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THE ARCHITECTURAL REVIEW VOLUME CXIV NUMBER 682 OCTOBER 1953 FIVE SHILLINGS

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MARGINALIA

Sir Banister Fletcher

The death on August 17 of Sir Banister Fletcher has removed from English architecture a figure whose multiple career, as architect, surveyor and barrister, has been completely overshadowed by his one monumental contribution to architectural history. Though he designed numerous buildings and performed statesmanlike services to the profession his name is known to generations of students (in every sense of the word) for his *History of Architecture on the Comparative Method*—a work so thorough that though the 'method' has fallen into oblivion (rather than disrepute) the book retains its position of esteem. Though first compiled in 1896, it has only recently been displaced as a textbook, but the great interest in architectural history on other methods than Sir Banister's has assured it a place as a work of reference to which one turns continually for illustrations not to be found in more modern works. In some ways it may be regretted that so various and able an architect and teacher should be known for so small a part of his output, yet his 'History' is indeed his 'monument more durable than bronze.'

The Great Houses of England

This year's summer school at Attingham Park, organized by the National Trust, on *The Great Houses of England*, was again a largely American affair, with an increased representation of the Society of Architectural Historians, but not exclusively trans-atlantic in its make-up, since Dutch, Danish and English students were also present. As before, the first half of the course was residential, and included formal studies such as tutorials, and lectures by the Duke of Wellington, Col. Brocklehurst of the National Trust, John Salmon of the Historical Association, Professors Pevsner, Wittkower and Webb, Charles Mitchell, Francis Watson, Reynier Banham and Helen Lowenthal, one of the co-directors of the course. These academic activities were, naturally, diversified by visits to country houses in the neighbourhood of Attingham, while in the second half of the course these visits became the main activity, as the entire party went on tour in Derbyshire, the Cotswolds, and the area around Bath. The undoubted success of this course, which seems destined to become an annual event, should encourage the promotion of others on architectural matters of Anglo-American concern—such as early iron construction and the origins of the American House—which if less popular, and therefore less repeatable, would be well worth doing once.



The Queen's House, Greenwich. One of the new Ministry of Works postcards referred to in *Marginalia*, July 1953.

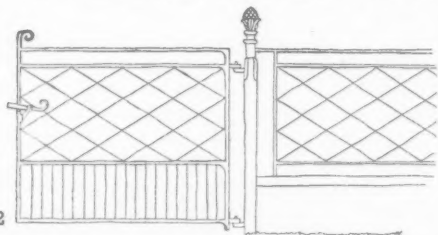
The Silhouette of Malvern

Books of intelligent appreciation of good-average architecture of unpopular periods—that is, most of the architecture of these islands—are so rare that one would gladly hail such a work as an eccentricity, but *The Silhouette of Malvern*, by Catherine Moody, is good enough to stand on its own merits. An unpretentious volume, costing 12s. 6d. from the Priory Press, Malvern, it traces the short architectural history of this spa town chiefly in terms of selected nineteenth century buildings, illustrated by charming drawings by the author, who shows the measure of her sensibility by selecting such items as the *Retired Soldier*, 1; the sort of plain, honest



1

Regency pub to which the ordinary guide-book is blind. The book is written in non-specialist language, and though the rather laborious explanations of the aesthetics and eccentricities of nineteenth century building may seem unnecessary to the expert, they are exactly right for the public at which they are aimed—a public which is encouraged by Miss Moody to observe such normally unobserved details as the neat railings of a house in Graham Road, 2, and such pockets of un-



2

contrived picturesque as the entrance to Prior's Court, 3.

The book is in fact the sort of thing which

ought to exist for every small town and large village—a survey of its architectural contents, which can serve as a useful record, as a permanent piece of visual education by encouraging the inhabitants to look at their daily surroundings as works of some sort of art, and as a guide to preservationists who will, on the one hand, be prevented from creating a great outcry about the destruction of something with which the village proves to be well-stocked, and on the other hand will have no excuse for allowing any building to be lost by default because no one had bothered



3

to see whether it had merit. Miss Moody's book lacks an exhaustive tabulation of the town's buildings, which would be necessary to make it a complete survey in this sense, but no doubt she has a card-index list somewhere which would be available.

Smoke

Smoke in relation to architecture tends to be regarded only as something to be extracted from the inside of the house, and prevented from settling on the outside, but the great fog of December 5 to 8, 1952, must have reminded everybody that a slight, and not uncommon, trick of the weather can turn smoke into a poisonous and impenetrable cloud which could render life in large cities impossible. In northern societies which delight in burning hydro-carbons under picturesque but inefficient conditions, smoke remains a problem affecting sanitation, town planning, traffic circulation and upkeep costs, and smoke production goes on continuously, winter and summer. The government enquiry announced by Mr. Marples will, even now, deal only with the events of December, 1952, and not with the problem of smoke in general—that remains the province of the National Smoke Abatement Council, whose annual report, published in May, makes courageous but depressing reading, for a study of the list of subscribers will soon show how lightly the matter rests on the consciences of the most prolific smoke-producers.

Lutyens's Life

Christopher Hussey's biographical study of Sir Edwin Lutyens, which formed part of the *Lutyens Memorial volumes** (the other parts were the three volumes illustrating Lutyens's architecture, arranged and described by A. S. G. Butler), has now been reissued as a separate publication (*Country Life*, 42s.). It

* Reviewed by Professor Pevsner in April 1951 under the title *Building with Wit*.

was always designed to stand by itself, being well illustrated and containing brief descriptions of all the important buildings, and can now take its place as one of the most thorough and readable of all architectural biographies. Lutyens was one of those whose work is quite inseparable from his personality.

CORRESPONDENCE

New Town Public House

To the Editors,

THE ARCHITECTURAL REVIEW

Sirs,—The 'true public house atmosphere' has been my earnest study, as a customer for some fifteen years, and architecturally for perhaps half that length of time. On two days in the week I seek it out and enjoy it, and on five my job is to try to create it.

In general I agreed enthusiastically with the REVIEW's principles of pub design, but I question whether the Twin Foxes* has quite hit it off. For a start we must disregard D. Dewar Mills' impressions. He has 'cheated' by assuming a licensee with the proper ideas—in my experience most of them have not—and by slightly distorting the proportions of the rooms. Their loftiness was not the fault of the architects, but there is no doubt that a low ceiling is an almost indispensable condition for obtaining the atmosphere we are after.

Plain wall surfaces, as Mr. Mills realizes, must be broken up visually; but this will simply not happen in the way he suggests. Instead we must provide niches, shelves, lamps, or patterned and varnished wallpaper. It is usually a mistake to let more than a short length of wall run unbroken from floor to ceiling. Where there is no fixed seating the old-fashioned matchboard dado helps a great deal.

Double doors are nearly always out of place in a pub, being reminiscent of institutions. A public house must never be like a public building. The echoing, rectangular, unfurnished hall is bad for the same reason. For warmth of welcome it is better to enter a room direct from the street, or through a small lobby, preferably of an odd shape. Odd shapes are also valuable in the public rooms: they help to keep the scale 'domestic,' and to avoid bleakness.

The 'hole-in-the-wall' counter is another unfortunate device. It seems to destroy that companionship between barman and customers, which is encouraged by the kind of servery which projects into the room.

A further criticism must be made. There seem to be insufficient varnished or polished surfaces to provide that gleam and glitter of reflected light which is so important an ingredient of the pub environment. Plain brickwork is very well in small patches, but it is hard, and once it is stained with fingermarks it is depressing in the extreme.

One more objection, about colour. Any green other than a bottle- or deep marbled green is terrible in a pub. The brewers, or so I am told, spent lifetimes trying to get the greenish tint out of the beer. For the architect to put it back by means of green reflections is hardly kind. A further reason may be that green symbolizes the out-of-doors, and offends that instinct for seeking shelter which people go to the pub to indulge.

Needless to say, I shall visit the Twin Foxes as soon as an opportunity can be made, because so many things about it seem to be right, and when all is said and done a set of excellent photographs

* THE ARCHITECTURAL REVIEW, July 1953.

is inadequate evidence on which to base a final judgment.

Yours, etc.,

B. R. DAVIS.

Tamworth, Staffs.

The Editors reply: *It gives us immense pleasure to discover that there is somebody who understands what the pub tradition is about, and we look forward to making use of Mr. Davis's researches. We agree that THE TWIN FOXES is not yet the pub it could be, but the basic work has nevertheless been done by the architects, and that far more intelligently than in any other contemporary pub that we know of. For this they deserve the very highest praise.*

The green to which Mr. Davis refers is presumably the wallpaper on the ceiling of the public bar. This trouble could be cured, indeed made into a perfect pub background, by varnishing the paper without the use of size. We strongly recommend this to the brewers.

Road as Traffic Indicator

To the Editors,

THE ARCHITECTURAL REVIEW

Sirs,—With reference to article in the June issue, another use of signs on the road to add to



the collection of D. Dewar Mills and Kenneth Browne: bold stripes painted across road at all corners in Philadelphia where accidents during the last 2 years have exceeded 29.

Yours, etc.,

M. GLASSMAN.

London.

Power Stations

To the Editors,

THE ARCHITECTURAL REVIEW

Sirs,—Mr. Furneaux Jordan's survey of the metamorphosis of the power-station published in the April issue of the REVIEW left me wholly inspired; Mr. de Maré's letter in the same issue left me baffled. His suggestion that 'we are sitting . . . with the blinds down playing Chopin' seems prompted by your scapes and trims which most of us reserve for bed-time reading. If he will address himself to the essence of architecture, he cannot fail to discern that the real constituent facts of a '20th century visual scheme of things' are published and substantiated in a rational way.

He submits that the REVIEW's 'aesthetic' policy is too narrow to further changes in the existing social and cultural pattern that determines our environment. To suggest an architectural periodical formulate its own panacea for social ills is to distort its purpose

and dissipate its strength. Mr. de Maré's thesis is that 'an aesthetic desire to improve our environment must be based . . . on clear philosophical and in the end political and economic ideas of reform.' The fallacy lies in supposing that the reverse could ever be true. Aesthetic values do not exist isolated from content; content is concerned solely with these ideas. Form is content realized; it has no intrinsic beauty and cannot be apprehended divorced from its function in life. It would be healthier if our aesthetics were a little less conscious, since their conventional application excludes much acknowledged art. To strive for beauty is to achieve whimsy and to miss the whole point of creating—we are not yet nebulous bundles of intellect and emotion.

On a different but related topic Mr. Jordan makes the point that here we have a new architect-engineer relationship. This is growing to be true for all cases. While the nature of architecture is constant, the means of realizing it have changed steadily since the end of the eighteenth century and with them the position of the architect. Architecture is different in kind to the other arts, but now our tools, too, are different in kind. Mr. J. M. Richards calls our problem 'the development of a humanized vernacular on the basis of the emotional fusion between the arts and the sciences'—that is no longer a one-man job. The Hertfordshire schools are evidence here of this new relation. Expensive and fragile, at their worst decent prefabricated building, they here and there touch the heights on a fresh scale.

Yours, etc.,

G. COPCUTT.

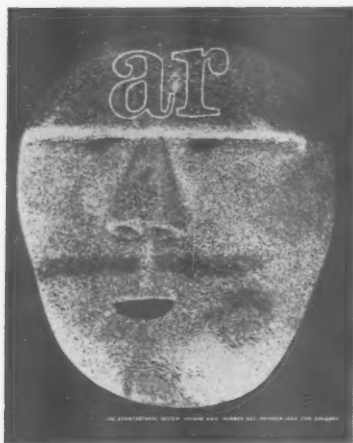
Leicester.

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COVER: Institute of Contemporary Arts. MARGINALIA: page 211, photo Ministry of Works, line drawings Catherine Moody. FRONTISPIECE, drawings by Edward Lear. ZANTE, pages 215-220: photos, Joan Clark; plan, B. A. Spearpoint. WEST INDIES UNIVERSITY COLLEGE, pages 221-231: 3, 4, 14, 16, A. Packer; 5, 10, 13, 20, 31, Lloyd Hugo. CAST IRON ARCHITECTURE IN NEW YORK, pages 232-237: 1-8, J. R. Johnson. HOUSING ESTATE AT HACKNEY, pages 238-240: 5, 7 Wainwright, 6 Cracknell. SCHOOL IN WORCESTERSHIRE, pages 241-244: 1, 4, John McCann, Sound Stills; 2, 3, 5-7, Wainwright. BASILDON TOWN CENTRE, pages 245-250: drawings by Gordon Cullen. CURRENT ARCHITECTURE, pages 251-254: Flats at Wallington, J. R. Pantlin; Car Ferry Terminal, Galwey, Arphot; Primary School at Wembley, J. R. Pantlin; Houses at Stevenage, H. Lewes. PEKING, pages 255-258: all photographs by R. T. F. Skinner. MISCELLANY, pages 259-263: World: Kokusai-Kentiku, January, 1952; Photography: Institute of Contemporary Arts; Exhibitions: 1, Arts Council; 3, J. Underwood; 1 and 2, Atelje Sundahl. SKILL, pages 266-280: Woven Textiles, 2, S. Redman, 3-5, 7-23, Read, Arphot, 12, E. Eves; Partitions, 1, Elsam, Mann & Cooper, 2, L. Collier, 3, Steffens-Colmer; 5-7, Tells Co., 8, Stewart Bale, 9, Logan, 11, Bromhead, 13, Adphotos; Recma System of Building, Salisbury Journal, W. Martin; Roof Decking, G. Murray; Heating, S. Darey; Bartex Press, F. Fonteyn, S. Newbery.

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This month's cover is a photograph of a human head carved in porous whalebone from the Point Hope region of Alaska—a mean and eroded countenance which suggests, to Western eyes, an ungracious view of an inhospitable environment. Whether that is true or not it is the Western view of this and other photographic documents, fetched from the ends of the earth, the depths of space, the recesses of the infinitesimal and the extremes of the improbable, which concerns the exhibition 'Parallel of Life and Art' open at the Institute of Contemporary Art until October 10. The exhibition has been assembled by a group consisting of architects, a sculptor, a photographer and an engineer, and its significance in terms of mid-century visual disciplines is discussed in a note on page 259.

211 Marginalia

211 Correspondence

212 Acknowledgments

214 Frontispiece

215 Zante by Steven Runciman Among the Ionian islands devastated in the recent earthquakes, it was Zante that possessed the most notable works of architecture and painting. Taken by the Venetians in the fifteenth century and remaining in their possession for four hundred years, occupied by the British from 1809 to 1864, its architecture in the words of Professor Runciman 'suggests Venetia, with a touch of Malta and of Regent's Park.' It is tragic that his description and the photographs that accompany it are now, in effect, an obituary.

221 University College of the West Indies *Norman and Dawbarn: Architects* Now that a fair amount of the first phase of the new University College near Kingston, Jamaica, has been built, it becomes possible

to obtain some idea of its quality, and to compare it with other educational building for colonial and commonwealth governments in the tropics. Jamaica's special problems are sun-glare, hurricanes and earthquakes, and these, coupled with particular local shortages, both of materials and some specialised skills, have combined with the architects' intention to provide a setting congenial to the Anglo-Saxon conception of academic life, to produce a highly characteristic form of planning and design.

233 Cast Iron in New York by W. Knight Sturges The problem of the origins of the iron frame and the iron facade in nineteenth century building is an international one, but the importance of the part played by James Bogardus is undeniable and will always focus attention on New York as one of the incubators of the iron frame. In this article Mr. Sturges surveys the surviving iron fronts of central New York City and the contemporary literature relating to them, and distinguishes two main 'period' styles. The first, the decorated, is one that Bogardus (whose own buildings are often highly ornate) helped to create, and it seems to have flourished through the 'fifties and 'sixties. Then came a reaction, and a more severe style, sometimes Doric in its detail, sometimes quite unhistorical, succeeded for the rest of the life of the iron front. This latter style is often characterised by a strong sense of structure and of light and shade, and begins to invite comparisons with Chicago work of the following decade. Beyond this, the products of the later style with their gravity and simplicity and visual strength contributed a peculiar type of urban perspective to the New York scene, whose virtues are only just beginning to be appreciated.

239 Housing Estate at Hackney *Fredrick Gibberd: Architect*

242 School in Worcestershire *Frederick Gibberd: Architect*

245 Basildon Town Centre by Gordon Cullen Unlike most new towns, whose centres have already been designed, Basildon has for its future civic heart only an area of ground and a schedule of accommodation requirements. Every one knows in general outline what he wants from a town centre, but there is a great deal of disagreement about the manner in which these desiderata are to be obtained—disagreement which stems largely from the layman's inability to visualise the consequences of a plan. Mr. Cullen therefore examines first the unavoidable visual consequences of the relation of area designated to area required for various purposes in the Basildon proposals, then draws up an imaginary plan for the town centre and shows with drawings the way it would look if it was built.

251 Current Architecture

255 Peking 1953 by R. T. F. Skinner Though a large and close-packed city of over two-million inhabitants, Peking possesses a remarkable degree of architectural homogeneity. Subdivided by walls (as well as surrounded), provided with wide axial streets, monuments closely related in style, and internal parks, it is built almost entirely in the same manner and to about the same height throughout. This even roof-line is fairly low so that the public buildings of the older Imperial age make imposing effects without employing great height. But now this Imperial capital of a feudal empire has become the capital of the new and revolutionary Chinese state, and planners and administrators are faced with the problem of making an old town serve new needs without sacrificing its unique character. Immediate first aid to historic monuments, to public services and housing needed no argument, but future planning presents intricate problems which Mr. Skinner sets out in the second part of his article—the most acute being the size, style and siting of any large new blocks to be erected.

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The Authors *Steven Runciman*, born 1903. Fellow of Trinity College, Cambridge, 1927-36. Professor of Byzantine Art and History, University of Istanbul, 1942-45. Representative of British Council in Greece, 1945-47. Publications include *The Emperor Romans Lecapenus*, 1929; *The First Bulgarian Empire*, 1930; *Byzantine Civilisation*, 1933; *The Mediaeval Manichee*, 1947. *History of the Crusades: Vol. I*, 1951, *Vol. II*, 1952. *W. Knight Sturges*, born 1909, architect. Trained at Yale University. In private practice. Taught at Yale, Columbia and Notre Dame, 1948-49. Senior Reference Librarian, Avery Library, 1949-52. At present practising in New York City.

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FIVE SHILLINGS



 Opposite, two pen and ink drawings by Edward Lear, both dated 1848, of churches on the island of Zante. The church in the upper one has not been identified; the lower one overlooks the harbour. Whether it has survived destruction in the recent earthquakes is, as in the case of other buildings mentioned in the following article, so far not known.

Steven Runciman

ZANTE

AND ITS CAPITAL ZAKYNTHOS DESTROYED IN THE RECENT EARTHQUAKE

The earthquakes that have struck the Ionian islands are known already to have done damage on a scale unparalleled in recorded Greek history. Till the human suffering has been alleviated as far as is possible it will be impossible to assess the destruction of buildings and works of art. Of the three principal victims among the islands, Cephalonia and Ithaca possessed towns full of a simple charm and some attractive old churches and monasteries; but Zante, quite apart from its natural beauty, contained works of architecture and of painting that were unique. The notes that follow described the island as it was before the earthquake. It is to be feared that most of the description should now be put into the past tense.

The infinite variety of Greece is always astounding to the traveller. Eastern Macedonia is completely different from Western Macedonia, and the Argolid from the Messenian plain; and each island is individual and unique. But were the traveller to drop by parachute into any part of Greece he would recognize it as a part of Greece, unless his landing-place were in the Ionian Islands. Of them, though Cephalonia or Ithaca or Cythera, the bleak home of Aphrodite, are unmistakably Greek, Corfu is cosmopolitan; and Zante is impossible for a stranger to identify. The barren mountains proclaim it to be of the Mediterranean; but the lush valleys, the well-watered plain, rich in orchards and vineyards, are not Greek. The soft moist air belongs to a lazier, more luxurious country.

Nor are the works of man suggestive of Greece. The prosperous farmsteads in the plain, the baroque belfries in the villages, the paved piazzas and the toy palaces in the town give an alien impression. There is not a dome in the island, nothing at first sight that recalls Byzantium; and nothing is left of Classical antiquity. There is only the comfortable, familiar sight of the black-robed Pappas to tell us where we are.

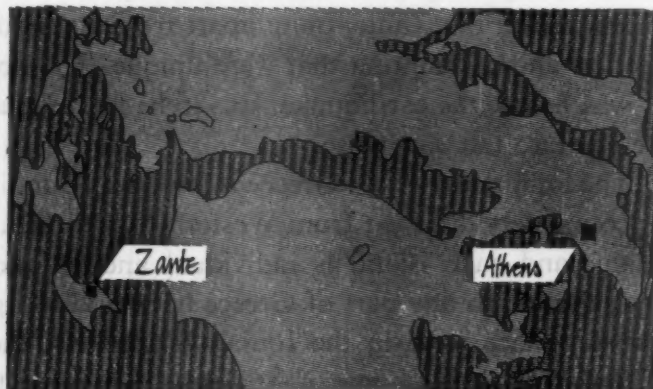
History as well as nature has produced this result. For all its fertility, Zante (or Zakynthos, to give it its correct name) has never played a very prominent role. In early Classical days it was rich enough to send colonies as far west as Spain, where Saguntum

perpetuated its name; but neither as a Greek state nor as part of the Roman or Byzantine Empire did it achieve prominence. In the thirteenth and fourteenth centuries it was included in the County Palatine of Cephalonia, under the family of Tocco; and in the next century it was taken over by the Venetians, to remain a Venetian possession for nearly four hundred years. The Venetians developed it eagerly. To them it was the *fior di Levante*, the most luxuriant of all their colonies. The Turks tried often to capture it; but Venetian sea-power, and the impregnable fortress on the mountain-top overhanging the capital of the island, kept it safe for



1, a black-robed pappas of the Orthodox Church doing the day's marketing.

Venice. The estates of the local nobility, itself mainly of Venetian or Veneto-Cypriot origin, produced more and more olives—the olive-oil soap of the island is still a leading export—and above all currant grapes. The currants of the island brought it wealth. They were almost all bought up, from the seventeenth century onwards, by English merchants, to satisfy the English demand. Edward Lear calls Zante 'plum-pudding island', a name that wrongly suggests a soggy landscape but which was not unjustified; for the quality of English plum-puddings depended on the Zante trade. A small colony of English merchants settled there, not very happily, as English visitors noticed, partly owing to the frequency of earthquakes and still more owing to the Zantiots' propensity for vicious vendettas and peculiarly blood-thirsty murders. (I inquired on a recent visit whether this tradition was still carried on; but the answer was disappointing.) For all its wealth Zante was obliged to import corn from the Peloponnese, to whose Turkish governor a yearly token tribute of falcons was sent.





2, the arcaded main street of Zakynthos with a local photographer's 'daddy-long-legs.'

are the neo-Byzantine confections that dominate the central square of most Greek provincial towns. There are larger palaces in the side-streets, mostly of the late eighteenth century, externally simple and classical but with fine reception halls within. Sometimes, especially in the churches, there are ceilings painted in the style of Tiepolo. For eighteenth-century Zante was a home of pictorial art. After the fall of Crete to the Turks, it emerged as the centre of the Italo-Byzantine school. The leading artists of eighteenth-century Greece were Zantiots, Kalergis, Griparis, Cutusi and Doxaras. Many of them studied in Venice and could paint as well in the manner of Tiepolo as in the Byzantine tradition. In the Church of Phaneromeni, decorated by Doxaras, his ceiling is in the grand Italian style but his iconostasis-panels are Byzantine; and with them are panels by artists of the Cretan school, Moschus and Victor. Indeed, there are several examples of the work of the old Cretan masters in Zantiot churches, including the great panel by Romanos of the Battle of Lepanto. These Zantiot churches show a most successful mixture of Byzantium and Italy. They have curious features—a grille to veil the women's gallery, and the pulpit high up on the north wall. They are severely rectangular but bright with gilt baroque woodwork and ceilings which, if they have not figures painted on them, are blue with golden stars. But across the east end a lavish gilt iconostasis in the richest post-Byzantine style is

The Venetians set their stamp architecturally on the island. The farmsteads resemble those of the Venetian plain, as do the village churches, simple barn-like structures, with stucco mouldings and baroque decoration round the windows, and baroque belfry towers or gateways. In the town there are arcades running down the sides of the cobbled main-streets; and the houses are of three or four storeys, interrupted here and there by the baroque façade of a little palace, behind which is a pillared hall, with perhaps a fountain and a miniature grand staircase. (The best of these palaces perished from the bombs of the Allies during the last war.) Baroque church-fronts stand on the streets or the piazza, jostled by the houses on either side, not grandiosely apart, as



3, fish nets being repaired on the quayside.

flung, fitting far more harmoniously there than its fellows do in old Byzantine churches.

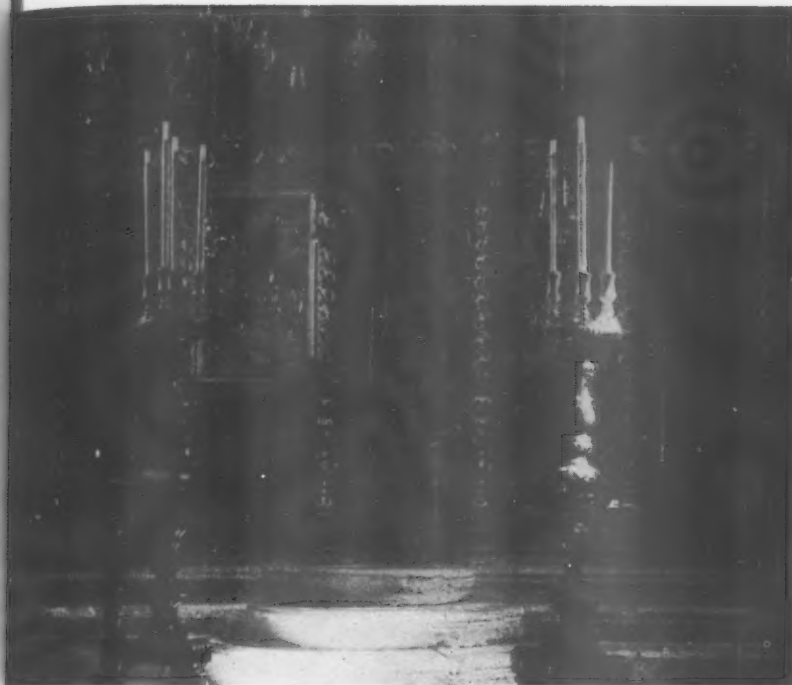
The British occupied Zante in 1809, and soon began to leave their mark on it. The traveller William Turner, visiting the island in 1817 after three years' absence, was struck by their building activity. He mentioned in particular the handsome belfry tower set up in the piazza near the harbour. They gave the town a municipal theatre in an Italo-Regency style; they erected a large, plain, comfortable villa by the sea to be the residence of the Lieutenant-Governor. For a while the town was the seat of the British administration: but the capital soon moved to Corfu, and Zante was forgotten, except for its currants. Beyond a few buildings little is now left to recall the half-century of British rule. Cricket is no longer played there, as in Corfu, nor ginger-beer drunk, as in Cephalonia. Even the roads, well constructed by British engineers, have reverted to a condition more in harmony with the Levant.

In 1864 the Ionian Islands returned at last to the rule of the Greeks; and the Zantiots are amongst the most loyal of the sons of Greece. They form a self-contained community, conservative in tradition and courteous in manner, and slightly contemptuous of the mainlanders. Nearly every man in the island is called Dionysios—Nio-nio for short—after the local saint; and they have always thought no shrine in Greece so effective against shipwreck as that of the Panaghia on their Mount Scopus. They live in an island that suggests Venetia, with a touch of Malta and of Regent's Park; but the island's outward appearance is due to its history and to the strife and tragedy to which geography has made Greece eternally liable. At heart Zante is essentially Greek. We must hope, now that the hand of fate has so cruelly destroyed the outward appearance, that the courage and endurance that the Greeks have always shown in adversity will carry the Zantiots through their harsh ordeal.



4, the town and port of Zakynthos seen from the castle with Mount Scopus in the background.

5



6



5, reredos of the church of St. Andreas, just south of the port of Zakynthos. 6, balcony and windows of a house in the main street elaborately carved in a mixed style which reveals the influence of the Venetian occupation. 7, the waterfront with its long, paved quayside. 8, the belfry of the harbour church, built during the British occupation. 9, doorway to the small seventeenth century church of St. Mary of the Angels, revealing most beautifully the external influences that left their mark on the architecture of the Ionian islands.

7



9



8



10



11

**ZANTE**

10, the municipal theatre of Zakynthos built during the British occupation, in an Italo-Regency style. 11, houses on the harbour front. 12, the main square with the church of San Marco in the foreground. 13, a typical square seen on a Sunday morning. 14, another town square illustrating the simple, Italo-Regency character of much of the island's architecture. 15, one of the narrow arcaded streets built to give maximum protection from the sun.

12



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14



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In 1944 the Irvine Committee, which had been set up in the previous year to enquire into Higher Education in the Colonies, submitted its report and the University College of the West Indies came into being. In the following year it was agreed that funds should be drawn from money available for colonial welfare and development, provided the seven Colonies interested in the project would shoulder the burden of recurrent expenditures for maintenance. The project is a remarkable one, a pioneer scheme among several others put in hand since the war, and it aims to do more than simply provide cubic footage for academic activities. The architects have endeavoured to create the atmosphere and frame of mind which are regarded as the essential qualities of university life in the Anglo-Saxon tradition, in spite of climatic conditions which make the close development and sequences of courts of an English University quite impracticable.

UNIVERSITY COLLEGE OF THE

WEST INDIES

The various groups of buildings are to be distributed informally throughout the well-wooded and park-like site, a procedure which makes possible the incorporation of later and as yet unforeseeable developments, the only formal element in the design being the ring-road in the centre, encircling the administration buildings and the faculty of Arts, and the great green avenue which is to connect this nucleus with a rock-cut amphitheatre on the southern fringe of the site. Even the individual buildings are not expected to show more than an approximate formality, since the needs of ventilation and of glare prevention make loose and open planning imperative. The blocks tend to be narrow with excellent presentation to any available breeze on either side, and they are connected by open-sided covered ways.

The late Sir Thomas Taylor (then Dr. T. W. J. Taylor), was appointed Principal soon after the end of the war, and the architects received their commission on

Christmas Day in 1946. Mr. Graham Dawbarn, C.B.E., went to Jamaica in January, 1947, and within two months the site had been selected and schedules of accommodation drawn up. The architects' report was approved in principle in February, 1948. Tenders for the initial contracts were obtained in May, 1949, and work started in October of that year.

Tenders were sought from building firms in the British West Indies and in Great Britain, and Messrs. Higgs and Hill Ltd., of London, were successful. They set up a comprehensive organisation in the Island under Mr. L. D. Jennings as their local director, were responsible for all the reinforced concrete work, set up their own joiners' shop and made their own concrete blocks. This was achieved by the introduction of considerable plant and of a number of skilled craftsmen in the different trades who trained and co-operated with local labour. The architects established a permanent office in Jamaica under the direction of Mr. Alick Low. With the co-

operation of the local authorities they drew up their own structural code.

The site comprises some 700 acres a few miles from Kingston, Jamaica, at an elevation of 600-700 feet; to the south-west is a mountain and to the north-west a reservoir and its attendant aqueduct, while to the east a low escarpment looks over a fairly level area which is being developed for sports fields. A war-time camp, already on the site when construction began, has been used for temporary accommodation, and in addition to the trees already on the site, a programme of new planting and gardening is being pushed ahead as each group of buildings is completed.

The architects were faced at the outset with a choice of two programmes of immediate development—either to build up the central nucleus in a compact way, or to open up the whole site more thinly. They selected the latter course as the one less likely to restrict further development, and the buildings completed in the first phase are seven science departments, an arts block with lecture rooms, the library, a 300-bed teaching hospital with its nurses' home, an institute for social and economic research, three halls of residence and some fifty houses for the staff—the wide distribution of this first stage over the site may be appreciated from the plan. Current construction includes the Registry and Senate building and an extramural department, while further projects exist for expansion of the hospital and the library, more teaching and research departments, a Great Hall and more halls of residence.

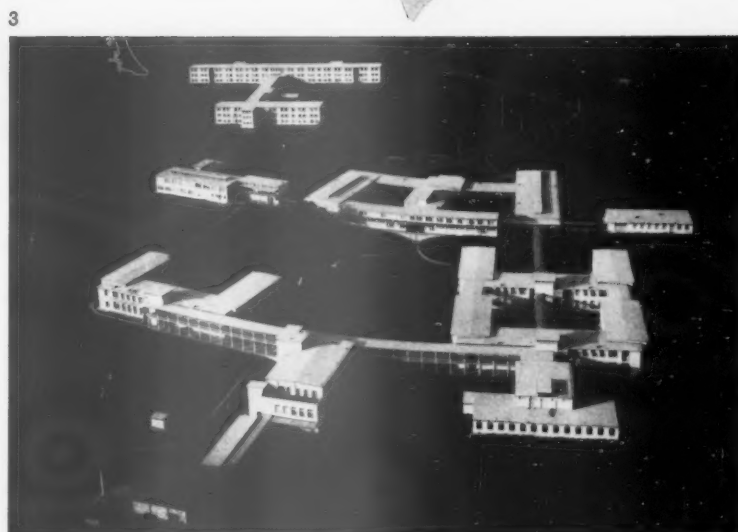
The project as a whole is also a contribution to the study of design and building techniques for tropical conditions, and construction posed three major problems.

First, that the very fullest value had to be obtained for the available funds. There was no money for anything but essentials. This, in a period of rising prices, called for frequent revision of plans and the greatest care in the details of construction. That the cost of the first section has come out within a tenth of 1 per cent of the authorised amounts made several years ago indicates the effectiveness of these measures.

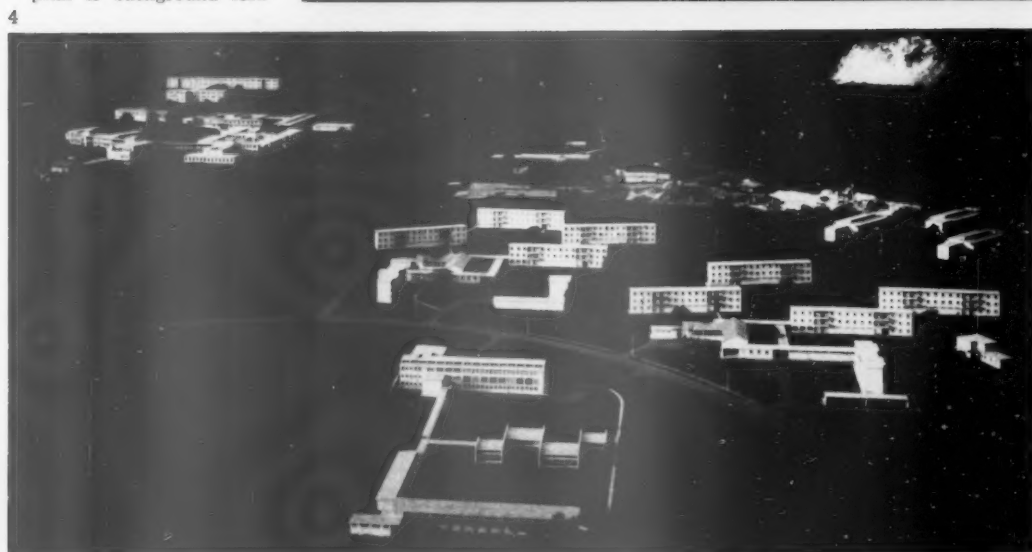
Second, the tropical climate and incidence of earthquake tremors and hurricanes called for close study of

functional design. As a result of this study all buildings have similar constructional characteristics. For resistance to earthquake tremors they are restricted in height and have low foundation loading (maximum $1\frac{1}{2}$ tons per sq. ft.). Special buildings such as the theatre block in the hospital are constructed in reinforced concrete, and the others have reinforced concrete frames consisting of posts, ground beams and belt-courses at floor and eaves level. The wall panels are tied into the frames by reinforcing bars passed vertically through the grouted-in cavities of the hollow concrete blocks used for panel filling. Resistance to hurricanes is less exacting but has required the fixing down of roof trusses and a proportion of rafters by anchor bolts to the frames, the securing of roof coverings and the design of structures for high wind loads. Hard floors are used throughout for coolness; either cement tiles or smooth cement renderings. The use of these floors led to a need for acoustic absorbent so that ceilings generally are of acoustic wallboard. To minimise the effect of the strong sun, eaves have at least 2 ft. projections and use has been made of louvred shutters, and in some cases of non-actinic glass. A more comprehensive use of jalousies (that is of movable louvres) was unfortunately ruled out owing to cost. Care had also to be taken to prevent termites from attacking timber.

Third, the construction was influenced by the local availability of materials and skilled labour. The relative absence of materials and of special craft skills, such as are obtained in Great Britain where they are taken for granted, was an important factor in design. The island produces stone for aggregates and limestone for walling. Gypsum is also available and asphalt comes from Trinidad. The craftsmen connected with these materials are obtainable and plasterers are particularly efficient, but plumbers and electricians are scarce. There is plenty of unskilled labour. Therefore the structures generally are of the simplest reinforced concrete frame design calling for no exceptional skill in execution; the panels of concrete blocks were made by unskilled labour and the internal and external surfaces plastered. The contract was operated by means of approximate bills of quantities with adjustment by measurement.



1, plan of the complete scheme. The large numerals show the main groupings; 1, nucleus; 2, science; 3, halls of residence; 4, staff and graduates' residence; 5, sports; 6, maintenance; 7, teaching hospital; 8, nurses' home. Some buildings have been altered in layout and the nurses' home is a single block on a new site. 2, general view of the site from Long Mountain. 3, aerial view of the teaching hospital. The I-shaped block at the rear is the nurses' home. 4, aerial view of the partially completed nucleus (left foreground). The hospital is background left.





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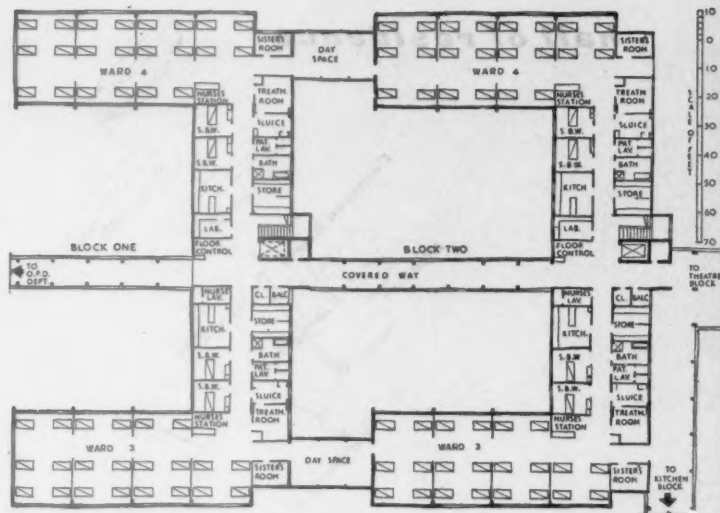
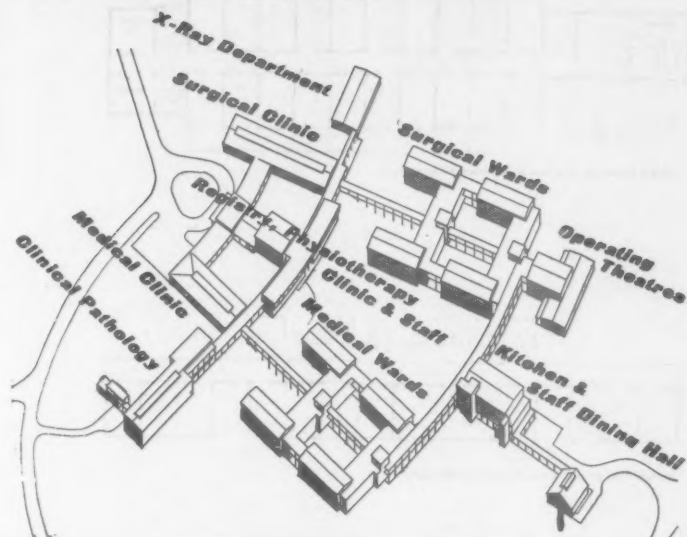


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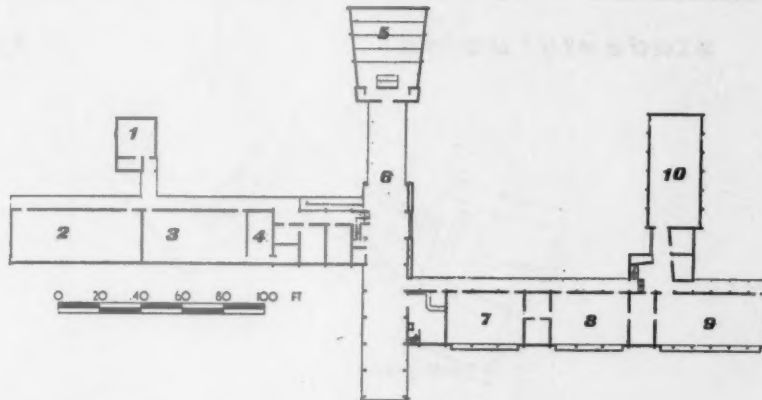
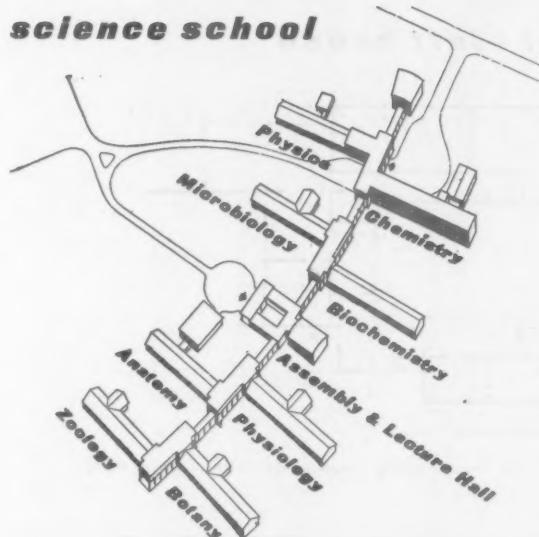
teaching hospital Sited on a slope in widely spaced blocks with linked covered ways, the hospital comprises 300 beds which are to be increased later to 500. The open layout with extensive spaces between blocks allows free circulation of cooling breezes, and the planning of individual blocks similarly ensures maximum ventilation. 5, rear elevation of kitchen and staff dining hall. 6, view looking towards surgical wards and with staff dining hall on the left and the operating theatres on the right. 7, view from the covered way between the medical wards and staff dining hall looking towards the kitchen. 8, a typical entrance hall and staircase.

teaching hospital



typical floor plan of a ward block.

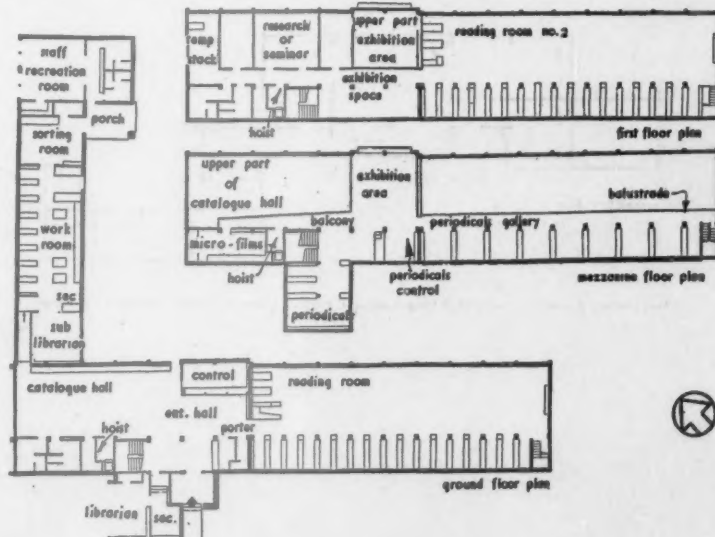
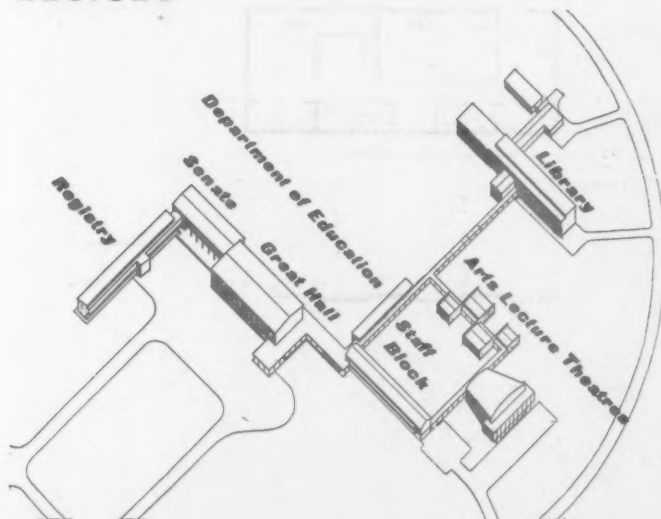
science school



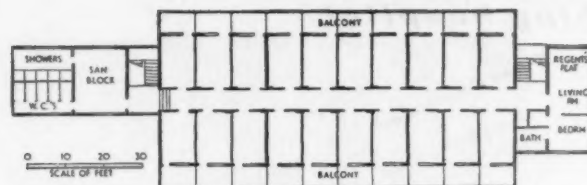
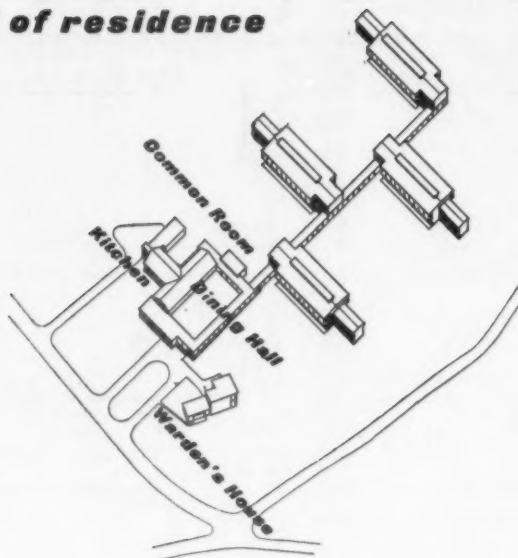
plan of part of science school.

keys 1, spectroscopy lab. 2, junior lab. 3, senior lab. 4, optical lab. 5, lecture theatre. 6, covered way. 7, organic chemistry lab. 8, physical chemistry lab. 9, elementary lab. 10, elementary teaching lab.

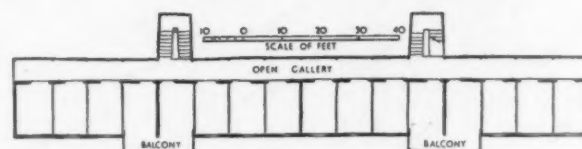
nucleus



hall of residence

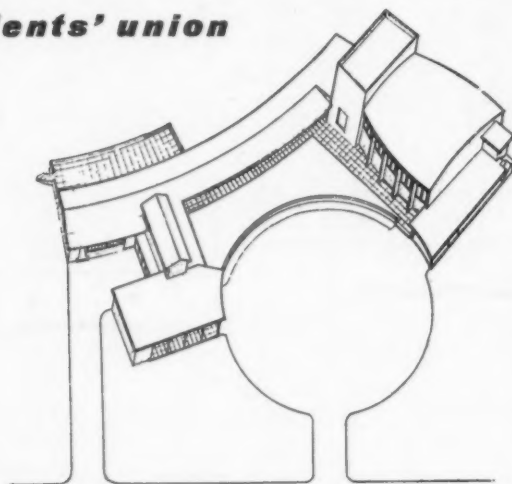


typical floor plan of a hall of residence for women.

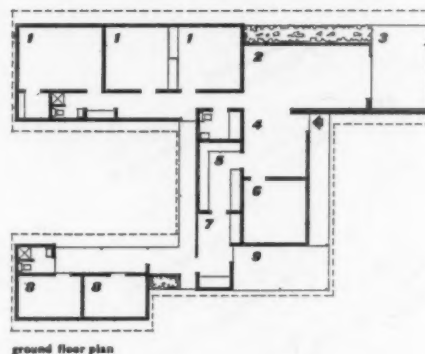


typical floor plan of a hall of residence for men.

students' union

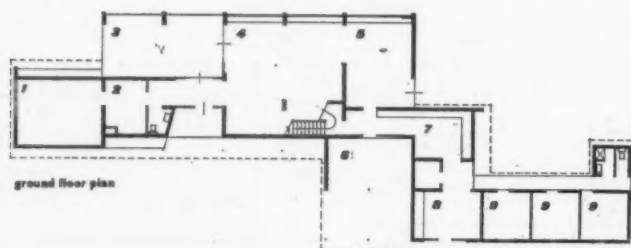


typical staff house

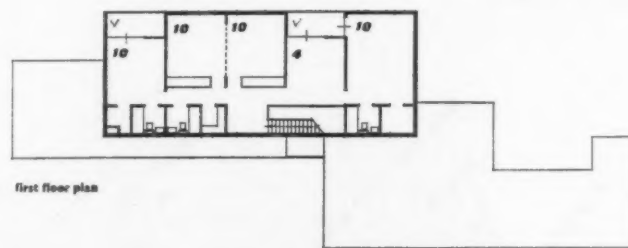


keys: 1, bedroom; 2, living; 3, verandah; 4, dining; 5, kitchen; 6, study; 7, laundry; 8, staffroom; 9, garage.

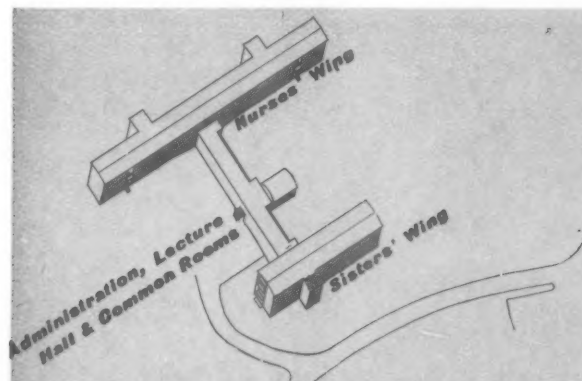
principal's house



keys: 1, library; 2, secretary; 3, verandah; 4, living; 5, dining; 6, garage; 7, kitchen; 8, laundry; 9, servants; 10, bedrooms.



keys: 1, library; 2, secretary; 3, verandah; 4, living; 5, dining; 6, garage; 7, kitchen; 8, laundry; 9, servants; 10, bedrooms.



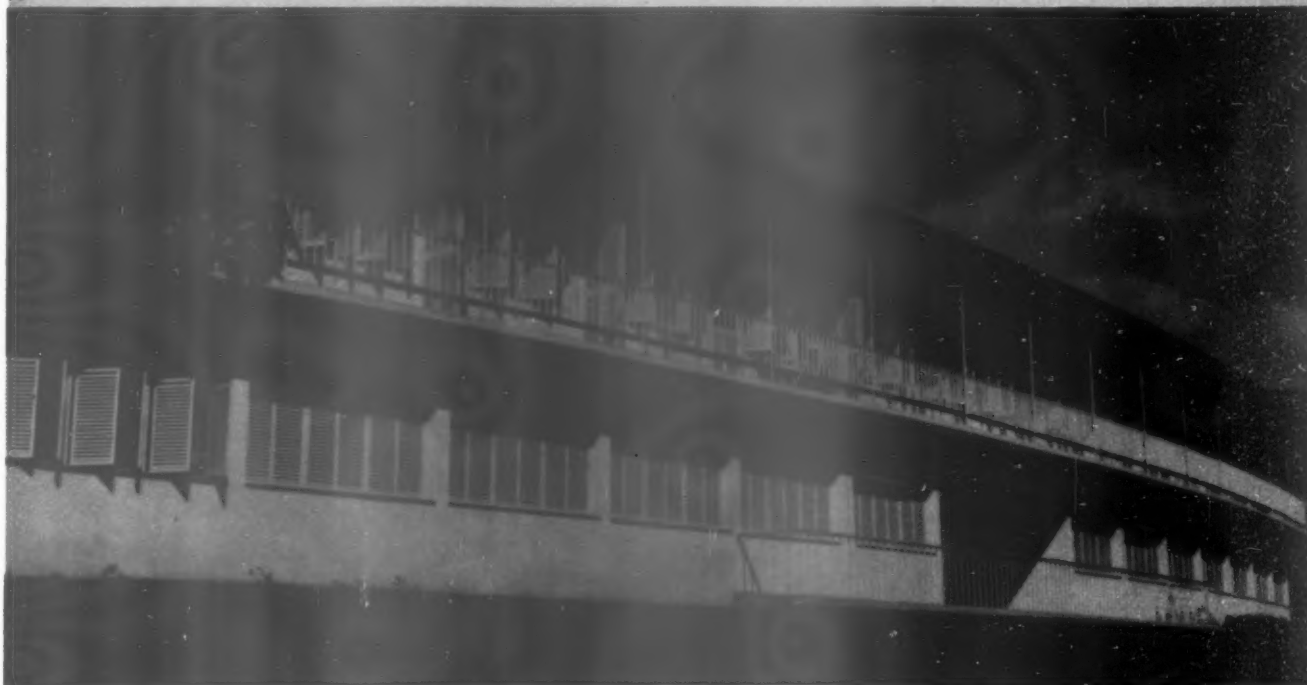
9



nurses' home Situated a short distance from the teaching hospital the nurses' home consists of a central administration block with lecture hall and common rooms, with nurses' and sisters' wings on either side. 9,

general view looking towards the rear of the lecture hall with the sisters' wing on the left and the nurses' wing on the right.

10



outpatients This department of the teaching hospital includes physiotherapy department, dispensary

and stores below with staff bedrooms above. 10, view showing first floor staff bedroom balconies.

11



science school This school is planned with wings extending from a central spine. Any of the existing departments can be enlarged and further departments

12



added by elongating the spine. 11, internal angle of the chemistry department. 12, the covered way which at the same time forms the central spine to the whole unit.



science school (cont.) 13, the chemistry and physics wings branching left and right from the central

spine which runs as the covered way between the two blocks for the whole length of the school.

13



14



15

16



library There are two storeys with a mezzanine and a single storey staff and administration wing. 14, the

catalogues hall from the mezzanine. 15, the control counter in the entrance hall. 16, general exterior view.

17, the arts reading room on the ground floor and, 18, the first floor science and medical reading room.

17



18



19



20



21



arts department and research institute The arts department is planned round a lawn which will be further enclosed by a large lecture theatre. 19, the

arts staff block. 20, the lecture-room block. 21, the institute of social and economic research which is the first of several self-contained research units to be erected.



22

23



25



26



24



halls of residence and students' union Three halls of residence have been built each consisting of several blocks linked with dining hall and kitchen by covered ways, 25. 22, balcony elevations of a typical block. 23, detail of staircase to access balconies of a hall for men and, 24, general view. 26, first section of the students' union.



²⁷ **principal's house** This house was planned to serve several functions: entertaining, working, and family life (see plan on page 226). A further bedroom may yet be added over the library. Living room, verandah and



terraced lawns form a partly covered, partly open unit ²⁸ looking over the whole of the university college. 27, south-west elevation; 28, north-east elevation.

²⁹ **staff houses** Some 50 houses have so far been completed on the slopes of the mountains at the south-east

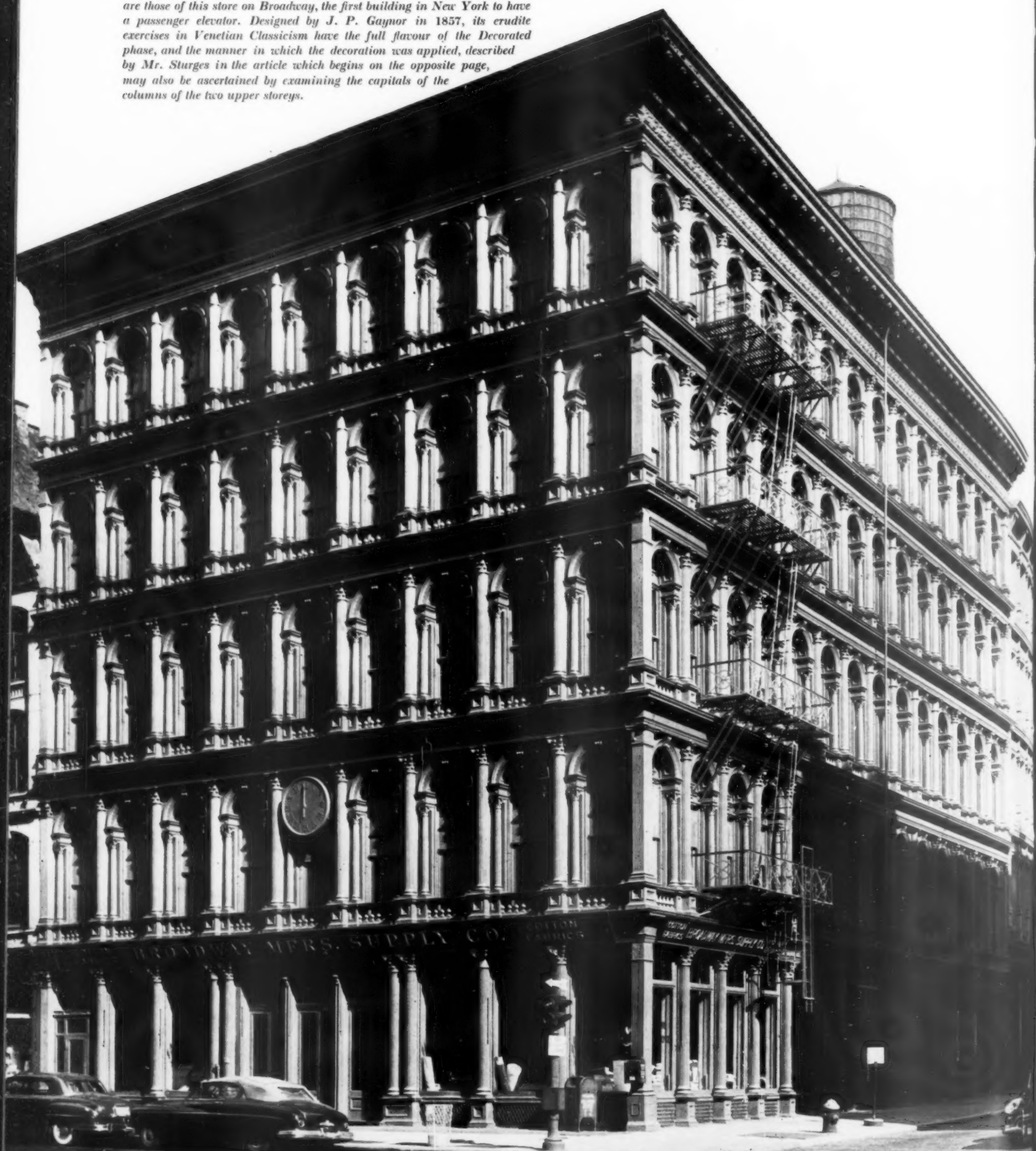
of the site and in the wooded terrain at the foot. 29 and 30, two typical staff houses. 31, a porch detail. ³⁰



31



cast-iron in New York The finest of New York's surviving iron fronts are those of this store on Broadway, the first building in New York to have a passenger elevator. Designed by J. P. Gaynor in 1857, its erudite exercises in Venetian Classicism have the full flavour of the Decorated phase, and the manner in which the decoration was applied, described by Mr. Sturges in the article which begins on the opposite page, may also be ascertained by examining the capitals of the columns of the two upper storeys.



The bewilderingly rapid refocusing of our interests in the nineteenth century has brought into prominence problems of architectural history whose scope is often wider than at first appears. Thus, while the source of the balloon frame seems certainly to be Chicago, and the pre-history of the skyscraper seems equally certainly to lie in New York, the growth of the iron-frame vernacular is an international problem in which the material is only just being brought under control. In the article below, W. Knight Sturges discusses the surviving pocket of iron facades in central New York, where James Bogardus did pioneer work, and quotes some contemporary opinions on the aesthetics and economics of the iron front.

CAST IRON IN NEW YORK

For those who would personally visit the cast-iron streets of New York a word of description may not be out of place. Roughly speaking, the area is bordered on the south by a line running east and west from City Hall; on the east, with certain notable exceptions, by Broadway; on the west, by Greenwich Street and West Broadway; and, on the north, by Twenty-third Street. The northern perimeter of this area was the fashionable shopping district of the 'nineties. To the west are such well-known districts as Chelsea and Greenwich Village, and to the east, the recent housing project of Stuyvesant Village and the vast areas of unreclaimed tenements of the Lower East side. South of City Hall are many of Manhattan's famed skyscrapers and the heart of the financial district. Thus, the cast-iron area, approximately three and one-half by one-half mile in extent lies, like a core or armature, in the heart of the city. To-day, as fifty years ago, this area is a vast wholesale market. Unlike the rest of the city, it has remained homogeneous—uniform in its architectural and commercial character. Within its confines, known to the average New Yorker only by the names of subway stations at which the expresses never stop, there is hardly any place from which some form of cast-iron architecture will not be visible. Here and there a narrow canyon-like street seems to be entirely lined on both sides with fronts externally un-

touched since the 'sixties and 'seventies of the last century.

* * *

Although at first sight it may seem easy to recognize a cast-iron front, this is by no means always the case. Many of them strikingly resemble stone, and many stone fronts are scarcely distinguishable from cast-iron. Looking closer, cast-iron may be recognized when some ornament, such as the leaf on a capital or the dentil on a cornice, has either fallen off or been removed. Since each of these features had to be cast separately and secured to the structure by tap screws, there is no sign of breakage or wear on a gradually deteriorating surface, as would be the case with stone. Contrary to what has sometimes been supposed, practically all the ornament so characteristic of these fronts was separately cast and later applied by hand. An examination of a Corinthian capital, a characteristic detail of the iron fronts of the 'fifties and early 'sixties, reveals that, not only is each leaf separately cast, but also the volutes and abacus. The same is true of the base mouldings which have sometimes come loose so that they can be lifted away from the column shaft.

Notwithstanding this obvious characteristic, it is still surprisingly difficult to distinguish between cast-iron and stone, and accordingly of interest to come

upon a contemporary description of this phenomenon. In 1869 William John Fryer wrote a series of articles, entitled *Iron Store-fronts*, which appeared in the first volume of the *Architectural Review and American Builders' Journal*. In one of these occurs the following:

'On any much travelled street, a marble front soon becomes rusty and discolored with dust and rain. An iron front, kept properly painted, appears periodically in a new dress, and is always clean and bright. Other things being equal, place two merchants respectively in a stone front and an iron front store, side by side, and he in the clean, bright, attractive front will do the most business, and can afford to pay the highest rent. Just above Grace Church, on Broadway, there are two stores erecting, adjoining each other, and precisely alike in every detail, one front of iron and one of marble. These take a place in the history of iron fronts.'

Here, indeed, as Thomas Tallmadge and Montgomery Schuyler were both to point out many years later, was a curious reversal in the normal course of architectural history. Cast-iron forms, originally designed to imitate masonry, were, in a few years, imitated in the very material from which they had been derived!

With relatively few exceptions, the buildings we are going to examine are five stories in height, the typical lot being twenty-five feet, or multiples thereof, in width, by one-hundred in depth. Rear walls and party walls are of brick, the former are pierced by conventional double-hu sashng with fire shutters, and floor heights generally vary between eleven and fourteen feet in the clear. While attempts were made to use iron for floor beams and even for flooring itself, they did not meet with general acceptance. Masonry arch floors with iron beams used as skewbacks were occasionally used in this type of building. However, the weight of this type of construction, and no doubt other factors, made the cost prohibitive for a commercial building. As a result, the characteristic floor construction of these buildings is not iron but wood. Floor joists and girders have their undersides plastered on wood lath. The most general method of interior support is the cast-iron column, although wood columns of twelve inches and more diameter may sometimes be found. It was not until the eighteen-seventies, following the great Chicago fire, that the development of light-weight hollow tile arches made it possible to create a fire-resistant building in iron and masonry that was not excessively heavy or expensive. Shortly after this time the introduction of the continuous steel frame was to usher in a new age, the age of the skyscraper, and the day of the cast-iron front was over.

After going through a short experimental stage, commencing in the late 'forties, cast-iron fronts seem to have adopted a more or less fixed pattern which reflected the popular taste in its demand for cheaply executed ornament and cheerfully assumed that whatever could be done in stone could be done better in cast-iron. In 1865 Daniel Badger's Architectural Iron Works produced a beautifully illustrated brochure entitled *Illustrations of Iron Architecture*. From the Preface we learn:

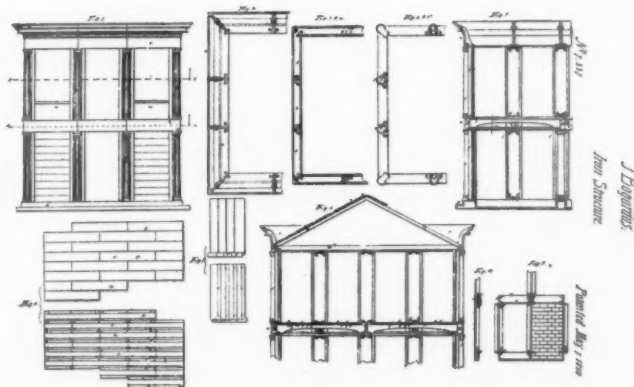
'It must be evident that whatever architectural forms can be carved or wrought in wood or stone, or other materials, can also be faithfully reproduced in iron. Besides, iron is capable of finer

sharpness of outline, and more elaborate ornamentation and finish; and it may be added that it is not so liable to disintegration, by exposure to the elements, as other substances. . . . The cost of highly-wrought forms in stone or marble, executed with the chisel, is often fatal to their use; but they may be executed in iron at a comparatively small outlay, and thus placed within the reach of those who desire to gratify their own love of art, or cultivate the public taste.'

Virtually all the types illustrated in Badger's work are still to be found in New York, many with Badger's name cast into the doorstep. Stylistically, these fronts were contemptuously branded by Montgomery Schuyler as 'American Metallic Renaissance.' Henry-Russell Hitchcock has, with paradoxical aptness, described the style as 'Anglo-American Second Empire.'

* * *

However, it is not to Daniel Badger but to James Bogardus that we should turn to study the nineteenth century cast-iron building. Bogardus was a versatile inventor. To philatelists he is known as the inventor of the machine which produced the Queen Victoria Penny Black postage stamp of 1840. To mariners he is known as the inventor of a deep-sea sounding machine. In addition to claiming the invention of many other useful things, he claimed the invention of the cast-iron building and to substantiate his claim he wrote, with the aid of a 'ghost,' one John W. Tomson, an exceedingly interesting pamphlet whose title is: *Cast Iron Buildings: their Construction and Advantages*. In addition, he had already taken out a patent, dated May 7, 1850, for the 'construction of the frame, roof, and floor of iron buildings,' based on the design and construction of his all-iron building, which he had begun in 1848, at the corner of Center and Duane Streets. In his pamphlet occurs the significant reference to the 'finished fronts of several stores on the same pattern at the corner of Washington and Murray Streets' and the further information that these buildings were completed before the one on Duane and Center Streets, as the interiors are built with frame floors and masonry partition walls and so were not delayed by production difficulties. The all-iron factory was soon to be razed in one of New York's periodic street widenings; the stores have been spared to this day and are quite conceivably the earliest



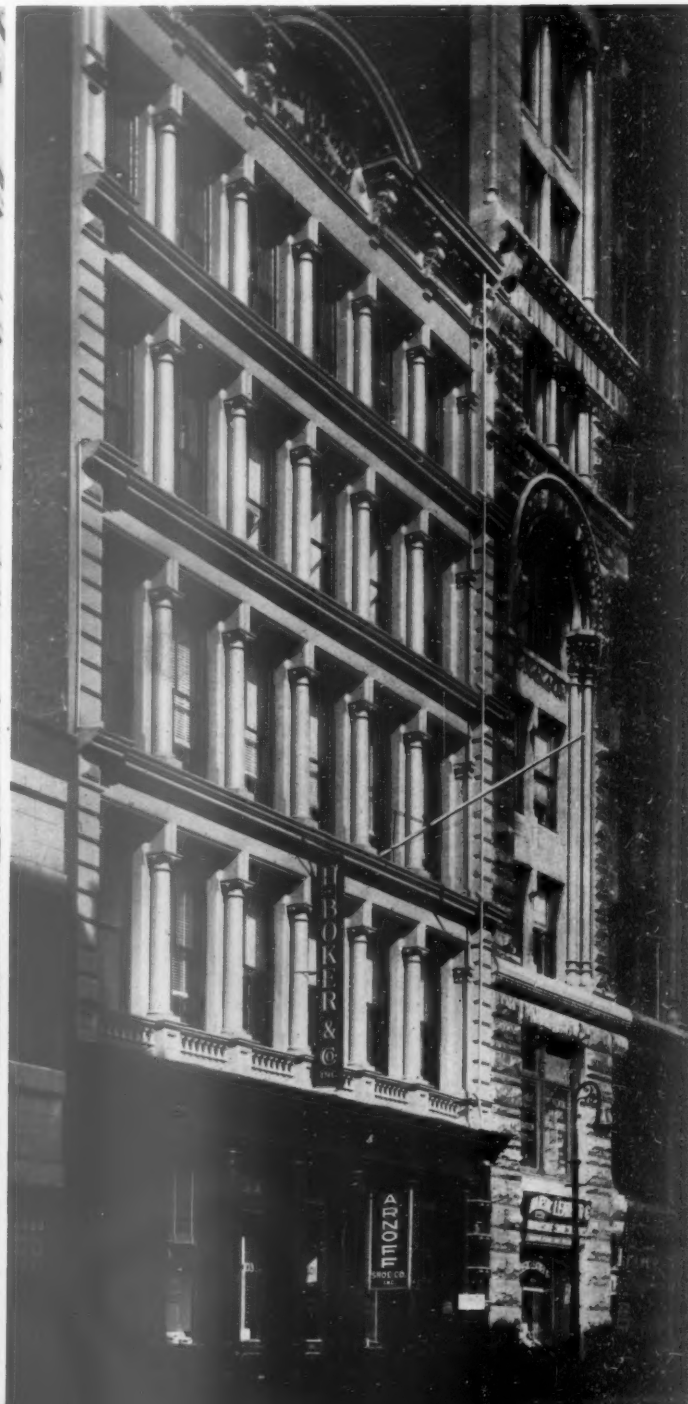
1, illustrations from the specification of Bogardus' patent of 'certain new and useful Improvements in the Method of Constructing Iron Houses' showing the basic parts of his structural system and their method of assembly.

Completed before 1848, these store fronts, 2, at the junction of Washington and Murray Streets seem to be the earliest of James Bogardus' essays in iron construction, antedating the patent of 1850. They now appear somewhat plainer than they were, as the original ornament is missing from all the upper storeys.

The style of Bogardus was often confusingly like that of contemporary designers in stone—his building at 85 Leonard Street, 3, is most easily distinguished from its stone-built neighbour by the missing decoration of the capitals. The austerity and simplicity of the decade after the end of the Decorated period, which Bogardus had helped to launch, is seen in the simple Doric, with its strengthened sense of metallic construction of 101-103 Duane Street, 4.



3 4





5

Few of New York's iron facades can have ever been more exotic than the Mercantile Exchange Building of 1882, yet the designer, H. J. Schwarzmann, uses his decorative motifs (which in English usage would range from Batty Langley to Papworth, Loudon and beyond) to give a stiff and sprightly sense of structure, and a sensitive feeling of scale, 5. Whatever its decorative dress the cast-iron front remained essentially an affair of urban street architecture, its deep window reveals and fin-like mullions, 6 (a group in Greene Street), making a repetitive play of light and shade, horizontal and vertical, which is seen at its best, like so much architecture after Nash, in long raking perspectives like Thomas Street's sober elevations of the late-sixties, 8, while remaining strong enough in individual conception to come through the confusing intricacies of the inevitable exterior fire-escapes, 7 (Spring Street).

6

7

8



cast-iron fronts in America. They stand in the midst of a busy market district and their external appearance is very similar to the well-known woodcut of the Bogardus factory building, 1 and 2.

The most striking feature of the building described in Bogardus' patent is its *frame* construction composed of horizontal girders farmed into entablatures cast in the shape of a channel and supported by attenuated Greek Doric semi-columns. The spacing of the exterior bays was determined by the size of the window openings, not by the interior framing. Thus, in a sense, the cast-iron front, from the beginning, could be divorced from the construction behind it, something which the carpenters and commercial entrepreneurs of the day were quick to realize. For flooring and roofing, Bogardus employed rolled iron plates with interlocking tongue-and-grooved joints. His floor beams were cast in the form of shallow segmental arches with wrought iron tie rods to give them the necessary strength in tension. These floor beams were framed into girders, cast in the shape of the I beam of to-day.

In addition to devising this system of iron frame construction, Bogardus foresaw the coming of the tall building. In applying his system to the skyscraper he was disarmingly simple and definite. He saw the building of the future rising ten miles into the air, a height limited by some calculation of the crushing strength of cast-iron. In a country still young and innocent—that was adopting Orson Fowler's octagonal house—this proposal does not seem to have made much of a stir, and it was quoted later without question by others. It seems certain, too, that Bogardus did not recognize other limitations of his material—its vulnerability to fire and the lack of rigidity due to its being held together by bolts set up by hand. Unfortunately, no all-iron building exists in New York to-day. If one did, fire regulations would long since have covered its iron members with masonry, lath and plaster, 3 and frontispiece, page 232.

* * *

By 1880 the period of the cast-iron front was almost at an end. Nevertheless, in this field, as elsewhere, there is a stirring of new life, a sensitiveness to the nature of building materials hitherto absent from the Victorian scene. Even earlier than this an interesting reaction had set in against the over-ornamented cast-iron front. Both Bogardus and Badger had stressed ornament, possibly with a shrewd eye to making an unconventional material acceptable and respectable. Now, by the end of the 'sixties, cast-iron had proven its worth and the reaction set in which was to produce those simpler fronts, like that of the Gannett building in Saint Louis, which Siegfried Giedion has taught us to admire. Again we have in William Fryer a contemporary witness to the change in point of view. In the same article quoted above he says:

'Immediately after the introduction, the making of iron fronts rose into a business of magnitude and profit. But the pretensions and vulgarity of these over-ornamented fronts, in due time, brought them into well-merited contempt, and sealed their

condemnation by every person who had any knowledge at all of what is truthful and comely in architecture.

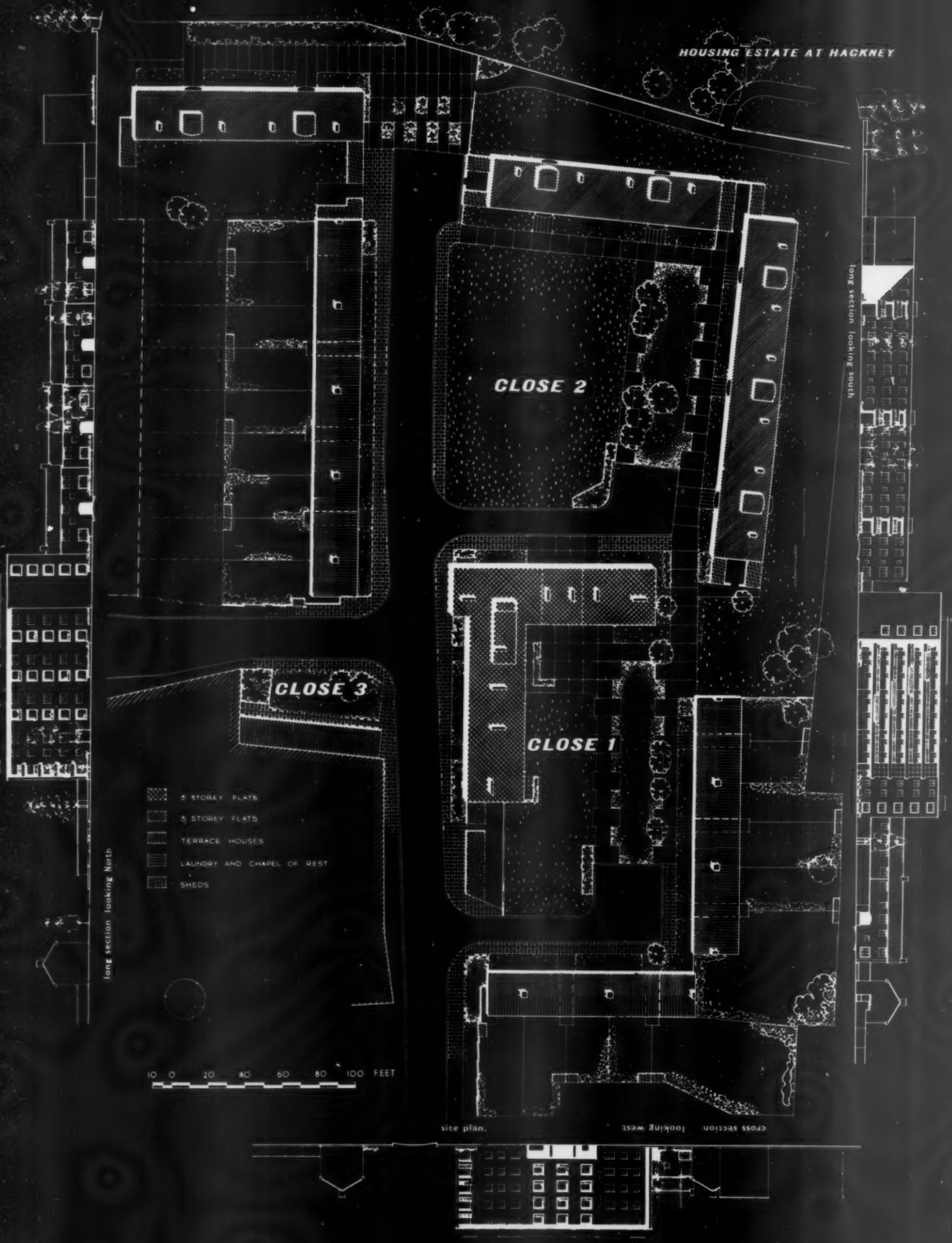
'The fault of these fronts was not in the material employed, but in the false treatment. . . . A chaste and airy edifice of iron may be safely substituted for the cumbrous structures of other substances (but) . . . wants proper treatment, and asks not to be set up as a false jewel, coloured and sanded in imitation of stone, or made flashy by over-ornamentation. . . . Iron fronts have been relieved from the thralldom of ornamentation—over ornamentation; 4, 5 and 6.

However, it is not in the question of the proper uses of ornament or the proper handling of the medium of cast-iron, now virtually obsolete as a structural material, that these mid-nineteenth century buildings have significance to-day. Rather, it lies in some of the interesting results produced by the repetition of these units of architectural design, which lent themselves so readily to the discipline of standardization, 7 and 8. It is in this element of repetition, with its absence of emphasis on any particular unit of area, and the quality, thus produced, of the unlimited extension of space, that we see an unconscious forecast of the architectural aesthetic of our time. Here, in these rows of pretentious but uniform fronts, is an architecture which, often in spite of itself, is definitely anti-monumental and anti-picturesque. Based on a balance of horizontals and verticals, but not on any central or terminal motives, it is not only essentially a street architecture, but also peculiarly suited to the nature of New York's vistaless streets, which have a habit of extending indefinitely into space, and are best seen sharply foreshortened. Richard Llewellyn Davis, in a brilliant study entitled *Endless Architecture*, which appeared in the Architectural Association Journal for November of 1951, has commented fully on this aspect of our contemporary architecture as illustrated by the work of Mies van der Rohe. Howard Robertson, in his *Principles of Architectural Composition*, commented on the presence of the same quality in amphitheatres, viaducts, and similar structures in the following words:

'It may conceivably happen that the noblest and most potent expression of an edifice may be obtained by the production of an effect of complete monotony. Such a monotony, however, is, in reality, less a monotony than a particularly strong expression of unity.'

While the buildings we have reviewed so briefly may not quite justify such high terms of praise, it does seem as if the secret of their charm lies in their decorative uniformity. In this they are not unlike the great river steamboats and such other expressions of nineteenth century construction as demanded continuity of treatment. In addition, cast-iron architecture is rapidly acquiring the appeal that comes with age and the half forgotten past. To-day the cast-iron front seems like a very American thing, which, associated with the days of Lincoln and Grant, forms the perfect background for the now almost forgotten Cigar Store Indian. More important still, and only now beginning to be appreciated, is the fact that it gave a character to the street architecture of nineteenth century New York which that city will be poorer without.

HOUSING ESTATE AT HACKNEY



HOUSING ESTATE AT HACKNEY

FREDERICK GIBBERD: ARCHITECT. R. J. Double: assistant architect

1. a view of close 3 with the five-storey flat block on the left.

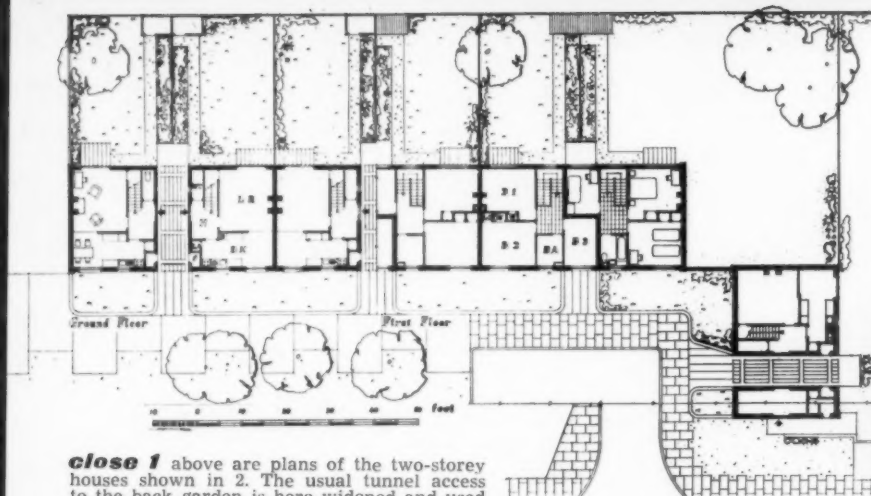


The Beecholme Estate at Hackney is a further development of the principle of mixed urban development, first tried out at the same Borough's Somerford Estate, completed in 1948.* In this scheme a T-shaped five-storey

*See AR, September, 1949.

flat block is made the pivot of the design, and is backed up by three-storey flat blocks and two-storey terrace houses, to form two interconnected squares.

The site, of 3.11 acres (net area), has an open space on its east, and main traffic roads close to its south and



close 1 above are plans of the two-storey houses shown in 2. The usual tunnel access to the back garden is here widened and used also as the entry to the houses.

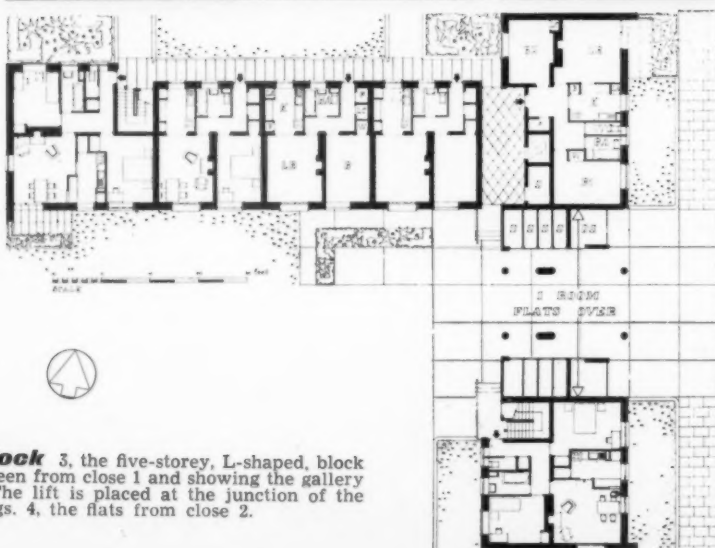
2



3



4



flat block 3, the five-storey, L-shaped, block of flats seen from close 1 and showing the gallery access. The lift is placed at the junction of the two wings. 4, the flats from close 2.

west boundaries. The area was carved up by a pattern of wide roads, the lines of which were retained (to avoid taking up existing services and blotting out the character), but large areas of their surfaces were converted into paved gardens or terraces to become part of the precinctual spaces. The line of the existing road entering the site is kept open so that there is a vista straight through to the open space. The terrace houses are placed so that their private gardens are screened from the street, the three-storey flats about the open spaces, and the five-storey block is in the heart of the plan as the pivot of the design. The southern wing of the tall block is kept comparatively short and is pierced at ground level to link the two main spaces. The block containing the laundry, chapel of rest and workshops is built as a lean-to against the wall of an existing factory. A terrace is formed between the ends of the three-storey blocks overlooking the open space. As the density of population is high, and in order to obtain a feeling of urbanity, there are large areas of paving in each close. Cycle sheds, stores and brick walls are used to link the blocks together and control the views.

A new plan type was invented for the three-bedroom houses based on extending the usual tunnel type access to become a way through the block from which the houses are entered. The houses are planned in pairs on either side of this wide through way, about which are placed two bedrooms. The entrance hall is entered from the tunnel, one single door serving both trade and visitors. The party walls over the way through are staggered on the centre lines of the block to obtain two rectangular bedrooms free from the usual bulkheads.

Construction is of 11 in. cavity brick, the flank walls being a pinkish-beige colour, and the end walls dark plum red. The roofs are of timber, finished with dark brown sand-faced pantiles, and the windows are in wood or metal painted white.

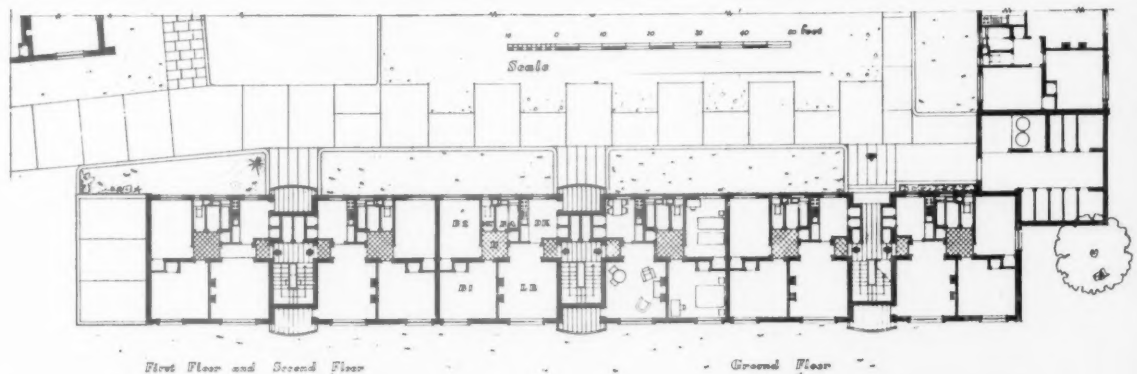
The three-storey flats have the staircase and storage in the heart of the plan and combining with them recessed balconies on opposite façades. The setback of the staircase allows a balcony to be formed on each façade, the staircase being lit from a glazed brick screen facing the balcony and a domed roof light. The buildings are constructed of load-bearing brick walls—of a

similar colour scheme to the houses—with hollow tile floors and roof.

The five-storey block comprises the smallest dwellings. It is of L shape with gallery access, the lift being placed at the junction of the two wings. The flats in one wing look south on to Close 1, and in the east on to Close 2—the balconies being on the opposite sides so that no habitable rooms are overlooked from the balconies. Two-bedroom flats are placed at the end of the wings and the smaller ones between them. In order to economise in steel and in cost, the building is of load-bearing brick construction. A light buff sand-lime brick

is used for the flank walls and dark brown for the ends. The walls and roof are of hollow tile reinforced concrete construction; glazed tiles being used for balcony fronts. Windows generally are of steel painted white excepting to the living rooms, which are centrally pivoted hardwood, left in its natural colour.

Space heating is provided by solid fuel grates which supply convected air to an adjoining room. Fires to the houses have back boilers for hot water. Hot water in the flats comes from multi-point electric water heaters. Plumbing is the one-pipe system in accessible ducts and the electrical installation is on the ring main system.



close 2 5, looking from the workshops in close 3 into close 2. The plans of the three-storey flats seen in the distance are reproduced above. 6 and 7, views into close 2 from the underpass that links closes 1 and 2 through the five-storey flats.



SCHOOL IN WORCESTERSHIRE

FREDERICK GIBBERD: ARCHITECT. J. W. Grimes: assistant architect

1. the main entrance.



This school at Cofton Common, built for the Worcestershire County Council, was specifically designed to create a friendly atmosphere for small children. The buildings are small in scale and very simple in design, the environment generally intimate in character. The various blocks are in a compact group round a central courtyard, which forms the core of the design. There are six self-contained teaching units each consisting of

indoor and outdoor teaching spaces, lavatories, cloak-room, and stores and each having its own entrance door.

The site is on high ground with a dull housing scheme on the north and west, and a pleasant natural valley on the south and east. There is a temporary junior school on the north boundary, which will be rebuilt as part of the scheme, and it is proposed to build a nursery school on the south.



The classroom blocks are placed on the south and west of the court overlooking the school garden and the natural landscape; the assembly hall, administration wing and main entrance are on the west adjacent to the road, and in which position they screen the heart of the school from the housing. The dining room and kitchen are on the north between the two schools with the service yard on the road side and terrace on the garden side.

The main entrance hall links the assembly hall to the administration block, and the caretaker's house is an extension of the latter, there being one continuous roof plane of dark brown pantiles over all three elements. The eaves, of precast concrete units, were kept as low as possible to keep the scale down. The assembly hall opens out to form an extension of the courtyard and the section is irregular to obtain large clerestory

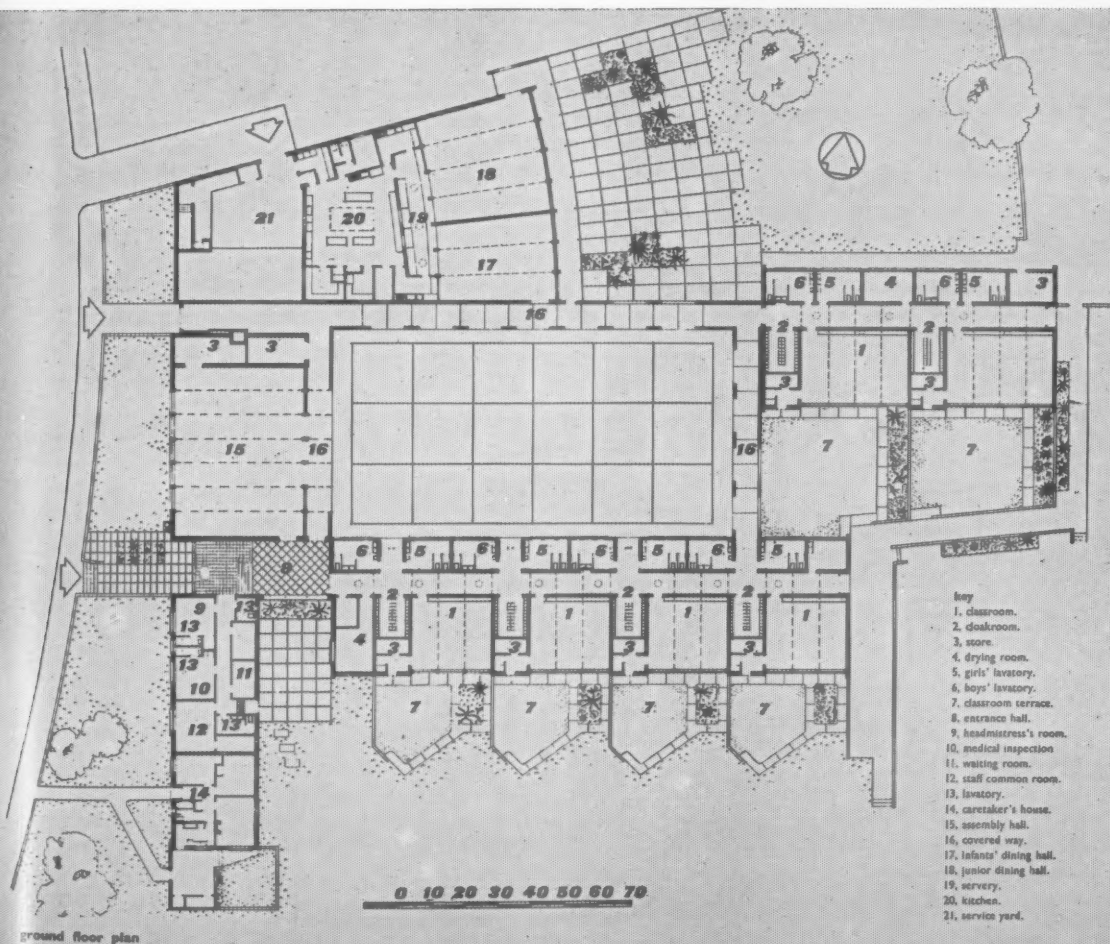
2, the classroom blocks from the south-west.



3, the central court, showing the assembly hall.



4, classroom block and outdoor teaching space.





6

SCHOOL IN WORCESTERSHIRE

windows. The block generally is of load-bearing brick-work with steel trusses, but steel stanchions are used for the assembly hall.

One classroom block has four classrooms of 533 sq. ft. and the other two of 708 sq. ft. The rooms face south on to open-air teaching spaces, but since the situation is windy access between the two elements is by a lobby with double doors. Cloakrooms are placed between the classrooms, and the lavatories and entrance are on the courtyard side. All these elements are arranged so that each class may form a self-contained unit. The classroom blocks are designed as a series of parallel brick walls supporting steel beams which carry wood-wool roof slabs finished with copper sheeting. The roofs slope up to clerestory lighting on the inside walls, the corridor roof between being dropped and lit by glass domes.

The dining hall is designed to link the school with the adjacent junior school, and opens on to a common terrace and garden. The roof slopes up to the garden side and is of hollow tile reinforced concrete construction finished with asphalt and supported on a reinforced concrete frame. The flank walls are brick and a concrete canopy links the building to the covered ways of the courtyard. The kitchen is of brick construction with hollow tile reinforced concrete roof, finished with asphalt.

7



5, the entrance, assembly hall and administration block from the north-west. 6, the dining hall which will link up with the junior school, not yet built. The terrace and garden in front of it will be common to both schools. 7, the entrance hall which links the assembly hall, to the right, with the administration to the left.

Gordon Cullen

Basildon Town Centre

The centre to the town is what the mind and heart are to the man, and a town would not be a town without a heart of some sort. In an old town which has grown organically one finds the centre by searching for the place where the town's heart can be sensed beating. In a new town, a designed town, one goes to the site of the heart as indicated on the plan and listens to ascertain whether it can be heard to beat. But in any case a heart is essential and everyone agrees that every new town should have provision for one. Further, everyone agrees that the creation of a town *de novo* on a bare site is an excellent opportunity to consider what goes into the making of a heart, the kind of centre that is organically alive, to which the citizen automatically gravitates, and where the visitor, on entering, will have a sense of having arrived.

Agreement goes further—the heart manifests itself by the presence of buildings serving public needs and one might, possibly, make a centre by simply ruling off a plot of ground and dumping the necessary buildings on it, but citizen and stranger alike would feel it was a poor sort of town that could not bring something more vital than order into the arrangement of these buildings.

At this point agreement begins to break down. How are the buildings to be arranged? To make a monumental composition? For the convenience of the motorist? To make a comfortable, if not impressive, piece of scenery? Here prejudices come into play; citizen falls out with citizen; both disagree with the expert; the experts snarl at one another; legislature is at loggerheads with administration. Tempers are frayed by the impossibility of making an agreed effect when the whole basis of the agreement has been destroyed by a decision made elsewhere and on an apparently unrelated subject.

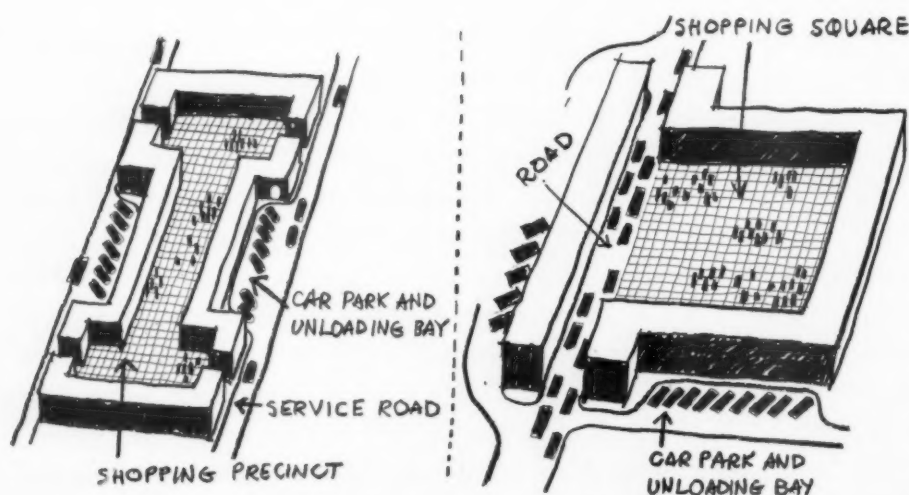
It is no use deciding to build a compact and cosy place if someone has already designated so much ground for it that it will be lost in the middle of empty acres.

But most of the disagreement will arise from the poverty-stricken visual education of the citizen, who nearly always has difficulty in visualizing the appearance of a plan when carried out—how wide a road will look, how high a building, and how one will affect the other.

This nearly always leads to horizontal grandomania, and vertical grandophobia, so that streets are too wide for their buildings, buildings too low for their streets, and the precinctual market-place, from which motor-cars are banned, is a vast and lonely wilderness without them.

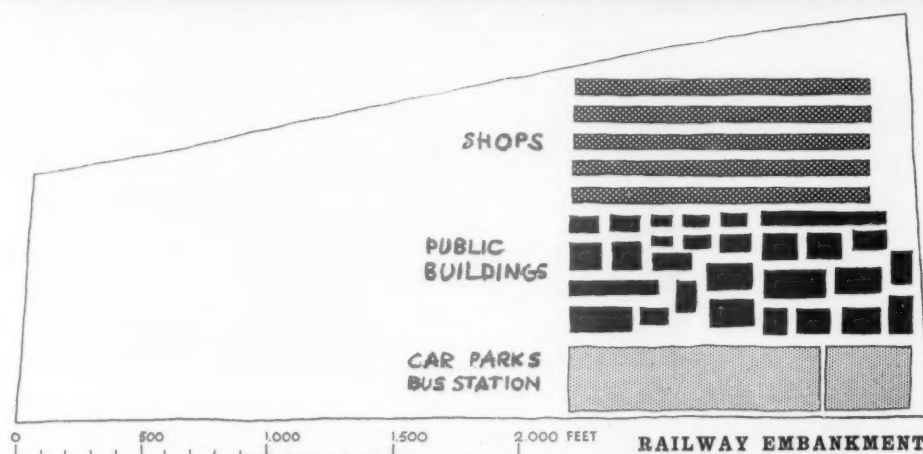
In most new towns these issues have been forcibly settled already—the town centres were designed long ago. But the case of Basildon is different. There the centre, together with most of the town, is at the moment no more than an area of designated ground, a schedule of areas required for different public services on an agreed precinctual principle. There is time at Basildon to consider the whole townscape problem. How big will the designated area look? How much space will be left around the buildings? What will be the effect of segregating motor from pedestrian traffic? Will particular groupings of buildings cause certain areas of the centre to go dead at certain hours of the day? What will it all *look* like? How is it to be made to come alive?

The solution to these problems will decide whether the centre will be a true heart, or a hollow drum, and they are all problems of townscape, the conscious art of making urban scenery. In the article which follows the visual consequences of Basildon's basic data are examined, and one—but only one—of the many possible solutions to the townscape problems posed by these data is put forward. Not, however, in detail as an authentic plan for the centre but as a clothes-horse on which to air a handful of the many visual questions that need to be faced before the real planning begins.

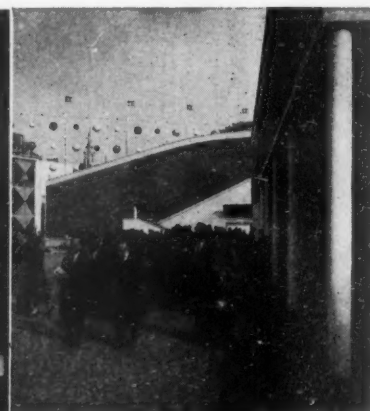
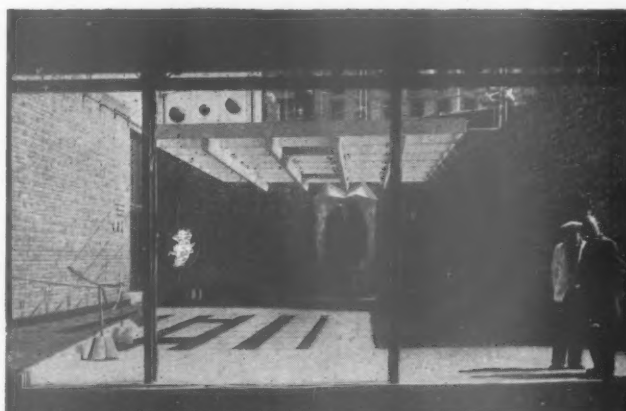


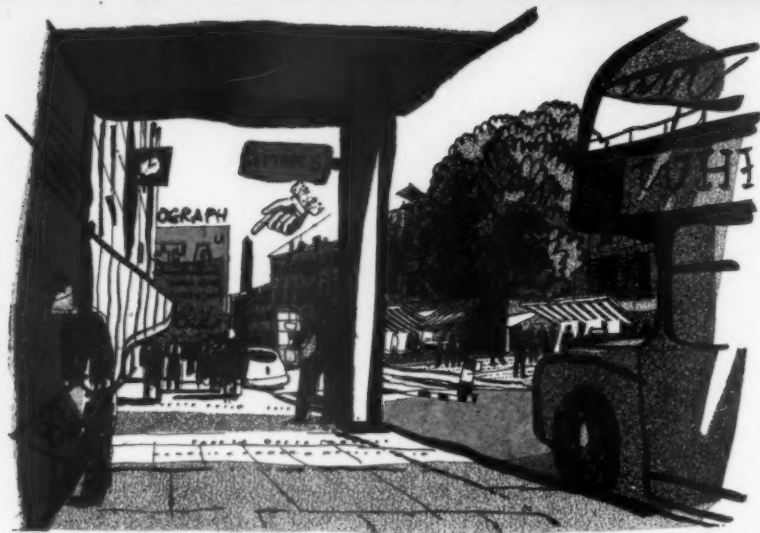
The precinctual principle was evolved in the first place to defend one human activity against others that might interfere with it—the mediæval cloister remains the text-book example of this process of creating an enclave where a given way of life could be protected from forces hostile to it. The inextricable mixture of human activity in most unplanned towns often means that only the largest and most aggressive human needs are served—that of rushing from point to point in motor vehicles for instance—while other more humane activities are shouldered out by the press, rush and noise, the sheer presence, of mechanized transport. The introduction of the precinctual principle into town planning has given the urbanist a weapon with which to defend the more fragile human activities, and he is beginning to use it as the diagram plans for Basildon Centre show—they show another thing, how careful we must be in its use. There are degrees of fragility for which only appropriate degrees of defence are needed. The shopping pedestrian, the morning coffee-taker, the cash-and-handshake dealer, certainly need protection from indiscriminate automobilism, but confine them within a too sheltered series of motor-free courtyards (left) and they may prefer to do their business in the car-parks outside. Thus there may well be a case for ventilating the precinct by a stream of traffic across one end (right), so that no one will feel isolated from his car (a real deprivation to many people). At the same time without destroying pedestrian priorities the scene will present an animation and bustle which will help to give the feeling that it is a true heart and that arterial blood flows through it.

The size of the area designated for Basildon's town centre may not sound so immense when read out among the other areas designated for the town's various needs, but when it is superimposed on a map of Westminster (right) it is found to stretch from the terrace of the Houses of Parliament almost to Buckingham Palace, to include the whole of the Westminster Abbey precinct, Dean's Yard, a fair amount of Victoria Street and Birdcage Walk. This area may be necessary . . . to find out, we have placed the desired accommodation on the site in a purely mechanical way allowing a distance of 50 feet (an urban road width) between all buildings. The result can be seen in the plan on the right. Of course 50 feet is an arbitrary spacing, some buildings will need less, others more, but it shows that the town centre can be fitted into approximately half the area set aside without, as we hope to show, any sacrifice of amenity. After all, if a part of London were to be rebuilt the odds are that such relatively tight development would be adopted without question. It would seem natural in the context. All architects are aware of the misgivings of clients who, when visiting their half-built houses, express doubts as to the size of the rooms. They seem too small, yet the architect knows that once the roof is on and the house furnished the room will appear spacious. Can it be that since the practice of building towns is a relatively infrequent affair everyone adds a bit of space for safety? A very dangerous impulse for it kills at one stroke the effect of concentration—busyness—which is vital to a town centre.



There are, in fact, precedents for new towns. The South Bank exhibition showed how the manipulation of spaces resulted in different kinds of atmosphere. Atmosphere which varied from the courtyard, a, the intimate square, b, to the spacious concourse, c. The last picture, d, a vast concourse built to the height of a courtyard with resulting emptiness. The effects seem to be almost calculable, the direct result of the relationship of width to height. It is not much use deciding to have a shopping area the size of Bedford Square and expect the same effect if the buildings are only two stories high. You will get something quite different.





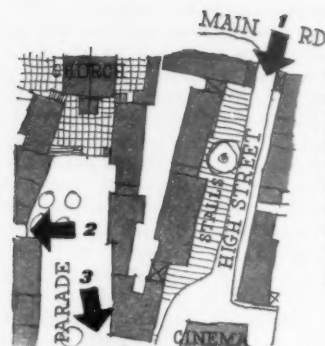
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2



3



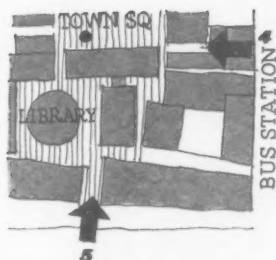
note Viewpoints are marked on the plans which are segments of the complete plan to be found on page 250. The hand points to what may be thought a factory chimney, in fact it is an obelisk standing in the town square. It is put in to orientate the reader of this article.

With the growth of the precinctual idea there is a tendency for the old-fashioned 'High Street' to drop out of fashion. A great mistake. It is the first thing we have put in, and it stretches from the boundary of the Town Centre straight to the core, the Town Square. A street for traffic and shopping, 1, it sets the pace for the town by being busy and bustling with a wide paved area on one side for market stalls set beneath a tree, a single tree. Can there be any mistake that one has arrived at the heart of the place? The view is taken from the entrance narrows (which cut out the wide expanse of main road). At the other end the vista reaches right through in the Town Square, so that the visitor becomes aware of it, but the street is enclosed halfway by the bulk of a cinema, thus converting the High Street into two recognisable units and so avoiding an overlong street façade by giving it an eye-catcher. For the Case Book: High Street with stalls, Spalding. Single tree in street, High Street, Oxford. Narrows, Kimbolton. High Street broken by projecting buildings, Old Stevenage.

Before proceeding to the Town Square we dodge across the Parade to see another centre of marketing, the modern form of the covered arcade, 2, namely an under-cover promenade between one square and another provided by the Big Store of the town, where the main gangway of the store allows free pedestrian access as part of the street circulation with the amenities of the pavement. It is a market of almost Oriental profusion rising up to higher levels protected from the weather and has indeed something in common with Exeter Market Hall as well as Burlington Arcade. For the Case Book: Main Gangway, Welwyn Department Store, linking Bridge Road and Wigmore North, Welwyn Garden City.

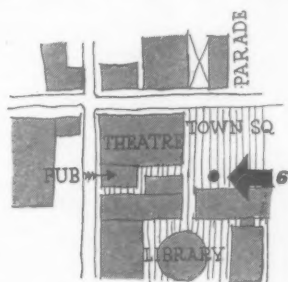
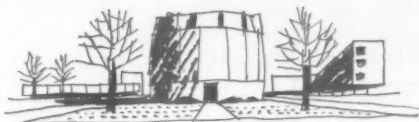
Turning back we regain the Parade proper. This is the Spine of the town running north and south. It is terminated at the south by the administrative buildings of the Town Square, and at the north by St. Zenobia church, and is flanked by the larger shops. Mainly pedestrian, it still is open for traffic along one section of the High Street. Its character is spacious and urbane, and whilst not being formal (axial) it does provide vista which to the eye is as refreshing as a deep breath to the lungs after leaving the cinema. Room here for markets, meetings, bandstand and sitting in the sun, but being roughly parallel with the High Street it's never far from a bus stop.

Strategically situated at the confluence of the High Street and Parade is a cafe, 3, and a large fountain, both meeting places, and the more refreshing because of the piquancy of having traffic on one side and pedestrian freedom on the other, while the cafe commands a view of the Town Square. Just as one of the functions of the tree in the High Street was to provide an anchor for the eye, so the fountain provides an anchor for the body: the tryst, the shopping spree, etc. 'Meet me under the big toe of Prosperity.' And it is here that the visitor realizes the existence of the secret town. The obvious High Street plunging down to the Town Square merges with the Parade which is discovered to extend backwards to the church, spacious with trees and paving. For the Case Book: Spacious promenade, The Parade, Cheltenham. Fountain as anchor, The Poultry Cross, Salisbury. Multipurpose promenade, Weymouth Quayside.



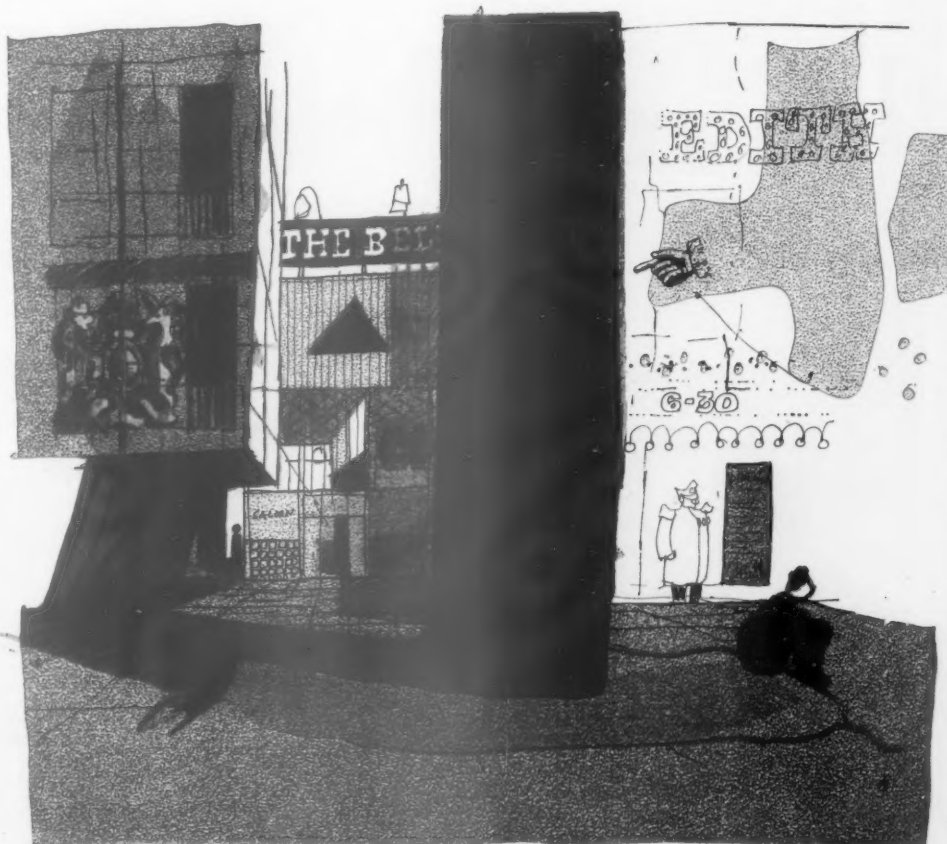
Now approach the Town Square from a different point, the Bus and Railway station. As introduction here is another, but this time genuine, shopping arcade, 4. The fact of passing from one square to another through enclosure heightens the effectiveness of both. You debouch into sunlight and space although the arcade is contrived to give also a vista of the undercroft of the Council Offices so that the sense of continuity is provided. In rain you don't debouch and so keep a dry jacket. For the Case Book: Shopping arcade, Arcade at Ipswich.

A different approach can be made via a small square lying to the south of the council offices, 5. In the middle of this square there is the library. The effect of putting a building in a square increases the tempo of the scene, it really becomes built up and vitality is heightened. The small sketch, below, shows what happens when every building is set in its own open space—the same architecture but no town. And really,



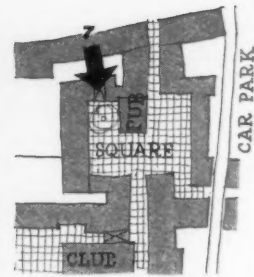
there are quite a lot of buildings in a town which do not need the magnificent view from the windows. In sequence or progression, too, this square fulfils a purpose. It is placed behind the Town Square so that in progressing from the church one passes along the spacious Parade into what seems the climax of the town, the formal Town Square, only to pass under the council offices into a really built up, bursting and important place. In other words surprise. The manipulation of zone characteristics in order to produce a stimulating sense of intrigue. For the Case Book: Building in a square, Smith Square, Westminster. Penetration from one square to another, Dean's Yard to courtyard of Westminster School, Westminster. View of cylindrical building from side, not head on, Radcliffe Library, Oxford.

The principal Pub seen here from the Town Square, 6, fulfils much the same function. Its first function of course is to be handy for the thirsty councillor. Yet it should not offend the dignity of the Square, so it is pushed back and is seen as a glimpse from certain angles. And since the alley is one of the ways out of the square it serves the very useful purpose of making the exit as exciting as the entry. It is often the case that the pedestrian is designed to walk one way only—to get to the centre. But as soon as he turns round he finds nothing, no one has designed him out. Nothing but blank streets and gaping holes. For the Case Book: The concealed pub, Exchange Vaults, Ludlow. Hiddenness compensated for by vigorous display.





7

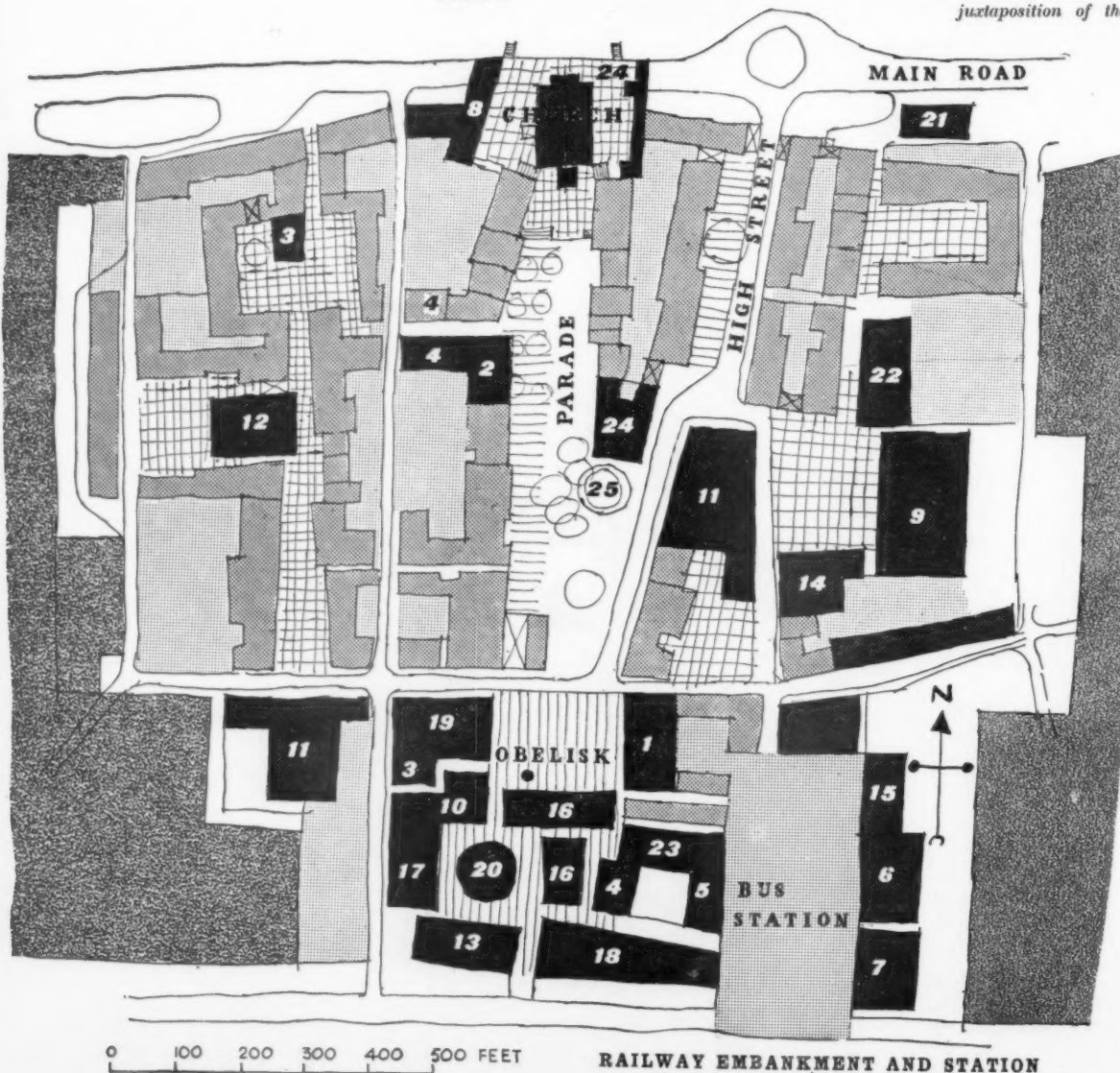


To sum up, and we may as well sit down to it, 7, the town that has been briefly sketched is one in which no one principle has been ruthlessly applied. There is a fair measure of pedestrian priority, the motor car has been assessed and given adequate parking space, and space for unloading without inconveniencing the shopper yet at the same time not abolished from the life of the town. For the Case Book: Town as series of yards, Shrewsbury. Car parking close behind pedestrian ways, Bewdley. Traffic ventilating pedestrian square, Exeter Cathedral close. Space has been used sparingly but the density is by no means stifling. In the main the open space has not been distributed equally between all buildings but concentrated and elongated in order to get the most out of it. But mainly the town has been thought of as urban scenery produced by the manipulation of buildings; and, where groups of buildings form their own character, by the manipulation and juxtaposition of these characteristics. Translated

into two dimensions they are shown in the plan below. It isn't a plan for Basildon since only the architect of Basildon can make that, but it is the kind of plan the architect might make. While incorporating the sort of demands that will be made of him, it interprets them imaginatively through the eye of one who wants to give the citizens a sense of heightened vitality by means of the townscape's box of tricks — enclosure, escape, claustrophobia, surprise, delight, relief, anticipation, dread, relaxation, curiosity, protection, danger, isolation, congregation, busyness, idleness, noise, quietness, awe, laughter.

key

1. hotel and restaurant.
2. commercial hotel.
3. pub.
4. store with pedestrian gangway between.
5. bus office.
6. warehouse.
7. furniture store.
8. art gallery and museum.
9. swimming baths.
10. Crown offices.
11. cinema.
12. club and hall.
13. law courts.
14. dance hall.
15. fire station.
16. council offices.
17. police station.
18. post office.
19. theatre.
20. library.
21. garage.
22. gas and electricity office.
23. telephone exchange.
24. cafe.
25. fountain.
- pale dot areas — car parks with service roads.
- darker dot areas — shops and offices cver.
- speckled areas — housing.
- parade, obelisk and all flagstoned areas pedestrian.



current architecture recent buildings of interest briefly illustrated.



1, view from the south-west across Rectory Lane.



Ground and typical upper floor plans
scale 1/24 in. = 1 ft.

FLATS AT WALLINGTON, SURREY

ARCHITECTS: PITE, SON & FAIRWEATHER

Marlesford Court, for the Borough of Beddington and Wallington, contains sixteen flats in one 3-storey block and two 2-storey blocks in the grounds of an existing Victorian house. To obtain a good aspect and conceal the private gardens, sheds and drying areas from the road, the architects set the 3-storey block forward, parallel to the road. The two smaller blocks are at the south end of the site, adjacent to existing 2-storey houses in Rectory Lane. They are set back and staggered so that glimpses of the gardens can be had and the scale of these blocks helps the transition from the existing houses to the south and the 3-storey block.

The external and party walls are of 11-inch cavity brickwork. Spine walls and cross walls are 9 inches thick and partitions are of clinker blocks. Floors are of precast concrete. Dark multi-buff Ibstock facing bricks, with flush pointing, are used throughout. Window frames are of wood, painted white, and eaves and balcony soffits are duck-egg green. Living rooms have blue ceilings, light grey walls and a panel of Danish wallpaper under the recessed window sill.

2, looking south on to 2-storey block of old people's flats.



3, general view of the reception building.



CAR FERRY TERMINAL, DOVER, KENT

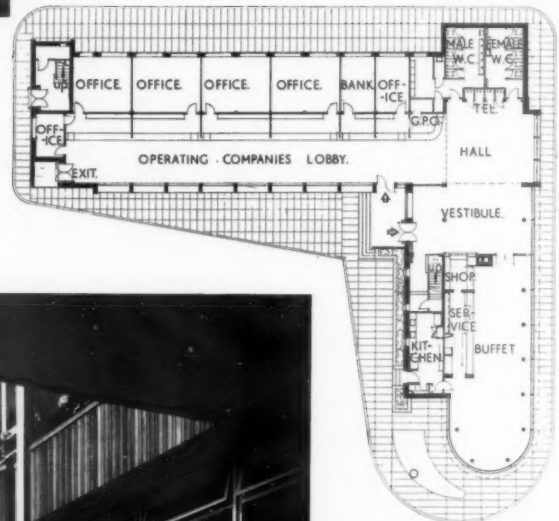
ARCHITECTS: J. M. WILSON, C. H. MASON & Partners

This £75,000 terminal for the Dover Harbour Board was planned soon after the last war to provide the essential facilities for the rapidly developing traffic of vehicles—cars and coaches—to and from Continental ports. The volume of this traffic rose from 31,336 vehicles in 1939 to 100,993 in 1953. The reception building forms a barrier between the customs building and the reception car park, and facilitates the separation of incoming and outgoing vehicles.

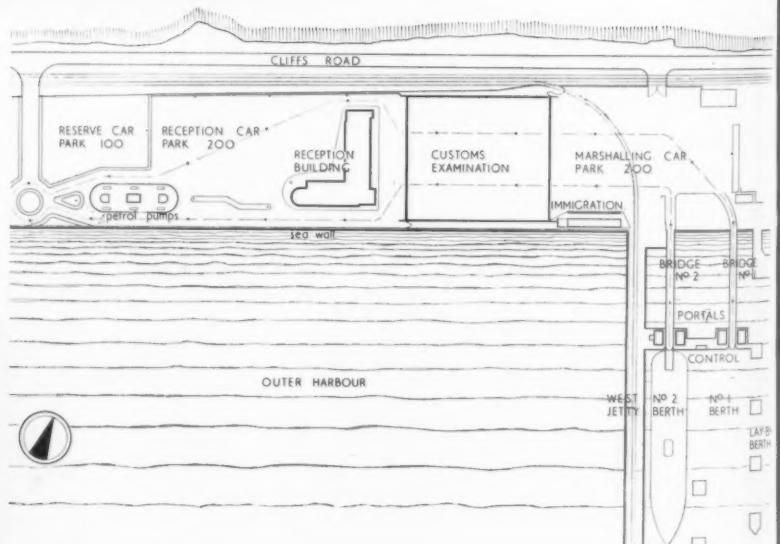
Generally the structure consists of concrete-clad steel framing, the stanchions carried on individual concrete foundations except for the basement which is rafted and asphalted. Walling is cavity brickwork with brick or artificial stone facings. Reinforced concrete is used throughout for floors and roofs.

Exposed exterior concrete is treated with a stone paint to tone in with the artificial stonework, and with few exceptions all paintwork is in broken white. Internal walls generally have been coloured in pale pink with ceilings of the same colour except the lavatories where a duck-egg green has been used in conjunction with the cream wall tiling. Windows are again kept in broken white. The ceilings of the vestibule and hall have been treated in Wedgwood blue, the ceilings at the lower level being two tones deeper than the tone at the upper level. The circular columns in the vestibule and buffet are in Devon red and loudspeaker ceiling units have been picked out in vermilion.

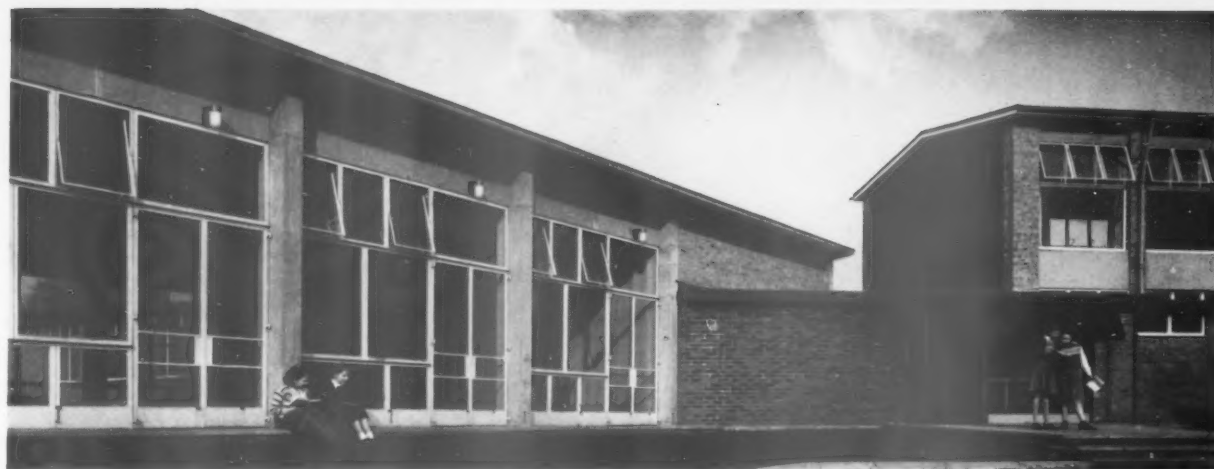
4, above, west facade of the reception building. 5, below, the customs building.



ground floor plan
scale: 1/48 in. = 1 ft.



site plan

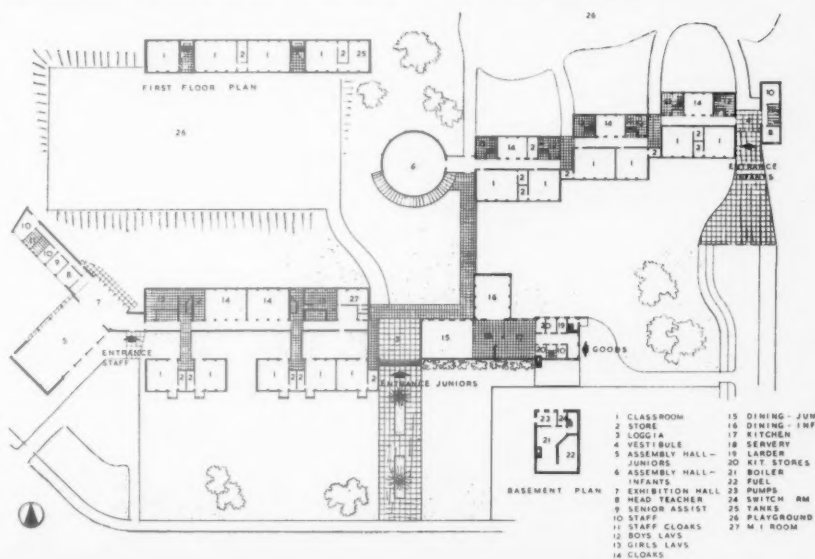


6, junior assembly hall from the south.

PRIMARY SCHOOL AT WEMBLEY, MIDDLESEX

F. C. G. STILLMAN: County Architect, D. R. DUNCAN: Area Architect

This junior and infants' school at Wembley for the Middlesex County Council stands on a site of 8 acres. The infants' school and the junior school are linked by covered ways leading to the centrally-placed dining rooms and kitchen. There are six classrooms in pairs with top lighting controlled by louvres, for the infants, with cloakrooms and sanitary accommodation for each pair on the opposite side of the corridor. The corridor is stepped and large pin-up boards are placed on the end walls of each short section. In the junior school four of the classrooms are in a two-storey block, with cloakrooms on the ground floor, and the five remaining classrooms are reached by three short corridors to the south of the main block. The junior assembly hall is shut off from the exhibition hall by glazed folding doors. With the exception of the assembly halls, walls are of load-bearing brick piers and panels. Roofs are of aluminium trusses in infant classrooms, steel trusses in junior classrooms, concrete in corridors, shell concrete barrel vaults in junior assembly hall and dining room and there is a 2½-inch R.C. dome in the infants' hall. The exterior is faced with London stock bricks and panels of purple multi-coloured bricks.



7, view from the north-east with the infants' assembly hall on the right.

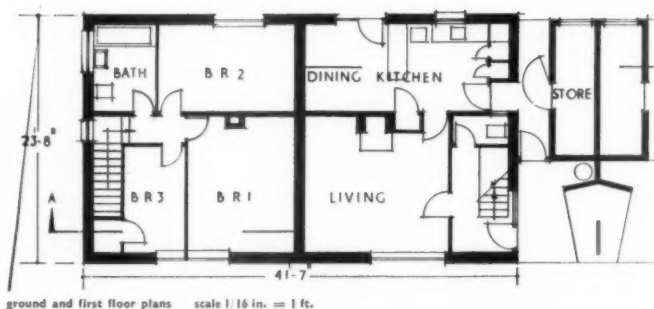


8, one pair of houses from the south-west.

HOUSES AT STEVENAGE NEW TOWN

ARCHITECT: CLIFFORD HOLLIDAY

The houses face Bedwell Crescent, which has a gentle convex curve. Each pair of houses is linked by external stores and by canopies over front doors which form covered ways. For privacy a slatted screen is placed centrally under each covered way. All the houses have three bedrooms and on the ground floor a dining-kitchen divided into two by a hatch and cupboard unit reaching from floor to ceiling. A ground floor W.C. is provided under the stairs. External walls are of 11-inch cavity brickwork, with inner skins of cellular flettons, except for a centre panel on the west façade of each house of rendered hollow clay blocks 6 inches thick. Roofs are of timber with a 25 deg. pitch. External facing bricks are London stocks except for the stores, where the brickwork is painted. Roofs are covered with concrete tiles. Ground floors are covered with PVC patent finish. Windows are metal on a 2-foot module, except for certain 3-foot square windows, which are centrally hung, horizontally.



ground and first floor plans scale 1/16 in. = 1 ft.



9, the dining space and the cupboard hatch unit that divides it from the kitchen.



Peking is the classic example of the formal, hierarchical type of city plan. China, of which it is now once more the capital, has had a revolution and the consequent changes in the whole basis of Chinese life must inevitably bring about revolutionary changes in the face of its capital city. The question arises whether Peking, as several centuries have known it, can survive and whether its traditional character can adapt itself to the new times. The author of this article, who recently visited Peking, describes the city and the problems which have arisen from the new situation in which it finds itself. Outstanding among these is that of the manner of rebuilding—whether to build tall towers as in Moscow, or to continue the low built traditions of the city; and if to build tall, then in what style—International, Soviet-classic, or some variant of Chinese traditional?

PEKING 1953

Peking is a city which has a profound influence on all visitors. Writing in 1870, a former attaché at the British Embassy¹ complained that China would never be opened to foreign trade and to modern progress unless the capital were moved from Peking, which 'has exercised upon foreign representatives a sort of unholy glamour. They have become bewitched.' He cited the way in which Peter the Great overcame 'old-world prejudices' by moving the capital from Moscow to St. Petersburg, and suggested that the Chinese capital should be moved to Nanking, which he pointed out, also had the advantage of being accessible to gunboats.

In due course the capital was indeed established at Nanking and from here Chiang Kai-Shek moved it to Chungking in the face of the Japanese invasion. In returning the capital to Peking, the present government, which was established in 1949, have undoubtedly chosen far and away the most suitable city architecturally.

It is certain that no other city of anything like the size of Peking—a population of about 2½ millions in an area of about 25 square miles—has such architectural homogeneity. A number of factors account for this—the high walls which entirely surround it and also divide it into several different areas; the axiality and width of the main streets; the great gate-houses and towers, all of a consistent character, which are placed along the walls and often close an important axis; the large number of architectural monuments in the palace enclosures and parks which, though by no means all built at the same time, are

stylistically similar; and finally the limited height of almost the entire city, which allows the main public buildings to dominate the scene although they themselves are not very high.

The incomparable system of parks ensures that this extensive urban area is well provided with those artificial-natural vistas which seem to be so much a part of Chinese life. The park and lake system to the west and north of the Forbidden City is nearly 3½ miles long, while the parks in the south of the city which contain the temples of Heaven and Agriculture are nearly two miles across and are flanked on the east and west by two lakes, restored in 1952, which are to be surrounded by further parks so that almost the whole southern boundary of the city within the walls will be bounded by parkland.

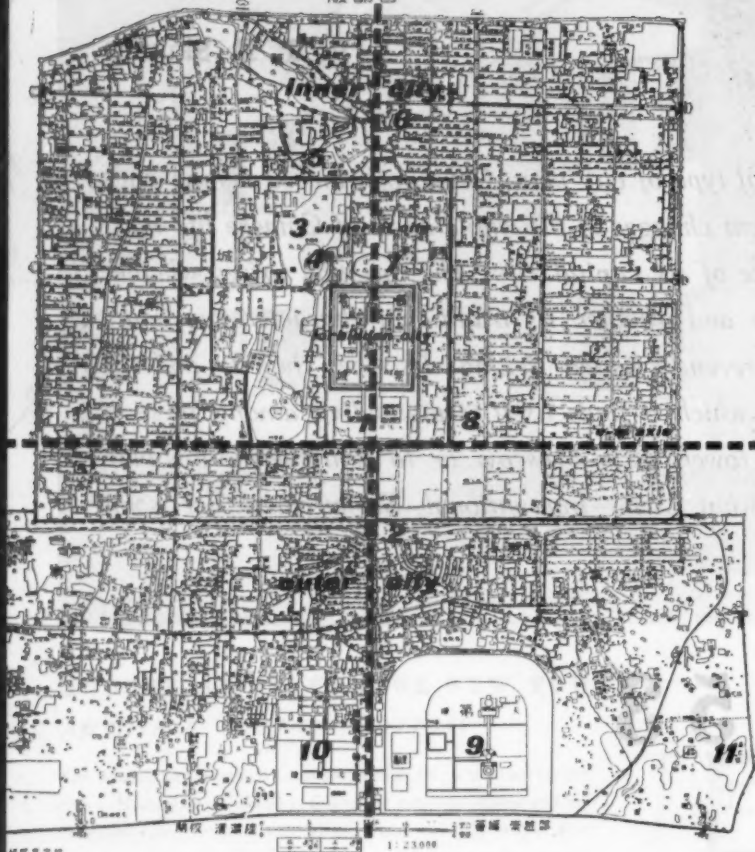
In addition to the parks within the walls, there is a large lake about 1½ miles by 1 mile surrounded by a superb park containing the Summer Palace, situated about 5 miles to the north-west of the city. All these parks, which were at one time reserved for the emperor and his officials, are now open to the public.

Peking of course offers a complete contrast to such cities as Shanghai where large areas have been covered with western-style multi-storey buildings. Although there is a limited number of 3-5 storey buildings of modern construction, the spaces between the Imperial and Forbidden Cities and the great parks are for the most part covered with a series of courts containing single-storey dwellings and workshops ranged along *hutungs* or lanes. The outlying parts within the walls, particularly to the south-east and south-west, are only sparsely developed with the

¹ A. B. Freeman-Mitford—*The Attaché at Peking*.

圖地新京北用兩

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Plan of Peking. 1, the Tien An-Men. 2, Chen Yang Men, leading from outer to inner city. 3, Peihai (North Sea) Park and Winter Palace. 4, Hill surmounted by the White Dagoba. 5, New People's Swimming Pool. 6, Bell Tower and Drum Tower marking northern end of the Main N-S axis. 7, Coal Hill, an artificial mound forming the highest ground in the city. 8, Peking Hotel. 9, Temple of Heaven. 10, Temple of Agriculture. 11, two newly-reconstructed lakes.

poorest type of dwelling. Because of its magnificent heritage of walls, gates, palaces, temples and parks, and because the rest of the city comprises mainly lightly built and inexpensive structures which can easily be demolished, Peking seems to be a planner's paradise. It is therefore interesting to know what the new régime has done and intends to do in its enthusiastic campaign to change China into a modern industrial state.

immediate improvements

First, a number of emergency measures have been carried out during the last three years. Oswald Siren, in his monumental work *Les Palais Impériaux de Peking*, based on a visit to the city in 1922, gave as one of the chief reasons for publishing the book that the buildings were deteriorating rapidly and should be recorded before they got much worse. Mr. Arnold Silcock, writing in *The China Review* in 1934, also deplored their decay. There is no doubt that for some considerable time the important historic buildings in Peking had for various reasons—some civil and some military—been abused and neglected. Now, however, a great deal of restoration work is in hand and more is to be done. Steps are also being taken to improve the fire-protection of the buildings in the Forbidden City. The parks and gardens are beautifully maintained and some of the lakes have been drained and the

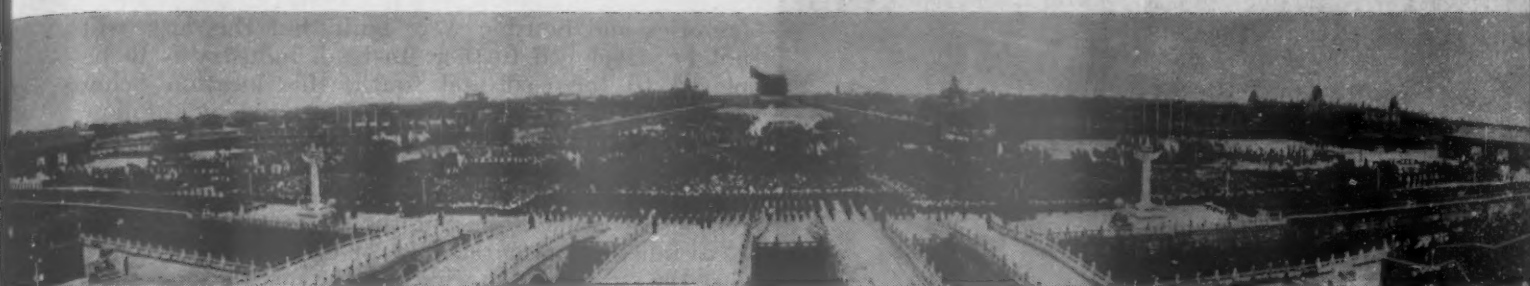
R. T. F. Skinner: PEKING

bottoms surfaced, an aid not only to beauty but also to public health.

Peking's traditional meeting place is in front of the Tien An-Men (Gate of Heavenly Peace) which forms the southern entrance to the Imperial City. To such an extent has this gatehouse become identified with national life that it forms part of the emblem of the Republic. The area in front of the gate, which was previously rather untidily sub-divided, has been cleared to make an enormous open space surrounded by great walls of the characteristic red stucco—a huge Red Square where the fantastically colourful parades are held on May 1, August 1 (Army Day) and October 1 (National Day), and where dancing and demonstrations take place. There was a violent controversy about the removal of two Ming period gate-houses which flanked the square in front of the Tien An-Men. The decision to remove them, in order to give more freedom for the vast processions, was finally ratified, but they were carefully dismantled and are to be re-erected in other parts of the city.

Many of the roads, which had got into a very bad state, have been repaired and about 40 miles of new asphalt and concrete road have been built to replace the previously existing dust surface. The water supply originates in the north-east part of the city and formerly only served the Imperial City and an area south of the Tien An-Men, leaving even the neighbourhood near the source without a supply. In 1949, out of a population of 1½ million only about 600,000 could use the city supply, the rest having to rely on wells. By June, 1952, the number using the main supply had been increased to about 1½ million, though the population had greatly increased meanwhile. In many of the *hutungs* a system of communal supply has been developed. The water main is brought to the end of the lane, where there is a metered standpipe. At the end of each month the cost of the water consumed is divided between all the residents in the lane. This system is said to work smoothly and to have reduced the cost of water to about 10 per cent. of the price previously extorted by owners of private wells. This arrangement, like so many other aspects of urban life, depends for its success on the system of 'alley associations' whose members work voluntarily to carry out the organization of social life in the cities.

Five centuries ago the wide main streets were provided with about 195 miles of splendid sewers, of rectangular section about 4 feet wide and 8 feet high with brick walls and stone slab covering, running under each side of the street. These discharged into canals or moats and thence into a river in the south-east of the city. The whole system was kept fresh by means of a stream which rises to the north-west of the city and also feeds the lakes. It is said that originally officials of princely rank had to make personal underground inspections of the sewers, but this degenerated into visits to the beginning and end of the system at both of which points the official was given a banquet. Latterly consistent neglect of the system had resulted in its becoming clogged with refuse and its clearance became a major operation—in 1949 some 800,000 tons of refuse were removed from the city. The total length of sewers has also been increased from 195 miles to 235 miles and this



2, panorama from Tien An-Men, looking toward the Chen Yang Men. Although the two Ming period gates to left and right have been taken down for re-erection elsewhere, the Chen Yang Men itself remains to show how strong an effect even a moderately high building can make against so low and level a skyline.

extension is still in progress, while sewage disposal stations are also planned.

housing

Housing conditions in the poorer parts are by Western standards primitive, but a great effort has been made to clear the worst districts, where families lived in rough shelters of about 65-75 square feet made of willow boughs or straw covered with mud. New temporary estates have been built where each family has a minimum of 160 square feet of well-built accommodation designed to last about 15 years. This type of housing consists of a series of courts divided by rows of rooms, each family occupying one or sometimes two rooms. Water supply is from a communal tap and there are communal latrines. Housing of a higher standard with kitchens and w.c.s to each dwelling is also being built, especially in connection with new industrial projects to the east of the city outside the walls. The rents vary from one twentieth of the tenant's income in the simpler schemes to one tenth in those of a higher standard.

In all, in the last three years, some 16,000,000 square feet of new housing has been built to take about 100,000 families². Some of this is built in brick

² For purposes of comparison, the city of Coventry has built since the war about 30 miles of new roads, and about 6,000,000 square feet of housing accommodation (including the work of private builders). These figures include the immediate post war years, and building is now proceeding at an annual rate of about six miles of new roads and 1,700,000 square feet of housing.



Drawing by Shao Yu

3, a street scene in Peking today, from a contemporary drawing. In the foreground the new life of the cleaned-up backstreets—a blackboard newspaper and a street meeting—in the background the tall scaffolding shows how conspicuous a series of tall buildings would be in a city that has previously been of so uniform a height.

with tiled roofs, or with roofs of rendering on flax on a base of willow branches and clay. Some of the temporary housing has walls of pisé, which is much used for building in many parts of China. The schemes are built by the government construction enterprises, by private contractors, or by old-fashioned master-builders working to rough plans and specifications. New clinics, schools and co-operatives are being built on each estate and community centres are often provided by adapting old buildings, for instance some of the 799 Buddhist temples in the city, not all of which are now used for religious purposes.

future plans

Before its restoration as the capital, Peking was an academic city, much frequented by retired officials and tourists, and with industry mainly restricted to small handicrafts. It now faces formidable problems. Accommodation must be provided for government officials administering a China greater in area and population than at any time in its history. In addition the development of the country into a modern industrial state means that a whole host of organisations, such as trade unions and co-operatives, and all the complicated administrative machinery we know so well in the West, has to be housed as well. Little suitable accommodation was available except a certain number of large houses formerly belonging to rich officials and merchants; consequently the construction of new government offices is high on the list of building priorities.

China's first Five Year Plan³ is at present only in draft form and is due to start in 1953. Until its details are announced and the exact location and type of new industries are settled, hard and fast plans cannot be drawn up for the individual cities and towns. The plan for Peking, as for other cities, is in a preparatory stage; information is being collected on such subjects as geology, location of existing buildings of various types, ancient monuments, etc. The Planning Board is responsible to the Ministry of Building. Its chairman is the mayor of Peking and its vice-chairman is Professor Liang Sse-Ch'eng, Professor of Architecture at Tsing-Hua University, an expert on the history of Chinese architecture and well known for his work in recording buildings of historical and architectural importance. The Board works through a Planning Office consisting of a number of architects working in groups to which different sections of the city are allocated. Standing committees of specialists from

³ The plan has since been published. This article was written in November, 1952.

factories and housing were built, but this area will not be developed further. Instead, industry is to be placed to the east and south, this location being determined by the prevailing winds and by the flow of the river. A number of new industrial buildings have already been completed in this district.

Chequer-board city planning is generally suspect for reasons of traffic flow, but the street plan of Peking is so much an essential part of the city, and in any case the streets are so wide and the main intersections so far apart, that it will certainly be perpetuated. It is planned to introduce a certain number of diagonal but not radial routes.

There is a tentative proposal to place some high buildings at intervals throughout the city. The successful use of spaced towers at Moscow, where eight buildings from 16 to 32 storeys high, mostly already erected, will change the whole scale of the city, giving it focal points and volume where before it had only expanse, is likely to have a big effect on city development everywhere. The most difficult problem, if such a measure is adopted in Peking, will be to decide on the style of the buildings. In Moscow the Kremlin towers, formerly the most prominent features in the city, were allowed to father a race of giant towers in their own likeness. The Chinese will have to decide whether to give a decisively historical character to their new key buildings, or whether to evolve new forms.

Architects and planners meeting in Peking in September, 1952, came to the conclusion that it is desirable to 'unify the appearance' of their cities. This means that the architectural character of the new buildings will have to be discussed and determined. At present buildings of many different styles are being erected, some frankly deriving from the so-called palace style and some from international influences. An example of the latter is the recently finished Peace Hotel, to the east of the Imperial City, which has been justly criticized for rearing its imperfectly organized slab forms (less coherent than the photograph suggests) eight storeys high and rudely challenging the palaces and gate-houses. There is a strong appreciation by the Chinese architects that many of their cities, especially the ports and trading centres, have been architecturally ruined by the imposition of heterogeneous Western style buildings while their own architectural heritage has been largely neglected. Chinese traditional architecture will certainly henceforth be carefully studied in the schools and to this end an exhibition on the subject was opened in one of the halls of the Imperial City in October, 1952. No doubt the remarkably small number of publications about Chinese architecture will also soon be supplemented.

The Chinese people have made a clean break with their feudal past; they are exhorted to adopt scientific methods of thought and outlook, and the whole country is to be rapidly industrialized. Will they be able to express this new atmosphere by means of traditional building forms or will they find it necessary to develop new forms? The planners of Peking, who are dealing with what is probably the finest urban ensemble in the world, must be conscious of a big responsibility.

4, the Peace Hotel, the only large new building in Peking, is in a recognisably 'International' style, but discussion is proceeding on the problem whether any other large blocks are to be built, and, if so, in what style.

government departments and universities advise on such subjects as waterways (rivers and lakes), roads, parks and architecture.

The city is to be developed as a great political and cultural centre with a substantial amount of industry, and certain broad principles have already been laid down. The population in the planning area of roughly 170 square miles, now about 2½ million, is expected to grow to 4 or 5 million, but in any case is not to be allowed to exceed 6 million. The area outside the walls to the north-west is to be developed as a university centre—several new colleges have already been built including the College of Minorities, Academy of Agriculture, People's University and an extension to the existing Tsing-Hua University. South of this, and still outside the walls, there will be an area for new government buildings, while to the west of the Summer Palace, about 5 miles north-west of the city, there is to be an area devoted to parks and recreation. The river which links the Summer Palace to the city and feeds the sewer system is to be widened so that it will be possible to go by boat from the lake in the Winter Palace to that in the Summer Palace. The Kuanting reservoir, now being completed on the upper reaches of the Yungting River to the north-west of the City, will supply drinking water and will feed the moats and canals. The moat round the city walls is to be widened and deepened and the embankment lined with granite. The old shipping canal linking Peking with Tientsin on the coast is to be restored so that steam launches can sail to the centre of the city.

The Japanese during their occupation laid out an area, about five miles west of the city walls, which they called New Peking. A street network and some

WORLD

NEW BUILDINGS BY SAKAKURA

Junzo Sakakura, designer of that enchanting blend of East and West, the Japanese Pavilion at the Paris Exhibition of 1937, has designed two buildings of considerable stylistic interest since the War. Neither is particularly Japanese in derivation, and both bear strong witness to his French training. One, built for the Institut Franco-Japonais to house the department of Higher Studies, is of reinforced concrete mushroom construction, but its appearance is



depressingly like an attempt to synthesize *Gleanings in Giedion* with French Export-Modernistic, 1.

Far more exciting is the Kamakura Museum of Modern Art, where the architect has used the established vocabulary of the international style with great skill



and geometrical finesse to produce a charming, *Corbu*, cube-in-landscape, 2. Steel-framed, it paddles its pilotis in a decorative pond on one side, presents blank walls on its exterior because the galleries are mostly top-lit, and encloses a garden court within a cloister of open and closed



passages, 3, whose effect is perhaps the most Japanese part of the scheme. P.R.S.

PHOTOGRAPHY

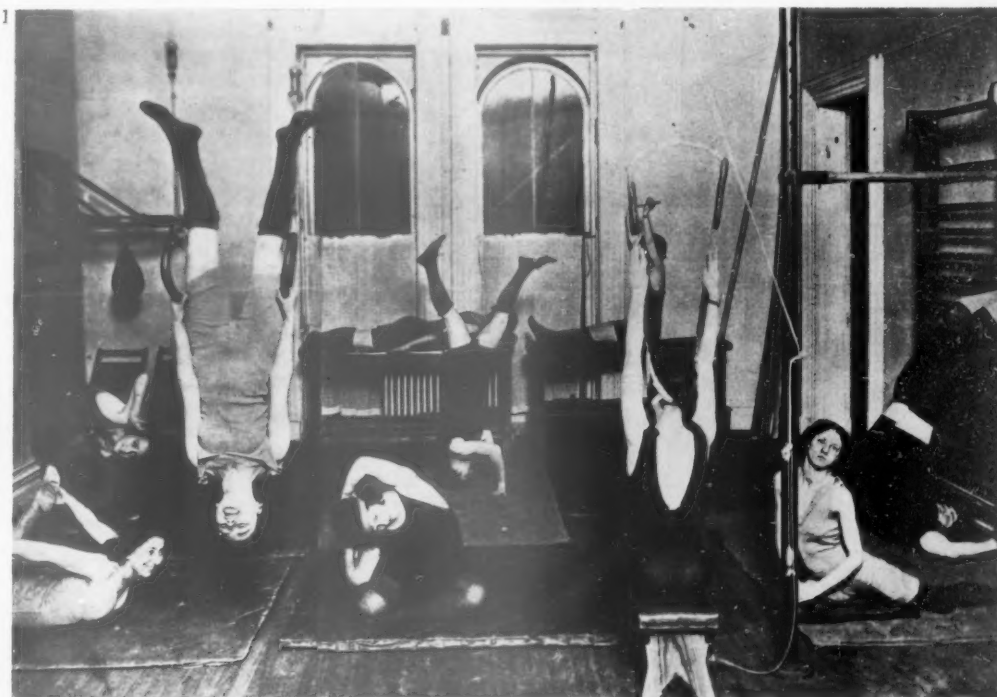
PARALLEL OF LIFE AND ART*

The veracity of the camera is proverbial, but nearly all proverbs take a one-sided view of life. Truth may be stranger than fiction, but many of the camera's statements are stranger than truth itself. We tend to forget that every photograph is an artefact, a document recording for ever a momentary construction based upon reality. Instantaneous, it mocks the monumental; timeless, it monumentalizes the grotesque. In the strange

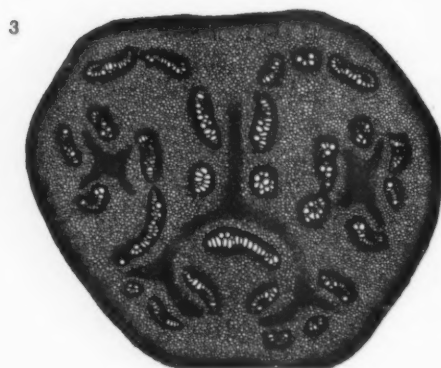
* Parallel of Life and Art Exhibition, ICA, London, September 11th—October 18th.

photographic record of a ladies' gymnasium of 1910, 1, the camera's unwinking eye, incapable of embarrassment or mirth, perpetuates an anthology of poses as unlikely as those in a Pollaiuolo engraving, in a geometrical setting as rigid as a Piero della Francesca. But in perpetuating what can have been no more than a ludicrous and uncomfortable moment and presenting it to us with a surface texture which, after countless processes of reproduction and re-reproduction, has become an autonomous entity on its own, this old greying photograph functions almost as a symbol, an image, a work of art in its own right. It has so little, now, to do with the recording of any conceivable reality that it is hardly rendered any less, or more, probable by being turned upside down.

This extraordinary image is a photographic document of an event remote both in time and probability, and is one of a hundred such images of the visually inaccessible or improbable which have been assembled for the exhibition 'Parallel of Life and Art' at the Institute of Contemporary Arts. Such documentation of the remote and unlikely is one of the greatest services which the camera has done for the western man and the western artist, not only in recording works of art and architecture—the contents of André Malraux's 'Imaginary Museum'—but also in recording transient human occurrences like gymnasia and coronations, and in investigating worlds beyond human vision, as in ultra-microscopy or extreme range astronomy.



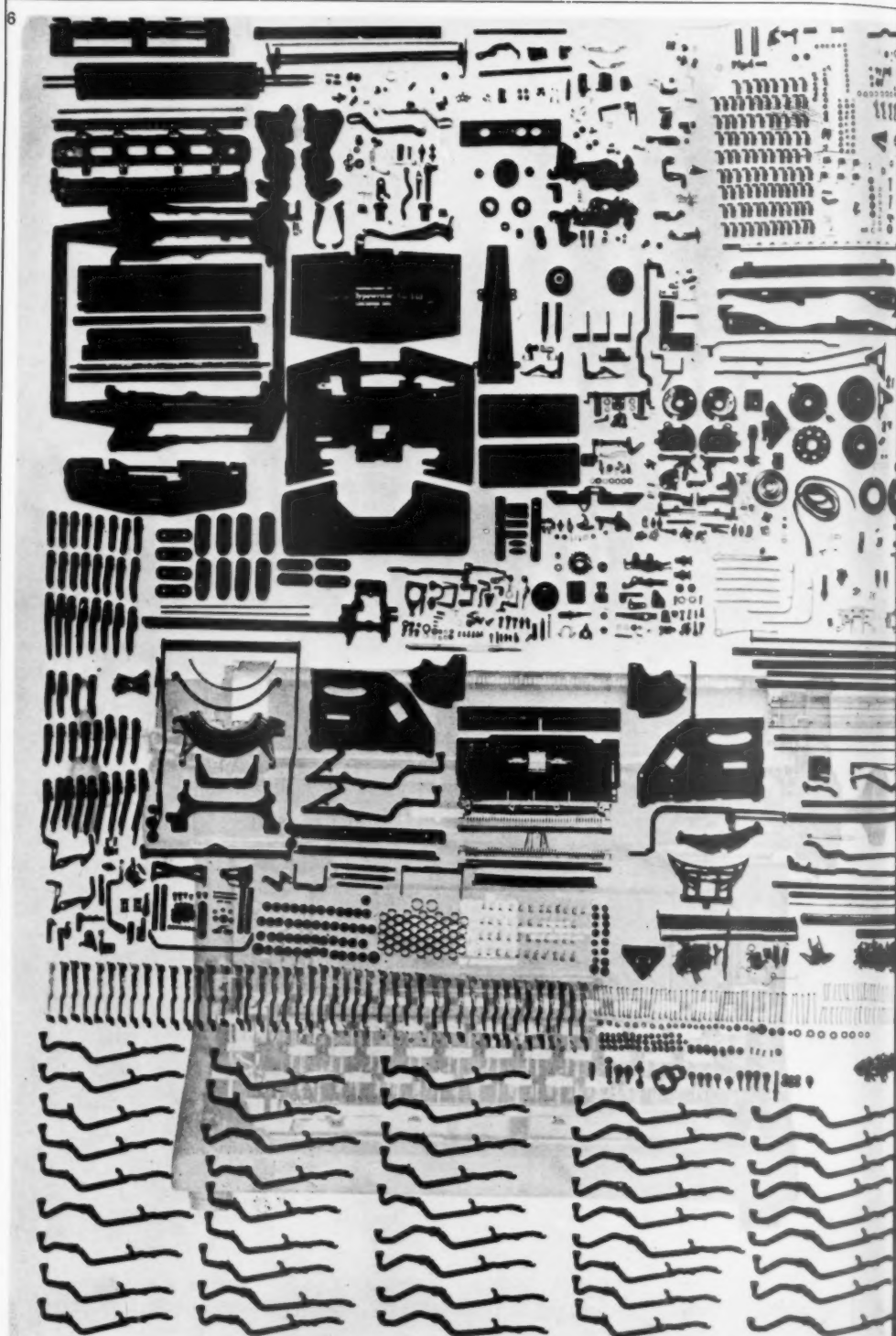
But the photograph, being an artefact, applies its own laws of artefaction to the material it documents, and discovers similarities and parallels between the documentations, even where none exist between the objects and events recorded. Thus, between a head carved in porous whalebone by an eskimo, 2, and the



section of a plant stem from Thornton's *Vegetable Anatomy*, 3, there is no connection whatsoever except their community of outline and surface texture (even matrix of alveoles with symmetrically-disposed roughly lenticular irruptions) in photographic reproduction. They come from societies and technologies almost unimaginably different, and yet to camera-eyed western man the visual equivalence is unmistakable and perfectly convincing.

This was an analogy of pure chance, but about others one may not be so dogmatic. Any equivalence between a painting by Jackson Pollock, 4, and the surface of a guillemot's egg, 5, is certainly unconscious and probably coincidental, but we could never clear our minds of the suspicion that the visual education of Mr. Pollock cannot have been utterly innocent of pictures of bird's eggs—he is, after all, a camera-eyed western artist.

But some of the analogies to which the



camera draws attention are real, if so recondite as to go unnoticed in everyday life. To most of us the typewriter is a compact instrument, snugly fitted into a neat case which, with luck, is the work of a sensitive designer. But it could never have existed without a preliminary, long, and fundamentally simple labour of classification of the parts of language, and the parts of its internal functions. It is only when we see it dismantled and the parts spread out in a classification of shape, so that we are forced to see a key to every symbol, 6, that we recognize its kinship

with such elementary steps in classification as the mediæval clog-almanac, 7, with a symbol to every day.

The organizers of this exhibition are obviously sensitive to many of the implications of the camera. It is creating a new visual environment and they, with their hundred (literally) far-fetched images, have put before us those aspects of the enriched visual scene which they find most stimulating. But we should recognize that if the camera has increased our visual riches, we are richer only in bills of credit, most of which cannot be cashed—there can be no direct visual apprehension of scenes which have passed, or of those which exist only on the photographic plate of instruments like the electron microscope. The camera, with its strong moral claims to truth and objectivity now over a century old, has established its manner of seeing as the common visual currency of our time, and we come to think of the photographic experience as the equivalent of personal participation. But we should ask ourselves who would be truly richer—one who possessed photographs of every surviving building of the Classical world, or Sir John Soane, who had measured every stone of the orders of the Coliseum and could quote its intercolumnation even in his old age. P.R.B.

EXHIBITIONS

The copying of botanical specimens is an art with a long history, and as ornament, document, symbol and portrait has served a good many needs of the human spirit. The flower books from the library of the Society of Herbalists exhibited by the Arts Council were all, in their different degrees, intended as aids to identification and served the practical purposes of herbalists or gardeners, but the notion of what constituted an accurate delineation suffered endless vicissitudes, and the enchanting array of wood-cuts, mezzotints and coloured engravings on view at St. James's Square reflected an astonishing range of sentiments.

The illustrators of the sixteenth-century herbariums of Fuchs and Brunfels disclose a fine spirit of self-effacement, and Fuchs not only insisted that 'every plant should be depicted with its own roots, stalks, leaves, flowers, seeds and fruits,' but would not countenance the 'obliteration of the natural form of the plants by shadows and other less necessary things by which the delineators sometimes try to win artistic glory.' Some of the later books which follow this austere principle, notably Allioni's *Flora Pedemontana*, the book of South African heathers by Henry C. Andrews, and Curtis's famous *Flora Londinensis*, are distinguished by a moving gravity and sweetness. Curtis's book was open at a page devoted to an uprooted stalk of Common St. John's Wort, an unassuming little waif of a plant with tiny leaves and pale yellow flowers, and it is depicted with such loving care and centred upon so lavish a page that it has all the air of an act of Christian charity. These books reproduced the entire structure of plants, from root to flower, but the intrusion of a root into one of Redouté's engravings of roses or camellias would have been as unthinkable as a Boucher nude with dirty or twisted feet. Redouté was a brilliantly descriptive draughtsman and the three volumes of *Les Roses* are an indispensable record of the old fragrant roses which have been dispossessed by the hybrids, but they were made more for admiration than for study, and he concentrated on the 'head and shoulders' and portrayed only the reigning beauties. His colour remains unrivalled, and the blue gentian in the Society of Herbalist's rare copy of *Choir des plus belles fleurs*, touched up by the master himself, has what D. H. Lawrence called 'the blaze of darkness.'

If Redouté turned the copying of botanical specimens into a branch of Society portraiture, Thornton's *Temple of*



Flora used it to stage a kind of improved jungle, 1, and botanical accuracy went reeling in a bout of romantic intoxication. The plate of Night-Blooming Cereus reveals a cascade of yellow pouring from a dark green whorl, hovering, gigantic and phosphorescent, over a moonlit English stream (flower by Reinagle, moonlight by Pether), and is a melodramatic appeal to romantic sensibility, with probably no botanical value whatsoever.

The sculptor Gordon Herickx, who died in his sleep on the night following the opening of his retrospective exhibition at the Kensington Art Gallery, and whose finest works were monuments to the botanical specimen, would have delighted in the 'changes of heart' recorded more faithfully than stamen or pistil in the flower studies at the Arts Council. He was



a perfectionist, and worked very slowly: some of the twelve stone carvings in his exhibition were made before the war and there can be only half a dozen or so other works by which he would have wished to be remembered. The most recent carvings were mild and melancholy studies of Adam and Eve and 'reclining' heads of sleepers and starers, in the mood of the last of his flower carvings, the 'Falling Rose.' But his finest achievements were the effigies of corn and cyclamen and the splendid 'Chestnut Bud,' 2. This pre-war work, carved in Hoptonwood and standing 33 inches high, has the subtle simplifications of a Brancusi and the force and implied movement of the best work of Duchamp-Villon, and makes a sensual affirmation which overrides the prevailing gestures of farewell. If things had been ordered differently, and if the age had found a need for architectural ornament his output would have been more abundant, for his true affinities were with the carvers of the vine and hawthorn capitals at Southwell.

The Royal College of Art exhibition at the Victoria and Albert Museum, mostly of work by present students, was a very remarkable display of sound contemporary design. There was scarcely an object or piece of fabric on view which did not conform to the highest commercial standards, and the absence of crankiness or experiment was a little uncanny. Even the visual wit in the graphic display-work was elegantly conformist, ranging from Victorian pastiche to an advertisement for Venetian blinds in which the young designer drew the slats and their shadows against a swirling sun and played off ruled line against free-hand flourish with all the virtuosity of an old hand. Even in the painting section, it was only a gawky picture by Jack Smith, 3, depicting a little girl walking carefully along the edge of a



rug, which introduced a recalcitrant note of personal vision. He was exhibiting a larger and better work at the Beaux Arts at the same time, a picture in which the same little girl was sitting in the kitchen

and light from two sources met under the table. The light brown tonality of his pictures is reminiscent of Derain, and the mood is suggestive of Picasso's blue period minus the plaintiveness. His study of tough little under-privileged girls may well persist, but I do not think that he is toying a socialist realist line, and if the luck changes he will record it: the paint itself will assuredly become less poverty-stricken, for his interest in chiaroscuro demands it.

The twelve Australian artists represented at the New Burlington Galleries provided the diplomatic mixture which is expected from exhibitions coming in from other countries under official sponsorship. The mixture in this case would probably look more at home in the United States than anywhere else outside Australia. There is a similarly vigorous handling of obsolete and up-to-the-minute genres, and in between, the same urgent desire to find new forms for a new world of visual experience. Russell Drysdale's study of the forlorn main street of an outback township, 4, is finely evocative, and if he can rid his work of borrowed surrealist elements and a certain staginess



in the placing of figures he may become as good a realist as Hopper. The most stirring and imaginative work in the show is by Sidney Nolan, and his restlessness, his quick changes of style and intention, add up to an impressive encounter with raw living in a primordial land.

Robert Melville



DESIGN REVIEW

SHOW CASES IN THE OPEN AIR

That useful decorative effect, the contrast of geometrical and natural forms, is usually introduced into exhibitions by setting plants and other elements of greenery among the display cases, but a recent exhibition in Stockholm has reversed the process and set its show-cases among natural greenery, 1. The exhibition was organized by Svenska Slöjdföreningen (Swedish Society for Industrial Design) in con-



nection with the 700th anniversary celebrations of the city of Stockholm, and was staged in the Kungsträdgården square. Pools and fountains, which are illuminated at night, were formed to add animation and movement to the scene and the weather-proofed display cases were set down among them. The effect of seeing the exhibits—typically beautifully-made products of Swedish hand and machine production—directly against natural surroundings, as one looks through the completely glazed cases is certainly striking, 2, and is a useful extension to the exhibition designer's repertoire.

C. Forehoe

LATE SAXON

ENGLISH ART, 871-1100. By D. Talbot Rice. Oxford University Press, 1952. 37s. 6d.

For the art of the Late Saxon period a number of penetrating and scholarly studies during the last twenty years have brought within reach the possibility of a successful synthesis. It is all the more disappointing therefore that Professor Talbot Rice has failed to seize the opportunity. His arrangement of material in itself makes proper appreciation impossible. Water-tight sections deal in turn with the political background, architecture, sculpture and painting. Within these iron divisions the material is further subdivided. Sculpture is treated under such headings as Figural Slabs, Crosses, Architectural Sculpture and Fonts (some of which are crosses re-used). Admirably adapted to the classification of such subjects as stamps or lepidoptera, these static and unrealistic subject categories that ignore the dictates of chronology do nothing to illuminate the interrelation of the arts or to explain the inexorable process of stylistic change. And a history that does not convey a sense of change is a history that fails in its essential purpose. Furthermore, the book is dominated by a persistent *idée fixe* by which only Mediterranean influence is of any serious value and that influence derives almost exclusively from Byzantium (the word 'Byzantine' occurs over 180 times).

That Sir Thomas Kendrick made mistakes, he himself would be the first to admit. But his survey of Late Saxon sculpture imposed an intelligible and reasoned order upon his large and baffling mass of material. Professor Talbot Rice's arbitrary thrusting of individual items forwards or backwards in time merely results in a confusion in which all sense of stylistic development disappears. Moreover, he seems unaware of the grave difficulties involved in compressing everything from the Reculver Cross to the York Virgin into the century 960-1066.

The architectural section provides a satisfactory summary of the findings of the late Sir Alfred Clapham, but is equally weakened by this neglect of chronological change. The long chapter dealing with manuscripts is perhaps the best in the book, though disregard of recent work by Dr. Dodwell and Dr. Pächt has led to a slightly false emphasis in the discussion of the effects of the Conquest.

Respect for Professor Talbot Rice's aesthetic appreciation is diminished by his contempt for such splendid products of barbaric art as the Shelford Cross (p. 142); for his logic by his use of a comparison with a late twelfth century ivory to prove that a late eighth century cross shaft is in fact late ninth century (p. 90); for his judgment by the suggestion that pl. 19A and 19B could be the work of the same artist; for his common sense by the revival of the idea that the carving of the Bredwardine lintel represents 'the Egyptian god Bes' (p. 157); and for his scholarship by the map which purports to show the distribution of Late Saxon churches. No information is advanced

as to the source for this map. The numerous small fragments of pre-Conquest masonry in country churches do not appear to have been considered, and the map evidently represents by no means all the surviving evidence. Of the 29 names, three are wrongly spelt, and it is disconcerting to find included the church of Kilpek [sic], which is admitted by Professor Talbot Rice to be of mid-twelfth century date.

The plates, which range in date from the late eighth to the late twelfth century, are excellently reproduced and provide a most valuable record of the extraordinary variety of styles that are alleged to make up Late Saxon figure-sculpture, and of the astonishing and brilliant output of the 'Winchester' school of illumination.

For a reviewer to seek out merely the defects of a book is an uncharitable and unhelpful procedure, but it cannot but be regretted that more capable and cautious use has not been made of the researches of Sir Alfred Clapham and Sir Thomas Kendrick, Professor Wormald and Professor Stenton.

Lawrence Stone

VILLAINS AND HEROES

TOWNS AND BUILDINGS. By Steen Eiler Rasmussen. Liverpool University Press, 1951. 21s.

Steen Eiler Rasmussen is perhaps the most fully civilized teacher of civic design in the western world. More specific than Lewis Mumford or Thomas Sharp, but less specialized than Marcel Poète and the architectural historians, he uses phrases and photographs, maps, measured records and the best that printers and block-makers have to offer, to present the complete physical structure of a city. His latest book, published simultaneously in Denmark and Liverpool, is a series of sixteen connected essays, illustrated by comparative plans and sectional perspectives, freehand sketches and old engravings, all in line. Rasmussen says in his preface that the work was planned '... to put a great deal of material into a modest amount of space.' And admirably has he succeeded. The book is simple, yet subtle. It is a pleasure to dip into it, no matter at what point; but it is also wonderfully informative to read right through it, for the essays are roughly chronological in sequence and associative in idea. And so one is borne along, fascinated, from a description of Peking to a thesis on functionalism.

The content of these sixteen chapters is always interesting, palatable and persuasive. It is pre-digested and not provocative. It is the product of a trained mind and of a seeing eye. Nevertheless it varies in quality. It is best when bringing to light the unregarded excellence of some historic project or of some lesser-known example of town design, and when pointing the contrast between two cities such as Paris and London—a theme which made one of his earlier books, *London: the Unique City*, so much more perceptive an analysis than that of any English writer in the same field.

The arguments developed in other chapters, although equally shrewd and effective, are more disputable. An interesting example is Rasmussen's condemnation of Haussmann and Alphand and all their works, the former

being described as 'brutal,' and the latter as 'mediocre' and 'childish.' The gist of the argument is contained in the passage which likens Haussmann's operations under Napoleon III to a number of fire-belts drawn through a great city's jungle, 'but it remains a jungle despite them.' And it goes on: '... Paid applause eulogized the great social achievements all the while the gigantic works were being pushed through by the most unscrupulous means—lining the pockets of cynical speculators. ... The enormous levies of manpower and money helped not at all. They were both employed in the wrong places. The city was too concentrated.'

Most town planners would agree with this conclusion, but might not attach all the blame to Haussmann. Persigny's well-known description of him* was cynical enough; yet his own *Memoirs*, written after 17 years of executive 'redevelopment' on an enormous scale, are not by any means those of a fallen dictator. Some good came out of the upheavals, not least a lesson in technical efficiency of means which, were it applied to more noble ends, would make post-war reconstruction a reality for many urban planning authorities today.

To Rasmussen, all forms of authoritarian planning are suspect. The manipulation—skilful as it was—of Haussmann's three financial *réseaux*, seems to him as misguided as the 'rail-roading' operations of Robert Moses are to Lewis Mumford in New York. Power corrupts, they both agree. Yet Rasmussen is such an artist that he has to concede that Absolute Power—provided it was exercised very long ago, as in Peking—may produce a work of civic art.

Irresistibly one is reminded of Hans Andersen. In spite of the erudition and the technical expertness behind this presentation, there is a touch of the fairy-tale about it. The story of Ulrik Frederik Gyldenløve and Charlottenborg, the ideal cities of Francesco di Giorgio Martini, the contest between Paris and London, the vision of the margrave Karl Wilhelm of Karlsruhe, the sanitary saga of Dr. Emil Hornemann of Copenhagen, and even the battle of ideas between Ebenezer Howard and Le Corbusier (the latter being defeated in the end, but only after it has been explained to us what a beautiful dragon he is)—all these are made to appear simple, fabulous and allegorical, whereas they are actual and complicated matters of historical fact.

This fairy-tale quality permits, in fact requires, the villains to be more black and the heroes more golden than in real life. It is pointless to apply academic criticism to the story-teller, particularly to one who presents his tale with such charm and skill, and such originality. From the layout of the book to the making of the brilliant topographical sketches, no detail is spared to complete the picture. Like a good plan it all seems so simple and so right. And even to those whose visual sense is not highly developed, this method of teaching cultural history must appeal just as strongly;

* 'Big, fat, strong, energetic, and at the same time wily, always able to extricate himself from difficulties. ... I enjoyed in prospect the thought of turning this brute loose among the snarling foxes and wolves ready to tear apart the noblest endeavours of the Emperor.'

for there is wide experience and wide sympathy behind the apparently casual text.

What is the future of the city?

Sert and Mumford have both cast doubts on its capacity to survive in its present form. The latter looks towards regionalism. Eliel Saarinen spoke of de-concentration and re-concentration. Le Corbusier wants to demolish in order to build anew.

Rasmussen's answer seems to be to spread out Metropolis and keep the component parts small in scale, loose and flexible in texture. Whatever the merits of the intellectual and technical arguments, it is probable that Rasmussen will reach the widest range of pupils; not architectural students only, but students of social history, of social institutions, and of art and letters. Best of all he will be read by the man in the corridor street.

W. G. Holford

GLOAGOPAEDIA

A SHORT DICTIONARY OF FURNITURE. By John Gloag. Allen and Unwin. 42s.

Hitherto 'Dictionary of Furniture' has meant only one thing—the three elegant volumes by the late Percy McQuoid and Ralph Edwards, published by Batsford. This has long been out of print and virtually price-less, so a cheaper, less ambitious dictionary is overdue and more than welcome. Mr. Gloag gives a clear and concise account of the meaning and associations of 1,764 terms relating to furniture and furnishing. In addition, two sizeable sections deal with the design and construction of furniture (though these seem oddly out of place in a dictionary), and there is a useful short list of British and American furniture makers and designers.

However, the book falls down on two important counts. Only in one or two places does the author concede that the twentieth century has produced anything worthy to be called furniture. This omission is the more surprising when one remembers Mr. Gloag's many books and articles on industrial design and on contemporary trends in furnishing. If space was the limiting factor, then some of the references could have been briefer.

In his choice of illustrations, Mr. Gloag has missed an even more important bus. As well as a number of simple, straightforward line drawings dotted among the text, there are many illustrations described as 'from the original sources.' This is an excellent idea, and we look with pleasurable anticipation for reproductions from manuscripts, portraits, conversation pieces, photographs of museum exhibits and so on, since any period speaks best for itself. But alas, what do we find but a curious and somewhat frightening collection of illustrations mostly from nineteenth century books about earlier periods! Here, believe it or not, is what Shaw, in his *Specimens of Ancient Furniture* (1836), thought a medieval chest looked like, or a seventeenth century mirror. Here, too, is a grand seventeenth-century state bed 'with ornaments of gold and silver and plumed finials' but looking for all the world like a hearty Victorian dressed up to a part he has failed to understand.

Mr. Gloag thus gives us our visual im-

pressions via the Victorians. We may like it, or we may not, according to our individual position on the shifting sands of fashion; what is certain is that we cannot, by this means, get a true feeling of the earlier periods or any real understanding, through their furniture, of their life or times.

Molly Harrison

THE GREAT ORIGINAL

SIR JOHN SOANE. By John Summerson. *Art and Technics*. 10s. 6d.

The more one studies Soane, whether as builder, planner or stylist, the more surely does he emerge as the great architect of his generation; almost the last great architect we produced before we were swamped by the virile chaos of Victoriana.

As a Royal Academy prize student, a traveller in Italy, a worshipper of Vanbrugh, a disciple of Holland and Wyatt and, above all, apprentice to George Dance, Soane was well within the high tradition. And yet—perhaps because, as John Summerson says, he had 'an unclassical mind'—it is as an original, creative and imaginative artist, and as a superb master of style, that Soane matters. He is important, not because he used the Palladian vocabulary, but because he used it with freedom, even with defiance, for his own great ends.

John Summerson gives us a slight but very clear picture of Soane as a man—the tormented paranoiac and lonely widower—adding: 'I shall not attempt the task of relating Soane's architectural idiosyncrasies to the condition of his mind.' What a pity! Had Summerson done this—and if anybody could do it he could—he might have come rather nearer to answering his own pregnant question regarding a 'building's temperament.' 'That, in any work of art, is,' as Summerson says, 'the central mystery, which is also the mystery of style. It will certainly not be explained until we can explain personality.'

When, however, he turns to the actual development of Soane's style, and to its varied origins, John Summerson is both learned and lucid. Soane devoted his life to the infinite combinations and permutations of dome, pendentive, ceiling and so on; and upon the problems of geometry and lighting that arose he brought to bear a highly imaginative, and even romantic, genius. Whether he himself was ever aware of the 'five separate themes of his creative Middle Period' or the expansion of them 'in his later Picturesque Period,' is unimportant; such subdivisions of the subject are merely the vehicle by which, with beautiful clarity, Summerson explains to us this man's work . . . from the graceful Bank Stock Office of 1792 to the Vanburgh-like masses of Dulwich in 1812.

There is, however, one vital aspect of Soane that Summerson ignores. The Modern Movement may have been a spurious offspring of the Gothic Revival; its breach with classicism was complete . . . except, we see now, for Soane. A fundamental of architecture is the admission of daylight to enclosed space; for classical architects, from Brunelleschi to Nash, this fundamental was reduced to variations upon the theme of the aperture in the wall.

Soane's whole architecture revolved around other, more mysterious, more poetic and more effective solutions. So does the architecture of the modern movement. The use of prestressed concrete—the thin vault and dome—has linked the Modern Movement with Byzantium, even more with the offices and halls of the old Bank of England. The structural problems are not, of course, identical, the geometric ones are startlingly so. Soane's work had 'sources.' John Summerson has touched upon them all, but far more important than the antiquarian problem of Soane's sources is the living problem of his influence.

R. Furneaux Jordan

Shorter Notices

Lines of Character. By L. T. C. Rolt and P. B. Whitehouse. Constable. 21s.

In the matter of transport the question before the nation is whether our island is to become what Sir Alan Herbert terms 'one great asphalt floor'; whether the by-passes are to burst with lorries carrying (and dropping) coal; whether we passengers are to have no alternative to the omnibus, with its bumpiness, inflexibility of load, ubiquitous queuing, and tendency even then to leave us behind. ('No more prams.') Everywhere branch railways are ceasing to carry; but no effective national resistance has yet appeared. In his new book Mr. Rolt, who has himself led a notably successful local resistance, properly cites the case of the County Donegal Railways: where Mr. Henry Forbes's imagination and modern methods converted a big operating loss into a bigger operating profit, although the system is a narrow-gauge one, and spreads out over as remote and commercially unlikely a region as exists in the British Isles. The example goes entirely unheeded on the railways we ourselves are supposed to own. All who read 'Lines of Character' (which is not about palmistry) will become indignant at the uninspired mismanagement and stupid destruction of their property. The book is mainly an addition to the new literature on the aesthetics of transport. Though uncomprehensive, and a little lacking in fight, it is a good book because Mr. Rolt loves trains and excellently communicates his love, and because it is now urgently necessary that trains be loved and fought for. The sixty-six photographs (mainly Mr. Whitehouse's) do not all make visual patterns; but do bring the heart to the mouth with a sense of what is going while we sheep queue for that bus.

Robert Aickman

Old Towns Revisited. Edited and with an introduction by Arthur Oswald. London: Country Life, 1952. 21s.

Illustrated articles on eight towns, reprinted from *Country Life*: Abingdon, Blandford, Richmond (Yorks), Totnes, Wisbech, Bewdley, Farnham and Berwick-on-Tweed. The first five are by Mr. Oswald himself, Bewdley and Farnham by Christopher Hussey, and Berwick by John Flemming. All they have in common is that they are market towns and have been relatively spared by the growth of industrialism and nineteenth century rebuilding. Their history is touched upon and their topographical and architectural character and their best buildings described and illustrated by photographs. Special emphasis is laid on Georgian buildings. Very little of later date is noticed.

skill

A MONTHLY REVIEW OF BUILDING TECHNIQUES AND INDUSTRIAL DESIGN

In the past the REVIEW distinguished between the art and the technique of building by calling one Design, the other Craftsmanship.

Our portfolio of craftsmanship lapsed during the war and hasn't been—can't be—revived under the same title because the word 'craftsmanship' has become hopelessly dated. Why? From its association with handicrafts? From its unsuitability as a definition of precision building and manufacture? Possibly.

And yet the craft of building in the wider sense remains vital to any decent architecture and was never in greater need of encouragement by word and deed.

The editors feel the time has come to discuss the issues involved with a good deal of frankness if only to award all possible publicity to those who are keeping the flag of quality flying. They believe that the architect, and the manufacturer, will welcome a new, a bolder and a more critical approach to the whole subject. Hence this monthly feature, SKILL.

Woven Furnishing Textiles*

DESIGN REVIEW

O. S. Sutherland

The requirements of the architect vary considerably from those of the normal user of furnishing cloths and, as the commercial market caters for the many, the difficulties of finding acceptable cloths has become a problem that calls for plain speaking on the part of all concerned, the profession, manufacturers, and the retail trade. For many reasons this is not likely to happen, but in fairness it should be said that the worries are not all on the architect's side.

Considering the rare beauty and distinction of the many fabrics now made for dress, it is surprising that woven furnishing fabrics are with a few exceptions so depressing. Colour too is generally drab and a search will reveal that in most cases large repetitive design has not advanced a step since the pre-war geometrics. The reasons for this are debatable. So far as ingenuity and fine craftsmanship are concerned there are no problems. However, the apparent difficulties of selling certain cloths on the home commercial market prohibit them, and for these the architect has to go to the specialist trade.

* A 'Paintings for Textiles' Exhibition will be held at the ICA, London, October 21—November 14.

Some manufacturers co-operate willingly and weave experimental lengths, but owing to the expense of cutting Jacquard cards, etc., the final order placed has to be from one to five sixty-yard pieces. For shorter lengths the architect normally goes to a hand-weaver. The best of these produce cloths to specification which are quite as practical as power machine made cloths and often have more life in the weave and colour.

A heartening aspect of the industry is the possibilities offered by so many new fibres and yarns. The newest of these, nylon, ardil and terylene, have so far been available in only limited quantities for the furnishing trade but output and development increase rapidly. New finishing processes also now add to the usability of fabrics, among them moth and dust proofing. These and the imaginative development of fancy yarns by spinners such as R. Greg & Co. make the future of furnishing textiles a little more exciting than seems apparent from the usual retail stock.

One of the most persistent requirements of the architect is for fabrics with pronounced texture and liveliness of surface which are at the same time woven of clean wearing fibres, firmly constructed and likely to keep their resilience. If the yarn is not tightly twisted, the cloth tends to flatten and lose its quality, if the boucle or open weave effect is too pronounced, the thread can too easily be pulled, making the cloth of limited use on the commercial market.

The work of the few manufacturers, craftsmen and designers producing acceptable experimental weaves is fairly well known and appreciated, but the advantages of the traditional weaves—Serge, Bedford cord, Wool velvets, Box cloths, etc., have been long overlooked. Superb cloths with these weaves still exist. They have been a quiet, steady line outside the architect's orbit for many years and although the colours and superimposed patterns are too often unacceptable, the craftsmanship and quality of cloth is superb. They need imaginative handling, but then so do all finishing materials.

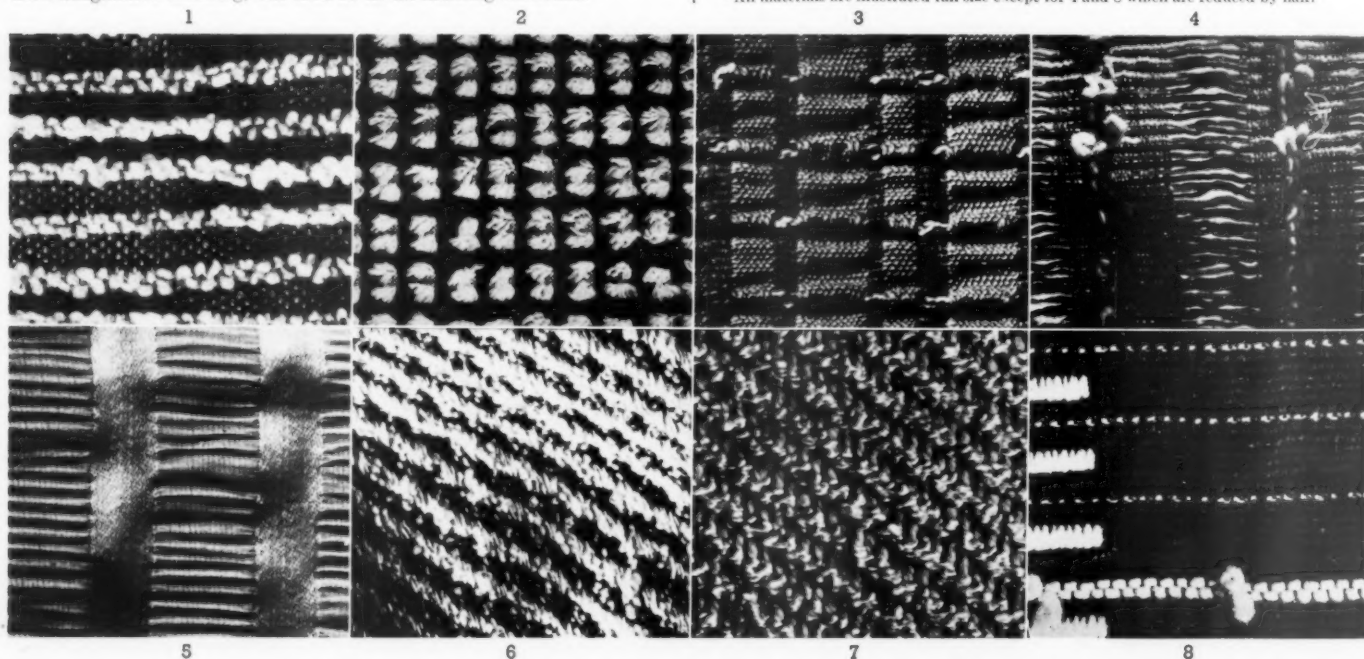
The fabrics illustrated show a variety of ways of obtaining a surface character in quality cloth. They are all obtainable on the home market. In the majority of cases manufacturers require architects to place orders through a retail trader, but apart from this formality they welcome enquiries and contacts with architects.

EXPERIMENTAL WEAVES WITH PRONOUNCED SURFACE

1,* *Florida*. This cloth is suitable for either upholstery or hangings. The irregular stripe is produced by the use of boucle and plain cotton yarns, and some rayon. The irregularity is increased by a hidden chequerboard pattern in the weave. Produced by Tibor, Stratford-on-Avon. Width 48 inches.

2, *Thetford*. A tufted weave, of all cotton yarns, suitable for hangings. Produced by Warner & Sons, Braintree, Essex. Width 50 inches.

* All materials are illustrated full size except for 4 and 8 which are reduced by half.



3, *Colleen*. An extremely interesting all-cotton tapestry, with tight yarns and weave. The irregular gathers are obtained by a satin overweave. This gives the material an interest and depth usually missing from plain cotton yarns. It is supplied in four colours. The main colour of the one illustrated is a dull grey-green, with vertical stripes of indian red, and boucle threads of black and white. Produced by Edinburgh Weavers. Width 50 inches.

4, a curtain fabric of all wool yarns. The illustration is reduced in scale. This sample is in yellows. Produced by Hilary Bourne and Barbara Allen, 10 Prince Albert Road, N.W.1. Width 48 inches.

5, *Plisse Monatemont Silk*. 1024. This cloth has a similarly constructed weave, but it is a lightweight fabric of pure silk yarns. It is obtainable in eleven colours, all of them subtle and very usable. Imported by H. A. Percheron, Berners Street, W.1. Width 51 inches.

6, *Stratford*. An upholstery cloth with cotton and rayon fancy yarns. There are several colour combinations; the one illustrated is lemon-yellow with a grey warp. Produced by Tibor, Stratford-on-Avon.

7, *Foam*. This is a curtain fabric, with good draping qualities and is pleasant to handle. The yarns used are 28 per cent cotton and 12 per cent art silk. The sample illustrated is undyed. Produced by Donald Bros., Dundee. Width 50 inches.

8, a pure wool reversible cloth, handwoven of vegetable dyed yarns. This is a substantial cloth of great character. Originally made for the Royal Festival Hall, it can be supplied direct by the weavers who specialize in work for architects. Produced by Hilary Bourne and Barbara Allen, 10 Prince Albert Road, N.W.1. Width 48 inches.

RAISED CLOTHS WITH TRADITIONAL WEAVE CONSTRUCTION

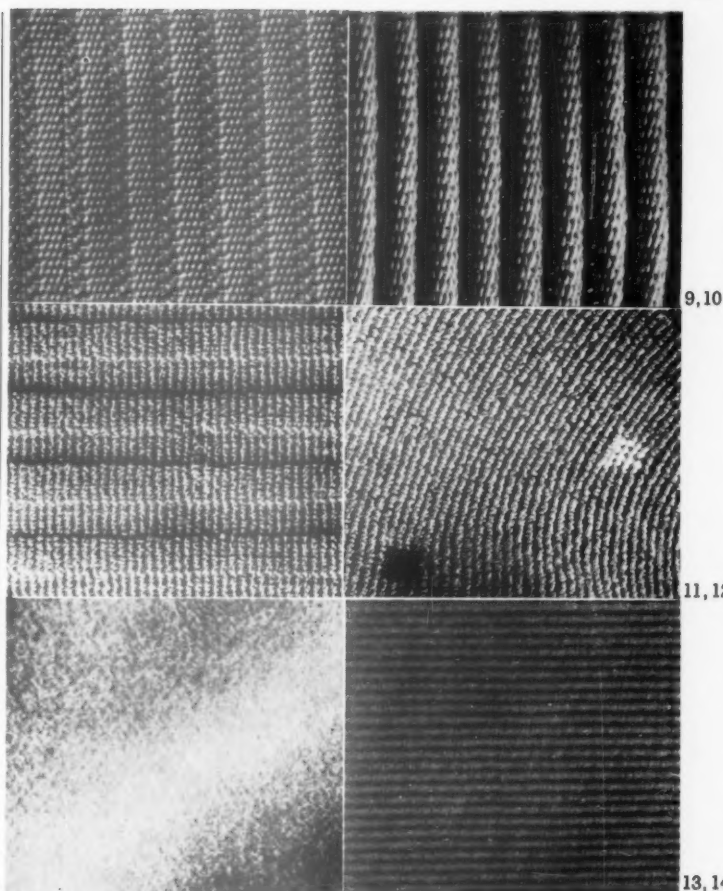
9, No. 1277. This is a light, corded upholstery cloth; one of the few so far produced in England of all nylon yarn. Originally made for the seat backs of public transport coaches, it can be supplied for other upholstery purposes. The advantages of nylon yarns or nylon mixtures is that they combine great strength with light weight, they resist moth and mildew, do not spread fire, drape well, dye and retain their colour well, and are capable of assuming many characteristics of natural fibres, from wool to lustrous silk. They can also be cleaned by sponging down. The colour range of the cloth illustrated is limited, but it can be vat dyed successfully to almost any colour. Produced by T. F. Firth & Sons, Africa House, W.C.2. Width 50 inches.

10, *Apple Tree*. A Bedford cord with a clearly defined rib, suitable for both upholstery and hangings. This quality has a composition of 88 per cent wool and 12 per cent nylon. Dyed to fast colours, with a moth-proof finish, it can be supplied in most colours in either 50 inches or 54 inches width. Produced by William Eyres & Sons, Otley, Yorkshire.

11, No. 1192. An all wool worsted, uncut moquette, yarn dyed, with a cotton binding thread. It is a close texture, and a most successful upholstery cloth. Used originally in the Royal Festival Hall, it can be repeated, but only for an order of 1,000 yards. Produced by T. F. Firth & Sons, Africa House, W.C.2. Width 54 inches.

12, *Ardil Moquette*, No. 1. Apart from its pleasant, simple repeat, this upholstery moquette is interesting as one of the first uses of Ardil and natural fibre mixtures. Ardil, a product of ground nuts, can be spun finer than wool. It is always used in blends, 50 per cent Ardil, with other fibres and yarns. It is a good moisture absorbent, dyes and handles like wool, and is resilient. In this fabric the loop is quite high, but it is firm and resilient, and handles like wool. The sample shown has a sand coloured ground, and white, brown and greyish-green pattern. Produced by Tibor, Stratford-on-Avon. Width 48 inches.

13, No. 1266. An upholstery wool velvet of a very high quality. It has a latex backing, which allows the weaving of more tufts to the inch than is usual and locks the pile in.



The coating of latex does not restrict the pliability of the cloth at all, but makes it dust-proof, vermin-proof and also non-fraying. It can be dyed to any colour. Produced by T. F. Firth & Sons. Width 50 inches.

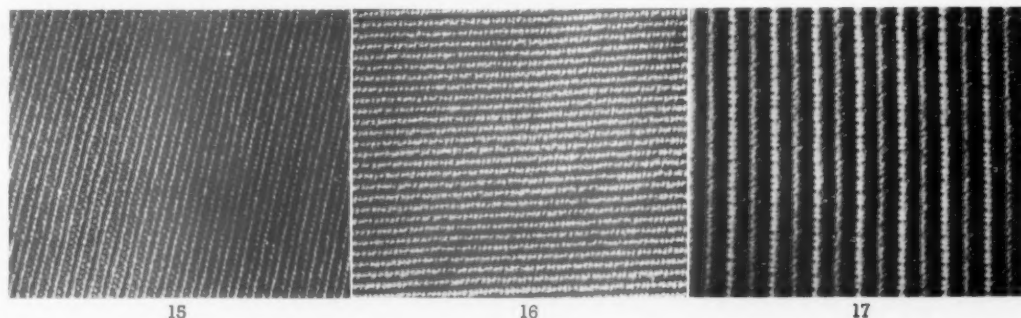
14, B.R. 182/2. A wool faced rep for upholstery or hangings. A firm cloth, the sample illustrated is a sandy yellow. Marketed by Sanderson. Width 50 inches.

COMPARATIVELY SMOOTH CLOTHS WITH SURFACE CHARACTER

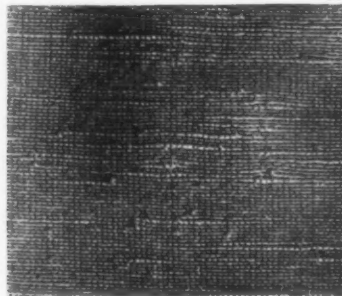
15, *Premont Serge* 952. A high quality pure wool fabric, suitable for either upholstery or hangings. It is supplied in eleven colours, almost all of them interesting and of use to architects. Imported from France by H. A. Percheron, Berners Street, W.1. Width 51 inches.

16, No. 915. A rep—suitable for hangings and light upholstery. It is woven from rayon yarns and in appearance is very similar to pure silk. It is supplied in approximately fifteen colours, including white. Imported by H. A. Percheron. Width 51 inches.

17, No. 621. This is a wool faced rep with a pronounced rib. It is a light-weight, but strong, upholstery cloth, which would also hang well. Produced by T. F. Firth & Sons.



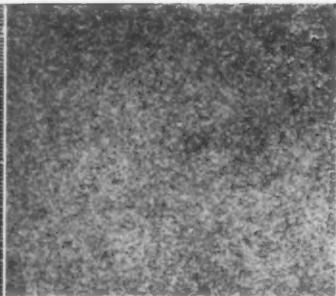
18



18, No. 986. A pure silk shantung with a slub effect. This fabric is supplied in approximately thirty colours, many of them extremely beautiful. They have a lustre and depth only found in fabrics of pure silk. Imported by H. A. Percheron, Berners Street, W.1. Width 51 inches.

19, No. S.8288. A firm pure wool upholstery cloth, with the character and smooth surface of Melton and Box cloths. It is supplied in either 22 ounce or 20 ounce qualities, and is mothproofed with an unmarkable finish. The colour range is limited, but it will dye well. Produced by Ernest Turner, Northdown Street, N.1. Width 55 inches.

19



OPEN WEAVE CLOTHS

20, No. 6057. A netting of strong, natural coloured linen, and two types of fancy cotton yarns. In the sample illustrated the long slub yarns are white and a light olive green. Produced by Donald Bros., Dundee. Width 50 inches.

21, a curtain marquisette, one of the many interesting marquisettes now being made from Terylene. Terylene has, so far, only been used in furnishing, for marquisettes and voiles. It has good draping qualities, keeps its shape, does not shrink, requires no ironing, and resists moth and mildew. It has possibly a higher resistance to sunlight—particularly behind glass—than any other fibre. Marquisettes, panel nets and laces can be made up to a width of 240 inches, and as this can consist of a single repeat, their design is well worth consideration. Produced by Henry Franc and Lauder, Manchester. Width 45 inches.

22, Linen Gauze. A pure linen gauze of fine, firm thread. This is a very pleasant fabric, with distinct possibilities for screening large glazed areas. The sample illustrated is undyed. Produced by Donald Bros., Dundee. Width 50 inches.

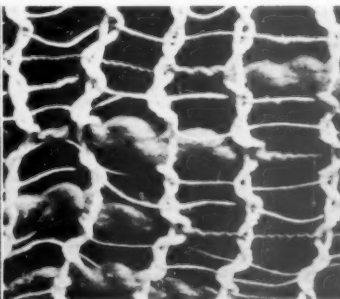
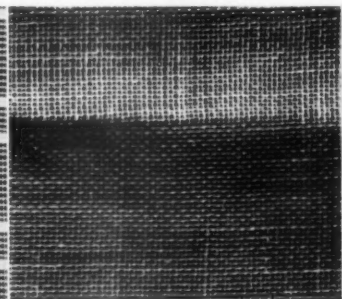
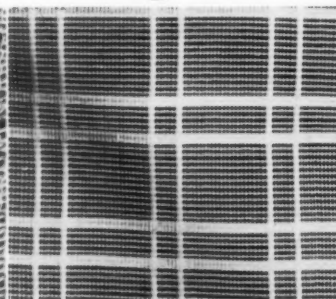
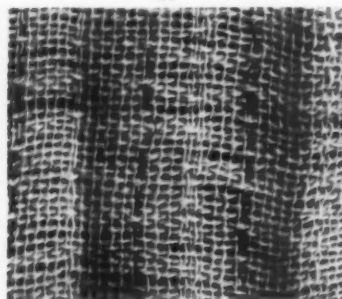
23, an open weave of natural wools, with untarnishable thread inlaid. This interesting material is handwoven to specified lengths. Produced by Hilary Bourne & Barbara Allen, 10 Prince Albert Road, N.W.1. Width 48 inches.

20

21

22

23



WALLS

permanent Internal partitions fall into two obvious types, those which are intended to be permanent and those which are deliberately designed to need a minimum of permanent fixing so that they may be easily moved when it becomes necessary to re-plan such buildings as offices. So far as permanent partitions are concerned a considerable amount of development has taken place over the last few years, directed mainly to saving cost and time. Plastering is a skilled trade, and time must be allowed for the various coats to dry out, often with a further interval before it is safe to apply the final decoration. Hence the development of the very many different types of building board, which may be made from plaster, wood fibre or chips, plastics, plywood or compressed straw and are produced in ceiling height panels and in widths of from 2 feet to 5 feet, the most popular width being 4 feet. The thinner materials may be fixed to timber studding on the site, or made up into panels in the factory, either on timber framing or with

Partitions

Philip Scholberg

a lightweight core.

The Bailey Committee, set up to consider possible means for speeding up the construction of house interiors, published its findings in the early part of this year and paid some considerable attention to partitions, drawing attention to the relatively



Partition built from panels of plasterboard on an egg-crate core which can be finished with a skim coat of plaster or distempered after the joints have been filled. The panels are strong enough to take fittings such as lavatory basins and tee junctions and angles between panels can be simply made by inserting timber battens in the egg-crate core. (The British Plaster Board Co.)

new gypsum panels with a recessed edge to make the jointing simpler. These panels can be quickly erected and (quoting the report) 'provide a sound and well finished partition without any need for plastering.'

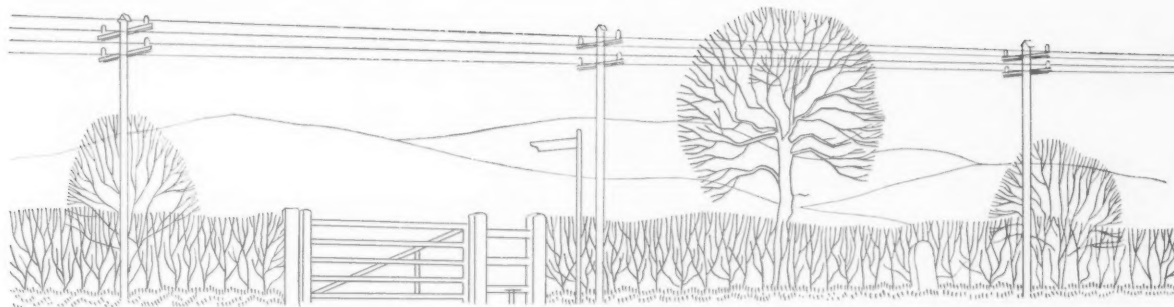
2



The 'K' partition unit consists of a wood fibre cellulose core faced on either side with a double thickness of $\frac{1}{2}$ inch hardboard. Though light in weight and easily demountable it is frequently employed for permanent partitioning. (Anderson Construction Co.)

This brings us at once to the chief difficulty with building boards of all kinds, the making of a satisfactory joint. Plasterboard has very little movement, but when fixing fibre boards it is essential to allow for expansion and contraction. When fibre boards were first introduced to this country the normal method was to cover the joint with a wood strip $1\frac{1}{2}$ or 2 inches wide, and

(continued on page 269)



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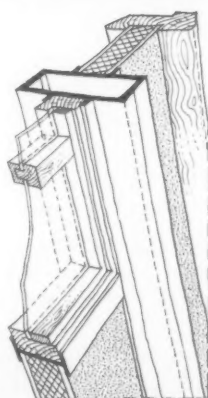
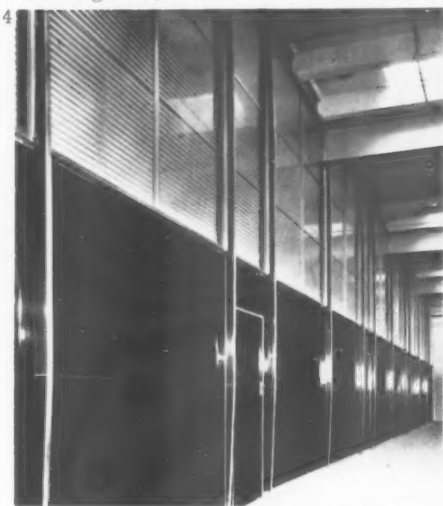
SKILL

it was a common habit to stain or paint the strips in a darkish brown, presumably in an attempt to give the impression of a panelled wall. Cover strips are still used, but the present tendency is to make them as narrow as possible or to do away with them altogether, making the joint with a strip of scrim, or filling it with plaster or some special compound, though with the



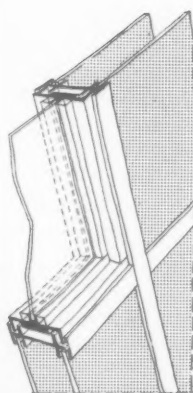
One of the simplest methods of jointing hardboard wall panels. Each edge is bevelled making a V joint which is far less noticeable than any form of cover strip. (Canadian Forest Products.)

latter method it is by no means easy to prevent cracks from occurring later on. An excellent alternative is to admit the presence of the joint and to make a V groove where the edges of the fibre board butt together; most of the manufacturers



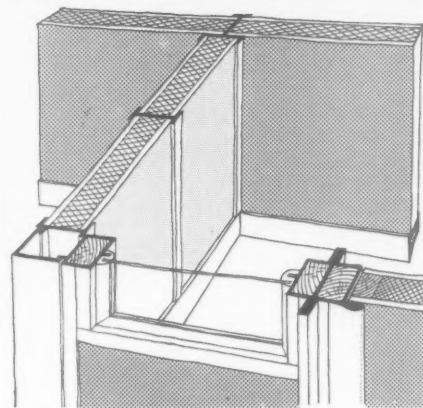
A specially designed partition for a factory. The height of 25 feet made it necessary to produce built up spars partly exposed and running the full height. See detail below. (Compactom.)

produce special cutting tools for this purpose, but it should be remembered that laminated boards are unsuitable for this form of treatment.



'Gypsteele' partition in steel frame with an infilling of gypsum plaster panels. (Gyproc Products.)

visible fixing being a narrow metal strip, three-quarters of an inch to an inch wide and about $\frac{1}{16}$ th thick, which can if necessary be painted to match the rest of

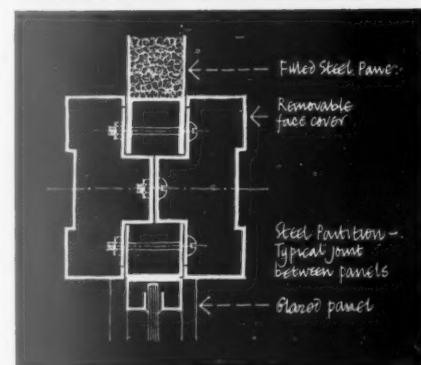


A system in which the panels have a cork core which may be faced with hardboard, plastics or metal sheet. The panels are fixed with extruded light alloy channels at floor level, H sections at the vertical joints, with special extrusions for door or window frames and at corners. (Saunders Roe.)

the decoration. Developments of this system include more elaborate uprights between which the panels are placed, the final fixing being done with a strip having spring ears which are gripped by corresponding sections in the uprights. These systems are a little more expensive than the simple channels, but have the advantage that a single panel anywhere in the

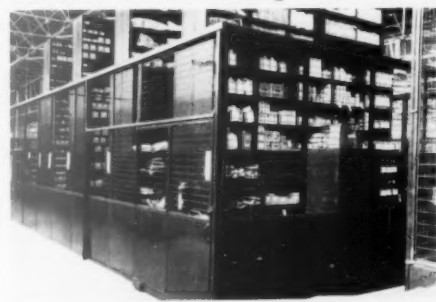
Various manufacturers also have different methods (sometimes patented) in which the panel fixing system produces its own finish for the joint. Perhaps the simplest is the metal channel, in steel or light alloy, set up vertically and enclosing each long edge of the panel, the only

visible fixing being a narrow metal strip, three-quarters of an inch to an inch wide and about $\frac{1}{16}$ th thick, which can if necessary be painted to match the rest of



Typical office partitioning with steel posts made in two halves and bolted together to hold the panelling. Glazing can be arranged to start at any height and the steel panels are filled with insulating material. Doors are hung in sub frames fixed to the steel posts. (Sankey Sheldon.)

partition can be removed for access to wiring or other services, while with the channels the dismantling will have to



A factory partitioning system which can be used with solid and glazed panels for stores. Obstruction of gangways is avoided by arranging the doors to slide. (Sankey Sheldon.)

begin at the end of the partition. Fixing methods of this kind can be very effective if they are used with the more elaborately finished panels faced with decorative veneers or the many textured and coloured sheets now produced in plastics like 'Formica,' 'Warerite' and others; cover strips may be in bronze or brass, or the light alloys may be anodized and coloured, the choice naturally depending on the finish of the panel.

Junctions at floors and ceilings may be made by the methods outlined above, but

with plasterboard or strawboard panels it is more usual to employ battens at floor level and to locate the top by butting plasterboard or other ceiling sheets against it after it is erected. Alternatively the head of the partition may be fixed with battens and the angle between wall and ceiling filled with lengths of ready moulded plaster cove. Wood coves can also be used at the floor.

For partition panels built up with a lightweight core, such as 'Paramount,' or structural panels like 'Holoplast,' the edges may be joined with timber fillets glued and pressed into the side grooves, leaving a projecting tongue over which the adjoining panel is slipped so that it butts against the first. Some designers have experimented with wider fillets, leaving a gap of $\frac{1}{4}$ inch or so between the panels and painting the fillet in a contrasting colour.

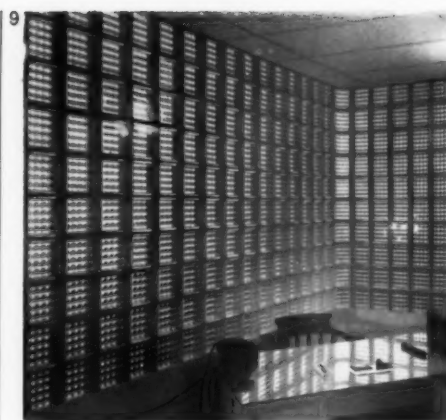
So far we have considered only straight runs, but curved partitions can be produced with hardboard bent over timber framing down to quite a small radius. At least one firm has also evolved a technique for applying thin plastics sheeting to curved partitions in any material. Care is needed, but there are no outstanding



Office partition produced by a firm of window manufacturers. Standard glazing bars are used with tubular mullions to join the panels. The sheeting can be single, or doubled, and the space filled with insulating material. (John Williams.)

difficulties, the most important point being to choose the right adhesive and to ensure that the surface of the partition is free from irregularities. The method is, of course, even more easily applicable to straight partitions, and the many different textures and colours available have the advantage that they are permanent and easily cleaned.

Translucent partitions made from glass blocks were widely used before the war, and may be built straight or curved to



Glass blocks give good heat insulation and complete obscuration. They may be built straight, with angle blocks at the corners, or curved. Intermediate supports are not normally necessary in interior work unless the areas are very large. Special ventilating blocks are also produced. (Pilkington Bros.)

heights of 20 feet or so. Similar blocks are now produced in transparent plastics, but the total height is limited to about half that allowable with glass owing to the low compressive strength of the blocks themselves. It is perhaps worth mentioning that the sound insulation provided by glass block is about the same as that of a 9-inch brick wall.

Partitions in clear glass offer no particular constructional problems and are widely used in offices, shops or hospitals,



All glass partitions can be timber or metal framed; doors should preferably be made in 'Armourplate' glass, with ordinary plate for the remainder. (Pilkington Bros.)

or in any other buildings where a good deal of subdivision is necessary and at the same



Polished plate in sheets 8 feet high above the display fittings serves as a screen between different shop departments but gives an impression of uninterrupted space. (Pilkington Bros.)

time it is desired to maintain an impression of space. Metal or timber frames and polished plate glass may be used for the partitions, but the doors should preferably be in armourplate.

movable In recent years it has become usual to design office blocks as lettable floor space, the subdivisions of the area being arranged to suit the tenant, who may himself wish to re-plan from time to time. Even when an office building belongs to a single firm the same considerations often apply when staffs are reorganized or new systems introduced.

The problem here is to design a partition which can be easily fixed and at the same time moved without leaving more than an absolute minimum of making good to floors and ceilings. It is also essential



Offices in a temporary building at London Airport. The framework is in extruded aluminium sections and the panels are high density resin bonded chipboard. (British Plimber.)

that the various panels making up the partition shall have a hard wearing finish and be stiff enough to prevent distortion and damage while they are being moved, and the system must at the same time allow doors and glazed areas to be provided wherever they are required. A further desirable feature is the ability to provide a certain amount of sound insulation, for office work is becoming mechanized to an increasing extent, and to the noise of typewriters and duplicating machines must now be added that of many different types of accounting machines and the equipment used with the punched card systems with which industry now carries out so much routine work.

If a system of partitioning is to meet

[continued on page 271]

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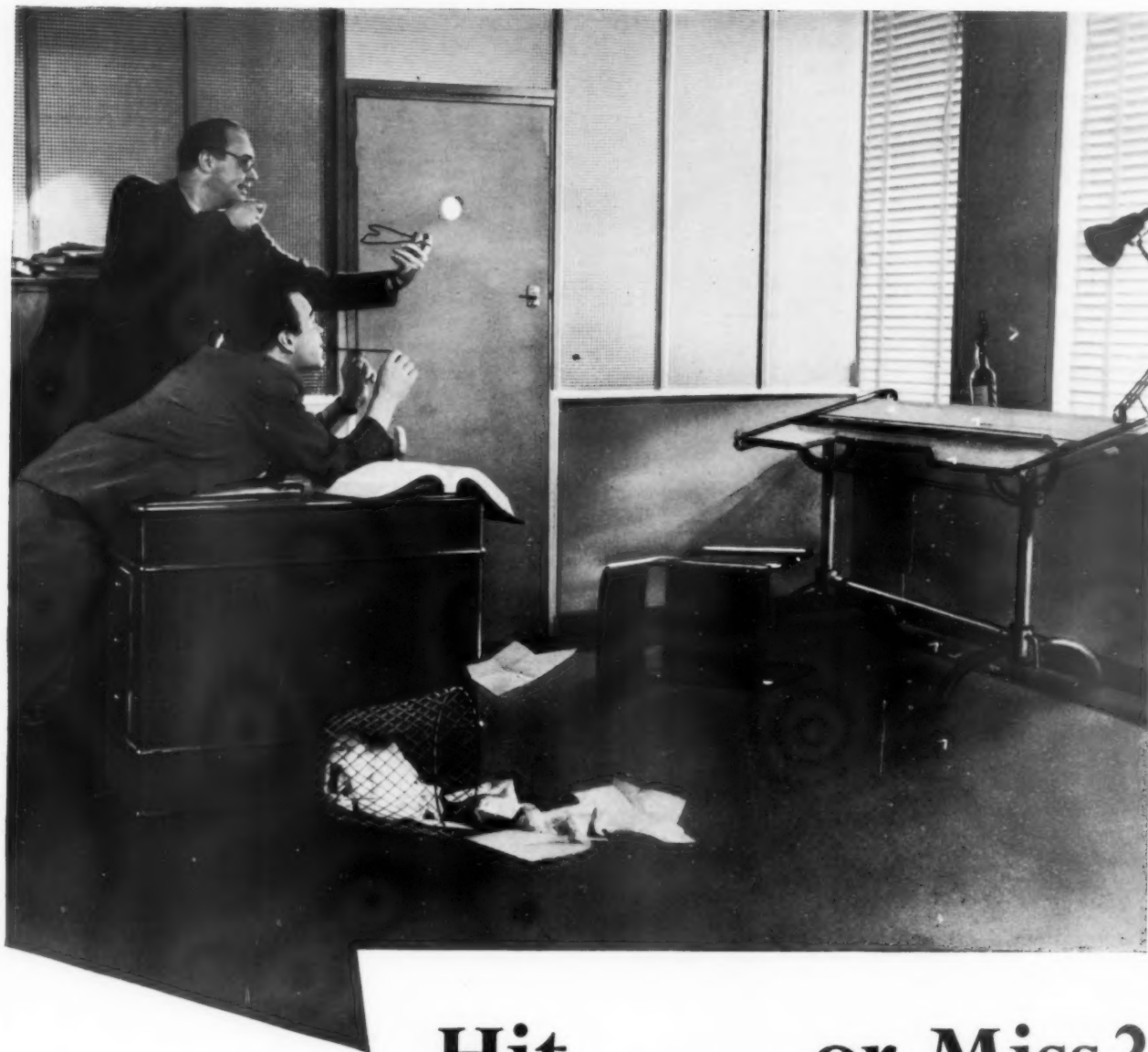
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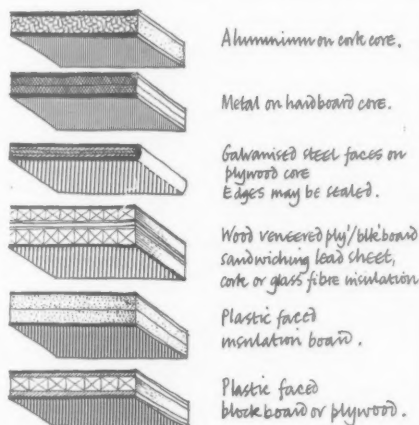
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these requirements it is obviously very much simpler if all the panels can be of the same height, and this has led to a change in the buildings themselves. Columns do not offer any insuperable difficulty, but the trimming of the heads of the partitions round floor beams very often means purpose made panels, and the ideal must be a standard height which can be used anywhere within the external walls. The standard office block has now become long and narrow on plan, so that all offices can be placed on an external wall with proper daylight, and with access from a central corridor. Given a narrow plan the columns can be placed on the line of the corridor walls, and floors of flat slab, or with suspended ceilings, give a uniform height for all partition units.

Nearly all the systems of partitioning are based on a layout of posts and rails holding panels which may be in hard-board, plastics, plasterboard, light alloys or steel, with provision for glazing at any

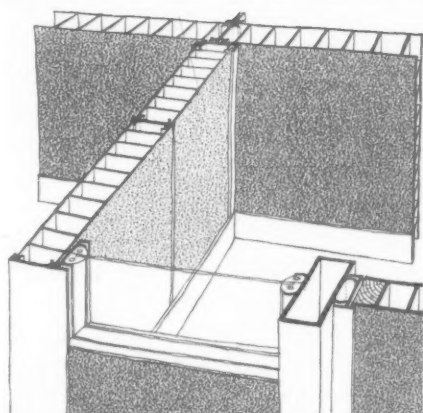
level, or for the whole height. Doors and frames are arranged to fit into the scheme of panel dimensions, and soundproofing can be supplied by filling the space between panels with any of the usual materials such as cork or glass silk, and glazing may either be set in specially formed rubber strip, or may be double.

Fixing is generally by channel shoes at top and bottom, or by timber battens, the joints between the long edges being made either with H section posts, with a tongue

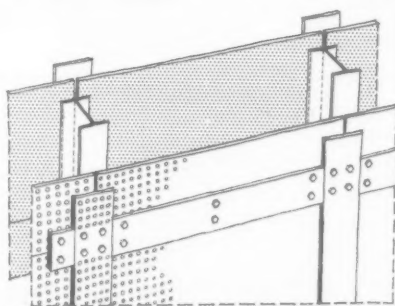


Typical forms of Armourply panel faced with steel, aluminium or galvanized sheet, and other forms of finish on a core of blockboard or insulating board. (William Mallinson.)

and groove, or with a purpose made section into which a cover strip is sprung or screwed. Wiring runs can frequently be made at the panel joints or within the hollow panels themselves.



Plastic panels fixed with extruded members and special sections for door frames and glazing. The panels are hollow and can be filled with insulation while the faces can be veneered or painted, it is also possible to use the patterned plastic finishes. (Holoplast.)



A fire-resisting partition on a framework of light steel sections covered with sheets of steel bonded to an asbestos core. (Durasteel Ltd.)

In the years before the war it was the custom, for no apparent reason, to finish movable partitioning in a rather uninteresting dark green, a colour particularly unsuitable for internal corridors, whose only daylighting had to be borrowed from transoms in the offices. Nowadays there are many alternative colours, frequently stove enamelled to provide a hard wearing surface which cannot easily be damaged by cleaners.

HOUSING

REEMA SYSTEM OF BUILDING

Official concern with problems of house design during recent years has been directed just as much to economizing in man-power and scarce materials as to reducing costs and speeding up construction. The result has been a tug-of-war between traditional and non-traditional methods of construction and the development of many new types of house in the latter category.

One of the most interesting is the 'Reema' system developed by Reema Construction Ltd., Milford House, Salisbury, Wilts. The system is designed to meet the



requirements of local authority housing for two-storey structures of varying size built either in pairs in terraces or as flats. Its basis is factory production and the reduction of site work. The walls are of storey height in pre-cast concrete panels finished externally in exposed aggregate or with cement paint and internally with fibreboard in the factory, and delivered complete with glazed metal windows where required. Columns and girdle beams are cast in situ and roof construction is tiles on rafters.

Equally important, however, is the organization both of factory production



and site work, and in National Building Study, Special Report No. 10, where this system is the subject of test and experiment, it was noted that its success was largely due to all the snags being solved beforehand so that both types of operation could be carried out on production engineering lines. The report goes on to say, in the summary of results, that the results achieved with the 'Reema' system of construction were the outstanding feature of the investigations which showed that the system can produce a cheaper house than one of the traditional type of comparable size, with the added advantage of really large economies in man-power.



A prerequisite for the best results is, of course, continuity of sites, so that labour teams can be kept together, and sites should also be available well in advance of building requirements so that builders can programme operations on the basis of maximum factory production.

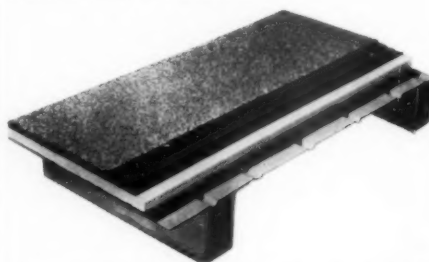
Factories are now operating in Southampton, Weymouth and Kidderminster, while a new one, with an output of 2,000 houses per annum, is almost complete at Chesterfield. An extensive building programme is being carried out for the Salisbury Corporation and the system has also been used abroad, the new Irwin Hospital at New Delhi being a recent example.

ROOFS

INSULATED STEEL ROOF DECKING

When people talk about 'prefabrication' in building they often confine the term to the factory manufacture of complete structures. In doing so they ignore what is undoubtedly a far more important aspect — the application of prefabrication to parts of buildings. If prefabrication is exploited in this way, it means that the prefabricated parts or units must be capable of use in a variety of different structures and circumstances.

The 'Permadek' insulated steel roof decking, made by Permanite Ltd., 453, Old Ford Road, E.3, is an example of such part prefabrication. It is based on a number of standard factory-made units, in preformed steel sheet, which can be assembled on site by semi-skilled labour to form flat, pitched, curved and vertical constructions. The steel decking is then overlaid with $\frac{1}{2}$ inch insulation board and 'Permanite' bituminous roofing, resulting in a roof with the fireproofing qualities associated with steel and a thermal insulation quality of .35 'U' value. The decking is also suitable for interior partition walls, where paint, distemper, plaster-board or similar materials may be used for finishing the surface.



The main panel consists of a steel sheet, grooved for additional strength, fixed to a four inches deep channel section. The



effective covering width between channel centres is standard at 12 $\frac{1}{4}$ inches. The lengths of panel along the channel can vary from 6 feet, by 6-inch increases to 12 feet, so that the lengths can always meet over a purlin or other support. The outside grooves on each panel are made extra deep and slotted at 2-foot centres



so that when the roof is assembled each width of panel overlaps the open top of its neighbouring channel so that these grooves also overlap one another and are fixed together through the slots with self-tapping screws or rivets.

The roofing can be fixed to the purlins or other supports in a variety of ways, by first drilling or punching holes in the decking channels at a suitable pitch. If the purlins or supports are of metal angle or channel section, standard hook bolts may be used. If they are of timber, ordinary wood screws can be used to screw down the decking. Special preformed steel ridge members are available for pitched roofs and a preformed apron has also been designed for the eaves.

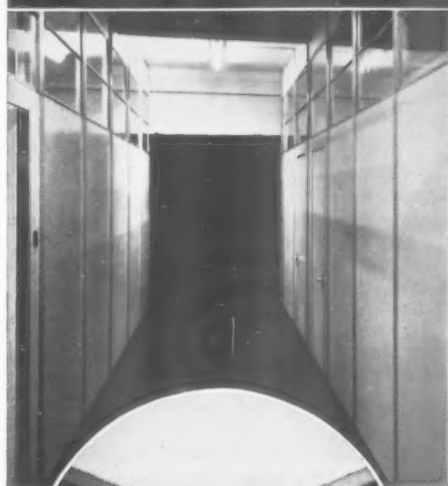
Another product from the same company is 'Chromas' coloured pitch mastic flooring, available in red and brown. It can be laid direct on the builders' site concrete if that is carefully laid without the need for an isolating material, but a layer of black sheeting felt is necessary for boarded floors. It is damp-proof and may be washed and polished with a wax emulsion. The normal thickness advised is $\frac{5}{8}$ inch.

TIMBER STRUCTURAL UNITS

One tends to look to the many new materials, which have appeared since the war, for methods of prefabrication for [continued on page 273]



MEDINO BOARD PARTITIONING



Close-up showing the compressed granular cork structure of Medino Board.

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has a substantial core of compressed granular cork providing good heat and sound insulation. The cork being an integral part of the board cannot shake down, thus the insulation properties remain the same throughout the partition's long life. Medino Partitioning is factory finished with SaR-ReZ plastic in a range of attractive colours and combines pleasing appearance with exceptionally hard wearing surface. Any complexity of design and layout can readily be achieved with the use of the light alloy extrusions with which the partitioning is rapidly erected. Medino Partitioning is ideally suited for offices, schools, hospitals, interview and lavatory cubicles.

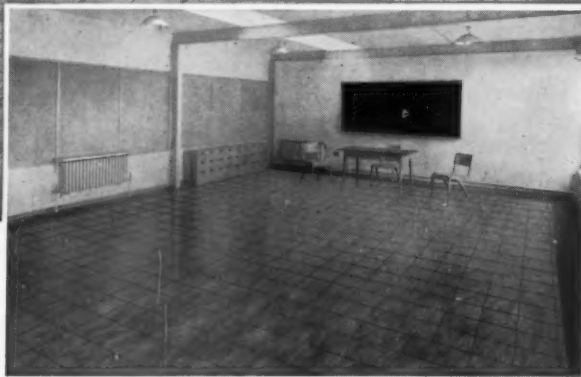
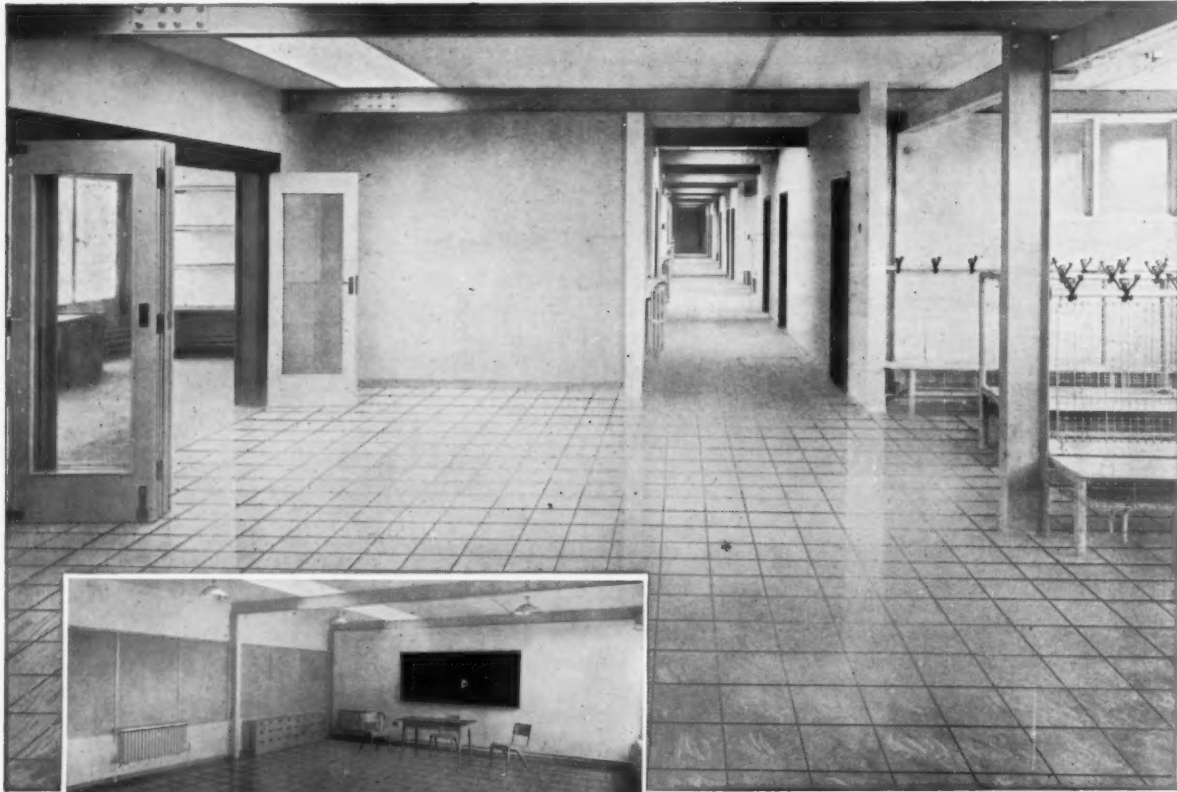
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SKILL

walls and roofs, but traditional materials adapted to new techniques and ideas are playing just as important a part in this field.

A recent example of this is the 'Trofdeck' structural system for floors, roofs and walls, using 4 mm. plywood and solid timber, manufactured and marketed by H. Newsum Sons & Co. Ltd., Lincoln, makers of the Riley-Newsum prefabricated house. The system was devised and patented by W. H. Willatts and A. H. Cornwall of W. H. Willatts and Associates.

Webs of stressed-skin plywood are glued and nailed to timber battens—either of softwood or of hardwood, to give a corrugated effect, viewed in section. Standard widths are multiples of 8 inches, and the system is therefore adaptable to modular co-ordination, to modules such as 24, 40, 48, 96 and 120 inches. The length of the unit is determined by



floor or roof span or the height of walls, and the depth according to span and loading, normally being one twenty-fourth of the span. On a standard 48 inches wide unit, for example the overall depth is 5 $\frac{3}{4}$ inches. Besides being an essential part of the structure, the spaces produced by the corrugations are extremely valuable for thermal and sound insulation, providing a 4-inch air space.

The built-up unit is also extremely light in weight, the weight per square foot being 1.7 lb. This results in the units being very easy to handle, for example two men can handle and fix units of 100 square feet and even more. The manufacturers claim large savings in the costs as against traditional methods of construction for the 'Trofdeck' structural units, and also large savings in timber—up to 80 per cent. is claimed over traditional methods.

CEILINGS

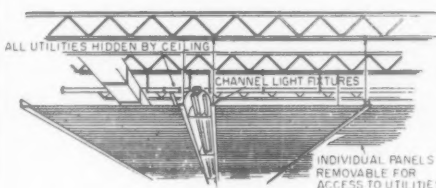
CORRUGATED ALUMINIUM CEILING

As will be evident from earlier notes



in these columns, a great deal of thought is being given to the subject of prefabricated ceilings, and yet another system was reviewed in the *Architectural Forum* for June.

The method developed by Reynolds Metals Inc. is extremely simple, consisting of sheets of corrugated and perforated aluminium sheets, 10 feet by 33 $\frac{3}{4}$ inches



(allowing for a 1 $\frac{3}{4}$ inch overlap), laid either on existing trusses or alternatively on channelling suspended from the trusses or other part of the structure. No fixings are used and the removal of a sheet, for inspecting services above, is therefore quite easy. There is no need for additional support and the sheets do not sag. For sheets 8 feet long with 1 $\frac{1}{2}$ inches acoustic blanket on top, deflection is $\frac{3}{16}$ inches.

The perforations in the sheets provide



acoustical properties, and the aluminium itself provides thermal insulation. Continuous lighting troughs can be installed utilizing the troughs as supports for the sheeting.

It may be questioned whether vibration or other disturbances are capable of moving or rattling the unfixed ceiling components, though it is mentioned that 3,000,000 square feet of this type of ceiling have already been installed in the USA.

HEATING

IMMERSION HEATER

Simplex Electric Co., Ltd., Broadwell, Oldbury, Birmingham, have recently marketed the Creda 'Redhead' 3 kW. immersion heater to meet the demand for a moderately priced thermostatically controlled model. It is available in six lengths only, as yet, and is of the single loop embedded type for normal voltages. Prices range from £5 19s. 3d. including P.T. for the 11 $\frac{1}{2}$ -inch type to £6 11s. 9d. for the 30-inch type. Models are also available with thermostat pockets but without thermostats.



PLANNING

CANTEEN PLANNING

Few firms these days find it sufficient just to place their goods on the market, publicize them and leave it at that, and technical advice services are now run as a matter of course by most manufacturers of materials which involve fixing problems.

The planning advice service is perhaps more recent, but a current example is that of H. C. Shepherd & Co. Ltd., Hersham Station Works, Walton-on-Thames, Surrey, manufacturers of tubular metal furniture. They operate a Canteen Planning Advisory Service which finds particular scope in the planning of large industrial canteens. It is a free service without obligation, their representative examines the area, and takes over the problem of working out maximum seating and table capacity with the best number and size of gangways—and the most suitable sizes of furniture. They take into account the type of meals served, and even the size of the plates. They assert that in most cases they can

plan for more seating capacity than the client is likely to consider possible.

MATERIALS

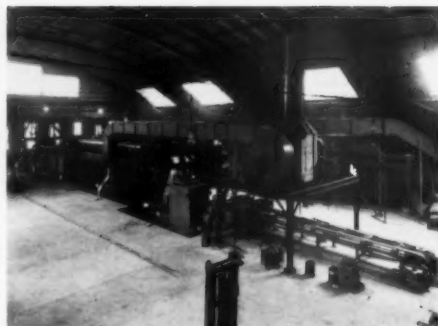
BUILDING BOARD IN ANY LENGTH

One of the most fascinating aspects of machine production is the constant change in horizons consequent on changes in basic techniques and continual refinements of existing techniques. The building board and wall board industry has already revolutionized the building industry and replaced traditional materials and methods for many purposes. Now, within the building and wall board industry itself, a new machine has been evolved which must affect it profoundly.

This new machine, under development since 1939, with the first full-scale production unit operating for the first time in June, 1952, is known as the 'Bartrev' press, which can produce a building board, or 'timber board,' as the manufacturers—Vere Engineering Co. Ltd., Marks Tey, Colchester, Essex—prefer to call it, in a continuous process. Up to now, building and wall board has been produced in standard sized sheets. Now that it can be made in a continuous ribbon, only one dimension is fixed, that of its maximum width of 4 feet. The length is only limited by practical considerations of handling, and the thicknesses, which are predetermined on the machine, vary from $\frac{3}{16}$ inch to $\frac{3}{4}$ inch. The board is flat and rigid and is manufactured from fibrous material such as wood waste of all kinds, and bonded with a thermo-setting synthetic resin under heat and continuous pressure. The finished board is uniform in quality and the manufacturers claim that it is the cheapest product of its kind and can be sold for from fourpence a foot.



The sheet of 'Bartrev' board emerges as a continuous ribbon from the press.



Above and right, two pairs of before and after views of the 'Bartrev' press. In each case the lower view illustrates the steel hood designed by Gaby Schreiber and Associates.

A variety of different qualities of board can be produced on the Bartrev Press according to the qualities and characteristics of the raw material used and degrees of heat and pressure applied. It is vermin-free and sterile, and fungicides and other chemicals can be added to the raw material to deal with special local conditions of fungus and vermin attack. It conforms with Category II of B.S.S. No. 476 for non-inflammability.

Properties of three different grades in each of three densities—0.65, 0.70 and 0.75—are given. Grade S is for Bartrev made from shavings, grade SP for the same product but with a standard paper facing,

	Grade S			Grade SP			Grade T		
	0.65	0.70	0.75	0.65	0.70	0.75	0.65	0.70	0.75
Density	0.65	0.70	0.75	0.65	0.70	0.75	0.65	0.70	0.75
Modulus of Rupture (p.s.i.)	2,500	3,000	3,500	3,000	3,300	3,800	4,000	4,500	5,000
Compression Strength (p.s.i.)	2,500	2,500	2,500	2,500	2,500	2,500	2,800	2,800	2,800
Tensile Strength (p.s.i.)	1,900	2,300	2,600	2,300	2,500	2,900	3,000	3,100	3,300
Effective Modulus of Elasticity (t.s.i.)	135	135	135	135	135	135	135	135	135
Thermal Insulation (B.Th.U. per hour per sq. ft. per ° F. per 1 inch thickness)	0.9	1.0	1.0	0.9	1.0	1.0	0.9	1.0	1.0

and Grade T is made from specially prepared chips.

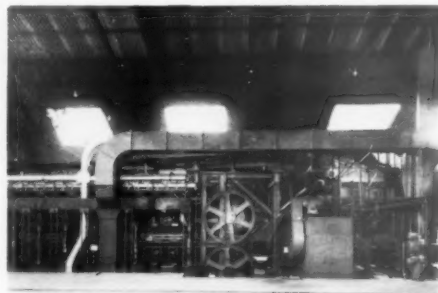
Bartrev Board can be cut, sawn, nailed and glued like wood, i.e. it can be worked by normal joinery methods. Thin nails as used for plywood should be used and should not be placed too close to the edges. When screws are used, pre-drilling is advisable. Scotch glue, casein or any

synthetic resin glues can be used for jointing, and butt or scarf joints may be made in the normal way.

Standard finishes are either the natural surface which is smooth and washable or a low cost paper surface which is applied during manufacture. The natural finish may be waxed or coated with a clear varnish to retain the wood particle appearance. For painting or distempering an undercoat only is required.

Its applications include practically all those for which plywood, blockboard, building board and wall board are now used, and others besides.

H. McG. Dunnett



CORRESPONDENCE

HOUSE POWER

To the Editors,

THE ARCHITECTURAL REVIEW

DEAR SIRs,—Reference your July issue and the feature article on 'House Power,' there appeared a number of errors regarding the price of our Lundberg 'Miniac'

[continued on page 276]



Movable Walls of Impeccable Appearance

There is nothing temporary in the appearance or performance of the Luxfer-Snead System of partitions—yet a complete suite of offices can be re-positioned in a week-end if so needed.

The 3 in. thick wall units are of double sheet steel with insulation board cemented to the inner side and $1\frac{3}{4}$ in. dead air gap. Panel units lock together with internal concealed link plates. Single or double glazing is secured by positive 'snap on' glazing strips. Door and panel units of the same size are interchangeable.

In these Luxfer partitions the functional advantages of good sound and heat insulation and provision for enclosed electric wiring are combined with modernity and dignity of appearance. You will find them in many important buildings where their handsome highly finished plain surfaces and practical attributes make them the obvious choice.

Solid or glazed walls are available in both standard units or purpose-built. Full particulars will be sent gladly on request.



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continued from page 274]

Switches. I will deal with these as follows:

1—Illustration No. 9, which shows a 13-amp. switch socket, was stated to cost 17s. per dozen. In point of fact this switch socket costs 10s. 4d. each.

2—You state that the Switch and Pattress (illustration No. 26) is available at 7s. 4d. per dozen. The price of the Switch without the Pattress is 22s. 8d. per dozen, and the Pattress itself is 7s. 4d. per dozen; therefore, the complete Switch with Pattress per dozen costs 30s.

Yours, etc.,

D. N. DALE,

Advertising Manager,

Birmingham.

Simplex Electric Co.

THE BUILDING INDUSTRY

Hammond & Champness Ltd., makers of electric and hand-power passenger and goods lifts, and *Haskins Ltd.*, makers of Rolador and Interlocking Shutters, both of Gnome House, Blackhorse Lane, Walthamstow, London, E.17, announce that they have opened new offices in Birmingham at 32, Manchester Street, Birmingham 6, Telephone: Aston Cross 1456. Full sales and service facilities are now available in Warwickshire, South Stafford-

shire (bounded by a line through Burton-on-Trent, Uttoxeter and Woore), Shropshire, Leicestershire and Worcestershire. The office manager is J. A. Shaw and the area representative is E. G. Daniels, Telephone: Sutton Coldfield 1890.

F.B.B.D.O. Technical Committee. The Governing Council of the Fibre Building Board Development Organization Ltd. announce the appointment of a technical committee to deal with research, development and the dissemination of information to architects, engineers and designers. Such information will also be available to operatives and technicians engaged in using and installing such materials. The results of research will be made available to manufacturers, agents and distributors of fibre building board.

The technical committee comprises E. P. Lawrence, chairman (and also chairman of the Governing Council of FBBDO), J. Ballantyre and H. Rixon representing the Building Board Manufacturers Association of Great Britain, Ltd., J. P. Blackman and J. G. G. Stone, Fibre Building Board Agents' Association Ltd., C. S. Goydor and A. W. Shaffery, the Insulation, Building and Hard Board Association Ltd., and R. V. Cooper, nominated by

Overseas interests. Messrs. Rixon, Goydor and Cooper are also members of the FBBDO, and Basil Marriott is Technical Director.

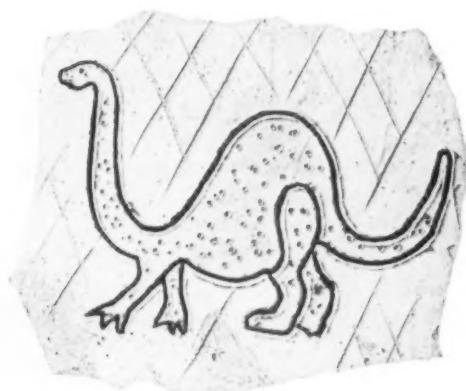
The committee plans to put in hand the publication of a new and revised edition of 'Fibre Building Boards,' described as the basic work of reference of the Fibre Building Board Industry, as one of its first tasks.

Staff Changes at Williams & Williams Ltd. The well-known manufacturers of metal windows and similar products announce a number of staff changes both at home and overseas.

G. Mulholland, manager, Manchester area office, has been appointed to New York and is succeeded by J. S. Higgs. C. Watkins, manager, Leeds, and J. E. Meredith, manager at South London (Bromley), have gone to Toronto and are succeeded by G. A. Littlewood at Leeds and A. M. Scott at Bromley. A. W. D. Sallis, manager, Tunbridge Wells, has been appointed to Malaya and H. Buckingham has taken over his old post, and D. A. Tubb, manager, Newmarket, has been succeeded by W. W. Jenkins on his appointment to Kingston, Jamaica. A

[continued on page 278]

Out of date! who? me!



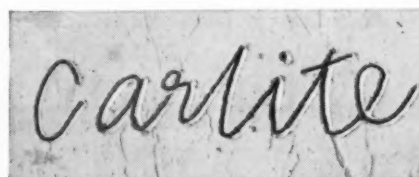
"The brontosaurus disappeared, we are told, because he failed to adapt himself to his environment."

"Now where might that observation, unusual for an architect, be leading?"

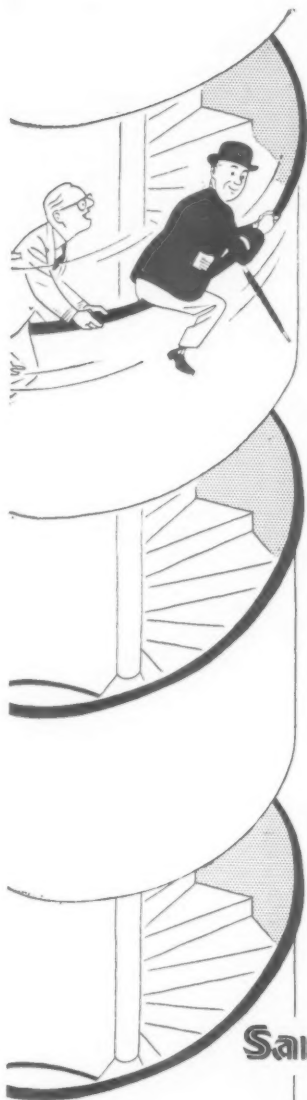
"To a subject that also concerns contractors—the disappearance of sand-based plasters in favour of Carlite the modern..."

"... pre-mixed vermiculite plaster?"

"Exactly. I need scarcely remind you, but I think I will, that Carlite quality is exactly controlled at the factory, that it saves a load of trouble over proportions and mixing, how wonderfully resistant it is to fire and cracking. And that it is half the weight of other plasters."



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The Gotham Company Ltd., Wheeler Gate, Nottingham.



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continued from page 276]

new office has been opened at Southampton with C. Wellesley Davies in charge and R. H. James has become manager of the Reading office. A full sales and estimating service is offered at all these branch offices and in addition, at those in Birmingham, London, Bristol, Belfast, Glasgow, Liverpool, Newcastle, Nottingham and Sheffield.

North British Rubber Company. The Directors of the North British Rubber Company Ltd., announce that their sales and branch service organizations have been consolidated to give more efficient service and a quicker distribution of goods both at home and overseas. The North British Rubber Company will undertake distribution in the United Kingdom of the two companies' products and the Dominion Rubber Company will do likewise overseas. Production will be carried out at the companies' factories at Castle Mills, Edinburgh and Heathhall, Dumfries. The North British Rubber Company has a technical service agreement with the United States Rubber Company, and as a result the two companies have at their disposal the manufacturing methods and the technical research and testing facilities of that organization.

CONTRACTORS etc

Housing at Hackney. *Architect:* Frederick Gibberd. *Assistant architect:* R. J. Double. *Quantity surveyor:* W. Lane. *General contractors:* Tersons Ltd. *Sub-contractors:* Metal windows: Williams & Williams Ltd. *Lift:* Keighley Lifts Ltd. *Floors, roof and stairs:* Phillips Floors Ltd. *Plumbing:* Engineering Service Installation Ltd. *Electrical:* London Electricity Board. *Gas fitter:* North Thames Gas Board. *Sanitary fittings:* Dent & Hellyer Ltd. *Asphalte roofs and coloured asphalte floors:* The General Asphalte Co. *Doors:* The Merchant Trading Co. *Kitchen fittings:* Sharp Bros. & Knight Ltd. *Bathrooms:* The Morris Singer Co. *Fires and tiled fireplace surrounds:* W. N. Froy & Sons. *Roof tiling:* Henry J. Greenham (1929) Ltd. *Wall tiling:* Parkinsons (Wall Tiling) Ltd. *Bath panels:* Broad & Co. *Glass dome lights:* Pilkington Bros. *Ironmongery:* Parker, Winder & Achurch Ltd. *Terrazzo paving and partitions:* Diespeker & Co. *Hopper fronts dust:* W. H. Earley Ltd. *Roller shutters:* Haskins Ltd. *Bricks (Leicestershire buff multi rustic facings, and Surrey multi stock facings):* Henry J. Greenham (1929) Ltd. *Flint facings:* The Uxbridge Flint Brick Co. *Hurdle fencing, oak gates and fencing, woven wattle screens:* M.S.J. Fencing Contractors.

Primary School at Worcester. *Architect:* Frederick Gibberd. *Assistant architect:* J. W. Grimes. *Quantity surveyor:* O. A. Wainwright. *General contractors:* J. Harper & Sons (Blackheath). *Sub-contractors:* Hollow tile roofs: The Kleine Floor Co. *Steelwork:* Daco Structures Ltd. *Asphalte:* General Asphalte Co. *Electrical:* The Etna Lighting & Heating Co. *Heating:* Steels Engineering Installation Ltd. *Copper roofing:* Frederick Braby & Co. *Tiled roofing:* J. H. Sankey & Sons. *Insulation*

board ceilings: Anderson Construction Co. *Sprayed asbestos ceilings:* Turners Asbestos Cement Co. *Acoustic surfaces:* Newalls Insulation Co. *Hand-rails:* Bigwood Bros. (Birmingham). *Cloakroom fittings:* Mountford Bros. *Granolithic paving:* Croft Granite, Brick & Concrete Ltd. *Granwood paving:* Granwood Flooring Co. *Thermoplastic tiles:* R. W. Brooke & Co. *Terrazzo:* Art Pavements & Decorations Ltd. *Suppliers:* R.C. gutter units: Girdings Ferro-Concrete Co. *Metal windows and doors:* Williams & Williams Ltd. *Glass dome roof lights:* Pilkington Bros. *Reconstructed stone:* Stuarts Granolithic Co. *Sanitary fittings:* Adamsez Ltd. *Ironmongery:* A. J. Binns Ltd. *Blackboards:* Educational Supply Association Ltd. *Flag staff:* J. W. Gray & Son.

University College and Teaching Hospital in Jamaica. *Architects:* Norman & Dawbarn. *Consultants:* Heating, ventilating and mechanical services: A. H. Baker & Partners. *Consultants:* Overhead external electrical distribution: Preece Cardew & Rider. *General contractors:* Higgs & Hill Ltd. *Sub-contractors:* Hand lifts: Thornborough & Son (Manchester). *Blinds:* J. Avery & Co. *Sanitary fittings:* John Bolding & Sons. *Ironmongery:* James Gibbons Ltd. *Heating, ventilating, plumbing, mechanical services:* Matthew Hall & Co. *Electrical installations and external distribution:* Kingston Industrial Agencies Ltd. *Light fittings:* The General Electric Co.; Troughton & Young (Lighting) Ltd.; Simplex Electric Co.; The Merchant Adventurers Ltd. *Kitchen equipment:* Benham & Sons; Allied Ironfounders Ltd.; Frederick Braby & Co. *W.C. divisions, shower screens:* Venesta Ltd. *Paint materials:* I.C.I. (Paints Division). *Cold store plant:* Lightfoot Refrigeration Co. *Electric clocks:* Synchromatic Time Recording Co.; The Standard Time Co. *University College only:* Venetian blinds: Blinds & Furnishings Ltd., Jamaica. *Lettering:* The Lettering Centre. *Sink water heaters:* Ewart & [continued on page 280]

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The Managing Director's office, Messrs. Thomas De La Rue & Co. Ltd., London, W.1. Architects: Messrs. J. Stanley Beard, Bennett & Wilkins. The boardroom table and chairs, in walnut, were supplied by Heal's Contracts Ltd. to the architects' designs. The table top is covered in 'Formica' and the chair seats in cream hide, with green wool fabric on the sides and back.

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continued from page 278]

Son. *Iron spiral staircase*: Maclean & Co. *Seawage pump*: Adams Hydraulics Ltd. *Library shelving*: Sankey-Sheldon Ltd. *Library furniture*: Ernest Race Ltd. *University College Hospital only*: *Electrical switches*: Wandsworth Electrical Mfg. Co. *Aluminium and glass hoods*: Aygee Ltd. *Metal fittings*: Light Steelwork (1925) Ltd. *Stainless steel sinks*: Stainless Steel Sink Co. *Oil burning equipment*: Combustions Ltd. *Pumps*: Sigmund Pumps Ltd. *Water softening plant*: The Permutit Co. *Incineration plant*: The Incinerator Co. *X-ray and dark room equipment*: Kodak Ltd. *Electric lifts*: Farryat & Scott Ltd. *Boilers*: Davey Paxman & Co.

Flats in Wallington, Surrey. *Architects*: Pite, Son & Fairweather. *Quantity surveyors*: D. R. Nolans & Co. *General contractors*: Walker (Tooting) Ltd. *Clerk of works*: G. L. Read. *General foreman*: J. Tapner. *Sub-contractors*: *Asphalt*: Holborn Asphalt Ltd. *Bricks ('Istock')*: Hall & Co. *Tiles*: Marley Tile Co. *Glass*: Aygee Ltd. *Precast concrete flooring*: Waderete Ltd. *Waterproofing materials*: R. I. W. Protective Products Ltd. *Grates*: Bratt Colbran Ltd. *Electric wiring*: Bootle Bros. Ltd. *Electric light fixtures*: Merchant Adventurers of London Ltd. *Water heaters*: Aidas Ltd. *Plumbing*: Mumford, Bailey & Preston Ltd. *Sanitary fittings*: Ashley Brandon Ltd. *Door and window furniture*: G. & S. Allgood. *Plaster*: T. F. Rooney & Son. *Metawork*: Clark, Hunt & Co. *Joinery*: Charles Plowman. *Tiling*: Lewis & Co. (Balham). *Wallpapers*: Primavera Ltd. *Enamel shields*: Pearce Signs Ltd.

Car Ferry Terminal at Dover, Kent. *Architects*: J. M. Wilson and H. C. Mason & Partners. *Chief engineer*: *Dover Harbour Board*: J. W. Sutton. *Resident engineer*: *Dover Harbour Board*: W. T. Allen. *Quantity surveyors*: Martin Sheffield & Bristow. *General foremen*: V. Stone and A. Amos. *General contractors*: R. J. Barwick. *Sub-contractors*: *Constructional steelwork*: Palmers Hebburn Co. *Bricks*:

Hammill Brick Co., through The Builders' Materials Association Ltd. *Artificial stone*: Empire Stone Co. *Panel heating, hot water and ventilation*: G. N. Haden & Sons. *Electrical installation*: Troughton & Young Ltd. *Electric light fittings*: Troughton & Young Ltd.; *Utility Lamp & Fittings Co.* *Metal windows*: Henry Hope & Sons. *Counters, screens and joinery*: R. J. Barwick. *Bar and shop fittings*: D. Burkle & Son. *Terrazzo work*: Art Pavements & Decorations Ltd. *Asphalt tanking and roofing*: Val de Travers Asphalt Paving Co. *Reinforcement and fabric*: The British Reinforced Concrete Engineering Co. (reception building); Twistell Reinforcement Co. (petrol filling station). *Pavement lights and interior screen*: Lenscrete Ltd. *Flush doors*: Jayanbee Joinery Ltd. *Ironmongery*: Adrian Stokes Ltd. (reception building); Nettlefold & Moser Ltd. (petrol filling station). *Presentation key*: Adrian Stokes Ltd. *Metal balustrades, etc.*: William Pickford Ltd. *Sanitary fittings*: Adamsez Ltd. *Mirrors*: D. Burkle & Son; W. N. Froy & Sons. *Plastering*: Jarratt Ltd. (reception building); Gaskill & Borle (petrol filling station). *Venetian blinds*: J. Avery & Co. *Rubber flooring*: Semtex Ltd. *Tiling work*: Carter & Kernahan Ltd. *Kitchen accessories*: Staines Kitchen Equipment Co. *Furniture and curtaining*: Maple & Co.; G. H. Burgess & Co. *Paint*: W. & J. Leigh. *Painting*: Clarke Bros. *Metal partitions*: The Ayrshire Dockyard Co. *Marble plaque*: J. Whitehead & Sons. *Block partitions*: Kimolo and Phorpres. *Petrol pumps installation*: Esso Petroleum Co. *Glass*: Pilkington Bros. *Glazing*: Faulkner Greene & Co. (reception building); Folkestone Glassworks (petrol filling station). *Cacti and succulents*: West End Flower Shop. *Veneers*: Richard Graefe. *Stone paint*: Silexine Paints. *Cork slabs*: Cork Insulation & Asbestos Co. *French polishing*: Roberts & Stacey. *Hardwood*: Wm. Mallinson & Sons. *Under floor ducting*: Key Engineering Co. *Public address system*: Ardente Acoustic

Laboratory; installation by E. R. Longley. *Tyre pressure indicator*: Tecalemit. *Roller shutters*: Arthur L. Gibson.

Primary School at Wembley, Middlesex. *Architects*: C. G. Stillman, County Architect; D. R. Duncan, Area Architect. *Quantity surveyors*: Young & Brown. *General contractor*: Charles R. Price. *Sub-contractors*: *Bricks*: W. T. Lamb & Sons; H. J. Greenham (1929) Ltd.; Uxbridge Flint Bricks Co. *Roofs*: Roberts Adlard Ltd.; Permanite Ltd.; D. Anderson & Son. *Steel roof trusses*: Smith Walker Ltd. *Heating, hot water and gas installation*: Fretwell Heating Co. *Underfloor heating*: Granwood Flooring Co. *Electrical installation*: Duncan Mays Ltd. *Suspended ceilings*: Anderson Construction Co. *Ironmongery, metal doors and windows, cloakroom fittings*: James Gibbons Ltd. *Door frames*: Henry Hope & Sons. *Flush doors*: William Mallinson & Sons. *Windows*: Lenscrete Ltd. ('Lenserete'); J. A. King & Co. ('Glascete'). *Sanitary fittings*: Shanks & Co. *W.C. partitions*: Venesta Ltd. *Roller shutters*: Milners Safe Co. *Playgrounds*: W. & J. Glossop Ltd.

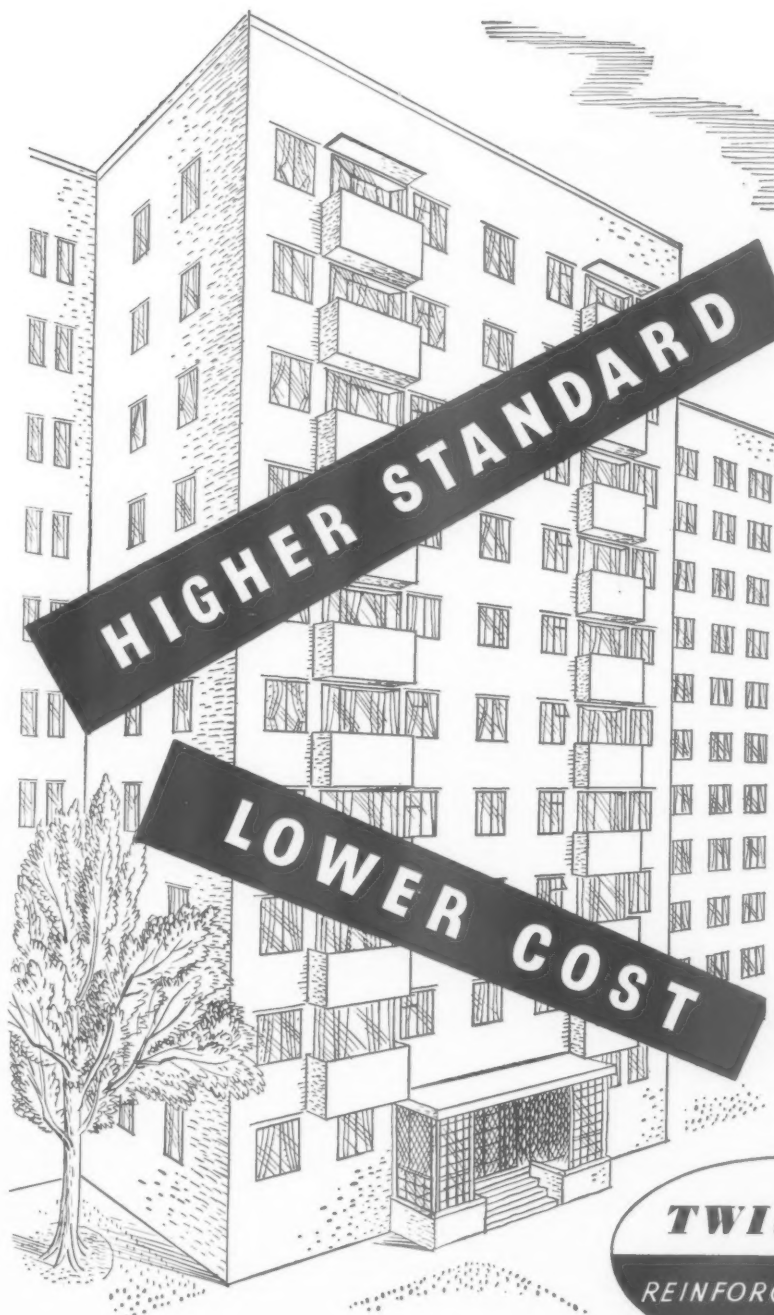
Houses in Stevenage New Town, Herts. *Former chief architect*: Clifford Holliday. *Deputy chief architect*: Leonard G. Vincent. *Assistant architects*: O. Carey (group leader), P. Halliwell, H. Blake. *Clerk of works*: H. G. Byatt. *General contractors*: Carlton Contractors Ltd. *Sub-contractors*: *Facing bricks*: Eastwoods Sales Ltd. *Roof tiling*: D. & A. McKnight Ltd. *Special roofings*: D. Anderson & Son. *Glazing*: E. A. Heatherington Ltd. *Patent flooring*: V.G. (London) Ltd. *Metal door frames*: Henry Hope & Sons. *Metal window frames*: The Crittall Manufacturing Co. *Fireplaces and boilers*: Bratt Colbran Ltd. *Electric wiring*: Stevenage Electrical Engineering Co. *Plumbing*: J. H. Shouksmith & Sons. *Sanitary fittings*: Samuel Gratix Ltd. *External doors*: Rippers Ltd. *Internal doors, staircases*: Austins of East Ham. *Door furniture*: H. & C. Davis & Co. *Kitchen cabinets*: John Sadd & Sons. *Plaster*: Johnson Davies Ltd.



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