College Buildings,
435, King's Lane
(Interior Design)
Architects: James Cubitt and Partners
- 328- Cambridge University, History Faculty
332, Architect: James Stirling
333- Illustrated article by Reynier Banham
341 (Criticism)
- 43- Chinnor, Group Practice Surgery
46 (Interior Design)
Architect: Peter Aldington
- 415- Chipping Norton, Faversham and (Townscape)
418 Illustrated article by Richard Reid
- 94, Chislehurst, Kent, House
109 Architect: Donald Ball
- 94, Christmas Common, Oxfordshire, House
100- Architects: Brett and Pollen
101

- 289- Club, Grafham Water, Huntingdonshire,
291 Sailing
Architects: Robert Matthew, Johnson-
Marshall and Partners
- 431- College, Cambridge, King's Lane, Buildings
435 for King's
(Interior Design)
Architects: James Cubitt and Partners
- 431- College, Cambridge, King's Lane, Buildings
435 for St. Catherine's
(Interior Design)
Architects: James Cubitt and Partners
- 48- Components, Interior
49 (Interior Design)
Illustrated note by Bill Fisher
- 14- Concert Halls, London, South Bank
30 Architect: Hubert Bennett, Architect to
Greater London Council
- 268- Conservation, Aspects of: 1. Defining the
272 Conservation Area (St. Ives, Hunts)
Illustrated article by Kenneth Browne
- Correspondence**
- 148 Adams, W.J. (Office Landscaping)
- 228 Baxter, E.O.
(St. Leonard's Invaded)
- 148 Bottomley, Derek S.
(Wright's Aesthetic)
- 150 Burman, L.A.
(Morris and Westminster)
- 71 Christie, Thomas D.
(High-rise at Kincardine)
- 464 Drummond, Mark
(High Rise Housing)
- 308 Gomme, A.H.
(Growing Glasgow)
- 308 Lyall, Sutherland
(Loudon and Associationism)
- 148 Reilly, Paul
(Simon Fraser University)
- 148 Wells-Thorpe, J.A.
(St. Mark's Church, Portsmouth)
- 148 Wright, Gregory
(Illuminated Signs)
- 86- Courtyard Houses, Iraqi
88 Illustrated note by Keith Bennett
- 93- Cove Vean, Cornwall, House
96 Architects: Richard Rogers, Norman and
Wendy Foster

Covers

- July
The letters 'AR' designed by Philip
Thompson
- August
A view of Paris from Notre Dame,
processed by a computer, by L.D.Harman
and K.C.Knowlton
- September
A 'Study in structure, form and
extent' by H.Linder from the exhibition
'Seeing'
- October
Sculpture, 'Rectangular Relief' by
Gwyther Evans in the new British
Petroleum Headquarters, Britannic House,
Moor Lane, London photographed by Corry
Bevington

- November
Double doors leading into the Room
de Luxe of the Willow Tea-Rooms, 1904,
designed by Charles Rennie Mackintosh,
photographed by Eric de Mare
- December
Photograph of The Metal Ballet
taken during a performance at the Bauhaus,
designed by Oskar Schlemmer, from the
Bauhaus Archiv at Darmstadt
- Criticism**
- 27- Adhocism on the South Bank
30 Illustrated article by Charles Jencks
328- History Faculty, Cambridge
332 Architect: James Stirling.
Illustrated article by Reyner Banham
- 446- Custom House, London Airport, Heathrow
450 Architects: Manning and Clamp
- 257- Dark Satanic Century, A
260 Illustrated article by Reyner Banham
(Chapter from 'The Architecture of the
Well-Tempered Environment')
- 119- Delhi, Quwat-ul-Islam Mosque
121 (The Exploring Eye)
Illustrated note
- 203- Display Light Fittings
204 (Interior Design)
Illustrated note
- 280 Display System, R.T.
(Interior Design)
Illustrated note
- 295- Drainage, Fen
298 Illustrated note by P.G.Norman
- 213- Draughtsmen, Contemporary: 23. Tony Shannon
214
- 168- Dublin, Memorial to Wolfe Tone
169 Illustrated note
- 419- Exhibition, Osaka 1970, Japan: A Preview
421 Illustrated article by J.M.Richards
- 31- Exploring Eye, The: Garnier Roofscape
33 (Casino in Monaco by Charles Garnier)
Illustrated note
- 119- Quwat-ul-Islam
121 (Mosque in Delhi)
Illustrated note
- 372- Factory, Bath, Somerset, for Bath Cabinet
376 Makers Ltd.
Architects: Yorke, Rosenberg and Mardall
- 372- Factory, Bath, Somerset, for Rotork
376 Engineering Co.
Architects: Leonard Manasseh and Partners
- 323- Farm Relics (Abandoned Machinery near Dunbar,
325 Scotland)
Illustrated note
- 415- Faversham and Chipping Norton (Townscape)
418 Illustrated article by Richard Reid
- 295- Fen Drainage
298 Illustrated note by P.G.Norman
- 405- Film sets for 'Isadora' (The life of
407 Isadora Duncan)
Illustrated note
- 241- Film sets for 'Oliver' (Oliver's London)
242 Illustrated note
- 441- Furniture and Space
442 (Interior Design)
Illustrated note by Kenneth Agnew
- 281- Furniture, Thonet
286 (Interior Design)
Designer: Michael Thonet.
Illustrated article by Sherban Cantacuzino
- 50 Furniture by Jørn Utzon, Sculptured
(Interior Design)
Illustrated note
- 81- Galaland (Scarborough, Yorkshire)
83 Illustrated note by Peter Burton
- Gallery**
A Symposium on painting, sculpture and
the applied arts
Illustrated articles
- 61- The Young Consolidators & The Old Masters
64
- 133- An Exhibitor at the Academy (James Tissot)
136 Railway Documents
207- Changing the World (Oskar Schlemmer-
210 Bauhaus painter)
369- Man with a Good Eye
371
- 443- A Stranger in N.Z.
445
- 31- Garnier Roofscape: Casino in Monaco
33 (The Exploring Eye)
Illustrated note
- 422- Gateshead, Co. Durham, Town Centre
426 Architects: The Owen Luder Partnership
- 5-7 Geometry of Brickmaking
Illustrated note
(Derelict Brickworks in Scotland)
- 440 Glazed screens, Aluminium
(Interior Design)
Illustrated note by Tim Poulson
- 289- Grafham Water, Huntingdonshire, Sailing Club,
291 Architects: Robert Matthew, Johnson-Marshall
and Partners
- 179- Greek Island Villages, The Public Space
186 in Some
(Townscape)
Illustrated article by Margaret Tallet
- 342- Greenwich Threat (Townscape)
344 Illustrated article by Anthony Matthews
- 94, Haddenham, Buckinghamshire, Three Houses
102- Architect: Peter Aldington
104
- 250- Harlow, Offices for Longmans Green
256 Architects: Frederick Gibberd and Partners
- 397- High Atlas (Villages of the Ayt Bu
401 Gemmez tribe in the Atlas Mountains of
Morocco)
Illustrated article
- 239 High Flats (Swing High, Swing Low) Article
- History**
- 139- Fifteenth Century Prefab
140 (Tyrrells End Farm, Bedfordshire)
Illustrated note by Nicholas Wood
- 427- Jabez Balfour Story, The: Building Finance
430 in the 1880's and 1890's
Illustrated article by Peter Ferriday
- 215- Liberal and Literary
219 (Birmingham Central Libraries)
Illustrated note by Nicholas Taylor
- 89- Loudon, J.C. and Architectural Associationism
92 Illustrated article by G.L.Hersey
- 328- History Faculty, Cambridge University
332, Architect: James Stirling
333- Illustrated article by Reyner Banham
341 (Criticism)
- 57- Hospital, Kuala Lumpur, Malaya University,
60 Teaching
Architects: James Cubitt and Partners
- 94, House, Bromborough, Cheshire
105 Architects: Nelson and Parker
- 94, House, Caldecote, Cambridgeshire
106- Architect: John Meunier
107
- 94, House, Chislehurst, Kent
109 Architect: Donald Ball
- 94, House, Christmas Common, Oxfordshire
100- Architects: Brett and Pollen
101
- 93- House, Cove Veau, Cornwall
96 Architects: Richard Rogers, Norman and
Wendy Foster
- 94, Houses, Haddenham, Buckinghamshire, Three
102- Architect: Peter Aldington
104
- 86- Houses, Iraqi Courtyard
88 Illustrated note by Keith Bennett
- 94, House, London, Blackheath Hill
110- Architect: Julian Sofaer
111
- 94, House, London, Camden Town
115- Architect: Richard Gibson
116
- 94, House, London, Chelsea
112 Architect: John Wright
- 94, House, London, Kensington Place
113- Architect: Tom Kay
114
- 94, House, Radlett, Hertfordshire
97- Architects: Norman and Wendy Foster, Richard
99 Rogers
- 94, House, Worcester Park, Surrey
108 Architects: Stout and Lichfield
- 453- Housing, Algarve, Portugal, Vilalara Estate
454 Architect: José d'Almeida Araujo
- 137- Hull Convenience
138 Illustrated note by Peter Bush and John
Martin
- 299 Hull, Mountain of
Illustrated note by A.G.Chamberlain
- 261- Hull University Halls of Residence
266 Architects: Gillespie, Kidd and Coia
- Industry, The**
- 73-
74-
152-
154-
232-
234-
312-
314-
388-
390-
467-
468-
48-
49 Interior Components,
(Interior Design)
Illustrated note by Bill Fisher
- Interior Design**
- 440 Aluminium glazed screens
Illustrated note by Tim Poulson
- 47 Birmingham, Group Practice Surgery
Architect: John Winter
- 431- Cambridge, College Buildings, King's Lane
435 Architects: James Cubitt and Partners
- 43- Chinnor, Group Practice Surgery
46 Architect: Peter Aldington
- 203- Display light fittings
204 Illustrated note
- 205- Glazed shopfronts
206 Illustrated note by Tim Poulson
- 48- Interior Components
49 Illustrated note by Bill Fisher
- 200- London, Brompton Road,
201 Jaeger Boutique
Architects: Dennis Lennon and Partners
London, Charlotte Street,
Artist's Studio
Architect: Charlotte Baden-Powell
- 277- London, Cheapside, Merchant Bank
279 Architects: Buzas and Irvine
- 130 London, Kelso Place, Print Workshop
Architect: James Madge
- 199 London, King's Road, 'Just Looking'
Boutique
Architects: Garnett, Cloughley, Blakemore
and Associates
- 438- London, Knightsbridge, Department Store
439 Restaurant (Dress Circle, Harrods)
Designers: Maurice Broughton Associates
- 125- London, Leicester Square, The Swiss Centre
128 Architect: Justus Dahinden
- 345- London, Lewisham, Martins Bank
346 Architect: Roger Warboys
- 39- London, Nash House, Art Gallery and Theatre
42 Architects: Fry, Drew and Partners
- 436- London, Sloane Street, Shop Extension for
437 the General Trading Co.
Architects: Peter Wood and Partners
London, Sloane Street, Vanessa Frye
Boutique
Architects: Derek Phillips and Associates
- 348- London, Wigmore Street, Martins Bank
349 Architect: Ernő Goldfinger
- 347 Lowestoft, Suffolk, Barclay's Bank
Architects: Tayler and Green
- 354 Mackintosh, The Glitter of
Illustrated note
- 195- Milan, Altre Cose Boutique
198 Architects: Aldo Jacober, Ugo La Pietra and
Paolo Rizzatto
- 280 R.T. Display System
Illustrated note
- 50 Sculptured furniture by Jørn Utzon
Illustrated note
- 441- Space and furniture
442 Illustrated note by Kenneth Agnew
- 131- Table Silver, Modern British
132 Illustrated note by Graham Hughes
- 273- Theatre, Central Collegiate Buildings
276 University College, London
Architects: James Cubitt and Partners
- 281- Thonet Furniture
286 Designer: Michael Thonet.
Illustrated article by Sherban Cantacuzino
- 350 Wall-coverings, The Future of
353 Illustrated note by Humphrey Spender
- 86- Iraqi Courtyard Houses
88 Illustrated note by Keith Bennett

- 8-10 Irish Shop Lettering
Illustrated note by Humphrey Spender
- 405- Isadora Sets (Period sets for the film based
407 on the life of Isadora Duncan)
Illustrated note
- 243- Island Relics of the Royal Navy (Ascension
247 Island)
Illustrated note by J.M.Richards
- 427- Jabez Balfour Story, The: Building Finance
430 in the 1880's and 1890's
Illustrated article by Peter Ferriday
- 57- Kuala Lumpur, Malaya University Medical
60 Centre
Architects: James Cubitt and Partners
- 122- Leicester New Walk: Conservation Scheme in
124 Progress (Townscape)
Illustrated note
- 8-10 Lettering, Irish Shop
Illustrated note by Humphrey Spender
- 215- Liberal and Literary (Birmingham Central
219 Libraries)
Illustrated note by Nicholas Taylor
- 328- Library, Cambridge University, History
332, Faculty
333- Architect: James Stirling
341 Illustrated article by Reyner Banham
(Criticism)
- 203- Light Fittings, Display
204 (Interior Design)
Illustrated note
- 446- London Airport, Heathrow, Custom House
450 Architects: Manning and Clamp
- 94, London, Blackheath Hill, House
110- Architect: Julian Sofaer
111
- 200- London, Brompton Road, Jaeger Boutique
201 (Interior Design)
Architects: Dennis Lennon and Partners
- 94, London, Camden Town, House
115- Architect: Richard Gibson
116
- 129 London, Charlotte Street, Artist's Studio
(Interior Design)
Architect: Charlotte Baden-Powell
- 277- London, Cheapside, Merchant Bank
279 (Interior Design)
Architects: Buzas and Irvine
- 94, London, Chelsea, House
112 Architect: John Wright
- 273- London, Gordon Street, Theatre, Central
276 Collegiate Buildings, University College
(Interior Design)
Architects: James Cubitt and Partners
- 342- London, Greenwich (Townscape)
344 Illustrated article by Anthony Matthews
- 130 London, Kelso Place, Print Workshop
(Interior Design)
Architect: James Madge
- 94, London, Kensington Palace, House
113- Architect: Tom Kay
114
- 199 London, King's Road, Just Looking Boutique
(Interior Design)
Architects: Garnett, Cloughley, Blakemore
and Associates
- 438- London, Knightsbridge, Dress Circle
439 Restaurant, Harrods Department Store
(Interior Design)
Designers: Maurice Broughton Associates
- 125- London, Leicester Square, The Swiss Centre
128 (Interior Design)
Architect: Justus Dahinden
- 345- London, Lewisham, Martins Bank
346 (Interior Design)
Architect: Roger Warboys
- 39- London, Nash House, Art Gallery and Theatre
42 (Interior Design)
Architects: Fry, Drew and Partners
- 436- London, Sloane Street, Shop extension for
437 the General Trading Co.
(Interior Design)
Architects: Peter Wood and Partners
- 202 London, Sloane Street, Vanessa Frye
Boutique
(Interior Design)
Architects: Derek Phillips and Associates
- 14- London, South Bank, Arts Centre.
30 Architect: Hubert Bennett, Architect to
Greater London Council
- 348- London, Wigmore Street, Martins Bank
349 (Interior Design)
Architect: Ernö Goldfinger
- 3-4 Long Haul, The: Development of the South Bank
Note
- 89- Loudon, J.C. and Architectural Associationism
92 Illustrated article by G.L.Hersey
- 347 Lowestoft, Suffolk, Barclay's Bank
Architects: Tayler and Green
(Interior Design)
- 355- Mackintosh, Charles Rennie
363 Illustrated article by David Walker
- 455- Mackintosh and Vienna
456 Illustrated note by Eduard F. Seckler
- 354 Mackintosh, The Glitter of
(Interior Design)
Illustrated note
- 57- Medical Centre, Kuala Lumpur, Malaya
60 University
Architects: James Cubitt and Partners
- 165- Melbourne, Australia, Rock-crushing plants
167 near
Illustrated note by Donald Gazzard
- 168- Memorial, Dublin, Wolfe Tone
169 Illustrated note
- 192- Memories of a Bauhaus Student
194 Article by George Adams
- 402- Mexico, 'Route of Friendship' (sculpture
404 in concrete along the extension to the urban
motorway)
Illustrated note by John Adams
- 451- Mies Speaks (Extracts from an interview)
452 Article
- 195- Milan, Altre Cose Boutique
198 (Interior Design)
Architects: Aldo Jacober, Ugo La Pietra
and Paolo Rizzatto
- 84- Mini-River Trim
85 Illustrated note
- 31- Monaco Casino: Garnier Roofscape
33 (The Exploring Eye)
Illustrated note
- 321- Monoliths, Axum, Ethiopia
323 Illustrated note by Stephen Harrison
- 287- Morris, Triple (Three books on William
288 Morris)
Illustrated note by Nikolaus Pevsner
- 119- Mosque, Delhi, Quwat-ul-Islam (The
121 Exploring Eye)
Illustrated note
- 395- Motion Study (Review of Tomorrow's
396 Transportation. Published by US Department
of Housing and Urban Development)
Illustrated article
- 319- Motorway Box, The
320 (Motorway plan for London) Article
- 299 Mountain of Hull
Illustrated note by A.G.Chamberlain
- 219- Nepal, Wood Carving in
220 Illustrated note by Fred Zimmer
- 170- Newcastle University, Science and Arts
178 Buildings. (Claremont Complex)
Architects: Richard Sheppard, Robson and
Partners
- 122- New Walk: Leicester Conservation Scheme
124 in Progress (Townscape)
Illustrated note
- 300 Norwich Vaulting, A Note on
Illustrated note by Roger Wain-Heapy
- 372- Offices, Bath, Somerset, for Rotork
376 Engineering Co.
Architects: Leonard Manasseh and Partners
- 250- Offices, Harlow, for Longmans Green
256 Architects: Frederick Gibberd and Partners
- 211- Offices, Tempsford, Bedfordshire, Extension
212 Architects: Hughes, Lomax and Adutt
- 241- Oliver's London (Film sets for 'Oliver')
242 Illustrated note
- 419- Osaka 1970: A Preview
421 Illustrated article by J.M.Richards
- 364- Oxford University, Residential Building,
368 Christ Church
Architects: Powell and Moya
- 326- Portland, Oregon, USA, Water Plaza
327 Architects: Lawrence Halprin and Associates
Illustrated note
- 139- Prefab, Fifteenth Century (Tyrrells End Farm,
140 Bedfordshire) Illustrated note by
Nicholas Wood
- 137- Public Convenience, Hull
138 Illustrated note by Peter Bush and John
Martin
- 94, Radlett, Hertfordshire, House
97- Architects: Norman and Wendy Foster,
99 Richard Rogers
- 438- Restaurant, London, Knightsbridge, Dress
439 Circle, Harrods Department Store
(Interior Design)
Designers: Maurice Broughton Associates
- 84- River Trim, Mini-
85 Illustrated note
- 165- Rock-crushers (Rock-crushing plants near
167 Melbourne, Australia)
Illustrated note by Donald Gazzard
- 31- Roofscape, Garnier: Casino in Monaco
33 (The Exploring Eye)
Illustrated note
- 402- Route of Friendship (Sculpture in concrete
404 along the new extension to the urban motorway
in Mexico)
Illustrated note by John Adams
- 243- Royal Navy, Island Relics of the (on
247 Ascension Island)
Illustrated note by J.M.Richards
- 280 R.T.Display System
(Interior Design)
- 289- Sailing Club, Grafham Water,
291 Huntingdonshire
Architects: Robert Matthew, Johnson-Marshall
and Partners
- 268- St. Ives, Hunts (Townscape)
272 Illustrated article by Kenneth Browne
- 81- Scarborough, Yorkshire, Galaland
83 Illustrated note by Peter Burton
- 248- Sculpture, Stone's (Monuments by Nicholas
249 Stone)
Illustrated note
- 117- Seeing and Believing (Review of Eye and
118 Brain: The Psychology of Seeing. By
R.L.Gregory)
Article by Edward T.Hall
- 257- Services in Buildings (A Dark Satanic
260 Century)
(Chapter from 'The Architecture of the
Well-Tempered Environment')
Illustrated article by Reyner Banham
- 205- Shopfronts, Glazed
206 (Interior Design)
Illustrated note by Tim Poulson
- 8-10 Shop Lettering, Irish
Illustrated note by Humphrey Spender
- 422- Shopping Centre, Gateshead, Co. Durham
426 Architects: The Owen Luder Partnership
- 200- Shop: London, Brompton Road, Jaeger
201 Boutique
(Interior Design)
Architects: Dennis Lennon and Partners
- 199 Shop, London, King's Road, Just Looking
Boutique
(Interior Design)
Architects: Garnett, Cloughley, Blakemore
and Associates
- 436- Shop, London, Sloane Street, Extension to
437 General Trading Co.
(Interior Design)
Architects: Peter Wood and Partners.
- 202 Shop, London, Sloane Street, Vanessa Frye
Boutique
(Interior Design)
Architects: Derek Phillips and Associates
- 195- Shop: Milan, Altre Cose Boutique
198 (Interior Design)
Architects: Aldo Jacober, Ugo La Pietra,
Paolo Rizzatto

- 27- South Bank, Adhocism on the
30 Illustrated article by Charles Jencks
(Criticism)
- 14- South Bank Arts Centre, London
30 Architect: Hubert Bennett, Architect to
Greater London Council
- 441- Space, Furniture and
442 (Interior Design)
Illustrated note by Kenneth Agnew
- 248- Stone's Sculpture (Monuments by Nicholas
249 Stone)
Illustrated note
- 75- Stop Press: Anthology of Townscape
76 Problems
155- Illustrated notes by Ian Nairn
156,
235-
236,
315-
316,
391-
392,
469-
470
- 129 Studio, London, Charlotte Street, Artist's
(Interior Design)
Architect: Charlotte Baden-Powell
- 47 Surgery, Birmingham, Group Practice
(Interior Design)
Architect: John Winter
- 43- Surgery, Chinnor, Group Practice
46 (Interior Design)
Architect: Peter Aldington
- 239 Swing High, Swing Low (High Flats)
Article
- 125- Swiss Centre, London, Leicester Square
128 (Interior Design)
Architect: Justus Dahinden
- 131- Table Silver, Modern British
132 (Interior Design)
Illustrated note by Graham Hughes
- 211- Tempsford, Bedfordshire, Office Extension
212 for J.L.Kier & Co.
Architects: Hughes, Lomax and Adutt
- 138- Theatre, Peter Behrens and the
139 Illustrated note by Janet Leeper
- 273- Theatre, London, Gordon Street, Central
276 Collegiate Buildings, University College
(Interior Design)
Architects: James Cubitt and Partners
- 39- Theatre, London, Nash House
42 (Interior Design)
Architects: Fry, Drew and Partners
Interior views and plan
- 187- Theatre Royal, York, Restoration
191 (Restaurant, Bar and Foyer)
Architect: Patrick Gwynne
- 281- Thonet Furniture
286 (Interior Design)
Designer: Michael Thonet.
Illustrated article by Sherban Cantacuzino
- 168- Tone, Wolfe, Atoned (Memorial in Dublin)
169 Illustrated note
- 422- Town Centre, Gateshead, Co. Durham
426 Architects: The Owen Luder Partnership
- Townscape**
- 179- Agoras and Plateias: The Public
186 Space in some Greek Island Villages.
Illustrated article by Margaret Tallet
- 268- Aspects of Conservation
272 1. Defining the Conservation Area: St.
Ives, Hunts
Illustrated article by Kenneth Browne
- 51- Bridgnorth, Shropshire
56 Illustrated article by Margaret Tallet
- 415- Faversham and Chipping Norton
418 Illustrated article by Richard Reid
- 342- Greenwich Threat
344 Illustrated article by Anthony Matthews
- 122- New Walk: Leicester Conservation Scheme
124 in Progress
Illustrated note
- 84- Trim, Mini-River
85 Illustrated note
- 287- Triple Morris (Three books on William
288 Morris)
Illustrated note by Nikolaus Pevsner
- 139- Tyrrells End Farm, Bedfordshire
140 (Fifteenth Century Prefab)
Illustrated note by Nicholas Wood
- 431- University, Cambridge, College Buildings,
435 King's Lane
(Interior Design)
Architects: James Cubitt and Partners
- 328- University, Cambridge, History Faculty
332 Architect: James Stirling
333 Illustrated article by Reynier Banham
341 (Criticism)
- 261- University, Hull, Halls of Residence
266 Architects: Gillespie, Kidd and Coia
- 273- University, London, Gordon Street
276 Theatre, Central Collegiate Buildings
(Interior Design)
Architects: James Cubitt and Partners
- 170- University, Newcastle, Science and Arts
178 Buildings (Claremont Complex)
Architects: Richard Sheppard, Robson and
Partners
- 364- University, Oxford, Residential Building,
368 Christ Church
Architects: Powell and Moya
- 318, Urbino, Italy
377- Illustrated article by Georgina Masson
380
- 300 Vaulting, A Note on Norwich
Illustrated note by Roger Wain-Heapy
- 455- Vienna, Mackintosh and.
456 Illustrated note by Eduard F. Seckler
- 350- Wall-coverings, The Future of
(Interior Design)
353 Illustrated note by Humphrey Spender
- 11- Walls of Whitstable
13 Illustrated note by Peter Baistow
- 326- Water Plaza, Portland, Oregon, USA
327 Architects: Lawrence Halprin and Associates
Illustrated note
- 11- Whitstable, Walls of
13 Illustrated note by Peter Baistow
- 219- Wood Carving in Nepal
220 Illustrated note by Fred Zimmer
- 94, Worcester Park, Surrey, House
108 Architects: Stout and Lichfield
- 130 Workshop, London, Kelso Place, Print
(Interior Design)
Architect: James Madge
- 161- Yapahuva, near Maho, Ceylon
164 Illustrated note by Stephen Harrison
- 187- York, Theatre Royal, Restoration
191 (Restaurant, Bar and Foyer)
Architect: Patrick Gwynne
- ARCHITECTS AND ARTISTS**
- 458- Ahlgren, Magnus, Torbjörn Olsson and
459 Sven Silow
- 43- Aldington, Peter
46,
94,
102-
104
- 453- Araujo, José d'Almeida
454
- 129 Baden-Powell, Charlotte
94, Ball, Donald
109
- 259 Banham, Mary
141 Barnes, Ed.
427 Barnes, George
215 Barry, Edward Middleton
370 Barye, Antoine Louis
404 Bayer, Herbert
138 Behrens, Peter
404 Beljon, Joop J.
282 Belter, J.H.
14- Bennett, Hubert
30 (Architect to the Greater London Council)
131- Benney, Gerald
132
- 62 Binder, D.
81- Birch, George
83
- 385 Black, Misha
223 Blomstedt, Pauli
- 241- Box, John
242
- 94, Brett and Pollen
100-
101
- 221- Bringas, Guitierrez, Rosen Morrison,
222 Récamier Montes and Valverde Garces
438- Broughton, Maurice Associates
439
- 353 Brown, Robin Gregson
124, Browne, Kenneth
269-
272
- 34- Burges, William
38
- 288 Burne-Jones, Edward
249 Bushnell, John
277- Buzas and Irvine
279
- 411 Calder, Alexander
2 Canaletto, Giovanni Antonio
221 Candela, Felix with Castaneda and Peyri
264, Carlo, Giancarlo de
378-
380
- 352 Cash, Judith
221 Castaneda and Peyri with Felix Candela
224 Castrén, Heikki
224 Castrén, Heikki and Viljo Revell
142 Chadirji, R.K.
215- Chamberlain, John Henry and William Martin
219
- 402 Chlupác, Miloslav
226 Christo
68 Cohos, de la Salle and Avamy
40- Colwell, David
41
- 30 Cook, Peter
442 Cox, John
57- Cubitt, James and Partners
60,
238,
273-
276,
431-
435
- 312 Cull, Allen
66- Dahinden, Justus
67,
125-
128
- 64 Dall, Nicholas
143 Dalton, John
404 Danziger, Itzhak
371 Daumier, Honoré
370 Degas, Edgar
168- Delaney, Edward and Noel Keating
169
- 132 Devlin, Stuart
304 Dinkeloo, John and Kevin Roche
62 Donaldson, Antony
350 Drummond, John
404 Dubón, Jorge
144 Dubuisson, Jean
136 Ellis, Hamilton
444 Ellis, Robert
351 Erlbeck, Evelyn
404 Escobedo, Helen
403 Fonseca, Gonzalo
94- Foster, Norman and Wendy with Richard
96, Rogers
96-
99
- 281 Freund, H.E.
230 Freyssinet, Vago, Le Donné and Pinsard
39- Fry, Drew and Partners
42
- 221- Garces, Valverde, Rosen Morrison, Récamier
222 Montes and Guitierrez Bringas
199, Garnett, Cloughley, Blakemore and Associates
228,
395
- 31- Garnier, Charles
33
- 371 Gauguin, Paul
250- Gibberd, Frederick and Partners
256,
387
- 94, Gibson, Richard
115-
116
- 260- Gillespie, Kidd and Coia
266
- 348- Goldfinger, Ernő
349
- 353 Greenfield, Frances
5-7 Groves-Raines, N.
302- Guedes, Amancio
303

402 Gurria, Angela
 402 Gutmann, Willi
 187- Gwynne, Patrick
 191
 326 Halprin, Lawrence and Associates
 141 Hardy, Hugh and Associates
 258- Hayward, John
 259
 73 Heritage, Robert
 119- Hill, Derek
 121
 455- Hoffman, Josef
 456
 462 Holford, Lord with Ludwig Mies van der Rohe
 139- Holland, Henry
 140
 304 Hollein, Hans
 63 Hosking, Knighton
 211- Hughes, Lomax and Adutt
 212
 371 Ingres, Jean
 306 Irwin, Gwyther
 195- Jacober, Aldo, Ugo La Pietra and Paolo
 198 Rizzatto
 280 Jacobsen, Arne
 460 Jevtić, Milorad
 301 Johansen, J.M.
 62 Jones, Allen
 352 Kacal, Helena
 94, Kay, Tom
 113-
 114
 168- Keating, Noel and Edward Delaney
 169
 35 Knowles, George and William Wilcox
 223 Korhonen, Toivo
 403 Kowalski, Grzegorz
 458 Kroll, Lucien
 282 Leistler, Carl
 459 Lenci, Sergio
 200- Lennon, Dennis and Partners
 201,
 205
 352 Little, Anthony
 89- Loudon, J.C.
 92
 143 Lübken, and Gandke
 422- Lüder, Owen and Partnership
 426
 443- McCahon, Colin
 444
 141 Mackall, Louis
 354, Mackintosh, Charles Rennie
 355-
 363,
 455-
 456
 384 McMillan Long
 130 Madge, James
 373- Manasseh, Leonard and Partners
 376
 67- Mankowski, Gawor, Nowakowska and Meissner
 68
 446- Manning and Clamp
 450
 215- Martin, William and John Henry Chamberlain
 219
 444 Matchitt, Para
 292- Matisse, Henri
 294
 289- Matthew, Robert, Johnson-Marshall and
 291 Partners
 403 Meadmore, Clement
 142 Meier, Richard
 494 Melehi, Mohamed
 131- Mellor, David
 132,
 148
 68 Menghi, Roberto
 94, Meunier, John
 106-
 107
 408- Mies van der Rohe, Ludwig
 414
 462 Mies van der Rohe, Ludwig, with Lord Holford
 386 Mills, John W.
 403 Moeschal, Jacques
 383- Moneo, Rafael
 384
 221- Montes, Récamier, Rosen Morrison, Guitierrez
 222 Bringas and Valverde Garces
 411 Moore, Henry
 230 Moretti, Luigi
 143 Morgan, William
 34- Morris, William
 38
 221- Morrison, Rosen, Récamier Montes, Guitierrez
 222 Bringas and Valverde Garces
 299 Mountain, Charles

222- Murdoch, Peter and Lance Wyman
 223
 75- Nason, Gerald
 76,
 155-
 156,
 235-
 236,
 315-
 316,
 391-
 392,
 469-
 470
 94, Nelson and Parker
 105
 78 Niemeyer, Oscar
 403 Nivola, Constantino
 295- Norman, P.G.
 298
 458- Olsson, Torbjörn, Magnus Ahlgren and Sven
 459 Silow
 457 Ostertag, Meyer and Höfler
 310 Palladio, Andrea
 459- Parkin, John B. Associates
 460
 64 Paulus, Melchior
 301 Penttilä, Timo
 429 Perry and Reed
 202 Phillips, Derek and Associates
 61 Phillips, Peter
 29 Picasso, Pablo
 364- Powell and Moya
 368,
 421
 266- Powell, Richard
 267
 371 Prud'hon, Pierre
 80 Public Building and Works, Ministry of
 382 Ramon and Arregui
 383 Ramon, Fernando
 228 Rasch, Heinz
 31- Reed Penelope
 33
 415- Reid, Richard
 418
 224 Revell, Viljo and Heikki Castrén
 63 Riley, Bridget
 304 Roche, Kevin and John Dinkeloo
 94- Rogers, Richard with Norman and Wendy
 96, Foster
 96-
 99
 73 Rowland, David
 223 Ruusuvaori, Aarno
 442 Salvati and Tresoldi
 28 Scharoun, Hans
 441- Schultz, Richard
 442
 144 Scott, Michael
 404 Séguin, Olivier
 383 Serrano, Pablo
 369 Seurat, Georges
 71 Shankland, Cox and Associates with Raymond
 and May Associates
 Shannon, Tony
 213-
 214
 170- Sheppard, Richard, Robson and Partners
 178
 142 Shinohara, Kazuo
 458- Silow, Sven, Magnus Ahlgren and Torbjörn
 459 Olsson
 65- Simoncini, Giorgio
 66
 388 Sirén, Heikki
 122- Smigielski, W.K.
 123 (Leicester City Planning Officer)
 303 Smith, Hinchman and Grylls
 28 Smithson, Alison and Peter
 94, Sofaer, Julian
 110-
 111
 353 Squires, Edward
 327- Stirling, James
 341
 248- Stone, Nicholas
 249
 94, Stout and Lichfield
 108
 158 Stozl, Gunta
 403 Székely, Pierre
 402 Takahashi, Kioshi
 419 Tange, Kenzo
 347 Tayler and Green
 381- Thompson, Benjamin
 382
 281- Thonet, Michael
 286

133- Tissot, James
 136
 75 Tite, Sir William
 63 Tucker, William
 152, Turville, Alan
 467
 50 Utzon, Jørn
 222 Vazquez, Ramirez
 67 Wagner, Cy
 445 Walters, Gordon
 302, Weese, Harry
 457-
 458
 131- Welch, Robert
 132
 35 Wilcox, William and George Knowles
 403 Williams, Todd
 47 Winter, John
 436- Wood, Peter and Partners
 437
 63 Woodham, Derrick
 345- Worboys, Roger
 346
 94, Wright, John
 112
 222- Wyman, Lance and Peter Murdoch
 223
 372- Yorke, Rosenberg and Mardall
 376
 143 Zenetos, Takis
 219- Zimmer, Fred
 220
 442 Zoefftig, Alan

AUTHORS AND CONTRIBUTORS

192- Adams, George
 194
 402- Adams, John
 404
 441- Agnew, Kenneth
 442
 11- Baistow, Peter
 13
 350- Banham, John and Edward Pond
 353
 257- Banham, Reyner
 260,
 328-
 332
 86- Bennett, Keith
 88
 268- Browne, Kenneth
 272
 81- Burton, Peter
 83
 137- Bush, Peter and John Martin
 138
 281- Cantacuzino, Sherban
 286
 299 Chamberlain, A.G.
 230 Crosby, Theo
 72 de Maré, Eric
 427- Ferriday, Peter
 430
 48- Fisher, Bill
 49
 71 Fry, E. Maxwell
 165- Gazzard, Donald
 167
 117- Hall, Edward T.
 118
 161- Harrison, Stephen
 164,
 321-
 323
 338 Heppenstall, F.E.
 89- Hersey, G.L.
 92
 131- Hughes, Graham
 132
 27- Jencks, Charles
 30
 387 Jordan, R.Furieux
 138- Leeper, Janet
 139
 230 MacIvor, Iain
 137- Martin, John and Peter Bush
 138
 306- Martin, Sir Leslie
 308
 377- Masson, Georgina
 380
 342- Matthews, Anthony
 344

- 61- Melville, Robert
64,
133-
136,
207-
210,
292-
294,
369-
371,
443-
445
451- Mies van der Rohe, Ludwig
452
75- Nairn, Ian
76,
155-
156,
235-
236,
315-
316,
391-
392,
469-
470
338 Newby, Frank
295- Norman, P.G.
298
72, Pevsner, Nikolaus
287-
288,
310
350- Pond, Edward and John Banham
353
205- Poulson, Tim
206,
440
310 Pritchard, J.C.
415- Reid, Richard
418
243- Richards, J.M.
247,
410,
419-
421
466 Rosenau, Helen
455- Seckler, Eduard F.
456
8-10, Spender, Humphrey
350-
353
150 Summerson, Sir John
34- Symondson, Anthony and Nicholas Taylor
38
51- Tallet, Margaret
56,
179-
186
215- Taylor, Nicholas
219
34- Taylor, Nicholas and Anthony Symondson
38
386 Tedeschi, Enrico
300 Wain-Heapy, Roger
355- Walker, David
363
139- Wood, Nicholas
140

BOOKS REVIEWS

- 466 Andrews, Wayne
Architecture in Michigan
466 Beresford, M.
New Towns of the Middle Ages, Town
Plantation in England, Wales and Gascony
Reviewed by Helen Rosenau
228 Besset, Maurice
New French Architecture
Reviewed by Theo Crosby
72 Bunting, Bainbridge
Houses of Boston's Back Bay
228 Galardi, Alberto
New Italian Architecture
Reviewed by Theo Crosby
386 Gibberd, Frederick
Metropolitan Cathedral of Christ The King
Liverpool
Reviewed by R. Furneaux Jordan
117- Gregory, R.L.
118 Eye and Brain: The Psychology of Seeing
Reviewed by Edward T. Hall
287- Henderson, Philip
288 William Morris, His Life, Work and Friends
Reviewed by Nikolaus Pevsner

- 72 Kalayan, H.
L'Habitation au Liban: Part I, Essai de
Classification
72 Liger-Belair, Jacques
L'Habitation au Liban: Part II, La
Formation de la Tradition et son Evolution
72 Linn, Björn
Osvold Almquist: En Arkitekt Och Hans
Arbete
Reviewed by Eric de Maré
386 Lugli, Piero Maria
Storia e Cultura della Citta Italiana
Reviewed by Enrico Tedeschi
150 Madsen, S.T.
Art Nouveau
310 Maltese, Corrado (Editor)
Francesco Di Giorgio: Trattati di
Architettura Ingegneria e Arte Militare
Reviewed by N. Pevsner
386 Mazzucconi, Vittorio
La Citta a Immagine e Somiglianza
dell'Uomo
Reviewed by Enrico Tedeschi
150 Noguchi, Isamu
A Sculptor's World
466 Renn, Derek
Norman Castles in Britain
310 Russell, Gordon
Designer's Trade
Reviewed by J.C.Pritchard
387 Schild, Erich
Zwischen Glaspalast und Palais des
Illusions
230 Shelby, L.R.
John Rogers, Tudor Military Engineer
Reviewed by Iain MacIvor
72 Stokes, Adrian
Reflections on the Nude
Reviewed by John Piper
150 Stutchbury, Howard E.
The Architecture of Colen Campbell
Reviewed by Sir John Summerson
72 Teodori, Massimo
Architettura e Citta in Gran Bretagna
Reviewed by N.Pevsner
287- Thompson, Paul
288 The Work of William Morris
Reviewed by Nikolaus Pevsner
230 Toynbee, Arnold (Editor)
Cities of Destiny
287- Watkinson, Roy
288 William Morris as Designer
Reviewed by Nikolaus Pevsner

BOOKS REVIEWED

- 72 Almquist, Osvold: En Arkitekt
Och Hans Arbete
By Björn Linn
466 Architecture in Michigan
By Wayne Andrews
150 Architecture of Colen Campbell, The
By Howard E.Stutchbury
72 Architettura e Citta in Gran Bretagna
By Massimo Teodori
150 Art Nouveau
By S.T.Madsen
230 Cities of Destiny
Edited by Arnold Toynbee
386 Citta a Immagine e Somiglianza dell'Uomo, La
By Vittorio Mazzucconi
310 Designer's Trade
By Gordon Russell
117- Eye and Brain: The Psychology of Seeing
118 By R.L.Gregory
310 Francesco Di Giorgio: Trattati di
Architettura Ingegneria e Arte Militare
Edited by Corrado Maltese
228 French Architecture, New
By Maurice Besset
72 L'Habitation au Liban: Part I, Essai de
Classification
By H.Kalayan

- 72 L'Habitation au Liban: Part II, La
Formation de la Tradition et son Evolution
By Jacques Liger-Belair
72 Houses of Boston's Back Bay
By Bainbridge Bunting
228 Italian Architecture, New
By Alberto Galardi
386 Metropolitan Cathedral of Christ The King
Liverpool
By Frederick Gibberd
287- Morris as Designer, William
288 By Roy Watkinson
287- Morris, William: His Life, Work and Friends
288 By Philip Henderson
466 New Towns of the Middle Ages: Town
Plantation in England, Wales and Gascony
By M. Beresford
466 Norman Castles in Britain
By Derek Renn
72 Reflections On The Nude
By Adrian Stokes
230 Rogers, John: Tudor Military Engineer
By L.R.Shelby
230 Schulbaubibliographie, I
150 Sculptor's World, A
By Isamu Noguchi
386 Storia e Cultura della Citta Italiana
By Piero Maria Lugli
287- Work of William Morris, The
288 By Paul Thompson
387 Zwischen Glaspalast und Palais des
Illusions.
By Erich Schild