THE ARCHITECTURAL REVIEW VOLUME CXL NUMBER 833 JULY 1966 FIVE SHILLINGS

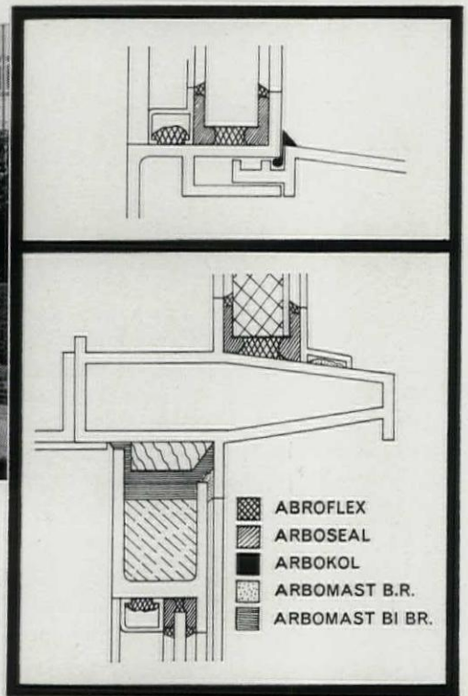
the STATION TOWER COVENTRY

arbosealed

by the Arboglaze system—the glazing system that stays watertight under all exposure conditions.

The aluminium curtain wall cladding consists of two-piece deep profile mullions on a 5′ 0″ module spanning 14 floors for a total height of 150 ft along a building perimeter of 300 ft. Inner portions of mullions were supplied in 20 ft lengths. Outer portions of mullions are polished and anodized black and special allowances were made for thermal expansion. All remaining aluminium members and inserted ventilators are mill finish.
Inside glazed infilling panels are vitreous enamelled and the complete installation includes pressed steel blind boxes and closure trims to columns and soffit of floor slabs, aluminium coping and soffit to mezanine floor. Structural hollow sections were supplied to support the curtain wall over 10′ 0″ and 15′ 0″ spans at stair wells.
Specially developed fixings to floor slabs allow for tolerances of plus or minus $\frac{1}{2}$″ in three directions.

The whole of the installation was detailed, fabricated and fitted by JOHN WILLIAMS OF CARDIFF LIMITED.



Station Tower, Coventry, was built for Copthall Holdings Ltd.
Architects: W. H. Saunders & Son. Main Contractors: Higgs and Hill Midlands Limited.
Glaziers: Glass (Coventry) Limited.
Station Tower, Coventry, the ARBOGLAZE system incorporated:- ARBOSEAL B.R. high adhesion load bearing polythene and rubber based preformed sealant ☐ ABROFLEX glazing compound—maintains a durable and plastic seal ☐ ARBOMAST B.R. high polymer adhesive sealant for joint caulking and weather sealing. ☐ ARBOMAST BI BR. bedding mastic. The universally approved bedding mastic for fixing and coupling window framing and curtain wall installation. ☐ ARBOKOL Elastomer polysulphide rubber sealant fully accommodates thermal and vibrational movement without risk of fracture or slumping.

For further details of the ARBOGLAZE system, write to the manufacturers.

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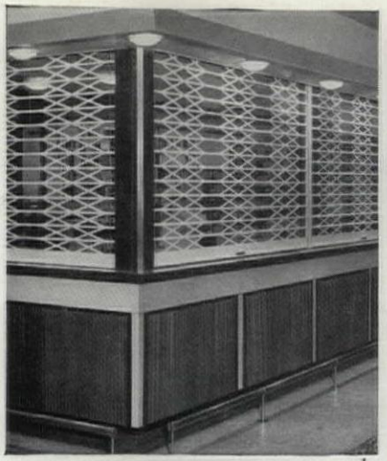
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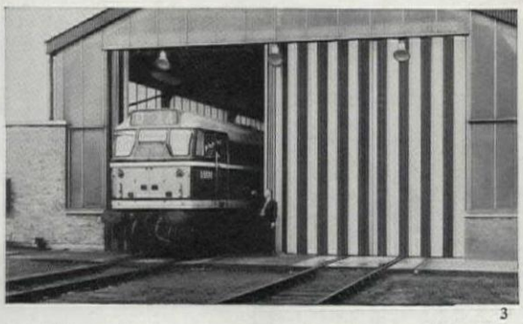
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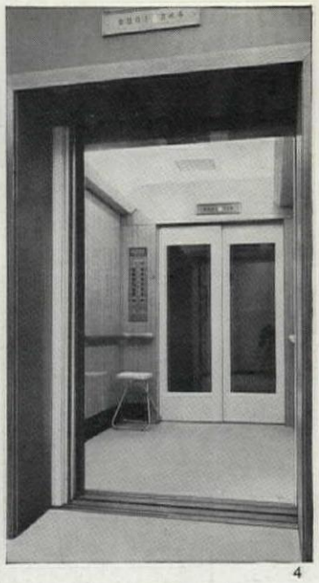
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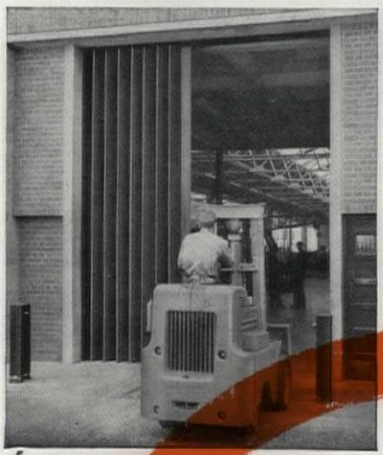
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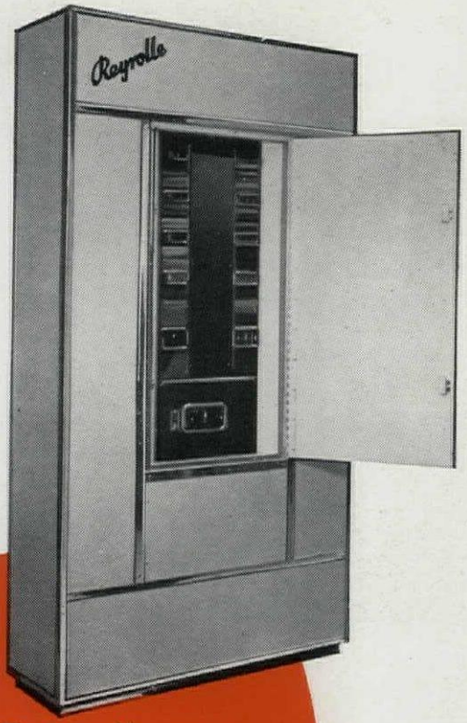

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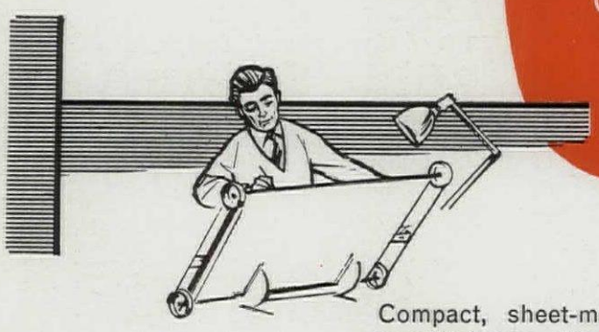

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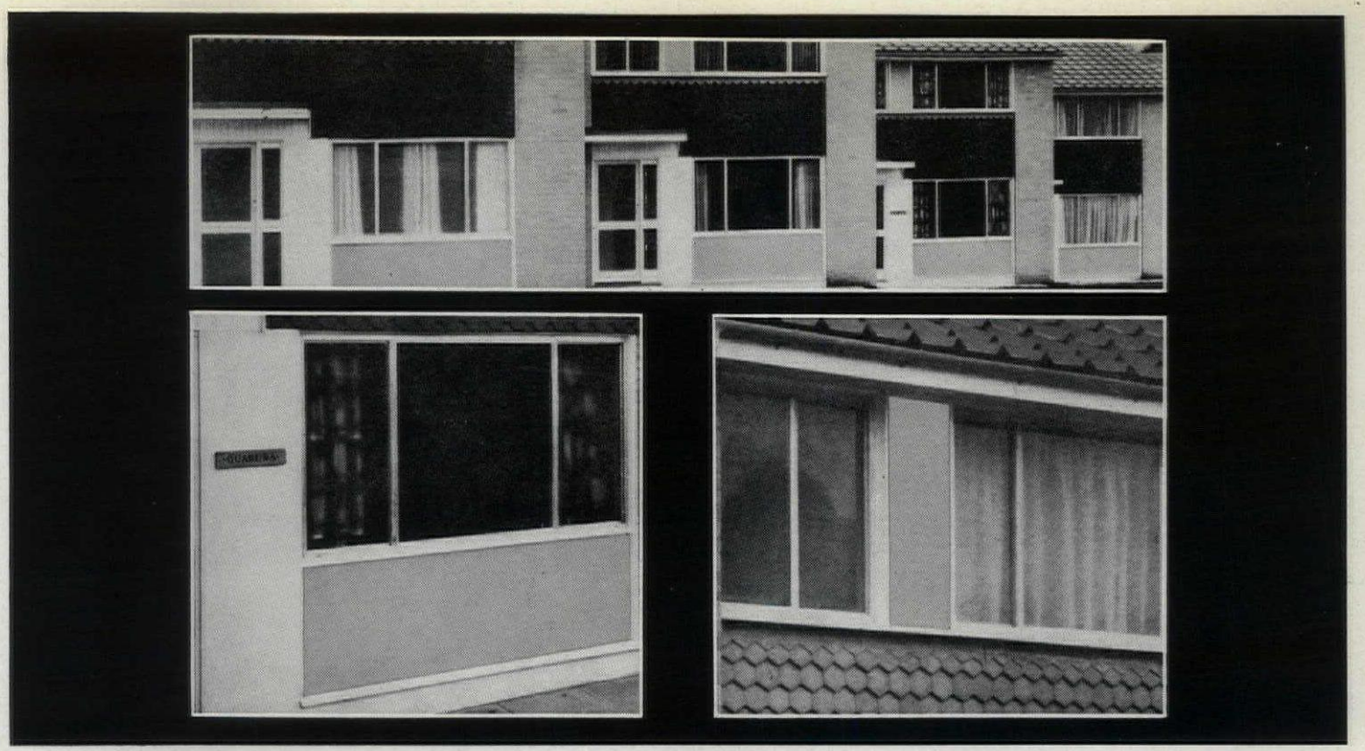

Architects: Chapman & Copland, Hythe, Kent. Builders: D. & G. Mills (Builders) Ltd., Hythe, Kent.

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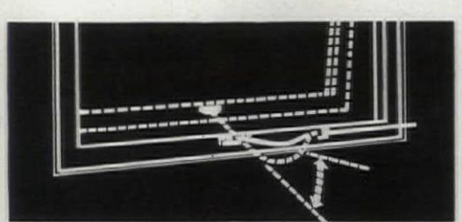

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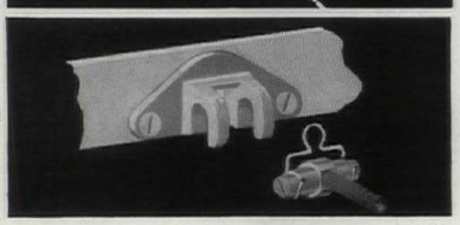

2

newflex window controls

Newflex cable window controls are fitted throughout the Northumberland Teachers College at Ponteland, Northumberland.

The assembly hall (illustrated) has six sets of gear each operating two lights. An efficient means of control is provided for the high opening lights without detracting from the building's appearance. Newflex is a new cable gear that will operate up to four lights from one gearbox.

The features illustrated left are (1) swivel thrust design to ensure a direct thrust on the window throughout the opening cycle. (2) Flip over device to allow the window to be quickly detached for cleaning purposes.

C. C. Brown, Northumberland County Architect.
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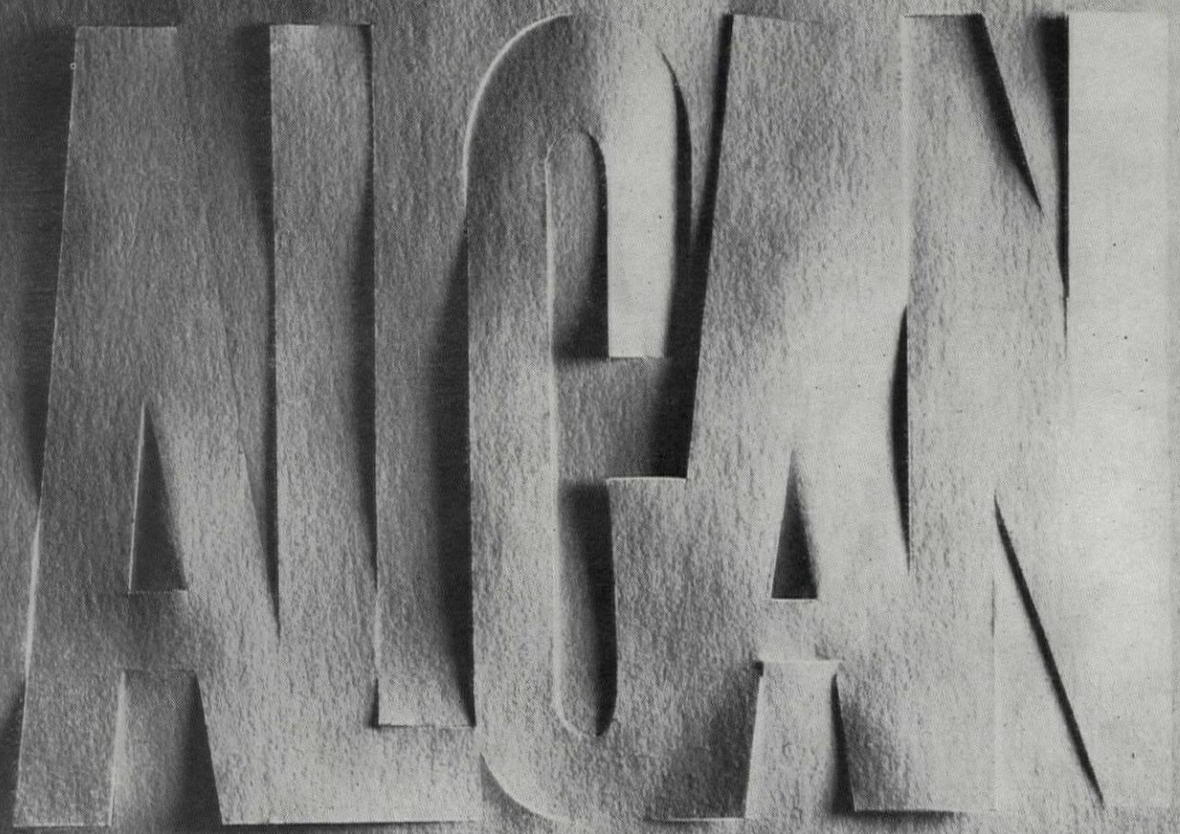

THE SCANNER: FOUR

This is the last in the present series of Alcan broadsheets on 'The Scanner.' In it Gordon Cullen and Alun Jones, Ward and Partners present an exercise showing The Scanner at work in a real place—The Rhondda Valley. It must be emphasized that this study is unofficial and sponsored solely by Alcan Industries Limited. In all our studies we are mainly concerned with ideas. Subsequent normal procedure would be to carry out feasibility studies. The business of Alcan Industries is not, of course, town planning. It is the production and sale of aluminium. At the same time we recognize that a two-way traffic in ideas with architects and builders is an integral part of our business. The Scanner is the third phase in a continuing series of broadsheets presented under the general title 'A Town Called Alcan.' They provide a platform for new ideas relevant to the planned environment and the effect of new building techniques on social and physical phenomena.

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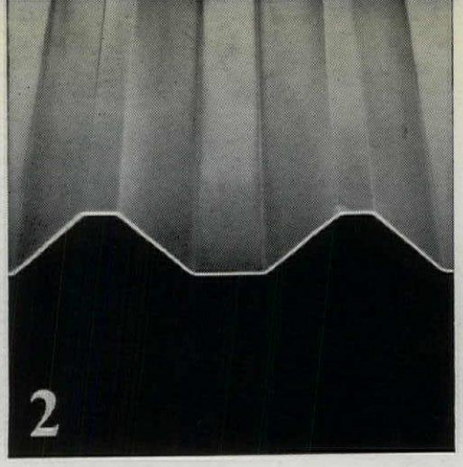
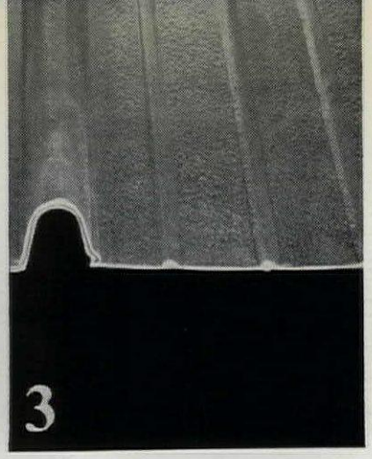
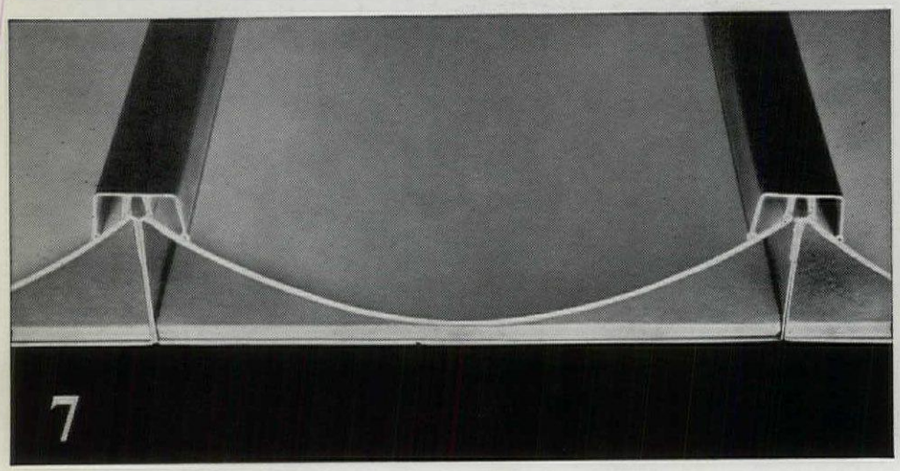
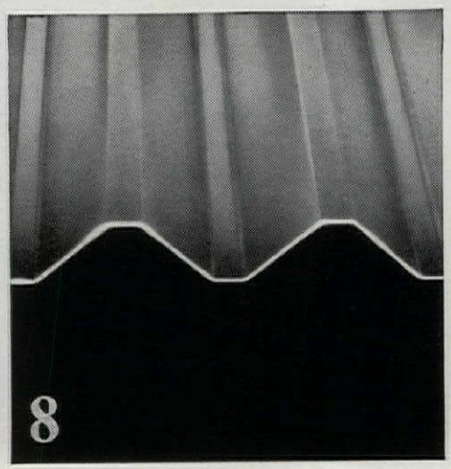
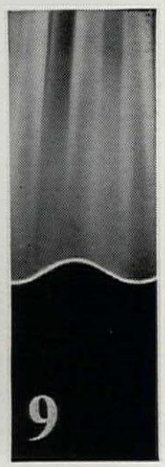
For reprints of this broadsheet, write to Alcan Industries Limited, Banbury, Oxon. A booklet containing the four Scanner broadsheets is now being prepared.







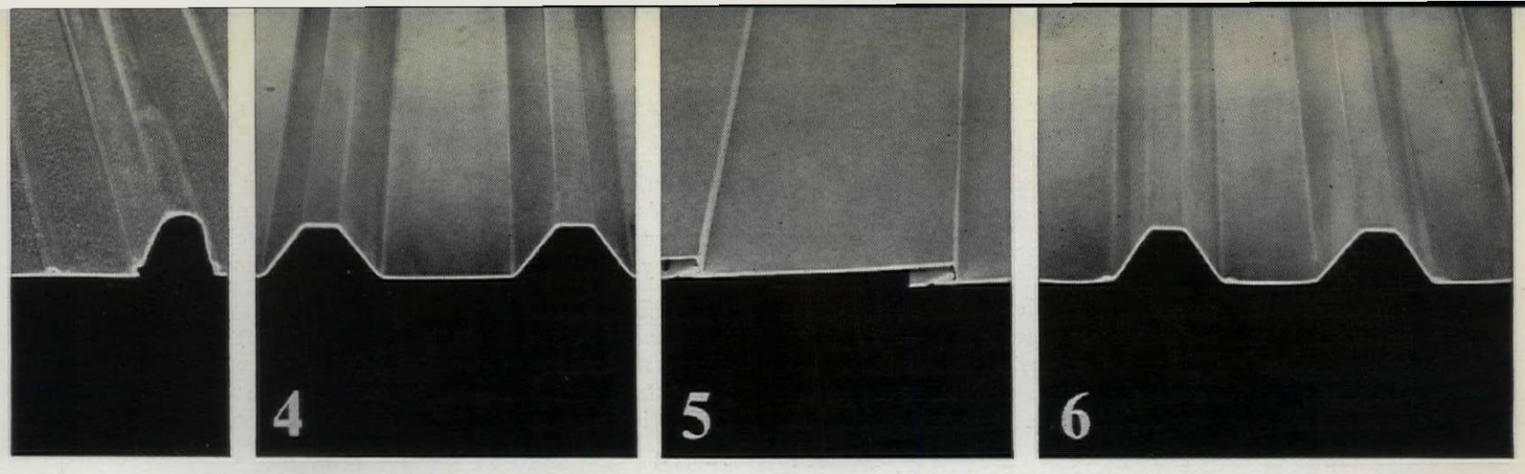


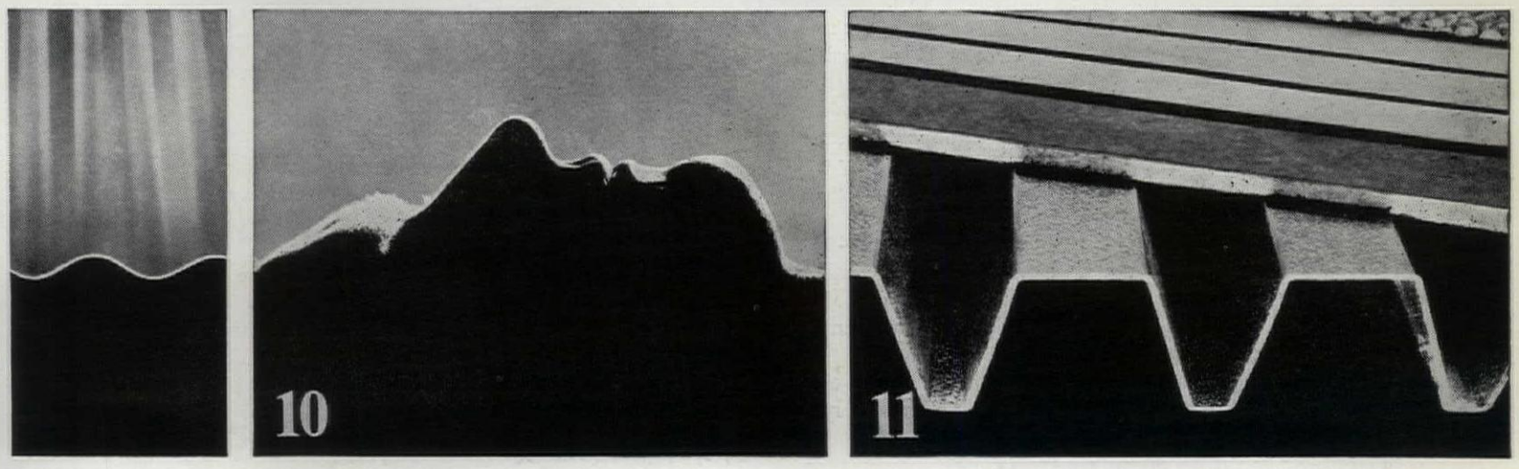


The ten profiles of Alcan

1 Broadrib
2 Wide-pitch Deep Trough
3 Snaprib
4 Wide-pitch Industrial
5 Weatherboard
6 Industrial
7 Arcline
8 Deep Trough
9 Three-inch corrugated
10 ?
11 Briggs Bitumetal
(by courtesy of
William Briggs & Sons Ltd.)

Snaprib and Weatherboard are covered by patents held by Cookson Sheet Metal Developments Ltd.





Yes, ten profiles make eleven pictures when you include a contented architect. He's at number ten. And he's happy because Alcan's range of aluminium sheet profiles has solved his cladding problems. • Light but long-lasting, tough but elegant, Alcan aluminium sheet makes a good skin for the buildings of today, and each of the profiles above offers a different balance of strength, economy and appearance. Alcan roofing and cladding materials come in the widest range of all, from simple corrugated sheet to exclusive double-skin designs. • There is **Alcan Arcline,** for instance, a wall cladding system of bold modern design, with no visible fastenings. It provides a thermally insulated double aluminium skin which is simple to install and compares favourably in cost with more conventional double-skin cladding systems. • There is **Alcan Snaprib,** a secret-fix sheet widely used for roofing and cladding houses as well as larger buildings. The availability of neat, integral 'sealed ends' at ridge and eaves enhances both appearance and weathertightness. • Latest addition to the range is **Alcan Weatherboard,** a colourful and durable cladding of traditional appearance. Its lines stay crisp and regular, its colour lasts for years without repainting, and there are no visible fixings to cause staining. For the builder it saves labour costs and eliminates the delays and hazards of on-site painting. • As a part of high-quality decking systems, such as **Briggs Bitumetal,** Alcan aluminium is widely used for its exceptional durability which can eliminate painting of the exposed underside, and substantially increase the reflectivity of the internal roof surfaces. • Then there's the question of colour. You can specify many of the Alcan profiles in **Alcancolour**—a semi-gloss baked plastic paint finish which is applied under controlled factory conditions and will withstand exposure without risk of spalling or staining. There is a standard range of twelve colours but others can be supplied by arrangement. • Care to join the Alcan range? There's room for your profile at number ten. Just write to us—or give us a ring—and we'll send you details.

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A TOWN CALLED ALCAN
is the title of the continuing series of studies on urban planning which has already introduced the Circuit Linear Town and The Scanner. It is part of a two-way traffic in ideas which we regard as an integral part of our business. We are interested in the problems facing architects and builders because we are well equipped to help in solving them. Our own team of building specialists is backed by the experience of Alcan companies all over the world and by the facilities of Aluminium Laboratories Limited, Europe's leading aluminium research organization. On these two pages we present products that have grown from this traffic in ideas.

The Rhondda Valley

In our previous exercise, the Urban Village, we attempted to show how the Scanner worked in practice. We saw how a single factor of environment led to its context (or chain) and from there to involvement with the whole field. In the Urban Village we concentrated on two chains—Integration and Space—for simplicity of demonstration.

In the second, and closing, exercise we move from ideal circumstances to a real problem of urban renewal, the Borough of Rhondda.

The Rhondda consists of two parallel valleys, Rhondda Fawr and, smaller, Rhondda Fach. They form part of a region of valleys running roughly from north to south between Newport to the east and Swansea to the west and centring on Cardiff. The hills range from 1,000 to 2,000 feet. To the north lies the Brecon Beacons National Park and to the south the fertile coastal plain now endangered by overbuilding. The Borough has a population of something over 100,000 as compared with 160,000 in 1921.

Coal-mining now employs only about 13,000 men, 40% of the male labour, whilst other industries, such as furniture, clothing, toys, kitchen utensils, and sheet metal work, which are being introduced with the decline in mining, now employ some 11,000 men and 8,000 women.

The decline of the coal industry, the constriction of the valleys which makes expansion difficult, and possibly the deep-seated connection with past depression, all tend to compromise the future of the Rhondda.

There are three principal attitudes.

1. Patchwork

As old industry is extinguished so new industry is introduced. As a housing problem occurs so new estates are built.

2. Revitalizing

The Civic Trust suggests a new shopping, administration and cultural centre to act as focal point to the valleys at Porth.

3. Oblivion

A blind eye is turned to the valley and a new start is made in more 'favoured' open country to the south for a new class and a new generation.

Each solution reflects the particular viewpoint of the proposer. If, however, we visit the valley to observe, read, discuss and try to learn, and then expose our findings to the Scanner, various points of the chart will light up until a unique picture is evoked. It is this which has to be converted into reality. In this way we form the WEB of the problem.

The Rhondda Web

TENURE

(*wealth*) There is a population drift (small) out of the valley to more favoured areas, to the flat, open land of the semi-detached-plus-carport estate as opposed to the miners' terraces in their narrow valleys. Few employers live in the valley. They set the trend for imitation.
(*worth*) Worth of character is significantly high largely due to the comradeship of danger in mining. This could dissipate as this industry declines.
(*security*) Marked desire for owner-occupancy of houses.

WORK/LEISURE

The main industry, coal-mining, is declining. New industries are varied and include furniture, clothing, sheet metal work.

ASSOCIATION

Main secondary association is the club. There are about 80 clubs in the valley. The social instinct has always been strong but it has attached itself to different forms over the years: first the chapel (there are about 200), next the cinema, and now the club. The clubs are financially strong and form a growth point in the historical chain. By tradition the woman's place is the home but some clubs now have lady members. There is a well-, perhaps over-, developed sense of modesty. Sport, mainly rugby, is an institution.

INTEGRATION

(*community*) Generally speaking the valley associations show a marked loyalty to the particular place and although to the stranger the whole valley appears to be a single ribbon of identical terraces, this is not so in fact.

ZESTS

By tradition the choir provides a powerful spiritual outlet but this appears to be on the decline. Gambling is higher than the national average. Above the valleys the hills are wild and solitary.

COMMUNITY

(*size*) Size of communities is limited to some extent by the constriction of the valley. Each community is self-contained having its houses, shops, church and club arranged close to the pit-head.
(*composition*) There is a traditional imbalance of occupation and income.
(*growth*) In order to safeguard the extraordinary social capital, growth should be limited to that which can be absorbed. Natural growth should be supplemented by gradual and selective immigration.

PATTERN

(*density*) The layout is urban, i.e. street architecture with a density of around 80 to 90 p.p.a. It is mainly one-class and most employers live outside the valley. This is a tradition which could disappear since the scope for unique housing, golf courses, etc., in the valley/hill context is obvious.
(*transport*) Roads and railways make Cardiff the natural place to go for the day out. This also means that the valleys are easily reached by commuters from Cardiff. The pattern of the valley is linear but punctuated into a chain of places. Traffic follows the valley bottom and links to the main trunk roads, Heads of the Valleys and M.4.
(*given pattern*) Most of the dwellings are identical in plan and layout (so it would not be difficult to add industrialized components such as a kitchen/bathroom unit). Windows and door surrounds are often painted in bright colours from house to house.

LANDSCAPE

(*categories*) The landscape has a highly dramatic quality arising from the juxtaposition of housing and industry in the valley bottoms and open country in the uplands between. There is much blight and industrial wasteland. Individual gardens are not greatly cultivated.
(*climate*) The climate is wetter than the national average due to the southwesterly winds meeting their first high ground. The rivers run black but are becoming progressively cleaner.

OPTICS

(*serial vision*) Optically the outstanding effect is the unfolding of the valleys as one moves along the roads and this might well be exploited in the fresh establishment of places and identities.

Returning to the three original attitudes, we believe that patchwork housing estates are not the answer, that a new centre might fail to revitalize since the communities are either self-contained or within easy striking distance of Cardiff, and that to let the valleys moulder is unthinkable in view of the social capital and the investment in roads, rail, sewerage and housing. It is a region with much in its favour, and it would seem worthwhile to exploit its potential rather than build a new town on good agricultural land to the south.

OUTLINE OF THE PROPOSALS

1 The main proposal is to envisage the whole system of valleys as a single region enclosed and vitalized by the two trunk roads, Heads of the Valleys Road leading to the Midlands and the M.4 leading to the south-east.

2 The present change from coal-mining to clean factory production should be encouraged. The location and quality of new industry should be seen inside the total context: (a) the trading estate is to be avoided and industries should become integral parts of the communities; (b) because there is a shortage of land, development of industry needing relatively little space (optics, watchmaking, etc.) should be encouraged.

3 Reorganization of traffic. The main proposal is to build an elevated road over the existing railway thus freeing the narrow valley roads. This will permit rapid access to Cardiff and the reorganization of local traffic giving traffic-free shopping streets and rear-access service roads and garages to houses.

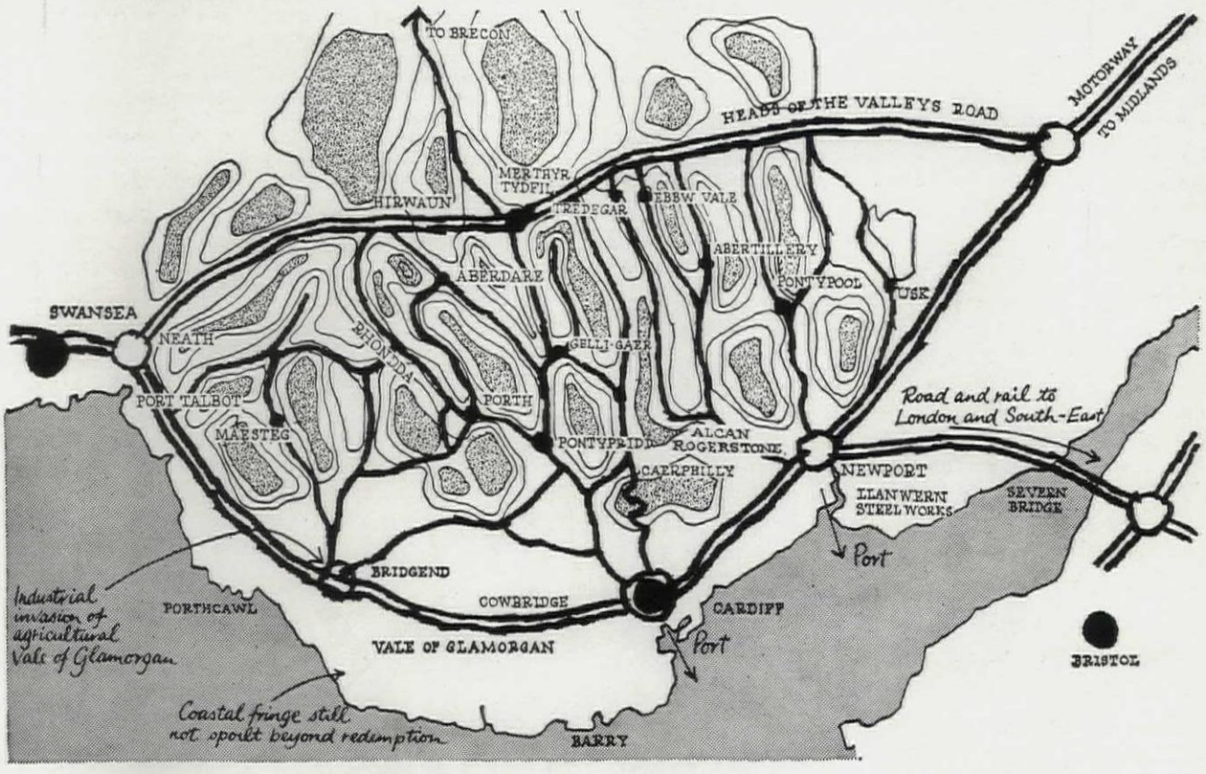
4 Accelerated modernization of property.

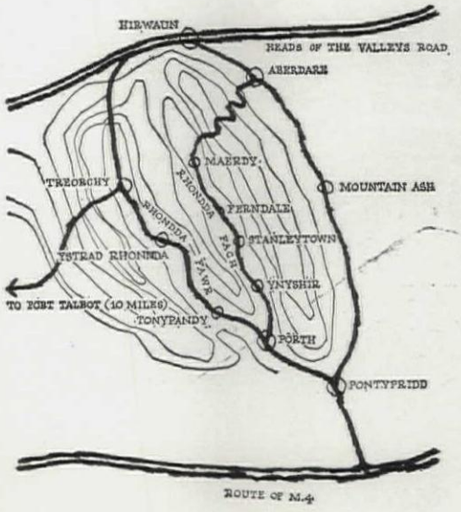
5 Fostering the social associations by investigating the possible extension of the club principle. Since the clubs have now assumed the prophet's mantle then it would seem that potential for growth is powerful but as yet unfulfilled.

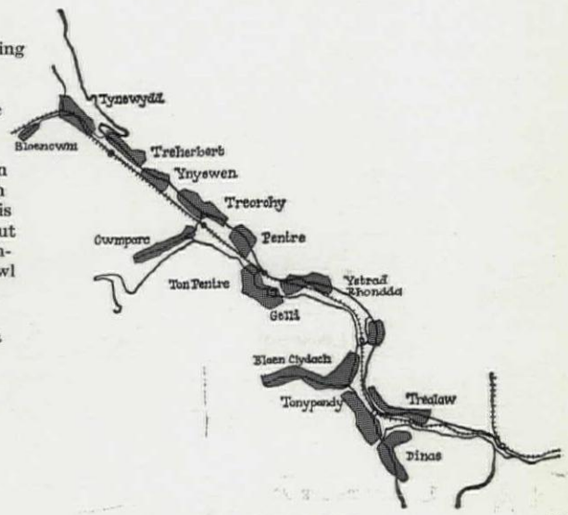
6 The intensification of the identity of places by introducing new local industries, by controlling density, by underlining civic presence by forming a square or place and deploying new buildings, particularly clubs, to assist this, and by attempting to differentiate one village from another by creating intermediate parks and by planting trees.

7 To turn the smaller and less accessible Rhondda Valley into an industrial national park.

8 To gradually change the image of the valley by exploiting the enormous landscape potential so that the old connotation of depression and industrial wasteland gives way to exciting and vital urban sequences set in unfolding wooded valleys with clean industry, recreational reservoirs and hill-top natural parks above.



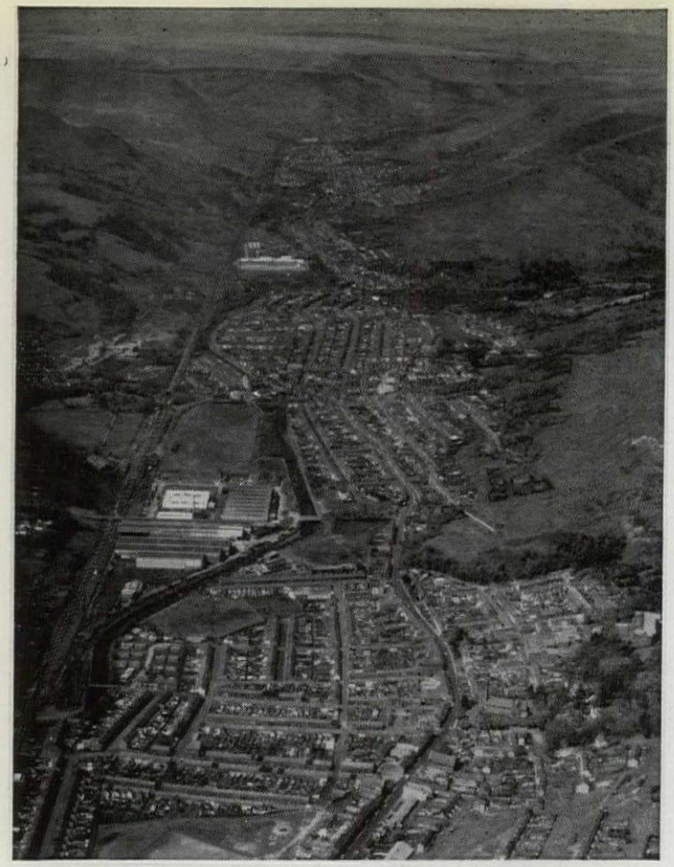




(*above*) Regional plan showing the Rhondda in its context. To the north lies the Heads of the Valleys road leading to the Midlands and beyond this the Black Mountains and the Brecon Beacons. To the south is the line of the proposed M.4 from Swansea to the south-east. It will be seen that the valleys form a natural enclave between these two strategic roads. To the south lies the Vale of Glamorgan. The coast is not yet built up beyond redemption but there is precious little left after the fun-fairs of Barry, the housing of Porthcawl and the steelworks at Port Talbot and Newport.

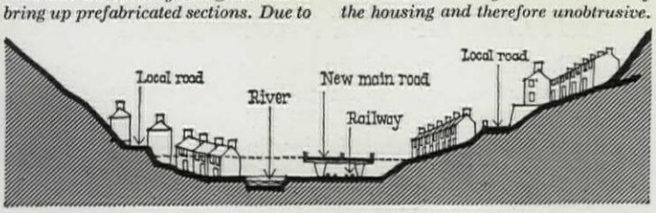
(*left*) In more detail, the two Rhondda valleys with their local connections.

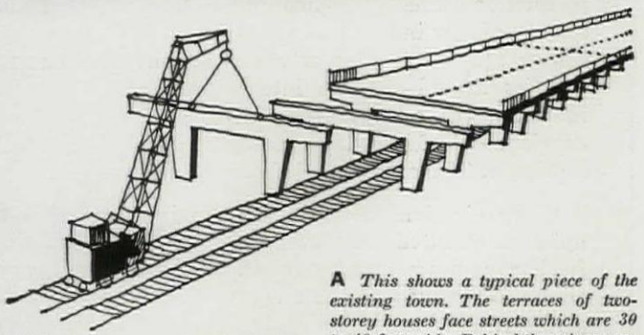
(*right*) The valleys are almost continuously built up but consist of quite well-defined communities.



▲ *Air view showing the community of Treorchy looking north to the head of the valley and the open countryside beyond. In this revealing view we can see the whole pattern. The buildings lie in the valley bottom and there is a clear line of demarcation between building and open hillside. The road meanders through the housing which is laid out to a standard pattern. The road picks up all the public buildings such as chapels, pubs and schools, etc. At the lowest level run the river and the railway, with industry and playing fields in between.*

▼ *One proposal is to construct a new road over the railway using the line to bring up prefabricated sections. Due to the contours of the valley the road will still be considerably lower than most of the housing and therefore unobtrusive.*

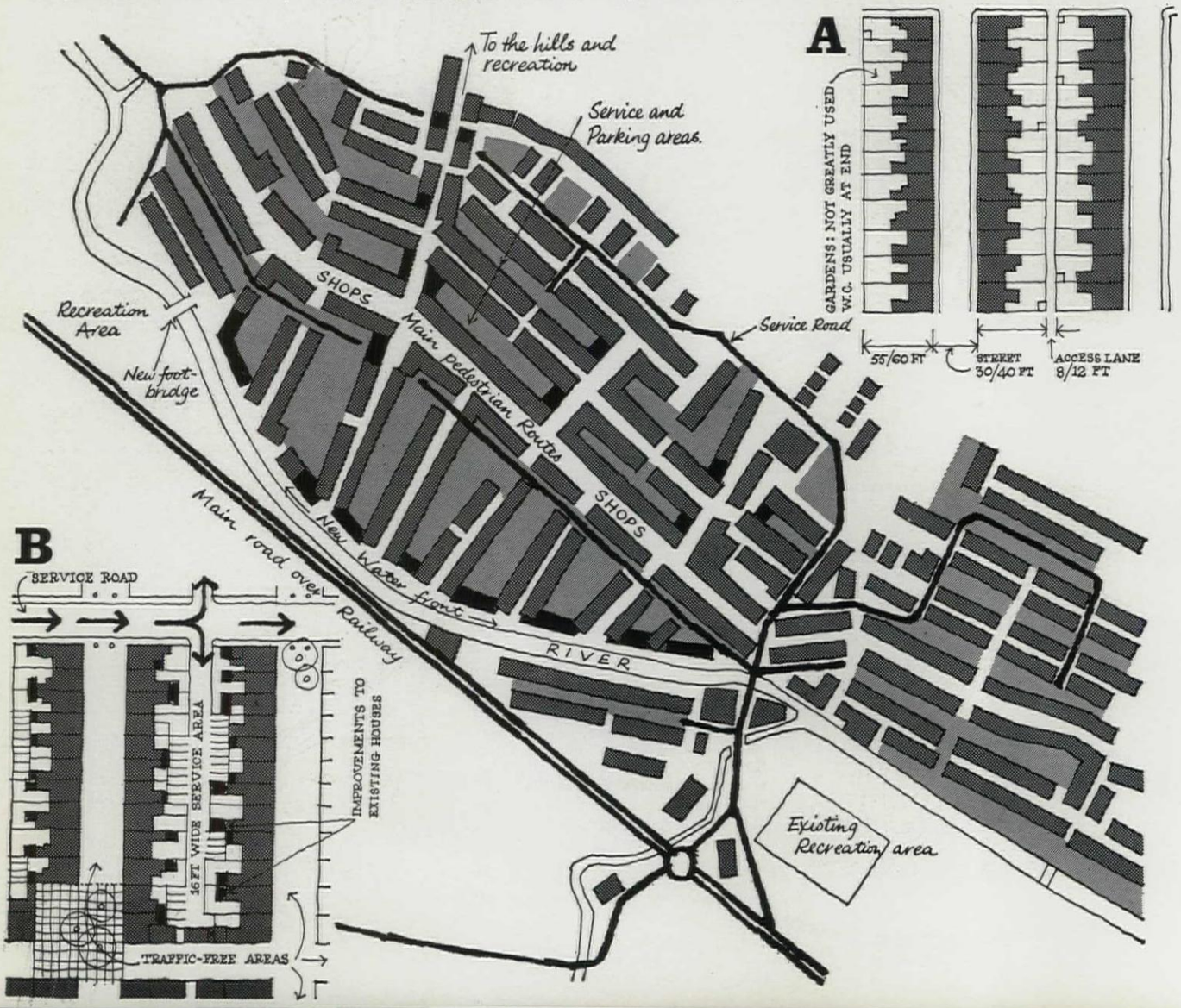


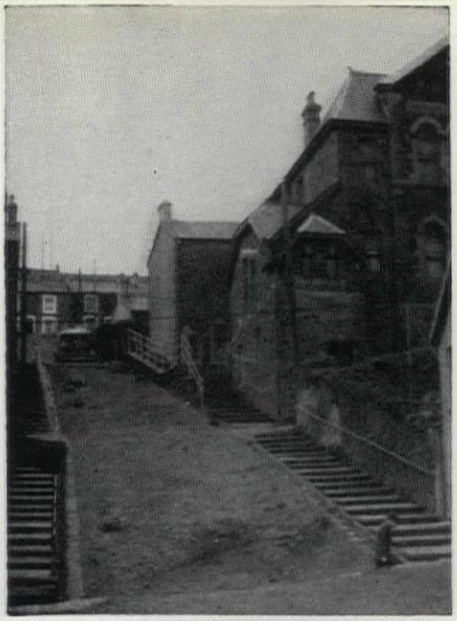


▼ *Below is shown a suggestion for the reorganization of the community of Treorchy which could stem from the construction of the main relief road. In general this would mean that the main shopping street would be traffic free and that service roads would penetrate the rear alley ways behind the terraces giving private car parking for residents. The black rectangles in the main diagram represent infill housing which is replacement accommodation for those houses which might be demolished. This infill housing would aid the segregation of vehicular and pedestrian traffic.*

A *This shows a typical piece of the existing town. The terraces of two-storey houses face streets which are 30 to 40 feet wide. Behind there is an access lane to the back gardens and outbuildings, usually sewered. The gardens are not greatly cultivated.*

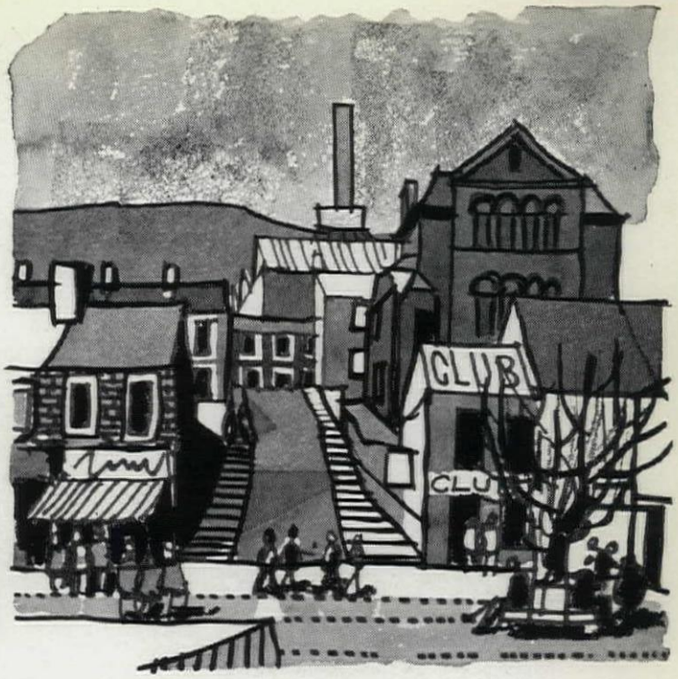
B *By reorganizing the traffic flow as indicated in the main plan, it would be possible to create traffic-free streets opening out to occasional local spaces. Widening the rear access lanes to 16 feet and providing covered parking space would encroach on the gardens but since the streets would now be safe the total free space would be increased. The black spaces represent additions of modern kitchen/bathroom units.*





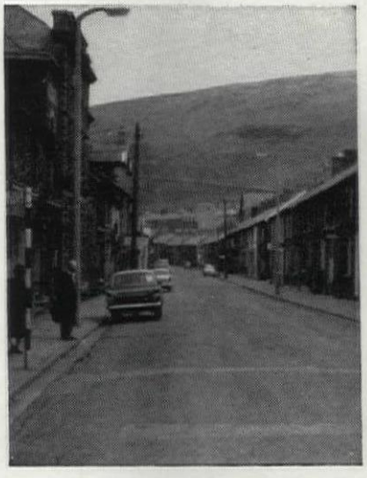
A TYPICAL COMMUNITY

The first view shows one of the nodal points on the chain of places that would constitute the valley. The communities have a strong sense of locality and the aim would be to introduce new industry to fit the locality (not an abstract industrial estate), to expand the clubs' depth of contact with society and to bring all this to a civic presence.



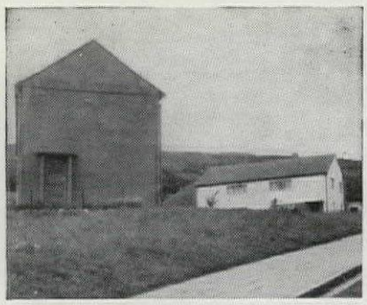
RE-CREATING THE IMAGE

It is extraordinary how close the valley comes to a romantic scene. The hills seen over mist in the valleys, which hides the terraces and paraphernalia of industry, are improbably wild. One of the landscape jobs would be to intensify the scenic quality of the uplands by planting and by such strokes of genius as Castell Coch which turns the prosaic into Elfin land.



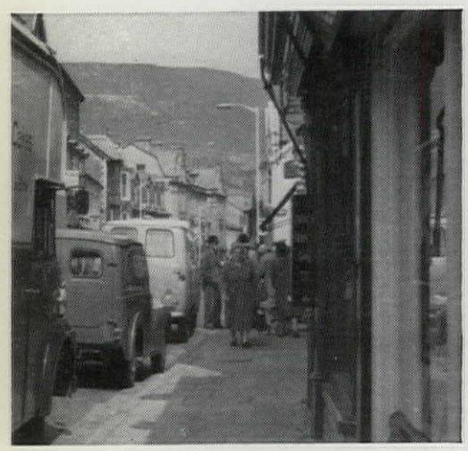
NEW URBAN SPACES AND SEQUENCES

By removing the weight of traffic from the local roads as proposed, the townscaper could do what the the landscaper has just done, extract the full urban quality from the built-up spaces. Already the sinuous unfolding of the valley is punctuated by chapel and spire, by narrow streets opening into others wider and more spacious. Here are the seeds for the most exciting urban sequences.



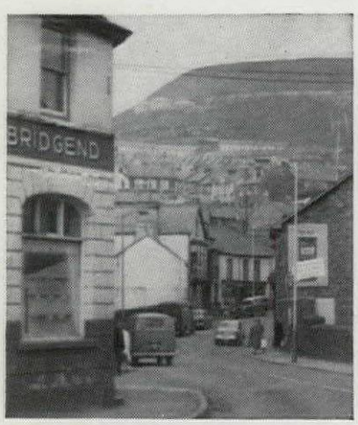
TOWN AND COUNTRY

Next consider the juxtaposition of this emerging town and the rejuvenated countryside which are always so close to each other in the valley context. Our two pictures show two entirely different attitudes to this delicate relationship. You can, if you wish, throw the by-laws at the hills or you can bring the urban quality of enclosure into immediate contact with Nature's innocence. The levels help.



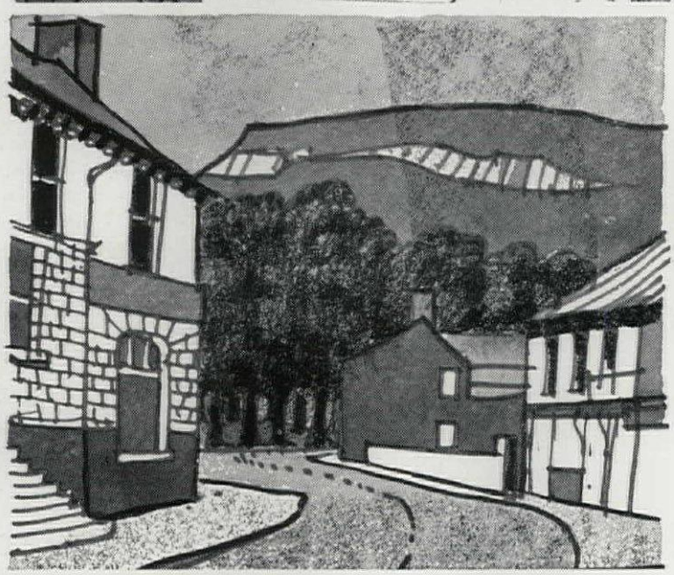
SHOPPING

Admit that it rains and that rain is somehow wetter when both your hands are immobilized with shopping. A roof over the key shopping area means not only comfort but the establishment of a definite punctuation in the linear development.

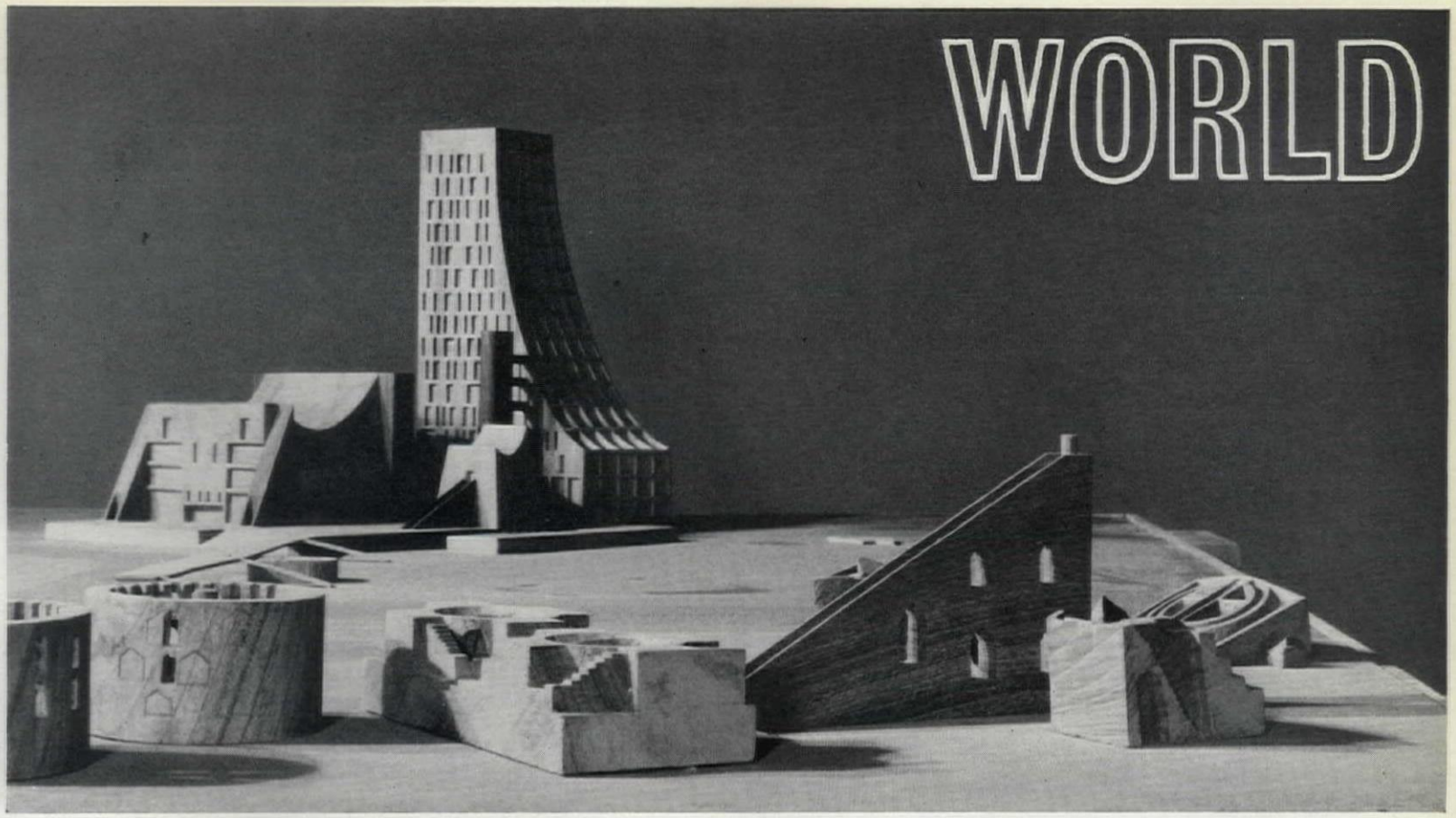


DEFINING THE PLACES

In the Town Map for the Rhondda the defining of places or communities is mentioned as a desirable goal to be achieved by a certain amount of demolition and the creation of parks and woods.



SLEEPING BEAUTY The problem is mainly psychological—of being able to penetrate through the gloom of decay, neglect and blight to the real assets that lie ready to be awakened. An extraordinary, vigorous social structure could bubble through and aerate the new-town stodge. Top-quality landscape could be moulded into an exciting union of unfolding urbanity and wild nature, of excellent regional communication, of work and leisure. Given the vision, then, without disruption, these qualities can be awakened to flourish into a region of intense vitality. The vitality is there, if only it can be switched on.



1

ASTRONOMICAL

Now that Japan has drawn out of the late Corbusian vocabulary special forms analogous to her own monumental tradition of temple building it is not surprising to find India following suit. The fantastic eighteenth century Observatory buildings of the Maharajah Jai Singh at New Delhi have already received the Brutalist accolade of a feature in Yale's *Perspecta* (No. 6, 1960). Now they reappear, 1, as the foreground to the winning entry for the Civic Centre competition by two young architects, Raj Rewal and Kuldip Singh, whose design for Ramakrishnapuram shopping centre appeared in World last December. The three main elements of the civic centre are kept separate, 2: the multi-purpose auditorium, with its catenary roof supported on four concrete pylons; the tower of offices, its curved east side providing shaded balconies; and the art gallery with a smaller sagging roof (catenary or just formalist?) and a clip-on straight stairway to the upper floor of approved Jai Singh type. The pedestrian piazza at first floor level on which these buildings sit is designed with regard to the old Town Hall opposite, and it is planned to extend it south-eastwards on a bridge over Parliament Street, from which the Civic Centre will be seen as part of a broad sweep of historic buildings, including those of Sir Edwin Lutyens and Sir Herbert Baker.

2

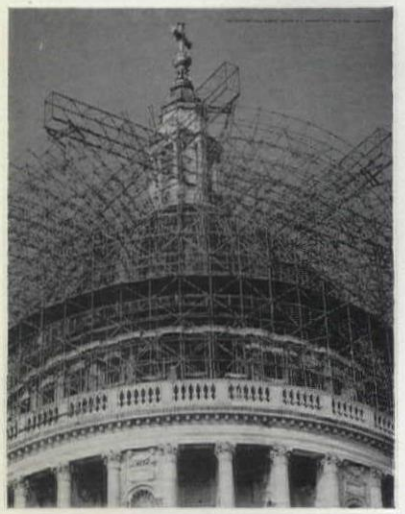
3

SERIOUS SPORT

In the muscle-flexing sculpture of sports buildings it is easy to overlook the merely good. Ludwig Leo's recently completed sports hall at Berlin-Charlottenburg, won in competition in 1962, has been largely withheld from the magazines by its architect. It is indeed a serious building, 3, in which the crispness of definition associated with the 'Twenties Revival in Berlin (AR World, July 1965) is combined with meticulously boarded in situ concrete. Only the wooden play sculpture by Brumak, which stands in front of the bridge linking the changing rooms to the nearby open-air sports field, seems needlessly eclectic. Unlike many such auditoria, its structure is admirably

acknowledgments

COVER: Penelope Reed. WORLD, pages 1–4: 8, *The Builder*; 12–14, Ezra Stoller Associates; 19-23, *The Japan Architect*; 25, 27–30, *Casabella*; 26, *The Architectural Forum*. VIEWS AND REVIEWS, pages 5–7: 4, Civic Trust. FLATS, RUSHCUTTERS BAY, SYDNEY, pages 12–15: Max Dupain. CRITICISM, page 16: Galwey Arphot. NEW HALL, CAMBRIDGE, pages 20-27: 1-4, 6, 10-12, 15, 17, Galwey Arphot; 5, 8, 9, 13, 14, 16, 18, John Maltby. TOWNSCAPE, page 28: Browne Arphot. THE EXPLORING EYE, pages 33-35: Eric de Maré. HOUSING AT HARLOW: Pages 39–41: 1–3, 5–8, Galwey Arphot. Page 42 (top): left and top right, Galwey Arphot; centre and bottom right, John McCann. Page 42 (bottom): Galwey Arphot. Page 43: left, *Ideal Home*; right, John McCann. Page 44: top, Galwey Arphot; centre, John McCann. Page 47: bottom right, Galwey Arphot. INTERIOR DESIGN, pages 51–54: College library, Mile End, London, Henk Snoek. Synagogue library, Mayfair, London, Colin Westwood. Branch library, Chalfont St. Peter, Buckinghamshire, Cecil H. Greville. DESIGN REVIEW, pages 57–58: Galwey Arphot. GALLERY, pages 59–62: 1, 3, Reyner Banham; 4, 5, Montague; 6, Brompton studio. MISCELLANY, pages 63–67: A Zen Garden in Birmingham, 1–3, Lewis & Randall. Langinkoski, Richards Arphot. SKILL, pages 68–76: 1, 4–8, 10, Henk Snoek; 2, Hunting Surveys Ltd.; 9, Film Surveys Ltd. Stop PRESS, pages 77–78: 2–4, 6, 7, 9, 10, Nairn Arphot.



This month's cover, *photographed by Penelope Reed, shows the one indisputable success of the eight years' scrubbing of St. Paul's—the magnificent scaffolding erected over the dome. Hung from four box girders, not one pole of it touched the lead surface. The most interesting revelation of the cleaning (bottom of picture) is that Wren used 'constructional polychromy' by picking out the solid infill bays of the colonnade in golden Ham Hill stone (a contrast to the light cream Portland).*

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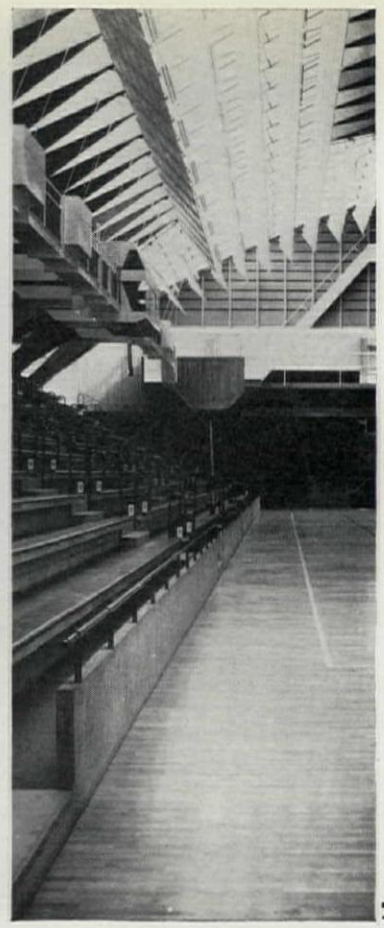
SPORTS HALL IN BERLIN

drawn down in scale to its surroundings by the pedestrian links of the ramp to the first floor public areas, 4, and the bridge to the changing rooms, 5. Inside the precast diagrid roof has three parts clearly defined longitudinally: the open springing of the stanchions over the seating, 6, the flexibly shaded rooflighting at the sides, 7, and a solidly infilled centre directly over the playing area. All steelwork of handrails, heating units and other furniture is painted dark green, while all the moving parts of windows and doors have their frames painted bright red.



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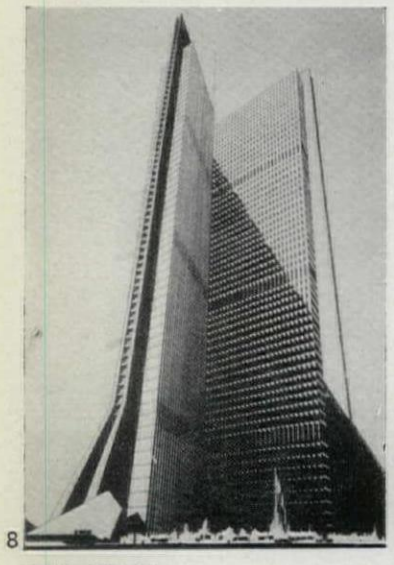


8

INSULT

The AR has drawn attention before to the disturbing split between the far-reaching brilliance of the Paris Plan (World, January 1966) and the inhumane mediocrity of the architecture so far going up there. Now the Plan itself seems threatened: excavations are starting for a 550 ft. office skyscraper, 8, opposite the metro-station Pleyel at St. Ouen, and another very large central area office project, the Centre Censier, has had its model unveiled in the benign presence of M. Pompidou. The St. Ouen job, the highest skyscraper in Europe, will have 4,000 parking spaces, conference halls, cinema, concert hall, swimming bath, etc., etc., etc.—a truly mixed development displaying mixed motives on the grand scale. So much for the famous linear decentralization.

9

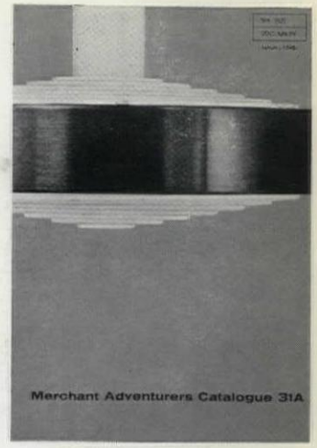
DWARFED

Who would have believed it possible that Viljo Revell's Toronto City Hall, criticized (here among other places) for subduing its ceremonial centre within its vast blind walls of offices, would itself be almost immediately subdued, 9, by an even larger scheme of urban renewal? Known as Eaton Centre and designed by Mathers & Haldenby (with town planners Prof. James A. Murray and Vincent Ponte), it will occupy 22.5 acres of outworn property, 10, including the old City Hall, to which Revell attached such careful visual links, but of which only the campanile is to be kept. The main new structures are two 57-storey office towers, with the slightly flared skirt initiated by Murphy's Chicago First National Bank project (AR World, September 1965), a 32-storey office tower (similar), a 69-storey,

10

lighting concepts . . .

Available in 3 alternative versions with louvre opal glass diffuser or lens, these units form part of a wide range in the recessed section of Catalogue 31A, which illustrates some of the best ideas in tungsten lighting to-day



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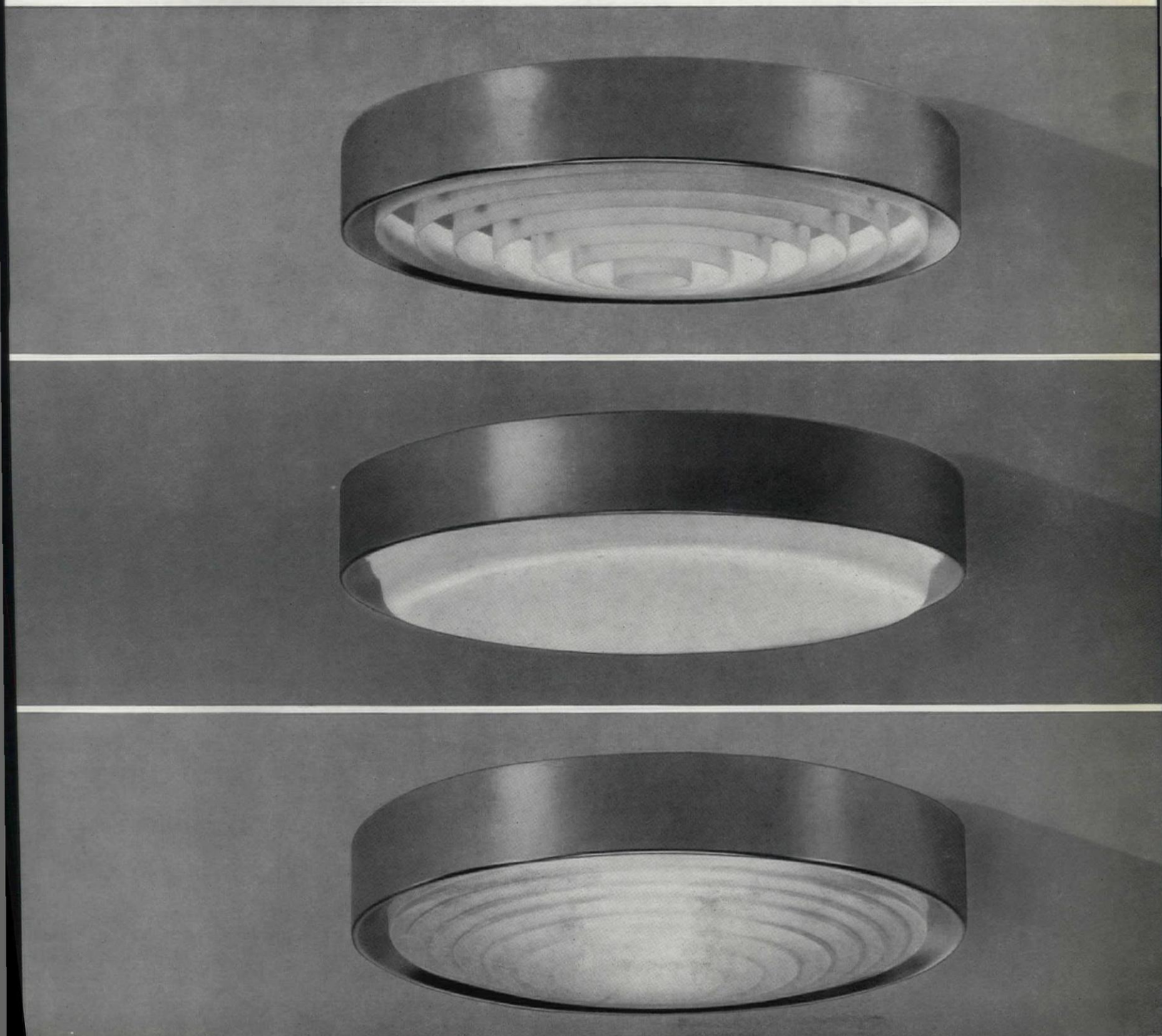

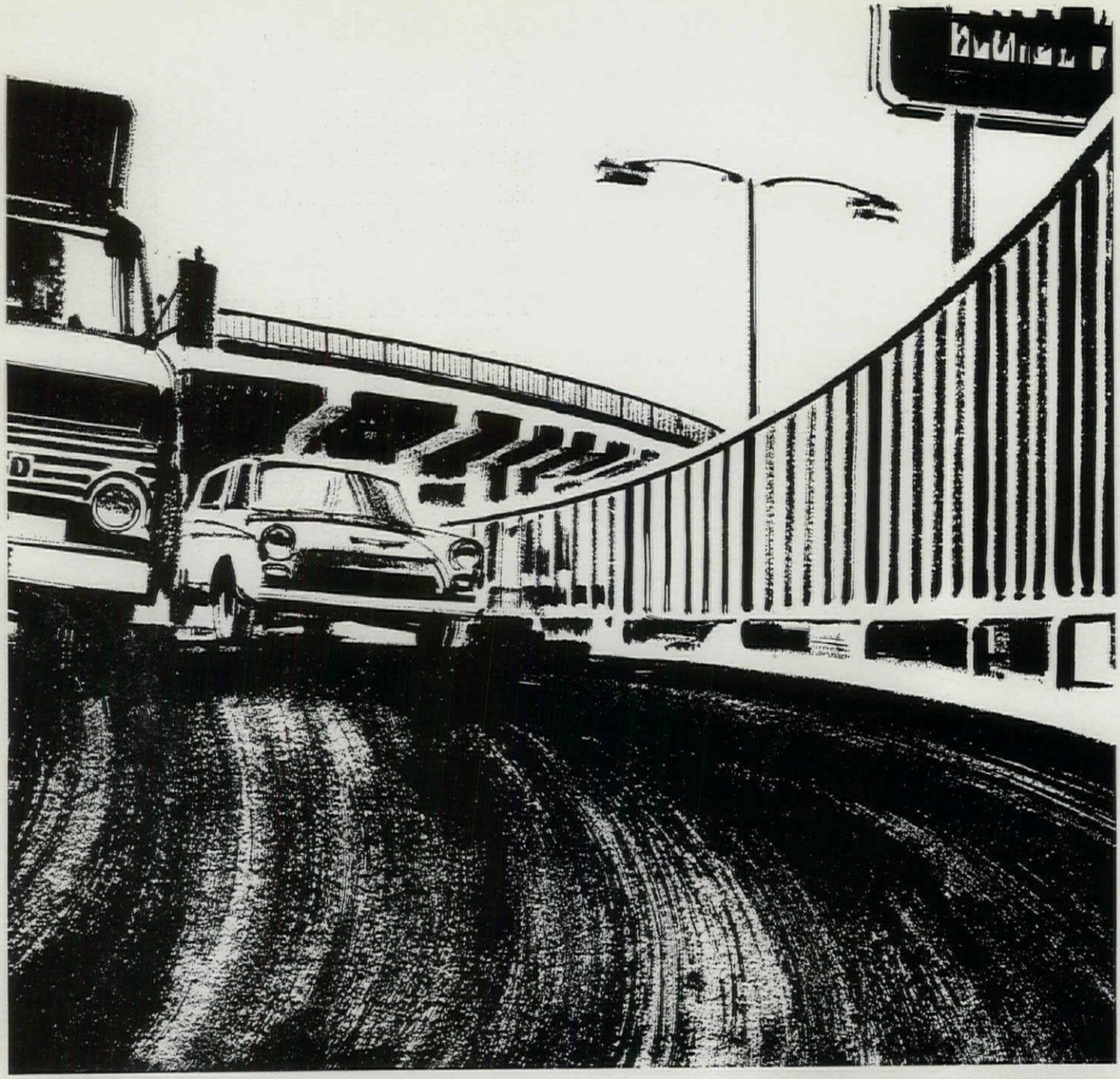

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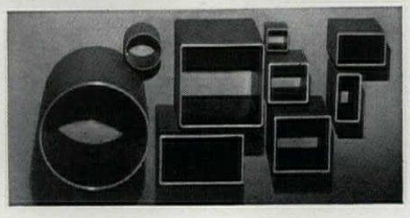

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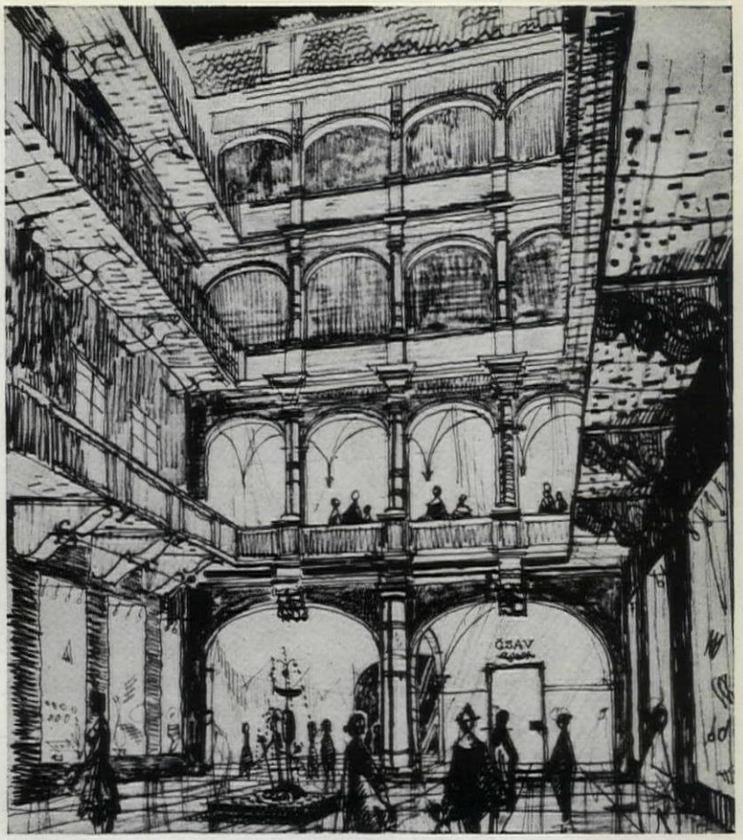
11

EATON CENTRE

900 ft. apartment tower (similar), a very large seven-storey 'retail complex' based on the Eaton store, and a 500-room convention hotel which (right in 11) attempts to echo the curvature of the City Hall's flanks, which seem cruelly exposed at the windswept plaza level, 11. Below the plaza, however, is a large-scale covered shopping promenade of a sophisticated kind. *Forum* reports protests from Friends of both old and new city halls and also the fact that SOM were consultants (no credit to them).



1

DUCT GRID

Although Myron Goldsmith was not personally involved with it, the building for the American Republic Insurance Company at Des Moines, Iowa, is perhaps the most extreme example yet of Skidmore, Owings & Merrill's structuralist expression under his influence. At its east and west sides, 12, four steel joints visibly carry the massive windowless flank walls, between which prestressed concrete T-beams span 98 ft. clear. This is not just gymnastics, as the interior shows, with its brilliantly organized grid of prestressed beams and 16 in. diameter lighting and air conditioning ducts, 13. The main ducts are carried in the cavity immediately within the flank walls, thus enabling the elimination of the traditionally dishonest suspended ceiling; the 16 in. ducts, as well as holding light and air, also act as acoustic absorbents. The exterior, 14, is as classical and monumental as the Banque Lambert with an added thoroughness of logic—even the strong cornice line of exposed T-beams is merely the 'nostrils' of the air conditioning outlets.

12

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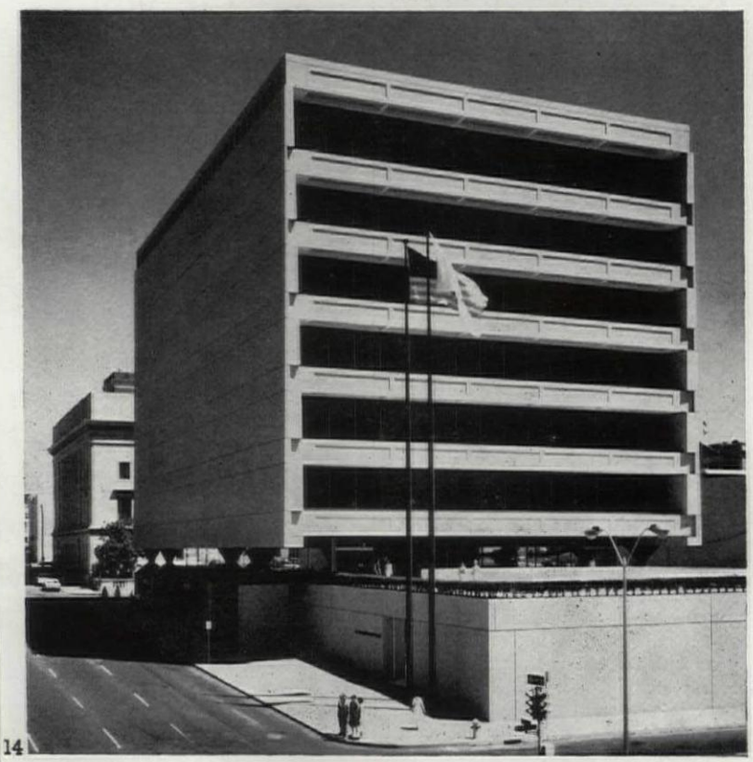
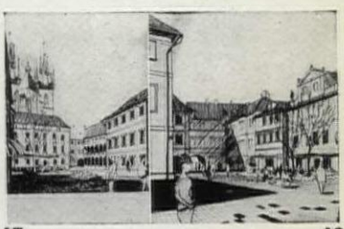


14

PRECINCTS

In Czechoslovakia it seems that young architects, so far prevented by ideological conformism from interpreting the country's vital Baroque tradition of moulded space in new buildings, find most satisfaction at present in restoring the old (see also AR World, April 1966). Two interesting schemes of conversion into shops with tourist lodgings above are going ahead close to the Old Town Square. One of them, 15, is by M. Pavlik and V. Vohlidal, the architects of the best scheme for the rebuilding of the Town Hall in the same square (AR World, December 1965). The other, by Z. Varra and F. Flasar, is particularly interesting spatially as a pedestrian superblock, 16. Known as the *Ungelt*, this site was originally a centre for foreign commerce; views to the west, 17, and east, 18, show its intricacy.

16

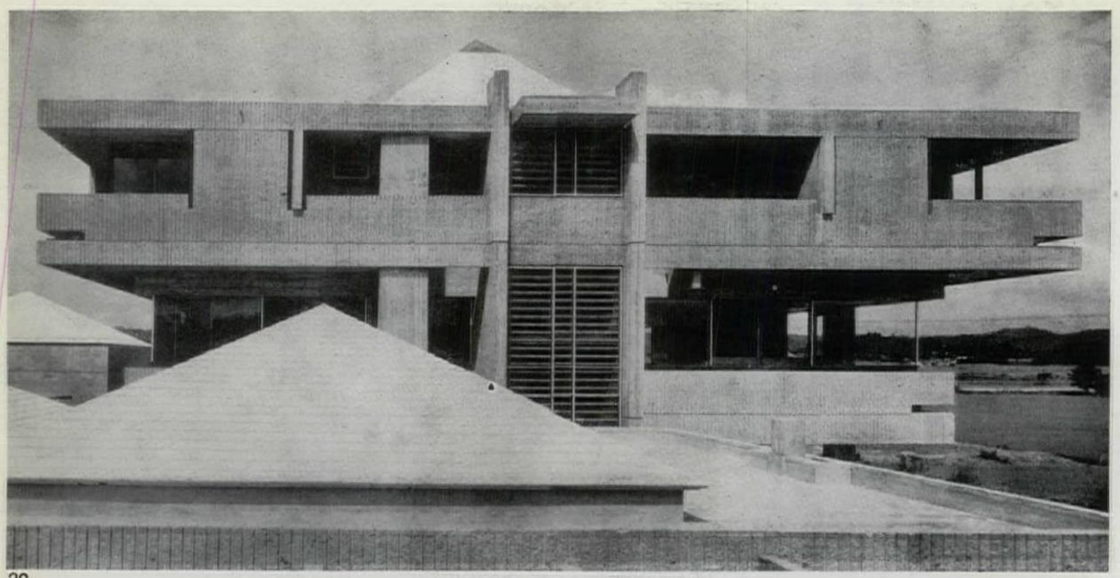


17 18

CO-OP

Those who have looked forward to the union of the present formal vitality in Japanese architecture to a more profound sense (or any sense at all) of social purpose can find encouragement in the current work of Masato Otaka, former chief designer for Maekawa and one of the Metabolism Group. The beautifully ribbed finish of his Co-operative Union Hall at Hanaizumi, 19, establishes visually an identity with the paddy fields which is only the end product of a fully researched programme (worked out with the agricultural economist Ken Yamana) of central and subsidiary co-operative farm centres designed to rehabilitate areas seriously depressed

19



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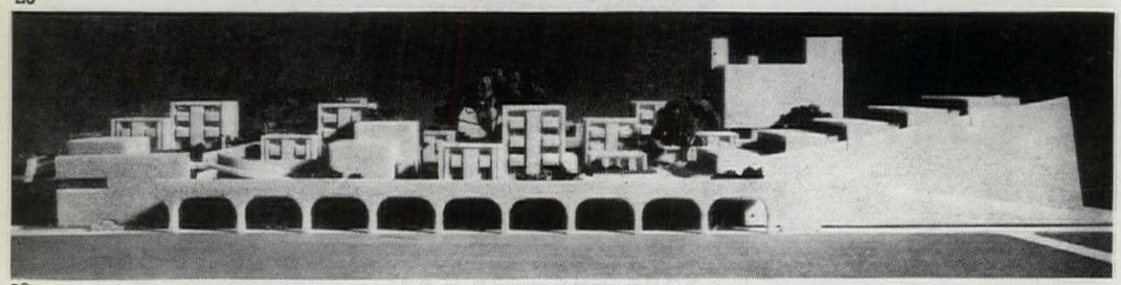

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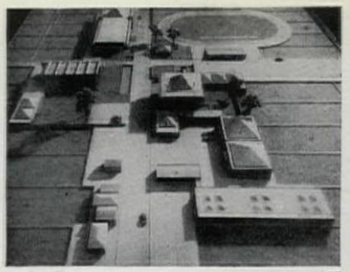
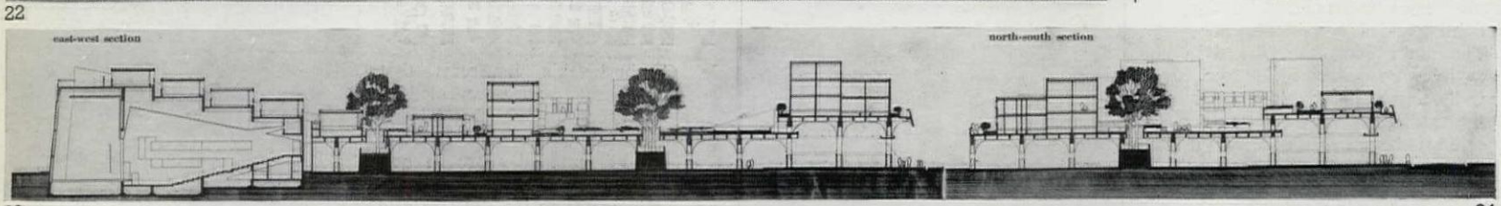


21

MASATO OTAKA

by Japan's current 'flight to the towns.' The Hanaizumi hall is by no means lacking in formality, 20, but only as a convincing climax to a whole group (not yet finished) of stores, markets and public buildings, 21.

Otaka's mastery of the most enlightened ideas in town planning, comparable with Neylan's at Harlow (*see* pages 36-41), can be seen in his decked housing project for the town of Sakaide, 22. The sections, 23 and 24, show how an impressive discipline of concrete arcading is used to enclose thirty shops, parking, an auditorium and other public uses below the 140 'improved residences' and a municipal office building. Within the arcading each shop is being designed by a different local architect. By providing space on two levels, Otaka and his team hope to provide an economic way of sorting out Japanese slums.



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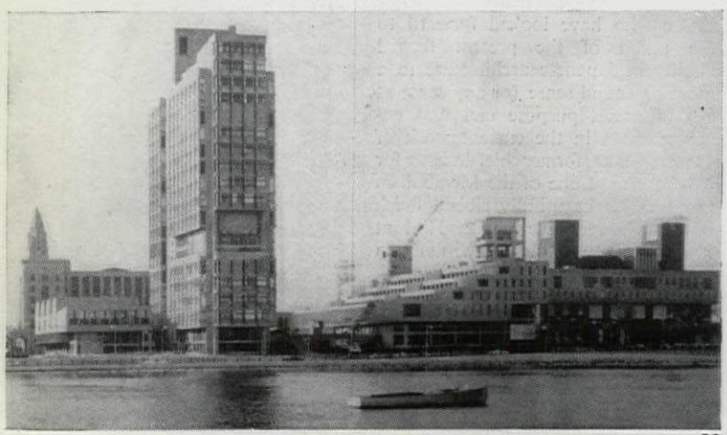

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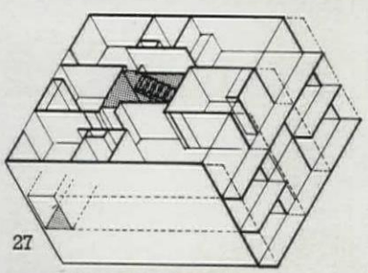
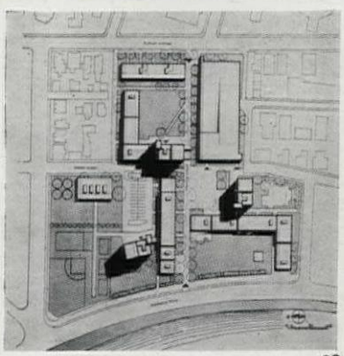


27

PEABODY

The late Corbusian manner gives a most impressive testimony along the Charles River, not just in the master's own Arts Centre, but in José Luis Sert's two towered complexes: the Francis Greenwood Peabody Terrace of Harvard's married student housing, 25, and the academic slabs of Boston State University, 26, in which the Mugar Library has recently been inserted between the Law and Education tower (left) and the fortress-like students' union (right). The Harvard housing is one of the best enclosures of pedestrian space yet achieved in North America (site plan, 28). The richly varied silhouette is achieved by assembling a standard unit, 27, three storeys high and three bays wide with a central staircase. Elevator access along galleries at every third floor is afforded (by bridges) to low and high blocks around the sheltered courtyards, 29 and 30.



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VIEWS AND REVIEWS

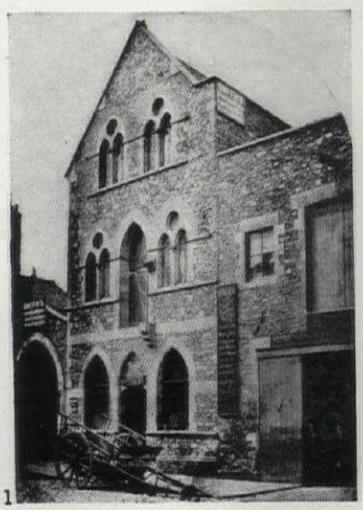
marginalia

WORKING BACKWARDS

Mr. Reece Winstone, the Bristol photographer, has already put architectural and social historians in his debt with his six volumes of photographs illustrating the development of the city in all its aspects. Unlike most historians he works backwards, in sequence from the present day, so that his seventh volume, recently published, is called *Bristol as it Was*, 1879–74 (13s. 6d. from the author, 23 Hylands Grove, Henbury Hill, Bristol 9). The further back Mr. Winstone goes, the more he collects; the periods covered have progressively narrowed from twenty-five years to five years. The present collection of 148 photographs plus copious captions and appendices is superb value.

Mr. Winstone does not have art photographer's snobbery; he selects for content, not just for period charm —and he has succeeded in persuading many of his advertisers to share his enthusiasm. Indeed, the advertisements have some of the best material; Jonathan Hill & Co. Ltd., hardwood specialists, have illustrated their vanished Merchant Street premises, 1, an excellent and early example (1856) of the Gothic warehouse style promoted by E. W. Godwin, Ponton and Gough, W. B. Gingell and others. Langridge Ltd., makers of elasticated corsets, reproduce their 1850 advertisement ('ladies waited on by competent females'). Much of the main body of illustrations is of direct architectural interest, covering such famous controversies as the removal of the statues of the four Latin Doctors from Street's north porch at the Cathedral, and the closure in 1879 of Woodyer's St. Raphael's (Mr. Winstone's picture of the rich High Altar shows an altar frontal probably designed by the young J. D. Sedding, who was precentor there until 1875). Inevitably, many of Mr. Winstone's pictures arouse nostalgia, and even anger, partly because of the generally poor quality of post-war Bristol architecture, but partly because it seems incredible that such a building at St. Augustine-the-Less, with its splendid seventeenth-century plaster ceiling, should have been demolished as recently as 1962. Pop Art enthusiasts will enjoy his photographs of the temporary triumphal arches erected to commemorate the visit of the Prince of Wales (Edward VII) in 1878, including one fabulously Moorish example, 2, at the top of Park Street where the University now stands.

1, *warehouse of* 1856 *and*, 2, *triumphal arch of* 1878—*two illustrations from* Bristol as it Was (*see note above*).

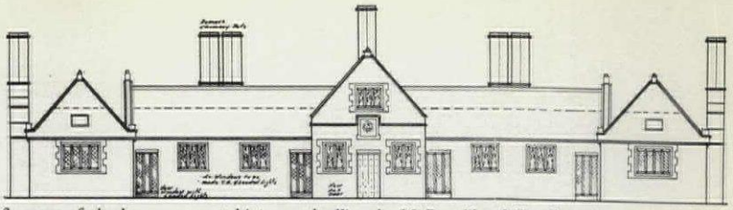


1

2

SHUGBOROUGH

Staffordshire is one of the county authorities that has pioneered the study and preservation of industrial archaeology (see last month's article). It is thus good news that the council has now established a County Museum with a wide range of exhibits in the stable block of Shugborough, the former seat of the Anson family, Earls of Lichfield. The house has been taken over by the National Trust and has been open to the public since April. Mainly late eighteenth century (Samuel Wyatt), its principal importance lies in the group of monuments in the park, designed in 1760–73 by James 'Athenian' Stuart. Among the earliest examples in England of the neo-Greek style, they include replicas of the Tower of the Winds, the Choragic Monument of Lysicrates and the Arch of Hadrian in Athens. Shugborough itself contributes to the museum an estate brewhouse and a laundry with a box mangle of 1809.



3, *group of almshouses converted into one dwelling, by McDonald and Hamilton.*

ALMSHOUSES CONVERTED

In the Stop Press pages of the October, 1965, AR Ian Nairn drew attention to the Jacobean almshouses at Little Thurlow, Suffolk, then unoccupied, and said 'Surely they could be converted, not left to moulder?' McDonald and Hamilton, London architects, now write to say that they have in fact just completed the task of converting this three-sided block of nine almshouses (elevation above) into a single dwelling, which is already in occupation. The central part has become the living room—partly two-storey—and one wing contains two bedrooms and the other a bedroom and the kitchen. The building has been fully restored to its original external appearance.

COMPLEAT IMBIBER

The latest issue, the eighth of that reputable annual winesman's anthology *The Compleat Imbiber*, edited by Cyril Ray and subsidized by Harvey's, contains reprints of two recent articles in the AR by Nicholas Taylor: 'Black Friar,' describing the remarkable Arts and Crafts public house at Blackfriars with its sculptures by Henry Poole, and 'Rococo Grill Room,' celebrating the centenary of the Café Royal and the one exuberant relic of its past. Profusely illustrated with photographs by Eric de Maré and H. de Burgh Galwey (and full of the works of non-architectural authors such as Levin, Whitehorn, Alan Brien, James Laver), *The Compleat Imbiber* is published by Collins at 30s.

RUNCORN GRAPHICS

The exciting promise of Arthur Ling's plan for Runcorn New Town, described on pages 65-66 of this issue, is maintained by the Development Corporation's insertion in recent technical journals of an advertisement for a 'Graphic Designer, Grade APT IV-V (£1,290-1,780 p.a.)'. At long last councils have been persuaded to appoint part-time consultants in this important part of the visual relationship between governors and governed (Main, Wolff & Partners at Camden, Herbert Spencer at Lambeth), but this seems to be the first full-time appointment.

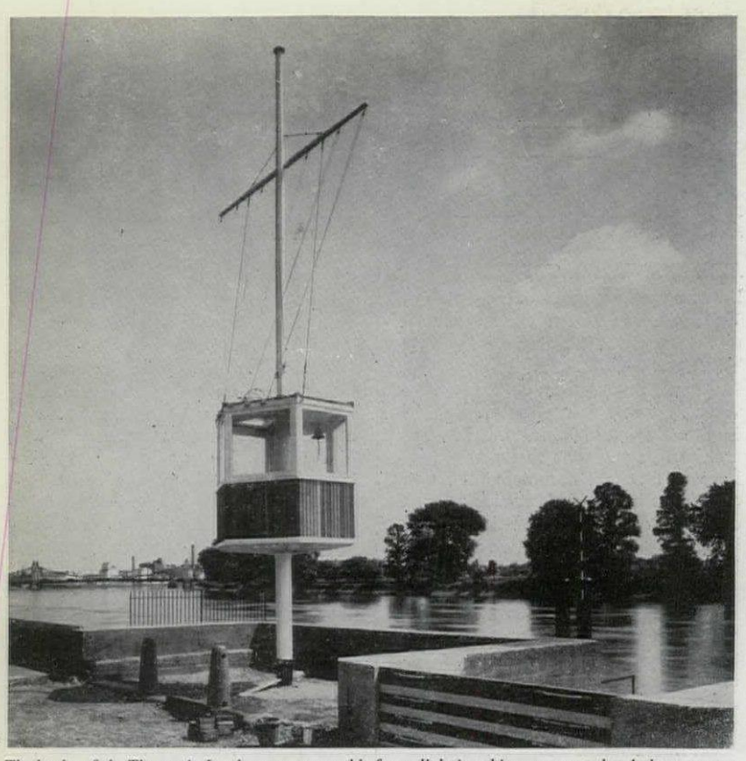
INSCAPE

In the article on graphics in the May issue of the AR, the author's name, Jock Kinneir, was spelt incorrectly.

obituary

REGINALD ROSS WILLIAMSON

Reginald Ross Williamson, who died—too young, he was under sixty—on April 22, had a formative influence on the AR in the 'thirties. He approached architecture and topography in the romantic manner that was becoming fashionable just before the Hitler war, but with a personal and quite unfashionable scholarship and care about basic forms, facts and principles. This to some extent he brought from the world of archaeology in which he was trained after he left Emmanuel, Cambridge. He had founded the Neolithic



4

The banks of the Thames in London are not notable for well designed improvements but 4 shows a most creditable effort at Hammersmith: a starters' box for sailing races put up by the borough council and designed by A. W. Rodmell—an admirable example of the functional tradition brought up to date.

Society, excavated at Whitehawk and in Egypt, and was one of Sir Leonard Woolley's assistants at Ur, before becoming editor of *The Bookman* and a journalist on *The Observer*. Architecture took a firm grip of him, and his thoughts became more and more concentrated on such things as the work of Sir Joseph Paxton, the medieval churches of the Nene Valley and the garden ornaments at Alton Towers. The war absorbed him into a Ministry and he was a highly conscientious, though constantly protesting, servant of Crown and State, alas—from our point of view—for the rest of his life. First as a press attaché and eventually as a Regional Director of British Information Services, he worked at Dublin, New Delhi, Dublin again, Cape Town and finally at Melbourne, where he died. He found time to be historical adviser to the film *Henry V.* and to edit the King Penguin of *Ackermann's Cambridge* (1951). Among varied climes, I like best to remember him surveying, with that loving yet deeply critical and suspicious gaze of his, the stony fragments on grassy mounds at Tara and Clonmacnoise. His extraordinarily personal wit made his company a never ceasing pleasure. The tiny stings in the tails of his most innocent-looking sentences put his conversation way out of the ordinary, as it put his writing beyond all ordinary scholarship. His friends will miss him, and his letters, sadly.

JOHN PIPER

The most important of Reginald Ross Williamson's articles in the AR were: Riverside, A Study in Topography (August, 1934); Those Oblong Morsels—The Progress of the Brick through English History (May, 1936); John Buonarotti Papworth (June, 1936); Joseph Aloysius Hansom (September, 1936); The Last Act at the Pantheon (July, 1937); Staffordshire's Wonderland—Alton Towers (May, 1940); Leamington Spa, a Study in Romantic Urbanism (May, 1942); and Victorian Necropolis, the Cemeteries of London (October, 1942). Since then his sole contribution was a review of *The Functional Tradition in Early Industrial Buildings* (July, 1959).

correspondence

INRAGE

To the Editors.

SIRS: Your May issue is easily the most exciting and accomplished one that you have produced since the War; but why, out of the whole range of the golden English tongue, did you choose the repellent title of INSCAPE? That ugly word suggests old-fashioned drains that are leaking sewer-gas into a jerry-built Victorian house; or, even worse, a chunk of jargon larded into the insufferable twaddle dished out by psychiatrists, politicians, bureaucrats and other squalid riff-raff. You had a simple, short, and easily comprehended word at your disposal that admirably described the issue: why didn't you call it IN?

Yours, etc.,

JOHN GLOAG

London, SW14.

IRONMONGERY

To the Editors.

SIRS: The Design Review feature by Ronald Cuddon in your April issue was very interesting indeed, but it covered ironmongery in aluminium only. Whilst anodized aluminium has certain advantages, mainly low initial cost, it does not compare favourably with other metals as far as working parts are concerned, and most of us in contact with architectural ironmongery have seen buildings only three or four years old where the aluminium fittings leave much to be desired. For this reason, many architects who desire a similar appearance specify satin chrome plate on bronze or brass, but once again, though this is highly satisfactory in appearance and in the longevity of the working parts, no electro-plated finish can be regarded as permanent.

Another alternative is satin nickel bronze; this has an attractive appearance, hard wearing properties and, it being a basic metal, no refinishing costs are involved; but in order to maintain the appearance, regular cleaning is necessary. We, therefore, consider that the only really satisfactory metal is stainless steel which, with the minimum of maintenance, will keep its attractive appearance indefinitely. The hard-wearing properties are, of course, well known and with the soaring prices of copper-based alloys, stainless steel is now comparable in price with satin chrome.

Yours, etc.,

P. G. ASHBERRY

(director, Dryad Metal Works)

Leicester.

book reviews

ITALIAN IDEA

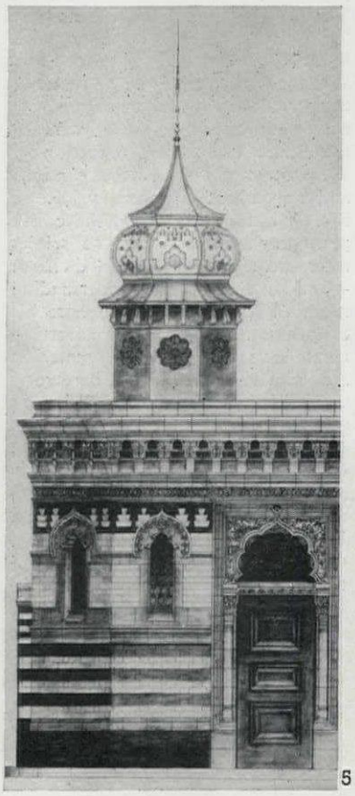
L'IDEA DI ARCHITETTURA. *By Renato de Fusco. Edizioni di Communita. 2,500 lire.*

Perhaps it is the almost total irrelavance of architectural theory to architectural practice that drives historians of the Modern Movement to despair, cynicism or—worst of all—eighteenth-century studies. To read two pages of Ruskin is to long for the smell of fresh mortar, a paragraph of Croce makes plumbing appear, by contrast, the world's most engaging topic, and it comes as something of a relief to discover that most of Mies van der Rohe's gnomic maxims are the work of Philip Johnson, for they are infernally difficult to relate to the tangible facts of his built work. Almost the only great theorist of architecture to deploy a critical method that dealt directly with the facts of real buildings was Auguste Choisy—who is not even mentioned in de Fusco's *L'Idea di Architettura*, in spite of the fact that he falls well within the time-span implied by the sub-title: the history of criticism from Viollet-le-Duc to Persico.

Not that Choisy needs any *plaidoyer* here; he'll be back, warts and all, because his method is pretty basic to all professional architects' criticism of one another's work. But his absence from *Idea* is interesting, to put it mildly, because de Fusco is a resourceful writer with a wide knowledge of his subject and the ability to reassemble his material into intellectual patterns that differ productively from those left by conventional histories of the Modern Movement.

His chapter on the theory of *Einfühlung*, for instance, embraces not only the German theorists one normally finds in such a chapter, but also Loos and the Wright of the Prairie Houses, Horta and Sant'Elia, with a closing footnote on action-painting. Not all the links in this chain are forged of iron—one or two look suspiciously like sellotape—but the concatenation will bear inspection. Again, his chapter on 'sociological' criticism begins, conventionally enough, with Morris, but goes on to raise some ponderable questions about the social responsibility of Gropius, among others, and pursues the topic onward into the area of history where it had to be tested with fire and iron: the Russia of the Five Year Plans. This, to non-Italian readers, may prove the most disturbing part of the book: given the tone and argument of the 'sociological' (*scil.*, Socialist) tradition in Modern Movement theorization, there was a real and compelling historical logic in the assembly of that predominantly German-speaking planning team under Ernst May that was supposed to plan its way across the Trans-Siberian in a special train of drafting coaches. Everyone knows that the project foundered, but everyone has been so busy with routine anti-Stalinism that none seems to have paused long enough to ask whether a tradition founded on Morris would have muscle enough for the job.

De Fusco does not pursue the topic to the kill—possibly it was not his intention to do so. He chronicles and relates and compares and leaves the questions standing up. Sometimes they are not even questions, just statements, like this one about Le Corbusier: 'It is possible that his optimistic estimate of mechanistic society derives from his having missed the experience of Expressionism, which involved all his contemporaries in one way and another, the major protest-movement



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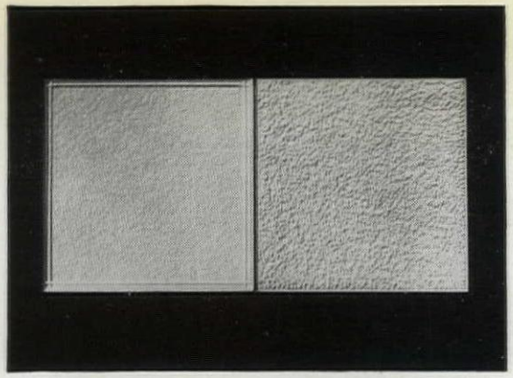
Hidden in a typically cavernous alleyway in the City of London between white brick offices off Bishopsgate churchyard, a genuine Turkish-style Turkish Bath is an improbable object in any case, let alone one with the exquisite terracotta detail shown in this drawing, 5, by an Architectural Association student, David Lloyd-Jones. Built in 1895 to the design of a little-known architect called S. Harold Elphick, whose original floor plans are preserved by the present owners, Trafalgar House Ltd., the building has enjoyed the negative preservation of disuse since Neville's Turkish Baths closed in 1953. After twelve years as a store for bank documents, it has recently been leased for conversion into a restaurant—but here there is a further remarkable fact: the estate agents, Messrs. Collins & Collins & Rawlence, made it 'one of our main considerations during our negotiations . . . that, where possible, the incoming tenant would endeavour to preserve the original decor.' So City workers should enjoy their Turkish coffee in the right atmosphere, particularly as the new lessee, Mr. Joseph Mourat, is a Turkish Cypriot.



What's up?

The quality of ceiling tiles: raised to new heights by Marley and Shell 'Styrocell'

Marley ceiling tiles – made with precision from Shell 'Styrocell' expandable polystyrene – are setting a new high standard for design, accuracy and consistent quality.

Because every Marley ceiling tile is made accurately square (to British Standard 3932) the job of fixing is quick and inexpensive. The qualities of 'Styrocell' ensure high insulation and low condensation values. Rooms with Marley ceilings warm quickly in winter and remain cool in summer. Two attractive designs from the Marley range are illustrated above. Marleycel ceiling tiles are available from the Marley Tile Company Limited, Sevenoaks, Kent.

Versatile 'Styrocell' is now being used in a wide range of building applications. For up-to-date information, contact your Shell Chemicals regional office or Plastics Advisory Service, Shell Chemicals U.K. Limited, Plastics & Rubbers Division, Shell Centre, Downstream Building, London S.E.1.

It's all happening . . . in Shell plastics

Shell Chemicals

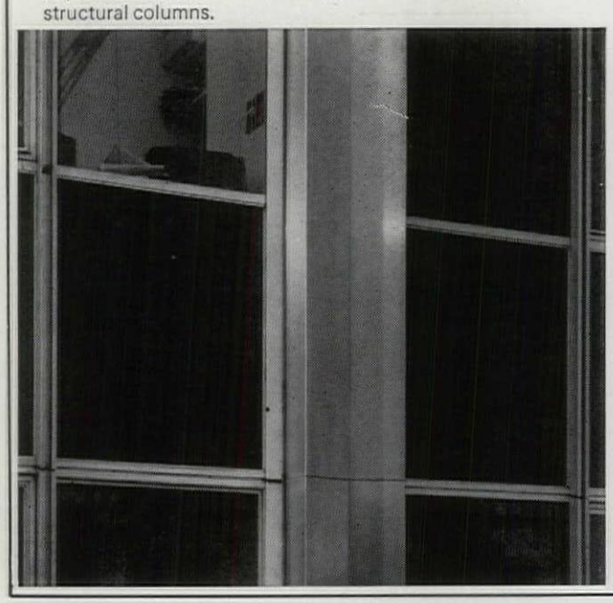
'M'-section column covers on Winchester House –in 'Silver Fox' stainless steel

The latest application for "Silver Fox" stainless steel can be seen on the recently completed Winchester House in the City of London, where it is used to clad the eight 20-storey high, two feet wide, structural columns on each of the main elevations above the podium.

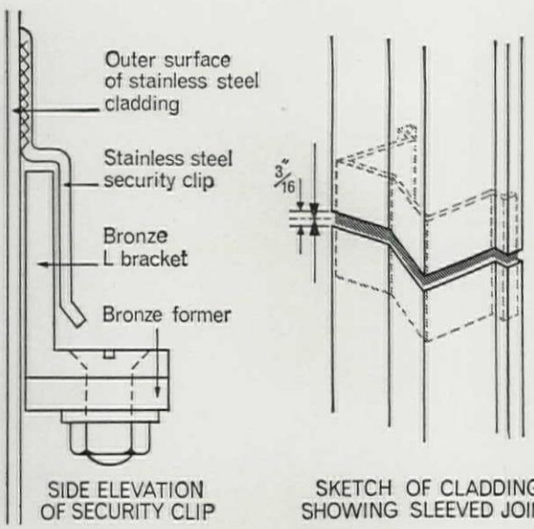
"Silver Fox" stainless steel enhances the aesthetic feeling of the building and provides the architect with a material of strength and durability, with minimum maintenance—a quick wash down will bring it up like new.

Winchester House, London. Owners: St. Martins Property Corporation Ltd. Architects: Gunton & Gunton. Contractors: Trollope & Colls Ltd. Stainless Steel fabrication: Culford Art Metal Ltd.

Manufactured as an inverted "M" section in 11′ 8″ storey-height lengths from a single 14G sheet, the dull-polished stainless steel covers produce differences in light reflection to provide a clean and slender appearance to the heavy structural columns.



The stainless steel covers are secured by connecting cleats, spot welded to bronze angles and tees, which are in turn bolted to the concrete columns.



SIDE ELEVATION OF SECURITY CLIP

SKETCH OF CLADDING SHOWING SLEEVED JOINTS

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against the liberal-industrial system in the arts . . . the Expressionist experience that is one of the principal differences between the rationalism of Gropius and that of (Le Corbusier).'

True or false, the point is arguable and worth raising, and the whole book is fu'l of points worth raising. It is a far from satisfactory book in many respects, not only about Choisy but also in the concluding chapter on Italian critical writing, which is almost entirely innocent of the kind of good points raised in the earlier sections, and leaves one with the impression that Croce is still too big a father-figure to be questioned in de Fusco's native Naples, and Persico too invaluable a martyr to be seen without a halo. But for all that, *L'Idea di Architettura* remains one of the least pompous and most stimulating (or irritating) historical studies in the field of architectural theory for some time.

REYNER BANHAM

TWO CITIES

EDINBURGH: AN ARCHITECTURAL GUIDE. *Edinburgh Architectural Association, 6s.* GLASGOW AT A GLANCE. *Collins, 8s. 6d.*

Each of these booklets makes a suitable impression. Edinburgh's is slim and fastidious with good layout giving plenty of breathing-space to 93 photographs, of small size but high standard. Essential information is given on 260 buildings and a short historical introduction serves to string them together. The pictures are a balanced selection, some showing the city's night moods but all sufficiently descriptive for identification, illustrating the three principal faces of Edinburgh; not only the native quality of the Old Town and the Georgian regularity of the New, but the picturesque exploitation of that fantastic terrain of hills and valleys which obsessed Edinburgh architects from the year of Waterloo (though Robert Adam had already given a lead) till the end of the century.

Glasgow's guide is the exact size and colour of a green detective-novel. The claustrophobic thrill of a visit to the city comes over well, emphasized by the close-packed format, with a photograph, as well as a historical note, of each of 216 buildings. The medieval cathedral of St. Mungo (almost the only one in Scotland to survive the Reformation entire) on its dramatically sloping site which rises eastward again to the Necropolis; some elegant fragments of the tobacco-city of the eighteenth century—including some vestiges of the Adams' considerable contribution—and above all the Victorian Glasgow in which commercial enterprise glorified and advertised itself through the power of architectural originality; all these are seen in exact chronological order so that the reader's glance takes in time as well as place far easier than if he were a visiting pedestrian. There is not only a pair of maps as in the Edinburgh guide, but separate indexes of buildings and architects.

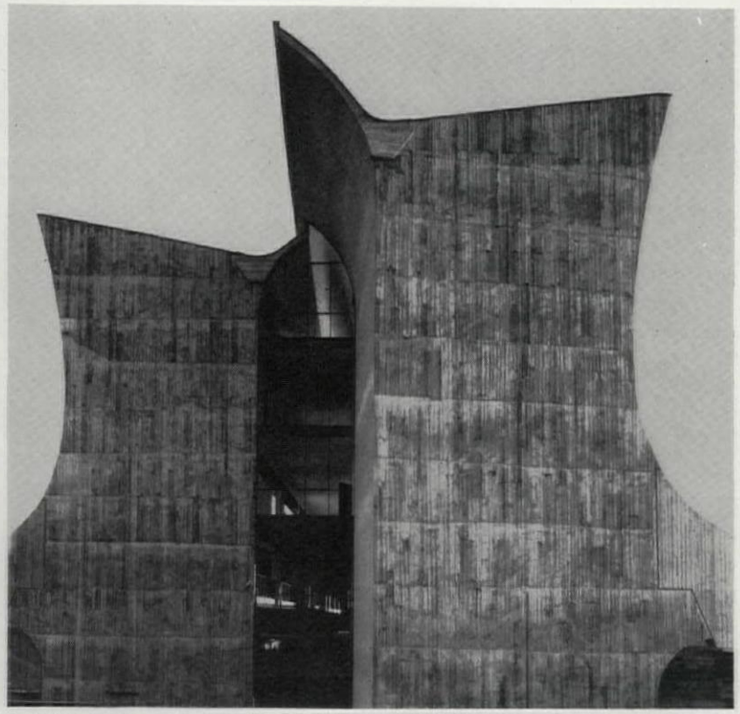
These booklets have appeared at the right time because of the imminence of large central redevelopments in both cities. Each is the victim of its own reputation — Edinburgh's for romantic beauty and Glasgow's for ugliness—neither of which encourages the pursuit of architectural knowledge and analysis. The heresy that scholarship kills enjoyment and buildings can best be seen as a kind of personal abstraction has led conscientious committees of taste to sign the death warrants of much good architecture and make bad decisions about new building in existing surroundings. Uninformed authorities have leaned more and more heavily on half-informed public opinion, and guide-books like these, produced on the spot, will be helpful to both.

The selection of new buildings is interesting and shows characteristic regional differences. Edinburgh's best buildings are mainly houses, churches and schools in the suburbs, with only two good offices in the centre (one of them the Standard Life extension by Sir Robert Matthew and Michael Laird, behind St. Andrew's Church).

Glasgow, essentially a heterogeneous city in which group-preservation is not so paramount, has much more new work at the centre. The home-town of Thomson, Salmon and Mackintosh is still startling and vertical in bent, if not always so original; even a couple of rushed-up technical colleges near the centre (Wylie, Shanks and Partners) have sprouted effective and functionally justified roof-features as a contribution to the fantastic Victorian skyline. Possibly the finest new thing is Gillespie, Kidd and Coia's Catholic School in Charlotte Street. It happens to be on the site of an eighteenth-century house of some quality about whose demolition there was considerable feeling. Equally, in Edinburgh, Sir Basil Spence's Scottish Widows' Insurance building (the other decent new office) replaces a very good palace front by Bryce. Can this be used as a general argument in favour of change? Rather it suggests that what both these booklets need, but presumably can never have, is a cautionary pull-out supplement of not-so-good new buildings. Edinburgh's might not be bulkier, but would possibly be more depressing. Too many firms still commit architectural suicide with mediocre Georgian.

The authorship in both cases is worthy of note. Both are committee works, but the Edinburgh notes are by John Reid, of Ian Lindsay and Partners. The Glasgow guide, produced for the Commonwealth Arts Festival, was commissioned by the City itself and supervised by Andrew McLaren Young. The bulk of the notes, which include relevant comment in the *Buildings of England* tradition, were supplied by David Walker who is an Investigator for Scotland's Planning Acts lists. Much information and photographic material came from the Scottish National Buildings Record. Their address at the MoPBW, 122 George Street, Edinburgh, 2, is worth noting for reference.

COLIN MCWILLIAM



6, *technical college at Busto Arsizio, by Enrico Castiglioni. From* Neues Bauen in der Welt.

LIVE MUSEUMS

THE NEW MUSEUM. *By Michael Brawne. The Architectural Press. 105s.*

Published in England, printed in Germany, Swiss in appearance and world-wide in coverage, this survey is a greatly expanded version of two articles on the same subject that originally appeared in THE ARCHITECTURAL REVIEW. In 200 well-illustrated (if over-shiny) pages most of the important museums of the last few years are fully described (England being represented by the Commonwealth Institute and by Powell and Moya's Christ Church Art Gallery project); there are chapters on lighting, climate, security and display techniques; and there is a bibliography and an index. In his well-argued and succinct text (in English and German) the author argues that the general rise in the level of wealth and leisure in the Western world is bound to increase the demand for new sorts of museums, which are no longer depositories for the unwanted, but centres of outgoing activity and communication. Hear! Hear! to that. Thinking of our old British hulks, loaded with stuff almost to the gunwhales, with their captains and crews struggling to keep them afloat upon inadequate budgets, it is difficult not to envy 'abroad' where it all seems to be done so imaginatively and so effortlessly well. It is tempting to suggest that the museums of England should call voluntarily for a three-year moratorium upon purchases—after all only about thirty per cent of any museum's possessions are ever on show—and use their purchase money instead for sprucing themselves up and increasing their facilities. Buying more 'stuff' to fill their showrooms, while the galleries remain unmodernized, the plans for lectures and cinemas and communication exercises largely unfulfilled, the refreshment rooms a joke, may satisfy the squirrel that lies in every Museum Director (and is not fighting to get out) but can surely only result in the end in a long-felt non-want. This excellent book—which should be compulsory reading in the Treasury—shows how it might be if only . . . if only.

HUGH CASSON

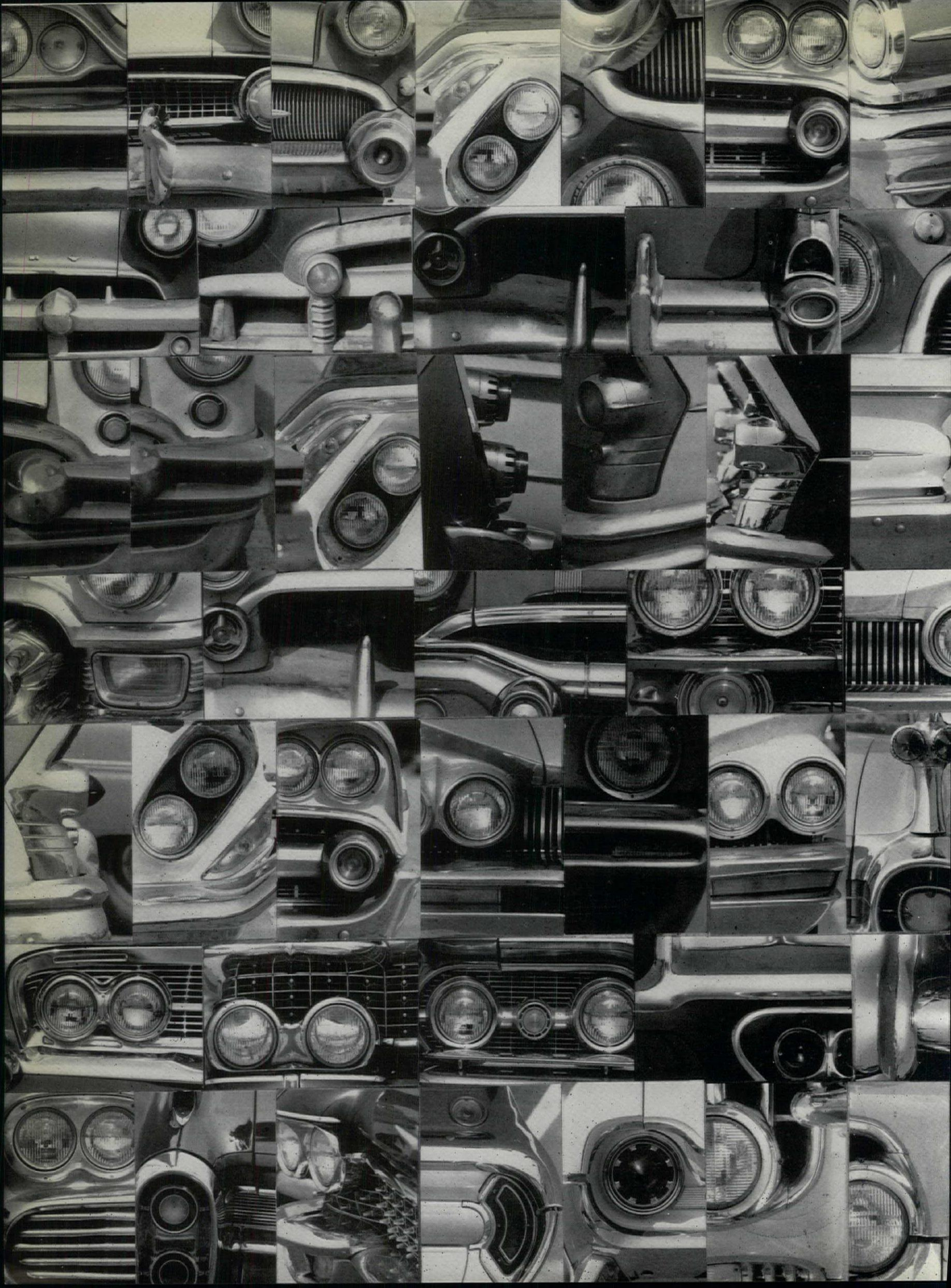
GERMAN SELECTION

NEUES BAUEN IN DER WELT. *By U. Kultermann. E. Wasmuth, Tubingen, 1965.*

Mr. Kultermann, author of books on new architecture in Japan and in Africa, and also a general book on current architecture published in 1958, has now brought out a volume on the most recent international trends and events. The proportions between the countries are telling: Japan 31 examples, the United States 29, Germany 19, Hungary 14, Great Britain 12, Italy 11, Roumania 11, Switzerland and France nine each, Russia six, etc. Hungary and Roumania may deserve their numbers, but there is no question that Mr. Kultermann has gone out of his way to represent the countries behind the Iron Curtain. In the case of Russia, the result is a little embarrassing, and the one Chinese example is certainly not on the level of the others. How well Mr. Kultermann has chosen, it is difficult to judge. The whole is no doubt exciting, especially the large number of representatives of Brutalism which Mr. Kultermann seems to have collected with the greatest gusto. The choice for Great Britain on the other hand is neither up to date nor generally happy. Stirling and Gowan's Leicester Engineering Department, Howell, Killick and Partridge's St. Anne's College and St. Antony's College, the latter in model, represent the up-to-the-minute, but there are no Spence, no Martin, no Matthew, no St. Catherine's College, no Churchill College, and for Gibberd, Hinckley Point but also London Airport and the Bath College of Technology, and for Lasdun only the Museum at Accra.

Still, to English purchasers of the book that matters perhaps less than to see such buildings as Enrico Castiglioni's technical college at Busto Arsizio. The illustrations are arranged in the order of types of jobs, which has its advantages for the architect, but could only be fully justified if the book had indexes of architects and locations.

N.P.



The rebirth of folk-art with the help of the motor-car industry is illustrated by this montage by Werner Blaser. It appears in the catalogue of a remarkable exhibition, under the the title 'Ornament without Ornament', which was organized by the Museum of Decorative Art at Zurich (director, Mark Buchmann) and shown at Zurich last year and at Munich earlier this year.

John Musgrove

DANGERS OF SCIENTISM

'Scientism is the profoundly unscientific attempt to transfer uncritically the methodology of the physical sciences to the study of human action.'

'. . . though the term "scientism" is used in a slightly pejorative and reproving sense, we do not think of ourselves as unscientific. Scholars who are critical of scientism do not offer intuition as the remedy. On the contrary, the word "scientism" conventionally describes a type of scholarly trespassing, of pseudo-exactitude, of embracing incongruous models of scientific method and conceptualization . . . scientism appeals sometimes to insecure individuals and groups because such use of science in human affairs supposedly would allow us to "fix," to "freeze" the world once and for all.'

These quotations from a book first published in America in 1960[1] summarize the concern of twelve scholars who contributed to it about an errant tendency to extend the quantitative and experimental methods of the natural sciences beyond their proper domain. The authors of the book believe that there is arising a class of elite 'engineers,' well-meaning but determined to induce compliance by repressing creative deviation in the interests of rational order.

As more and more individual aspects of the architectural design process are elucidated by research workers, the danger that attempts will be made to induce compliance of this kind increases. Research in the architectural field has not progressed far enough for us to realize precisely what is involved, but its impact will be felt increasingly in the next decade. Research in any branch of any subject, when it is young and trying to achieve respectability, is introspective in character. Those involved in it barely have time to cover all the aspects of their own corner of the subject, and certainly do not have time to look over their shoulders to ensure that they are not encouraging scientistic attitudes in those less well equipped to apply their findings.

Let us look at an example where development has been marked. The splendid work of Professor R. G. Hopkinson and others in defining quantitative and qualitative criteria for the daylighting of rooms is well documented and well known in the profession. In the specification of illumination levels, we have progressed to the point of writing minima into regulations governing the design of at least one type of room (school classrooms). In a sense, we have 'frozen'—'fixed'—something. In the scientist's terms, of course,

all that has been done is to discover the nature of the relationship between visual performance and illumination level on the visual task. A curve setting performance against illumination has been drawn for a given set of circumstances. On the basis of such a curve, a political decision has been made that a certain level of performance is desirable for one reason or another and should therefore be written into regulations governing the design of rooms in which tasks of this kind are to be regularly carried out. It is unlikely, of course, that more than a very few people who have applied the criteria realize that they were evolved in this way, and there is no reason why they should, provided that the procedures stemming from them are valid. In the case of regulatory application of (arbitrary) decisions, however, we are subscribing to rigid plan/perform systems, the absurdity of which Ryle[2] has shown in his generalization of the intellectualist legend:

'To put it quite generally, the absurd assumption made by the intellectualist legend is this, that a performance of any sort inherits all its title to intelligence from some anterior internal operation of planning what to do. Now very often we do go through such a process of planning what to do and, if we are silly, our planning is silly, if shrewd, our planning is shrewd. It is also notoriously possible for us to plan shrewdly and perform stupidly, i.e. to flout our precepts in practice . . . therefore, if shrewd, our intellectual planning process must inherit its title to shrewdness from yet another process of planning to plan, and this process could in its turn be silly or shrewd. The regress is infinite, and this reduces to absurdity the theory that for an operation to be intelligent it must be steered by a prior intellectual operation. What distinguishes sensible from silly operations is not their parentage *but their procedure*, and this holds no less for intellectual than for practical performances. "Intelligent" cannot be defined in terms of "intellectual," or "knowing how" in terms of "knowing that"; "thinking what I am doing" does not connote "both thinking what to do and doing it." When I do something intelligently, . . . my performance has a special procedure or manner, not special antecedents.'

Now the example previously chosen is one in which great strides have been made in establishing *procedural* models. Professor Hopkinson has given us simple tools to enable us to calculate daylight factor to almost any required degree of accuracy, and in the various editions of the IES Code for Lighting in Buildings up to 1955, H. C. Weston's work[3 4 5] on size and contrast was extrapolated to produce a visual chart allowing us to determine required illumination for any task. This chart has been eliminated from the most recent edition of the Code[6], in which only fixed recommended levels are given for each type of room or task. This exemplifies the tendency to move away from procedural towards regulatory methods. Of course, the IES Code does no more than recommend illumination levels in the interests of good lighting practice, but the seriousness of the situation can be judged when it is realized that in his original work H. C. Weston recommended that a satisfactorily efficient performance was obtained at 90 per cent on the arbitrary (performance) scale he devised, and if this level of performance were accepted *it mattered little whether the values of illumination level were departed from by as much as* 30 *per cent up or down.* Also, in the case of daylighting, the required illumination levels expressed as Daylight Factor must be pegged in terms of a sky of specified brightness, which in this country must be a minimal brightness, i.e. a brightness below which the sky is likely to fall on a statistically small number of occasions. On such a basis, therefore, the *actual illumination* for any selected standard of daylighting is statistically likely to be more often more than is needed than just enough or too little. This is a desirable error in the context of lighting and visual performance, but nevertheless one which any attempt to apply regulatory models would necessarily neglect.

The state of knowledge amongst users of this kind of technique was, and to some extent still is, such that procedural models stand little chance of being used extensively and are often regarded as a waste of time in a process which has done without them for so long, and in which there are so many other factors which may eventually be equally capable of procedural rationalizations. This situation is changing, however. The development of computer techniques, for example, makes it feasible to apply any number of procedures in less time than it previously took to get out the necessary reference books. The way this is done will depend upon our attitude to science. If we wish to avoid 'fixing' or 'freezing,' computers will be used positively to determine means; if we do not, they will be used negatively to test the efficacy of known means against a set of regulatory norms.

Discussing one aspect of daylighting practice, as we have done, is of course an over-simplification. To design for a precise illumination level on a known visual task in isolation is impracticable and there are many other factors which bear upon the specification: visual comfort (as opposed to efficiency), light obstructions, heat loss (in relation to window size), solar gain, cost, etc. Environmental scientists working in the biological field with a much higher degree of sophistication and accuracy than that to which building environmentalists have so far aspired, have invented the term 'holocoenosis' to describe the integrated consideration of all the variables of natural environment. They realize that the valid interpretation of results of environmental studies (highly specialized in themselves at the research level) depends upon this concept of integrated cause and effect. In defining the term, Platt and Griffiths[7] make this humble statement:

'. . . the results cannot be adequately interpreted without some consideration of their relationship to the whole system, even though these broader relationships are not well defined or even known.'

They believe that the principle of holocoenosis in the interpretation of environmental data lies at the root of valid ecological thinking, and in this context it is interesting to note how nearly parallel are the statements made by ecologists to that made above by biologists. One example will suffice: in his chapter on the methods and purpose of human ecology, Sir George Stapledon[8] says:

'Life is, however, maintained by the delicate interaction of myriads of factors: it follows, therefore, that results arrived at by the study of factors in vacuo (or for that matter in vitro) may not be entirely applicable to life in action.'

'. . . it is only by a full knowledge of the interaction of all factors that man can reach safe conclusions about the control of environments.'

Thus, in a sense, even to accept procedural models for an isolated factor of environment and apply them without regard for other contributory factors merely because they are 'all we have' in the present state of knowledge, may be scientistic. It is, however, understandable trespass if the procedures are sufficiently open-ended, whereas to 'fix' or 'freeze' isolated criteria in a pragmatic way is scientism of the worst kind because it makes it unnecessary to progress in the field of building design.

So far the concept of scientism has been pursued from the particular to the general in the environmental design field, but merely because the terms are familiar ones to architects and exemplify the dangers. It will be obvious that in the present atmosphere of growing interest in so-called design method, with its implied analytic/synthetic frame of reference, the avoidance of scientism is seen to have wider connotations. Even preliminary reading in this subject reveals at once what Northropp[9] describes as 'the epistemological problems of correlating the intuitive and postulative aspects of a dual but not necessarily consecutive process.' The application of any scientific methodology to this field of 'human action' (*see* the opening paragraph) demands, for example, that we pay attention to the precise meanings of the aspects of the problem into which studies are likely to be divided, and which are likely to lie at the core of any hypothesis. One example of this will be sufficient to show how important it is in the avoidance of scientistic attitudes. The word 'analysis' occurs again and again in discussions of the subject 'design.' Do we know what it means? It is not a clear-cut issue by any means.

Russell[10] rejects the two extreme concepts of analytical activity: the monist theory which maintains that

'. . . analysis is falsification, that a whole does not consist of parts suitably arranged, and that if we mention any part singly, the act of isolation so alters it that what we have mentioned is not an organic part of the whole,'

and the atomicity theory defined by Wittgenstein thus:

'Every statement about complexes can be analyzed into a statement about their constituent parts, and into those propositions which completely describe the complexes.'

He (Russell) maintains that the latter interpretation forbids synthesis, so that if it is accepted we must abandon the position that design is a synthetic process. Russell then goes on to propose another concept of spatio-temporal analysis:

'. . . we can, within a perceived whole, perceive parts as interrelated.'

This is a step or two removed from the *gestalt* and permits the realization of related parts without precluding simultaneous perception of the whole. This would be reasonable enough for our purposes and even suggests the essential link between analysis and synthesis. This brief excursion into logic is simply to exemplify another important principle in the avoidance of scientism, namely that immense care is needed in the definition of premises. It can be argued, of course, that these are only semantic quibbles and that everyone is fully aware of the complex nature of the various aspects of the design process. Nevertheless, if design theorists wish to adopt a scientific attitude to their problems, they must also be prepared to accept certain widely accepted principles of scientific method, one of which is that

'. . . logic is involved in all reasoned knowledge (which is the original meaning of "science").'[11]

Returning for a moment to the previous proposition about the nature of models for application in design, it will be seen that Russell's concept of 'analysis' also leads directly to open-ended procedures. It is obviously less likely that the parts will become mutually exclusive if they are seen to be interrelated by definition. It will also be seen that the few models which do exist are inappropriate in most cases; they do not provide interrelated reference points for decision-making.

As in most innovating situations a new kind of person is called for, and this is especially true in the educational field. Honor Croome[12] has described such persons in relation to similar situations in industry, and the description is relevant to the needs of the architectural profession and its teaching system:

'. . . people who command techniques only recently grown out of pure and basic research, who are at home among its ideas, who speak its language, and who can maintain their intellectual contact with its practitioners . . . (we) must integrate them into (our) working structure.'

People of this kind are essential to the development of a valid design technology: they are the sine qua non of non-scientistic operational method, and of the rapid assimilation of knowledge into activity patterns on which architectural teaching has traditionally been based.

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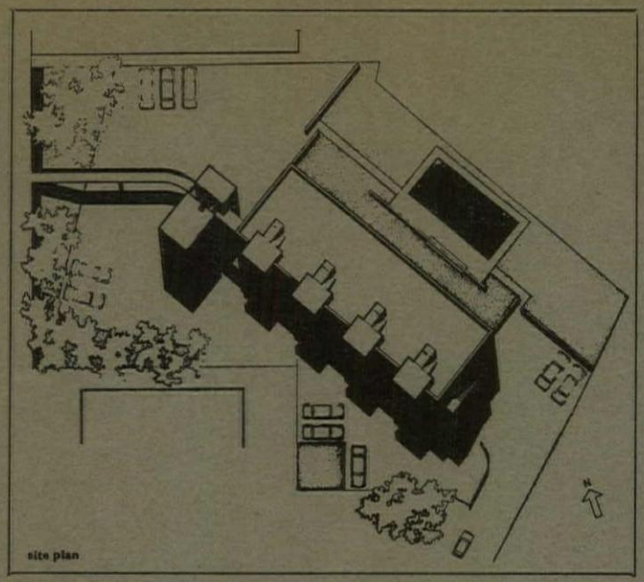


site plan

FLATS, RUSHCUTTERS BAY, SYDNEY

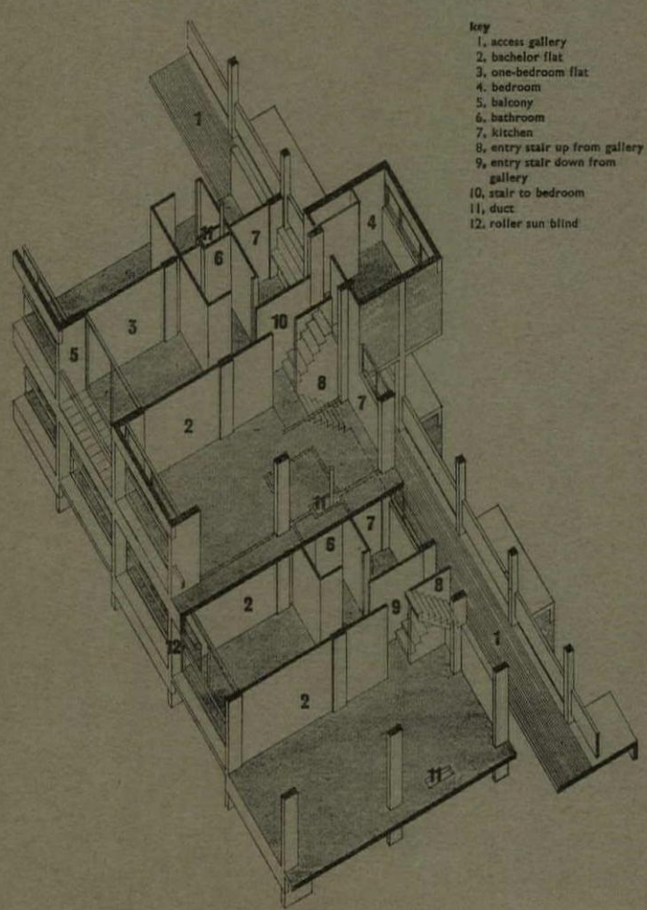
The site is a level area at the bottom of a rock cliff, 22 ft. below the main approach street. There are small existing buildings on either side of the street frontage but the site is deep and faces a park with a kindergarten, tennis courts and Rushcutters Bay (part of Sydney Harbour) beyond them. Access for cars is from a lane at the rear of the site.

The programme required eighty small self-contained flats, to be let fully furnished. Sixty of these were required to be bed-sitting room units of 330 sq. ft., and the remaining twenty to have a separate bedroom (area 470 sq. ft.). Each unit had to face the park and harbour. The building's broad side was therefore angled to face the view which coincided with ideal north-east orientation. Building regulations set a height limit of ten floors, an arrangement of eight flats per floor resulting in a plan width, facing the view, of 12 ft. 6 in. for each unit. This established the width for the main room in each flat, and the kitchens, which by regulations must have windows to the outside, were placed on the opposite side. Internal mechanically ventilated bathrooms were placed back-to-back in the centre of the building.

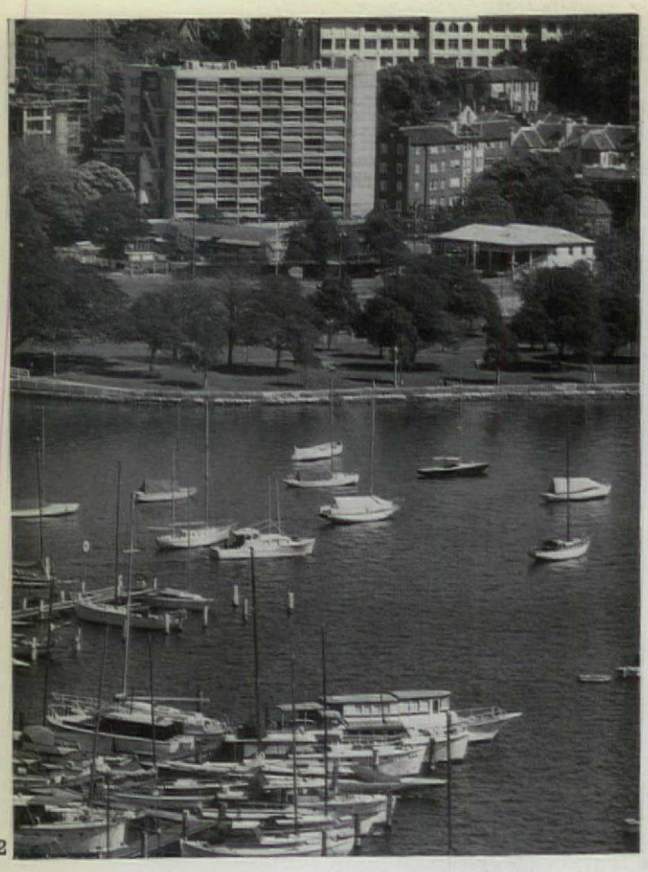
To achieve the minimum of public space and also plan for the required separate bedrooms, a system of split-level planning was adopted, with access galleries every second floor. Half flights of steps lead up and down from these to pairs of units. One of the upper pair becomes a one bedroom flat which in itself is arranged on a split-level system, whereby a projecting bedroom located above every access gallery between bays (therefore not obstructing the required kitchen windows) is reached by a half-level flight up from the living room. These larger flats have recessed balconies on their view side which result in a consistent pattern of recesses with corresponding bedroom projections on the access side.

The structure of the building is a repetitive bay-column and flat-slab system. In order not to destroy the consistency of the framing, the two lifts and the enclosed firestair are each contained in vertical shafts, separated from the main building but connected to it by bridge extensions of the access galleries on every second floor. The main approach is at street level over a curved pedestrian bridge which passes through the vertical space between the lift and stair towers to become the second level access-gallery. Since the lifts stop only on every second floor, the areas above and below each lift landing are utilized as laundries, which are made accessible from the firestair by small bridges across the space between the two towers. Connecting the approach galleries on every second floor at the end of the building is the required second exit stair with open concrete flights cantilevered off a central supporting spine.

The reinforced concrete structure is clearly expressed on the exterior columns, slabs and slab-downturns (to achieve the necessary vertical fire separation between floors) and the wind-bracing side walls of the towers are all left with an ' off-the-form ' finish. Rough-sawn pine formwork boards were used, and the joints between different pours are expressed by recesses left by beads placed in the formwork. The inert cavity infill walls are of creamy-white facing brick. All windows are in aluminium frames with hoppers, sliding sashes and full-height balcony sliding glass doors. The flats were furnished by the architects, each having a different colour-scheme. To give a unified exterior, all curtains in the bed-sitting room flats are bright orange to contrast with the exterior roll-down aluminium blinds which are bake-enamelled dark blue. The curtains to the recessed balconies are dark red to increase the sense of recession. Fluorescent lights behind baffles provide indirect illumination to all curtains. Carpets are textured grey, bedspreads are brown and black with accents of bright-coloured cushion covers. All built-in furniture and doors are veneered in coachwood. Ceilings are sprayed with acoustic plaster.



axonometric showing typical flat arrangements



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1 (previous page), the west side showing the access galleries and projecting bedrooms above each gallery. 2, from the east, across Rushcutters Bay. 3, close-up of the east elevation; the windows are in aluminium frames and the curtains in the bed-sitting room flats are bright orange, while those in the balconies are dark red to increase the sense of recession. 4, looking down on the pedestrian bridge from the street to the stair and lift tower at the north end. 5 (facing page), close-up of the stair and lift tower, with the pedestrian bridge, right.

3

FLATS, RUSHCUTTERS BAY, SYDNEY

5

Facing page: A head-on view of the eastern side of New Hall's sunken court brings out the dual quality of this new women's college. The straightforward yet subtle rectilinearity of the Junior Combination Room (students' common room) and of the cruciform dining hall above, expressing the social need to relate small spaces to large spaces, is embraced emotionally by the Byzantine dome, the Ronchamp-style staircase towers and the castellated fountain.

criticism

Nicholas Taylor

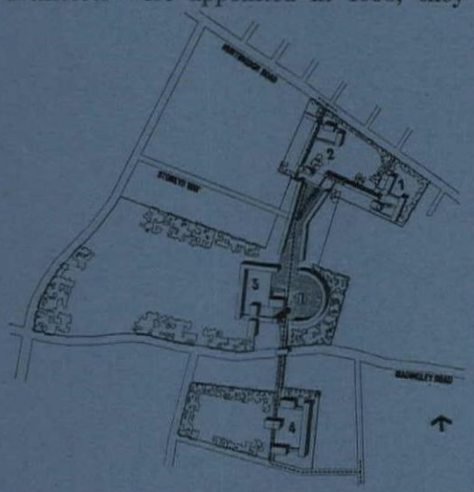
Architects: Chamberlin, Powell and Bon

New Hall, Cambridge: Phases 1 and 2

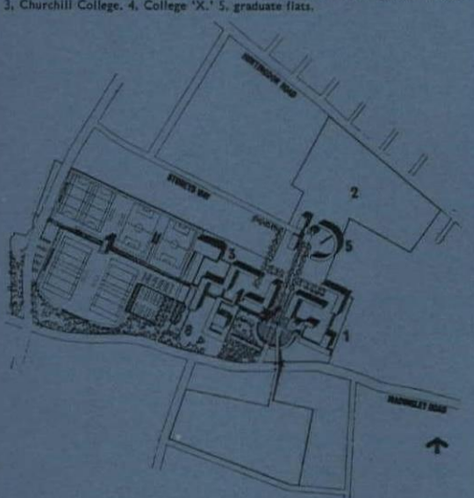
New Hall is what the Victorians would have called a Test for Taste; it is the kind of building which provokes immediate attention as a symptom of a certain aesthetic trend, and it forces critics to stand up and be counted. Soane's Dulwich Art Gallery, Butterfield's All Saints, Margaret Street, Connell and Ward's High and Over, the Smithsons' Hunstanton School—none of these could easily be claimed as the best work of its architect, but each one in its time compelled similar violent reactions for and against, of a purely aesthetic kind. Each has dated quickly; indeed each dated itself at the very moment that it opened its doors to let the critics in. The trouble in each case, however, was that criticism rarely went beyond the initial visual *coup*. Soane's lighting of his pictures, Butterfield's liturgical ordering of his worship-room, Connell and Ward's conception of the bourgeois way of life, and the Smithsons' ideas of child psychology—these conceptual aspects of design went unnoticed while art historians busied themselves in diagnosing the latest style.

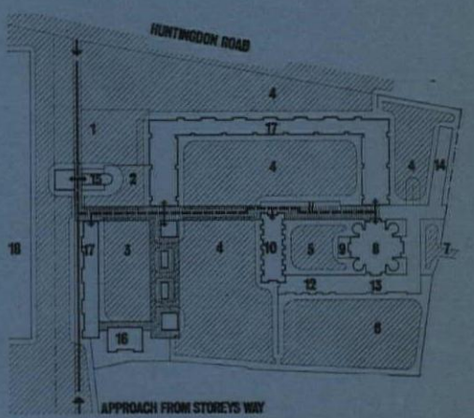
So it is with New Hall. The mere glimpse of snow-white dome and attendant minarets lording it over academic suburbia is enough for most CLASP-conscious English critics to reach down their dictionary of 'responsible' cliches; neo-Historicism, neo-Classicism, Philip Johnsonism, New Sensualism, neo-American collegiate monumentalism, Byzantine whims. And let it straightaway be said, most of these charges seem justified *prima facie*; but it is all the more sad that so few people are encouraged to make a closer examination, for in my view so masterly and original an achievement in building an educational community as New Hall represents can rarely have been decked out in such an irrelevant and misleading dress. The parallel of Butterfield's obsessionally striped brickwork at Keble comes irresistibly to mind; for, just as Butterfield's polychromy undoubtedly has a fascination and a perverse logic on its own terms, so does New Hall's concrete sculpture; but in each case the highly successful creation of a modern college community seems to have been conducted parallel to the aesthetic gymnastics without ever closely connecting with them.

In one respect Chamberlin was sabotaged (without intention) by his clients. When the architects were appointed in 1958, they



Above, the architects' first proposal, 1958. Below, the architects' Churchill College competition design, 1959. Key: 1, New Hall. 2, Fitzwilliam House. 3, Churchill College. 4, College 'X.' 5, graduate flats.





Site plan of the whole college. Key: 1, entrance forecourt; parking under trees. 2, ornamental water. 3, paved court. 4, college garden. 5, sunken court. 6, Fellows' garden. 7, service entrance. 8, dining hall. 9, junior combination room. 10, library. 11, north link block. 12, south link block. 13, Fellows' drawing room and dining room. 14, squash courts, games room, studio, music rooms. 15, chapel, porter's lodge under. 16, President's lodge. 17, sets of rooms. 18, Fitzwilliam House.

immediately saw the opportunities given by the Huntingdon Road site for creating a new academic precinct. Just over the top of Castle Hill from the northern end of Cambridge's linear centre of shops, colleges and river, it seemed at first sight just an isolated piece of suburbia, occupied by Horace Darwin's terracotta Tudor villa of 1890 (Uncle Horace of Gwen Raverat's book). The next-door site, however, was already booked for the building of Fitzwilliam House, and slightly further west, a third new college, Churchill, had just been given a site on Madingley Road, which would eventually be connected directly with the new academic area on the west side of the Backs, centred on the prewar University Library. So Chamberlin first suggested a complete group of the three colleges, and then, as a finalist in the Churchill College competition, he proposed moving New Hall to another vacant site on Madingley Road next to Churchill—with a group of graduate flats between these two and Fitzwilliam.

None of this actually came about; in Cambridge the interests in property development of the individual colleges still prevail over any attempts to plan compre-

hensively at University level. Churchill appointed Sheppard, Fitzwilliam appointed Lasdun, the graduate flats remained a talking point and New Hall stayed on the very confined Huntingdon Road site. Even then, the failure of Lasdun and Chamberlin to relate their schemes in any way at all remains a distressing example of collegiate suburbia at its most irresponsible—particularly now that Trinity Hall propose a large and equally unrelated development on another former Darwin estate immediately beyond Fitzwilliam (see AR, Preview, 1965, though Trevor Dannatt has since been superseded as architect).

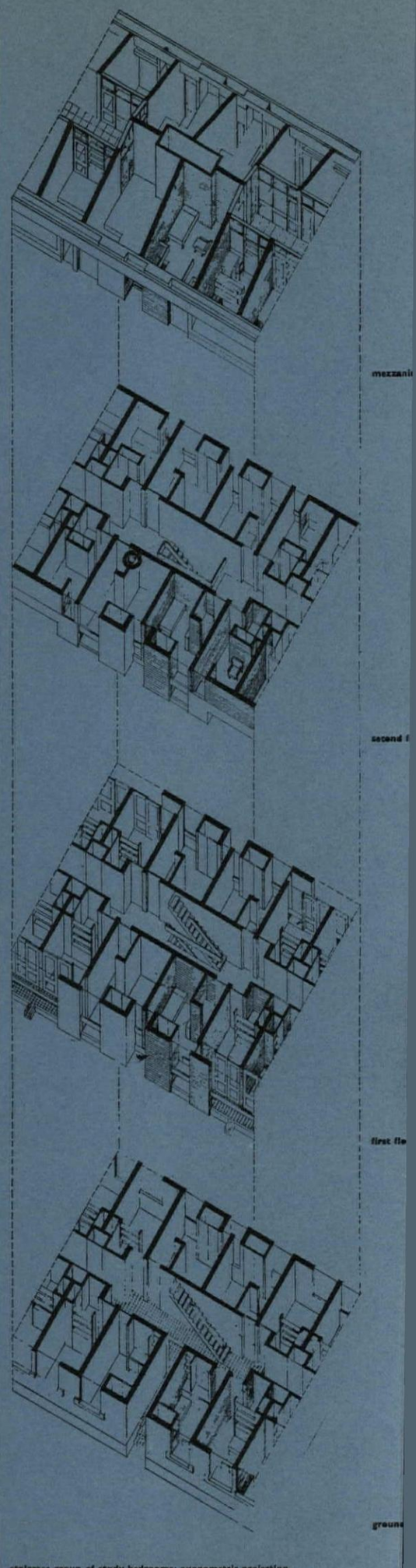
Town-planning having thus been spurned, Chamberlin rightly turned to the other end of the telescope: the individual room. New Hall demanded a 'traditional' residential college with the great majority of the three hundred students living in, as well as half the senior members. Yet by its very nature, it could not possibly be traditional. The Cambridge College is deeply rooted in its origin as an all-male monastic seat of learning, dominated by hall, chapel and library, with poky rooms reached up creaking staircases. In the first two women's colleges, Girton and Newnham, there was a conscious attempt to break down the loneliness and scholarly introversion of the staircase, by introducing corridors throughout; yet this tilted the balance far too much away from privacy, giving Waterhouse's Girton in particular a grimly institutional atmosphere (at Newnham, Basil Champneys's Dutch gables and pretty white woodwork achieved a certain external domesticity).

At New Hall, Chamberlin has achieved a successful compromise by grouping no less than twenty-four rooms on each staircase and then varying the shapes and sizes as far as the budget allowed. Beds, desks and wash-basins are mostly built in, so as to make the best use of the space while keeping within the UGC's stringent requirements. Particularly successful are the two-level two-girl rooms on the top floor, with a roof terrace spanning the central corridor. It has been assumed rightly that modern girl undergraduates are unlikely to be physically frail, so economies in space have been made on the stairway connecting the two levels, diminishing it to an almost suicidal ladder.

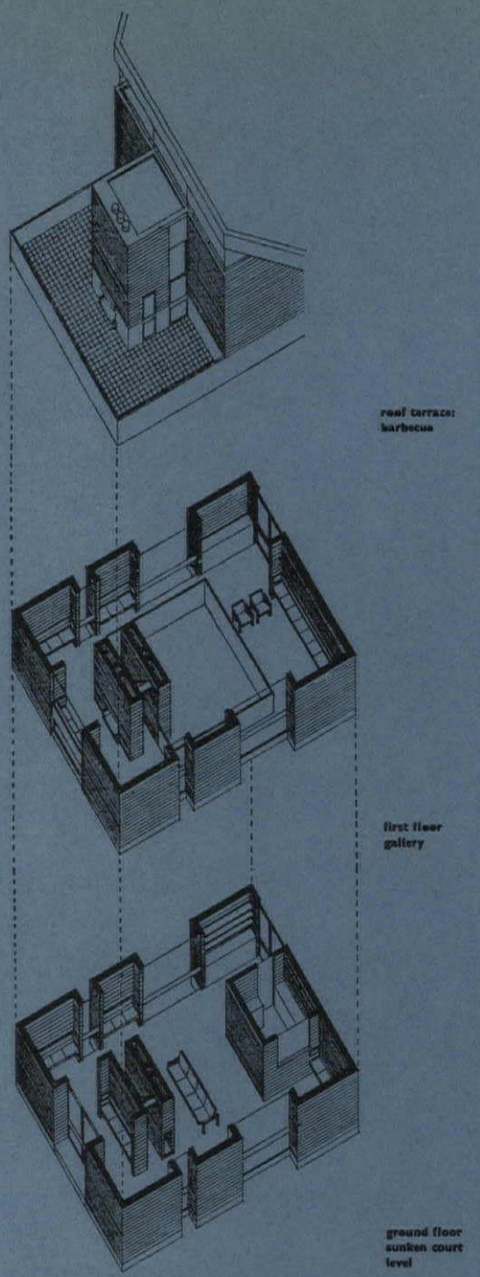
In the shapes of these rooms emerges the spatial vocabulary of the entire college: the punching out of square bays off a rectangular central space, thus achieving a relationship between spaces for one girl alone, spaces for two sharing, spaces for entertaining three or four and spaces for much larger numbers. This variety is expressed elevationally and in section with admirable crispness and clarity, the pushing outwards and inwards providing contrasts of light and shadow. The only doubtful feature is the use of exposed white brickwork throughout the interior; in spite of the extensive picture rails and in spite of the supposed natural cleanliness of girls, it does create a fearsome atmosphere of purity; the slightest sticky tape would mark the wall indelibly. Perhaps it is not too late to import some pinboard.

The rectangle-plus-bays theme is used with great skill in the principal rooms of the college. In the main floor of the library the areas for browsing and working are decisively separated from themselves and from the central catalogue avenue, with natural light to the study tables and artificial light to the windowless stack bays. In the dining-hall the four side bays enable small numbers to eat as naturally there as when the entire college is gathered for formal dinner. The ingenious use of a central hot-plate, which rises on a lift from the kitchen ('like a giant cornucopia', as Chamberlin puts it) makes self-service and waiter service equally convenient, and also, when it is withdrawn, allows the use of the hall for dances and meetings. Best of all is the Junior Combination Room, in which variations on the central theme seem inexhaustible. So many recent common rooms (Selwyn College, by Robert Matthew, Johnson-Marshall and Partners; Leckhampton House, by Arup Associates; Fitzwilliam House, by Denys Lasdun and Partners) for all that their elegance contrasts with traditional undergraduates' squalor, are simply rectangular boxes or 'hotel lounges,' in which the accursed telly can effectively kill all social life within seconds of being switched on. At Churchill, Richard Sheppard had sufficient funds to provide a number of different boxes for different purposes. Chamberlin, however, divides up a single space with a central chimney-stack and staircases, pushes out small reading and talking bays, raises the roof to double height, inserts a broad gallery which feels its way round every corner, and then provides fascinating glimpses out through tall slit windows between each bay. Here the only defect is the failure to use the television set (a massive instrument specially donated by Sir Isaac Wolfson) in the gallery space intended for it; it is at present stuck crudely in the fireplace.

This sensitive and beautifully managed moulding of space at ground level is not, alas, the whole story. Whereas the JCR has the straightforward and superbly textured flat ceiling of bush-hammered concrete which appears also in the rooms and corridors, the library and the hall suffer an extraordinary convulsion above eye level. The library rises for two more floors, which seem wasteful of space for the amount of shelving provided, with an incongruously grand staircase and mannered Venetian-window-type arcading in the upper gallery. The dining-hall changes from cruciform to circle by means of an awkward clerestory zone in which the glazing bars seem to be visibly groaning



staircase group of study bedrooms: axonometric projection



junior combination room: axonometric projection

as they try to reconcile the Dr. Jekyll-Chamberlin of the sensitive social layout with the Mr. Hyde-Chamberlin of the beautifully made (but visually hideous) dome. The clerestory gap has the same schizophrenic quality as that famous glazed hiatus between train shed and hotel at Gilbert Scott's St. Pancras Station—except that shed and hotel are functionally opposed building types, whereas the New Hall dome is an arbitrary aesthetic imposition on an otherwise unified cruciform room.

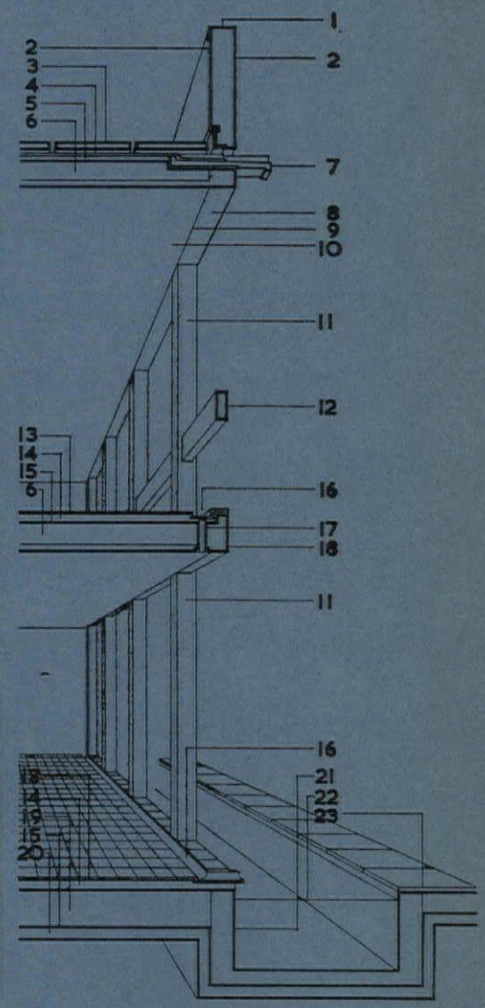
Schizophrenia is perhaps most acute in the sunken court itself. There is on the one hand the spatial fluidity of the main cloister, expressed externally and internally with a straightforward Perret-like assembly of polished precast beams and bush-hammered concrete roof slabs, with a deep fascia articulating the roof walk. But by contrast there is the absurd sacrificial pomp of the central fountain; the College can afford only a single spray, and in its normal absence, the circular basin has a Roman baptismal aura; perhaps the President of the College might dive ceremonially into it at midsummer dawn.

While the sinking of the court itself is refreshing in its disrespect for nature and its assertion of formality, it may not survive the introduction of water all round. There has not yet been time to introduce plants, fish and so on; it is at the moment a rather miserable dark green moat. More serious is the odd contrast between the superb quality of the concrete work above and the ugly staining of the brickwork below, particularly on the mini-Ronchamp staircase towers. This seems to prove that the classical game can only be played with the full classical repertoire of drip mouldings. Originally no brickwork was intended, but the cost of concrete units throughout proved prohibitive (concrete survived on the entire staircase towers until the contract stage). The actual choice of brick is curious; it has been widely publicized as a revival of the Cambridge vernacular tradition, but in fact this grey-white brick from Sevenoaks is quite different from the local creamy-white gault from Burwell (as can be seen next door, in Buckingham Road, on David Roberts's Blackfriars—see AR, April, 1964).

Why the minarets and domes? Why, when the college is a genuinely successful community without them? What do they symbolize? In spite of the fact that a chapel is forthcoming at New Hall (tunnel vaulted again, like the library) these dramatic silhouettes do seem symptomatic of a general need in University circles for some kind of post-Christian pomp, with compulsory hall and compulsory library taking the place, in mystic communal suffering, that compulsory chapel used to hold. There is no one so keen on bombast in university building as professors in science faculties. It would be quite wrong to dub this 'traditionalism'; for apart from perhaps four buildings (King's Chapel, Trinity Library, the Squire Law Library and the Fitzwilliam Museum), Cambridge has never traditionally gone for pomp. 'Most of the individual buildings,' as Nikolaus Pevsner puts it, 'are in fact on the conventional side and a little short of vitality . . . but whatever the quality of the single units, it is the way they make up into courts, large and small, and colleges and groups of colleges and ultimately architecture and landscape, that matters.'

Partly from donnish *laissez-faire* and partly from architectural selfishness, these new monsters on the Huntingdon Road do not 'make up' in this way at all. Instead of the styleless, almost timeless, domesticity made cosy with age, which in previous colleges was thought sufficient to express the solemn permanence of chapel, here at New Hall there are, however massively constructed, only the aesthetic thrills of fashion to elevate the processes of eating and reading. It is not far from the elevated cornucopia and the split-orange dome of the New Hall dining hall to the instant-harem world of the Golden Eggs and the Contented Soles. A similar temporariness can be felt in Spence's Sussex University, where jeans and shaggy sweaters harmonize with an upbeat Colosseum. New Hall seems a somewhat cynically masculine view of a women's college, with its purity of virginal white walls and its curvaceous thrills of domes and rounded minarets—though perhaps at a time of growing emancipation, girls may prefer a man's view of their milieu in place of tweed skirts and knitting needles.

Exploded section through south link block walkway showing typical structural elements. Key: 1, polished top surface to white in-situ concrete parapet. 2, bush-hammered surfaces to white in-situ concrete parapet. 3, 2 ft. by 2 ft. by 2 in. precast concrete paving slabs laid with $\frac{1}{2}$ in. open joints supported at corners on 6 in. by 6 in. by $\frac{3}{4}$ in. pads. 4, $\frac{3}{4}$ in. asphalt. 5, $1\frac{1}{2}$ in. cellular concrete screed. 6, 8 in. r.c. roof/floor slab including $1\frac{1}{2}$ in. white concrete soffit laid monolithically. 7, polished white precast concrete gargoyle. 8, fairfaced margin to white concrete soffit. 9, throating. 10, bush-hammered soffit to white r.c. roof/floor slab. 11, 9 in. by 9 in. polished white precast concrete column. 12, 4 in. by 9 in. polished white precast concrete handrail. 13, 6 in. by 6 in. by $\frac{3}{8}$ in. blue brindle quarry tiles. 14, cement and sand screed laid to fall towards drainage channel. 15, damp-proof membrane. 16, tiled drainage channel. 17, $1\frac{1}{2}$ in. diameter polythene rainwater pipe. 18, bush-hammered surface to white concrete edge of floor slab. 19, 8 in. r.c. ground floor slab. 20, 3 in. blinding concrete. 21, fairfaced surface to white concrete pool basins. 22, water level of pool. 23, precast concrete paving slabs.



NEW HALL, CAMBRIDGE | *architects* CHAMBERLIN, POWELL AND BON | *photographs by H de Burgh Galwey and John Maltby*

The third women's college of Cambridge University was founded in 1954 and for its first ten years occupied an early nineteenth-century house in Silver Street
Its new site in Huntingdon Road of 6.2 acres, including 'The Orchard' and part of the adjoining estate of 'The Grove,' was presented by the Darwin family.
The layout and phasing was conditioned by the persistence of a life tenancy on part of 'The Grove' (on the west towards the new buildings of Fitzwilliam House), by the need for access from Huntingdon Road and from Storey's Way at this western end, and by the dependence of finance on the College's appeal fund. Many mature trees are being retained. The college buildings, on which work started in July 1962, are intended ultimately to house 270 out of 280 undergraduates and 14 out of 30 Fellows.
Phase I, assisted by a grant from the Wolfson Foundation, was occupied in October 1964, and consists of a sunken court at the eastern end of the site, with a temporary main entrance (eventually to be service only) to Buckingham Road. On the eastern side of the court is the domed dining hall, cruciform in plan with a central servery placed at first floor level over the kitchens and reached by spiral staircases in the four corners (two for undergraduates, one for Fellows and one for service). It is designed to contain the whole College at one sitting, but to be equally convenient for small numbers to eat in the conoid-roofed side bays. Projecting forward from the hall into the court is the Junior Combination Room, planned on two levels with a gallery. South of the hall are the Senior Combination Room, Fellows' drawing-room and Fellows' dining-room, overlooking the semi-private Fellows' garden. From the dining hall, doors open on to roof terraces over the JCR.

On the opposite side of the court from the hall is the library, a long room flanked alternately by book shelves and by reading bays (with 48 seats in all); above is a two-storey stack of open shelving, reached by galleries from the main staircase and roofed by a clerestory-lit tunnel vault. At court levels, the library has an additional stack, used temporarily for bed-sitting rooms and giving a total capacity of 80,000 books. The two wings leading to the hall have Fellows' offices (some used temporarily for residence). Above the offices at ground level are cloisters, that on the south giving access to further offices and that on the north being the principal circulation spine of the college. There is a further level of circulation on the roof.
In Phase II, financed mainly by the University Grants Committee and the Nuffield Foundation, the spinal cloister has been prolonged westward, forming the fourth side of a three-storey residential courtyard housing 180 undergraduates and 25 graduates. They moved in last autumn. On the Huntingdon Road side rooms face into the court only, being double banked elsewhere. The study-bedrooms, varied in size and form, are arranged round staircases in groups of eight on each floor. The staircase wells are designed to accommodate a fork-lift truck serving all levels. The rooms on the top floor, for two people each, are on two levels, with a steep wooden stairway, and face on to a central private terrace. Fixed furniture is disposed on different walls and this has been expressed in the external elevations. The architects have advised throughout on the choice of new furniture and light fittings, and have designed all built-in joinery.
Work has already started on an extension to Phase II, consisting of squash courts, games rooms, music rooms and studio. In Phases III and IV the residential block will be prolonged southwards into 'The Grove' site, where a President's lodge will be built, and will then turn back, completing an S-Shape, to the main entrance at the Fitzwilliam House end of the site. Here will be situated the third major public room, the chapel, over the porter's lodge and a lecture room. The chapel will have a small apsidal east end seating 30 for regular services and a much larger ante-chapel seating 120, indirectly lit and suitable for use as lecture room, concert hall or art gallery. It will mark the entrance to the main spinal corridor of the college.
The structure throughout is of reinforced concrete and brick, exposed internally and externally. The bricks are Sevenoaks white facings; the concrete, which is polished for columns and rails, bush-hammered for floors and beams, or fairfaced, is composed of Ballidon limestone and white cement. Columns, handrails and cills are precast, as are the roofs to the library, dining hall and chapel. The hall's dome units are of *ferro cimento;* each of the eight leaves is 45 ft. long and seven-eighths of an inch thick and weighs over five tons. External paving is precast concrete, with blue quarry tiles in the covered ways continued into the internal circulation areas. The library and certain other rooms have cork tiled flooring and the dining hall has wood blocks. All joinery, including door frames and veneers, is of iroko. Heating and cooking are by electricity with underfloor cables giving a background temperature, supplemented by local heaters as required.
Associate-in-charge, John Honer. Assistants, Peter Honer and Colin Nash. Quantity surveyors, Davis, Belfield and Everest. Structural engineers, Flint and Neill. Services engineers, G. H. Buckle and Partners. Typographical consultant (appointed March 1966), Herbert Spencer.

cut-away perspective looking north, parallel to the main circulation spine: on the left, sets of study bedrooms around the paved court and the college garden; centre, the library and sunken court; right, the junior combination room, dining hall (on the first floor), and kitchen

1, the garden terrace on the west side, showing (right to left), the french window of the split-level fellows' drawing room with the dining hall behind, the windows of the Senior Combination Room, and fellows' offices with the library behind.

NEW HALL, CAMBRIDGE

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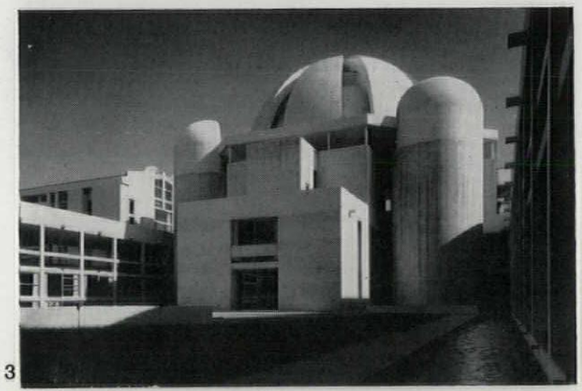

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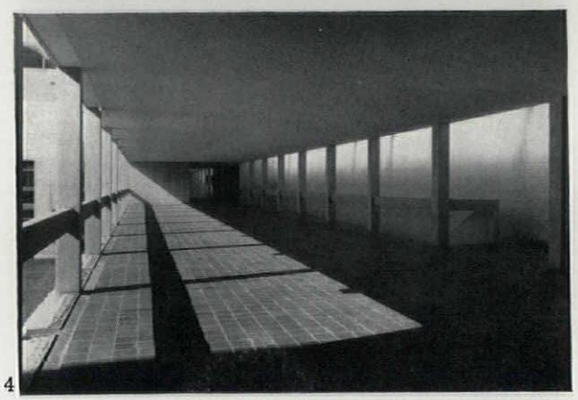

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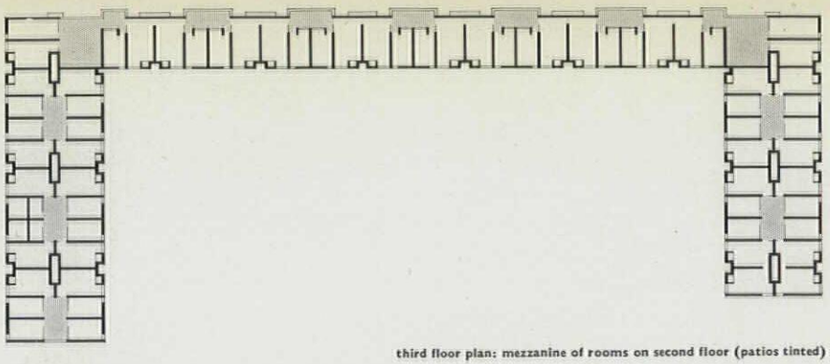
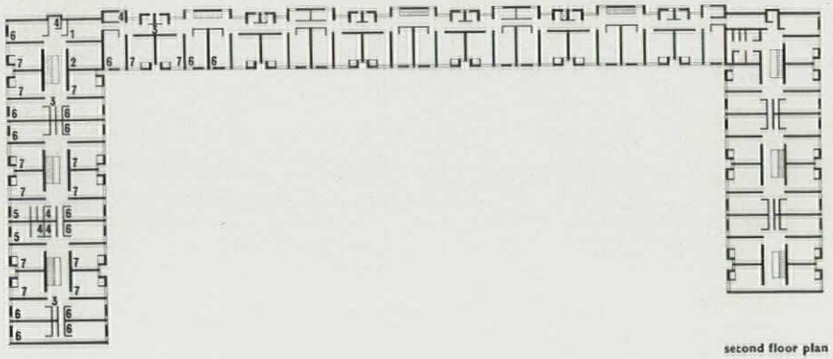
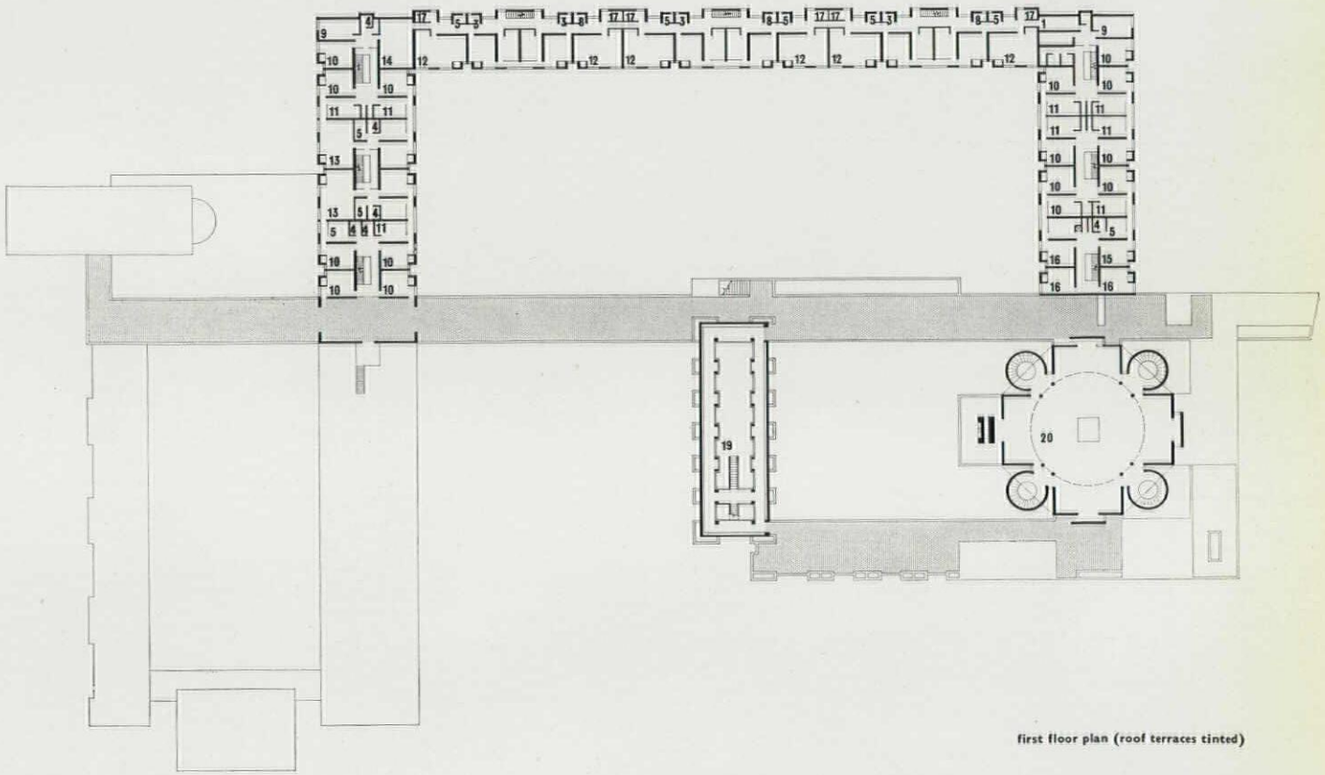


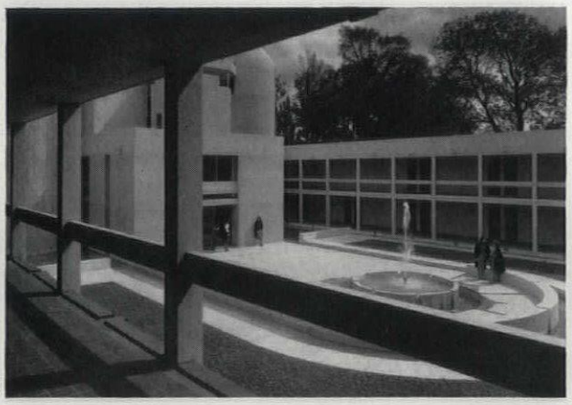
third floor plan: mezzanine of rooms on second floor (patios tinted)



second floor plan

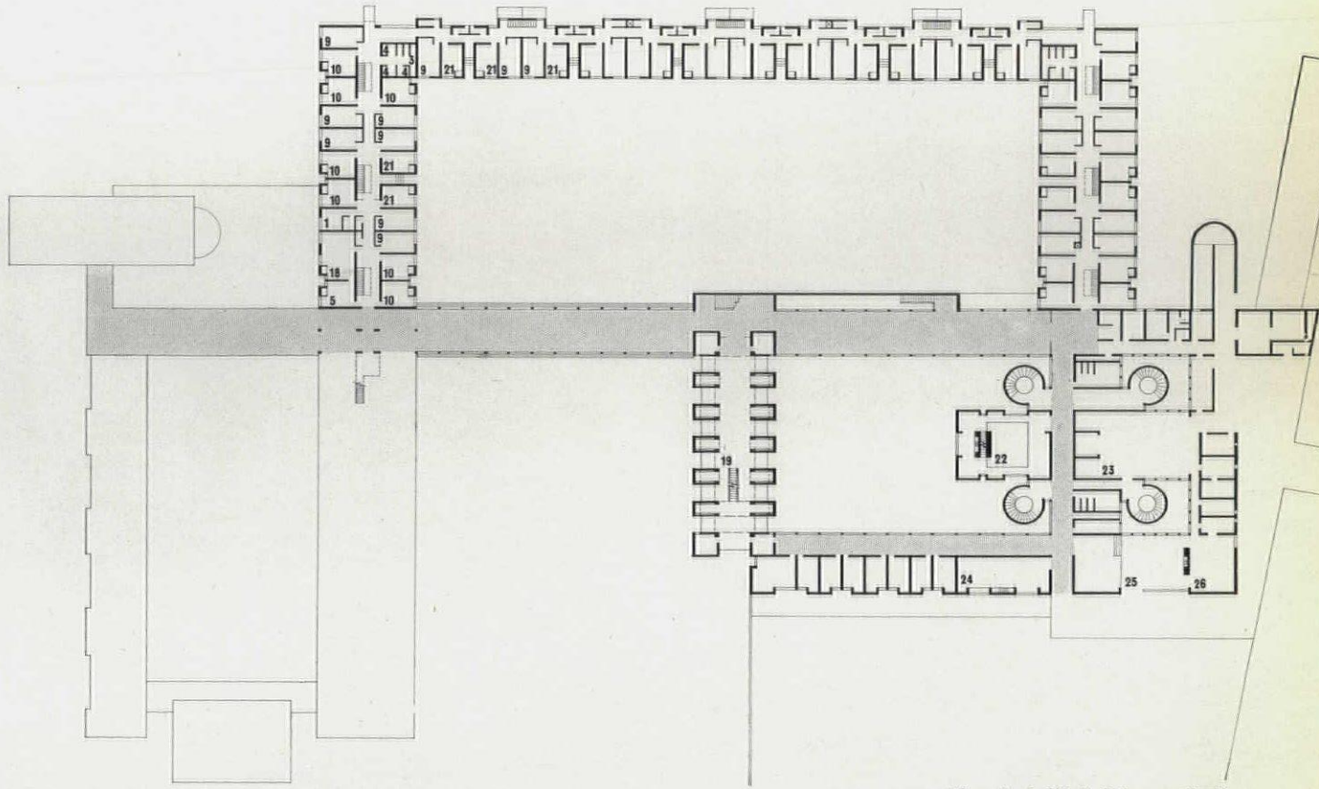


first floor plan (roof terraces tinted)



5

2, characteristic elevations of the residential court. 3, a diagonal view across the sunken court to the Junior Combination Room and dining hall, with the central walkway and a gable end of the residential court on the left. 4, the college's central walkway with the library beyond, showing quarry tile flooring and steps down to the sunken level. 5, the view from the walkway towards the JCR and hall, showing the formal terrace and fountain. 6, an attractive impression (though landscaping is unfinished) of the relationship of buildings to mature trees, and of the residential network (left) to the monumental hall and library and the walkway (right).

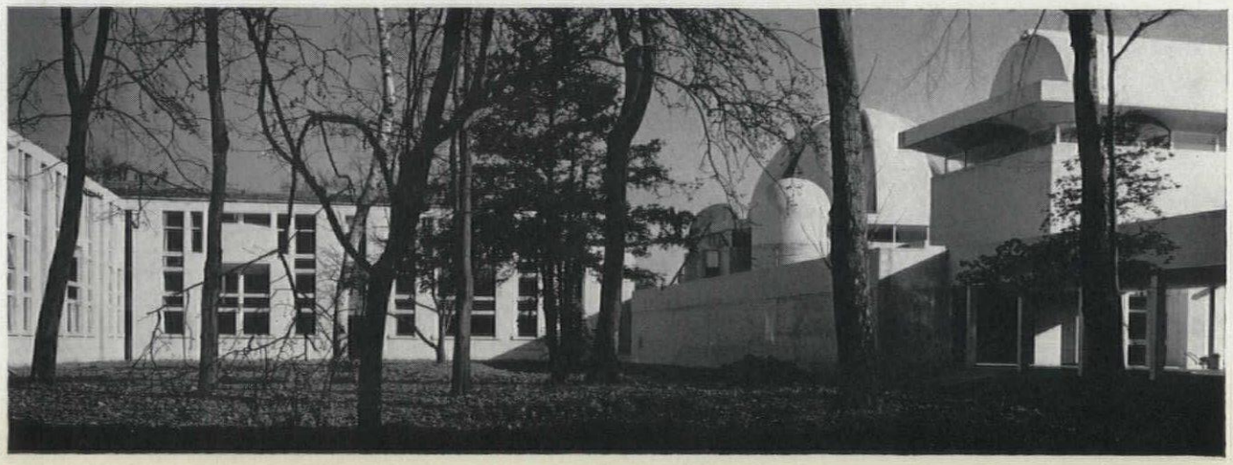


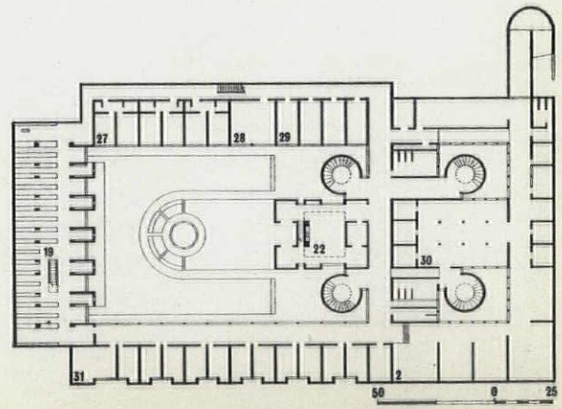
ground floor plan (public circulation areas tinted)

key to plans

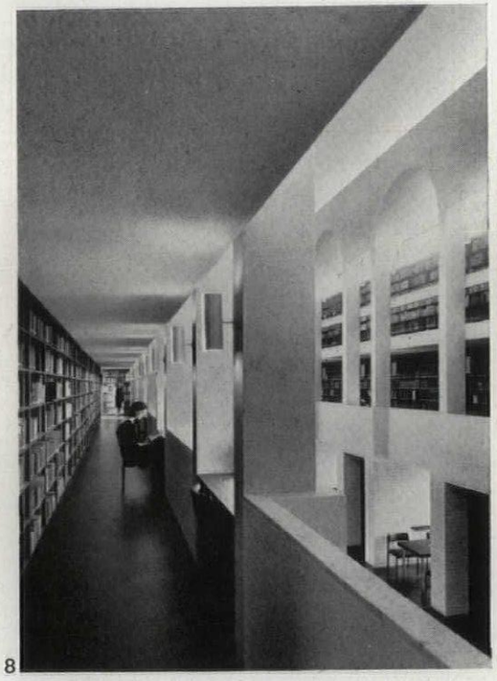
1, gyproom
2, store
3, w.c.
4, bath
5, kitchen
6, double-height room for 2 students: type A
7, double-height room for 2 students: type B
8, shower
9, bed-sitting room: type A
10, bed-sitting room: type B
11, bed-sitting room: type C
12, fellow's 2-room set
13, fellow's 3-room set
14, laundry
15, nurse's bed-sitting room
16, sick room
17, bathroom and w.c.
18, dining room
19, library
20, dining hall
21, bed-sitting room: type D
22, junior combination room
23, main kitchen
24, senior combination room
25, fellows' drawing room
26, fellows' dining room
27, visitors' room
28, graduates' common room
29, supervision room
30, bulk store
31, office

6





plan at sunken court level



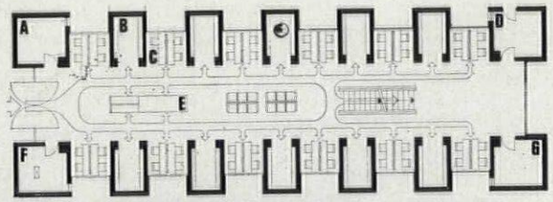
8

7 (facing page), the library's southern façade to the sunken court, showing the fountain and the walkway over guest rooms (right). A characteristically Mannerist detail is the articulation of the library as a double-height box on two apparently separate storeys of reading bays; in fact the room runs through three storeys, and the principal floor lies immediately above the sunken level.

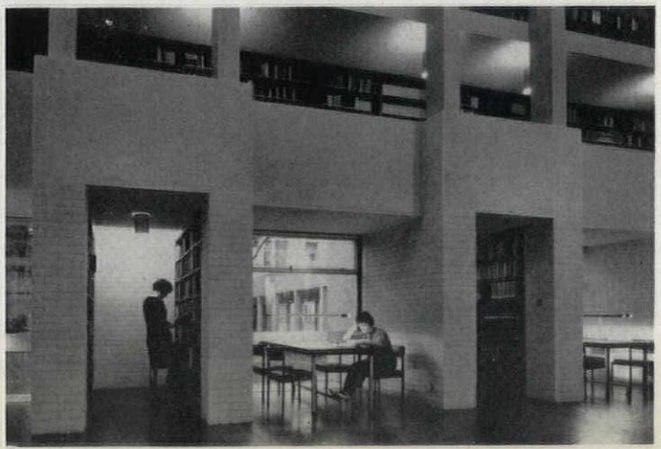
NEW HALL, CAMBRIDGE

8, the library interior, seen from the gallery at first-floor level. 9, the ground level of the library showing the alternation of artificially lit stacks and naturally lit reading bays. 10, general view down the 'catalogue avenue' of the library towards the grand staircase at the western end.

key
A, librarian
B, shelving
C, reading area
D, store
E, catalogue
F, cataloguing
G, special collections



ground floor plan of library, showing circulation pattern



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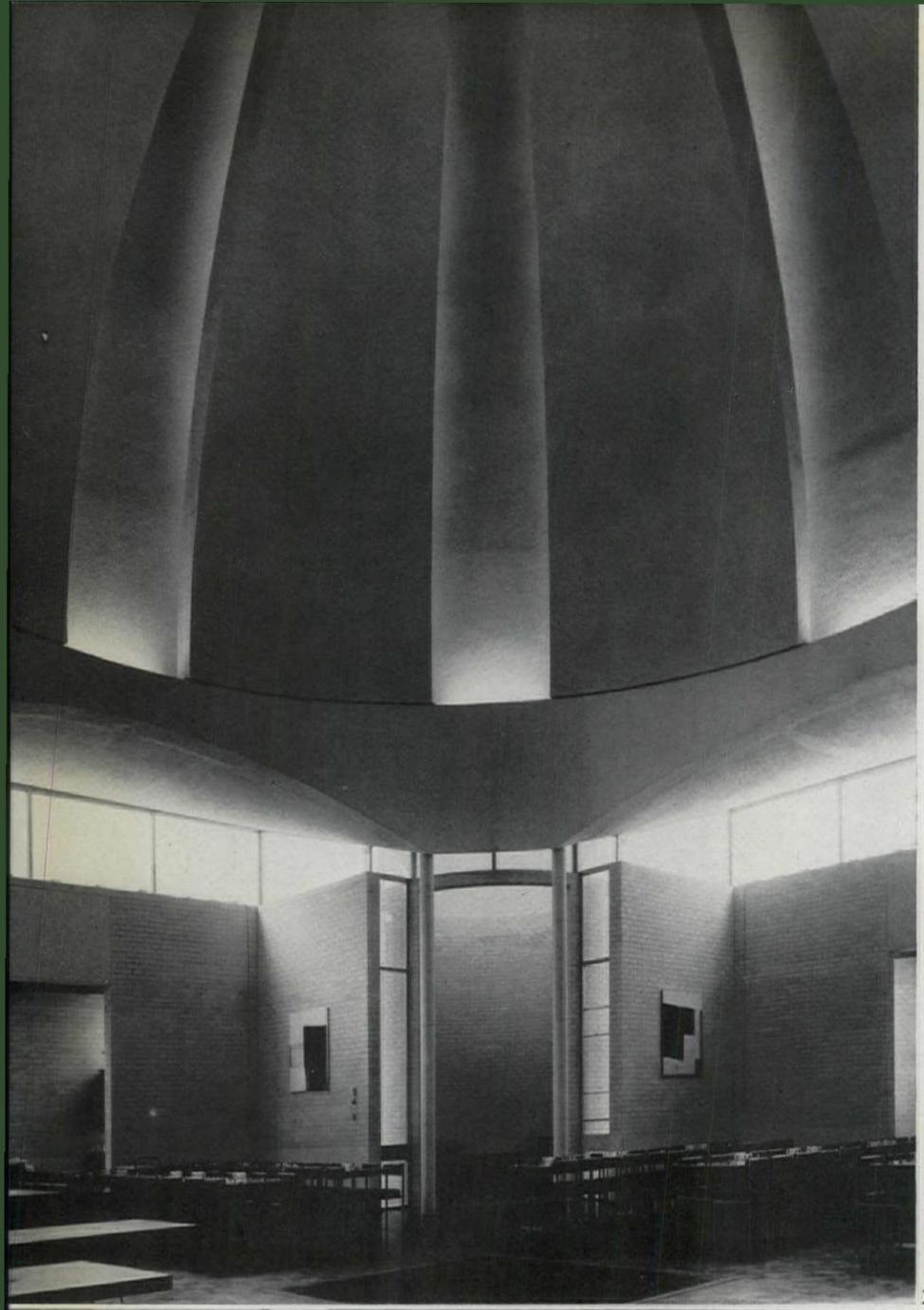


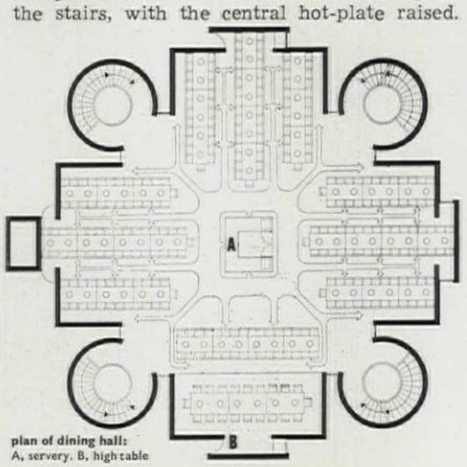
11

12

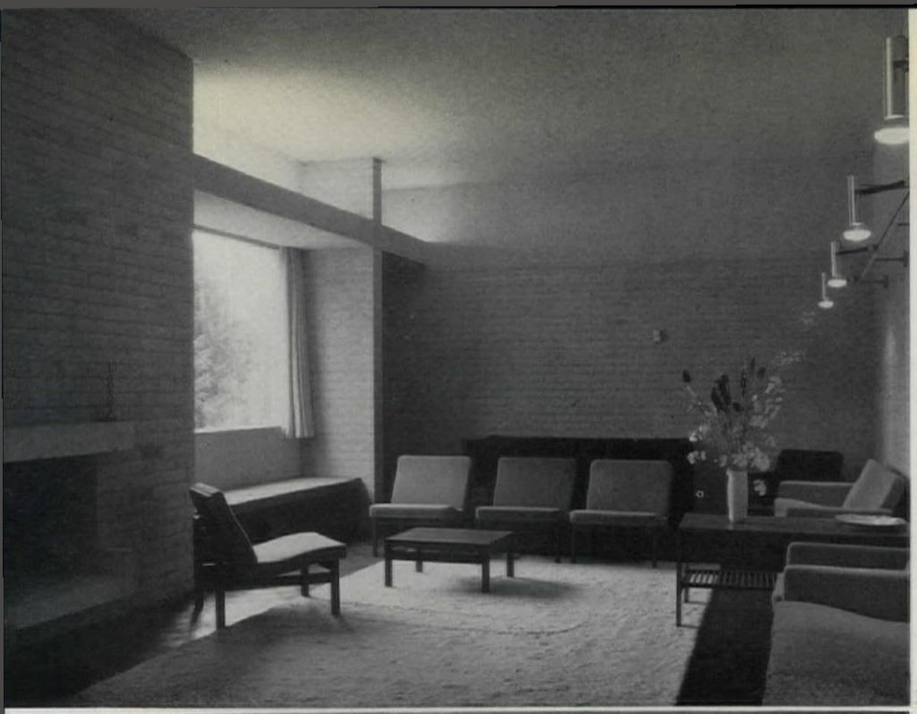
13

14

11, the hall as a whole, showing the split-leaf dome pirouetting on tiny columns in front of the contrasting cruciform layout of the main level, with the clerestory glazing bridging the gap. The central hot-plate has been withdrawn into the kitchen below, its roof forming part of a floor suitable for meetings and dances. 12, the hall in detail, showing the domed table lights and the characteristic pushed-back wall planes with side lighting. 13, the elegance of finish and precision in the concrete detailing is exemplified in the four spiral stairs to the hall. 14, an oblique view into the hall from the top of the stairs, with the central hot-plate raised.



plan of dining hall:
A, servery. B, high table



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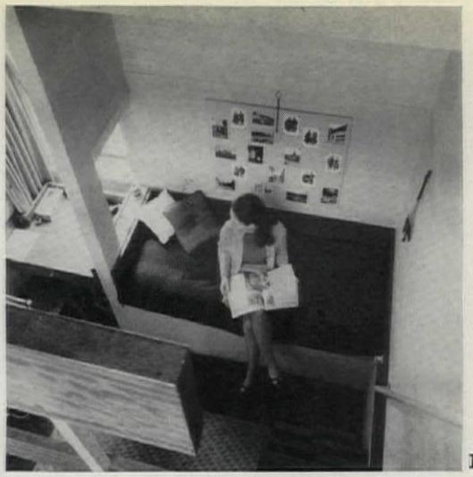

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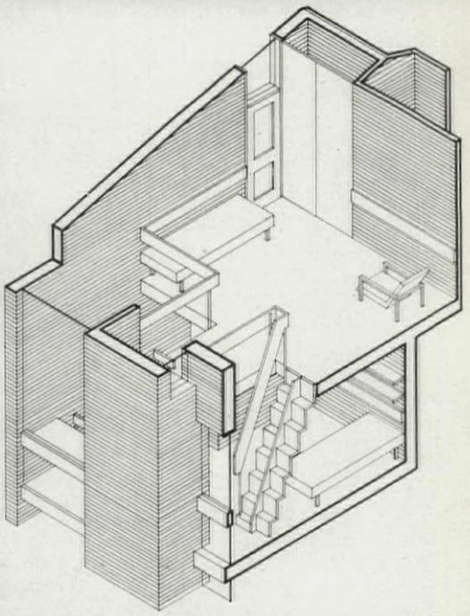
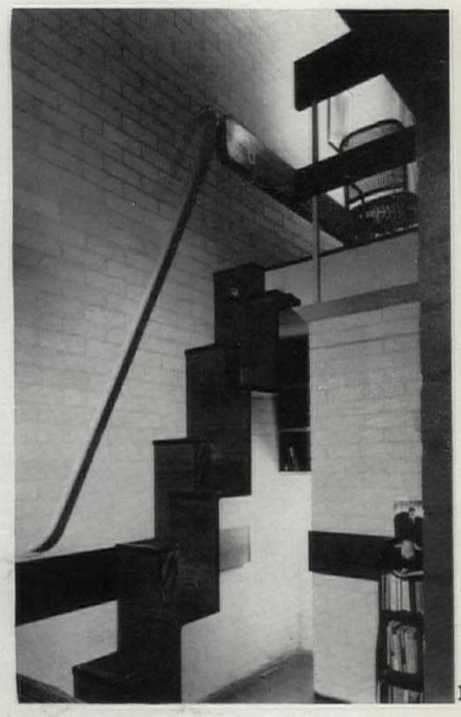


second floor 2-person study bedroom with mezzanine

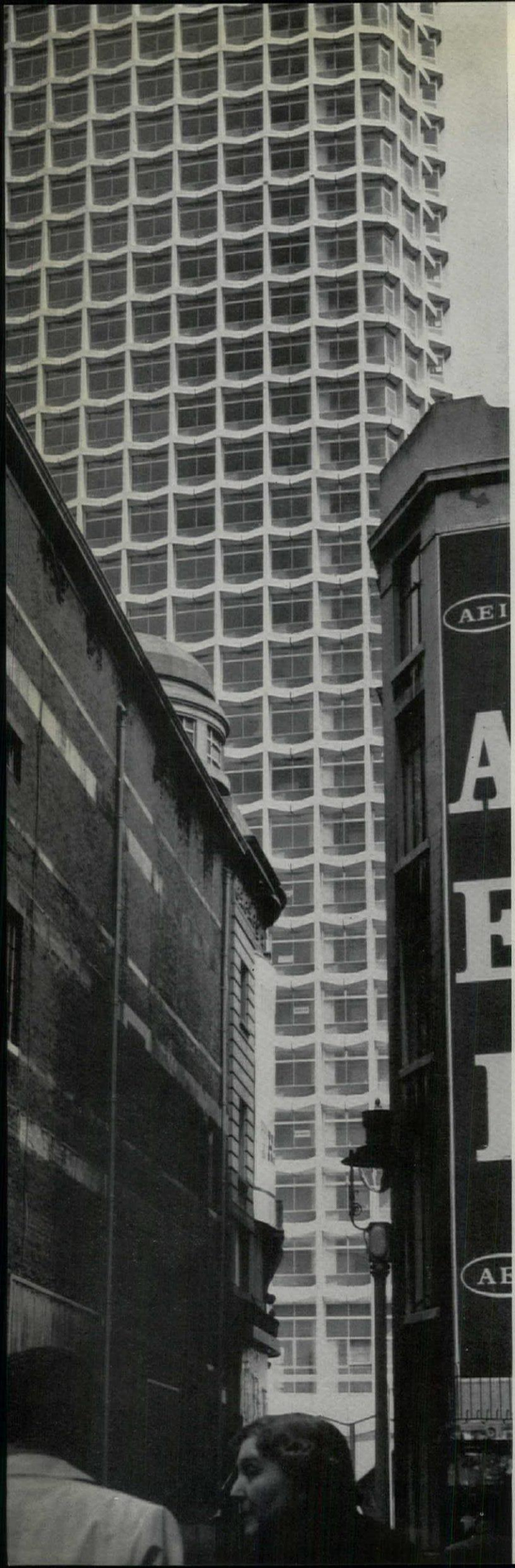
15, the northern end of the Senior Combination Room, showing the concealed artificial lighting in the upper windows. 16, the Junior Combination Room, with its central chimney-staircase stack and its gallery encircling the complex layout of large and small spaces. 17, the lower part of a double-height mezzanine room, showing ingenious layout of bed and desk (cupboards and wash-basin are out of sight, opposite). 18, the same room, seen from below.

16



18

SOHO *The special character of Soho is defended by making entrance seem difficult. For instance, by the chasm of Sutton Row, left, the blockade of Great Windmill Street, left below, or the shell hole of Air Street, bottom. Inside, spatial presssure is maintained by such townscape effects as that in Berwick Street market, right below.*



TOWNSCAPE

WEST END 2.

SOHO

Kenneth Browne

The dreary tendency for everywhere to become more and more the same, for character to be ironed out, and for every problem to ring up the same old standard solution is surely a sad reflection on modern town planning. Must we accept this process as inevitable; a sort of mad corruption of the idea of equal opportunities for all? If not, then somehow town planning has got to become the vital, life-giving force it has so far failed to be. It must lead, not drift with the developer. And this makes it essential that planners recognize and encourage the differences between places, emphasizing not destroying them.

Take Soho for example. Nowhere in London is more different, more itself, than this tight-packed, raffish jungle north of Piccadilly Circus. Yet its particular character depends almost entirely on the mixture of uses so disliked by tidy minds. Architecture, as such, means surprisingly little. On the other hand the general height of the buildings (four or five storeys on average) and the small size of the shops which give the scale do matter very much. Only in the case of the two squares and the buildings facing the ends of the narrow streets (75 Beak Street is a good example) do you have the room to stand back and look at the elevations. Generally, all is so tightly compacted that it is signs, blinds and people that count—all the things at around eye level.

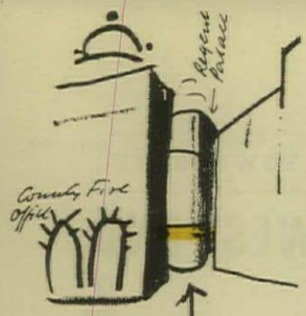
BOUNDARIES

Bounded by intensely busy traffic routes (see map, below) Soho is shaped like an axe head, the shaft being Charing Cross Road and the cutting edge Regent Street. The top edge is Oxford Street and the bottom, less clear, is strictly Shaftesbury Avenue but in fact Soho merges here with Theatreland (tinted yellow) down to the line of Coventry Street and Leicester Square. The strongest boundary is the splendid Nash sweep of Regent Street which effectively seals Soho off from fashionable Mayfair to the west. The very activity of the perimeter roads which reaches fever pitch at the corner intersections of Piccadilly, Cambridge, St. Giles and Oxford Circuses, serves to isolate the centre block.

CHARACTER

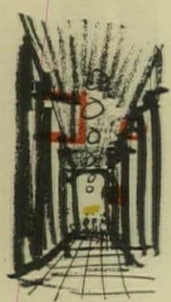
The exotic character of Soho is too well known to need much amplification. Land of good eating and striptease, it is a human pin-table, with serial vision of a special kind. Continental London, the kasbah, the trattorie, espresso bars, street markets, and endless permutations of alleys, byways and elusive

Map of Soho, showing theatreland tinted yellow; numbered viewpoints 1-13 *refer to text and drawings, nos.* 14-17 *refer to text only.*
(Reproduced from the Ordnance Survey Map with the sanction of the controller of HM Stationery Office, Crown copyright reserved.)



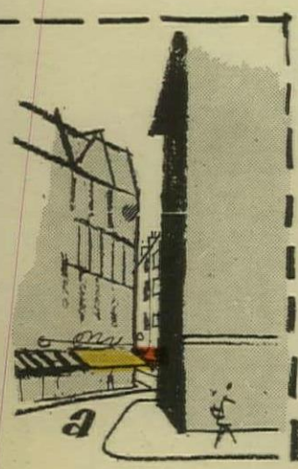
1 Wedge

2 Shell hole

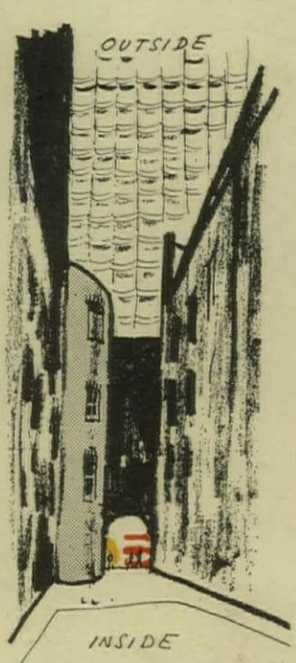


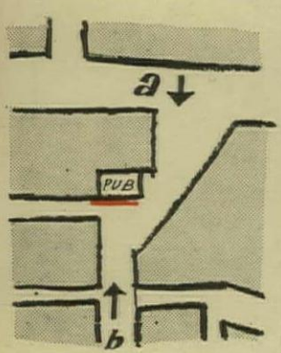
Tunnel 3

4 Narrows



5 End stop





Slice 6

Arch 7

streets add up to a fascinating inner city. In addition it has possibly more early eighteenth-century houses actually lived in than almost any part of London. East of Wardour Street the pattern is a fairly orderly criss-cross of streets but west of it the maze really winds up.

This is particularly noticeable in contrast with the scale of the busy streets on the perimeter and most strikingly with the enormously civilized sweep of Regent Street. Soho is the jungle which spices the flavour of both. There are strong contrasts inside Soho too, like the narrow pedestrian Meard Street where eighteenth-century houses, still used as such, face non-stop striptease.

How does Soho keep its character? First of all by being a maze. Streets are narrow and not many run straight through, so traffic is slow and a leisurely street life becomes possible with street corner conversation and street markets. How is it contained? The answer seems to be by making things difficult. First, by the 'moat' of traffic on all four sides. Second, by making penetration of the perimeter wall seem to be hard.

ENTRANCES AND EXITS

Some of the ways in which this happens are traced in sketches ***1*** to ***12***.

Wedge: For instance, starting at Piccadilly Circus, if you look north up Glasshouse Street the entrance to Soho is visually blocked by the wedge of the Regent Palace Hotel acting like a visual bung. You are made to squeeze in up Sherwood Street, ***1***. The feeling of restriction is later reinforced by a pedestrian bridge over the street.

Then, going up Regent Street, there is another instance at Air Street, where the outer wall is suddenly and dramatically breached:

Shell Hole: Here, rusticated arches, in series, pierce through at an angle, repeating in each layer of building, and somehow expressing the resistance. This may sound a bit fanciful but it is the stuff from which town character is made, ***2***.

Tunnel: Further up Regent Street the entrance to Soho is by two successive arcades, Quadrant and Brown's, ***3***.

Narrows: Higher up still, Foubert's Place is typical of restricted pedestrian entry, a narrow vista of shops and cafes setting the character at a glance, ***4***. In fact the whole of this corner (see map) is expressive and worth keeping.

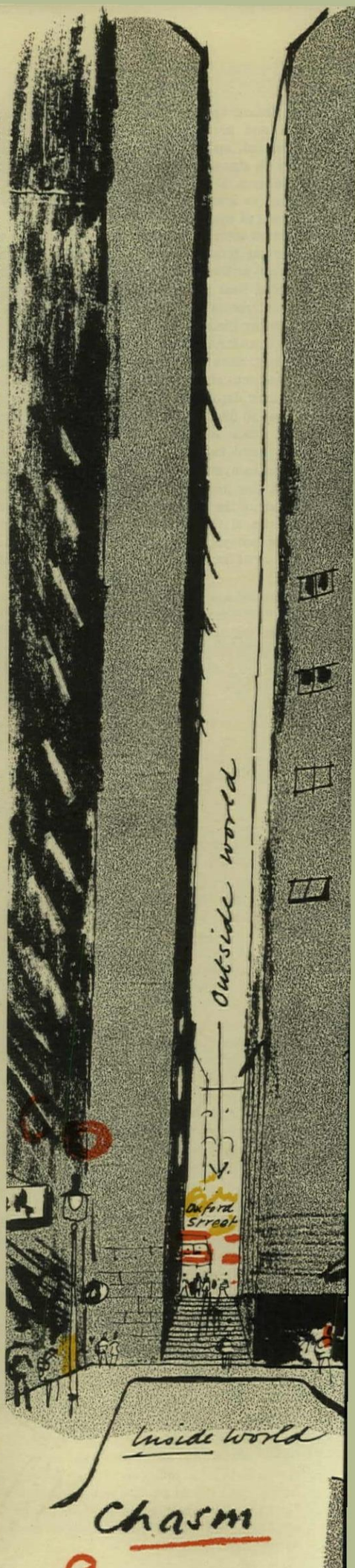
End Stop: For instance coming in from Oxford Street the blocking of Argyll Street by Liberty's, ***5***, is followed by a subtle bit of double take, working both ways, ***6***, as you enter Carnaby Street from Great Marlborough Street.

Slice: The road first slides behind the 'jacobethan' mass of Liberty's then angles sharply back so that the view down Carnaby Street is blocked, ***6a***. Looking back from the latter, ***6b***, the street is stopped, not by Liberty's as you expect, but by a small Watney pub, 'The Grapes,' which was hidden from Great Marlborough Street.

Chasm: This dramatic type of entrance is met repeatedly and a good example is shown in ***8***. Note that in this case at Ramillies Street both buildings are new and though nothing special as architecture the townscape effect is good, looking both in and out.

Arch: This method most obviously expresses the idea of the gateway. It occurs at Air Street, already mentioned, and also for instance beside Liberty's, ***14***, Manette Street, ***15***, and Falconberg Court, ***7*** (here most dramatically combined, on looking back, with the 34-storey office tower at St. Giles' Circus).

Side Spread: This is a development of the chasm and occurs notably at Sutton Row leading from Charing Cross Road to Soho Square, ***9***. The entrance is again a narrow slit, but soon the left-hand wall angles back, before continuing parallel with the opposite wall. This means that at first



Chasm 8

plan

you see only the slit and, at the far end, the trees of Soho Square, but when the street doubles in width the tower of St. Patrick's church on the far corner comes suddenly into the picture. Extra width also gives the chance to stand far enough away to see it properly. The view back is again a winner, the fretted balconies of the giant tower block zooming up through the entrance slit (see page 28).

Decoy: This is an important townscape element, especially in effecting transition from one district to another. The sequence up Rupert Street, ***10*** to ***12***, shows this and is also a prime example of multiple use. The foreground street market leading in from Shaftesbury Avenue (Theatreland) is an immediate magnet, busy, noisy, colourful. Yet straight ahead the way looks blocked. This is typical: the secret world defended, ***10***. However the neon sign of a revue bar at the far end beckons you on. Then at the end and to the left a narrow footpath, Walker's Court, pierces the wall of Brewer Street, ***11***. Very narrow and claustrophobic, lined with 'caffs' and nude bookshops, the space is further compressed by a footbridge overhead. Then suddenly the eye is carried upwards as a tall block of flats comes into view, ***12***. Out into Berwick Street and one of the busiest open-air markets in London. Market stalls jam the road, paralleled by an arcade of shops down the west side. Then looking back, from higher up Berwick Street, you get one of the best views in Soho; concentrated activity at ground level and in the sky a green cupola to the left acting as foil to the massive vertical of the tower block. The way out is blocked. These are just a few of the ways in which the secret world is contained. In many cases the buildings concerned are nothing in themselves and are sometimes really depressing (as in the case of Ramillies Place, an interesting shape on plan), but the lessons in terms of space control are important.

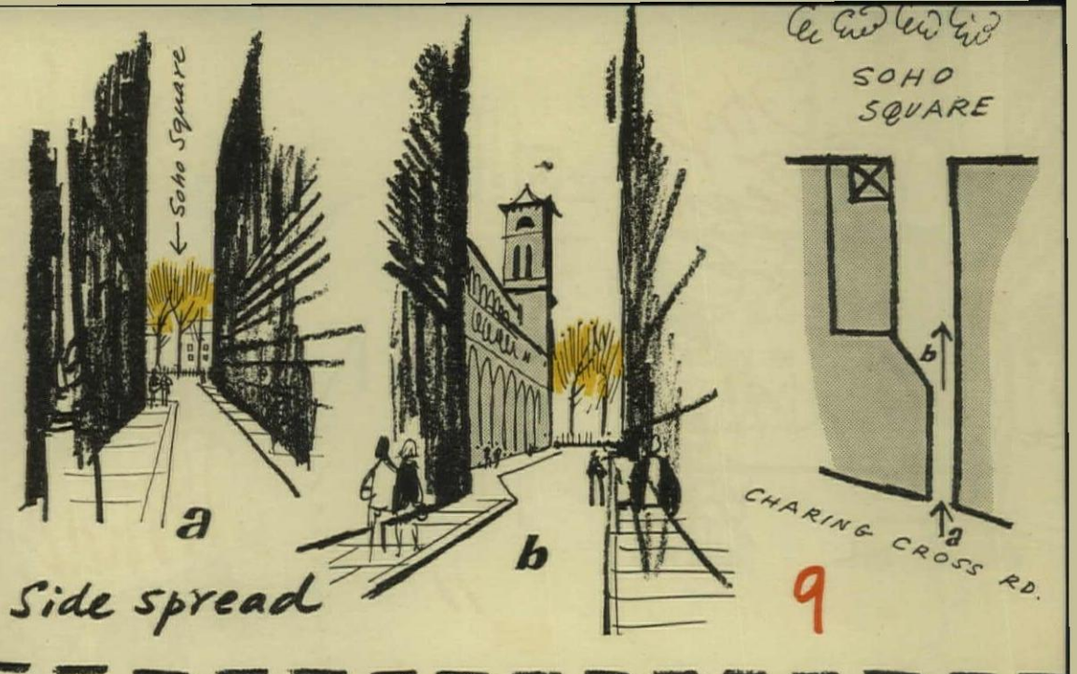
THE INTERIOR

The feeling of the kasbah is maintained inside the walls by such street devices as the dogleg, T junction, crank and wing, the street lengths being kept down to an intimate size and thus maintaining the sense of a place to loiter rather than to rush through. The buildings are fairly low, and it is important that this existing general level should be kept as it contributes to the human scale.

Interlock: In the area west of Wardour Street the street pattern sometimes takes on the intricacy of an interlocking puzzle. However in some places the centre seems to have gone dead and you have the feeling that the voltage is highest within striking distance of the perimeter; as for instance in the Aladdin's caves of Carnaby Street.

Rests: The maze would be unbearable without stopping places to rest feet and take bearings and it is here that the squares come in, and of course the few high buildings as reference beacons. In this category there are two real squares (both dating from the time of Charles II and once fashionable and domestic in character), a churchyard and an oblong length of street.

Soho Square: ***A*** This is a square really squared. Note how the corners are held not broken through by roads. Laid out in 1681 on the site of Monmouth House, the square still has some good buildings around it which should be kept, particularly on the north side. Also, and most important, No. 1 Greek Street in the south-east corner which is a fine example of a mid-eighteenth-century town house. Further high buildings around the square should be discouraged (see Golden Square). Splendid trees and well kept grass make this a haven from the traffic of Oxford Street but the whole effect is cheapened by a ludicrous Snow White summer house—this should go. The single statue of Charles II (part of a larger monument by Cibber), needs elevation. and the floorscape of the square needs to be simplified. It is now far too fussy, with clumsily handled terracing cluttered with benches. The Italianate tower of St. Patrick's RC church on the corner of Sutton Row is well placed.



(continued over page)

Golden Square: **B** This has about four decent eighteenth-century houses around it, otherwise nothing much worth keeping. Once symmetrical, it is now a jumble; ruined by the violent irregularity of the skyline and the collision of scales. The central garden is pathetic and a cautionary example of what a city square should not be like. Can you imagine this in Montmartre? Pseudo Cotswold walling with wallflowers in rows and a rather sad George II (also placed too low) standing lost in the middle of it all. A new and simpler treatment is essential here with plenty of big plane trees and a better wall of buildings around the square.

St. Anne's Churchyard: **C** This is dominated by the malevolent, but striking church tower (Cockerell, 1802) unique and fortunately to be kept in the rebuilding of the ruined church*. The treatment of the garden fronting on Wardour Street is important. It is a pleasant space and pleasantly raised up from the road level but its retaining wall is ugly and the outlook depressing, limited to the dreary flank wall of the Queen's Theatre. The garden needs sympathetic treatment and perhaps partial screening from the road.

Broadwick Street: This is a special case; a wide stretch of road in the middle of Soho blocked both ends to form an oblong, **D**. The buildings generally are not up to much but the space is good and the one high block at the west end is most effective.

VIEWPOINTS

This aspect needs further study but there do not seem to be many special viewpoints. Apart from those associated with 'Entrances and Exits,' there is one of particular value. This is south from Sherwood Street across Piccadilly Circus, down Lower Regent Street to the Duke of York's column and the towers of Parliament; the whole framed in the arches of the County Fire Office building, **13**. This view must be kept and to do so in a two-level Piccadilly Circus will present a problem.

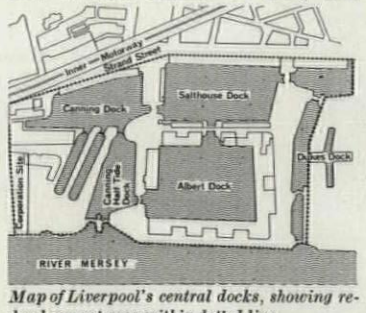
PLANNING POINTS

1. Keep the small scale, tightness and irregularity; do not try to straighten it out.
2. Encourage the existing multiple use and small shops with no zoning and no 'multiples'—as Ian Nairn says, this is the free port every city must have.
3. Keep entry difficult—do not drive roads through it and so break it up.
4. Discourage traffic from entering but perhaps provide underground car parks beneath Soho—this would give the surprise of emerging into a different world from the motor scale outside.
5. High blocks. Generally keep these out—on perimeter only (because of the traffic they generate as well as the scale). However, the odd tower in the kasbah, and it must be for living not just office accommodation, is effective as a landmark, as those at Berwick Street and the corner of Broadwick Street show. No opening out of streets though to compensate; buildings must rise from the general street line. Visually they might be good at the corners of Soho, as the St. Giles' Circus tower demonstrates.
6. Keep pedestrians mainly at ground level. (A section through the perimeter wall, in this case Regent Street, might be as shown below.)
7. Sort out where the centre of Soho has become derelict and work out a scheme to bring it to life. This will involve rethinking some of the street shapes and perhaps creating a new square.

* For details see AR, January 1966.

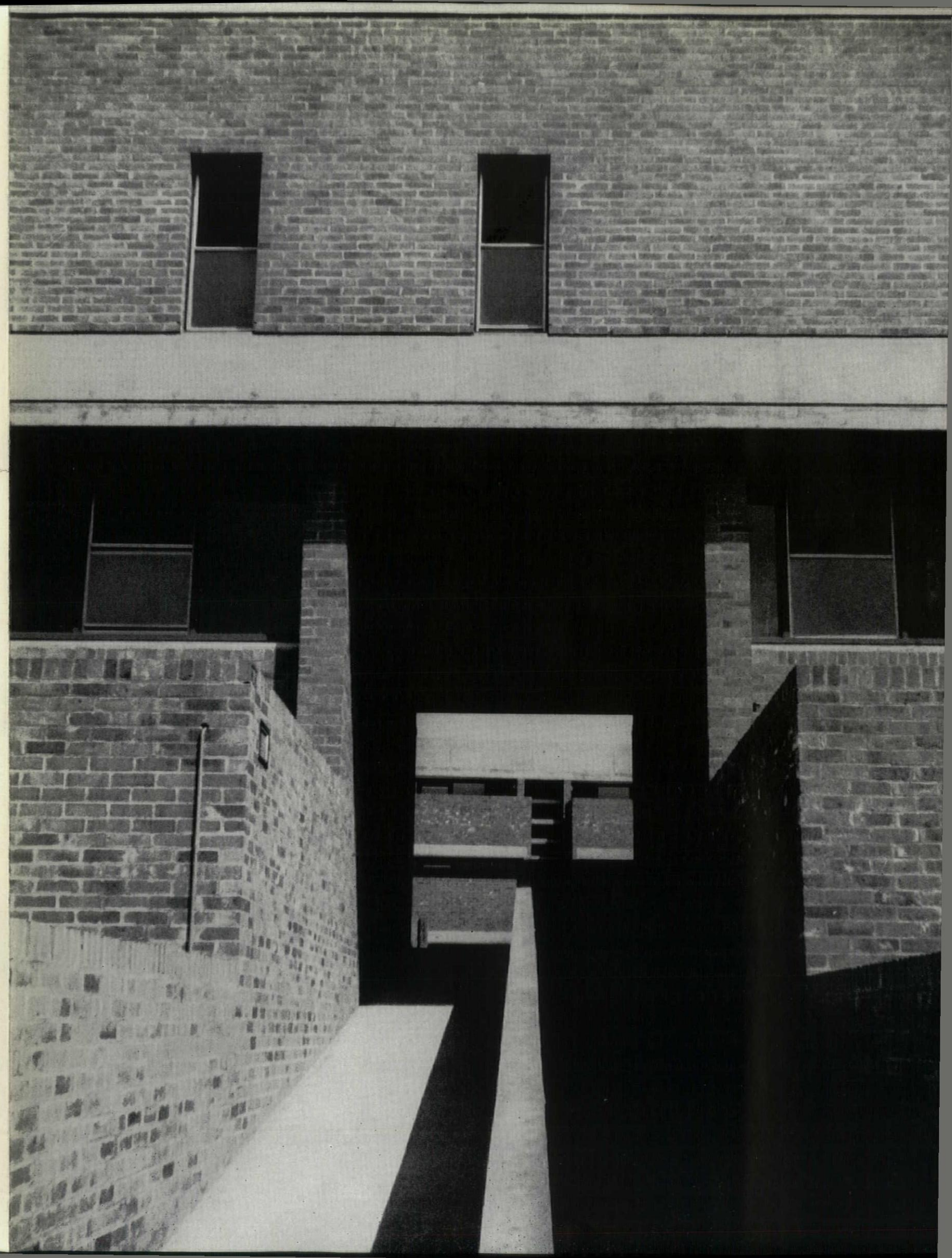
the exploring eye

Neither officially in the otherwise welcome selection of historic towns for special treatment, nor popularly, is Britain's greatest period of urban redevelopment, the nineteenth century, regarded as 'historic.' There is a problem here of understanding in detail the changes in scale, in uses and in aesthetics of the first industrial age. These splendid photographs by Eric de Mare of Albert Dock at Liverpool could be taken as a primer for this new field of exploration. Albert Dock, opened in 1845, is the finest remaining enclosed dock of the early nineteenth century, being the masterpiece of Jesse Hartley, Liverpool Dock Engineer from 1824 to his death in 1860. It is a greatly improved version of the type established by Telford and Philip Hardwick at St. Katherine Dock, London (see AR, March 1965). Hardwick indeed designed the clock tower at Albert Dock (seen overleaf, top), which was unfortunately removed not long ago, while his majestic Dock Traffic Office of 1842 survives as an integral part of the Albert Dock layout. Hartley's structure was designed to be incombustible: an iron frame carrying brick-vaulted floors, roofing and window frames of iron, and outer walls of brick supported on giant iron columns at quay level. The architectural vocabulary includes rounded brick corners, granite for setts, bollards and plinths, and above all, the articulation by elliptical brick arches every fourth or fifth bay. Albert Dock has a topical as well as a permanent significance. Used at present for keeping wines, spirits and tobacco in bond, it has in the past two months been threatened with redevelopment as part of a £50 million 'office city' on Liverpool's waterfront, covering the sites of Canning, Salthouse and Albert Docks (see map, left). While welcoming the waterfront plan as the catalyst of Liverpool's future prosperity, the city planning officer, Walter Bor, has rightly urged that Albert Dock be retained within it, either as part of a proposed Maritime Museum or for some other purpose such as housing. Studies of conversion and maintenance are being carried out, not least by students of the Liverpool School of Architecture. Many organizations, including the Victorian Society and the Civic Trust for the North-West, are fighting the threat, which poses a real test of Liverpool's recent reputation for far-sighted civic planning.

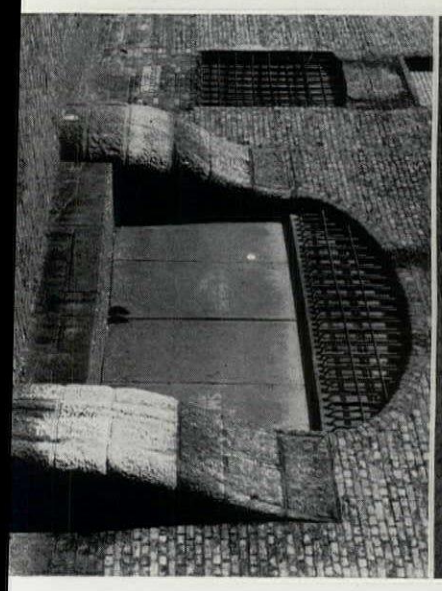


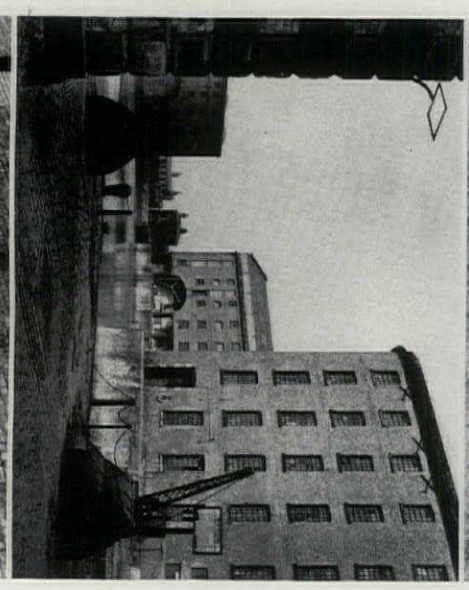
Map of Liverpool's central docks, showing redevelopment area within dotted line.

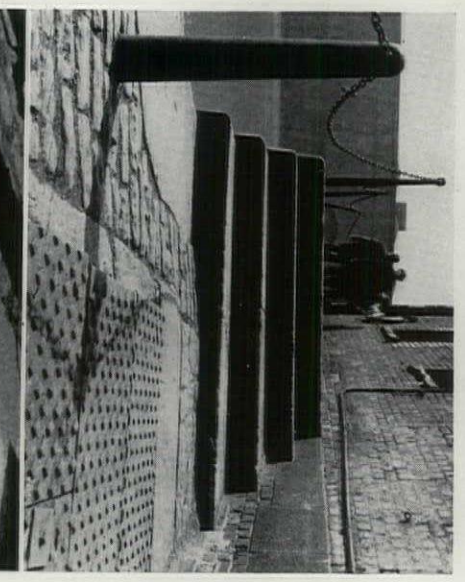
The massive hoist over the giant warehouse door gives a momentary premonition of the wreckers's ball and chain.



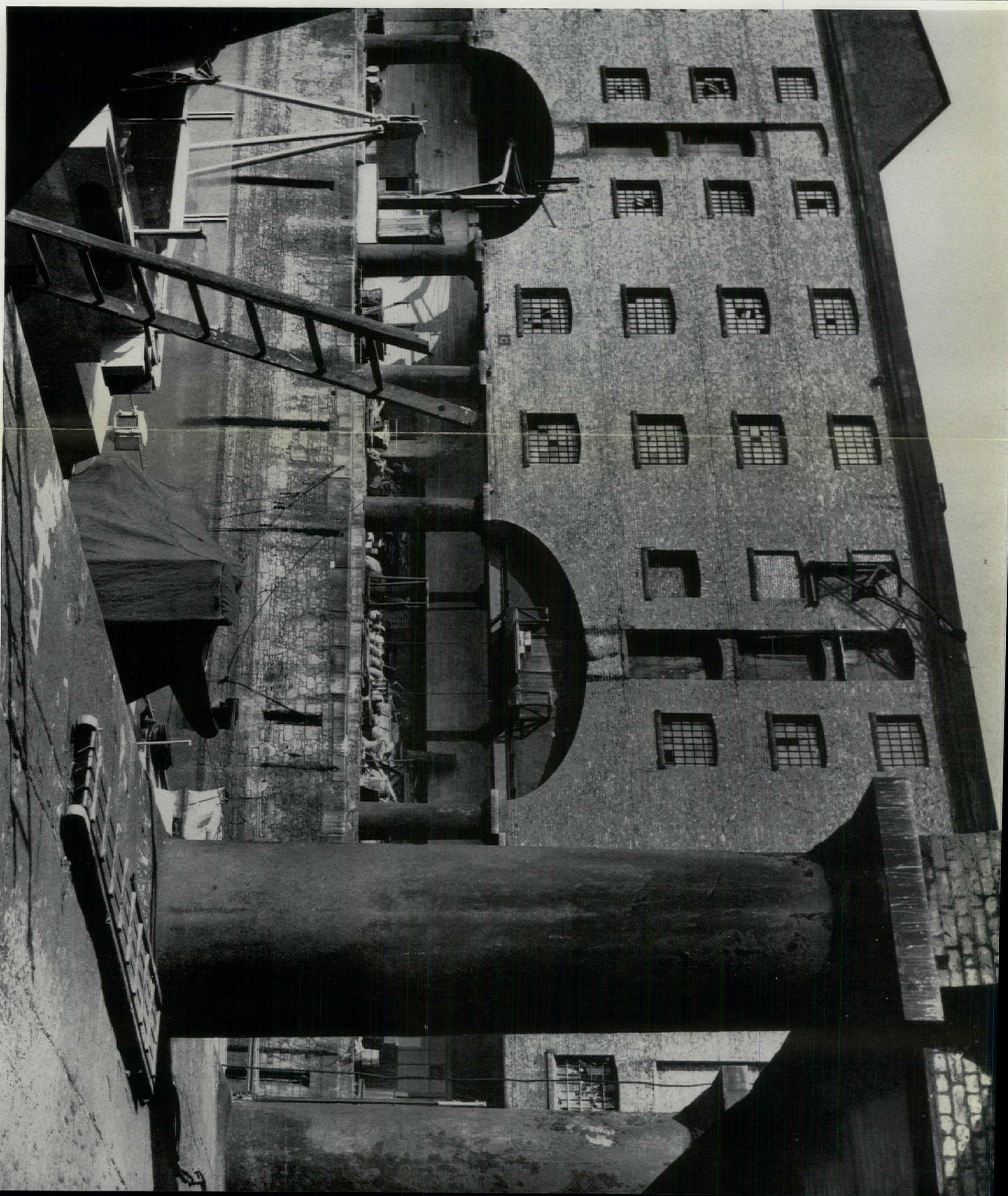
Albert Dock, Liverpool







There is nothing 'picturesque' about Jesse Hartley's architecture, but within his iron and granite discipline the eye can pick out infinite subtlety. Hardwick's clock tower (above) has already gone. Must the rest go, too?



HIGH DENSITY: LOW RISE

housing experiments at Harlow

The imaginative handling of pedestrian spaces on several levels at the entrance to the central 'citadel' of flats in Michael Neylan's Bishopsfield (on the facing page) forms a fitting prelude to the following fourteen pages, in which this and other schemes at Harlow New Town are discussed, not so much for their architectural detail as for their essential qualities of planning and layout, under the broad heading 'high density, low rise.' A general introduction is followed by illustrated accounts both of finished schemes and of projects, concluding (page 47) with a detailed commentary on Associated Architects and Consultants' Clarkhill, the most radical attempt at Harlow to triumph over byelaws and budgets, with an industrialized system which reflects high standards of design and not merely the fashions of the market-place.

Architectural fashion always typecasts its opponents. 'First generation New Town' has become a term of world-weary dismissal. Yet at Harlow the latest (and last) of the four neighbourhood clusters to be built, Great Parndon, is a *locus classicus* of the most imaginative ideas in recent (post-1960) urban housing. The town's architect-planner, Frederick Gibberd, has promoted the design, by different firms and authorities, of a wide variety of housing areas which cut across the conventional division in design between multi-storey point-blocks and two-storey cottages, and which come under the new heading of 'high density, low rise.'

Housing design in Britain is at a critical stage: not only is there mounting dissatisfaction with the quality of environment produced by the approved methods of 'mixed development'—a dissatisfaction first given its head in Sheffield's Park Hill—but the demand for massive increases in the national housing effort by using industrialized building methods has been met by the commercial side of the industry with a lamentably undeveloped range of systems which seem expressly designed to perpetuate the worst faults of present design. These faults are simultaneously being defended by local administrative authorities because they epitomize the doctrines of outdated byelaws. Gibberd and the Harlow Development Corporation have shown boldness and initiative in using Great Parndon as a test bed for fundamental research. The most exciting areas of Great Parndon—Bishopsfield and Clarkhill—epitomize two prongs of attack; Neylan's Bishopfield principally on the byelaws, and AAC's Clarkhill principally on industrialized methods.

One thing has not changed at Harlow: the concept of neighbourhood planning, on which Gibberd's 1947 master plan was based. Alone of the eminent consultants employed on new towns in 1946–51, he has remained in part-time employment by his development corporation, with an executive architect, Victor Hamnett, on the spot.* The principles of the Harlow plan are well known; the hierarchy of housing group (based on sense of place), neighbourhood (based on primary school) and neighbourhood cluster (based on a major shopping and social centre); the zoning of industry in two main areas; the separation of these built-up areas by broad wedges of landscape; and the balance between private gardens behind houses and public areas in front of them.

Great Parndon is a cluster of four neighbourhoods, each of about 6-7,000 population, with the main shopping centre (Staple Tye) placed at the junction of the two main roads, Abercrombie Way and Southern Way. A broad landscape wedge, with cycle tracks and pedestrian ways, leads to the town centre on the north-east. A loop road runs as a secondary distributor through each neighbourhood. On this continuing pattern of neighbourhood planning is superimposed the highly miscellaneous character of the new housing. Gibberd has always, in his capacity as impresario, brought in leading private firms of architects, but the differences in character between Yorke and Fry and Cadbury-Brown and Powell & Moya in the earlier areas were to some extent reduced by the greater incidence of intervening greenery at 40 persons per acre. Although existing trees are still as meticulously kept, the sheer bulk of housing at 70 per acre is bound to be more apparent. The first—perhaps the greatest—matter for doubt in Great Parndon's design is that, while adopting much of Cumbernauld's urban compactness, Gibberd has rejected the unity of Cumbernauld's traffic planning. In each housing area, apart from the main roads and loop roads, each architect has been left free to design (and negotiate with the authorities) his own road layout. Furthermore, no clear patterns of pedestrian movement have been dictated, and there may be some odd happenings where, for example, Austin-Smith's broadly spaced landscaped courts meet the National Building Agency's close-knit alleys and patios—or where Neylan's starfish radials meet anything else in the vicinity. This miscellaneousness is heightened by the small size of the housing groups. Gibberd says that an average of 200–250 houses is enough to give a sense of identity—and to form a convenient contract unit of just over one million pounds. But the identity and convenience of the few tends visually to disrupt the identity of the community at large. Admittedly, Gibberd himself stresses the importance of architects concentrating on few materials; and the demand for a long run in industrialized production is fortunately leading to larger numbers of houses in each contract—316 for the National Building Agency and 481 for Associated Architects & Consultants. But there is no doubt, in the parts already finished, of the arbitrary impression of the changes rung on facing materials in fundamentally similar schemes.

For it is ultimately the *similarity* of these areas, beneath the superficial variety, which impresses itself on the visitor. It is natural for the intimacy and compactness of high density, low rise housing to provide in the architect's mind images of hill cities (as in Neylan's Bishopsfield) or (as Gibberd himself prefers) of English country towns such as Lewes or Saffron Walden. But the reality is different. The Picturesque grows over a long period of time on fabrics which originally may have seemed stark and arrogant; instant picturesqueness is bound to be false.

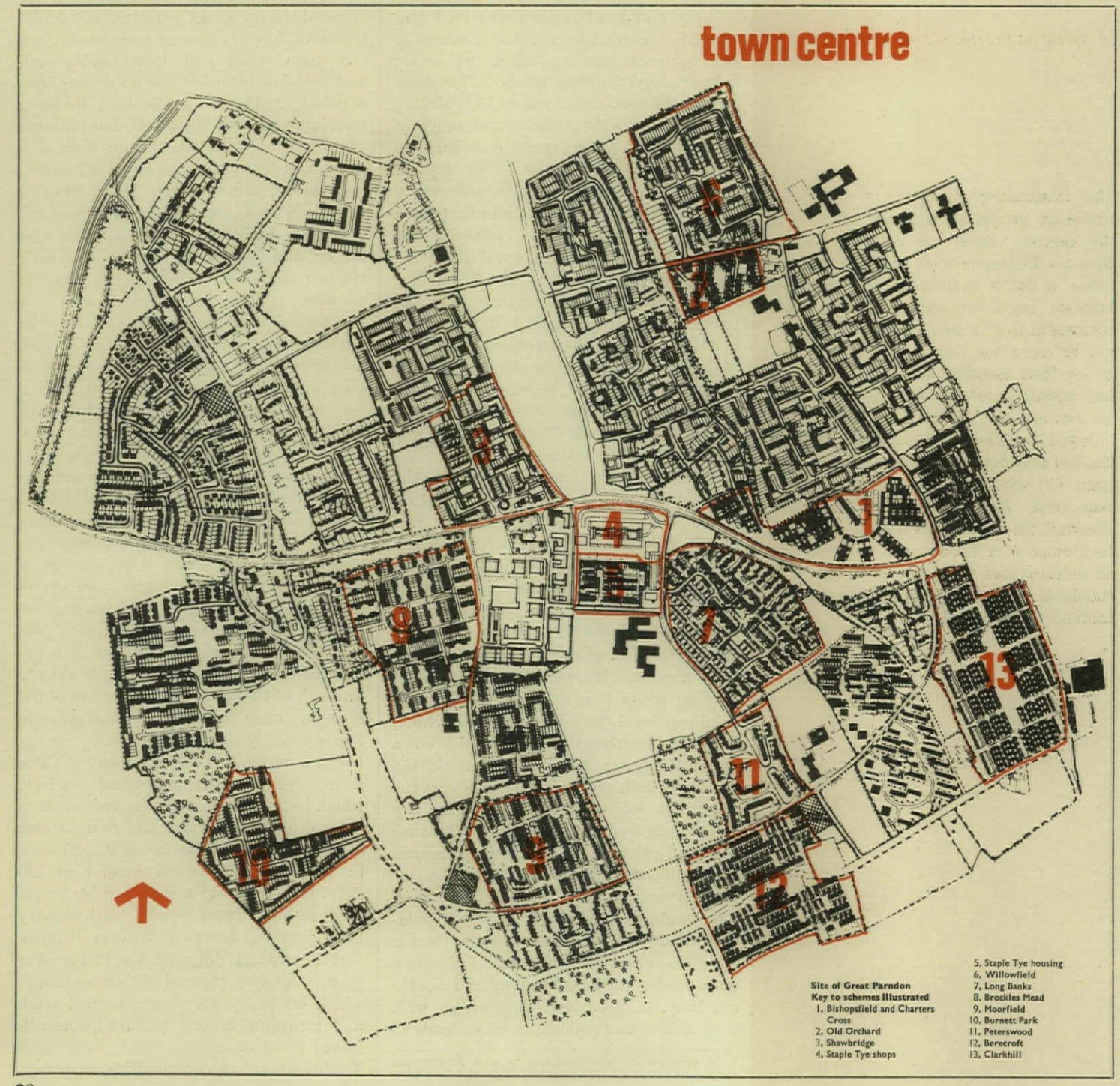
Traditional urban communities, moreover,

* The principal architect (planning) is Alex J. McCowan and the landscape consultants Sylvia Crowe and Associates.

had a constant mixture of uses in every street. Here at Harlow there is only housing, with everything else extrapolated out of it. Gibberd has managed to introduce 'clean' light industries and service industries, employing women close to their homes, in a group next the main shopping centre. The shopping sub-centres, however, have actually been reduced in scale from four-to-six units down to one newsagent-tobacconist, one general store and one pub or meeting hall; this is the result of the increase in frozen food marketing concentrating sales on general stores, and the pull of the town's central market for the sale of fresh vegetables. Neylan proposed two shops in the central piazza of Bishopsfield, but they were cut out. Clearly research is needed on social grounds into the economics of corner shops.

The result, in spite of the visual excitement of individual schemes and in spite of the humanity of the trees and lawns and multifarious play spaces, is a growing sense of boredom. These criticisms are not specifically of Harlow, but of the general housing situation, with its sweeping bye-law zonings designed to defeat the filth of nineteenth-century industrial slums. There is no secret of the battles which Gibberd and his development corporation have had to fight to protect such urbanity as does exist in Great Parndon. The dyarchy of Harlow Development Corporation and Harlow Urban District Council has led the urban district council and county council to adopt the role of professional objectors: Gibberd has been accused of building slums (there was an official deputation of protest about this to the Ministry); inflexible bye-law standards of road sight-lines and services have been insisted on, leading to the opening up of spaces and the cutting up of housing into the familiar sausage lengths; the corporation has been urged to substitute dwarf-walled front gardens for the communal spaces. In addition, limits of cost imposed by the Treasury have led to grass seed replacing hard pavings and the elimination (as at AAC's Clarkhill) of the decked-over garaging which best suits compact cluster housing (compare Reston, USA—'World,' AR, April 1965.) In two respects the Corporation itself has given way; not only has one area been handed over to a contractor's proprietary system (Wimpey's No-Fines), but a large area on the western side of Great Parndon has been

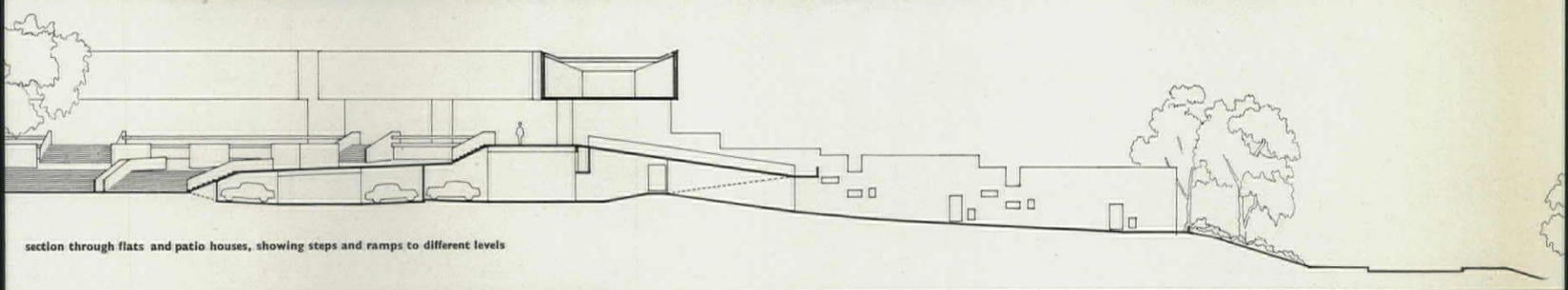
[continued on page 43



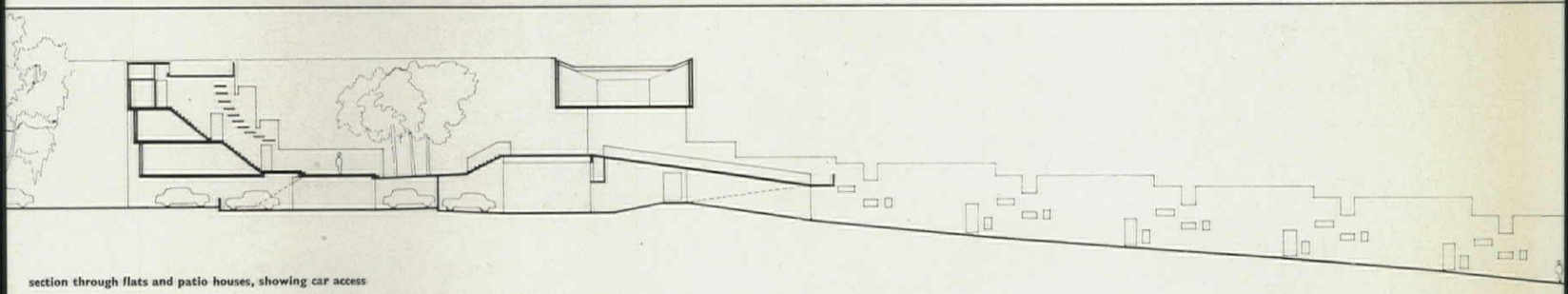
1, single-storey patio houses divided by pedestrian lanes rise to Bishopsfield's 'citadel' of flats and maisonettes. The landscaping is unfinished.

HOUSING AT HARLOW: 1 BISHOPSFIELD AND CHARTERS CROSS

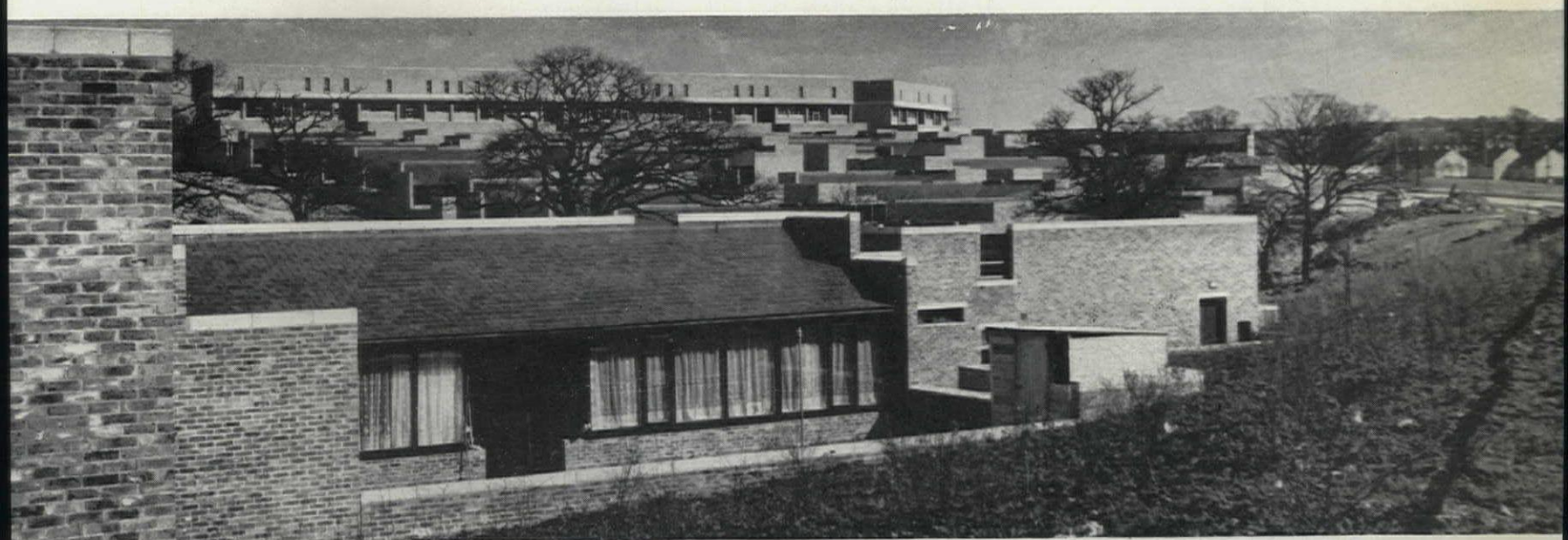
architect **MICHAEL NEYLAN**



section through flats and patio houses, showing steps and ramps to different levels

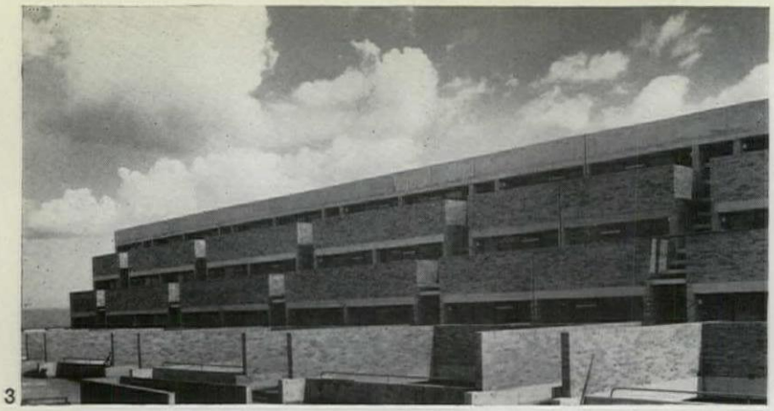


section through flats and patio houses, showing car access



2, from the south-west, with Charters Cross in foreground. Its urban character forms a striking contrast to the suburban miscellany of houses for sale (right).

HOUSING AT HARLOW: BISHOPSFIELD AND CHARTERS CROSS



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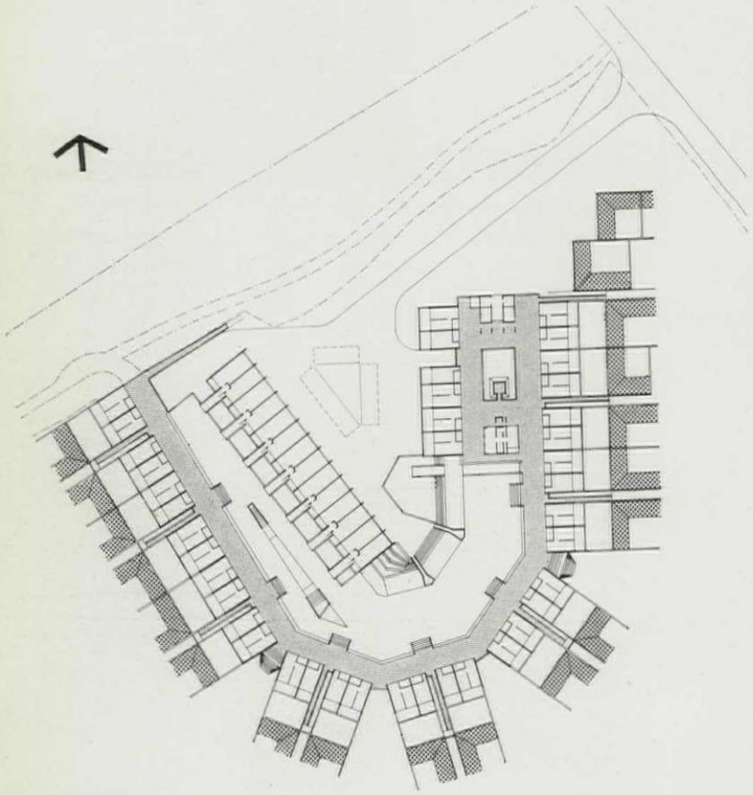
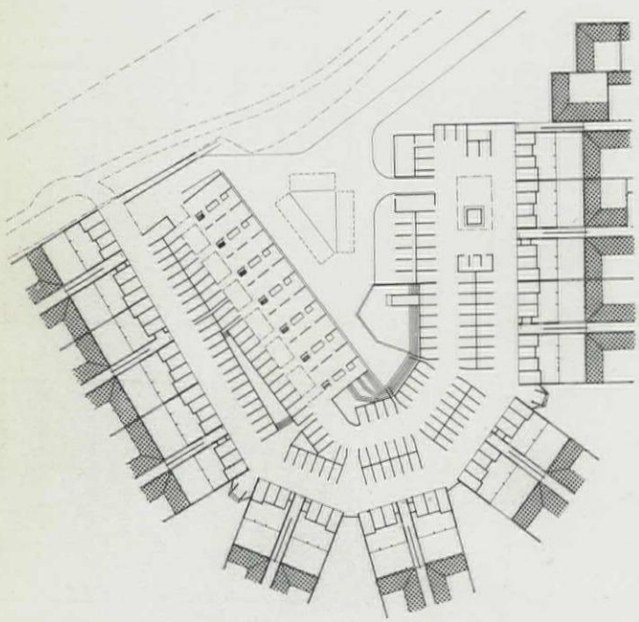


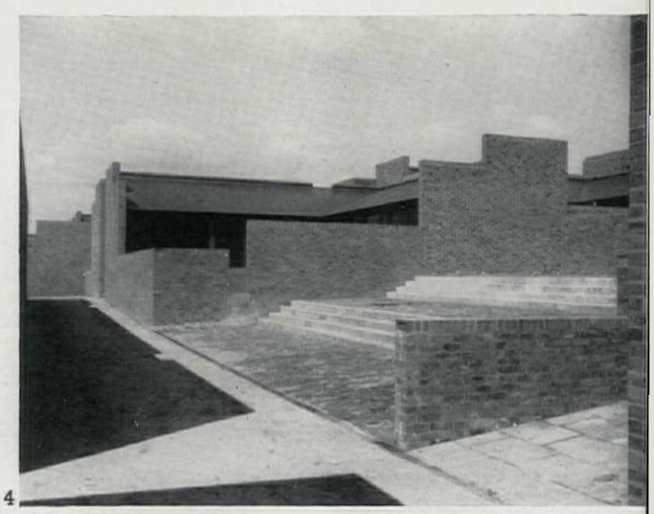
central area, courtyard level



central area, garage level (patio houses dotted)

Area 71 at Harlow was the subject of an open competition organised in 1960 by the Harlow Development Corporation with the aim of rethinking problems of housing design without being tied to the letter of existing byelaws. The winning scheme was at the time of writing more than three-quarters built, but only a small part had been fully completed and no landscaping had been done. This is therefore only an interim report. The site, 13.7 acres in all, is in a pivotal position to the east of the neighbourhood centre, isolated by main roads and open landscaped areas. It is divided in two by the stream and wooded valley which is overlooked lower down by Old Orchard (page 43) and Willowfield (page 44). The larger part, Bishopsfield, rises from the west and south to a hilltop; the smaller part, Charters Cross (the part which is finished), faces it on the opposite slope across the stream and has separate access. There are 267 dwellings, with 67 people per acre: houses for one person (10)—these are 'granny flats' attached to family houses—three people (10), four people (52), five people (65) and six people (3), and flats or maisonettes for one person (29), two people (32), three people (30) and four people (36). There are 249 garages and 30 parking bays.

Bishopsfield is entered by car near the top of the hill, and the service road is carried, with sufficient headroom for fire engines beneath a single-storey platform round the crown, with covered parking and storage space. The platform in turn carries a pedestrian



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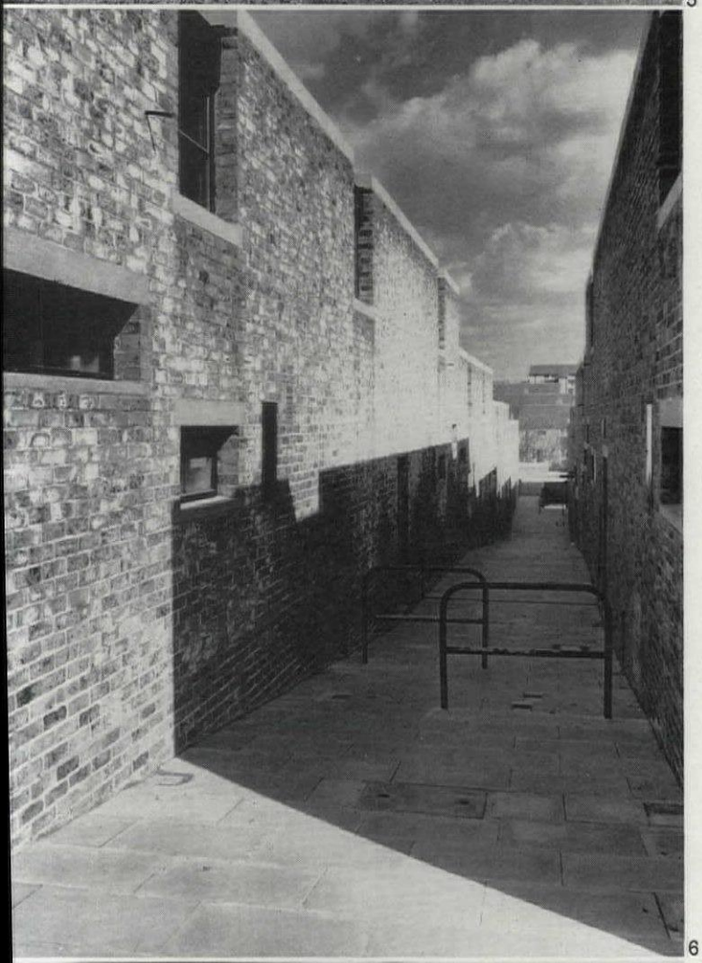
3, typical stepped block of flats seen from terraced courtyard of central area. 4, typical patio house, next to a stepped public courtyard opening off pedestrian lanes.

concourse giving direct access to a ring of flats surrounding it, and is sloped, ramped and stepped where necessary. From it radiate a series of pedestrian lanes running down the hillside and flanked by grids of single-storey courtyard houses with green wedges opening out between them. Lanes, platform and garages are connected by ramps at the top of the hill. The lanes are suitable for tradesmen's delivery floats and the site has an electric trolley for furniture and other heavy loads. Refuse is taken to collecting vans in paper bags carried on trolleys. Charters Cross, developed entirely with courtyard houses, has a sufficiently steep slope for garages to be cut into the side of the hill, with raised walks above them leading to the houses.

In the four-storey blocks of flats and maisonettes, the

5



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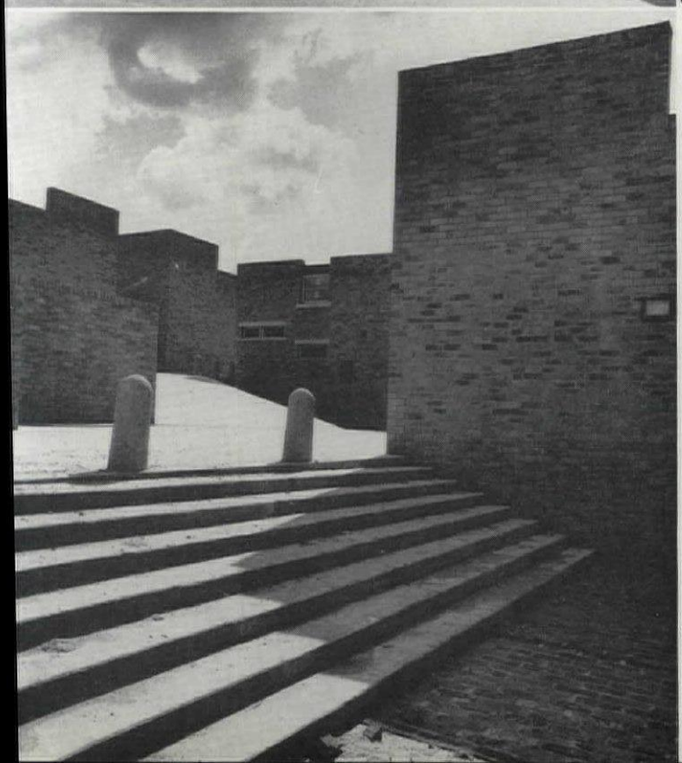


7

establishment of an artificial 'ground level' one and a half floors above true ground has made it possible for nearly all to have direct independent access to 'ground,' without public stairs. The flat blocks are stepped in section to provide private terraces varying in size from 100 to 250 sq. ft. The houses differ in size, but all are planned in two wings (living rooms and bedrooms respectively), overlooking a garden which, like the house, has a single brick bounding wall, usually unpierced below eye level except by doors and small openings. There are variations, however, where outward views make breaking and lowering of the garden walls desirable or where extra high-level windows are needed for sunlight. Changes in ground slope are absorbed by varying the number of steps between the two wings, thus allowing flexiblity within a basic standard design.

Construction throughout is of loadbearing brickwork with brown facings. The flats and platform have exposed fairface concrete beams and floor slabs. The houses have glazed timber frame walls to the gardens, timber roofs with asbestos slates, and exposed concrete soffits to windows in the lanes.

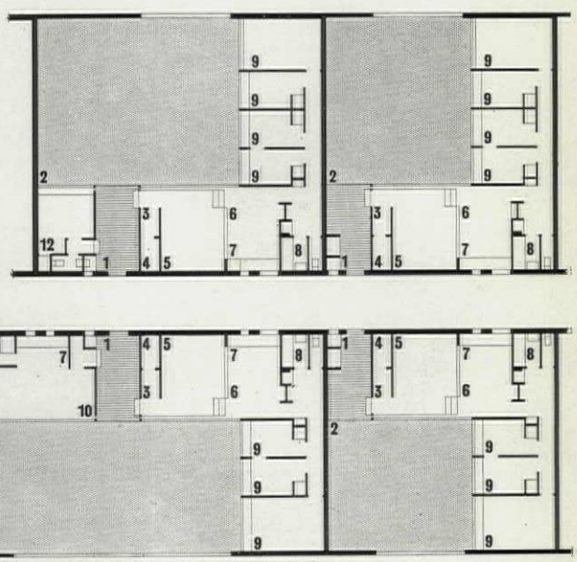
Assistants, A. Horan, J. Basto and D. Williams. Quantity surveyors, Langdon and Every. Structural engineers, Flint and Neill. Landscape consultants, Sylvia Crowe and Associates.

5, patio walls are lowered to give views of green wedges between the radiating 'spokes' of housing. 6, typical pedestrian lane in Charters Cross (HDC housing in distance). Railings introduced at request of HDC to discourage children from playing in lanes should have opposite effect. 7, pedestrian lanes widen into stepped courtyards. 8, living room of show house (interior furnishing by Murray Sinclair & Partners), with steps between wings adjusted to take in gradient of hillside.

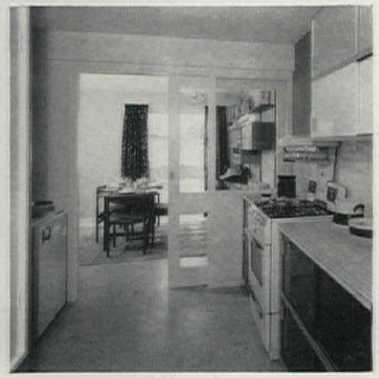
8

key

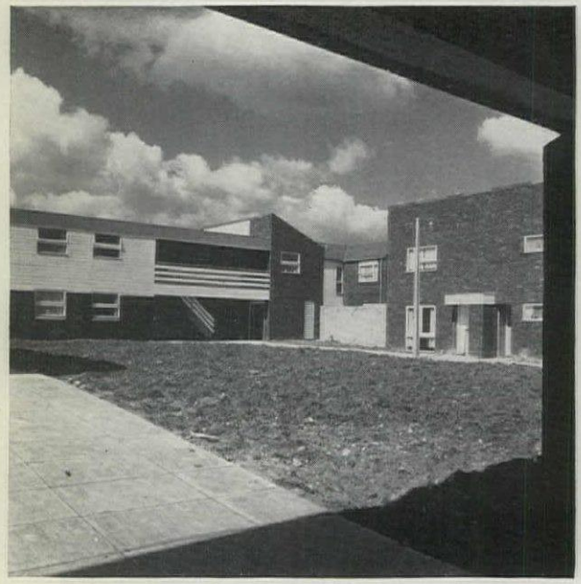
1, covered porch
2, garden
3, cloakroom
4, store
5, living room
6, dining
7, kitchen
8, bathroom
9, bedroom
10, living/dining
11, sleeping
12, extra room



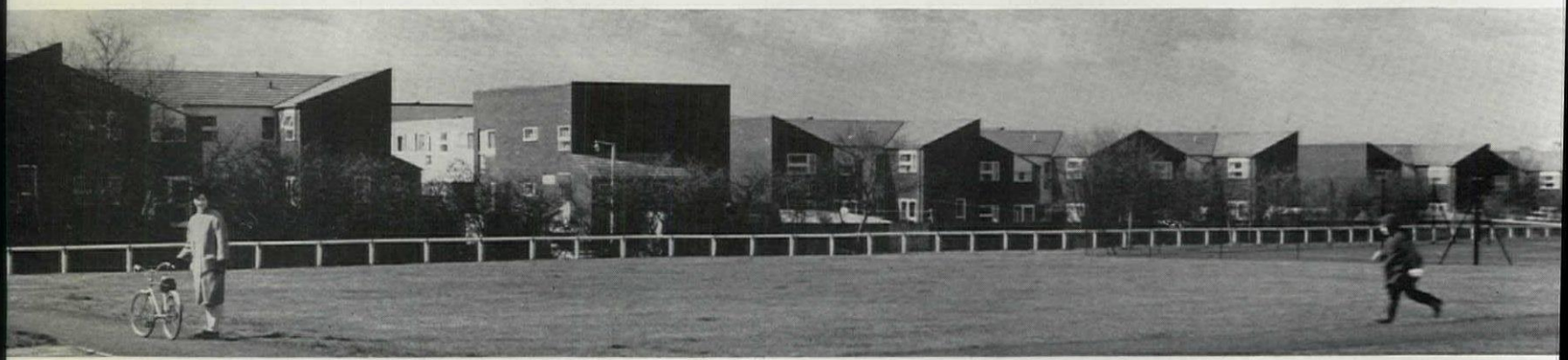
group of four different patio houses opening off central lane



The particular interest of Old Orchard is the architects' attempt to give the strong identity to the individual dwelling which is necessary in a scheme of houses for sale. This is done most successfully by setting the two house types in echelon and by emphasising the forecourts. The top photograph shows how meticulous paving can be ruined by unco-ordinated manhole covers (three in front of one house). The kitchen is given a view to the garden through the dining room.



The landscaping is not yet finished in Eric Lyons's Shawbridge, but already the attractive quality of his wholly enclosed courts can be appreciated, with detailing which is disciplined but not too solemn. The courtyards are spoilt by municipal lamp-posts more suitable for main roads. The scheme is particularly well considered in relation to the adjoining recreation space, which slopes down to it.

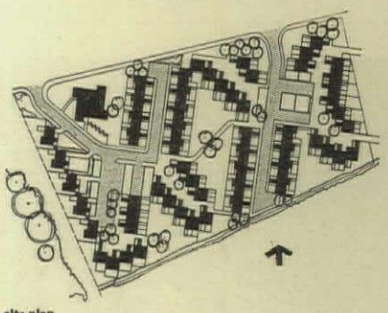


2 OLD ORCHARD

Clifford Culpin and Partners

This area of houses-for-sale was offered by the HDC for the 1962 House Group Design Competition, sponsored by the RIBA and *Ideal Home* magazine. The building and selling was undertaken by Laing's, who also supervised construction; the architects' only contribution after winning the competition was the replacement, at the request of Laing's, of the block of 11 flats originally proposed by three more houses. There are now 60 dwellings, 15 per acre: 23 of Type A, selling from £5,990, mainly in terraces, with built-in garages; and 37 of Type B selling from £5,750, mainly in echelon and with grouped garages or car ports. The site lies opposite Willowfield (see page 44), with the wooded valley to its west, a school site to the south and a shopping sub-centre to the east. The fronts of the houses are emphasized in importance, with single-storey stores enclosing paved forecourts; at the rear, private gardens open into spacious communal areas. Internal planning is based on keeping a sitting area quite separate from the sequence of cooking and eating; there is a view from the kitchen through sliding glass doors to the garden beyond the dining area. Warmth is conserved by making a single entrance lobby for all purposes and keeping the stairs away from it.

model of the scheme which won the competition: the block of flats was later replaced by more houses



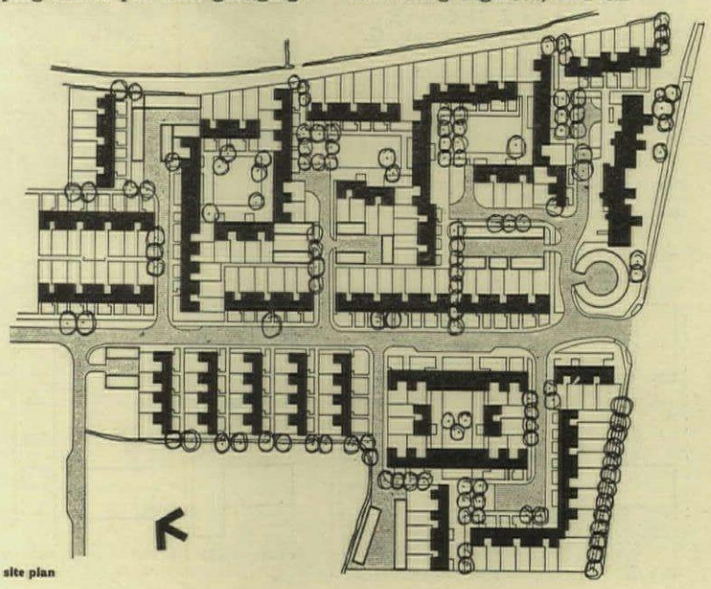
site plan

The load-bearing brickwork is faced with the extreme colours of Uxbridge flint brick, near-white and dark-grey. All woodwork is white, including the deep shiplap boarded fascias to the monopitch roofs. There is gas-fired warm air heating. The show house was opened in May, 1965, and the whole site is at an advanced stage of construction. Quantity surveyors, Gardiner and Theobald.

3 SHAWBRIDGE

Eric Lyons and Partners

The 12-acre site lies immediately north-west of the neighbourhood centre, bounded by Southern Way (south), Hollyfield (north), public recreation space (east) and allotments and playgrounds (west). 216 dwellings are provided: houses with two bedroms (52), three bedrooms (91) and four bedrooms (8), flats with one bedroom (33) and two bedrooms (28), and bed sitters (four). The distributor road which bisected the site made total traffic separation impossible, by grouping the 75 per cent garaging on culs-de-sac, much of the site is made free for a system of pedestrian courts—the one-bedroom flats for old people acting as links between them along the paved walks. The three-bedroom houses have a patio plan which combines with the two-bedroom type. The two-bedroom flats form the two three-storey blocks across the neighbourhood centre end of the site. The loadbearing brickwork has Keymer black antique facings, and is combined with panel walls of white painted boarding and pitched roofs of interlocking concrete tiles. The area is nearly complete, only landscaping and the two blocks of flats being still under construction. Quantity surveyors, Langdon and Every. Consulting engineer, Z. Pick.



site plan

continued from page 38]

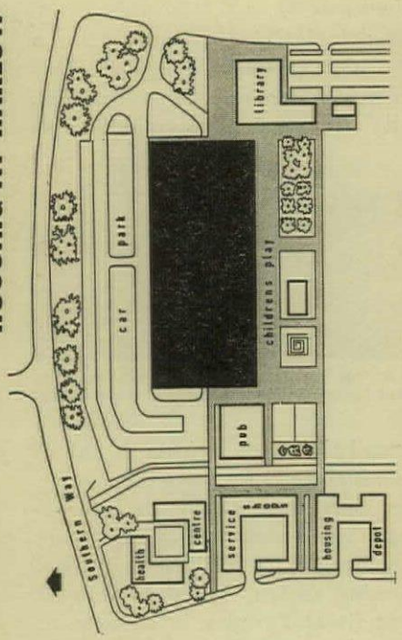
zoned for detached houses-for-sale by a package dealer (Wimpey's again). This gives credence to the disastrous idea that low density housing is a nice middle-class attribute and that high density is indeed the slums which the UDC says it is.

Hawkenbury, an area of low density houses for sale designed by the Development Corporation, next to the larger (and even bleaker) Wimpey estate.

These problems make Gibberd's achievement all the more outstanding. But there must be no illusions about the difficulties of urban housing design. There is at least one case at Great Parndon of an eminent firm inexperienced in housing, James Cubitt and Partners, being forced to reproduce the kind of standard dwellings which any borough engineer's department can find in the Ministry's manuals. There is no substitute for the specialized knowledge of, say, Eric Lyons. It is perhaps a pity that some of the earlier architects at Harlow, such as Fry and Cadbury-Brown, were not given second and third chances at Great Parndon. On the other hand, the corporation showed ingenuity in putting Bishopsfield out to open competition in 1960; for it was not so difficult to obtain bye-law waivers for a national prize-winner. Again the quality of future houses-for-sale should be improved as a result of the Old Orchard competition sponsored by the RIBA and *Ideal Home*; though it was odd that the Institute should have sponsored a scheme where supervision was the responsibility, not of the winning architects, but of the contractors (some Noddyland effects in the landscaping seem to be a result).

* * *

The development corporation's standard brief is compiled in collaboration with the housing manager and social development officer. It specifies an average density of 70 people per acre, a maximum of 30 per cent flats (an increase on the occasional blocks in the earlier areas) and the provision of 100 per cent garaging with 10 per cent visitors' car spaces. One children's play area of 200 square yards minimum is demanded for every 200 dwellings. All landscaping has to be agreed with the corporation's consultants, Sylvia Crowe adn Associates. Parker Morris, pitched roofs and a limit of three storeys (plus basement garages where the fall of the ground allows them) are all insisted on. In cases where special considerations lead to housing types being 'lost' (as in the NBA's elimination of flats), they can be 'made up' elsewhere—this is one advantage of a continuing programme of work.

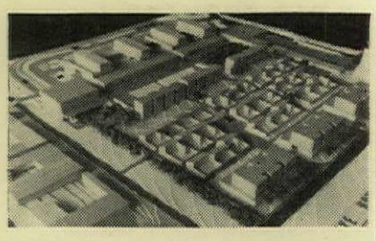


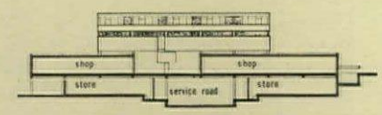
Staple Tye shops site plan

4 SHOPS, STAPLE TYE
5 HOUSING, STAPLE TYE

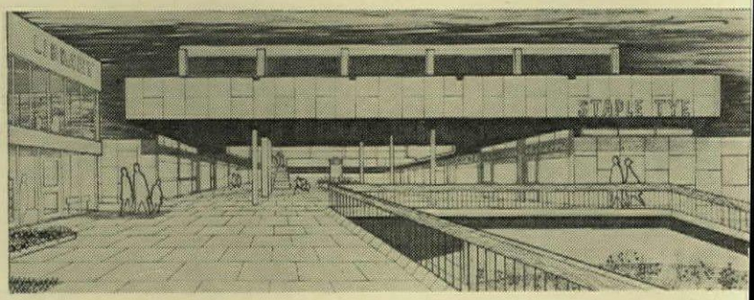
HDC: Frederick Gibberd, architect-planner

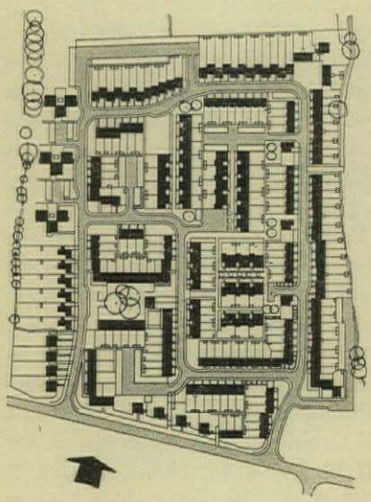
The neighbourhood centre for Great Parndon consists of a shopping block and maisonettes over, with children's play area and car park; adjoining sites are reserved for a public house, library, health centre (already built), two maintenance depots, three churches and a block of service bays. Immediately to the south will be a high density housing area, with two-storey terrace houses rising to four-storey flats next to the shops. To the west is an area for service industries. The shopping block (described and illustrated in AR, January, 1965) has a low level parking area for 225 cars adjoining, and service and storage areas at semi-basement level with 19 garages for shop tenants; steps give access to the main deck, which is spanned by four blocks of maisonettes, five in each block. There are 32 shops, an area housing office, bank and post office. Construction is of r.c. cross-walls at 19ft. centres for the shops and an r.c. frame for the maisonettes. The site works are complete and the main contract is now under way. Executive architect, Victor Hamnett. Principal architect (planning), Alex J. McCowan. Assistants, C. J. Bromley, M. Bailey, B. Prendergast and D. A. Taylor. Quantity surveyors, Langdon and Every.





Left, cross-section of shops with maisonettes over
Above, model of housing with shops in left background
Below, view of shopping deck



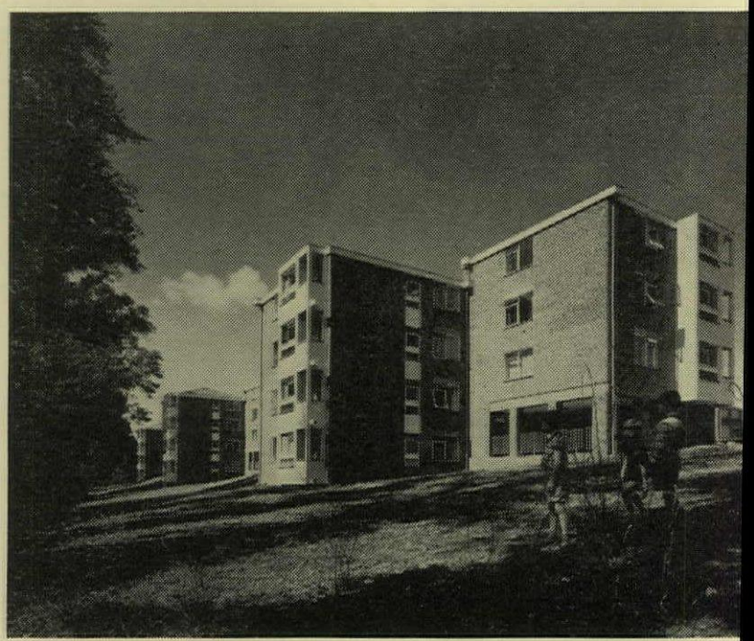


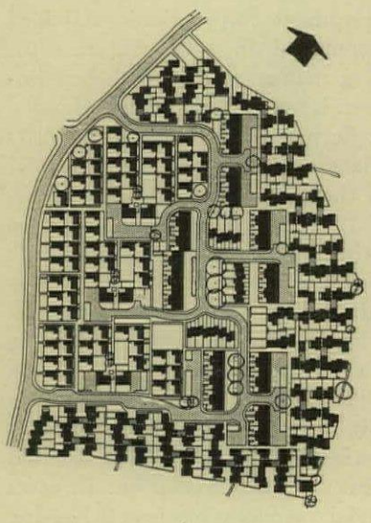
Above, Willowfield site plan. Right, flats on valley edge

6 WILLOWFIELD

HDC: Frederick Gibberd, architect-planner

Across the road from Old Orchard (see page 43), this 22-acre site slopes down to a small wooded valley on the west. There are 289 dwellings (13 per acre): houses of one bedroom (11), two bedrooms (82), three bedrooms (109) and four bedrooms (13), flats of one bedroom (15) and two bedrooms (45), and bed-sitters (14). There is garaging for 218 cars. The single-storey patio houses are of a higher standard; there are also some detached houses with garages. Terraces are stepped to follow contours and there are three- and four-storey blocks of flats. Brickwork is faced with overburnt stocks, plum-coloured, and is varied with white-painted weatherboarding and rendering and with interlocking slates. Construction was completed in 1965. Executive architect, Victor Hammett. Principal architect (planning), Alex J. McCowan. Assistants, Patricia Thorman and G. Brimilcombe. Quantity surveyors, Langdon & Every.



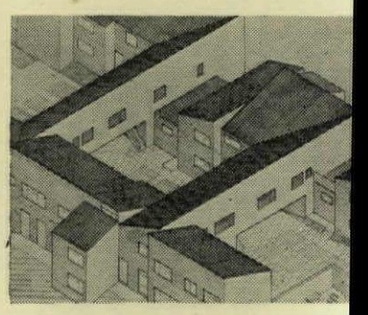


Long Banks site plan

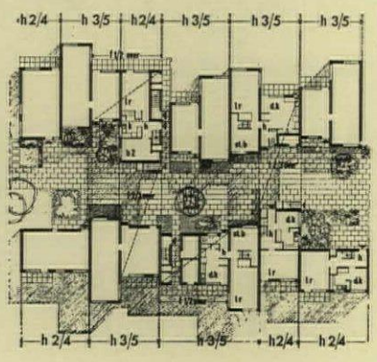
7 LONG BANKS

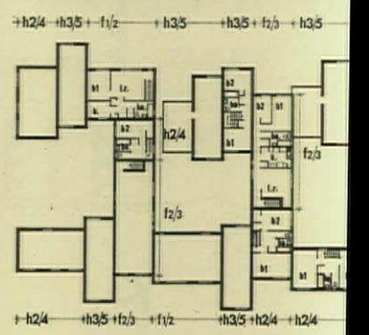
HDC: Frederick Gibberd, architect-planner

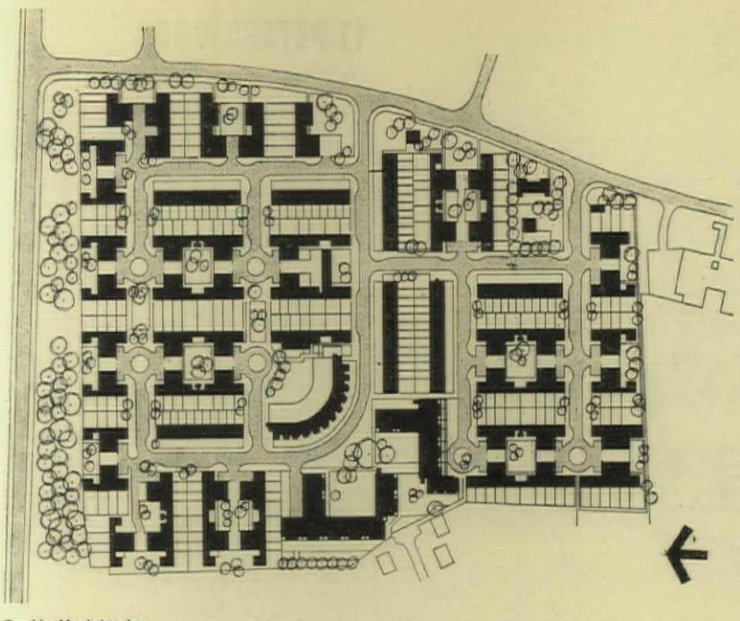
Immediately south-east of the Staple Tye centre (above) and across Southern Way from Bishopsfield (pages 39-41) stands this 19-acre site sloping steeply to the north-east. There are 415 dwellings, with garaging for 310 cars and hardstandings for 105; houses of two bedrooms (111), three bedrooms (159) and four bedrooms (24), and flats of one bedroom (33) and two bedrooms (88). The layout is based on short culs-de-sac branching off a single spire road. There is a network of pedestrian ways spanned by flats which mark off courtyards and link houses by stepped levels. Split-level planning allows garaging under three-storey blocks. The rest of the site has two-storey three-bedroom patio houses. There is a widespread use of screen walls and fencing, and much staggering of layout. The load-bearing brickwork has rustic overburnt stock facings, with roofs of interlocking tiles. There is gas-fired warm air heating throughout. The area is more than halfway through the contract period. Executive architect, Victor Hamnett. Principal architect (planning), Alex J. McCowan. Assistants, Patricia Thorman, G. Brimilcombe and M. Hughes. Quantity surveyors, Oswald E. Parratt and Partners.



Right, view of pedestrian way spanned by flats. Below left, ground floor and, below right, first floor plan of similar pedestrian way





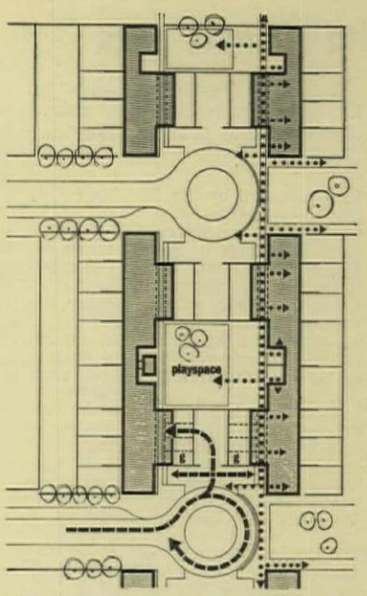


Brockles Mead site plan

8 BROCKLES MEAD

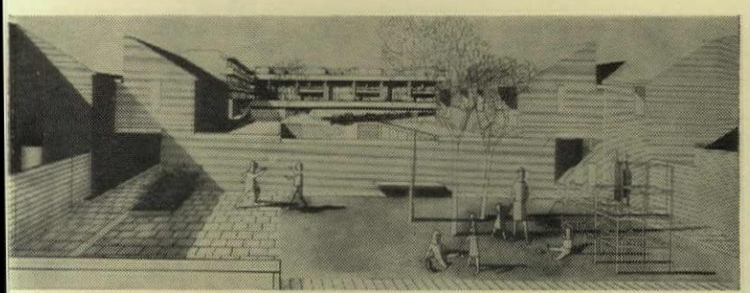
Leonard Manasseh and Partners

This 19-acre site, not far to the west of the neighbourhood centre, is enclosed on three sides by Watermeet (a small scheme of detached houses for sale), a primary school, Southern Way (from which no access is allowed) and on the fourth by a secondary distributor road, forming the only line of access. There are 425 dwellings, 22 per acre, with 100 per cent garaging and 25 per cent visitors' parking space: houses of two bedrooms (56), three bedrooms (224, 83 of them three-storey) and four bedrooms (18), flats of one bedroom (63) and two bedrooms (28), and old people's bed sitters (36). Of the garages, 83 are built into three-storey houses, 89 of them into blocks of flats and 208 in garage courts. Because of the limited access, depth of site and three-storey height limit, total traffic separation was not possible, but by grouping most garages at the end of long culs-de-sac, it was possible to bring cars at reduced speed very close to the houses. The garage courts are separated by small communal courtyards for supervised play (big areas of open space for free play adjoin the site); access from these spaces and from the garages usually leads through a covered passage beneath the first floor to a single front door for each house. A clump of fully grown trees on the site's highest point was taken as a pivot, with a quadrant block of flats adjoining; although these trees were cut down in error by the contractor, replacements are being planted. Some of the flats have an r.c. frame; otherwise load-bearing brickwork is used, with similar Kent multi-coloured clamp stocks throughout, including garden walls where they adjoin roads and paths.

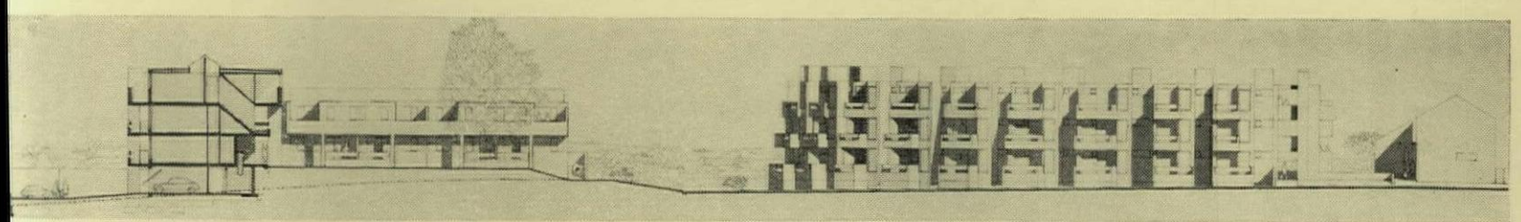


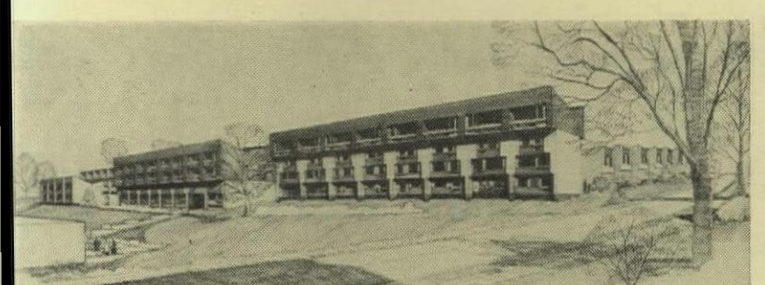
Layout of playspaces and garage courts, showing access routes

Domestic water and ducted warm air are supplied on a modified district heating system, oil-fired, with light oil (eliminating insulation and heating of supply pipes) pumped from the main tanks to small boiler houses for 30 dwellings each. Construction is at an early stage. Quantity surveyors, Oswald E. Parratt and Partners. Drainage consultant, S. Genever.

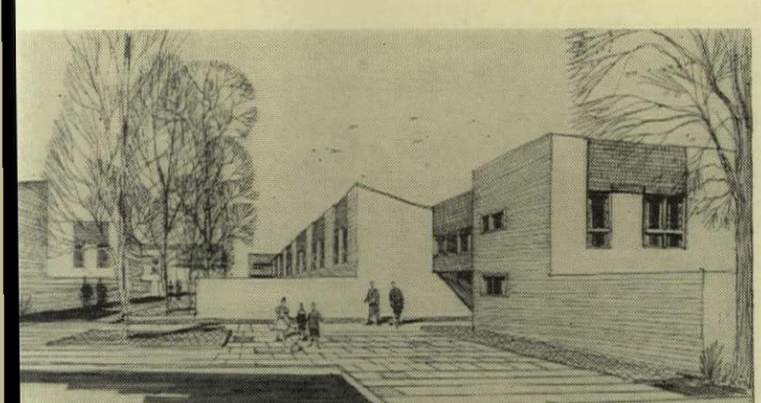


Above, view of playspace with garage court beyond, connected by covered ways. Below, section of three-storey houses and elevation of central quadrant block of flats.





Above, view of flat blocks facing sub-centre. Below, main pedestrian spine



9 MOORFIELD

Clifford Culpin and Partners

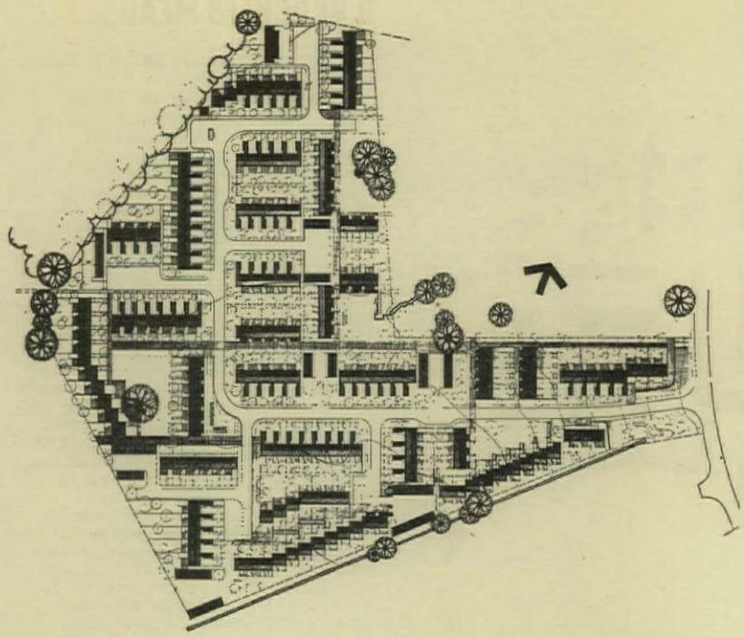
This area, to which the Corporation have not yet given detailed approval, lies to the south of Joyners Field (the area designed by George Wimpey and Co. in their No-Fines system), and slopes down from a school site on the east to a sub-centre of shops on the west. There are 320 dwellings with 100 per cent garaging: houses of two bedrooms (54), three bedrooms (154) and four bedrooms (15), flats of one bedroom (46) and two bedrooms (34), and bed-sitters (17). The blocks of flats are massed across the lower end of the site next to the sub-centre and have garages adjacent. A loop road gives access to the other garages. The central pedestrian spine underpasses the loop road at two points, and has secondary footpaths leading north and south to the houses. The load-bearing brick has brown facings and also panels of blue-grey asbestos slate, which is used to cover entirely the top floors of the flat blocks. Roofs are 15 degree monopitch in grey concrete tiles. There is gas-fired warm air heating throughout. The main contract is at an early stage. Quantity surveyors, Langdon and Every. Consulting engineers, Harry Brompton and Partners.

Above, Moorfield site plan. Below, secondary pedestrian route between houses

10 BURNETT PARK

Central Mortgage and Housing Corporation of Canada: chief architect and planner, David Crinion

Co-ordinated by the London office of the Canadian Department of Trade and Commerce, this medium density scheme of houses for sale is the direct result of Sir Donald Gibson's housing mission to Canada in 1963, which assessed the appropriateness for British conditions of the Canadian method of wood frame platform construction of houses. The attractions of this include flexibility in design, pre-assembly of components with minimum plant, speedy erection, and the opportunity for cheap thermal insulation in external walls. The 15-acre sloping site is situated on the south-west corner of Great Parndon and is surrounded by two schools, the trees of Burnett Wood, allotments, a recreation area and (on the south) another area of houses for sale. There are 173 dwellings at 12 to the acre (62 p.p.a.): houses of two bedrooms (10), three bedrooms (114) and four bedrooms (49). Of 175 garages, 82 are attached and 93 grouped, with 82 hardstandings and 25 visitors' hardstandings. The wood frame stud walls of each floor support the floor itself and the roof; the external cladding of brick veneer and cedar wood, together with tile roofs, is added to the frame. Insulation batts are placed between the wood studs and the interior is finished with gypsium wall board dry lining. There is warm air central heating. Construction starts this month (July) and is due for completion in 15-18 months.
Senior architect-in-charge, Maurice Clayton. Quantity surveyors, Langdon and Every.

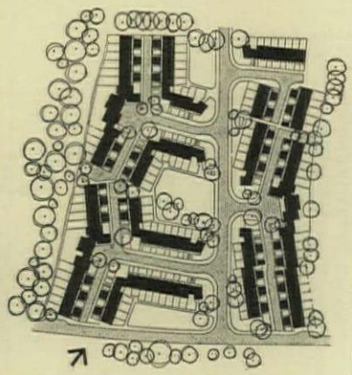


Above, Burnett Park site plan. Below, typical pedestrian courtyard

11 PETERSWOOD

The Austin-Smith/Salmon/Lord Partnership

Two schools (Stewards Secondary by Essex county architect, Peterswood Primary and Infants by these architects) provide open space to the north-west and east of this gently sloped site; other boundaries are formed by Long Banks (see page 44), Berecroft (page 46) and by Maundswood, an existing belt of trees. There are 171 dwellings: houses of two bedrooms (36), three bedrooms (78) and four bedrooms (six), flats of one bedroom (24) and two bedrooms (15), and bed-sitters (12). There is a children's play area of 200 sq. yds. and a site for a children's home. The county council insisted on 100 per cent visitors' hard-standing parking as well as 100 per cent residents' garaging or car ports. Four short Y-shaped culs-de-sac satisfied a further demand that no garage access was to come

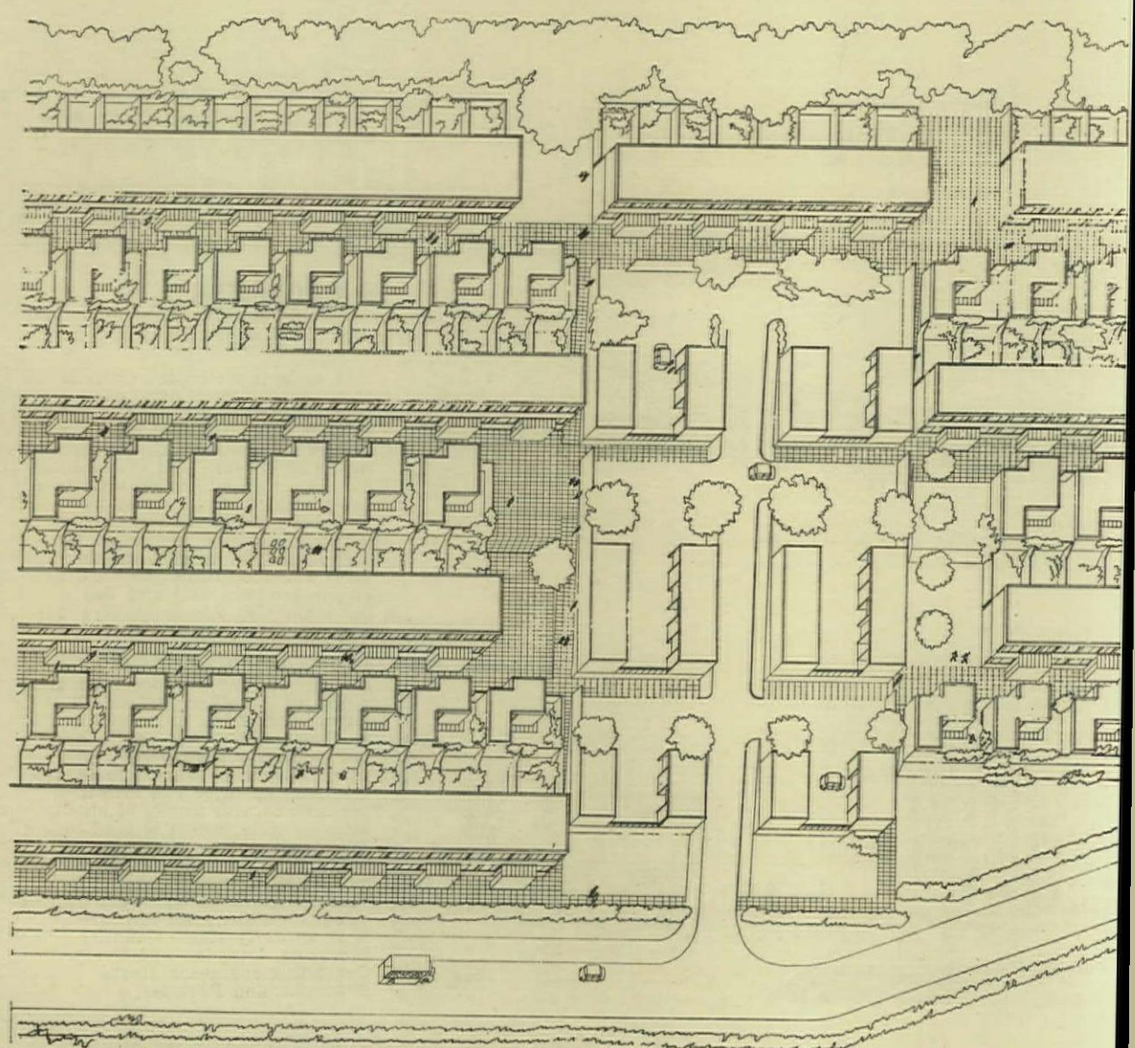


Peterswood site plan

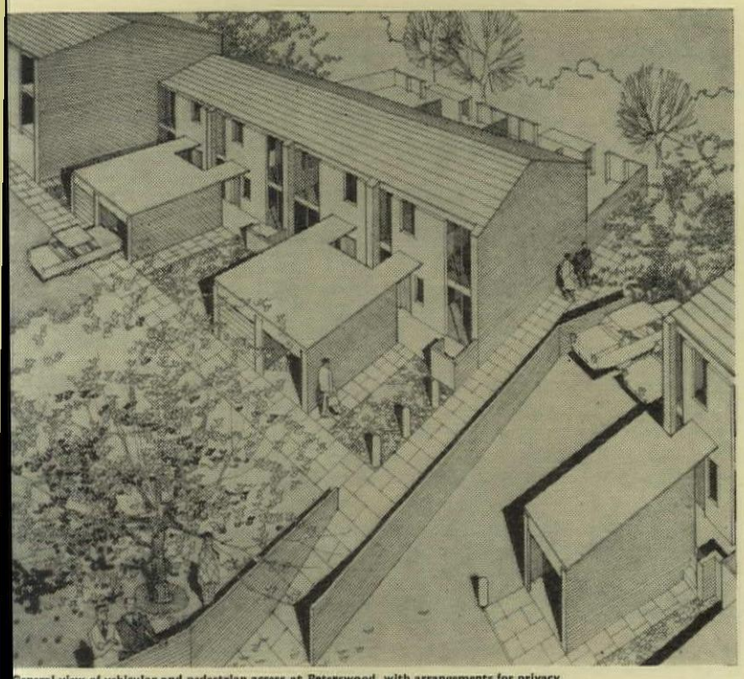
12 BERECROFT

National Building Agency: chief architect, A. W. Cleeve Barr

Intended to test a selected industrialized system in a layout demanding great flexibility and a wide range of plan types, Berecroft has not yet been given detailed approval by the Corporation. The north-sloping site, immediately to the south of Peterswood (see above), has been exploited in a series of terraces, which have allowed sufficient privacy for the entire development of 316 dwellings to be in houses, with no flats: one-storey patio houses of one bedroom (49) and two bedrooms (33), two-storey terrace houses of three bedrooms for four people (42), and five people (122), four bedrooms (56) and five bedrooms (6), and bed-sitters (8). The density is 17.5 dwellings or 76 persons per acre. There are 242 garages and 74 hardstandings with 47 visitors' hard-standings. The layout has through-out been based on a maximum walking distance of 150ft. from homes to garages, which are grouped in courts. There are playing fields on two other sides. Play areas of an enclosed kind are provided in a series of 'hard' or 'soft' courts opening off the four main north-south pedestrian routes, with quieter spaces for toddlers directly in front of the kitchens of the houses. The double series of pedestrian routes is intended to encourage random movement. Privacy of the patios is maintained by means of 4ft. and 6ft. banks which are not so steep as to interfere seriously with angles of the sun. In the design stages, studies were made in dimensional co-ordination and specifications for standardized components. Finishes will probably be white spar faced concrete panels for ground floor and flanking walls and white asbestos panels for upper floors.

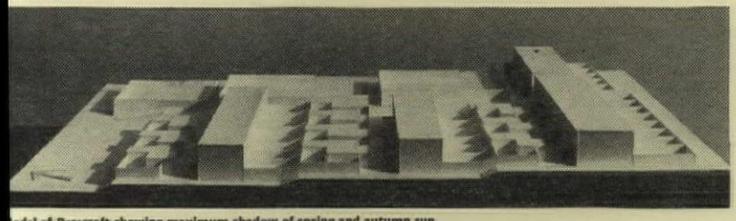


Axonometric of terraces, patio houses and garage courts, showing variety of pedestrian routes

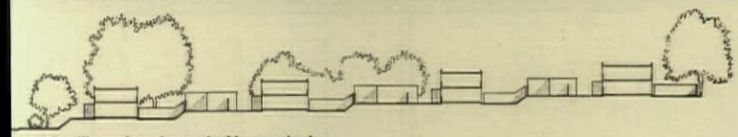


General view of vehicular and pedestrian access at Peterswood, with arrangements for privacy

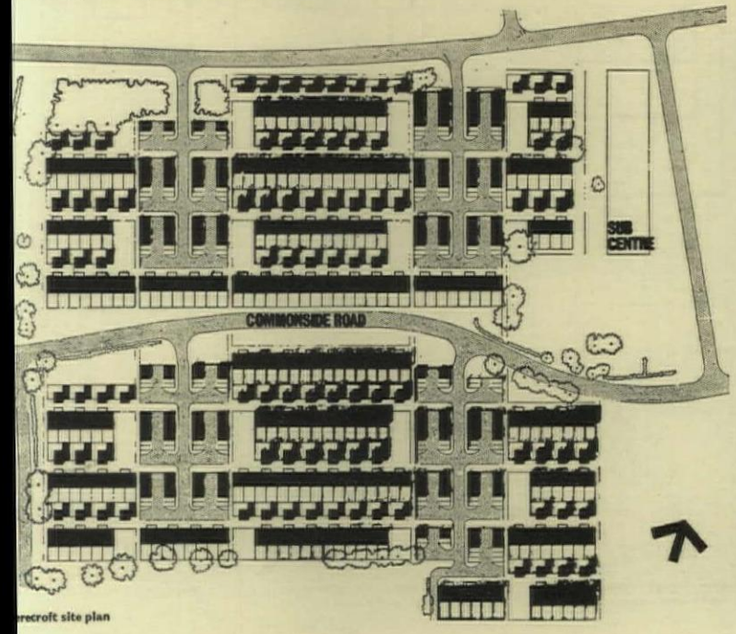
irectly off the existing distributor oad which bisects the site. They lso enabled independent pedestrian ccess on the garden side f the houses, where 6ft. 6in. walls reserve individual privacy. The lats and four-bedroom houses are haped as corner links to the erraces. The load-bearing rickwork has dark brown-black econdhand stock facings laid in charcoal mortar; other materials are creosoted softwood weather boarding. light grey-brown cement tiles, and exposed aggregate concrete for the hardstandings with large stones tamped in. Construction starts this summer. Partner-in-charge, I. L. E. Austin-Smith. Assistants, J. E. Anderson and G. Whitford. Quantity surveyors, Langdon and Every.



odel of Berecroft showing maximum shadow of spring and autumn sun



rt section, illustrating privacy gained by grass banks



recroft site plan

A SYSTEMATIC DESIGN

Consciously (and creditably) intended by Harlow Development Corporation as an experimental scheme to test the application of industrialized methods to high density, low rise housing at Parker Morris standards, the Clarkhill area was entrusted to Associated Architects & Consultants, one of the new group practices which combine the whole range of specialists—architects, quantity surveyors, structural and services engineers—at both partner and staff levels. The preview on these pages gives some idea of the outstanding promise of Clarkhill as an environment —and this is all that will count in the long run. In the balance, however, is one awkward fact: AAC were commissioned in July, 1963, but work started on site only in April, 1966. As a commentary to the design itself the actual process of getting permission to build must be described, as it is this process of rationalizing followed by negotiation, which, without changing the design in any but the most trivial aspects, has eaten up the best part of two years—long enough to nullify many of the advantages in speed and logic which industrialized building is supposed to bring.

From the start, AAC were determined that industrialized methods should be the servant, not the master. Having ruled out the idea of developing a special Harlow system on grounds of time and money (as well as irrelevance to a national glut of some three hundred competing proprietary brands), they decided to design first and only then invite tenders from relevant systems.

The two overwhelming advantages of this type of housing are that it provides maximum contact with Mother Earth for the largest number of people and that, by economizing in structure over high rise, it enables extra quality to be devoted to the individual dwelling within the strict limits of public expenditure. AAC consider that low-rise can be compatible with good environment at over 100 people per acre; but even at the 88 p.p.a. of Clarkhill, they emphasize that strict clarity of organization is needed to avoid degenerating into the maze of some recent pseudo-Radburn layouts (they have in this respect had doubts about parts of Cumbernauld). So their first emphasis is on establishing a clear hierarchy, separating out pedestrians, vehicles, servicing and drain runs into networks of an appropriate scale, and then—given these scales—fitting them together with deviations suitable to the particular site. This approach has long been recognized in relating roads to design speeds; it has conscious or unconscious precedent in the design of Georgian squares and mews; and it has recently been adopted similarly by Arup Associates (also, notably, a group practice) in their development plan for Loughborough University (AR, December, 1965). Within this grid, however, AAC aim on social grounds for the maximum variety of dwelling types within each 'micro-cosmic group'—in this case controlled in size by the length of hoses used by the Essex Fire Brigade.

AAC have also aimed, again on social grounds, at some mixing of vehicles and pedestrians. They consider that in a low-rise scheme complete segregation is both undesirable psychologically and impracticable; crossings should be possible on culs-de-sac with 'low vehicle flow' (not closely defined as yet). To obtain 'clarity of route' in contrast to the Radburn maze, main pedestrian and vehicle routes are designed to go parallel, not at right angles. Because the car can be as much an object of emancipation and prestige to its owner as it can be a lethal object to his children, it cannot be relegated merely to an unseen rear-access position; while safeguarding children's routes to school from traffic flow, the car's care and maintenance should be visible at certain points (whether mews, garage courts or hardstanding) to the community in general. Similarly the natural and desirable urge towards privacy in houses must be tempered by the need for community. The entire public areas are detailed as 'play sculpture' with children in mind.

The conventional type of proprietary system building, shown here in the Joyners Field area of Great Parndon, designed by George Wimpey & Co. in their patent No-Fines concrete, provides the kind of barren environment, determined by convenience, which Associated Architects and Consultants (see above) were at pains to avoid.

As the design developed, an intricate sequence of approvals had to be obtained. Harlow Development Corporation itself is highly organized on this: its Index of Approvals lists twenty separate stages from preliminary sketches to final layout, house types, landscaping and costs. The Pre-Planning Board of chief officers or their deputies checks and clears items before they reach the Planning Board of the Corporation. But—and this is the critical point—an additional series of approvals, concessions and agreements had to be obtained from five other authorities; the Ministry of Housing (New Towns Division), Essex County Planning Officer, Harlow Urban District Council, Essex County Fire Brigade and Essex County Ambulance Service. In the permutations of attempted synchronization the chances of delay were high. In particular, the byelaw-administering authority, Harlow Urban District Council, needed a lengthy and thorough period of discussion before it could grant the waivers necessary for unorthodox methods of planning and construction. It is increasingly difficult for the architect, when forced to devote the major part of his effort to negotiation over approvals and costs, to maintain the impetus and quality of his design team.

The architects preferred concrete construction for sound insulation and fire resistance, for the aesthetic effect of large, simple, natural surfaces, and for the eventual economy likely from large units, avoiding the jointing complexity of steel-frame systems. The problem of construction lay in the absence of any single concrete system for dwellings of one-to-four storeys, while the authorities demanded some form of competitive tendering. First the architects, after discussions with the Ministry of Housing, narrowed the choice from three hundred systems down to twelve which would be most likely to be able to interpret the design. Evidently the contracting industry is seriously overburdened with systems which are suitable only for high-rise structures, even though they are unlikely to exceed 25 per cent of the demand. After discussions with each firm, four of the selected twelve agreed to submit preliminary competitive tenders.

Competitive tenders from different systems were unprecedented in this country, so the architects devised their own procedure. Five separate documents were prepared: a specification for dwellings and garages with 'particular clauses' arranged to allow the contractor to submit precise alternatives to suit his system; a detailed performance specification; approximate bills of quantities for roads and sewers; architects' drawings; and sets of working drawings prepared during the tender period showing modifications of the contractors' systems to suit the architects' requirements.

The performance specification is an unusual document in British tendering procedure. It covers every element under the following headings: loading, fire resistance, thermal insulation, sound reduction, weather resistance and finishes. There were two types of requirement: classification of the architects' design intentions and performance minima related to BRS digests, British Standards specifications and so on. Here are two typical clauses:

External Walls, thermal insulation: Where the sum of the internal and external surface resistances is taken as 1.0, the average thermal transmission coefficient 'U' excluding doors and windows shall not be more than 0.25 Btu/hr./sq. ft./°F. The maximum value at junctions and other points producing 'cold bridges' shall not be more than 0.30 Btu/hr./sq. ft./°F.

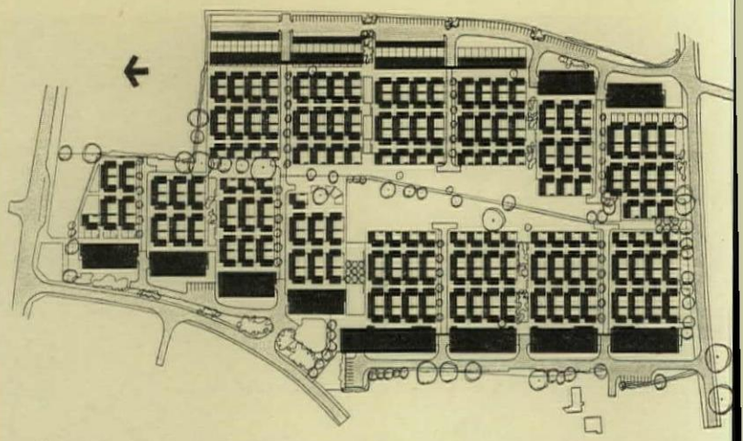
Internal partitions, sound reduction: The average airborne sound reduction of partitions dividing rooms including bathrooms and lavatories but excluding halls and passageways shall not be less than 35 dB. The increase in sound reduction with frequency shall not exceed 6 dB. per octave. See C.P.3, Chapter III (1960), Appendix A, paragraph 4C.

With both sound insulation and thermal cold bridges, it was clear that not all the systems met the standards laid down, and during the pre-tender period negotiations took place on achieving them. The architects' drawings recorded design intentions while allowing possible variations, such as minor dimensional changes, method of construction and flexibility in detailed fenestration.

One of the four contractors withdrew a few days before tenders were due. The tenders of the other three, in spite of three months' intensive negotiation, were very high—so high that it was impossible to submit the lowest to the HDC Planning Board and the Ministry for immediate approval. One reason for the high cost was the inability of one system to cover both terraces with party floors and single-storey houses, one doing terraces more expensively, another vice versa (the terraces were 15s. per sq. ft. more than the houses in one case). Another reason was the relative lack of time for contractors to be certain of the economic viability of their systems; inevitably unknowns (particularly experiments) tend to be priced highly. Thirdly, the heavy handling equipment for high-rise systems was excessively costly for low terraces. The second tender was 13 per cent higher than the lowest, with the third 3 per cent higher still—a spread typifying the inadequacy of development of systems for low rise housing.

No cost target was received from the Corporation until after the preliminary tendering—it then showed that a reduction of 15 per cent was needed in the lowest tender, which was from Trollope & Colls Ltd. The architects became aware of the present anomaly in Ministry subsidies, which are apportioned per dwelling, giving as much for a bed-sitter as for a five-bedroom house; so reduction of smaller dwellings could have reduced cost per sq. ft. Eventually savings were made in two respects: garages were moved from under 30 per cent of the terraces and much development took place on the contractor's system for the terraces (for details, see page 50).

Construction, at a final cost of about £1,700,000, started in April, with siteworks, drains and roads. In August components will begin to arrive and the first occupants are expected to move in after nine weeks. Building will continue at a rate of about nine dwellings per week to completion late in 1967.



Clarkhill site plan

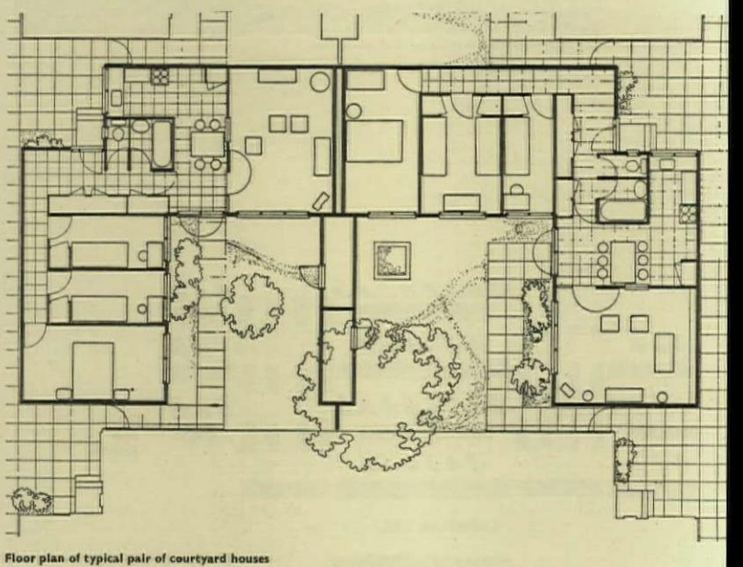
13 CLARKHILL

*Associated Architects and Consultants**

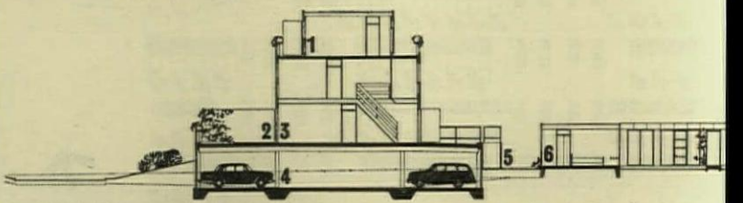
The Clarkhill area occupies 21.8 acres on the south-east boundary of Great Parndon, bordered by a loop road (with houses for sale opposite) on the north-west, by Southern Way (with Michael Neylan's Bishopsfield area—see pages 39-41—beyond it) on the north, by open country on the east (forming one of Harlow's principal "green wedges" between neighbourhoods) and by Commonside Road and two smaller housing areas on the south and south-west. There are 481 dwellings at 22 per acre: 239 three-bedroom houses, 85 four-bedroom houses, 11 five-bedroom houses, 72 flats contains a share of single-storey with one bedroom, 54 flats with two bedrooms and 20 bed-sitting rooms. There are garages for 433 cars and hardstandings for 48, plus hardstandings for 103 visitors' cars. The site, gently sloping northwards, has few features except for a useful hedge-line of mature trees crossing it diagonally from north to south.

The site is divided into seven 'superblocks,' each of which contains a share of single-storey houses, maisonettes and/or flats; these surround a two-acre central park, preserving the existing trees and hedge-line. The central core of the park, consisting entirely of the housing, immediately adjoining single-storey courtyard houses—231 of them, almost 50 per cent of the total dwellings, including all those for larger families as well as some 'bed-sitter' houses for grandparents. The houses are intended to be internally flexible for changes in family size and improvements in services. Outside each house is a 27ft. by 13ft. 'doorstep space' overlooked by the kitchen window, with the garden gate leading off it. Some trees will be planted in private courtyards.

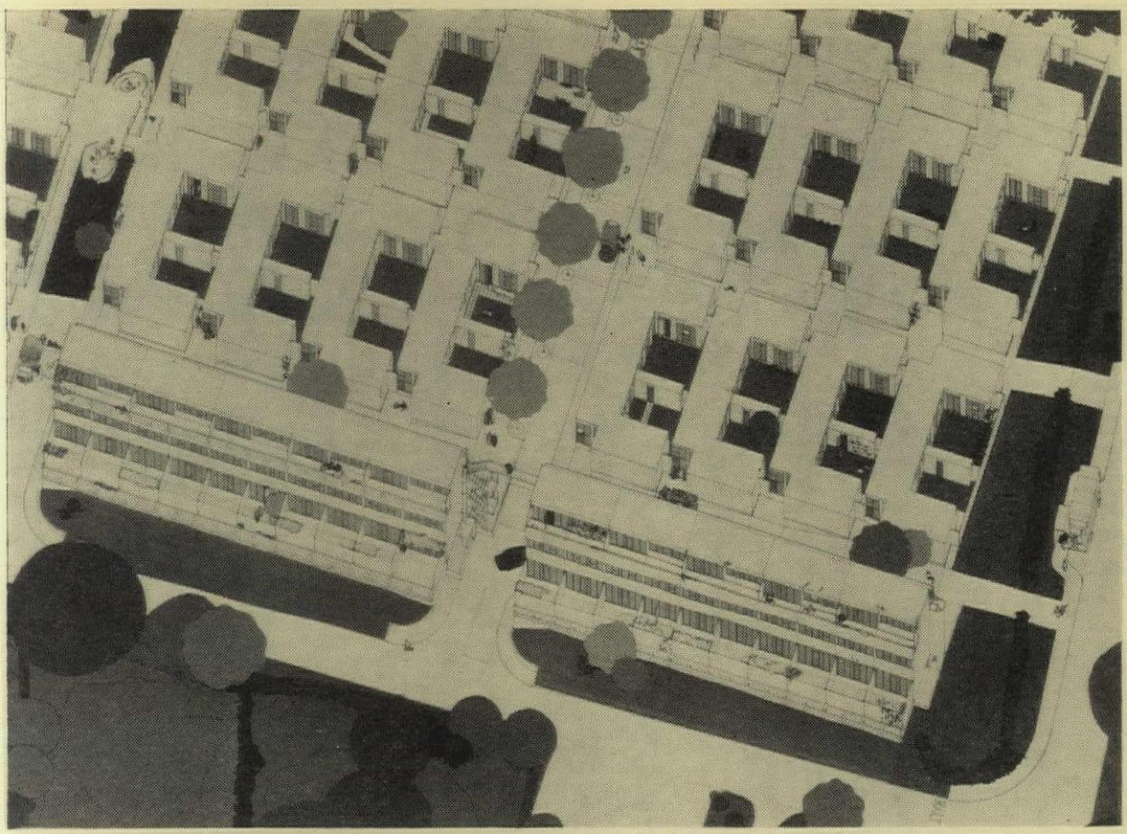
Along the edge are terraces of two or three storeys, with (as the HDC three-storey limit permits) semi-basement garages, reached easily off the perimeter access roads. The three-storey blocks, 160ft. long, contain three-bedroom maisonettes reached from a secondary pedestrian level half a flight up from the main pedestrian path, with one-bed flats on the second floor reached by an access



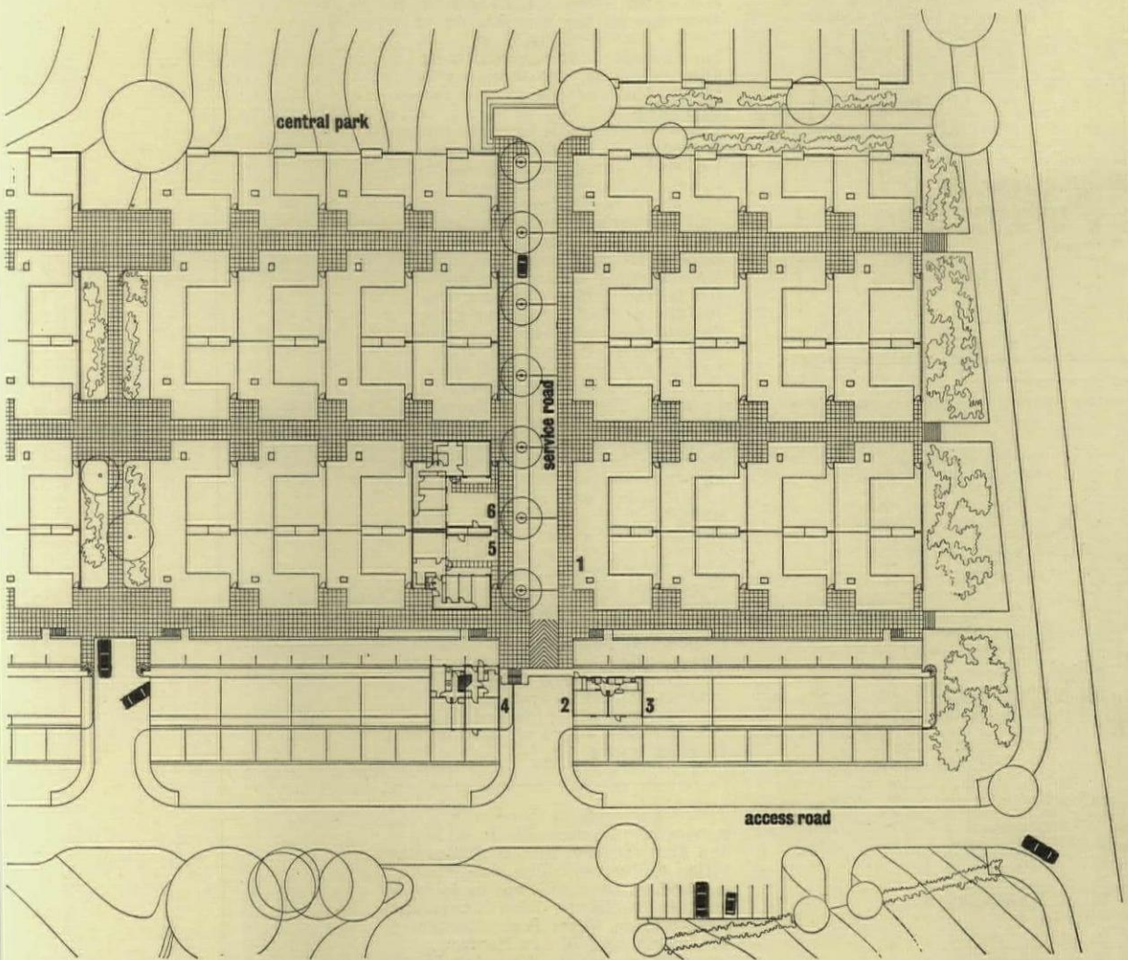
Floor plan of typical pair of courtyard houses



Section through terrace and adjacent courtyard house. key: 1, one-bedroom flat. 2, patio. 3, three-bedroom maisonette. 4, semi-basement garage. 5, pedestrian path. 6, typical walled garden house



Axonometric of typical superblock, showing clearly (with plan below) Clarkhill's distinctive hierarchy of private, semi-private and public spaces



Plan of typical superblock. Key: 1, single-storey walled garden houses. 2, two-person flat (second floor). 3, three-storey terraced maisonettes and flats over semi-basement garages. 4, two-storey four-person maisonette (first floor left, ground floor right). 5, four-person house. 6, five person house.

balcony and central staircase. The two-storey blocks, 128ft. long, have one-bedroom flats and bed-sitters on the lower floor on either side of a central corridor reached by ramps and half-flight stairs from the main pedestrian path; on the upper floor are two-bedroom flats reached by individual front doors and staircases off the lower corridor. Entrances to 71 per cent of Clarkhill's dwellings are at ground level, 16 per cent half a flight up, 8.2 per cent one and a half flights up and 2.5 per cent two and a half flights up. A large proportion of flats have outdoor private terraces, and all maisonettes have outdoor gardens, courts or terraces. A concrete balustrade incorporates a planting-box shelf. After tenders turned out to be excessive, garages had to be eliminated from the semi-basement level in two of the superblocks and have been placed instead as lock-ups at the rear of the ground-level gardens. The remaining semi-basement garages have double compartments 16ft. long by 16ft. 3in., and are entered by cars from the lower end only, but by pedestrians from both ends; one 8ft. bay in each superblock is reserved for a refuse store and trolley space.

The access roads enter at three points, two off Commonside Road on the south and one off the loop road on the north-west. Visitors' hardstandings and bays for residents' car washing and maintenance are placed alongside each superblock. Reached up short 1-in-15 ramps (the other half, as it were, of those down to the garages), service culs-de-sac, 32ft. wide, divide the terraces and penetrate the centre of each superblock for 220ft., as far as the central park; these have 6ft. wide pavements and six lay-bys each for refuse collection and fire engines. Residents will not be allowed to park along these roads, except for emergency loading and unloading. This will be enforced by a tenancy agreement devised by the housing manager; if it does not work, the usual bollards will have to be inserted. These roads will count as 'hard' play space, and the trees are encased in raised tree rings. In contrast, there is an area of planted 'soft' play space, also 32ft. wide, between each superblock.

The main pedestrian paths, 12ft. 4in. wide, run north-south between the terraces and courtyard houses, parallel to the vehicular access roads. The principal pedestrian exit, with the main visitors' car park, is close to the local primary school and sub-centre at the north-eastern corner of the site (where a pedestrian underpass is planned). Crossings of the service culs-de-sac are at clearly defined points, minimizing danger to children. Small pedestrian lanes, 8ft. 4in. wide, run north-south between the courtyard houses to a maximum length of 160ft. between culs-de-sac. The maximum walk from garage to home is 100 yds. (average 60 yds.) and the maximum walk from unloading and emergency access to home is 53 yds. All paved areas will have 2ft. square precast slabs, into which it is hoped to incorporate manholes successfully. The northward cross fall on the site has been accommodated in the pedestrian lanes and centre roads and by separating the descending pairs of houses, thus avoiding difficulties with flashings.

A major bugbear of high density low rise layouts is the complex network of supply and waste pipes, for which it is at present virtually impossible to provide a single trench. At Clarkhill five separate authorities will be digging their own holes—electricity, gas, water, telephones and wired TV—but the architects

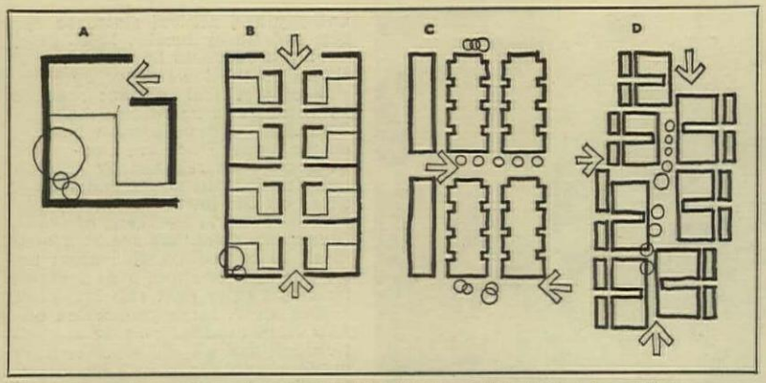
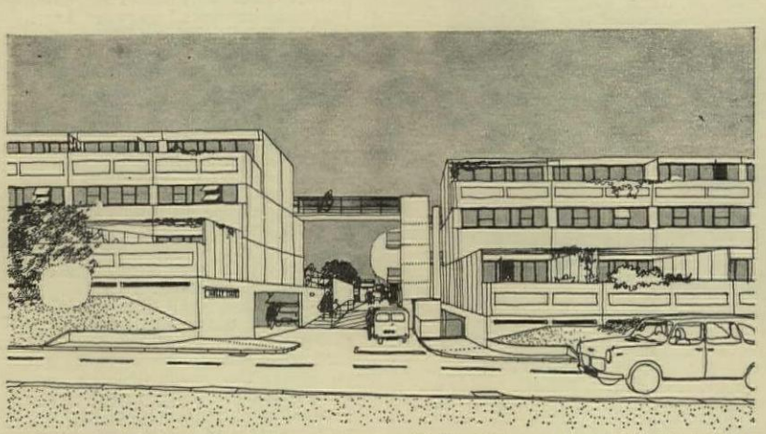
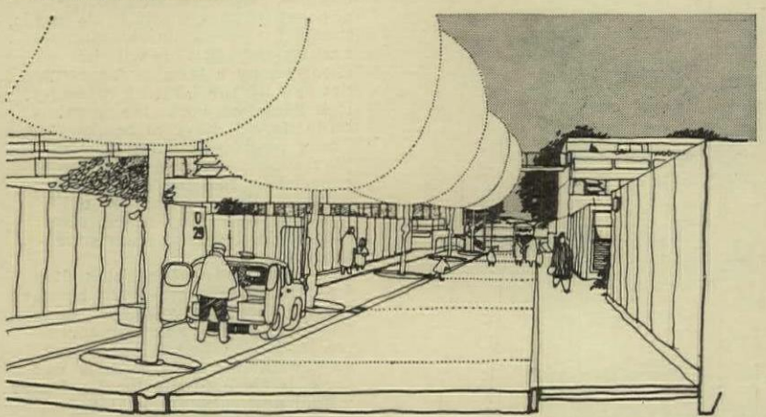


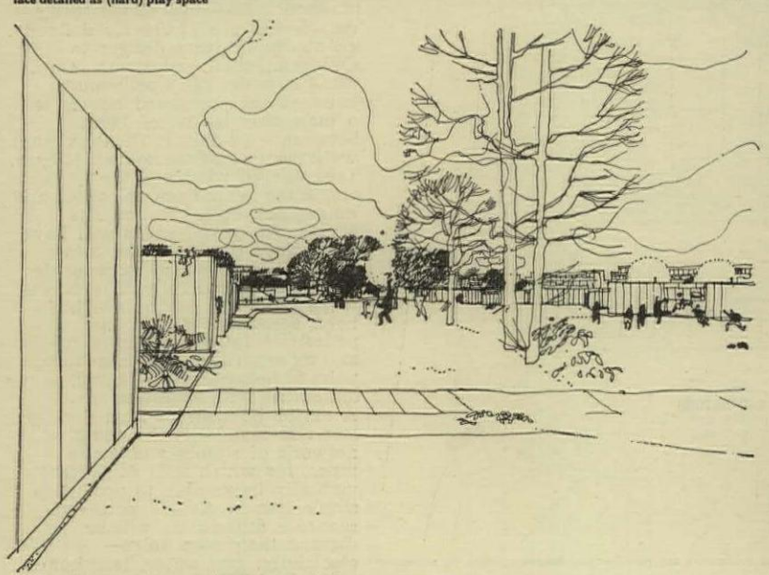
Diagram of four main types of space. The private courtyard garden or terrace (A) is adjusted in size according to house type and given the micro-climate of an outside room where toddlers play under full supervision. The pedestrian lane (B), common to eight families, is given variety by the slope and by the staggered enclosure of different house types. The crucial link between private and public space is the forecourt or doorstep space (27 ft. by 13 ft.), which is cut into the house's 'awkward corner' (in planning terms) and enables supervision of play from kitchen windows. At right-angles to the lanes are the alternate areas (C) of 'hard' play space on the service roads (220 ft. by 32 ft.) and 'soft' play space on similarly wide grassed ways. Finally, there is the two-acre central park (D), which, because of the tight clustering of the houses and because of the large size of Clarkhill compared with other Harlow housing areas, becomes a really adequate space for ball games, while supervision is maintained from the kitchen windows of adjoining houses



The approach from the access road, showing ramp down to car parking beneath terraces and ramp up to service road, with pedestrian bridge linking terrace decks



View of service road, looking back to access ramp. Trees mark off bays for delivery and emergency parking, with ground surface detailed as (hard) play space



Central park of two acres, overlooked by courtyard houses

have seen to it that they will be digging along more or less the same line under the pedestrian footpaths (minimum width of reservation 6ft.). By contrast they have devised a system of separate routing for drains to speed construction. The Trollope & Colls Dorran system used for this housing is composed of small load-bearing storey-height concrete panels, which can be lifted by hand ('two-man load') or with small equipment. It proves highly suitable for the single-storey houses. For the terraces however, because Dorran has no party floor, Trollope & Colls put forward another system from their 'stable,' the PAC; but this, which is primarily suitable for high rise structures and needs heavy cranes, put up the cost excessively. So over a period of a whole year the architects negotiated with the contractor a modification of the PAC system for the terraces, making it lighter and more suitable for low rise. The party walls and floors were modified, and external panels were changed from polystyrene sandwich to dished concrete lined with plasterboard and polystyrene sheet.

Semi-basement garages have precast wall panels and columns on strip foundations, and a roof of patented precast planks with an *in situ* topping.

The Dorran system for the single-storey courtyard houses (developed by the Dorran Construction Co. with Diamond, Redfern and Partners as architects and Flint and Neill as engineers) has a 1ft. 4in. grid. Strip foundations support V-shaped precast curb units which act as edge beams and as permanent shuttering for the *in situ* floor slab. The damp-proof course is a polythene membrane laid between the concrete slab, which is mechanically floated and finished with thermoplastic tiles. The architects comment that on a sloping site, even with the change in levels accommodated in open spaces, the inflexibility of a fixed d.p.c. level leads to considerable difficulties of cost and technique, the tendency being to build out of the ground rather than into it.

The external walls for both houses and terraces have a light grey exposed aggregate finish specially chosen to be scribble-proof and to retain its lightness; it is ¾in. and contains a large proportion of white stone. The storey height panels, 1ft. 4in. wide, are backed by a two-ply bituminous membrane and timber framing and include a plastic jointing strip on one vertical edge. One corner post is erected first and wall panels and the other columns erected in sequence and bolted together. There are weather-bars top and bottom and a ring beam which secures the columns from the top. Party walls are of two external wall-units separated by an air space and closed at both ends by a structural panel. Roof panels, which have a built-up bituminous felt surface with an aluminium edging, form the horizontal bracing and are dropped on to ledges on the inside faces of the beams. Internal patent partitions can be taken down and re-arranged as required. External walls are finished internally with polystyrene insulation and plasterboard. There is a gas-fired warm air heating unit in each house.

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* This has recently become a consortium partnership in which the architectural firm is Bickerdike, Allen & Partners. The team that worked on Clarkhill was as follows: partner-in-charge, John Bickerdike; design team, Peter Rich, Martyn Haxworth and Birkin Haward; quantity surveyors, Langdon & Every; landscape consultant, Sylvia Crowe & Associates.

ID

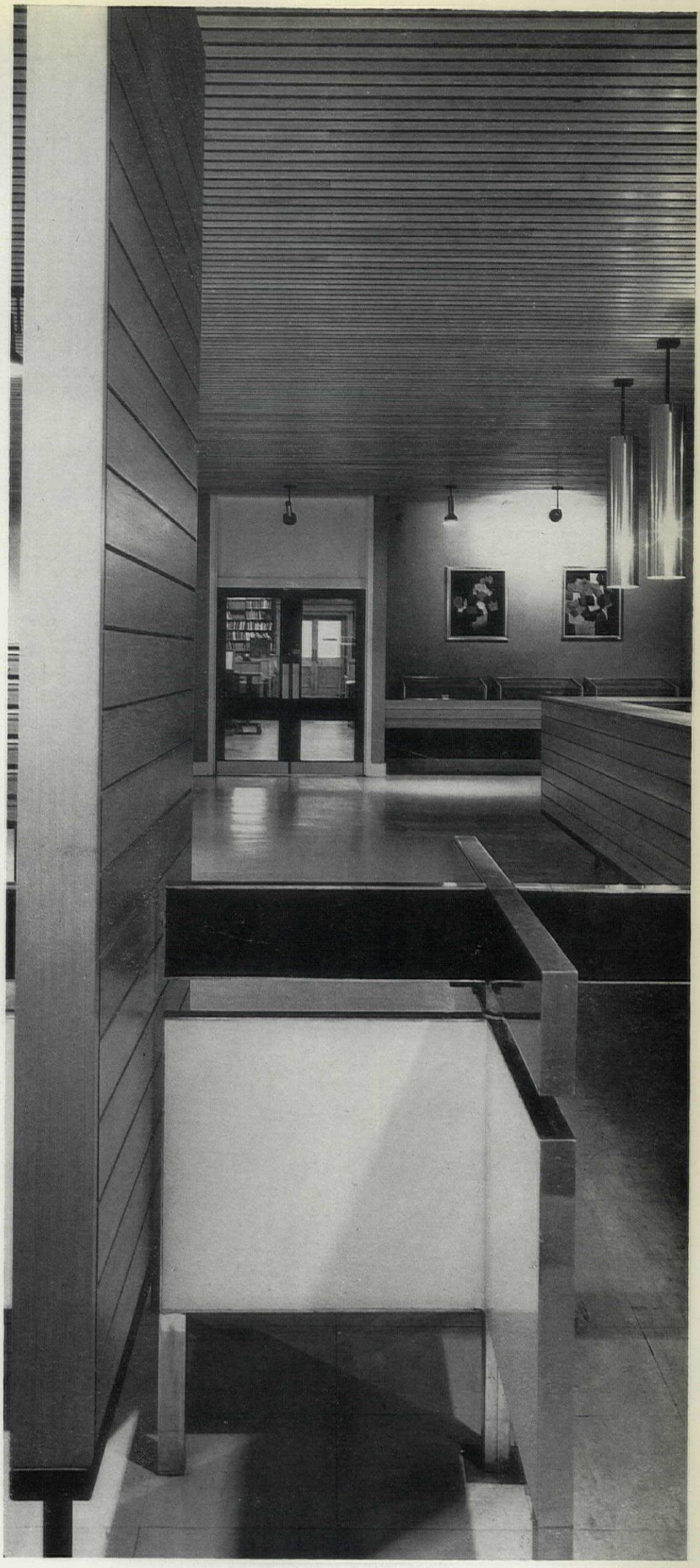
Interior Design

Three Libraries

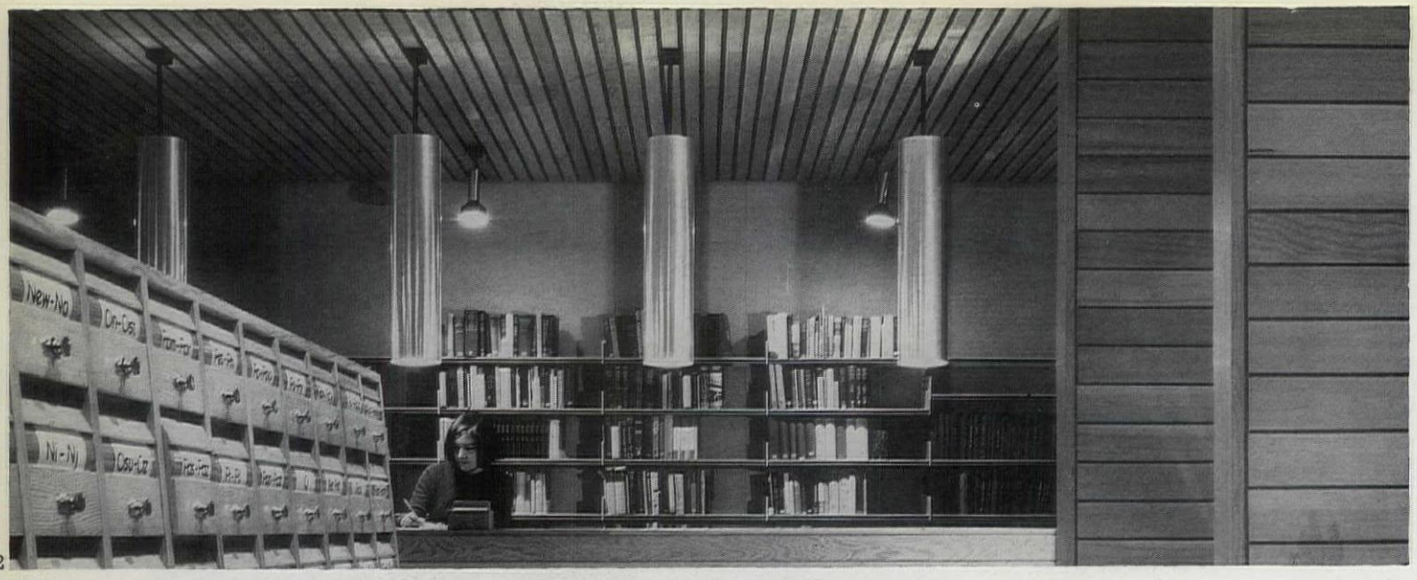
1 College Library, Mile End, London

architects: Playne, Lacey and Vallance.

photographs by Henk Snoek.



the reception area from the entrance gate.



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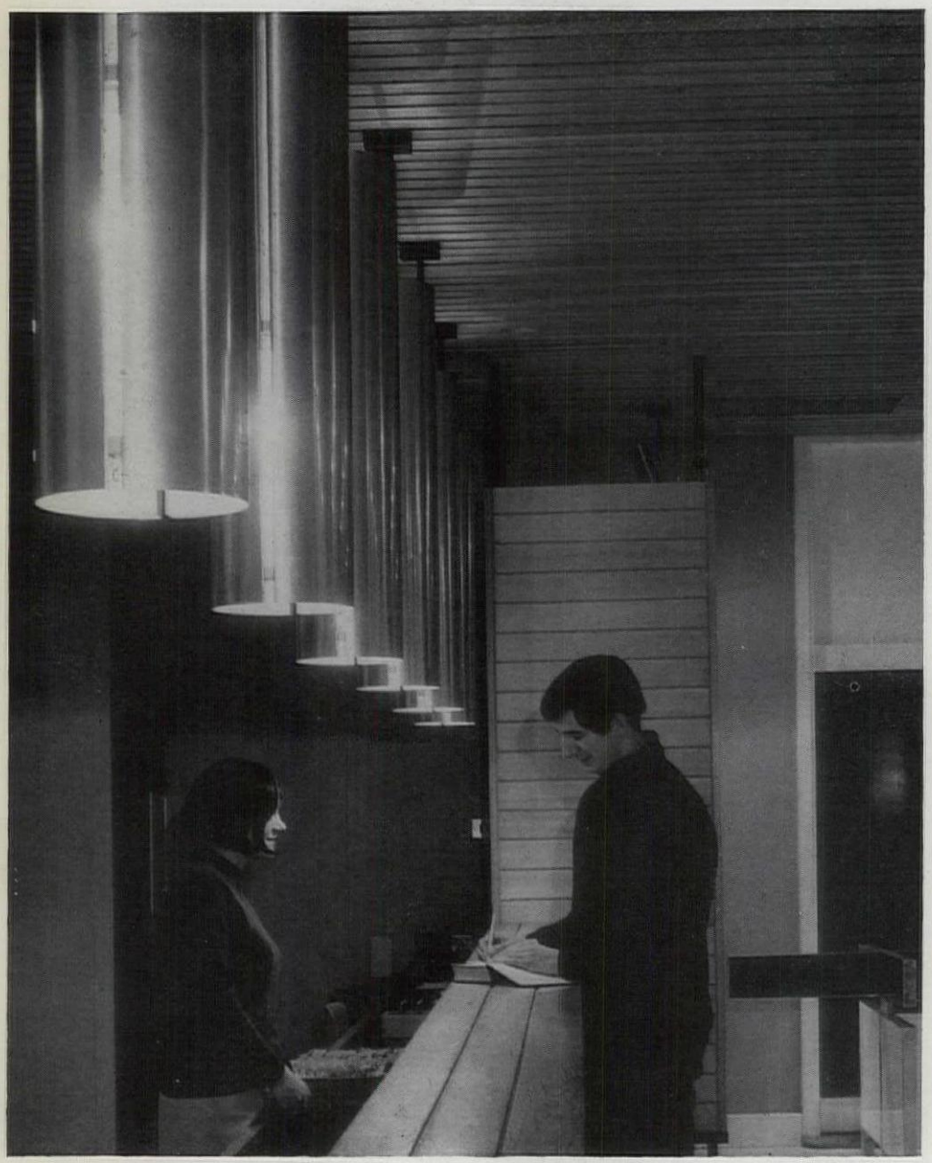
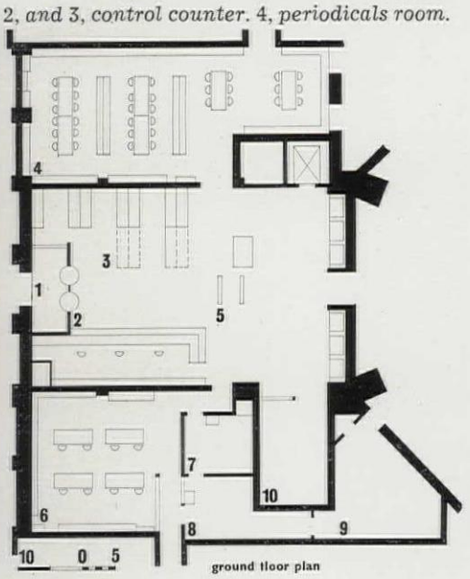


3

2, *and* 3, *control counter.* 4, *periodicals room.*



ground floor plan

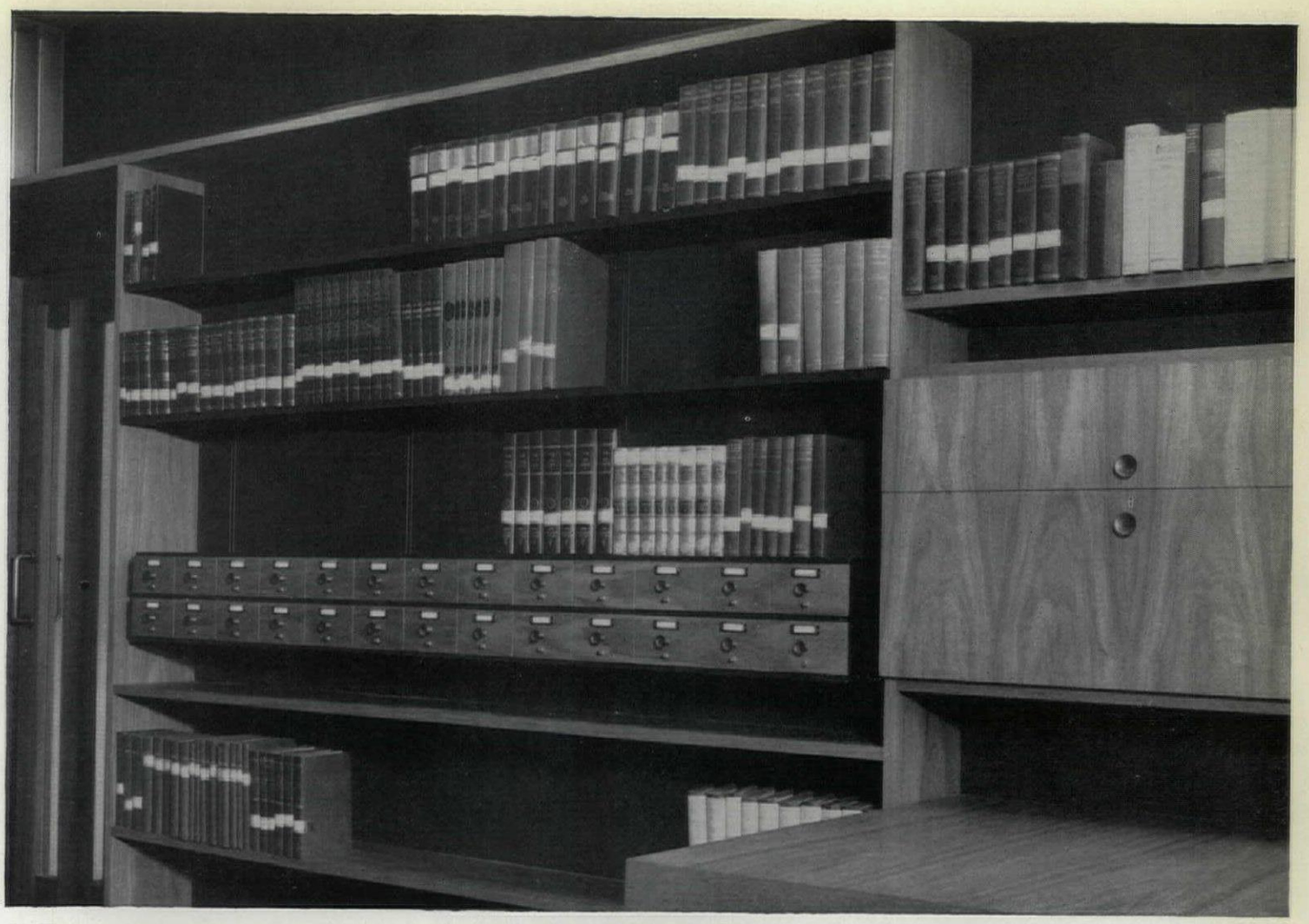
key

1, entrance
2, issue desk
3, card index files
4, periodicals room
5, display area
6, staff
7, deputy librarian
8, secretary
9, librarian
10, staircase

This library extension to Queen Mary College, Mile End, consists of a four-storey building which links the original library of 1887 to an adjoining existing block. The ground floor contains the reception area, issue desk, and the catalogue section, librarians' offices and a periodicals room. Each of the three upper floors has a space for 10,000 volumes with an adjoining reading or seminar room. More book space is provided in the basement together with five listening rooms with accommodation for microfilm and microcard readers.
All fittings and the suspended ceilings are of British Columbian pine with black stove-enamelled metal supports. Walls are covered with natural hessian and the floor with light-coloured thermoplastic tiles. Painted woodwork is white with doors picked out in dark olive green. Most of the shelving, from a standard range, consists of double-sided island units.

4

1 College Library, Mile End, London

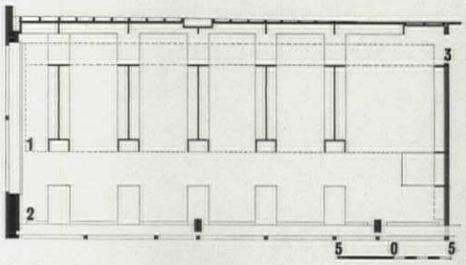


1

2 Synagogue Library, Mayfair, London

architect: Julian Sofaer
assistant architect: K. Bennett

photographs by Colin Westwood

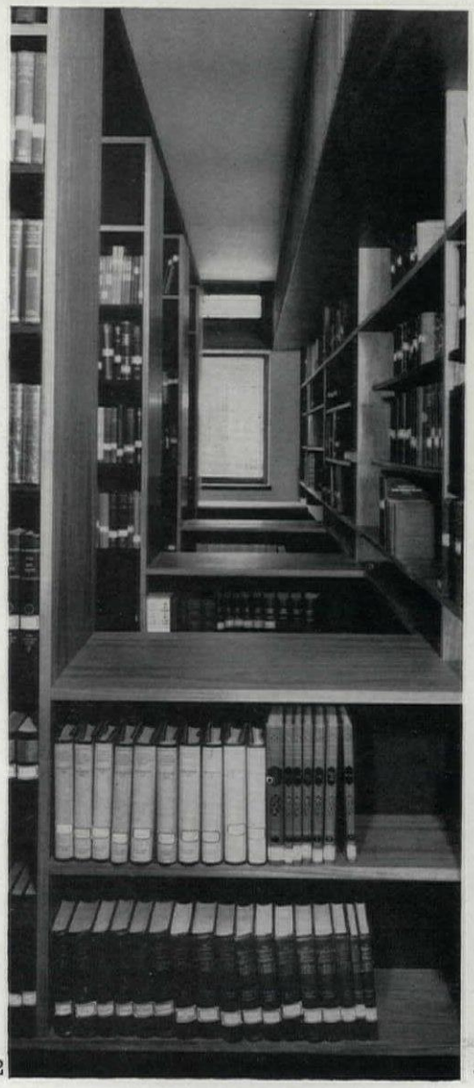


first floor plan

key
1, book section
2, study space
3, entrance

On the first floor of a new building, part of the West London Synagogue, this library serves both the synagogue and the Leo Beck Theological College. The library is divided longitudinally with a book section in one half and an open study space in the other, the bookshelf units being arranged to allow a full-length view from the entrance. Joinery units are of veneered laminated board and hardwood lipped with muninga. The suspended canopy linking the island units is of softwood, painted matt black. Exposed wall and ceiling surfaces are lined with vinyl painted white, and display panels with gold felt. Chairs are upholstered in orange with chromed legs.

1, *detail of shelving at the entrance end of the library.* 2, *view from the entrance.* 3, *study space.*



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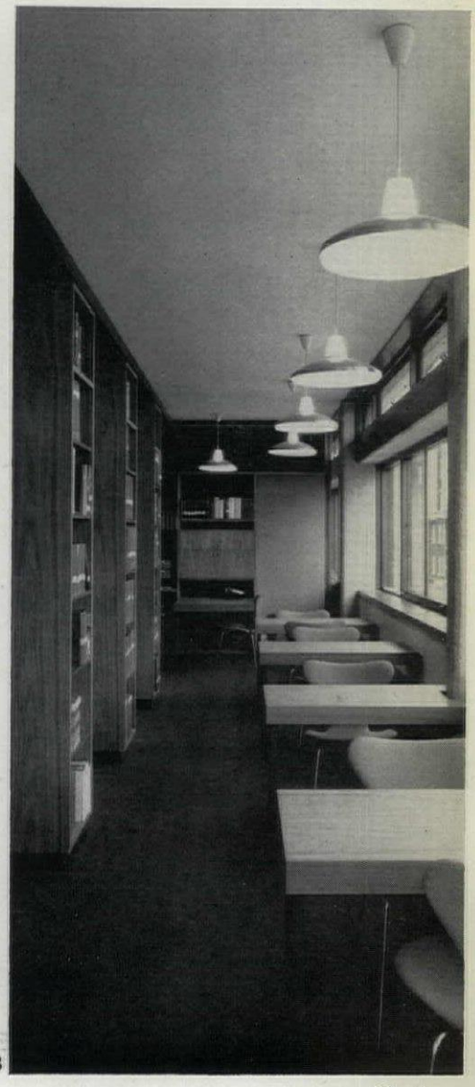


3

1

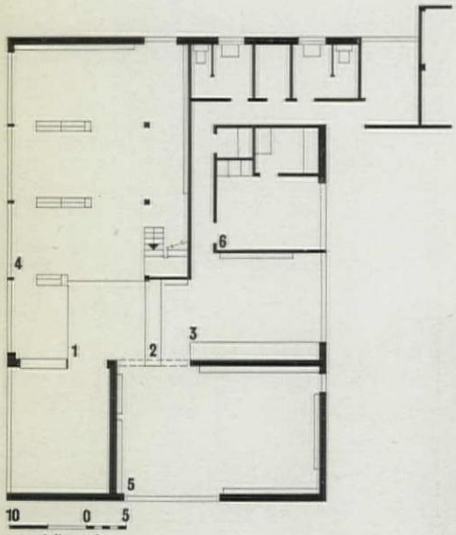
3 Branch Library, Chalfont St. Peter, Buckinghamshire

architect: F. B. Pooley, County Architect and Planning Officer

photographs by Cecil H. Greville

In the centre of a village, this two-storey branch library consists of a large open book-space occupying the ground floor with a librarian's office and reference room on the first. The built-in furniture and shelving is of Burma teak, the bookcase units being backed with vinyl-faced hardboard. Floors throughout are generally cork-covered with hair-cord carpet around the entrance area.

1, *staircase from the ground floor to the reference library.* 2, *general view of the adults' library from the entrance showing pitched roof rising to the first floor ceiling.*



ground floor plan

key
1, entrance
2, issue desk
3, workroom
4, adult's library
5, children's library
6, staff

2

THE VIEW OF THE CATHEDRAL

Many ancient cities in Britain, hitherto dominated by the towers of a cathedral or other historic building, are threatened with new high buildings that will certainly change the skyline and will probably—unless they are very carefully sited—obscure the traditional view on which the beauty and character of the city depends. It is usually impracticable to ban all high buildings from such a city, especially when it is one that is undergoing expansion and modernization. It therefore becomes especially important for the planning authority in a cathedral city to control the siting of new buildings from the point of view of their effect on views of the cathedral, near and far. Mr. G. A. Jellicoe was confronted with this problem when he was appointed by the city of Gloucester as planning adviser on the central area, and in a report called 'A Height of Buildings Policy' he has stressed the importance of a high building policy being worked out well in advance of development and has put forward a method of producing a master diagram on which control can be based and which ensures the preservation of the essential views. Overleaf are extracts from Mr. Jellicoe's Gloucester report (which was prepared with the assistance of the city architect, Mr. J. R. Sketchley, and the city surveyor and planning officer, Mr. R. H. Pullan), with the diagrams related to it. Their significance is that, when such a method has been worked out, it is applicable to all cities with the same problem. Mr. Jellicoe has created a tool which could be used with beneficial effect all over the country.

Diagram A: This is the composite planning result of the three diagrams **B**, **C**, **D** overleaf. The development to the south is for guidance only, and does not necessarily envisage unlimited building of tall blocks, but rather that within the area a tall building would not be out of place in its impact on long distance views. Avenues of vision which should remain at present height: **1** from The Park pavilion, with extension to Robins Wood Hill; **2** from the sports stadium; **3** from Hillfield House and the London Road; **4**, from Longford Lane.

THE VIEW OF THE CATHEDRAL

Some Extracts from Mr. Jellicoe's Report

In a cathedral city such as Gloucester the primary silhouette, that of the cathedral tower and its smaller attendant towers and spires, is historic and of the spirit. This cluster is set in an immediate environment whose material wealth it has helped to create, but which could easily swamp and submerge the original city if allowed to develop haphazardly. On the other hand, provided that the juxtaposition of the historic silhouette and the modern silhouette is well arranged, there seems no reason why the two ideas should not be contained within one city and be complementary. The purpose of this report is to suggest a future policy that accepts the present tall buildings, whether built or immediately projected, and incorporates them in a comprehensive design which encompasses the whole valley between the Cotswolds and the hills west of the Severn.

The first diagram (**A**), setting out a height of buildings policy, is constructed from three points of view: (**B**) the close view, (**C**) the middle distance, and (**D**) the far distance.

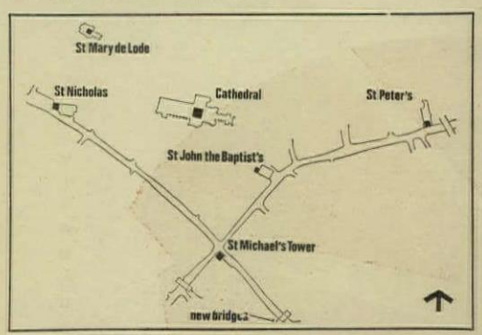


Diagram B. The Close View: The diagram shows the grouping of towers and spires that prick the sky in the commercial areas round the cathedral. It is essential to keep intact this panorama which is constantly regrouping when seen from different positions.

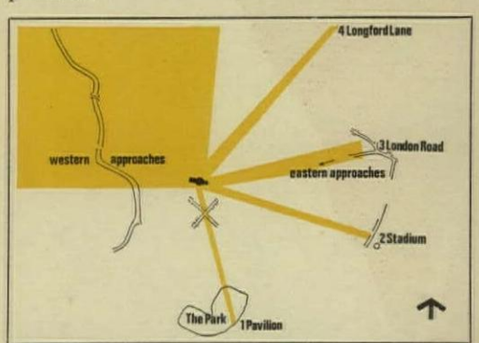


Diagram C. The Middle Distance: The historic silhouette is virtually invisible from north, east and south. There are, however, still some chance views of the cathedral, and these are of such beauty and distinction that it is worth while securing for posterity these 'corridors of vision.' Four 'anchor' views have been selected, each giving a different aspect [illustrated on right].

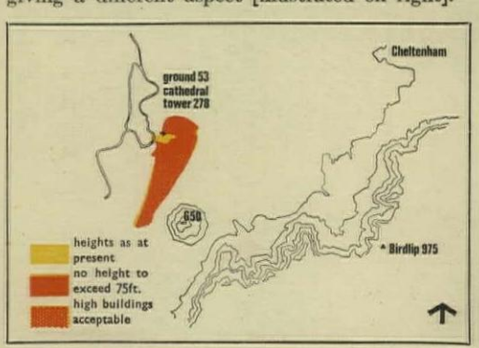


Diagram D. The Far Distance: Under certain conditions of light there is perhaps no other view of landscape so truly English as that of the Severn valley when seen from the Cotswolds. From this vantage point it is clear that Gloucester Cathedral tower still dominates the scene, and this dominance can be retained in perpetuity without frustrating future development.

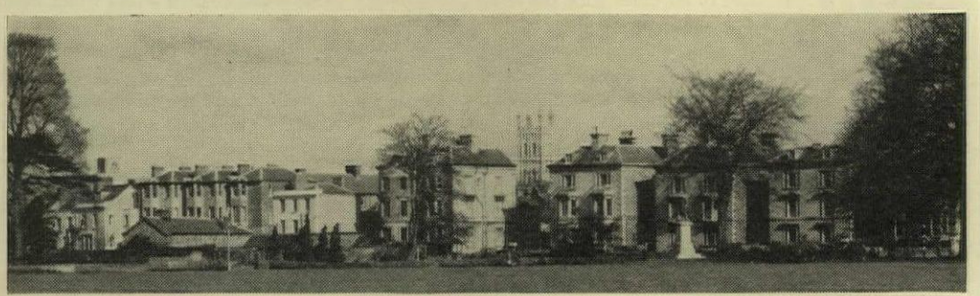
On the basis of these diagrams, three zones of height restriction are proposed:

The inner area in the immediate environment of the cathedral, which shall be as existing or as immediately proposed. This constitutes a 'moat' of low buildings.

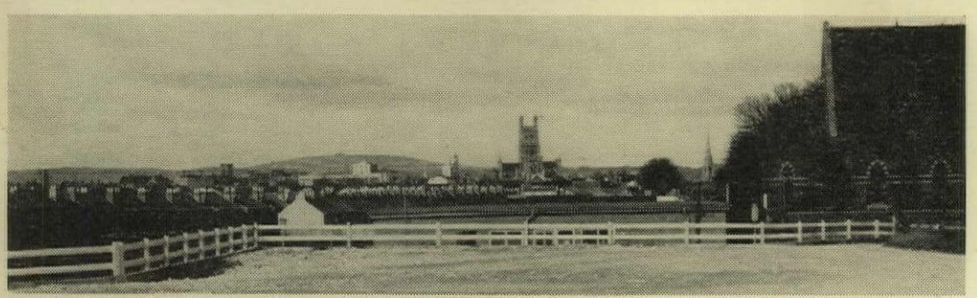
The area sweeping the inner area on north, east and south. Buildings here must be individually studied, but no new ones should exceed a height of 75 ft. above ground. From the high ground to the east the eye should look over and across this area to the inner area without interruption.

The area extending to the south along the east side of the canal. Building here would not appear to damage views of the inner area, which have already disappeared. Tall buildings could punctuate the sky and lend vitality to an area which might otherwise be dull. The view from Robins Wood Hill (650 ft.) would pass above the complex.

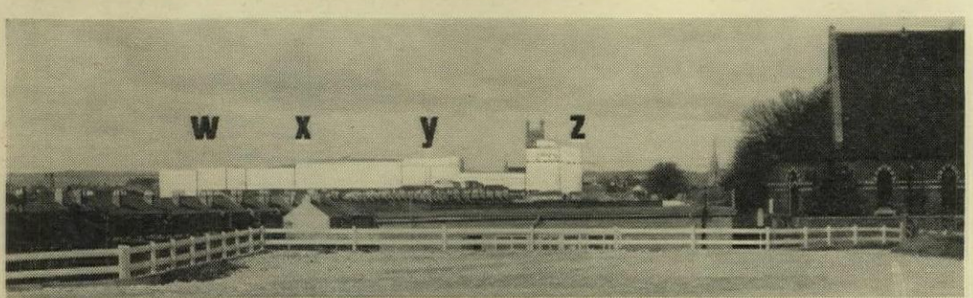
THE FOUR MIDDLE DISTANCE VIEWPOINTS SHOWN ON DIAGRAM C:



Viewpoint 1: *Gloucester cathedral from The Park. This view has been preserved, thanks to the 'Height of Buildings Policy' report.*



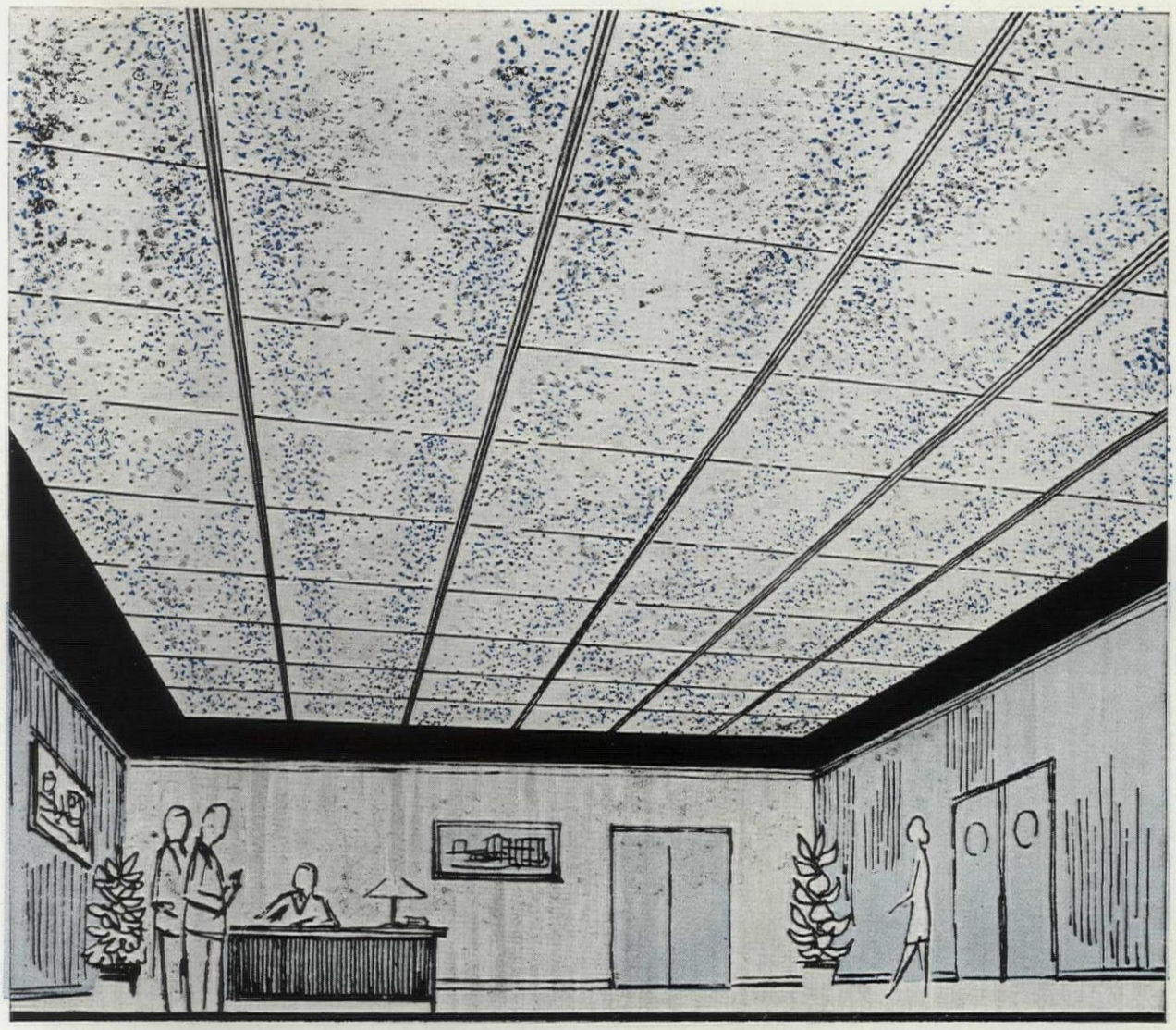
Viewpoint 2: *the cathedral seen from the car park of the sports stadium in Horton Road.*



Viewpoint 2, with proposed buildings superimposed: w, *office block, Station Road;* **x,** *multi-storey car park, central station;* **y,** *entertainments' centre, Bruton Way;* **z,** *office block, Great Western Road. These were planned carefully for local and long distance views and permission to build was given in all good faith in September 1965, before publication of the 'Height of Buildings Policy', which would undoubtedly have influenced the decision.*

Viewpoint 3: *eastern approach, the cathedral seen from London Road.*

Viewpoint 4: *the cathedral seen from Longford Lane, to the north.*



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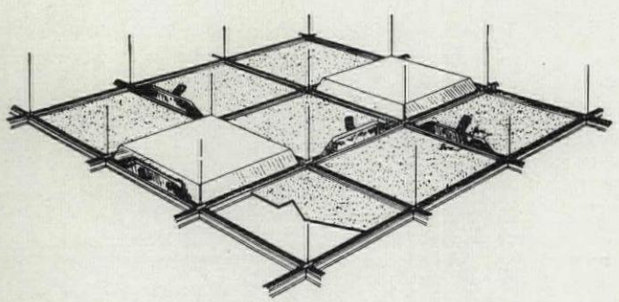

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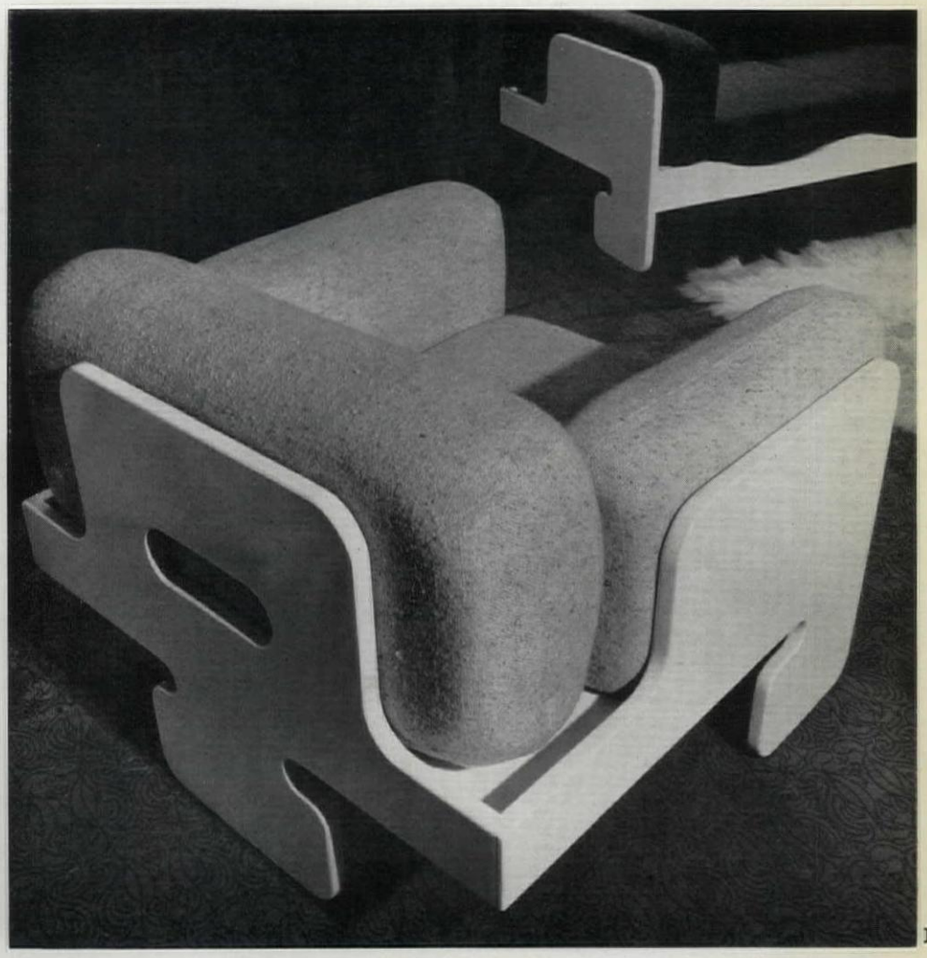
Design Review

New products chosen and annotated by Ronald Cuddon

DR

Seating

Controversial, but conforming to fashionable trends, the furniture on these pages has been received by sections of the press with astonishing acclaim. I cannot endorse this uncritical attitude. The chairs and sofa shown in 1 to 6 were designed by Max Clendinning, the first three being sponsored by Liberty's and the others being now manufactured by Race Furniture Ltd. They reflect the current interest in the style of the 'thirties, but the quest for a new means of expression embracing new materials and techniques, and the pioneering of new forms that characterized the best work of that period, has in these products degenerated to a neo-thirties mannerism. This is unfortunate, for there is the germ of an idea that has somehow been lost in the passage from design impulse to the showroom floor.



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The belief that a chair should not trap the body with ergonomic theory, that it should be capable of giving comfort regardless of position or shape, is perhaps the basis of these designs and had this intention been coupled to a concept of cheap, easily produced, knock-down units for sale in the supermarket, then there would be some reason for accepting the simple notion of sitting on a padded box. The use of plywood as a slab material is not unsound if cheapness is the aim, but this approach does not begin to exploit the possibilities inherent in plywood technology, and there is something absurd in the idea of converting, via an elaborate and sophisticated process, a tree into plywood in order to produce furniture that primitive man could have made from stone or wood, though without the marginal advantage of this degree of precision. The basic form of these chairs contributes little to comfort, and it is left to the semi-tailored squab cushions to soften and mask the sharp angular shapes of the plywood frame, confusing the vital geometry of the articulated planes forming sides and back of chairs, 4 and 6. It is difficult to believe that this furniture will stand the test of time, and certainly the white and coloured paint finishes will quickly lose their pristine freshness under normal use, since the slab frames

2

DR

stand directly on the floor and are vulnerable to the movement of feet and furniture. Once the initial sparkle has gone a seedy appearance is inevitable, for patina has no part in this idiom. These chairs are nevertheless not without some merit; they are small in scale and in the Liberty designs the jigsaw fretting of the plywood to articulate the rudimentary arms and legs is a satisfactory visual device, reducing structurally superfluous material, and is in character with the system of construction. The bulk of the cushions and the Pirelli webs for the seat of the easy chair and sofa help to make these reasonably comfortable, whereas the Dunlopillo cushion on the dining chair is supported directly on the slab seat. The earlier chairs, 1, 2 and 3, showed promise, and it is a pity that the designer's later developments with Race, 4, 5 and 6 (exhibited at their new showroom

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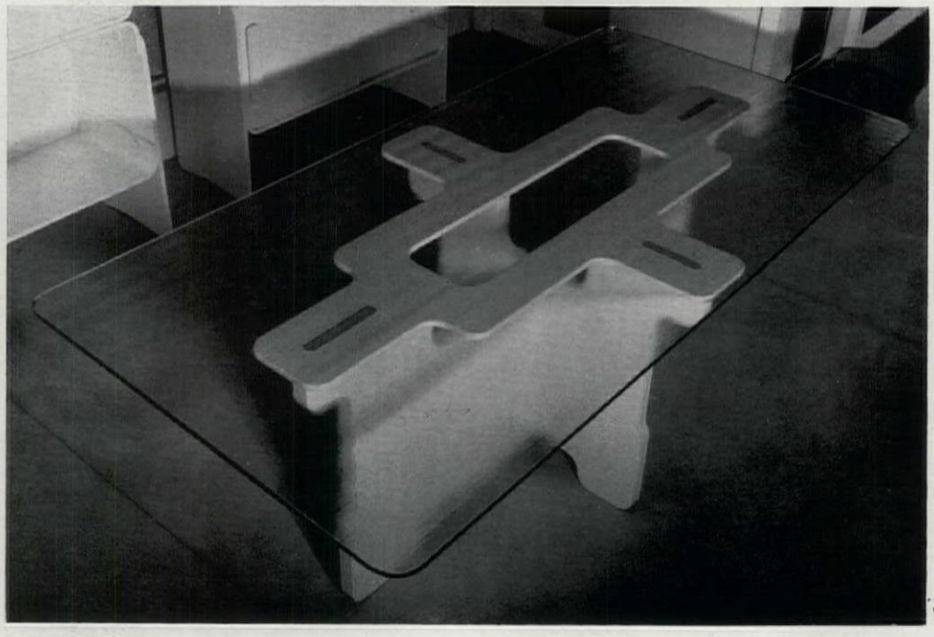
6

in Rathbone Street, London) do nothing to support this hope; they neither break new ground in the cheap expendable field, as in Holdaway's paper furniture (the Spica chair, 4, costs between £77 and £99), nor advance the notions of comfort explored by the Victorians and exploited in modern technological terms by Charles Eames. Rather has the course been set along stylistic lines, and the table from the same range, 7, illustrates the overriding concern with stylistic motifs to the point where one dines with an aquarium view of the table supports revealed through the glass top, giving undue emphasis to the structure.

The Tomoton seating units, 8 and 9, designed by Bernard Holdaway and retailed by Hull Traders, are manufactured from compressed paper tubes. They are crude by orthodox furniture-making standards, but are completely valid if seen as cheap disposable units with the superficial glamour of packaging, to be thrown away once they have become crumpled and sad. The easy chair, 8, costs £4 7s. 6d. The idea is a logical extension of the furniture already discussed, but in this case it is the industrial process and mass production system that dictates the cylindrical forms and assures a low price. The cylinders of various diameter are roughly tailored to seating requirements with squab cushions softening the form where necessary. The range is fairly extensive and includes children's furniture and toys. This concept certainly fits the conspicuous consumption attitudes of our day, but if furniture is added to the ever increasing list of consumer goods that subscribe to these theories, then the attendant demands on diminishing material resources and the accumulation of rubbish will be vastly accelerated.



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Product: Seating.
Manufacturers: Liberty, Race, Hull Traders.

8

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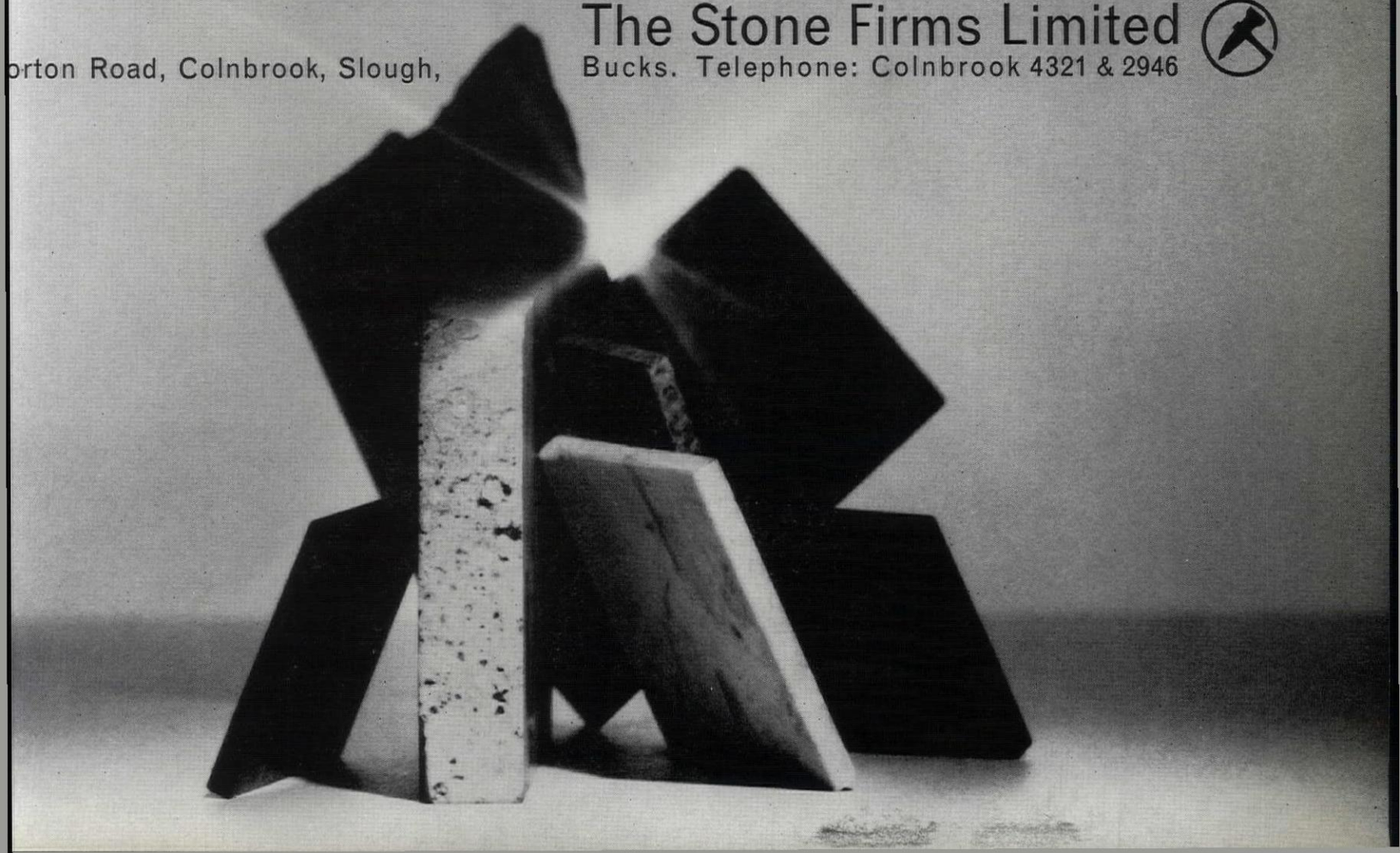

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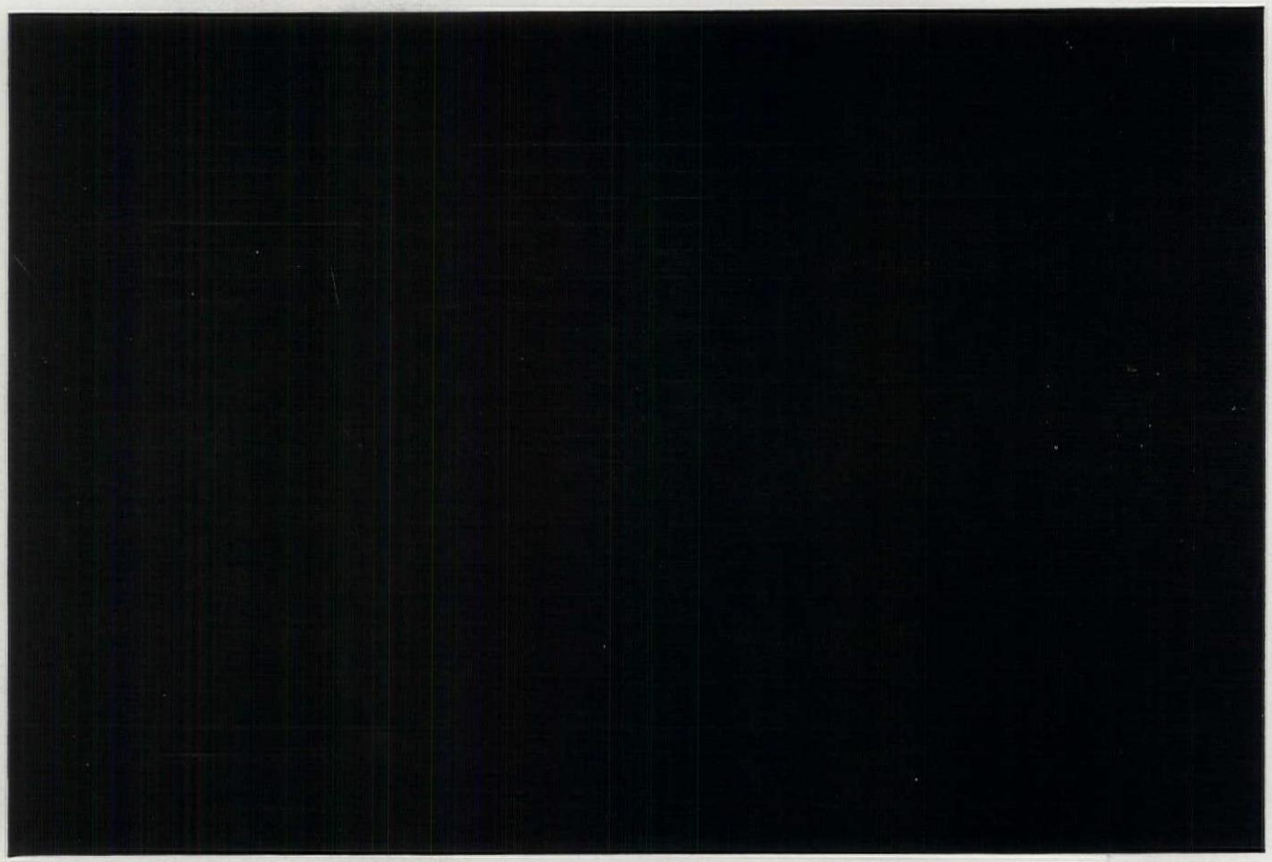

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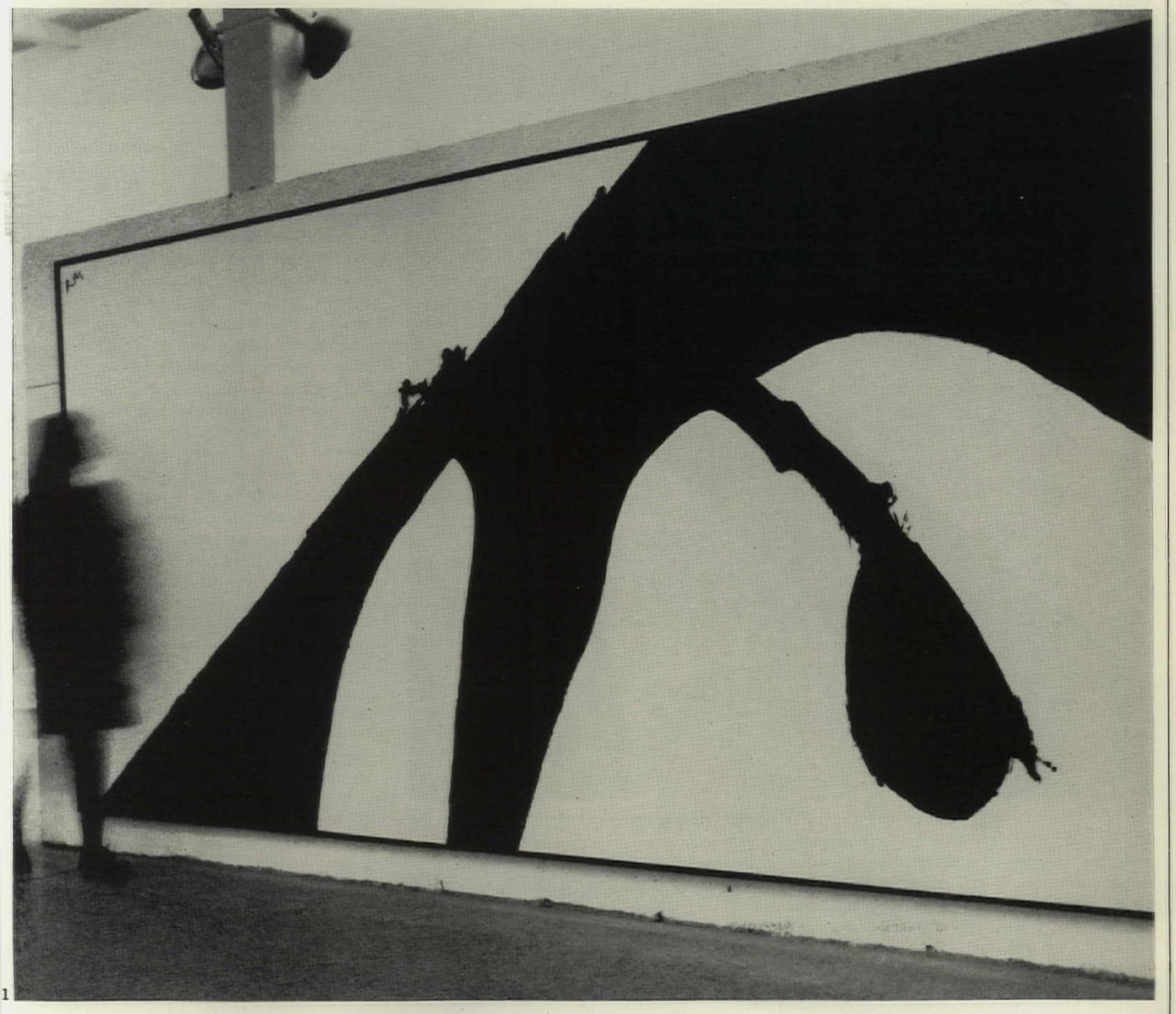
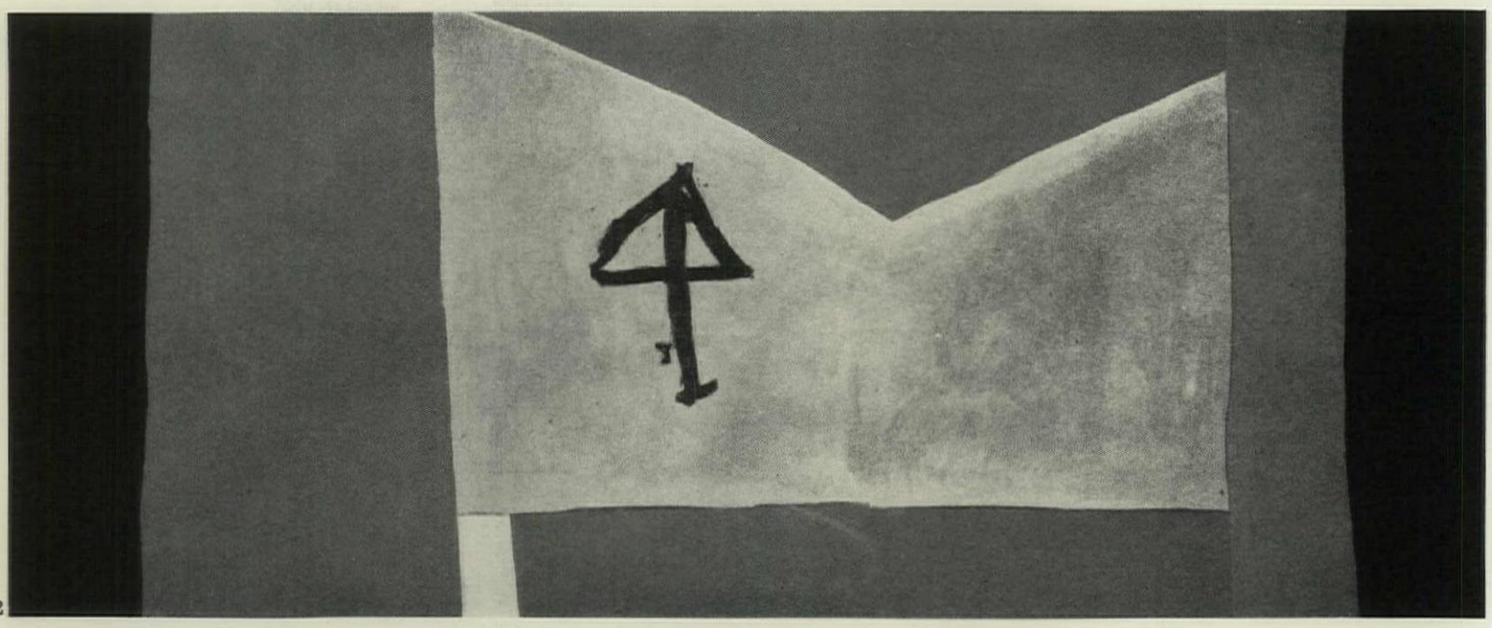
MOTHERWELL & OTHERS

Reyner Banham

For my generation, Robert Motherwell has been a confusing phenomenon. We first encountered him as the editor/compiler of that thumping Wittenborn anthology *The Dada Painters and Poets*. Published in 1951, it had a profound influence on many developments during an extremely sensitive period in the revival of English art—phenomena as different as the Brutalist theory of 'materials as found' and the compositional techniques of Pop painting both owe something substantial to its influence. As a painter, however, Motherwell was virtually unknown in England until the great American show at the Tate in 1956—where he disappointed most of us. Because of his manifest intellectual capacity, and because of his loving documentation of the Dadaists, I think we expected something more quirky, a sort of free-form Ad Reinhardt perhaps. But even more than this, he was represented by a black and white picture in a show which also included one of the most stunning black-and-whites that the New York school ever produced, Franz Kline's 'Chief.'



1, *Robert Motherwell: 'Africa'*. 1964-65. *Acrylic on canvas.* 81 *by* 222½ *in.*



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2, *Robert Motherwell: 'Dublin* 1916, *with Black and Tan'*. 1964. *Acrylic and oil on canvas.* 84⅛ *by* 204¼ *in.* 3, *Robert Motherwell: 'Africa' (detail).*

It was therefore all too easy to see him as a secondary member of a black-and-white subschool within the New York movement, and not as a painter with a unique development that passes in and out of black-and-white phases. To see him in this light, we have had to wait for the Whitechapel Gallery to stage a slightly modified version of the Motherwell retrospective which was seen last autumn at the Museum of Modern Art, New York.

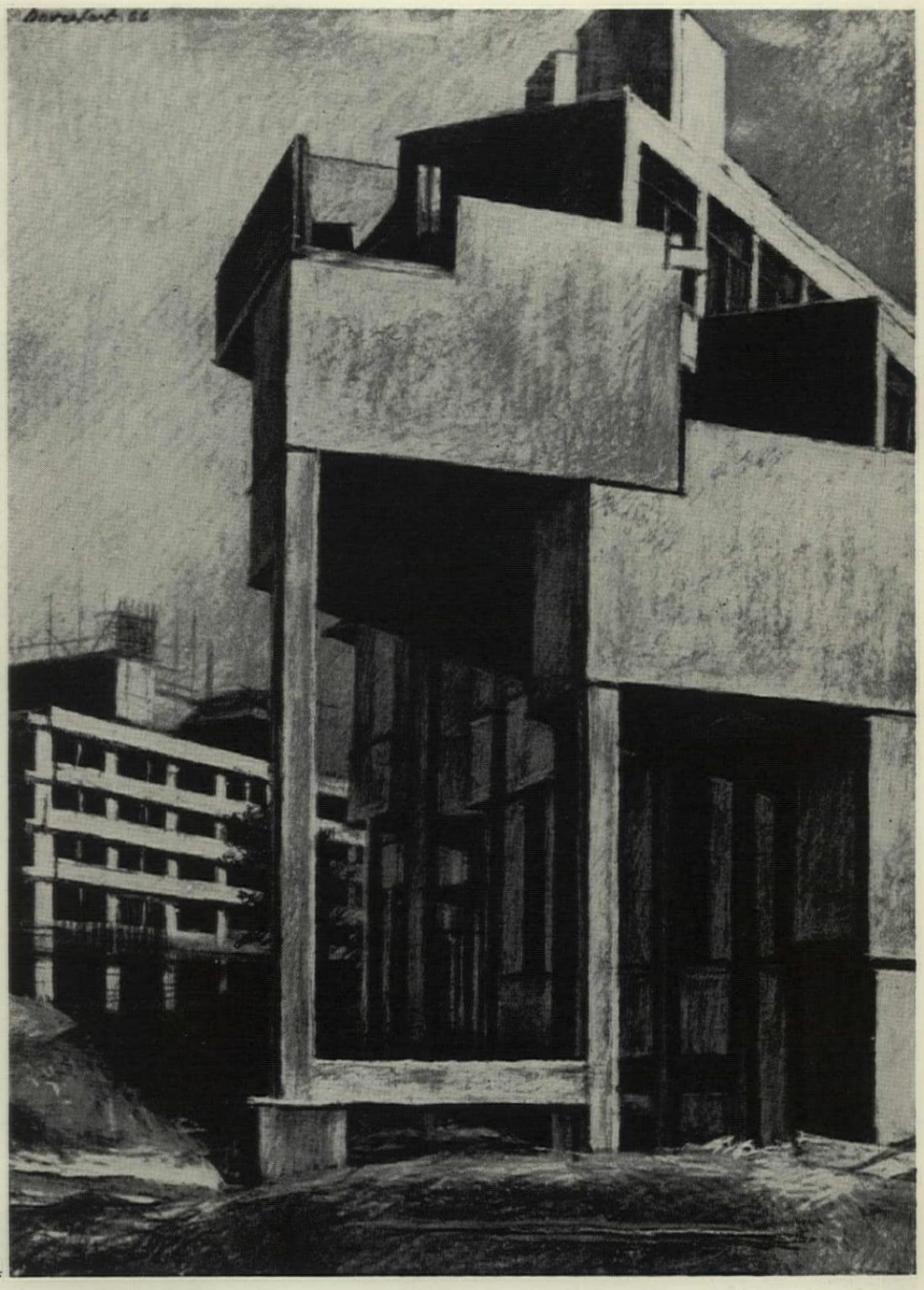
Environmentally, the Whitechapel version was the better: the anonymous shed-like interior, and the cool grey April light left the viewer at mental liberty to muse and ponder, whereas the pressure-cooker effect of the MMA's overlit subterranean gallery left intellectual room only to shuffle and stare. And at Whitechapel, even more than in New York, the effect of seeing Motherwell in full colour was to see his triumph as a black and white painter. This is neither a Dada paradox, nor any slight on his coloured works. To see his huge new black and white 'Africa,' 1, to pace out its length as an environmental wall, is to see that his equally large recent works in colour, such as the 'Dublin 1916,' 2, good as they are, cannot match this vast simplicity. What is paradoxical about the 'Africa' is that it is not strictly a black and white painting either. Walking down the length of the huge composition, you could see, with the changing viewpoint and light, a few small spots and uncertain smears of blue among the broken black at that interruption on the long leftward slope, 3, of the silhouette, suggesting that there might be an alternative blue version, or even a different picture, under what one could see.

It was, in any case, a picture that played heavily on one's suggestibilities—and since the present state of Anglo-Saxon art-discourse permits us to admit that we can see faces in the fire and the lights of Times Square in Mondriaan's 'Broadway Boogie-Woogie,' these suggestions of the 'Africa' may be worth discussing. Accepting that pictures communicate exactly what they appear to communicate simply because they appear to do so, this is in some sense a landscape, the precise sense being that of landscape as it manifests itself in wide screen movies, although the real presence of the 'Africa' as a tangible artefact

in the room is crushingly greater than most cinematic images are. This intimation of landscape will be pretty widely felt because experience of wide-screen imagery is general, but how about more sectional responses? Irrespective of what Motherwell may have intended to put into a picture with this title, architecturally minded viewers are bound to feel a powerful sense of arcaded structure in the central parts. But is it the leaning arches in the porch of Gaudi's chapel at the Colonia Guell, or was it just a coincidence in time that made several people compare it to the silhouette against the sky of the Kitt Peak solar telescope that Myron Goldsmith showed in his Annual Discourse at the RIBA?

These intimations of architecture are so strong that it is difficult not to speculate once again on what might happen if modern painters would seriously confront modern architecture as a subject, object, or theme for variation. But it seems that this not to be . . . it is a confrontation that takes place only outside the mainstream of current developments. One such deviation is the art of Leslie Davenport, virtually unknown outside East Anglia (he teaches art in Norwich). His mode of vision, realistic and theatrical, clearly has origins close to those of the wartime work of Sutherland and Piper, but his own temperament, and a characteristically Norfolk sense of the intemperance of Nature (there always *is* a wind on the blasted heath, Brother!) forbid him the impressionistic sentimentalities into which Neo-Romantic topography declined in the later 'forties. Davenport's studies of abandoned farm machinery, collapsed cottages, industrial plant, ruinous sea walls, distil a vision that is probably incomprehensible to those who don't know Norfolk, but—when comprehended—makes it easier to understand how right it is that the first major Brutalist building should be at Hunstanton in that county.

But it was not the Smithsons' work that was celebrated in Davenport's brief April show in Norwich; it was Lasdun's. Subject and artist seem to have been made for one another; the uncompromising pre-cast slabs and posts, their plainly apparent mode of jointing and assembly into structural piles that (unglazed and unfinished) resemble houses of cards, have found a match in Davenport's delight in solidified picture-surfaces and plainly apparent pictorial construction, 4. His long studies of hard-bitten functional surfaces and elementary structures have clearly given him a strong sense of what the pre-cast concrete of the University of East Anglia 'wants to be,' 5. It looks as if a whole wing of recent British *brut* architecture may have found, if not its Pannini, at least an appropriate Hubert Robert.

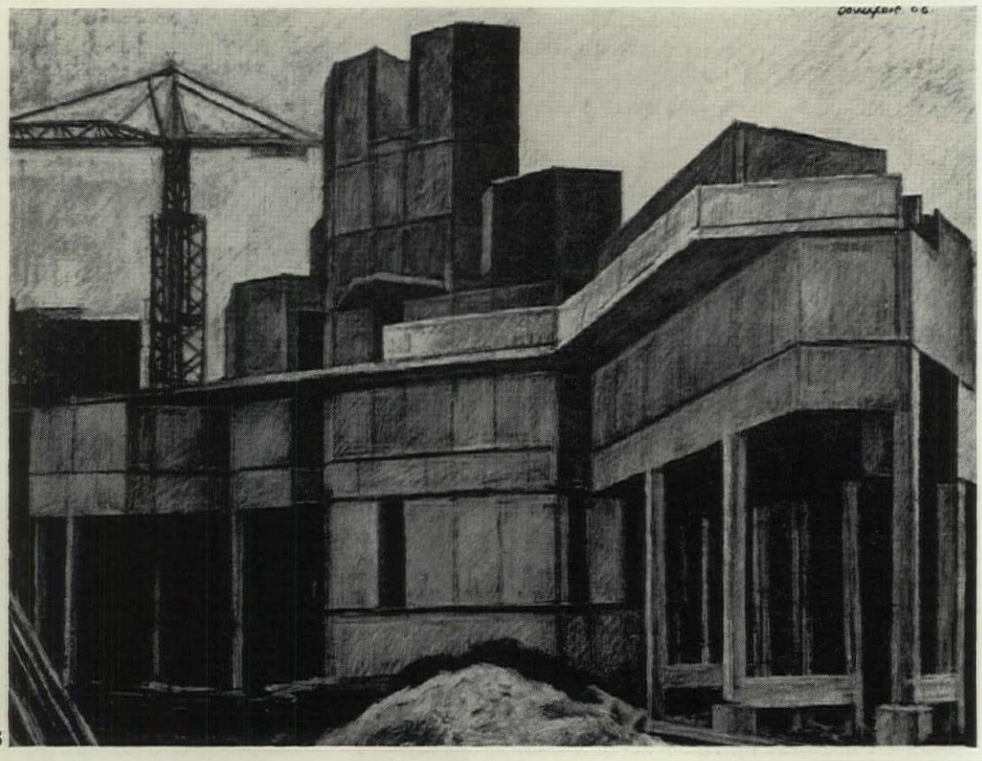


4, *Leslie Davenport: 'University of East Anglia, Residential and Chemistry Block'*. 1966.

Meaning that Davenport, by observation and sympathy, can still do for this architecture things that photography cannot, that here is a painterly vision that can stand up against the almost total tyranny of the camera eye and the half-tone block. Just how devious and pervasive are the effects of that tyrannous mode of vision was neatly and (I think) sardonically shown by a large landscape of Richard Hamilton's that appeared in a 'Work in Progress' show at the Robert Fraser gallery, 6. Basically, it is an enormous photographic blow-up of an entirely conventional post-card type of image, which Hamilton has, in parts, tinted up in equally conventional shades of Raphael-Tuckery. In other parts, however, the addition of colour has been worked up into independent arabesques that seem to be some sort of visual pun on the pre-existing graphic texture of the original reproduction.

But in yet other parts, instead of advancing towards painterly abstraction in this kind of way, Hamilton has 'regressed' into more primitive modes of representation—or should one say 'simulation'? In a manner similar to that in which a painter like Crivelli could give his Saint Peters sets of wooden keys in relief, Hamilton has built up much of the foreground afforestation out of spongy materials, and there are other devices from the lower levels of representational technology, such as a stuck-on, red-painted wooden house-roof.

But the cream of the jest is that in our present state of visual conditioning the whole of this elaboration of the surface can go almost unnoticed. Admittedly, it may not be too easy to perceive it when the picture has been once more reduced to a photographic half-tone block for purposes of reproduction on this page, but even in real life the tonal and textural aspects of what Hamilton has done to the picture are so close to what we would *expect to see* in a photographic half-tone, that these improvements can remain 'invisible' at even a modest viewing distance. I doubt if anyone can any longer sort out just what all this means. Hamilton's paintings have, for a long time, been chiefly concerned with representing the means of representation, from those early 'studies of perspective studies,' through the eight standard ways of representing the highlights on chromium plate, to the enlarged sections of Roy Lichtenstein's enlarged sections of comic-strips, and there has always been this doubt: whether the whole thing was an in-joke for professionals and connoisseurs (and Hamilton has read his *Dada Painters and Poets*, as well as being closer to Duchamp than anyone else in England) or whether his is the art that reveals the artifice that art normally conceals—except that the landscape only reveals it at second glance.



5, *Leslie Davenport: 'University of East Anglia, Residential Block'*. 1966

But Hamilton certainly epitomizes the kind of supercilious, knowing sophistication with which most of us pick our way negligently through a sea of mass-reproduced imagery today, taking in our stride elaborate puns on nothing in particular, or huge abstract-looking compositions whose apparent content must remain for ever conjectural—only to be thrown off balance by someone like Davenport who sits down simply to do what painting has always been supposed to do: to show us what the thing looks like. The direct impact of his exhibition was far beyond what the number of exhibits, their colour and form would appear to justify. It must have been something else—but is there anyone who could say, without embarrassment, what that simple something is?

6, *Richard Hamilton: 'Landscape'* 1965-66. *Mixed media on photograph.* 32 *by* 96 *in.*

MISCELLANY

landscape

A ZEN GARDEN IN BIRMINGHAM

The Zen sect of Buddhism, introduced into Japan in the twelfth century, influenced many branches of the arts including gardening, painting and flower arrangement. Its axiom was to infuse natural objects with spiritual values, whereby the mind could be freed from the domination of worldly thought and a sense of inner peace attained. Following these precepts, dry-landscape gardens were constructed, which achieved an effect of simplicity with the minimum of display.

A garden on the same lines has just been constructed in Birmingham by the City's Park Department, to be ready in time for the Annual Tulip Festival in May. It was designed by Paul Edwards, the Department's landscape architect, and his assistant on the project, T. Pullen, with the aim of following as nearly as possible the principles laid down by the Zen Masters

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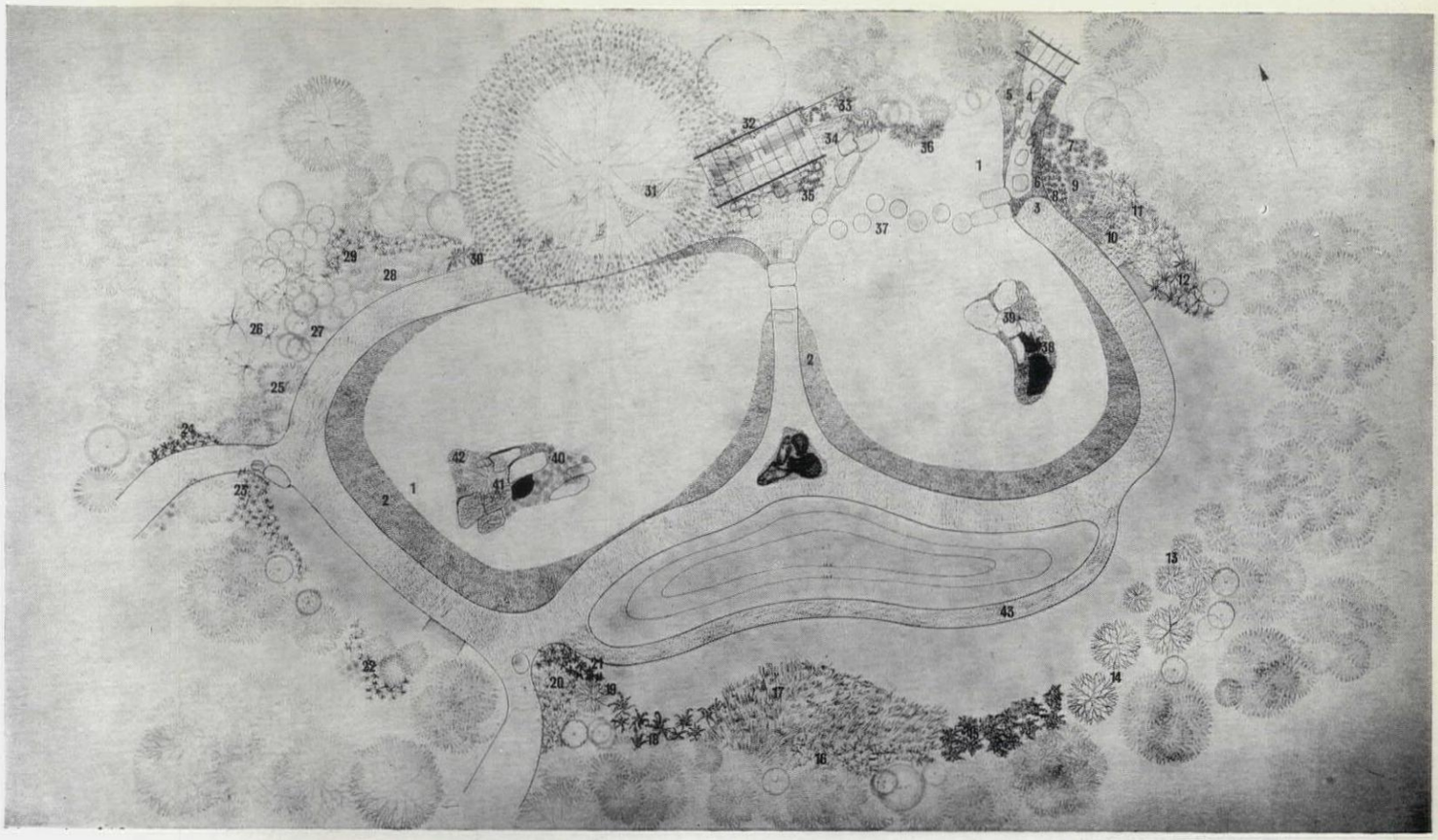
themselves. Its site is within Cannon Hill Park, and consists of a secluded dell surrounded by mature shrubbery, including some fine rhododendrons, about a sixth of an acre in size and roughly rectangular in shape. It can be approached from three directions, each by means of a narrowing path, giving the impression of entering a small peaceful world set apart from the noise and bustle of a large industrial city.

Passing beneath an arbour of clematis, the visitor to the garden goes down a moss-covered stone path, crossing by means of stepping stones—large millstones, some nearly two hundred years old, have been used for this purpose—to a pergola. This is seen on the right in 2, a view from the eastern boundary. There, amidst wistaria, juniper and hellebore, he can hope to capture something of the inner peace of the ascetic. From the pergola, the garden can be seen to full advantage. In dry-landscaping, the Zen gardener made use of rocks, sand and stones, together with the careful choice of plants and shrubs, each intrinsic part having a symbolic meaning all of its own. The Cannon Hill garden's main features are two large expanses of fine white Bedfordshire sand raked into prescribed patterns, the formation of which should, ideally, be altered each day. These represent lakes, the water signifying the purity of the mind of man, as he contemplates the infinity of the universe. The water effect is heightened by a border of shingle around the edge, the pinks, greys and blues of the cobbles contrasting with the silvery-white of the sand.

Rocks are an essential for this type of garden. According to their size and shape, they are placed in strategic positions to symbolize islands and mountains, while others represent birds and beasts of good omen. Following the lines of the sand patterns, the eye is carried to three main groups of rocks, which are of Yorkshire limestone, some being covered by a green moss that appears to thrive under local conditions. There is an 'island' in each sandy 'lake,' 3, whilst another group, in which stands the 'guardian stone,' is at a point where the Breedon gravel paths between the areas of sand and the outer boundary of the garden converge. The rocks have azaleas, birch, callunas and hamamelis planted amongst the cobble-stones that surround them.

The garden is so designed that wherever the wanderer may stroll along the gravel paths flanked by mahonias, irises, azaleas, lonicera, cornus, etc., he may have the feeling of timelessness and solitude, or, if he prefers to sit on one of the seats placed at different points around the path, he can see a cool, peaceful vista with the clean lines of the sand, the jagged rocks with



plan of garden: key

1, 3 in. fine white sand laid on 3 in. consolidated fine ash
2, 1½ in.–1 in. shingle, 3 in. deep
3, Breedon gravel paths
4, stones surrounded by moss and/or turf
5, bamboos (pseudosasa japonica and pleioblastus variegatus) Ground surfaced with shingle
6, anthemis nobilis
7, aesculus parviflora
8, epimedium pinnatum
9, tiarella cordifolia
10, aruncus sylvester
11, 22, pseudosasa japonica
12, phormium trenax
13, euonymus yedoensis
14, nothofagus antarctica
15, rhus cotinus atropurpurea
16, thamnocalamus spathiflorus
17, juniperus chinensis pfitzeriana
18, 25, cotoneaster x rothschildianus
19, ailanthus altissima
20, 23, 29, arundinaria anceps
21, 24, mahonia japonica
26, hamamelis mollis
27, cornus stolonifera
28, stephanandra tanakae
30, lonicera pileata
31, pachysandra terminalis
32, sasa gauntlettii
33, pleioblastus variegatus
34, cimicifuga racaemosa
35, helleborus niger planted round stones
36, iris siberica tropic night
37, stepping stones
38, large cobbles
39, hamamelis mollis
40, kurume azalea hatsugiri
41, betulamandschurica japonica
42, calluna vulgaris cuprea
43, thymus serpyllum

their guardian stone and feathery bamboo plants, and beyond, the stately trees silhouetted against the sky.

STANLEY PITTMAN

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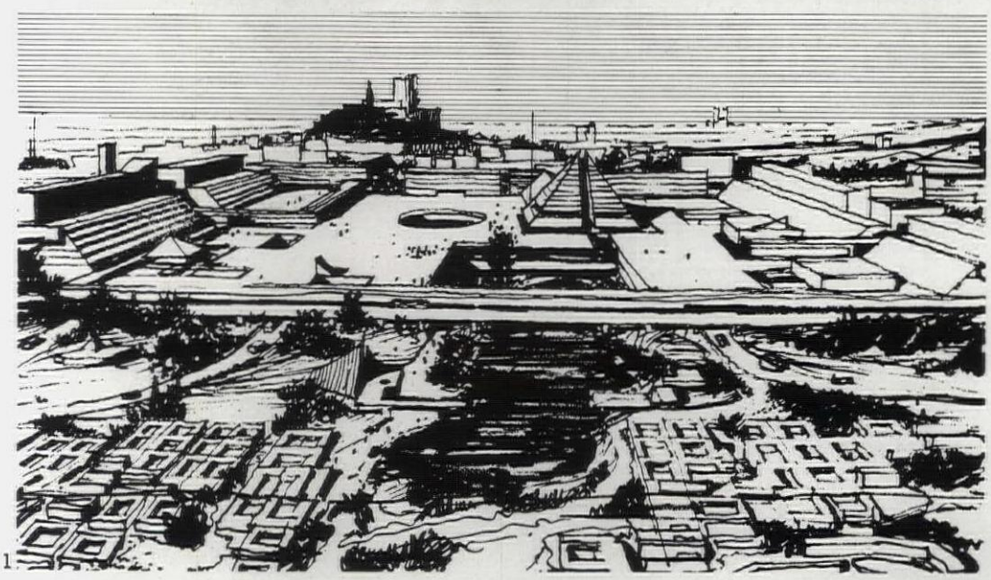
town planning

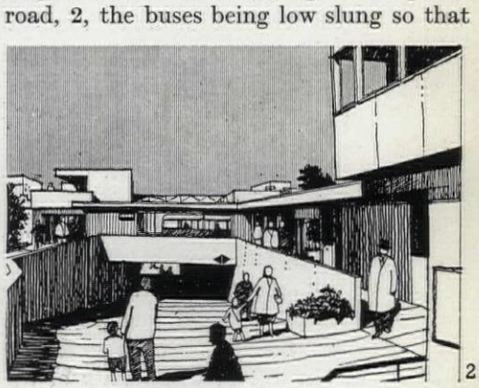
MARK 3 NEW TOWN



1

On a dramatic site overlooking the Mersey estuary, Runcorn (the draft plan for which was issued recently) will be the first of the Mark 3 New Towns. It may also be the forerunner of a new generation of such towns based on the balanced use of public and private transport. Sixteen miles from Liverpool and fifteen from Chester, its object is to provide new jobs and homes in the north-west, with priority given to people who move in from northern Merseyside. The population is expected to increase from the present 30,000 to 70,000 by 1977, and there will be ultimate provision for another 30,000. Well placed for communications, the town will be served by the M6, the projected North Cheshire motorway, and the now electrified Liverpool-London railway.

The draft plan is by Arthur Ling, working as consultant architect-planner with the staff of the development corporation. It is based on a linear arrangement of communities grouped round a central park, 1, and served by a rapid transit system. The system will most probably consist of single-decker buses running on a special road, 2, the buses being low slung so that



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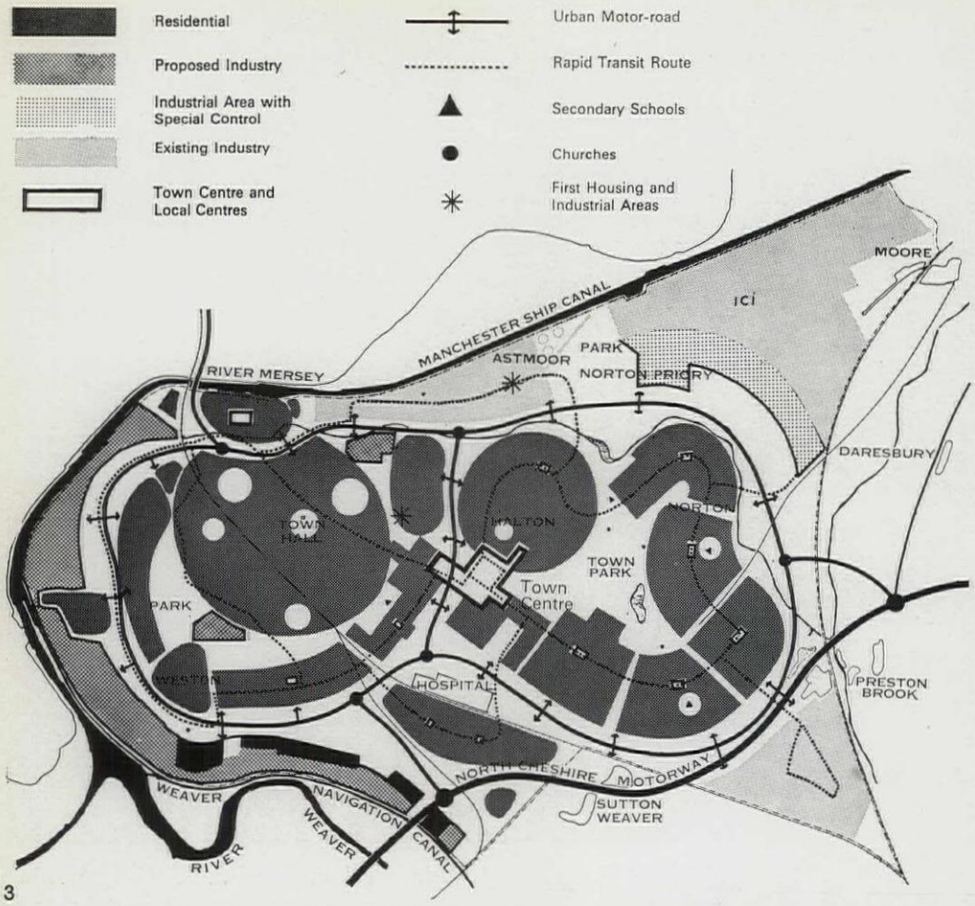


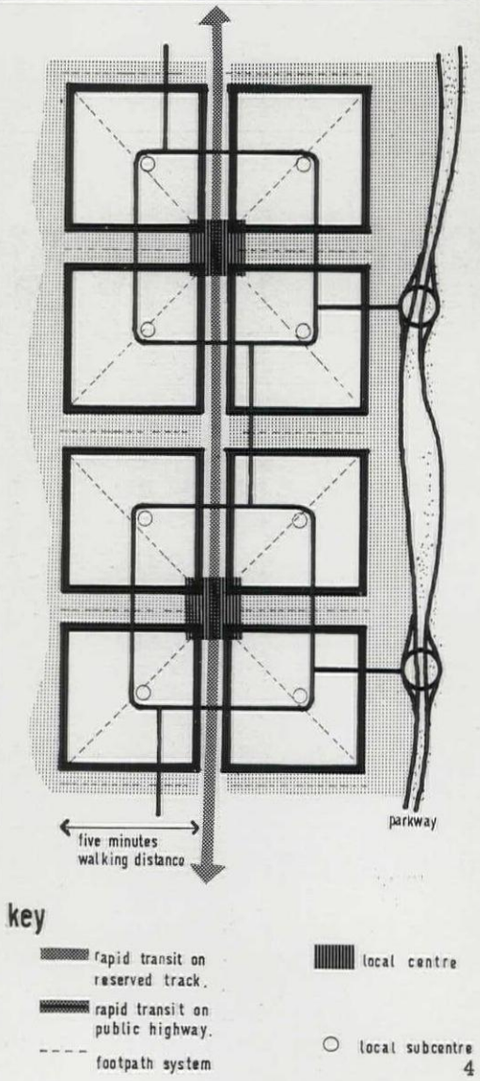
3

pedestrian bridges crossing the route can also be lower than usual and less of an obstacle. The buses will have extra wide doors to take shoppers and their parcels—in fact everything will be done to encourage the use of public transport rather than private car.

This transit system, which forms the spine of the residential development, is basically a figure of eight with the town centre literally central at the intersection of the loops. With a two-way service this shape makes sense, since the most frequent service is at the furthest point from the town centre. Private and commercial traffic will be completely banned from the route and pedestrian access strictly limited. Community facilities will be concentrated in local centres at half-mile intervals along the route.

Quite independent of the bus route, an encircling motorway will provide vehicle access to the residential and industrial areas, and this system of indirect road connections between communities will ensure that private cars are encouraged to use the urban motorway. Runcorn is therefore envisaged as a town without traffic in residential areas.

The new residential communities will each have a population of about 8,000 and will extend approximately a quarter of a mile on either side of the rapid transit system. By this means it is intended that everyone shall be within five minutes' walk of the bus service, and also the local shopping, education and social centres, 4. Covered pedestrian ways, segregated from traffic, will link the inner parts of each community to its local centre and to the rapid transit stops, 2, while a system of footpaths will lead outwards to the town park.



4

Early on it was decided that the existing centre of Runcorn could not be developed as the centre for the new town because its position in the extreme north-west of the site would inevitably increase traffic congestion at the bridge over the Mersey. Also, a new centre could not be formed without completely redeveloping the existing shopping area and therefore disturbing the existing traders. It was decided instead to turn old Runcorn into a district centre and create a centre for the new town elsewhere. On balance, there seemed the strongest arguments for placing it geographically central, just south of Halton, so that it would be accessible from all parts of the town. This decided, the visual intention now is to design it in such a way as to group with, yet be dominated by, the hilltop village of Halton with its ruined castle on a rock 300 feet above sea level, 1. The shopping centre itself will be planned on several levels with the rapid transit system coming right into it, 5, giving easy


5

access to the shops, the goods service at ground level and the car parks, which will be distributed on the outer edges. A regional sports centre with stadium, swimming baths and sports-halls is proposed east of the town centre and linking it with the park.

This town park will preserve the existing fine landscape as much as possible and, to the north, will link the town centre with the Manchester Ship Canal. Here a restaurant and social centre built right on the edge of the canal will give views of the passing shipping. The Bridgewater Canal also is to be preserved and will be widened out in the park to form a marina.

Industry is located on the flat land outside the urban motorway which encircles the town and which connects with the Runcorn-Widnes bridge and the projected North Cheshire motorway. Work on the new town and urban renewal of the old are planned as a combined operation.

K.B.

Leo works very well at work...

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In fact Leo has the sort of strong but well mannered personality which people everywhere find attractive and relaxing. Designed by Robin Day, it is the latest addition to the Hille range of easy chairs and one of several in the range which have proved equally successful in working and domestic environments.

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history

LANGINKOSKI

During most of the period (1809–1917) when Finland was a Grand Duchy of the Russian Empire, visits by the reigning Czar were infrequent and seldom more than strictly official in their nature—ceremonial occasions in the new capital Helsinki or the old one, Turku. Only during the reign of Alexander III (1881 to 1894) did the Czar maintain a residence in Finland which he took pleasure in using. Alexander III and his Danish consort Dagmar were devoted to the, at that time, unfrequented coastline with its archipelago of islands along the Gulf of Finland, and the residence they built for themselves when Alexander was still Crown Prince was a fishing and hunting lodge at Langinkoski, a short distance west of the town of Kotka. When he came to the throne it was a refuge not only from the burdens, but from the dangers, of government; Alexander II had died by assassination and his son, who feared the same end, felt safe in this remote hide-out. The timber-built lodge still stands, 1, beside the tumbling rapids which were the attraction of its situation, though the flow of water is now less because of hydro-electric developments nearby. It is a romantically conceived building in a romantic setting, with a wide verandah, across the front, simple in outline but enriched by carved pillars and brackets and pierced balustrades modelled on the peasant architecture of Karelia. It still has all its original furnishings and is now maintained as a museum. J.M.R.

1

Architectural Models

The use of models in architectural practice has several facets. They may be used as a design tool by the architect, or as a means of gaining an overall impression of a large scheme. In complex problems they may present a more readily assimilable picture where conventional two-dimensional drawings or perspective sketches tend to be limited. Probably the most usual reason for embarking on the construction or commissioning of a model is to enable a more understandable view of a scheme to be presented to a lay client or committee. Few architects, used to reading plans, elevations and sections, realize how difficult this is for the average layman. Even the perspective does not furnish the complete answer, through its limitation in viewpoint and the side effects which presentation technique may have. This article by R. Pfaendler describes the architectural model, largely in this latter context, as a tool for the presentation of a three-dimensional idea. The scope of the model, its problems and limitations in particular circumstances are described, together with guidance on the commissioning of a professional model maker.

skill

Architects who are faced with the problem of presenting proposals to laymen, especially in committees, often find normal orthographic drawings inadequate. In such cases they normally have recourse to perspective drawings, models or photographic techniques. Perspectives are always open to the objection that they only show favourable viewpoints and are made so attractive intrinsically that it is the perspectives and not the schemes that clients accept—often to their subsequent disappointment. Models are open to the objection that miniatures are of themselves attractive and so tend to get accepted for the wrong reasons like perspectives whilst at the same time presenting a view that nobody sees except from an aeroplane. This problem can be avoided by careful photography of the finished model, to maintain true eye level perspectives. Model makers have made considerable advances over the last twenty years in the techniques of precision they can bring to bear for the study of development schemes and major buildings, and this means that full advantage can be taken of really close detail photography. 1 is an example of such a photograph. The VC10 is only 5 in. long and the airport terminal 1 in. high. Accurate models thus presented, are the nearest possible approach to the real thing. Contemporary use of model technique is not confined to architectural presentation but also finds a place in motorway and town planning, civil engineering, structural sequence planning and illuminating engineering as well as providing a design tool for complex three-dimensional forms.

The survey basis

The information required for the construction of a model, whether it be for a regional plan or an individual site, depends essentially on survey observation, drawing and detail specifications. The basic survey is the first information required. In this sense model-making comes very close to architectural practice. The survey which is used can of course be obtained in several ways; by actual survey on the ground with instruments, by use of contoured ordnance maps, or by sophisticated techniques of stereoscopic aerial photography. This can yield highly accurate contoured surveys with remarkable speed, and large scale air photography and mapping has already been carried out to cover many towns and areas surrounding the London region, the south-east, the Midlands and the north-west of England.

The use of such surveys is an absolute essential for the development of models intended to form the basis for planning exercises in a large area. An early post-war example of a town planning model is that of Cambridge. It was constructed at the instigation of the County Planning Department by a model maker employed by the local authority for the purpose. Started in 1949, it took some years to complete and is now roughly 15 ft. sq. It is made up in sections on individual baseboards 3 ft. by 2 ft. 6 in. for convenient handling. This model has been in regular use ever since. New developments are modelled as they occur and, where relevant, publicly exhibited. A recent model of Ipswich central area also at 1/500 scale, measured 11 ft. by 9 ft. This also has been planned to permit amendment and show developments as required.

The close liaison between architecture and civil engineering means a wide variety of planning surveys for which models are required. This occurs in natural resources studies, power production, water conservation, sewage treatment and disposal, land and air communications for servicing and distribution, and in the case of water borne goods, the expansion of docking facilities. Motorway planning in the last few years has made extensive use of models from basic studies with relief maps at 1/2500 scale, planning and landscaping models at 1/2500 and 1/500 scales, and detail structural models at larger scales. In chemical processing installations, the complexes of pipe and service work is such that models are used as the only feasible way to design the project.

Not only are they used to design but they are also used as the basis of manufacture and prefabrication of the necessary pipework and components.

Models are often used to study the planning and siting of nuclear power stations which dominate landscapes or for landscaping fly ash dumps from conventional power stations. Suitable scales for landscaping may be as small as 1/1250 or where structural detail must be shown, at about 1/500 or 1/384. Reservoirs, dams, ports and docks are frequently modelled at scales of between 1/500 and 1/2500 to show the needs and intentions of a project. The commissioning of the models of this kind is usually done by the Ministry concerned, working through an appointed consulting engineer, or through the planning department of a local authority.

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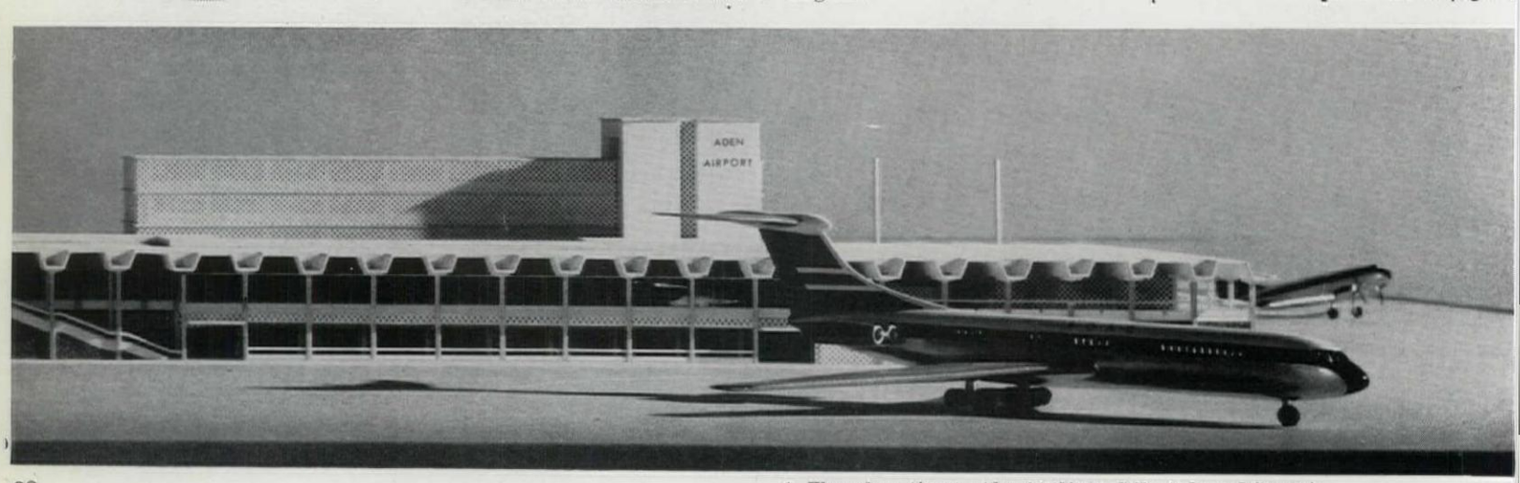

1, *Khormaksar Airport, Aden. (Architects Cobb Archer and Gaymer.)*

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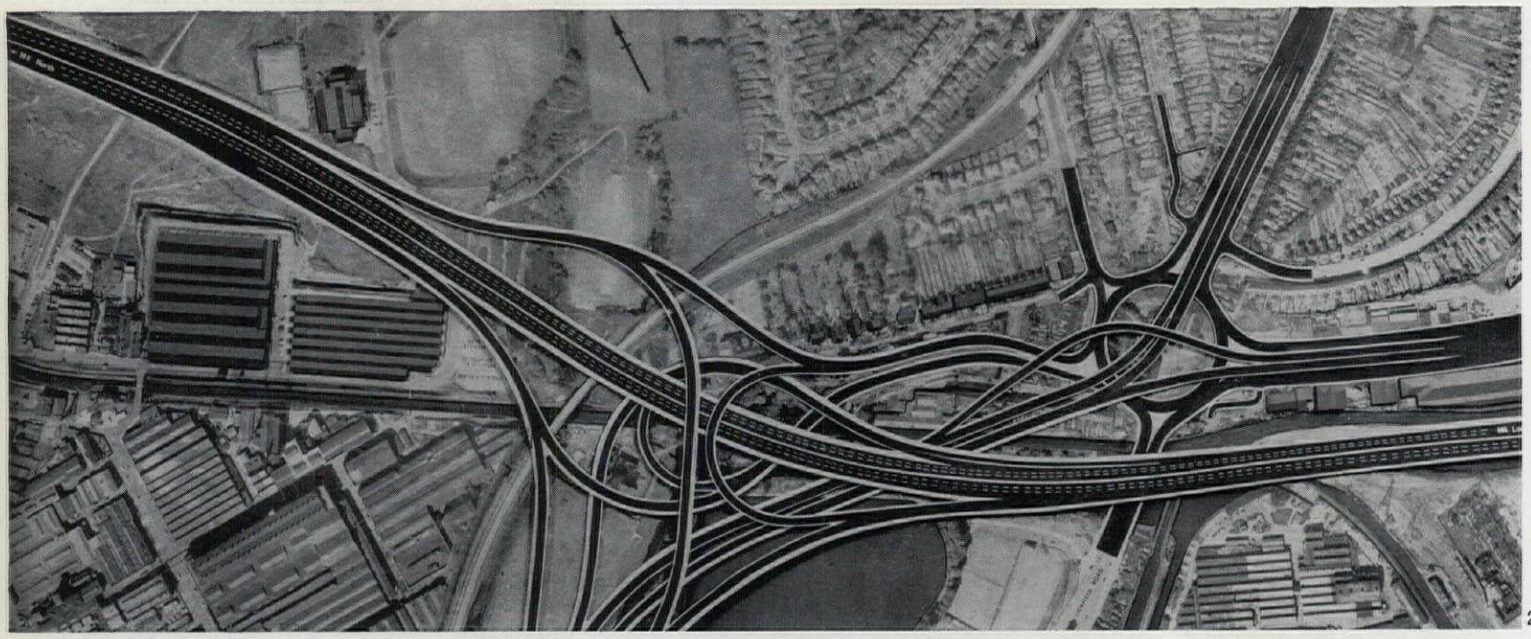

continued from page 68]

Architectural models

Concurrently with the development of national planning and control since the war has come a great increase in architectural model making. They have been used by both official and private architects to illustrate housing schemes, schools, hospitals, business and industrial development proposals and civic buildings of all kinds. The scales used normally depend upon relationship between site, size, detail required, type of development and cost.

Generally speaking larger city centre developments by local authority or private developers call for 1/500, $\frac{1}{32}$ in. or $\frac{1}{16}$ in. to 1 ft. scales, whilst individual buildings are normally $\frac{1}{16}$ in. or $\frac{1}{8}$ in. to 1 ft. During the design of a particular building or complex there may be several occasions when a model is required. At the initial planning stage, areas, volume and general layout only may require a simple block model for general discussion. Balsa wood is a familiar and convenient material for representing buildings, and contours can be done in stepped layers of the same material if site levels are to be shown. At later stages in design more sophisticated models may include materials to represent glass, metal, facing materials, surface finishes, paving and perhaps landscaping. Experienced model makers have many alternative methods and materials with which to achieve particular results. When a model is to be commissioned a short preliminary meeting will usually settle a general pattern of construction. Even with exercises as simple as block models the techniques can vary enormously. Content and subject will normally dictate the style and finish of planning models. Colour, lettering, explanatory text and identification keys all help to provide an interesting composition without which a block model may lack sufficient impact. A model may be no more than a site plan with levels and simple building outlines but presentation can still be very important if a client is going to see it.

When buildings have been designed in detail a model may be needed to help to obtain a client's approval and planning permission. In such cases it is always wise to consider portability. Big models should be in sections that will permit easy entry through a standard door although quite often the size of a car boot or door may be a better criterion. Initial enquiries to model makers should state the scale proposed and should be accompanied by a site plan, typical floor plans and elevations. Model buildings can be constructed so as to show interior levels, services and partitions and can have a removable roof and floors. In the case of sectional models any horizontal joint lines formed on the exterior of the model when it is put together may need careful thought. When a scheme has reached the stage of working drawings models to a relatively large scale can sometimes save time and money in working out or demonstrating difficult structural points. Structural models can also help at earlier stages of design if unorthodox forms of construction are being proposed.

Clients who are concerned with interior furniture or equipment planning and want a model for this purpose are often best served with models representing just walls and floors with simple blocks of wood for equipment. When required more elaborate models can be built to work out exercises in interior decoration. The appearance of materials as varied as polished marble or hung fabrics can be represented, complete with illumination. Indeed, models

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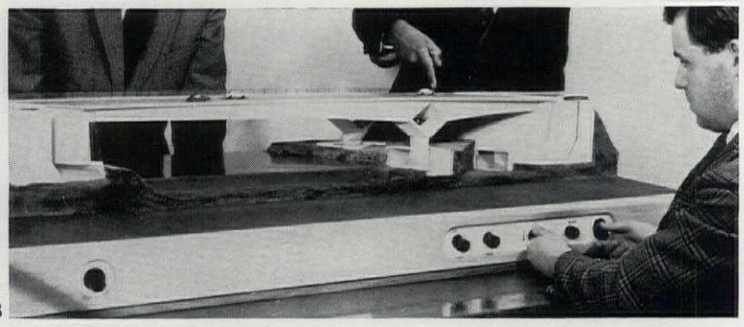
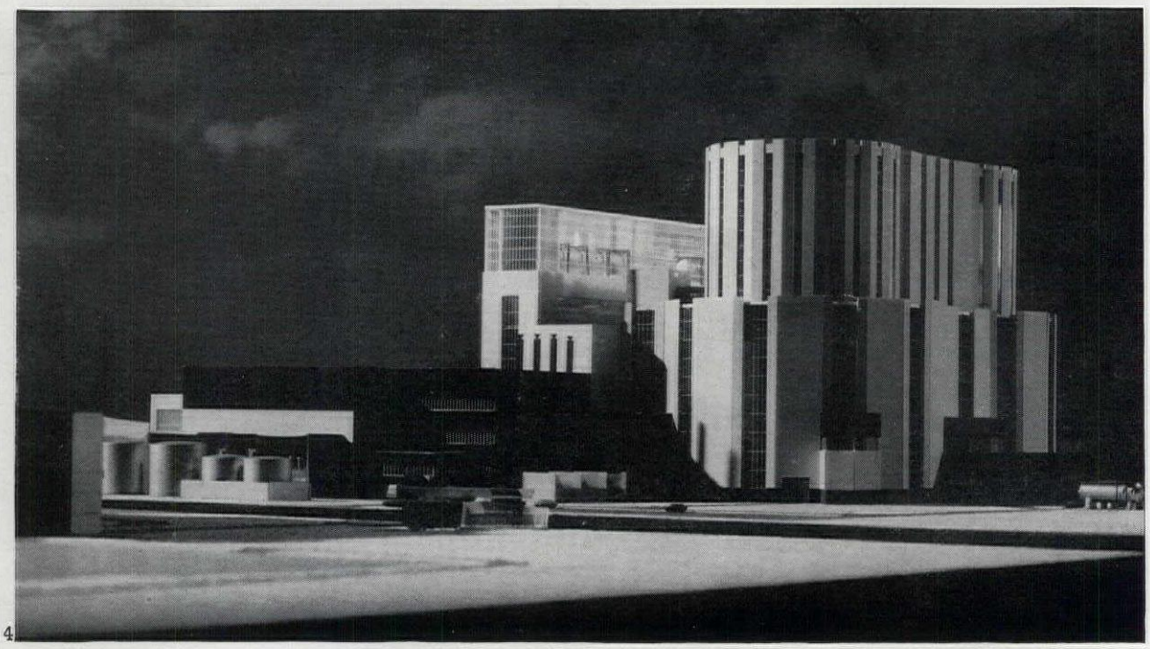


2, this example of the proposed fly-over junction at Gravelly Hill, Birmingham, gives a clear indication of the need for three-dimensional explanation of modern road techniques. (Consulting engineers, Sir Owen Williams and Partners.)

3, the model as a design demonstration tool. Bridge designed for mining subsidence by the West Riding County Council. The operator is demonstrating the multiple movement of the structure from a linked control panel.

4, Dungeness 'B' power station. Constructed at 1/500 scale, this model still maintains clear glazing techniques and major interior detail. (Architects, Howard Lobb and Partners.)



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Three ways of keeping up to date

See page 110

5

6

8

continued from page 70]

are sometimes the only possible way of working out important daylight and artificial illumination problems.

Modelmaking contracts

When placing a contract with a firm of model makers it is vitally important that they should be provided with sufficient information. Ideally site plans should show all ground levels, existing and proposed. Complete elevations will be required, though not necessarily to model scale. Large scale sections are generally necessary to provide sufficient information for fenestration and for elevation relief modelling. Samples or colour swatches of all the materials to be used should also be made available. Adjoining buildings may have to be shown. These may be required in block outline or in more detail, If so, information for their construction will also be required. In many instances adequate information may not be available before a model is started or the model may be required before final decisions on colour and finishes have been made. Co-operation with the model maker then becomes essential so that alternative solutions can be adopted if necessary. It is very helpful if an architect is able to convey his ideas in words and sketches, 7.

The programming of model production should always be carefully considered and discussed with the model studio. A large number of individual buildings on a site may be quickly constructed by a team, whereas a single building of complex construction may make it impossible for more than one or two model makers to work together. Given the same cubic content of building, this

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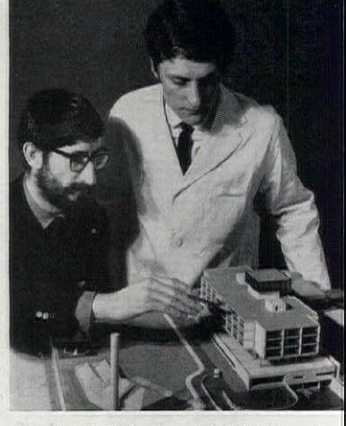


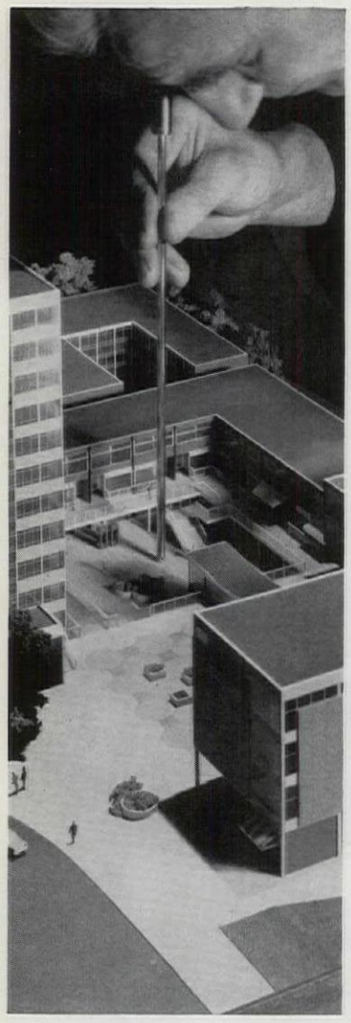
7

5, St. Anne's Redevelopment, Rotherham. To provide consistent detail finishes as would obtain in actual buildings, the complete elevational pattern of ribbed concrete surfaces, glazing and colour detail was reduced to model scale and mass produced from a master, then applied to building cores. (Architects, Gillinson, Barnett & Partners.)

6, model to a scale of 1/16 in. to 1 ft. The detail shows the care necessary to reproduce finishes accurately to scale. Texture of surfaces is a little too evident, and the figure in the foreground spoils the final effect. (Architects, Michael Lyell Associates.)

7, a few visits to the model studio are usually necessary during construction, to clarify points of detail.

8, German YMCA building, Craven Terrace, London, W2. Photographed from true street perspective, the hollow construction of this model at 1/8 in. scale, with internal floors and partitions gives correct 'feel' to the elevation. Simplified treatment of adjoining buildings establishes relationship. (Architect, Walter H. Marmorek.)



9, *'Modelscope' in use. The viewing lens at base of the tube provides a true ground level perspective.*

continued from page 72]

could make the difference between three weeks and three months of construction time. The design subject matter may therefore be seen to govern the delivery date. The organization of model makers' studios varies a good deal and this again can affect delivery times quite considerably.

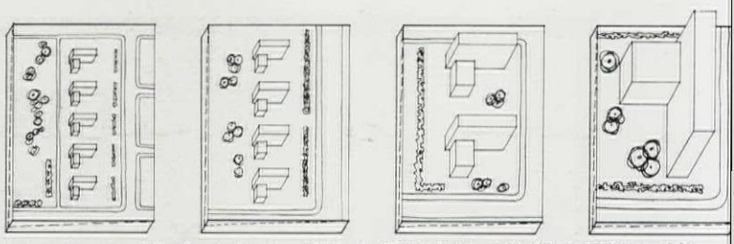
The actual way in which a model is presented depends upon the purpose for which it is required. It is often worth having the advice of the model maker on this point. In the case of the model airport previously mentioned, the architect had never previously commissioned a model. Limited by a fixed budget, his first suggestion was for a model to a scale of $\frac{1}{16}$ in. to 1 ft. of the terminal building alone. After consideration the model maker felt that a smaller scale of $\frac{1}{32}$ in. would still be sufficient to show the detailed modelling of the building and would also enable a larger site area to be shown. This could then include the passenger departure 'finger' and the aircraft aprons and approach roads, together with a number of aircraft made specially for the model. It was constructed in this form which gave both scale and activity to the building, adding interest to the finished model and photographs for the architect's client. The cost of the model showed a 15 per cent saving over the original estimate for the $\frac{1}{16}$ in. scale model.

There has been a growing inevitable tendency to work to smaller scales in recent years, due to the general rise in costs and the greater complexity and size of the schemes required. The practical limit for hand detailing of buildings is 1 : 1,250. Excellent results are possible at 1/500 in the hands of the most highly skilled model makers, but generally speaking, where detail modelling of elevations is required, $\frac{1}{32}$ in. or $\frac{1}{16}$ in. represents a practical minimum. These small scales limit both overall sizes of models and make for convenient storage. Very small scale models may not always be suitable for demonstration to laymen due to the purely physical problem of examination. To get full value from them it is best to use photography. This should be done by photographers who are expert in model studies and who have the special equipment necessary for this purpose. Some of the most useful photographs are those taken at close quarters to represent views equivalent to those that will be seen by real observers. The quality of models for this form of presentation is most important since any coarse workmanship will become very obvious on photographs. Montage studies of models set into authentic photographs of sites and taken from the same angle, provide additional realism, 8.

Direct inspection of an architectural model always suffers from the false viewpoint and irrelevant pleasure that comes from miniature replicas. One way to minimize these effects is to look at models through a magnifying optical instrument. A recent one made specially for the purpose is the 'Modelscope' developed from the medical endoscope used by surgeons, it is essentially a miniature periscope 12 in. long and 5 mm. diameter, constructed from a stainless steel tube. Inside a system of twenty small lenses provides a magnified image from a small 2 mm. diameter inlet prism. Looking through the 'Modelscope,' 9, enables models to be seen from any position around or inside them in completely natural perspective. It can be used with models of any normal scale or size and with its help architects, planners and laymen can make a critical assessment from any angle of a building and its surroundings before a brick is laid. 'Modelscopes' can also be used for photographic work but there is some loss of definition compared with direct photography with standard plate cameras. The best results are usually obtained by using 35 mm. colour diapositives.

Commissioning a model

The RIBA keep a list of approved model makers which is available to members. In the absence of personal knowledge of a suitable firm, architects should consult the list and make a personal visit to one or two model makers selected from it. It is best to ask to see some recent work and enquire as to their cost. Model making firms vary greatly in size, ranging from individual craftsmen working independently, to established firms employing up to twenty or more staff. Some firms specialize more in one field than another and so the time and cost required to construct a model may vary considerably according to the type of model required. Again some firms have developed special skills and methods of construction and these affect time, cost and quality. Presentation is important and since all model



Comparison of model scales (on baseboard 30 in. by 22 in). Left to right; 1/500; 1/32 in. to 1 ft; 1/16 in. to 1 ft; 1/8 in. to 1 ft.

Table 1: Probable typical 1966 prices for models based on supplied drawing. Simple contoured sit only. Variation expected according to true requirement and selected model maker, up to 50 per cen plus or minus.

	1/500		1/32 *in. to* 1 *ft.*		1/16 *in. to* 1 *ft.*		1/8 *in. to* 1 *ft.*	
Building structure detail	*Flat site* £	*Contoured site* £	*Flat site* £	*Contoured site* £	*Flat site* £	*Contoured site* £	*Flat site* £	*Contoured site* £
Block model	70	90	75	95	—	—	—	—
Planning model					100	125	125	150
Simple elevations Exterior only	110	130	120	140	200	235	220	235
Modelled elevations Exterior only	135	160	150	170	245	270	315	330
Simple elevations Exterior/interior	—	—	165	185	270	290	345	365
Modelled elevations Exterior/interior	—	—	180	205	290	315	385	400

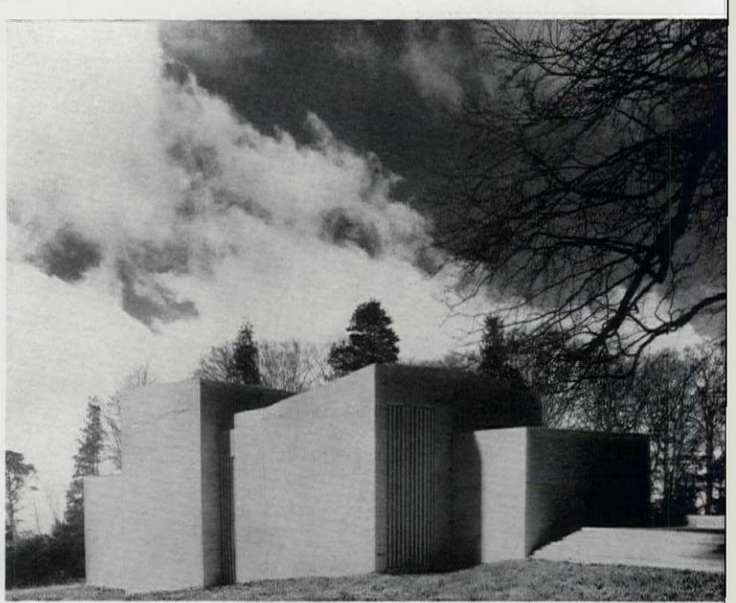
makers vary in their approach to their work and the finish given to it, it is advisable to compare finished products when choosing from a number of firms.

The brief given to a model maker should be as complete as possible. For example, if a model is to be transported frequently, a suitably robust construction is necessary. A model constructed entirely from plastic sheet can be perfectly adequate when handled gently but could easily be reduced to a kit of parts with no instruction book after a rough journey. When competitive prices for models are required it is important to try and choose firms of similar size and competence and to make it clear that a competitive tender is required. Accurate costin depends upon sufficient informatio being supplied as well as a clea brief. Tenders have been known t vary by up to 100 per cent or mor and so if there is any doubt it i best to ask for a breakdown of cost This may well be to the advantag of both model maker and client.

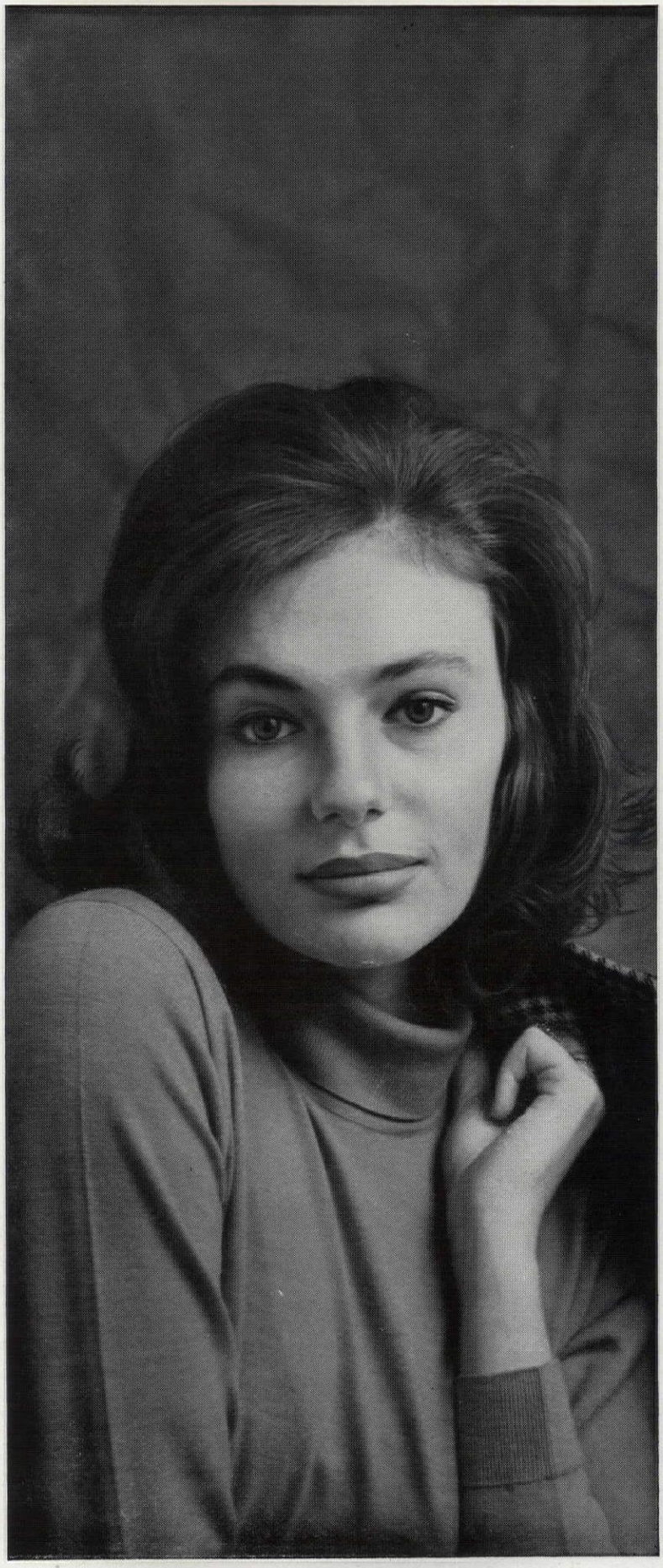
Choice of type of model

Models need not cost a lot of mone to serve their purpose efficiently 10 shows a professionally made land form and base, with a balsa woo building copied from a rough mode made by the architects. Including site visit, photography and photo

[continued on page 7



10, *a simple balsa wood block model after site photography and montage by the photographer. (Architects, Beryl Hope Associates.)*



skill

continued from page 74]

montage, the total cost was under £70. A model maker requires a surprising amount of information to produce an accurate model. A rough sketch drawing showing what looks like curtain walling but which turns out to be a detailed sculptured elevation may well result in a bill for extra work unless the model maker has been warned in advance. When a fully detailed model is unnecessary, it is often possible to simplify certain parts of the model or to have particular details made separately to a larger scale as design studies. Working with a particular model maker on a number of different projects soon provides a useful assessment of his capacity and ability, helps him to produce results tailored to his client's needs and can even simplify the process of design.

More and more architects and planners are using models and there is an increasing tendency by local authorities to insist on submitted schemes being accompanied by models. This is because a model is often very much easier for the laymen of a selection committee to understand in the relatively short length of time they have available to study a scheme. For this reason there is likely to be increasing emphasis on professional skill and finish. The wide variety of thermoplastic and thermosetting plastic materials now available have greatly increased the scope of modelling technique, and made possible the reproduction of almost any free form shape or pattern. Present concern with the development of industrialized building skills and the use of factory or on site concrete casting calls for a higher degree of certainty than traditional methods because costs depend so much upon repetitive production. It is possible to test prototypical elements in model form. These could be found to have the further advantage that they enable the process of building construction to be paralleled on model form and hence provide a means for studying operational procedure.

Privately made models

Many architects prefer to make their own models; these can range from balsa wood blocks for the study of massing through cut-out cardboard assemblies of elevation and plan to highly detailed models. The latter requires considerable skill and it is noteworthy that there have been some recent, short intensive courses on model making at the University of York. A number of schools of architecture now include some model making as part of the curriculum. At Southend Technical College, for instance, students are given instruction by a visiting lecturer and make visits to see and discuss work in progress at his studio. A great deal of time can be wasted over improvisation and so two or three specialist firms now sell all sorts of materials for architects to make their own models. This can be a very pleasurable occupation but is seldom profitable by comparison with professionally made models when the criteria are merely costs of time and material. Even so office model making can often save a great deal of design time in working out difficult structural problems, visualizing three-dimensional arrangements or finding the best of a number of alternative layouts of plant, equipment or furniture.

Contractors etc

New Hall, Cambridge. *Architects:* Chamberlin, Powell and Bon. *General contractor:* W. & C. French Ltd. PHASE 1: *Sub-contractors: Lifts and hoists:* Aldous Campbell Hypower Ltd. *Aluminium windows:* Alumin Building Components Ltd. *Glazing:* Archway Glazing Co. *Fencing:* B.B and C. Fencing Ltd. *Asphalting and felt roofing:* Cambridge Asphalte Co. *Monoform reinforced bituminous roof covering:* The Cement Gun Co. *Mild steel gates:* Clark, Hunt & Co. *Screeds and granolithic paving:* G. Cook & Sons. *Cercote roof covering:* Stuart B. Dickens Ltd. *Electrical installation:* Eastern Electricity Board. *Gas installation:* Eastern Gas Board. *Roof lights:* Faulkner Greene & Co. *Roller shutter:* Haskins Rolling Shutters. *Quarry tile paving:* J. J Houston. *Roof lights:* Lenscrete Ltd. *Polyester treatment to dome:* Liquid Metal Applicators Ltd. *Mild steel canopy:* D. Mackay. *Plumbing:* Matthew Hall Mechanical Services. *Bush hammering concrete surfaces:* Metropolitan Construction Co. *Cork floor tiling:* The Philip Flooring Co. *Pyrok plastering:* Pyrok Contracts. *Kitchen equipment:* Radiation Catering Equipment. *Treatment of trees:* The Southern Tree Surgeons. *Cavity insulation:* Thermalon Ltd. *Painting:* J. D. Tighe & Co. (Midland) Ltd. *Venetian blinds:* Venetian Vogue Ltd. *Ventilation:* J. Wontner-Smith Gray & Co. (Heating 1964) Ltd. PHASE 2: *Sub contractors: Glazing:* Archway Glazing Co. *Plumbing:* J. D. Berry & Sons. *Asphalting and felt gutter linings:* Cambridge Asphalte Co. *Lightweight screeds:* Celcon Ltd. *Screeds and granolithic paving:* G. Cook & Sons. *Electrical installation:* Eastern Electricity Board. *Grass seeding:* Gavin Jones Nurseries. *Modernfold doors:* Hewetsons. *Quarry tile paving:* J. J. Houston. *Bush hammering concrete surfaces:* Metropolitan Construction Co. *Cork floor tiling:* The Philip Flooring Co. *Curtain railways:* Primavera (Contracts) Ltd. *Multipoint TV installation:* Regency Aerials (Cambridge) Ltd. *Treatment of trees:* The Southern Tree Surgeons. *Roof tiling:* Tanner & Hall Ltd. *Cavity insulation:* Thermalon Ltd. *Painting:* J. D. Tighe & Co. (Midland) Ltd. PHASES 1 AND 2: *Suppliers: Galvanized Abbey anchor slots:* Abbey Building Ltd. *Translucent Fibreglass roof lights:* Allan Blunn Ltd. *Portland cement, Snowcrete, Hydralime:* The Cement Marketing Co. *Hat and coat hooks:* Comyn Ching & Co. (London) Ltd. *Paving slabs:* Cambridge Artificial Stone Co. *Abit plastic distance pieces:* Constructional Products (Chadderton) Ltd. *Matadore door mats:* Cimex Ltd. *Sanitary ware:* Cobb & Wand Ltd. *Manhole covers and frames, gulley crates and frames:* Devilers Ltd. *Bronze sockets:* The Delta Metal Co. *Mild steel angle:* H. & C. Davis & Co. *Expanded metal:* The Expanded Metal Co. *Flexcell expansion jointing and waterstop:* Expandite Ltd. *Timber windows:* East & Son. *Joinery:* W. & C. French Ltd. *Stair nosing:* Ferodo Ltd. *Iroko staircase:* Frazers Joinery Co. *Sliding door gear:* E. Hill Aldam & Co. *Doors:* Gliksten Veneers Ltd. *Steel reinforcement:* GKN Reinforcements Ltd. *Galvanized Velopa bicycle holder:* Le Bas Tube Co. *Foamglass blocks:* Wm. Kenyon & Sons (Thermal Insulations) Ltd. *Plain Fletton bricks:* The London Brick Co. *Aluminium flag pole:* Non-Corrosive Metal Products Ltd. *Ironmongery:* N. F. Ramsey & Co. *Kitchen furniture and equipment:* The Radiation Catering Equipment. *Curtain track:* Silent Gliss Ltd. *Ventilating equipment:* Silavent Ltd. *Ready mixed concrete, aggregate, concrete edging, paving slabs:* St. Ives Sand & Gravel Co. *Sanitary fittings:* Stitsons Sanitary Fittings Ltd. *Facing bricks:* Sevenoaks Brickworks Co. *Stoneware pipes:* Travis & Arnold Ltd. *Wine storage bin:* Versatile Fittings (WHS) Ltd. *Glazing angles:* UAM Plastics Ltd. *Wirecut engineering bricks:* Woodside Brickworks (Croydon) Ltd.

Housing at Bishopsfield & Charters Cross, Harlow. *Architect:* Michael Neylan. *General contractor:* William Sindall Ltd. *Sub-contractors: Warwick windows:* Alumin Building Components Ltd. *General installation and underfloor heating and reinforced concrete ramp heating:* Eastern Electricity. *General installation:* Eastern Gas Board. *TV and VHF installation:* Imhof's Ltd. *Ventilation ducting:* Heat, Insulation and Ventilation Co. *Aluminium roofing to flats, asbestos slate roofing to houses:* Roberts, Adlard & Co. *Internal and external glazing:* Faulkner Greene Ltd. *Wall and floor tiling:* R. J. Gore & Sons. *Plumbing:* J. H. Shouksmith & Sons. *Plastering:* T. F. Rooney & Sons. *Roof and terrace asphalting:* Wimpey Asphalte. *Floor tiling (thermoplastic):* Marley Tile Co. *Internal ceiling decorative finish:* Marb-L-Cote Manufacturing Great Britain Ltd. *Ironwork, balustrading, etc.:* B. Sotham. *Up-and-over garage doors:* Haskins. *Road joint sealing:* F. Brookes Ltd. *Sindall floor units (Block I):* Sindall Concrete Products Ltd. *Mastic pointing to house copings:* Gun Applied Mastics Ltd.

Housing at Old Orchard, Harlow. *Architects:* Clifford Culpin and Partners. *General contractors:* The Laing Housing Co. *Sub-contractors: Aluminium roofing:* Roberts, Adlard & Co. *Plastering:* G. H. Martin Ltd. *Plumbing:* J. C. Toogood Ltd. *Glazing:* John Newton (Essex) Ltd. *Floors:* Marley Tile Co. *Electrical:* A. & R. Marsh Ltd. *Wall tiling:* R. J. Gore & Sons. *Fencing:* Invicta Fencing Ltd. *Ceilings:* Marb-L-Cote Manufacturing Great Britain Ltd.

Housing at Shawbridge, Harlow. *Architects:* Eric Lyons and Partners. *General contractor:* Rush & Tompkins Ltd. *Sub-contractors: Precast concrete:* Concrete (Southern) Ltd. *Slate roofing:* Creighton & Co. *Plumbing:* Home Counties Plumbing Co.

Shops at Staple Tye, Harlow. *Architect:* Frederick Gibberd (Chief Architect-Planner, Harlow Development Corporation). *General contractor:* William Sindall Ltd.

Housing at Willowfield, Harlow. *Architect:* Frederick Gibberd (Chief Architect-Planner, Harlow Development Corporation). *General contractor:* George Wimpey & Co. *Sub-contractors: Concrete work:* Truscon Ltd. *Plumbing:* Home Counties Heating & Plumbing Ltd. *Roofing:* W. Creighton Ltd. *Glazing:* E. Bell. *Roof trusses:* Rainham Timber Engineering Co. *Floor tiles:* The Marley Tile Co. *Cork and woodblock flooring:* Joseph Ebner Ltd. *Landscaping:* F. & F. Contracts Ltd. *Electrical work:* Electric Contracts (London & Provinces) Ltd.

Housing at Long Banks, Harlow. *Architect:* Frederick Gibberd (Chief Architect-Planner, Harlow Development Corporation). *General contractor:* Kirk & Kirk Ltd.

Housing at Brockles Mead, Harlow. *Architects:* Leonard Manasseh and Partners. *General contractor:* George Wimpey & Co.

Housing at Clarkhill, Harlow. *Architects:* Associated Architects and Consultants. *General contractor:* Trollope & Colls Ltd.

College Library, Mile End, London. *Architects:* Playne, Lacey and Vallance. *General contractor:* Harry Neal Ltd. *Sub-contractors: Architectural ironmongery:* G. & S. Allgood Ltd. *Book shelving:* Terrapin Reska Ltd. *Electrical:* J. H. Plant Ltd. *Heating and ventilating:* Troughton & Young Ltd. *Facing bricks:* Sevenoaks Brickworks Ltd. *Furniture:* G. M. Hammer & Co. *Glazing and metal windows:* James Clark & Eaton Ltd. *Metal windows:* C. E. Welstead Ltd. *Omnia floor slabs:* Bradleys (Concrete) Ltd. *Roof lights:* S. Warner & Son. *Roller shutters:* Haskins Ltd. *Structural steel:* Moreland, Hayne & Co. *Sprayed asbestos:* Hamilton Gilmour Ltd.

Synagogue Library, Mayfair, London. *Architect:* Julian Sofaer. *General contractor:* Yeomans & Partners Ltd. *Sub-contractors: Joinery:* E. Pollard & Co. *Electrical:* A. H. Cornwall & Sons. *Carpeting, chairs and curtains:* Heal's Contracts Ltd. *Light fittings:* Allom Heffer & Co., Atlas Lighting Ltd. *Paints and varnishes:* Screeton Paintmaker Ltd.

Branch Library, Chalfont St. Peter, Bucks. *Architect:* F. B. Pooley, County Architect and Planning Officer. *General contractor:* A. Hicks Ltd. *Sub-contractors: Facing bricks:* Pratt of Watford Ltd. *Coloured mortar:* The Lime Sand & Mortar Co. *Steelwork:* J. W. Cubbage & Sons. *Concrete floors:* Frays Concrete Ltd. *Roof tiling:* The Marley Tile Co. *Electrical installation:* N. G. Butler Ltd. *Aluminium windows:* Beacon Windows Ltd. *Fitted book shelves, issue desks:* Clayton Heath Ltd. *Venetian blinds:* Airelite Venetian Blinds Ltd. *Workroom bench unit:* H. Tyson Chambers. *Furniture:* Henry Stone & Son. *Curtains:* Norman Heal. *External illuminated sign:* Ward & Co.

Ian Nairn

STOP PRESS

A monthly anthology from all over Britain of townscape problems, outrages and opportunities, compiled by Ian Nairn with drawings by G.J.Nason.

SOS

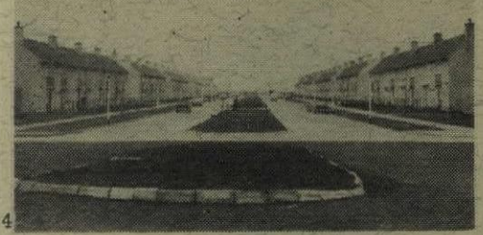
KINSDALE, NEAR CORK
. . . and also many other small Irish towns where Georgian property is getting to the end of its structural life. They all need townscape surveys long before they reach the point of no return—and they need a far better standard of rebuilding than can be seen on either side of this wreck at Kinsdale, 1.

OUTRAGE

DUBLIN
An interesting sign, 2, on the road north from Dublin to Drogheda . . . and new Corporation flats in Dublin itself, 3.

3

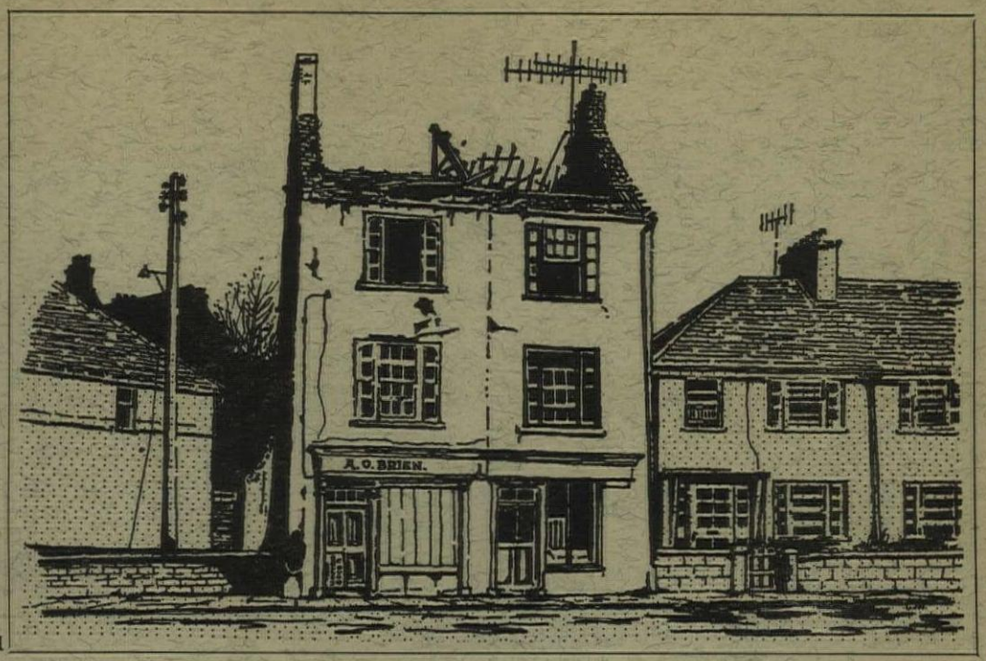
SHANNON
Part of the new housing at the free port of Shannon Airfield, 4. It seems to have



4

taken the style of the dreariest of our Mark I new towns, straightened out the layout and exposed it to the wet south-west winds.

DORKING
A new building to go on the old Red Lion site, 5. 'The architect's drawing' says the *Leatherhead Advertiser*, 'shows how the site will look when the building work is finished.'



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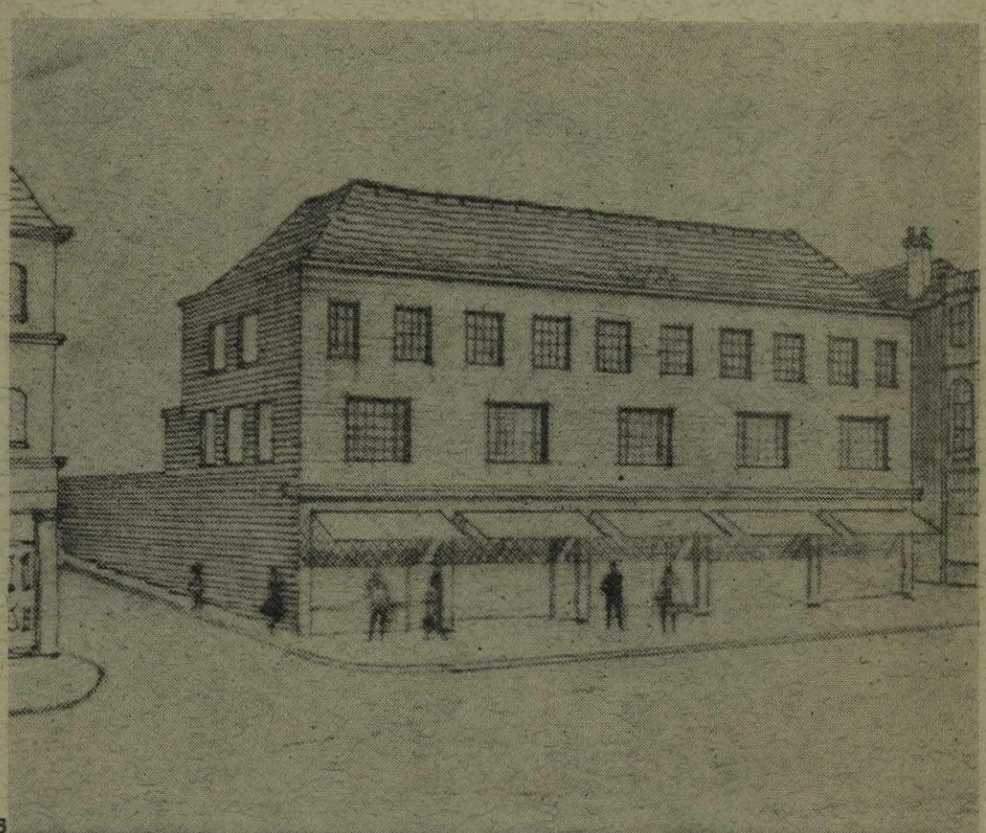
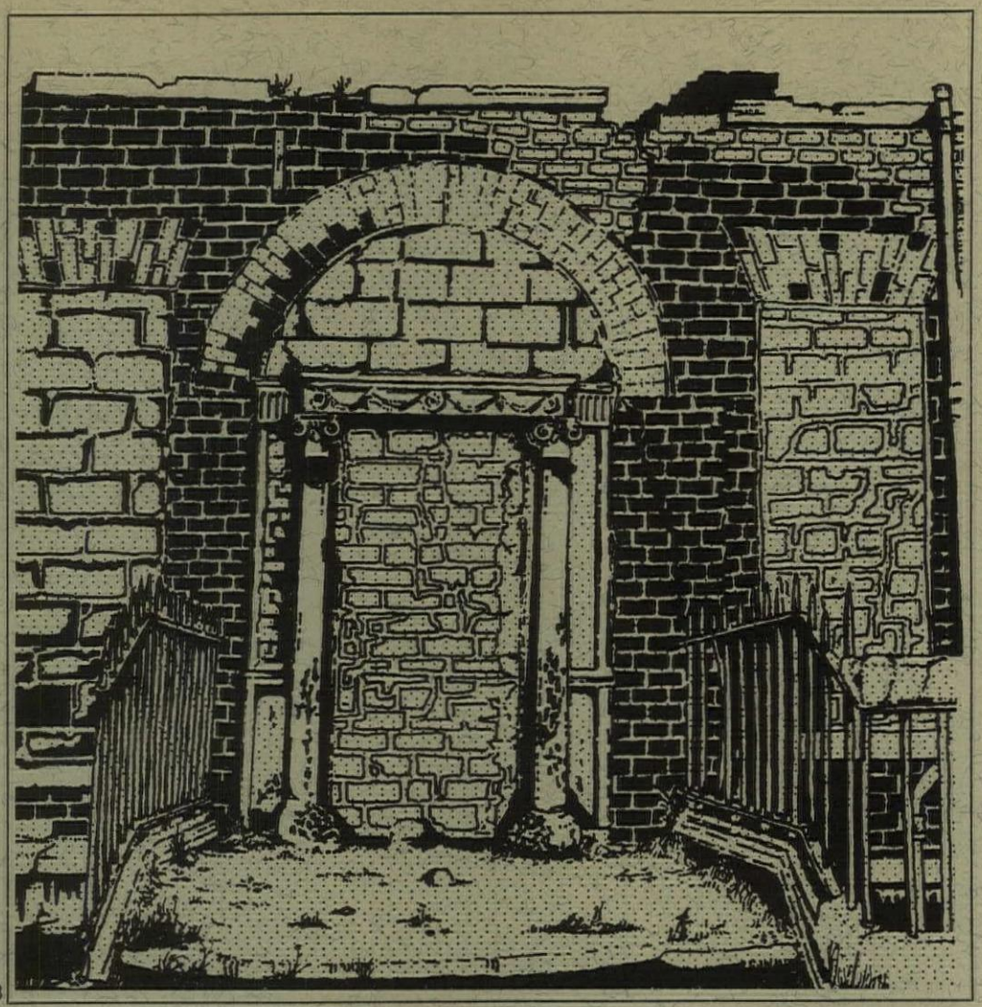


5

DUBLIN
It looks like something off the Southend Arterial, *circa* 1935. It is, alas, a new southern suburb of Dublin, 1966, 6 and 7.

6

7



8

DUBLIN
The desperate condition of parts of Mountjoy Square, 8, and weary new City-of-London blocks beside the Liffey. 9 is on the south side of O'Connell Bridge, 10 is on the north side—the silly frippery on the roof is a particularly harsh slap in the face to the dome of the Custom House, on the right.

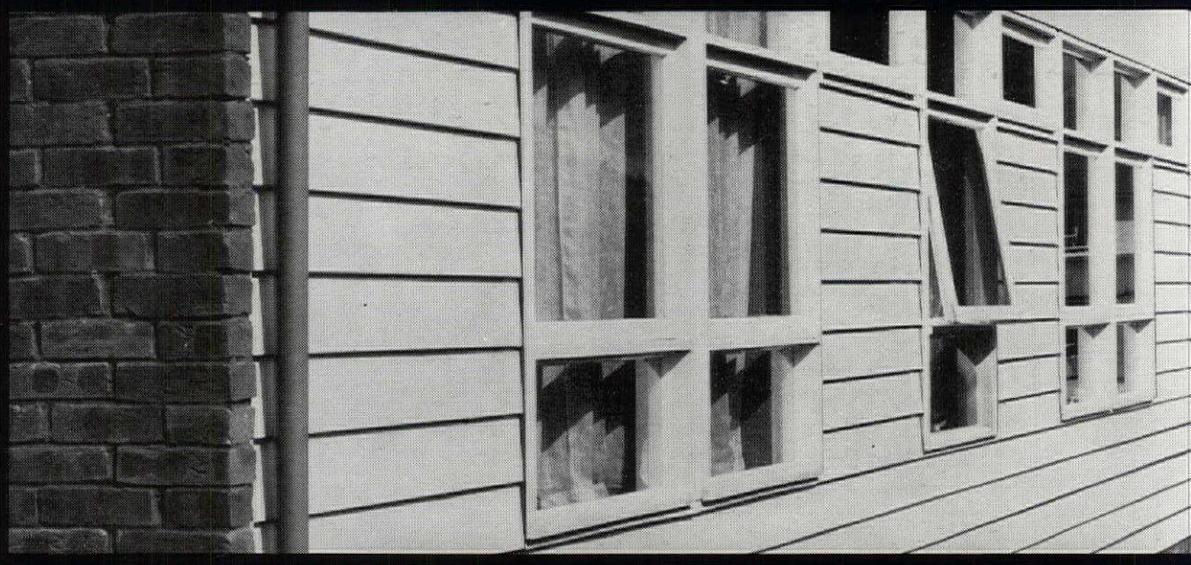
CAUTION

ROCHFORD, ESSEX
A town with a central square and a main road immediately behind one side. The cottages here became dilapidated and have been replaced: and although the importance of rebuilding on the site has been understood, the kind of building required has not. The result, 11, is sadly glum and squat compared with the variety of the older houses—especially in the roofline.

9

10

11



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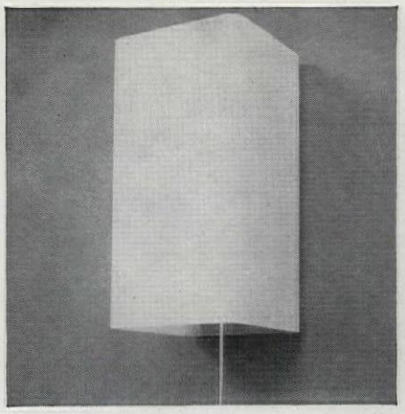

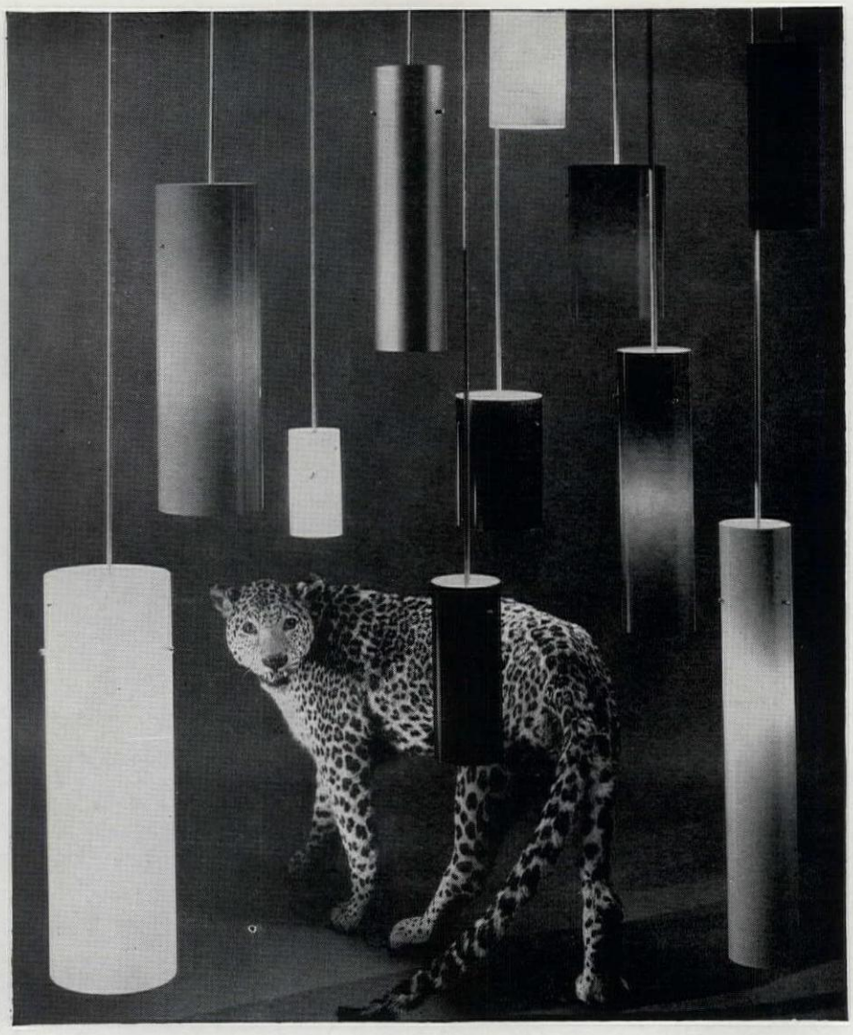

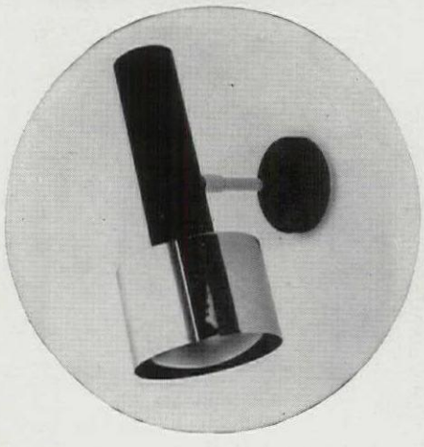

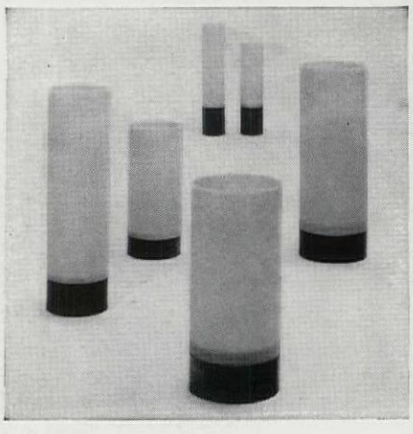

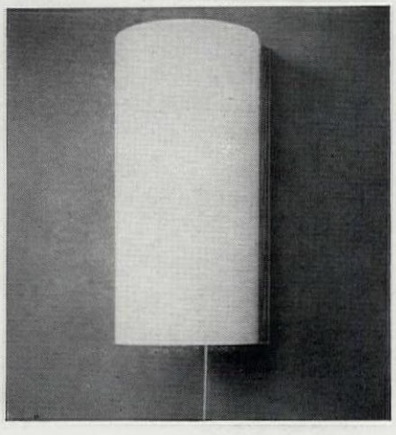

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SfB (66)

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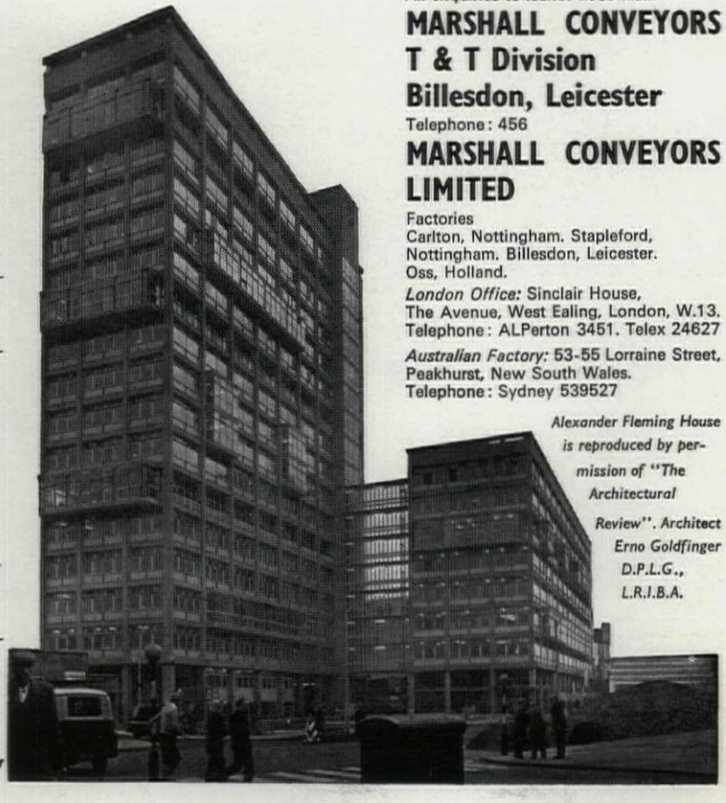
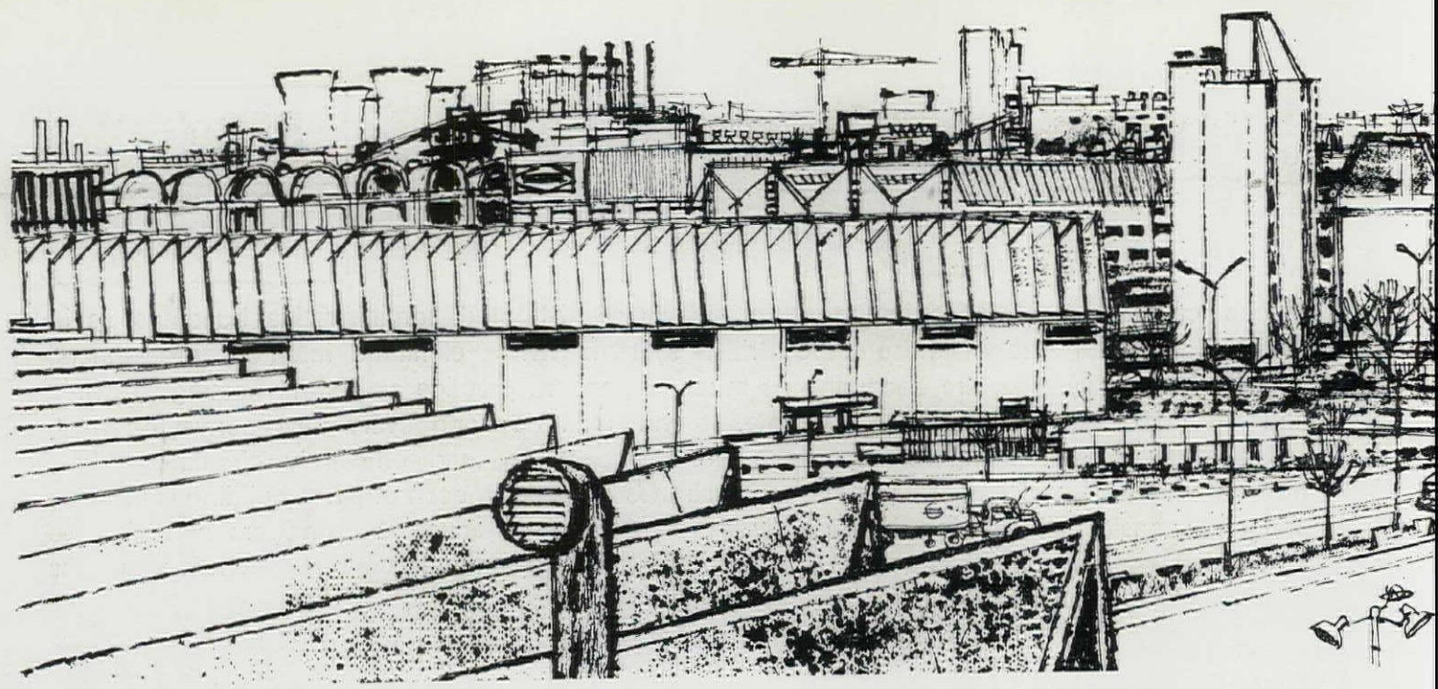


Alexander Fleming House is reproduced by permission of "The Architectural Review". Architect Erno Goldfinger D.P.L.G., L.R.I.B.A.



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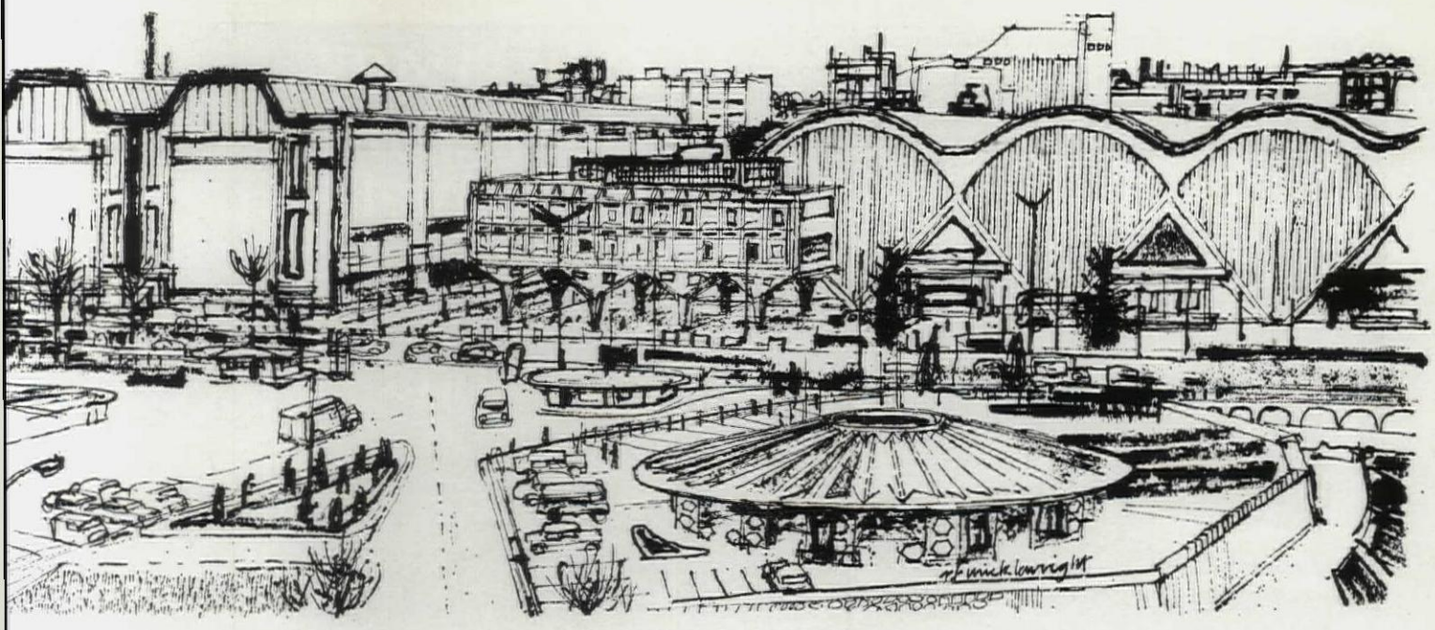

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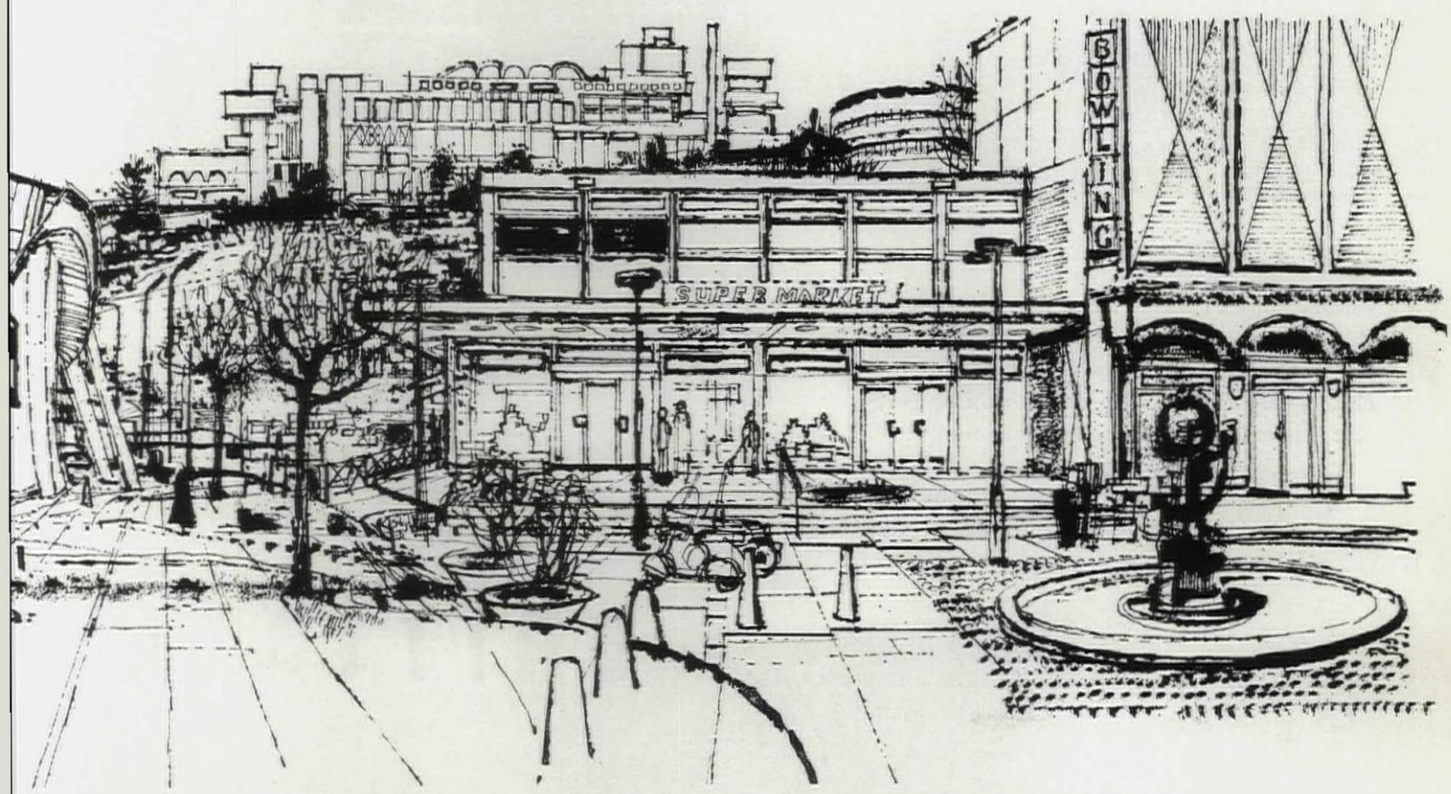
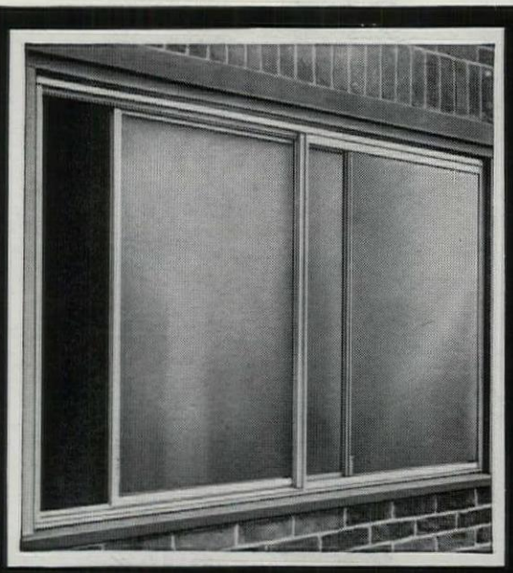
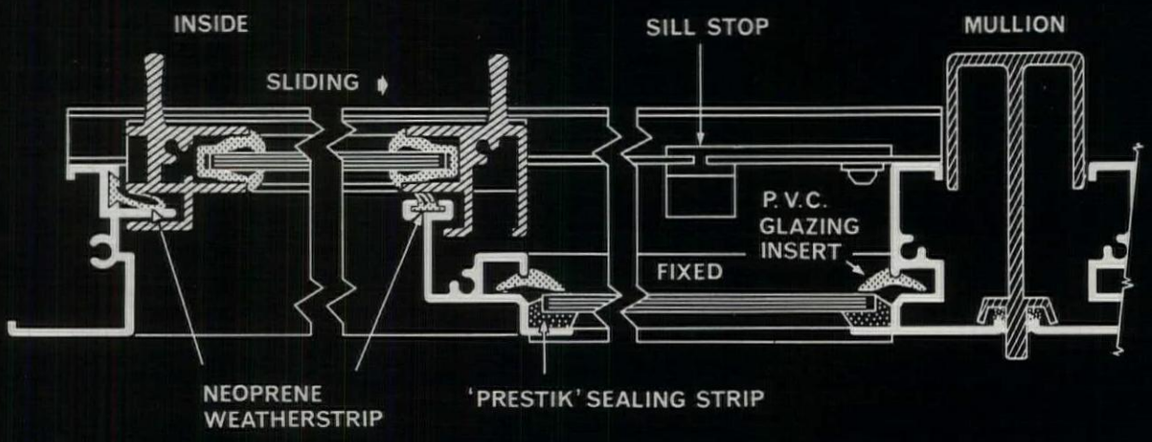




Crittall '43'- aluminium horizontal sliding window for domestic buildings



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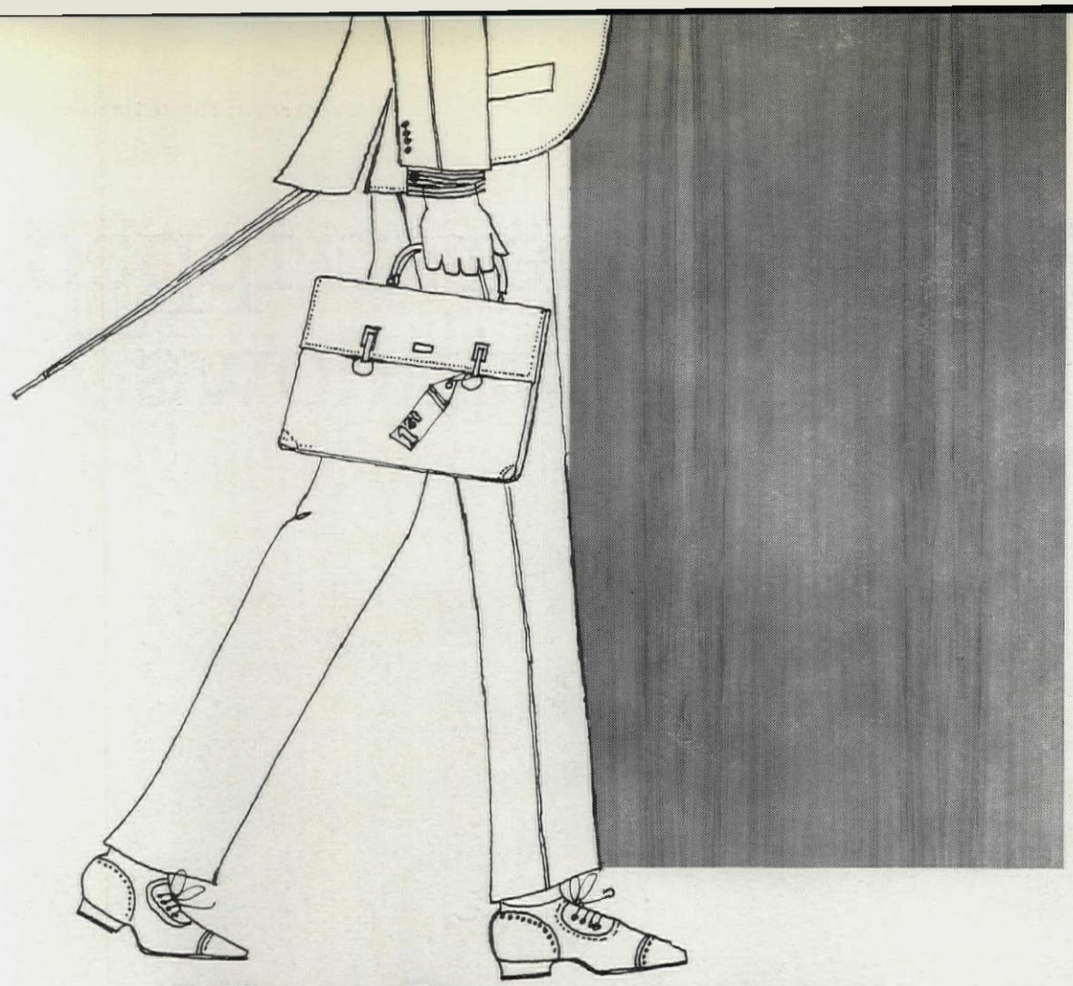

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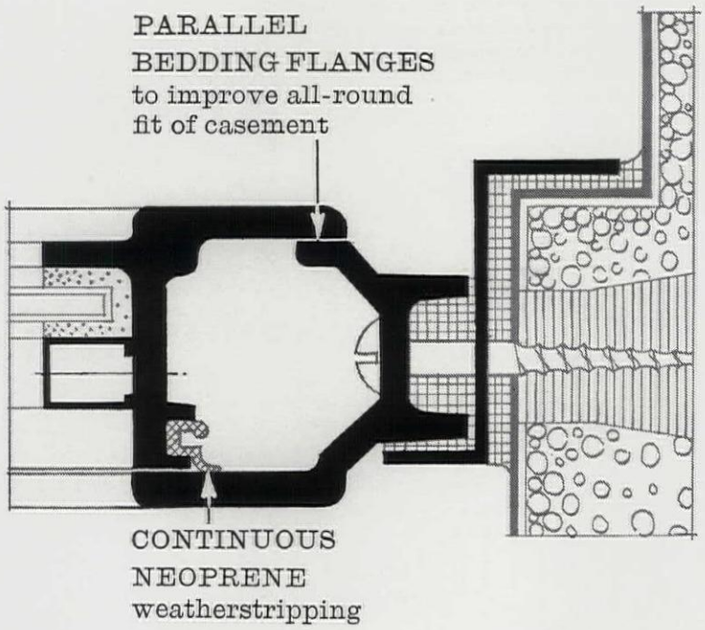

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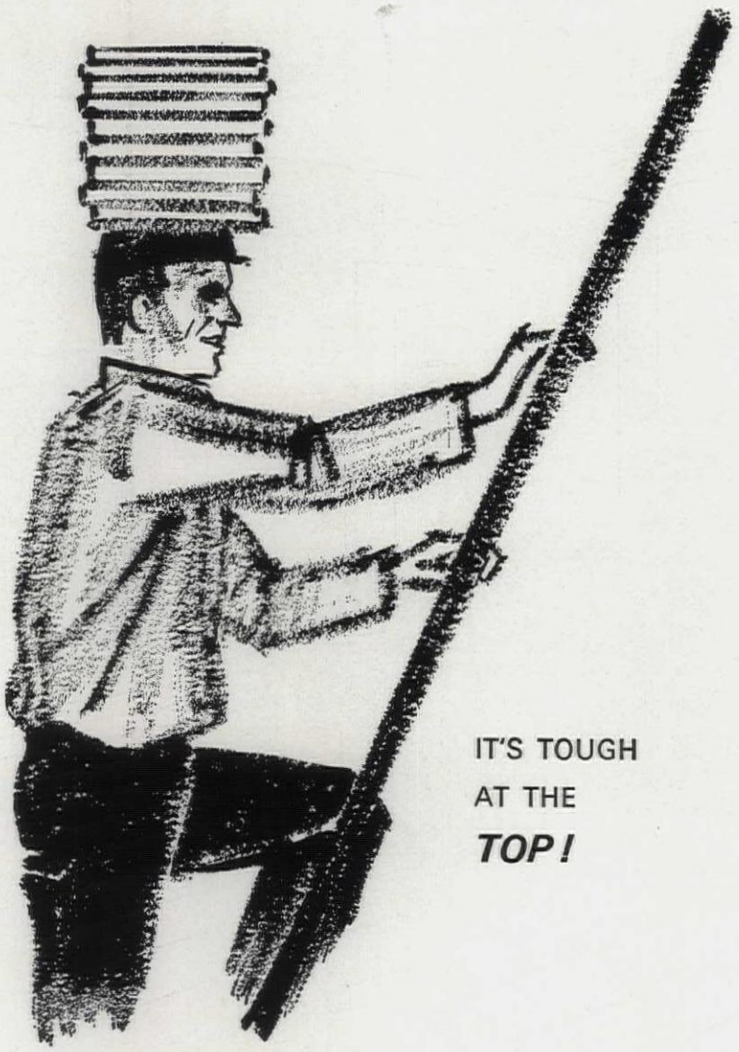

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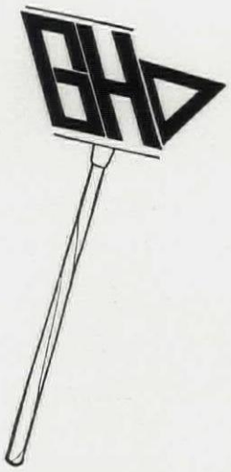

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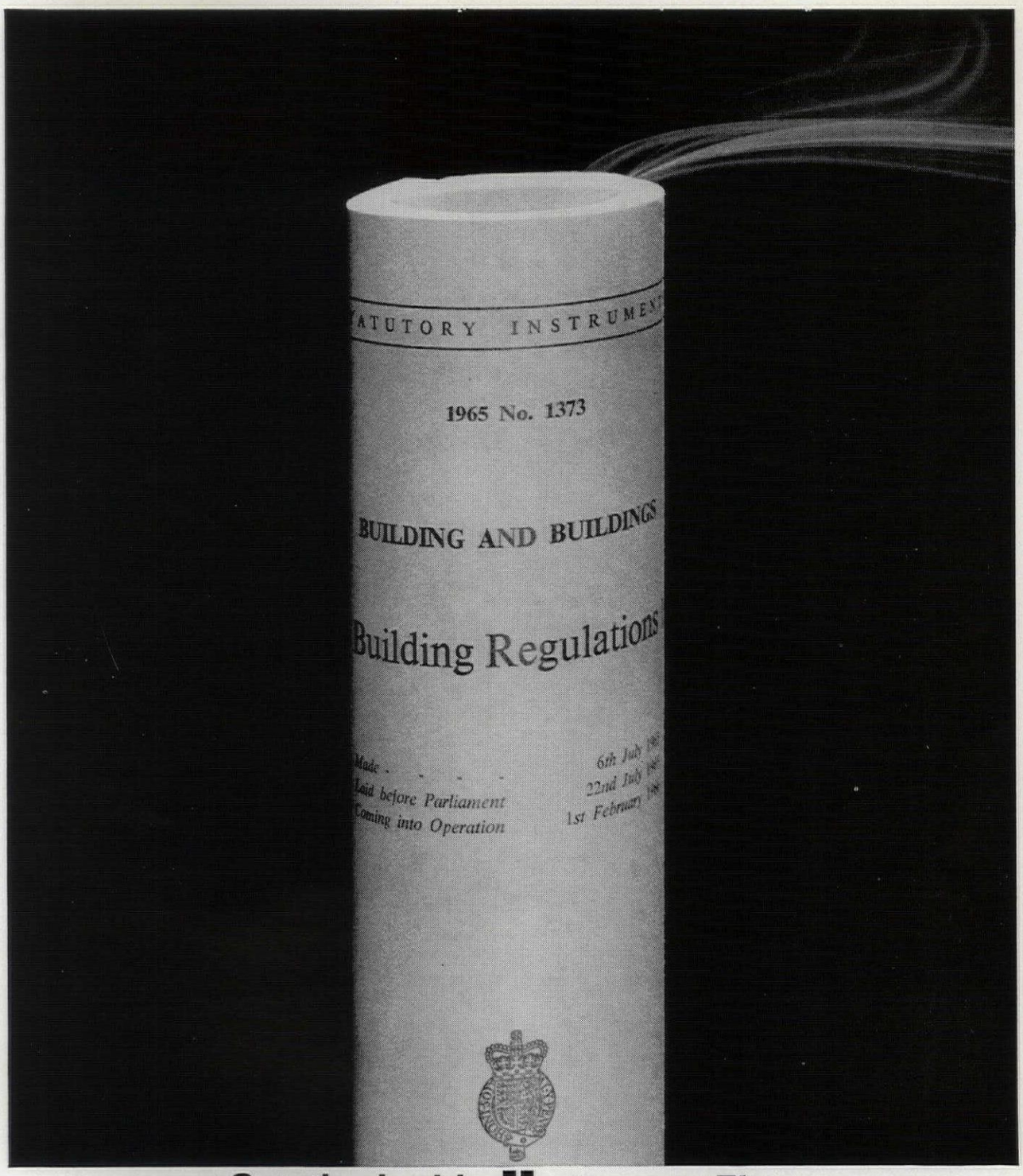

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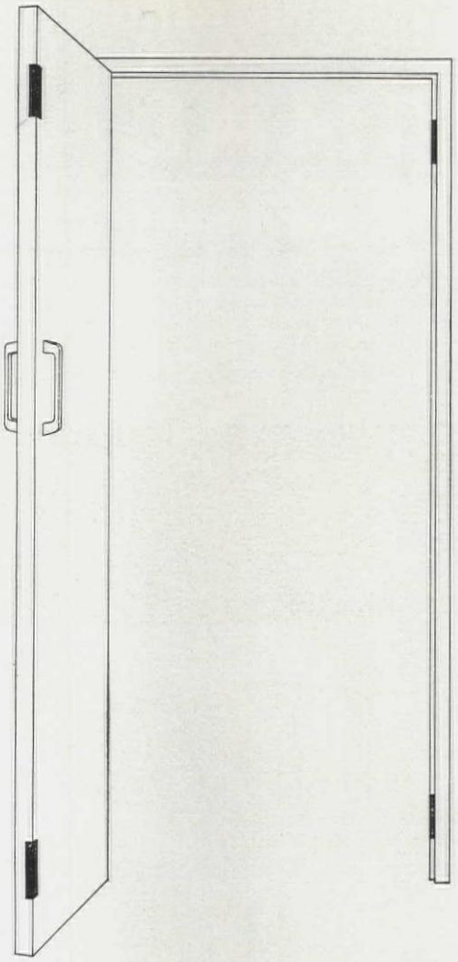

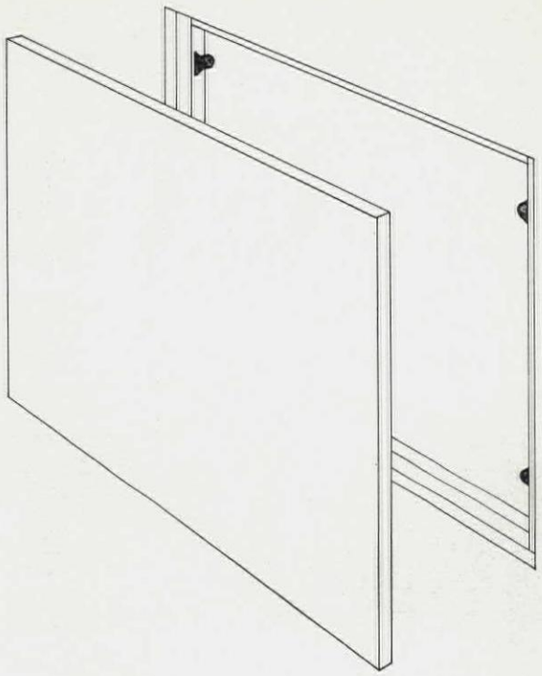

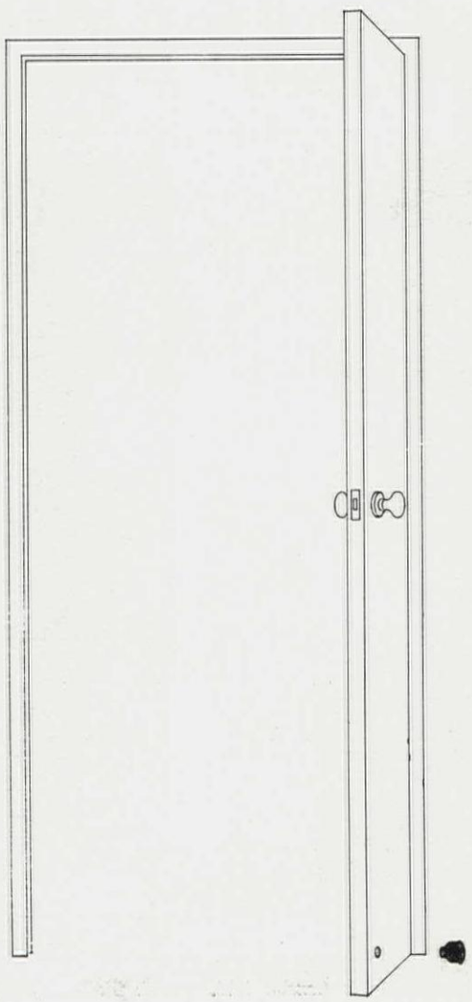

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