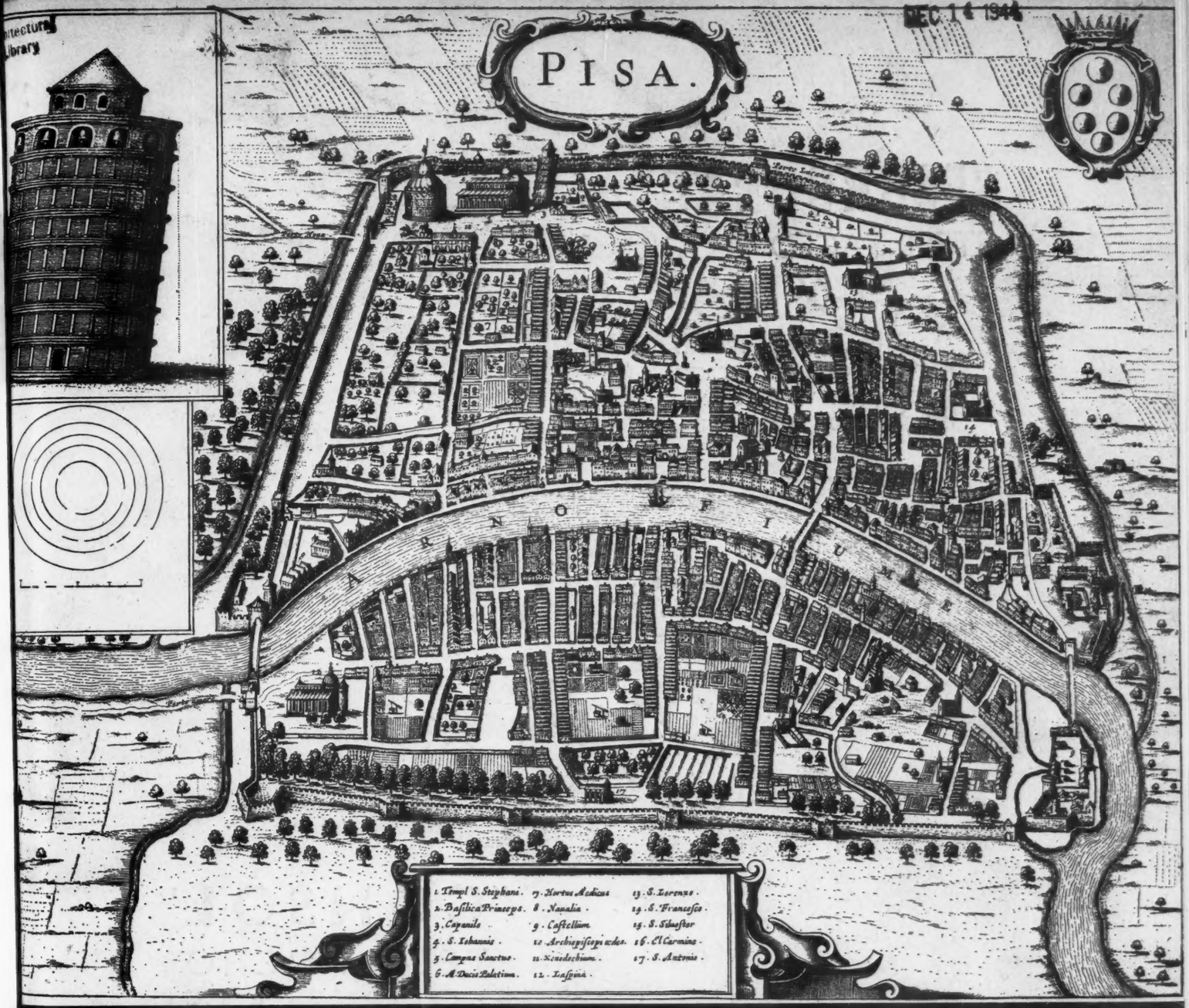

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volume ninety-six, december 1944
three and sixpence

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CONTENTS FOR DECEMBER, 1944

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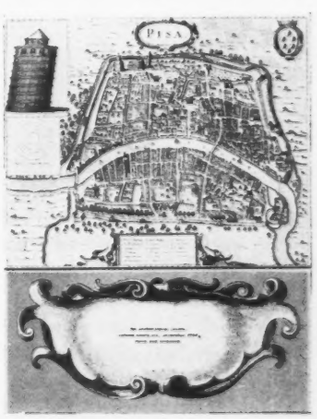
THREE SHILLINGS AND SIXPENCE

THE COVER. Wenceslaus Hollar was born in Prague in 1607. The Earl of Arundel took him to England in 1637. As a royalist he had to leave the country in 1645 and stayed away until 1652. He died in London in 1677. On his journeys he drew and engraved many hundreds of topographically accurate views of towns and many landscapes—a vast Recording Europe job. Maps of the kind illustrated on the cover he also produced in considerable numbers. They are spectacularly successful—in the sense in which maps of English towns would be a success if they were commissioned from the best of the Pilgrim Trust's Recorders of Britain. We have had a revival of map-making within living memory (Macdonald Gill, R. Koch). This is how it should be; it runs parallel with the revival of typography. But our painters and engravers have so far kept out of it. Hollar's combination of cartographic with æsthetic qualities is exemplary. The subtle balance of the bits of decoration on top of the map should be specially noted. They are not rigidly symmetrical as compared with the cartouche below. The heavier weight of the picture on the left is corrected by pushing the centre cartouche slightly to the right. Such sensitive pattern-making can be found in most of Hollar's maps. The one chosen this month has an additional topographical and topical interest. Pisa has been fortunate. It was in the front line but the leaning tower has not lost more than one colonnette and the cathedral is intact. So is the lovely little church of the Spina. The Camposanto, however, has suffered a great deal, and everybody interested in early Italian painting will be anxious to learn in more detail what has happened.



ROMANTIC SCENERY IN THE MAKING. What qualities make a landscape romantic? It must have a strong emotional appeal, and the appealing qualities must be dynamic. A landscape as static and solidly built as Poussin's is not romantic. Nor is a matter-of-fact Dutch landscape say by van Goyen or even Vermeer's View of Delft. But Claude Lorraine's gently melancholy ruins and mellow nostalgic sunsets are, and Salvator Rosa's caves and cliffs and storm-swept trees. From Claude, Salvator, the other Poussin (Gaspard Dughet) and other painters of the seventeenth century the Georgian connoisseur learnt to see romantically. But romantic drama, romantic yearning and romantic fancy did not originate in the seventeenth century. Their beginnings go back to the sixteenth, that enigmatic period after the High Renaissance which is now becoming known as Mannerism. On this style and its characteristics more will be found on page 187. Here it is sufficient to emphasize a few points which come out especially forcefully in Niccolò dell' Abbate's newly acquired National Gallery painting of which a background detail appears above: the surprisingly free sweep of the brush-strokes, the romantic blend of architecture and nature, the strange assortment of buildings of all ages, from the antique monument *à la* Hadrian's Mausoleum to the mediæval castles and the unaccountably English-looking Gothic church in the left background, and to the Baroque column with the figure of the Virgin or a Saint. A scene as tempestuous and fantastic as any John Martin, and yet painted as early as 1545 or 1550.

Nature has played curious tricks on the gardeners and garden architects. In the name of Nature the French of Louis XIV designed their formal gardens. For nature to them was tantamount to reason, the order and original harmony of the universe (see *November* issue). In the name of Nature, Pope and Burlington opposed the French garden and made theirs all wiggly and twisted (see *May* and *November* issues). In the name of Nature, Lancelot Brown opposed them and made his gardens all smooth and gentle and undulating (see the article below). And in the name of Nature, Uvedale Price and Richard Payne Knight opposed Brown as insipid and artificial, and insisted on stronger contrasts. So every generation of the eighteenth century followed its inclinations and called it the real natural nature. However, Brown and Price have one claim to naturalness which the others have not. They have succeeded in modelling the landscape of England in the image of their gardens. So if they have not imitated nature, they have made nature imitate them. Few architects anywhere have done as much as Brown to impose their taste on their country. It is therefore distressing to see how little is actually, that is visually, known of his personal style. He is connected in our minds with clumps and serpentine boundary walks and serpentine lakes. But few are familiar with any one genuine Brown garden. So we are publishing here the grounds of Ashburnham House, for which Brown's original plan of 1767 survives. Miss Dorothy Stroud of the National Buildings Record discusses it. The photographs were taken specially by Dell and Wainwright.

UNADULTERATED BROWN

the landscape at Ashburnham

By Dorothy Stroud

WHEN Lancelot Brown died in 1783, Walpole wrote of him: "His great and fine genius stood unrivalled, and it was the peculiar felicity of it that it was allowed by all ranks and degrees of society in this country, and by many noble and great personages in other countries. Those who knew him best, or practised near him, were not able to determine whether the quickness of his eye, or its correctness, were most to be admired. It was comprehensive and elegant, and perhaps it may be said never to have failed him." And then Walpole added prophetically, "Such, however, was the effect of his genius that when he was the happiest man, he will be least remembered; so closely did he copy nature that his works will be mistaken."

To-day Brown is remembered for his curious nickname of "Capability," for his work at Blenheim and possibly Claremont —few people can rise even to naming a third example—and as the butt of the gardening pundits of the next generation, most of whom portrayed him as a monster in human form, the "destroyer" who cut down avenues and broke up formal gardens with a sadistic relish. In fact, though stiff lines of trees radiating from the house in all directions could not be countenanced by any exponent of the "natural" school, Brown was far from excluding single avenues: Corsham, Castle Ashby, Burton Constable and Wimpole are but four parks with avenues of great magnificence which formed part of his original scheme for each place. Nor did he banish flowers, but set aside a piece of ground expressly for their cultivation, instead of disfiguring lawns with a rash of beds in fancy shapes such as was to break out during the following century.

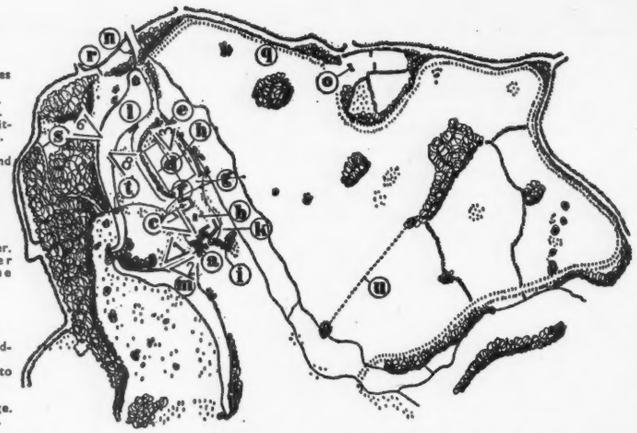
Two of his bitterest antagonists were gifted with their pens and widely read, and the outbursts of Payne Knight* and Uvedale Price† made an indelible impression when they were published, many of their remarks being copied indiscriminately by later writers. It is true that Humphry Repton paid tribute to Brown, but only incidentally to his own exposition on the principles of landscape gardening. When the heat of Knight's and Price's dissertations had cooled down sufficiently for a dispassionate account to be given of Brown's work, no one was interested enough to pursue the matter. Estates had changed hands, sons and grandsons had succeeded their forefathers, and the creator of their parks and gardens, which were growing more "natural" as they approached maturity, was forgotten just as Walpole prophesied.

Since Brown lived a life which, judged by the standards of his age, was blameless almost to the point of dullness, it is a little hard that he should have been the cause of so much bitterness; and this bitterness went much further than mere disagreement with his gardening principles. When Price repeated the remark made in conversation with a friend, "This fellow crawls like a snail all over the grounds and leaves his cursed slime wherever he goes," he intended to be personal; and Knight was equally malicious in his attack. There is little doubt that the generating factor was pent-up jealousy. No man who has achieved professional success can hope to escape entirely, and when he has achieved it by genuine ability combined with an amiable disposition, and moral and financial integrity, his rivals will not love him any the more.

Brown was no exception. Success had certainly come to him in full measure, though he worked hard for it in spite of frequent ill health, for he was a martyr to asthma. He was born in 1716, at a time when English gardening was shuffling off the coils of formality and taking Nature to be her new model. While he was growing up in a remote Northumberland homestead, the new school of gardening was developing under the ægis of Addison, Bridgeman, Pope and other enthusiasts. Then came William Kent, who "leaped the fence and saw that all nature was a garden." The artistic genius which failed to inspire Kent's canvases, found expression in the creation of living pictures by the skilful grouping of trees, turf and water, and the interplay of perspective, light and shade. Had his knowledge of the science of gardening been more profound, his landscapes might have been greater and more lasting; as it was, they were too small to be really impressive, while Walpole found fault with him for aiming at immediate effect instead of planting for futurity. That was where Brown scored. Living on the fringe of two great Northumberland estates, he had from his earliest childhood watched men at work on the land, and when school days were over he had been sent to work for several years in the gardens of Sir William Loraine at Kirkharle. In 1739, being twenty-three years old, he set out for the south, an unknown youth with precious little in his pockets but plenty of ambition and a sound knowledge of his subject. He found employment first with Richard Grenville at Wotton, in Buckinghamshire, and then with Grenville's brother-in-law, Lord Cobham, whose magnificent gardens at Stowe ranked as the finest in England. This was good fortune indeed, for just then William Kent was busily engaged not only in designing various temples and garden schemes for Lord Cobham, but in the alteration of the house itself. It was not long before the diligent young gardener's abilities became apparent, and since Kent had other work to do elsewhere, much of the execution of his garden plans was left to Brown. Thus he absorbed at first hand the master's principles and technique, and there is little doubt that Kent, recognizing in him a man who could carry on his work, gave him all possible help and encouragement. By the end of the 1740's Brown was making designs for Lord Cobham's friends and neighbours, laying the foundation of the immense practice which he built up on leaving Stowe; and when Kent died in the spring of 1748, he stepped into his shoes and for the next three decades reigned supreme in the gardening world. Nor was he to limit himself to gardening, for he had also come under Kent's architectural influence, and early in 1750 he launched out with the designs for Lord Coventry's new house at Croome—the first of many excellent houses in the Palladian manner for which he was to be responsible.

In 1764, Brown was appointed Surveyor to His Majesty's Gardens and Waters, a very agreeable post with a salary of £2,000 a year and a residence at Hampton Court. He had, in fact, reached the topmost rung of the ladder. "He shares

* *The Landscape: A Didactic Poem*, by Richard Payne Knight, 1794.
† *Essays on the Picturesque*, by Uvedale Price, 1794.



The drawing above is a diagrammatic rendering of Capability Brown's original plan of 1767 *illustrated on the facing page. The letters in the diagram, which also appear in the original, refer to the Key on the left; the numerals refer to the illustrations, and the triangles to the positions of the photographer. The best general view, very similar to Watts's,* **7**, *is* **6**, *from the Lake to the house with the church tower on the left. The house also appears in* **3** *with the kitchen garden in the front. This was marked "Intended Kitchen Garden" in Brown's finished plan of* 1767, **5**. *The Melon Ground lies to the right of the gateway in the long wall, and the Rick Yard on the left. Two stacks are just visible. The terrace,* **1**, *belongs to the nineteenth century. This return to formality near the house was not recommended before Price and Repton and not really popular before Barry's time. But the distant grounds are all Brown's with the cedars,* **2**, *beautifully matured, and the cascade,* **4**, *a favourite motif of the eighteenth century.*

the private hours of the King," wrote Lord Chatham, "dines familiarly with his neighbour of Sion (the Duke of Northumberland), and sits down at the tables of all the House of Lords."

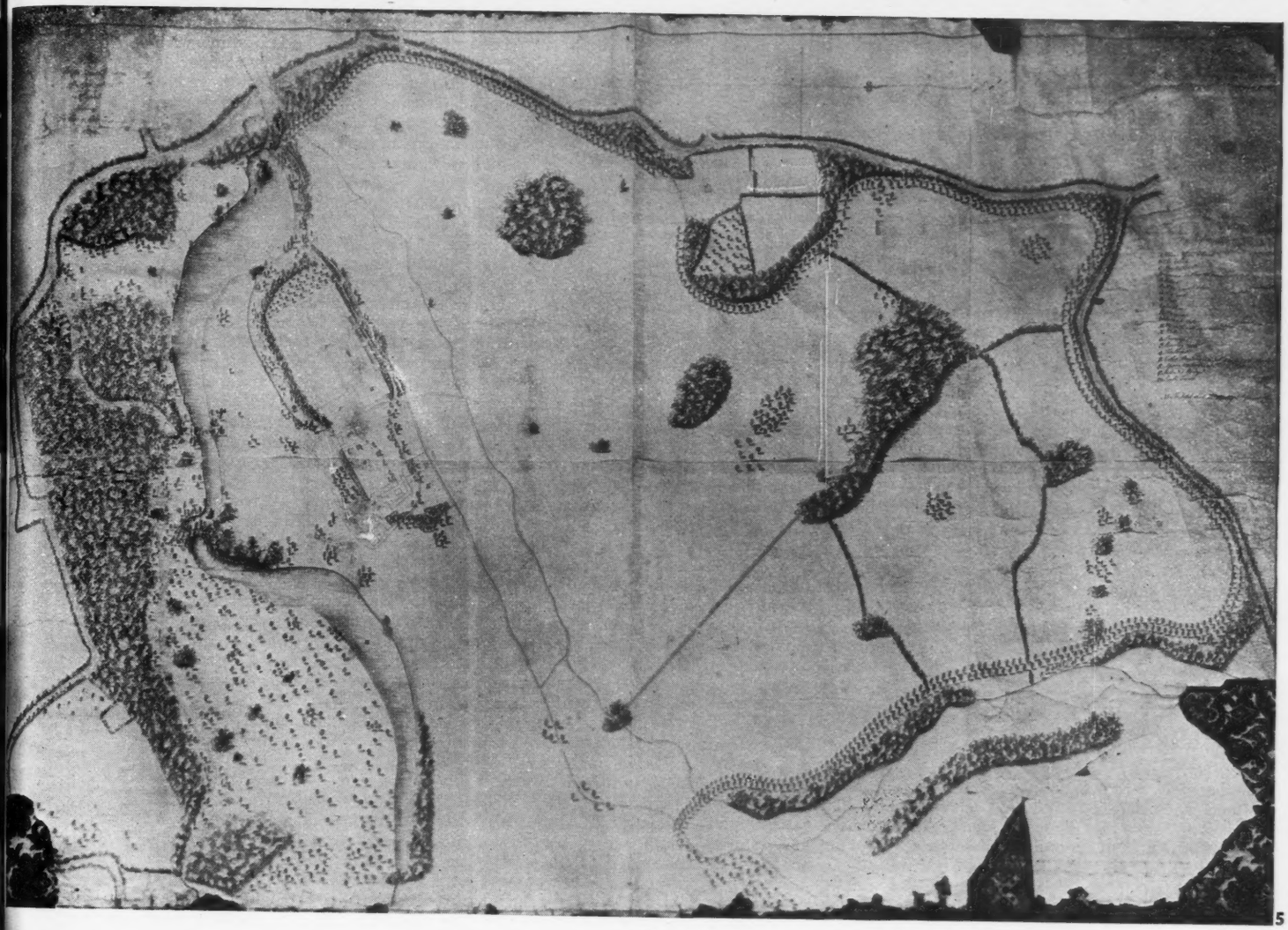
The only innovation of any consequence during Brown's lifetime was introduced by Sir William Chambers. Although Chambers's voyage to the Orient as a young man was never to influence his more serious architectural works, he had been immensely impressed by the manner in which the Chinese garden was designed to play on the emotions of the beholder, and divided into a succession of scenes calculated to "agitate the mind by a variety of opposing passions." Chambers's appointment as garden adviser to the Princess of Wales gave him the opportunity of putting his views into practice, and although much of his work at Kew has disappeared, the Pagoda survives as a memorial to what was a perfectly sincere attempt to infuse variety and liveliness into the English landscape. When it came to writing his *Dissertation on Oriental Gardening*, however, Chambers made a fatal mistake for, instead of contenting himself with an exposition of his views on the subject, he launched out into a violent personal attack on Brown, to which the latter's friends were quick to take exception. "I have read Chambers's book," wrote Walpole to William Mason. "It is more extravagant than the worst Chinese paper, and is written in wild revenge against Brown." Soon afterwards, *The Heroic Epistle* appeared in Capability's defence and, although it bore no author's name, it was generally agreed to have been "cut out by Walpole but buckramed by Mason." The Anglo-Chinese garden was, on the whole, a pretty damp squib as far as this country was concerned,‡ and it made little difference to Brown, whose practice continued to flourish until the day of his death.

When Payne Knight and Uvedale Price let fly their arrows, the position was different. Brown had been in his grave for eleven years. His former champions, Walpole and Mason, were old and tottering figures. Repton was busy working out his theories. The challenge went unanswered.

"His great and fine genius . . ."; "His cursed slime . . ." What is the verdict to-day? We will take a typical example of Brown's work and let it speak for itself; an example which is not familiar to many people as his handiwork, but for which his drawings and accounts survive.

In 1767, Brown was commissioned by the second Earl of Ashburnham to prepare a map for the improvement of the grounds at Ashburnham Place in Sussex. The Earl had married Elizabeth Crowley, heiress of a wealthy London Alderman, in 1755, and soon after had added a new south facade to the old house. Then he turned his attention to the grounds. In addition to Brown's plan for the grounds, there exist several sketches which he made for garden buildings and bridges, as well as an elevation of the old Charles II range running north from the main block of the house. With the latter is a plan and key to the suggested rearrangement of the domestic quarters which

‡ It had, however, a decided vogue on the Continent. See Le Rouge *Jardins Anglais et Chinois*, 1776.



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Lord Duncannon drew the vista, **7**, *which W. Watts engraved. It is the same view as* **6**. **8** *is the wide sweep of lawn across the water, easily identified on Brown's plan. A scene of perfect serenity relieved from monotony by the ever-changing play of light on the water, and the contrasting foliage of oak, chestnut, beech and fir in the plantations.*

it contained, a scheme which was put into effect and which has remained almost unaltered to the present day. Of the two designs for bridges one was carried out and can be seen in Thomas Hearn's *Views of the Dressed Walks at Ashburnham* (1813), but the sketches for a new entrance gate and screen and a large garden house with Ionic columns did not materialize.

The plan is typical of Brown's work in the sense that all his favourite features are there—smooth lawns flanked by plantations, lakes linked by a cascade, a grotto set about with moss and ferns and all the things that love a damp and sheltered situation; but it also shows his gift for making the best use of the physical character of the ground; in short, his desire to carry out Pope's unbeatable precept " in all consult the genius of the place."

A comparison of the early eighteenth century estate map of Ashburnham with Brown's plan of 1767 provides a very clear picture of the changes involved. Originally the whole extent of the " garden " seems to have been confined to a small rectangular plot on the east of the house. On the west stood the church and graveyard. There was an orchard nearby, and a stackyard; and to the south-west lay a small mill pond. Beyond, thick woods pressed on every side. The new design involved an area of many acres. The small garden plot disappeared, and two extensive flower and melon gardens were created west of the house, their walls being screened by a belt of trees and shrubs. The mill pond and the nearby river were tapped to feed three lakes which were contrived in the low-lying ground below the house, from which gently sloping lawns were laid down to the water's edge. Across the valley, where the ground rose again sharply, Brown set plantations of beech and chestnut, with groups of cedar and Scotch fir to provide contrasting foliage. To the south-west a small chine runs back into the rising ground, carrying a small spring. At its head is a grotto known as the Ladies' Bath, the walls of which were originally adorned with paintings of two elegant but scantily clad young women. They were subsequently hidden by a thin coat of colour wash, but if water from the spring be dashed against the walls, this coating becomes transparent, and their rather ghostly figures can be seen beneath. West of this chine is a noble sweep of lawn, flanked by trees and shrubs, extending from the water almost to the crest of the ridge, and providing a perfect example of a serene eighteenth century landscape.

Adjoining the house on the west, Brown erected the greenhouse, a handsome seven-bay structure with segmental-headed windows which cost the Earl £600. During the nineteenth century it was refaced with brick to match the house, but even that failed to conceal its Georgian character.

The execution of this vast scheme was apparently not without its lighter moments, for after he had produced his first rough survey of the ground, Brown either discovered for himself, or had his attention drawn to the fact, that the existing lake was undeniably like a shapely feminine leg, and that the existing bridge formed a " garter " just below the knee. So the Garter Bridge he christened it, and at the bottom of the survey is a note which reads: " Mr. Brown proposes for the Alteration of the Water to take away the Garter and make the Square Toes round."

Although the appearance of the house changed during the nineteenth century, when it received first a stucco Gothic, and then a red brick facade, the grounds themselves remain very much as Brown planned them. His cedars, grown to immense size, spread their branches over the lawns; the greenhouse, with a red brick " skin " drawn over its original stuccoed brickwork, shelters delicate trees and shrubs from the cold winds which frequently sweep over the neighbouring downs; while the waters of the upper lake fall to a lower level over a cascade which has not been silent for close on 170 years. It is a noble scheme, one of many conceived by a man who planted not only for the benefit of his own generation but for posterity; an ungrateful posterity, who has forgotten how much it owes to the genius of " Dame Nature's second husband."

8

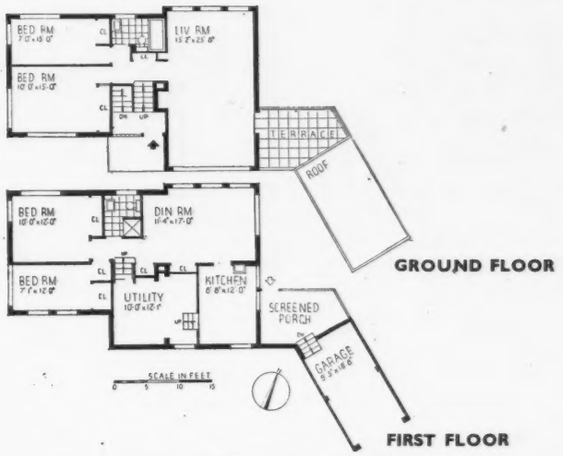
FOUR HOUSES AT KNOXVILLE

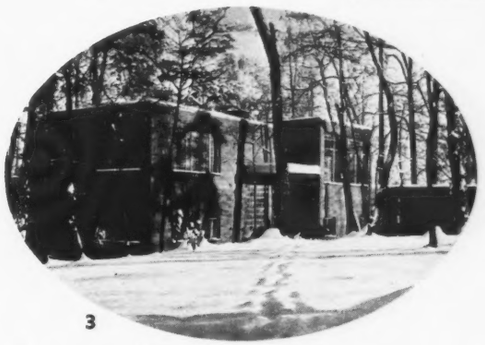
GENERAL—Although the sum total of private houses in a contemporary style of architecture must by now be higher in the United States than in Britain—thanks chiefly to the consistent adoption of a modern idiom in publicly financed war-time housing—there are, it appears, very few places yet in America where the new style has been tried out for a whole estate or group of houses intended for higher income groups. Carl Koch's houses on Snake Hill, Belmont, Mass., is one of them (see the *Architectural Forum*, June 1941), the houses for the first time illustrated here are another. The architects, Alfred Clauss and Jane West Clauss, are connected with the Tennessee Valley Authority's building activities. Two other recent houses of theirs, also at Knoxville, Tennessee, one of the centres of the T.V.A., were published in June.

PLANNING—The four houses which are discussed on this and the following pages stand along one street on a hill. Three more are projected so that in the end the street will look as shown in the drawing below.

HOUSE ONE—The house, as all the others, is well set back and placed among the old trees of the hillside. It takes advantage of the sloping site by staggering the floor levels. The exposed walls are hollow tile, the interior walls wood studs. The foundation is poured concrete. Windows are of the steel sash type.

HOUSE TWO—In style as well as construction this house is similar to the previous one. Yet sufficient variety in the grouping of the component blocks has been introduced. The main motif is the contrast of the one block with the other a little higher and placed at right angles. The taller block has on the first floor large windows nearly filling the front and back walls. The porches, all but identical, are placed into the angle between the two blocks. The staggering of ground levels has the effect of breaking up the hard-and-fast distinction between living-room and bedroom floors.





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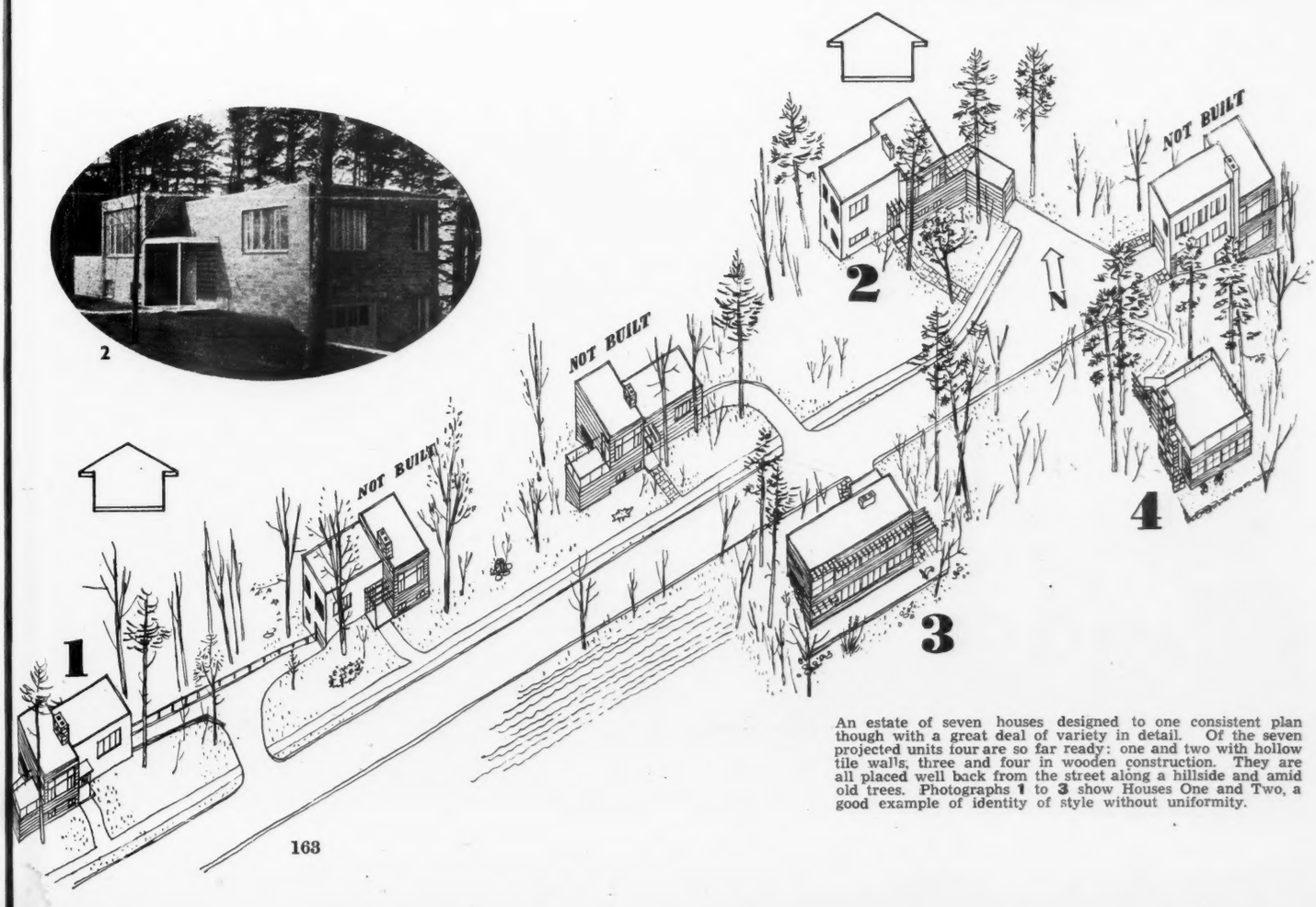


An estate of seven houses designed to one consistent plan though with a great deal of variety in detail. Of the seven projected units four are so far ready: one and two with hollow tile walls, three and four in wooden construction. They are all placed well back from the street along a hillside and amid old trees. Photographs **1** to **3** show Houses One and Two, a good example of identity of style without uniformity.

Alfred Clauss and Jane West Clauss

HOUSE THREE—This and the neighbouring house face south and enjoy a magnificent view of the Smoky Mountains. The entrance is from the north and leads into the upper floor (see plan on page 166). The whole south front of the upper floor is structurally one room, the living-room with a study corner, communicating by means of a curtain with the main bedroom. Below are the other bedrooms, service rooms, and the dining-room adjoining the kitchen. The kitchen has a special entrance and porch in the east, which can also be used as a sitting-out space, **11.**

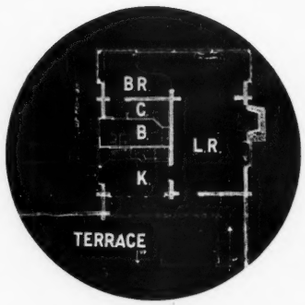
The foundation of the house is poured concrete, the retaining walls, chimneys, chimney walls, steps and fireplaces are native stone. The upper structure consists of a wood frame with wood sheeting. For the exterior walls California redwood horizontal boarding is used, for the interior partitions gum plywood.

The main exterior feature is the long south front with the window bands from corner to corner and the pergola-like sunshades above, **9-13.** These have redwood beams and asbestos board shades, **8.**

Inside, the living-room, **6,** has the fireplace on the north wall. The rough stone surround is well set off by the smooth plywood walls and the tubular steel furniture. **4** is the upper floor bedroom with its west window, **13.**

HOUSE FOUR—This house in some ways is part of the same three-dimensional composition as House Three. In **9** it can be seen how the smooth flatness of the one house is brought out by the roughness of the logs of the other.

The plan on this page shows the smallness of the building—not much more than a large living-room with a bedroom recess, kitchen and bath. Beyond that, however, there is a roof terrace the size of the whole house and terraces below as well—plenty of outdoor living space. The house was originally intended as a garage and workroom, but then converted into an all-the-year-round dwelling. The structure rests on six massive concrete piers and is cantilevered out over the steep hillside, **14.** Chimney-wall and fireplace are of native stone as in House Three. The exterior walls have a playful arrangement of interlocking logs, **15.** This same motif also invades the interior, **5,** where it is used in a frankly decorative way to mark the division between stone and glass. **7** is the south wall of the main room with the view over the Smokies.



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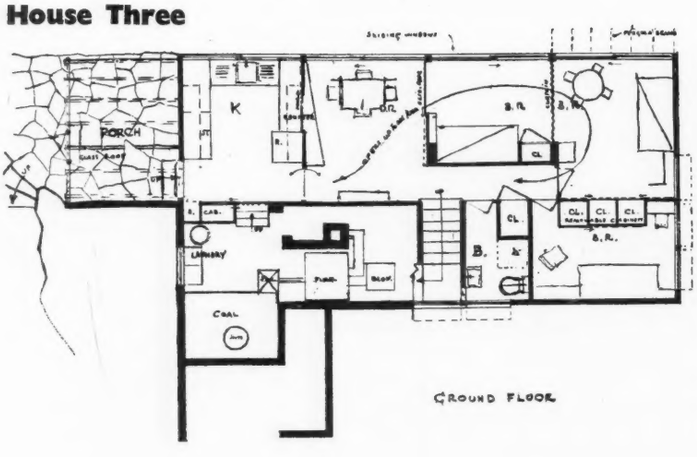
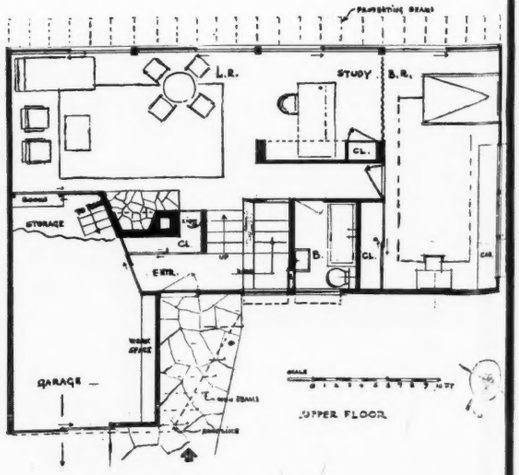
House Three





The two tiled houses on page 163 stand on the north side of the street. The two wooden houses on pages 164 to 168 face them on the other side of the same street. They lie on a southward slope so that their entrances are nearly on upper floor level. **10-13** give various views of House Three with its weather-boarded front and the characteristic redwood and asbestos board sunshades. The smoothness of this front is in a charming contrast to the rustic roughness of House Four, **9**, which stands close to it. This house, **14** and **15**, is a one-and-a-half-room bungalow, with a sun terrace on the roof. The other house has less outdoor living-space, chiefly a partly glass-walled and glass-roofed terrace on the east side of the kitchen.

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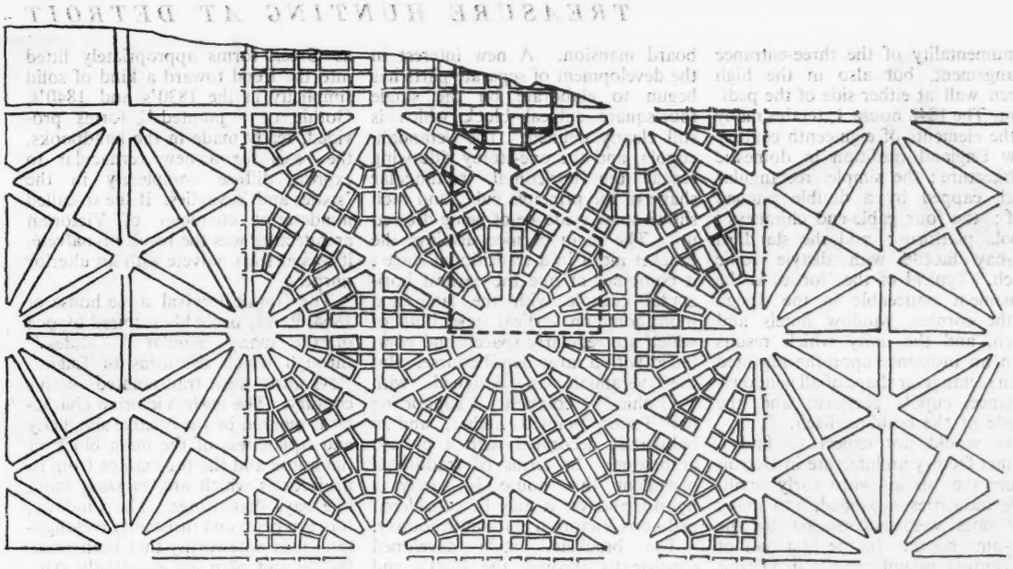
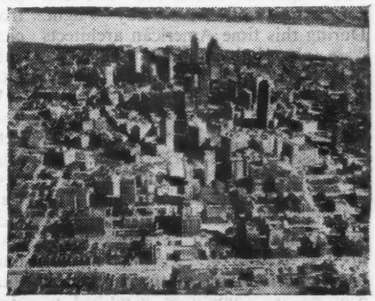
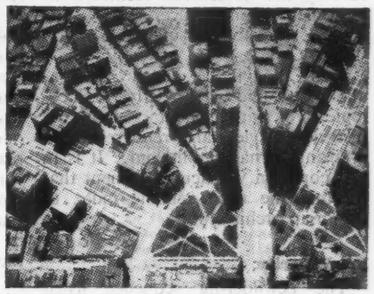


The famous L'Enfant plan for Washington dates from 1791, Judge Woodward's plan for Detroit from 1807. The latter derives from the former, but while L'Enfant had superimposed his stars on a gridiron pattern, Woodward made his stars dominate the whole layout. Only as much as is marked in the centre of the drawing was ever carried out, and even that portion in its present elevation (see photos below), with buildings of all heights, indiscriminately mixed, betrays hardly anything of the projected Baroque formality.





The scope of Mr. Peter F. R. Donner's TREASURE HUNTS, published in THE ARCHITECTURAL REVIEW in 1942 and 1943, was to draw the attention of those concerned with or interested in architecture to the Victorian and post-Victorian periods and their characteristics, neglected alike by scholarship and appreciation. In the United States, where the sum total of architectural tradition is so much smaller than over here, the nineteenth century is receiving a larger quota of research energy, and England has much to learn from the impartial thoroughness of American investigations. As early as 1924 Lewis Mumford set the stage for a re-valuation of the Victorian style. A more recent impetus was given by Henry-Russell Hitchcock, jun., who lucidly outlined a programme of nineteenth century research and with his exemplary studies began to fill it in. Following Professor Hitchcock's general pattern, the Detroit Institute of Arts last year sponsored a review of representative Detroit buildings—a cross section of architecture from 1823 to 1943. The photographs and drawings of the exhibition form the nucleus around which a permanent architectural collection is to be built. Most of the illustrations presented on the following pages and discussed in detail by Mr. Buford L. Pickens, of Wayne University, were assembled and catalogued by Mr. Hawkins Ferry for the Detroit Institute of Arts.

A glance at these illustrations will reveal at once that the general development in London and Detroit was similar. At the same time, however, there are chronological, social and psychological differences which need comment. Mr. Pickens discusses them from the American point of view. The English point of view is added by the captions to the photographs on pages 171 to 174. None can be more competent to set off American against Anglo-American characteristics of nineteenth century style than Mr. Donner, and we have therefore asked him to contribute these captions.

Treasure hunting at Detroit

By Buford L. Pickens

the city

ALTHOUGH Detroit was founded in 1701 by the French and continued for almost a century as a French, and then an English possession, it has to-day no architectural heritage of the eighteenth century. After the fire of 1805 had reduced everything to ashes, the village was revived and laid out on an astonishingly grand plan intended to permit the gradual expansion of a future metropolis. Even then Detroit continued its relatively quiet, small town existence for some thirty years. But by 1844 the population had reached 10,000, having more than doubled in the preceding decade. The development of the "Great West" had begun. First came the waves of pioneering industrialists from New York State, England and New England and, later, when the need for labour was acute, came waves of immigrants from various parts of America and Europe. Detroit's was a strategic location for the development of industries—near the source of timber, coal, iron and copper and other resources, and midway on the waterway which linked half a continent. In 1861, at the time of the Civil War, the city had 50,000 inhabitants; in 1880, 116,000; in 1900, almost 300,000; and to-day, nearly 2,000,000.

Unfortunately, Detroit abandoned its farsighted plan of 1807 too early. Instead of following the late Baroque idea of wide avenues and frequent parks designed especially for future expansion, the city sprawled out on the typical American checkerboard pattern of narrow, right-angled streets, extending for miles in three directions from the original village on the river. Factories occupied the choice sites along the river frontage; living areas, even those for the proprietors, developed behind the screen of industries, thus following the usual Victorian tradition in housing, a precedent which is still prevalent (as at Willow Run, near Detroit, where the world's largest bomber plant was planned and constructed before any serious thought was given to housing the 50,000 workers).

the architecture in general

Architecturally, Detroit is a representative American city. One may find here examples of skyscrapers, of the ubiquitous steel and glass factories by the late Albert Kahn, and even a few recent *Usonian* houses by Frank Lloyd Wright. But what may be equally important, we find in Detroit also the prototypes and general background from which these distinctly American achievements have emerged. This last statement could be made about any one of a number of cities in mid-Western United States which "came of age" during the last half of the nineteenth century as, for example, Minneapolis, Chicago, St. Louis, Cincinnati, or Cleveland. Of this group Chicago is the largest and the most widely known—for its priority in tall building construction, for its notorious World Fairs, and for being the centre which once nurtured the strong movement toward an indigenous, non-eclectic architecture. But as the question of priority ceases to be a major problem we discover that what happened in Chicago also happened in the other cities about the same time. When more studies of mid-Western architecture are completed we may cease to regard Frank Lloyd Wright as a strange phenomenon, having sprung forth like Athena from the head of Zeus; instead we may see him as the most original, persistent, and influential of a widespread school of designers reacting against a prevailing earlier style.

It is not surprising that the exhibition of Detroit architecture should support the thesis put forward recently by John Coolidge (*Mill and Mansion*, Columbia University Press, 1942), that in an orthodox Victorian city, stamped by the impact of the Industrial Revolution, one might expect to find the development of a consistent Victorian architecture based upon "a changing repertory of revivals, a changing conception of the rôle that historical styles should play in contemporary design, and a changing feeling for mass, space, shape, colour and texture." Heretofore, this evolution has been unrecognized because of our preoccupation with the "styles" which failed to provide an index to the basic changes. What is perhaps most significant about the study of Detroit architecture is that it reveals the existence of a *post-Victorian* movement, strongest in the 'eighties and early 'nineties, a movement parallel in some respects to that seen in the work of Voysey in England and Mackintosh in Scotland. There seems to have been no direct connection between these British and mid-Western American architects, only a common indebtedness to William Morris and, perhaps, to certain works of R. Norman Shaw. The post-Victorian tendency has continued to influence American architecture, though not always in a progressive manner.

The traditional plot in which American architecture has been sectioned in chronological sequence can here only briefly be outlined, though much of the scenario is as amusing as it is misleading. The eighteenth century influence in

architecture continues as "post-Colonial" or "Federal" (an American version of late Georgian) into the 1830's, overlapping the "Greek" and "Gothic" revivals which continue past the mid-century. The Greek Revival dominates from the late 'thirties for a couple of decades and is called by some "our national style." However, the Gothic Revival took root more firmly after the completion, in 1846, of Trinity Church, New York, a correct Perpendicular design by Richard Upjohn, who might be called the American counterpart of A. Welby Pugin. During this time American architects were also influenced by the work of Gilbert Scott and Charles Barry, while the untutored builders obtained an incredible variety of ideas from dozens of pattern books and "Builders' Guides." The French roof and other "Second Empire" details were imported in the 'fifties, helping to produce a super potpourri in the 'sixties and 'seventies. The flock of eclectic styles which characterize the last half of the nineteenth century are sometimes identified as "French Renaissance," "Queen Anne," "Romanesque Revival," "Neo-Classic," "Neo-Gothic," "Neo-Colonial," etc., etc. Occasionally one finds a strictly archæological adaptation but, in general, the historical styles are rendered with a strong vernacular flavour. It is in this common vernacular element that we find the most reliable index to Victorian architecture.

Pre-Victorian

The bewildering sequence listed above seems to be incidental, in Detroit architecture, to a more general and consistent stylistic theme which follows the changes in the social and economic pattern. Thus, buildings before the 'forties reflect the mingling of two strains: one, the traditions of the early pioneers from the eastern states, and the other a conservative good taste and amenity of manners found among the descendants of the French who colonized Detroit in the age of Louis XIV. The easterners transplanted their familiar building types such as the box-like meeting house for churches and public buildings, and the late Georgian house in brick or wood. Shops and commercial buildings were variations of the domestic type.

By the 1840's many of the earmarks of Georgian style, such as the colouristic treatment of quoins, window trim and continuous sill courses, had given way to the more disciplined influence of the prevailing Greek Revival. The resultant effect was toward greater simplicity and unity—a subordination of parts in relation to the total block of the building, noticeable in scale and in proportions. In the oldest extant church in Detroit, SS. Peter and Paul, 1844, **2**, the strength and simplicity of the continuous cornice dominates and contrasts with the thin, Ionic capped, brick pilasters which articulate the wall in a panel series as they march rhythmically down the long side of the church; tall arched windows are set into shallow secondary panels. A cubical cupola, of later date, astride the projecting central bay of the entrance end replaces the original one which was intended to support a spire. The design of the main facade is unusual, not only in the Albertian monumentality of the three-entrance arrangement, but also in the high screen wall at either side of the pediment. The 1848 house, **1**, retains many of the elements of eighteenth century New England tradition in domestic architecture: the simple, rectangular block capped by a double pitched roof; the four gable-end chimneys; cupola platform; and the standard five-bay facade with distyle Ionic porch. Typical of the 'forties is the refinement noticeable in the design of the cornice, window lintels and porch, and the unity which results from an insistence upon the repeated clean rectangular shape of all windows, entrance, cupola platform and the facade of the building itself.

We would not expect to find a distinct factory architecture in Detroit before the 'sixties when early small-scale industries expanded, and many new ones were encouraged by the war-time boom. In the first half of the century manufacturing in Detroit was housed in domestic or commercial buildings. The latter type is well illustrated by a four-storey block of shops and offices built about 1855, **3**. It is in such buildings as these, our lower-case architecture, that we find basic style facts expressed most directly, namely, simplicity of the pure geometrical block form, and a desire for uniformity in which rhythmical repetition, as required in the plan, seemed to compensate for what later generations considered monotony. One can hardly object that the simplification and regularity in utilitarian building were merely the result of functional economy or of an indifference to appearances when the same features are also characteristic of other contemporary building types. Compare the block of stores in **3** with their adjacent neighbours of some twenty years later.

Victorian

The real evidences of Victorian society emerge in the Detroit of the 'fifties. The tempo of life and business was stepped up. Industry had changed from small workshops to larger, more efficient mills and factories along the river. The drive of competition and the hectic struggle for existence replaced calmer motives for living. The controlling factors in social behaviour became fear of poverty and the aspiration to achieve the appearance of comfort and respectability of middle-class status. Dominated by the machine and the factory, people seemed to be concerned less with the abstract, the ideal, and more with the realistic and material world of quantity production.

This change to Victorian society was reflected in the architecture of the 'fifties. Traditional forms persisted for a time but with less simplicity and restraint. A wholly new idiom, the vernacular "bracketed style," developed from and continued parallel with recognizable classical and medieval details. Correctness was based on something other than historical precedent. The source was unimportant; what mattered was the effect produced upon the building as a whole. Let us consider the evolution of this style in a middle-class domestic type. The 1852 house, **6**, shows the early Victorian influence upon the familiar square, four-chimney house, with central cupola or "belvidere," a direct descendant from the eighteenth century New England seaboard mansion. A new interest in the development of separate parts has begun to elaborate on the single four-square cubical block which is still clearly defined. The verandah, cupola, and the one-storey side wing repeat the horizontal, rectangular shape of the principle cube, and each shows some evidence of being dressed up. The main cornice displays the bracket motif in a transitional stage; it combines at one the earliest horizontal console with the later and more common vertical type, both of which are regularly spaced and combined with a large dentil course. But the verandah is designed with "Gothic" colonettes supporting flat Tudor pointed arches, and a balustrade decorated with a pierced arabesque. In terms of traditional ornament this house is surely a hybrid, and yet it may be considered orthodox Victorian in its unorthodoxy.

The bracketed style developed consistently through the 1860's and 1870's. The brackets themselves were elongated in a vertical direction and grouped in pairs, thus permitting low windows in the frieze to light the shallow attic space. The Mansard roof provided a convenient solution to the problem of lighting the attic and was commonly used with the bracketed style after 1860. The three-storey, brick, 1874 house, **7**, is typical of the second or middle phase in the evolution of the square house type. Heavy gabled wings project from the principal facades, and half octagonal bays sprout all around. Side porches were not only a sign of affluence, indicative of the enlarged plan, but also they gave the designer a chance to collect the various projecting bays into a continuous series of gay and entertaining features. The heavy hooded arched windows are in keeping with the house of the 'seventies, but the central cupola is unusual for this late date. In most bracketed houses of the 'seventies, the cupola was moved off centre to crown one of the projecting wings or, under "Italianate" influence, to a picturesque corner position. The total effect of the 1874 house is one of glittering profusion produced by contrasting form and materials—now in, now out, now open, now closed; brick, stone, wood, iron, and glass. The final achievement of high Victorian style may be seen in the 1876 house, **8**. The contemporary photograph hardly does justice to this grandiose synthesis of Victorianism. The form of the square house is lost in total impressionistic effect of an aggregation of architectural forms. An iron railing around the central platform on the roof gives a clue to the basic square plan. All sense of solidity and of wall is abandoned for the delight in exuberant variety, in the pictorial effect of light and dark. The unity of the style lies in diversity.

Detroit had no local equivalent of the Cambridge Camden Society to point out the advantages of medieval architectural forms. The battle between Gilbert Scott and Lord Palmerston over Gothic and Palladian styles must have seemed academic indeed to mid-Western Americans even though they would have known Ruskin's "Seven Lamps." Nevertheless, it is easy to understand on other grounds why the Gothic Revival became a part of the general *mêlée* of Victorian architecture. For, just as Greek forms appropriately fitted into the trend toward a kind of solid simplicity in the 1830's and 1840's, Gothic or "pointed" forms provided, ready made in the handbooks, the basis for a new vernacular to express diffuse complexity in the 'sixties and 'seventies. If the so-called nondescript character of Victorian architecture was the result of naïveté, it was at least naïveté with an ulterior purpose.

The Gothic Revival stone house of 1864, **9**, was probably inspired by one of the many popular "Guides" through which the ideas of English Revivalists were transplanted to this country. The *early* Victorian character is marked by the relative simplicity and squareness of the main block of the house and the projections from it, projections which are, in plan, more like bays than wings. The windows, too, are plain and insistently rectangular. It is noteworthy that both street facade and plan are essentially symmetrical and traditional. The Victorian ingredient, prevalent in any "style" of the 'sixties, is seen in the general break-up of the building mass; in an effort to achieve a picturesque outline; and in the additive character of the whole—a multiplicity of parts in two and three dimensional forms.

It is particularly in the ecclesiastical buildings that we find evidence of the selection of a more consistent and historical Gothic style to meet the changing Victorian taste for fanciful variety. The Fort Street Presbyterian Church, 1855, a Puginesque design in limestone, was given a surprising dash of originality and refinement, **4**. The plan of the main block still follows the traditional American meeting house form; however, the tower has been moved to the corner. (British readers may be interested to know that the main tower is reputed to have been modelled after the parish church at Louth, in Lincolnshire.) The small tower rising from the centre of the gable seems to be the lingering reminiscence of the axial, end-set cupola. (See **4**.) A later and more typical Gothic Revival church is the Central Methodist, 1867, **5**. Porches, transepts, and tower contribute to the cumulative effect of a number of separate parts, and the sharply contrasting stone of wall and trim together with a variety of shapes of openings give the building an unmistakable mid-Victorian character. The interiors of both churches are disappointing because of the free use of painted plaster imitations of medieval wood and stone forms.

The first significant factories in Detroit follow the conventional pattern for mill and commercial buildings established in the Eastern States. The three-storied factory group in **12**, dating from 1864, demonstrates the Victorian bracketed style applied to the familiar rectangular block with low, double-pitched roof and an octagonal cupola perched on top of the end facing the street. Brick piers at intervals divide the side walls into a series of panels and carry rather voluptuous pairs of brackets under the wide cornice. At the end facade the piers terminate in a triple blind arch arrangement which fits neatly into the triangular space of the gable. A handsome Georgian gateway encloses the yard between the several units of the factory group. It is significant that factory owners at this time gave

2

CLASSICAL REVIVAL 1840

The Francis Palms House of 1848, 1, is normal style of the 'forties. Roman cement, central porch, unfluted Ionic columns, Regency dignity just going a little cheap. In terms of Treasure Hunt, *it might easily be in the Adelaide Road neighbourhood. St. Peter and Paul's, 2, of 1844, the oldest church of Detroit, is French in origin, though the form of the windows with their uninterrupted plain mouldings is decidedly Nashish. The architect is F. Letourno.*

3

1850-75

TOWN HOUSES

Block of shops and offices of about 1855—designed in the plainest Georgian tradition. The contrast of scale between 1855 and later Victorian on the left, twentieth century in the rear, exists in English cities as well, though not quite so pronounced.

5

GOTHIC REVIVAL

Two familiar stages: 1855 in the Fort Street Presbyterian Church, 4 (A. and O. Jordan)—1867 in the Central Methodist Church, 5 (G. W. Lloyd). Fort Street looks like English 1830, i.e. pre-Scott. It has the grace and papery thinness of pre-antiquarian Gothic. The Methodist Church is full-blown archæological revival. Both spires are modelled on English mediæval patterns.

HE BRACKETED STYLE

This term was created by American scholars. refers to the leitmotif *of Early Victorian villa architecture. he Davis House of 1852, 6, shows the brackets just coming, the C. A. Newcomb House of 1874, 7, doubles them and gives them as much prominence as any English architect some ten or fifteen years earlier. The bracketed style comes up in Loudon's Italianate designs in the* Encyclopædia. *In* Treasure Hunt, *August, 1942, was a Loudon example with "an overdose of brackets."*

VICTORIAN FANCIFUL

The introduction of the brackets is only one of many symptoms of the mid-Victorian urge for a showy display of prosperity. Cables and cupolas, rich decoration of windows and thick pediments over-supplied with modillions, all join forces to create the jolliest, heartiest and most robust of all Victorian types of domestic architecture. The G. O. Robinson House of 1876 (Henry T. Brush) is a specimen worthy of Putney. The mixture of elements from different countries and periods is astounding. The Victorians imitated much less than our history books tell us.

8

865-80

9

THE NORTH OXFORD TYPE

While the bracketed style reached out for the heights of jollity, the Puritan element in the Anglo-American make-up cried out for sobriety and primness. The result in the Sidney T. Miller House of 1864 (G. W. Lloyd) is distressingly dull. (Note the pattern of the barge-boarding.)

10

PUBLIC BUILDINGS

The City Hall 1871 (James Anderson, 10) is a surprise to the English critic; the Harper Hospital of 1877 (E. Myers, 11) the style one would expect. Gothic trim, with gables, polygonal bay-windows and a symmetrical composition—these things might be found in the 'seventies anywhere on the main roads of architectural traffic. But French Renaissance, with its typical roofs, revived even in France scarcely before the 'sixties was still extremely rare in England by 187

11

865-85

12

13

14

FACTORIES 1864-86

Five Detroit factories. 12 Richard Match Company 1864. 13: Michigan Stove Company, 1872. 14: F. K. Stearns Laboratory, 1881. 15: M. J. Murphy, 1885. 16 Farrand & Votey, c. 1885. We are at a loss here. Victorian factory architecture has not yet been studied at all in Britain. What strikes one in looking at the American examples is the formation of a genuine factory style. The design of 1864 is still only a variation on villa and public building motifs. In the 'eighties a simplicity and dignity is reached which is the anonymous counterpart of Richardson's reform.

15

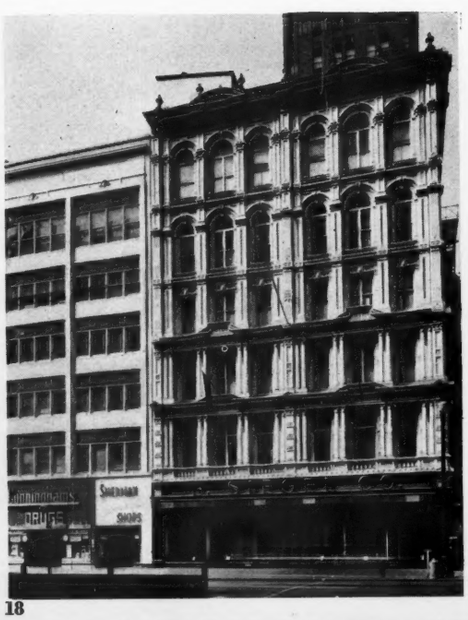
16

OFFICE BUILDINGS

17 and 18 might well be in any industrial city of England, or in the City of London. Mark the preserved unity of character between the villa of the 'seventies and the Newberry Building of 1879 (G. W. Lloyd). Mark then the coming of a specific office architecture in the Smith Building of 1883 (G. W. Lloyd). Decoration is still evenly spread over the whole facade. The great H. H. Richardson of Boston in the Bagley Memorial Armoury of 1886, 19 pulls the four stories into two: plain glass arcades below, plain windows and low-pitched gables above. England has little before 190 to emulate that.

880-85

17



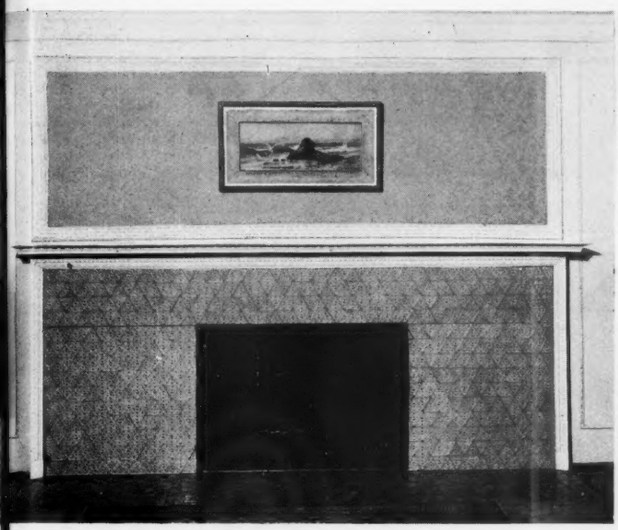
18

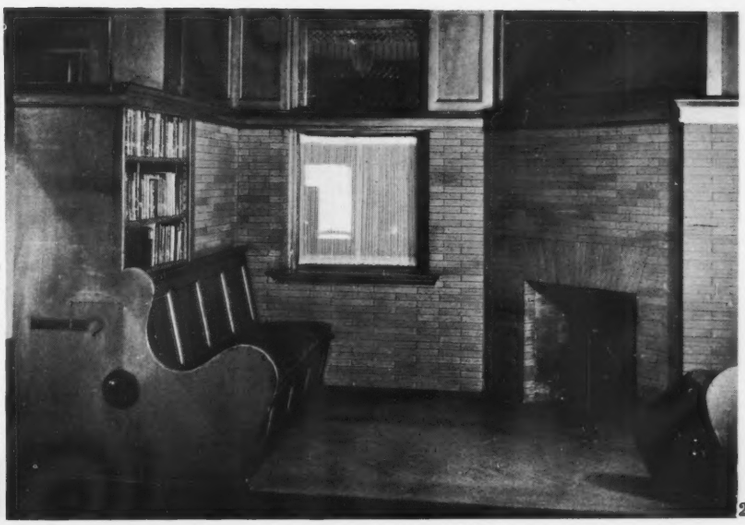
19

1888-89

HOUSES 1888-89 *The F. J. Hecker House, 20 (by ...tt, Kamper & Scott) is the typical ...erican Vanderbilt château. The G. Lee ...se by Mason & Rice, 21, is English, ...est Neo-Tudor. But the boldness of the ...er House by Wilson Eyre of Phila-...phia. 22, is without European source.*

21,22





23,24

26

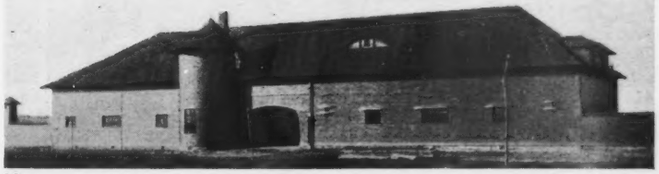
PIONEER INTERIORS *Wilson Eyre's exterior is half-way between the Lee House and Frank Lloyd Wright. The only parallel in England is Voysey, but the idiom is quite different. Inside, the display of honest structure, the fine metalwork hinges and locks and the clumsy profile of the settle are evidently derived from William Morris and the Arts and Crafts. But the brick fireplace and the way in which the brickwork is carried on are again as twentieth century as any early Wright. Equally ahead of most English work before 1890 and equally Voysey or Mackmurdo-like in lightness of form and colour and in horizontality is the fireplace in the Lee House, 23, which Albert Kahn, the most famous of contemporary Detroit architects (who died last year) designed at the age of twenty-five.*

1889-95

27

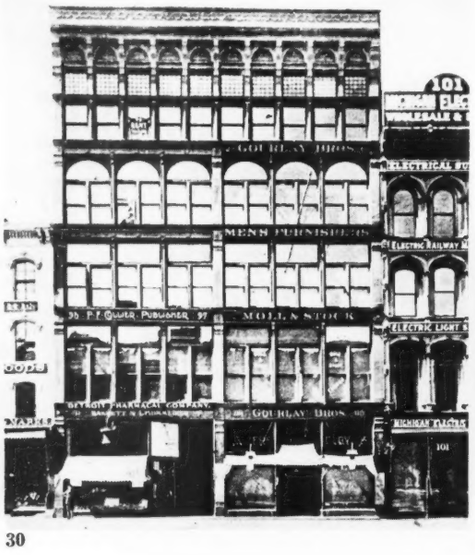
28

PIONEER EXTERIORS *Mason & Rice are the architects of the Business University, 27, and the Mettawas Casino, 28, both built in 1889. The former is interesting in the mixture of round and flat-headed transom windows, the latter in its brick-and-white Neo-Georgian is as progressive as any contemporary Ernest Newton, and in the contrast of thick round tower and broken gable more adventurous than Newton ever was. As for 29, a stables building at Oakwood, Ohio, by C. F. Schweinfurth, of Cleveland, nobody in England would venture to place it into the early nineties, as Mr. Pickens does. Is there evidence for such a date ? The design looks like 1910-20.*



29

1885-1900



30

31

OFFICES *Not much new here, except f the American use of iron a glass in the Davenport Building of 18 (W. G. Malcolmson), 30. The composition like 18, just as the composition of the Palm Block of 1894 is like Richardson's, 19. It excellently proportioned and detailed ; wonder, as the architects were Mason Rice. The Union Trust Building (Donaldso & Meier), 32, illustrates a new wave historicism. It dates from 1900-2.*

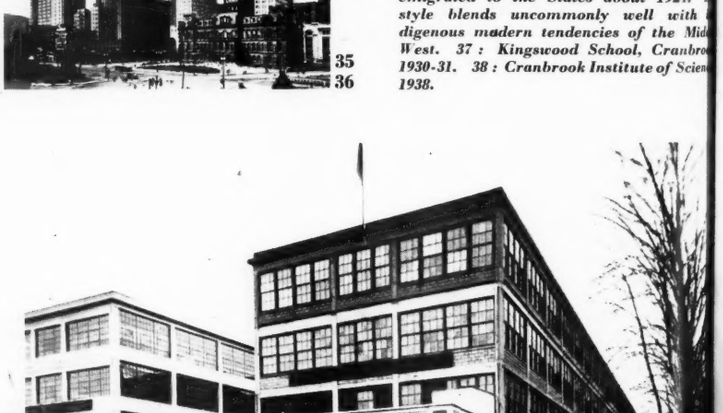
1915-38 **LATE HISTORICISM** *This new wave of historicism originated in the Chicago Fair of 1893. It runs parallel with the Neo-Wren and Neo-Palladian of our late Victorian and Edwardian decades. McKim, Mead & White was the leading firm. Cass Gilbert of Woolworth Building fame found inspiration for his Detroit Public Library of 1916-21, 33, in McKim's Boston library. So here, just as in 32, is the triumphal re-entry of High Renaissance. Smith, Hinchman & Grylls's Jefferson Avenue Church of 1922-25, 34, is of the Goodhue kind of none-too-correct twentieth century Gothic. Our parallel is Sir Giles Gilbert Scott. Where sky-scraper (or tall London office blocks) compromise with these newcomers, the result is—as we all know—vast surfaces of plain, unconsidered wall-and-window alternation and absolutely big, but relatively small, adorned parts—see 36, Downtown, Detroit. Albert Kahn's General Motors Building of 1920, 35, belongs to the Classical-Re-Revival variety of this movement.*

33
34

35
36

ELIEL SAARINEN *The architect of t Helsinki stati emigrated to the States about 1924. style blends uncommonly well with digenous modern tendencies of the Mid West. 37 : Kingswood School, Cranbro 1930-31. 38 : Cranbrook Institute of Scien 1938.*

39



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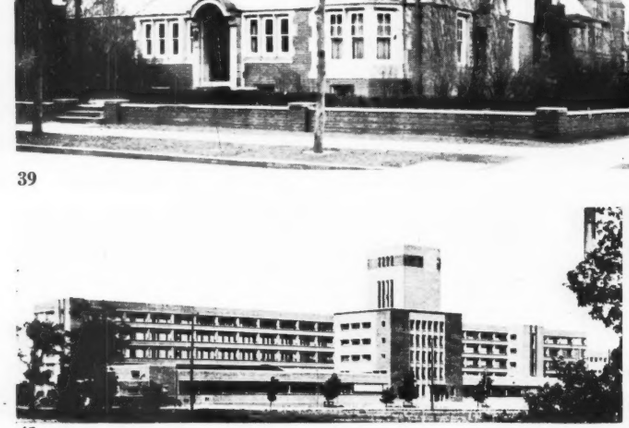

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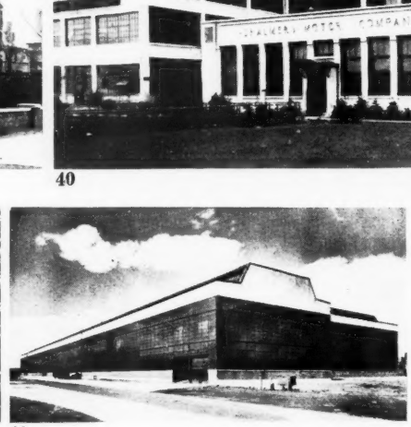


42

ALBERT KAHN *With Kahn Detroit bec a centre of contemp architecture in America. After his Arts and Crafts of 1889, 23, and Ernest Newton-Georgian of his own hous 1906, 39, he, more than anybody, worked f straightforward modern factory styl —see Chalmers Motor Company of 1908. 40. vast office could thus effortlessly adopt Modern Movement, when it came. Borroughs Company, c. 1937. 42 : P Shop, Chrysler Corp., 1936.*

as much consideration as this to the embellishment of their purely utilitarian buildings.

As the need for more floor space was recognized, buildings were made wider and sloping roofs were abandoned for flat ones. The Michigan Stove Company, five storeys in brick, 1872, **13**, presents the combination of a wider unit with Mansard roof, iron cresting, heavy bracketed cornice, and arched windows arranged in groups. This building follows the ideal Detroit site plan, where showroom, work space and warehouse extend for 700 ft. from the main street back to the shipping pier on the river front; raw materials to finished product in one continuous line. Only the street facade has architectural refinement with brick pilaster strips, and a flat brick moulding around the windows which terminates beneath the continuous stone sill course. This building unit was repeated several times in other widely spaced wings. A more compact but less flexible plan was used in the F. K. Stearns Laboratory, 1881, **14**. Here the three-storied brick unit designed for work space forms a continuous strip enclosing a huge rectangular court within which is the power house and warehouse. Note the unsuccessful Victorian effort to break the principal street facade into a series of bays and pavilions. The wooden house at the left in **14**, is a typical lower middle-class dwelling which lined the streets around the factory districts.

Two public buildings, the Detroit City Hall, 1871, **10**, and Harper Hospital, 1877, **11**, present the extremes possible within the limits of developed Victorian style; the one in stone, with more or less classical "Second Empire" dressing, and the other in brick trimmed in stone, with more or less "Gothic Revival" decoration. It may be significant of the desire for stylistic *purity* that both eschew the bracketed details. (Compare these buildings with the houses, **7** and **8**.) Making allowance for the difference in scale, i.e. monumental on the one hand and domestic on the other, the Victorian principles of design are apparent in each. The formula is the same—five major vertical divisions for the facade treatment. What the City Hall achieves in the plasticity of its stone details, the Hospital accomplishes by contrasting materials and a third order of projecting bays between the central and end pavilions. The broken outline and wall planes, studied variety in shapes, and the diffuse impressionistic effect of the buildings as a whole seem to define a single æsthetic attitude.

One finds less difficulty in reading the similarity of basic style in non-traditional types such as the multi-storied "elevator architecture." Compare the Newberry Building, 1879, **17**, with the M. S. Smith Building, 1883, **18**, right, both by Gordon W. Lloyd. The former is composed of a series of cast-iron panels, containing the windows, set into a masonry framework, whereas the latter has an entirely prefabricated cast-iron facade. The Newberry Building seems to have been inhibited by traditional types not only in the reluctance to treat each storey as a separate horizontal division (actually it is designed as one-, two- and three-storey layers), but also in the formula of bay and pavilion division with tower and cupola set on centre of the principal facade. Both buildings are trimmed in variations of the bracketed style; one with French flavouring and the other with an ingenious blending of ornament more or less "Eastlakean." In spite of minor differences, the two designs attain a similar feeling of lightness and openness through the dematerialization of wall surface. (See the Davenport Building of 1887, **30**, for the intermediate stage of the development between the two commercial types shown in **18**, right and left.)

Late Victorian

The economic crisis or panic of 1873 was followed by several lean years for architecture in the United States. When building activity on a large scale was resumed again in the 'eighties a new influence began to be noticeable over the whole country. Perhaps the depression had given people time to question the materialistic realism of the 'seventies. Perhaps the change reflects merely a second generation reaction to the pioneering industrialist's preoccupation with endless mechanical reproduction of things. Perhaps the many disastrous fires had something to do with change in building design. In any case, the supercharged and overloaded surface quality in architecture began to be challenged by a clearly defined post-Victorian movement toward geometrical, almost abstract simplicity, away from the infinite variety of form and shape which had been the Victorian ideal. The æsthetic interest gradually shifted from the facade to the whole block or building mass, perhaps as a result of the plan evolving from a loose cluster of halls, rooms, porches, etc., to more compact and interrelated interior spaces. Surface textures became less broken, less dependent upon the plastic effect of orders, mouldings, and other "artificially" projecting and receding elements; more upon the pattern of natural materials which defined the continuity of surface. However, the cumulative result of the new æsthetic attitude was to place a prime importance upon effects of mass and solidity. The timing of the movement was unfortunate for modern architecture; it came just when new structural means—steel and ferro-concrete—demanded a light and open kind of formal expression, emphasizing thin planes as well as certain solid elements. Thus for fifty years after skeleton construction was generally accepted, American architecture, both eclectic and non-eclectic, with few exceptions has struggled under the handicap of æsthetic principles based only upon the expression of masonry form.

If one can recognize the unity of purpose in the post-Victorian movement, it will seem natural that Queen Anne and Romanesque should be selected to cloak the majority of buildings during the transition from the high Victorian style of the 'seventies. For, while the disguises permitted the continuation of romantic picturesqueness, they also contained essential elements of the new style. Queen Anne offered combinations of natural materials for textural effects: wood in various forms, half-timber and shingles; stucco; leaded glass; tile; and stone. Romanesque suggested the clean geometrical shapes, round arch used either in rhythmical series or as a single monumental form; the square and rectangular shape; the cylinder, cone and pyramidal forms; and the whole vocabulary of masonry surface treatments such as rock-faced stone, brick patterns, etc.

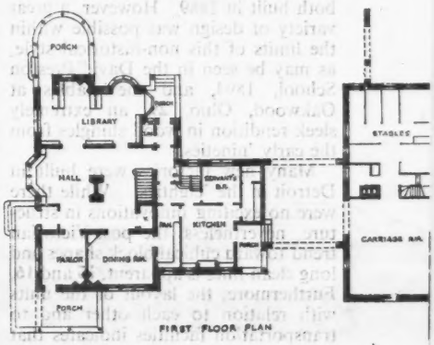
Henry Hobson Richardson was the first American architect to demonstrate the post-Victorian principles completely and to release the style from the rigid limits of eclecticism.* He was hailed by contemporaries as our first national architect, for his works were quite evenly distributed throughout the great centres of the country, with many of his later buildings in the mid-West. His wide influence was evidence of the general acceptance of his principles. Richardson's work was also highly regarded in England, where he had been selected by the R.I.B.A. to receive the Queen's Royal Gold Medal in 1886, the year of his premature death at the age of forty-eight. There is reason to believe that, had he lived a normal span of years, the problem of expressing a metal frame construction might have been solved and generally accepted at an earlier date than it was.

Detroit has two minor examples of Richardson's work: one, a little memorial fountain, **36**, foreground, and the other, the J. J. Bagley Memorial Armoury, 1886. The Armoury, **19**, was built on an inside lot and posed the problem of lighting a deep space. The solution was to use very light framing members for glass within three large and very wide brick arches. The fussiness of the upper portion, especially the angular stone course, is not typical of Richardson's best work. This and certain changes from the early sketches indicate that others may have had a hand in finishing the design.

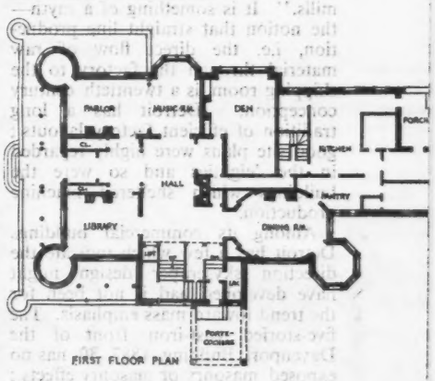
A most important fact, never fully appreciated in America, because post-Victorian style has been confused with Romanesque Revival, was that the 'eighties were apparently quite ready to accept an architecture based upon new tenets, and with as few traditional rules as possible. Either to blame or to credit Richardson with everything that was done in this direction is to overlook the breadth and depth of the current he led. Detroit has many eloquent examples of transitional and full blown post-Victorian buildings. Three houses built about the same time (*c.* 1888-90) along the same street are representative of the trend. Except for a few characteristics, the Frank J. Hecker House, **20**, by Scott, Kamper and Scott, is nearest to the style of the 'seventies. The plan (see above) is based upon the square, hipped roof block from which cylindrical and octagonal corner towers and wings project. The intervening spaces on the first floor are filled with various porches and the orientation toward the street is emphasized by the encircling terrace. Only the smooth, light-coloured limestone walls and the clean geometrical shape of the towers indicate later influence, a premonition of the coming Classical trend. Louis Kamper, the designer of the Hecker House, had just come to Detroit from the New York office of the country's leading Classicists: McKim, Mead and White.

The Gilbert Lee House, 1888, **21**, is the work of Albert Kahn, done while he was employed by the firm of Mason & Rice. Here is a good example of the Richardsonian brick and brownstone type very common in Detroit. Its features are: an asymmetrical plan; freely composed central massing; and crisp, rectangular openings grouped in banks or arranged in horizontal series. In the best work, as here, the tower or principal bay and the dormers are nicely subordinated to the larger pyramidal mass. A mantelpiece from the Lee House, **23**, in tile trimmed with mouldings of painted wood, gives one a notion of the sensitive control of abstract line, proportion, texture and pattern which was characteristic of the best interior detail in the late eighties.

The Charles L. Freer House, 1890, **22**, best of the three, was designed by Wilson Eyre, of Philadelphia, for the founder of the famous Freer Art Collection. Neither Queen Anne nor Suburban Richardsonian is an adequate name for this type of



Hecker House



Freer House

house which, inside and out, defined the post-Victorian attitude so thoroughly and influenced domestic architecture so markedly. The Freer House is but one rather early version of the massive, rectangular cubical block type which became traditional throughout the Middle-Western states until the early 'twenties. The plan (see above) with its large open hall and numerous porches offered a remarkably flexible matrix for interior planning. A new attitude toward space is apparent, particularly in the relationship of the principal rooms which face the garden either at side or back. Forced axial symmetry is lost sight of in the concern for living amenities. The character of the interior is established by: large open fireplaces; inglenooks with settees; easy stairs, low ceilings and a generous use of natural woodwork not only in panelling but in the many cases and built-in pieces of furniture throughout

* For a detailed discussion of Richardson's rôle in modern architecture see *The Art Quarterly*, Vol. III, No. 3, Summer 1940, pp. 273-291.

the house. Much of this is obviously due to the influence of William Morris, especially details of hardware and woodwork, **24**, **25** and **26**. The exterior of this domestic type has a dominant horizontality induced by the hipped roof which permits the widespread eaves to "hover" (Giedion) over the whole block; by the use of continuous belt or sill courses; and frequently with natural horizontal pattern of contrasting materials for upper and lower storeys. In the words of a contemporary architect, "the style leaves an idea of substantiality; no lie can be discerned in the material used or in the manner of using it." Post-Victorians integrated the elements which Victorians had differentiated.

The domestic character noted in the examples above was frequently carried over in larger buildings sometimes, with the loss of appropriate scale, producing a strange elephantine appearance as in the Business University, **27**, and the Mettawas Casino, **28**, both built in 1889. However, a great variety of design was possible within the limits of this non-historical style, as may be seen in the David Preston School, 1894, and the stables at Oakwood, Ohio, **29**, an extremely sleek rendition in wood shingles from the early 'nineties.

Many new factories were built in Detroit in the 'eighties. While there were no exciting innovations in structure, nevertheless, the post-Victorian trend toward cubical block shapes and long clean lines is apparent, **15** and **16**. Furthermore, the layout of the units with relation to each other and to transportation facilities indicates that they were more than "cumbersome mills." It is something of a myth—the notion that straight line production, i.e. the direct flow of raw material through the factory to the shipping room, is a twentieth century conception. Detroit has a long tradition of efficient factory layouts; good site plans were highly regarded in the 'eighties and so were the buildings which sheltered machine production.

Among its commercial buildings Detroit has a few which indicate the direction skyscraper design might have developed had it not been for the trend toward mass emphasis. The five-storied cast-iron front of the Davenport Building, 1887, **30**, has no exposed masonry or masonry effects; it is all glass, thin wood frames and metal supports. Cast-iron columns cover the ends of masonry party walls and support the lintels which are built up of two channel sections bolted together, hiding the floor construction. Lighter iron columns provide intermediate supports at alternate mullions (first four storeys) and moulded iron sills and cornice complete the facade. This design seems to have been early enough to preserve the Victorian tradition of broken surface, and late enough to reflect the new post-Victorian simplicity and directness. (Compare with the cast-iron neighbour from the 'seventies adjoining it on the right, and with **18**, right.) Quite the opposite result is obtained in the T. W. Palmer Block, 1894, **31**. Here the solid brick construction seems more than ample, but the total design, if somewhat later than similar buildings in Chicago (Monadnock Block), is a good expression of the masonry cage with the refinements of post-Victorian style. Two facts are noteworthy: first, there is no trace of eclecticism and, second, the simplicity and the sleek streamlined quality are far from being the automatic results of stark functionalism. Such details as the delicately corbelled cornice, the moulded brick of piers and arches, and the careful articulation of the whole block are not to be explained by "naïve materialism."

post-Victorian

The post-Victorian style has taken two distinct directions—directions already noticeable since the early 'nineties: one continued the series of nineteenth century eclectic adaptations, and the other, less conspicuous but unencumbered by compromises, carried forward the free style. The eclectic school, led by such highly regarded eastern architects as McKim, Mead and White (Classical wing) and Cram, Goodhue and Ferguson (Medieval wing), produced the majority of our monumental buildings, both public and private. With few exceptions, the work of this group was ponderous and unimaginative. It has been called the architecture of *Imperial* Democracy. Seeking to purify vulgar Victorian, they attained an academic sterility. Modern materials and structural means were never revealed, and in general the planning of interior space suffered because of forced axial symmetry and other concessions to "facadism."

Detroit's first steel skeleton skyscraper, the Union Trust Building, *c.* 1900, **32**, by Donaldson & Meier, combines two conflicting influences. The heavy Italian Renaissance masonry shell which is hung on the steel frame of the lower storeys and the side wings follows rather closely McKim, Mead and White's New York Life Insurance Building of 1890, in Kansas City, Missouri. However, the central section above the second storey is distinctly "Chicago" school, resembling the famous Tacoma Building with its facade of rippling glass wall and bays. The Detroit Public Library, 1916-21, **33**, by Cass Gilbert, seems to be a variation of the theme established some thirty years earlier by the McKim firm's Boston Public Library. The two major additions, namely, projecting end pavilions and the recessed central arcade, have not improved the plan nor the interior lighting. A better example of the use of Classical trim may be seen in Albert Kahn's General Motors Building, 1920, **35**, where the clean-cut blockiness and the requirements of plan are less effected by the Ionic arcade which skirts the ground floor and the Corinthian colonnade which crowns the top.

The Jefferson Avenue Presbyterian Church in Detroit, 1922, **34**, by Smith, Hinchman & Grylls, is typical of the post-Victorian eclecticism in religious buildings influenced by Ralph Adams Cram and the more progressive Bertram G. Goodhue. This medieval wing of the eclectics is responsible for a rather complete vocabulary of Neo-Gothic masonry motifs which were immensely popular for trimming many kinds of buildings during the 'twenties; chamfered copings; low angled, gabled entrances and other openings with exaggerated deep reveals; and massive setback pylons abutting almost anything on the building. The Woolworth Building in New York, 1910-13, opened the way for the use of Gothic detail and vertical emphasis on the skyscraper. Its 792 feet of height carried no Classical cornice. In time, even the identity of Gothic trim for skyscrapers was lost in favour of a kind of Neo-Gothic cubism. Most of Detroit's tall buildings were built in the 'twenties and, however modern and successful they may be in plan, they still depend upon the masonry visual effects, emphasizing the play of mass form rather than the composition of thin planes and hollow volume inherent in the structure, **36**.

Because of the hegemony of Beaux Arts trained architects who practised eclecticism almost exclusively, the free post-Victorian style flourished only in building types which appealed least to this group of designers, namely, domestic, educational and industrial. Domestic architecture around 1900 reflects the stabilizing influence of the strong Arts and Crafts Movement in America. It is significant that by 1906 there were more than thirty societies established in the leading cities, from Boston (1897) to San Francisco (1904). In spite of the miscarriage of the movement's principal objectives which depended upon social and economic reforms, many of these societies attempted to remedy the shortcomings of Morris's artistic theories. Detroit still has its Arts and Crafts Society, organized in 1906. The same year, under the influence of advanced Arts and Crafts theories, Albert Kahn built the brick and stucco residence for his own family, **39**. Except for the gabled dormers, the Kahn House might be considered as an archetype, representative of the free style of hundreds of Detroit residences built between 1900 and 1920, some larger, some smaller, some with porches on the front or at the sides.

Growing directly out of the Arts and Crafts Movement, the Cranbrook Academy of Art, near Detroit, has become an increasingly significant school for the study of architecture and town design under the direction of Eliel Saarinen, the famous Finnish architect, who came to live in America in the middle 'twenties. Since 1927, Mr. Saarinen has carried on a continuous building programme for the Cranbrook Foundation. He has designed and built a score or more of distinguished buildings in related groupings, using a light-coloured brick and stone as his principal materials. The work is most interesting for in it one sees the blending of European arts and crafts with Mid-Western American traditions. The two are not far apart. There is also a sufficient number of buildings for one to see the gradual evolution of the non-eclectic style. Compare the informal and domestic Kingswood School, Cranbrook, 1930-31, **37**, with the less picturesque and later Cranbrook Institute of Science, 1938, **38**.

It was not an accident that Detroit became the automotive centre of the country. As a Victorian industrial city it had developed the essential supply of raw materials, skilled labour, and an emphasis on just the right combination of special industries: carriages and wheels, gasoline marine motors, hardware, machine and tool works, foundries and rolling mills. Likewise, it was not an accident that Albert Kahn, concentrating on factory design in the early 1900's, should develop a mature industrial architecture, using new materials—reinforced concrete, steel and glass. Such a fruition might be expected considering his early work, and the tremendous volume of non-eclectic buildings his firm designed since 1906.

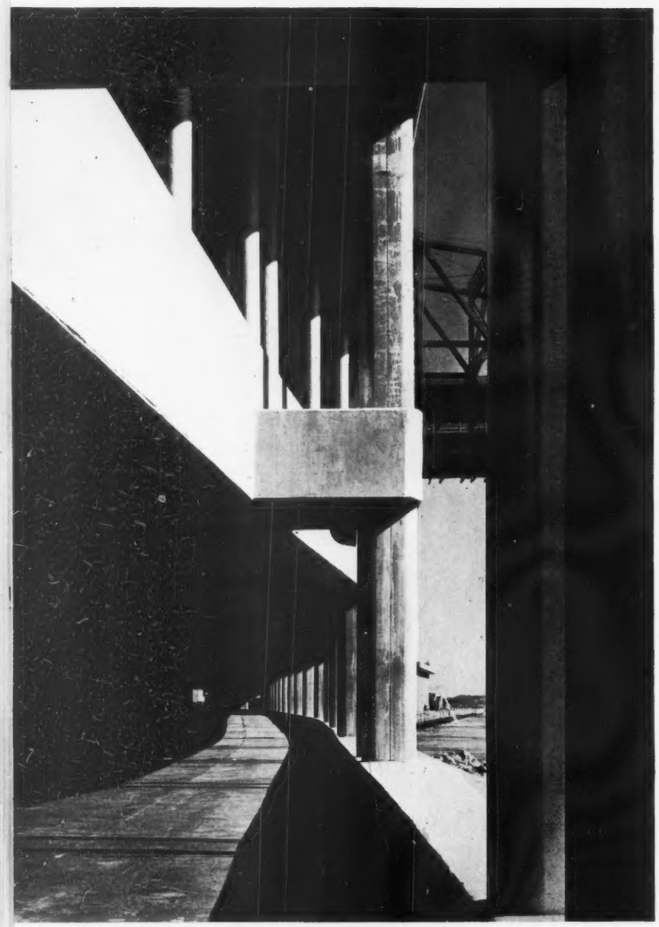
Americans never fully appreciated the contributions to modern architecture of either Frank Lloyd Wright or Albert Kahn until certain æsthetic implications in their work were recognized in Europe. Even then we see a tendency to isolate each of these architects from their post-Victorian backgrounds. Wright's zealous convictions kept him free from the distractions which are inherent in the eclectic approach, whereas Kahn chose to specialize in a type of building where the machine æsthetic was accepted as natural, and where the interest in technique and economics of architecture left but little time for superficial styling. In those commissions, where more time was available, the work of Kahn's firm was less original and far less significant.

The mushroom appearance of automobile workshops in Detroit dramatized industrial building, for it was speed, the speed of construction more than any single factor, which led to the adoption of a system of reinforced concrete in the early 1900's; forty days' working time on a three-storied building 90 by 300 ft! There were, of course, many other advantages of the new construction: low cost, cheaper maintenance, fireproofness, and the resultant light, open and flexible working space. Furthermore, the hollow tile and concrete first floors permitted greater spans than were possible in solid construction. The four-storied units for the Chalmers Motor Company, 1908, **40**, are typical of the first reinforced concrete factories designed by the Kahn firm. The openings in the light monolithic structural skeleton are filled in with continuous wood sash set on a sill of hollow tile blocks. Except for this infilling, the elevation looks much like a cross section, showing columns, girders, floor and roof slab (which projects slightly at top to form a cornice). The original three building units were widely spaced, allowing room for a fourth wing, left, to be inserted at a later date. (Note that this newer wing uses light steel sash, an innovation suggested by English precedent.) It is noteworthy that these simple structures, like those of the 'eighties, were not considered too severe or too plain. Instead, they were treated as an imposing architectural group, set well back from the street and surrounded by spacious well-kept lawns and landscape.

No attempt will be made here to discuss the many and varied new forms which have been developed with the factory, **41** and **42**. The future of Detroit architecture, like that of so many other Victorian cities, depends upon post-war changes in the basic arrangements of living, working and recreational areas. There are hopeful indications seen in recent housing layouts (such as that of the Brightmoor Estate, 1941) and in projected university buildings (such as S. Pilafian's design for the Wayne University Students' Centre) that other types of buildings may, after the war, be as progressive as Detroit's factories have been in the past forty years.

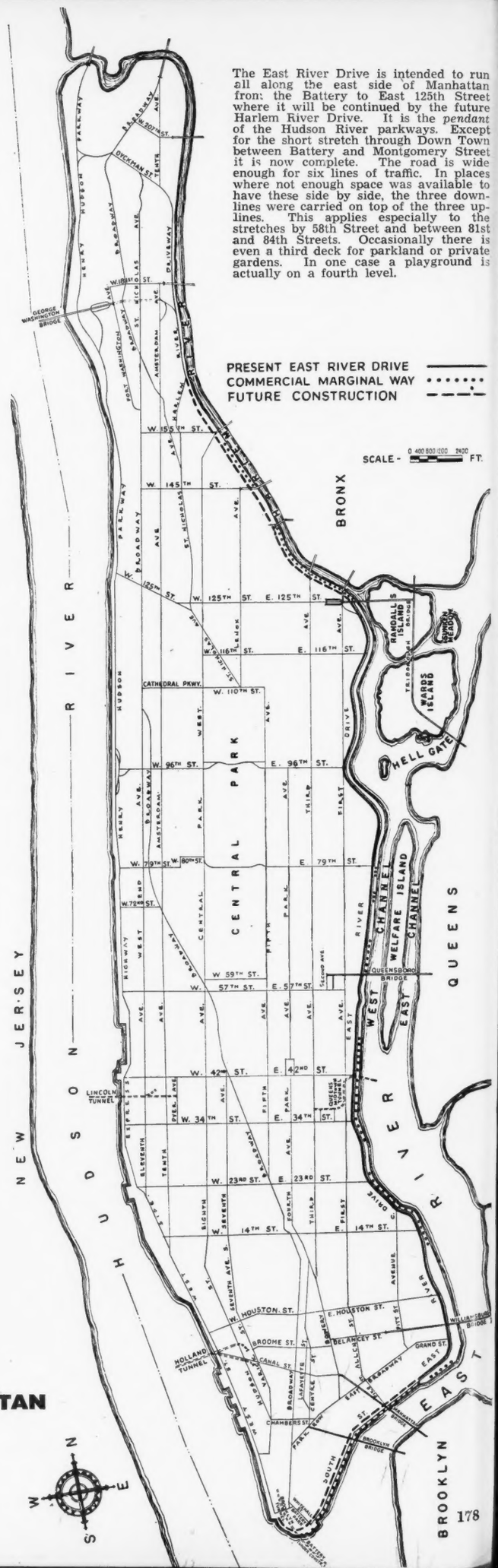
EAST RIVER DRIVE, NEW YORK

2



3

The East River Drive is intended to run all along the east side of Manhattan from the Battery to East 125th Street where it will be continued by the future Harlem River Drive. It is the *pendant* of the Hudson River parkways. Except for the short stretch through Down Town between Battery and Montgomery Street it is now complete. The road is wide enough for six lines of traffic. In places where not enough space was available to have these side by side, the three down-lines were carried on top of the three up-lines. This applies especially to the stretches by 58th Street and between 81st and 84th Streets. Occasionally there is even a third deck for parkland or private gardens. In one case a playground is actually on a fourth level.



DEPARTMENT OF BOROUGH WORKS, MANHATTAN

Commissioner: Walter D. Binger
Chief Engineer: Lester C. Hammond
Design Engineer: J. C. Collyer

The early settlers of Manhattan possessed in the Hudson and East Rivers—the two streams which surround this cigar-shaped island—their principal longitudinal highways. They therefore laid out Manhattan with one cross street for each 200 feet of its entire length to relatively few, though somewhat wider, longitudinal avenues.

With the coming of traffic, this street system has been a handicap in that the avenues have been seriously overcrowded. The East River Drive was built for the purpose of taking passenger vehicles, which were making a run of a mile or more, off the adjacent avenues. The Borough already possessed a similar improvement along the west side for the entire length of the island. The East River Drive has been completed up to the Triborough Bridge at 125th Street, whence it will connect with its extension known as the Harlem River Drive, which will take traffic up to the northern tip of the island. This section is now under design and will be built as the first post-war highway project in the Borough.

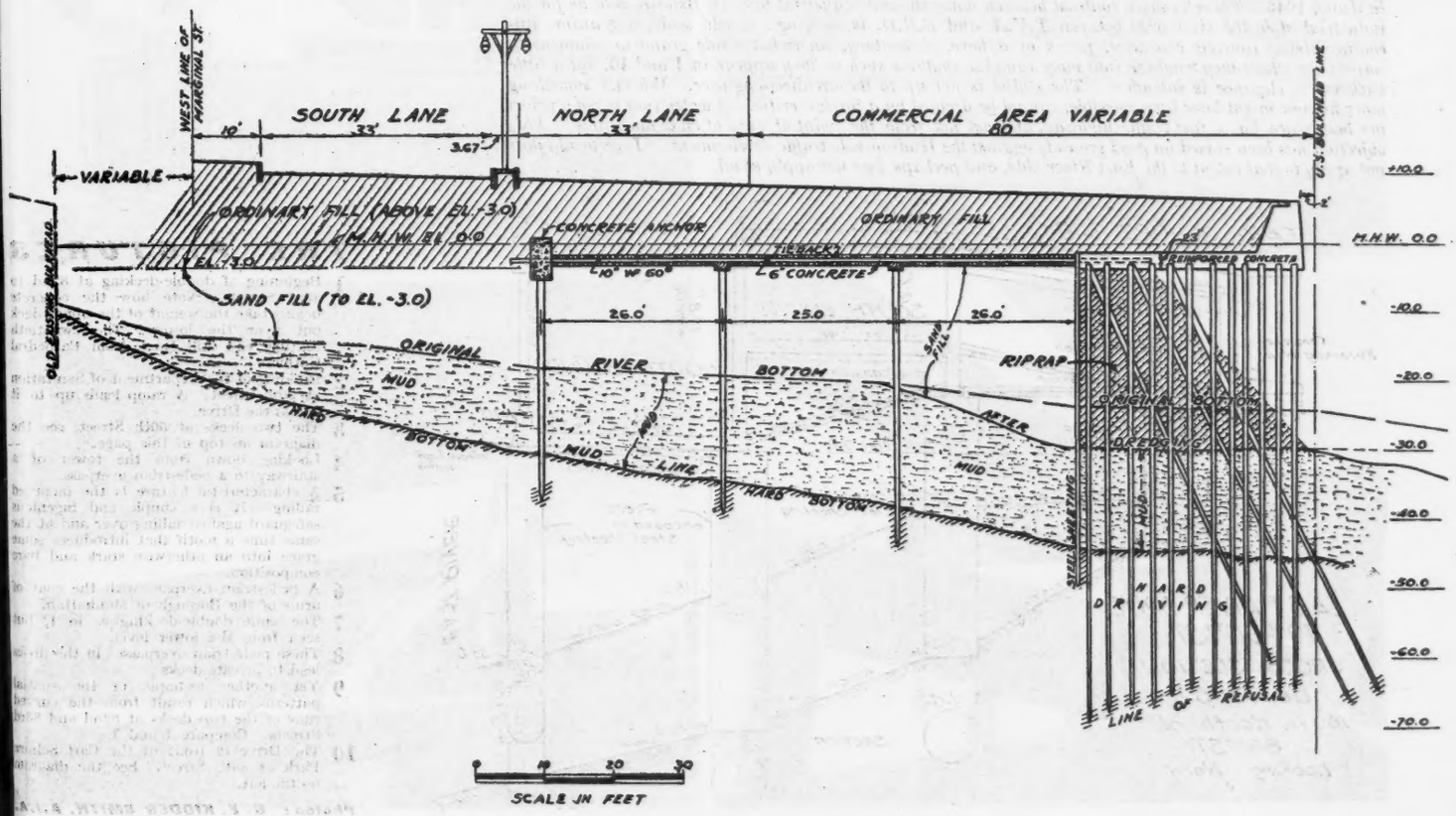
The East River Drive is a seven-and-a-half-mile vehicular express highway restricted to passenger cars. It is intermittently flanked by a commercial marginal way. Where sufficient room existed between the established building line and the line of maximum encroachment into the river, known as the United States Bulkhead Line, the north and southbound lanes, each thirty-three feet wide and separated by a continuous planted strip, are placed on the same level side by side. This part of the Drive consists of a relieving platform on piles (see the diagram below). The principal elements of the relieving platform are a horizontal slab supported directly on the piles and a vertical cantilever river-wall which forms an L with it and rests upon it. Along the landward edge of the horizontal platform is a continuous row of interlocking steel sheet piling. The lagoons formed behind this steel sheeting are filled with sand pumped from ships which dredge it from the ocean bottom. This fill is carried to the high water mark. Above it, ordinary earth fill is placed from the land side. To counteract the unbalanced thrust created by the fill against the sheet piling, batter piles are driven which make a semi-rigid structure of the relieving platform. In addition to this, a continuous rock fill is dropped among the piles before the platform is in place. Ties consisting of structural steel members encased in concrete and anchored in the original soil of the island occur at unequal intervals according to the extent of the fill.

The East River Drive is different from most others in that there are two stretches, respectively about a quarter and a half-mile long, the construction of which is conditioned by the fact that there is insufficient room between the established bulkhead line and the property line, marked by large and valuable buildings, to place all traffic lanes at one elevation. For these stretches a structure built out into the deep water which occurred there carries the three northbound lanes of traffic at the lower level, the three southbound lanes at the next level, pedestrian esplanades on the third level and in one case a playground on a fourth level (see the diagrams on the next page).

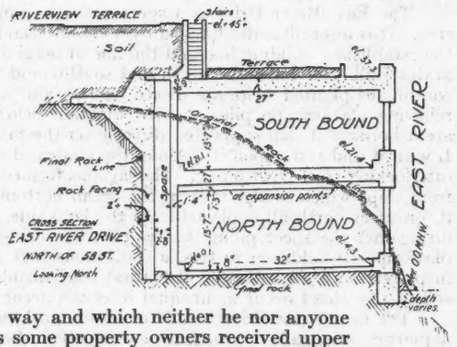
The method of construction consisted of circular open caissons made with interlocking steel sheet piling driven to rock. Soil and boulders were then excavated with clam shell buckets while the rock at the bottom was carefully levelled into horizontal planes by divers. The caissons were then filled with concrete placed through tremie pipes. The inshore side consisted generally of a continuous wall, and the inner and outer supporting members were connected by clear span of 30-inch reinforced concrete flat slab. The result is a box, with closed top, bottom and side, but continuously open along the river where intermediate supports are pairs of steel H-beams encased in oval aluminium shells. The effect thus gained is one of a continuous dark strip between bright concrete fascia girders. The undesirable cellular effect that would have resulted if broad concrete columns had been used, is avoided.

The residents whose properties flanked this Drive can neither see, hear nor smell the motor vehicles. The electric traffic counters indicated that before the petrol rationing, which has cut down motor travel to a small fraction of its pre-war volume, they had quickly reached a rate of about ten million vehicles per annum although the Drive does not go down to the Battery yet.

It was realized by those in charge of this project that they were presented with the opportunity to save the East River shore from its heterogeneous development which had placed coal pockets and high-class blocks of flats in close juxtaposition. Therefore, continuous and intricate negotiations were carried on between the City and the upland property owners. The result is that the waterfront has been

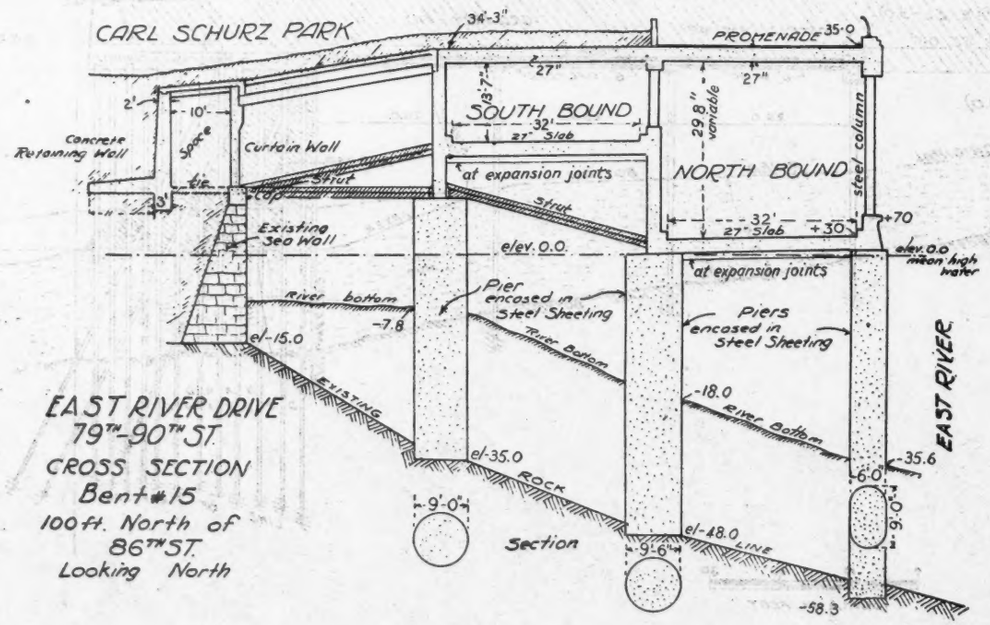


rigorously allocated either to residential uses or unrestricted industrial uses. Furthermore, the City urged the property owners to negotiate the conditions under which they would sell their *riparian rights, land under water, lack of access to a street* and, in some cases, *loss of light and air*, in lieu of the City's obtaining them in condemnation through eminent domain. The City proposed the following theory. If the property owner agreed to limit his claims for consequential damages to $1.00, the City would try to liquidate his direct claims, as listed above, which were subject to negotiation, by building for him at the City's cost something that would improve his property in a distinctive way and which neither he nor anyone else could ever again secure. As a result of this some property owners received upper decks (where they were not needed for public park purposes) on which they could have "hanging gardens" and which would protect them from sight and sound of the traffic. It gave to abattoirs means by which animals could be led to the slaughter houses from the barges by which they had always been delivered. These were private tunnels which connected the marginal way at the river-front with the private property and passed directly under the entire Drive. It gave to the public utilities means for bringing in feed water, coal, oil and ashes under and over the Drive. It gave some blocks of flats which had possessed piers for yachts private pedestrian overpasses to the waterfront.



As a result of these agreements the City saved huge sums of money which would have been paid in consequential damages; and the upland owners, on their part, owned properties at least as valuable as they were before the Drive was built. In those few cases where the City was unable to offer anything useful to the property owner, or where the owner desired money rather than improvements, the entire matter was tried before a Condemnation Court; while even the cases where the settlements had been made out of court were reviewed and in every case approved by the court. All of this part of the work took place during the period in which the East River Drive was being designed and was an interesting piece of co-operation between engineers, architects, lawyers and real estate experts representing property owners and the City of New York.

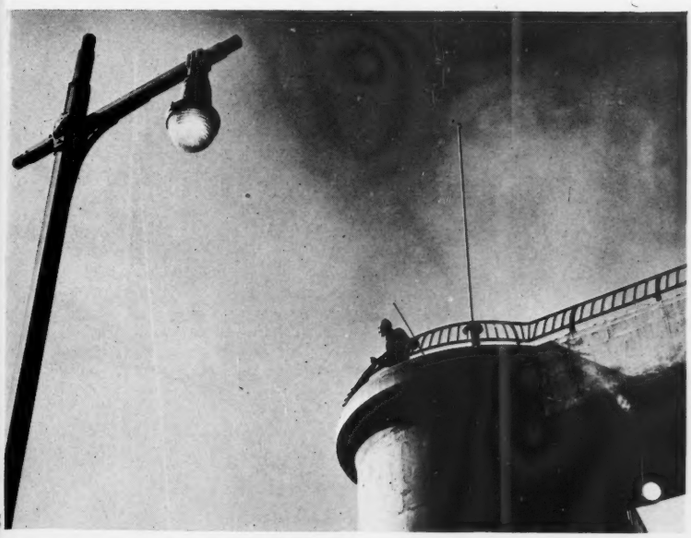
These notes were written for THE ARCHITECTURAL REVIEW *by Walter D. Binger, the Commissioner of Borough Works of the Borough of Manhattan. They emphasize the engineering and the economic problems, but say nothing of the æsthetic aspects of the architecture. Yet looked at from over here they are very interesting too. There is no question but that a specifically American idiom is developing. It appeared clearly in the housing estates illustrated last August and in the T.V.A. structures illustrated in June, 1943. There is more contrast between domestic and industrial than in Britain, and as for the industrial style the similarity between T.V.A. and E.R.D. is striking: a bold scale, a genuine, uncompromising concrete character, forms of a bare, elementary, somewhat crude grandeur, immensely impressive where they combine into more complex rhythms such as they appear in* **1** *and* **10**, *but a little slick where elegance is intended. The stylist is not up to the architect-engineer. Whether something more human might have been possible, cannot be decided by a foreign critic. A waterfront is not* a priori *the best place for a fast-traffic highway, at least not from the point of view of civic amenities. This objection has been raised on good grounds against the Hudson side traffic development. It certainly does not apply to that extent to the East River side, and perhaps does not apply at all.*



THE PICTURES

1 Beginning of double-decking at 82nd to 83rd Streets. Note how the concrete beams take the weight of the upper deck out over the lower. The twentieth century can still learn from Cathedral Gothic.
2 Building of the Department of Sanitation at 90th Street. A ramp leads up to it across the Drive.
3 The two decks at 50th Street, see the diagram on top of this page.
4 Looking down from the tower of a stairway to a pedestrian overpass.
5 A characteristic feature is the incurved railing. It is a simple and ingenious safeguard against falling over and at the same time a motif that introduces some grace into an otherwise stark and bare composition.
6 A pedestrian overpass with the coat of arms of the Borough of Manhattan.
7 The same double-decking as in **1**, but seen from the lower level.
8 These pedestrian overpasses in the fifties lead to private decks.
9 Yet another example of the spatial patterns which result from the curved runs of the two decks at 82nd and 83rd Streets. Compare **1** and **7**.
10 The Drive in front of the Carl Schurz Park at 88th Street. See the diagram on the left.

Photos: G. E. KIDDER SMITH, A.I.A.



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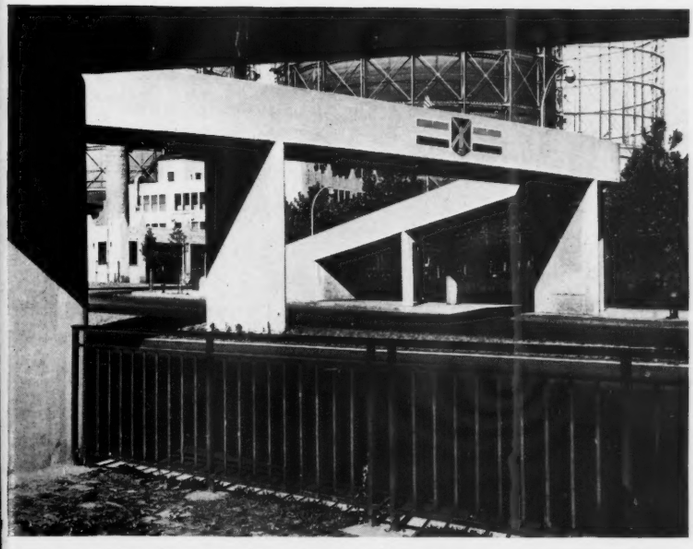
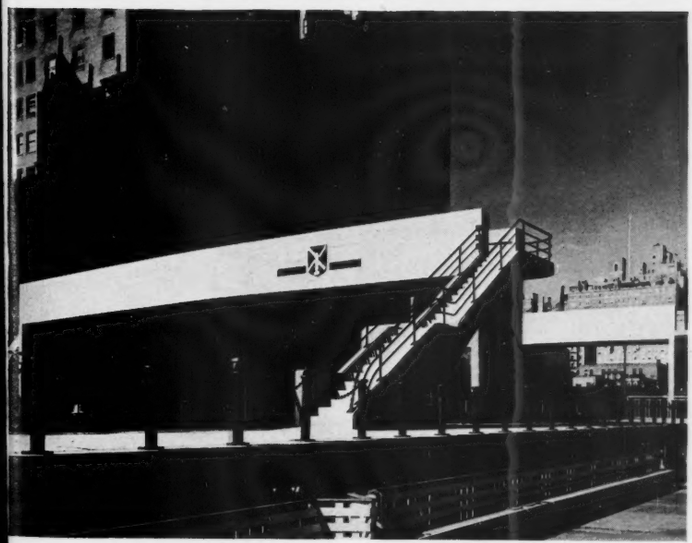
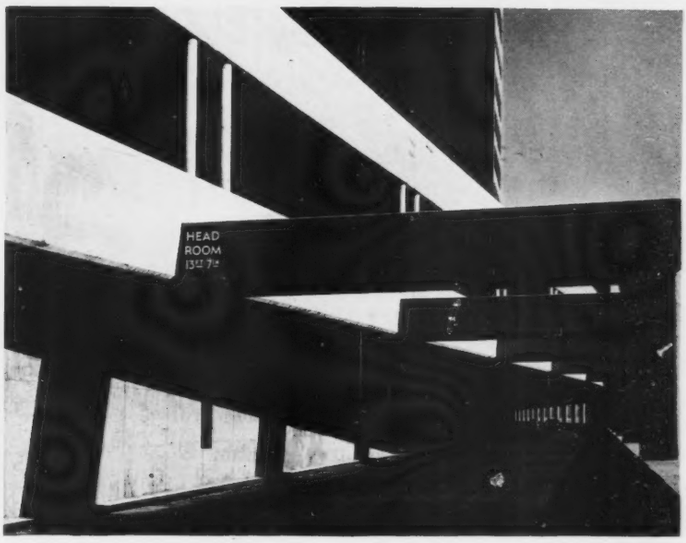
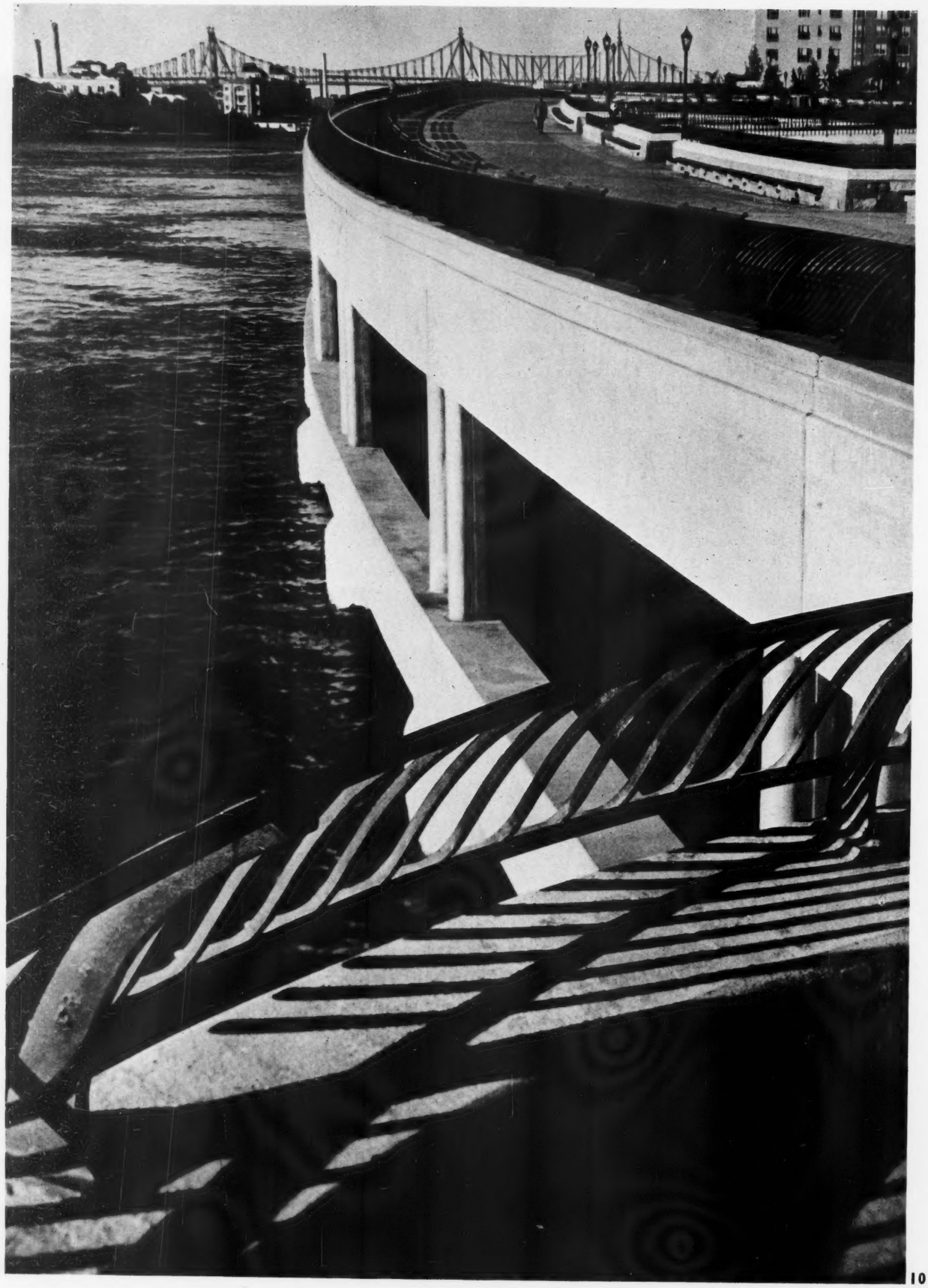








10

DESIGN REVIEW

for a discussion of new designs, new materials and new processes, and as a reminder of the specific visual qualities of our age which war necessities are bringing out in their purest form, and which a more carefree and fanciful post-war world should not forget.

EDUCATION OF THE DESIGNER

THE approach of peace, bringing no endless olives or other images of ease, but rather desperate calls to work and reconstruction, revision and expansion, has once more focused attention on the weakest unit in our national productive system. To parody the old song, we have got the machines, we have got the men and, in spite of certain economic obscurantists, we have got the money too. We have, in short, got the capacity for immense industrial expansion (whether in home markets or for export), but the release of all this capacity depends on certain intangible factors, of which one is finance, and another, equally important, design. Financial gangsterism is, we hope, to be subject to international control, for the alternative is another and still more devastating world war. In the happier event, the bias of competition will become wholly qualitative, and products will sell, in the home market or abroad, by virtue of either their efficiency or their visual appeal.

We may leave efficiency to the technologists and engineers, but what of this other intangible factor which in one word we call *design?* There is an almost panic realization that we are ill-equipped for qualitative competition, and the last few months have produced several desperate appeals for action on the part of the State or of Industry. The purpose of this article is to summarize the position and to reduce the various proposals that have been made to their essentials.

The need is briefly defined. There is no branch of industry, from the production of the simple essentials of daily economy to the building of complex units like cities and ships, which does not involve giving the product a shape. This shape is to some extent determined by its function, the process of its manufacture, the material from which it is manufactured, and its marketable price, but the very necessity of combining these elements, let alone the desirability of giving them an over-all unity, should imply the intervention of a designer. That necessity should be evident whatever the scale or complexity of the object to be made: a designer is just as essential for a biscuit-tin as for a battle-ship, and indeed rather more essential, for while battle-ships will be judged by their performance, biscuits will depend for their effective distribution on the visual appeal of their packs.

All this has been said with wearisome iteration in the past by art critics and educators, by idealists and by a few economists. But now even a body like the Federation of British Industries, "being impressed with the need to bring the design of British manufactures up to the highest possible pitch of excellence in order to meet the increased international competition which may be expected after the war, and to secure the greatest possible increase of British exports, has had under consideration proposals . . . to encourage the raising of the standard of industrial design in this country." We might wish that the conversion of this influential body had been brought about by more disinterested motives (by a love of beauty for its own sake, shall we say?), but we shall examine their proposals on their general merits. From an educational source comes a Report by a joint committee of the Association of Technical Institutions and the Association of Principals of Technical Institutions.* The designers themselves have issued a Memorandum on "The Training of Designers for Industry," which puts forward specific proposals for reform.† For some time past the Dartington Hall Trustees have been sponsoring an Arts Enquiry which will cover the same ground, but their report is not yet available. Among individual contributions to the discussion, we have a "Plan for a School of Technological Design," by Norbert Dutton.‡

We may take, as an effective point of departure for our review of these various proposals, Norbert Dutton's statement that "modern technology imposes the need for a scientific approach to design training. For such an approach the art schools, perpetuating an obsolete tradition in design, have neither the facilities nor the vision." The S.I.A. Memorandum is not so forthright, but it is strongly critical of the existing system. "We are aware that in a number of schools good work is being done despite considerable difficulties, but we suggest that the training in design provided by the art school system as a whole is inadequate in its provision and standard, and that no single art school provides a curriculum which could be taken as a national model." Putting these two statements together, we have an indictment of the existing educational system which says that it is inadequate because it perpetuates an obsolete tradition.

The existing facilities for the education of designers are complicated to the degree of obscurity—there are Technical Colleges and Polytechnics, Junior Technical and Commercial Schools, Junior Art Departments and Art Schools and, at the top, anomalous institutions like the Slade School, the Royal Academy School and the Royal College of Art. Only an official of the Ministry of Education can be expected to define the functions and interrelations of these various institutions, and even he will confess that he cannot discover any logic in it. In fact, the system has grown up without logic, in response to local and sporadic needs, and with a complete absence of any understanding of the basic principles involved.

We begin with the muddle between liberal and vocational education, which permeates the whole educational system in this country, and which the new Education Act seems designed to perpetuate. The confusion becomes particularly clear in relation to our particular subject—design. The notion that you can take a pupil who has had a miscellaneous education up to the age of twelve or fourteen, and then begin to turn him into a designer by means of a more or less intensive course of vocational training is completely false. The miscellaneous (multilateral is the word used) education to which that pupil has been submitted before he reaches the age of twelve or fourteen will probably have destroyed that basic æsthetic sensibility without which a vocational training in design is a mere waste of time. The education of an artist begins at birth: it is the education or rather preservation of virgin sensibilities, and these sensibilities are so important in all walks of life (not least in the moral walks) that a few exceptionally perceptive philosophers such as Plato, Schiller and Bernard Shaw have maintained that æsthetic education is the only kind of education that really matters. As Shaw puts it in his most recent book: "The education that sticks after school is æsthetic education. Such terms as scientific education and secular education are thoughtless nonsense: science transcends all pigeon-holes; and secular education means teaching with a cane instead of a creed. The classification proper for statesmen is into æsthetic and technical education."

Granted a basic æsthetic education, a pupil can be made anything of: a good engineer or a good clergyman, as well as a good designer. If the stock is good, any variety of vocation can be grafted on to it, by an operation that is painless and unobserved. A logical system of education would not impose vocational training at any arbitrary age: vocation would grow out of natural aptitude, and it is our duty to devise a system which allows such aptitude to emerge as naturally as a stem from the growing plant.

The present educational system not being æsthetic, only a minority who have managed by luck or illness to escape its deadening influences show any natural desire to become artists or designers (admittedly, many have the desire but not the aptitude: they are suffering from an illusion). This minority (except for a few individuals who break away and strike a lonely course) can at present pursue vocational courses, none of which has any relevance to the immediate needs of industry. They can, it is true, become architects, and architects have their place in industry. In the existing situation industrial designers have largely been drawn from the ranks of the trained architects, but no one would maintain that an architect's training is wholly adequate for the industrial designer. Apart from architecture, the potential industrial designer can only be trained as an artist which, if the word conveyed its right meaning, would be perfect. But in fact this means that our pupil can attend a school or college of art which might fit him to become a painter or sculptor, or, alternatively, a "commercial" artist, which term might include poster-artist, fashion designer, book illustrator or artist-potter. Never, under any conceivable circumstances, could the product of these schools immediately take his place in industry as the designer of a motor-car, a machine-tool or even a domestic utensil.

There are, of course, the technical colleges and polytechnics, and some of these run, like a trailer, a course in art. The degree to which this course is integrated with technical education may vary a little from one technical institution to another, but as the directors and principals of these institutions admit in their report, the link is not vital. Art is an "extra," and it often implies no more than a superficial acquaintance with the historical conventions of "ornament" and "decoration."

With this picture of the general situation in mind, let us now review the various proposals for reform. The F.B.I. suggests the establishment of a Central Design Council whose functions would be to organize exhibitions, supervise government purchases, give scholarships and prizes, and generally carry on a propaganda activity. Apart from the fact that these functions are already, however inadequately, performed by bodies like the Department of Overseas Trade, the British Council, the Victoria and Albert Museum, the Fine Arts Commission, etc., they merely touch the surface of the problem. They exhibit the typical reactions of the tradesman, who cannot conceive of any remedy except better salesmanship. Unless the F.B.I. is prepared to support a radical reconstruction of the educational system as it affects design, it will have no objects worth exhibiting and, eventually, no industries to federate.

The Joint Committee of Technical Institutions

* Obtainable from Dr. H. Schofield, M.B.E., Loughborough College, Loughborough, price 1s.

† Society of Industrial Artists, Offices of the Central Institute of Art and Design, National Gallery, London, W.C.1.

‡ Obtainable from the author at 12, Bedford Square, London, W.C.1, price 1s. 6d.

and Principals of Technical Institutions, in its proposals covers the same ground as the F.B.I. —" the development of a cultural appreciation of art " and " acting in an advisory capacity to the community as a whole in matters relating to art "—and proposes in addition " to provide suitable courses of instruction for the practising artist and those who have entered or who are about to enter upon industrial and commercial careers which require some knowledge of the principles and practice of art." Its proposals might be described as " auxiliary " : they do not drastically affect the present educational organization, and they show no appreciation of the basic position of æsthetic design in future industrial development.

The S.I.A.'s committee " do not suggest any need for a radical alteration in the present organization of the art school system, though," they go on, " we believe certain modifications and improvements, especially to the curricula of schools and colleges, to be desirable. We envisage the continuance of local art schools, and an extension of the regional college system to provide advanced training for specific industries. . . . The only considerable modification we suggest in the present system is that there should be one central college to train consultant designers. This would differ from the regional colleges in that the training would be longer and cover a variety of industries. The central and regional colleges would be equal in status ; but the former should be able to provide one-year post-graduate courses for specialist designers trained in regional colleges who wished to extend their experience to related industries. . . . Our principal contention is that the present curricula in art schools are not sufficient to meet the requirements of the industrial designer. We believe there is a simple basic training essential as a preliminary to all branches of industrial design, and this should be embodied in a basic two-year course, standard in every art school. . . . The purpose of this basic course would be to develop the student's æsthetic perception, his intellect, his powers of invention and capacity to express his thoughts, to give him a grounding in the basic principles of industrial production, and to develop the qualities of draughtsmanship, planning and technical understanding."

Implicit in this scheme is a distinction between the " consultant designer " and the " specialist designer," and since this is a valid distinction, both in theory and in existing practice, it is important to take it into account. The S.I.A. Memorandum distinguishes them as follows : " The term *consultant designer* is used to describe those who design for more than one industry and who therefore generally practise in a consultative capacity. The term *specialist designer* is used to refer to those who specialize in one industry and are most generally employed as salaried staff designers."

If we now try to summarize the various proposals here reviewed, and allow for the criticisms which have been brought against them, we are left with three stages of education, each of which must be reformed and related to the general system of education :

I. What is usually called a " liberal " education should be renamed " æsthetic " education, and it should be the basic form of education in the primary and secondary schools.

II. At some stage in secondary education, which will vary with individual aptitude for particular practical activities, education should be differentiated according to technique, and this education should be carried out in technical colleges organized on a regional system and modified according to regional requirements.

III. Beyond this, just as there is a centralized university stage for science and for those logical and grammatical subjects miscalled Arts, so there should be a central university for the arts properly speaking. This university college would provide a universal rather than a particular knowledge of design, would correlate design research in all branches of manufacture, and provide the consultant designer with a philosophical background. The designer, as we have envisaged him, is to be a key man in any future civilization : he will be a specialist, but it is essential that he should avoid becoming a cultural moron of the type found in other fields of specialization.

There is nothing fanciful in these proposals. Reform in the first stage is the most important and the most difficult : I have devoted a book, *Education through Art*, to its elucidation. Reform in the second stage requires a shift of emphasis in the technical colleges, adequate provision of equipment (above all, design laboratories and machine-tools), and some consequent adjustment of staffing. The third stage requires either a new institution, adequately endowed, or, to preserve the existing lines of communication and supply, a radical transformation of the Royal College of Art. Towards this end the proposals made by the Design and Industries Association in the Memorandum which they submitted to the President of the Board of Education ten years ago remain the most detailed and practical plan yet formulated. This Memorandum recommended " the reorganisation of the Royal College of Art to conform to the original terms of its Charter, so that it may serve as a university of design for industrial purposes," with the concurrent reorganisation of the schools and colleges of art at the main centres of industry " to serve as constituent colleges, dealing with an industry at its centre, so that teaching can be based on the finest workshop practice and be immediately supplementary to it." The recommendations covered every aspect of such a reorganisation, including the training of teachers, the staffing of the college, its government and equipment. The Memorandum placed particular emphasis on the experimental approach at this final stage of the designer's education, and for this purpose recognises the necessity of workshops fully equipped with up-to-date machine-tools as an integral part of the college. The aims of such a university college are neatly defined by Mr. Dutton in his " Plan "—" to train designers for industry to a high standard of technical competence ; to develop a contemporary English spirit in design ; and to act as a centre of research and information on every aspect of design in relation to contemporary life."

The details of the curriculum of such a college, its examinations and diplomas, scholarships and exhibitions, are all subsidiary to the execution of the main scheme. The present structure will never be reanimated merely by injecting new subjects or even new teachers into old and ill-equipped institutions. The new thought which even the Ministry of Education has shown itself willing to give to the curricula of existing institutions must logically involve the wider *structural* transformation of the whole system. The immediate need is a realization on the part of the workers and executives of British industry of what is usually called the " paramount necessity," but should rather be called the perilous urgency of these reforms : for the State, through its Ministry of Education, will not move until it is pushed. The push so far exerted by educators, designers, art critics and idealists of all sorts has got us nowhere : now industry itself must act with all its federated unity and power.

HERBERT READ

MANNERISM AND ARCHITECTURE

Mannerism to most people in this country still means something mannered, or a mannered, second-hand style in art. On the Continent and in America the word has changed its meaning during the last twenty-five years, and it now signifies the style of the later sixteenth century, a style in the same objective, non-derogatory sense as Gothic and Baroque—both also words which started life as terms of abuse. What the style of the later sixteenth century means in painting, sculpture and decoration, it is easy to see : Tintoretto, El Greco, Bronzino, Parmigiano, and Cellini and Giambologna, and the strapwork of the Elizabethans. What characterizes that style can also be defined without difficulty : long, thin, sinuous and tortuous forms, intricate, entangled compositions, excessive gesticulation, everything in fact that the High Renaissance had discarded and disliked. Mannerism is a reaction against the Renaissance, it harks back to the gaunt abstractions of the late Middle Ages. It corresponds also in the history of the Western mind with a revival of severe Catholic faith, the re-introduction of the Inquisition and the coming of the Capuchins and the Jesuits—all the fanaticism in fact of the Counter-Reform and the religious wars. Niccolò dell' Abbate's picture recently bought by the National Gallery and illustrated with details on the facing page and p. 158, is a first-rate example of how this spirit of Mannerism affected architectural vision. Abbate was born in 1509 or 1512. His early years were passed, it seems, in Modena, Parma, Ferrara, and Bologna. So he knew Parmigiano well, of whose figures his are so reminiscent, and he obviously was familiar with the Dossis at Ferrara too, who created the type of spiritedly painted romantic landscape which Abbate favoured.* In 1551 or 1552 he went to France, where round the building and decorating work at Fontainebleau an Italian colony had established itself, headed by Primaticcio. The architectural elements of the National Gallery painting may at first seem a reaction of the Italian to northern impressions : spikes and spires, and high-pitched roofs, embedded in a rocky, thickly-wooded landscape. However, what made Abbate choose such scenery and such buildings was not the accident of his removal to France, but the inner necessity of his belonging by the spirit of his age to the style of Mannerism. For the elements enumerated all appear in his Pre-French work, and some in that of his predecessors who never left Italy. And in fact the upward pointing forms are not Gothic pinnacles ; they are, as the detail photographs show, obelisks and columns—a Gothic and Romantic interpretation of classical forms, just as Abbate's figures are Renaissance re-Gothicized, and just as his landscape is a romantic fantasy on classical motifs.

We are used in this country to regarding picturesque and romantic landscape painting as a conception of the Lorraine-Salvator Rosa age. This view must be revised. It may be true that the English *virtuosi* who created the picturesque fashion in landscape gardening looked only as far back as the seventeenth century. But there is a direct ancestry of " savage Rosa's " motifs and technique in Abbate and the Dossi and back in Titian, in Leonardo's *Virgin of the Rocks* and in the Flemings, especially Patinir.

N. PEVSNER.

* Compare the Dossi Nativity at Modena : Venturi, *Storia dell' Arte Italiana*, vol. ix, part 3, 1928, fig. 681. The landscape at the Borghese Gallery illustrated as Dossi by Venturi, vol. ix, part 6, 1933, fig. 364, is rightly regarded by Gamba and Roberto Longhi as an Abbate. It is of all his paintings known to me the one most similar to the new acquisition of the National Gallery.

Buxton Dalliance

By Dora H. Robertson

Little is known of pre-Crescent Buxton. The springs were appreciated by the Romans and used in Elizabethan times. Mary Queen of Scots was brought to Buxton as their prisoner by the Earl and Countess of Shrewsbury. She stayed at the Old Hall, of which a part still survives. Less distinguished visitors were housed at that time in "low wooden sheds, and regaled with oatcake and with a viand which the hosts call mutton, but which the guests strongly suspect to be dog." Things were better about the middle of the eighteenth century. Accommodation and modes of life were more genteel, and meals graced by "jellies and syllabubs." There was plenty of "jollity, gaiety & frolick," and plenty of freedom in the communications of the sexes. All this we are told in a gem of a letter discovered by Mrs. Robertson and here for the first time published. What the places looked like which the writer of the letters mentions, we don't know. Mr. Ernest Axon, F.S.A., of Buxton, writes that "practically no pictures of Buxton as it was in 1745" have come under his notice. It is only after 1780-84, when Carr of York, by building the Crescent, had started his efforts at re-modelling Buxton in the image of Bath, that engravings become more frequent.

IN Salisbury Close, hidden away in the early Georgian house which has been occupied for six generations by the Jacob family, lies a bundle of seventeen letters which Dr. Edmund Pyle[1] wrote to Miss Molly Clarke between 1743 and 1750. He was a prolific correspondent and his letters to the Rev. Dr. Kerrich, of Dersingham, Norfolk, have been published by John Lane, entitled "Memoirs of a Royal Chaplain." Mainly political in character, they are in strong contrast to the mannered and gallant effusions with which he maintained his flirtation with the Dean of Salisbury's[2] sprightly daughter over so many years. None of hers survives, although we know that she was "a joyous writer."

The true flavour of eighteenth century England comes out in these letters: they brim with social scandal, literary allusion, and household gossip: wit and coarseness alternate in their texture. They tell the story of a middle-aged Doctor of Divinity toying with the idea of marriage to a merry young girl but never quite coming up to the scratch and risking a proposal[3], while she, in her turn, leads him a pretty dance, now promising to visit him and his old father at Lynn but taking fright at the last moment[4]; then making an impossible assignation with him at Newmarket, on the road from Norwich to London, so that he dubs the scheme "a wild-goose Chace . . . so that I shou'd only follow about ten or twelve miles behind you, all the Journey through"; then scheming "so cleverly" that her father's service at St. James' as a royal chaplain should coincide with his. At length, about 1755, some twelve years after the correspondence began, Molly grew tired of waiting, and married Dr. John Henry Jacob, of the Close of Salisbury ("that vile damp Close . . . which is a mere sink"), and settled down to bear seven children in seven years, of whom four died in infancy, and then herself died after only eleven years of marriage. Her portrait shows a plain but attractive face—quizzical eyebrows, almond-shaped brown eyes, an inquisitive nose, a humorous mouth. It hangs to this day in the house to which her husband moved in his old age and where her letters from Dr. Pyle have been preserved. Here is the gem of the collection, teeming with social history and literary interest, and reproduced by kind permission of the present owner.

Buxton-Bath in the Peak of
Derbyshire Sept. 16, 1745.

Madam

I dare say you'll be surprised to see from whence this is dated, & perhaps not less so when you see whose name is at the end of it. The Dean of Norwich,[5] who uses the waters of this Place by advice of his Physicians, would needs bring me hither with him. And as we were talking, last night, of our Norwich friends, I felt a strong impulse upon my mind, to give you an account of this extraordinary Place, & the agreable manner of our living in it.

Buxton, is the BATH of the Northern and Western Counties and imitates and, as far as it can, rivals that of Sommersetshire in gaiety and expense. The Waters are warm as milk, & are exceedingly pleasant either to drink or bathe in. We live here in one great House[6] situated in a Bottom, & surrounded with vast, bleak, barren black Hills. All the Walks & Gardens about it are works of Art & Expense, so, you may be sure, are not of any

[1] Dr. Edmund Pyle, b. 1702; son of Rev. Thomas Pyle (Curate of St. Nicholas and Vicar of St. Margaret's, Lynn, 1701 and 1711; Prebendary of Durnford and Canon Residentiary of Salisbury, 1726 and 1741), and Mary Rolfe, of Lynn. Entered at Corpus, Cambridge, 1720. St. Nicholas' Chapel, Lynn, 1730. Chaplain to King George II, c. 1740. Rector of Gedney, Lincolnshire, 1743. "Friend and companion" to Benjamin Hoadley, Bishop of Winchester, 1752. Prebendary of Winchester, 1756. Died there 1776.

[2] Dr. John Clarke, b. Norwich, 1682; son of Edward Clarke (stuff manufacturer and Alderman; M.P. for Norwich, 1701); younger brother of Samuel Clarke, metaphysician. Scholar of Gonville-Caius, Cambridge, 1700; B.A., 1703; M.A., 1707; D.D. by Royal Command, 1717. Distinguished mathematician and friend of Newton. Prebendary of Norwich. Canon of Canterbury, 1721. Royal Chaplain. Dean of Salisbury, 1728, until his death in 1757.

[3] "In the first place, wch is the easiest Task, to bear with the expences of a wife that is poor, or with the pride and flanting of one that is rich? In the second place, which is best, to be secure in an Ugly one, that is a Temptation to no-body, or to have the trouble of guarding a handsome one, that is a Temptation to every-body? and In the last place (wch I desire may be particularly attended to by your Ladyship) supposing me resolved to marry, am I, in the choice of a Counter-part, to have the chief regard to the Infirmity of my age, or to the remains of my youth?"—(E.P.)

[4] "It gives me an opportunity of ruminating upon the Blessings with wch any man must be overwhelmed that has the Honour of being rivited by Act of Parliament to such a fickle piece of stuff."—(E.P.)

great extent. Here are 40 of us of both sexes, & often more, who strive, in every way we can, to make the place pleasing to each other. We live, as follows. At 6 in the Morning Proclamation is made that the Bath is ready for the Gentlemen; and when They have done, The like notice is given to the Ladies, who are one third more in Number. 'Tis very pretty (is it not ?) to see a Train of Charmers tripping along, wth the Looseness and negligence of their Bathing-Dress; & not less delightful to see them return, wth Rosy-Cheeks, & dripping Locks, like Venus's Retinue, just risen, wth their Mistress, from the Sea. As they pass & repass, all Liberty, of saying Tender Things is allowed: & he bids fairest to be the Happy Man of the Day, who succeeds best in the exercise of his Imagination and the display of his Wit, upon this delicate occasion. At 9 Coffee, Tea, Chocolate, are drank, to the sound of Musick, wch, added to the spirits, & florid Looks, given by the Bath, makes that Repast be taken with great Chearfulness. Thence, till twelve, We walk in the Gardens & Groves (raised here in spite of Nature) drinking the Waters; and all manner of innocent Gallantry goes forward. At 12 the Minister of the Parish reads prayers, in the Dining-Room, wth great Gravity, & is attended *by ALL* with great Decency. Then All Hands to the Toilet. 'Twixt one & two we dine, at a long Table, very well served, Musick playing; and After a few Glasses, we go to Cards, Bowls or Billiards, or walk, or Converse 'till 5, when Coffee is brought. Then to the Gardens again & Drink the waters, or Rove about the Hills and Vales. I sat down to write this at my return from walking in a most delicious Vale, of its kind, called *The Lover's Walk*; whither many of us resort, oftentimes, in pairs. On each side 'tis Rocky, to a degree of Height yt is almost astonishing. On the left hand a River runs, murmuring along, & breaking into a great number of Cascades. The Bottom is a fine Turff. A person of the Country, as he passes here, is in no surprise to see a Fair one's hand in yours; nor does the Nymph herself make any struggles to change the attitude, upon the appearance of a stranger. Our Servants see their principals walking together, in a stile of Dalliance, without turning back; and it has happened, e'er now, that a Lady has given her orders to her Male or Female Servant, wth your Humble Servant's arms about her waist. These kind of Freedoms (especially in the valley) give no offence, either to the Fair Subjects wth whom they are taken, or to accidental Looker's on: 'Tis the way of the Place—where tho' there is All Liberty, yet there is all Decorum.

I am very sorry, & perhaps, tho' you may laugh at first yet you'll think I've Reason, I am sorry to say, yt, as to *taking no Offence*, at the Familiarities just now spoken of, I am obliged to mention one Exception: there being here, at this present writing, a *Dissenting Teacher*, who has been observed, several times, to turn up the Whites of his eyes, on seeing strong proof made of the necessity of a *Further Reformation*, by a certain Doctor of Divinity of your acquaintance's being engaged, frequently, & visibly too, in a tender & ticklish manner, with a piece of very Sweet Lancashire Flesh and Blood. Not to mention that several Females of the Poor man's Congregation being here, and seeing the same, are in a hopeful way of renouncing their errors, and coming into the Church, whose Clergy they perceive can add such moving Practice, to their Pathetic Preaching. But to return——

Twixt 7 & eight we go to supper, Music Playing, & our Fare being of the Lightest Sort, Jellies, Syllabubs, Creams, and so forth, Dancing, wch presently follows, carries it of, and we go very light (except our Hearts) to bed at Eleven; very few being tempted by Cards, or the engagements of Conversation, to sit up later.

Thus the Days pass here—in an easy, idle, giddy manner. Care is banish'd; Thought dare not show his Face. All is jollity, gaiety & frolick.

This place is chiefly supplied with company by the Counties of Derby, Stafford, Chester and Nottingham. As many Persons come hither of those yt have too much health (if you will allow that expression) as of those that have too little. The Ladies are really very agreable; 'tis pity most of ym have such a broad way of speaking; but I find yt Use presently reconciles one to it. I can't say much for the Gentlemen most of those Ive seen being Clodpoles. 'Tis very much the way here, as in all such places, to fall into small parties, and stick to a few, with whom you partake in engagements of pleasure. I have had the good Fortune to be taken into the best of these subdivisions—By the Lancashire Lass abovemention'd's saying to me, in a very pretty manner, That when they heard there was a Doctor of Divinity come they had no notion of any thing but of going down o' their Knees & asking his Blessing—there having been but two persons of that Quality in this part of the world in the last 50 years,—and they such solemn Things—yt, 'twas amazement to her to see a Man of yt Character, so young—so without Austerity, & with such a spice of Gallantry in Him. This you're sure brought us soon to be acquainted & I was, very easily, introduced to her set of Friends,—Where there was a Lady—O! may I name her ?—One Mrs. Seward; of about the age of 34; possessed of every Charm that can enter into the Composition of a Human Person. A Face, such as a Painter, of the chastest & most elegant Imagination, would give to an Angel. A Stature and shape, such as poets give to Goddesses of the first Dignity. A Voice, melodious beyond conception. An Understanding, sufficient to make amends for the want of Common Sense in half the Sex. And a Manner of Address, in wch there is such an Equality between the sweetness of its Familiarity, towards you, & the Dignity with wch it demands the highest Regards to herself, from you—that 'Tis impossible to tell wch of ym to admire most. This (almost) Divine Creature was Daughter to a Staffordshire Schoolmaster,[7] and is Wife to a very clever Clergyman,[8] who is well prefer'd in this neighbourhood.

Would to God she had been unappropriated—or that I had never seen her! I don't doubt but you'll be most Insolently merry, upon this last Wish of my poor Heart. Well! 'Tis a just Judgement upon him—He—that might so often have been happy—and would not—now to be tormented—for the want of, & longing after—wt cannot be had. He's serv'd right—I'm glad o'nt.

Madam, I submit myself to the Severity of your Wit, wch yet I hope will be abated when we meet by the workings of Mercy (so natural to you) towards an old Friend, who, if he is *really* a Fool in this Case, is so *unavoidably*, & confesses himself to be so.

I am your most Humble & Obedient Servant.—E. PYLE.

Services attend you from the Dean & Mrs. B. wth whom you are a prime favorite.

The Rev. Thomas and Mrs. Seward were to achieve fame as the parents of the Swan of Lichfield. Their daughter Anna, born December 13th, 1742, was already at this date, 1745, embarked on her poetic career, for we read in the British Lady's Magazine that "the mind of Miss Seward was early imbued with the vivid and sublime imagery of Milton, and she lisped 'L'Allegro' and 'Il Penseroso' when only in her third year."[9] Two months later, Dr. Pyle was still raving about Mrs. Seward's "charms of body and mind" to Dr. Kerrich, and asserting that she was "worth any man's going as far as the Peak to see and converse with." The husband he considered, "a very agreable man"; Boswell corroborated this opinion, thinking him "a genteel, well-bred, dignified clergyman," but Dr. Johnson had other views: "Sir, his ambition is to be a fine talker, so he goes to Buxton . . . where he may find companies to listen to him. And Sir, he is a valetudinarian, who thinks he may do anything that is for his ease, and indulges himself in the greatest freedoms. Sir, he brings himself to the state of a hog in a stye." And on that surprising note, for want of space, we must close.

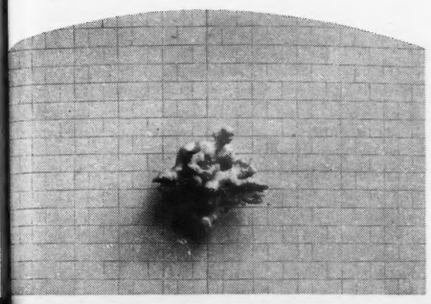
[5] Dean Bullock.

[6] Buxton Hall, now the Old Hall Hotel.

[7] The Rev. John Hunter, Headmaster of Lichfield Grammar School, who taught Dr. Johnson "the rudiments."

[8] The Rev. Thomas Seward, Rector of Eyam, Derbyshire, Canon Residentiary of Lichfield. He and his daughter after him lived in the Bishop's Palace at Lichfield from 1750–1809.

[9] Her mother did her best to discourage these early attempts at poetry. Anna Seward was fond of her mother but inclined to be critical of that "good literal being." At the age of 21 she wrote how once she grew "so saucy" to her mother, "that she looked grave, and took a pinch of snuff first at one nostril, and then at the other, with swift and angry energy, and her eyes began to grow dark and to flash. 'Tis an odd peculiarity, but the balls of my mother's eyes change from brown into black, when she feels either indignation or bodily pain." (*A Swan and her Friends*, by E. V. Lucas. Methuen, pp. 24 and 33.)



Brazilian Prometheus

The Brazil Number of last March showed detailed illustrations of the new Ministry of Education at Rio, easily the most adventurous governmental building in the world. Its main entrance is now going to have a piece of decorative sculpture well in keeping with the bold, fluid style of the structure. It is by Jacques Lipchitz, the Polish-Parisian-American sculptor (born 1891, went to Paris 1909). The plaster model appears on p. 186. The small picture on this page shows the position *in situ*, the larger one below an earlier sketch with only two instead of three contacts with the wall. The figure is 6½ ft. high.

BOOKS

Renaissance or Mannerism?

MICHELE SAMMICHELI, THE ARCHITECT OF VERONA. By Eric Langenskiöld. Almqvist and Wiksell, Uppsala. 1938

THE most interesting indigenous architectural research in this country is devoted to the period from Inigo Jones to John Nash. Fifty years ago the position was different. It was the time when the Royal Commission established for its inventory volumes the disastrous 1713 limit. It was the time of Prior and Lethaby formulating their vision of mediæval England, and of Symonds working on his somewhat Shannon-and-Ricketty Renaissance edifice.

Since then mediæval research has become deplorably antiquarian and narrow-minded, and Renaissance research has all but ceased. As for the Middle Ages, other countries are far busier and more intelligently busy; as for the Renaissance the draught seems an international calamity.

Except for Dr. Wittkower's recent work on Alberti and some German papers on Brunelleschi and Leonardo, what is there worth mentioning? Hardly anything, provided Renaissance is meant, as it should be, to extend only from 1420 to about 1520. The style of European building between 1520 and roughly 1600 or 1620 on the other hand is gradually becoming one of the focal points of progressive research, at least abroad. The angle under which it is being considered, is that it should neither be defined as Renaissance nor Baroque, but as Mannerism. On this term (which as a term denoting a historic style and not an æsthetic condemnation is only some twenty years old) a few remarks will be found in this number on page 184.

While, however, the interpretation of Mannerism in painting and sculpture has made spectacular progress since 1920 or so, Mannerism in architecture has been a *terra incognita* until less than ten years ago. Dr. Gombrich's excellent article on Giulio Romano, published in the Vienna *Jahrbuch* in 1935–6, is still the best summing-up we possess of the problems involved. Since then the Americans have joined in, and William Bell Dinsmoor's Serlio papers, as well as John Coolidge's paper on the Villa Giulia, have widened our horizon considerably (*Art Bulletin*).

When I received Count Langenskiöld's quarto volume on Sammicheli—published before the war but not come to hand until now—I thought another of the glaring gaps in our knowledge of Mannerism had been filled in. However, approaching the Swedish book in such a way does not do it justice. The author is, it seems, of the generation to which what we now define as Mannerist is nothing but a late phase of the Renaissance. He does not seem to know Dr. Gombrich's studies* nor does he mention what else had by 1938 been published on the problems of Mannerism in general. Classicism seems to him an adequate clue to Sammicheli's style. His analysis of a building such as the Palazzo Bevilacqua does not bring out at all the typically Mannerist restlessness, or the jarring discordance between cool and static Roman motifs and an elaborately entwined composition.

The positive qualities of Count Langenskiöld's book are those of straightforward biography and œuvre catalogue. There are 40 pages on Sammicheli's life, 100 pages on his buildings (which are discussed one by one), 20 pages on his work as a designer of fortifications, 20 pages on his pupils and followers, and then 40 on his style, and a final 20 on his position in the history of military architecture. The latter are especially revealing and rewarding. They correct once for all the old tradition, still repeated in Sir Reginald Blomfield's *Vauban* book, that Sammicheli was the inventor of the bastion. Count Langenskiöld convincingly stresses Francesco di Giorgio's importance instead. He is at his best here, while the chapter on Sammicheli's style is decidedly weak. The reason

* Which is a pity, because otherwise we might have had a contribution to one of the most intricate problems of North Italian architecture, the interrelations between Sammicheli and the fifteen years younger and therefore far more boldly Mannerist Giulio Romano.

for this has already been alluded to. But there is a second reason. It is connected with the fact that the book is published in English. We are grateful to Count Langenskiöld for this; he might have chosen Swedish, French or German; and so it would be ungracious to grumble about little blemishes of language. However, when it comes to the subtleties of stylistic analysis and such comparisons as that between Sammicheli's and Palladio's conceptions of space, one sometimes feels that a point may turn out to be perfectly sound, if one could only grasp it. It may, for instance, help readers if it is pointed out that where "masonry" is mentioned, as a rule "elevation" is meant.

The book is very satisfactorily produced. It has 81 plates and 133 illustrations in the text, ample notes and a full bibliography. Whoever in future wants to form a picture of Mannerism at the moment of its conquest of Northern Italy will have to go to it and study it carefully.

NIKOLAUS PEVSNER

Architectonic-Obscure

THE ARCHITECTONIC CITY IN THE AMERICAS. Significant Forms, Origins and Prospects. By H. Leipziger. The University of Texas. 1944.

IT is the intention of the author to interpret forms and values of architectonic importance in the light of evolutionary progress and to demonstrate that "any adequate theory of architecture and city building should include the questions of origin and nature of development patterns." He endeavours to corroborate his intention by using, as a representative example, the archeological heritage especially of Mexico. His main point is that the material forms, shapes and structures of architectural performances are subordinate to the ideas which lie behind their functional and æsthetic effects. This, however, is self-evident to everybody who is not a materialist of the deepest dye. The author claims that the imaginative application of a sense of reality to political affairs, science and economics has given world leadership to the Americas, and he assumes tacitly but firmly that this holds good also in the architectural field. There is an unpleasant touch of the totalitarian in such an assumption. Surely a new world can only be built by the joint efforts of all the peoples of this globe.

However this may be the more specific attempt of the author, that is the attempt to interpret the symbolic forms of architecture (as exemplified by the Mayan and Incan achievements) by looking for the underlying social and cultural factors, cannot be considered a successful contribution towards the enlightenment of this problem.

The author distinguishes three phases of enlightenment in the architectural history of the Americas: European enlightenment; American enlightenment; and oriental enlightenment. He deals only with the first and second set of influences and is convinced that "the more or less abrupt transplantation of Medieval Europe to the northern and southern shores of America is responsible for one of the most striking features of this civilization: an unprecedented independence from physical environment." What is meant by "independence"? Obviously only that the architecture brought by the Spaniards to the conquered territories was different from that of the original inhabitants. It was neither more nor less independent from the physical environment than the former.

The author refers especially to Greek and Gothic architecture in order to demonstrate the intimate interdependence of material forms and the ideas underlying them. It is not easy to follow him through obscure verbiage and somewhat loosely used arguments; but even if one tries to, the whole investigation leaves the impression that he has not freed himself yet in any way from the purely æsthetic approach which dominated the history of art on the Continent before the first world war. We in 1944 should like to hear more about the social and economic functions of Pre-Columbian society; more about its magical conceptions; more about life of this period in its entirety and complexity. It is not sufficient to put forward a theory of architectonic appreciation with the ambitious aim of projecting it into the future by merely talking about æsthetic values and hinting at subconscious factors, leaving out the paramount problem of art and society in their subtle interweavings.

The chapter on the Pre-Columbian heritage is interesting. It enumerates the more important ruins particularly of temples and other religious buildings erected by the Mayan and Incan Empires. We learn of the Great Wall of Peru, the extension of which has been followed by plane for over forty miles; of the inaccessible forts and the intricate defence system—the Maginot lines of the Incas—and of water supply and roads. The buildings of the Pre-Columbian period spring from a genuine creativeness, because life, religion and architecture were one, and because functional and personal life formed an insoluble unity. It is, therefore, the more regrettable that we are not told more about the residential quarters and daily life, although it must be admitted that it is easier to keep to the buildings which survived the centuries, thanks to their indestructible material. However, recent research has brought to light a considerable amount of knowledge about the background of architecture. Reference to it would have been a useful addition—a valuable contribution of the book will be found in the appendix. There a research programme is sketched out to deal with environmental physiology, psycho-physiology and especially the study of emotional values and reactions inherent in forms and colours. The reproductions of Pre-Columbian work on some of the forty plates are also welcome. Among them we find interesting plans and architectural details as well as general views of settlements.

It is a pity that the author has not confined himself to an analysis and interpretation of Early American architectural problems. By adhering to somewhat out-of-date ideas on æsthetics and by attempting to build up on these and his American material a system of universal validity (Frank Lloyd Wright and Le Corbusier are cited as ushering in a new age of cultural consciousness in architecture), he has spoilt a good deal of what he might otherwise have achieved. It can, however, be hoped that his book will induce others to a systematic compilation of the already available material and to its wise use in the light of the architectural achievements — monumental and domestic alike—of the old Empires of the Americas.

E. A. GUTKIND

Twentieth Century Summary

THIS CHANGING WORLD. Edited by J. R. M. Brumwell. Routledge, 12s. 6d.

"WHAT we call the modern movement in the arts was not invented the day before yesterday in Paris or Moscow: it began with the poetry of Wordsworth and Shelley, the paintings of Constable and Turner, the architecture of the Forth Bridge and the Crystal Palace, the philosophy of Hegel and the economics of Marx. . . ." These words of Herbert Read's at the beginning of this stimulating book sum up the reasons for which I think every architect should read it. Indeed, modern architecture is a part of "the modern movement in the arts," it arises from the state of mind of our times and not from a furtive visit to pre-Nazi Germany or the perusal of Le Corbusier's books or THE ARCHITECTURAL REVIEW's accounts of the brilliant if sporadic achievements of our Swedish or Brazilian colleagues. Modern architecture is not only part "of the modern movement in the arts" but, with the other arts, an integral part of present-day life in all its aspects.

Science makes gigantic strides and transforms our physical surroundings and also our comprehension of these surroundings. "Relativity and the quantum theory both involve what seems to the common man absurdities and contradictions . . ." says Bernal. The reactionaries and stick-in-the-mud critics of architecture often refer to "common sense" and "tradition." Common sense must be revised from time to time and there is only one eternal human tradition and that is *change* in all its aspects and forms. But listen to a short résumé of the history of science by Bernal: "In practice, the intellectual and material concerns of the most active leading group in the community dominate the form and content of scientific thought of the time. The seventeenth century was the age of mercantile adventure, and sciences connected with navigation and gunnery held first place. At the end of the eighteenth century the rising manufacturers directed science towards chemistry and the study of heat. In the nineteenth century, the lead passed over to electricity. In every case, science served the interests of a limited group, and its benefits to the rest of the community were incidental. The essential difference between the present and the past is that we now have the possibility, and indeed the necessity, of organising consciously what had before merely occurred from the unconscious play of social forces." And further: "Private and institutional greed, the desire to preserve orders and ranks in a society that has out-grown them, have been potent factors in the past, and are potent factors still, in delaying progress. Unless they are dealt with, and dealt with now, there is no chance for any better world." This is not Hyde Park oratory but one of our most prominent scientists speaking, a Fellow of the Royal Society . . . but does it not apply word for word to architecture?

It is an outstanding merit of this book to embrace many sides of the human problem. Some of the articles are brilliant, some dim and some feeble, but is that not life itself? We could hardly appreciate the brilliance of the one, without the obscurantist muddle of the others. The subject is encyclopædic and it is nothing more than a gallant attempt to compress the incompressible into 280 odd pages. Perhaps the coming edition of the *Encyclopædia Britannica* will fill the gap, this is but the beginning of a primer. The subjects covered are divided by the editor under the following headings: Prologue—Some Scientific Aspects—Integration of Society—Individual and Community—These Changing Arts—Background —Epilogue.

Among the essays I enjoyed most were those of Bernal (*Transformation in Science*), Needham (*Matter, Form, Evolution and us*), Waddington (*Life from a new Angle*), Crowther (*Helter Skelter Universe* and *Exploring the Unseeable*), Darlington (*New Ideas in Education*) and Summerson (*New Groundwork of Architecture*), and the prologue and epilogue by Herbert Read. Others like those of Borkenau (*New Politics*) are too full of commonplace platitudes and too superficial even for so short and popular a publication as this. They do not add to our knowledge and are on the whole only misleading.

I should like to add a few words about John Summerson's essay. After all he deals with architecture and the readers, even of THE ARCHITECTURAL REVIEW, are sometimes interested in this subject. It is written for the general public, it sets out to state the case of a living architecture. "Architecture," says Summerson, "is the accurate application of man's universal Knowledge to the shelter and warmth, of healthy and convenient living," but also ". . . to the glorious task of building. . . ." But here again we come up against the "One World" conception: "Hitler hates flat roofs," says Summerson; of course it isn't just the shape, it is the idea behind it. A flat roof may be as good as a pitched one, but the flat roof stands for an association with the ". . . philosophy identified with scientific thought, which is, in its very essence, anti-Fascist and which Hitler intensely dislikes." There is no escape: this may start as an essay on æsthetics, but politics, science and economics come into it all the time—and for the best of reasons. Here are a few bits instead of a lengthier appreciation of this attitude: ". . . This charming Queen Anne style mansion with all modern conveniences"; "Georgian with a modern flavour"; ". . . free Gothic for churches . . ."; "Neo-Grec for commercial buildings . . ."; "This loose bondage to the past is usually called 'tradition'"; "It is architectural Toryism"; "The man who turns surplus profit into country houses and imposing city facades."

John Summerson knows his stuff and knows how to put it across. The book is worth while for this article alone.

ERNÖ GOLDFINGER

ANTHOLOGY

Luxury Hotels of Regency London

October 7th : What would delight you here is the extreme cleanliness of the houses, the great convenience of the furniture, and the good manners and civility of all serving people. It is true that one pays for all that appertains to luxury (for the strictly necessary is not *much* dearer than with us), six times as high ; but then one has six times as much comfort. In the inns everything is far better and more abundant than on the Continent. The bed, for instance, which consists of several mattresses laid one upon another, is large enough to contain two or three persons ; and when the curtains, which hang from the square tester supported on substantial mahogany columns, are drawn around you, you find yourself as it were in a little cabinet—a room, which would be a very comfortable dwelling for a Frenchman. On your washing-table you find—not one miserable water-bottle, with a single earthen or silver jug and basin, and a long strip of a towel, such as are given you in all hotels and many private houses in France and Germany ; but positive tubs of handsome porcelain, in which you may plunge half your body ; cocks which instantly supply you with streams of water at pleasure ; half a dozen wide towels ; a multitude of fine glass bottles and glasses, great and small ; a large standing looking-glass, foot-baths, etc., not to mention other anonymous conveniences of the toilet, all of equal elegance.

Everything presents itself before you in so attractive a guise, that as soon as you wake you are allured by all the charms of the bath. If you want anything, the sound of your bell brings either a neatly dressed maid-servant, with a respectful curtsey, or a smart well-dressed waiter, who receives your orders in the garb and with the air of an adroit valet ; instead of an uncombed lad, in a short jacket and green apron, who asks you, with a mixture of stupidity and insolence : " Was schaffen's Ihr Gnoden ? " (What is it, Your Honour ?), or " Haben Sie hier jeklingelt ? " (Was it *you*, here, that rung ?), and then runs out again without understanding properly what is wanted. Good carpets cover the floors of all the chambers ; and in the brightly polished steel grate burns a cheerful fire, instead of the dirty logs, or the smoky and ill-smelling stoves to be found in so many of our inns.

PRINCE H. L. H. PÜCKLER-MUSKAU (*Tours in Germany, Holland and England in the years* 1826, 1827, 1828)

MARGINALIA

This month's Anthology

Hermann Ludwig Heinrich Prince Pückler-Muskau (1785–1871) was the most famous evangelist of English landscape gardening on the continent. His *Notes on Landscape Gardening* of 1834 is one of the two classics of German garden literature, the other being Hirschfeld's *Theory of Garden Art* in five volumes of 1777–82. Hirschfeld reflects the stage reached in England by Mason and Walpole. Pückler-Muskau repeats Repton in all his important arguments. However he was not only a theorist. His grounds at Muskau, in Silesia, were landscaped so thoroughly that they became one of the recognised showpieces for cultured travellers to the East of Germany. Germany had been earlier in accepting the English taste in gardening than France and Italy. Baron Münchhausen as early as 1750 Englished his grounds at Schwäbter in Westfalia. Wörlitz near Dessau followed in 1768, complete with Palladian mansion and Gothic temple. The Weimar of young Goethe had a park in the English style too.

Prince Pückler was a man of many achievements, writer, politician and —as the Anthology shows—observant traveller. It is worth remembering how progressive English *hôtellerie* was a hundred years ago. No foreigner would now draw such favourable comparisons between the hotels of this country and those abroad. Those keen on the development of tourism in Britain after the war should find out how and why Britain lost its advantage over the Continent in the equipment and management of hotels.

Russia Planning and Russia Building

A little more information has lately come through about what is happening in architecture in Russia. A Russian building periodical *Architecture in the U.S.S.R.* (unfortunately in Russian only) reaches the editorial offices of British building papers at odd intervals, the Society for Cultural Relations with the U.S.S.R. has started on a mimeographed Soviet Reconstruction Bulletin (edited by Arthur Ling) and a chronicle called *Architecture* and written in English has begun to appear in Moscow. The first number is introduced by a message from the Chairman of the Presidium of the Supreme Soviet, M. Kalinin. This message is followed by an account of the organisation of architecture in Russia—this stress on organisational structure being characteristic of all countries of State superiority over individual enterprise. The governmental head organ is the Committee on Architecture, direct under the Council of Peoples' Commissars. Dependent on this are eight Chief Administrations : for town-planning, housing, industrial art, building technique, building controls, preservation of monuments, architectural education, and " architectural projecting," whatever that may mean. In addition there exists a State Architectural Council as a consultative body for large planning schemes, standards and problems of mass production in building and housing. Russia has also an Academy of Architecture to carry out research on prefabrication as well as history. It deals also with post-graduate architectural training. Finally, the professional representation of all Russian architects is the Union of Soviet Architects, with 5,400 members, and local representatives in 65 cities. Chairman of the Committee of Architecture is Arkady Mordvinov (born 1896, designer of the Charkov Post Office and estates of flats in Moscow), President of the Academy is Victor Vesnin (born 1882, designer of the Dniepr Power Plant, the Palace of Labour, the Arcos Building, the Government Palace at Kiev, the Palace of the Soviets, the Palace of the Council of Peoples' Commissars, etc.). Secretary of the Union is Karo Alabian (born 1897, designer of the Red Army Theatre).

The information contained in *Architecture* is varied and baffling. Stalingrad is being replanned for 800,000 inhabitants. There will be grand public buildings and tall office and residential building to enhance the interest of the skyline. One of the most prominent buildings on the central avenue will house a panorama of the defence of Stalingrad. Open spaces are to be at a rate of 2.96 acres per 1,000 of population. Meanwhile actual reconstruction work is going on lustily. 323 schools have been built or repaired, 125 public restaurants, etc. On the other hand *Architecture* gives as the figure for reconstructed house and office space 400,000 square metres. Now that appears incredibly little. And if the report adds that already 6,500 square metres (or 7,735 square yards) of road surface have been remetalled, one begins to wonder whether something has gone wrong with these figures.

The next item in *Architecture* is a summary of a Conference on mass housing—very interesting in its findings. Local building materials such as gypsum, unfired bricks, etc., are being studied. Bungalow and flat-building both find consideration. American mass-produced houses are respectfully mentioned, and new Russian experiments of a similar kind with plywood and *orgalith* pointed out. The conference added that such mass-produced houses need by no means look like boxes. "Architectural details in the decoration of the house " can avoid uniformity.

Igor Grabar, author of the classic *History of Russian Art* of thirty-odd years ago, reports on war damage and restoration. The most notable total casualties are the New Jerusalem Monastery at Istra, the Pechersky Abbey at Kiev, the Paraskeva-Pyatnitsa Church at Chernigov, the Mitrofanov Monastery at Voronezh, the Spas-Nereditsa Church at Novgorod, and the wooden church of Oshta in the Archangel region. Severe damage was also done to the other buildings of Novgorod, Chernigov, to Kazakov's Works at Kalinin, to the many palaces around Leningrad, etc. Further articles deal with the protection of monuments. The paper ends with a review of the Moscow show of English architecture from Inigo Jones to the most recent work.

Mr. Ling's Reconstruction Bulletin has similar, more recent, though less detailed, reports. They, too, give us plenty of large figures (21,875 miles of main railway track restored, etc.), and on top of that a number of characteristic side-lights. A canal in the Caucasus is being built by the collective farmers. More than 30,000 people worked on it in 1940. In White Russia parents, children and their school teachers re-built 1,800 schools. The people of the Charkov region have themselves built 29,867 new houses out of local materials.

R.I.B.A. on White Paper and Planning Bill

The R.I.B.A. has come out with a memorandum of three pages on the Government's town and country planning policy. It is a good, sound, progressive document, leading up to the recommendation :—

" That inasmuch as the Government suggests (in paragraph 40 of the White Paper) that the form to be taken by future legislation will depend on the attitude of Parliament to the White Paper, it is essential that the White Paper be at once considered by Parliament, and that Parliament be asked to accept the principle of a co-ordinated National Policy based on a Graphic National Plan being the guide for the use and development of land in England and Wales."

Michael Rothenstein : Finchingfield. *See the review on this page.*

Post-war Roads in America

The United States have about 4,400,000 miles of roads of which 1,700,000 are surfaced. Much of this mileage has fallen into bad repair during the war, many new rural roads, farm-to-market roads, are needed, and a number of super-highways is envisaged in addition. Anticipated road-building costs are $1,300,000,000 in each of the first three post-war years. These sums will probably be passed by Congress in its first session after the election.

New roads are generally to be wider and straighter than existing highways, with the elimination of steep grades and with wider bridges. Much attention is being devoted to the problem of quick transit through large cities. The idea of by-passing cities, which was popular in American road plans at one time, has lost favour and engineers are inclined to broad, sunk boulevards with cross traffic carried by bridges. It is expected that concrete pavement will continue to be the most popular, although asphalt will also be used.

Michael Rothenstein

Recording has been a speciality of English art ever since the Bayeux Tapestry, the *droleries* of East Anglian manuscripts, Hogarth and the water-colourists. In the days of the New English Art Club it went down in popularity. Whistler was its most aggressive antagonist. Now it has come back, with Ravilious and Bawden, with Piper and Rowntree. The *Recording Britain* scheme was a recognition of this tendency, and at the same time the greatest help in developing it. It has brought out new qualities in some and strengthened existing qualities in others. Barbara Jones and Michael Rothenstein are prominent among these. Michael Rothenstein's exhibition at the Leicester Galleries shows him as a mature practitioner in water colour, able to convey the atmosphere of an Essex village or the marshalling yard of Stoke-on-Trent in patterns as concise in their linework as they are pleasant and restful in their greys, whites, greyish browns, cool light blues and cool light greens. He is fascinated by colour in buildings, and one of the very few to appreciate the instinctive wisdom of country builders and house-painters. Over and over again he uses cottages and lowly terraces to determine the main axes of his compositions which can then safely be enlivened in the foreground by figures or those roots, logs and other twisted timbers of which he is so fond.

Aristide Maillol

Aristide Maillol has died at the age of eighty-three. In him the West loses the greatest sculptor of his generation. His work has the placid fullness and the easy monumentality of his native country, the fertile Giono country. Maillol studied painting under Gérard and Cabanel of all artists, and lived as an unsuccessful painter and tapestry-worker until he was nearly forty. Only then, encouraged by Bourdelle, did he learn to model and carve. *Le père* Vollard helped him, and arranged a first one-man show for him in 1902. Gauguin was still alive then, and Maillol appeared as his legitimate successor in a different medium. He owed much to Rodin too, but the massiveness of his forms and the evenness of his surfaces is more than anything a

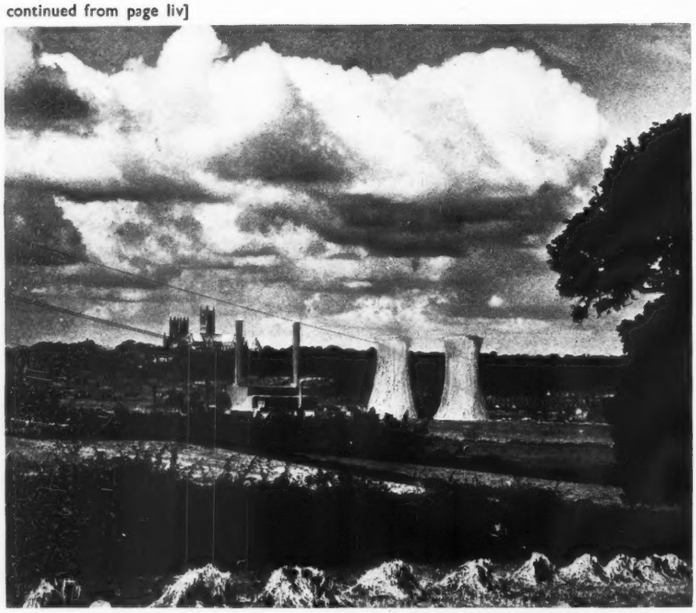
[continued on page lvi

L. E. Walker, Photo.

CHIEF CONSTABLE'S HOUSE, KING'S LYNN

THE stone central feature which bears the date 1784 is, with its festoons of iron fetters, an obvious copy of the Debtors' Door of the Old Newgate Prison—completed in 1782 to the designs of George Dance the younger—and the façade, although well detailed, seems to be an assemblage of parts not originally designed in relation to each other.

continued from page liv]



Lincoln Cathedral as it would appear with the proposed power station. See the note on this page.

reaction against Rodin's Impressionism. His fame was established by Harry Count Kessler, of Weimar, that good European whose Memoirs were suppressed by the Nazis immediately after publication. Kessler commissioned wood engravings from Maillol for a Vergil edition, and took him on a journey to Greece. In the centre of Maillol's *œuvre* stands his Cézanne Monument, on which he worked from 1910 to 1914.

Power Politics

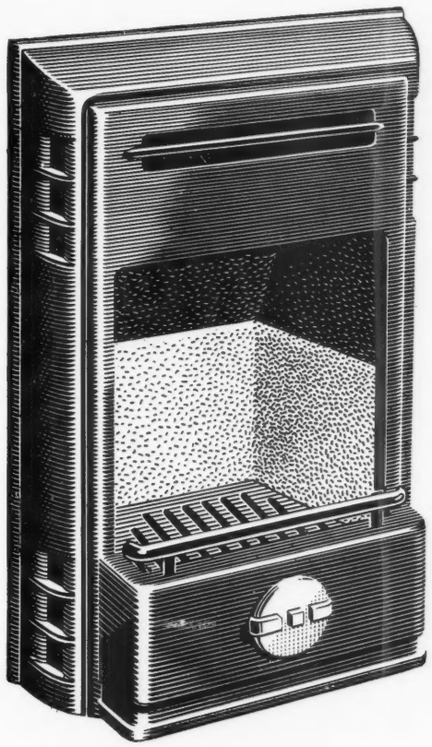
Two months ago in a note on the struggle, whether Durham should have a power station or not, it was indicated how complicated the fronts are bound to be in this struggle and other similar ones. There are preservationists at all costs, and there are utilitarians at all costs. Neither can be able to consider the condition without bias. The case at Lincoln is even more interesting. In the inquiry of the Electricity Commissioners the Dean was, needless to say, against the scheme. So was Mr. Jellicoe. But Mr. Pepler, of the Ministry of Town and Country Planning, was in favour of it. The recommendation of the Electricity Commissioners is to replace the concrete cooling towers of 230 ft. height by wooden ones of not more than 90 ft. Another suggestion is how to avoid cooling towers altogether by pumping water from the Trent into the Foss Dyke. This may or may not solve the practical problem. One rather more philosophical problem however remains. The photograph on this page with the concrete towers superimposed was produced as evidence against the scheme. No better evidence could have been found for it. The monumentality of the twentieth century appears on it just as genuine as that of the thirteenth. It is secular, but sincere. An ecclesiastical grandeur equal to that of Lincoln or Durham we cannot have. But the technical grandeur of our age enhances the other-worldly grandeur of the cathedral most forcibly. If ever contrast was used judiciously, it seems to be here. Yet the æsthetic excellence of the juxtaposition should not decide the case. Lincoln, it should be argued, does not require to be raised in its effect by even the most ingenious *sharawaggi*. The atmosphere of the cathedral town should be kept homogeneous. Modernization should proceed hesitatingly and tactfully. The emotional approach to the cathedral must be respected and not confused by even the subtlest æsthetic adventures.

Housing Equipment

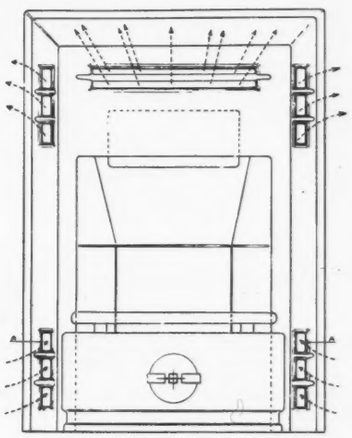
To intensify the effects of the Ministry of Health's enlightened, well-written and well-produced *Housing Manual*, 1944, the Ministry of Works has arranged an exhibition of standard equipment for post-war houses. It was shown at Birmingham first and then went on tour to other cities. The twelve-page leaflet illustrating the exhibition is a very satisfactory production too. It gives a lot of compact information and repeats a number of the clearly and pleasantly drawn diagrams of sinks, cupboards, wardrobes, sample layouts and so on which appeared in the *Manual*.

NEW-FASHIONED VISIBLE HEAT

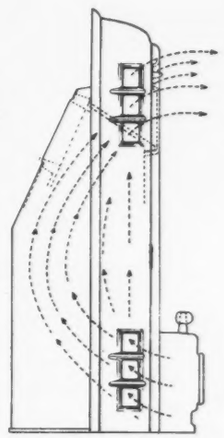
EXAMPLE — A.I "PROJECTOR" HEATING UNIT



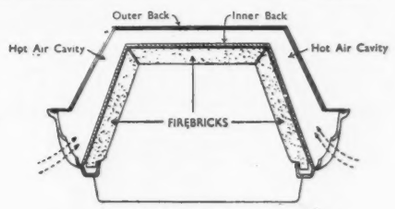
SPECIFICATION: This is a self-contained interior grate, with double casing, which gives warmth on the convection principle. By carefully arranged air inlets in the sides and top of the unit, the heat from the fire is projected over the whole area of the room. The path of this heated air is indicated by dotted lines in the accompanying diagrams.



FRONT ELEVATION



SIDE ELEVATION



SECTIONAL PLAN A.A.
with bottom grate & fret removed

SIZES : Overall sizes : 25½" high x 18½" wide x 12" fire. Minimum size of existing fire opening required : 22" high x 16" wide. Clearance from underside of projecting lintel (if any) over fire opening to level of hearth must be at least 26".

FINISHES : Ebony black or coloured vitreous enamel, or " Alisheen " de Luxe enamel.

ADVANTAGES : The unit can be fitted to most existing fireplaces. It gives more heat per unit of fuel, and cuts down fuel consumption by approximately 40% over the ordinary coal fire.

ONE OF THE MANY CONTRIBUTIONS TO THE POST-WAR HOME THAT WILL BE MADE BY

ALLIED IRONFOUNDERS LIMITED

ALLIED IRON
REGD. TRADE MARK

Proprietors of: AGA HEAT LIMITED; ALLIED IRON (R.W.) LTD.; BRITISH BATH CO. LTD.; THE BURTON FOUNDRY CO. LTD.; CALLENDER ABBOTS FOUNDRY COS. LTD.; THE JAMES CLAY (WELLINGTON) LTD.; THE COALBROOKDALE CO. LTD.; M. COCKBURN & CO. LTD.; R. W. CROSTHWAITE LTD.; DOBBIE, FORBES & CO. LTD.; EXCELSIOR FOUNDRY CO.; THE FALKIRK IRON CO. LTD.; THE FORTH & CLYDE & SUNNYSIDE IRON COS. LTD.; GENERAL GAS APPLIANCES LTD.; F. HELM LTD.; H. E. HOOLE & CO. LTD.; McDOWALL STEVEN & CO. LTD.; PLANET FOUNDRY CO. LTD.; SINCLAIR IRON CO. LTD.; THE WELWYN FOUNDRY CO. LTD.

KETLEY • WELLINGTON • SHROPSHIRE

TO ARCHITECTS and others concerned with the rebuilding of Britain:

Whether they are designing community centres, shops, factories, office buildings, holiday camps, railway stations, schools or health centres, they can be certain that sooner or later those using their buildings will be 'dying for a cup of tea'.

The Empire Tea Bureau welcomes discussion with architects on all problems to do with tea drinking. Its files, plans, specifications are freely at their disposal.

The Empire Tea Bureau is a service organisation set up by all Empire tea growers to ensure that good tea is available to all. The Bureau is concerned solely with encouraging those who desire to make or drink the National Beverage in ideal conditions.

The Empire Tea Bureau has carried out very wide research and experiments during the war. Large factory canteens have been run, new and better equipment designed. Facts, figures, blue prints, findings both financial and technical, are at the architect's disposal in the public interest.

tea

PLEASE ADDRESS ALL ENQUIRIES TO: **THE EMPIRE TEA BUREAU**
REGENT HOUSE
KINGSWAY LONDON WC2
CHANCERY 6601

The way the wind is blowing . . .

★ *Boreas, the North Wind, was worshipped as a divinity by the Greeks, who expressed visually his blustering and stormy aspect with characteristic felicity. This representation is based upon the relief on the famous Octagonal Tower of the Winds, built at Athens by Andronicus the astronomer. The tower was surmounted by a brazen Triton, contrived to turn so that it faced the wind invariably.*

The permanent houses of post-war, bŭilt to give greater comfort and to cost less to keep warm will call for liberal use of insulating materials. The 'Burt Report'—whose "value, to all concerned with post-war building, can hardly be over-stated" says *The Builder*—dwells at length upon the importance of *sound* and *thermal* insulation. It ranks them as numbers three and four of the seven "basic technical considerations which chiefly affect the consumption of labour and materials in house construction." American and Swedish influence is telling strongly in the same direction; and the thinking layman is coming to appreciate their importance.★ *Celotex* provides *thermal* and *sound* insulation in board form. It is permanent, rigid and has great structural strength. Its natural finish lends itself to the most pleasing decorative schemes.

★ *Of the 'Times' leader comment on the Burt Report: "In particular, the report's exposure of the neglect of heat insulation in the past is noteworthy. A higher initial outlay in this direction would be amply repaid by enhanced home comfort and by a reduction of the 55,000,000 tons of raw coal annually consumed for domestic purposes."*

CELOTEX

INSULATING, BUILDING AND HARD BOARDS AND ACOUSTIC TILES

CELOTEX LIMITED, NORTH CIRCULAR ROAD, STONEBRIDGE PARK, LONDON, N.W.10

A hunting they will go...

And being a modern and intelligent young couple it's "odds on" that they will choose a house with a built-in refrigerator, a fair-sized refrigerator too, capable of safeguarding not merely their own food but that of the family to come.

The Prestcold model suggested below is presented as an ideal all-purpose model for homes of moderate size. It would hold sufficient perishable food for four people and be arranged for fitting at waist height to avoid backaching stooping.

From war-gained experience in making the most economical use of vital materials Prestcold engineers will hope to produce this model at a surprisingly low price in view of the following special advantages it offers:—

Storage capacity of approximately 4½ cubic feet, which will hold all the perishable foodstuffs for a family of four.

Larder space rendered unnecessary. Dry goods and non-perishable foodstuffs would be kept in kitchen cupboards.

Waist-high refrigerator door, allowing access to interior without stooping.

Height adaptable by varying position of supporting frames.

Refrigerator can be built into kitchen fitments with cupboard space above and below it.

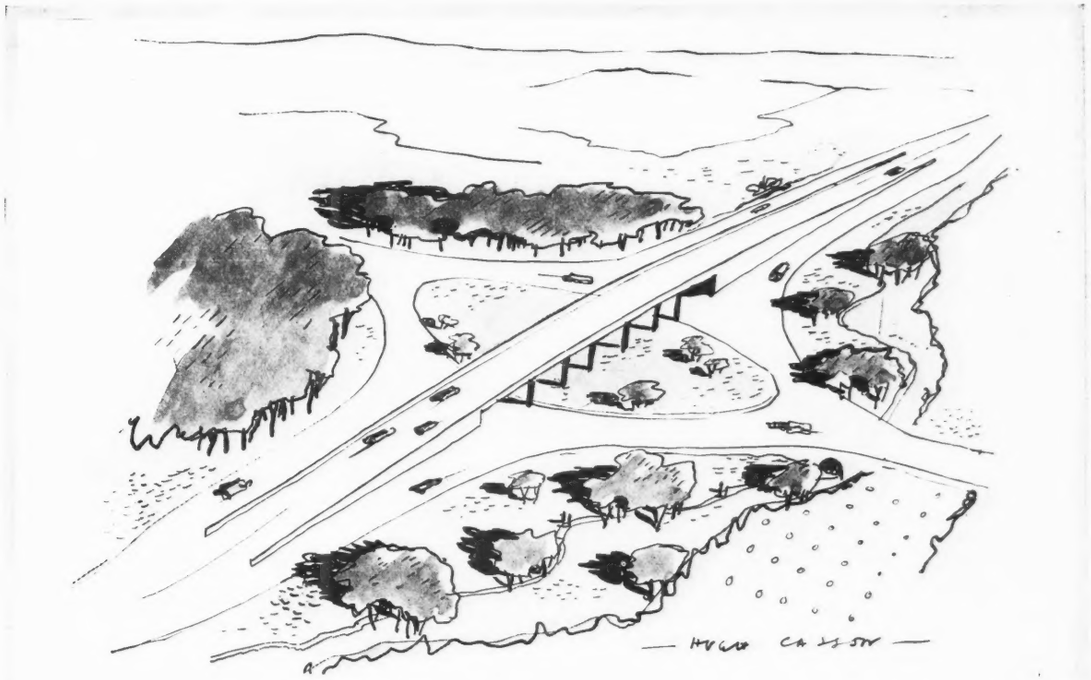
Design provides for adequate ventilation of mechanism without the necessity for special air-bricks or ducting.

Ice making and "cold cooking" facilities.

PRESTCOLD

Refrigeration

A PRODUCT OF THE PRESSED STEEL COMPANY LIMITED



FLYOVER CROSSING FOR ARTERIAL ROADS

PENDING the official plans for the new road making, we have asked Hugh Casson, A.R.I.B.A., to give his impression of what some of the new traffic arrangements may look like. While they are still able to meet present needs, Gowshall's will be also ready to sign these new roads whatever form they may take

GOWSHALL

GOWSHALL LIMITED

MANUFACTURERS OF ROAD DIRECTION SIGNS

ST. PAUL'S STREET, WALSALL, STAFFS, and at 14/15 LAMB'S CONDUIT PASSAGE, RED LION SQUARE, LONDON, W.C.1

A MEMBER OF THE TI GROUP

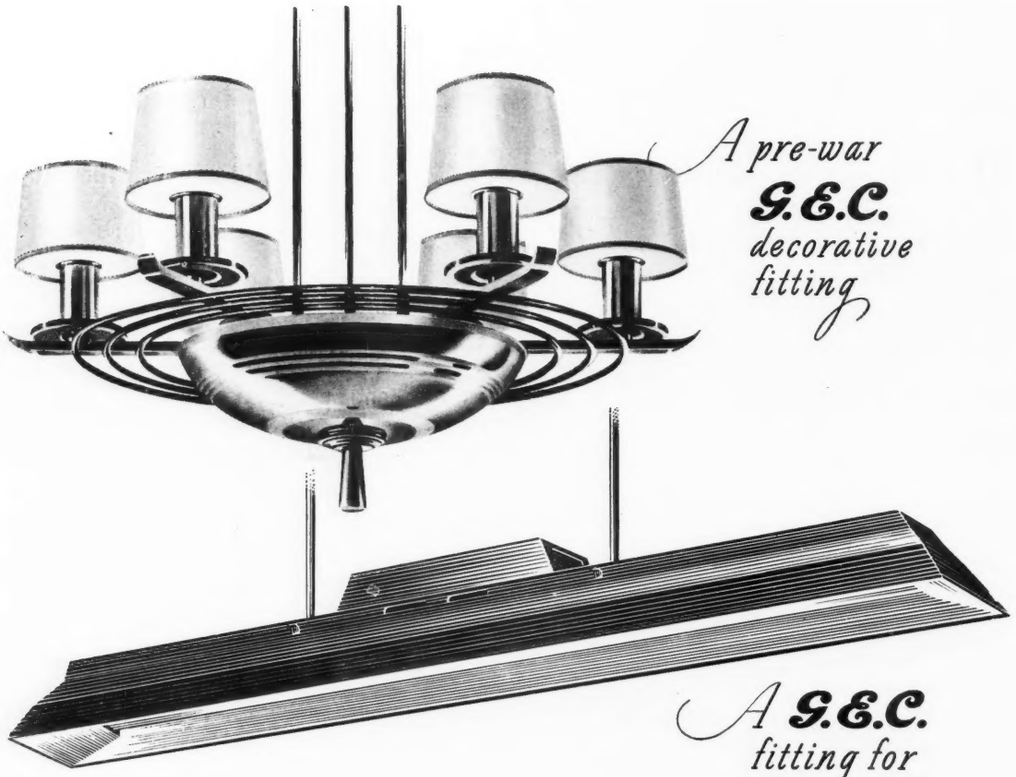
Marriages arranged

Once upon a time the only metal that could be sealed into glass was platinum. Chance research workers and craftsmen have produced glasses into which other metals can be sealed.

This has made possible mercury arc rectifiers, large cathode ray tubes and new radio valves. Successful marriages of this kind are all in the day's work to Chance Brothers — have any manufacturers a 'girl' who looks like being left on the shelf?

For Science, Industry and the Home **CHANCE GLASS**

CHANCE BROTHERS LIMITED, GLASS-MAKERS SINCE 1824, PRODUCE ROLLED PLATE, WIRED GLASS, PRESSED GLASSWARE, LABORATORY GLASSWARE, ARCHITECTURAL, DECORATIVE AND LIGHTING GLASSWARE, OPTICAL GLASS, SCIENTIFIC AND OTHER SPECIALISED GLASS PRODUCTS, MARINE AND AVIATION LIGHTING EQUIPMENT. HEAD OFFICE: SMETHWICK, BIRMINGHAM; LONDON OFFICE: 10, PRINCES ST., WESTMINSTER, S.W.1



A pre-war **G.E.C.** *decorative fitting*

A **G.E.C.** *fitting for the war industries*

when Peace returns . . .

. . . streets will have to be lighted for safe driving at night, shops lit again to attract sales, giant liners—our floating hotels—will vie again with each other in the attractiveness of their lighting, the entertainment world will emerge from its war-time dimness, and the homes of the people will express once again their individuality with light. Certain it is that lighting fittings of every description will be needed quickly, and equally certain is the fact that G.E.C. fittings designers and manufacturing craftsmen will not be unprepared for the great revival of illumination.

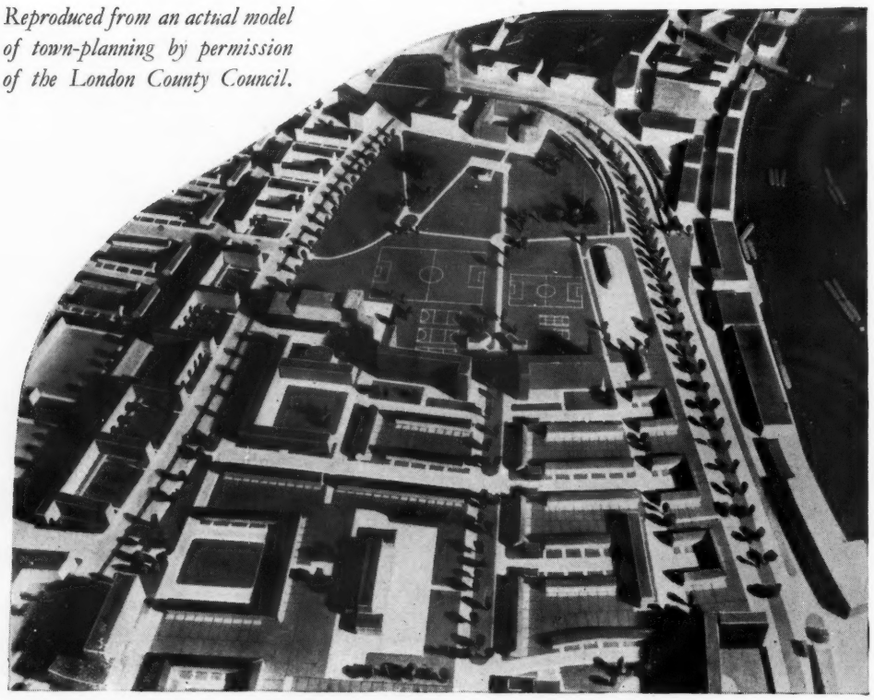
G.E.C.

DESIGNERS AND MANUFACTURERS OF

ELECTRIC LIGHT FITTINGS

Advt. of The General Electric Co., Ltd., Magnet House, Kingsway, London, W.C.2 D.F.2

Reproduced from an actual model of town-planning by permission of the London County Council.



LIGHTING CANNOT WAIT

Modern civilisation is making ever-increasing claims on artificial lighting. Public opinion will demand the provision of higher standards of illumination and a wider availability of the facilities which modern lighting technique offers.

This demand can be met most effectively when lighting requirements form an integral part of all structural plans from the earliest stages.

The Lighting Service Bureau—backed by the research organisations of its members—offers unrivalled facilities for providing information on all aspects of modern illumination. The Bureau is at your service.

E.L.M.A

ELECTRIC LAMP MANUFACTURERS' ASSOCIATION OF GREAT BRITAIN LTD

THE LIGHTING SERVICE BUREAU, 2, SAVOY HILL, LONDON, W.C.2

MAINTAINED BY THE ELECTRIC LAMP MANUFACTURERS' ASSOCIATION

Can LEAD be used?*

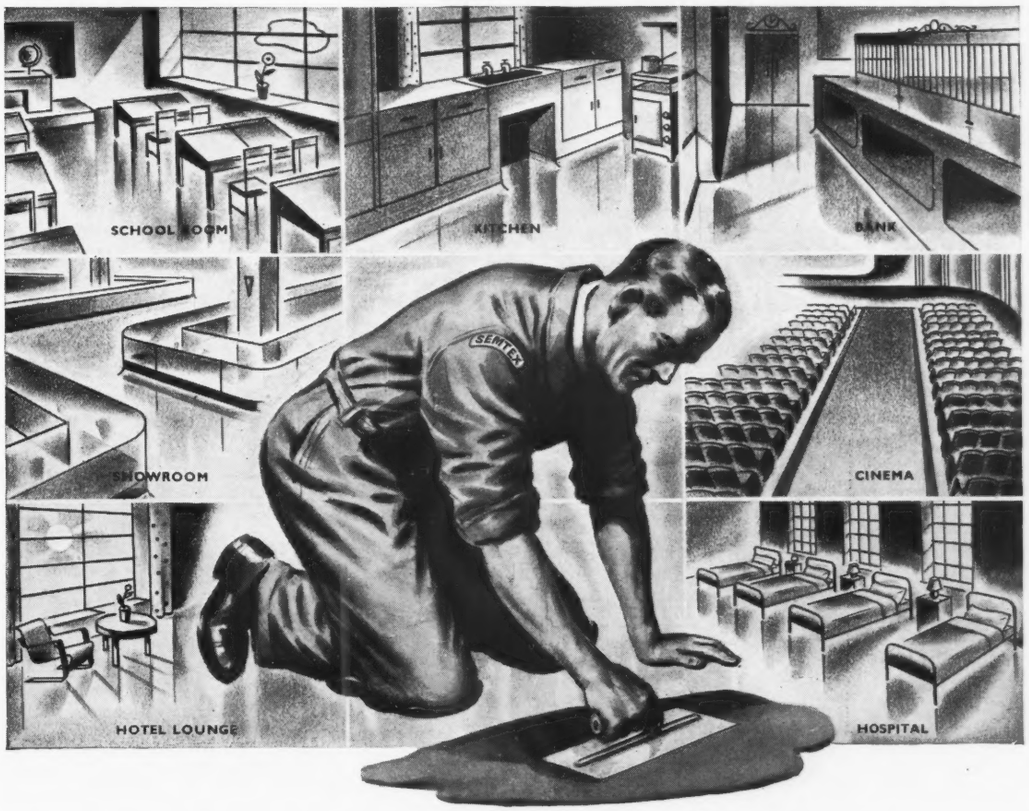
It is not possible, at the present time, to use Lead for all the jobs which it performs most satisfactorily in normal times. In a great deal of repair work it is a question of making do with a temporary material. The restrictions on the use of Lead are only as rigid as the National interests demand, and they may be relaxed from time to time. Since for a great deal of work Lead is the only really satisfactory material—because of its flexibility and protective qualities—it is well worth-while referring to the regulations governing the control of Lead before assuming that it may not be used.

LEAD

★For the latest details concerning the permitted use of Sheet Lead and Lead Pipe at the present time, consult your usual supplier or the revised Economy Memorandum issued by the Ministry of Works. For a summary of the best and most up-to-date methods of applying the unique properties of Lead to typical building problems, refer to the Technical Bulletins and Information Sheets issued by this Council, copies of which are available on request.

LEAD INDUSTRIES DEVELOPMENT COUNCIL · EAGLE HOUSE · JERMYN STREET · LONDON, S.W.

The Flooring of the Future



New floor covering compounds of a revolutionary character, that are applied cold on the spot, have been evolved by SEMTEX Technologists. Destined to play a vital part in the building programmes of the future, these fleximers contain no rubber, yet possess important additional characteristics. Fleximers by SEMTEX bond positively to steel, concrete or other rigid material. They provide a smooth, jointless, flexible, non-slip, damp-proof, hygienic and heat-resisting floor covering of great durability.

★ **Only work of first degree priority is at present undertaken, but arrangements are in hand for fleximer materials to become generally available for the building programmes of the future.**

FLEXIMER FLOORS BY SEMTEX LTD.

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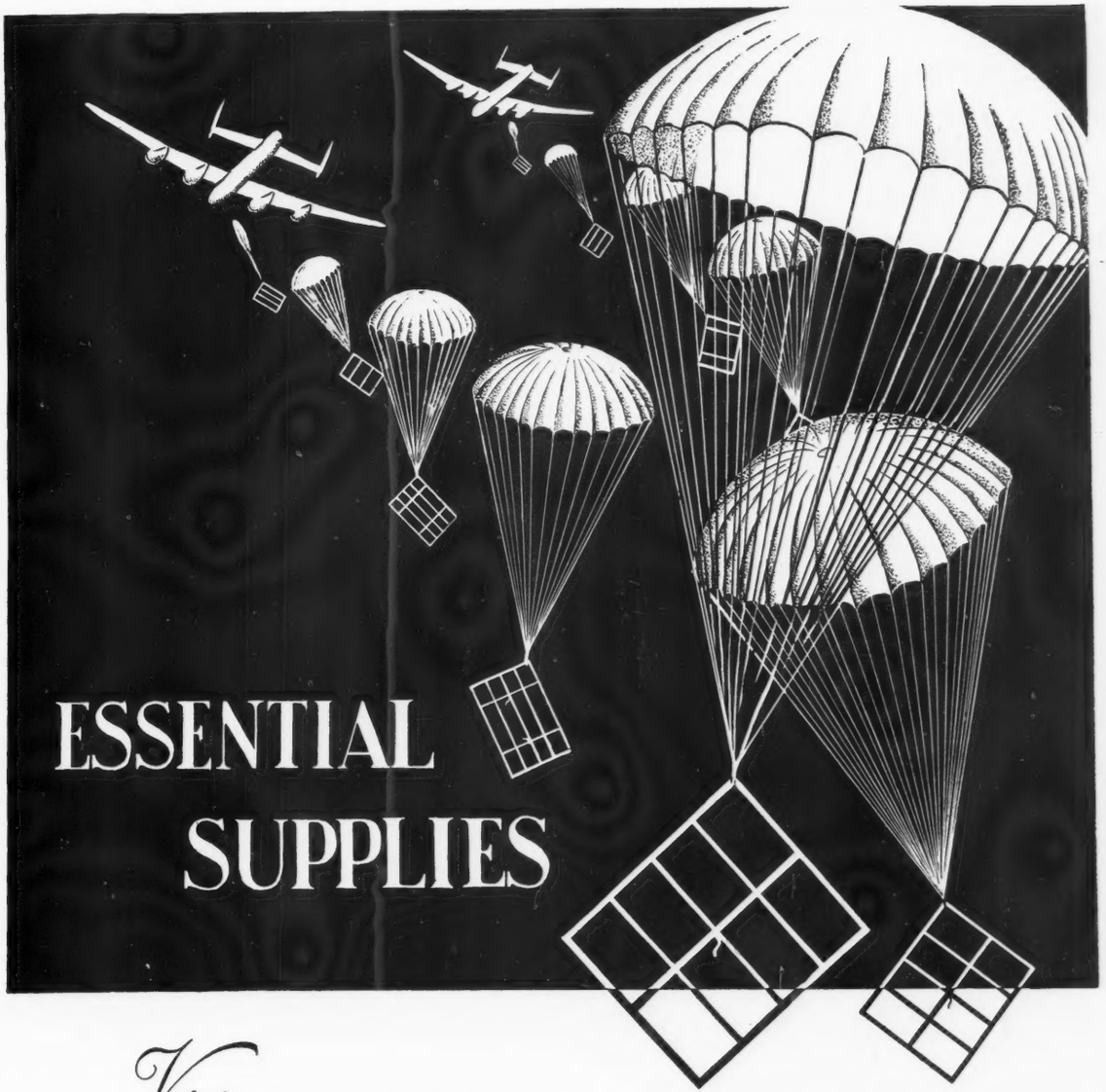
British Columbia Red Cedar — one of the many fine woods used by this Company to produce work of which the Industry can be proud, and of which the country will be in need when the time comes to rebuild.

The

Midland Woodworking Company Ltd

MELTON MOWBRAY

Craftsmen in Domestic Joinery



Vision . Post-war transport, an all-important feature of national economy, will be increasingly dependent upon the use of freight-carrying aircraft.

Symbolical of the trend of increasing air-mindedness in industry, Almarco *Superior* Metal Windows in the era of post-war reconstruction will maintain the high precision of construction adopted during the war years on aircraft production.

With victory and peace, Almarco *Superior* Rust-Resisting Metal Windows will again be available, bringing perfect vision for those with vision.

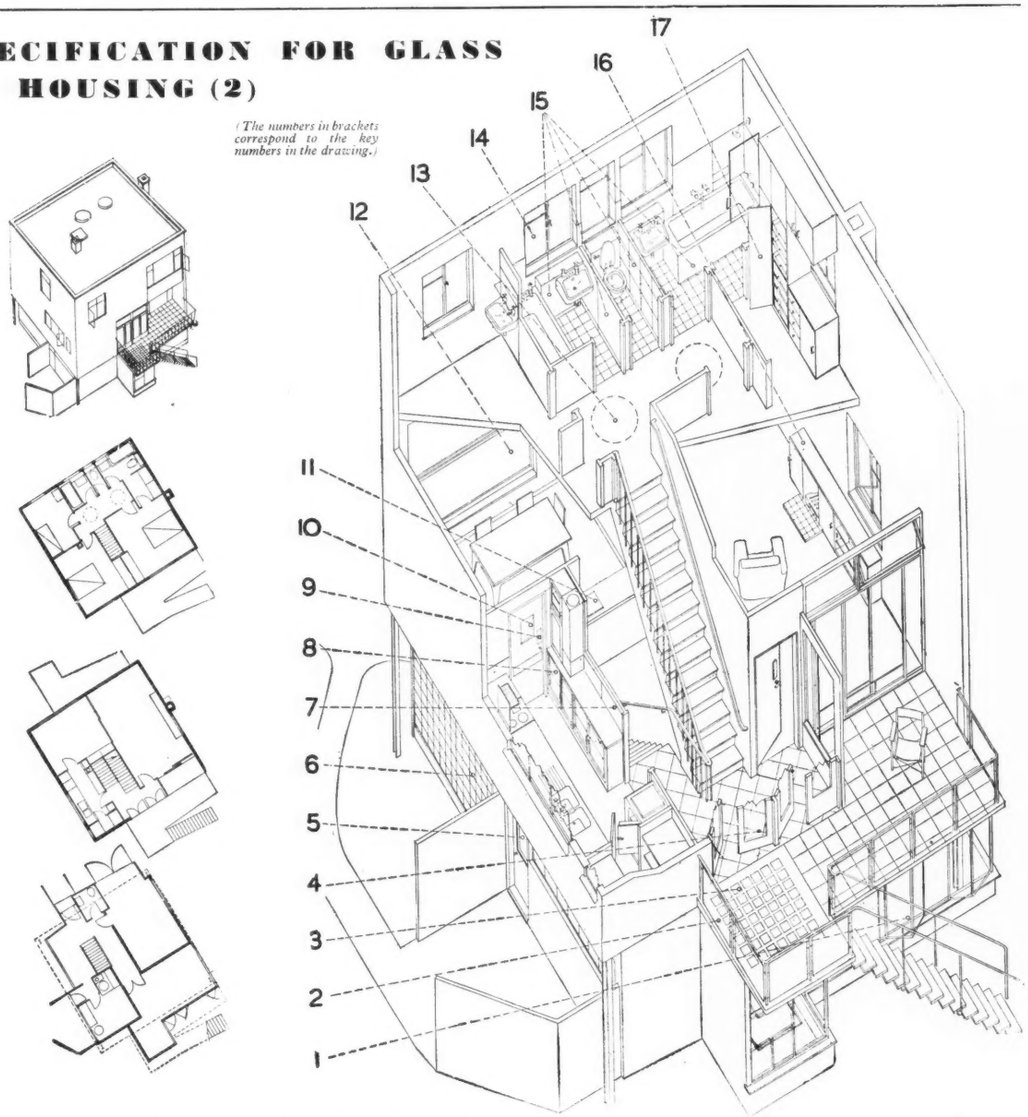
ALMARCO LIMITED

WELLINGBOROUGH :: The Centre of England

Almarco
The Superior Metal Window

SPECIFICATION FOR GLASS IN HOUSING (2)

(The numbers in brackets correspond to the key numbers in the drawing.)



SUN ROOM (1): Folding windows glazed with Clear Polished Plate Glass.

BALUSTRADE (2): Georgian Wired Cast Glass.

BALCONY (over sun room) (3): "ARMOURLIGHT" Toughened Lenses in reinforced concrete.
Doors (4): Clear Polished Plate Glass.

LAUNDRY *Door and Window* (5): Georgian Wired Cast.

HALL (6): Insulight hollow Glass Brick panel wall.

KITCHEN *Walls* (7): "VITROLITE" to dado height.
Cupboard doors (8): 24 oz. Sheet Glass or Clouded Cathedral.
(9): Plate Glass fingerplates to doors.
Service door (10): Panel in Double Rolled Cathedral.
Cooker doors: "ARMOURPLATE."
Refrigerator shelves: Plate Glass.
Hotplate (11): "ARMOURPLATE."

DINING ROOM *Window* (12): ¼" Polished Plate Glass to vertical sliding sash window.

FURNITURE: ¼" Polished Plate Glass to tops throughout.

LANDING (13): Rough Cast Glass roof dome to light interior.

BATHROOM and W.C. *Windows* (14): Pinhead Morocco provides light with privacy.
Walls: "VITROLITE" in ashlar sizes for w.c.
(15) "VITROLITE" panels to dado height for bathroom, and for access panel in front of bathroom duct and bath panel.

BEDROOMS: "VITROLITE" splashbacks and Plate Glass shelves to washbasins.

LIVING ROOM (16): "ARMOURPLATE" top to mantelpiece.

DRESSING ROOM (17): Mirror to door and reverse side of cupboard door.

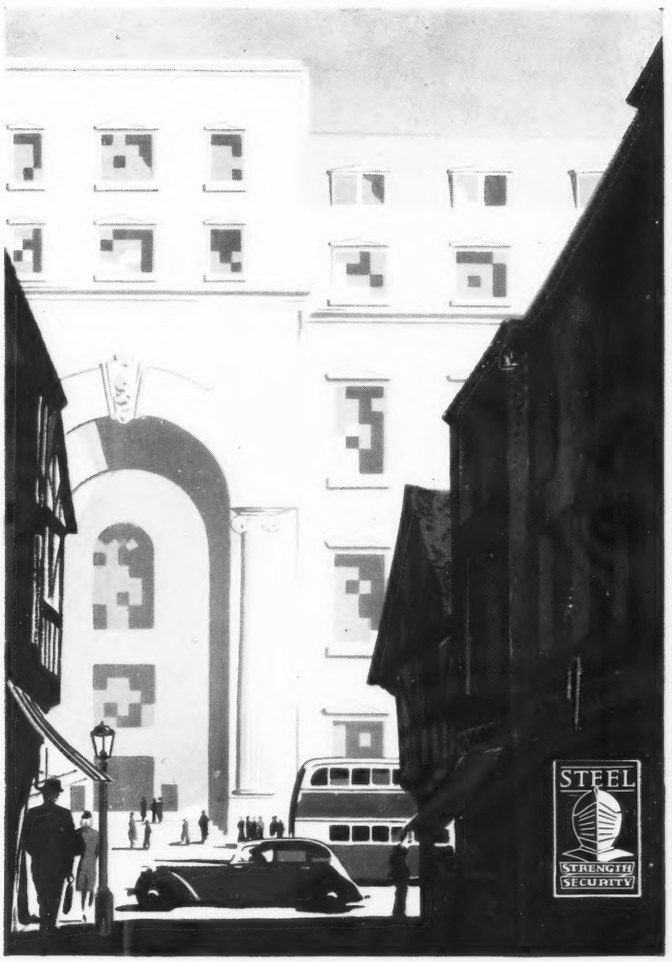
SILLS: "VITROLITE" in bedrooms, bathroom and kitchen.

GARAGE DOORS and FRONT DOOR: Fire-resisting glazing: Georgian Wired Cast.

LARDER *Window*: Anti-fly Glass.
Insulation: Foam Glass or Fibreglass board.

This is published by Pilkington Brothers Limited, of St. Helens, Lancashire, whose Technical Department is always available for consultation regarding the properties and uses of glass in architecture.

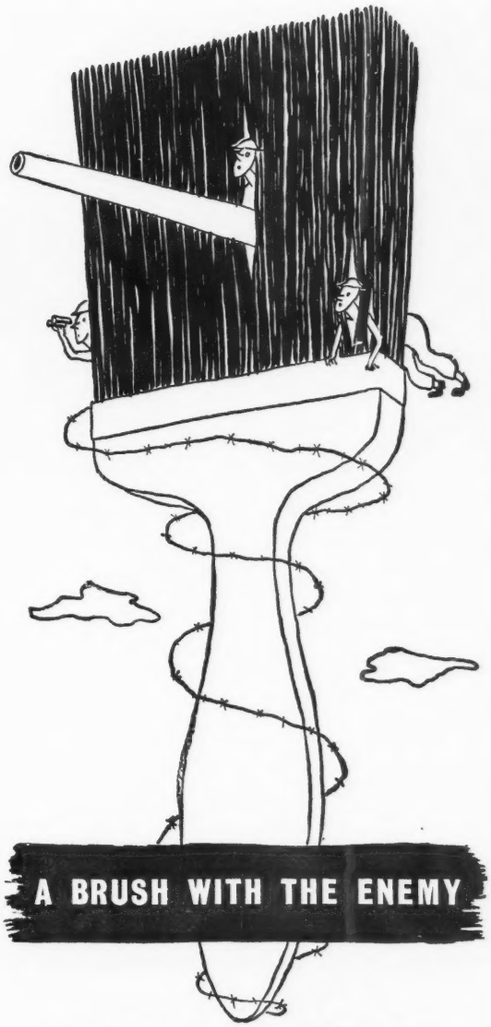
LONDON OFFICE & SHOWROOMS AT 63 PICCADILLY, W.1 - TELEPHONE: REGENT 4281
where architectural students may get advice and information on all questions relating to the properties of glass and its use in building. "ARMOURLIGHT," "ARMOURPLATE" and "VITROLITE" are the registered trade marks of Pilkington Brothers Limited.



BUILD IT WITH A

STEEL FRAME

THE BRITISH STEELWORK ASSOCIATION, WESTMINSTER, LONDON, S.W.1



A BRUSH WITH THE ENEMY

Manufacturers are constantly fighting other enemies than the common one. Heat, mist, fumes, snow, rain, hail, sleet, frost, acid—and sunshine—all do their worst to make 'depreciation' a very real item in the balance sheet.

We at Drynamels are always producing and perfecting paints, pastes and potions to combat depreciation to plant and our experience is always at your disposal.

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COVER INDUSTRY

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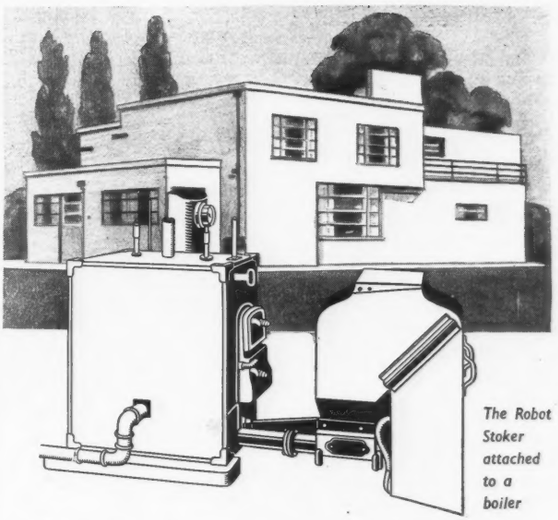


The Robot Stoker attached to a boiler

An Engineer planned STOKER FOR TOWN & COUNTRY HOUSES

● *Controlled Temperatures* ● *Constant Hot Water*

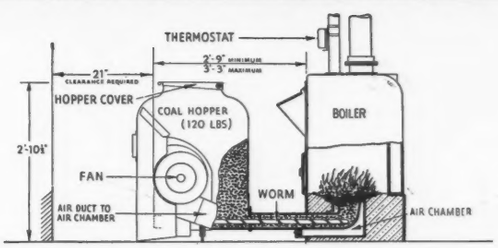
The Baby Robot Stoker is the Engineer's answer to the rather haphazard systems of heating town and country houses.

It can be applied to most domestic boilers, and comprises a coal hopper, worm conveyor and firepot complete with ¼ h.p. driving motor and forced draught fan.

The Baby Robot is **smokeless in operation.** It burns low-priced grades of coal and carries sufficient for a twelve-hour run on the boiler, with only a few minutes' attention per day. It is thermostatically controlled, giving a regular even heat up to 100,000 B.T.U.s per hour. This is generally suitable for a house with one bathroom, two washbasins and ten or twelve radiators.

An interesting folder with photographs and diagrams describing the Baby Robot Stoker will gladly be sent on application.

BABY ROBOT STOKER



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