THE ARCHITECTURAL REVIEW VOLUME CXI NUMBER 662 FEBRUARY 1952 FIVE SHILLINGS

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This special weathering detail designed for the Margam Cold Strip Mill enabled panes of glass to be butted together without overlap in a neat and weatherproof joint. It enabled the Architect's "Cascade" effect to be successfully carried out.

WILLIAMS AND WILLIAMS at MARGAM

Further examples of the versatility of Aluminex Patent Glazing

The Abbey Works of the Steel Company of Wales, is the largest rolling mill in Europe and is one of the most outstanding engineering plants designed since the war. Working in conjunction with the Consulting Engineers, Messrs. W. S. Atkins & Partners, and the Architects, Sir Percy Thomas & Sons, Williams and Williams were able to produce glazing of a unique and impressive character, examples of which are shown in these pages. The cascade sidewall lights are of particular interest, being expressly designed to meet the exacting lighting requirements.

CASCADE GLAZING When it had been decided that Aluminex Patent Glazing provided all the features required for the sidewall glazing of the Steel Mills at Margam, certain technical difficulties were discovered. In order to produce even daylighting throughout the building it was necessary that the panels of sidewall glazing should curve inwards at the head. It was inadmissible to break the line of the curve by allowing the panes to overlap in a "lobster-back" fashion and curved glass was out of the question because of cost and difficulty of replacement. The effect had to be achieved by using flat panes of glass set out in a series of chords, and this arrangement presented special weathering problems, as also did the very flat pitch near the top of the cascade.

To overcome these the Aluminex engineers designed a new weathering detail which is shown in the drawing and in the photograph at the bottom of the opposite page, and is a development of the standard Aluminex "Z" weathering extrusion which is one of the special features of the Aluminex Glazing system. The remarkable effect achieved resembled cascades of glass and is vividly illustrated in the photographs. The cascades are each fourteen feet wide and range from fifteen feet to fifty-five feet high. The fifty-five foot cascades are composed of seven vertical tiers with a further curved portion of three tiers on a 9′ 9″ radius. The cascades were glazed in some instances with specially toughened glass in order to resist the thermal shock caused by hot ingots passing within a few feet of them.

HIGH/LOW ROOF CONSTRUCTION To provide controlled ventilation together with even distribution of light, the monitors in the Cold Mill Building are glazed partly with continuous top-hung Aluminex opening lights and partly with aluminium vertical pivot-hung windows made by the Reliance Division of Williams and Williams. Both are operated by Teleflex Gear with hand-operators placed so that they can be manipulated from walkways on the crane gantry. The vertical pivot-hung windows are arranged to open 135 degrees and are coupled together in ranges so that one gear operation opens the complete range. Thus ventilation can be controlled quickly to very fine degrees in accordance with either temperature or changes in wind direction.

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Makers of Metal Windows, Doors and Aluminex Patent Glazing.
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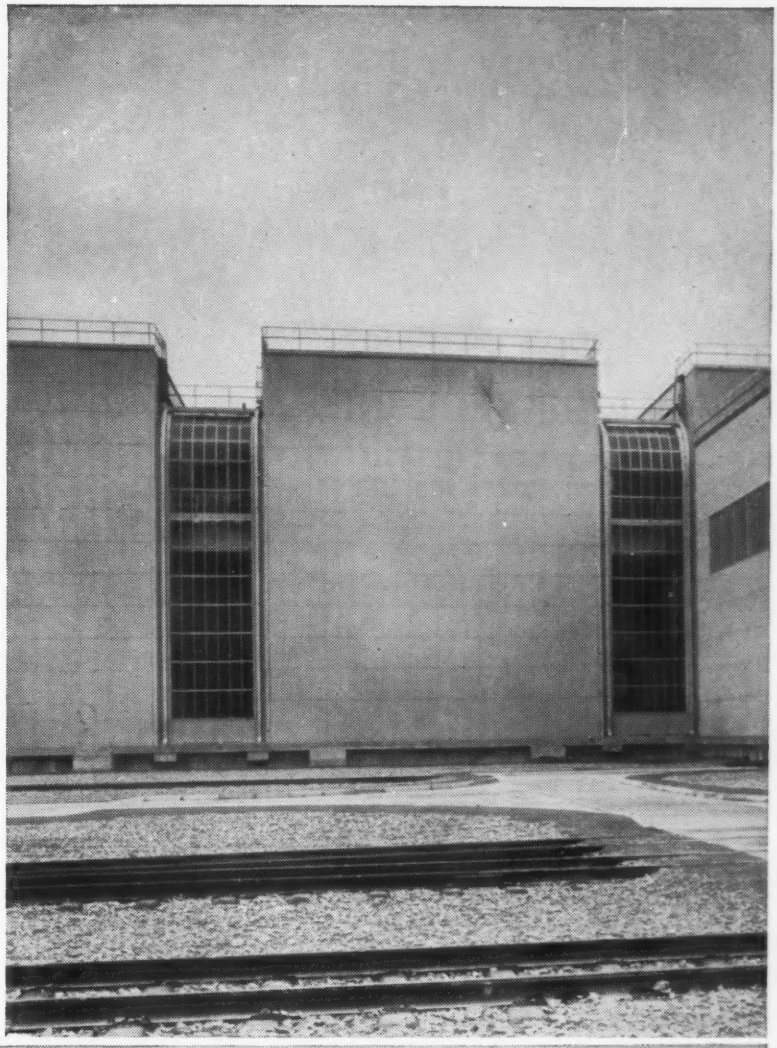
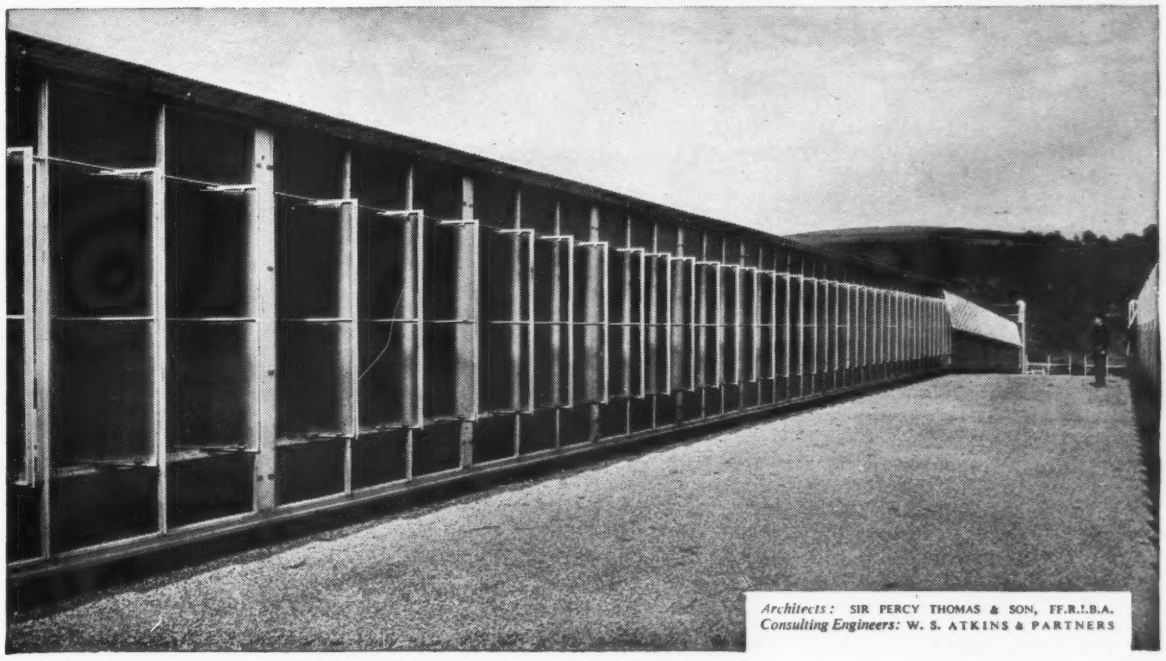
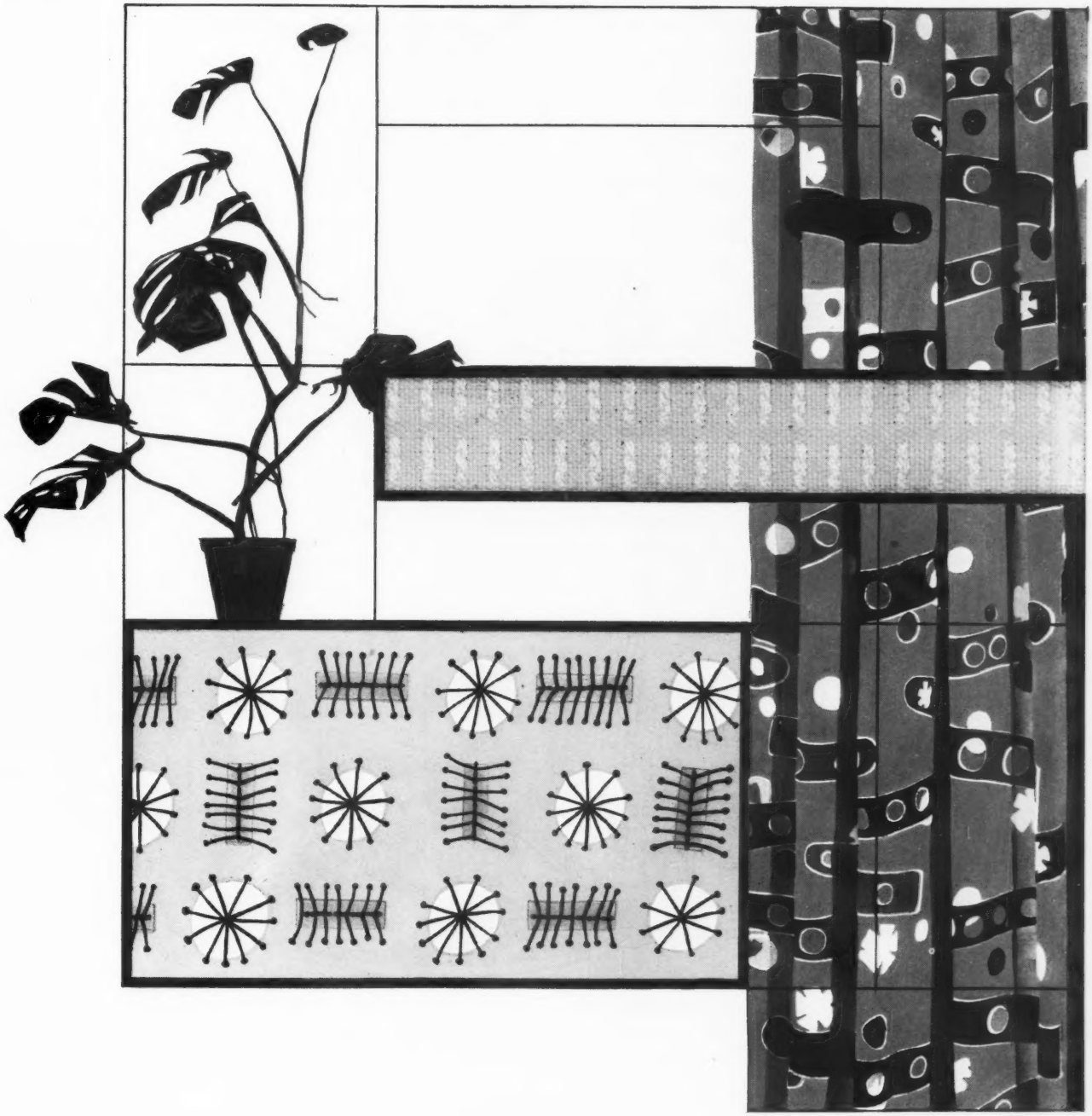
● See pages 115 and 116.





Architects: SIR PERCY THOMAS & SON, FF.R.I.B.A.
Consulting Engineers: W. S. ATKINS & PARTNERS



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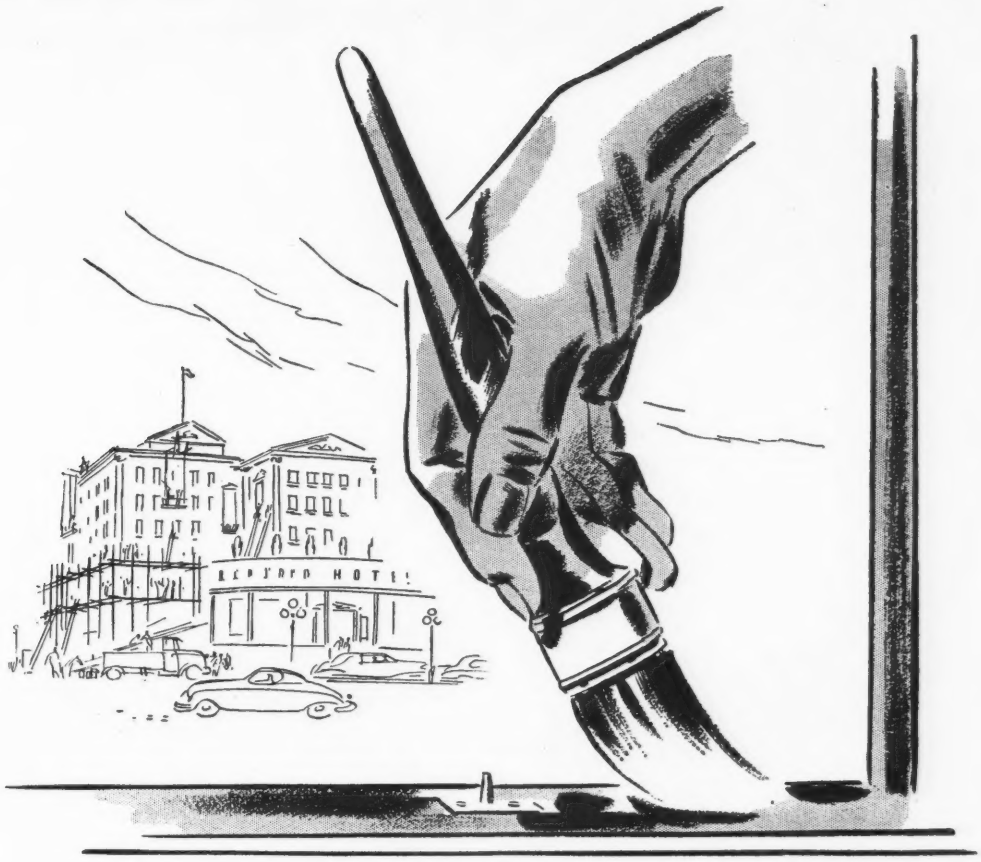

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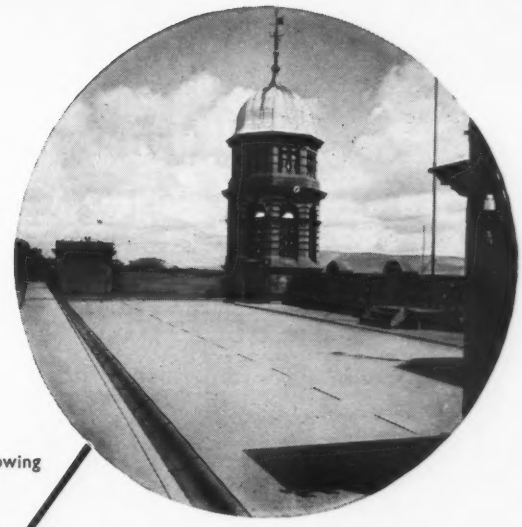
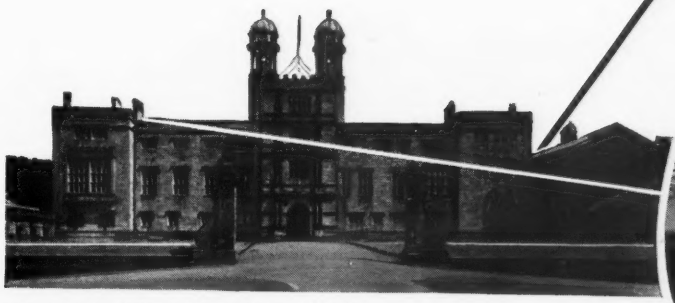
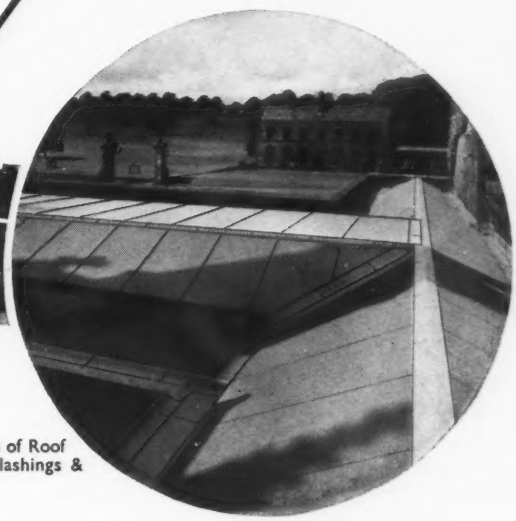


Section of Roof showing Gutters and Outlets.



Stonyhurst College, Hurst Green, Whalley.



Another Section of Roof showing Hips, Flashings & Gutters.

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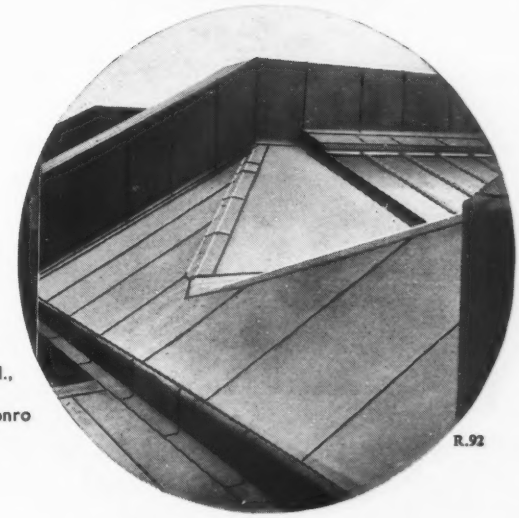

Section of Roof of Macfarlane Lang & Co. Ltd., Osterley.
Architects: James M. Monro & Son.

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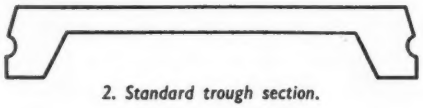
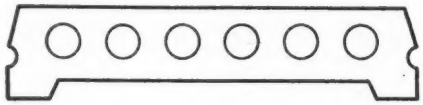


2. Standard trough section.



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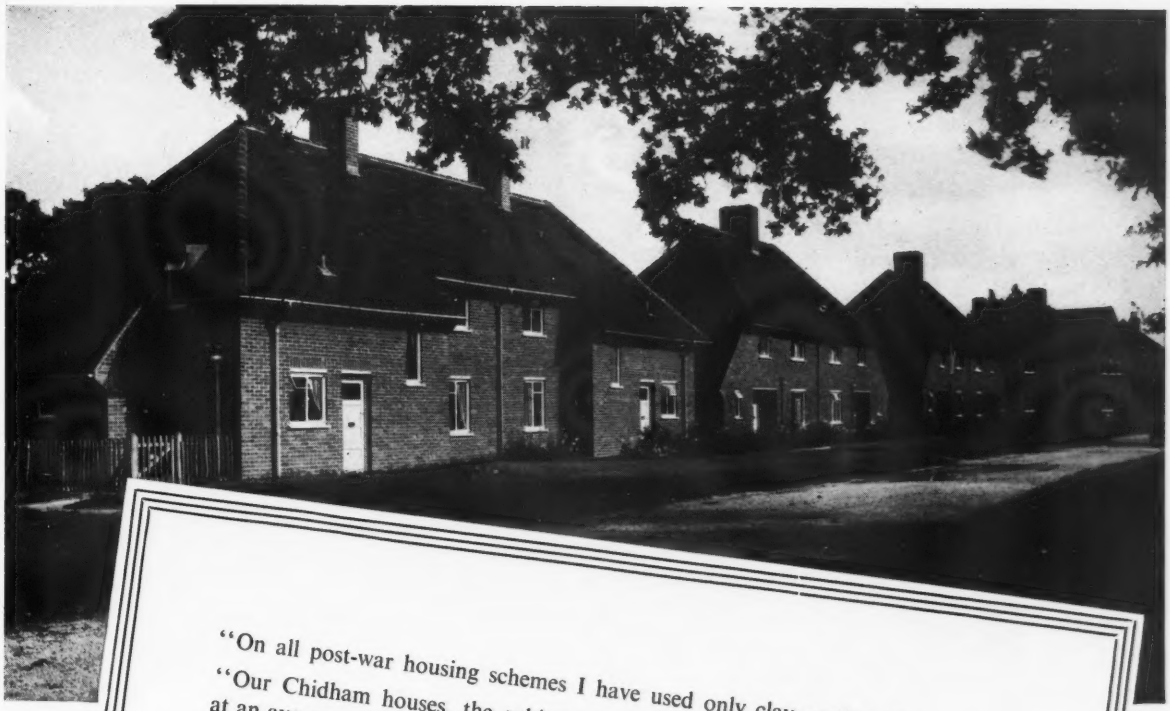

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Extract from a letter received from Mr. J. K. Lawson, F.R.I.C.S., A.M.I.S.E., Engineer and Surveyor, Rural District Council, Chichester.

* Ministry Housing Medal.

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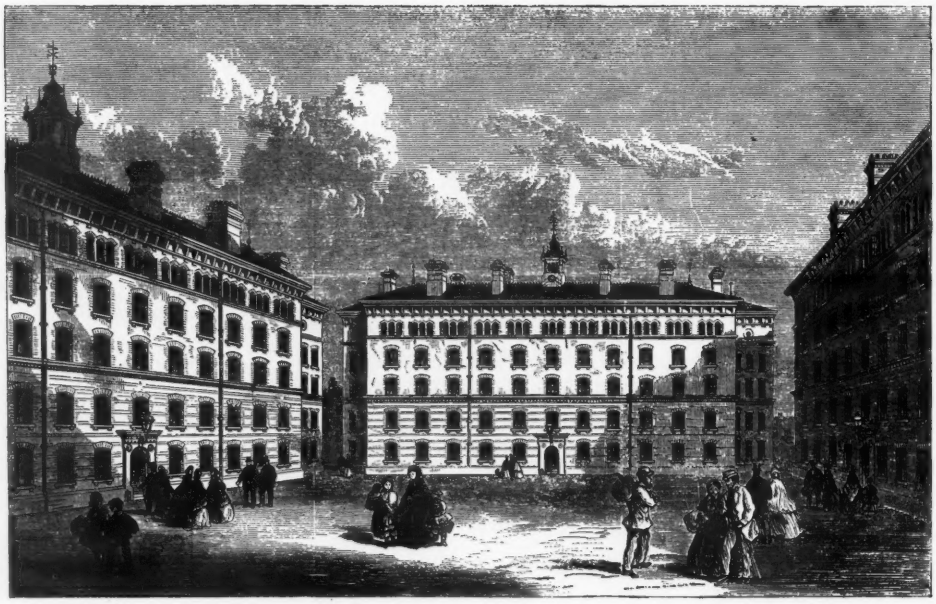

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The photograph shows a section of the roads recently completed by the Yiewsley and West Drayton U.D.C. on the Philpots Farm Housing Estate, West Drayton. The roads were constructed by *stabilising the naturally occurring brick earth and hoggin* to a depth of 6″ with 10% by weight of cement, employing the "mix-in-place" method. The soil-cement, surface dressed with tar and shingle, will carry all the builders' traffic. The method is both speedy and economical, 12,000 square yards having been completed in 15 working days at an approximate cost of 7/- per square yard. Kerbs and a 1″ gravel asphalt carpet will be added upon completion of the building operations. Observe the SISALKRAFT Prefabricated Curing Blankets used throughout for the curing and protection of these roads.

Photograph by kind permission of the Yiewsley and West Drayton U.D.C. (Engineer, Surveyor and Architect, W. T. Morgan, F.R.I.C.S., M.I.Mun.E., L.R.I.B.A.), Town Hall, West Drayton, Middlesex.

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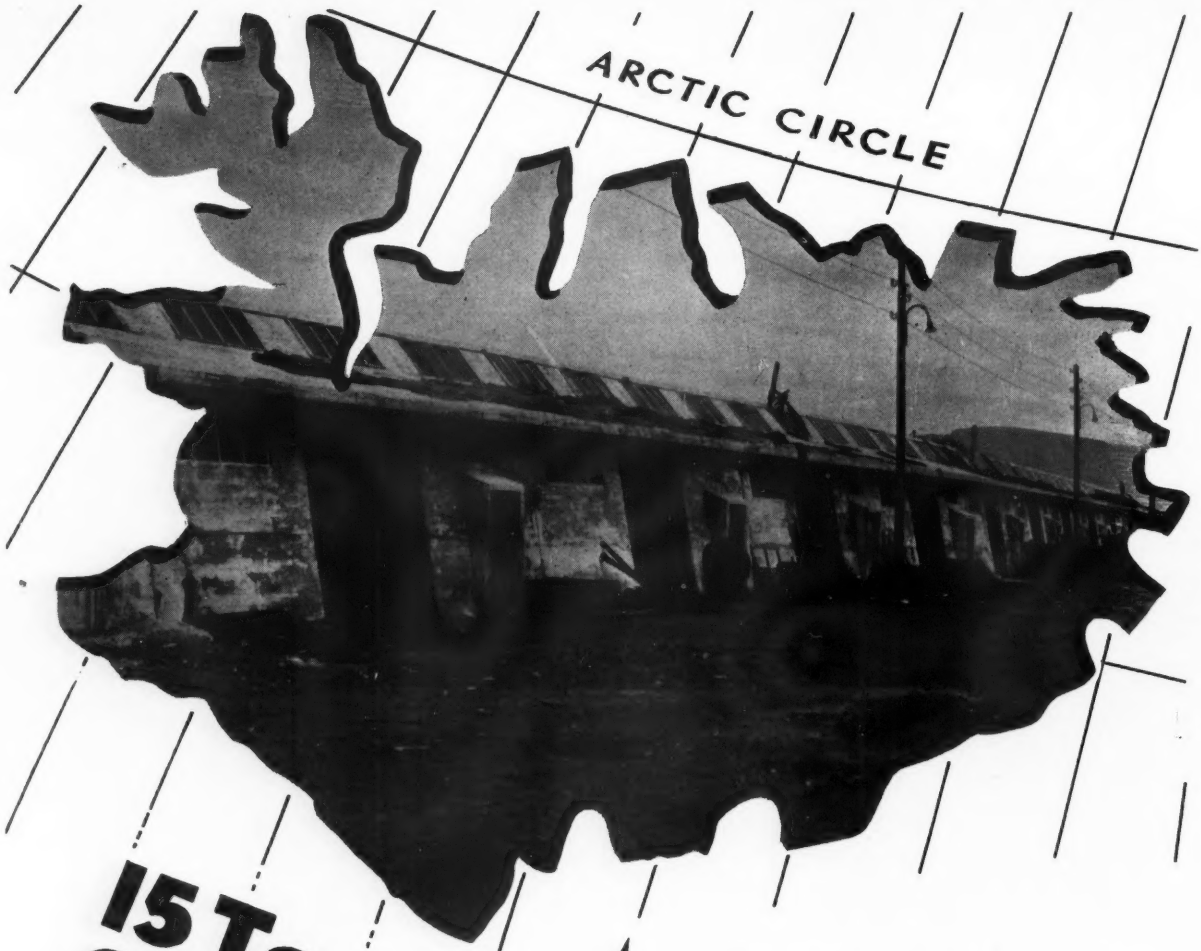

15 Tough Shutters doing a Tough job

The gale warnings often in force in "Sea-area Iceland" are a reminder that building on the edge of the Arctic Circle is no easy matter.

When the fishermen of Reykjavik needed a building to house their gear—their nets can be seen drying on the roof of the finished job—the Harbour Administration took on a difficult task. Solid concrete was needed for the roof and the walls, which had to be set at angles to break the full force of gales beating over the exposed sea-wall site. But when it was decided to shutter the openings, no problem had to be faced. Fifteen Mather & Platt Steel Rolling Shutters are doing a tough job.

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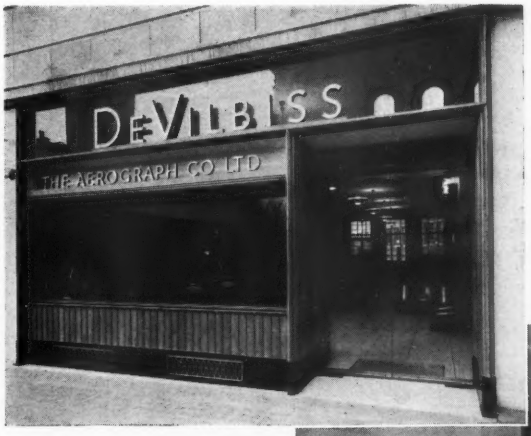

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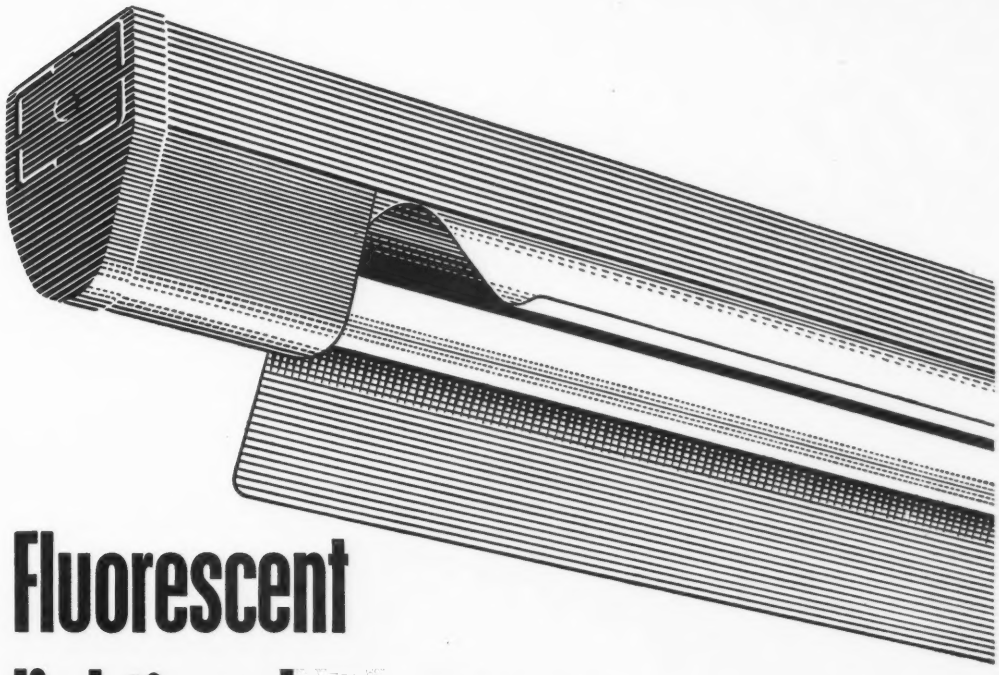

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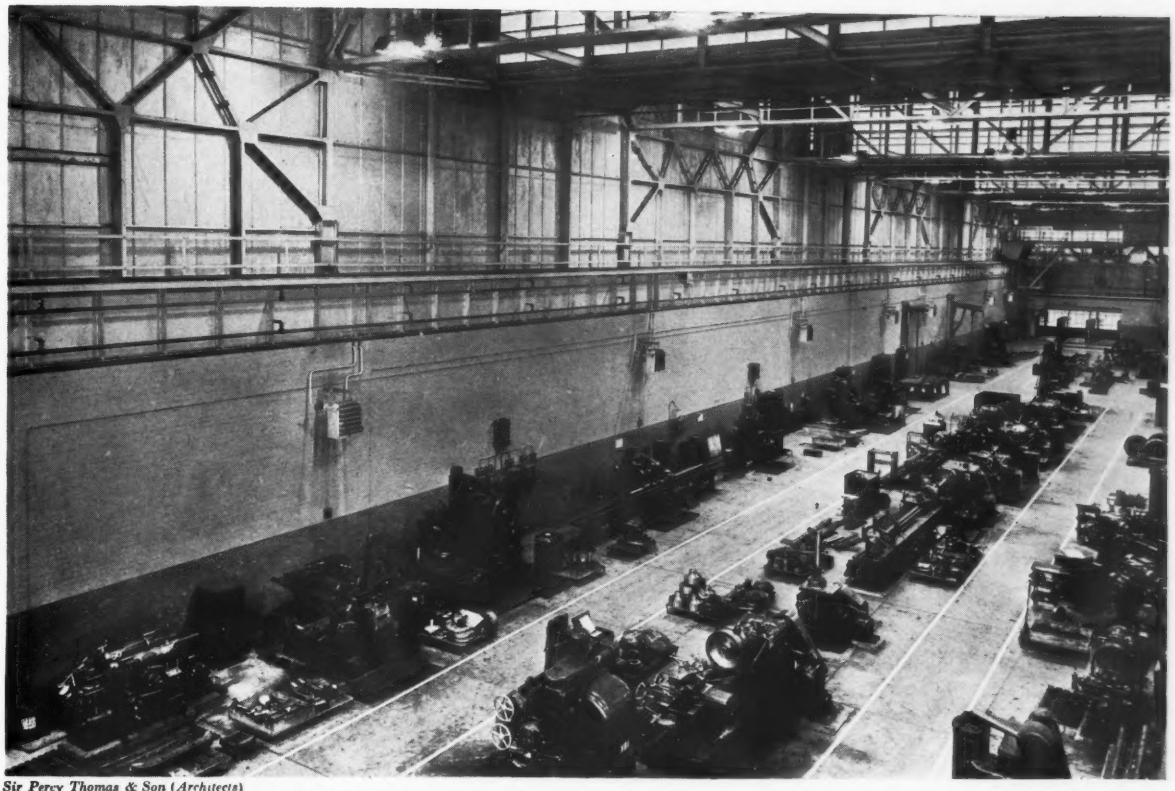

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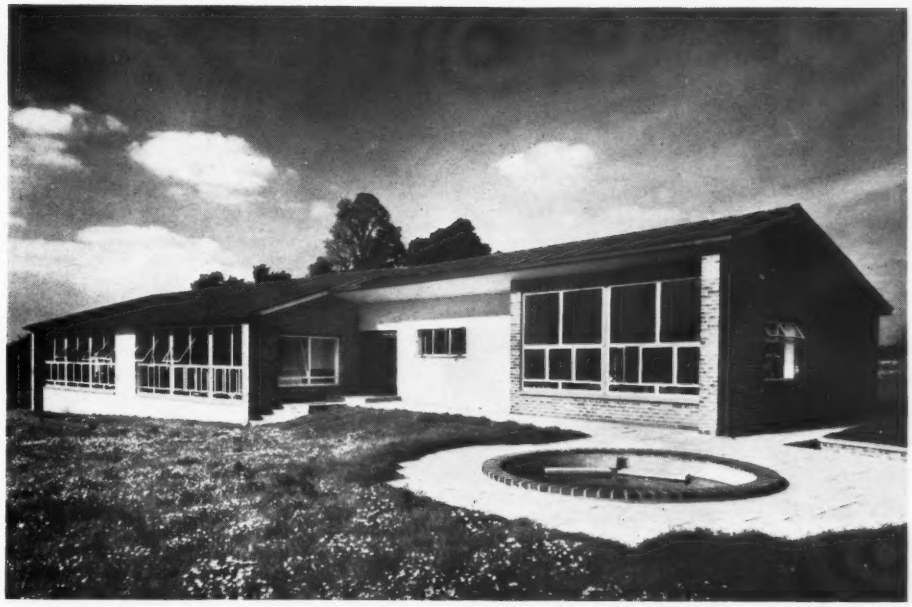

J.M.I. SCHOOL FOR
HERTS C.C.
AT LITTLE WYMONDLEY

Architects:
RICHARD SHEPPARD AND
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Assistant Architect:
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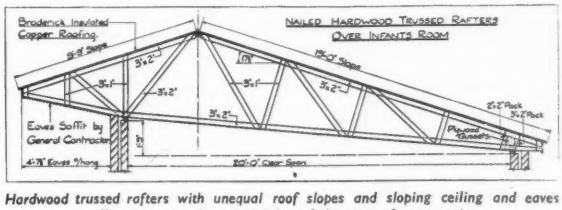
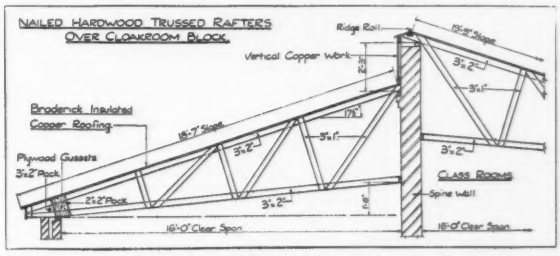
Roof over Lavatory and Classroom Blocks with valley gutter and Entrance Hall on left.



Hardwood trussed rafters with unequal roof slopes and sloping ceiling and eaves soffit emphasize the adaptability of this type of construction.



Design of single pitch hardwood trussed rafters.

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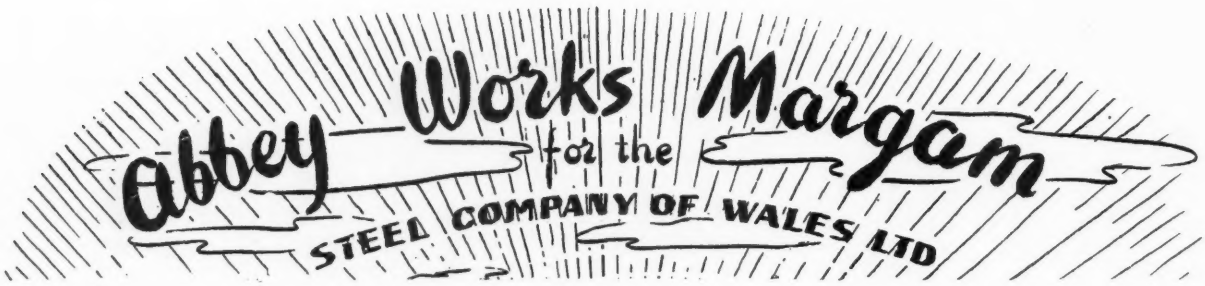
Main Contractors for the General Administrative Office Block at the



Architects:
Sir Percy Thomas & Son, 10, Cathedral Road, Cardiff

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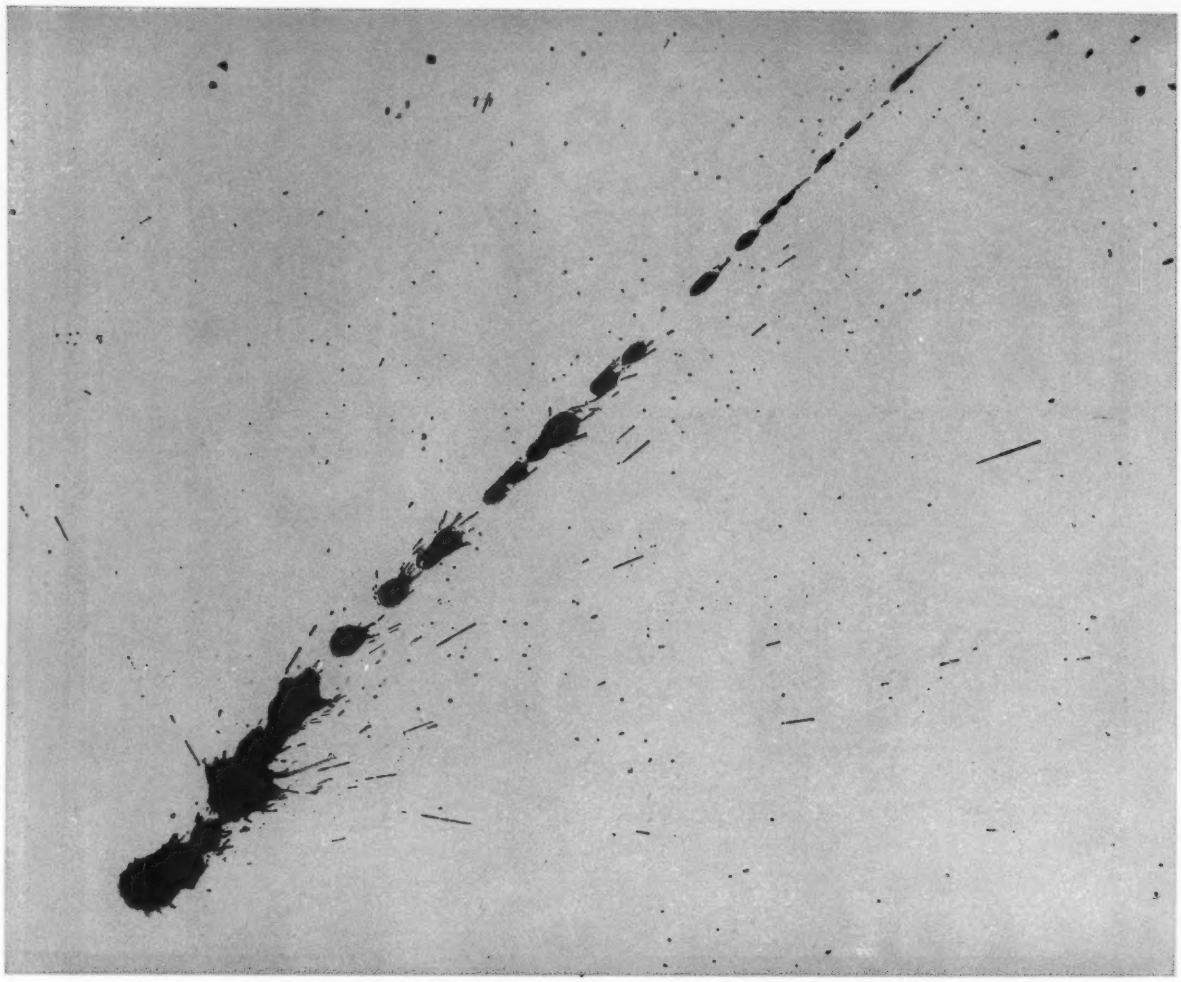

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THE ARCHITECTURAL REVIEW

Volume 111 Number 662 February 1952

The Cover The Sanctuary Church of Congonhas do Campo is approached up a steep slope through a garden in which stand a series of conical chapels, the chapels of the *Via Crucis*. In these chapels there are successively displayed the scenes of the Passion, represented by groups of life-sized wooden images carved at the very end of the eighteenth century. They are crude, brightly painted figures, dramatically arranged and startling in their mixture of realism and caricature—carved by the same *Aleijadinho* who was responsible for the stone Prophets (1800-1807) standing on the terrace in front of the church. More of the *Aleijadinho's* work will be found illustrated in J. B. Bury's article on church architecture in Brazil on pages 92-100.

The Authors *Gordon Russell*, see page 133. *Alan Ballantyne*, born 1920. War service in Indian Army, 1940–1945. Trained AA, RIBA examiner in design 1951. Travelling scholarship in architecture granted by Italian government, 1950. Assistant to Wornum and Playne, architects. Interested in foreign travel. *John Bernard Bury*, born 1917. Grandson of the late J. B. Bury, Regius Professor of Modern History, Cambridge. Took his degree in Modern History, Oxford, 1938. Regimental officer India, Middle East, N.W. Europe 1941-1945. Since 1946, employed by Shell-Mex South America Ltd. Has travelled extensively in Brazil and Portugal, taking the opportunity to study their seventeenth and eighteenth century architecture, on which he has published a number of essays. *Winston Weisman*, born in New York City, 1909. Was lecturer in Fine Arts at University of Kentucky and Ohio State University, now Professor at University of Texas. Developed an interest in skyscraper architecture while preparing PhD thesis on Rockefeller Centre. Also author of a manual on Medieval Manuscript Painting.

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THE ARCHITECTURAL REVIEW

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FIVE SHILLINGS


ENTRE DART
1072

Motor-car design is the perfect example of the functional idea battling with the 'artistic.' How the battle is progressing is described in an article on pages 125 to 127. The problem is stated in its starkest form in this picture where that most functional of things, the jeep (this one belonging to the Art Centre in Port-au-Prince, Haiti), is embowered in popular decoration native to the district. The impulse, however, is exactly the same as that which encourages the American (and, as the article shows, the British) manufacturer to pile on the chrome.

Gordon Russell

COID PROGRESS REPORT

THE DIRECTOR REPLIES

In December the REVIEW strongly criticized the policy of the Council of Industrial Design so far as it applied to the choice of exhibits at the South Bank Exhibition. In the article that follows the COID retorts in the person of its director Gordon Russell. In view of the interest of his remarks and the importance of the principles involved the reply is given the same prominence, and in order not to prejudice the argument the REVIEW'S comments are left to the end.

In 1947 the Lord President announced that the centenary of the Great Exhibition of 1851 would be marked by three exhibitions—the Arts, Science and Technology and Industrial Design, to be staged in existing buildings. The Council of Industrial Design was to be responsible for the latter. A preliminary survey of the problem convinced us that industrial design in its widest sense would undoubtedly affect a great many things in all the exhibitions—display, lettering, lighting fittings, tables, chairs, door furniture, etc. Co-ordination seemed essential to prevent widely different standards appearing. Although it would be a far more complicated operation from our point of view, I held that in London a combined exhibition in which we were responsible for the industrial exhibits would be more dramatic. There seemed no real alternative to Olympia and Earls Court among existing buildings, but to use these would offend industry at the outset, as it would mean cancelling the London end of the 1951 BIF, and such action might well develop great pressure to turn the 1951 exhibition into a super trade fair.

The decision to integrate the three exhibitions greatly altered the form the London one was to take, and the further decision to use the South Bank site opened up a dazzling prospect of co-ordinating Architecture, Display and Exhibits for the first time in such an English project. It was perhaps no less remarkable that when the opportunity presented itself there was, in Sir Gerald Barry, a man in charge who was peculiarly sensitive to contemporary developments. And, for the first time too, there was available a considerable group of designers of all kinds to carry it out.

In setting up an organization to make a survey of significant developments in British industry covering some sixty trades it was a cardinal principle of mine that unless we could arouse industry's sympathy and interest in the Festival of Britain we should not get exhibits. Either manufacturers lent them, or we went without: we had no money to buy them.

I was well aware that certain sections of the Press were openly hostile to the whole idea of the Festival. This was reflected in the attitude of many manufacturers, still more were apathetic, and it was not easy to convince them that an exhibition which they were plainly told was not a trade fair would be of any value to them. Others were so oversold that they hesitated even to risk any further enquiries by exhibition publicity, and some, such as pottery, felt that the showing of decorated ware merely annoyed home buyers as sales were limited to overseas markets. In other cases such as locomotives and heavy machinery, manufacturers were very willing to be helpful but held out little hope of persuading their customers to forgo delivery for a further nine months of goods ordered several years back.

Then there were trades such as cars and machine tools where federations insisted that no members showed their goods at any exhibition not available to all. Other manufacturers could not give delivery around the time we needed the exhibits, they were being urged to export more, they were hampered by shortages of material and labour, rising costs, quotas, exchange controls, purchase tax, fear of nationalization and so on. Many distrusted the whole idea of selective exhibitions, others did not understand the importance of design and considered that the very idea of setting up a body to improve it was ridiculous. They knew what sold and that was that. There were some who supported and encouraged us from the start: more perhaps than we had any right to hope for, things being what they were. And we had very great help from the Federation of British Industries, National Union of Manufacturers, and many other trade organizations.

In this delicate situation it was certain that to create interest much would depend on clear statements from Paul Reilly in our Press Office and friendly yet businesslike approaches from our Industrial Officers. We had to remember that although we were a constituent body of the Festival of Britain we had a longer term job to do which could be greatly helped or set back for years by the way we handled our side of the Festival. Until the theme was complete, the buildings designed, the theme interpreted in visual terms by the display designers for each building, we saw that we could expect to get little information as to the industrial exhibits required. And our experience in dealing with architects, display designers, builders and contractors led us to suppose that not all completion dates would be kept, especially as such an operation offered the perfect arena for unofficial or other strikes. Moreover, the Stationery Office informed us that six months would be necessary to print the catalogue, so that it was obvious that the time for selecting and collecting the exhibits was likely to be very tight indeed.

We therefore decided that there would be little hope of getting special exhibits made, on two counts—industry was too busy and there would be so little time anyway. The problem was to select the best designs in current production in Britain in a range of trades to fit the general theme. Having seen too many exhibitions in the past where hurriedly made exhibits designed by RAs, film stars, journalists and others created a bad impression, I was all for this policy. If we had had to service one comparatively small exhibition, selection would not have presented great difficulty—we could have shown the cream only of a restricted range. Sheer lack of space would have been the answer to the inevitable criticism of not being representative. But with six national exhibitions, which were likely to need over 10,000 exhibits, the problem was an entirely different one. We decided to make our survey the basis of a 1951 Stock List which would be a pictorial record in card-index form of well-designed goods in production. Our aim was to find something worth showing from the greatest number of firms possible, otherwise we should run the risk of all the exhibits in certain trades coming from three or four firms, which could hardly be tolerated in an operation financed by public funds on this scale. This Stock List would be available to all designers to choose from. It had at one time about 24,000 separate items on it. M. Hartland Thomas and J. M. Benoy were responsible for this invaluable tool, without which selection would have been impossible. It enabled us to remain throughout the one Festival of Britain link with industry. Manufacturers were spared the annoyance of calls from dozens of designers and our Industrial Officers were able to ensure that the goods of one manufacturer did not appear in a dozen places whilst those of another were overlooked. When designers wished to have some special piece made we gave all the help in our power, though it sometimes led to things like the sideboard* you illustrate which I cannot defend from a design point of view. But because I felt it was a sincere attempt to find a way of using carving again, which I happen to think important, I defended it strongly when there was considerable pressure to withdraw it. I accept responsibility for this decision, which was taken after several visits to the South Bank solely to look at such exhibits. But even the buildings, which naturally were all specially designed, showed considerable variation in architectural quality!

If we had to handle this operation again I believe we should adopt a similar policy, though I should try to ensure that each firm's work was more meticulously weighed against the general design standard rather than against the standard in that trade. This would no doubt have had a salutary influence in pottery and jewellery as you say. On the other hand, I believe our fine tooth comb missed very few well-designed articles and the disparity in design standards, although in a few cases serious, was as nothing compared to the chasm which separated the goods exhibited from the run of the mill to be seen in the average retail shop. This lesson has not been missed by a great many manufacturers and retailers, who have begun to see that there is something to be said for selection, a situation which could hardly have happened if whole trades had been excluded as you suggest. It is hearten-

* See correspondence, page 134 of this issue.

ing that among manufacturers there has been growing interest, even enthusiasm, in the whole idea behind the exhibition.

In comparing the furniture design standards of 1951 with those of 1935 it is necessary to remember that you are comparing two entirely different markets. The pioneering work in 1935 was supported by well-to-do people. At that time it made no impact whatever on the lower income groups. Owing to such pioneering and to the raising of standards in the war-time utility scheme most of today's best designs are available to, and are being bought to an increasing extent by, lower middle-class people. This is a great advance, but unfortunately income tax and purchase tax between them have seriously limited the chances of such valuable pioneering today. The same holds good in textiles and other trades. Under these conditions it is remarkable that design standards have been held and that more firms are concerned; it would have been a miracle had the best of pre-war work been surpassed today. I find this situation deeply disturbing.

When we decided to maintain the durable consumer goods section of Design Review at the close of the exhibition we planned to make it more selective as it was no longer necessary to show so many articles. This work is in hand. I cannot help feeling that when THE ARCHITECTURAL REVIEW says we have a lack of belief in a high æsthetic standard and have opened the flood-gates, whilst the National Brassfoundry Association complains that selection was far too drastic we cannot be so far out. All the same I should like to say how much I have enjoyed reading your most carefully considered, helpful and constructive criticism, with a great deal of which I heartily agree. I cannot, however, let your strictures on our publications pass. You say: 'They should be the most striking revelation of what modern book design can do.' Such a policy would be quite wrong if, as I suspect, you have in mind the layout of your own publication. For years I have never missed a number of 'Archie Rev'. I look forward to it and even find its foibles endearing, as becomes an old friend. But sometimes I wonder why you should double the width of inner margins and halve the outer ones. Do you wish us not to use our thumbs or is it mere wicked pleasure to be able to put the page numbers where no one would expect to see them? Do you not find it tiring to read type which although good and sizeable is set in lines too long for comfort on blue paper, and then suddenly to find your eye whisked on to white paper with much smaller type and different spacing? To link up numbers, captions and illustrations is sometimes like solving a crossword puzzle. And why do you insist on putting your title and date on the cover in type which is unreadable a few feet away? But perhaps you imagine that illegible lettering is unimportant so long as you change the whole aspect of the book every month! I find such wilful flights of fancy disarming. My eyes still enable me to say with some semblance of Johnsonian gusto: 'How now, you dogs, I'll have a frisk with you!' But only men with impish humour and a high sense of purpose—and let me hasten to add with a circle of loyal admirers—could initiate such frolics. What do you suppose would be the reaction of the average manufacturer, who was predisposed to regard anything to do with design as being a bit cracked anyway? I must own your tricks would incline me to exclude an otherwise admirable publication from 'Design Review'!

The problem of raising standards is no simple one and needs a realist approach. I am all for modest gains which can be held rather than stupendous advances which cannot. How is it for instance that your own advertisers are for the most part so blissfully ignorant of any layout standards at all, when you have been courageous pioneers for better design in architecture and industry these many years? A very well-known typographer told me some time ago that he felt THE ARCHITECTURAL REVIEW studied the convenience of everyone but its readers. Is it possible that your advertisers never read their free copies, whilst I pay hard coin to be mystified? What about an AR Progress Report?

And please don't be too hard on stunts—they are essential in every exhibition. The Skylon was one, and I think it came off. The tight-rope walker fortunately stayed on. If you don't think the crystal structure group came off don't be too fearful that it will stay on. And it did produce one or two very pretty things anyway.

summing up by the editors *Gordon Russell's reply admirably demonstrates the kind of frustrations and difficulties that beset those who have to carry on the battle for good design down in the market place. Faced by the market place's appalling realities he finds the REVIEW'S criticisms and captions ivory-towerish. Let's admit it, they are. All the same there is a place for the ivory tower, a place right there in the market place—at least so we believe, and the REVIEW'S unconscionable continuity may be treated as giving some substance to that belief. Let it not be thought for one moment, however, that we lack admiration for the great work the COID is doing. Criticism, if it arises, is on method and detail—not on long term strategy. As to Mr. Russell's last point the difference, of course, between the REVIEW and* Design *is the difference between a private and a public venture. The REVIEW is in the fortunate position of being free to use any means, however base, to propagate its ideas:* Design, *on the other hand, can never escape the shackles of public responsibility. Even according to its own pure lights, though, could it not be a little more adventurous? Could it not approximate more closely to its fairy godmother* Graphis, *and play down the paternal uncle, His Majesty's Stationery Office?*

VILLAGE SCHOOL IN HERTFORDSHIRE Very few village schools for 60 children or so have been built since the war, and with the present cost per place laid down by the Ministry of Education it seems impossible to build any more. This one was designed under the 1949 programme* and therefore a higher cost per place was permitted. The County Architect's Department and the Education Department gave the architects an entirely free hand in the design.

* Coming as an addition at a late date to the programme, this project could not conveniently be incorporated into the County Council's scheme for bulk ordering of standardized components.

key to existing and new planting

a, salix britzensis. b, prunus avium. c, salix britzensis. d, fagus purpurea. e, silver willow. f, cercis siliquostrum. g, viburnum tinus. ,salix britzensis. f, ash. j, rowan. k, hamamelis mollis. l, fagus. m, escallonia iauratha. n, rose eglanteria. p, cotoneaster horizontalis. q, jasminum nudiflorum, aristolochia sipho, berberis darwinii. r, silver birch. s, forsythia. t, ceanothus. u, rosa fellemberg. v, syringa white. w, pyracantha fructu luteo. x, berberis darwinii.

site plan

VILLAGE SCHOOL IN HERTFORDSHIRE

1, the main entrance to the school with the assembly hall on the right. Above, a school at Hythe by Joseph Messenger with about the same accommodation, built 100 years ago.

RICHARD SHEPPARD AND PARTNERS: ARCHITECTS

Robert Baillie: Assistant Architect

The school forms part of a housing estate now being developed at Little Wymondley by the Hitchin Rural District Council.

The site is bounded on the north by a railway line which runs through a deep cutting and by land permanently scheduled for agricultural purposes, giving extensive views up the valley towards Hitchin. To the west the ground falls very sharply to the main Hitchin-Stevenage road and to woods and coppices typical of

2

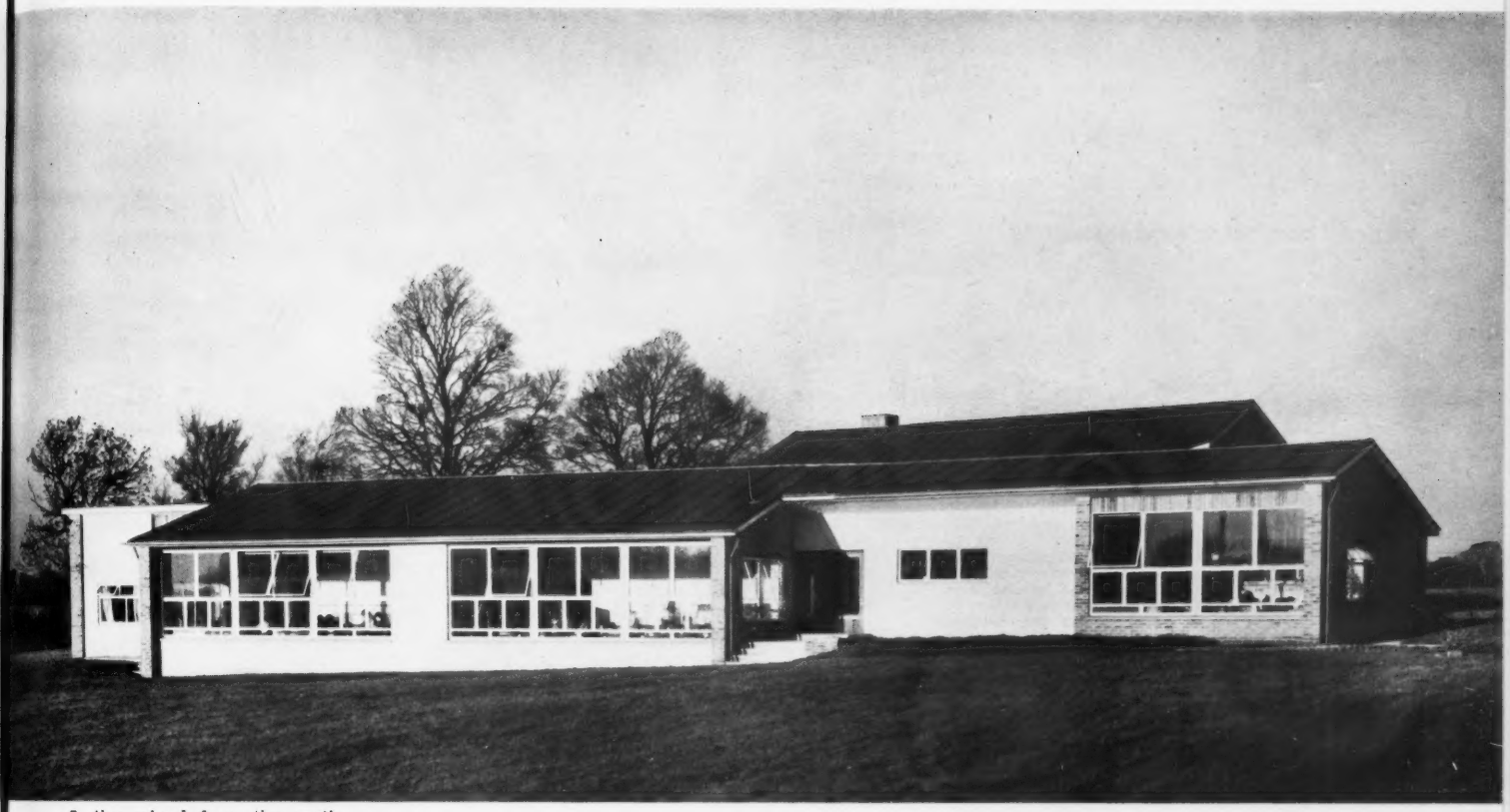
2, the main entrance which links the assembly hall on the right with the main school block on the left. The assembly hall was planned as a separate unit to allow it to be used independently of the school as a village hall. 3, the main entrance hall facing the doors to the assembly hall with the stairs down to the junior block in the foreground. On the right is the passage to the infants' class. 4, the entrance hall showing the break into two levels and the staircase balustrade. The timber is Siamese Chan and the framework 1-inch tubular steel with 3/16-inch reinforcing rods.

this neighbourhood, while on the south is the housing estate now in course of construction. The site was bisected by a dense hedge and possesses a number of well grown trees.

Four factors influenced the design of this school: first, the views to the west and north, which are used to form the fourth wall of the teaching spaces ; second,

3

4



5, the school from the south.

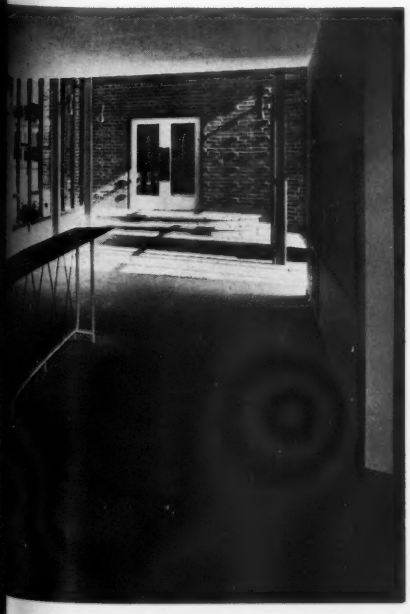
the need for morning as well as afternoon sun in the classrooms ; third, the contours, which run north-south ; and fourth, the desire to exploit the existing trees to their fullest advantage.

A village school of this sort has an age range from 5 to 11 and since the activities of children from 5 to 7 are very different from those of 7 to 11 it was decided to divide the junior classrooms into two distinct units, thus giving greater control.

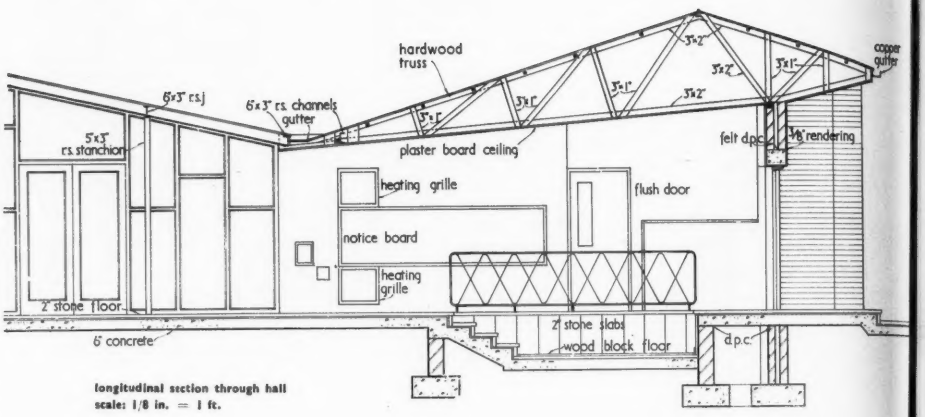
To allow the assembly hall to be used as a village hall independently of the school it was treated as a separate unit linked to the school by the entrance hall. The plan is a ' U ' shape, with the arms diverging and not parallel, giving a view from the assembly hall as well as from the classrooms.

The gable end of the assembly hall has been splayed off to indicate visually where the entrance is, while the other roofs were formed to emphasise the slope of the hill. Advantage was taken of the fall in the level to make the infants' (5-7) teaching space separate from the juniors. The entrance hall is broken into two levels and the upper section leads to the infants' play space and the lower to the juniors.

Owing to the contours, solid brick load bearing walls were employed. It was decided to use semi-hardwood



VILLAGE SCHOOL IN HERTFORDSHIRE



longitudinal section through hall
scale: 1/8 in. = 1 ft.

6, the main entrance of the school from the road with assembly hall on the right and infants' room on the left. The gable end of the assembly hall has been splayed off to indicate where the entrance is. The other roof slopes were designed to emphasise the slope of the hill. The specially designed hardwood roof trusses shown in the section above were chosen in order to economise in steel.

6

7

7, part of the stage in the assembly hall and the kitchen hatch. The steps are of welded steel with hardwood treads, and slide along the front of the stage.

trusses to support a proprietary copper sheet roof on 1 inch fibreboard. As these roofs are made up for each particular job the design could be adapted to the site conditions. The bricks employed are Essex hand-made sand-faced brown facings with a white joint. Steel windows are used for all teaching spaces and for the assembly hall, while all external doors and screens have been framed up in Siamese Chan, a hardwood like mahogany. Externally the school has been rendered in panels with a Tyrolean cement finish and internal finishes are generally plastered or tiled. The planting design aims at the minimum upkeep and consists very largely of flowering shrubs chosen to give colour throughout the year.

8

8, the assembly hall. The rear wall of the stage is papered and has red painted panels on either side.

9

9, the infants' playroom. The rear wall is blue and the side walls red and white. The floor is covered with blue linoleum.

the stressed photograph* *is by Nigel Henderson who based these notes on information provided by* Eduardo Paolozzi. Location: VITICUSO, *in the Colle Vecchio 90 km. behind Rome, Naples. Province Frosinone (terrain as in 'No Peace Among the Olives'). Pre-war—well stocked herds of sheep, goats. Butchered by the Germans who blew up all the houses. Since then largely rebuilt. Evocative evidence of UNRRA, i.e., biblical girls carrying jerrycans from the wells in the intensively cultivated plateau surrounded by hills. On two of these the village is raised in terraces. The plateau was used as an air strip for spotting—Fieseler Storch and Piper cubs. Important people in the village are the Paolozzis who run the postal service in the family. In foreground sits Michelangelo Paolozzi (76) who delivers the post and has done so in the most social circumstances for 50 years since he returned from an unsuccessful attempt at making his fortune in England and America. Barrel organ through provincial English towns. 'Ta-ra-ra-boom-de-ay.' Turned out of Eton. Worked as labourer on building Brooklyn Bridge. Married in Viticuso and had five children, Alfonso, Emma, Ettore, Irena, Ariosto. Alfonso emigrated 1920 to Edinburgh, Leith. Met Carmella Rossi also from Viticuso—marry 1922. Ice cream, tobacco, sweet shop in Seafield—desolate wisp of coast nearby. 1924 Eduardo Luigi Paolozzi born there (also in the photo, with tripod). The others are two villagers. 1930 move to Albert Street, Leith, tenements, slate pavings, granite kerbs, cast-iron gratings, cobbles, etc., etc., etc.*

* Stressed photograph is the term given by the photographer to his process of stretching or distorting the printing paper while enlarging in order to stress a point or evoke an atmosphere; in fact to achieve an effect that the conventional photographic process misses.

Alan Ballantyne

ITALIAN

SCRAPBOOK

The greater part of Italy was fought over during the war, and as a result of shelling by both sides, Allied bombing, and often unnecessary German demolition, suffered extensive damage. Nearly 19,000 bridges were wrecked, ports and communications were disorganized, historical monuments were devastated, and almost two million houses were utterly destroyed, with another five million damaged. Much of Italy's post-war reconstruction has been devoted to the reopening of road and rail communications, bridge-building, and to the repair of churches and historical buildings. The loss of colonies, involving repatriation, combined with an increase in the birthrate, have produced an acute housing problem.

In many cases housing is dealt with by building societies and local works organizations, supported by funds from ERP, in others by the Condominium —a means whereby a number of private citizens pool funds for the construction of new blocks of flats, each flat ultimately being owned outright by the individual. The contribution of local authorities towards rebuilding is generally negligible as most are bankrupt. It is the State, under the Fanfani Reconstruction Plan, which contributes 50 per cent of the cost of schemes it supports, and the co-operative organizations, that achieve most. The priorities of reconstruction are first, restoration of historic churches and monuments; second, communications; and only third, rehousing, an order which seems to arouse little comment from Italians themselves.

The main reasons Italy has made such progress with her reconstruction are that there is no shortage of building materials (prices of which were fully decontrolled in 1947), that there is an adequate and enthusiastic building force, working a full six-day week, night shifts and sometimes even on Sundays, and that all rebuilding contracts are undertaken by private enterprise.

But prefabrication is in its infancy: every part of a building, even all the windows and doors, are purpose-made. The greatest obstacle to the acceptance of prefabrication as a principle is the conservatism of the building industry, which is reluctant to experiment. An example was Luigi Cosenza's project for a Red Cross building in Naples, designed in steel cantilever frame with double central supports, because he doubted that it would ever be built. However, on receiving the commission to go ahead, he was, as he expected, unable to find a contractor to undertake the prefabrication of the structural members in steel, which would have meant employment of men off the site. He had no difficulty finding those who were prepared to erect the building in reinforced concrete on the site. Experiments in prefabricated building components have been tried out in Milan at QT8 where several different types of small two and three-storey houses and terraces have been erected to gain experience.

Italians excel in RC construction, but have few real artists like Nervi (Exhibition Hall at Turin, Stadium at Florence and various aircraft hangars near Rome). Almost every building over one storey has an RC frame with panel fillings of a mixture of brick, hollow clay blocks, and rubble, with no scientific attempt at either soundproofing or heat insulation but with the external wall surface 'iced' with a coloured cement rendering, a facing of marble

Professional background of Paolozzi. Out of army 1944. No money, Ruskin School, Ashmolean, lived by firewatching. A year spent in the library, reading. Drawing from Dürer and Rembrandt. Etruscan Warrior. Gets grant, transfers Slade. Two years London. Exhibition Mayor Gallery, January, 1947, drawings and sculptures in plaster and concrete. Mid-1947 Paris. Fair booth drawings, shooting gallery, shown at Mayor Gallery 1948. 1948 and 1949 showed Galerie Maight in 'Les Mains Eblouies.' Forms on a bow, bas-reliefs, pierced table sculptures (influence Giacometti, Henri Michaux, Nat. Hist. Mus.). 1949 Mayor Gallery, Bas-reliefs, drawings *Squid, Octopus*. End 1949 left Paris. March 1950, Hanover Gallery, bas-reliefs, drawings and sculpture. December 1950, teaching textile dept., basic design. Central School. 1950 Arts Council Commission for 1951. 'The Cage.' Fountain on site of FOB Thames-side Restaurant, Fry, Drew. Now engaged on concrete panel for block of flats, Whitefoot Lane and children's playground construction for architects Yorke, Rosenberg and Mardall.

or stone slabs, clay, faience, or glass tiles, the external effect being almost entirely a disguise, and its success depending on the architect's sensibility. However, with the urgent need for rebuilding, this method does at least ensure great speed in erection and completion. Four allied arts are given full scope in Italian architecture—mosaics, ceramics, fresco painting, and sculpture—and their possibilities are exploited by many architects.

Under Fascism Italians were not permitted a free exchange of views with architects of other countries, and are now behind both the USA and Great Britain in the application of science to building. In Italy there is no organization equivalent to the Building Research Station.

Differences between rich and poor are extremely marked, and this naturally is reflected in living conditions. The size of luxury apartments (in Genoa 27-room flats were not unusual before 1939) is staggering. Small flats of one or two rooms are uncommon as yet in Italy, although blocks of these are now being built in Milan. The servant problem is easier than in Britain, and most flats are designed to accommodate one servant, with separate bedroom, bath and WC, whilst even in some two-room flats a recess, curtained off the entrance hall, is provided for the servant's bed. Long baths being the exception, the sit-up type of bath is almost universally installed. Arrangements for the provision of domestic hot water in new flats are seldom made. Central heating is rare, and many ten-storey blocks of flats under construction have no heating system of any sort, not even fireplaces. Balconies are general, though often small. On the Mediterranean coast the general practice in damp-proofing is to provide a ventilated cavity below ground level; this prevents rising damp and condensation on walls of the basement, for temperature changes are often rapid and extreme.

Open competitions are held for most important public works. When a project occurs like the Via della Conciliazione,* it rouses fierce controversy in the Press, and a good feature of public competitions is that the public are permitted to see schemes, and voice their opinions about them, before the jury makes its final selection.

In Italy a frequent architects' complaint is that overall planning is non-existent. There is no equivalent of our Ministry of Housing and Local Government, nor is there any institute of qualified planners. There is no lack of plans, however—official, semi-official and private; but with the absence of any effective co-ordination, they only add to the general confusion. The results are becoming apparent; for example in the new and unharmonious buildings opposite the Brera Gallery in Milan; in the construction of the Via della Conciliazione in front of St. Peter's in Rome; in the many 'de luxe' houses and blocks of flats (particularly in the Parioli district of Rome), the office 'palazzi' and cinemas, while people still live in hovels and caves. However, there are many prominent Italian architects who appreciate the urgency of the planning problem of their country, and make their own individual contributions towards its solution.

* See 'Rome: The Third Sack,' AR, Feb. 1950.

como

Five minutes after crossing the Swiss border one is at Como, with its fine lake, the paddle-steamers, the mountains steep down to the water, its villas and the Cathedral.

In the centre of the town, opposite the east end of the Duomo, stark and indifferent to its setting, is a now famous building—the Casa del Popolo (1) by Giuseppe Terragni. Originally built as the Casa del Fascio, 1932-6, it was the first public building in the 'New Style' to be commissioned by the Fascist Party, and as such it had immediate and far-reaching effects on modern architecture in Italy. Owing to the official championship of this example of 'l'architettura razionale,' its features of pure abstract pattern of the facade, uncompromising expression of the structure, and absolute severity of treatment were followed up to the end of the war all over the country, and still influence some present-day designers. At present it is used as an HQ by every political party represented in Como, of whom none has any funds available for maintenance of the building, now in a bad state.

Screened by and to the rear of the Casa del Popolo is the Casa Confederale Provinciale del Lavoro by P. Lingeri, erected 1939-43, a later manifestation of the same style, with grey terrazzo finish.

milan

For the architect who visits Italy, Milan is perhaps too close to the border. The sense of unexplored fields beyond tends to make him dismiss it too rapidly and content himself with a visit to the Duomo and only a cursory survey of its modern architecture. This is a pity, for Milan contains some of the finest up-to-date buildings in the country, and some of its best architects. Being the largest city and the leading industrial centre in Italy, its wealth has given great scope for architectural development.

Among the better examples of pre-war buildings is the ten-storey block of luxury flats in Via Manin (2) by BBPR.* It has a welded steel frame, the walls being of RC and hollow pumice blocks, faced in Botticino marble and Baveno

*Belgiojoso, Peressutti and Rogers. The fourth partner, Banfi, died in a German concentration camp during the war.

granite. A contrast is provided by the different colour treatment of the venetian blinds of the living-rooms and those of the cantilevered glass-fronted balcony forming the central feature. Another is the tall Montecatini office block (3) by Gio Ponti, faced in a grey-green marble and with aluminium double-glazed windows. On an adjacent site another similar office block by the same architect has been constructed. Yet another example is the block of flats in Corso Sempione by Lingeri and Terragni, built 1933-4, with the two wings connected on the facade by long balconies at each floor acting as hanging gardens to the flats.

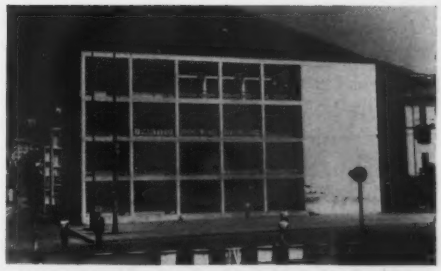
Since the war there has been great building activity in Milan, and apart from its 22 new cinemas, of which the Cinema Manzoni by Bergonzo and Cavalle, with its monumental and luxurious vestibule is typical, and a multitude of coffee bars decorated with ceramics, mosaics and polished metal fitments, many flats and office buildings have been constructed. One of the most interesting of these is the building in Via Broleto by G. Pollini and L. Figini (see AR, November, 1950).

Perhaps the building of the greatest æsthetic merit erected in Milan since the war is the office block at the junction of Via S. Andrea with Via Senato, by Marco Zanuso and Roberto Menghi (4) completed in 1948. Its delight lies in the harmonious proportions of its facade, the richness of its texture and colour, and its careful detailing. The three-foot-deep continuous aluminium grille round its base gives the surprising effect that the building is floating clear of the ground. The walls are faced in a polished pink Baveno granite while a continuous glazed panel of 120 square metres rises above the main entrance to the full height of the building. Beyond this, corresponding to the landings at each floor level, are fixed dark ceramic strips decorated with lively abstract designs by Lucio Fontana. The sash windows (5) which have internal venetian blinds are each set in a recess, with above and below the frame a dark red panel of comb-textured ceramic, providing a contrast to the smoothness of the stone facing. The main plate-glass entrance doors (6), through which one glimpses the vestibule and lift-hall beyond, have exquisite and highly coloured ceramic handles in the form of conch shells. The building, which has its own artesian well, air-conditioning plant and electrical generator, is independent of the public services.

An example of low-income group flats is the large scheme at Via Alcuino (8), on the north-west outskirts of the city, by BBPR (7). The site is triangular in shape, and on it are placed eleven eight-storey blocks. Density is, if anything, too great, the long blocks being so closely spaced on the east side as to give the impression of a continuous cliff of building. Construction is an exposed RC frame with stucco-faced panels of hollow building blocks. The colour effect is pleasing, the blocks first completed having the frame rendered in grey and the panels in white, while the later blocks had this arrangement reversed, which was an improvement. Balcony railings and window frames are painted black. Owing to financial restrictions, lifts were not installed.

A post-war development in Milan is the erection in the centre of the city of large hostels of one-room flats for single office workers and professional men. The first of these schemes to be completed, under the auspices of the city commune, the Casa Albergo del Comune by Moretti and Rossi (9 and 10), is in Corso Vittoria, ten minutes' walk from the Piazza del Duomo. Each room, which is centrally heated, has adjacent to the centre corridor a lobby, off which is a bathroom, with shower, wash-basin and w.c., and also a small dressing space with built-in wardrobes and storage cupboards. On the ground floor and in the basement are a restaurant and kitchen, a laundry, drying-rooms, communal rooms and various shops, so that the occupants of the hostel can, if they wish, lead an almost self-contained existence in the building. Constructed of reinforced concrete, the wall surface is faced entirely with 2 cm. square white glass tiles.

Other recent buildings include the fourteen-storey Palazzo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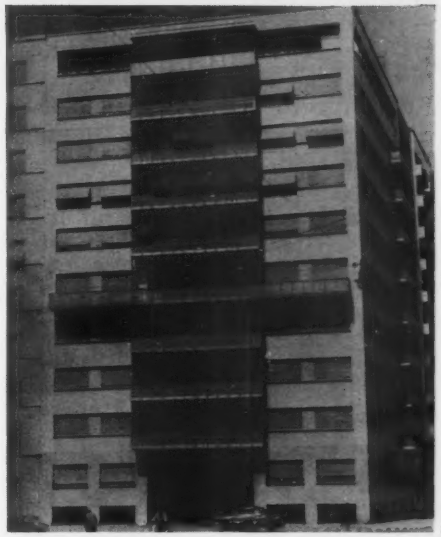
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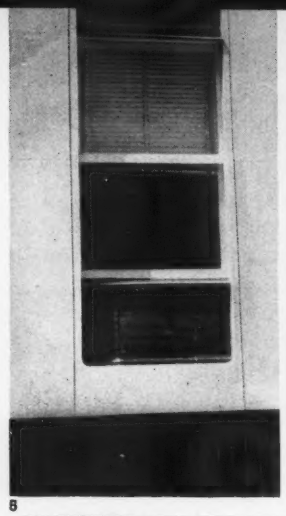
Argentina in Corso Buenos Aires by Bottoni and Ulrich, completed in 1949 (11), the smaller block of flats in Via Dandolo by Latis, the Milan Fair House of the Nations by Bianchetti and Pea, and the bookshop by F. Albini in the Galleria.

A unique planning scheme in Italy is in Milan, where a model experimental neighbourhood unit, QT8, sponsored by the authorities of the Milan Fair, is being built on English garden city lines on the outskirts, 7 km. from the Duomo. Various architects collaborated in the layout, which divides the area into four nuclei of 3,000 inhabitants each. The houses are designed individually as experimental types, single detached houses, terrace houses, and blocks of ten and four-storey flats, with precast structural components, and prefabricated door and window units, while panel filling is generally in traditional materials. Each group of houses is different, and the overall effect certainly bizarre (12). The pair of houses in the foreground was designed by Cerutti, Gandolfi, Putelli and Vigano; those behind by Menghi and Zanuso.

bologna

Bologna is a University town, and the Fascists extended its perimeter with a belt of typically pretentious blocks, of which the Via Roma (13) is an example. The building in the foreground is faced in two types of travertine, with a blood red rendering above. This new street was constructed in imitation of the universal arcades of Bologna, and its imposing scale dictated that the arcades should be carried up two floors. On account of their height they failed to serve their initial function of giving protection from the sun, and now, to provide this, dirty hessian hangings flap between the columns of the arcade (14).

Outside the Porta Saragossa is the School of Engineering building by Giuseppe Vaccaro (15), with its stucco facing and tall brick tower over the entrance. Nearby, in the Via del Risorgimento, is a block of flats by Persichetti and Sterbini, typical of many post-war Italian buildings.



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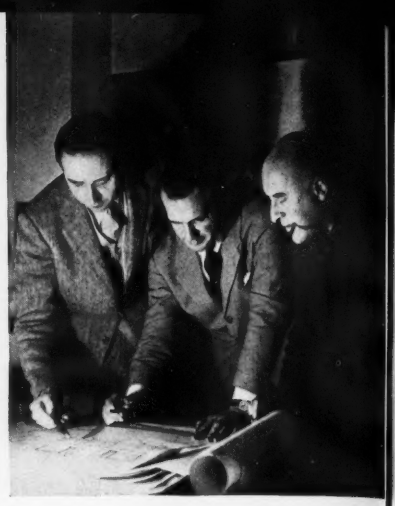

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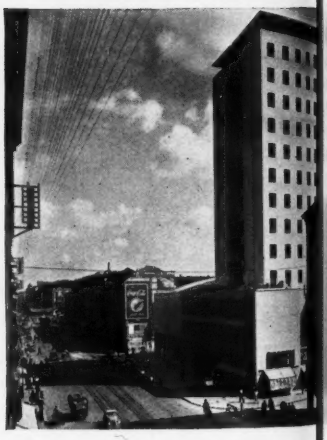

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ravenna

Once the HQ of the Roman Adriatic Fleet, and now five miles inland from the sea, this abandoned port, unequalled in Western Europe for its Early Christian and Byzantine monuments, was badly shelled and bombed during the war. Yet the damage done was relatively small. San Vitale was untouched, and S. Apollinare Nuovo, which suffered over a dozen bomb-hits within 75 yards of the church, had only the roof and ceiling of the apse and the stucco vaults of one aisle slightly damaged, while its mosaics were unharmed.

The Fascist regime, responsible for the demolition of Byron's house in Ravenna, left a permanent mark on the quiet dignity of this market-town with a series of startlingly severe public buildings bearing little relationship in either scale or choice of materials to the neighbouring seventeenth century houses. Examples of these are the building now used as the local Communist Party HQ (16), and across the same piazza the Municipal offices (17).

Apart from the restoration of bomb-damaged buildings, including the devastated railway station, and the erection in 1949 of a new 30-room hotel in the centre of the town, there is little apparent reconstruction work in progress.

rimini

Rimini, a popular Adriatic seaside resort, was the keypoint in the German line of defence, and suffered severe damage, not only to its notable monuments but also to the town itself. The restoration of the Malatesta Temple by Alberti was completed in 1951.

The town authorities, wishing to revive the tourist traffic and repair the devastation along part of the sea-front, in 1948 invited the architects Bega and Vaccaro to design a new bathing and tourist centre. The scheme they prepared comprises a commercial centre of shops with two-storey flats over them, two hotels, one a six-storey block of 84 rooms, on stilts, with below it a day hotel (where the public can have baths, massage, haircuts, etc.), a café and a restaurant, all connected under cover and stretching for 300 metres parallel to the beach. In addition there are garages, an open-air theatre, a swimming bath, tennis courts and a fair and exhibition ground where pavilions are to be erected annually. The first part of the scheme to be completed was the commercial centre, which is well designed with internal courtyards and gardens between the shops (18); it is based on a 12 ft. 6 in. structural grid (19).

florence

Not until 1932 did Florence make the break with architectural tradition. It did so with the Communal Stadium by P. L. Nervi, a revolutionary design in reinforced concrete built on the outskirts of the city. This was followed in 1935-6 by the railway station of S. M. Novella (20) by G. Michelucci and others, still one of the best planned in Europe. Since the war a few well-designed modern shops, some coffee bars, restaurants, and one good cinema, the Excelsior in Via Cerretani, have all appeared at street level. As well, the nineteenth century Teatro Verdi was restored in 1950 by Baroni and Tempestini, retaining the old horseshoe auditorium with its six tiers of boxes, but providing a contemporary foyer and entrance.

The blowing up by the Germans of the approaches to the Ponte Vecchio, on both sides of the Arno, as well as the demolition of all the other bridges, presented Florence with its main reconstruction problem. An overall plan for this area was produced, in which several local architects have been allocated sites for rebuilding. Many of their schemes for two-storey shops with offices and flats above take the external form of the demolished Florentine stone towers.

Of the destroyed bridges the first to be rebuilt, the Ponte della Vittoria, was the subject of an open competition, which was won by the Florentine architect Italo Gamberini. His scheme, which envisaged the extension of the adjacent Cascine gardens to carry a belt of greenery across the bridge itself, is not yet complete, the reinforced concrete arches and piers, with their graceful sculptural


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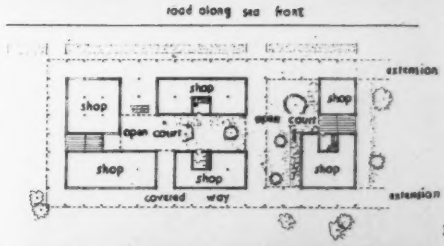

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lines still being unfaced, and a temporary brick parapet taking the place of a metal handrail.

rome

There is nothing half-hearted about Rome, for the Eternal City, from the time of the Romans to that of Mussolini, has sought to proclaim its importance by the overwhelming size of its buildings. The Colosseum and the Baths of Caracalla, the four great basilicas, the papal palaces, the villas of the aristocracy, the Vittorio Emanuele monument, the main University buildings, the huge modern blocks of flats on the outskirts and the newly completed railway terminus (see AR, April, 1951) all bear witness to the fact.

Not all buildings erected in Rome during the Fascist era were in the severe neo-classical style, of which the Faculty of Jurisprudence and Political Science (21) in the University City is typical. Some architects displayed a more individual approach and an attempt to experiment with building forms, two examples being the Botanical Faculty in the University by Capponi, and the Post Office at Porta S. Paolo by Libera (22) with its strange diagonal staircase fenestration. Still further removed from the neo-classical is the cubist Fencing Academy by Moretti (23) built between 1936-40, as part of the recreational buildings centred round the Foro Mussolini. It has two well-lit gymnasia, and the exterior is faced in white marble and with a 25-foot-square mosaic decorative panel at the end of one wing. Less inspired is the monotonous office block in the Viale Aventino, originally designed for the Ministry of Italian Africa and now used by the Ministry of Posts and Telegraphs (24). Since this photograph was taken the new building by V. Caffiero for the UN Food and Agriculture Organization (25) has been erected in front of the Ministry. It was completed in six months.

The post-war years have produced no coherent planning, only an uncontrolled spate of building by speculators, with new cinemas, shops and coffee bars by the dozen, and, apart from the railway terminus designed by a group of architects led by E. Montuori (26), relatively few buildings of any real merit.

Construction is proceeding in Parioli, but Parioli, once the fashionable district of the Fascist élite, and still the most expensive quarter in Rome, is an architectural nightmare come to life. Examples of every conceivable variation in the 'modern' style cover the hill-top, from pseudo-Spanish to 'crackpot,' competing for attention and all bad neighbours. Its rapid and apparently unplanned growth brings the prospect of the ultimate exclusion from it of all light and greenery. A typical street in this district is Viale Bruno Buozzi (27), and a typical abstract eccentricity is the block of flats seen in (28). There are several exceptions to the general standard of Parioli flats, one of which is the apartment block by Piccinato, Radiconcini and Zevi (29), built in 1948.

naples

Few cities in Europe have a finer setting than Naples (30), and few upon closer inspection present a more unattractive picture.

In spite of several magnificent buildings, and the elegant residential quarters of the upper town, the greater part of the city has been unchanged for nearly 300 years. In the zone round the old port, and also in the area below Castel S. Elmo, is an immense labyrinth of narrow streets, mere slits between the squalid blocks of buildings, filled with noise, smells, garbage, animals, naked children and flies, while the light is almost blotted out by washing hanging between the houses (31). As a result of the cholera epidemic of 1884, a policy of slum clearance to make way for broad new streets was started, but nothing was done to improve the conditions of the areas left between them. The Fascist regime developed the port, the suburbs and a central modern zone, but still left the old city untouched.

An outstanding building in the centre of the city is the Post and Telegraph office (32) by Vaccaro and Franzi, one of the best examples in the country of the late Fascist style. It is faced in grey and black marble, with a


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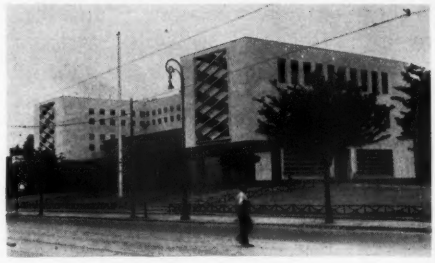
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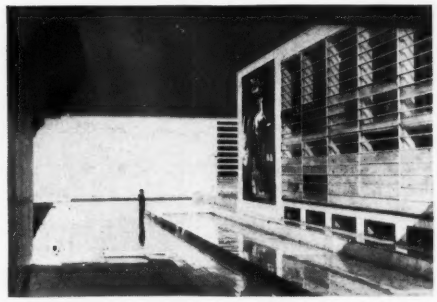
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dominant central feature, lighting the entrance hall (33) round which runs a gallery at each floor level. The internal arrangements are well planned, and considerable attention has been paid to the detailing of fitments in the rooms for the sorting of mail.

Not all recent buildings display the restraint of decorative detail apparent in the Post Office. More bizarre is the fenestration of a staircase in the Finance Department building (34).

Since the war ambitious plans have been drawn up for the development of the suburbs and the gradual rehousing of the population. Much progress has been made and the standard of new building is high. Flats have been designed in POGGIOREALE by Luigi Cosenza with horizontal brise-soleils to shield access balconies from the sun, giving an interesting elevational effect, as well as being a practical necessity, even though blocks are generally orientated north-south to avoid the sun at midday.

At FUORIGROTTA, behind the hill of Posilipo, a large group of flats is at present under construction under the direction of Carlo Coen. The site is in the middle of the abandoned 1940 exhibition site, many of the pavilions for which now house Eritrean refugees. The project, which replaces the hovels in the foreground of (35), has a 1,000-foot-long horizontal feature, one storey high, 'on stilts,' which links the main transverse blocks, and contains flats, each with their own terrace. Ultimately the scheme will consist of four 5-storey blocks similar to (36) and one 10-storey block. Construction is of reinforced concrete, and the hollow block walls are rendered white. The architect intended that the scheme should present the simple bold effect of the tall blocks rising their normal width only at right angles to the low horizontal feature. In this matter of design he was overruled by the Ministry of Public Works, the sponsoring authority of the scheme, who obliged him to extend the width of the blocks where they join the low feature, thereby destroying the visual separation of the main elements. The result is perhaps


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less fortunate than it might otherwise have been.

pisa

This city sustained great damage in the fighting of 1944, but fortunately the world-famous group of the cathedral, baptistery and the leaning tower was spared, although the adjacent Campo Santo was set on fire by a stray shell.

Reconstruction is in progress, and apart from repair to historical monuments, a start has been made with several modern structures. The demolished Ponte di Mezzo, opposite the Loggia de Banchi in the centre of the city, has been rebuilt with a graceful single-span reinforced concrete arch (37), faced in marble. A fine example of a cantilevered space frame is to be found on the river where the fishermen suspend their nets from curved poles (38).

The railway station has been rebuilt, and across the station piazza is a new air-conditioned hotel (39), the Albergo dei Cavalieri by Cardini and Cristiani, completed in 1948. It contains 100 bedrooms on five floors, each with its own internal bathroom, placed adjacent to the central corridor.

san michele

One of the fishing villages on the southern shore of the Portofino peninsula, in the bay of Rapallo, is San Michele di Pagano. Immediately below its delightful church, which possesses an altarpiece by Van Dyck, is a unique modern building (40) designed by the Genoese architect Luigi Carlo Daneri. Commissioned by the late Count Maurice Rossi, the Italian speedboat ace and aviator, the building is intended for the storage and servicing of yachts, motor boats and hydroplanes. A long concrete slipway comes up from the sea to the main lower shed, which has a clear RC span of over 30 metres. The main beams spaced 10 metres apart are reminiscent of the bridges designed by the Swiss engineer Maillart. The floor between the beams is composed of precast RC troughs, with an in-situ infilling. A large square opening in one bay, through which boats can be hoisted, gives access to the workshop above, part of which is designed as a

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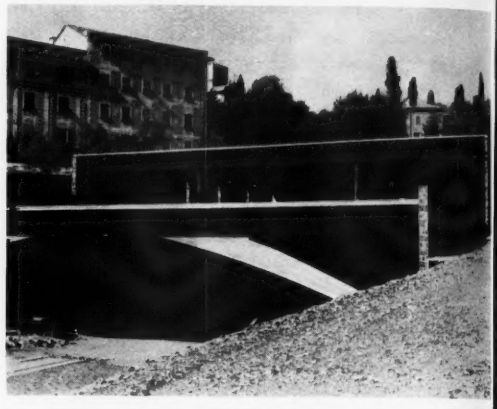

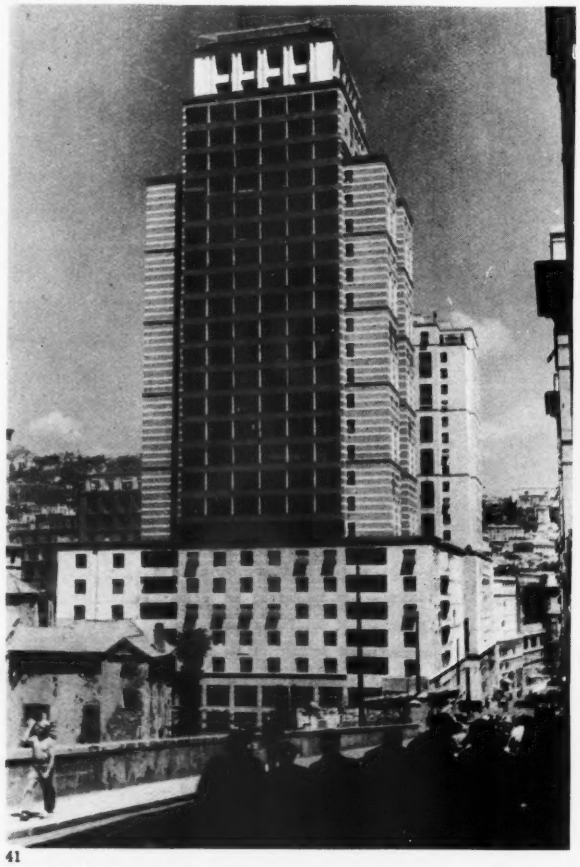

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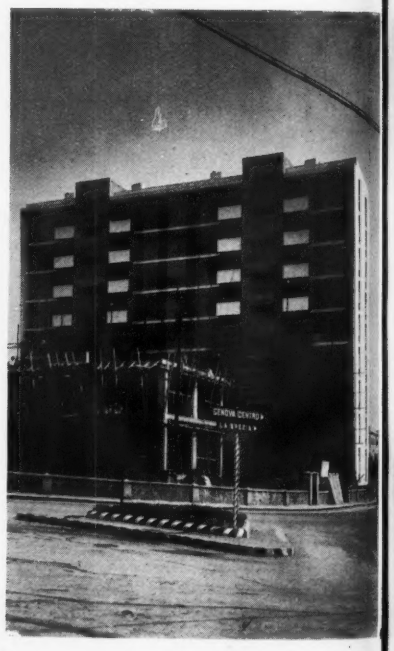

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showroom, with a testing tank in it. The wing walls, and facade towards the hill, are constructed of random rubble. The project is at present incomplete, owing to the death of its promoter.

genoa

Genoa rivals Marseilles as the most prominent port of the Mediterranean. Its buildings are the result of commercial and naval enterprise throughout the ages, and it contains some exceptionally fine sixteenth century palaces. It was naturally an important target for Allied attacks during the war, and was heavily bombarded both from the sea and the air; this resulted in the destruction of many churches and palaces, and a large proportion of the old houses near the quays.

The centre of the city has an extensive modern quarter, through which the main shopping centre, the Via XX Settembre runs, and which was largely untouched. Off it are Genoa's two skyscrapers, the only such examples in Italy (41), the twenty-seven storey building in the foreground being by Marcello Piacentini. Along the sea-front, to the east of the port, is a wide boulevard, the Corso d'Italia (42), the beginning of an extensive upper class residential area. The major part of it surrounds a large square facing the sea, formed of blocks of flats, by L. C. Daneri, whose design won an international competition held in 1934. Half of the scheme was completed before 1939 after which work stopped. During the latter part of 1944, the finished flats were in danger of being demolished as part of a German defensive plan for Genoa. However, this never happened, and work is now going ahead on the completion of the project. The architect had a battle against the local building laws in order to avoid building to the full height over the whole frontage, and thereby forming noisy internal courtyards between the blocks. They now rise separate from the second floor level, with space all round.

The municipal authorities have produced an overall plan for the city, which involves the layout of new roads bypassing the congested areas round the port, and connecting with the Autostrade terminal (an interesting early Fascist building by G. Calzabini, whose restaurant bridges the road). As well they have erected several effective blocks of working-class flats in the suburbs, to the design of Ing. Braccialini and Arch. Zappa, of which those at VOLTRI (43), STURLA (44) and CORNIGLIANO (45 and 46) are typical, the exteriors being rendered white and grey. Also projected are four-storey flats at QUARTO and SESTRI, whose plans (47) are an improvement on those already erected.

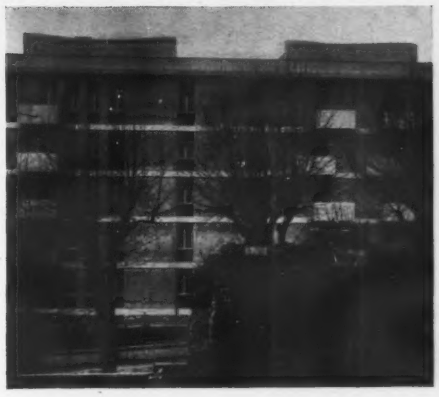
turin

The capital of Piedmont, Turin, is unlike most others in Italy in that it is a planned city which follows the old Roman grid in the layout of its tree-lined avenues and arcaded streets. The reconstructed Via Roma, between the railway station and the Piazza San Carlo (48) is one of the better Fascist achievements in urban architecture. As far as its plan is concerned it may appear an un-Italian town, but in the splendour of its Baroque buildings, the extent of its industries, and the excellence of its vermouth, it has no parallel in the country.

Turin has been the scene of activity of architects who have displayed great constructional ingenuity, from Guarini in the seventeenth century, whose domes in the Chapel of the Holy Shroud and in the Church of San Lorenzo anticipate by many years the possibilities of reinforced concrete, and Antonelli in the nineteenth century, whose 536-foot-high tower is described by Baedeker as 'striking from its bold disregard of the ordinary technical rules of construction,' to Pier Luigi Nervi (49), the present-day designer of the structure of the Turin Exhibition Hall (see AR, May, 1950).

This building has had another hall with a floor area of 4,000 square metres added to it, completed in 1950, and also designed by Nervi. The roof is a reinforced concrete lamella vault on four arches, not unlike his aircraft hangars at CIAMPINO outside Rome.

note The author of the article also took most of the photographs. See full acknowledgments on page 140.



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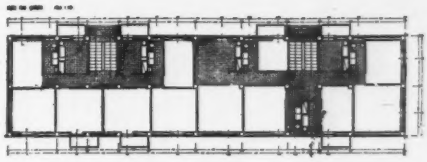

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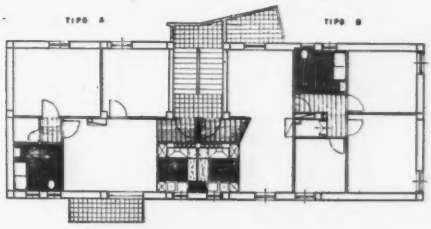

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The elaborately carved façade of the church of the Tertiary Order of St. Francis at Salvador da Bahia on the opposite page is a unique example of the Churrigueresque style so widespread in Mexico; Brazilian Baroque and the Estilo Aleijadinho in particular is generally a good deal calmer, reflecting the easier Portuguese temperament. Even this façade largely lacks the turbulent majesty of the huge towered Mexican edifices.

J. B. Bury

ESTILO

ALEIJADINHO

AND THE CHURCHES OF EIGHTEENTH CENTURY BRAZIL

Literature on the colonial architecture of Brazil, at any rate in English, is much rarer than the interest of the subject deserves. In this article J. B. Bury writes of the eighteenth-century church architecture of the country, relating it to political, religious and economic factors. He pays special attention to the buildings of the Estilo Aleijadinho *(named after the sculptor* Aleijadinho, *or 'Little Cripple,' Antônio Francisco Lisbôa), and discusses the origins of that remarkable brand of rococo.*

It is natural to compare the eighteenth century architecture of Minas Gerais, the gold mining province of central Brazil, with contemporary building in the silver mining provinces of Spanish America, particularly Mexico.[1] The contrast between the two groups of monuments reflects the difference between the Portuguese and Spanish temperaments. Portuguese Catholicism was social rather than religious; neither severe, as in Northern Europe, nor dramatic, as in Castile.[2] Portugal has no cathedrals comparable to those of Toledo, Burgos and León, much less to those of Segovia and Salamanca. So, logically, the churches of the Portuguese Captaincy of Minas Gerais never attained the importance and prestige of those of the Viceroyalty of New Spain. Nor was massive construction, to resist earthquakes, necessary in Brazil as it was in Peru. Wealthy Brazilian gold miners financed the building of churches, but displayed a moderation in strong contrast to the extravagance of such Mexican silver miners as those responsible for the churches of San Caetano, Guanajuato or San Sebastian y Santa Prisca, Taxco. The influence exercised by the Jesuits in eighteenth century Brazil[3] in the direction of extreme architectural conservatism provides a no less striking contrast with such building enterprises in Spanish America as their great church at Cuzco, Peru.[4]

The social, domestic character of Portuguese Catholicism is reflected in the general feeling of all Brazilian seventeenth and eighteenth century churches. Their architectural style likewise reflects contemporary architectural developments in Portugal, interpreted in a robust and simplified fashion which is typically colonial. Certain modifications are attributable to the imperfect execution of European designs by Indian craftsmen. This Indian influence was logically stronger in the Spanish American possessions with their settled native populations so much more advanced culturally than the nomadic tribes of Brazil; but even in the Viceroyalties of New Spain and Peru, the European-Indian or *mestizo* style was essentially a rural phenomenon.[5] The architecture of the principal American urban centres both Spanish and Portuguese continued to derive directly from Europe, until in the latter half of the eighteenth century original colonial styles were evolved, whose development extended into the early nineteenth century, thus coinciding with the decline of the colonial regimes and growth of national self-consciousness in the Americas. The most original and fantastic of the Mexican innovations are exemplified by the much discussed Sanctuary Church of Our Lady of Ocotlán (about 1745) near Tlaxcala, with its white stucco facade designed as an ultra baroque retable set between towers of unglazed vermilion tiles crowned by double belfries repeating the intricate white stucco treatment of the facade. Such spectacular external colour effects are unknown in Brazil and the only facade there designed as a baroque retable is that of the church of the Tertiary Order of St. Francis of Assisi at Salvador da Bahia (opposite). But this most effective 'churrigueresque' facade is relatively small and, lacking towers, it has none of the majesty of the huge Mexican edifices.

The monuments of Minas Gerais, however important in their own right, cannot be truly appreciated in isolation. They represent an episode not simply in Brazilian colonial building, but in the total architectural enterprise of the maritime empire created by the Portuguese in the sixteenth century.[6] Between 1600 and 1800 three commodities in turn dominated the economy of Portugal. In the sixteenth century it was the spices of the Indies, lost to the Dutch in the war of 1621-1658. In the seventeenth century it was the sugar of Bahia and Pernambuco, subsequently eclipsed by the production of the British and French West Indian plantations. In the eighteenth century it was the gold of Minas Gerais, largely exhausted by 1800. Logically therefore it is at the former centres of the spice trade, the sugar latifundia and the gold mines—Velha Gôa, Salvador and Ouro Preto—that the most interesting and ambitious Lusitanian architecture is to be found (outside Portugal itself) of the six-

[1] Diego Angulo Iñiguez, *Historia del Arte Hispano-Americano*, Barcelona/Buenos Aires, Volume I 1945, II 1950, III and IV in preparation.

[2] Gilberto Freyre, *Casa Grande e Senzala*, 1933 (trans. Samuel Putnam, *The Masters and the Slaves*, New York, 1946).

[3] R. C. Smith, 'Jesuit Buildings in Brazil,' *The Art Bulletin*, Vol. XXX, 1948.

[4] H. E. Wethey, *Colonial Architecture and Sculpture in Peru*, Harvard, 1949.

[5] Alfred Neumeyer, 'The Indian Contribution to Architectural Decoration in Spanish Colonial America,' *The Art Bulletin*, Vol. XXX, 1948; and for the special case of Brazil, Lúcio Costa, 'A Arquitetura Jesuítica no Brasil,' *Revista do S.P.H.A.N.*, Vol. V, 1941.

[6] Gilberto Freyre, *O Mundo que o Português criou*, Rio de Janeiro, 1940.

teenth, seventeenth and eighteenth centuries respectively.[7]

The gold of Minas Gerais was discovered in the 1690's and the earliest surviving chapels date from the first decades of the eighteenth century. The modest chapel of Padre Faria (1) at Ouro Preto, though subsequently rebuilt (1740–1756) in more substantial materials, still preserves the simplicity of the primitive structure of wood and clay. Such rustic chapels, retaining the traditional diagonal arrangement of the apertures, occur in Portugal and throughout her empire from the end of the sixteenth century onwards. Historically in Minas Gerais these chapels belong to the chaotic pioneer period of the gold rush. There were famines (1698 and 1701) followed by civil war (up to 1708) between the Creole discoverers of the gold and immigrant adventurers; after which there were insurrections (1713 and 1719). The drastic disciplinary measures taken by the Conde de Assumar during his governorship of the General Mines (1717–1721) cut short the anarchy and permitted the emergence of a more settled society whose economy was based on slave labour imported from Portuguese Africa. The next forty years, which were the period of maximum gold production from the mines, witnessed the construction of the great parish churches of the fast growing towns of Vila Rica, Antônio Dias, Mariana, Sabará, Congonhas do Campo, São João d'El Rei and Barbacena.[8] These churches, described by Sir Richard Burton as 'large barns'[9] were plain rectangular structures divided into three compartments (nave, choir and sacristy) with a flat facade flanked by square towers. The derivation was Portuguese, the style a belated version of sixteenth century Mannerism, the treatment provincial.[10] The facade of the former parish church, since 1745 Cathedral, of Mariana preserves its original rectangularity and Mannerist composition virtually unaltered. More often, as at Barbacena (2) the frames of the apertures, the pediment and the terminations of the towers have been subsequently altered, mitigating the severity of the primitive, so-called *Estilo Jesuítico*, design.

By 1760 the principal gold centres of Minas Gerais had grown up into large towns, each with its imposing 'Jesuit Style'[11] parish church. New baroque forms and rococo decorative conceptions then began to be introduced from Europe out of which emerged an original Mineiro architectural style, described, after its best known exponent, as the *Estilo Aleijadinho*. Meanwhile, important changes were taking place in Mineiro society. The immigrants who had populated the region in the first decades of the eighteenth century were tough, more or less uneducated adventurers. By 1760 a second generation had grown up, children of the pioneers, but born in Minas and conscious of Brazil as their native country. Some of them, sons of the more successful miners, were educated at the University of Coimbra in Portugal; but residence in Europe appears to have stimulated rather than abated their resentment against the colonial subordination of Brazil to the distant mother country. It was this upper class Creole generation, born in the 1730's and 1740's which provided the fathers of Brazilian independence. It was also by, and for, this generation that the churches of the *Estilo Aleijadinho* were built. They had not known the dangers and hardships of the

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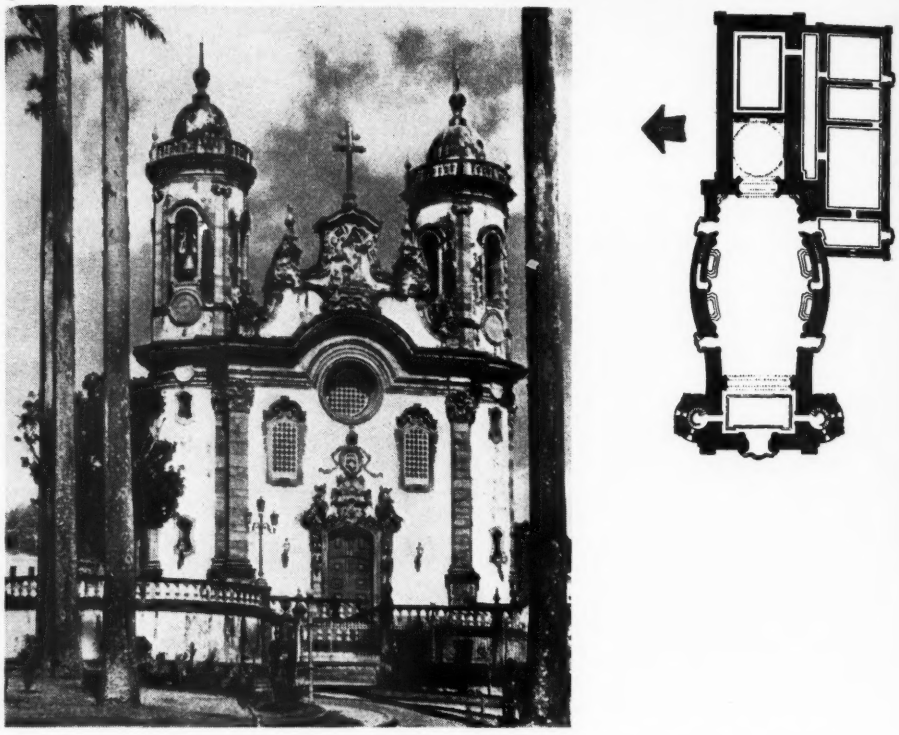

3, façade and plan of the church of the Tertiary Order of St. Francis of Assisi, São João d'El Rei, Minas Gerais. It was begun 1774 *and completed during the first quarter of the nineteenth century. The design is attributed to the Aleijadinho, and is considered to be one of his masterpieces.*

[7] For illustrations of the colonial architecture of the Portuguese Orient, see the works cited in J. B. Bury, 'Jesuit Architecture in Brazil,' *The Month*, Dec. 1950, p. 394 note. For illustrations of the colonial architecture of Bahia and Minas see Edgard de Cerqueira Falcão, *Relíquias da Bahia*, São Paulo, 1940; and *Relíquias da Terra do Ouro*, São Paulo, 1946.

[8] For general background see the works of Diogo de Vasconcelos cited in *A Guide to the Art of Latin America*, ed. Robert C. Smith and Elizabeth Wilder, Washington, 1948, items 1007, 1178 and 1180.

[9] Richard F. Burton, *The Highlands of the Brazil*, London, 1869, I, p. 121.

[10] J. B. Bury, *op. cit.*

[11] See Serafim Leite, *História da Companhia de Jesus no Brasil*, Rio/Lisbon, ten vols., 1938-1950.

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1, chapel of Padre Faria, Ouro Preto, Minas Gerais. Although rebuilt between 1740 *and* 1756 *it preserves the simplicity of the primitive structure of wood and clay. 2, the façade of the parish church (Nossa Senhora da Piedade) of Barbacena, Minas Gerais, built in the second quarter of the eighteenth century and 'blessed' in* 1748.

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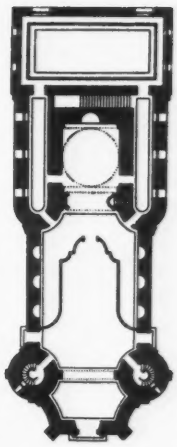

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4, façade and plan of the church of the Tertiary Order of St. Francis of Assisi, Ouro Preto, Minas Gerais, which was begun in 1766. *Its design is traditionally attributed to the Aleijadinho, who was paid for decorative work in the interior between* 1771 *and* 1794 *(see* 9, *page* 97). 5, *church of the Tertiary Order of Nossa Senhora do Carmo, Sabará, Minas Gerais. Begun by the mason Tiago Moreira in* 1763, *the façade was redesigned by the Aleijadinho in* 1771. 6, *a church for the same Order at Mariana.*

pioneers, nor been concerned with the original task of urban construction. It remained for them to consolidate, enrich and decorate their native towns and to give practical expression to their Brazilian patriotism. It is logical that their churches should reflect their versatile intelligence, their academic education, artistic predilections and desire to emancipate Brazil from Portugal. Architecturally this implied the creation of an original Brazilian style; politically an independent Brazil. Politically they failed in the ill-starred conspiracy or *Inconfidência* (Treason) of 1789.[12] In their architecture they were successful, as if in compensation, evolving a colonial style which for the first time in Brazil achieved something more than a mere imitation of European models, and which was no longer 'original' only in its inexpert workmanship or provinciality.

The finest expressions of this late eighteenth century Mineiro style, both in architecture and sculpture, are traditionally attributed to Antônio Francisco Lisbôa (1738–1814), more usually known as the *Aleijadinho* (Little Cripple), a mulatto, native of Ouro Preto, after whom the style has been named.[13] The classic monument of the style is the church of St. Francis of Assisi at São João d'El Rei in the design of which the Aleijadinho is well said by a contemporary[14] to have surpassed himself. The facade of this church (3) basically follows the conventional Portuguese arrangement of the great parish churches, but within this convention every principle of the earlier 'Jesuit Style' Mannerist treatment has been abandoned. In the towers the emancipation is especially apparent. They are cylindrical in shape, surmounted by balustrades and capped by elegant semi-oval cupolas which in turn are crowned by obelisks. The ground plan again follows the conventional precedent of the great parish churches in its most general arrangement, but again differs in every detail of its treatment. The nave is elliptical and the main door is approached by a monumental stairway which gives access to a paved forecourt curved in plan and embellished with handsome balustrades along its parapets. The salient facade, the towers and the interior decoration of the church of St. Francis of Assisi (4 and 9) at Ouro Preto and the forecourt of the Sanctuary Church at Congonhas do Campo may provide more perfect examples of certain features of the *Estilo Aleijadinho*, but the church of São João d'El Rei exhibits the style in its most complete realization.

The development of the style is well illustrated by a series of transitional monuments—the churches of the Tertiary Order of Nossa Senhora do Carmo at Sabará (5), Ouro Preto, Mariana (6) and São João d'El

[12] Richard Burton, *op. cit.*, I, pp. 346–353 and the documents published in the *Revista do Inst. Hist. e Geog. Brazileiro*, LXIV, 1901, pp. 85–178.

[13] The basic materials for the Aleijadinho's life and work are the biography by Rodrigo Brêtas and the documentation supplied by Dr. Rodrigo Melo Franco de Andrade (*A Guide to the Art of Latin America*, Items 1244 and 1240). See also Mário de Andrade, *O Aleijadinho e Alvares de Azevedo*, Rio de Janeiro, 1935; José Marianno (Filho), *Antônio Francisco Lisbôa*, Rio, 1945 (principally for its excellent illustrations); Gilberto Freyre, *Brazil: an Interpretation*, 1947; and J. B. Bury, 'The Aleijadinho,' *The Cornhill*, No. 979, 1949.

[14] A writer who is quoted by Rodrigo Brêtas, *op. cit.* and said to have written in 1790.

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7, pediment and belfries of the church of the Tertiary Order of Our Lady of Mount Carmel, Ouro Preto, Minas Gerais. This church is the prime example of transition from the local Mannerism to Rococo. It was begun by Manuel Francisco Lisbôa in 1766 and the body of the building, 8, belongs to the earlier style. But the façade is clearly the Aleijadinho's inspiration.

Rei. The former church[15] is basically a straightforward example of the style of the first half of the century and the Aleijadinho was markedly unsuccessful in his attempt to impose the decorative features of the Mineiro rococo upon a building of such uncompromisingly opposed character.[16]

The large and handsome church of the Tertiary Order of Our Lady of Mount Carmel at Ouro Preto (7) which dominates the central hill of the town, is the prime example of transition from the local Mannerism to Rococo in Minas Gerais. Begun by the Aleijadinho's putative father, Manuel, in 1766, the body of the building (8) belongs to the earlier style of, for example, Manuel's own parish church of Antônio Dias. But the facade presents new features, a sinuous concave-convex-concave front flanked by rounded towers in place of the flat straight front and square towers of the earlier style. Manuel Francisco Lisbôa died in 1767 and the novel features in the design are attributed to his son, the Aleijadinho, modifying the original plan. The decoration of the facade certainly shows every evidence of the latter's inspiration and its central decorative feature, the monumental doorway (10 and 11), is one of the masterpieces of the *Estilo Aleijadinho*. 'Nossa Senhora do Carmo,' wrote Sir Richard Burton nearly a century ago, 'is externally a huge barn, with a bay facade, decorated with cherubs and flowers in blue steatite stuck on to the grey-yellow sandstone. The two belfries are of the round-square order, with pilasters where corners should be.'[17]

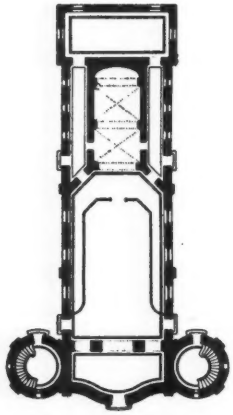
The church of Nossa Senhora do Carmo (12 and 13) at São João d'El Rei besides being the latest is in several ways also the most interesting of this series of transitional monuments. In certain respects it represents the culmination of the *Estilo Aleijadinho*. The facade doorway is a good example of the mature style, as are also the facade windows with their elaborately serrated outline and dressings surrounded by carved decoration. The bull's-eye window deflects the entablature with characteristic emphasis. There are, however, other prominent features which appear to represent a reversion to the earlier rectangularity and absence of external ornament. The curved line has disappeared altogether from the plan, the towers are octagonal, and the nave rectangular. The tympanum is undecorated and the pediment relatively poor, its unadorned profile composed of an uninspired if not crude alternation of curves of opposite flexure. The apertures on the sides of the church are as plain and lacking in ornament as those of its sister churches at Ouro Preto and Sabará.

The *Estilo Aleijadinho* was essentially episodic in character. Its creative age was more or less limited to the last quarter of the eighteenth century, though some influence persisted into the first quarter of the nineteenth. Only half a dozen or so out of the several scores of colonial churches in Minas Gerais reveal more than occasional features of the style. These half-dozen representative monuments are confined to the major urban centres, Ouro Preto in particular and its neighbour Mariana on the one hand and São João d'El Rei on the other. Outside these two centres the only Aleijadinho Style monument of prime importance is the forecourt of the Sanctuary Church of Congonhas do Campo (14 to 19). Furthermore, the artists and artisans principally concerned were very few in number. Between them four men, the sculptor Antônio Francisco Lisbôa, *O Aleijadinho*, the stone-masons Domingos Moreira de Oliveira[18] and Francisco de Lima Cerqueira,[19] and the painter Manuel da Costa Ataíde[20] were responsible for the majority of the construction and for the most ambitious decoration of the chief monuments of the style.

The characteristics of the *Estilo Aleijadinho* are not in themselves novel. What is new is their combination and the manner in which they are employed and harmonized. The most obviously striking characteristic is the use of external sculptured ornament in high relief, which is especially associated with the Aleijadinho himself. The local soapstone employed for this purpose is similar to Chinese pagoda stone, taking a high polish and varying in colour from browns, greys and blues to a fine apple green. It is so soft that it can be worked as easily as wood. In consequence it was possible for the Mineiro sculptors to achieve unusually elaborate and delicate

[15] Begun in 1763 by the stone-mason Tiago Moreira, who was apparently responsible for the original plans. The church was dedicated in 1767. The facade was redesigned in 1771 by the Aleijadinho who was paid for decorative work in the church between 1771 and 1783. See Zoroastro Viana Passos, *Em Torno da História do Sabará* (Publicações do S.P.H.A.N. No. 5), Rio de Janeiro, 1940.

[16] Another example of this attempt to apply the new decorative conceptions to a severe architectural frame of the old style is the church of St. Francis of Assisi at Mariana, begun in 1763 on the plans of the stone-mason José Pereira dos Santos. José Pereira Arouca redesigned the facade in 1783. The building was completed in 1794 though finishing touches continued to be added in the nineteenth century. See Raimundo Trindade 'A Igreja de São Francisco de Assis de Mariana,' *Revista do S.P.H.A.N.*, Vol. VII, 1943, pp. 57–76.



plan of church of Our Lady of Mount Carmel (see 7 and 8 above).

[17] Richard Burton, *op. cit.*, I, p. 371.

[18] The stone-mason Domingos Moreira de Oliveira was responsible for the construction of two of the most important monuments of the *Estilo Aleijadinho*—the church of St. Francis of Assisi at Ouro Preto and the church of Na Sa do Carmo at Mariana, begun under his direction in 1766 and 1784 respectively.

[19] The Portuguese stone-mason Francisco de Lima Cerqueira was successively employed in charge of construction and carved decoration at the churches of Na Sa do Carmo (facade, 1771–1776) at Ouro Preto; N. S. Bom Jesus de Matosinhos (chancel, completed 1773) at Congonhas do Campo; and among other churches at São João d'El Rei those of St. Francis of Assisi (1774–1804) and Na Sa do Carmo (1787-1800). He died, mad, in 1808.

[20] The mulatto painter Manuel da Costa Ataíde was employed on extensive decorative commissions in various churches at Ouro Preto, notably those of St. Francis of Assisi (1801–1810) and Na Sa do Carmo (1808–1826) and for the church of N. S. Bom Jesus de Matosinhos (up to 1819) at Congonnas do Campo. He also worked at Mariana, for instance at Na Sa do Rosário (up to 1826).

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10 and 11, the monumental portal of the church of the Tertiary Order of Our Lady of Mount Carmel, Ouro Preto, Minas Gerais, is one of the masterpieces of the Estilo Aleijadinho. *This curved façade flanked by rounded towers is in sharp contrast to the straight plain body of the church shown in 8 and in the plan at the bottom of the facing page. 9 is a detail of the interior of the Franciscan church at Ouro Preto (see 4, page 95). 12 and 13, side view and façade of the church of the Tertiary Order of Our Lady of Mount Carmel, São João d'El Rei, Minas Gerais. Built between 1787 and 1800 by an unknown architect, it represents in many respects the culmination of the* Estilo Aleijadinho, *although some features appear to represent a reversion to earlier rectangularity and absence of external ornament.*

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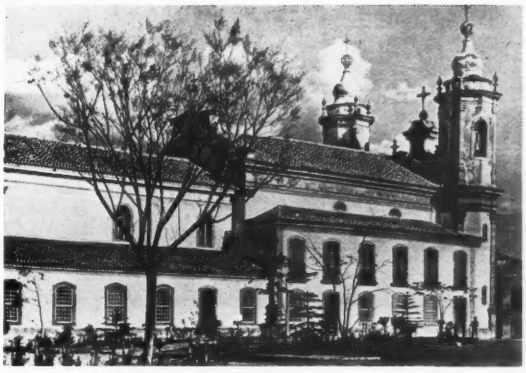

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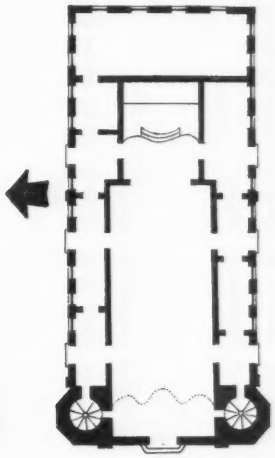

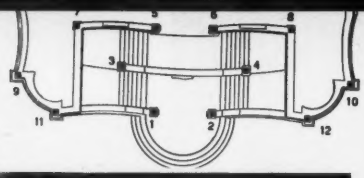

plan of the forecourt of the Sanctuary Church, Congonhas do Campo, Minas Gerais, showing numbered positions of statues.

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Figures of the Prophets decorate the forecourt of the Sanctuary Church, Congonhas do Campo, Minas Gerais. The Aleijadinho, his negro slaves and a mason were responsible for the design of the forecourt and for the figures. The figures represent 14, *Ezekiel;* 15, *Joel;* 16, *Nahum;* 17, *Jonah;* 18, *Habbakuk. Their positions are shown as* 4, 8, 10, 7 *and* 12 *respectively, on the*

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19, *the Sanctuary Church (Nosso Senhor Bom Jesus de Matosinhos), Congonhas do Campo, Minas Gerais, the courtyard of which is one of the few representative monuments of the Aleijadinho style outside the urban areas. The contract for the forecourt dates from* 1777. *The Aleijadinho was paid for the statues which stand on the parapets of the forecourt and its approach staircase in* 1800, 1802 *and* 1805.

ornamental effects. Thus although the decoration of church fronts with carving and sculpture was in no sense a novelty in eighteenth century churches, the facades attributed to the Aleijadinho are original in the complexity and above all in the delicacy of their ornament—a complexity and delicacy common in stucco and in the woodwork of interiors but rarely before reproduced in stone on exteriors. Sir Richard Burton, writing of the facade of the Franciscan church at São João d'El Rei, noted that 'the sculpture suggests woodwork with very laborious alt reliefs.'[21]

Turning from decoration to the architectural character of the *Estilo Aleijadinho*, the derivation is primarily from Portugal (20 and 21), particularly from the robust provincial variant of rococo developed in the north of the country.[22] But the Mineiro churches display an authentic originality of their own, evident both in the treatment of the ornament, the balance between the decorative and structural features, and the graceful effect achieved by the use of curved sections of wall, harmoniously related to one another and to adjoining flat surfaces. This curvilinear treatment has no adequate precedent in Portugal. It is true that as early as the mid-seventeenth century Guarino Guarini had designed the church of the Divine Providence at Lisbon on a complex plan of intersecting ovals. But Guarini's Theatine church at Lisbon had no more influence on later Portuguese architecture than had his Theatine church at Paris (1662) on subsequent building in France. It is therefore unlikely that the Lisbon monument, which was destroyed in the 1755 earthquake, exercised any direct effect in Brazil. On the other hand it is among eighteenth century buildings which follow Guarini's tradition[23] in Piedmont, Austria, Bohemia and Southern Germany that there are to be found, the closest parallels to the plans of the *Estilo Aleijadinho* churches of Minas Gerais.

[21] Richard Burton, *op. cit.*, Vol. I, p. 123.

[22] Robert C. Smith, 'The Colonial Architecture of Minas Gerais in Brazil,' *The Art Bulletin*, Vol. XXI, 1939, p. 116. This is certainly the best study of the whole subject which has yet been published.

[23] A. E. Brinckmann, *Von Guarino Guarini bis Balthasar Neumann*, Berlin, 1932; and *Theatrum Novum Pedemontii*, Düsseldorf, 1931.

It was customary for the Portuguese, as for the Spaniards,[24] to send out designs to their colonies for important buildings both ecclesiastical and civil. When therefore a new curvilinear style appears in Brazil in the second half of the eighteenth century it is reasonable to look to Portugal for precedents. However, the Portuguese have displayed their native architectural originality in decoration rather than in structural form, relying for the latter on foreign, principally Italian, ideas.[25] In the eighteenth century many influential Italian architects worked in Portugal; nor was

[24] Diego Angulo Iñiguez, *Planos de Monumentos Arquitectonicos de America y Filipinas existentes en el Archivo de Indias*. Seville, 1933–1934. For Brazil see Robert C. Smith 'Alguns desenhos de arquitetura existentes no Arquivo Histórico Colonial Português,' *Revista do S.P.H.A.N.*, Vol. IV, 1940.

[25] Robert C. Smith, 'João Frederico Ludovice; an Eighteenth Century Architect in Portugal,' *The Art Bulletin*, XVIII, 1936; and Emilio Lavagnino, *Gli Artisti Italiani in Portogallo*, Rome, 1940.

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20, *the forecourt of Nossa Senhora dos Remédios, Lamego, Portugal, built* 1750–1761. 21, *façade of Na Sa da Consolação e Santos Passos, Guimarães, Portugal, 'blessed' in* 1785. *Both, by unknown architects, indicate the tradition from which the* Estilo Aleijadinho *was derived. The basic façade features were preserved well into the* 19*th century in Minas Gerais as can be seen from the adjoining diagrams of São Francisco de Paula* (1804–1860) *and Na Sa da Conceição (façade c.* 1850), *both at Ouro Preto.*

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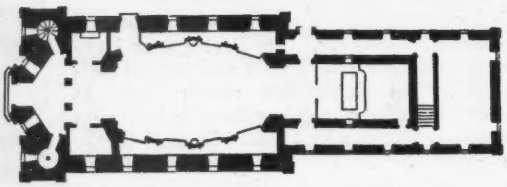


22, the façade of the Parish Church (Nossa Senhora do Pilar), Ouro Preto, Minas Gerais, said to have been designed by the Portuguese military engineer Pedro Gomes Chaves about 1720. *The church was reconstructed from* 1825 *under the direction of Manuel Fernandes da Costa. The façade was not completed until* 1848 *and the towers still later.*

Portuguese patronage confined to Italians. There was a distinct current of Central European architectural influence, attributable to Mariana of Austria, the wife of D. João V (1706–1750). In particular the Bohemian architect Karl Mardel was active in Portugal from 1733 onwards. All in all, therefore, the close similarities between the curvilinear church plans of Minas Gerais and those of North Italy and Central Europe are not so surprising as might appear at first sight. What remains, however, to be established is the identity of the architects of the Mineiro churches and the nature of the links which connect their designs with those of Piedmont, the Tyrol and Bohemia.[26]

Parallel with the brief flowering of the *Estilo Aleijadinho* the earlier style continued, little influenced by the rococo innovations. Not only in the parish churches of the smaller population nuclei and *fazenda* chapels,[27] but even at Ouro Preto in the *capélas* of the humbler Brotherhoods,[28] a traditional style descending directly from that of the great early eighteenth century parish churches of the province continued to be generally employed from the third quarter of the eighteenth century until at least the end of the Imperial era (1889). At Ouro Preto, in the early years of the nineteenth century, a major church was begun which shows little more than traces of *Estilo Aleijadinho* influence in its architecture. This was the church of the Tertiary Order of São Francisco de Paula[29] which dominates the town from high up on the steep northern hillside. And when towards the middle of the nineteenth century the new facade of Na Sa da Conceição, the parish church of Antônio Dias, was completed, it was virtually a replica of that of São Francisco de Paula. The reconstruction of Na Sa do Pilar, the parish church of Ouro Preto, in the second quarter of the nineteenth century was more ambitious but the result was essentially similar (22). The influence of Neo-Classicism was negligible in Minas Gerais.[30]

Such survival as there was of rococo features in Mineiro churches after the end of the eighteenth century[31] was principally confined to interior decoration and was largely connected with individual craftsmen closely associated with the Aleijadinho, notably his colleague the painter Manuel da Costa Ataíde and his pupil Justino Ferreira de Andrade.[32]

In barest outline such then is the history of the development of church architecture in Minas Gerais during the Colonial and Imperial epochs. The general layout of the Mineiro church, with its conventional facade pattern and supporting towers, remained more or less constant throughout both centuries. Up to at least the middle of the eighteenth century the treatment was 'Jesuit Style' Mannerist, and in spite of the rise of the brilliant Mineiro rococo which eclipsed the earlier style in the main urban centres of the province during the last quarter of the eighteenth century, Mannerist severity and monotony continued to exert a strong influence in the less ambitious buildings of that age (23) and reassumed a dominant role in the traditional style adopted for the large scale building and rebuilding of churches which took place under the Empire. At Ouro Preto itself, the capital of Minas, birthplace of the Aleijadinho and centre of the development of the rococo style named after him, it is the lineaments of a rustic version of the architecture of Mannerism which most insistently present themselves, clearly evident, despite their traditional style disguise, in the three largest and most imposing facades of the town.

[26] In this connection the role of military engineers as architects of churches in Brazil (and elsewhere in the Portuguese world) deserves recognition. See the Appendix to Robert C. Smith's 'Jesuit Buildings in Brazil' (*op. cit.*).

[27] For example the chapel of the *fazenda* of Jaguára, built for Col. Antônio de Abreu Guimarães and completed in 1786.

[28] For example the church of Nosso Senhor Bom Jesus de Matosinhos (completed by 1785), whose facade is awkward, stilted and discordant, despite the superimposition of *Estilo Aleijadinho* elements in the dressings of the door and the decoration above it.

[29] Planned by the *Sargento-mór* Francisco Machado da Cruz and begun in 1804, its external construction was completed by about 1860. The decoration of the interior continued until 1908. Diogo de Vasconcelos commenting upon this 'majestic and imposing' church of São Francisco de Paula, concludes that 'it was in the nineteenth century after the wealth of the gold mines had been exhausted, that the proudest and most splendid monuments of Ouro Preto were completed.' (*A Arte em Ouro Preto*, Belo Horizonte, 1934, p. 69.)

[30] An isolated instance is the facade of Na Sa do Pilar, parish church of São João d'El Rei, dating from 1820–1844, designed by Manuel Vitor de Jesus and executed by Cândido José da Silva.

[31] Robert C. Smith, *op. cit.*, *The Art Bulletin*, XXX, 1948, p. 207, footnote.

[32] Justino Ferreira de Andrade was employed more or less continuously upon carved work for the interior of Na Sa do Carmo at Ouro Preto between 1812 and 1821. (F. A. Lopes, *História da Construção da Igreja do Carmo de Ouro Preto*, Publicações do S.P.H.A.N., No. 8, Rio de Janeiro, 1942, pp. 73–82.) His earlier employment (1811–1812) at the same church under the supervision of the Aleijadinho is described by Rodrigo Brêtas (*op. cit.*, Note (13) above).

23

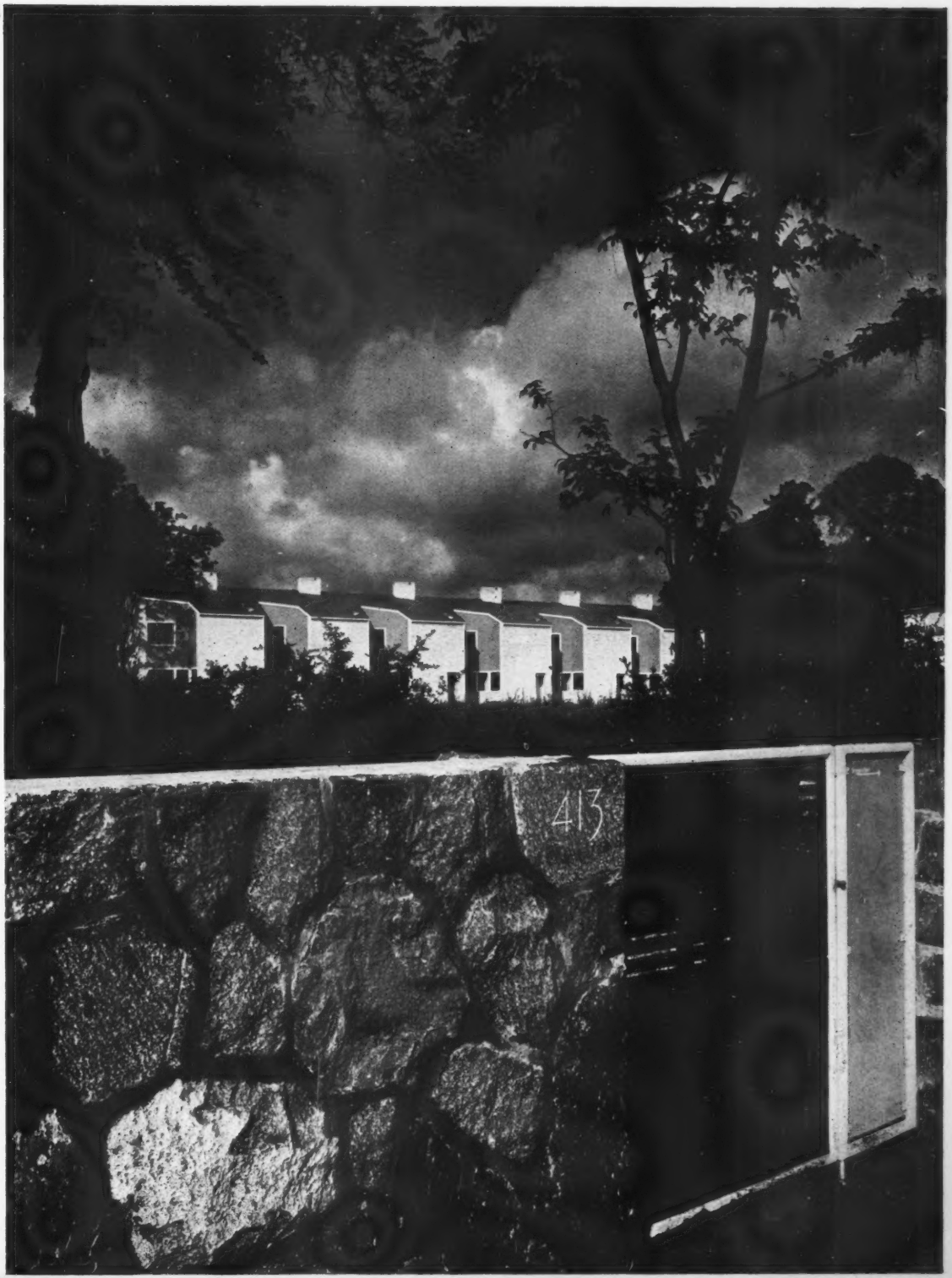
Above, the Church of St. Joseph, Ouro Preto, Minas Gerais. Built second half of eighteenth century by an unknown architect.

HOUSES NEAR COPENHAGEN

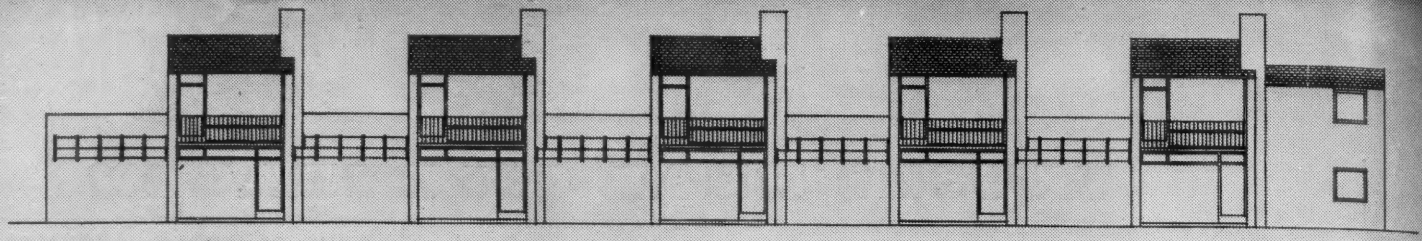
ARNE JACOBSEN: ARCHITECT

Apart from their superb detailing, what is particularly remarkable about these houses by Arne Jacobsen is the way in which the architect inspired by the nature of the site, by the dictates of aspect and prospect has turned the usual two-faced terrace into a three-dimensional composition with almost as many facets as a well-cut diamond. Inside the houses the placing of the staircase and the consequent relation between living and dining room repays study, for by it the architect has created an illusion of spaciousness that suggests a house three times the size.

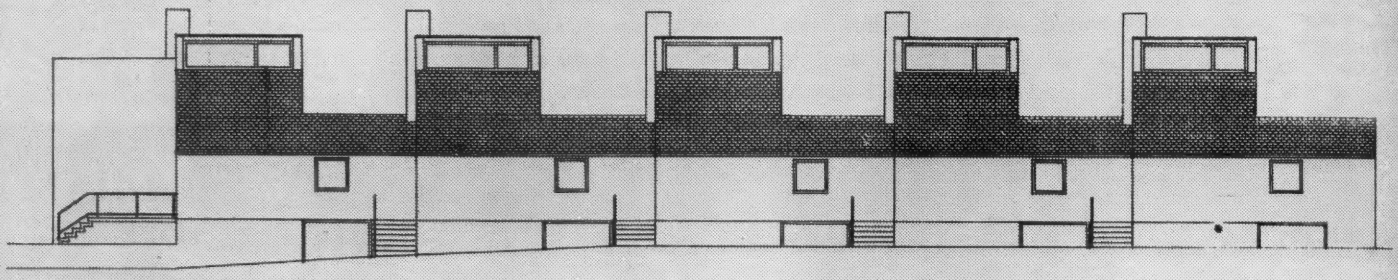
1



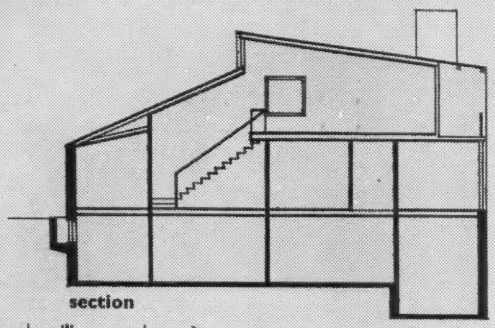
On the right, No. 413 Strandvejen at Klampenborg, near Copenhagen, is the separate entrance to the first house, occupied by the architect, in the terrace illustrated on the following pages. These gates typify Arne Jacobsen's mastery of detail which is found throughout the design of the houses. The terrace seen over the wall, though part of the estate, is not the one mainly illustrated here.



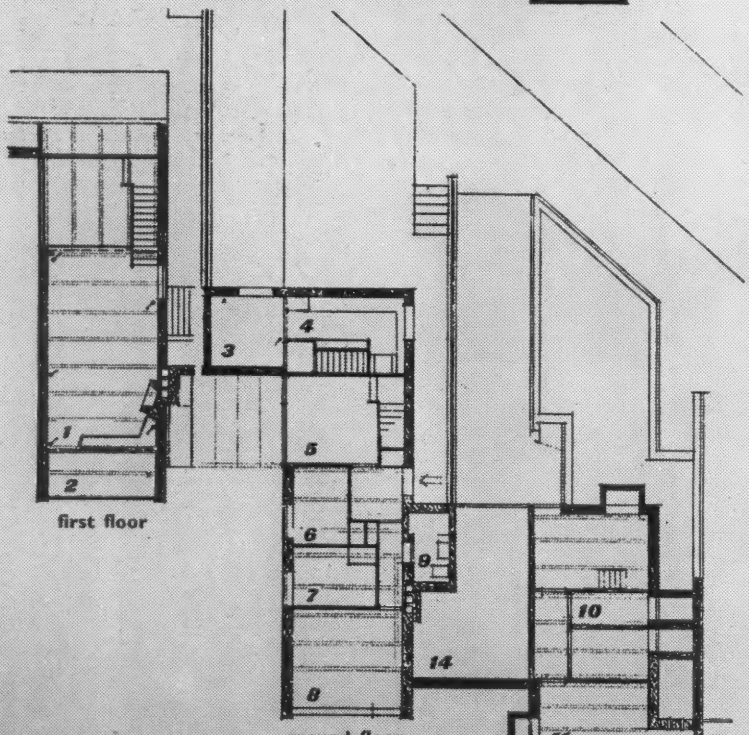
south-east elevation



north-west elevation



section



first floor

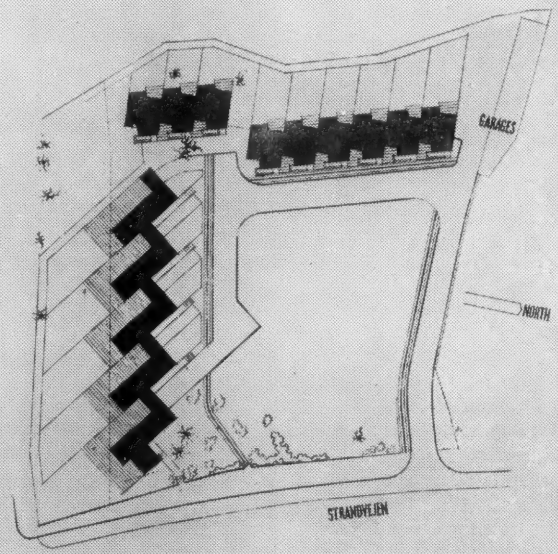
ground floor

basement

key

1, living. 2, balcony. 3, maid. 4, kitchen. 5, dining. 6, child. 7, child. 8, parents. 9, bath. 10, pantry. 11, drying. 12, laundry. 13, heating. 14, garage.

HOUSES NEAR COPENHAGEN



site plan

2

2, the staggered terrace of five single - family houses seen from south-east. Balcony railings are yellow and all other wood work is white. 3, the terraces from Strandvejen, the coastal road. The terrace illustrated here is on the left.

3

Söholm, the site of these houses, lies on the shore of The Sound, six miles north of Copenhagen, on the Klampenborg coast road. A villa of the Empire period previously occupied the site, though it had been entirely spoilt when altered in the 'twenties.

There are two types of houses in three terraces; the staggered terrace (the one illustrated here) consists of five single-family houses which face south-east. Each comprises one bedroom and two children's rooms, dining room and kitchen on the ground floor; the dining room has direct access by staircase to the large living room on the first floor. The living room was placed on the first floor to take full advantage of the view across The Sound and to avoid noise overhead. These houses were originally planned in 1946 to conform to a regulated maximum floor area of 110 square metres (357½ square feet). The plan provides each house with a courtyard walled on three sides, which, if desired, can be enclosed to form an extension of the dining room; in two cases

4

4, three of the houses from north-west looking towards The Sound. Steps lead up to the front door, and ramps down to garages. In 5 the terrace is seen from the Strandvejen looking due west. 6, on the facing page, the south-east façade of one of the houses. The door to the garden leads from the main bedroom. On the first floor is the living room. To the left is a courtyard walled on three sides which can be enclosed to extend the dining room if the tenant requires it.

5

7

7, the houses seen in the distance from between the two earlier terraces shown on the plan on page 102. 8, a living room balcony, and 9, the south-western elevations. Fences are of woven willow and boundary walls of grey granite.

8

9

10

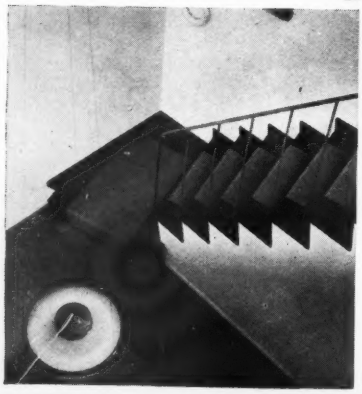
10, the first floor living room, looking across The Sound, with its balcony beyond. 11, the living room seen from the balcony.

11

HOUSES NEAR COPENHAGEN

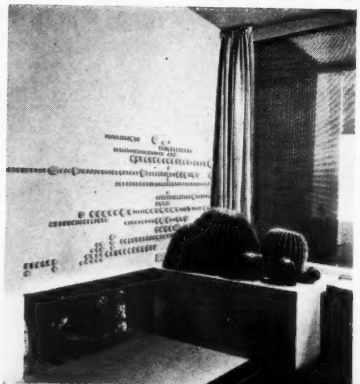
this has been done. The bricks with which the houses were built are a soft yellow and were chosen because they will weather in time to a grey which will blend with the low granite walls and the fences of woven willow. Balcony railings are yellow and all woodwork is white.

12



13

14



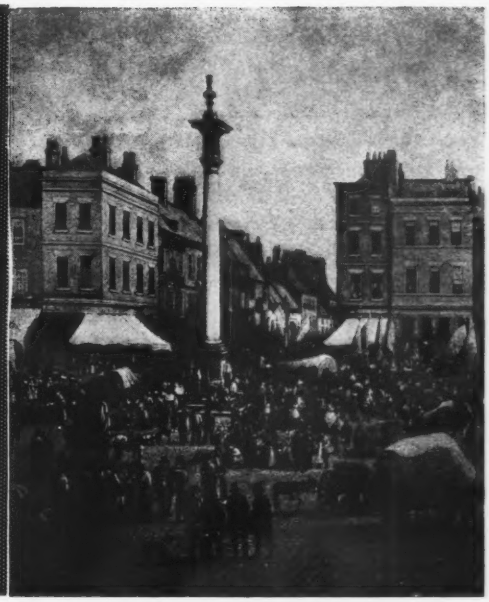
15

12, the dining room from the top of the staircase which leads down from the first floor living room. Beyond the window is the walled courtyard which can be enclosed to form an extension to the dining room. 13, the staircase. 14, looking into the living room from the study which forms part of a wing added to the eastern-most house of the terrace (see site plan on page 102). This house is occupied by the architect. 15, the living room fireplace of the same house which is decorated with the architect's collection of seals. The cacti are of the mammillaria or pin cushion variety.

Gordon Cullen

CROSS

AS FOCAL POINT



The market square at Stockton-on-Tees, c. 1840. That part of town where its social life is most fully expressed is usually marked by a column or cross. In this example the column truly marks a social place which is well served by architecture and floor.

The idea of the town as a place of assembly, of social intercourse, of meeting, was taken for granted throughout the whole of human civilization up to the twentieth century. You might assemble in the Forum at Pompeii 100 yds. by 50 or round the market cross, 10 yds. by 5, but you assembled; it was a ritual proper to man, both a rite and a right. Nor in the general way did you have to explain whether your motives were proper or profane. Men are gregarious and expect to meet. In all ages but ours, that is. Today, partly from hurry, partly from worry, partly from pressure of motor traffic, we are forgetting to meet, and the various kinds of policemen, in and out of uniform who direct our affairs, are busy making it impossible for us to meet, by making little gardens of such of our open spaces as are not already roundabouts, railing them round, ornamenting them into islands of rustic absurdity and then, if possible, locking them up. The process goes on with remorseless good intentions day in day out. This article takes two or three very minor cases in out-of-the-way places of the market cross, the physical and symbolical meeting place of Western man, and shows the process at work jesuitically described as 'creating amenities' or 'brightening up our towns.' It might with much more sense be called 'wiring up the cross,' which in cases like Honiton it literally is. A most unchristian activity with which the moneys and good intentions of Festival year should never have been connected.

1

CHUDLEIGH *DEVON*

The town centre at Chudleigh shrinks to an island site collecting behind its barricade the civic ornaments. It floats in a sea of neutral tarmac quite divorced from the surrounding buildings. What feeling of congregation, of belonging, is there here? None. The cyclists huddle up against the railing like sea birds round a lighthouse.

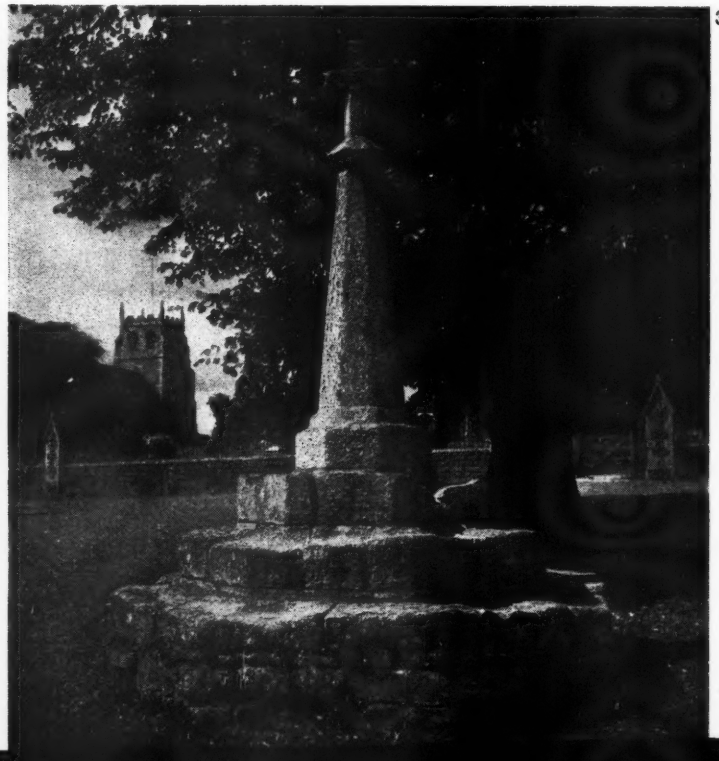
Two examples of the Focal Point as it should be. In the past neglect of the Focal Point has not entailed its destruction. For hundreds of years the traditional meeting place was not threatened with obliteration by anything more dangerous than a hay-wain. But today neglect does mean obliteration. Why?

LACOCK *WILTS.*

Lacock succeeds where Chudleigh failed partly because, being a recess, it stood a better chance of surviving. This little scene in all its simplicity is just what FOCAL POINT means, though it lacks one essential element, a floor. At present it would be more correct to call it ground. It is neutral and does not succeed in welding together buildings, cross and street as the sketch tries to do.

2

Because the motor car demands first, a pedestrian-free permanent way; second, a smooth surface; third, vast open acreage for parking lots. The first neutralizes the space for use, the second destroys the character of the space by introducing a neutral floor, the third eats up all unfenced urban openings for car-storage. There is a fourth danger which has nothing to do with traffic and that is the deliberate attempt by what one might term the 'eternal prefect' mentality to prevent natural assembly. At its worst this outlook regards assembly as synonymous with idleness (hanging about at street corners) but often it springs from no more than a distaste to have the steps of the cross worn out by loungers. Actually most steps are all the better for loungers, 'loungers' being the expression of distaste northern puritans use for anyone who has the time to sit or stand around enjoying life.



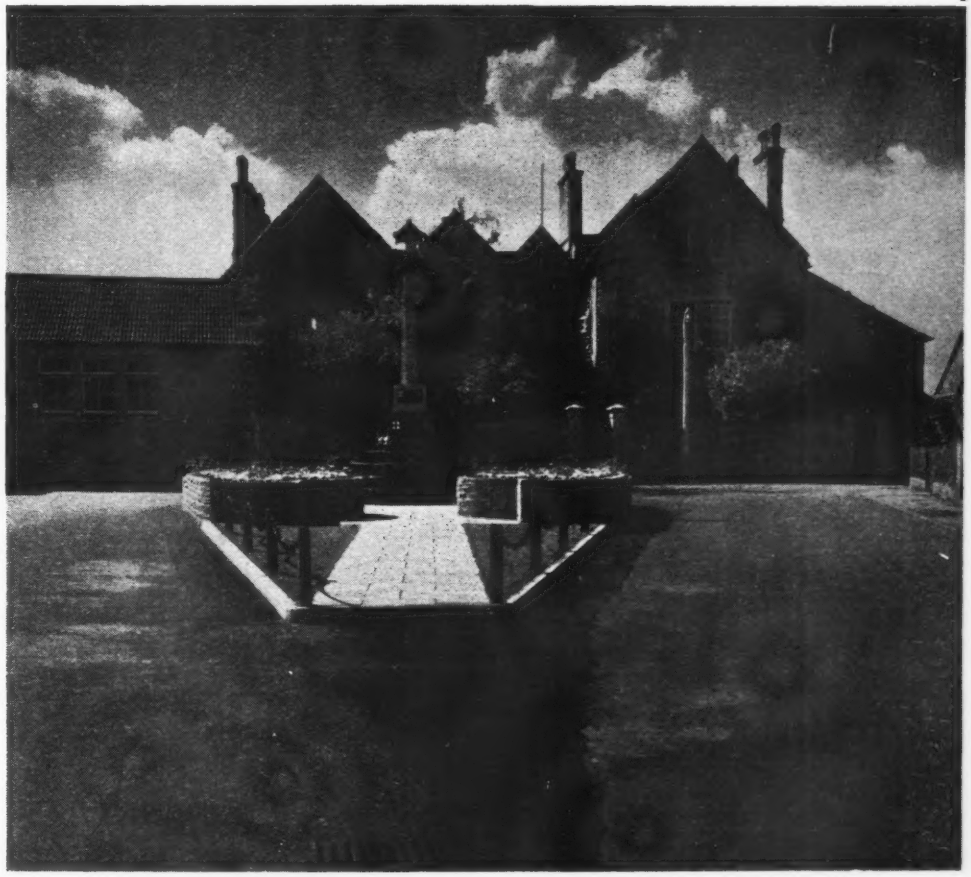
3

BREMHILL *WILTS.*

The scene at Bremhill might be a hundred or a thousand years old. It is the archetype of meeting places, church, cross and tree. A common scene? Yet how many others can you recall and how many will there be in ten years' time?

Consider the cross at Melksham, standing in a *place* outside the church, *not* as you might suppose on the main traffic artery (as at Chudleigh) but in a dead-end off it. The perfect enclave. What earthly reason is there why a backwater in a country town should be flooded with a sea of tarmac and the pedestrian area reduced to a tiny fenced-in island floating like a piece of flotsam in the ocean. The result is to turn a meeting place outside the church into a traffic artery, a *place* into a *street*. Surface the whole area with paving or other durable material and it will regain its lost character. It will also warn cars that they must share the floor with pedestrians and consequently go slow. They can still park there, Sundays, for church.

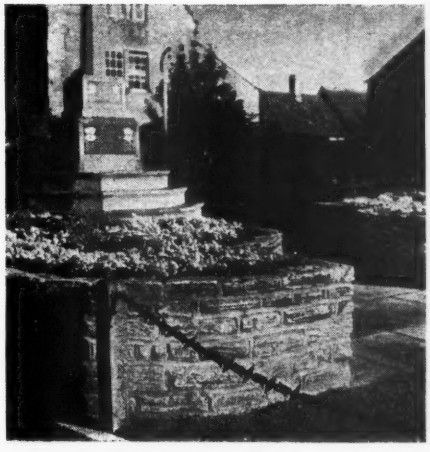
4



MELKSHAM *WILTS.*

Another traffic island, at Melksham, set in what is really a square; instead of the houses, cross and floor forming a ROOM, the sea of tarmac has blown this conception sky high and we are left with the devices of garden craftsmen. The paradox of the scene is that this is a cul-de-sac, believe it or not there is no through traffic.

5



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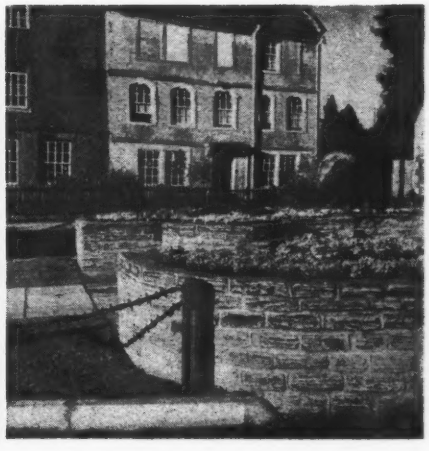
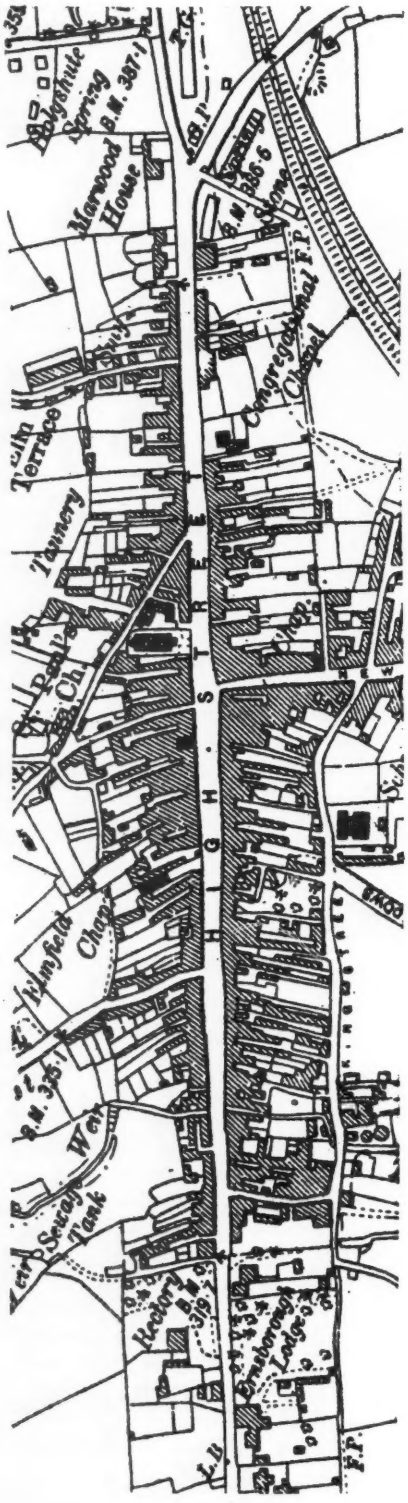


Having lost the day to the road engineer the amenity committees decide they must hot up the immediate vicinity of the cross with the kind of motifs that warm the heart of the modern municipal officer (and placate his conscience—he's artistic really, you see)—the gardenscape in all its contemporary inappropriateness—crazy-paving, dry-stone walls, triangles of lawn and idiot chains. The lowest ebb of the great English tradition of gardening.

Overleaf another example, Honiton, is shown in more detail because it happens to be a text-book example of the process at work, the process which is turning 'town' (with all that means of variety of contact) into 'street' and street into fast-traffic lane. A text-book example too of the prefect mentality.

HONITON DEVELOPED

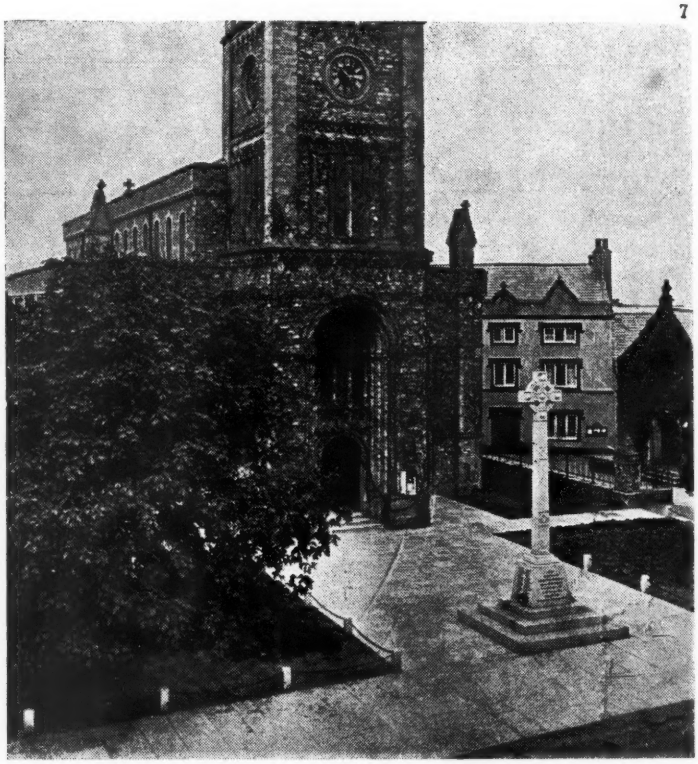
Honiton is the linear town par excellence. Its main street, a charming street, is flanked by shops, banks and pubs. But right in the middle, in the centre of the town, there is an enclave flanked by large trees. It is formed by buildings of the same architectural importance as the main street and in the centre is St. Paul's Church set back from the road. The cross stands in front. The site is a gift.



1924

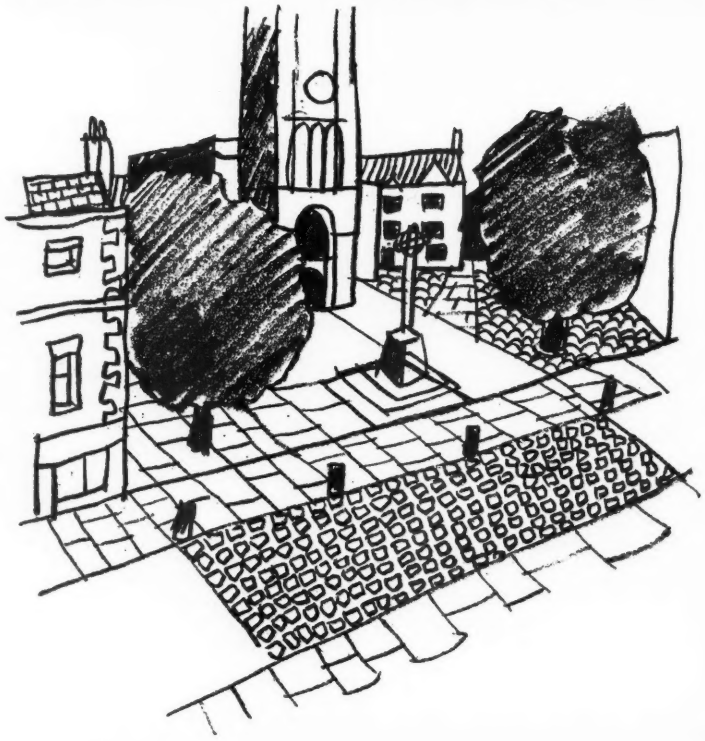
This is how it looked in 1924, a simple and unpretentious place open to the pavement and allowing the surrounding buildings to tell. If a little bleak and a little too shy of using its grass and shady trees, it does constitute an appreciable break in the street and provide a Focal Point.

7



1960

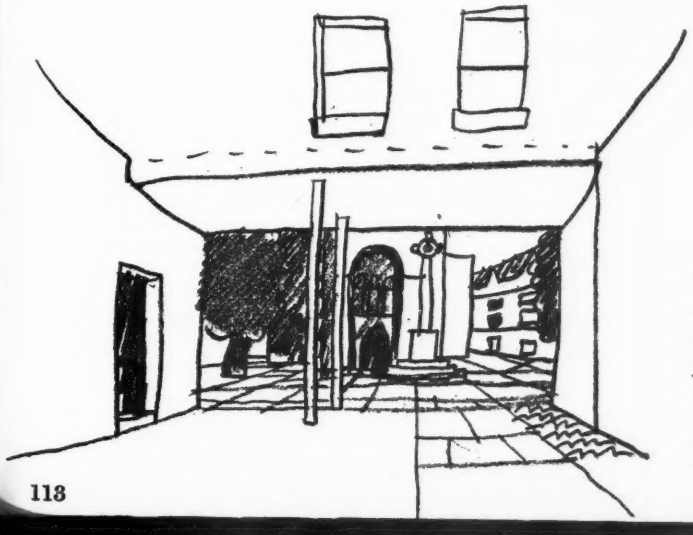
The surrounding buildings could be made to form something in the nature of a square by a new rearrangement of the floor pattern. The new surface would continue across the road (acting as a zebra crossing) to link the buildings each side of the street and thus form a square, the only one in a ribbon town of great length and no depth. With proper development this might be used to give the town a centre which it hasn't got. A square here, if only a miniature one, would create the equivalent of a market place and break the high street's boring linear form.



1960

Seen from above the whole layout shows the outdoor room through which traffic might pass. The traffic has to slow down (a good thing) while crossing the square; the flow is not impeded otherwise. The street is more friendly, the church becomes a real place of meeting, the cross a genuine focal point and a ribbon town gains a centre.

The scene at the moment is not aimless but is made to appear so by the confusion of floor surfaces and changes of levels. Having created a 'place' then the subtlety of the placing of the buildings round and behind the church will become apparent and not appear as a jumble. The floor surface will be continuous but change in texture where there is a carriageway. This will have the effect of sorting out vehicles and pedestrians and also indicating to the motorist that if he wants the centre of Honiton, this is it. But it is also the centre for the *people* of Honiton and not just a bit more arterial road.



This sketch shows the centre as seen from point 'A' on the above drawing. It shows the view at right angles to the direction of the street and is made from an already existing but derelict yard. A vista at right angles to the main road it makes the one accent in the street and one that all towns, but particularly the linear town, need.

But, this is what in fact happened (for Festival Year). A railing has been deliberately erected to cut off the street from the square to destroy the square in fact and leave only a churchyard and a street. The actual focus of interest, the steps of the cross around which people congregate, is decisively isolated by concrete posts and flower beds. It is just as though a notice had been put up 'Commit no nuisance,' but this nuisance is the perfectly innocent one of sitting around chatting, or standing on the steps at weddings.

1951

8

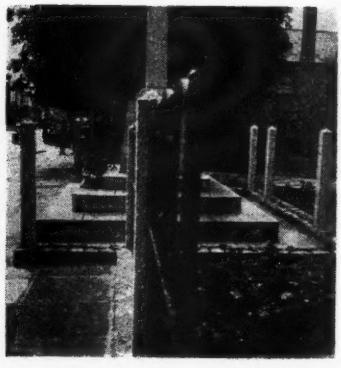
9

10

These pictures show the scene today. The cross is still the focal point but gates, railings and flower beds have been plonked down with the ruthlessness of a rubber stamp. They have no function except to enclose what, according to the argument

11

here, should be opened out. The attitude is one of 'refinement,' to prevent the place being used for vulgar, profane or secular purposes. And so it has been imprisoned by the same 'artistic' methods as at Melksham.



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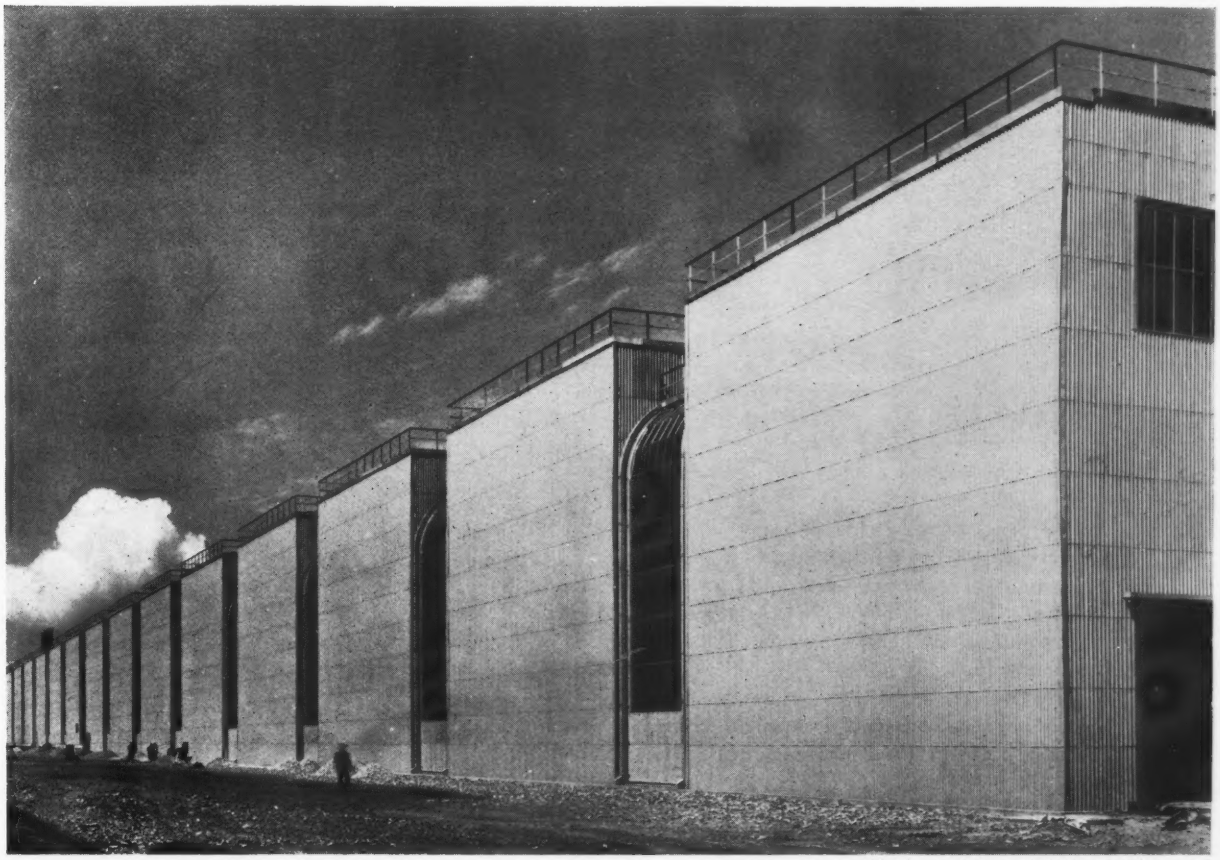
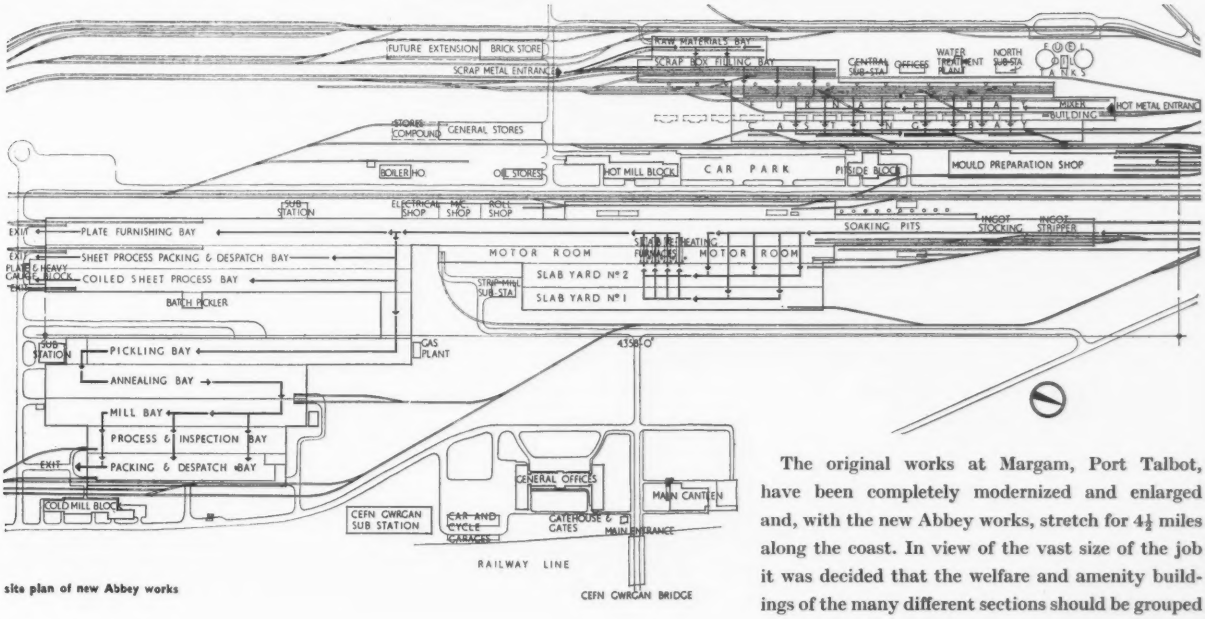


The ingot stripper building looking south

STEELWORKS AT PORT TALBOT, SOUTH WALES

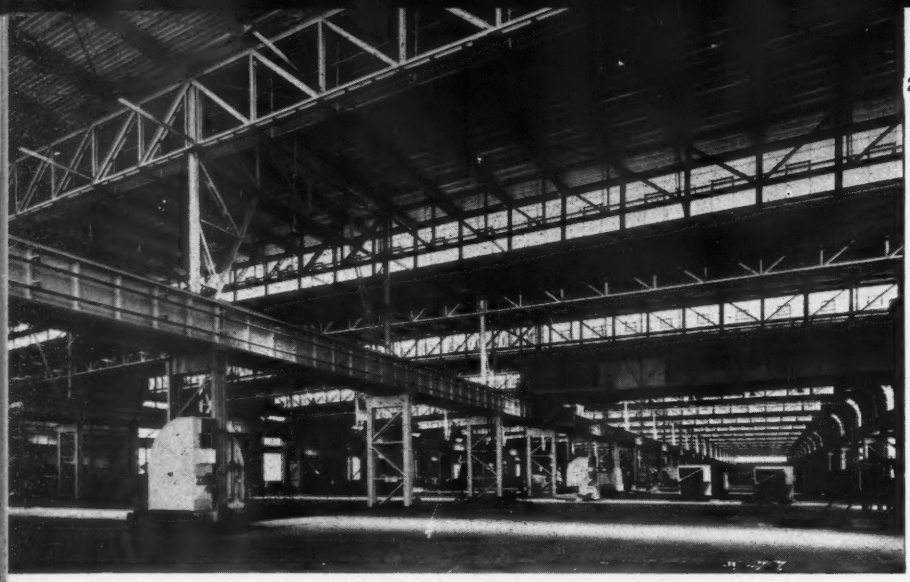
CONSULTING ARCHITECTS: SIR PERCY THOMAS AND SON

CONSULTING ENGINEERS: W. S. ATKINS AND PARTNERS



site plan of new Abbey works

The original works at Margam, Port Talbot, have been completely modernized and enlarged and, with the new Abbey works, stretch for 4½ miles along the coast. In view of the vast size of the job it was decided that the welfare and amenity buildings of the many different sections should be grouped and sited throughout the works. Each contains offices for manager, engineer's staff, supervisors and clerical staff, a first-aid section, office staff dining-



2

Steelworks at Port Talbot, South Wales

Hot mill finishing bays. 3, *below, offices in the remodelled Margam works*

room, operatives' dining-room, a locker room, shower baths, wash fountains, drying rooms and sanitary accommodation, and a time and pay office. They are constructed of load-bearing brickwork, with prestressed precast concrete floors and roofs to ensure the maximum economy in the use of rolled steel beams. Rigid frames have been used for nearly all the main buildings, some of which, such as the main mill and melting shop buildings, are of open lattice construction. The greatest possible use has been made of welding, resulting in a saving in weight of about 15 per cent. over a riveted structure.

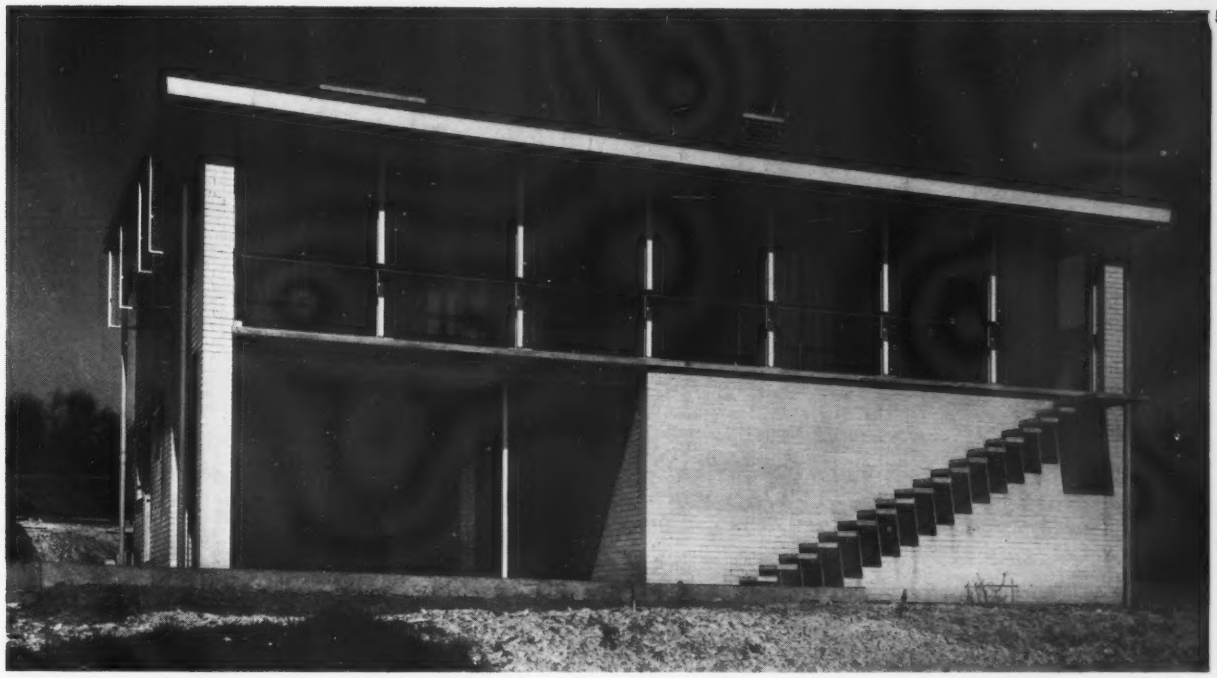
4

HOUSE AT HEATHFIELD, SUSSEX

ARCHITECT: BERTRAM CARTER

This house was specially designed for the needs of a doctor with a country practice. The site is 500 ft. above sea level and lies seven miles to the north of Pevensey level. The original intention was to use monolithic hollow walled concrete construction, but Hailsham Council opposed the designs. An appeal to the MOTCP was successful but the Ministry insisted that brick should be used instead of crushed brick aggregate. It was not practicable to provide a pitched roof—though this is a requirement of the Hailsham Council—for the depth of the house was too great in relation to its length. As there are often strong winds in the valley where the

The staircase window from the lounge



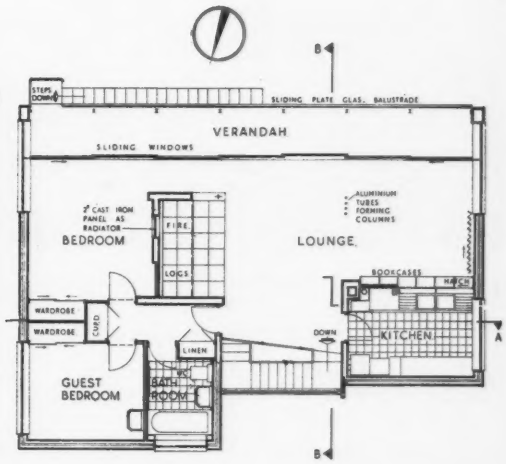
5

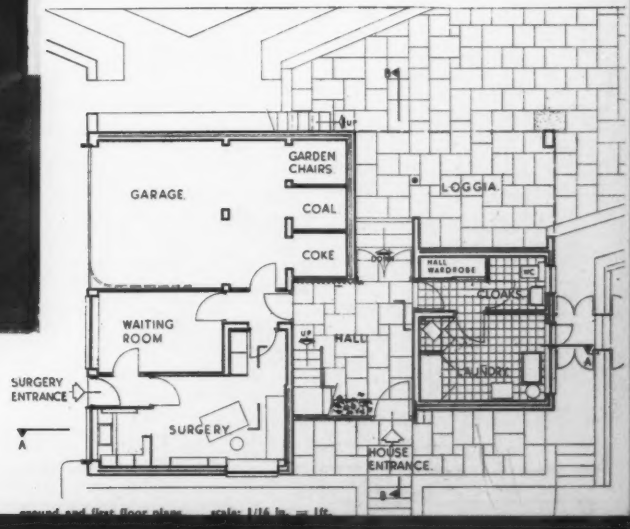
The house seen from the south

house is situated the flat roof had to be anchored with ½-in. steel rods to the concrete floor structure. Inner walls not formed by fitments are of brick, mostly distempered pale grey. Some walls and recesses are coloured or papered. Walls in bathroom, kitchen, surgery and waiting room have paint on plaster. The architect was assisted by Geoffrey Dunn in the choice of a colour scheme to blend with the furnishing.

6

Fireplace in the first floor lounge





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

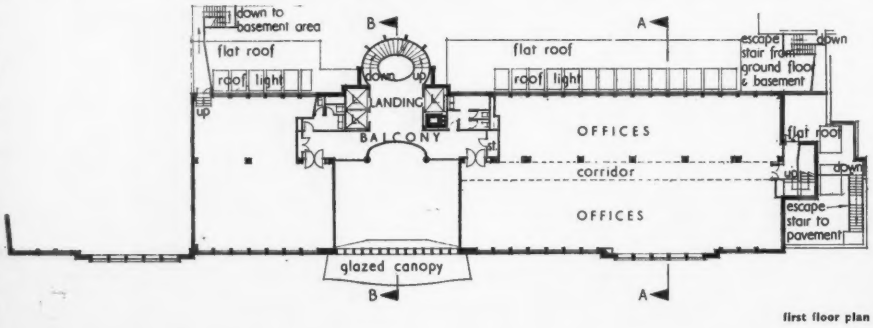
OFFICES IN THE CITY OF LONDON

ARCHITECTS: TREHEARNE AND NORMAN, PRESTON AND PARTNERS

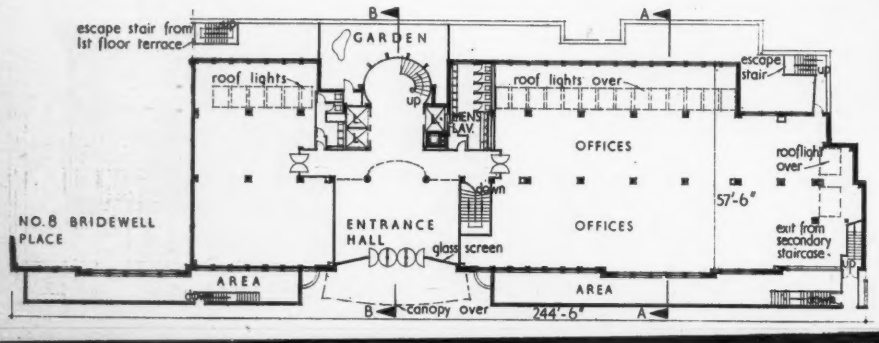
The arrangement of the plan of this block of offices in Bridewell Place, Fleet Street, was guided by the long, narrow site and the wish to place the entrance hall, staircase, lifts and lavatories in a position which will be central when the extension to the south is built. The overall depth of the building is 43 ft. with a 5-ft. central corridor and windows at 5-ft. centres to give maximum flexibility of internal partitioning.

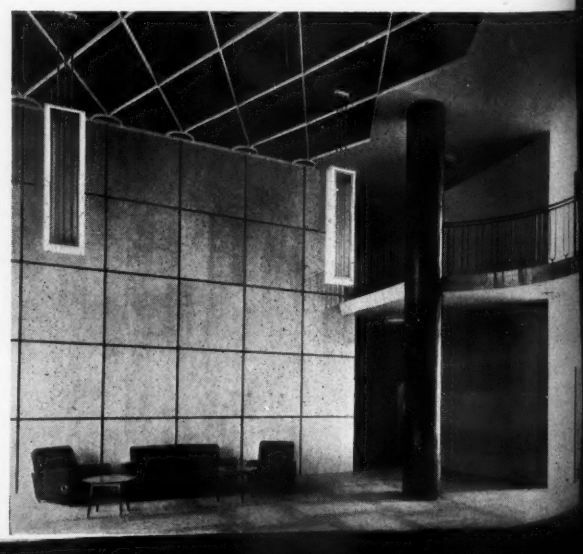
The frame is of reinforced concrete with external load-bearing mullions. There is one row of internal columns at 15-ft. centres. Floors are of reinforced concrete and the external walls are of 11-in. cavity brickwork.

The major part of the exterior is faced with Italian quartzite, ½ in. thick. This stone, which is cheaper than Portland stone, faience or tiles, has variegated tones of colour and is harder than granite. The ground and basement storeys on the east elevation are faced with dark brown faience tiles, and Westmorland green slate is used on the lower two storeys on the west and in panels on the projecting part of the east façade.



first floor plan





7, above, the east façade which overlooks Bridewell Place, looking south-west. 8, the main entrance hall.

Winston Weisman

SLAB

BUILDINGS

The term 'slab structure,' coined in the 'thirties to describe the RCA Building at the Rockefeller Centre, New York, has found its way into general currency as a result of the use of the form in a number of important recent buildings in America, the most famous of them being, of course, the UN Secretariat. Here Professor Weisman gives an account of the rise of the slab and discusses its merits as a building form.

One of the most interesting developments in the field of architectural history in the past twenty years has been the emergence of a distinctly new structural shape—the slab. Some day when the whole story of the skyscraper is told the slab structure will constitute an important chapter. Just where and when the slab originated, by whom, how it evolved and what cultural factors conditioned its form will be questions to which we will want complete answers.

Today only part of the tale can be told primarily because it is still in the process of unfolding but also because detailed study of the present buildings is lacking. However, it is already possible to trace the general pattern of evolution. This article is an attempt to sketch briefly a preliminary outline of the development.

Before starting with the question of how the slab emerged as a particular architectural form, it might be in order to define the term. As is well known, the term 'slab' was coined in the 1930's in connection with publicity on the RCA Building at Rockefeller Center. It was a happy invention and so befitting the structure's slender silhouette that it caught on and found general acceptance. Nowadays any thin rectangular building is usually referred to as a 'slab.'

Judging from the buildings to which the name is applied, the slab may have a vertical or horizontal accent. But whether tall or long the most distinguishing feature is its thinness. The *Architectural Forum* (August, 1950) captured the essence of the slab in its report on the Chicago Lake Meadows project by Skidmore, Owings and Merrill, when it described the two main buildings as being 'miles long and inches thick.' In respect to its shape, then, the slab is distinctive. It is basically different from the block, setback and 'bell' tower buildings that dominated commercial design before 1930.

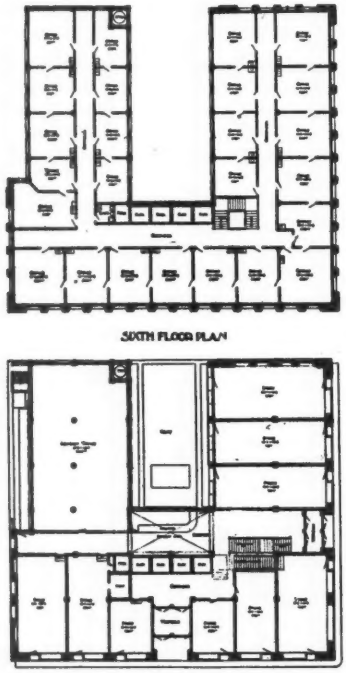
But the slab is more than just a shape. It represents a way of life and a kind of thinking in architectural terms. This is apparent in a reply to a questionnaire sent Wallace K. Harrison. Commenting on the question: What factors were responsible for the slab shape of the Secretariat, Mr. Harrison, speaking for the architectural board, said: 'I feel that it is safe to say that human values were uppermost in all our minds. The goal was to provide a pleasant and cheerful environment for the 3,000 to 4,000 workers. We were particularly anxious to provide the maximum amount of natural daylight to as many of the offices as possible and to take advantage of the sweeping views over the river and the city.'

This concern for human values also is stressed in the remarks of Ambrose M. Richardson, Chief of Design for the firm of Skidmore, Owings and Merrill, who wrote:

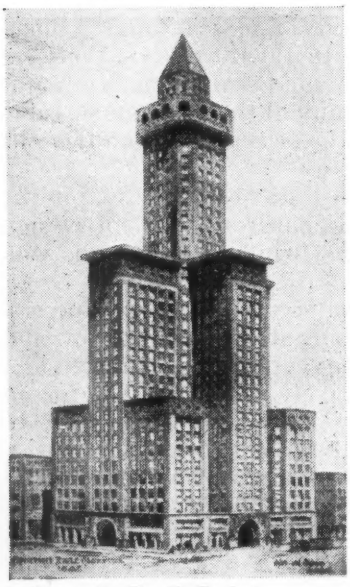
'It occurs to me that the use of the slab shape is a natural consequence of our structural system and plan. As you well know, the search for orientation and view has become a relatively important factor in contemporary planning. It follows that if we are to make the great assumption that orientation is a strategic factor in planning, it is evident that a maximum number of living spaces, whether they be hospital rooms—or apartment dwelling units—must necessarily be located in such a way as to provide maximum light and air. Inevitably, such arrangement

of space results in a slab building. It may be argued that this is extravagant, but this premise is necessarily a philosophical one. It is very difficult to determine living standards and significant architecture in terms of dollars and cents.'

The slab, then, is a new and distinctive shape moulded by a particular kind of thinking applied to an architectural problem. To be precise, it results from a desire to create ideal working or living space through maximum conditions of light, air, and view for economic, sociological, and esthetic reasons. Perhaps the best examples of the type being the UN Secretariat (vertical slab) and the Lake Meadows Apartments (horizontal slab). Both are tall thin structures of severe rectangular shape and set in a landscaped environment. With the motivation and the physical character of the present-day slab established it is possible to follow its evolution by looking back in time for contributing factors.

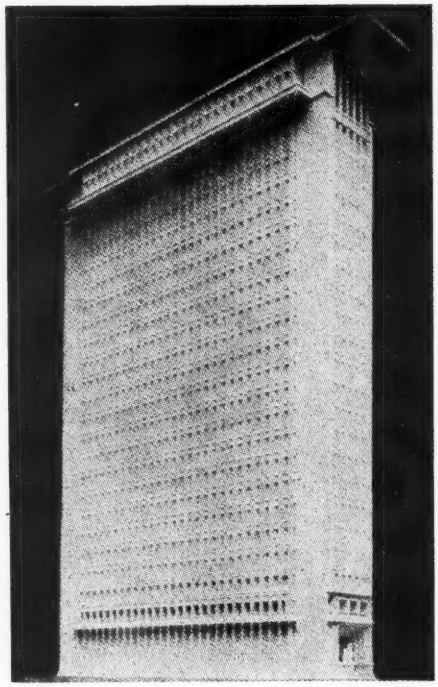


1, *Wainwright Building plans.*



2, *Fraternity Temple Project.*

The sources of the slab structure can be traced back in the late nineteenth century to the work of the Chicago School architects generally and in particular to the schemes of Louis Sullivan. In his Wainwright Building, St. Louis, and the sketch for a Fraternity Temple, the architect designed relatively thin forms in order to create well-lit space. This is not readily apparent in the Wainwright Building (1890-91). From the exterior the building presents a squarish block form. The plan, however, reveals that the structure is actually 'U' shaped (1). The court between the long arms of the 'U' serves as a light well to the offices lining the inner walls of the structure. The Fraternity Temple (1891) design reveals an effort to treat the light problem plastically by breaking up the block into vertical sections which extend from the core like branches of a plant reaching for the light (2). In the Carson, Pirie, Scott Department Store, Chicago (1899-1904), Sullivan manifests his interest in light in another way: by filling the walls with large quantities of glass. Sullivan's concern with and success in solving some of the problems of creating light and airy space makes him one of the forerunners of the slab builders.



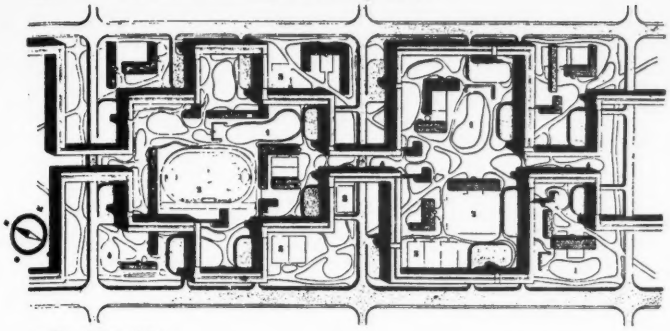
3, *San Francisco Press Building Project.*

In the beginning of the twentieth century the trend continues with architects using 'I,' 'E,' 'H,' 'L' and similarly shaped plans calculated to provide shallow space. Perhaps the most significant contribution comes from a student of Sullivan, Frank Lloyd Wright. In his Larkin Building, Buffalo, built in 1904, Wright conceives a plan which not only provides light and air into the interior but also creates an arrangement of freely flowing and interrelated spaces which esthetically expresses in architectural terms the functional problem. To Wright also goes credit for one of the earliest sketches of a slab structure. In his proposed plan for the San Francisco Press Building (3) executed in 1912, Wright designs a tall thin structure of some 25 storeys which is strikingly similar to the UN Secretariat.

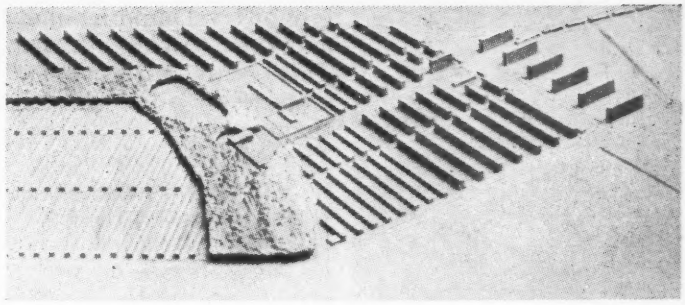
During this period many tall thin buildings are built. To judge from their shape alone they might be considered slabs. However, quite often these buildings are sandwiched between others which block off the light, view, and air completely. If the slab is to be thought of as being intimately tied to the problems of light, air, and view, these structures should be grouped more properly as pseudo-slabs since their form results from the dictates of the narrow site alone.

In 1922 Le Corbusier expanded on the ideas of Sullivan and Wright. The structures designed for the Plan Voisin and later for Radiant City are variants on the types introduced earlier. But these buildings are placed in a park-like atmosphere so that the well-lighted space is given a garden setting. While the Plan Voisin skyscrapers are primarily cruciform and not essentially different from Sullivan's Fraternity Temple scheme, the Radiant City (1930-31) structures are relatively low and thin (4). They wander rectilinearly through a richly landscaped site producing an impression of living space that is both functional and beautiful.

Walter Gropius and Marcel Breuer also experiment with the slab during the 1920's. According to Sigfried Giedion in *Space, Time and Architecture* slab structures were first introduced by Breuer in 1924 on the occasion of a low-cost housing competition. In 1929 Gropius uses similar buildings in his scheme for the Haselhorst



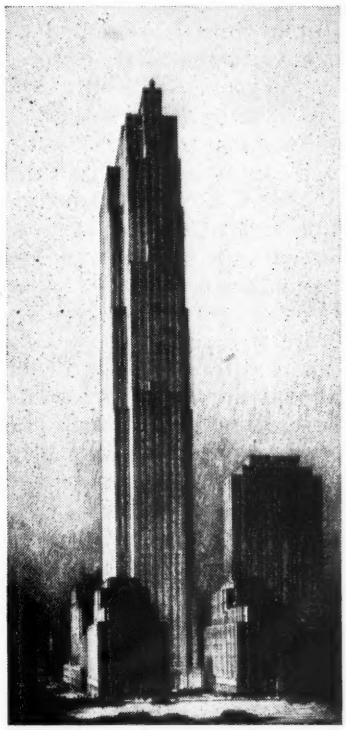
4, Radiant City.



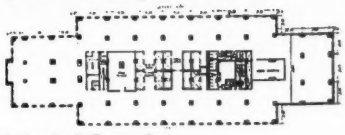
5, Haselhorst Settlements.

Settlements near Berlin (5). The purpose of both architects is to dispose of the living space vertically and to transform the ground area into parks. A similar solution was used in 1932 by Aalto in the Paimio Sanatorium, Finland.

While the slab formula is worked out theoretically in the designs of Le Corbusier, Gropius, Breuer, and Aalto, the materialization of the slab from a drafting-board dream to a three-dimensional reality is the work of American architects. The development and refinement of the slab which was to lead eventually to the UN Secretariat is worked out at Rockefeller Center. The RCA Building, by Reinhard and Hofmeister, Corbett, Harrison and MacMurray, Hood, Godley and Fouilhoux (1930-33), is the first true slab in shape and intent (6). It was specifically planned with light, air, and view foremost in mind as study of the project makes apparent.



6, RCA Building.



7, typical floor plan.

The RCA Building was planned in 1930 when the nation was in the grips of the depression. A buyers' market prevailed. This applied particularly to the building trade. In the nearby Grand Central district it was estimated almost 20 per cent. of the rentable space was not bringing in a return. To make matters worse the RCA Building and others projected for Rockefeller Center would add about four million more feet to the over-supply. The management realized the only way it could sell its space would be to create a product superior to any in the surrounding neighbourhood.

High quality space meant well-lighted and ventilated space in those days before fluorescent lighting and air-conditioning were used generally. In design terms this means shallow space. John R. Todd, veteran builder and president of the firm of Todd, Robertson and Todd, managers of the Rockefeller Center development, underscored the relation between quality space and shallow design when he reportedly said: 'I have never collected an extra dollar of rent for space more than 30 feet from a window.' Experience had taught him that deep space is as costly to construct as shallow space and yet cannot command the price nor the market.

Here is how the problem of producing high grade space is worked out architecturally according to Raymond Hood writing in the *Architectural Forum* (January, 1932):

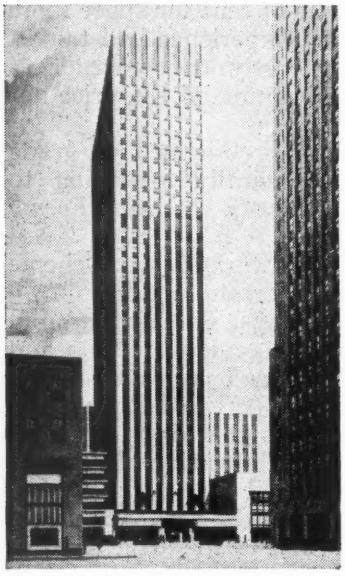
'In the central tower we have worked out a scheme which is likely to have an important bearing on all future commercial office buildings. Grouped around the center are the elevators and service facilities, and surrounding them on each floor we have sketched the 27 feet of lighted space that experience has proven is the maximum to provide light and air to all parts of the building.' Given the long dimension of the plot this method of designing produced the slab shape (7).

The setbacks which appear on the east face of the building are a logical conclusion of the same kind of 'cost and return' planning that produced the slab. They are not caused by New York City's zoning restrictions. In their efforts to eliminate deep space, the management and architects cut back the floor plan at the levels where the elevator banks drop off. To maintain the straight profile would have meant constructing large amounts of deep space in the upper storeys. This was considered undesirable.

The broad base which supports the setback slab results from the need to develop the valuable ground floor shopping space to the limits of the plot in order to meet the financial schedule of the enterprise. To summarize then, the RC Building with its broad base, slab tower and setback profile represents an early phase in slab design, a phase motivated mainly by monetary considerations.

The Time and Life Building (1937), by Reinhard and Hofmeister, Harrison and Fouilhoux, may be thought of as representing the second step in the refinement of the slab. In that building there is a tendency toward pure slab form in the efforts made to eliminate setbacks and base. Here again the underlying influence is economic. The management felt that the setbacks, which would have resulted from full exploitation of the zoning envelope, were unprofitable. Setback construction is relatively expensive, they discovered, and provides little rentable space. The managers believed it better to step back at the

8, *Time and Life Building.*



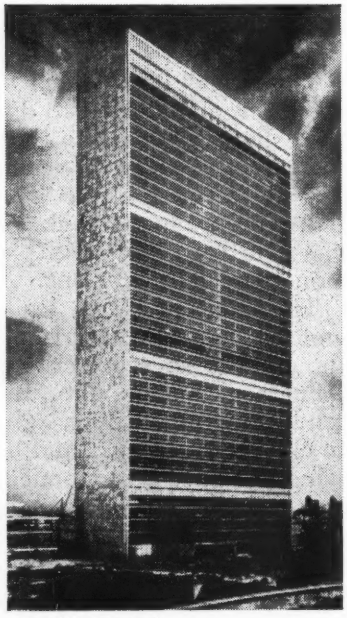
9, *Esso Building.*

ground level building line and then go straight up. This occurs on the north and west sides. From the north-west angle the Time and Life Building presents a comparatively clean silhouette (8). In respect to its shape it stands midway between such structures as the RCA and the Esso Building.

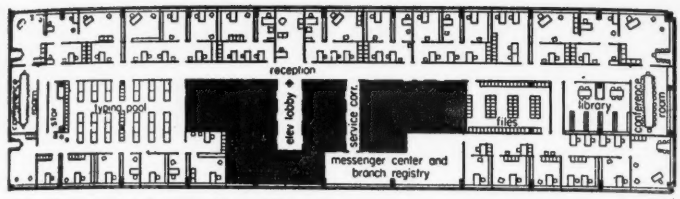
The Esso Building by Carson and Lundin continues the evolution (9). The intersecting slabs are devoid of setbacks altogether. A broad base containing the lobby and shopping space remains; but it is decorated with roof gardens at the second floor level. The decorated terraces, which recall Le Corbusier's gardens, are a prominent feature of the Rockefeller Center scheme and are to be noted on the RCA Building. In the words of Robert Carson 'all office space—even on the lower floors—is removed from the street and given an outlook over landscaped areas.' Further comments of Mr. Carson make it clear that human as well as economic values were involved in the planning of the Esso Building.

It is but one last step to the UN Secretariat which omits setbacks and projecting base in favour of the simple straight profiles (10). That the Secretariat should follow the precedents worked out at Rockefeller Center is not only logical but in a sense inevitable since the man who played such an important role in evolving the slab at the Center is the Director of Planning at the Secretariat, Wallace K. Harrison.

The question arises at this point whether this 'classic' example of the slab really fulfils its function, namely to provide ideal space in terms of light, air, and view. Analysis indicates it does not. Floor plans



10, *UN Secretariat.*



11, *Secretariat Upper Floor Plan.*

at the various levels show that while shallow office space is created at the lower levels, considerable amounts of deep space are to be found in the upper levels (11). This condition results from the practice of putting the core of elevators and services in the centre of the structure. When the banks drop off deep space is developed unless setbacks are introduced. The problem is identical to that of the RCA Building.

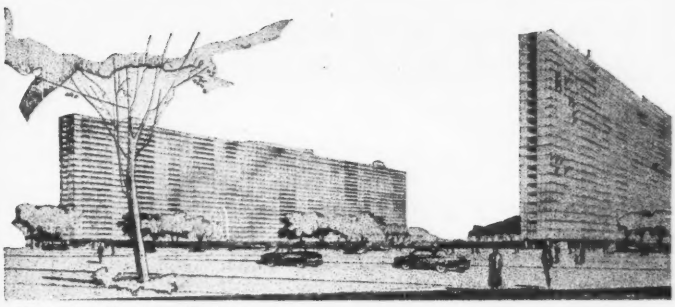
Mr. Michael Harris of the UN Architects staff recalls that many experiments were conducted in an attempt to solve the deep space dilemma. The *Architectural Forum* (November, 1950) shows one interesting version in which the elevator system is attached to the slab in such a way as frankly to reveal its nature. It steps back as successive elevator banks drop off presenting a silhouette not unlike the RCA Building. This solution, the *Forum* says, was rejected for esthetic reasons and the unadorned rectangle made the unanimous choice of the Board of Design. It is important to note at this point that when the 'classic' slab is realized economic influences no longer dominate the planning. They are replaced by esthetic considerations. This is possible in the Secretariat because the costs of the structure were paid by contributing nations while the plot was donated by the Rockefeller family. Since the Secretariat was not built for profit-making purposes, it was possible to do away with the revenue-producing base, to create unprofitable deep space by avoiding the setback and to provide the structure with an expensive landscape setting.

Significant too is the fact that now the esthetic aspect of the slab shape looms so strongly in the minds of the designers that they knowingly accept the shape even with its faults rather than defile it with setbacks and the like.

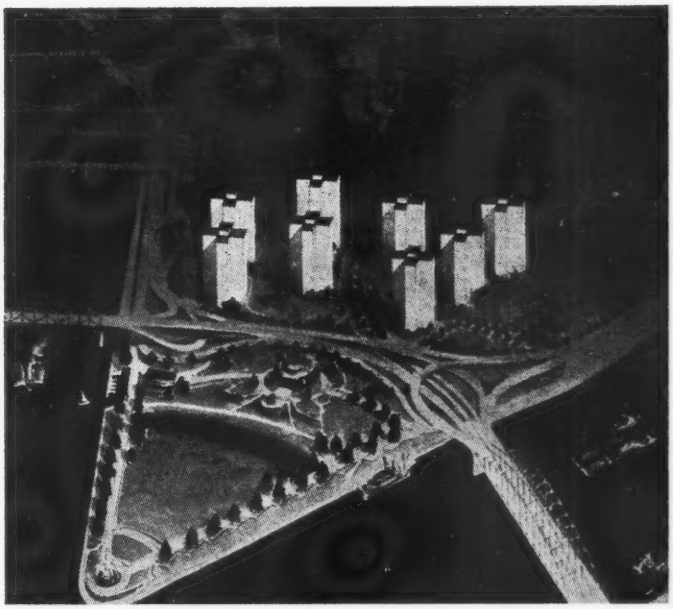
Architects agree that the principal problem in designing slab office structure is what to do with the elevators and corridors. Efforts to solve this problem have produced slab variants. In relatively low buildings a solution which seems to have gained favour is to place the elevators at one end, preferably in the rear, where they extend organically from the main body of the slab. Skidmore, Owings and Merrill use such a scheme in their Lever House (12). Carson and Lundin make good use of the idea by featuring a large glass wall in the outside core which provides panoramic views for persons in the elevator lobby of the Sinclair Oil Building.

In suburban areas where large sites are available and low structures are feasible another formula has been worked out by Skidmore, Owings and Merrill which seems a perfect solution to the communication problem. At the Lake Meadows project, Chicago, they have placed the elevators at regular intervals throughout the length of the 23-storey apartment slab (13). The units are entered by way of outside weather-

12, *Lever House.*



13, *Lake Meadows Project.*



14, *Triangle Tip Development.*

protected corridors of glass. The arrangement provides for a shallow structure one apartment deep with light from two directions and through ventilation. This solution recalls the Bergpolder Flats, Rotterdam, designed by Tijen, Brinckmann and van der Vlugt in 1934.

It may be that Lake Meadows will represent the last phase in the evolution of the slab. Some hard-headed, practical speculators and real estate development experts already have turned from the slab to another plan. At the Triangle Tip Development, Pittsburgh, the slab was turned down as developing excessive deep space. After considerable study the plan chosen was the cruciform which, according to the Board of Design, produced maximum amounts of shallow space (14). By concentrating the elevators in the intersection of the cross arms, the designers achieve easy and convenient approaches to the services as well as the other attractions of well-lighted office space, spectacular view and landscaped surroundings. It is reported that many building owners consider the office space developed at Triangle Tip the finest in America.

The advantages of the cruciform plan are obvious and many large-scale apartment projects have adopted that scheme as well as the 'X' shaped variation. The compactness of the shape which requires relatively small plots and affords convenient communications is a decided asset. The way the interiors are worked out at Pittsburgh the offices have view and light from only one side and limited ventilation because of the corridor which bisects the arms. It may be that future designs will adapt the Lake Meadows idea of an exterior glass corridor. This would make possible extremely thin intersecting slabs. Esthetically such a shape realized in terms of steel structure and glass walls might well be as attractive as the slab possessing the same thin, airy volume, sheer surfaces, beauty of proportion and park-like environment.

In conclusion a word about the significance of the slab and the important contribution of such slab-builders as Harrison and Abramovitz; Skidmore, Owings and Merrill and others. From what has been said before, it must be realized that these men were struggling with basic problems in contemporary sky-scraper design. The slab formula and the buildings that were produced from its use symbolized their recognition of human and esthetic values over and above crass commercialization. When seen against the back-drop of other buildings designed in recent times, the Secretariat, the RCA Building and the Lever House rise as shining examples of what architecture can be in the hands of enlightened architects. The slab-builders have demonstrated that by creative thinking it is possible to translate the architectural and sociological problems of our times into beautiful buildings.

The name miscellany implies, of course, an architectural miscellany—one that will include subjects which, though marginal to architecture, are nevertheless vital to it.

BOOKS

CLASSROOM LIVING ROOM

THE NEW SCHOOL. *By Alfred Roth. Girsberger, Zurich.*

Hitherto no book on school design has attempted to relate modern architectural principles to modern educational thought. Alfred Roth believes that 'there is a striking similarity in the development of modern architecture and modern pedagogy,' and here gives us a stimulating book based on that premise. The text is in English, French and German.

Stressing the inappropriateness of the older 'monumental' schools, Roth gives an excellent general review of the changed attitude of mind towards children and teaching. Unfortunately, when considering the application of these principles in more detail, he is less convincing. One gets the impression that his idea of 'flexibility' is achieved by systems of construction which merely produce 'wings.' To quote: 'In many instances where money and building materials were scarce, army huts or others are now used for schools. Provided there is no drawback for health reasons, that they are provided with minimum equipment and are cheerful, no objections on pedagogic grounds can be raised. Huts or makeshift buildings can indeed be considered as the forerunners of more developed, flexible school building systems of which a number of very interesting examples can now be found in England.' It is unfortunate in this connection that English examples are quoted, for it is this tendency which is at present being discouraged by educators here. Adaptability in school building is more subtle and complex than the provision of 'wings' that can only be varied in length or can be re-subdivided.

The various spaces within the school are divided into groups, and here there are dangerous over-simplifications (e.g., over-neat categories of classrooms, special rooms and practical rooms). Such detailed space recommendations tend to discourage the attitude of mind which needs freedom to find new ways of using space for changing teaching methods. Roth writes strongly in praise of single storey building, reacting against the multi-storey schools so common on the Continent, but insists that each case must be judged on its own merits: 'To tackle the matter solely from the economical and formal standpoint would be tantamount to misunderstanding the very essence of the problem.' Discussing classrooms, he uses examples from the USA and Switzerland to stress the point that they need by no means be spaces standardized by regulation areas, but can be designed in various ways to give character and individuality to each school. It is a pity that the paragraph on construction in the technical section, although making a plea for rationalization in order that as much money as possible is available to keep up space standards, gives examples of prefabricated systems of the kind which restrict the plan rather than encourage flexibility.

Twenty-one nursery, primary and secondary schools have been chosen for detailed study. This section is a model of good presentation. The essential data for each school are clearly set out and are followed by plans and well-selected photographs. There are seven examples from Switzerland, five from the USA, three from England (Impington, Richmond and Stevenage), two from Holland and one each from France, Denmark, Sweden and Italy. Only seven of these are post-war schools, and it is interesting to note that they reflect the much quoted dictum of Pestalozzi, 'The classroom must be a living room,' much more closely than do the pre-war schools, some of which have more the appearance of machines for teaching in. One is left with the conviction that the problem is now to infuse into large schools that delightful character which architects are often now achieving in small ones.

The finish and equipment of the Swiss schools is to be envied by architects in this country, and it leads one to wish that it had been possible for some comparative cost analysis to be made between schools in different countries. Are the architects of those schools which are so finely detailed and well equipped more skilful than we are, or have they more money to spend? Also, one feels that many English readers, looking through the book in 1952, will be disappointed to find so little reference to those planning and technical principles which have been evolved and put into practice here since the war. But as this is inevitable on account of the time-lag between research and publication, one hopes that Roth will some day give us volume two of *The New School.*

S. Johnson-Marshall
Mary Crowley

JOHNES OF HAFOD

PEACOCKS IN PARADISE. *By Elisabeth Inglis-Jones. Faber & Faber, London.* 18*s.*

This book is only incidentally the story of an Elysium—we are half-way through it before arriving at the beautifully adorned valley that Thomas Johnes planted at Hafod in Cardiganshire. As a picture of eighteenth century life and politics in West Wales and of three generations of one of its families the tale is well told; considerable research has gone into providing a background of characters who impinge upon the narrative and occasionally a whole chapter is given over to one of them—to James Edward Smith, for instance, founder and president of the Linnean Society, whose achievements must have seemed to the author more interesting than those of the main personalities in the book. These minor characters add flavour; the visiting noblemen and ladies are nicely balanced off with local scoundrels, black sheep and a ragged peasantry whose lot Hafod's proprietor tried and failed to 'improve.'

But architects and landscape gardeners will find the book merely tantalizing. Not once are we taken on a tour of the estate, identifying the objects and constructions which were placed there. A spectacular waterfall seen through a bore in the rock which acts as a spillway in winter is not even mentioned. No map of the ground appears, and not a single photographic view, although the author knows Hafod well and had ample opportunity to prepare her material before the recent almost complete destruction of the scene. Anthony Salvin's additions to the house—an Italianate wing and campanile—were evidently not thought worthy of an illustration, while a water colour by Turner is called 'a beautiful representation of the house'; although undoubtedly beautiful this fantasy is a Hafod which never existed. We have to be content with references to interior adornments—the murals of Fuseli, the sculpture of Banks and the ornaments bought at the Fonthill sale, now all either destroyed by fire or dispersed. John Piper's brief account in 'Pictures and Prospects' remains a better introduction to the estate. The author was evidently not aware of its existence.

The achievements of that energetic society known as the Men of the Trees are pallid by comparison with the activities of Thomas Johnes. In spite of creditors, fires, defrauding stewards and bereavement, he planted over two million trees in the short space of six years before 1801 in a mountain wilderness formerly windswept and barren. On the topmost summits, where nothing else would grow, he planted larches and lived to see them interlacing among the clouds. In charge of a regiment, he quartered it at Hafod and continued to plant while supposed to be campaigning in Ireland. With the exception of the Earl of Fife he established more forests than any of his contemporaries, no mean accomplishment in the age of improvement. And, like his contemporaries and unlike ours, he had an eye. Spurs of naked rock would burst out from hanging woods, a jagged peak he permitted to transcend the groves of larch. When again will the pursuit of conservation lead us through the paths of beauty ?

Christopher Tunnard

Books Received

TOWARD NEW TOWNS FOR AMERICA. By Clarence S. Stein. University Press of Liverpool. £1 10s. 0d.

ANCIENT BRITISH ART. By S. Piggott and G. Daniel. Cambridge University Press. 12s. 6d.

OXFORD. By A. R. Wooley. Art and Technics. £1 1s. 0d.

INTRODUCTION TO ENGLISH MEDIAEVAL ARCHITECTURE. By Hugh Braun. £2 2s. 0d.

STAINED GLASS OF NEW COLLEGE OXFORD. By Christopher Woodforde. Oxford University Press. £1 5s. 0d.

COUNTRY BUILDINGS. By W. R. Finch. Pitman and Sons. 30s.

VERSAILLES. By Vicktor Furst and Louis d'Arcy. Phoenix House. 45s.

BOSWELL'S COLUMN. By Margery Bailey. William Kimber. 21s.

LONDON'S PRIDE. By Alec Paish and Ivor Goddard. Ward Lock and Co. 7s. 6d.

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LINCOLN CHOIR STALLS. By M. D. Anderson. The Friends of Lincoln Cathedral. 5s.

DESIGN REVIEW

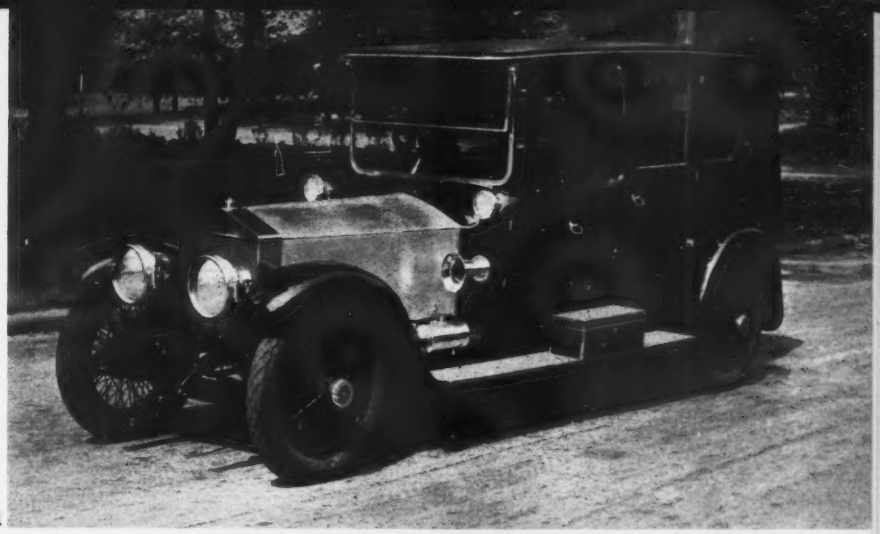
CARRIAGE TRADITION v. WIND TUNNEL

In the autumn of 1951, *the New York Museum of Modern Art staged an exhibition entitled 'Eight Automobiles' in which, for the first time, the car was officially considered as a work of art.* Here, the contemporary æsthetic problems of its design were investigated and the time seems to have come to sum up, in the light of the exhibition, the present position of this popular art.

It is apparent that, while there is no single fixed way to design a car body, the results spring from either one of two main approaches and that from this point onwards there are as many variations on these main themes as there are designers. Open sports cars—for which this country has long been renowned—have been omitted from the following comments because, while many of the canons of design still apply, their comparatively small public puts them sufficiently into a category of their own for their design to form the subject of a separate analysis.

carriage tradition

The first approach allies itself firmly with the carriage tradition which conceives the car as the mechanized descendant of the horse-drawn coach, with its passenger 'box' slung between the wheels and with all parts and functions clearly articulated. Here, the designer works within a very rigid and disciplined code. He designs for a public which has very definite ideas as to how a motor-car should look, its views being nourished by a nostalgia for the elegance, associated with the carriage and the landau, which was retained in the 'teens and 'twenties in such cars as the Rolls Royces, 1 and 2. Within these jealously guarded limits his problem is the relationship of clearly defined forms to one another; the necessity for doors, windows, lamps and other external fittings providing additional opportunities for the designer to increase the articulated quality of the vehicle while the fitness, design and scale of each element must be such that each, while clearly signifying its presence, does not destroy the effect of the general ensemble. With the increasing development of large scale mass-production, this type of design has become more and more confined to custom-built bodies for large expensive cars such as the 1950 Rolls Royce, 3. It is, perhaps, because the precise, angular intersections of the razor edge body do not come naturally to the hydraulic press, and also because they have



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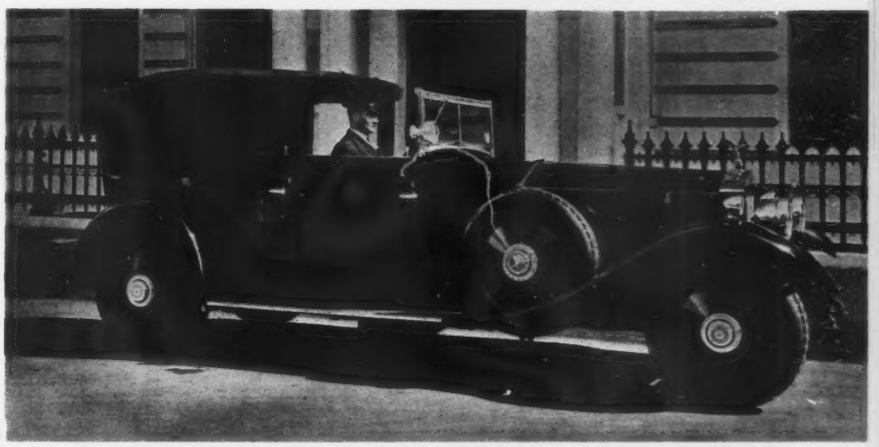

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become visually associated with costly, large, well-groomed urbane cars, that when the same treatment is transferred to smaller mass-produced motors—such as the Triumph 'Renown,' 4, elegant and excellent as it is—they appear to suffer from having ideas above their station.

wind tunnel æsthetic

The second approach, in which the 'streamlining' of the 'thirties is now seen to have been a primitive phase, derives its forms from the aerodynamics of the wind tunnel. In its most pure form the body becomes a one-piece metal envelope stretched over the car, slight undulations suggesting major parts which lie within, but at no time allowing such necessities as doors, windows and lamps to detract from the taut completeness of the all-enveloping shell. This produces wheeled sculpture, and its adherents maintain that, along with increased efficiency of performance, the motor-car attains a personality of its own, a self-expression which no longer pays lip-service to the horse-drawn carriage.

Excellent straightforward statements of this approach have come from the Continent, particularly from Italy where, for example, the Cisitalia by Farina, 5, set a standard of restraint which has been followed in this country by a few companies, notable among whom is Aston Martin, 6. In designs such as these all is subservient to the smooth shell; the windows, instead of being holes cut into the body, are made to appear part of it by bringing the glass out to be flush with the other surfaces; door handles and lamps are set in for the same purpose. To achieve efficient brake cooling and also to focus attention on them the wheels are set within high, arched curves cut into the body which appears to be tightly sprung between these slots as if it has had to be stretched into place. In the Cisitalia this effect is accentuated by the upward tilt of the horizontal base-line behind the back wheels.

Uninhibited by tradition and eminently suitable for mass-production methods these new and exciting forms have frequently become a futuristic peg on which the stylist can hang his collection of novel details. This brings us to a very prevalent misuse of the wind tunnel æsthetic resulting in Borax. The majority of present American cars, for example the Buick, 7, and also many completely static objects—show this competitive orgy at its height. Bodies wallow obesely over the wheels,

7

submerging their identity and making it necessary to add more and more streamlined jewellery in an attempt to recapture the suggestion of movement.

schizo

In Britain many manufacturers, in fear of being left behind in the stylists' race, have jettisoned all national qualities and indulged in a little orgy of their own. But in its passage across the Atlantic the

8

9

recipe appears to have shipped water and become diluted, for while the hydramatic, automatic, pneumatic American automobile—often vulgar and ostentatious—is at least a full-blooded and vigorous expression of a technically excellent vehicle, its British copies, for example the Velox, 8, and the Vanguard, 9, frequently lack conviction, displaying an uncertainty as to how far they should go along with these big, roistering playboys. Their nearest approach to the expansive dollar grin is a tentative smirk.

This uncertainty has produced a type of bodywork which we have labelled the 'Schizo,' being the results of many and varied attempts to combine facets of both basic approaches with, for the most part, a lowering of æsthetic standards and loss of main characteristics. Some, however, are moderately successful, like the Ford 'Zephyr,' 10, where the body below the waistline is treated as a box, with softened edges and uninterrupted sides, forming a flat platform on which the upper part of the passenger compartment sits firmly and

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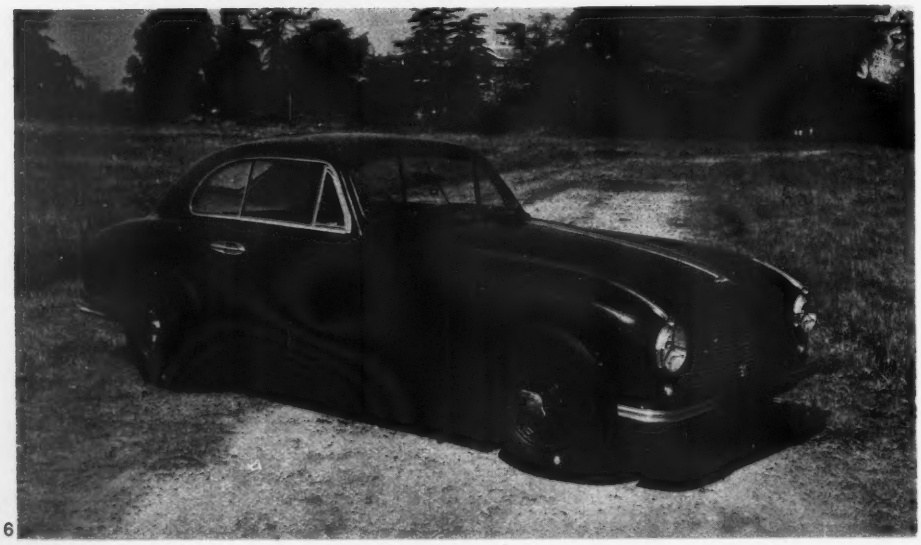

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almost centrally. With admirable restraint this simple statement is left almost un-

10

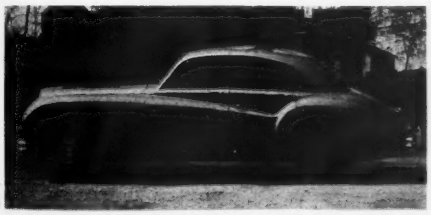
elaborated, but it is interesting to compare the pride of place given to the wheels in the Cisitalia and Aston Martin with the reduction in their size, and consequently their importance, in the Ford; an American trend which partly accounts for an overfed, less dynamic appearance.

In the Simca, 11, a French car, the continuous flow of bonnet, hood and boot sit on top of a lower, slab-sided box. This permits a more pronounced forward slope

11

on the bonnet and for wheel openings to be cut higher into the sides, giving the car more poise and suggestion of movement than the Ford which, at first glance, it resembles.

The new Mk. VII Jaguar, 12, attempts to make concessions to both approaches,



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adding pronounced versions of the slab side to a sleekened—but still recognizable—variation on its previous 'English' forms. The rather aggressive manner in which the first bulge sweeps back, deflating and revealing a glimpse of the body behind, to swell again for a grand finale over the back wheel takes much from the potential poise and grace of the body behind. The Triumph 'Mayflower,' 13—a recent reintroduction of the small car by one of the firms who pioneered it—illustrates another unresolved schism between the old and the new. The radiator, bonnet and passenger compartment are pure elegant descendants of the razor edge tradition, while the projecting side valances suggest an indecisiveness as to how far—and even where—this concession to the new look should be taken. This lack of affinity is accentuated by the seemingly arbitrary line along which the sides are joined to the body, especially where they cut across the chromed sides of the radiator. The clarity of approach which is so obvious above the waistline also becomes confused in the wheel openings, which appear to bear less relationship to the wheels themselves than to a misplaced desire to be different.

13

The problem is not so much a case of which of the main approaches—and their by-products—is the right one; it is that the mechanical refinement and technical skill which go into modern cars deserve a more earnest attention to the fundamental qualities of good design than has been meted out by the novelty-hunting stylists who yearly become more mesmerized by the double-spread blandishments of Detroit.

The Italians have shown themselves capable of restraint and understanding in their handling of new forms and in doing so have retained their reputation for creating unaffected, but distinctive, cars. Even among smaller cheap cars such a reputation was once our own, but now it remains in the hands of only a few. It is possible that when our manufacturers, particularly the most productive, are able to rest their eyes from transatlantic sales graphs, our cars will again attain a character of their own. **D. Dewar Mills**

INDOOR PLANTS

HEDERA CANARIENSIS

In a previous issue of the REVIEW I wrote a description of* Hedera Marmoret, *the blotched, mottled but handsome Irish ivy which is such a decorative room plant.* *Hedera Canariensis* and its variety 'Golden Leaf' is rather similar in appearance except that the variegations are a little more marginal and not so apparently haphazard.

This ivy is useful for north facing windows and can be used as either a trailer or a climber. Like most variegated ivies it is not hardy and must have warmth in winter. It needs a plentiful supply of water in summer and its leaves should be regularly sprayed or sponged. It can be propagated in early summer by cuttings struck in coarse sand and leaf mould and with a little bottom heat.

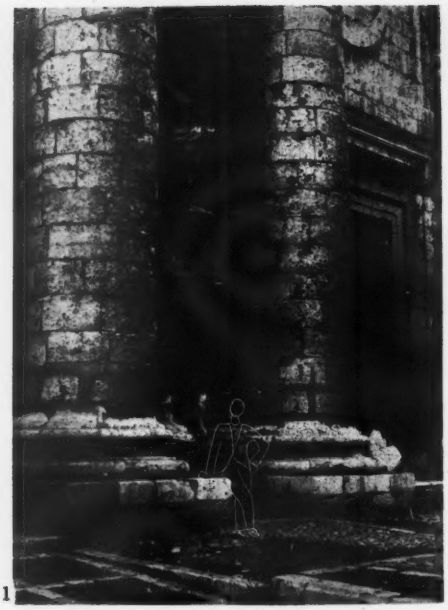
Hedera Canariensis associates well with most green foliage plants and is particularly useful for decorative display as it does not need so great a light intensity as most other climbers. Potted ivies are of course some of the old favourites for the greenhouse. It can be found in lists of conservatory plants compiled from 1786 onwards, and was a favourite in Victorian drawing rooms. The variegated forms such as *H. Marmoret* and *H. Canariensis* are comparatively recent introductions. **H. F. Clark**

* AR, July 1951.

TOWNSCAPE

GIANTISM

Modern architects and designers tend to equate the moral with the minimal—to believe that it is wicked to use a rod where a wire would do. On the whole this is a healthy tendency, which brings its rewards; yet it leads to the neglect of one of the most valuable cards in the designer's hand—indeed the only card to play in certain contingencies—giantism. Giantism in classical architecture is a well-known phenomenon. Most often its purpose is simply to overawe, as in



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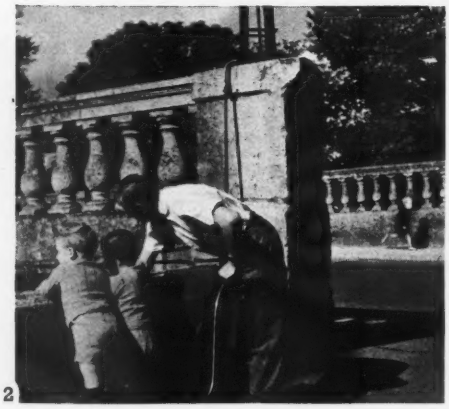
1 (Herrera's cathedral at Valladolid), though in 2 the balustrade of the bridge at Melksham is heightened with the evident additional purpose of giving foot passengers



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a view. What is not so generally recognized is that giantism has an honourable place in the functional tradition as well. Here again the object is most often to overawe, to symbolize the moral weight of a prohibition or command by a display of physical weight. 3 (Porlock Weir) is an admirably pure example; here it is not what the

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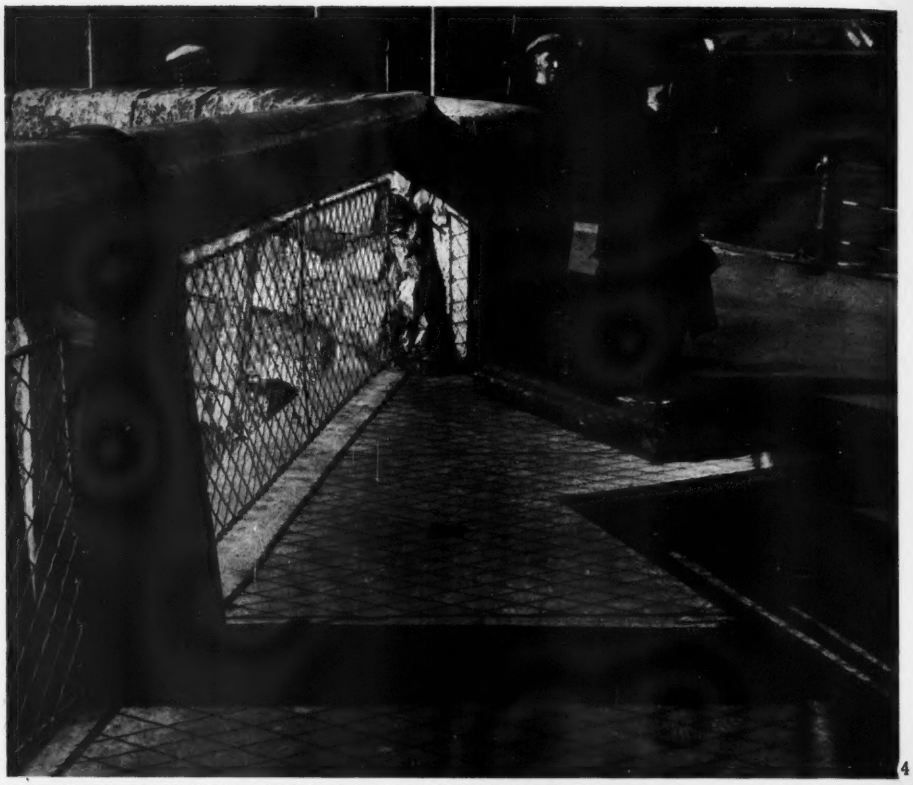
outsize posts *do*—slighter posts might do as much—but what they *say* that counts. The same remark applies to 4 (Ilfracombe), in



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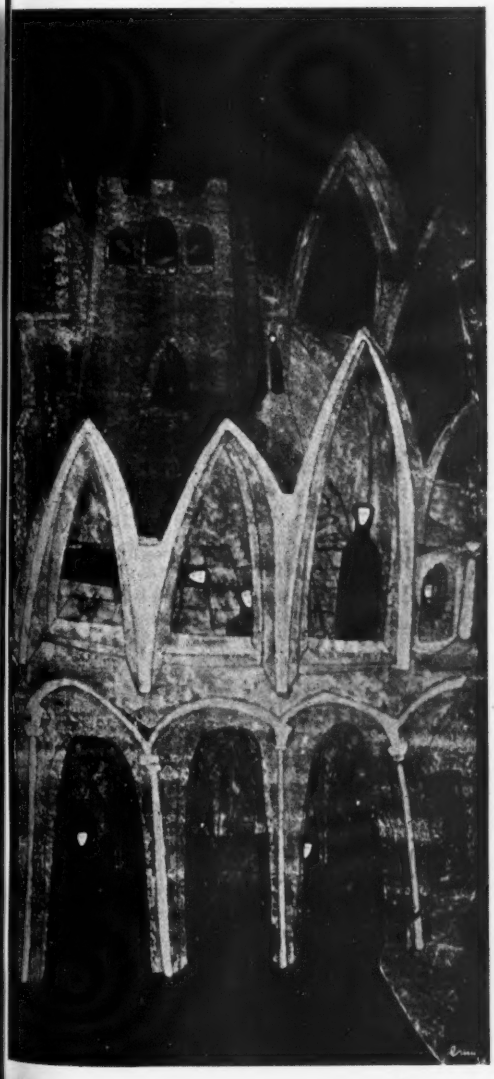
which the 'unnecessary' thickness of the wooden rail (by minimal standards, that is) is dramatically emphasized by the contrast of the light wire grille below. The contrast between the light iron gates and the more-than-Doric piers on which they hang plays a big part again in 5 (Co. Tyrone). Here the form of the piers was doubtless 'dictated' (in a sense) by the fact that their Irish builders had only small stones with which to construct them; but that does not diminish the forcefulness of their assertion of the rule of law in a land of natural anarchists. A.H.

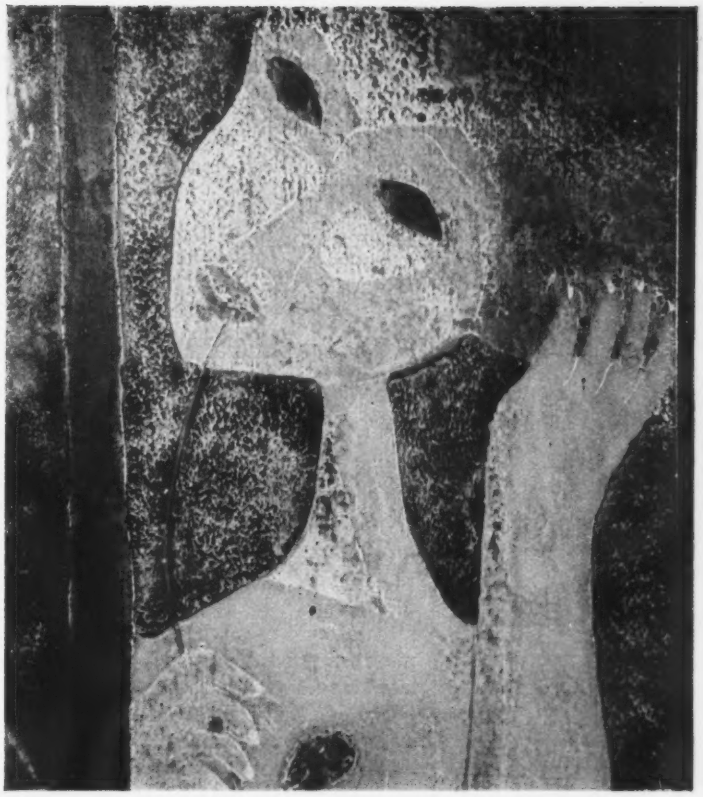
ENAMEL

BATH-FACTORY PICTURES

From Sweden comes news of an interesting example of industrial techniques aiding the artist—or, to

put it the other way round, of the artist adapting himself to industrial techniques. It is one, moreover, which seems to hold promise of important architectural applications. The two pictures reproduced here in colour, the first by Egon Moller-Nielsen and the second by Stig Lindberg, were painted in enamels on steel and fired in ovens normally used for firing the enamel on steel baths, at Gustavsberg. Enamelling, though of course ancient enough as an artistic technique, has in the past been limited to small scale work by the size of the available ovens; the bath ovens at Gustavsberg, however, will take steel plates up to 3 feet by 6 feet, so that it is possible to produce friezes and so on of considerable proportions. Among the advantages of the technique is that it is easy to learn, water-soluble enamel paints simply being applied, *gouache*-like, to the prepared steel plate; any number of firings can be given, and texture can be controlled by varying the temperature of the oven. The finished





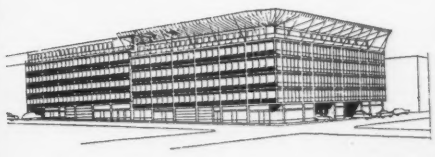
product is virtually indestructible, and the fact that it is quite unaffected by the weather gives it a special value for use on the exterior of buildings—a use to which the Swedes are already putting it.

Design, November 1951

WORLD

PARKING GARAGE IN STOCKHOLM

The Stockholm authorities are the first to plan a parking garage close to the centre of the city with a helicopter landing deck on the roof. When completed the garage will take 800 cars, including workshops, offices and restaurant. On the ground floor is a washing bay,

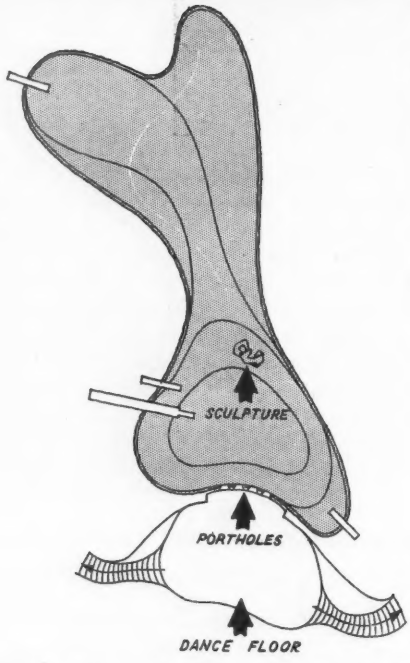


turntable (entrance end), greasing bay and hydraulic jacks. Self-contained shops and parking racks for pedal cycles are in the space between the garage proper and the street. Spiral ramps lead to parking space on the upper floors. The areas above the ground floor shops and above the entrance and exit are space which can be partitioned and let for offices or light industry. The roof itself is cantilevered out to provide extra space for the helicopter landing deck on which are also a restaurant and an administrative office. The architect is Ake Graners.

Byggmästaren 14, 1951

UNDERWATER MOBILE

The incorporation of visitors to an exhibition as elements in its design was illustrated on the REVIEW cover in September 1951. *Here is another happy example of planned collaboration between inanimate and living human forms—an underwater piece of abstract sculpture transformed by swimmers into a mobile.* The sculptor is Antonio Tomasini, the setting a swimming pool at San Remo on the Italian riviera. The architect, Giulio Minoletti, was concerned to break away from the rectilinear shapes traditional to swimming pools, and the plan has a free calligraphic quality; it nevertheless takes account of existing features in the garden which surrounds it. The pool is lined with blue glass mosaic, shading darker from the brim to the bottom; the diving-board has a con-



crete support cantilevered from the adjoining lawn. The dance floor at one end is sunk to the level of the bottom of the pool, and from it four circular windows like big portholes give an underwater view of Tomasini's sculpture with its human accessories, illuminated at night by four powerful lights. **Domus, October, 1951**

CRITICISM

PUBLIC CRITICISM AT HARROW

It has recently been insisted, in these pages and elsewhere, that better architecture depends on the creation of informed public opinion, which means architects and patrons of architecture taking the public into their confidence. A special plea was made that public bodies should, as a matter of routine, publish designs for buildings they intend to put up so that the critics and the public can give their views before it is too late for them to have any effect.

This is exactly what was done last month by the Town Planning Department of Middlesex County Council when they put a model (illustrated below) and explanatory drawings of a proposed College for Further Education at Harrow on show, first at Wembley Town Hall and then at the Harrow Council Offices at Wealdstone. Local residents' views were invited and given—not in great numbers but with obvious care and a large measure of understanding. The experiment is to be welcomed and should be copied elsewhere, especially by those responsible for Government buildings, like the Ministry of Works.

The design for the Harrow College for Further Education (which at the time of writing has still to be approved by the Town Planning Committee of the County Council) was generally liked by visitors to the exhibition; very little exception was taken to its uncompromisingly modern idiom. No one who was not prejudiced at the start could in fact do so. The model shows a building of considerable subtlety and refinement on which the architects, C. G. Stillman, Middlesex County Architect, and his assistant G. F. Holden, are to be congratulated. It consists of an L-shaped block of classrooms, studios, etc., one wing of which rises to eight storeys, a single-storey workshop block and an independent block containing assembly halls, lecture theatre and gymnasia. The building is designed to be erected in several stages, only the workshop block and the first four storeys of the main teaching block coming within the Council's approved 1952-3 programme.

The planning seems sound. Certain details will have to be watched carefully, especially the choice of facing and finishing materials in this relatively exposed site (the structure is to be reinforced concrete frame). The most difficult problems are connected with the site. It is a very important site, at the foot of Harrow Hill, forming part of Northwick Park, a disused golf course whose future has been under discussion for a long time. The adjoining land (between the proposed college and Harrow School bathing place) is the site allocated to Charing Cross Hospital when the time comes to move it out of London, and the success of the whole development will depend on a well conceived relationship between the two groups of buildings, as regards height, the balance of masses and architectural character. Adams, Holden and Pearson are to be the architects of the hospital and close consultation between them and the County Architect could make this site a vivid demonstration that high buildings, properly placed, are an asset among the sprawl of suburbia, not an affront to the suburban way of life. The rest of Northwick Park—correctly, in view of the height of the college and hospital buildings—is to be preserved as playing fields or public open space. There has been some local criticism that certain views of Harrow Hill will be obstructed, but by and large to build high on a small part of an open site obstructs the distant views less than to build low over more of it, especially when a foreground feature is provided of such architectural distinction as the college promises to have. **J.M.R.**

Architects: Easton & Robertson. Contractors: Gilbert Ash Ltd.

The roof of Hatfield Technical College is insulated with 'Fibreglass' quilt

Photograph illustrates the application of 'Fibreglass' quilt *under* the concrete roof slabs.

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ANTHOLOGY

RELIGION AS A FINE ART

We have been reviving all manner of things once supposed to be hopelessly dead. We have succeeded in building churches so carefully modelled after the old patterns, that William of Wykeham might arise from the dead and fancy that his old architects were at work. Nay, we have revived the men themselves. We have clergymen who succeed in accomplishing very fairly the surprising feat of living in two centuries at once; and the results are held to be infinitely refreshing and commendable. We have been just told, for example, that our new courts of law must be unimpeachable because there is not a window or a tower in them which might not have been built just as well six hundred years ago. Poets can affect an infantile lisp, and tell us legends of old times as naturally as if human beings at the present day had still a lively interest in them. We have undoubtedly obtained some very pretty results, and have a beautiful new set of toys, which we may persuade ourselves are almost capable of living and moving. There is only one objection to our complete success. The more skilfully we imitate obsolete modes of art or religion the more palpably dead they become. One of our modern imitations of an ancient church resembles its original as minutely as the Chinese imitation of a steam-engine, the only fault of which is that it won't work. The old building was the natural production of men working freely, by all means in their power, to give expression to their feelings; the new building is the work of men fettered by the self-imposed law that they will use the forms invented in an epoch permeated by different creeds, aspirations and emotions. A genuine revival could only be produced by reproducing all the intellectual and social conditions under which the old art arose; and in that case it would have a spontaneous resurrection. Till then we shall only see what we see now—spasmodic attempts to be pretty and picturesque, with infinite antiquarian labour, and yet, with all our products marked by that feebleness of constitution characteristic of any natural or artificial object forcibly transplanted to an uncongenial medium.

LESLIE STEPHEN (*Essays on Free Thinking and Plain Speaking*). Smith, Elder & Co., Duckworth & Co., London, 1907.

MARGINALIA

Designer and Architects in this Issue

Director of the COID (see pages 73-75). GORDON RUSSELL, established firm of Gordon Russell Ltd., furniture manufacturers, 1919. Has designed pieces for members of the Royal Family. Joined the Design and Industries Association, 1920; elected, Art Workers' Guild, 1926, and Fellow, British Institute of Industrial Art and Arts and Crafts Exhibition Society, 1927. RDI, 1940. Master of the Faculty, 1947-49. Ordinary Member of Council, RSA, 1951-52. Member Utility Furniture Advisory Committee, 1942, Furniture Production Committee, 1943; Chairman, Design Panel, Board of Trade, 1943-47; member, Design Committee of Furniture Trade Working Party. Appointed an original member of Council of Industrial Design, 1944. First Fellow, Society of Industrial Artists, 1945. Chairman, Furniture Design Committee, Ministry of Works, 1946. Director, COID 1947. Member, Fine Arts Committee, British Council; Art Panel, Arts Council; National Advisory Council on Education for Industry and Commerce. Publications: *The Story of Furniture*, 1947; *How to Buy Furniture* (HMS 1947 and 1951); *The Things We See; Furniture*, 1948. Without doubt the most important formative influence was his father's interest in building in stone in Gloucestershire and small wood-working shop started in 1906. Considers only way to keep a sense of proportion is to work for a few hours each week with one's hands. Has written with a quill pen, cut lettering and some carving in stone, and worked a little in wood. During height of preparations for Festival of Britain built a stone wall in Gloucestershire over 100 feet long. Likes to watch almost anything made, whether by hand or machine, especially latter. Other influences include books: Mackail's 'Life of Morris,' Cellini's Memoirs, anything Lethaby wrote, Edith Wharton's 'Italian Villas and Gardens,' Sturt's 'Wheelwrights Shop,' Ford's 'Life and Work,' etc.; movements: DIA especially, leading to study Arts and Crafts movement, Deutsche Werkbund, Bauhaus; people: Frank Pick, Harry Peach, Harold Stabler, B. J. Fletcher, C. R. Ashbee, Geoffrey Jellicoe.

1

2

Architect of Village School in Hertfordshire. RICHARD H. SHEPPARD, born 1911. Trained AA and in practice since 1938. Has designed university, industrial, educational and domestic buildings. Member of RIBA Council and MARS. In partnership with Jean Shufflebotham and Geoffrey Robson. Published work includes *Prefabrication in Building* and *Building for the People.*

3

Architect of Houses near Copenhagen. ARNE JACOBSEN, born 1902 in Copenhagen. Qualified at Danish Royal Academy of Arts in 1927. Received Gold Medal of the Danish Royal Academy in 1928. Undertaken study tours in Italy, Russia, Germany and France. Buildings include town-halls at Aarhus with E. Möller and at Söllerød with F. Lassen, stadiums and sports buildings, flats, theatres and villas.

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4, Three Persons Viewing the Gladiator by Candlelight *by Joseph Wright of Derby and* 5, Clytie *by John Martin* (*Royal Academy*); 6, La Grande Madone de Port Lligat *by Salvador Dali* (*Lefevre*); 7, Study for Portrait, 1951, *by Francis Bacon* (*Hanover Gallery*).

EXHIBITIONS

Painting and Sculpture

The winter exhibition at Burlington House, 'The First Hundred Years of the Royal Academy,' might easily have been an unmanageable affair. Thanks to the hanging committee's foresight and ingenuity, however, every room and gallery constitutes something like a separate exhibition on its own—gallery I, pictures painted for showing at the pre-Academy Society of Artists in 1760–68 (whose inclusion adds much to the interest of the exhibition as a whole); gallery II, a group of early Academicians and marine artists; gallery III, Reynolds and Gainsborough; gallery IV, theatrical and sporting pictures, and so on. It seems unlikely that any startling reassessments will emerge as a result of it all: the big men are represented for the most part by pictures which are not unfamiliar—Lord Glenconner's grand version of Constable's *The Opening of Waterloo Bridge* is one of the most notable exceptions—while none of the lesser get enough of a showing to raise them a rung on the ladder of reputation. To attempt a detailed review of this fascinating exhibition in the space at my disposal would be impracticable, and to single out individual works for mention scarcely helpful. REVIEW readers who remember Mr. Thomas Balston's articles may like to know, however, that there are as many as four works by John Martin to be seen, including the highly affective *Clytie* which I reproduce; and perhaps they should be reminded not to miss the sculpture—always an easy thing to do when small pieces are exhibited in the same rooms as large pictures, as in this case. They may of course be trusted to find their own way to the architectural room. They are likely to come away from it disappointed, I fear, for the interest of many of the exhibits is more than balanced by the oddness of the omissions. (For instance, there is nothing by Soane.) Writing in the *Listener*, Mr. Marcus Whiffen has pointed out that certain of the exhibits are wrongly described in the catalogue, and in fact can never have been shown in the Academy's annual exhibition at all. It seems more than a pity that the Academy should have been so poorly served in the department of architectural scholarship.

A thing everybody knows about the summer exhibition of the Academy is that it contains the Picture of the Year. This year, however, the tradition has been broken: the Picture of the Year, instead of having been revealed to the world in the august setting of Burlington House back in May, hangs even while I write in the Lefevre Gallery in Bruton Street. Its title is *La Grande Madone de Port Lligat;* its painter, Salvador Dali. There can be no doubt but that it *is* the picture of the year: I went to see it, and the forty other paintings and drawings that support it, on what was evidently the first day of the hols, and could hardly do so for the artistic aunts and well-fed schoolgirl nieces (emphatically not from St. Trinian's either) who filled the gallery. And certainly there is nothing about this laboriously unsurprising composition that would make it look out of place in Burlington House. Dutifully I reflected that Dali has prodigious technical accomplishment, and tried to console myself with the few drawings, such as *Tête Raphaëlesque éclatée*, in which some of the old dream magic persists.

The horror in Dali's paintings, when he could still horrify, was dependent to some extent on the extreme precision with which incongruous objects were rendered. The horror in Francis Bacon's, on the other hand, is due largely to the opposite quality of indefiniteness; one is never quite sure what is going on, or where, or how far one is likely to be implicated. The pictures in his latest exhibition, at the Hanover Gallery, did not even have titles. Among them were three

CROSS REEDED

Cross Reeded has two reeded patterns at right angles to each other on opposite sides of the glass. The reeds are convex (as distinct from the concave flutes of Reeded and Reedlyte glasses) and form a series of lenses which give almost complete obscuration and at the same time permit a very high light transmission. Cross Reeded is used in bathroom and lavatory doors and windows, and in all kinds of partitioning where privacy is an essential.

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TECHNICAL DETAILS

FOR CROSS REEDED GLASS

Width of reeds $\frac{1}{4}$ in.

Light Transmission 85 per cent.

Thickness and weight $\frac{1}{8}$ in. (36 oz./sq. ft.)
$\frac{3}{16}$ in. (44 oz./sq. ft.)

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The Mondolite range of electric lighting fittings includes several that have proved so successful in the past, together with many new designs of particular merit which we have recently added. Wherever possible component parts have been made interchangeable giving great flexibility in design and purpose. This has been made possible by large scale production to precise manufacturing standards. Illustrated here are some examples of the Mondolite range. The complete range can be seen at the Lighting Centre in Knightsbridge, where you can also see our other ranges, Tubalux (fluorescent), Ultralux, and Versalite.

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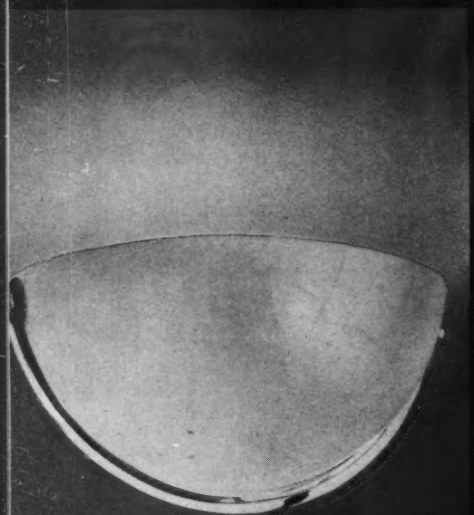
673 WALL BRACKET. Dimensions : 10½″ x 5″ x 5″ projection. Finish : chromium. Glass : white flashed opal. Lamp : 60 watts.



F.911 RECESSED CEILING. Finishes : reflector, anodised aluminium ; glass support, off-white. Glass : obscured rimpled. Lamp : 200 watts.

F.595S WALL BRACKET. Dimensions : 9¾″ diameter x 10″ projection. Finish : brushed copper. Lamp: 100 watts.

based on Velasquez's portrait of Innocent IV. Bacon, however, places the Pope in a chair which has been wired to the mains; in the second picture the current has come on, and in the third His Holiness is in the last extremes of agonized galvanization. This account sounds frivolous, I know, and Francis Bacon is unquestionably a painter to be taken very seriously indeed. But do the second and third pictures really add anything worth adding to the æsthetic experience provided by the first (which, by the way, has been bought by the Contemporary Arts Fund)?

Andrew Hammer

DIGEST

Britain and USA: Seventeenth to Twentieth Centuries*

For some time it had been assumed that those of the drawings of Sir Christopher Wren which were bought at the 1749 sale by the Duke of Argyll and passed after his death to the Earl of Bute had perished in the Luton Hoo fire of 1771; then last May these drawings, or at any rate 122 of them, turned up in the sale-room. The significance of this immensely important accession to the raw material of architectural scholarship was discussed in *The Times* of October 19 by John Summerson, with special reference to the drawings for St. Paul's; these, he pointed out, 'bring us into close touch with Wren's mind at two specially interesting moments in his career: the moment when, as a man of 41, he was working out his own ideal conception of a Protestant cathedral; and the moment, nearly 35 years later, when he settled the very last minutiæ of the cathedral he had spent those years in building,' while one of them 'confirms, once and for all, Wren's personal responsibility for every detail of the cathedral towers, at a time when it is known that he was delegating much of the work in his office to others.'

Certain of the most interesting of the other drawings, relating to St. Stephen's, Walbrook, were presented by the National Art-Collections Fund to the RIBA. The Institute's great and growing collection of architectural drawings offers a field for the historian which is still largely unexplored, if not altogether unmapped. The more welcome, therefore, a short article by Cyril G. E. Bunt in the RIBA *Journal* for January 1951, 'An Unfulfilled Project for Improving Hampton Court.' This describes a volume of drawings which, although it was presented to the Institute as long ago as 1835, has only now been recognized for what, before John Talman made it into a scrap-book, it was—a project by William Talman for extending the diagonal avenue to the south of the Long Water at Hampton Court across the river, and building on its axis an elaborate villa with a formal garden surrounding it; of course nothing came of the project, though the careful finish of the drawings (three of which are reproduced) suggests that it was seriously enough meant. The same issue of the RIBA *Journal* contains John Summerson's penetrating study, 'Soane: The Case-History of a Personal Style'; in this Summerson analyses the constituents of the architecture of Soane's maturity and shows, *inter alia*, how much he owed to his master George Dance the younger.

Country Life continues its valuable articles on country houses; none of the recent ones, however, has been of the general interest of Christopher Hussey's Longleat series of April, 1949, for instance. Articles falling outside this category have included 'The Athenaeum' (April 6), a history and description of Decimus Burton's famous clubhouse by Gordon Nares; 'An Architectural Discovery' (March 9), in which G. W. Beard and J. A. Piper tell how a motor-lorry accidentally revealed the fact that the 1745 church of St. Anne, Bewdley, was built by Richard Woodward of the Chipping Campden mason family (other members of which figure in H. M. Colvin's 'Gothic Survival and Gothick Revival,' AR, March, 1948); 'Carlton House Terrace: an Early Controversy' (March 9), in which A. S. Oswald gives new details of the building of the terrace and reproduces Nash's elevation for the Mall front, showing the fountain that was to have utilized the Carlton House columns now at the National Gallery, together with a print of c. 1830 showing the intended ramp from Waterloo Place to the Mall with the terrace carried on arches across the gap; and 'The Speaker's House, Westminster' (November 30), also by A. S. Oswald.

The recording and documenting of individual buildings is an important function of local societies. Among those most active in this direction is the Georgian Society for East Yorkshire, whose *Transactions* contain articles on the Old Hall, Hedon (by Clive Barnby), Hullbank House and Woodhall (R. A. Alec-Smith), and the Georgian restorations at Beverley Minster (Richard H. Whiteing). Beverley Minster was surveyed in 1716 by Hawksmoor, who figures also—though in a negative way, so to speak—in H. M. Colvin's article on Panton Hall in *The Lincolnshire Historian*. The attribution of Panton Hall to Hawksmoor got into the Architectural Publication Society's *Dictionary;* Colvin shows that the architect of the present house was probably Carr of York, while the stables were designed by William Legg, probably to be identified with the William Daniel Legg of Stamford who, in 1801, was responsible for that early essay in Elizabethan Revival, the main gateway to Burghley Park.

America, unlike Britain, has a periodical entirely devoted to architectural history, the *Journal of the Society of Architectural Historians*. One of the most interesting articles in this for the English student has been 'Jefferson's Architectural Indebtedness to Robert Morris' by Clay Lancaster (March). Jefferson bought a copy of Robert Morris's *Select Architecture* in 1770 or 1771, and Kimball, Waterman and others have recognized that he was influenced by the book in making certain of his own designs. Lancaster has now gone into the matter in detail, and found the extent of that influence greater than anyone may have suspected; even the buildings of the University of Virginia, begun in 1817, were largely based on the designs published by the English architect sixty-two years before. To the same issue of the *Journal of the Society of Architectural Historians*, Eva I. Gatling contributes 'John Berry of Hillsbro, North Carolina,' a study of a builder-architect who lived 1798–1870 and whose stylistic development may be said to have epitomized that of American architecture in his time.

Hitherto Jefferson's early drawings for Monticello have been the only original plans for any private dwelling of the colonial period known to exist. In the *Maryland Historical Magazine* (March), however, Charles Scarlett, Jr., publishes recently discovered designs for one of the grandest American houses of the 1760's, Governor Sharpe's Whitehall in Anne Arundel County, and attributes them to William Anderson, architect of the State House at Annapolis.

In May the Society of Architectural Historians published a special issue on Washington, among the contents of which were a short article, 'The Genealogy of the Plan of Washington,' by Elbert Peets, 'Latrobe's Ceiling for the Hall of Representatives' by Paul Norton, 'The Building of Arlington House' (1804–17; George Hadfield, architect) by Murray Nelligan, and 'General Washington's New Room' (the history of the finishing of the banqueting hall at Mount Vernon, which contains a chimney-piece from Wanstead thought by Washington 'too elegant and costly for my . . . Republican style of living') by Worth Bailey. Norton's article describes a clash of architectural opinion between Thomas Jefferson and Benjamin Henry Latrobe. Jefferson wanted a dome with skylights like that of the Paris Halle aux Blés, 'the most superb thing on earth'; Latrobe, afraid of leaks, wanted a dome with a cupola. The compromise arrived at was a dome with single-pane lights in the coffers, but after the collapse of this, following the burning of the building by the British in 1814, Latrobe rebuilt with a cupola. Another addition to the documentation of the work of Latrobe (on whom, by the way, Talbot Hamlin is preparing a monograph) is made by Norton in *The Art Bulletin* for June, where he discusses the history and design of the Old West building at Dickinson College and prints a new letter from Latrobe giving views on planning, construction and the importance of having a good clerk of works.

American periodical literature of 1951, or at least such of it as is yet available, contains nothing of importance on the later nineteenth century. The twentieth century, on the other hand, provides material for an article of great interest in Winston Weisman's 'Who Designed Rockefeller Center?' (*Journal of the Society of Architectural Historians*, March), a companion piece to the same author's article on the development of the Centre in the REVIEW for December, 1950. In reference books the architects are given as 'Corbett, Harrison and MacMurray; Hood and Fouilhoux; and Reinhard and Hofmeister.' Weisman sets out to answer two questions fundamental to any apportionment of credit

* This review of contributions to the study of British and American architectural history appearing in periodicals takes into account only those publications which are actually dated 1951. Any important omissions will be made good in a future issue, when articles dealing with earlier British architecture will also be noticed. M.W.

among all these architects: Who first conceived the three-block site as a development possibility, and who was primarily responsible for the design as we see it today? The answer to the first he finds to be the late Benjamin Wistar Morris, an architect who gets no official credit at all because he dropped out before the scheme was published; to the second, Reinhard and Hofmeister, who presented their design before the arrangement was altered, in July, 1930, from one of architects and consultants competing to that of a group of architects collaborating. Twentieth-century architectural history, over here no less than in America, must contain many similar problems which should be solved before it is too late. **M.W.**

INTELLIGENCE

In the New Year Honours Hugh Casson received a knighthood in recognition of his services as Director of Architecture for the Festival of Britain.

The Royal Gold Medal for Architecture for 1952 has been awarded to G. Grey Wornum.

The Cotswold manor house of Snowshill, near Broadway, and Bredon tithe barn, near Tewkesbury, have been given to the National Trust.

The Third British Furniture Exhibition since the war is to be held at Earls Court, London, from February 12-23.

The late Harry Batsford

Harry Batsford died on December 21 last at the age of 71. Mr. Batsford succeeded his uncle, Herbert Batsford, as chairman and managing director of B. T. Batsford in 1917. He will be remembered not only as a publisher but also as author of some effective books popularizing English architecture, and as part-author of others. In 1926 he was made an Honorary Associate of the RIBA.

CORRESPONDENCE

COID Progress Report

To the Editors,
THE ARCHITECTURAL REVIEW

DEAR SIRS,—It is with interest that I read Dr. Pevsner's view of the furniture manufactured by this Company, which was selected by the Council of Industrial Design for exhibition at the South Bank.

Whilst I am leaving the matter of answering the criticism of the design of our pieces of furniture to those more able than I, I do feel the manner in which the furniture came to be designed should be drawn to your readers' notice. The Directors of my Company have made it their policy to encourage good design in every way possible. It was, therefore, no surprise to them when the COID approached the Company, as the result of earlier conversations, with a suggestion that an experiment should be made to see what could be done to encourage the use of the carver's craft in contemporary design.

It was suggested that David Pye, whose experiments with carving were already well known, would be the right person. The COID brought designer and manufacturers together, and the Directors of my Company agreed to allow Mr. Pye to design uninfluenced by them, and to carry out his design faithfully in whatever way he should direct, irrespective of their personal opinions, likes or dislikes.

The terms of this agreement were cordially approved by Mr. Pye, and accordingly the Company commissioned him to carry out the work. The cabinet was made, and upon completion was accepted by the COID for inclusion in the South Bank exhibition. Indubitably this has provoked much discussion, but, I repeat, I am not herein prepared to enter into its merits in any way.

Unfortunately, by omission, Dr. Pevsner may have left the impression that this Company does not, directly or indirectly, use good designers. Again, this is a matter of opinion; but we believe the designs of Robin Day, Clive Latimer and others, commissioned from time to time by the Company, compare very favourably with those to be found anywhere in the world. It is interesting to note that this Company is one of the only furniture firms in the country which is exporting contemporary British furniture all over the world; mainly to the USA, but also to other countries where there is design consciousness, such as the Scandinavian countries and Italy.

Yours, etc.,
LESLIE JULIUS, Manager,
Essex. S. Hille & Co.

To the Editors,
THE ARCHITECTURAL REVIEW

DEAR SIRS,—In your issue of December, 1951, on page 353, a cabinet is illustrated and described as 'pretentious and vulgar in its struggle to achieve originality.' The cabinet is ascribed to S. Hille & Co.

Messrs. Hille & Co. made the cabinet, and made it very well; but they did not design it, and by omitting the designer's name you imply, unjustly, that they are responsible for the pretentiousness and vulgarity you attribute to it.

Messrs. Hille gave me complete freedom to design this cabinet as I wished, and they faithfully carried out my wishes. Therefore I take full responsibility for the qualities of its design.

I find these pontifical pronouncements about the design rather amusing. I am not, like Professor Pevsner, an Art Historian; but I think I remember that the same kind of strictures have been made on a great many genuine experiments in design where a safely established style has been disregarded. Deviations will always incur abuse. The final judgment on them, I believe, is passed by time, not pundits.

Yours, etc.,
London. DAVID W. PYE.

The authors of the article, Professor Pevsner and Mr. Farr, reply as follows: '*We know it won't satisfy either of your correspondents, but we are honestly sorry for both Messrs. Hille and Mr. Pye. Messrs. Hille are without doubt amongst the few furniture manufacturers in this country who take a keen interest in modern design and are ready to risk something for it. That amongst their products there happen to be those chairs and that sideboard which we singled out for criticism of certain points is unfortunate and, needless to say, entirely accidental. As regards Mr. Pye's sideboard we have, alas, nothing to add to Mr. Gordon Russell's* (see page 74) *and our own remarks except that, if we had had more space, we might have said something to the effect that any efforts to reintroduce hand carving into the making of furniture deserve every encouragement.*'

Lansbury

To the Editors,
THE ARCHITECTURAL REVIEW

DEAR SIRS,—May I say how delighted I was to read Mr. J. M. Richards's article on Lansbury in the December issue. It was a tragic disappointment to go there and realize that the buildings which gave the most pleasure were those in Upper North Street, with their blue doors and white reveals. Apart from the market place the quality of urbanity was simply absent, and the influence of the wretched garden city was everywhere. What damage that movement has done to architecture! Here especially, in the relation of street width to height of buildings, and in the pathetic attempt to make a front garden about two yards wide. Even a few pairs of semi-detached villas with hip roofs—all this within a mile or so of St. Paul's.

But when, in your penultimate paragraph, you write 'Incidentally, why is it necessary . . . etc.'* I wonder why 'incidentally.' The point seems quite crucial.

Surely you overestimate the difficulties facing the architects at Lansbury—everything seemed made easy for them—no economic worries (the commercial value of the land would require higher density treatment)—a large area to plan—and yet the result is a failure of, I suppose, architecture. Timid, dull designs, and nothing to show any real conception of *town planning*, the relation of buildings to each other.

The fault seems to be the absence of a continuous and severe stream of criticism over the last twenty years or more. Never to criticize is never to *say* anything. And here I'm afraid the REVIEW is much to blame. The preoccupation with less important aspects of our physical environment, and a determination never to write about architecture, have made me despair—hence when I read Lansbury I very much wanted to say how much I appreciated it. I also thought the article some time ago on 'Housing Estates' was excellent, but *four* years too late. But at least you said how *bad* some estates were.

In short, please may we have more *criticism*. A fruitful field is Government offices. Many of these are shameful and someone should say that their architects are putting up buildings of which we should all be ashamed. The REVIEW once protested about St. George's House in Bloomsbury—in a marginal note—but that is all, I think.

I am encouraged to think that the REVIEW is going to publish more criticism by the article on the COID, also in the December issue. Two such critical articles in one issue are very cheering.

Yours, etc.,
Chelsea, S.W.3. JOHN B. WOOD.

* The paragraph referred to protested against suburban names like 'way' and 'close' having, at Lansbury, replaced the traditional urban names: street, lane and square.

The REVIEW *certainly intends to publish frequent and outspoken criticism of new buildings in accordance with the policy it has already announced.*

TRADE & INDUSTRY

The 'Hillestak' Chair

Contemporary design is a very alarming phenomenon to the majority of manufacturers particularly in the furniture industry where traditional ideas are deeply ingrained, not only in techniques but also in balance sheets.

Hille & Co., of Chigwell, Essex, deserve much commendation for grasping this nettle so firmly, for in the last year or two their name has gained considerable prominence as manufacturers of furniture in the contemporary idiom.

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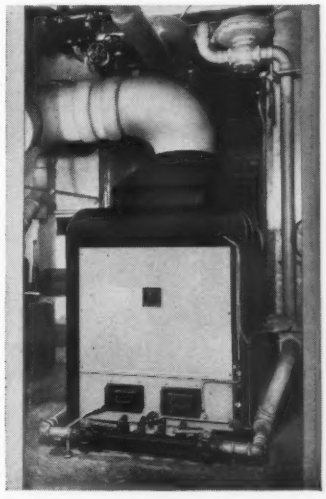
Saxone Shoe Store at 297, Oxford Street, London, W.1, is equipped with a balanced system of warmed fresh air ventilation and radiator heating. The incoming air is warmed and filtered before being distributed into the showrooms and offices through ornamental grilles, and the vitiated air is extracted and discharged above the roof level. The heater batteries and convector type radiators are served by a 'Rex' 3/8 Gas-fired boiler, rated at 1,000,000 B.Th.U per hour. Hot water for the shops and offices over is supplied by an 'Empire' No. 3 boiler, rated at 45,000 B.Th.U per hour.



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8

8, *Hillestak chair designed by Robin Day.*

9

9, *new showroom designed by Bronek Katz and Reginald Vaughan for Thorn Electric.*

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Robin Day, who has already designed a variety of very interesting pieces for them, has now designed a stacking chair named the 'Hillestak.' Its seat, back and back support are moulded from built-up laminations, and its frame is in solid beech, which gives a satisfactory weight to a design that is lightweight in appearance. It is available in birch and beech, and alternatively can be supplied with a mahogany, walnut or cherry veneer on the upper surfaces of seat and back. When placed side by side, the chairs fit flush to one another and, in fact, form an interesting pattern. It can be broken down conveniently for export if necessary. It retails at £3 in birch and £3 8s. in other veneers.

New Showrooms for Thorn Electrical Industries

The design influences of the South Bank Exhibition are bound to be traced with interest for years to come, and the new showrooms designed for Thorn Electrical Industries at 231-3, Shaftesbury Avenue, W.C.2, by Bronek Katz and Reginald Vaughan may well be pointed out as one of the first examples of this.

In a relatively small floor space, though with the advantage of a good height, the designers and the Company's engineers have together contrived to display lighting effects, lighting fittings and lamps—both fluorescent and incandescent—radio and television sets, stage lighting equipment and household appliances.

This has been achieved by a variety of ingenious structural and display devices. Several ceiling levels are used to show—and separate—different lighting effects. Two floor levels separate the circulation area

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from the display area. The problem, hitherto unsolved in any light fitting showroom, of displaying a full range of fittings without at the same time presenting a forest of ceiling pendants, has been overcome most effectively. The fluorescent fittings are housed in a grid of baffles, out of sight, and can be lowered into view separately at a touch of an electric switch on the main control board. A group of them can also be lowered together for comparison and as they descend they light up automatically. The incandescent fittings for domestic use can be displayed in a small living-room alcove. The single ceiling point can be lowered to permit a quick change of fitting, while wall points are concealed behind small plaques which themselves are part of the decoration.

The main back wall is a curtain with wells above and below it to house the coloured fluorescent tubes of the theatre lighting units which provide continual colour changing when operated by the automatic dimmer.

Downstairs a smaller showroom-cum-theatre is designed to demonstrate radio and television sets, the latter in ideal viewing conditions.

This short description merely outlines the salient points of a showroom which teems with ideas.

Radiation Display at Olympia

Comments in a monthly journal on topical events such as exhibitions must inevitably be limited to previews or postscripts. The Hotel, Restaurant and Catering Exhibition at Olympia which closed as this issue appeared was the opportunity for a very widespread industry to review progress in equipment and techniques.

Radiation Ltd., of Stratford Place, W.1, whose gas and steam-heated cooling equipment is of special concern to those responsible for catering establishments of all kinds, introduced three new products:

(1) The Stratford Range (No. 5136) is fitted with a thirty-inch oven with double doors and a full-size hotplate. It has flush ends and a flue position to suit both wall and central grouping of units.

(2) The Chester Range (No. 2751) is an adaptation of the well-known Chester Range to meet the specification issued by the Ministry of Works for single and double oven ranges for use in schools. The entire output of this model is at present going to schools of all types and grades.

(3) The Lune Boiler (No. 2051) is made to a design approved by the Ministry of Works for whom a quantity is in production. It has a number of special features including a drip-proof high efficiency burner with fixed venturi, providing flame stability at low consumptions and a pan of twenty gallons working capacity in bower-barffed cast-iron, aluminium alloy or stainless steel.

Gas Council's New Chairman

On January 1, Colonel Harold C. Smith succeeded Sir Edgar Sylvester as Chairman of the Gas Council. Beginning his career with the Birmingham Gas Department in 1906, Colonel Smith held a number of appointments in the industry before becoming Gas Council Deputy Chairman in 1948.

CONTRACTORS etc

Village School in Hertfordshire. *General contractors:* M. & F. O. Foster & Co. *Sub-contractors: Patent copper roofing and roof framing:* Broderick Insulated Structures Ltd. *Metal windows:* Williams & Williams Ltd. *Steelwork:* Matthew T. Shaw & Co. *Heating and hot water supply:* Weatherfoil Heating Systems Ltd. *Sanitary fittings:* Adamsez Ltd. *Ironmongery:* James Gibbons Ltd. *Tubular metal balustrading and stage steps:* South Hampstead Ironworks. *Cloakroom seats and shoe racks:* G. E. & L. V. Rich Ltd. *Flush doors:* Saro Laminated Wood Products Ltd. *Bricks:* A. H. Herbert. *Natural stone paving:* Low Giddings Ltd. *Wood block floors:* Horsley Smith & Co. (Hayes). *Cill tiles:* Jaconello Ltd. *Coloured wall tiles:* Carter & Co. *Service counter rolling shutter:* Haskins. *Paint:* Screeton, Paintmaker. *Electrical work:* Stevenage Electrical Engineering Co. *Light fittings:* Hume, Atkins & Co.; Merchant Adventurers of London Ltd. *Lettering:* The Lettering Centre. *Fabrics:* Gerald Holtom, Esq. *Linoleum:* Gamman & Sons; T. Brooker & Sons. *Curtain tracks:* J. Avery & Co. *Movable chalkboards:* Geo. M. Hammer & Co. *Hardwood for glazed screens:* R. M. Turner & Hunters Ltd. *Cullamix Tyrolean rendering:* The Cement Marketing Co. *Copper gutters and downpipes:* Ewart & Son. *Metal gates:* Cecil Welding Co. *Fencing:* The Darlington Fencing Co. *Glass:* Aygee Ltd. *Lavatory partitions:* Flexo Plywood Industries Ltd. *Pressed metal door frames:* Henry Hope & Sons. *Furniture:* The Educational Supply Association Ltd.; Geo. M. Hammer & Co.

Steel Works at Port Talbot, South Wales. *General contractors:* George Wimpey & Co.; John Laing & Sons; John Morgan (Builders) Ltd.; Sir Robert McAlpine & Son; Andrew Scott & Son. *Steelwork contractors:* Dawnays Ltd.; Dorman Long & Co.; Sir William Arrol & Co.; T. C. Jones & Co.; Braithwaite & Co.; The Fairfield Shipbuilding & Engineering Co.; A. E. Watson & Co.; Connies & Meaden Ltd.; Rees & Kirby Ltd. *Precast floors and roofs:* Concrete Ltd.; Fabricrete Products Ltd. *Hollow tile floors:* Penarth Concrete Co. *Bricks:* Ebbw Vale Brick Co.; Star Brick & Tile Co.; Tondu. *Reconstructed stone:* Penarth Concrete Co.; Crosby Stone Co.; Gloucester Stone Co. *Steel windows and roof lights:* Henry Hope & Sons; The Crittall Manufacturing Co.; Williams & Williams Ltd.; John

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Williams & Son. *Pressed metal:* Henry Hope & Sons; Bernard Hastie & Co.; Williams & Williams Ltd. *Insulating screeds and plasters:* Dohm Ltd.; Vermiculite Ltd.; Meta-Mica Ltd. *Roofing:* Ragusa Asphalte Paving Co.; William Briggs & Sons; Pure Rock Asphalte Co. *Flush doors:* Leaderflush Ltd.; Saro Doors Ltd.; Southerns Ltd. *Joinery:* A. Hurley & Sons; J. Nicholas; Percy Simmons. *Glazing:* Welsh Glass Co. *Decoration:* Ian Williams; Metallization Ltd. *Wood block flooring:* Acme Flooring & Paving Co. (1904); Horsley Smith & Co. (Hayes) Ltd.; Stevens & Adams Ltd. *Floor and wall tiling:* Carter & Co. *Granolithic paving:* Johnson; Pure Rock Asphalte; Jaconello Ltd.; Marble Mosaic Co. *Composition flooring:* Korkoid Decorative Floors; Semtex Ltd.; Jaconello Ltd. *WC cubicles, steel:* Henry Hope & Sons; Williams & Williams Ltd. *Sanitary fittings:* Associated Clay Industries Ltd. *Drying room racks:* James Gibbons Ltd. *Ironmongery:* James Gibbons Ltd. *Suspended ceilings:* Celotex Ltd.; Horace W. Cullum & Co.; John Bland; Bowaters Building Boards. *Sprayed ceilings:* Turners Asbestos Cement Co. *Metal balustrading:* John Williams & Sons; Bernard Hastie. *Metal racking:* John Williams & Sons. *Decorative metal stair balustrades:* Morris Singer Co.; Birmingham Guild Ltd. *Faience:* Star Brick & Tile Co.; Carter & Co. *Glass domes:* Pilkington Bros. Ltd. *Roof lights, glass/cove:* J. A. King & Co.; Lenscrete Ltd.; Verlith Construction Ltd. *Roller shutters:* Haskins; Picketts; A. L. Gibson Ltd. *Folding gates:* Bolton Gate Co. *Lifts:* Waygood-Otis Ltd.; Express Lift Co. *Heating installation:* J. C. Hitt & Sons; G. N. Haden & Sons; Carrier-Ross Engineering Co. *Electrical installation:* Drake & Gorham Ltd.; J. W. & E. Morris & Sons; W. J. Furse & Co. *Laboratory furniture:* T. Dryden; North of England School Furnishing Co. *Main entrance gates:* Bayliss, Jones & Bayliss Ltd. *Catering equipment:* G. F. E. Bartlett & Son. *Strong rooms:* The Chatwood Safe & Engineering Co. *Metal partitioning:* The Chatwood Co.; Roneo Ltd. *Portland stonework:* E. Turner & Sons. *Fire extinguisher systems:* The Pyrene Co. *Sewage plant:* Adams Hydraulics. *Paints and distempers:* I.C.I. Paints; Walpamur Co.; Paripan Ltd.; Vitretex Ltd. *Vacuum systems:* Lamson Tube Co. *Steel doors:* Dreadnought Fireproof Doors (1930) Ltd. *Steel sheeting:* Johnson Bros. (Steel Erectors). *Piling:* The Franki Compressed Pile Co.

House at Heathfield, Sussex. *General contractors:* William Sands & Son. *Sub-contractors: Bricks:* Sevenoaks Brick Works Ltd. *Structural steel:* John Every & Co. *Roofing felt:* F. McNeill & Co. *Partitions:* Holoplast Ltd. *Glass:* James Clark & Eaton Ltd. *Patent glazing, 'Insulight':* Pilkington Bros. Ltd. *Woodblock flooring:* Beves & Co. *Patent flooring:* Semtex Ltd. *Central heating:* E. Vernon. *Stoves:* S. E. Haward & Co. *Electric wiring:* E. Wood. *Electric light fixtures:* H. G. Dunn & Sons. *Plumbing:* E. Vernon. *Sanitary fittings:* John Bolding & Sons. *Door furniture:* Yannedis Ltd. *Casements:* Williams & Williams Ltd. *Bells:* General Electric Co. *Sunblinds:* Venetian Vogue Ltd. *Wallpapers:* John Line & Sons. *Furniture, and garden furniture:* H. G. Dunn & Sons. *Water-softening plant:* Permutit Co.

Offices in the City of London. *General contractors:* Trollope & Colls Ltd. *Sub-contractors: Sanitary fittings:* John Bolding & Sons. *External faience and internal tiling:* Carter & Co. (London). *Metal windows:* The Crittall Manufacturing Co. *Terrazzo:* Fenning & Co. *'Paropa' roofing:* Frazzi Ltd. *Wood block floors:* Hollis Bros. Ltd. *Staircase balustrade and front railings:* The Kingsmill Metal Co. *Metal door frames and skirtings:* Morris Singer Co. *Quartzite and Westmorland slate facings:* John Stubbs Ltd. *Main entrance and doorway and screen:* Wainwright & Waring Ltd. *Marble entrance floor and hall:* J. Whitehead & Sons. *Heating and hot water:* Young, Austen & Young Ltd. *Glazing:* James Clark & Eaton Ltd. *Lifts:* Waygood-Otis Ltd.

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Erratum: Art Furniture of the 1870's

The name Ian Hamilton should be read in place of Ian Henderson on page 47 of the article *Art Furniture of the 1870's* in the January REVIEW.

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