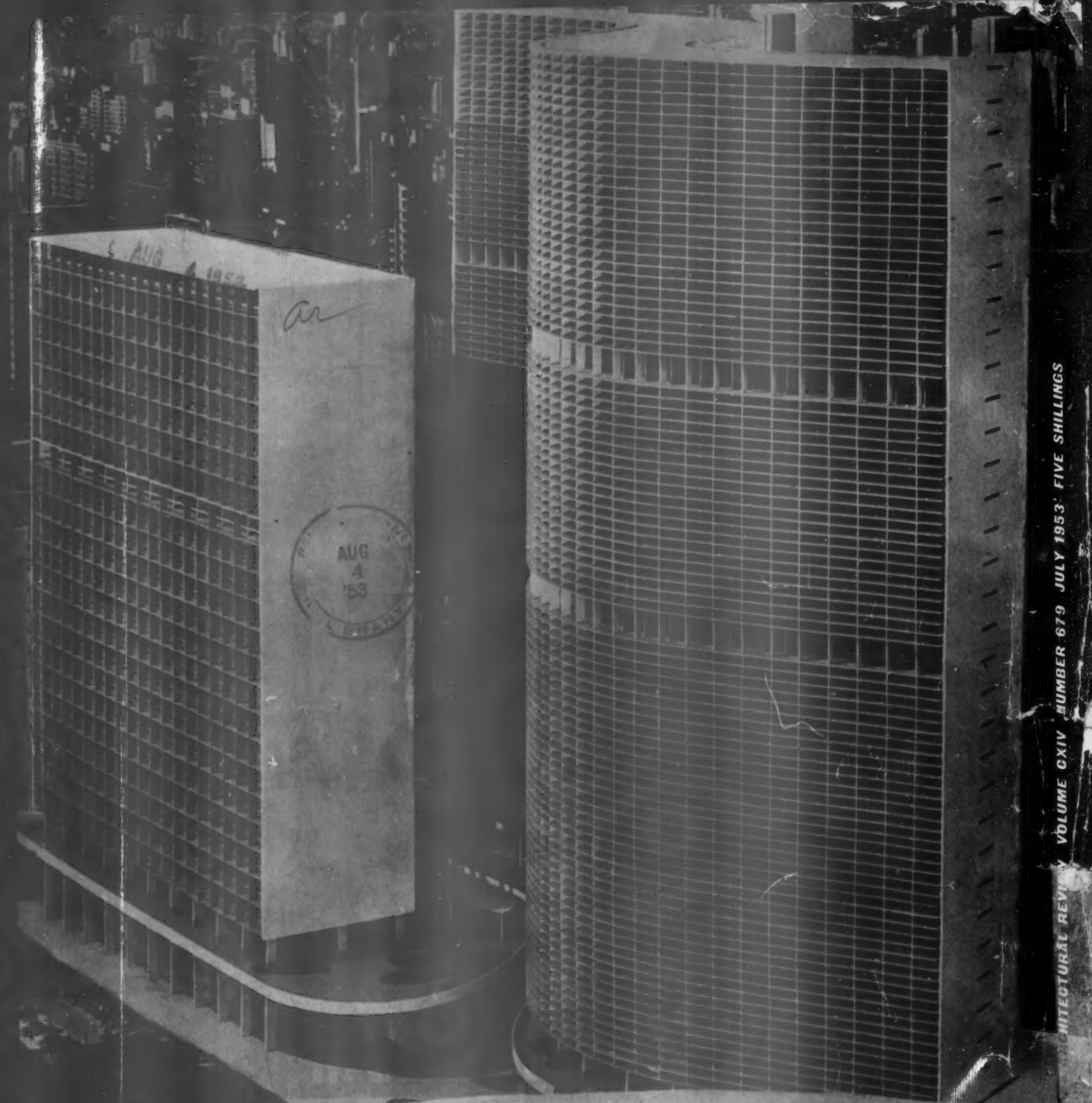




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ARCHITECTURAL REVIEW

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MARGINALIA

As from this issue *Marginalia* will appear in its new position, in front of the main editorial matter, and its place after *Miscellany* will be taken by *Skill*, a new regular feature dealing with the techniques of building and industrial design, which will bring together, in a more logical and convenient manner, such regular features as *Design Review*, *Trade Notes* and a monthly technical miscellany.

Dulwich Gallery

The visitor to the re-opened Dulwich Gallery, now returned to its proper splendours after the bombing, cannot fail to agree with John Summerson's observation on its architect's Italian journey—'And the afterglow of this adventure remained with him all his life.' While Piranesi's interpretation of Roman grandeur (conspicuous in so much of Sir John Soane's work) is absent in Dulwich, the austerity of Florentine architecture must have been in his mind when he created Dulwich Gallery, and especially the Mausoleum of its founders and patron, Mr. and Mrs. Desenfans and their friend, the painter, Sir Francis Bourgeois.

There is one motif which links up with Florence beyond doubt, namely the block projected forward in the lintels of the three mausoleum doors; a motif introduced by Michelangelo and widely used by later Florentine architects. Michelangelo's Capella Medici comes immediately to mind, the three doors to which no steps lead only stress the fact that there is no entry into the world of the dead, so that they have a similar significance to Michelangelo's doors in the Capella Medici which debar those who have entered the beyond from leaving. And did Soane also derive the canted doorframes from Michelangelo's canted windows, or did he imitate an Egyptian motif?

On entering the building, and particularly in those corners where one's gaze is not distracted from the architecture by the pictures, the visitor may momentarily believe himself in one of those severe unadorned Florentine churches of the Quattrocento, such as the Badia of Fiesole. Without doubt Mr. Summerson's suggestion that Soane's sparseness of details and economy of decoration was due to a kind of primitivism is correct; but would it not be possible that the master found the confirmation of his ideas in Brunelleschi, whom he praised in his fifth lecture, and hailed as the rediscoverer of true and ancient architecture?

We cannot be too grateful to the Governors of Dulwich College, the trustees of the Gallery, for having been instrumental in making the restoration possible and no higher tribute could have been paid to the architect in this bicentenary year of his birth than to have brought to a new life one of his most outstanding masterpieces and perhaps the queerest building of

many puzzling master works. The highest praise, however, must go to Mr. Austin Vernon, then architect to the Governors, who after the very severe damage to the Gallery by a flying bomb in 1944 made the most meticulous survey; in addition he rescued and preserved innumerable details of decorations, profiles, etc., thus making rebuilding feasible. Although many preliminary drawings and sketches exist, the



final drawings from which the building was erected have so far not come to light.

Perhaps one criticism may be allowed; the visitor enters the gallery as Soane meant him to, in the centre of the building, so that his glance should be at once directed to the mausoleum, but all he sees now is himself mirrored in the yellow glass door, dividing the mausoleum and its vestibule from the gallery. While one cannot really quarrel with the decision that the public should not be allowed into the mausoleum, surely some other means of segregation could be found more in keeping with the dominant theme of the building. S. L.

Lettering

The newly lettered sign on the shop of Messrs. Alfred Olby in Ashford, Kent, illustrates the contemporary use of Victorian type faces—see the REVIEW for March, 1953. The building itself dates from 1729, as was discovered when the façade was stripped of its paint to reveal the



brick. The letters, based on bracketed Egyptians and drawn out by Stanley Hickson, are in stove-enamelled steel, the large ones white against black and the rest red against grey. The director of the firm, Mr. Raymond Hacker, has followed the enlightened policy of using letter-forms on the firm's shops in Ramsgate, Margate, Folkestone and Canterbury, as well

as in Ashford, which are consistent with the style of the building and which respect the vernacular of the neighbourhood.

The Crown Jewels

As the only installation-ritual rivalling in age and splendour those of the Papacy, the Coronation of an English Sovereign occupies a unique position in a largely republican world, and any publication concerning the Regalia is certain to gain a wide circulation in Coronation year. No doubt it is awareness of this general interest which has prompted HMSO and the Ministry of Works to publish their booklet on *The Crown Jewels* (HMSO, 2s.), but they cannot be said to have risen to the splendid occasion before them. While admirable in size and format, and in its intention to illustrate and describe briefly each major item of the Jewels, the visual presentation is disappointing in the extreme, and the colours are repulsive. The scholarly air of some recent HMSO publications would be out of place here, but this relapse into an outmoded type of 'popular' presentation, quite lacking the sparkle and ingenuity of the best fourpenny illustrated weeklies, seems over-timid for home consumption, and deplorable for over-seas, where, for instance, the numerous Holy-year publications of the Vatican are more familiar and will set a higher standard of comparison.



A CROWN IN BREAD was on show at the recent Tea Centre exhibition *Royal Occasions*. It was made by J. W. Nixey, a baker of Kensington, who carries on craft bakery as a spare time hobby.

Architects in this Issue

RALPH TUBBS, architect of *Hostel for Indian Students* (see pages 21 to 27) and, of course, of the *Dome of Discovery*, was born in 1912 near the AA's one-time home at High Barnet. Trained at the AA under Howard Robertson in 'The initial period when contemporary architecture was making its impact over here.' Wrote *Living in Cities* and *The Englishman Builds*. Married and has two children. Lives in 1831 house in Kensington Gore. Says :

1457321



'Modern architecture is a 3-D diagram in which people live and involves the emotional handling of space, as Henry Moore handles sculptural forms.' Hobby: keeping the five senses alert.

Architects at Stevenage Development Corporation who designed The Twin Foxes (see pages 37 to 44) are Professor C. Holliday, L. G. Vincent and O. Carey.



CLIFFORD HOLLIDAY was a Holt Traveling Scholar and was Civic Adviser Pro-Jerusalem Society 1923-7. He began private practice in 1927 and was later Town Planning Adviser and Architect to the Palestine Government, to the Government of Ceylon and at Gibraltar. Chief Architect and Planner, Stevenage Development Corporation from 1947-51, he left to become Professor of Town and Country Planning at the University of Manchester. His chief works are in Palestine, Aberdeen and Ceylon. He is married with four sons, and his recreations are travel and archaeology.

LEONARD G. VINCENT was born in April, 1914. He specialized in housing, schools and industrial work. Travelled to South Africa,

Egypt, North Africa, Sicily, Italy, Switzerland and France. Married with a daughter and twin sons, his hobby is miniature photography. He believes in 'Never letting one's children become



architects,' and 'That a renaissance of the arts is now again taking place in Italy, which has consistently produced most of the best contemporary architecture since the war.'



OLIVER CAREY was born in 1917 and entered military service in 1940. On demobilization he worked in Hertfordshire before joining the Stevenage Development Corporation. He believes there may be something in the Englishman's semi-detached house after all, but lives in sixteenth century thatched cottage. Married with one daughter, his interests include photography, travel in search of sun and undiscovered Roman ruins, preserving an Augusta Lancia car and collecting old books on early mechanics and engineering.

INTELLIGENCE

The Housing Centre is offering prizes to the value of 22 guineas for an essay on a play area. Entries

should be of 2,000 words with lay-out plan and sketches; particulars can be obtained from The Housing Centre, 13, Suffolk Street, London, S.W.1, who must receive entries by September 1, 1953.

Sir Thomas Bennett has resigned the chairmanship of the Stevenage New Town Development Corporation. Sir Roydon Dash has been appointed new chairman for Stevenage.

A set of six colour postcards of the Crown Jewels are now on sale at the Tower of London. They have been prepared in accordance with the advice of a committee set up by the Minister of Works in May, 1952. New sets of monochrome postcards of the Tower of London, floodlit public buildings and the Royal Naval College at Greenwich are also on sale.

CORRESPONDENCE

To the Editors,

THE ARCHITECTURAL REVIEW

SIRS,—In 1797 William Porden exhibited at the Royal Academy a 'Design for a place of Public Entertainment in the style of the Mahometan architecture of Hindustan.'

If you, or any of your readers, can tell me if this drawing still exists, and if so, where, I shall be exceedingly grateful.

Yours, etc.,

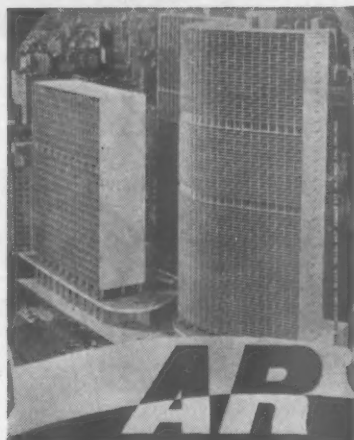
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ACKNOWLEDGMENTS

COVER, R. Landau. MARGINALIA: page 1, *The Times*; Austen Hargreaves; Read, Arphot; page 2, Lambert, Arphot. FRONTISPIECE, Drawing by D. Dewar Mills. BRAZILIAN PREVIEW, pages 10-11: 1 & 2, Foto Jerry; pages 12-13: 1-3, Flieg; page 14, *Architecture d'Aujourd'hui*. HOSTEL FOR INDIAN STUDENTS', pages 16-27: 6-9, 11-24, Galwey, Arphot; 10, Read, Arphot. FAILURE OF THE NEW TOWNS, pages 28-36: 1, 5, 21-26, drawings by Gordon Cullen; 6, Photo-flight Ltd.; 15, 27, Aerofilms Ltd.; 28, Press & Publicity Photographic Co. NEW TOWN PUBLIC HOUSE, pages 37-44: 1-3, 6-13, Galwey, Arphot; 4, 5, 14, 16-18, John R. Pantlin; 11, 15, drawings by D. Dewar Mills. CURRENT ARCHITECTURE, pages 45-48: *Housing at Sunbury-on-Thames*: Galwey, Arphot; *House in Connaught Meads*: John R. Pantlin; *Bus Garage at Garston*: John R. Pantlin; *Polytechnic Extension in Southcark*: 6, John R. Pantlin; 7, McCutcheon Studio. MISCELLANY, pages 49-54: *Exhibitions*: 1, Ivo Tomulic; 3, M. Jay; 4, A. C. Cooper; *Trim*, all photos de Wolfe, Arphot; *Criticism*: Sydney W. Newbery; *Indoor Plant*: drawing by Gordon Cullen. SKILL, pages 55-70: *Design Review*: 7, Arthur Burns; *Artificial Lighting*: 1, Council of Industrial Design; 2, 17, 19, Building Research Station; 15, Leslie Collier; 18, John Maltby; 21, *The Architect & Building News*; 22, T. Hylton Warner; 23, G. Wood; 24, M. F. Harker; 26, Galwey, Arphot; *Ceilings*: 2, William Parsonson; *Competition*: Council of Industrial Design; *Windows*: F. R. Logan; *Decoration*: Felix Fonteyn.

THE ARCHITECTURAL REVIEW



This month's cover shows a model of the latest state of the project for the Emperor hotel and apartment building in Sao Paulo, which is comparable in scope with Rockefeller Centre, New York. This impressive group of buildings is typical of a number of projects on a very large scale which Oscar Niemeyer is currently designing, and is one of the schemes discussed in *Brazilian Preview* on pp. 10-15. Completed works by Niemeyer and other Brazilian architects will be the subject of an exhibition which opens at the Building Centre on July 8.

1 Marginalia

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5 Visitors to Vicenza by Marcus Whiffen

The town of Vicenza, the show-place of Palladio's talents as architect, has always been a centre of pilgrimage for Englishmen with architectural interests, but not, unfortunately, for those with literary interests, and the written record of what English visitors thought about the town and its buildings is, as Mr. Whiffen's survey shows, erratic, devious, yet suddenly revealing. Notes and comments survive from Sir Henry Wotton, John Evelyn, William Kent before he became a Palladian, Lord Burlington, the scornful James Adam and the pedantic Barry who, with his friend J. L. Wolfe, was the last Pre-Ruskinian of note; but the most interesting are the marginal notes in two copies of Palladio's *Quattro Libri*, one set from the hand of an unknown architect of Burlingtonian convictions, the other from the hand of Inigo Jones himself, recording opinions which, if rather baffling, could at least have come from men who saw Palladio plain, and living.

11 Brazilian Preview

17 Hostel for Indian Students by H.A.N. Brockman

By the architect's own admission, the design of the hostel was con-

ditioned from the outset by the existing Adam facades in Fitzroy Square. Coping levels, facing materials, certain horizontal lines and the need for a skyline accent were all the result of this basic consideration, whose evaluation is the starting point of Mr. Brockman's analysis of the building. He finds only the last factor (the skyline) and certain details of the rear elevation not fully and logically worked out. In the interior he finds much to praise in the management and manipulation of space, colour and light, and in the planning of individual rooms. He sums up his judgment by saying that although more genuine flair is shown in the design of the interior, the exterior, by careful relationship of forms and materials, is saved from that repressive bleakness which has threatened so much architecture since the war.

21 Hostel for Indian Students Ralph Tubbs: Architect

29 Failure of the New Towns by J. M. Richards

Previous articles in the ARCHITECTURAL REVIEW have expressed disquiet about the way in which the new towns programme was being worked out in practice, and now that the betrayal of the high ideals of 1946 has become inescapably apparent, Mr. Richards has undertaken the uncomfortable task of analysing the nature and causes of this failure. *Socially*, he finds that a lopsided, politically determined building programme has resulted in lopsided and amputated suburban communities, not the balanced, viable and integrated townships which the act promised. *Economically*, the output of buildings barely justifies their apparently top-heavy administrations, while capital retrenchments and the Board of Trade stranglehold on new factory building have combined to inhibit industrial investment which might have provided the revenue necessary to finance social buildings—just as the absence of older rateable property has been a constant hindrance to new residential construction, whose economic rents are, in any case, higher than the subsidized ones of neighbouring local authorities. But most conspicuous is the failure to create new towns, the thin, monotonous low-density planning, deficient in the amenities of either town or country, hostile to urban sentiments or urban pleasures. The source of this failure is the Reith report, with its recommendation of twelve persons to the acre, a lower density even than the Garden Cities which inspired this type of planning. Though most of the new towns exceed this inhumanly low figure to a greater or less degree, the damage has been done. No amount of quibbling about design idioms will make these sprawling developments look like modern architecture, or like towns. Architects may have designed excellent individual buildings, but the profession as a whole must accept the blame for not having created a mental climate in which this anti-architectural planning, would be unthinkable.

33 Prairie Planning in the New Towns by Gordon Cullen

In pursuit of the train of thought outlined by Mr. Richards, the visual failure of the new towns to look like towns is examined in greater detail by Mr.

Cullen, who emphasizes the planners' failures to make proper and expressive use of the urban-vocabulary at their disposal, and offers, in visual form, some suggestions culled from the little town of Blanchland in Northumberland, about how things might have been better managed.

37 New Town Public House C. Holliday, L. G. Vincent and O. Carey: Architects

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The Authors *Marcus Whiffen*, born in Herefordshire, 1916. Educated at Radley and Cambridge. Became involved with architecture on the staff of the *Architect and Building News* in 1938. An Assistant Editor of THE ARCHITECTURAL REVIEW, 1946-52. Author of *Stuart and Georgian Churches outside London*, *Thomas Archer*, and *An Introduction to Elizabethan and Jacobean Architecture*; photographer, broadcaster, and contributor to the usual journals. At present is in America (which he finds wonderfully old-world) with a Smith-Mundt fellowship and as lecturer in architectural history at Massachusetts Institute of Technology. Leaving in September for Texas, to be a Guest Lecturer in University of Texas School of Architecture, 1953-4. Is married to a physiotherapist and has two sons. *H. A. N. Brockman*, born 1901. Trained at Northern and Regent St. Polytechnics. Architect in Ministry of Housing and Local Government. *John Bickerdike*, born in Lancashire, 1924. Trained at Manchester under A. Douglas Jones. In the Architectural-Physics Division of BRS from 1945 to 1952, where chief interests were lighting and colour, factories, schools and museums. RIBA Alfred Bosson Research Fellow 1951. Architectural Travel—Finland, Sweden, Denmark, Holland and Belgium. Year master at School of Architecture, Birmingham 1952. At present with Easton & Robertson. Member, RIBA Science Committee. Married, no children.

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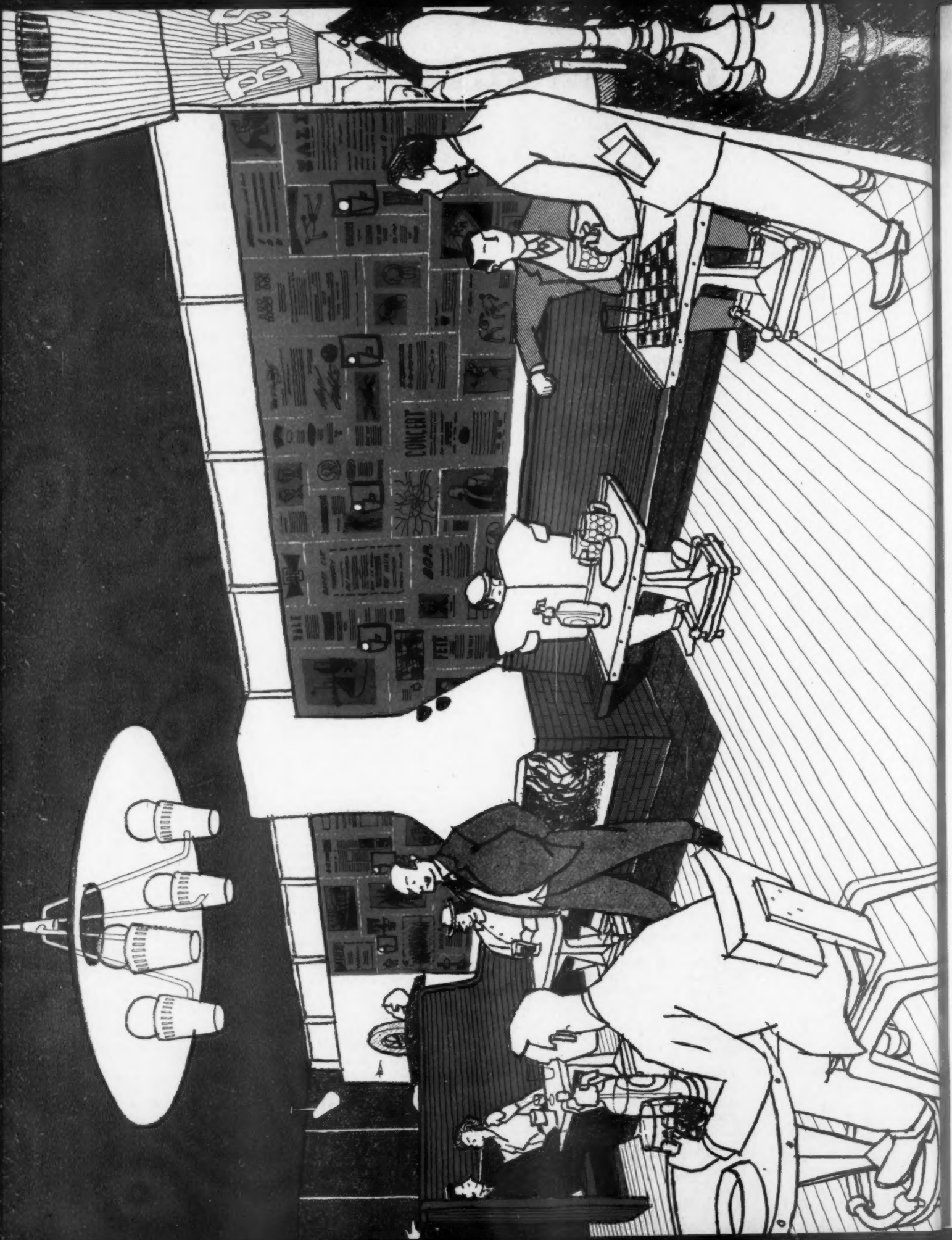
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On page 43 of this issue will be found a photograph of the public bar of the Twin Foxes at Stevenage new town, clean, new and sympathetically designed, but not yet alive. D. Dewar Mills shows in the drawing opposite the contribution which the publican, with his decorative taste, and the public, with their human presence, must make in warming such an interior into life, for though the Twin Foxes is the first pub since the last century designed for true pub atmosphere it will still need, as all pubs do, the care of a licensee who understands the intangible qualities which help to make that atmosphere.

Marcus Whiffen

VISITORS TO VICENZA

'It is delightful,' wrote Mr. Aldous Huxley in 1925, 'to read on the spot the impressions of tourists who visited a hundred years ago, in the vehicles and with the æsthetic prejudices of the period, the places which you are visiting now. The voyage ceases to be a mere tour through space; you travel through time and thought as well. They are morally wholesome reading too, these old books of travel; for they make one realise the entirely accidental character of all our tastes and our fundamental intellectual beliefs. It seems to us axiomatic, for example, that Giotto was a great artist; and yet Goethe, when he went to Assisi, did not even take the trouble to look at the frescoes in the church. For him, the only thing worth seeing at Assisi was the portico of the Roman temple. We for our part cannot get much pleasure out of Guercino; and yet Stendhal was ravished by him.'¹ Very true—only nowadays, thanks to the acceleration of the wheel of taste, it is hardly necessary to go back as much as a hundred years for the moral to be brought home to one: twenty-seven have been enough to make Mr. Huxley's own assessment, later in the same book, of Giulio Romano's paintings in the Palazzo del Tè at Mantua as 'vulgarly mediocre' sound distinctly period in our philo-Mannerist 'fifties. Nor, today, has the English tourist abroad as much time for studying on the spot the opinions of his predecessors as he had in the 'twenties. He may be well advised to postpone his journey through time and thought until his journey through space is over.

As it happens, the English visitor to Vicenza who wishes to know what his countrymen of earlier centuries thought of the place, and of Palladio's buildings in particular, could hardly do otherwise. The city has never been a resort of the literary: even some of the safe bets, as one might think them, never went there. Most of what has been written has never got into print at all, but has remained in the form of marginal jottings in

¹ *Along the Road* (Chatto and Windus).

dog-eared copies of the *Quattro Libri dell' Architettura* or notes in the tall narrow pocket-books that travelling architects used to fill in such quantity. The influence exerted upon English architecture by Palladio's designs off and on for so many years gives a special interest to such notes and jottings, even if in the long run the accessibility of those designs in engravings counted for more than direct contact with the actual buildings.

Who was the first Englishman to turn a knowledgeable eye upon Palladio's buildings? John Shute, the author of the first treatise on architecture in English, could have seen only the earliest of them, since he was sent to Italy by the Duke of Northumberland, who was executed in 1553. In any case there is nothing in the plates of *The First and Chief Groundes of Architecture* to suggest that Shute would have had any real appreciation of Palladio's classicism. For that, from an Englishman, it almost certainly had to wait until the seventeenth century.

It is probable that the distinction of being the first English admirer of Palladio belongs to Sir Henry Wotton. From Inigo Jones's notes, made in 1613-15, we know that Wotton, who had returned from his first term of office as ambassador to Venice in 1612, then possessed at least five original drawings by Palladio. It is true that Jones is thought to have been in Italy once or more during the first decade of the century, but on those occasions he had not the reason to study architecture, Palladian or otherwise, that the reversion of the post of Surveyor to the King gave him during his 1613-15 visit. Was the author of *The Elements of Architecture*—a far more remarkable work than it is usually allowed to be—responsible for Inigo Jones's Palladian studies? It is surely quite on the cards that he was—especially since upon his return to England in 1612 Wotton (in the words of the *DNB*) 'paid much court to Prince Henry' and Jones was then Prince Henry's surveyor. Unfortunately, although in the *Elements* Wotton several times cites Palladio as an authority, praises the arrangement of the stairs of the Villa Barbaro at Maser, and says that he has often 'viewed with much pleasure' the 'Atrium Græcum' of the Carità at Venice, in his letters—where one might look for comment of a less formal kind—there is only one reference to any of Palladio's buildings. Writing from Padua in October, 1618, he tells Sir Dudley Carlton how 'the Conte Paolo Porta . . . being this year prince of the Olympian Academy [at Vicenza], and withal concurring his marriage with a fair damsel of the house of Tieni, took a fancy to solemnize this concurrence with some representation on that famous theatre, built by Palladio, *all' antica*, which I suppose your Lordship hath seen,' the point of the story being that the French ambassador had made a fool of himself over a question of precedence.²

Inigo Jones's notes are in a copy of the 1601 edition of the *Quattro Libri*.³ They are numerous and

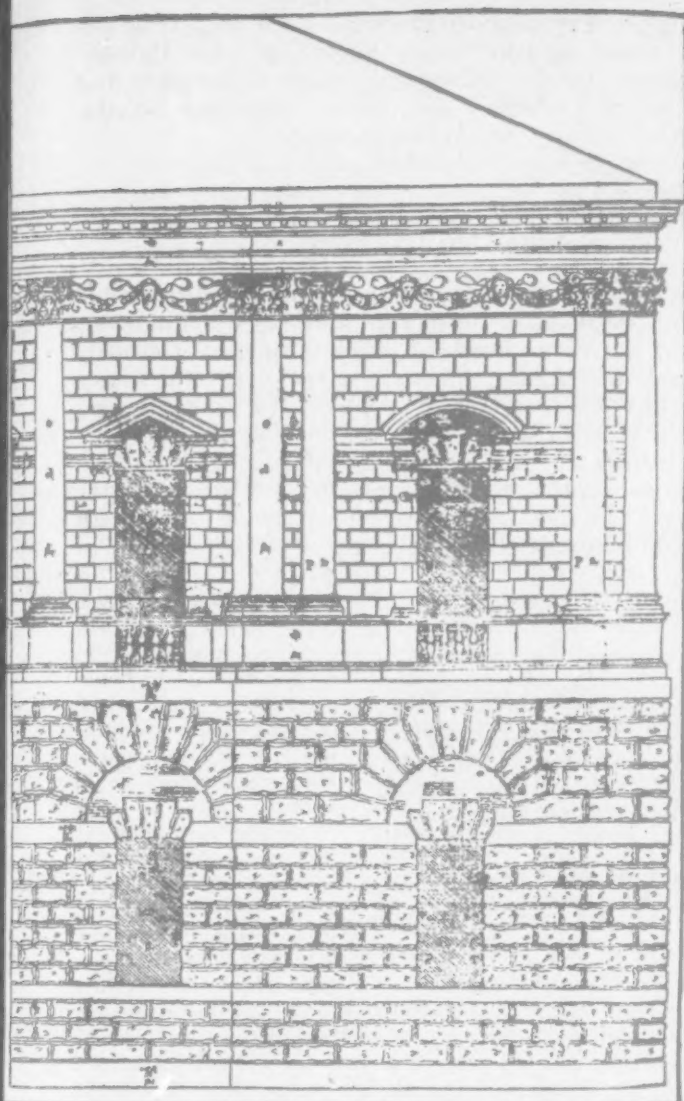
detailed, but the great majority of them are concerned with the minutiae of classical design or with technical matters; few are critical. Among the latter are some on the Villa Rotonda, which he visited on September 24, 1613. 'All this house hath no Cracke but stands fearme,' he writes, and: 'great charge hath byn spent in ye wales of ye tarrase that goes aboute wth scarpe verry ryall and good'; then less approvingly: 'the Tiling doeth not well considering ye richness of ye statures and beauty of ye rest.' Of one of the capitals on the front of the Palazzo Thiene he writes: 'this capitell was carved by Palladio his owne hands as ye masons at Vicenza told mee,' a remark which serves to remind us that at the time of Jones's visit there must have been many people at Vicenza who remembered Palladio well, since it was only thirty-three years since he had died. This is a fact which makes two of Jones's other notes on the same building, the Palazzo Thiene, all the more mysterious. Under the plan he writes: 'this Entrance is to be Imitated, and is of Julio Romano and the (*sic*) of all ye Pallas yt Palladio setes yt downe as his owne,' and in the left margin of the engraving of the front elevation on the following page: 'Scamozzi and Palmo saith that thes designes wear of Julio Romano and executed by Palladio and so yt seemes.' What is the explanation of this attribution of the design of the Palazzo Thiene, the front of which is dated 1556, to Giulio Romano, who died in 1546? The Palazzo Thiene was the first building of Palladio's final period, in which—to adapt Blomfield's well-known phrase about Hawksmoor to fit the case—he was engaged in translating contemporary Mannerism into terms of ancient Rome. Moreover, certain of the motifs of the Palazzo Thiene are in fact common to Giulio Romano's architecture.⁴ One can only suppose that the story of Giulio Romano having designed the Palazzo Thiene was fabricated to account for this; but it still seems strange that Scamozzi ('purbblind' though Inigo Jones might think him) did not know better.

In our next visit to Vicenza, we meet, instead of the architect storing up knowledge against future practice, the gentleman amateur of the arts and sciences completing his education with foreign travel. The type was to become common enough in the grand-tourists of the next century. But few of the latter had John Evelyn's wide-ranging curiosity or were half so diligent in recording their experiences. Evelyn stayed at Vicenza in March, 1646, on his way home from Venice. His travelling companions at the time were Edmund Waller the poet, Mr. Abdy,

² *The Life and Letters of Sir Henry Wotton*, edited by Logan Pearsall Smith, 1907, II, p. 157.

³ Now at Worcester College, Oxford. The extracts that follow are from Arthur Gotch's transcript in the RIBA library.

⁴ On this, and the whole question of the development of Palladio's style, see R. Wittkower, *Architectural Principles in the Age of Humanism*, 1949.



1, detail of the Palazzo Thiene. This and the following illustrations are all from Palladio's second book (1601 edition).

'a modest and learned man,' and Captain Wray, son of a prominent Parliamentarian 'and therefore by no means welcome to us.' Before the party left Vicenza Evelyn had additional reason for disliking Captain Wray. 'I would fain,' he writes, 'have visited a Palace, called the Rotunda, which was a mile out of town, belonging to Count Martio Capra; but one of our companions hastening to be gone, and little minding anything save drinking and folly, caused us to take coach sooner than we should have done.' Nevertheless, what Evelyn did see pleased him greatly. 'Vicenza is a city in the Marquisate of Treviso, yet appertaining to the Venetians, full of gentlemen and splendid palaces, to which the famous Palladio, born here, has exceedingly contributed, having been the architect,' he writes, and later: 'In a word, this sweet town has more well-built palaces than any of its dimensions in all Italy, besides a number begun and not yet finished (but of stately design) by reason of the domestic dissensions betwixt them and those of Brescia, fomented by the sage Venetians, lest by

combining, they might think of recovering their ancient liberty.' Evelyn's brief remarks on individual buildings, in their combination of historical instruction and æsthetic appreciation, accurately foreshadow the modern guide-book manner. The Basilica ('most conspicuous') 'was built in imitation of that at Padua, but of a nobler design, *à la moderne*.' The Teatro Olimpico is 'of that kind the most perfect now standing, and built by Palladio, in exact imitation of the ancient Romans, and capable of containing 5,000 spectators. The scene, which is all of stone, represents an imperial city, the order Corinthian, decorated with statues.' The Capitaneo has a '*facciata* of the Corinthian order, very noble.' In another passage it is the future creator of the Italianate gardens at Wotton and Albury who speaks:

'Count Ulmarini is more famous for his gardens, being without the walls, especially his *cedrario*, or conserve of oranges, eleven score of my paces long, set in order and ranges, making a canopy all the way by their intermixing branches for more than 200 of my single paces, and which, being full of fruit and blossoms, was a most delicious sight. In the middle of this garden, was a cupola made of wire, supported by slender pillars of brick, so closely covered with ivy, both without and within, that nothing was to be perceived but green; betwixt the arches there dangled festoons of the same. Here is likewise a most inextricable labyrinth.'

* * *

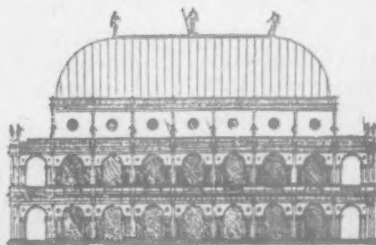
Evelyn and his like might come and go, but after Inigo Jones's departure Vicenza had to wait a hundred years before it saw the first of an Englishman whose study of Palladio was to be equally thorough. Even then, the first was only a glimpse, for in 1715 Lord Burlington merely passed through the town; it was in 1719 that he returned on that long visit which for the development of English architecture proved quite literally epoch-making. What is not generally known is that the 'Apollo of the Arts' was not only preceded at Vicenza by his 'proper priest,' William Kent, but the latter has left a record of the event. In his journal for 1714 Kent wrote:—

'Ye first of August I left this place, for Vincenza—here is a famous Ampiteater of Palladio & severall other pallaces ye plan of ye Theatre of this form [here follows a sketch] ornamented with statues & basso relievo's with fifty marble pillars—from hence ye next morning to Verona . . .'⁵

Here is additional proof, if any be needed, that without Burlington Kent would never have become a Palladian architect.

Like Inigo Jones, Burlington made his notes in a copy of the 1601 Palladio.⁶ Most of them are memoranda of the kind exemplified by this on Palazzo Chiericati:—

'Palladio in his practice of the Doric order never makes the bells in the cornice drop, but only marks them.'



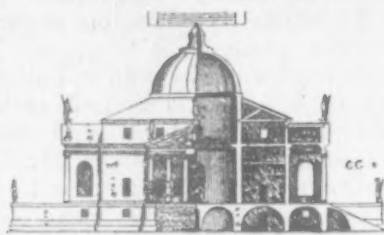
2, principal elevation, Basilica, Vicenza.

⁵ Bodleian Library, MS. Rawlinson D. 1162, f. 12. I have to thank Mr. Howard Colvin for telling me of this journal (missed by the late Margaret Jourdain) and for transcribing the entry for me.

⁶ Now at Chatsworth. Professor Rudolph Wittkower generously supplied me with the notes quoted from his own transcript. That on the Palazzo Thiene was printed by him in his article on Kent and Burlington in *The Archaeological Journal*, vol. 102, 1946.

Of the Villa Rotonda, we get the following appraisal:—

'This is the only house in Vicenza that is quite finished by Palladio, and one plainly sees, by the ornaments and exquisite taste that is in the most minute part of it, that he has executed his design without restraint. . . . The present owner of it has done it great injury by enlarging the chamber doors, and dressing them in a most extravagant manner, but those in the salon have escaped.'



3, elevation and half section, Villa Rotonda.

However, it is on the Palazzo Thiene—a building whose influence on English architecture was to be comparable to that of the Rotonda—that Burlington really lets himself go, showing a most un-Augustan enthusiasm:—

'It is certainly the most beautiful modern building in the world, there is hardly any part of Architecture that does not enter into the composition of it, and it is the best school that ever was for rusticks.'

Burlington made his most eloquent comments on Palladio's architecture in brick and stone. Was the same true of the next visitor to Vicenza of whom I have to write? Unfortunately, I cannot say. His notes, once more in a 1601 Palladio,⁷ tell us that he was in Venice on April 18, 1724 (when he noted that the upper order to the *cortile* of the Carità 'has pilasters not Ionic Columns as in ye English Edition'—i.e., Leoni's), that he saw the Villa Mocenigo at Marocco nel Trevigiano on April 22 and the Villa Foscari at Malcontenta on the following day, and that he visited nearly all the other villas illustrated in Palladio's second book; what they do not tell us is his name, and although both his handwriting and his spelling have marked idiosyncrasies my attempts to identify him have led to purely negative results.⁸ That he was an architect is clear, from certain of his remarks as much as from the comprehensiveness of his itinerary. Writing of the Palazzo Porto Barbaran he says that he has 'always observed' that balconies look heavy when they have 'projection as far as ye Corona unless a large mondilion be placed on ye top of each pillar of ye same breadth as ye pillar,' and of the Villa Rotonda he notes: 'The Gall: round hall is but 2½ wide, inconvenient, for ye rest ye hall looks airy and in my mind might have bore 6 inches more projection for ye balcony.' Some of his most interesting notes relate to the villas—he tells us that he saw Palladio's original drawing for the Villa Valmarana at Lisiera—and so would be out of place here. But his remarks that the combination of engaged and free-standing columns in the front of the Palazzo Chiericati 'gives that Clair obscure so agreeable as in ye great design may be observed' contains a significant example of the terminology of painting

⁷ In the RIBA library, into which it found its way in the nineteenth century. A somewhat optimistic cataloguer once decided that the annotations were made by Inigo Jones, and they are still attributed to him in the printed catalogue.

⁸ That is to say, I have ascertained that he was not Matthew Brettingham, Robert Morris, Lord Pembroke or Sir Thomas Robinson, among the architects, professional and amateur, who are known to have been in Italy about the right time. Of Isaac Ware's handwriting I have been unable to find a specimen for comparison.

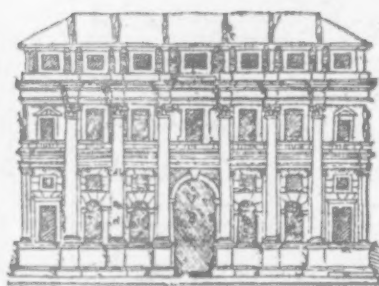
finding its way into architectural criticism, while his observation on the weak angles of the Palazzo Valmarana in the following passage anticipates the remarks of Palladio's biographer Temanza⁹ on the same subject by nearly forty years:—

'ye entrance is wonderfully high and out of proportion, but otherwise ye front appears well, nor has ye weak angles an ill effect but it is because two other houses joyn close upon them were they in open air they must appear ill.'

* * *

The reign of George III was to see English architecture pursue other ideals than those of Palladianism. And in the very month in which it opened, October, 1760, James Adam, brother of the man who more than anyone else was responsible for the change, visited Vicenza and put down in his journal¹⁰ the first completely unfavourable critique of Palladio's buildings. Although the passage is rather better known than most of our previous quotations it can scarcely be omitted from this survey. So here it is in full:—

'Monday the 6th we set forward to Vicenza, where we arrived



4, principal elevation, Palazzo Valmarana.

that night, and next morning walked out to see the different buildings of Palladio with which this city abounds, and of which I am no admirer. His private houses are ill adjusted both in their plans and elevations, as is also the Theatre Olympic, which is looked upon here as a *capo d'opera*. The seats are not convenient for the spectators: the order over them

is pitiful. In the angles of the circular part the spectators cannot see the performers, and the seats begin much too high above the stage. The scena is the most crowded and ill-adjusted thing I ever saw; and the alleys in perspective are perfectly childish. The Hotel de Ville is abominably maigre in every respect. What pleased me most of all Palladio's works, was his Villa Capra or Rotunda; it is about a mile from the town, and is agreeably situated on a pleasant coline. The plan is pretty; but the fronts, the round room within, and indeed all the particular parts of it, are but very poorly adjusted. However, there is something to make a good thing of, which is more than can be said for most of Palladio's buildings.'

There is plenty of reason for supposing that James Adam went to Vicenza determined not to be pleased. Perhaps his most perverse criticism, on the face of it, is that of the Basilica; as Mr. Lees-Milne has said, *maigre* is the last word we should be disposed to apply to this building.¹¹ What James Adam meant by the word, however, is made clear by the comment of another young architect sixty years later, George Gwilt's pupil J. L. Wolfe.¹² 'Considered as a piece of Roman architecture,' Wolfe wrote of the Basilica, 'there is not sufficient breadth or mass of light and substance to bear up the deep shadows of the openings'—and in so doing provides us with another example of the painterly northern eye being brought

⁹ Referred to by R. Wittkower, *Architectural Principles* . . . , p. 76.

¹⁰ First printed in *Library of the Fine Arts*, Vol. II, 1831, pp. 167-8, when it was thought to be Robert Adam's.

¹¹ *The Age of Adam*, 1947, p. 58.

¹² Wolfe's travel journals are in the RIBA library, as are also Charles Barry's (quoted below).

to bear on the structural classicism of the South.

In Wolfe's day there was current, it seems, a curious theory that the Basilica was a kind of essay in Gothic Revivalism on Palladio's part, and of this he writes:—

'I do not at all admire Palladio's idea which he is said to have had in designing this façade viz. that it accorded with the barbarisms of the old and partly existing fabric. Something which should really harmonize with the old building if not in itself void of beauty might be admitted though the necessity of such a measure may be questioned but here is a design which just has sufficient of the "Brutta maniera Tedesca" as the Italians call it to spoil and destroy its character as Roman Architecture of which it mostly partakes. As to that general character of middle age architecture it has no resemblance to it still less in detail. It rather exhibits the licence of the second decline of the arts than of their renaissance in which the Sala was erected.'

In other words, the Basilica is not Gothic Revival but Baroque!

Wolfe's companion at Vicenza in June, 1820, was a young architect who was destined to make more noise in the world than ever Wolfe did; his name was Charles Barry. It is possible to compare what Barry and Wolfe thought of most of Palladio's buildings in Vicenza, and a number of the villas too. Wolfe was on the whole the better critic. His remark about the Basilica not possessing 'sufficient breadth or mass of light and substance' was at least the result of a visual judgment: the reasons Barry gives for disliking the same building are based on purely doctrinaire considerations. It is, he writes:—

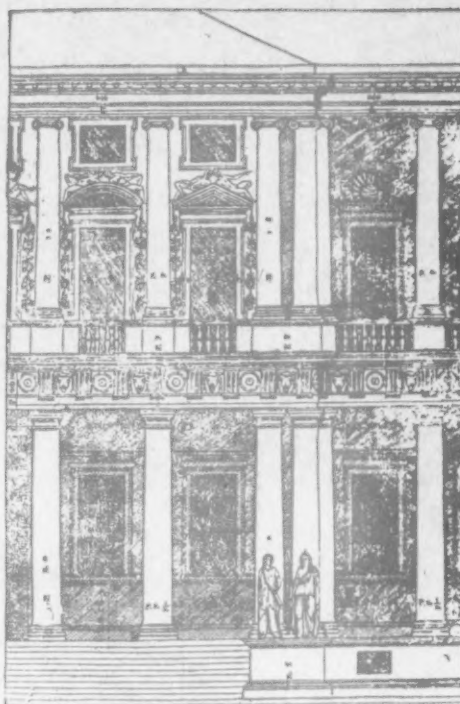
'a very vast disagreeable tho' quite an architectural pile—Its glaring defects are the $\frac{1}{2}$ columns of the two main orders, the introduction of minor orders in openings, the ill application of the same orders which have spandrills of very ugly form and are inadequately and meanly filled up with the circular openings, the breaking the entablatures of main order brought on by the superfluous half columns, which only support a statue on a pedestal of the balustrades.'

Similarly, instead of admiring the chiaroscuro of the Palazzo Chiericati like our unknown visitor of ninety-six years before, Barry finds that 'the great defects in this building are the employment of two orders of columns, the clustering of those at each end of centre, the solidity of centre part of upper order and the half columns.'

Neither Wolfe nor Barry was much impressed by the Teatro Olimpico. 'The Part appropriated to the audience has no earthly relation with the Scenic part. This complete dissimilarity destroys all beauty in the Theatre as a whole,' wrote Wolfe. 'Scamozzi's vile Proscenium and foolish perspective street inventions cannot be sufficiently execrated,' commented Barry. Both were captivated by the Rotonda, however. I have already summarized Barry's views on this building in these pages;¹³ Wolfe's comments run to nearly 1,500 words, from which only a few sentences can be quoted here:—



5, a study for the facade, Palazzo Chiericati.



6, a study for the facade, Palazzo Chiericati.

or profile. How beautiful would a flanking range of columns have looked. . . . Barry remarked that the flight of steps was too high for the building. I would not part with a single step as I think the Portico is just raised sufficiently high to give it importance. The portico derives not a little of its beauty from its undisturbed simplicity or I may say repose. The columns come out in all their beauty without being confused by a multitude of lines cutting up the back ground as is generally the case. . . '

It is unlikely that many architects of this period spent so long at Vicenza as Wolfe and Barry did, or examined Palladio's buildings so minutely. One suspects that George Ledwell Taylor was a more typical visitor. 'To Vicenza—thirty miles;' he noted in his journal on April 2, 1819, 'Took a glimpse of Palladio's palaces in passing, and bought the book.'¹⁴ Later in the nineteenth century the writings of Ruskin and Street turned the attention of English architects in North Italy to other places than Vicenza and other buildings than Palladio's, and made even a glimpse of the latter seem superfluous; that travelled eclectic Sir Thomas Jackson, for instance, apparently never left the train between Padua and Verona.¹⁵ Eventually the idea gained currency that Palladio was a second-rate architect whose fame in eighteenth-century England was due to an unlucky accident. Today, the rediscovery of the mathematical basis of Palladio's design, coinciding with Le Corbusier's Modulor, has shown that he has a firm anchorage in the main stream of European architectural development; perhaps it has also put the 'sweet city' where he worked back on the architect's map of Europe. What contemporary architects who visit Vicenza jot down about his buildings, and indeed whether they jot down anything at all, are questions that must be left to future historians of taste.

¹⁴ The Autobiography of an Octogenarian Architect, Vol. I, p. 151.

¹⁵ To judge by Recollections of Thomas Graham Jackson, edited by Basil H. Jackson, 1950.

'This beautiful little villa certainly Palladio's chef d'œuvre in this class of Architecture has the advantage of a delightful and fertile country sloping from the gentle hill on which it stands into an extensive plain bounded by the lofty mountains. . . . As to its general mass it is perhaps faultless, a happy mean between the tea-chest of a London cit and the long low stripe which many of our noble villas present. . . . The wall pierced with an arch and enclosing the flanks of each portico is blamed as an unpardonable defect and certainly so it is seen in flank

¹³ In May, 1949, The Education of an Eclectic.

PREVIEW

Affonso Reidy's design for a school to be constructed by Brazil in a new university city in Paraguay, above, a view of the model from the north-east, showing the gymnasium and auditorium beyond the sun-shaded classroom block; below, view from directly above



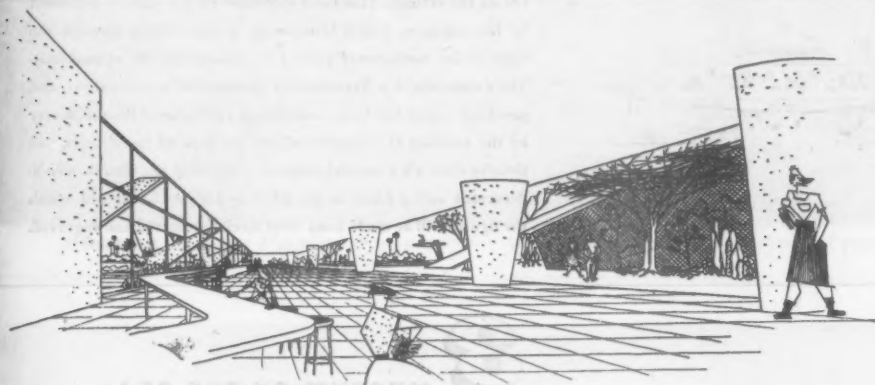
BRAZILIAN PREVIEW: 1. SCHOOL IN PARAGUAY BY AFFONSO EDUARDO REIDY



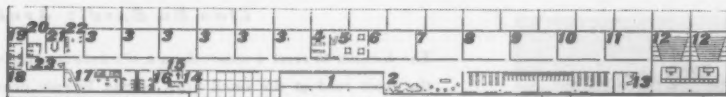
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The exhibition of Contemporary Brazilian Architecture which opens on July 8th at the Building Centre reviews the great contribution which Brazil has made to the modern idiom since the nineteen-thirties. It is a contribution which continues to flourish, both in plastic invention and in great scale, as the buildings previewed below, and Niemeyer's enormous hotel which appears on the cover of this issue, convincingly demonstrate.

BRAZILIAN PREVIEW



perspective of terrace beneath classroom block



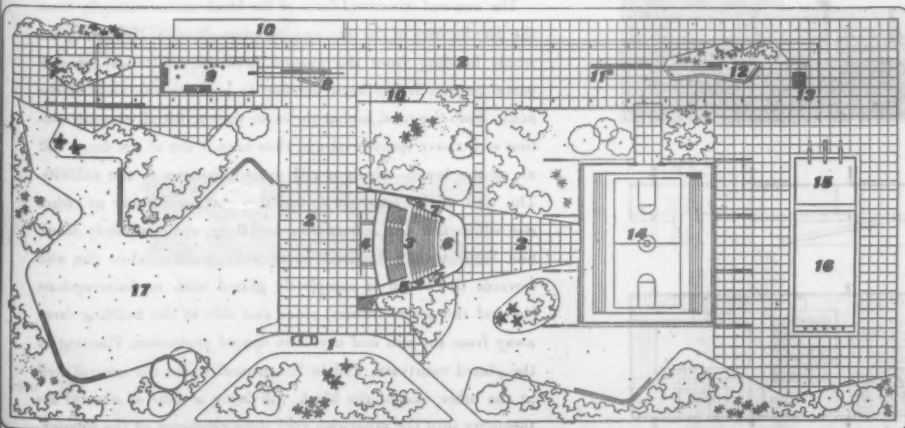
first floor plan

key: 1, ramp; 2, students' room; 3, classrooms; 4, book store; 5, reading room; 6, handicrafts; 7, studio; 8, geography and history; 9, biology; 10, physics; 11, chemistry; 12, lecture room; 13, store; 14, medical; 15, dental; 16, medical waiting; 17, secretary waiting; 18, secretary; 19, assistant principal; 20, principal; 21, boardroom; 22, teachers' room; 23, principal's waiting room; 24, terrace; 25, sculpture; 26, auditorium; 27, stairs to projection room; 28, toilets; 29, void over stage; 30, gymnasium roof.

key: 1, main entrance; 2, covered terrace; 3, auditorium; 4, cloakroom; 5, toilets; 6, stage; 7, wings; 8, reception; 9, living room; 10, stairs; 11, sculpture; 12, refreshments; 13, basement stairs; 14, gymnasium; 15, diving pool; 16, swimming pool; 17, garden.



section through auditorium and gymnasium



ground floor plan

1

SCHOOL IN PARAGUAY

Afonso Eduardo Reidy, Architect

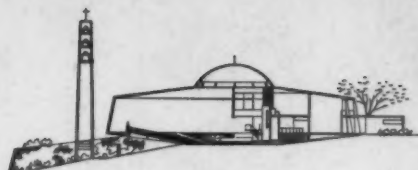
The Brazilian government has conferred on Afonso Reidy the great distinction of commissioning him to design a school which Brazil will present to the people of Paraguay, and will thus stand as a permanent cultural ambassador from one country to the other. It will function as an experimental teacher-training establishment, and will be part of the new Paraguayan University city of Yta-Pyta-Punta, standing on an elevated part of the site and commanding a wide view of the distant Chaco.

The school will occupy two of the standard plots of land on which the University will be developed, put together to make one large rectangle with a slight fall along its longer, i.e., east-west axis. The classrooms will occupy a long block running nearly the full length of the northern edge of the site, which is furthest from the main road, in order to enjoy the maximum of quiet as well as the view. This is also the side of the site which receives the full force of the sun (though it is otherwise the best from the point of view of the local micro-climate) and provision against excessive insolation takes the form of bringing forward the main concrete frames, which carry the classrooms, so that they form projecting fins, and canting them forward sufficiently to carry a horizontal sunbreaker of the marquis type above the classroom windows.

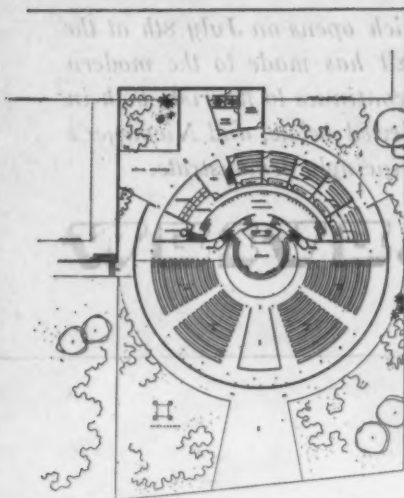
The ground floor of this block is almost completely open, providing a shaded walk between the pilotis, while a large ramp rises to the access corridor of the classrooms above. Circulation is at both floor levels, passing both over and under the bridges which connect the classroom block to the other main structures: the auditorium and the gymnasium. These, with the swimming bath, are on the side nearer the main road, since they are social facilities and access must be provided without disturbance of the school's teaching functions. They are also arranged with the auditorium at the west and the pool at the east in order to exploit the natural fall of the site in such a way as to secure maximum economy of excavation and banking up.



cross section



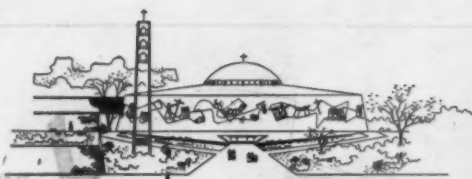
longitudinal section



plan



side elevation



main elevation

2

CHURCH AT SAO PAULO

Sergio Bernades: Architect

A competition for a new Church for the Order of St. Dominic at Sao Paulo produced this remarkable attempt to exploit modern constructional techniques to the full in the creation of a radically new, yet liturgically traditional, conception of a church. Basically the structure consists of two shallow reinforced concrete saucers joined by a peripheral wall. In plan the basic circle is almost exactly bisected by a wall, in front of which is the church proper, and behind it small chapels, vestries, the baptistery, and various rooms for other subsidiary activities.

The circular sanctuary is centrally disposed, under a shallow dome with windows in its rim, and the amphitheatre-like arrangement of the church ensures excellent audibility and a visual focus on the altar as the scene of the Mass, the fundamental rite of the church. This focal emphasis on the altar is enhanced by the entrance, which is made by a ramp rising through the floor of the cantilevered part of the church on the central axis. The campanile is a free-standing structure of steel sections, and provision which has been made for an extension of the monastery by the building of a large block at the back of the church, will thereby close off a natural cloister. Externally the church will be decorated with a frieze in low relief by Jacques Gotard, in which the figures will be made from sheet steel, hammered and engraved.

3

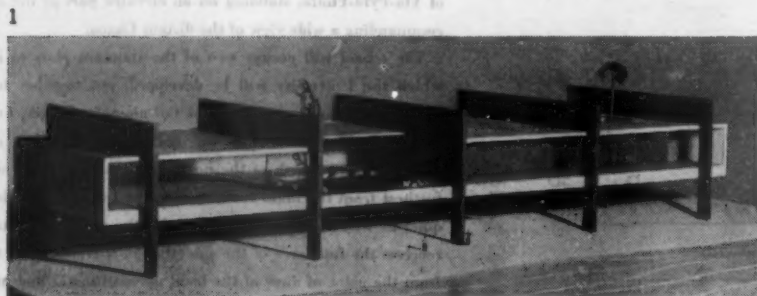
MUSEUM BY THE SEA

Lina Bo Bardi: Architect

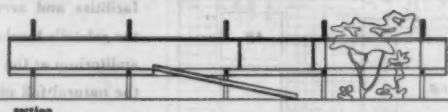
The decision to erect a museum on a site between the ocean and the coast road at the small town of Sao Vicente near Santos, instead of the Casino or other tourist attraction one would expect in such a situation, stems from a close study of local needs by the prefect of the district. The museum will have a double function; firstly to exhibit native Brazilian art, and secondly, to foster a love of the arts by providing facilities and accommodation for various interested societies.

The internal accommodation is therefore divided almost equally, in terms of floor-space, between a large gallery with glazed courtyard for open-air exhibitions, and an auditorium, and other facilities, for local organizations at the other end of the block, grouped round an open well which penetrates the building from top to bottom. Access is by means of a shallow flight of steps rising from beach-level into the gallery.

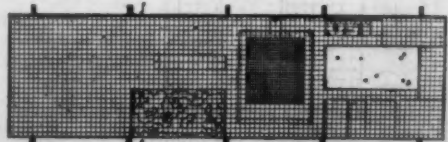
The unusual structural form of the block arises naturally from the peculiarities of the site and its micro-climate. By raising the whole building from the ground between reinforced concrete portal-frames, it has been possible to preserve the view of the ocean from the road, and at the same time to lift all accommodation well above spray-level and thus keep it out of the damp salt air of the beach, which would prove injurious to the exhibits. The wall of the museum facing the road, and those at either end which face the surrounding buildings, are completely blank and faced with a brilliant white local marble, while the side towards the ocean is completely glazed with no interruptions (beyond the portal frames) since this side of the building faces away from the sun and needs no special protection. Planting in the glazed courtyard, and in the ground under the central well at the other end of the block will bring a note of natural informality into the otherwise very pure geometry of the interior.



1, model of the museum seen as from the sea. The wall is entirely of glass. There is an unroofed area in the centre planned for open-air exhibitions. 2, the museum from the ocean road. The walls are faced with white Brazilian marble: the reinforced concrete supports are painted bright red. 3, opposite, perspective of the museum gallery looking towards the unroofed outdoor section showing the way in which the ocean and skyline are used as foils to the sculpture and painting.

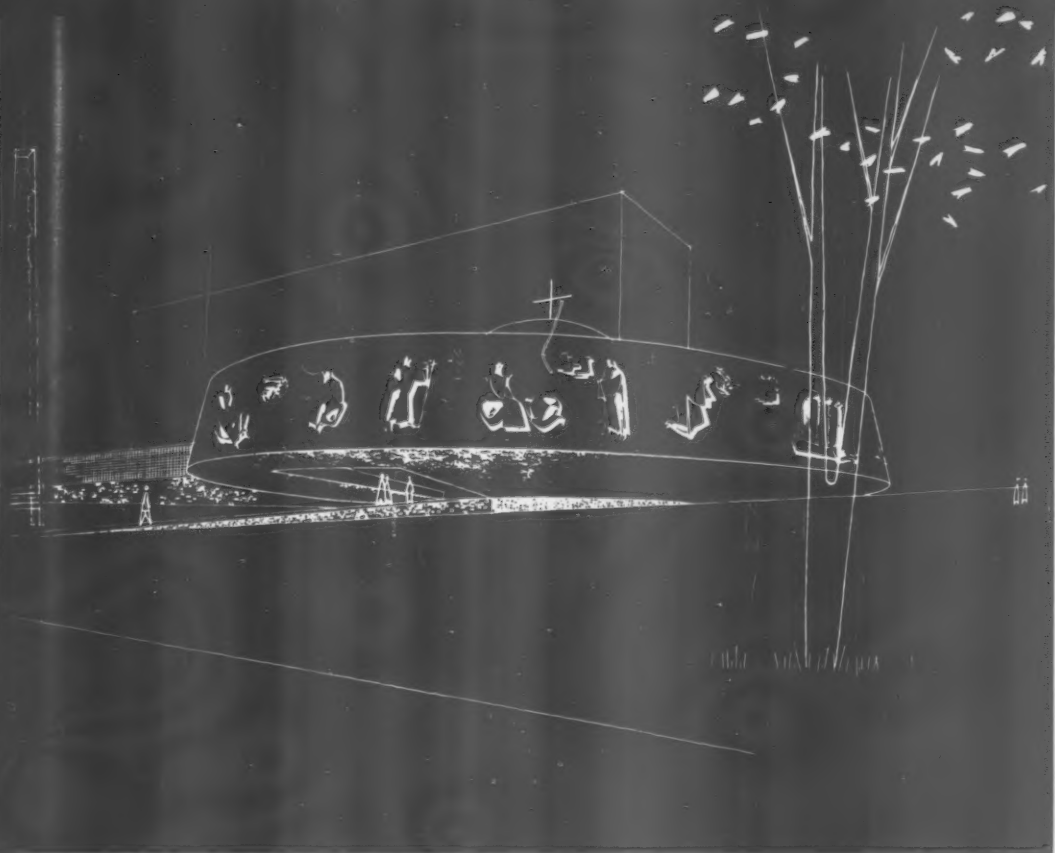


section



plan

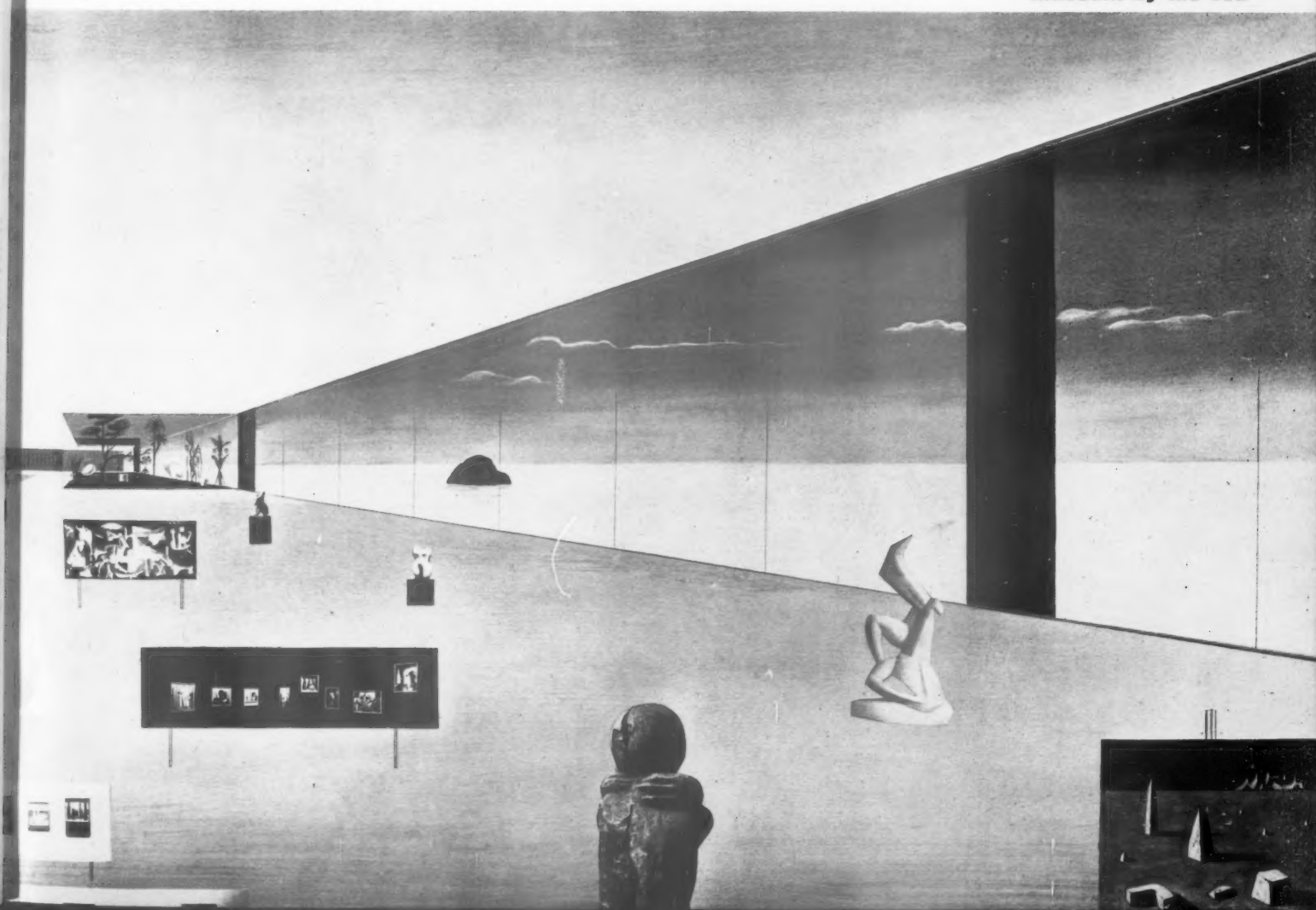
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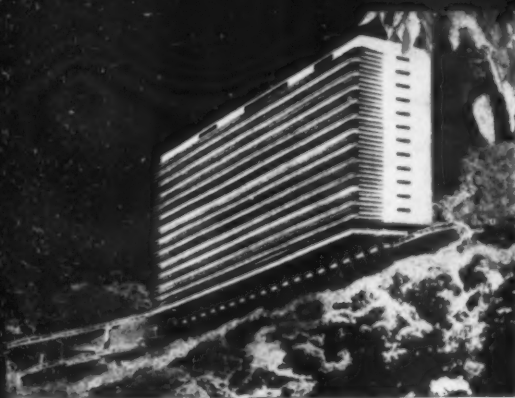


church at Sao Paulo above, perspective showing external frieze of hammered and engraved sheet steel by Jacques Gotard; right, drawing for one of the figures.

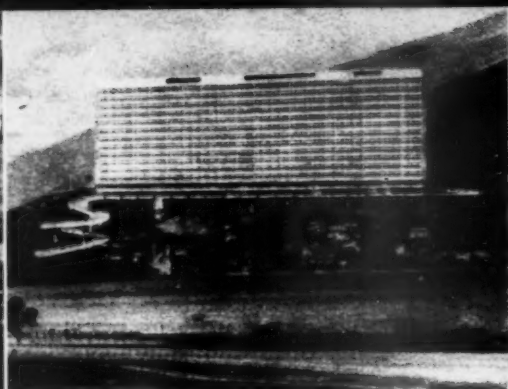
3

museum by the sea

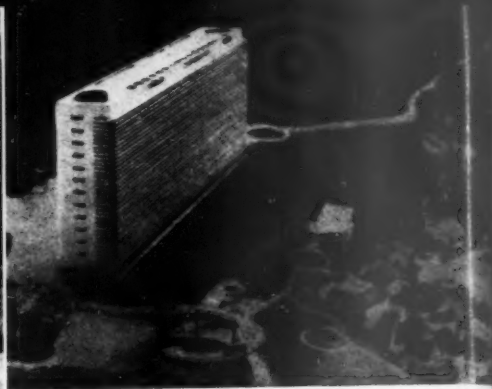




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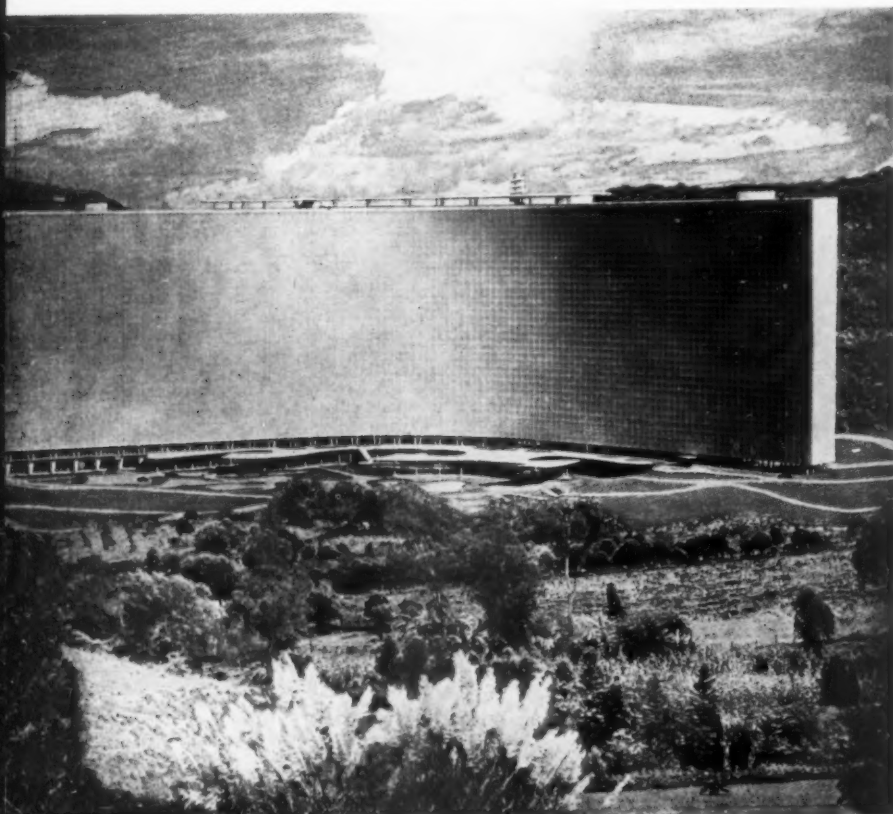


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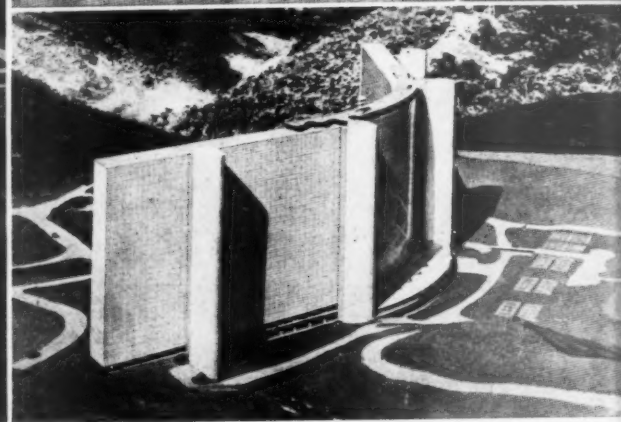
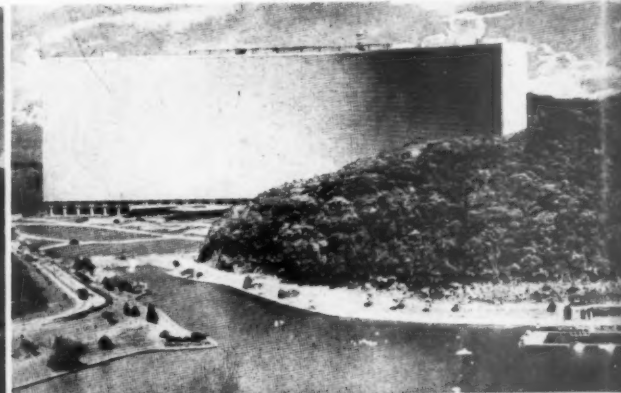


6

flats at Rio de Janeiro



7



8

9

flats at Petropolis



10



11

hotel at Sao Paulo

4

FLATS AT RIO DE JANEIRO

Oscar Niemeyer: Architect

This thirteen-storey block of luxury apartments is sited on a hill which rises so steeply that the access road running up to the main entrance has to turn round in a complete spiral loop in order to gain sufficient height within the site. Accommodation is in two types of apartments, both very generous in size, but type A having about 30 per cent more floor area than type B. Unlike

other large blocks recently projected by Oscar Niemeyer this one does not have accommodation arranged symmetrically about a central access corridor, but the large single storey flats are grouped in pairs around internal staircases, and have definite 'backs,' looking out on the wooded slopes of the hills behind, and 'fronts,' shaded by pierced horizontal sun-breakers running the whole length of the block, three to a floor. On this side are the main rooms, which command a wide panorama of the bay of Rio, seen over an artificial lake.



type A flat plan

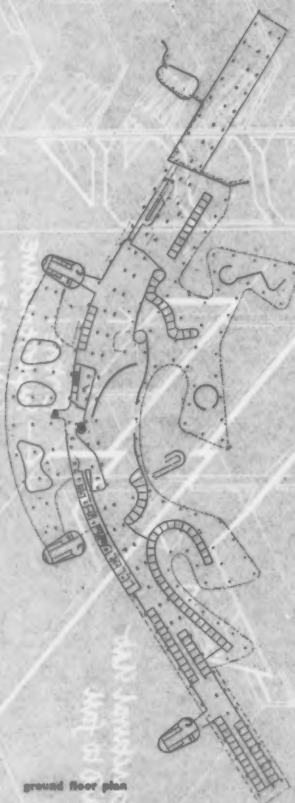
5

FLATS AT PETROPOLIS

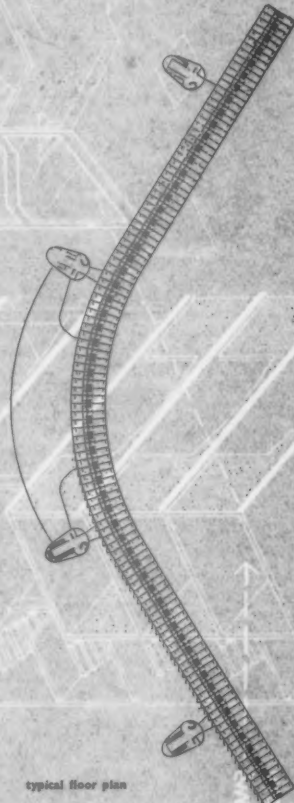
Oscar Niemeyer: Architect

This project for a residential block on an heroic scale—thirty storeys high and nearly a quarter of a mile long—is typical of the enormous size of the schemes which Brazilian finance is ready to support and which Brazilian architects must be ready to undertake. 5,700 apartments will be provided in the block, together with 200 shops and other services for what is, in fact, a small town—most of these communal facilities being grouped together under the projecting canopy between the two central stair-towers on the convex side of the building. The adoption of the slightly curved plan, in combination with careful siting and orientation, will permit a variety of views over the park-like surroundings, and allow every apartment to receive a reasonable amount of sunlight without receiving too much.

Although access is by internal corridor, served by the four stair-towers, the planning is not symmetrical. By staggering the floors on one side of the block by half a storey, it is possible to produce three different basic types of flat. Type A is a semi-duplex on two levels and lying on both sides of the corridor. Type B is a single level apartment lying on the 'better' side, and type C is a small apartment fitted between the dead-spaces between type A flats on the other side of the corridor. Adjacent pairs of type A and type B flats can be thrown together to make much larger apartments.



ground floor plan



typical floor plan

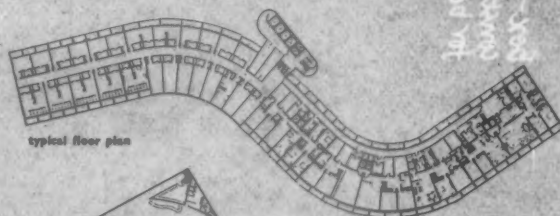
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HOTEL AT SAO PAULO

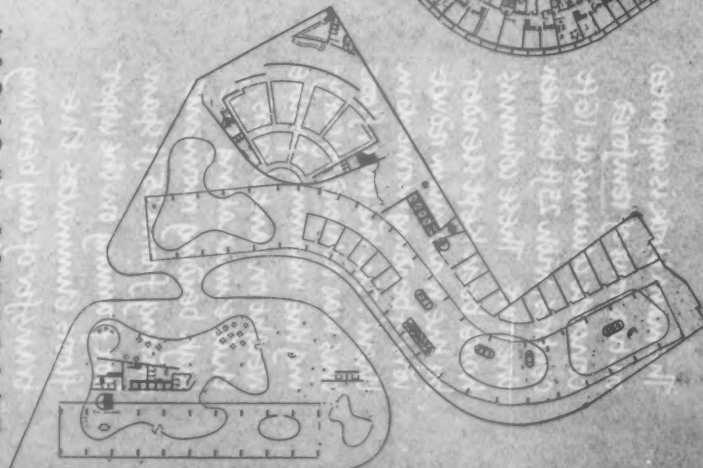
Oscar Niemeyer: Architect

Comparable in scope with the Rockefeller Center, the Emperor will be the largest building-complex in South America. The accommodation envisaged comprises hotel rooms for 2,000 persons, a large cinema, a theatre, a covered shopping concourse, underground parking for 300 cars, a swimming pool, and 600 rentable apartments in the large serpentine block at the back of the site.

Since this schedule of accommodation was first published the scheme has been revised and the detail figures may now be different. The effect of these revisions may be seen by comparing the project as it appears on these pages with the form in which it appears on the front cover of this issue—the hotel slab has been reduced to 25 storeys, and the serpentine block has been raised to 35, with consequent modifications to the layout of the lower floors. The detail arrangement of the interior has been passed over to the American firm of Holabird, Root and Burgee.



typical floor plan

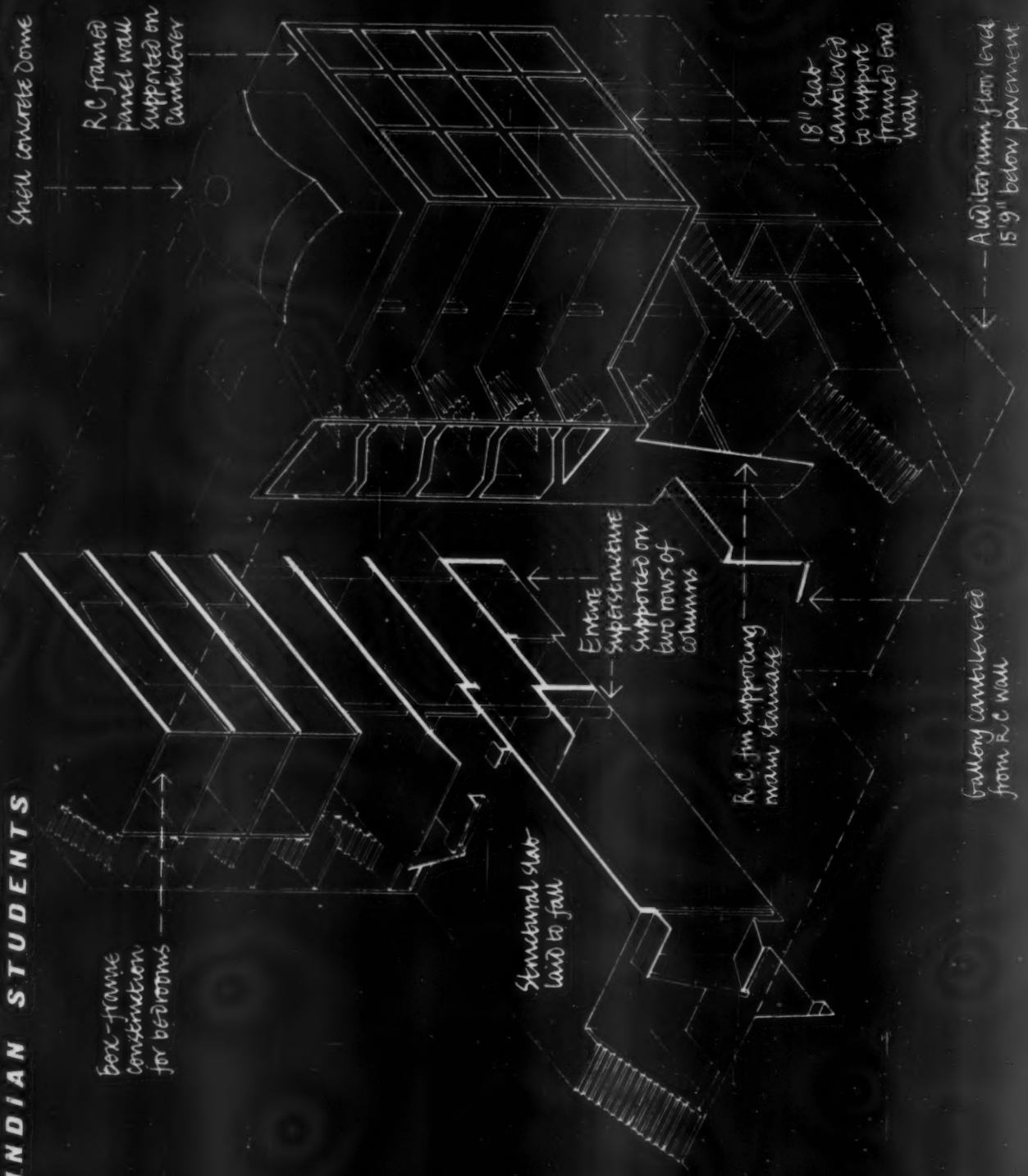


plan of upper ground floor

HOSTEL FOR INDIAN STUDENTS

The main block is supported on two rows of reinforced concrete columns at 16 ft centres, with 25 ft between the rows. These columns have been kept slender by the maximum reduction of bending moments in them. In the lower floors this was achieved by carrying the maximum possible weight on cantilevers, thus eliminating the high bending moments arising from a 25 ft span box framing on the upper floors eliminates the transfer of any bending moments from the bedroom floors. The whole of the northern end above first floor level is cantilevered over the pavement.

The flexibility of design peculiar to reinforced concrete has been fully exploited so that the space handling within the building constitutes an immediate expression of the structure.



H. A. N. Brockman

HOSTEL FOR INDIAN STUDENTS

I quote the architect: 'The first important consideration in the design of this building was to ensure that its form and scale related successfully to the existing square, two sides of which were designed by Robert Adam'.

This attitude to the problem indicates at once that the architect was alive to the possible necessity for allowing precedent to influence him in his design. It indicates also that the too dogmatic purist attitude of the thirties has now given place to a greater assurance; we no longer need to justify the new approach to design. Given such assurance, an architect can afford to take note of his surroundings and to decide to act in one of three ways: to allow the environment to remain dominant and to subdue his work to the surrounding scene; to take the middle course and to compromise in all directions; to impose his own personality in such a way that the old emphasis is transferred and the composition is redesigned to lead the eye to a new dominant.

However carefully Mr. Tubbs has tried to follow his own premise, the personality inherent in his work, allied to the size and relative importance of his building, has ensured the shift of emphasis and the consequent redesigning of the existing composition. In fact, a dominant has been introduced where none previously existed. Just because the architect has appreciated the dangers in introducing an important building to this awkward position so, in a number of ways and principally by the spacing of his fenestration, he has been led to treat it both as a foil to the two Adam façades and as the dignified introduction of two comparatively unimportant streets to the square itself.

This building provides still further evidence of rationalization in the architectural revolution. In this particular case it is achieved with sensitiveness, assurance and complete

architectural integrity and without that slithering into sentimentality which has lately characterized some of the more facile essays in design. It is clear from a study of the building in all its stages of construction, and a considered view of the æsthetic content of the design, that this is an original conception arising directly from the problem at hand and conditioned only by the thought of our own day and age.

'I do not want my house to be walled on all sides nor my windows to be shut. I want the culture of all lands to blow about my house as freely as possible; but I refuse to be blown off my feet by any of them.'

These words of Mahatma Gandhi are inscribed upon the foundation stone.

The two Adam façades which play such an important part in the setting converge upon the building from east and south. Standing in the well-treed maturity of the central garden of Fitzroy Square, one sees the building as a corner piece, one façade going south along the brick canyon of Fitzroy Street and the brief end elevation going east along Grafton Way. (It is to be hoped that the filling of the gap adjoining the Fitzroy Street façade will be held to existing domestic proportions, particularly as regards fenestration.) This key position of the building in relation to the square brought about four decisions early in the formulation of the design: (1) that the coping of the new building should be on the same level as the copings of the square; (2) that the Portland stone façade on the south side of the square should be visually continued out of the square by providing a stone-faced flank wall on the north end of the hostel; (3) that certain basic geometric lines of the square should find an echo in the geometry of the new building and (4) that as two roads lead out of the square at this corner, a certain weight was required on the skyline of the building at this point to carry the eye over the weak corner of the square.

The features resulting from these four reasonable decisions are in the main successful, but the prayer-room on the roof, with its shell concrete pendentive dome, hardly fulfils the requirements of decision (4). The linear curves where walls meet dome (and which subtly reflect the curves of certain window openings in the Adam façades) are not at present sufficiently important to justify the æsthetic claim, although the conception is thoughtfully right and time and weather may show what emphasis they can give to the relatively slight effect now seen.

The main façades nicely characterize the skeletal

structure of reinforced concrete columns surmounted by a box frame. From the square (and from Grafton Way, which will possibly be the most interesting viewpoint) the building appears as a well poised and well knit brick-faced box with its stone-faced end cantilevered over the footway. On the main front the columns rise from the basement in front of the ground-floor windows, piercing the floor slab above and reappearing behind the continuous glazing of the first storey. This is a most effective and happy way of expressing the structure in these storeys.

Above the first floor the structure becomes a box frame. The regular fenestration of the upper storeys tells of the cellular nature of the hostel bedrooms, the frame being more clearly enunciated in the fourth floor, where the windows are deeply recessed and the space in front of them used for balconies. The whole of the front facing is of brown brick with a shallow joint similar in colour. Upon the roof can be seen the irregular shapes of the freely planned warden's flat and the domed prayer-room at the northern end which surmounts the plain stone end façade. This latter façade, in ashlar with nicely patterned jointing, is punctuated only by the stone grilles of the windows lighting central corridors which serve the hostel bedrooms.

The whole of the rear façade can be seen on approaching the building from Grafton Way. In general it follows the same principles as the Fitzroy Street frontage, but here the brick enclosure of the principal staircase, canted at some 15° to the main rear wall, is seen rising to the full height of the building. A somewhat irrationally conceived balcony is built out from the staircase at fourth floor level. It takes the form of a box framed projection, the outer face finished in the same plane with the main wall of the building; the staircase wall in which it is placed is

1, perspective drawing of the Indian students' hostel.
2, the south side of Fitzroy Square of which the hostel is a continuation. The firm horizontal lines, the continuous balcony and the different treatment of the ground and upper floors are all reflected in the new building.



itself in interesting conflict with the main wall, but this somewhat arbitrary additional discord savours more of the cliché than of the epigram.

The planning of the interior makes full use of the freedom vouchsafed by the constructional methods. Upon entering the building, originality immediately proclaims itself; here, in the design of entrance hall and foyers, there is an unmistakable understanding of what is meant by that hackneyed phrase 'interpenetration of space.' Space is handled almost as though it were subject to the same laws as are solids, so surely are the two combined in this remarkable composition. Here may be sensed the axes which control the composition of the plan. The main axis lies from front to rear, centred upon the main entrance and passing through the entrance lounge to the rear void of the staircase; a second is struck at right angles from the entrance lounge through the dining-room; a third (vertical) axis strikes downward from a point in space above the auditorium foyer; a fourth controls the planning of the lower foyer and auditorium.

The planning of the circulation spaces is worked out around these axes and on a number of planes, upon the first of which is placed the entrance lounge. From this point the enclosing walls of the entrance foyer diminish in false perspective to the rear void above the staircase. This gives an astonishing feeling of depth: an effect which, as far as I know, has not been previously achieved in contemporary design on such a scale and in such a comparatively small compass. One can, however, see this well-known Baroque device as used by Wren in the diminutive entry from the ambulatory to the Minor Canons' Vestry in St. Paul's Cathedral. It is the intention of the architect that the rear wall of the foyer, which provides the culminating vertical plane in this spatial composition, shall have, placed high upon it, a piece of Indian sculpture. The lighting of this wall, both natural and artificial, is so designed as to demand this final and important focus.

The wide staircase descends to the auditorium foyer, suspending its downward flow by a landing space at the gallery foyer level. From the bottom of the staircase the backward view is carried up through the entrance lounge to the trees and sky above Fitzroy Square; directly upwards from this lowest landing rises dramatically the slender and ever broadening fin which supports from the foundations the whole weight of the main staircase-enclosing wall above.

The auditorium, lit upon the garden flank by a continuous range of high windows, sloping inwards towards the top, is treated boldly and with a restraint in which detail (both of structure and decoration) is consequently of importance. The three structural columns on the window side of the room are coffin-shaped (on plan) and finished smooth with a dark paint. The balcony, which ranges on the opposite side of the auditorium and along the north wall, is cantilevered from corresponding circular columns painted white and is fronted with a bronze grille reminiscent of wicker-work.

In the upper floors planning skill is equally well exemplified, both in the comparative freedom of the warden's flat and in the more utilitarian planning of hostel bedrooms, study, library and reading rooms.

The living-room of the warden's flat is another example of extremely carefully thought out space planning, the central hexagon being felt rather than immediately seen. It is a room in which arrangement and choice of furniture should be dictated by shape and atmosphere.

But here again a cliché has crept in, certainly with greater justification than can be claimed for the shape of the staircase balcony already referred to, yet (internally) its superficiality jars. The vertical planes of the whole range of windows on the eastern wall of the warden's quarters (bedrooms, bathroom and kitchen) are canted in tune with the main staircase wall, with the result that all the internal sills are triangular in plan—surely an annoying shape from a practical point of view. Externally, however, it must be admitted that the elevation of the topmost storey gains in effect (from one viewpoint only) by the deep cheeks of these projecting windows.

It may be thought that too much importance is here given to these minor questions of architectural taste, although it is to some extent true to say that (for the future) these are the very things which fasten a building to its time, just as depressed pregnant columns and flat byzantine domelets shriek of the nineties. This building, however, does not need period quips to interfere with its excellence.

The planning of the bedroom floors is as straightforward as necessity demands, but especially noteworthy even here is the way in which space has been successfully divided in the individual rooms. Wardrobe and wash-basin are both confined to the entry end of the room and are screened from the main space by slight projections of partition walls; the remaining space makes an extremely well-proportioned bedroom and impresses one with the care for detail which informs the whole of the planning and finishes throughout the building.

It can reasonably be said that, in the case of this building, a greater flair is shown in the treatment of interiors than in the exterior elevations. This, if it is true (and I believe it to be), is the reflection of a common fault in the present phase of contemporary design: more attention is paid to the use and enclosure of space than to the external expression of it. It is a bias which must be rectified if architecture is to maintain its balance. It is also true to say that in no previous age has the handling of external form been so restricted by the need for economy—resulting, for instance, in unbroken and comparatively unrelieved façades, particularly in small buildings, and the elimination of all surplus external walling. This restriction has brought about a valuable discipline, but this is now becoming dangerously near repression. Form is at a discount when form is, as it always has been, one of the essentials in the continual process of building up and consolidating an ever advancing art.

Even so, in the Indian Students' Hostel this potential fault has been largely avoided by the exercise of care and logic in the relationship of voids to solids, in the successful use of colour and materials, in the modelling allowed by the fusion of exterior and interior in the lower storeys and in the sculpting of the skyline.



3, Mallon's view of Fitzroy Square (early 19th century) showing the upper end of Fitzroy Street. 4, Mallon's view on which the architect superimposed a drawing of his intended building and 5, a photograph



taken from the same position with the hostel completed, showing how the domed prayer hall on the roof interrupts the flow of the street facades to a more marked degree than was envisaged in drawing 4.



HOSTEL

FOR INDIAN STUDENTS

RALPH TUBBS: ARCHITECT

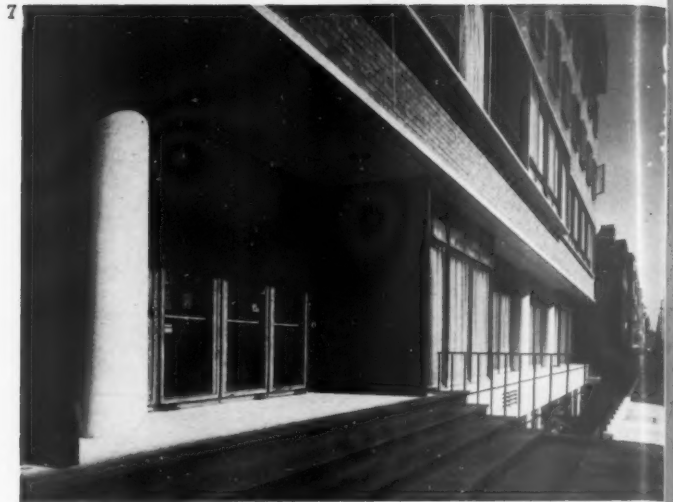
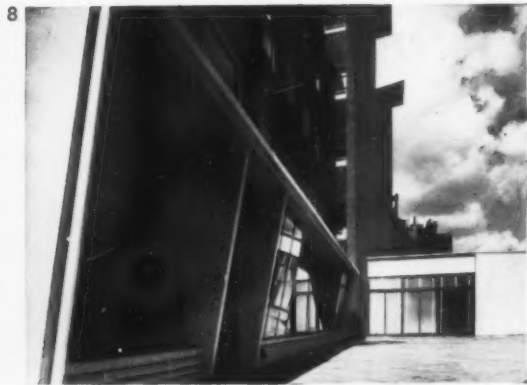
The purpose of this hostel is to provide both a place where young Indian students can find a temporary home, prior to obtaining a more permanent one, and a centre for advice on their first coming to this country. A building was needed which would give facilities for the students to develop their own social life as well as entertain their English friends. Provision has therefore been made for plays, concerts, lectures, reading, discussion groups and exhibitions of Indian painting and sculpture. Accommodation consists of a hostel with 55 single bedrooms each with a wash basin; a main lounge; ladies' lounge; dining room for 100 with necessary kitchen services; an assembly hall to seat 324 with stage, green room, dressing rooms, etc., and facilities for showing films; library; discussion rooms; games room for billiards and table tennis; garden room; roof sun terrace; reception office; general and accountants' office; warden's office; private flat for the warden and a prayer room.

The main block is supported on two rows of reinforced concrete columns, with bay centres of 16 ft. 0 in. and a span between the columns of 25 ft. 0 in. The columns have been kept slender by the maximum reduction of bending moment. In the lower floors this has been achieved by carrying as much weight as possible on cantilevers, so eliminating the high bending moment which would otherwise arise from the wide span of 25 ft. 0 in. The use of the box frame above first-floor level entirely prevents any bending moment being transferred from the bedroom floors. The box frame also permits shallow tie-beams across internal corridors, so making possible a continuous pipe duct running the length of the building at each floor level above the corridors, concealing the many services. The whole of the north end of the building above first-floor level is cantilevered over the pavement; this is made possible by use of a floor slab 18 in. thick over the entrance hall. Permanent ventilation is provided for habitable rooms by means of a slot under the window sills, thus avoiding the necessity for air bricks. Because of the need for strict economy central heating is mainly from radiators. But in cases where these would have been unsightly other means have been used: for example, the dining room and prayer room floors are panel heated and the low window sills of the first-floor public rooms are provided with radiant heaters. A combined inlet and extract ventilation plant provides ventilation to the hall, air being warmed before entry.

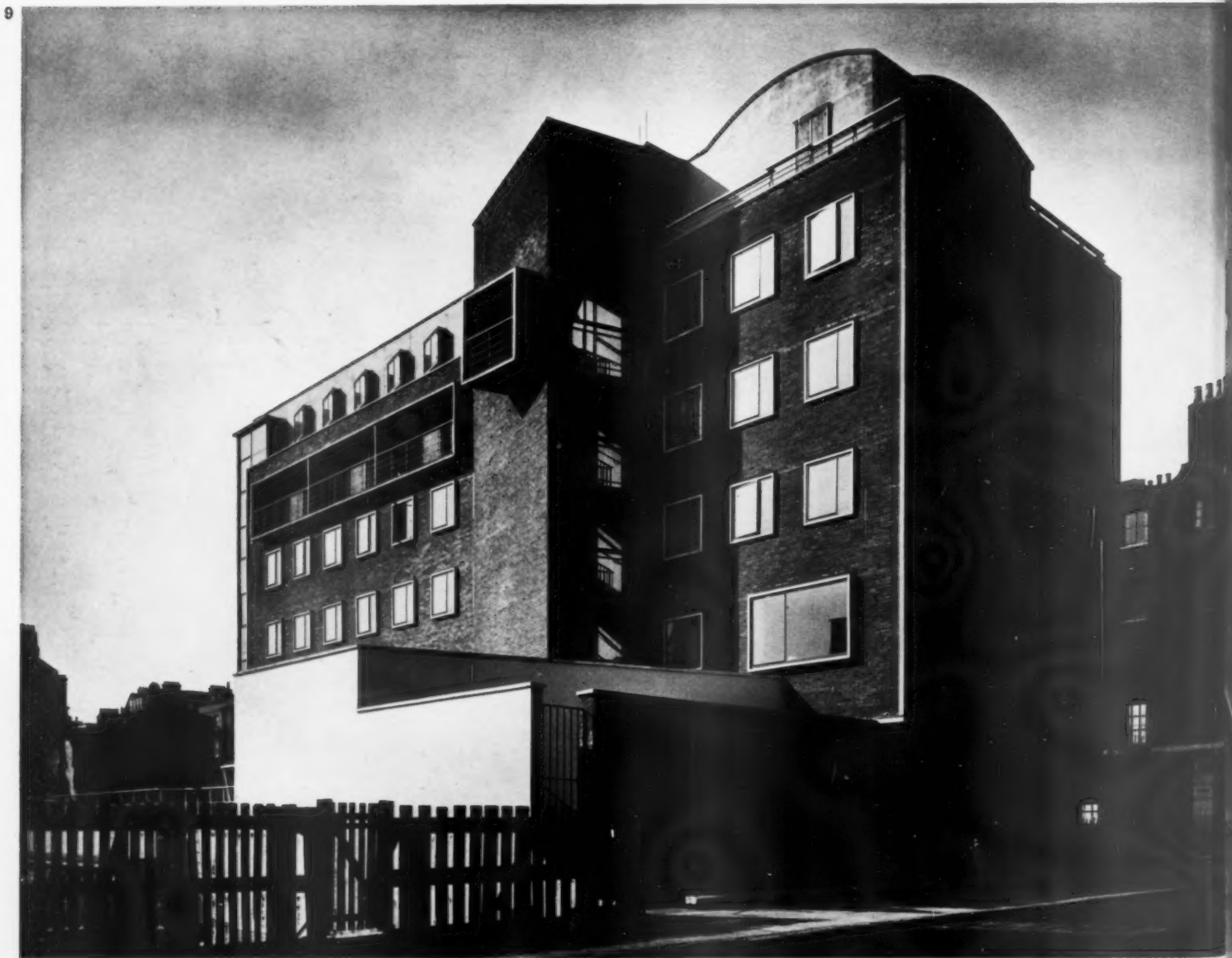


6. general view of the hostel looking east from Fitzroy Square. Brick infilling is brown with a shallow joint similar in colour. On the roof are the caretaker's flat and domed prayer room.

HOSTEL FOR INDIAN STUDENTS



7, the main entrance looking south-east. 8, detail of the rear elevation seen from the roof terrace over the basement auditorium. On the left is part of the outdoor dining terrace which has two glazed screens beyond the further fins supporting the canopy and sloping to align with them. 9, general view of rear elevation looking south. The end façade is faced with ashlar punctuated by precast stone grilles over windows lighting central corridors servicing the hostel bedrooms.



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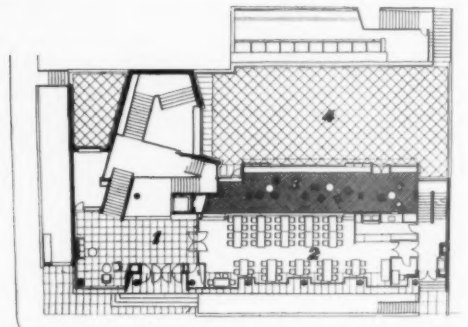
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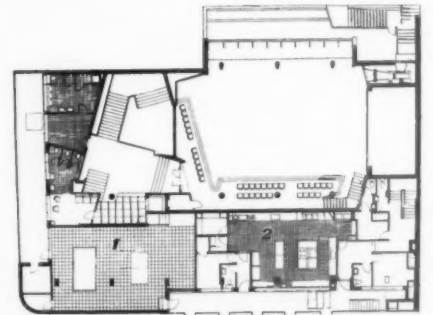
10, the hostel seen from the gardens of Fitzroy Square. 11, the rear elevation seen from Hertford Place showing the basement stairhall on the right with the main staircase rising above it.

11

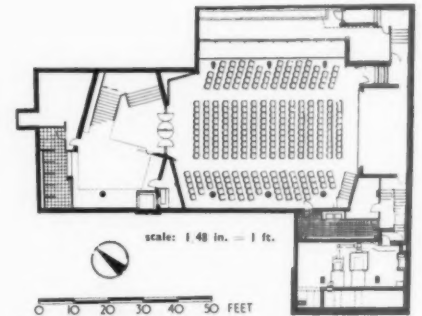




ground floor plan: 1, entrance lounge. 2, dining room. 3, dining terrace. 4, roof terrace.

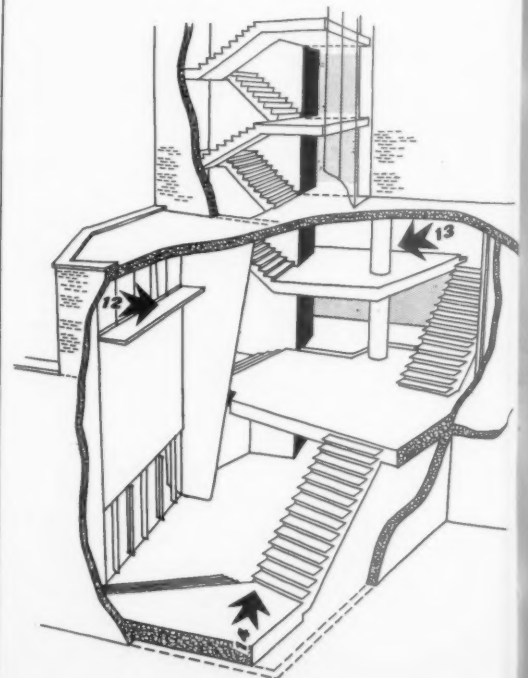


basement plan: auditorium gallery level.



scale: 1/48 in. = 1 ft.

basement plan: auditorium floor level.

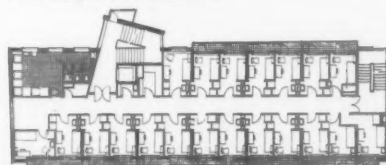


HOSTEL FOR INDIAN STUDENTS

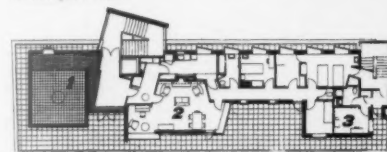
first floor plan: 1, warden. 2, offices. 3, students' council. 4, small social room. 5, library. 6, television and discussion. 7, common-room.



fourth floor plan: students' bedrooms.



fifth floor plan: 1, prayer room. 2, living room of warden's flat. 3, housekeeper's room.



14

12, stairs leading from the upper basement to the main entrance hall. Fin and columns are painted white, foyer wall in bronze green, other walls and ceilings are white. Terrazzo treads and landings are white, risers grey. Balustrading is light blue-grey, the hand rail polished hardwood. 13, staircase leading from the main entrance hall to the upper floors; beyond the pillar is a view down through upper and lower basement halls.

The lift door is dark grey and the wall is light grey. 14, looking from the lower basement to the staircase shown in 13, which leads to the floors above ground.

On the facing page is a cut away view showing the progress of the main staircase from the sub-basement to the entrance hall and the start of the staircase to the upper floors. The numbered arrows give the viewpoints of illustrations 12, 13 and 14 on these pages.





HOSTEL FOR INDIAN STUDENTS



15, main entrance hall, with entrance doors on right, looking towards the dining room. 16, the library. Walls are light grey; the recess on the left is bronze green; columns and ceiling are white; carpet is fawn; lampshades are white. 17 and 18, two views of the common room. Interior finishes are

similar to those in the library except the carpet is olive. 19, the upper level coffee terrace in the dining room. 20, typical students' bedroom; finishes are pale grey. 21, the fifth floor warden's flat looking south-east. 22, the dome of the fifth floor prayer hall seen from the roof of the warden's flat.

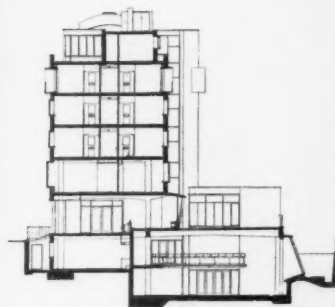




23



24



section through auditorium, dining room and bedrooms.

23 and 24, two views of the basement auditorium. The patterned wallpaper is yellow and off-white; ceiling and underside of balcony are white; round columns are painted white, rectangular columns

chestnut brown; the balustrading mesh is red, the handrail grey; the panel above the entrance doors is pale blue; proscenium curtains are red; the floor is of African pearwood squares.



 This citizen drawing out once more the traditional English design for urbane living, upon the empty pavement of an imaginary new town, is Gordon Cullen's way of symbolizing the problem posed by the low density planning policy on which the new towns are based. This is but one problem of the many which are besetting the new towns and are discussed by J. M. Richards in the article which follows. It is then considered by itself in more detail by Gordon Cullen in an article which begins on p. 33.

J. M. Richards

FAILURE OF THE NEW TOWNS

It is a sad moment to have reached when we have to acknowledge the failure of the new towns. But someone must candidly do so, and the politicians are prevented by feelings of loyalty to the administrations that have initiated and maintained them, and the architects and planners by loyalty to an idea which they do not want to appear to turn their backs on however weakly it is being implemented in post-war Britain.

The fact that must nevertheless be faced is that the new towns have failed on three separate counts: socially, economically and architecturally. Let us discuss these in that order, taking the towns round London as a basis because the others—the new towns in the north-east and in Scotland—being predominantly miners' towns, depend on the special circumstances of the coal industry and are therefore not typical.

The new towns round London—Stevenage, Harlow, Hemel Hempstead, Crawley, Hatfield and the rest—were planned to relieve London's overcrowding without producing an undesirable further spread of the built-up area. They were one of the recommendations in the Abercrombie-Forshaw County of London Plan, and the New Towns Act was passed in 1946 to bring them into being. Though dependent on the mother-city for certain major services, they were in every other respect to be wholly self-contained, equipped with their own industries and designed to support a balanced population. They were specifically not dormitory towns. ✓

Although they originated in the need to relieve pressure on London, the development and progress of the new towns was made the responsibility not of the London County Council but of the Government, and this has produced the awkward situation that the LCC's own town planning efforts, especially its policy of zoning for population-density and providing new open spaces in overcrowded areas, are dependant for their success on developments quite outside the Council's own control. The LCC is now facing

the consequences of this anomaly. The danger which threatens the County of London development plan, if the new towns do not progress faster, was discussed in an article in the REVIEW last year. For the purpose of the present article it is enough to note it and pass on to the various anomalies in the new towns themselves.

social

The idea was that the new towns should be complete communities, which was the only acceptable idea if they were to be a successful experiment socially. The Development Corporations set up under the New Towns Act were to begin by preparing master-plans providing for all the needs of such a community: housing, shops, schools, industries, hospitals, open spaces and cultural and recreational facilities. And so they did; but as soon as the process of putting these plans into practice began, expediency drove this ideal further and further into the background. The national economic situation restricted the amount of capital that could be allocated to the new towns and therefore the amount of building that could be started, and so great was the pressure of the housing shortage—so anxious were successive Governments to earn credit with the electorate by improving their housing figures—that building in the new towns became synonymous with *house-building*, till now, six years after the first of them was begun, the new towns have the aspect of groups of housing estates separated by empty spaces destined one day to be filled in with those public buildings that alone could give them coherence and a sense of community. The recent construction of a few terraces of shops in neighbourhood centres¹ is not nearly enough to invalidate this criticism.

This concentration on house-building, to which the Government and the new town Development Corporations have been led by putting political expediency before long-term planning, is already having the results that were to be expected. Most of the new towns are in danger of becoming mere dormitory suburbs. It is significant that the new town of Bracknell, under the powers to sell property that were given to the Development Corporations when the present Government came to power, is offering freehold building sites for sale and advertising them as 'only 28 miles from the centre of London.' This is a tendency which, if it is allowed to grow, will endanger the whole purpose of the new towns programme: to check the formless spread of the population that depends on London for its livelihood.

Attempts have been made, it is true, to push forward with the building of factories. The Development Corporations in fact have worked manfully to this end, not always with the Government support that the vital importance of the new towns programme entitles them to. The Government, indeed, seems to have been divided within itself. The efforts of the Ministry of Housing and Local Government to persuade industries to settle in the new towns have been frustrated by the policy of the Board of Trade, based once more, one suspects, on political expediency, to persuade them to go to South Wales or others of the

old-time 'distressed areas,' where the balance of industry and the possibility of unemployment are live political issues. And the Board of Trade is all-powerful, because it is responsible for granting industrial development certificates and on its approval depends the granting of factory building licences.

Notwithstanding this handicap, some of the new towns have made reasonably good progress in factory building² even if it has not kept pace with house building to a sufficient extent to provide well-balanced local employment. But had it done so to the full the social problem would still not have been solved. A great deal more than employment is needed to make a community, and the inhabitants of the new towns are not going to be made content with inadequate provision for a full life by evidence shown on the master plan that a full life is to be provided for their grandchildren. They want it now, and if it is not obtainable on the spot, they will go in search of it, on shopping expeditions to the nearest centre where better facilities are available, on regular trips away from the town to the cinema, the hospital, the sports stadium and the club, resulting in the establishment of habits which will not easily be eradicated when the new towns' own entertainment and shopping facilities begin to grow. They will find themselves with everything but a soul of their own. And there is little chance of their acquiring a soul while all they offer to the eye is acre upon acre of small houses with no visible centre or sense of urban character.

It might have been wiser, when it became apparent that shortage of capital was going to slow down the construction of the new towns to such an extent, to have concentrated all the available resources on one of them, enabling it to grow up fully equipped and within a reasonable time. The question of time is important for psychological as well as for other reasons. Only if a new town can be seen visibly growing to completeness can it have its intended impact as a positive contribution to the problem set by the formless expansion of cities. Only thus, too, can it quickly acquire an identity of its own, on which its success as a community depends.

economic

This necessity was understood when the new towns were first conceived. Their construction was to be a single planned operation, not the process of accretion by which towns have grown in the past. It was for this reason that special machinery was set up, consisting of a Development Corporation and an elaborate

¹ Only at Harlow is the first completed neighbourhood fairly fully equipped with community buildings, including community centre, cinema, health centre, church, shopping centre and sports ground.

² The most successful in building factories has been Crawley which (March, 1958) has completed 16 and has a further 12 under construction, providing employment for 6,230 people. This is estimated to be half the industrial employment needed for the eventual population of 50,000, provided, of course, all factory workers live in the town. The present population is 15,000, so Crawley's factory building has more than kept pace with housing. Harlow, too, has done reasonably well; other new towns much less so. Hatfield has not had this problem, because of the large aircraft factory that existed there at the start.

hierarchy of technical and managerial officials, but the question has to be asked, now that the operation has become drawn out to such a length that it differs but little in tempo from the building of the ordinary housing estate, whether the headquarters staff is not, in present circumstances, top-heavy in relation to the scope of operations in the field.

Let not this lead to the suggestion that full architectural control should be dispensed with. The great asset of the new towns, as against the average extension of an old town, is that they are planned beforehand as an architectural whole, and, what is equally important, the architect remains in control while the work goes forward. To revert to a system of *laissez-faire* would be a step back, yet the new towns' overhead costs, represented by the Development Corporations and their staffs, of which the architects form but a part—to say nothing of the staff in Whitehall assigned to overseeing them—must contribute largely to the uncomfortable economic situation in which the new towns find themselves.

This discrepancy between the scale of the new towns organization and their actual achievements is brought home to anyone who motors through the Home Counties. He will be astonished at the extent of the spreading housing estates that have been built there since the war by local authorities, chief among which is the LCC. While we have been complaining of the failure of the official new towns to get off to a brisk enough start, the LCC has been building with impressive rapidity, what in size at least can only be described as new towns. Their rate of growth is to be attributed no doubt to the long experience of the LCC housing staff and their ready access, the result of years of planning, to supplies of labour and building materials. The new town officials would deny the validity of any claim the LCC might make to be successful rivals by describing their efforts as mere housing estates not requiring the long drawn out preparatory work involved in the planning of self-contained towns, and would draw attention to the rule-of-thumb layout and uninspired architecture that make schemes like the LCC's out-county estates at Oxhey, Hainault and elsewhere, and those of other authorities like Addington, near Croydon, a dismal reminder of the dreary land-wasting housing efforts of the inter-war years which we thought, in the first flush of post-war enthusiasm, we had left behind us for good. But judging by results so far achieved, most of the new towns themselves are little more than housing estates, and we may well ask whether the relatively small differences, the improvement represented by more thoughtful layouts and more up-to-date architectural taste, justifies their claim to belong to an altogether different order of public enterprise.

The unwieldy nature of the new towns organization is not their only financial handicap. Government restrictions on capital investment, besides being largely responsible for the failure of public buildings to keep pace with house building, can be blamed also for the inadequacy of the school building programme, which, because of their high child population, is particularly serious for the new towns. This situation has of course been aggravated by the rise in building costs, which has also made public buildings more difficult to finance and has discouraged private commercial and

industrial building, on the revenue from which the Corporations might have expected to finance the community buildings they require.

Shortage of capital and high building costs affect old towns as well as new, but the new towns are specially vulnerable financially because they have no source of revenue except their rents. It was presumably not foreseen, when the new towns were founded, at what a disadvantage they would be placed, in comparison with established towns, when it came to fixing the rents to be charged for houses and flats. But lately this has become their biggest financial problem, as the attention given it in their last annual reports indicates. Unlike local authorities, the new town Corporations have no revenue from rates levied on old houses to subsidize the rents of the new ones. The result is that they are already having to charge a higher rent for the same type of house.

architectural

So much for the social and financial disappointments that have accompanied the first stages of the new towns programme in spite of its success in furnishing the country with new buildings in considerable quantity.³ But the greatest disappointment, when we come to compare expectation with achievement, is on the architectural side. The new towns constitute, collectively, the biggest building enterprise of the post-war era; yet, looking at them, one might almost imagine oneself back, not only in the era before the war but in that of the nineteen-twenties, when the little red-roofed villa scattered over mile upon mile of countryside was the only kind of housing thought of. Those were the days when it was justly said that the Englishman had forgotten how to build towns; he built garden suburbs instead. Today he goes on building suburbs which he dignifies by the name of towns.

For the fault is not only that circumstances have prevented the building up of new town centres so as to give coherence to the whole. Considered as the residential quarters of a future town, the new town neighbourhoods still lack the urban qualities required of them. The fact that far better architectural taste is shown and that the employment of a supervising architect has enabled more consideration to be given to design generally, does not alter the fact that as a conception the new town neighbourhoods differ but little from the pre-war garden-suburb housing-estate.

It should hardly be necessary to emphasize that a town is, by definition, a built-up area, whose role is to provide for a particular mode of living. It is a sociable place, for people who want to live close together, and expresses itself as such through the compactness of its layout, through the sense of enclosure experienced within it and through being composed of *streets*. The new towns, by and large, have none of these attributes.⁴ They consist for the most part of scattered two-storey dwellings, separated by great spaces. Their inhabitants, instead of feeling themselves secure within an environment devoted to their convenience and pleasure, find themselves marooned in a desert of grass verges and concrete

³ At the time of writing (March, 1953), the eight new towns surrounding London had completed 7,600 houses, with another 8,500 under construction, and 1,250,000 sq. feet of factory space, all at a cost of £37 million.

⁴ In parts of Hatfield and Harlow only is there some approach to a true urban feeling.

roadways.

The battle against the disintegration of the town is not a new one. It was one of the great controversial issues of the nineteen-twenties and nineteen-thirties, with the garden-city enthusiasts taking one side and the modern architects the other. The arguments that took place then were often confused, because the former quite unjustifiably identified the idea of the garden city with low density building (Ebenezer Howard never demanded houses at only twelve to the acre) and the latter allowed themselves to be side-tracked into a different and quite unreal battle of cottages versus flats, thereby making the garden city fanatics a present of the allegiance of that majority of Englishmen who are wedded to the idea of the one-family house with its bit of garden.

You don't have to persuade everyone to live in flats in order to build real towns, as a glance at the small market and cathedral towns which are—or used to be—the glory of England immediately proves. But by letting it be imagined that high flats were their sole objective, the town-minded modern architects failed to win a clear cut victory over the garden-suburb sentimentalists, in spite of having nearly all the practical arguments, like the transport difficulties and the waste of agricultural land that accompany decentralization, in their favour. And now, when planning theory has been translated into an ambitious post-war building programme, we find that incomplete victory has been turned to total defeat.

We talk of modern architecture having at last firmly established itself, but architecture is not a matter of style, nor is the failure of the new towns a matter of the persistence of the traditional type of brick and tile house with its hipped roofs and modified Georgian details. Modern architecture involves the application of the best available means to desirable and properly understood ends, and to look at the new towns one would not know that the revolution we are so proud of had ever taken place. They are dominated by the same pretence of being in the country (a relic of the reaction against the overcrowded Victorian industrial town) that was characteristic of the nineteen-twenties, and they commit again every one of the faults committed then: eating up valuable acres of agricultural land; scattering houses along either side of draughty expanses of roadway; marooning the unhappy housewife on the distant rim of their sentimental green landscapes so that she has to tramp for miles with her shopping basket and is altogether cut off from the neighbourliness of closely built-up streets.

One would be tempted to say that the architect seems to have learnt nothing from all the arguments that went on before the war if one was not aware that the blame does not rest with him alone, or even principally. It rests initially, I suppose, with the Reith Committee, on whose report the New Towns Act was based. This committee, it is clear, had in its mind a picture of a scattered garden-suburb type of town. When suggesting the acreage of land that would have to be acquired to build towns of various sizes, it worked to the very low density of 12 persons to the acre, averaged over the whole built-up area.⁶ The bias

in its mind is only a reflection of the fact that we as a people have ceased to think in urban terms when creating new living places, for the same bias is shown by Government officials, planning officers and local councillors. It is also significant that one of the principal organizations that interests itself in town-planning questions, the Town and Country Planning Association, grew out of the Garden Cities Association.

It is they who have fostered the garden-city bias in house-building, not the people who are going to live in the houses, who are not in a position to demand anything different because they are never shown anything different. They are told that what they are being given is what they want, and they therefore accept it, unknowingly accepting at the same time the burden of frustration that will inevitably accompany their translation from the compact sociability and the architectural solidity of the cities where they belong, to these scattered insubstantial suburbs lacking form or focus.

They gain something too, of course, from the move: cleaner air, more up-to-date kitchens, space for children to play. But all these could have been provided in towns planned *as* towns. They could have had these *and* the cheerful life of the streets, the street-corner pub, the market place gossip, the public services and entertainments and the easy access to real countryside (denied by the present suburban sprawl) which a proper town provides; and, in addition, they could have had what, as time goes by, they will miss more than any of the foregoing: the sense of being in the centre of a community, however small, not on the fringe of it.

But if we cannot blame the individual new town architects, some of whom have struggled manfully against ministerial and corporation prejudices, against the conservative ideas of the local authorities in whose areas the new towns happen to fall (it was perhaps an administrative error not to have given them independent local authority status), against Ministry of Transport standard road-widths and standard practices of all kinds imposed by officials of all kinds—to say nothing of the repeated cutting-down of costs which has inhibited all boldness and imagination—we must yet blame architects as a whole, who have been far too content to admire as a sign of progress the 'good design' on which their colleagues on the new towns have at least been able to insist, without looking at the larger picture and seeing that the rejection of acres of spec.-builders' Tudorbethan villas in favour of acres of architect-designed villas of however much taste and charm, is a negligible triumph if they are still in the wrong place, of the wrong size and laid out in the wrong way.

Good design by individual architects does not alter the fact that their failure as a body to give society a lead and impose on it the ideas their knowledge and technical resources tell them are the best ideas, is the failure of modern architecture itself, a failure the more disastrous for having occurred on the occasion when architecture faced the challenge of fulfilling a vital social need. It will be a long time before such an opportunity comes architecture's way again.

⁶ The new towns as now being built are keeping fairly close to this figure. or only a little above it. Stevenage has 13 to the acre, Crawley 12.5, Hemel Hempstead 12, Harlow 14.1 and Hatfield 17.4. It is revealing to note that the

figures for Letchworth and Welwyn are 18.6 and 21.8 people per acre respectively. These are the classic examples of the garden-city type of planning, so the new towns represent an even further retreat from the best English traditions of compact urban planning.

PRAIRIE PLANNING

in the New Towns

Gordon Cullen

1

2



Open country, 1, the goal of the victim of industrial squalor. And the dream house, 2, that sits in it, framed by trees that lean down low over the nine bean rows to the radio strains of *Bless this House*. Architecture . . . impeccable if traditional. Below we see the birth of a street full of such houses.

If I were asked to define Townscape I would say that one building is architecture but two buildings is Townscape. For as soon as two buildings are juxtaposed the art of Townscape is released. Such problems as the relationship between the building and the space between the buildings immediately assume importance. Multiply this to the size of a town and you have the art of environment; the possibilities of relationship increase, manoeuvres and ploys proliferate. Even a small congregation of buildings can produce drama and spatial stimulation. But looking at the kind of towns and housing estates built by speculators or local authorities one is forced to conclude that this conception of townscape has not been considered (to put it very mildly). We are still in the elementary stage where the individual building is the be-all and the end-all of planning. If buildings are the letters of the alphabet they are not used to make coherent words but to utter the desolate cries of AAAAA! or OOOOO! What of the New Towns designed by contemporary architects to break the bad old AAAA-OOOO stranglehold? On the following pages they are viewed against this yardstick.

3

4

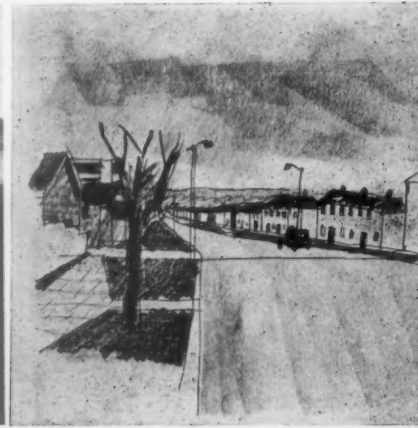
5



Sish Lane, Stevenage, as it was and still is beyond the development line.



The new alignment appears. . . .



. . . and with it the magic fades as the dream houses multiply to the horizon. AAAAA. . . OOOO. . . What has happened?

TOWNSCAPE

PRAIRIE PLANNING IN THE NEW TOWNS

The character that develops from isolationism can be appreciated from the air view of part of the Adeyfield neighbourhood of Hemel Hempstead New Town, 6, which shows so generous a use, or rather un-use, of land that the unfortunate housewife is reduced to using travelling shops, 7, for her shopping. One can understand these being necessary in the Canadian prairie, but in a small English town what can they signify except that the scale of development has got completely out of hand—or rather out of foot? Another by-product of this same giantism of scale is the problem of what to do with all the land that isn't built on, 8 (Stevenage). Roads?—roads only need to be narrow. Pavements then?—if the streets are narrow the pavements must be vast—vast enough for all the shoppers of Oxford Street; but at ten shillings a square yard? Surely not. Grass them?—but grass has to be cut. Flower beds?—upkeep again, 9 (Hemel).

Alas whatever it is the main impression of prairie planning is that of vastness, the feeling that the little two-storey houses are far too puny and temporary to match up to the monumental, overpowering space. The last thing the road curving slowly out of sight in Harlow, 10, does is to suggest a stroll; the unhappy pedestrian is left with a feeling of hopelessness in face of a terrifying eternity of wideness punctuated at intervals by seas of concrete, 11 (Hemel). It must be made clear that the carping note of these observations is not directed at architects, since in the main the buildings themselves are successful, and in the lay-out the architects are the victims of their committees who have somehow got this bee of dispersal into their bonnets—the idea that it is not quite nice to have a neighbour, that the ideal town is one that will fill—or empty—a prairie, 12 (Stevenage).

One of the essential qualities of a town is that it is a gathering together of people and utilities for the generation of civic warmth. However overcrowded, dingy, insanitary and airless the old towns may be most of them retain this quality, which is the essential quality without which a town is no town, with which lack of air is merely a minor nuisance—let us call it towniness. Where has it got to in the new towns? Or are the new towns merely intended to negate the old towns and so negative towniness? We see no sign of it here. Instead we see the growth of a new ideal at work which might be described as ebbiness—the ebb tide: the cult of isolationism. It is as though the drive to the country has been undertaken by people all studiously avoiding each other and pretending that they are alone. The result is a paradox, the paradox of concentrated isolation, the direct antithesis of towniness, which results from the social impulse. Turning from physical isolationism to what might be called psychological isolationism a revealing example is the treatment of an old church in Harlow New Town, 15. The planners have clearly tried to exploit the potentialities of this existing feature, but one would have thought that such a building would have been seized upon as a focus to rouse and rally new development, providing the kind of rallying point the church has always provided in English town planning. Instead it has been isolated in green fields, when even God asks for no more than one acre; and all the houses turn their backs on it. So much so that even the nice views of it (though cut off abruptly), 16, look accidental. Next, a row of shops in Stevenage, 17, shows how another centre or meeting place has been thrown to the winds. It is blandly self-effacing, simply continuing the row of houses. What should be a point of congregation becomes an extended line, dispersing the group and paying homage to the queuing principle. Contrast this with the shops carefully gathered round an S-bend at Harlow with its well-



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scaled piazza and genuinely town-like colonnade, 13. Another facet of this disintegration can be seen in the houses at Hemel, 18. Where house types vary, as at Hatfield, 14, a relationship develops between the buildings which in this instance has been turned to good use in bringing the scene to life. One feels that the buildings are in cahoots. By contrast, when buildings are identical, without regard to direction or levels, we do not get unity



15,16



but a sulk, resentful monotony. A.A.A . . . O.O.O . . . The last example is of the neighbourhood centre at Adeyfield, Hemel Hempstead, 19, where we have the welcome appearance of a square which sensibly contains shops, pub, cinema and church. Yet instead of the square being the culmination of the neighbourhood, the centre, hub and vortex, it is placed to one side avoiding, so far as possible, a direct relationship with the houses it serves, 20.

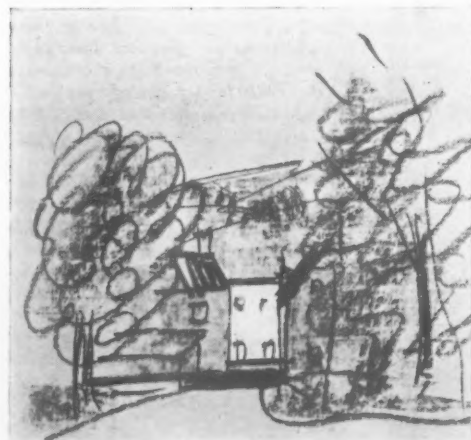
17,18



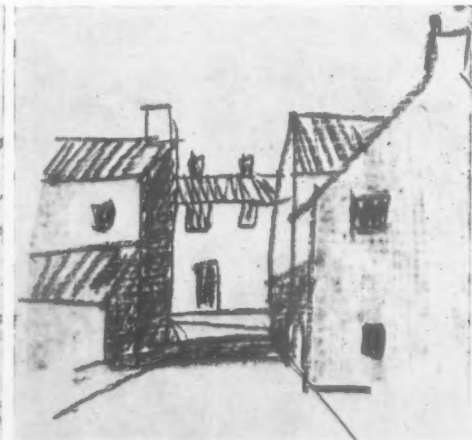
19,20



INTERLUDE AT BLANCHLAND The new towns illustrated here are dead against the whole tradition of English town planning, or any town planning. English town planning has been more open than European in the past, but this kind of openness refutes and frustrates the whole idea of town. By contrast, Blanchland in Northumberland, though no more than a village, has evident urban qualities. Based on the airview overleaf, the following sequence of views has been sketched to illustrate the essential points.



35 21, approach. The gap reveals urbanity in the countryside.



22, entry and the way through is blocked by the building opposite which suggests enclosure and a hint of space yet to be revealed.

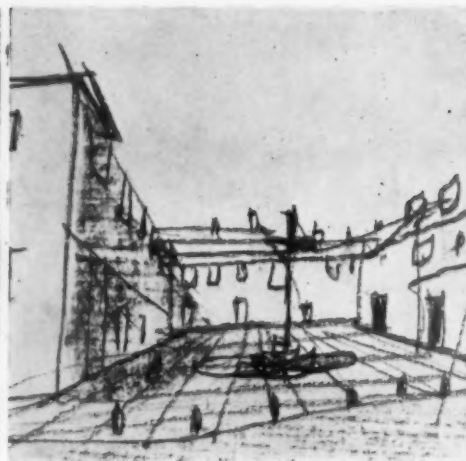


23, on turning the corner the space surprisingly extends, terminating in a beckoning black opening.

TOWNSCAPE



24, in this enclosure we find one side busy with shops and the wide pavement filled with stalls on market day.



25, whilst, turning back, the domestic enclave is revealed.



26, the exit. Again, we are not presented with an interminable vista but by one blocked by buildings.



27

Compare the two air views on the left, the one of Blanchland, 27, and the other of the proposed town centre of Crawley, 28. The approaches to planning seem to be diametrically opposed. In the first the village centre is treated as an urban space in contrast to the surrounding countryside; it has no trees and it is paved. It establishes itself as man made and orderly. Furthermore the buildings have been arranged to create a sense of enclosure, of cosiness, and of drama in the progressive revealing of space and use. These things are the stuff of towns. For a more recent example the reader is referred to Well Hall Estate, Eltham, built in 1915. The approach at Crawley appears to be a pure recoil from the physical conditions of traffic jams and overcrowding in the metropolis. In this it probably succeeds. And yet of tension, drama, enclosure, surprise there appears to be none. All the elements are there but the insistence on isolation is such that we are left with what we started with: a collection of roads, trees and buildings. Instead of townscape we have tree worship; instead of punctuated streets, A.A.A.A O.O.O.O, instead of a conception of the town as a homely, folksy living place where citizens can get together to drink, play, talk, and grow old as partakers in the greatest of all the privileges of civilisation, social intercourse, we have ebbsiness; the theory that everybody else stinks and so you must have as much room as possible between.



28

Translated into town planning jargon this quality of ebbsiness becomes low-density housing—the results are deplorable—foot-sore housewives, cycle weary workers, never-ending characterless streets, the depressing feeling of being a provincial or suburbanite in an environment that doesn't belong to town or country, and the impossibility of ever getting into the real country which this suburban sprawl has banished. End result—travelling shops and high rates to pay for acres of unnecessary pavements at twenty-five shillings a square yard. To sum up, the New Towns, except for rather better house plans, have advanced but little on the old housing estates. In the sense that they tend to occupy more valuable land they are actually a step back. Regarded as what their name claims for them, new towns, in spite of all the administrative energy, publicity and cash expended on them, what should have been a great adventure has come to nothing and less than nothing—and so far with hardly a word spoken in protest.

US BAR BAR

Lettering in lobby to the two saloon bars, left, and on the door of the smaller saloon which was originally the men's bar, below. The vigorous English tradition of pub lettering has here been maintained.



NEW TOWN PUBLIC HOUSE

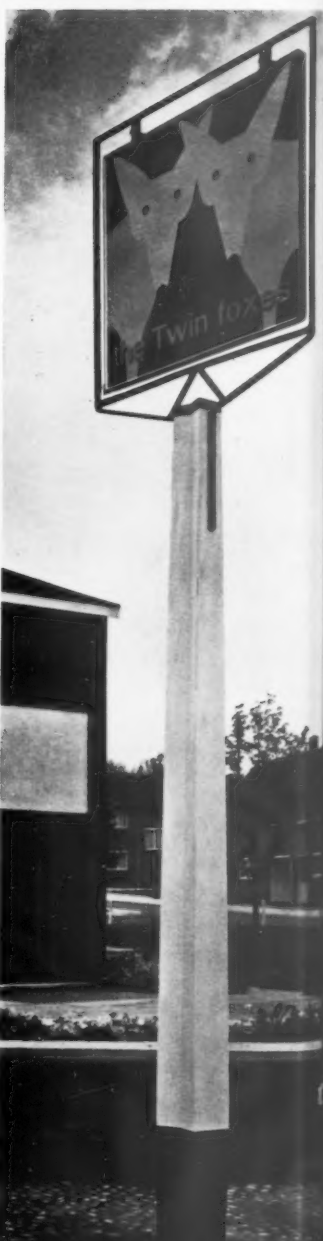
G. HOLLIDAY, L. G. VINDENT AND O. CAREY: ARCHITECTS

The Twin Foxes at Stevenage is not only the most satisfactory of the New Town pubs which have so far been completed—it is also the first post-war pub in which the principles of pub design, as deduced by the ARCHITECTURAL REVIEW* from an examination of the tradition, have been consciously applied to produce, by the right combination of materials, planning, colour and lighting, something like a true public house atmosphere. The photographs reproduced here were taken before the pub was opened, and therefore lack the qualities of occupation and use which complete the atmosphere, but in the frontispiece to this issue, D. Dewar Mills offers an impression of the public bar as it may appear when humanized by the sort of contribution from the publican without which even the best-designed pub is only a shell.

* AR October, 1949 and June, 1950.



3, general view of the street facade. The rendered panels are finished white. 4 and 5, the two sides of the sign designed and painted by Edward Wright. The pub is named after two brothers who were well known locally fifty years ago as particularly successful poachers. 6, exterior of the public bar with the seating bays which alternate inside and out. The timber overhang is painted white.

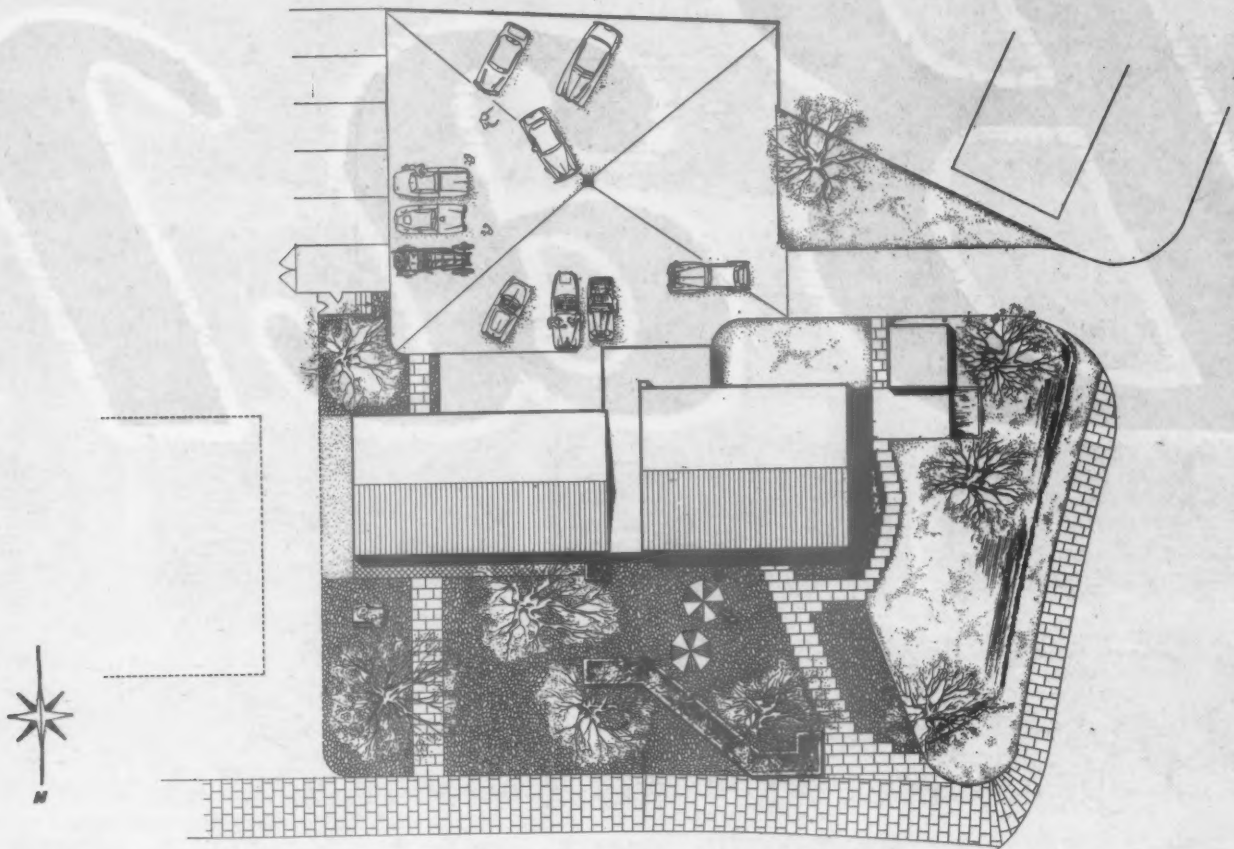


The Act bringing public houses in the New Towns under State management created a new type of problem for the architect, for the work was placed entirely under Home Office control. At Stevenage the architects were required to design a public house on a restricted site of .41 acres, catering for a peak load of some 200 persons, suitable for State management under the control of the Home Office and a specially-appointed State management committee. A programme of accommodation was drawn up by Professor Holliday and Leonard Vincent and approved by the Home Office. It was then decided that four architects should independently pre-

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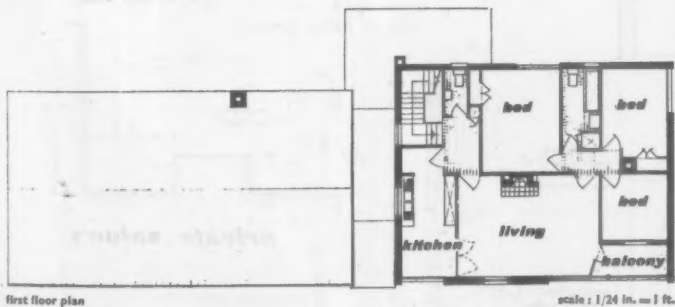


NEW TOWN PUBLIC HOUSE



site plan

scale : 1/32 in. = 1 ft.



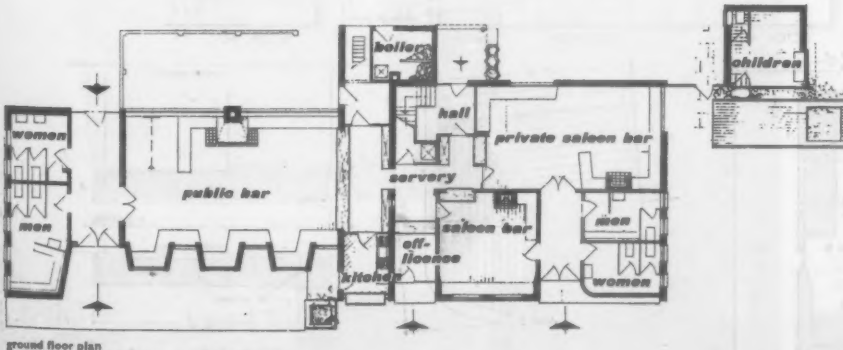
first floor plan

scale : 1/24 in. = 1 ft.

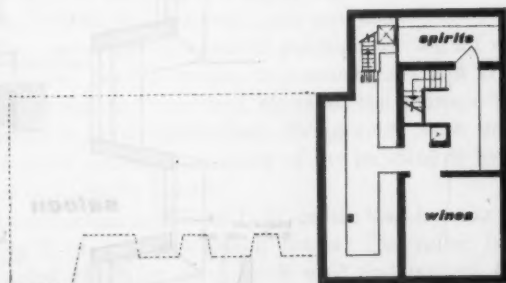


pare an esquisse, then meet and discuss the sketches with a view to pooling their research. Sketches were prepared by Professor Holliday, Leonard Vincent, Leslie Ake and Oliver Carey. The striking thing about the result was the similarity of the basic plans, differences being of a comparatively minor nature. A basic plan was agreed, submitted to the Home Office and approved. At this point the job was given to the group of architects under Oliver Carey to work up and bring to the contract stage.

Shortly after work began the State Management Act was repealed and Stevenage Corporation was faced with the problem of letting the building to a suitable tenant. It was decided to proceed with the scheme as originally

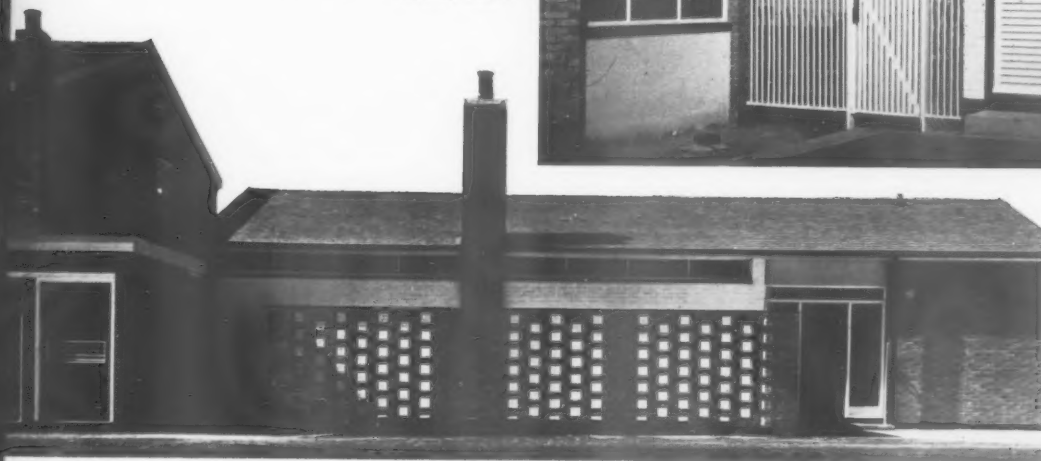


ground floor plan



basement plan

7, on the facing page, lettering on the wall beside the public bar entrance (seen in the distance in 14). 8, the children's play pavilion which is painted black and white. The roof is of copper. 9, part of the rear elevation seen from the car park. The screen wall conceals an outside store. 10, the benches on the bayed wall of the public bar, the construction of which is shown in the details on the facing page.



9

public bar



designed and to meet any reasonable alterations required by a tenant later. Three well known brewers, McMullen & Sons, Whitbread & Co., and Mann, Crossman & Paulin, agreed to run the public house and in fact required only minor alterations to various fittings.

The principal elevation is to the main road, linking up with new three-storey shops and maisonettes, the whole forming a sub-centre in the neighbourhood. The hard surfacing to the forecourt in front of the main elevation consists of cobbles with paving slabs forming paths to entrances and a terrace for serving refreshments or drinks outside in the summer months. Placed in the forecourt are transplanted trees of a good size (three limes, one magnolia and two chestnuts) and a flower box forming the boundary. There is a small lawn and flower beds flanking the south side of the building, in which stands the children's play pavilion.

The servery is in a central position, serving all rooms, i.e., public bar, off-licence, two saloon bars and kitchen, with access to cellar and stairs to the manager's flat, consisting of dining-kitchen, living room with balcony and three bedrooms. Heating of the building is by open fires in all public rooms.

Construction is of solid 11 in. cavity load-bearing walls, using 2 in. external facing bricks. The cellar is constructed of 13½ in. solid brick wall and tanked. Floors over cellar and over manager's flat are pre-cast concrete beams with hollow clay block filler tiles and



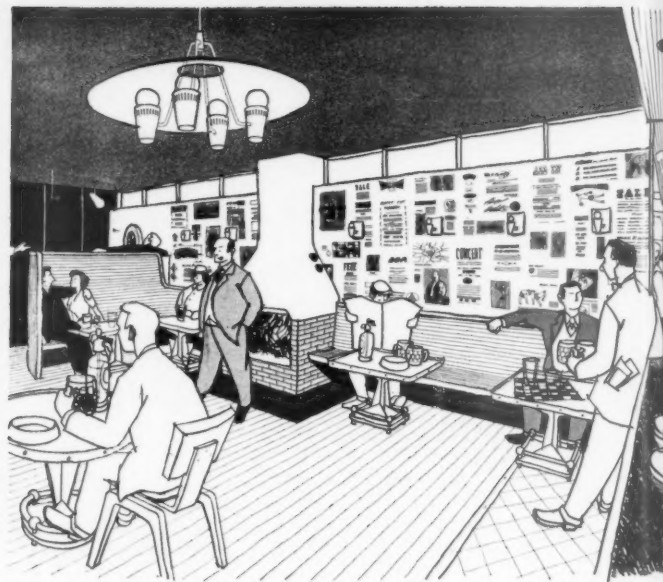
11

11, the public bar fireplace and fixed benches which face the bayed wall illustrated in 10 and 15 on the facing page, taken before the bar was furnished. 12 an impression by D. Dewar Mills (see also frontispiece p. 5) of the bar furnished and 'lived-in,' and with the fireplace wall decorated as it might be, and as pubs often are, by the publican himself.

kitchen 13, view through the serving hatch from the kitchen to the terrace outside the public bar. 14, on the facing page, view from the public bar counter towards the bar entrance. The end wall has dark green marble wall-paper with white dividing strips. 15, the slatted benches in the public bar.



13



12

screeded over. External panels below windows consist of 6 in. hollow clay blocks, covered externally in a vermiculite rendering. Roofs are constructed of pre-fabricated light timber trusses, spaced at 2 ft. centres. The roof to manager's flat is of the scissors type, providing a sloping ceiling in an attempt to give a spacious feeling to the rooms in the flat, but reducing the external wall height to a minimum. This also helps to put the building into scale by reducing the overall height, as it was an essential requirement that the public rooms should not be less than 9 ft. high. An attempt has also been made to provide a contrasting effect to the required 9 ft. high public rooms by a suspended ceiling in the foyer, cloakrooms and over bar counters. Flat and public rooms are sound insulated by a layer of fibre-glass under the boarded floor finish.

An attempt has been made to make the three public rooms different in character.

PUBLIC BAR. The ceiling is covered with John Lines' paper of a green and white design by John Minton. The end wall adjoining the entrance hall is covered with a marble wallpaper by Sandersons. The remaining walls are rough lime plaster and exposed 2 in. bricks. Bar counters are in sapele and sycamore strips. The floor is hardwood block in panga panga, laid brick pattern. Dark blue ceramic tiles form the threshold. The hearth is slate.

PRIVATE SALOON BAR. The ceiling is covered with natural cork with hardwood edging strip. The floor is in Rhodesia teakwood blocks, laid in brick pattern, with blue ceramic tiles to threshold. One wall is entirely covered with a large ordnance map of Hertfordshire, treated to withstand cleaning. The other walls and fireplace are as in the public bar. There is a slatted false ceiling over the bar concealing lights.

SALOON BAR. Finishes in this bar are similar to those in the private saloon bar, except for the floor, which is in panga panga wood block, and the walls which are plain lime plaster. All bars have fixed slatted seating in sapele wood, wax polished, the ceiling and wall-light fittings are purpose made in brass and copper. The floors to entrance halls are in ceramic tiles of black and white, grey and white, laid in diagonal squares. Walls and ceilings are finished white. Ceiling to off-licence and servery is distempered red.

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14



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17

19



18 16, sketch by D. Dewar Mills of the private saloon bar showing how a few carefully chosen additions can at once bring to life what before was merely a promising beginning. 17, the open fire and a new version of the traditional type pub settle. 18, detail of settle as it is now. At no extra gain in comfort what is essentially an all-wood fitting has had a stuffed leather seat

added, thereby largely destroying the excellent original effect. The same criticism applies to the bench in 19; this is a corner of the same bar showing the bar counter, with its vertical strip boarding, a fine ship's clock and the white painted slatted wood overhang which, in addition to concealing lighting, serves to draw attention to the focal point of the bar back.

current architecture

recent buildings of interest briefly illustrated

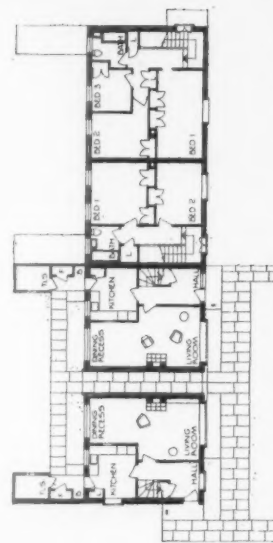


1, terrace and semi-detached houses from the south-west.

HOUSING AT SUNBURY-ON-THAMES, MIDDLESEX

ARCHITECT: BASIL SPENCE

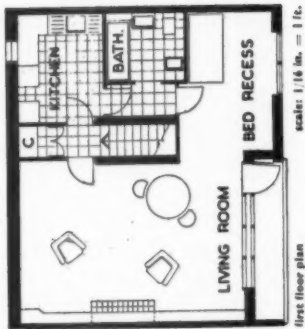
Sunbury-on-Thames housing site 9 contains a total of 190 dwellings, of which 138 are two-storey terrace or semi-detached houses, 36 are flats in three-storey blocks of 12, and 16 single-storey old people's cottages in four separate blocks. The site is flat and low-lying with no existing trees and a planting scheme has been prepared. Public pavements follow the line of the blocks and are not therefore necessarily parallel to the side roads. All rear gardens are screened by honeycomb brick link walls. Except for the ground floor of three-storey flat blocks, which are of 13½ inch solid brickwork, all external walls are of 11-inch cavity brick construction. Roofs are of light timber trusses at 3-foot centres and ground floors are concrete. Exterior walls have a cement paint finish on common bricks: colours used are white, deep cream, yellow, pink and duck-egg green, varying from block to block. Front doors are painted in bright contrasting colours.



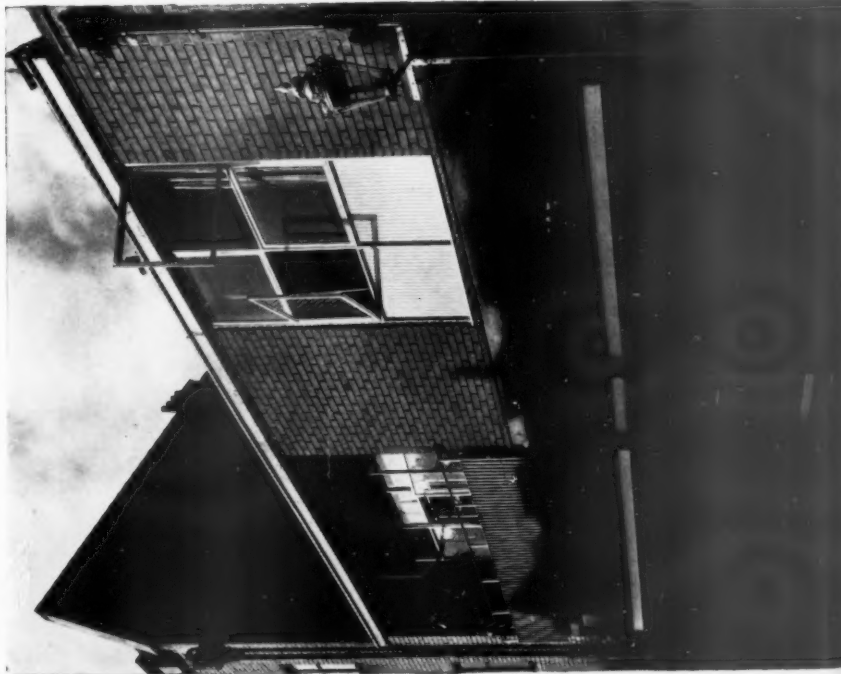
ground and first floor plans of typical terrace houses

scale: 1/32 in. = 1 ft.

2, right, the main living room.
3, below, the main exterior from the street.



3



HOUSE IN CONNAUGHT MEWS, LONDON

ARCHITECTS: F. R. S. YORKE, E. ROSENBERG AND C. S. MARDALL

The site of this house is 24 feet deep with a 30-foot frontage, facing south on to a mews. The property, which was purchased with a war damage claim on it, consisted of two stables with a straight staircase between them leading to the exposed first floor. The only wall for windows was the one facing the mews, although later on a small window was pierced at the back for the kitchen. Kitchen and bathroom have domed top lights and open on to a separate ventilated lobby. The large living room window is set back to form a balcony just wide enough to take a deck chair, and is made up of deep frames providing shelves for plants, etc. A fitting stretching the length of one wall of the living room consists of book shelves, glass fronted cupboards, gramophone record racks, a roll front cupboard and a built-in gas fire set in yellow-green and white patterned tiles designed by Peggy Angus. The floor is paved with Hornton stone, which is carried out on to the balcony. The back wall of the living room has a William Morris wallpaper on it. External paintwork is white except for the front door which is a warm grey.

2



BUS GARAGE AT GARSTON, WATFORD, HERTS

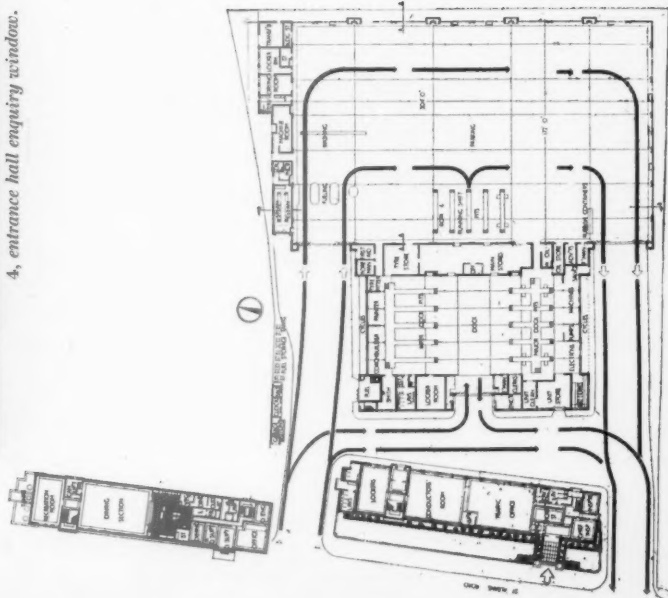
ARCHITECT: THOMAS BILBOW

This is the first post-war garage to be constructed for the operation of country buses and coaches. The area is approximately three acres. A private road between the office block and the dock area serves as a terminal road for turning buses, which do not need to enter the parking area, and enables vehicles to enter the dock from the street. The long private access roads were required so that vehicles going into and coming out of service would not block the public road. There are three main buildings; the operating and welfare

block, on the main road frontage; a covered bus parking area, at the rear of the site, and, between them, the dock. The operating block provides accommodation for officials and staff, not only for this garage but for subsidiary garages, with canteen, recreation room, locker room, etc. The parking area has an unobstructed floor area of 45,400 square feet and can accommodate 150 buses. The buildings are steel-framed with brick walls. The parking area roof span is 170 feet. Main girders are mostly at 60-foot centres; subsidiary lattice girders at 50-foot centres carry steel purlins. In the parking and dock areas floors are of reinforced concrete; in the operating block, suspended floors are of precast hollow beam construction. Facing bricks are Leicester, straw-coloured, or Bucks, multi-coloured. Artificial stone dressings are used around windows and doors and for parapets.



4, entrance hall enquiry window.



ground and first floor plans

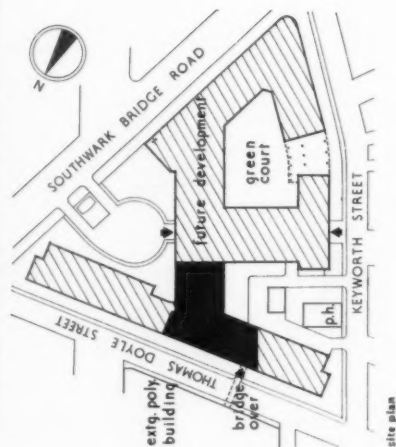
scale: 1/128 in. = 1 ft.

5, the parking area exit from the west.



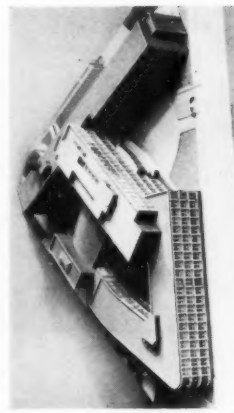


6, above, the extension from south-east. 7, inset, model of the complete scheme.

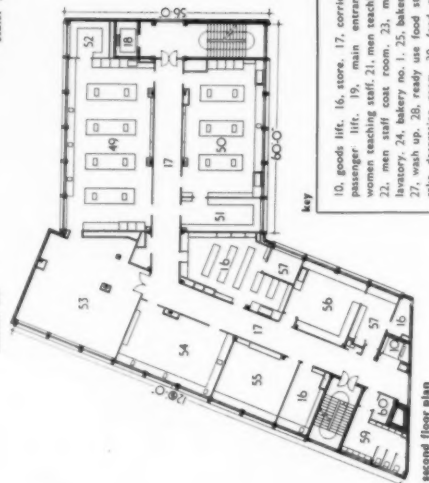
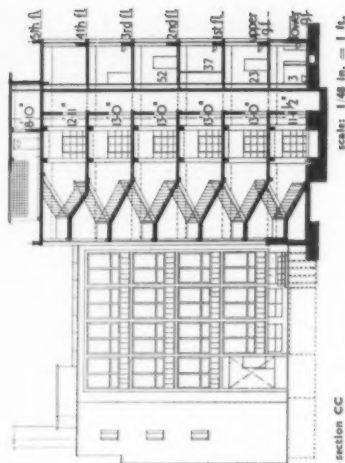


POLYTECHNIC EXTENSION IN SOUTHWARK, LONDON ARCHITECTS: NORMAN AND DAWBARN

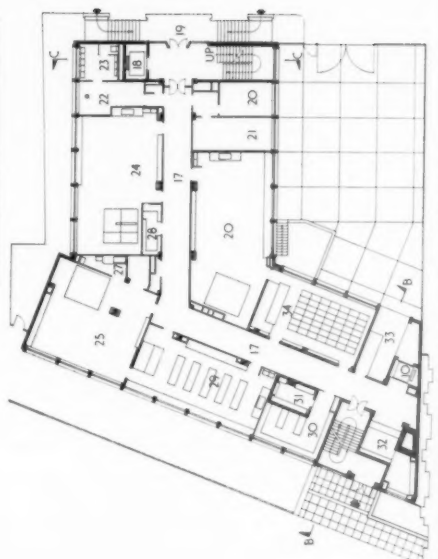
This extension to the Borough Polytechnic, Southwark, for the London County Council forms part of the large scheme shown in the photograph of the model. The building is double glazed throughout, with a forced ventilation system. The lower ground floor houses students' lavatories, cloakrooms and changing room, and the boiler house. The upper ground floor and first floor contain the bakery department, and the chemistry department is on the second, third and fourth floors. The building has a reinforced concrete frame with panel walls of 4½-inch brick outer skin, a 2-inch cavity and a 3-inch clinker block inner skin. Floors and roofs are of solid RC cast *in situ* with metal pan shuttering. The end walls which will be removed when future extensions are built are constructed of 9-inch brickwork. The RC frame, where exposed, is rendered, trowel finished and sponged to expose the aggregate. The brick infilling panels are



rendered and the aggregate exposed in the same way, but a blue-black matrix is added. Where walls are of fair-faced brickwork, these are salmon-brown. Internally, all walls are plastered and painted except for the boiler room, plenum chamber and workshop, which are fair-faced brickwork, and bakeries, which are lined with 6-inch square ivory coloured tiles.



- key
- 10, goods lift, 16, store, 17, corridor, 18, passenger lift, 19, main entrance, 20, women teaching staff, 21, men teaching staff, 22, men staff coat room, 23, men staff lavatory, 24, bakery no. 1, 25, bakery no. 2, 26, ready-to-roll room, 27, cold storage, 28, cold storage, 29, food and bakery store, 30, cold storage, 31, prepared scales, 32, loading bay, 33, lecture room no. 1, 34, elementary chemistry laboratory, 35, paint laboratory, 51, balance room, 52, rough balance room, 53, general purpose technical laboratory, 54, testing room, 55, paint mill, 56, varnish room, 57, laboratory assistant's room and spray room, 59, men students' lavatory, 60, cleaners' store.



(N.B. left hand Fig. 20 should read 26.)

BOOKS

PLANTS IN POTS

INDOOR PLANTS AND GARDENS. By Margaret E. Jones and H. F. Clark. Edited by Patience Gray. Illustrated by Gordon Cullen. The Architectural Press. 18s.

Let no one suppose that this book is for those people who just want a pot of pretty flowers to brighten their rooms. The authors themselves are the first to disclaim any such intention. 'Those who value a plant only because of its flower, and they are in the majority,' they write, 'obtain no pleasure from form or foliage alone. To flower-enthusiasts most of the plants listed in this book are of little value, as their flowers are either infrequent or almost indistinguishable.'

That is perhaps somewhat sweeping, for a love of flowers does not necessarily exclude a love of finely cut foliage, but on the whole we must agree that gay colours and pleasing scents command a readier appreciation than the relative severity of green and of living shapes which must of their very nature be associated with an architectural idiom. It is most interesting to notice in some of the photographs at the end of this volume; the use which has been made in Scandinavia and Denmark of such climbing plants as *Passiflora* and ivy, or of the huge pinnate leaves of *Polysia*, as the interior decoration of windows (mostly plate-glass) framing the landscape beyond. This may truly be said to be bringing the garden into the house, with tropical or sub-tropical effect, or of turning the living-room into a winter-garden in miniature. It is perhaps not everyone who would like to have his reading-lamp swathed in creepers, nor to find his books lovingly embraced by tendrils on their shelves, but there is much to be claimed, especially in a northern climate, for this living greenery growing and softening the bleak outdoor aspect as observed from within. It seems a practical substitute, in our reduced modern terms, for the old-fashioned conservatory to which the Victorian drawing-room so often gave access in the days when space, maintenance, and heating were of little consideration. It constitutes, to quote Shirley Hibberd writing in 1856 on *Rustic Adornments for Homes of Taste*, 'the union of Nature and Art in happy ministration to human sympathies within doors.'

The instructions given for an extensive list of plants are clear and comprehensive. They tell you what soil to use, how much water to provide and when to withhold it, when and how to prune, what temperature is required, and whether the plant objects to gas. There is also an invaluable appendix, divided into sections, of the conditions enjoyed by the plants mentioned: for cool rooms, centrally heated rooms, sunny rooms, shady rooms, and so on. My only fear is that prospective pur-

chasers may find it a little difficult to obtain some of these alluring plants; true, another appendix gives a list of suppliers, but without specifying which of the suppliers, nurserymen, or florists supplies what, so a great many letters might have to be written before a satisfactory reply was received. Thus, I should be hard put to it to know where to send an enquirer for any of the *Philodendrons* or for *Tradescantia fluminensis*.

Clearly, this method of indoor gardening is for the few; it exacts a nice taste, and in the wrong hands might speedily become dusty, amorphous, and deplorable. To be successful, it involves a sense of plan and distribution; a feeling for the shape and character of a room, stairway, or passage; a feeling, also, for furniture and textiles; wall and window space; lighting; and accompanying ornament. It is probably safe to say that a somewhat bare, economical room suits it best, with plain walls, uncarpeted floors, and a general absence of overcrowding and fuss. For exhibition buildings it seems admirably adapted; witness the really imaginative use of vines and *Wistaria* by James Gardner at the Enterprise Scotland exhibition of 1948, or the delicacy of leafy tracery behind the glass screen dividing the staircase from the restaurant in the South Bank Festival Hall. (One misses the colour here, in a black-and-white photograph, for there seems to be something complementary between the flatness of green and the brilliance of glass, which can be left only to the imagination in a monochrome.) V. Sackville-West

Shorter Notices

THE WINDOWS OF KING'S COLLEGE CHAPEL, CAMBRIDGE: NOTES ON THEIR HISTORY AND DESIGN. By Kenneth Harrison. Cambridge University Press. 10s. 6d.

The widespread removal of old glass to places of safety during the last war has brought in its wake a threefold benefit: it has been possible to study it in detail at close quarters, to make full photographic records, and to rectify some of the anomalies of earlier 'restorations' in the course of replacement. In England our finest glass is at Canterbury, but although, as Mr. Kenneth Harrison concedes, 'the jewelled mosaics of the thirteenth century have never been equalled, in their own way,' the scale and completeness of the early Renaissance windows at King's renders this systematic study of them by a Fellow of the College extremely welcome.

Between 1515 and 1581 there were employed in King's Chapel, besides apprentices, seven different glaziers, of whom none was Italian, but at least four were by birth Netherlandish or German. Mr. Harrison's principal task has been to sort out the windows among these seven, no easy undertaking since the surviving documents are scanty and he has therefore been compelled to draw his deductions mainly from differences of style. His conclusions, he remarks with an engaging modesty, are now open for others to amend, and

I wish them good guessing.' It is likely to be some while before anyone else will be as well qualified to theorize about these windows.

Illustrations have wisely been omitted, for a handful, uncoloured, would be practically useless. After a preliminary reading, the proper place to use this book is in the Chapel itself. For this purpose, its clear arrangement, diagrams, list of subjects and tabular summary are admirably convenient.

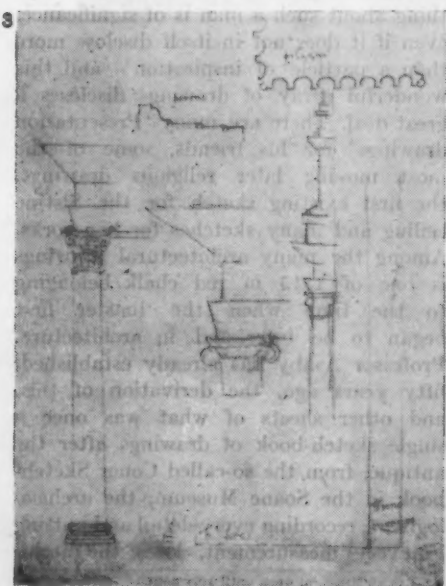
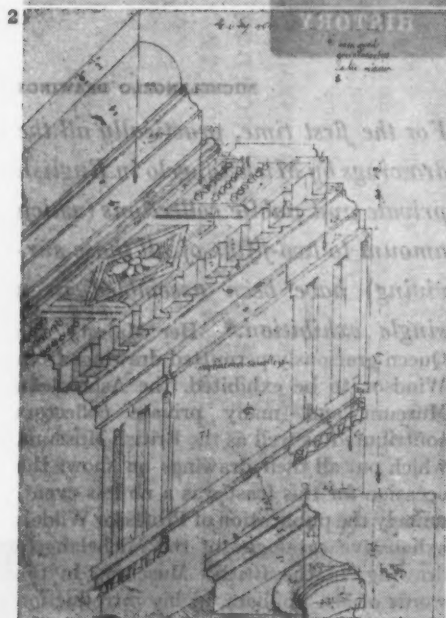
Of Galyon Hone, one of the seven glaziers, Mr. Harrison tells us that he also worked on the long vanished East window at Eton. That was in 1521-2. Now, after 480 years, that same window has been filled with new glass of outstanding quality. How strange that again the name of the artist should be Hone! Alec Clifton-Taylor

HISTORY

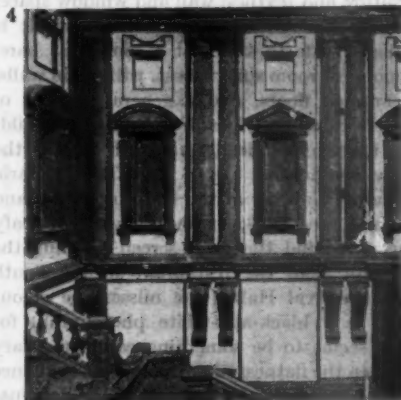
MICHELANGELO DRAWINGS

For the first time, practically all the drawings by Michelangelo in English private and public collections (which amount to two-fifths of all those surviving) have been assembled in a single exhibition.* Her Majesty the Queen graciously permitted drawings from Windsor to be exhibited, the Ashmolean Museum and many private collectors contributed as well as the British Museum, which put all their drawings on show; the occasion for this feast was a no less event, namely the publication of Professor Wilde's exhaustive catalogue of the Michelangelo drawings in the British Museum. In the words of Mr. Popham, in his introduction to the catalogue of the exhibition, 'Everything about such a man is of significance, even if it does not in itself disclose more than a particle of inspiration'—and this wonderful array of drawings discloses a great deal. There are many 'Presentation drawings' for his friends, some of the most moving later religious drawings, the first existing sketch for the Sistine ceiling and many sketches for his works. Among the many architectural drawings is one of 1515 in red chalk belonging to the time when the master first began to be interested in architecture. Professor Ashby has already established, fifty years ago, the derivation of this, and other sheets of what was once a single sketch-book of drawings after the antique, from the so-called Coner Sketch-book in the Soane Museum; the archaeologist, I, recording every detail and putting in every measurement, loses the archi-

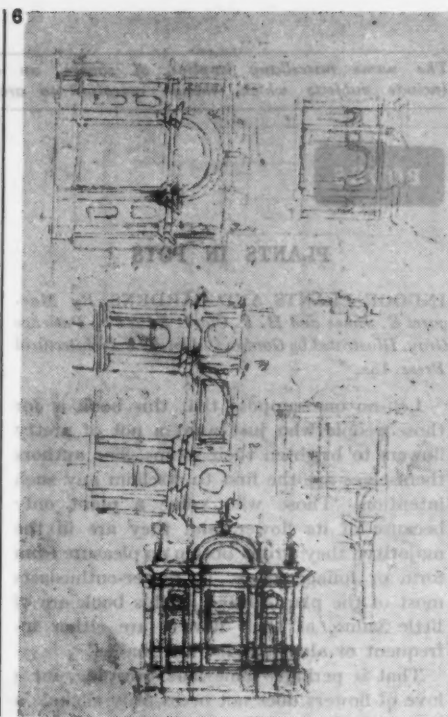
* British Museum: open until July 30th.



tectural sense of the whole, but Michelangelo, 2, his drawing beautifully set out on the sheet, puts back that sense; conveying the uprightness of the vertical feature, the horizontality of the entablature, their relationship to each other, and their existence in space. The architrave in the Michelangelo version becomes a heavy final feature, mainly because it has been narrowed down at the expense of detail, some of which has been set out separately. The strengthened profiles of the Tuscan capital in this drawing, and similar features in other sketches of that period, show Michelangelo's special interest in the sections of architectural members and thus in their salience from the wall from which they are developed, and help to articulate, as in the order on the right in 8, possibly a design for the façade of San Lorenzo.



In a drawing, 5, for the Ricetto of the Laurenziana, 4, of about ten years later the interest is shifted; the section of a cornice on the recto (and more notably some drawings for bases on the verso) appears to test the effect of cutting back into depth. The same seems true of the larger sketch for the principal parts of the wall system on the same sheet. This drawing, as well as several for the Medici Chapel, are of the greatest interest to the architectural historian; they represent various stages of the design for these buildings



and thus help to give an insight into their artistic process. On another sheet we can observe the progress of a design for an altar from its beginnings as a triumphal arch, 6.

These few remarks can only be the poorest substitute for enjoying and studying the originals. The beauty and immediate impact of Michelangelo's drawings, more than any other artist's, defy the power of words to describe. S. Lang

EXHIBITIONS

SCULPTURE AND PAINTING

Recent one-man shows of sculpture, and a large mixed exhibition of painting, sculpture, stained glass, mosaics, tapestry and ceramics have elaborated some curious varieties of religious sentiment. In the case, for instance, of Marin Studin, a religious feeling seems to have appeared in his work only since he gave up treating Christian themes.

Studin, who is a brother-in-law of Ivan Mestrovic, and one of Yugoslavia's most eminent sculptors, has been holding a retrospective exhibition at the Kensington Art Gallery. At its best, it is the kind of art that is only at home in its own country; at its worst, its popular decorative virtuosity with its hollow symbolism of flying horses and girls with bows and arrows would make it at home in every Academy in the world. Studin is a fine

craftsman, and his early wood reliefs of the Holy Virgin (whose appellation in the catalogue is quaintly reduced to 'Mother') have the remote charm and ready-made piety which one associates with a rustic Christian tradition. But in a number of his



later reliefs, such as this 'Village Idyll,' 1, in which the conventional oval-faced Madonna is replaced by a square-faced, heavy-featured woman of the people, there is a warm, simple religious feeling for the loving consanguinity of people and animals which relates his woodcraft very pleasantly to its peasant origins.

His purely academic work looked well enough amongst the sculpture in the Summer Exhibition at Burlington House, but one or two of the portrait bronzes in his own show would have looked better still. It would be absurd to quarrel with the Academy for being academic, but one is entitled to expect it to maintain a decent level of efficiency in its own field. My complaint about the paintings of society beauties in the present show is that the shimmer of silks and satins is so rarely caught, and that the curiosity about the expressive possibilities of oil painting evident in many works by the more progressive group of Associates reduces the quality of the illusionism without putting anything really satisfactory in its place. The best rendering of fur and fabric is in James Gunn's portrait of the Queen, but David Jagger achieves a polished anonymity of style in his portrait of 'Alexander Chatin, Esq.' and provides an object-lesson in the painting of the suit.

Leon Underwood's sculpture at the Beaux Arts Gallery, representing his development from 1925 onwards, discloses more complicated but scarcely more sophisticated sentiments than the sculpture of Marin Studin. He is in opposition to what he calls the subjectless and pessimistic formalism of modern art, and remarks in his Foreword that 'the individual artist who is moved by religious and philosophical ideas may preserve the subject in his own art by a personal interpretation of the discarded dogmas,' but

his attempts to create equivalents in the round for such distressing verbalisms as 'Mind-Slave: the mind in abject subordination to the intellect' is too great a tax upon his inventiveness and diverts his undoubted abilities as a sculptor into unfruitful channels. His 'Mind-Slave,' 2, a marble dated 1934, slightly re-worked in 1948, reproduced here because it is probably the most notable work in his exhibition, is a first-rate example of his carving and has a



certain vortocist forcefulness. But his avowed optimism is somewhat gloomy in the outcome.

Lynn Chadwick, on the other hand, whose art appears to be a direct response to the almost magical developments of technology rather than to religious and philosophical ideas, produced a metal sculpture for the Arcon stand at the BIF which is remarkable for its sharp, cruel gaiety, 3. As this photograph of the original model indicates, it has a quality



suggestive of animals and incubus, but its relevance to Arcon's exciting demonstration of cantilevering is no less obvious.

At the exhibition called 'The Christian Theme in Contemporary Arts,' held at 45 Park Lane, the air was positively flocculent with religious sentiment. A great number of works in many styles and mediums were assembled, but the most interesting things were to be found among the paintings. In this field the organizers cast a wide and subtle net, and although it seems fairly evident that, like the advocates of social realism, they are out to destroy the autonomy of art, they go about it more skilfully. The paintings touched upon practically the whole range of contemporary styles with disarming liberalism, and included the restrained cubism of Roy de Maistre, the abstraction of Manessier, the expressionism of Rouault and Graham Sutherland, and the surrealism of Salvador Dali, which has in recent years been adapted to the illustration, if such a thing is possible, of Christian mysticism. Dali's paintings still contain an undertow of eroticism which is permissible enough, but presumably the value of a picture like 'Oeillet Mystique,' 4, depends upon the success with which he conveys the illusion that the carnation is elevating itself. I find it no more than a clever passage of *trompe l'oeil* with a very facile relationship to religious sentiment. But this work with its attempt to create deep silence is far from typical of the prevailing



mood of the exhibition. The most popular theme was the Crucifixion, and the effort on the part of so many artists to obtain delusions of participation created an unpleasantly turbid atmosphere of subjectivity.

There was a far more 'sacred' atmosphere in the Picasso exhibition at the Lefevre Gallery. There were some lovely pictures here, including things that a few years ago seemed the last word in violence and now seem the last word in classical serenity. Works of the order of this large pastel, 5, dated 1921, are so to speak the sacred relics of the human model, as precious to the aesthete as the bones of a saint to a believer, and the exhibition contained other works characterized by the same august and compelling lucidity.

Manzu's sculpture shown at the Hanover



Gallery belongs to the great Humanist tradition that the Church has countenanced for several centuries. The artist does not have to lay stress on his religious feelings; his cardinals express the tensions of celibacy in proximity to some extremely beautiful effigies of undraped girls, 6, and are protected from their human fallibilities and rendered profoundly seemly by the superb architecture which the sculptor has created from the vestments of their office. The tenderness and vitality of Manzu's work, its unsentimental sweetness, taken in the context of modern tendencies, is almost a new surrealist *frisson*.

Robert Melville

TRIM

MOWER'S DELIGHT

In England close-mown turf has long been considered one of the most desirable of all outdoor floor finishes.

Its effect is as dependent on attention to detail as that of any other. Unfortunately, it is also one of the most fragile, and tidy-minded guardians of public grass suffer more than the usual temptation to make it ornamental but useless by putting spiky railings round it. This must be politely discouraged. But how is the stuff to be otherwise protected? The centre of the lawn may be left, at least for the present, to the horticulturist. It is when you get to the edge that the exercise of visual judgment in a choice between the practical alternatives becomes necessary—practical alternatives meaning, of course, the alternatives practical for the lawnmower. A lawn may be bounded either by a path or by a wall—flower-beds provide their own solution—and the first two photographs show different approaches to the problem of the path. In 1 (Cirencester) grass and path are flush with one another,



a good mowing solution which nearly always looks well, while in 2 (Beaminster Church) the path is sunk; both these examples gain a lot from the floor finish separating the grass edge from the main surface of the path—a fact which serves as a reminder that a successful floorscape



always demands study of *all* the surfaces composing it. When the path is raised above the lawn the problem is the same as when the lawn is bounded by a wall, as in 3, 4 and 5; it is a problem which stems from the difficulty of cutting near enough to any raised surface with the normal lawnmower. Having weighed everything up, you may, of course, decide to ignore this difficulty and bravely plump for letting the grass flow right up to the wall as the sea against a cliff, when your courage



may be rewarded with something like 3 (Sherborne) in which a very monumental dwarf wall discourages verge-walking without creating a visual obstacle. If there is reason to suppose that the tide



may turn, it is dangerous to reduce your wall to a curb for then you may find yourself faced before long with the dreary prospect of 4 (Somerset). Rather than risk a frayed edge, you may prefer to adopt the other main method for use where lawn meets wall, throwing a *cordon sanitaire* between them, as in 5 (Devizes);



this, too, can be admirable in effect, as, indeed, it is here, the turf edge doubling up the effect of the curb's curve. It means weeding the *cordon sanitaire*, but the layout allows of mass-production methods—of weed-killer in other words. **Marcus Whiffen**

TOWNSCAPE

PAINTER'S-EYE VIEW

'Vous qui voulez devenir architecte, commencez par devenir peintre!' wrote Ledoux. Others have said the same thing in different ways and languages: yet far from buildings being designed with any thought for the painter's-eye view the very existence of such a thing is scarcely recognized by most architects. Perhaps this is not surprising, when one considers the training of the architect and the



necessary processes of architectural design. For much of that training, many of those processes, are just the kind to discourage the painter's way of looking at things. Take the paper plan, which is simply a symbol devised by the intellect for an aspect of a building which no one will ever actually see; it is clear that drawing a plan is a process more akin to mathematics than to painting. Ah! yes, you say, but, of course, the architect who is worth his salt always conceives his building in three dimensions from the start; the eye surely comes into that. Agreed, it comes in; yet, after all, it is not the eye that tells us about that third dimension, but the brain, which interprets the eye's message in the light of its experience of other messages in the past. (To the man blind from birth who sees for the first time the world is a chaos of patches of colour, all equidistant—that is in his case at no distance at all—from his eyes.) Which amounts to saying that for practical purposes we are continually translating two dimensions into three.

Now the painter, for the purposes of his art, has to do exactly the opposite: he has to translate three dimensions into two. And he is as much concerned with the two-

dimensional pattern on the surface of his canvas as with the relationship of the objects in the (imagined) three-dimensional space behind it—sometimes, indeed, more. From which it follows that if the architect is really to take the advice of Ledoux and others to heart he must not rest content with considering the effect of his buildings in elevation and in perspective: he must consider them as they appear in perspective when the perspective has been taken out.

This is a counsel of perfection, no doubt. Certainly it would not be worth offering except that it happens to be in fact the way almost all buildings are normally seen. The pure elevation is nearly as artificial and constricted as the plan; only entirely detached buildings can be seen as sculpture (and then not often) which means that any city with its narrow flat street perspectives offers nearly all the time the view of architecture which no architect ever considers—the perspective seen as elevation, the painter's-eye view. The two photographs of Minehead here are examples of street perspective in which the painter's-eye view is paramount.

Andrew Hammer





CRITICISM

CITY OF LONDON RECONSTRUCTION

Messrs. Victor Heal and Smith's designs for an office building to go up immediately east of St. Paul's Cathedral, with a long frontage also on Cheapside, have been widely attacked since they were made public in the Architectural Room at this year's Academy. Their critics look back ruefully to the war-time promises, made to Londoners, of a brave new City rising from the ruins, and are certainly justified in feeling that the timid, but at the same time pretentious, neo-Georgianism that the perspectives exhibited show, offer at best no more than a return to the conventional commercial architecture of the nineteen-twenties.

It is not, however, only a question of architectural style, of the proposed building looking back instead of forward and doing so in an utterly commonplace fashion, but of the use made of the site likewise looking back instead of forward. The Holford-Holden City of London Plan, now incorporated in the LCC Development Plan, introduced a new conception into central city planning, or, rather, recognized and made constructive proposals for imple-

menting a conception that had slowly been emerging out of changing conditions. This was the idea of the office building rising from its site over an area and to a height governed by a calculation of daylighting standards. It was revolutionary because it was a departure from the practice of building up along street frontages, to which Mr. Victor Heal's design appears to return. One result of doing so is to increase the apparent mass of the building, which is, on the other hand, minimized when a building is set back in stages with its higher parts in the centre of the site. The present tendency of office blocks to rise into the City skyline in the form of solid-looking masses is already threatening the City's whole character.

In this particular scheme the result of building up along the perimeter of the site is to produce three contiguous façades at an obtuse angle to each other, further exaggerating the apparent mass of the building because they can all be seen together, and at the same time producing a scale and character quite out of keeping with the neo-Georgianism aimed at. Another fault is the enforced symmetry of the principal frontage, a characteristic that does go, of course, with this type of reminiscent façade architecture, but does not at all suit the needs of the site. It creates a meaningless axis across Cheapside, and is for this reason by no means an improvement on the Victorian buildings previously on the site which with their casual massing and unpretentious façade



rhythms provided a much better foil to St. Paul's cathedral.

This is one of the most important sites in the City, and it is surely not too late for the authorities concerned to save it from a design for which posterity will certainly not thank them. J. M. Richards

INDOOR PLANTS

PEPEROMIA ARGYREIA (Piperaceae)

This Peperomia is a variety of P. Sandersii which was previously described in the May (1952) number of the REVIEW. Like it it is a creeping or trailing plant suitable for pot growth or a window box. It has heart-shaped fleshy leaves on red stalks but with more pronounced silver stripes than its parent.

P. Argyreia should be grown away from strong sunlight in a north or east window. Exposure to too much light and a too dry atmosphere will cause its leaves to lose their shine or lustre. Too much watering, on the other hand, or watering with cold tap water, will result in defoliation or at the worst, ring-spot. Altogether it is not too easy a plant to grow. It is not tolerant of gas and it needs winter warmth and humidity.

In spite of these possible deterrents *P. Argyreia* remains one of the most decora-



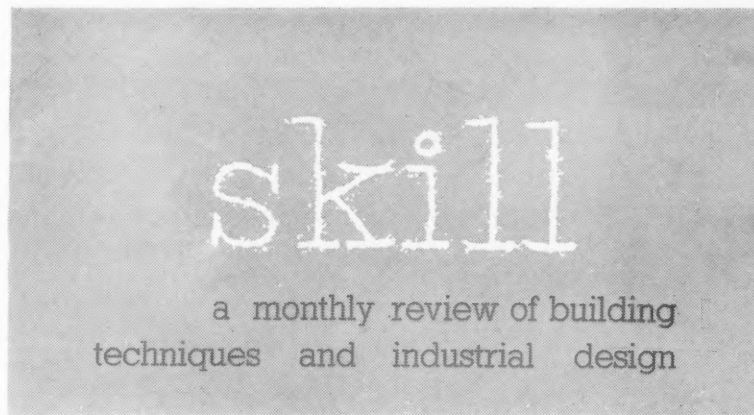
tive members of its family and a very useful plant for display. It is more popular in America and in the Scandinavian countries than in this country where *P. glabella* is more often used. In its care and cultivation it needs much the same treatment. Frequent syringing in summer with tepid water and only moderate watering in winter. It can be propagated from the small leaves which will quickly root in moist peat. Later the rooted cuttings can be grown on in a compost of equal parts of fibrous peat and leaf mould and a loamy sand.

H. F. Clark

In the past the REVIEW distinguished between the art and the technique of building by calling one Design, the other Craftsmanship, giving the latter, in token of its immense significance at that time, a special department of the paper. 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. It is futile to deplore the machine age and precision production even though it may be believed, and not without considerable justification, that design standards have in many industries declined sadly in the past 25 years.

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 new monthly feature, SKILL, whose purpose is to do just that—assess design and workmanship in a much more positive way than has been attempted before. Until further notice this section of the paper will be given up to that purpose, combining with a number of new features those existing ones, like DESIGN REVIEW, which have had the same target in the past.



DESIGN REVIEW

House Power

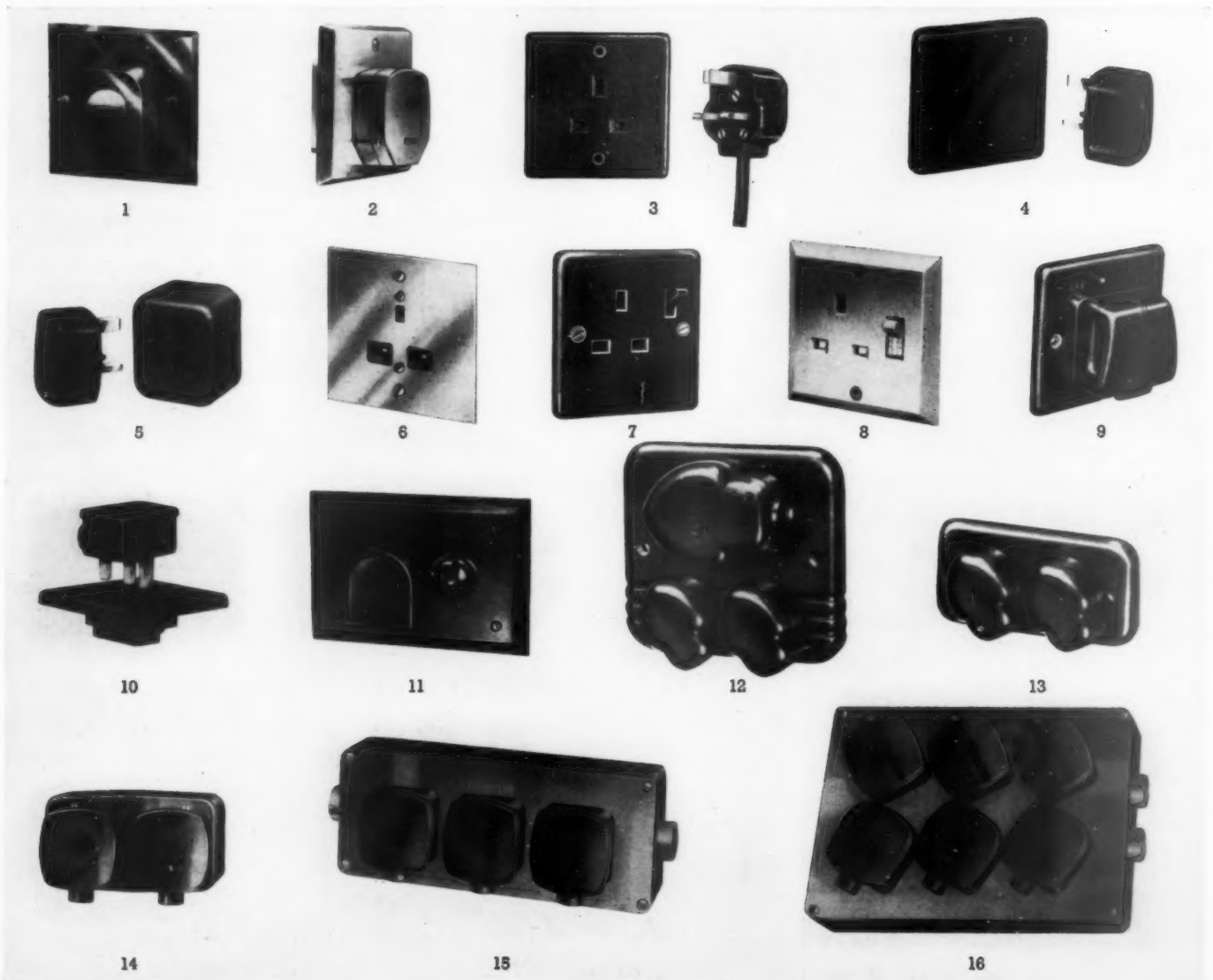
Most British houses contain, in addition to ceiling light points, one skirting plug in each habitable room. The occupant of such a house probably owns a number of table and standard lamps, electric iron, cooker, washer, blanket, clocks, 'fridge, immersion heater and razor, a radiogram, TV and a box containing some broken two way adaptors, numerous redundant lampholder plugs, a quantity of other plugs unsuitable for his installation and a roll of insulating tape.

When he buys new equipment he will almost certainly find the plug is wrong and will then wander from supplier to supplier, with a postcard pierced by two or three little holes, seeking the right one (and probably a two way adaptor as well). Whenever this happens there is a new addition to the box. Each article in the box represents a period of frustration; sometimes it is of his own making, sometimes of the manufacturer's, sometimes of the architect's or builder's. The result is amateur improvisation and regular overloading ending in burned out accessories or even injury.

The fundamental need is for standardisation, and there are in fact three British Standard Specifications for plugs and

sockets. The most recent, BS 1363, dealing with three pin "fused plugs and shuttered socket outlets for AC circuits up to 250 volts" is the most immediately interesting. It implements recommendations of the post-war Building Study, Number 11, on electrical installations and specifies a socket and plug containing interchangeable and identifiable 13 and 3 ampere fuses. This makes possible ring main circuits with a single 30 ampere fuse for domestic work.

Assuming eventual universal AC current and all-in payment rates the entire needs of all houses would be covered by the new plug and socket. At the moment 3 and 13 are added to the already unwieldy 2, 5, 15, and 30 ampere range. Only if architects and others in authority insist on the use of BS 1363 sockets and manufacturers cease making other sockets, whilst continuing non-standard plugs for existing installations, will there be a future freed from postcards pierced by two or three little holes.

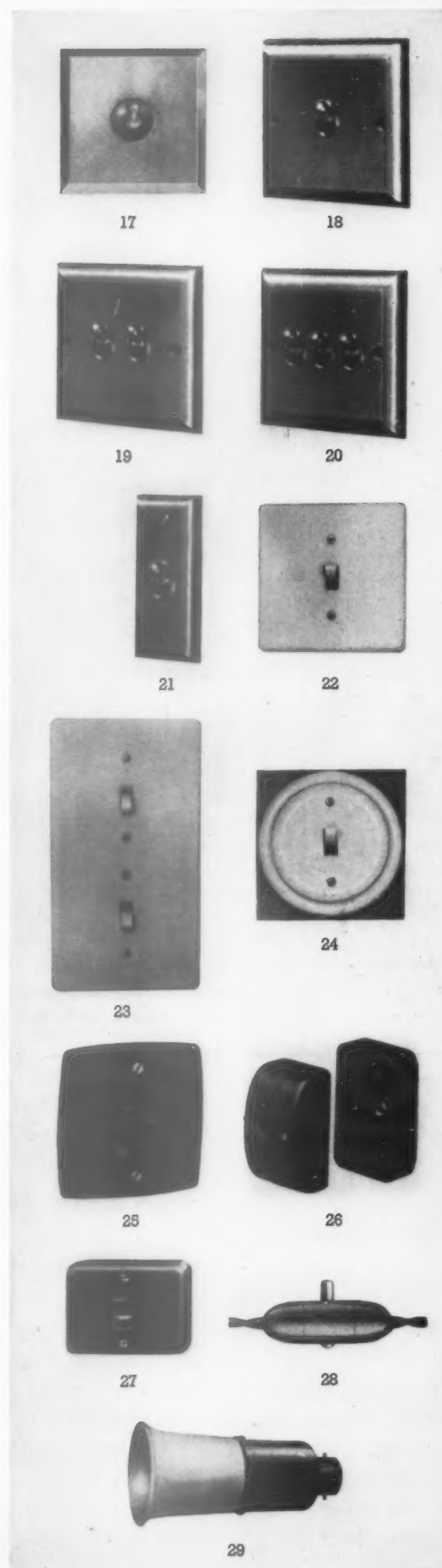


Although there is little indication that manufacturers are willing to discontinue non-standard accessories there are few firms who have not implemented the recommendations crystallized in BS 1363. But even if the recommendations are universally applied, a number of problems would still remain for architects and manufacturers to solve. Plastic lampholders can sometimes fuse to a single mass, covers can break and still leave a dangerously useful accessory, switches from which the finger knobs unscrew and disappear can lead to the use of a knife in their operation. The inadequate flex and unusable plug dangling from all electrical equipment seem an imposition on the purchaser which could be eliminated by a standard terminal on all products. The user would buy the flex and plug needed, as now, and waste and danger would decrease. Manufacturers and architects alike are prone to use rubber covered flex in situations where baking to destruction is possible. Asbestos flex would virtually eliminate this hazard.

The chief requirement of an electrical accessory is generally a self-effacing efficiency. This is not to suggest that form, colour, and texture are of small account, but rather that units ensuring permanently maintained mechanical and electrical efficiency be contained in envelopes designed with the maximum degree of simplicity and inconspicuousness in mind.

Plugs and sockets made to BS 1363 are now readily available flush and surface mounted, switched and unswitched. Falk Stadelmann flush socket outlet and fused plug, 1, costing 92s. per dozen or 122s. per dozen switched and MEM's unit, 2, costing 90s. per dozen in brown and also available in ivory white are good examples of the newly recommended equipment. GEC's unswitched fused plug and socket, 3, is provided with a dual terminal for spar connections and costs 89s. 8d. per dozen. Bill Switchgear produce flush, 4, and surface type, 5, outlets costing 86s. 4d. per dozen in brown and 90s. 4d. per dozen in ivory including plugs. The flush type measures $3\frac{1}{4}$ inches by $3\frac{1}{4}$ inches by $2\frac{1}{2}$ inches including plug and back projection. The surface type measures $2\frac{3}{8}$ inches by $2\frac{1}{4}$ inches by $2\frac{1}{2}$ inches deep including the plug—dimensions which can be considered a general minimum for these accessories. DS Plugs manufacture an unswitched socket with metal front plate at 55s. per dozen, 6. Their fused plugs incorporate a hinged pin which sensibly meets the need for a simple method of changing fuses without the use of tools or the opening of the plug. The terminals are removable for easy wiring. Cost 42s. per dozen. Nettle Accessories switched socket, 7, costs 82s. per dozen brown, or 98s. in cream finish, and that by MK Electric 6s. 8d. each, 8. The Miniac switch socket, 9, made by Simplex, costing 17s. per dozen has an unusual switch location and the plug is well formed for simple handling. Wandsworth's neat unit costs 96s. per dozen, available in brown only, 10, and Temco produce a similar unit, 11, in brown or cream from 88s. per dozen. The multiple socket is much more readily available than was the case a few years ago. New Day Electrical Accessories have evolved a sensible range of plugs and sockets suitable for domestic ring main installations. The triple socket, 15, comprises a 13 amp socket with fused plug, two two-amp sockets (BS 546), a self-ejecting fuse carrier containing one five-amp cartridge fuse and a fused spur terminal from which to feed remote auxiliary sockets. The cost is 23s. 4d. brown, or 28s. 7d. ivory. The two-socket unit, 16, which is well suited for auxiliary sockets costs 111s. per dozen or 128s. in ivory. The Britmac Electrical Company manufactures a four-way unit in addition to the double, triple and six-way sockets illustrated 12, 13 and 14. They are available in a wide variety of colours and prices range from 43s. for the twin socket and plugs in white.

The demand for simplicity over the past thirty years has had so profound an effect on the manufacture of switch plates that the plain surface plate seems now to be common to all manufacturers. J. H. Tucker's 'Telac' white ring fixing plate, 17, costs 113s. 4d. per dozen; New Day's useful range of switches 18, 19, 20 and 21, cost for one gang, one one-way 34s. 6d. per dozen, two gang, one-way 69s. per dozen, three gang, one-way 103s. per dozen in brown finish. Two-way switching and cream finishes are available at extra cost. Falk's 'Realfush' one gang, 22, costs 30s. per dozen, and the two gang, 23, size $3\frac{1}{4}$ inches by $5\frac{1}{8}$ inches, costs 61s. 4d. per dozen. The action is suspended within a grid which allows simple correction in fixing positions over badly fitted boxes. Their round 'Nearflush' switch, 24, costs 33s., 62s. per dozen, one and two gang respectively in brown and is also available in white. The Simplex Electric





Company's switch plates for one switch, **25**, and two switches are both $3\frac{1}{4}$ inches square, the former cost 30s. per dozen, the latter 58s. per dozen. Their surface switch and patress, **26**, whilst mechanically excellent and small in compass ($1\frac{1}{8}$ inches by $2\frac{1}{16}$ inches by $1\frac{5}{32}$ inches) suffers from styling unsuited to an article of its size and use. It costs 7s. 4d. per doz. Wandsworth's micro break switch, **27**, size $1\frac{1}{8}$ inches by $2\frac{1}{4}$ inches by $\frac{1}{16}$ inches excluding dolly, is a satisfactory unit and costs 35s. per dozen.

Switches other than wall switches, perhaps by the very nature of their work, tend to become over ostentatious or pompous. GEC's midget through cord switch, **28**, is a pleasant exception and costs 42s. 8d. per dozen. Bayonet lampholders are perhaps the least handsome of all general electrical accessories. It is only when faced with a new problem, as in V and E Friedlanders Moonlamp transformer light, **29**, that the industry achieves a satisfactorily simple form. The cost is 7s. 6d. each.

Indicating switch units are now a commonplace of accessory catalogues. The reciprocating rotary switch, **30**, by Arrow Electric Switches costing 34s. 8d. each remains an admirable and still useful accessory but is now supplemented by equipment of more positive statement. The New Day pilot control switch, **31**, at 29s. 6d. for 20 amp 250 volt AC utilizes the rotary reciprocating switch supplemented by a pilot light. Bill Switchgear produce a similar unit, **32**, price

31s. 4d. in addition to a number of cooker controls with plug and socket. That illustrated, **33**, costs 36s. 8d. and both units are size $6\frac{1}{4}$ inches by $4\frac{1}{4}$ inches by 3 inches. George H. Scholes' 'Sonex' cooker unit with socket switched separately, **34**, is a workmanlike job costing about 30s. excluding the plug and measuring $5\frac{1}{2}$ inches by $4\frac{5}{8}$ inches by $1\frac{1}{2}$ inches. Britmac's units are marketed in three types; 'Industrial' from 416s. per dozen, **35**, 'Domestic' (surface mounting) and, **36**, 'Flush' both from 713s. per dozen. MK Electric's 30 amp AC unit with 13 amp auxiliary circuit is available for surface mounting, **37**, or in a flush pattern with identical face, costing 32s. 6d. each.

The householder's despair, his main fuse box, is slowly achieving to an order which will soon result in the present mistrust giving way to a secure confidence in times of emergency. English Electric's 'Superform' distribution fuseboard is of particular interest for large flat schemes, **39**, at £29 15s. 0d. each, whilst for the single home BI Callenders two switch chamber for separate power and lighting circuits, **38**, costs 109s. This accommodates up to eight fuses in any combination of lighting and power fuse links. MEM's Switchfuse for use on SP and N circuits, **40**, from 16s. promises much more orderly control in the future. These three units all accommodate the cartridge fuse link—in itself a fine development from the elusive and aggravating fuse wire which still haunts the majority of householders.

Neville Ward

LIGHTING

Surfaces and Sources

Historically, development in artificial lighting can be traced along two separate paths. One, the development of light sources, has been laid firmly by the classical scientist and engineer and has many outstanding achievements to mark its course, from the gas mantle to the modern fluorescent tube.

But the other path, let us call it the way to good quality lighting, is not so clearly defined. This is to be expected; its objectives are complex and often vague, and it is not easy to assess in terms of measurable efficiency, for requirements are often at the mercy of complex and apparently irregular human responses. For this reason the artist sensitive to human reactions has often been more successful in the lighting field

[continued on page 59.]



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barriers for the busy street
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than the engineer; for instance, we owe to his intuitive mind the wonder and beauty of the crystal chandelier, 1.

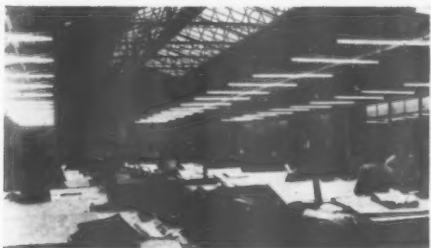
As the efficiency of sources increased it was perhaps understandable that good lighting should be thought synonymous with the amount of illumination. Most of us are now well aware this is not so, but in many minds the belief is still strong. However, the tendency to use higher levels of illumination is producing more and more material evidence of the fallacy.

The fact that quantity is measurable has led the engineer, unknowingly perhaps, to neglect the less explicit criteria of quality. A lighting engineer himself recently criticized orthodox lighting practice as 'not giving sufficient weight to factors which, although at present somewhat intangible, are easily recognized broadly as having much to do with beauty and effect.' Much has been written in recent years on these other criteria; here the more important of them are illustrated and discussed.

One of the commonest faults in lighting is glare. Glare is chiefly a product of very bright sources of light and brightness contrasts. The scientist is now reasonably



sure that in the visual sense there are two distinguishable kinds of glare; one discomforting, the other disabling. They can occur separately, but this seldom happens. The drawing office lighting in 2 is an



example of discomfort without appreciable disability—that is, it does not prevent us seeing things in the room clearly. Discomfort alone occurs in conditions where the surroundings are bright and the sources small and intensely bright.

Examples of disability alone are rarer, but generally speaking disability occurs in low illumination levels where there is a source

or surface which is large, and low in brightness, as for example with a large laylight or an indirectly lighted ceiling. Because it is well known, perhaps I may be forgiven if I use as an example the Henry Jarvis Hall of the RIBA, where the white projection wall behind the Council bench has a disabling effect on vision because it is large and bright compared with the dark surrounding panelling. To the audience the features of persons at the bench are barely visible. Conditions are worsened by the indirectly lighted ceiling. These effects occur because our eyes are unable to adapt to widely differing conditions of brightness, and tend to adapt to the brighter parts to the detriment of vision in the darker areas. They are dependent on the total light reaching the eye and not solely on brightness.

Let us now look at examples which illustrate these points and bring out others of equal significance.

Some of the worst lighting conditions are to be found in factories. Situations as bad as that shown in 3 are not uncommon. 4 and 5 are interesting comparisons of



extremes. The machines in the first are weaving fine silk net. For mechanical reasons they must be lubricated in graphite



which coats the entire shop and all the machines black, and there is no integration of light to prevent high contrasts and gloominess. On the other hand, in the other, the silk is gleaming white, the looms are light in colour, the floor is light beech wood and the ceiling and walls near-white. Consequently much light is sent on to the ceiling and surroundings, and, though the fittings themselves send little light upward, their background is bright and contrasts are comfortably low. The fact that the lamps are easily visible is much less critical in this situation.

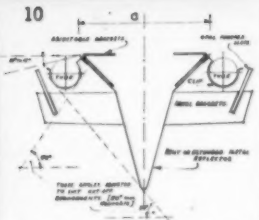
Two principles of design now emerge:—

1. Light sources should be well screened.



2. The background to the fittings should be bright.

The fittings in 6, 7 and 9 were developed at the Building Research Station to meet



the requirements. Both were designed for low cost and the unit in **6** for compact storage. The twin-tube unit, **9** and **10**, was designed for a weaving shed in the north. It is fixed to the bottom tie members of the roof trusses. Another interesting aspect of this particular scheme was the employment of directional light from 200 watt tungsten filament lamps in special screened



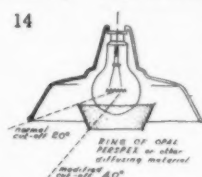
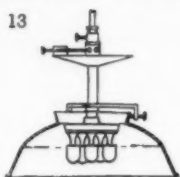
reflectors on the ceiling, 11 and 12. Each lit four looms and raised the illumination from about 20 L./sq. ft. to 32 L./sq. ft.



A mixture of fluorescent and tungsten like this seems acceptable providing one source dominates and the other is well-screened. The tungsten light made the cloth detail easier to see and the contrasts

it produced on the cloth appeared to help maintain attention and alertness, especially on night shift.

Unfortunately, the fitting most widely used in factories, the standard RLM enamelled reflector, gives neither adequate screening of the lamp nor sends any light upward to light the ceiling, although it conforms with the Factory Regulations;



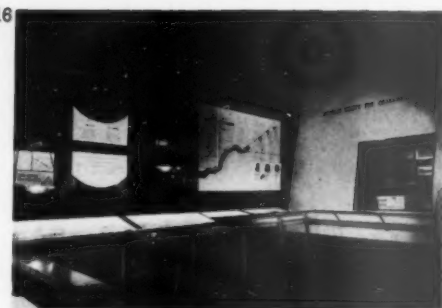
its derivation from gas lighting is easy to see, **13**. Since so many of these fittings are in use an attachment such as that in **14** would be a valuable innovation to screen and reduce the brightness of the source. The modern fluorescent trough fittings have similar faults although the effects are usually less marked because of the lower brightness of the lamp. Nevertheless, the side way cut-off to the lamp seldom exceeds the Regulations' minimum of 20° below the horizontal and is often less. Modern research has confirmed experience that 20° is inadequate; between 40° and 60° is desirable.

The need for upward light can, to some extent, be gauged from the development of fluorescent trough fittings since the war. At first, no light was emitted up, then came a few slots along the top, followed by glazed side panels and then today the complete reflector in translucent plastic.

Yet another attribute of the eyes affects our ideas on lighting. *The desire to direct our eyes toward light*. It is believed to be a reflex action for which the term 'phototropism' has been coined recently. Advantage can be taken of this natural inclination in assisting to maintain attention by making the object or area we wish or need to look at, the brightest part of the view. The interest may be an



orchestra, **15**, part of an exhibition, **16**, or the toolpoint of a lathe, a restaurant table, or a book; whatever it is, it should



always be brighter than the surroundings. In a restaurant, a table lamp and a white cloth will localize attention and produce a sense of intimacy. In a uniformly lighted environment, our phototropic mechanism does not function.

Of course, when good visual acuity and comfort are primary needs, too strong contrasts must be avoided. In practice the brightest part of a view is usually the source of light, which we do not wish to look at, and this, of course, is another sound reason for screening lamps properly.

All these factors are significant in any type of building, but in some they are more critical than in others. This is true of factories, where the visual tasks are difficult, and of hospital wards and school classrooms for example. In wards, patients are hypersensitive to glare, and inefficiently screened lamps and strong contrasts readily cause acute irritation and discomfort, especially to those who cannot move in bed. Well-screened fittings giving even light on the walls and ceiling are therefore of paramount importance. But fittings which send light out to the walls tend also to be bright, and the way to overcome the effect of this is to grade the brightness of the fitting into its surroundings. We can state another general principle: *the sources of light should be limited in brightness and area, and should be graded into their surroundings.*

The application of this principle is being studied at the Building Research Station and fittings developed to conform with it. One of them, 17, is for hospital use. Any discomfort the 'hot spot' of brightness nearest the lamp would have caused is relieved by the contrast grading resulting from the choice of material and the shape of the fitting.

Little is known for certain of the exact lighting requirements for a sick ward but from Building Research Station studies it is reasonably clear that there are two needs.

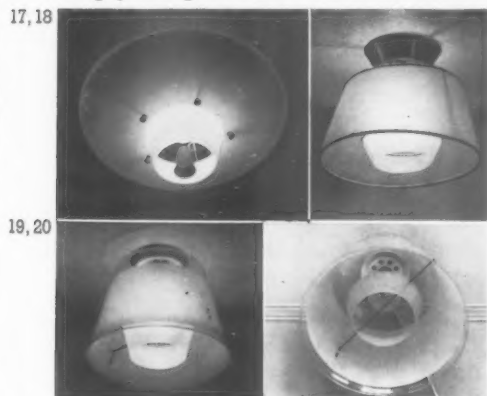
(a) A bed-side adjustable fitting for reading with a long reach arm for clinical examination. The shade of present

types needs modification to give a better cut-off to the lamp. About 50 degrees is the minimum to avoid annoyance to patients in the opposite beds.

- (b) A low level of general illumination (about three lumens/sq. ft. is adequate for normal nursing), mainly indirect sources with a complete absence of bright fittings in view.

The aim in a sick ward is to create a restful and near soporific environment. In modern low ceiling wards it is often difficult to light the ceiling properly as fittings cannot be suspended far enough away from it, and the Building Research Station is starting to investigate the merits of using specially designed standard lamps for the general lighting.

In convalescent wards the characteristics needed are not quite the same. Stimulating environmental conditions are likely to encourage recovery, and soporific lighting is therefore undesirable. A certain amount of sparkle and contrast in the lighting, and a focus of interest of some kind may be helpful, for there is no doubt that proper lighting conditions can help to induce a healthy attitude of mind. The extent of our present knowledge of what the psychologists call the 'affective states'



is very limited and there is yet much to be done along these lines, but, clearly, lighting should not be divorced from the other attributes of an interior such as colour, texture and pattern.

Much more is certain about school classroom lighting and its objectives, many of which are the opposite of those for wards. Much higher levels of general lighting are needed; the regulations specify a minimum of ten lumens/sq. ft. to satisfy the more exacting visual tasks. The environment should be stimulating to maintain alertness and yet be free of any disabling qualities which might make easy

and comfortable seeing difficult over long periods. Two fittings designed at Building Research Station to help meet these specifications are shown in 18 and 19. Both emit a fair amount of light sideways to light the walls and pin-ups, so the brightness of the fittings is graded toward the edges where the fittings are seen directly against a background. [A disadvantage of most opal fittings, 21, is that



they do not do this.] The material used is 'Crinothene,' which sparkles and gives about the right degree of stimulation needed in a classroom. The fitting in 18 has been criticized for its domestic character; the other fitting in 19 and 20 attempts to correct this. Both give preferential lighting



on the desks. The wicker fittings, 22, in the Regatta Restaurant at the Festival of Britain by the Design Research Unit have similar qualities of brightness grading and sparkle.

The use of many small bright sources can also produce stimulating lighting. Sparkle is a very mild form of glare which need not cause discomfort provided the fittings are graded into their surroundings. Research is showing that sparkle can make a real contribution to the impression that a room is well lighted.

Ward and classroom problems illustrate the range of factors which require consideration in practice. They might also be taken as a warning against making decisions about lighting on a purely personal aesthetic basis.

Too often lighting engineers and archi-

tects alike exclude artificial lighting from the main elements of architectural design. Engineers grumble at architects who do not consult them soon enough; architects say engineers are not sympathetic to their outlook on design. The architect of the factory in 23 describes it as a 'triumph of



the illuminating engineer.' The same could be said of 24.

The conception that artificial lighting can be integrated with the fabric of the building is relatively new. In the past the risk of fire from candle, oil or gas lighting left the designer with no choice but to hang or bracket the fittings well clear of the fabric; light fittings as such played a very important part in design. They were prominent because they had to be large to compensate for the low candle-power of the sources and the multi-point chandelier perhaps marks the peak of this development.

The modern electric source is powerful and small—one unit replaces tens of the old, and the faults in most of our modern light fittings are largely the result of trying to adapt the old to suit the new. But the new sources of light are so strong in brightness that they can damage the eye, they must be screened, for what in an old fitting was perhaps merry and sparkling, is now, with the modern source, intolerably glaring. The recent demands for higher illumination levels compels us to use more and brighter fittings and so aggravate the trouble. Designers today are finding themselves therefore forced to consider artificial lighting in detail from an early stage in design. The forest of fittings in 23 and 24 indicates what happens if this is not done.

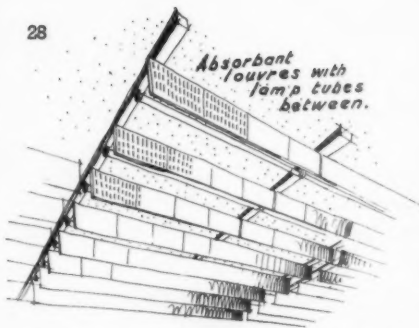
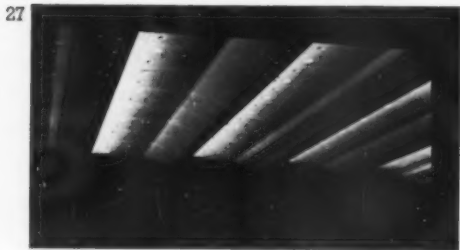
Lower ceilings of modern buildings are tending to make it more difficult to use 'off the shelf' fittings. Consequently, treatments like the louvred ceiling, 25, flush fittings, 26, configured ceilings, 27, and



bare fittings independently louvred, 28, have been developed, all of which are examples of more or less integrated design.



Perhaps only in the specialized spheres of display in shops and travel bureaux has



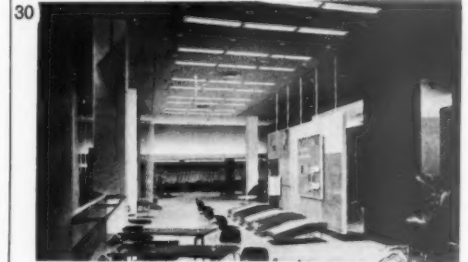
lighting been properly integrated with architectural design. The shop in Plymouth, 29, by Ellis Somake and the carpet store in New York, 30, illustrate this. In both the



lighting is recessed in the ceilings and depends on high levels of illumination and bright surfaces to get a good spread of light. Both admit frankly the dramatic

and sparkling qualities of high contrasts and use it to attract customers.

At present, revolutionary changes in the solution to artificial lighting seem unlikely. The trend is toward refining present methods and developing a more



sensitive understanding of the alternatives open to the architect. Sources are the engineer's prerogative and surfaces the architect's; out of the two is formed our night-time environment. Their relationship is now better understood and gradually we may expect to see emerge a decisive improvement in the design and technique of contemporary lighting.

John Bickerdike

The reader can, if he wishes, consult the following articles: *Lighting of Buildings*, Allen & Hopkinson, RIBA Journal, March and April, 1951; *Illumination*, W. A. Allen in Current 'Specification.' Since lighting effects, particularly the subtle ones, are notoriously difficult to reproduce in a photograph, allowances should be made for this.

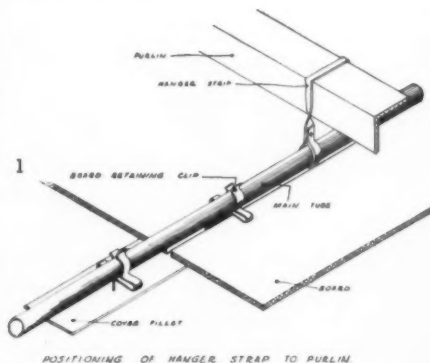
CEILINGINGS

A NEW SUSPENDED CEILING

It is often apparent that the structural possibilities inherent in new materials are slow to show themselves and they therefore tend, for a time, to be used in a traditional way.

The manufacturers of a new metal fixing system for ceilings, Gliksten Building Materials, Carpenters Road, Stratford, E.15, claim that this stage is now passed in the case of insulation and building boards used for thermal and acoustic insulation purposes, and that their system renders traditional fixing methods out of date.

It is based on a system of tubes in six-foot lengths which are suspended in the form of a built-up grid by hanger straps from the purlins, 1. Tubes can be joined by short solid sections; at the cross sections the ends of the cross tubes butt up against the run of the main tubes. Retaining clips are snapped on to the tubes at 9 in. intervals.



The lower parts of the clips are splayed out to form flat surfaces, or distance pieces against which the upper surface of the building boards rests. A cover plate is then screwed against the base of these clips, 2, the screw engaging a longitudinal gap left in the underneath part of the tube for the purpose. The length of the screw is arranged so as to ensure an equal tension in the spring clips and so maintain an even pressure throughout the surface. The spring in the clips takes up any variation in thickness and movement arising from expansion and contraction, atmospheric conditions

and vibration. The cover plates are normally placed at 2 feet centres, but may also be used at 4 feet centres. This makes possible the use of building boards either 2 feet or 4 feet wide up to 10 feet long. To prevent 'sag,' special steel stiffener tubes, independent of the tube supports, can be pinned to the back of the panels.

The Gliksten fixing is, therefore, all-metal, can be used for boards of varying thickness for attachment to R.S.J. mem-





Fig. 1.

Holes for lighting points may be easily cut through the hollow section of BISON units.

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Fig. 2.
Openings for service pipes etc., up to 7" wide can be cast in standard BISON units during manufacture. Larger openings can be arranged to meet particular requirements—see Fig. 4.

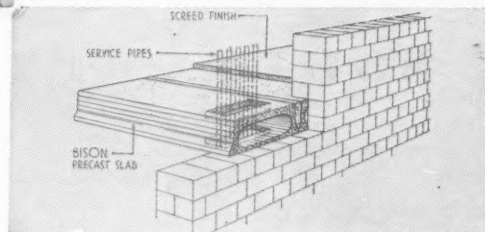


Fig. 3.
Vents, similar to that illustrated, are often required in roofs and may be cut or formed during the manufacture of BISON units.

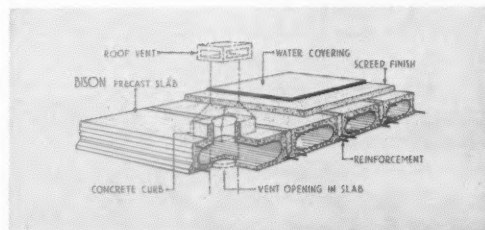
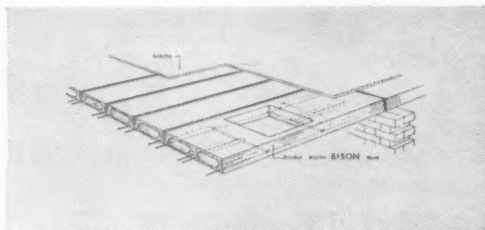


Fig. 4.
Large openings up to 1' 9" wide can be cast during manufacture by means of a special BISON unit of double width. (See fig. 2 also.)





Architect: E. BERRY WEBBER, F.R.I.B.A.

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bers, steel, concrete and timber purlins and precast or cast in situ concrete ceilings. Normally the cover plates are of hard-board, but steel, aluminium alloy or plastic may be used at will. They provide easy and quick access to service installations installed above them.

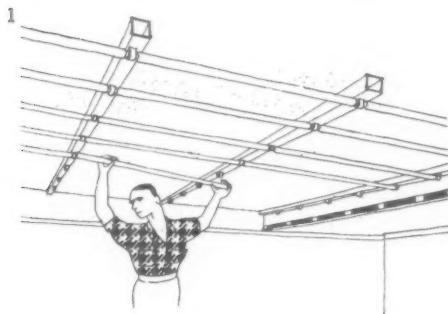
If a plaster finish is required, an expanded metal cover plate is used and the ceiling is then plastered normally.

PREFABRICATED CEILING (USA)

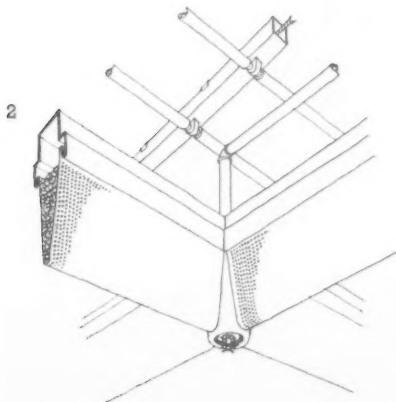
Suspended ceilings based on prefabricated units are not a new idea, but no other system appears to have taken the solution quite so far as a package of standard parts incorporating lighting, wiring, acoustic insulation and a sprinkler system, as in the case illustrated here.

It was originally designed in the USA by Robert Smith of General Motors Styling Division though Eero Saarinen was later involved. Known as the 'Sigma-Plex' system, it is manufactured by F. W. Wakefield & Company, Vermilion, Ohio.

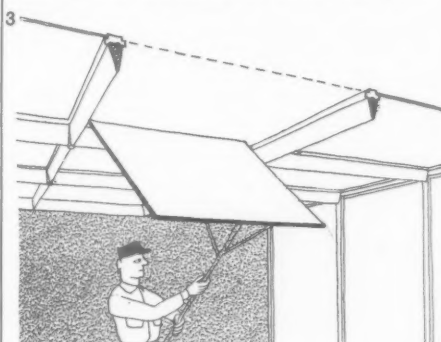
A series of channels containing the wiring and gear, and fitted with sockets for fluorescent lamps, are first attached to the ceiling proper. A grid of channels based on a 4 feet by 5 feet module is suspended from



this, 1. Where these cross, the sprinkler nozzle projects. Slipped into the lower part of these channels are tapered baffles of



perforated metal packed with a sound absorbent material, 2. The spaces between the baffles are filled in with transparent



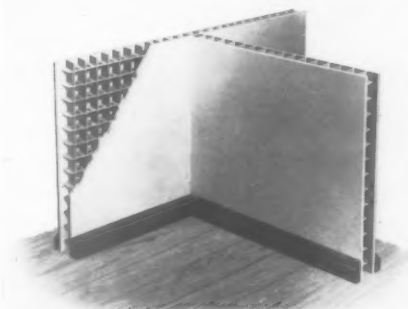
plastic diffusing sheets, slightly arched so that they can be sprung in and out of recesses in the grid-channels. A spring-latch device allows removal of the plastic sheet, 3, for servicing equipment above.

WALLS

A DRY PARTITION

Plasterboard, widely acknowledged as a standard, practical and flexible method of providing a ceiling or wall facing, is a typical example of the first step in factory production of building components. The British Plaster Board, Morris House, 1-5, Jermyn Street, S.W.1, have now introduced 'Paramount' dry partitions, which take the prefabrication process a stage further.

This new partition consists of two sheets of plasterboard separated by an eggcrate or cellular structure, firmly glued to the



two flat sheets. The eggcrate is actually of cardboard coated with adhesive, and the result is a rigid, very strong unit capable of being sawn easily and assembled and fixed quite simply in any normal way required.

Panels are made in stock sizes of 7 feet 6 inches and 8 feet long by 3 feet wide. Other lengths from 6 feet to 12 feet

and widths of 4 feet can be made to order. The standard thicknesses are 2½ inches with ¾ inch thick facing boards and 2¼ inches with ½ inch thick facing boards, and the weights are 4.2 lb. and 5.3 lb. per square foot respectively. The partition has been subjected to the usual official tests for qualities of sound insulation, thermal transmittance and fire resistance, with good results.

The junction of partition panels and fixings for door frames and windows are done by inserting timber slips and plugs between the two sheets of plasterboard. The cells can be broken into to take these without impairing the general strength and rigidity of the partition. In the same way, electric conduits can be pushed in where required. A most ingenious fixing device is a 'Rawlnut,' a tough rubber bush with a tapped nut bonded into it. A ¾ inch hole is bored in the face to receive it and when the screw is inserted and tightened—to take a batten for a 'T' junction, for example, the rubber is bulged out behind the face of the board and forms a firm lock. Wash basins, shelves, light fittings and similar fixtures can effectively be secured in the same way.

Prices for 300 square yards and over are 11/- per square yard for 2½ inches partition and 12/6 per square yard for 2¼ inches partition, respectively; 12/6 and 14/- for quantities from 150 to 299 square yards, and 13/6 and 15/- for 149 square yards and under.

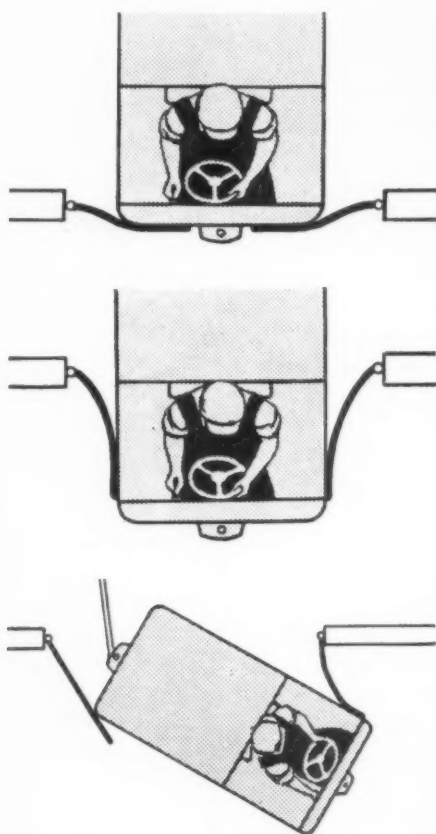
DOORS

INDUSTRIAL RUBBER DOORS

There is something uncanny about the idea of rubbers doors, which one can crash open with a truck or barrow with complete impunity. Not that opening doors in this way is new; it has been a recurrent maintenance item for door owners for many years. These industrial rubber doors do not become damaged under rough treatment, they do not damage the vehicles, they open noiselessly and when closed act as a draught seal. They can be had as single- or two-panel swing doors, to swing either one way or both ways. The door-frame is made from tubular steel at the top and the side with a triangular bracing piece in the top corner. The vertical tube pivots top and bottom and a patent return spring is let into the top of



the tube. The door is of $\frac{5}{16}$ inch reinforced canvas rubber sheeting made by the Dunlop Rubber Co. and a perspex panel



is let in at an angle across the door so that people of all heights can see through. The positioning prevents the stiffer perspex from distorting the door shape when it is opened.

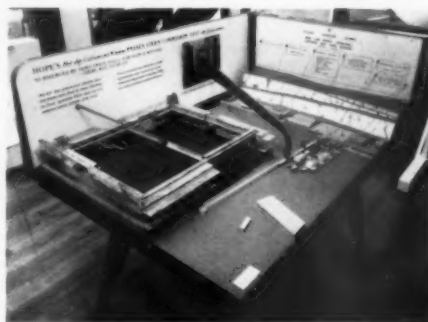
The doors are manufactured by William Newman & Sons, Hospital Street, Birmingham, 16.

WINDOWS

THE WINDOW FROM DOVER HARBOUR

Most accelerated forms of testing equipment and materials have an element of the dramatic. Few could be more so than the plan adopted by Henry Hope & Sons, Ltd., Smethwick, Birmingham, to test and demonstrate their claim that the hot-dip galvanizing process for rust-proofing steel is unbeatable.

In September, 1950, they fixed a standard 'Hope' hot-dip galvanized window and sub-frame to the wall of Dover Harbour and for over a year it was submerged twice daily at high tide without showing any sign of rust. The window and frame



were subsequently displayed at the British Industries Fair this year, against a model of Dover Harbour.

COMPETITIONS

SITTING OUT OF DOORS

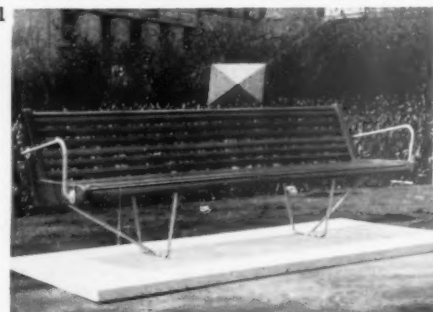
If there is one tangible and permanent result to be expected from the Coronation, it is surely a spate of commemorative park seats.

The competition for the design of outdoor seats, and the subsequent exhibition in the Victoria Embankment Gardens in May, both organized by the Council of Industrial Design was, therefore, timely. Sixty-nine entries were catalogued for the six categories of seat defined in the conditions, i.e., single seat and multi-seat types for use in a variety of public places.

In spite of the request for contemporary design, many of the entries would only have qualified in this respect some three or four Coronations ago. Among the better entries, it was noticeable that metal tube and rod were the chief means of changing the style of seats from the conventional, with concrete a runner-up. On the whole, the problem of the contemporary park seat

tended to be side-stepped and slatted hardwood seats and backs obviously take a lot of beating for durability and weathering. In general, the standard of comfort was low.

Among the park seats a design by Gordon Symondson for Walker-Symondson



for a fixed seat, 1, was a good example of the metal tube and timber treatment since it reduced the support problem to the minimum and at the same time introduced colour. The timber was wax impregnated



Iroko. Another fixed seat design, 2, by J. B. Lambert for Harris & Sheldon had a timber slatted seat in natural oak, and a back of Mansonia, resting on a massive shaped concrete base. The concrete base continued below ground level.

Of the movable seats, the single, 3, and



multi-seat stacking designs with metal tube stove-enamelled legs and moulded fibre-glass seat and back combining a printed pattern of fabric or paper incorporated in the resin bonding was the most original application of this new material, though not the only one. Designed by Gordon

[continued on page 66]



Reinforced Concrete Water Tower
at Stowlingtoft for Thingoe
and Thedwastre R.D.C.,
Consulting Engineers: Messrs.
Lemon & Blizard.

This 250,000 gallon water tower in reinforced concrete
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in the right design for the job.



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MANCHESTER: 7 OXFORD ROAD, MANCHESTER, 1. Tel: Ardwick 1691.

GLASGOW: 19 ST. VINCENT PLACE, GLASGOW, C.1. Tel: City 6594.



continued from page 64]

Burley and made by F. Lewis & Sons.

An original use of slats with one of the simplest forms of steel rod supporting



frame was the design by A. J. Milne for Heal & Son, 4. The slats were of shaped oiled beech secured at the angle of the seat and back.

A seat entirely in metal was submitted by Andrew A. Pegram to a design by Nigel Walters, 5. The frame was of stove-enamelled rust-proofed steel rod with back and seat shaped from expanded metal and the edges bound with metal strip.

DECORATION

PLASTIC PANELLING

In the recently reconstructed Kenilworth Castle at Notting Hill, London, Barclay Perkins' chief architect, F. W. Handover, has used over two thousand square feet of Formica laminated plastic panelling. It is employed on vertical and horizontal surfaces including walls, doors, bar and bar back, in various wood finishes. By using horizontal bands against the vertical graining, small sections of panel could be used instead of being wasted.

A novel method of fabrication was used

for the wall panelling in that it was veneered direct to the wall surface. This was made possible by screwing 'Weyroc' panels to frames of battening which were fixed to the brickwork. The Formica panels were then veneered to this base in situ, with a new 'impact' adhesive (EVO-STIK 528 produced by Evode). This was a cheaper and much quicker method than plastering the walls.

[continued on page 68

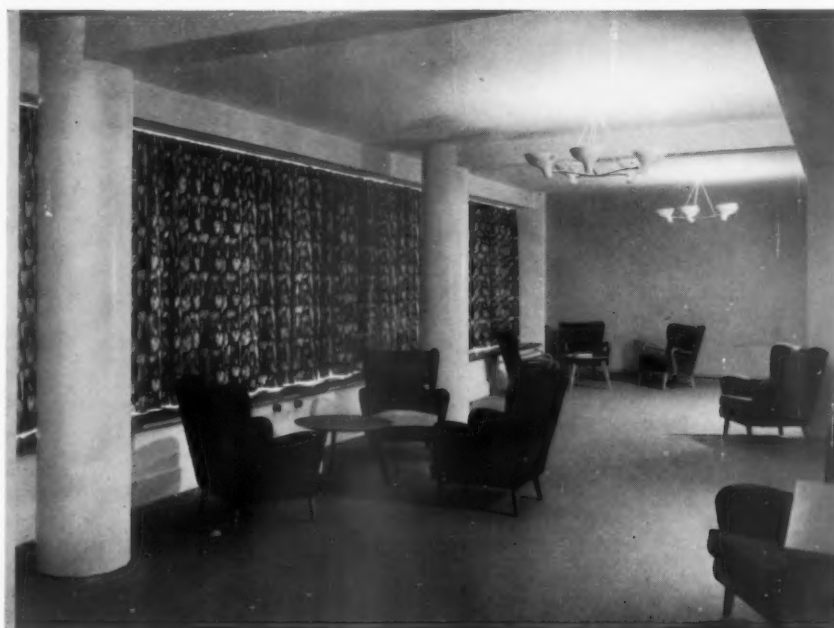


Y.M.C.A. Indian Students' Union & Hostel

Architect: Ralph Tubbs, O.B.E., F.R.I.B.A.

Working in collaboration with the architect, Heal's Contracts Ltd., supplied all the furniture for the new hostel, some of which was specially designed, as well as the curtains and carpets.

HEAL'S CONTRACTS LTD.



The Common Room, The Y.M.C.A. Indian Students' Union and Hostel, Fitzroy Square, W.1, showing the furniture and furnishings recently supplied by Heal's. The chairs have various coloured coverings, and the curtains are of Heal's exclusive design.

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continued from page 66]

THE BUILDING INDUSTRY

Annual Report of the Coal Utilization Council, apart from the normal account of stewardship, ranges from thoughts on the possible shift of family focus from the fireplace to TV to the instruction of builders in the proper installation of appliances.

Metropolitan-Vickers Electrical Co. Ltd. announce the appointment of E. Mead to be manager of London District Office, to succeed J. I. Law-Brooks who retires but remains in a consultative capacity until the end of 1953.

Aygee Ltd., 100, Westminster Bridge Road, S.E.1, announce that H. Tellow has joined their staff as Technical Consultant on metal windows and patent glazing.

Gliksten Building Materials, Carpenters Road, Stratford, E.15, announce that they have been appointed sole concessionaires in the UK and Northern Ireland for 'Linex' low density structural insulation and joinery panels by the Belgian manufacturers of this product.

Panel Parquetry Ltd. Reference was made in a recent REVIEW to this new type of built-up parquetry flooring manufactured by this company. Unfortunately, the address given was incomplete. Enquiries should be addressed to Panel Parquetry Ltd., Sussex Chambers, Rhyl, Flintshire.

Electricity in Housing is issued by the British Electrical Development Association to underline the manifold services available from no more than one installation from one main service cable.

CONTRACTORS

Indian Students' Hostel, Fitzroy Square. Architect: Ralph Tubbs. *Consulting Engineers:* Messrs. Frederick S. Snow & Partners. *Quantity Surveyor:* B. G. Coffin. *General contractors:* Tersons Ltd. *Furnishing:* Heal's Contracts Ltd. *Sub-contractors:* soil, drainage, rainwater and plumbing: Richard Audrey Ltd. *Tanking to basement:* William Briggs & Sons. *Patent roof covering:* Durable Asphalte Co. *Roof paving:* Everseal Products Ltd. *Terrazzo paving:* Art Pavements & Decorations Ltd. *Linoleum:* Catesbys Ltd. *Internal flush doors:* Rippers Ltd. *Ironmongery and panic bolts:* Alfred G. Roberts Ltd. *Metal windows:* Williams & Williams Ltd. *Suspended ceilings:* Expanded Metal Co. *Passenger lifts:* Hammond & Champness. *Two service lifts:*

Keighley Lifts Ltd. Ventilation, heating and hot water: Rosser & Russell Ltd. *Sanitary fittings:* Pryke & Palmer Ltd. *Electric lighting:* Troughton & Young Ltd. *Kitchen equipment:* Benham & Sons. *Facing bricks:* Henry J. Greenham (1929) Ltd. *Specialist balustrading:* Scaffolding (G.B.) Ltd. *Insulation to prayer room roof:* C. & T. Pyrok (Contracts) Ltd. *Woodblock flooring:* A. M. MacDougall & Son Ltd. *Wallpapers:* Arthur Sanderson & Sons Ltd.; John Line & Sons Ltd.; Cole & Son (Wallpapers) Ltd.

The Twin Foxes, Stevenage. Architects: Prof. C. Holliday, Leonard G. Vincent and Oliver Carey. *General contractors:* Tersons Ltd. *Sub-contractors:* *Metal windows:* The Crittall Mfg. Co. *Precast concrete floors:* Flooring Contracts (London) Ltd. *Wood block floors:* V.G. (London) Ltd. *Copper roof (children's playroom):* Broderick Insulated Structures Ltd. *Ventilating apparatus:* Z. D. Berry & Sons. *Display window:* Rippers Ltd. *Bar counters and shelving:* Foster's (Woodworkers) Ltd. *W.C. cubicles and door fittings:* William Mallinson & Sons. *Ironmongery:* Dryad Metal Works Ltd. *Beer engines:* Frederick Sage & Co. *Electrical installation:* The Eastern Electricity Board. *Lighting fittings:* Hume Atkins & Co. *Flushing valves:* Victory Valves Ltd. *Sanitary fittings:* Dent & Hellyer Ltd. *Gas installation:* Eastern Gas Board. *Wallpaper:* Arthur Sanderson & Sons; John Line & Sons. *Inn sign:* Foster's (Woodworkers) Ltd. *Supply of trees:* R. Wallace & Co. *Kitchen cabinets, etc.:* Jayanbee Joinery Ltd.

Housing at Sunbury-on-Thames. Architect: Basil Spence & Partners. *Quantity surveyors:* B. M. Kimber. *General contractors:* three blocks of flats: Co-Partners Building Operatives. *Old people's dwellings:* Messrs. C. & S. Telling; A. E. Hopkins & Son. *Two-storey dwellings:* C. & S. Telling; A. E. Hopkins & Son; Henry Day (Merton); Gamblin & Son. *Sub-*

[continued on page 70]

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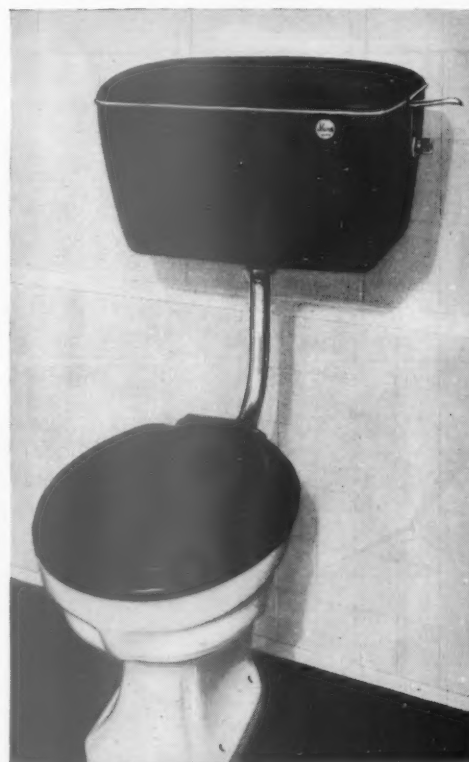
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facturers (Division G).*



SHIRES & CO. (LONDON) LTD., Greenbottom Works, Guiseley, Yorkshire



continued from page 68]

contractors: bricks: Uxbridge Flint Brick Co. Base course and common flintons: special roofings: Hugh Twaddle & Son. Patent glazing: Crittall Manufacturing Co. Patent flooring: Living rooms: Durable Asphalt Co.; Sealantone Products. Gas-fitting: North Thames Gas Board. Open fires with back-boilers: Ideal Boilers & Radiators Ltd. Electric wiring: T. Adams & Co. Electric light fixtures: Merchant Adventurers of London. Sanitary fittings: Wilson & Wylie, suppliers of Royal Doulton fittings. Door furniture: Nettlefold & Moser. Window furniture and casements: Crittall Manufacturing Co. Joinery: John D. Austin (Ilford). Mantels: H. & C. Davis & Co.

House in Connaught Mews. Architects: Yorke, Rosenberg and Mardall. Quantity surveyors: Geo. Bessand & Partners. Structural consultants: Clarke, Nichols & Marcel. General contractors: Kentish & Son and Simon Johns (London), Ltd. Sub-contractors: Plastering: Minter Bros. Paving: London Paving Co. Polishing: L. Corbishley. Wall tiling: Carter's Tiles Ltd. Floor tiling: Metropolitan Flooring Co. Plumbing: P. Laurence. Electrical installation: Pain & Lungley. Gas installation: North Thames Gas Board. Steel: Hills (West Bromwich) Ltd. Square grip reinforcement: bricks: William Pratt. Glass domes: Pilkington Bros. Floors: Hornton stone: de la Rue. Polivinyll chloride tiles: Metropolitan Flooring Co. 3 layer built-up felt roofing with granite chip finish: Wm. Briggs & Sons. Gas fire: Bratt Colbran. Water heating: Ascot Multi-point. Kitchen fittings: Cubax Kitchen Cabinets Ltd. Balcony steel work: Clark, Hunt & Co. Balcony slats and staircase: Linden Doors Ltd. Ironmongery: Rennis Ltd. Living room fitting: Esavian. Doors: Gliksten Doors Ltd. Sanitary fittings: Stitson's Sanitary Fittings Ltd. Lighting fittings: Troughton & Young. Gas cooker: Cannon. Paint: Wm. Screeton and Dulux. Sliding door track: P. C. Henderson, Ltd. Wallpaper: William Morris; Sandersons. Furniture: Story & Co.; Heal's; Dunns, of Bromley; Hammers.

Bus Garage, Garston, Herts, for the London Transport Executive. Architect: Thomas Bilbow, Chief Architect to the Executive. Assistant Architect: K. J. H. Seymour. Consultants on LTE staff: A. V. Bond (structural steelwork); H. Carter and J. Read (heating and ventilation); T. C. Ball, in co-operation with J. H. Coombs & Partners (electric light and power); P. Croom-Johnson, Chief Engineer to the Executive; J. H. Williams, Equipment Engineer (road services). General contractors: Leslie & Co. Sub-contractors: structural steelwork: Cargo Fleet & Iron Co. Precast floor beams: Fabricrete Products Ltd. Metal doors and windows: Williams & Williams Ltd. Joinery: D. Burkle & Son. Flush doors: Hooks Joinery Works Ltd. Patent glazing and roof lights: British Challenge Glazing Co. Floor and wall tiling: Bryon & Co. Steel roof deck and felt: The Ruberoid Co. Duct covers: Broad Manufacturing Co. Sanitary fittings: Tylors of London. Flushing valves: Victory Valves Ltd. Battery benches, doors: Light Steelwork Ltd. Balustrade, entrance doors: Lucco Art Metal Co. 'Accotile' flooring: Korkoid Decorative Floors Ltd. Louvres and steel staircase: Delziel Engineering Co. Valve boxes, metal work: Clark Hunt & Co. Asphalt: General Asphalt Co. Fuel tanks: J. Bellamy Ltd. Linoleum: Cellulin Flooring Co. Lightning conductors: R. C. Cutting & Co. Glazed wall finish: J. Freeman Sons & Co. Heating engineering: Comyn Ching & Co. (London). Artificial stone: Globe Building Products Ltd. 'Glaserite' windows: J. A. King & Co. Terrazzo: Diespeker & Co. Ironmongery: Lockerbie & Wilkinson (B'ham) Ltd. Sprinklers: Mather & Platt Ltd. Fascia lettering: Nash & Hull Ltd. Multi-facing bricks: Pratt (Watford) Ltd. Leicestershire straw facing bricks: E. H. Smith (London) Ltd. Glass dome lights: Pilkington Bros. Ltd. Chain link fencing: Fencing (Shepperton) Ltd. False ceiling: Tentest Fibre Board Co. Cycle park blocks: Stelcon (Industrial Floors) Ltd. Roller shutter: Shutter Contractors Ltd. Pumping plant: Mono Pumps Ltd.

Polytechnic at Southwark, London. Architects and Consulting Engineers: Norman & Dawbarn. Assistants-in-charge: John Moreton and Peter Clarke. Consulting Structural Engineers: Travers Morgan & Partners. Quantity Surveyors: William C. Inman & Partners. 16-in. scale model made by McCutcheon Studio. General contractors: Humphreys Ltd. Sub-contractors: heating, ventilation and hot and cold water, steam and gas services: Young, Austen & Young Ltd. Electric installation: Rashleigh Phipps & Co. Staircase balustrades and fencing: Universal Metal Furring & Lathing Co. Lifts installation: Shorts (Lifts) Ltd. Passenger lift car: Frederick Sage & Co. Concrete hardeners: Prodorite Ltd. Steel furniture lockers: Rubery Owen & Co. Aluminium cladding to bridge: Frederick Braby & Co. Built-up roofing: Neuchatel Asphalt Co. Metal windows and main entrance doors: Williams & Williams Ltd. Bridge construction: The Aston Construction Co. Sanitary fittings: Associated Clay Industries Ltd. Tiling: A. Bleakley & Co. Door furniture: Lockerbie & Wilkinson (Birmingham) Ltd. Lavatory partitions: Venesta Ltd. Bakery and laboratory fitted furniture: George M. Hammer & Co. Glazing: James Clark & Eaton Ltd. Cold water storage tank: Braithwaite & Co. (Structural). Roller shutters: Fireproof Shutter & Door Co. Urastone flues: Cellactite & British Uralite Ltd. Dry fire hydrant riser: Automatic Sprinkler Co. Carda windows: Holcon Ltd. Cold room plant: Lightfoot Refrigeration Co. Facing bricks: W. L. Jackson & Co. Terrazzo floor and granolithic floor: Marriott & Price Ltd. Semastic floor tiles: Horsley Smith & Co. (Hayes). 'Accotile' flooring: Neuchatel Asphalt Co. Granwood tiles: The Granwood Flooring Co. Paint: W. & J. Leigh & Co.; Sherwood Paints Ltd. Steelwork to entrance canopy: Daco Structures Ltd. Decoration: Decorative Specialists Ltd. Plasterwork: Greenslade Bros. Reinforcing steel: The Rom River Co. Plumbing: Arthur Scull & Co. Aggregate and sand: Horace A. Cunis Ltd.

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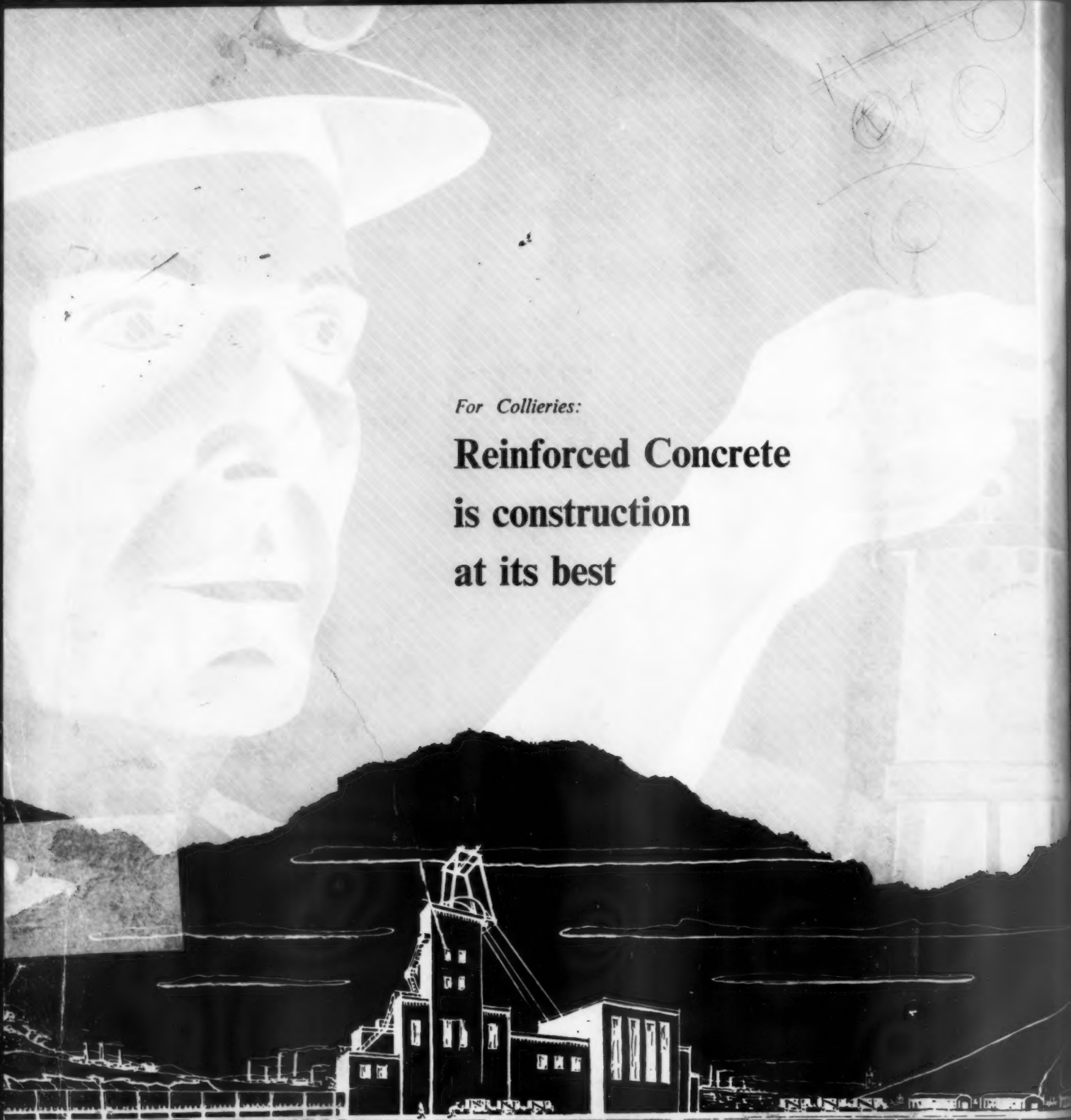
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