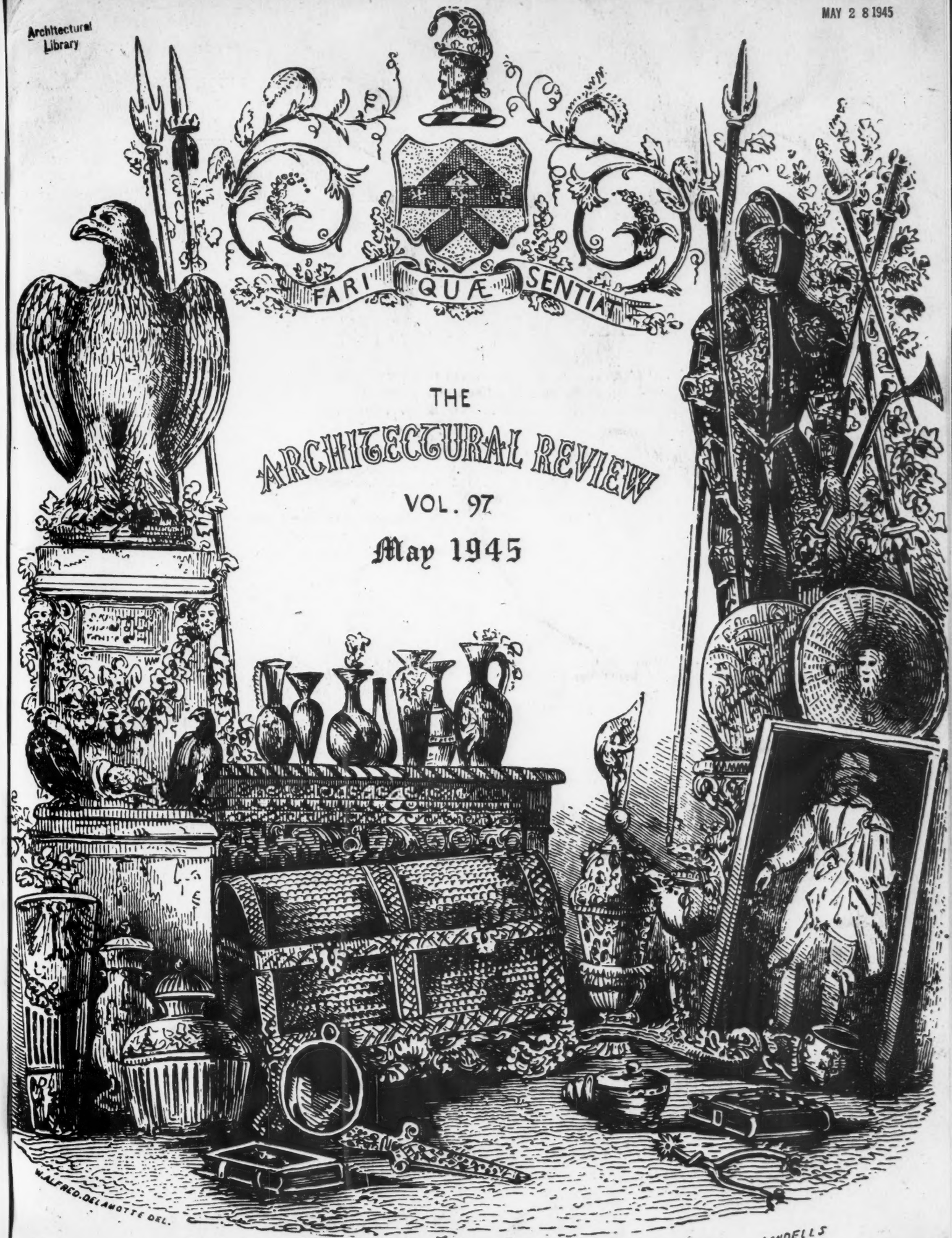

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THREE SHILLINGS AND SIXPENCE

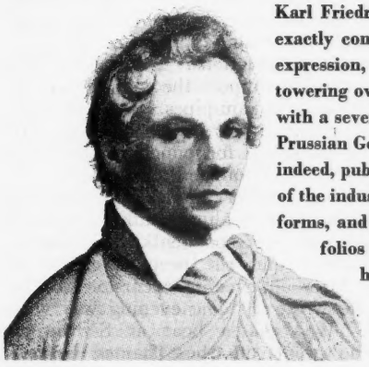
THE COVER. The contents of Strawberry Hill were sold by auction in 1842. The catalogue of the sale had a cover so characteristic of its date that it is reproduced as this month's cover. When it was designed by W. A. Delamotte, ninety years had gone since Horace Walpole had been busy with his Committee on Taste in reviving Picturesque Gothic as a fashionable contemporary style for building and furnishing. What would he have thought of this distant progeny? Perhaps it would have pleased him more than the archeological accuracy of church design coming in just at the time when the catalogue of the Strawberry Hill sale was designed. He would have disliked Scott's pedantry, but he would have acknowledged the fancifulness and folly of the unknown Mr. Delamotte, though he could not have had much patience with its coarseness. Incidentally, very few of the objects shown by Delamotte can have formed part of the Strawberry Hill collection. Most of them appear blatantly Early Victorian.

COLOUR IN THE PICTURESQUE VILLAGE ***East Budleigh, Devonshire***

The special importance of this particular series to architectural readers is the fact that it is a collection not of architects' but of painters' observations, reviving in its approach to building the picturesque English ideal of the 18th century. Just as the true meaning of the Gothic Revival, which at that time ran parallel to the Picturesque Movement, was obscured as soon as archeological imitation set in, and is only truly recovered now that we build with steel and glass on Gothic principles, though not in Gothic forms, so the picturesque approach can only be really helped to-day (help against a schematic inhuman treatment of contemporary architectural problems is much needed) if it is taken right away from the imitation of Tudor half-timbering and Georgian sash and pediment, and attempted afresh, with a mind familiar with Uvedale Price's ideas, or instinctively sympathetic to them, but with a modern eye. One surprise that will come of this attitude is the discovery of picturesque values in quarters where they are not looked for by any but the sensitive and unconventional painter. Only he will be able to understand the vernacular of the last century, and only he can expound the values, æsthetic and associative, of the "primitives" or the "incunabula" of modern urban civilisation. The village painter's sense of colour is more orthodox, and yet the ochres, browns, creams and apricots of cottage, pub and shop were in imminent danger of dropping out of our æsthetic patrimony, until Mr. Piper (and a few others of his generation) appeared on the scene. It need hardly be stressed that his compositions in colour are not meant to teach the architect what exact colours to introduce in what exact combinations and what exact positions. But they will stimulate him, if he has eyes to see. The architect is always in danger of seeing buildings, especially the ones he designs himself, in the isolation of drawing-board or model. He is also in danger of visualizing their final appearance in the very white white and the very black black of the most skilful modern photographers' shots. To counteract these dangers, pictures, especially contemporary pictures, are the best antidote. Just as a barn painted by Samuel Palmer does not look like a barn photographed, but makes us see the real barn more intensely, so John Piper's intensified, dramatized lines and colours make us discover qualities in real buildings—those of the past, and perhaps our own of the future as well—which we might otherwise never have seen.

A German Architect's Visit to England in 1826

By L. Ettlinger



Karl Friedrich Schinkel is one of the most interesting of Continental architects of the nineteenth century. Born in 1781 he is exactly contemporary with Robert Smirke and Thomas Hamilton. In the range of his genius and the sensibility of his formal expression, however, he surpasses them both. He started with decorative work, stage settings and dreams of Gothic cathedrals towering over romantic groves. His first building in the pure Greek taste was the Neue Wache at Berlin, dated 1816, a plain block with a severe Doric portico. The Berlin Theatre and the Museum followed between 1819 and 1830. It was for the latter that the Prussian Government sent him to London and Paris. The following pages show that far from confining his studies to museums or, indeed, public buildings, he got, as he travelled on through the country, more and more engrossed in the visual and social problems of the industrialisation of Britain. The results of his journey were manifold. Besides carrying on his Classic Revival in ever freer forms, and designing some churches in a style clearly inspired by the thin Neo-Gothic of the twenties in England, he edited portfolios of designs for craftsmen and manufacturers to prevent Prussian industrial design from that sudden decadence which he had seen in England. He designed the Academy of Building at Berlin (1832-35), a store (1827), and a library (1835)—the latter two never executed—in so utilitarian a style that it can only be explained by influences from the new English factories he had seen. These late works of Schinkel are, in fact, the first attempts of the nineteenth century at achieving a truly contemporary, essentially non-traditional style in architecture.

WHEN the defeat of Napoleon and the Vienna Congress brought power and prosperity to Prussia, King and Government set out on an ambitious programme to give Berlin an appearance worthy of the capital of a great state. They were fortunate in having in their service one of the best of European architects, Karl Friedrich Schinkel. Schinkel combined with a noble and sensitive mind a rare knowledge of the history of his craft, a rare scholarliness in tackling afresh each task that was set to him, and a still rarer understanding of the new problems of his age.

In 1823 the Prussian Government decided to erect a museum that was to hold its own amongst the art galleries of Europe, and Schinkel was commissioned to design it. So, in 1826, he was sent on a journey to Paris and London to study museum buildings.* However, once Schinkel had entered England, he was not content to see London only. For almost two months he travelled all over England and Scotland. His route took him via Birmingham, Sheffield and Leeds to Edinburgh, then across to Glasgow, up into the Scottish Highlands, and back via Manchester, Wales, Bristol and Bath to London.

Most of the towns he visited could not boast the amenity of an art collection. They were centres of the rapidly growing British manufacturing industries and interested Schinkel as such. His travelling companion was his friend J. W. P. Beuth, the head of the newly created Prussian *Gewerbe-Institut*, that is Institute of Trade. Half a century before another North German architect, Erdmannsdorff, had gone to England, as the companion of his friend and employer, the Duke of Anhalt. Their eyes were turned to the England of Robert Adam, of Stuart and Revett, of landscape gardening and the new fashion for Gothic garden furnishings. Now it was the England of the manufacturers and great engineers, the country of Boulton and Watt, of Telford, Brunel and Rennie that fascinated progressive travellers from across the Channel. The catalogue of distinguished foreign visitors to England in the early nineteenth century is long. All were equally impressed by the ingenuity of British engineers and equally repelled by the extreme ugliness of the industrial towns. For visitors from Prussia the contrast of what they could see here and at home must have been especially striking. At the end of the first quarter of the century over 70 per cent. of her population was still rural. There were no big industrial centres like Birmingham and Manchester. But Prussia was trying to build up industries and turned to England for help. Beuth visited England repeatedly; industrialists were invited to set up factories, and British workmen were employed.

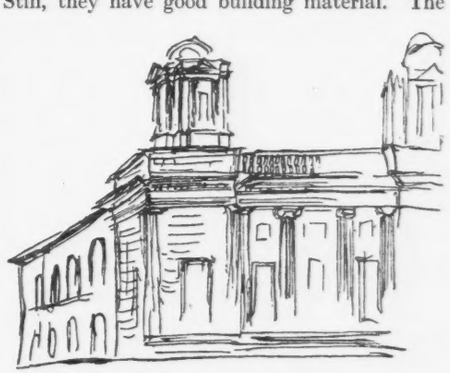
It would have been absurd had Schinkel gone into the English provinces to study the structure of art galleries, for there were no buildings which had been erected for this purpose. But Schinkel's was an extremely versatile mind. Wherever he went he ardently studied his craft, present and past, both in its great monuments and its trivial day-by-day problems. Moreover—and that adds considerably to the value of his diaries—he was an accomplished writer who could give a precise technical description just as easily as a poetical paraphrase.

As for the official purpose of his journey, the results of his study of British art collection buildings, public and private, were meagre. Schinkel's final report makes hardly any reference to those he had seen in England. In the diaries also notes on museums are scarce and scattered. What Schinkel thought about the British Museum may be worth quoting. "We went to the British Museum. Antique statues stand in the forecourt. The capitals of the columns in the main entrance hall are Doric. The new building is based on the architecture of the Erechtheum. All iron girders are hidden by wooden ceilings. The main staircase —each flight is twelve feet wide—rests on iron girders. The stones are very weak. The construction is not commendable. The gallery of antique sculpture is housed in very small rooms, which are lit from above; it is of homely size and can be seen comfortably. Precious works of all descriptions attract the attention." The British Museum is not the only evidence of the fact that the designer of the *Altes Museum* was more attracted by the contents than by the actual buildings of English collections.

At this period of his life Schinkel was aiming at a new style which in his intention was to combine all the experience of the past with the new requirements of the present. He must have been specially eager to see how his English colleagues had tackled the problem of style. Their efforts did not satisfy him. Throughout we find guarded approval or outspoken criticism. This applies even to Soane. Schinkel's judgment on the Bank of England seems a kind of amused frown. "The Bank of England . . . has many rounded corners and on the whole a Corinthian style. The courts are attractive, yet there is much useless stuff. A simple row of columns separates one court from the next. The best thing is a triumphal arch on the south side of Lothbury Court after the model of the Arch of Constantine in Rome." Speaking of Edinburgh University, Schinkel remarks, "The building . . . was designed by Robert Adam. The decoration of the interior was later on modified by Playfair. The stone which was used here as well as for other buildings in Edinburgh is excellent. It lends itself to beautiful workmanship. The pilasters and other decoration are founded on the imitation of Greek monuments. Yet a refined sense of proportions and a coherent use of forms are lacking." A coherent use of forms? Once it is understood what Schinkel meant by this term, his criticism of other buildings and building compositions will fall into place. Schinkel had a very exacting sense of organic unity, unity of ornament with construction, of plan with façades, and of buildings with their natural and artificial surroundings.

English Palladian classicism seemed loose and superficial to him. Of Foster's Liverpool Town Hall, he said: "Everything is mere decoration; nowhere is there genuine architecture and sculpture." Nash's Regent Street and Regent's Park terraces irritated him particularly: "Often one sees long rows of palaces which are nothing but private dwellings, three to four windows wide, joined together by a common architecture."

This insistence on logic and coherence even blinded him to the charms of Bath. "The architecture of Bath is much praised in England, but it is dull and steeped in English triviality. Still, they have good building material. The



Liverpool Town Hall

* The letters and diaries from the journey are published in A. von Wolzogen: *Aus Schinkel's Nachlass*, Berlin, 1863, volumes II and III, from which the passages quoted in this article are taken.

situation of the town on hills and in valleys is pleasant and varied indeed, but the place is wanting in larger expanses of water and a skyline of a definite character. Parts of the town stretch a long way out and . . . up the hills . . . yet a master plan for the layout of the town as a whole is missing."

So much for Palladian and neo-classical England. Of mediæval England, Schinkel is strangely silent. He notes a Celtic cross, but as to mediæval architecture, considering the obvious influence of English Gothic forms on his own Neo-Gothic, one would expect him to say more for instance of St. George's Chapel, Windsor, than that it is "excellent," of York Chapter House than that he inspected it "with interest," or of Durham Cathedral and Castle than that "they present themselves extremely well" from below. To Oxford's architectural appearance he devotes a little more space. He praises the "magnificent approach" over Magdalen Bridge, draws details of Magdalen College, and abuses the "horrid termini" of the Sheldonian Theatre. Altogether he had little regard for the Stuart age. His few remarks on Wren and Inigo Jones hardly allow us to say that he recognized their genius.

Celtic Cross

From the scarcity and brevity of these historical remarks it appears obvious that he did not travel as an antiquarian (nor, as we have seen, as a civil servant with a particular task) but as an architect in search of contemporary solutions and contemporary problems.

London as such was one of the foremost of these problems. A city with one million and a half inhabitants must have been an exciting experience for Schinkel at a time when Berlin had barely 200,000. Berlin was then still wholly the royal residence, while London was the commercial centre of an overseas empire. "The merchant counts for little here," wrote the German poet Heine of Berlin in 1822, and he added: "The military cast is the most highly esteemed." Small wonder that Schinkel was dazzled by London. "Everything is colossal here. The town never ends. If one wants to pay three calls, it takes a whole day. Even within the town, distances are reckoned in miles." When he looked round from the top of the Monument, he observed, "We enjoyed the view towards London Bridge . . . and over the whole immense town as far as the North Sea. In spite of the fine day London was still wrapt in steam and mist. No end was to be seen anywhere, and all towers disappeared in the mist." Schinkel, as many visitors before and after him, speaks of "the narrow streets with the terrible noise of carriages and people" and complains about the hold-ups in the "narrow roads crowded by thousands of vehicles." In the same year an English visitor remarked about Berlin, "Unter den Linden . . . has much of grandeur and majesty, so that you would expect to see splendid carriages rolling by in constant procession. This, however, is not so. . . . The city seems built upon expectation that Prussia will some day or other require such a metropolis."

First and foremost Schinkel tried to acquaint himself with those latest developments of engineering construction which he could see in London. He made a close study of the Thames bridges: "We inspected several bridges, first Westminster Bridge, next Blackfriars Bridge (with sloping approaches from both sides and substructures for houses). Stairs lead up to it and great arches lead through the inclines." He admired Rennie's works—though he does not mention Waterloo Bridge. "We had a good look from above and below at Southwark Bridge, built by Rennie from 1814 to 1819. It has an enormous span and the three iron arches . . . make from underneath a very great effect indeed." Though stunned by the daring of the construction, Schinkel found time to observe and note down technical details. "The girders with edge are 3 in. thick, the simple girders are up to 14 ft. long and 7 to 8 ft. high." Throughout it is typical of Schinkel's observations that he notices small things just as well as big ones. "We went out and made our observations of the London pavements with their inlaid iron gutters which measure 4 in. in diameter."

He paid a visit to Brunel's Thames Tunnel, on which work had been in progress for about eighteen months. It seems that he had his doubts as to the practicability of this undertaking, but he noted that "Mr. Brunel was quite satisfied that the work would come to an end safely and well."

The port of London and its busy life must have overwhelmed him. His description of the London and West India Docks is one of the most detailed in the diary. "The Basin (of London Dock) can hold 250 ships. Tremendous warehouses and vaults with stone stairs and double iron doors, iron railways for transporting the goods and iron cranes are all round it. The wine cellars have room for 22,000 barrels; over them are the two tobacco warehouses of which the bigger is 160 ft. wide and 762 ft. long. The surrounding walls . . . the recently begun basin, the locks, the foundations of a crane, the swing bridge, etc., all deserve attention. We went on the water among the ships of the Thames across the place where the tunnel leads to the West India Docks. These were begun in the year 1800 under the direction of the engineer William Jessop. Their plan is very fine. Round the basins are iron and wooden sheds with excellently constructed roofs which are covered with corrugated iron tiles. On the weather-side, shutters have been fixed. In a sailor's inn on the Thames we breakfasted on ham and porter."

Schinkel's interest in modern technical developments took him to one of the works of the Gas Company. "It was an enormous establishment with seventeen gasholders of iron-plate measuring 40 ft. in diameter and 18 ft. in height, which are placed in big sheds." Gaslight in those days was fairly common in English towns, but it was not till just after Schinkel's return that, in September, 1826, it was for the first time installed in Berlin by an English company, the Imperial Continental Gas Association.

A number of London's factories was also visited. Meux's Brewery much impressed Schinkel, so did Bramah's iron warehouses. At Holzapfel and Doederlein's he admired the way in which oak grain was imitated by painting, and purchased the necessary instruments. In a letter to his wife he described the "mechanical workshop" of Henry Maudsley, who incidentally returned Schinkel's visit a few years later when he was in Berlin. The diary gives an account of this factory. "Next we went to the workshop of Mr. Maudsley, a fat, stout, hearty man, who has been rather unfortunate. A short while ago the iron roof of his factory had collapsed. He led us round personally and showed us his invention, a cleverly constructed steam-engine, with only one cylinder, taking up very little space, excellent turning-lathes, and his iron roof and stair constructions. The small hollow iron pillars which support the roof are at the same time used as rain-pipes. Over a vault made of iron and bricks is the foundry. We also saw a workshop for punching the holes which take the rivets of the boilers."

But the detailed observations of the architect and technician are not all. Schinkel also tried to convey to his correspondents something of the atmosphere and the peculiar charm of London. After an evening excursion on the Thames, he wrote: "The evening was very beautiful. We took a boat at Southwark Bridge and went on the Thames beyond Vauxhall Bridge. The town lying there without any smoke or mist gave the most glorious effect in the powerful evening light and stimulated most vividly in me the desire for a larger pictorial survey for which there was unfortunately no time. Such a journey down the Thames presents particularly beautiful pictures through the arches of the various bridges, which are reminiscent of Venice and make natural frames for the different views of the town." Another evening excursion, this time on foot, moved Schinkel to one of the most romantic passages in the whole diary. "I went alone for a walk to Blackfriars Bridge, Westminster and Charing Cross, to delight myself with the mysterious sight of London's venerable buildings in evening illumination. The time of dusk has always appeared to me to be the one in which the town looked most poetical. The multitude of dwelling-houses, built flimsily and with tedious monotony, is less vexatious to the eye. One looks down the long streets where the little gas-jets of the street-lamps and stalls glimmer through the misty air in the most peculiar way, and above the streets rise in proud majesty the gloomy masses of the magnificent buildings, churches, and palaces. The sins of badly imitated classical architecture are hidden by the veil of the falling night and only the impression of something imposing remains. But as the most beautiful of all beautiful sights there will always be fixed in my memory the view of the Thames from Blackfriars Bridge; for round it lies the most venerable part of old London, washed by the lordly river, with the quaint buildings of the Temple to the left and St. Paul's standing back to the right."

After three weeks in London, Schinkel and Beuth started on their journey into "the interior of England," as the former termed it. In the provinces even more than in London, interest in historical monuments and examples

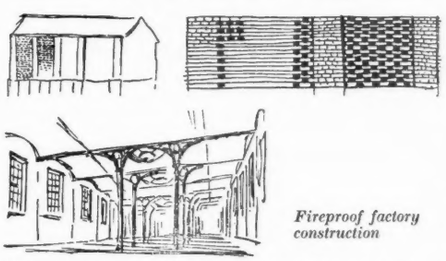
Manchester

of contemporary representational architecture is eclipsed by the impressions of industrialization. Here is what Schinkel writes of Birmingham: "How sad is the aspect of such an English industrial town. Nothing that could delight the eye presents itself. In this normally busy town of 100,000 the quiet of Sunday was chilling to the marrow. A few walks convinced me that there was much poverty . . . Some bad churches and in the market place a horrible bronze statue of Nelson by Westmacott, of which the main features are an enormous prow and the hero's mutilated arm, these are the main sights. . . . Our rooms were situated in an upper storey and offered a good view over the town. You may call this view 'Egyptian' because of the many obelisks and pyramids of the factory chimneys."

Sheffield is another example of what Schinkel found particularly characteristic of English cities. "In this town, famed for its cutlery, we were received by the smoke from hundreds of high obelisks. The whole town, spread out over valley and hill, looks grey and smoky. Many fires from furnaces were visible in the distance."

A visit to Newcastle-upon-Tyne brought acquaintance with a coal-mining centre. "The steep streets are usually old, narrow and black with soot, a true but ugly symbol of the coal trade."

It seems that Schinkel felt about these industrial towns very much the same as the contemporary French visitor, who said of Birmingham, "si ses habitants vont en enfer, ils n'y apprendront rien." His most detailed descriptions are of Manchester. Awe and horror are here mixed with a certain grudging admiration for sheer scale. Of the cotton mills he says: "Here are buildings seven to eight storeys high and as big as the Royal Palace in Berlin. They are vaulted and fireproof. . . .



Fireproof factory construction

The streets of the town lead through these masses of buildings and across the streets run bridges connecting the houses. Thus you see it all over Manchester. . . . The bleaching works are not less impressive. . . . The big canal of the town first leads across roads . . . next comes a lock, then the canal leads under a road and through a high building. . . . Railways high up on scaffolding go across the streets." When Beuth had visited Manchester in 1823 his impression had been very similar. He had written to Schinkel, "The miracles of the new age, my friend, are the machine and the buildings for it, called factories. Such a thing is eight or nine storeys high, has sometimes as many as forty windows along the front and normally four to the side. Each storey is twelve feet high, vaulted throughout the whole length, the span being nine feet. The columns are of iron, so are the beams on top of them. But the walls are like playing cards; in the second floor they are not even two and a half feet thick. It is said that a gale blew down such a house before it was finished. That may be so, but without exaggeration about a hundred have been standing here for forty or fifty years, and they still stand as in the beginning."

Whilst in Manchester Schinkel not only got an idea of what an industrial town looked like at its worst, he got ample proof of the social evils connected with early industrialism. There was unrest just at that time owing to unemployment and bad pay. But Schinkel was not concerned about that. The architect and town-planner in him was absorbed by what he saw. "Since the French war four hundred new factories have been established in Lancashire. One can see buildings where three years ago there were still meadows. Already now these buildings are as black as if they had been in use for a hundred years." Schinkel's final comment is: "The huge masses of buildings, set up by a contractor alone without any architecture and made from red brick for the barest necessity only, make a rather gloomy impression."

Less gloomy, strangely enough, appeared to Schinkel industrial development in the country-side. Here his romantic sense of picturesque beauty got the better of his architectural and social conscience. When visiting Dudley, he recorded this impression: "The district is pleasant. In the distance you see the smoke from the famous iron works, which stretch for many miles. The thousands of smoking obelisks are a grandiose sight." And this of the Potteries: "In the broad valley which is about seven and a half miles long and three miles wide, there are just as many potteries as there are iron works at Dudley. The towns of this industrial region have a queer Indo-Egyptian appearance because of the numerous factories." Even Lancashire pleased him quite well: "Everywhere there were factories . . . the country houses and parks of the rich factory owners, always near the factories and often situated in pleasant valleys, made a pretty and homely impression." Of the Stroud Valley he wrote: "The factories (they are all textile works) are hidden behind high lime trees, elms and larches. They take their turn with the churches, which are placed in similarly picturesque situations." It is obvious that Schinkel did not realise yet that industry was going to swallow up the country-side, though he was fully alive to the fact that it had already spoiled the towns.

In these the slum problem did not escape his attention either. He remarks of Edinburgh: "You could not think of a greater contrast than that of emerging from the filth, narrowness and poverty of the cave-like dwellings in the old parts of the town, black and crudely built, into the splendour, elegance and brightness of the new town. Still a few wide and fine streets have been laid through the old town, so that a stranger will only rarely discover anything of its true character." The same conditions he observed in Glasgow. "Glasgow's new streets are well built. But the whole town has sprung up during the last forty or fifty years. Therefore one can see streets with houses which, in sharp contrast with the splendour of the new town, still have thatched roofs and are built from a very poor grey stone. The Clyde is crossed by two stone bridges and an iron one. The canal connecting the Clyde with Edinburgh is 300 ft. above the level of the river, falling down to it by way of several locks. One can see the ships in it above the roofs of the houses."

After the towns, the industrial landscape and the slums, the other paraphernalia of the new epoch were eagerly studied. The new suspension bridge of Brighton Pier is mentioned with more interest than the "enormous magnificence" of the Brighton Pavilion. The "beautiful iron bridge in one span" at Coalbrookdale, received attention too. A special excursion was made to the Menai Bridge, which had just been opened. "We went to see the big suspension bridge which Thomas Telford has built. . . . It is an admirable work. The suspension cables are 700 ft. long, the span is 560 ft. The bridge has a clearance of 120 ft. at low and 100 ft. at high tide. . . . When a carriage crosses the bridge there is no shaking whatever." On the way from Llangollen to Shrewsbury the Bridgwater Canal, its aqueducts and tunnels were studied in detail. "All these are ingenious works by Mr. Telford, who by his road building in Wales deserves immortality." Of English roads Schinkel observes that McAdam's system of surfacing is "now universally accepted."

Firth-Clyde Canal

It is obvious that Schinkel was much more favourably impressed by English engineers than by English architects. Telford and Rennie drew from him words of praise which neither Nash nor Robert Adam ever received. The boldness and ingenuity of the new forms, their matter-of-fact honesty and simplicity appealed to him, even in small details. He visited one of the early railroads, destined to carry coal. "A railroad was interesting, on which 28 trucks with coal are quickly moved by a steam engine. J. Blenkinsop has built a 'Patent Steam Carriage' at Middleton, near Leeds, which can carry 100 tons over a distance of 3½ miles in one hour. I bought a little engraving showing this curious institution. Only two labourers are employed to get away the coal. The track is supported by bricks, at some places there is a double track. The trucks have openings through which the coal can fall out."

But Schinkel was not satisfied with noting the influence of industry on the appearance of town and country and with studying the new inventions, he wanted to gain an intimate knowledge of the power which worked these changes. That was not always easy. A factory is no museum. A number of factories which he would have liked to inspect were closed to all visitors, or at least to foreigners. He had to forgo seeing Boulton & Watt's famous Soho works, and Strutt's factories at Belper. Maybe the machinations of Prussian emissaries had something to do with this ban on visitors, for not all of them had come as honest students like Schinkel and Beuth. We know that such a man as the Freiherr von Stein, when visiting England, had tried to persuade two of Boulton's men to sell themselves and their master's secret to Prussia. The baron's "conduct was not agreeable to Mr. Boulton's notion of honour." We can safely say from Schinkel's diaries and letters that he made no attempt to gain wrongfully knowledge of processes and trade secrets in spite of his keen interest and sharp observation.

Every conceivable type of industrial undertaking and industrial installation was visited by Schinkel and Beuth—a papier-mâché factory at Birmingham, a factory in Glasgow, where circular saws were cutting veneers, a new hospital at Derby with air heating and water-closets. Turners' shops, glass works, silk, cotton and flax spinning mills, foundries, etc., were inspected. Where there was something to be learned from the latest developments, it was carefully noted down. Here is another part of Schinkel's description of the Black Country. "You see mainly winding engines for getting coal, iron, and limestone from the

pits. Only the beams of the steam engines are under cover, but the piston and fly-wheel as well as the boilers—there are always two to one engine—are in the open. We visited first the Gospel Oak Iron Works which are of an enormous size. Fifteen steam engines, puddlers, furnaces, rolling mills, a tin-plate works, drills, etc.—everything is very interesting. From the furnace the iron comes three to four inches thick and gets on to two rollers which make it into plate-iron. A cutter easily cuts iron four inches thick."

Such detailed observations apply, of course, particularly to a type of works which was entirely new to Schinkel. His description of one of the London Gas Works has already been quoted, the Edinburgh Gas Works were not only described but also sketched. " This is an excellent institution. Sir Walter Scott outlined the plan for the whole, the architect William Burn executed the building with great refinement of construction. The two sketches explain the frontal view of the gasholders and the central building together with details of the roof construction, and the iron railings which surround the gasholders."

The fruit of all these studies was to come in after years. It is noteworthy that not only the problem of how to find a suitable style for factory architecture dawned on Schinkel in England but something much farther-reaching. Though he occasionally noted down details of factory construction, though he realised the unwholesome influence of industry on town-planning, he was most concerned about the application of industrial processes to the manufacture of works of art. In Birmingham he met with an extreme example. A Birmingham manufacturer had cast the great Warwick Vase in bronze. " It took four workers six months to make the moulds, and the execution in the factory took another six years, only to get in the end the most miserable work of art on a colossal scale. The whole thing must have cost him at least 10,000 Thalers. All sculptured parts are laid on and that is the reason why the thing is so poor. No part is creditably well sculptured; the whole is below criticism. Much worse was a bronze statue—six feet high—of the King of England. Every baker could make a better one from dough." As to the reasons of this failure Schinkel has his own ideas. " The factory is old-fashioned, the man rich. He need not work much."

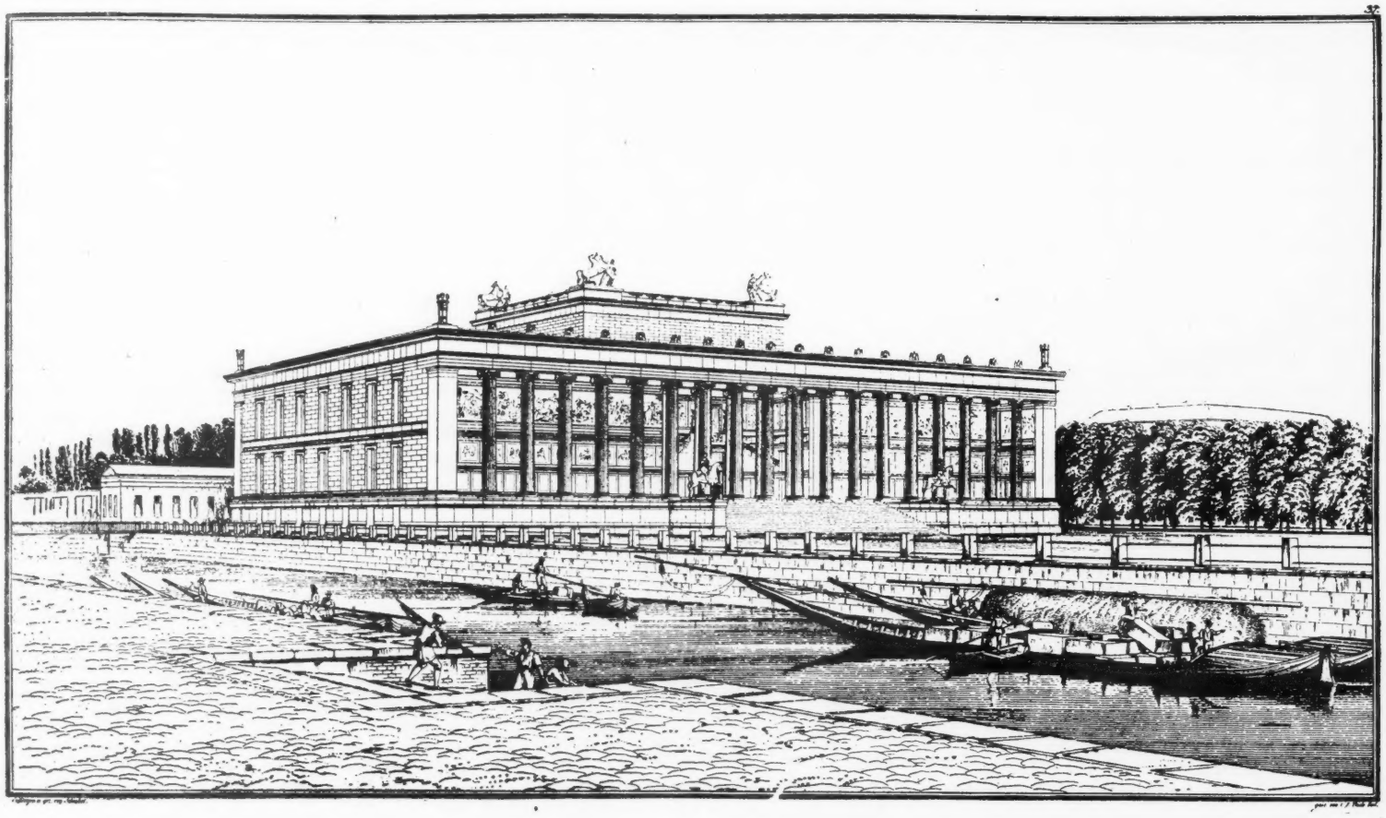
But Schinkel realised—and was one of the first to realise—that there were deeper connections between the profit motive of the manufacturer and the lack of taste in the product. After his round of Birmingham factories he summed up: " Wherever the fine arts show their head, everything becomes unbearable."

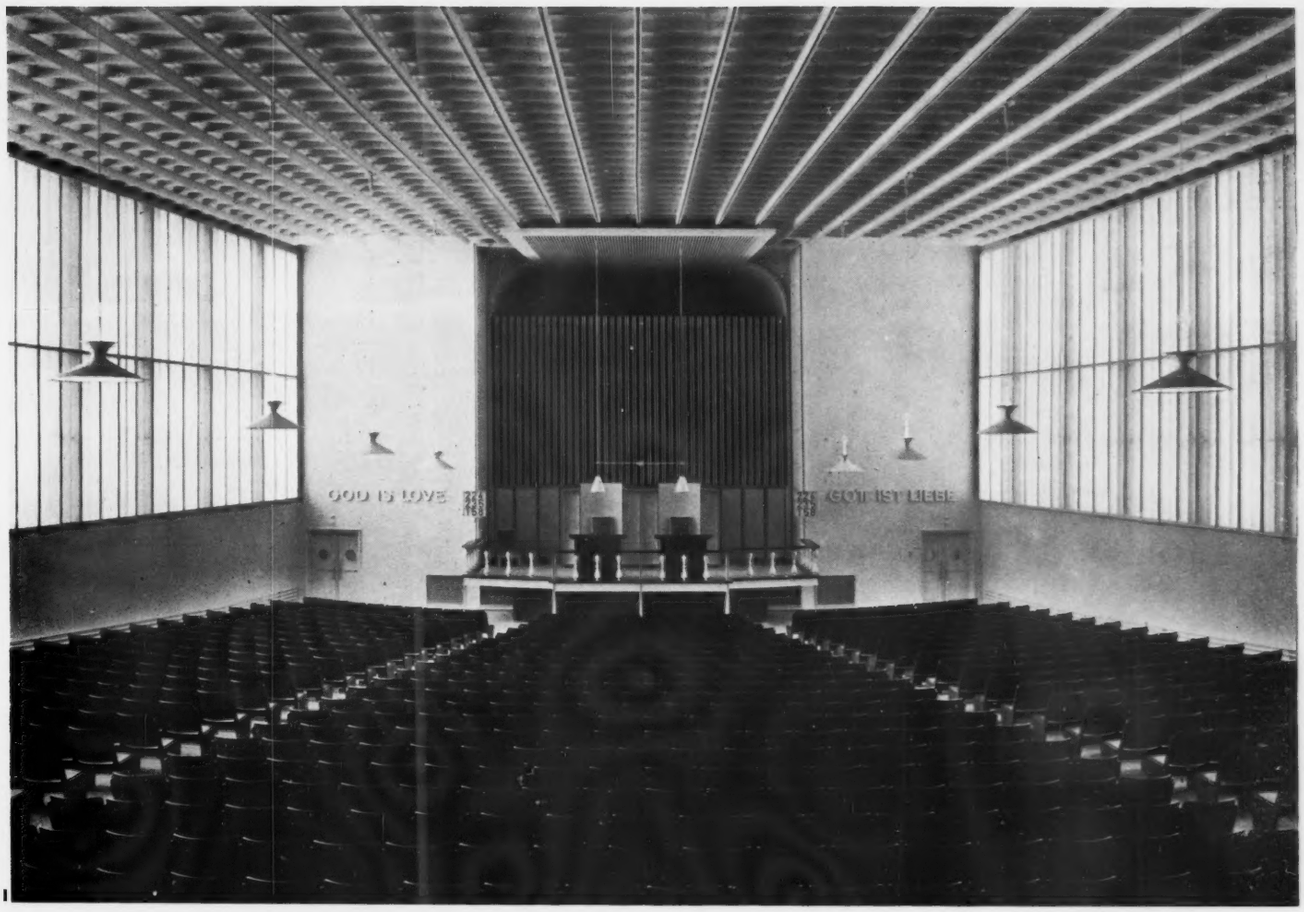
Now Schinkel and Beuth were both keenly interested in the future of industrial production in Prussia. They must have asked themselves whether such a decay of art was the necessary consequence of manufacturing industry, or whether a high standard of art could be maintained under the new conditions. Schinkel apparently did not blame the machine; he blamed the " taste of the mob." So it is quite likely that a connection exists between the journey of 1826 and the publication by Schinkel and Beuth in 1834 of a book of *Patterns for Manufacturers and Artisans*. Here the joint authors pleaded for a closer contact between the designing artist and the manufacturer. Special reference is made to the lack of such collaboration in England. " A merely technical perfection of manufactured goods in any country—e.g., England—must be based on commonly accepted high standards of construction. . . . Yet if taste were as common in England . . . we would not have such a decay as that which makes us shudder when we look at the ornamentation on products of the pottery trade."

The remedy recommended is a separation of designer and maker, a concentration of art on design and of machine technique on exact reproduction of the design. We read in the Preface to the *Patterns*: " It is impossible to regret the progress of mechanical science, which limits the artist to the intellectual side of production, since that is the part which cannot be replaced by science. . . . If industry makes it possible, by reproducing a work of art easily and exactly, to bring it to all classes, if thus we do not have to gain our knowledge of art in galleries and almost inaccessible private collections, then we may indeed hope that from the seeds scattered in this way, a bloom may come up here and there and carry fruit."

This then was the hopeful outcome of Schinkel's journey. He had listened to the message of industry, undaunted by the gloom and ugliness of its appearance in England. He had even recognised why Manchester and Birmingham were so grim and fearful. Necessity had set up utilitarian structures—the architect who should combine necessity with beauty had not been called in to collaborate. Perhaps we can understand better now why he disliked the English classicists and praised the engineers. The latter who had but to follow the dictates of their construction, fulfilled their task straightforwardly and truly. The former failed in truth and beauty. Schinkel's own architectural ideal was one of truthful—we may even say functional—beauty. In English architecture he saw either a dead formalism, the carrying on of a tradition out of touch with the calls of a new epoch, or a grim utilitarianism, indifferent to æsthetic values. And " indifference towards the fine arts "—this was the firm creed of Schinkel, the humanist, " comes close to barbarism."

The Altes Museum, *the Old Museum in Berlin, the immediate cause of Schinkel's journey to England. He had been asked in* 1823 *to design a public museum for Berlin and was sent abroad to study recent museum buildings. His is perhaps the purest of all public buildings in the Neo-Greek style on the Continent. The centre of its interior is a rotunda in the Pantheon tradition.*





FIRST CHURCH OF CHRIST, SCIENTIST, ZURICH

Hans Hofmann and Adolf Kellermüller

Interior and exterior of the church. The interior, **1**, is seen towards the dais. The trellis of the ceiling and the upright wooden fins against the windows should be noted. The exterior, **2**, shows the steel supports exposed and the metal canopy a little detached from the wall.

GENERAL—To the visitor from England the most interesting architectural development in Switzerland just before the war and during its early years, when building was still relatively unrestricted, was a consistent if many-sided exploration of monumentality. The Zurich National Exhibition of 1939, Moser's Congress Hall (or *Tonhalle*) and the Fribourg University, illustrated in THE ARCHITECTURAL REVIEW, May, 1943, were the three most important contributions. This church is yet another, smaller, but in spirit and even up to a point in detail, of the same order.

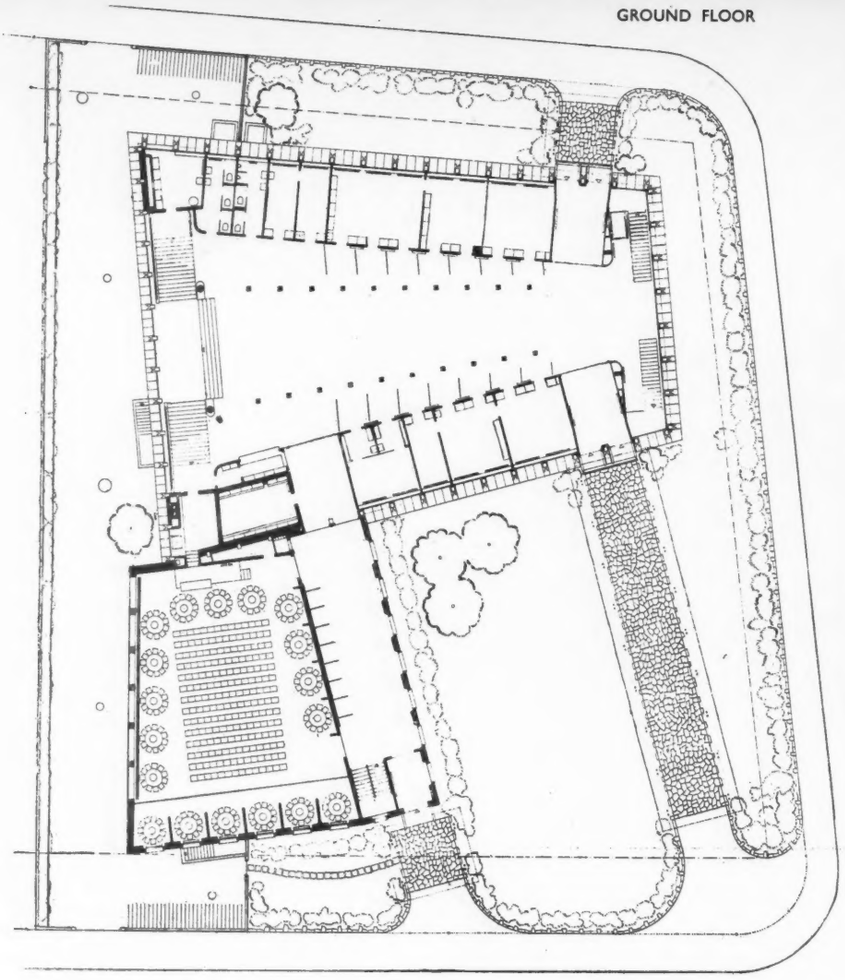
PLANNING—Required accommodation was a large church room with about 1,100 seats and a smaller hall suitable for meetings and Sunday school, with about 550 seats. The two rooms may be used simultaneously. All disturbance in one room by service in the other had to be avoided. A loudspeaker on the other hand makes it possible to hear in the Sunday school room the organ which is at the dais end of the church behind and above the chairs of the readers. Bye-laws determined plan and elevation in so far as the church room itself with its entrance porch had to be placed at the west end of the site against the least busy street. The church room was not allowed to be higher than 50 feet, the Sunday school not higher than 30. No more than forty-seven per cent. of the site was permitted to be built on.

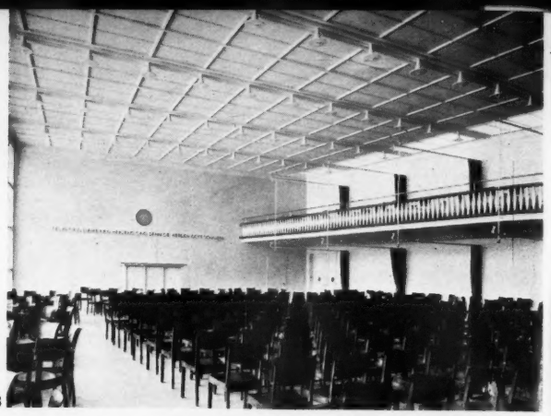
There are two main entrances, both with far projecting canopies on slender metal supports. The one from the west leads to the large church vestibule extending all under the church itself, which is reached by a generously spaced double staircase on the south side. Arrangements for cloaks are in the vestibule. Along its west and east sides are offices, committee rooms, library, muniment room and lavatories. The other entrance to the building is on the east. It takes members to a wide corridor from which access to the church is on the west, to the Sunday school on the north. The church has all its seating arranged in lecture-theatre fashion. There is no separate gallery. The Sunday school has rows of seats in the centre and round tables with ten chairs each arranged all the way round for the use by study groups. There is a gallery for more of these round tables. Altogether twenty-nine such groups can be accommodated at the same time. The caretaker's flat is to the north of the Sunday school, above the corridor.

CONSTRUCTION—Foundations, basement walls and basement ceiling are of reinforced concrete throughout. Sound insulation was especially important in the basement, as a railway line runs immediately below the site. The church room has a steel frame. The walls are of two layers with all the glazing fixed. Ventilation is by a special air conditioning plant. The outside covering of the walls is of artificial quartzite slabs. The Sunday school wing has weight-bearing walls and iron roof construction. The church roof is of timber, copper covered. The interior walls are fabric lined and oil-painted.

APPRECIATION—The attempt at achieving monumentality while avoiding the pompous and ponderous connects this Swiss building with a good deal of recent public architecture in Sweden. The similarity is especially noticeable in the staircase, **10**, with its

GROUND FLOOR





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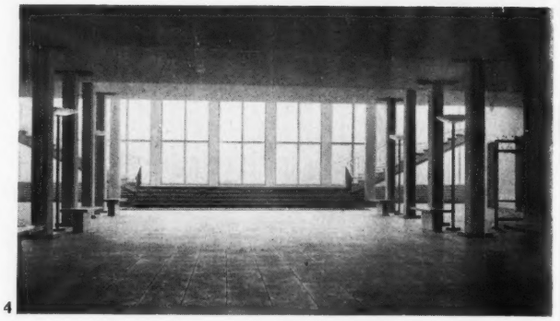

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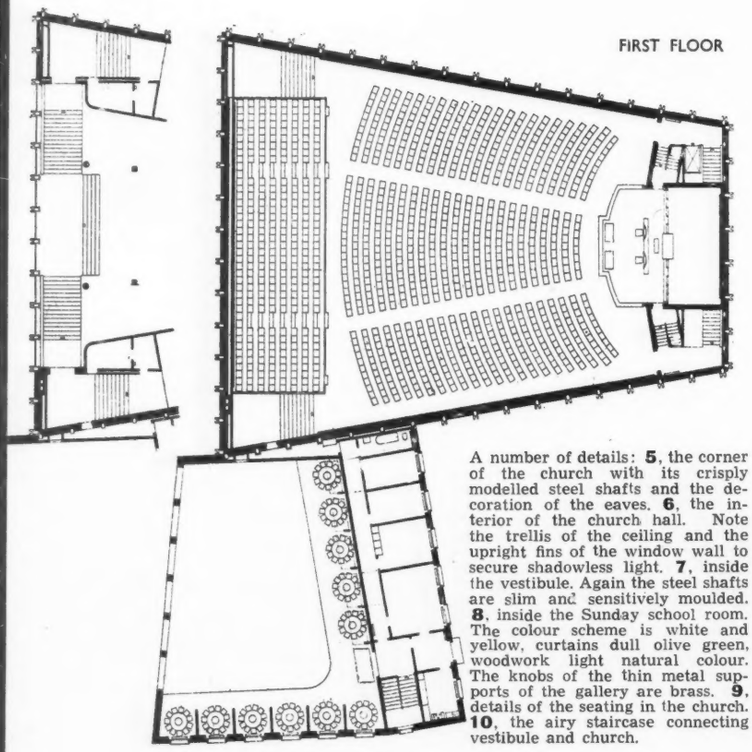
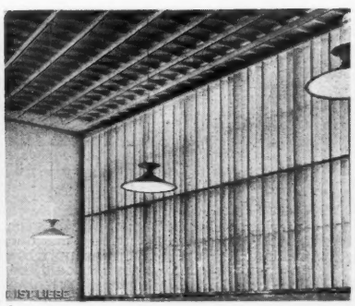
The site joins on to a main road on the north. No entrances were permitted there. They are placed in the side streets on the east and west. The plan consists of two parallel-epipeds, the larger to the west for the church with its large vestibule and cloakrooms, **4**, below, the smaller to the south-east with the Sunday school room, **3**. The seating in the church is arranged in the lecture-theatre way. In the Sunday school special accommodation was required for a number of reading or study groups. The tables and chairs for these are placed in niches and can be further partitioned off by curtains.

FIRST FLOOR



A number of details: **5**, the corner of the church with its crisply modelled steel shafts and the decoration of the eaves. **6**, the interior of the church hall. Note the trellis of the ceiling and the upright fins of the window wall to secure shadowless light. **7**, inside the vestibule. Again the steel shafts are slim and sensitively moulded. **8**, inside the Sunday school room. The colour scheme is white and yellow, curtains dull olive green, woodwork light natural colour. The knobs of the thin metal supports of the gallery are brass. **9**, details of the seating in the church. **10**, the airy staircase connecting vestibule and church.

5



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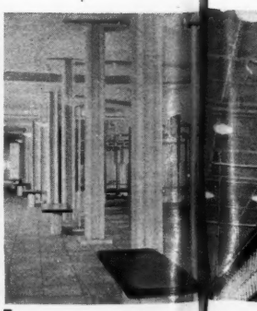

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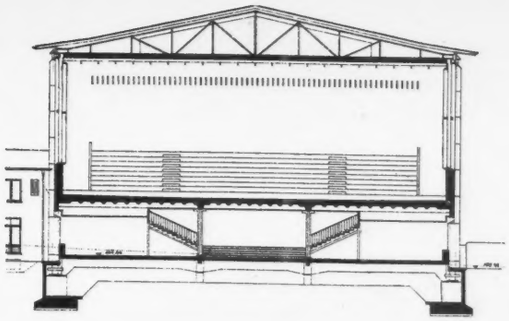
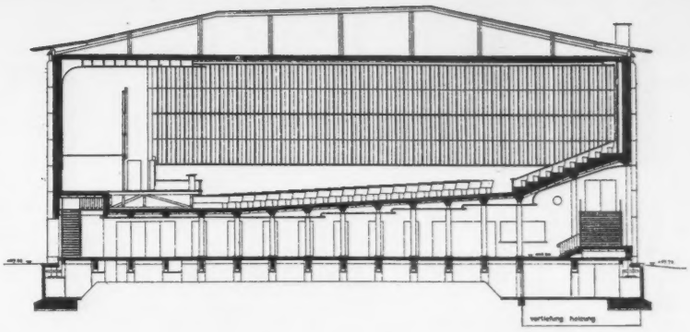
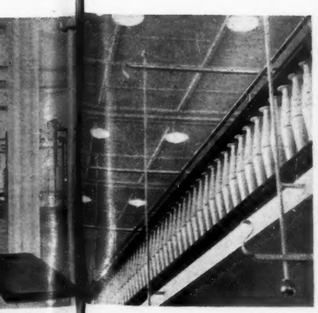




10

graceful railings and the sensitive placing of the light-leaved indoor lime-tree. On the other hand the Swiss are more inclined to introduce a few light touches of the classical which the Swedes since Asplund consistently avoid. Thus the wooden balustrades of the Sunday school gallery, **8,** and the church dais, **1,** and also the proportions and lintels of some windows, **12,** strike one as somewhat conventional. The architects probably like the contrast between the uncompromisingly modern elevation of the church room and the more traditional Sunday school wing in front of it, **11** and **12,** or the contrast between the slender unadorned uprights of the dais wall and the bulbous forms of the balustrade.

Another Swiss characteristic is the re-introduction of some decoration, particularly in the shape of trellis-patterns of various kinds, **1, 6** and **8.** Their ancestry may be Perret's Parisian concrete ornament, but they have in Switzerland a slimness and shy grace which strikes a new note in modern architecture and goes exceedingly well with the general crispness, thinness and precision of mouldings and other details, **5** and **7.** In the church room the trellis of the ceiling is answered by the upright wooden fins against the windows, **1** and **6,** which secure even, shadowless lighting. A typical example of how carefully the architects avoid the impression of mass and weight, wherever they can, is the way in which all porch canopies are kept just a little detached from the walls to which they lead, **2** and **11.**



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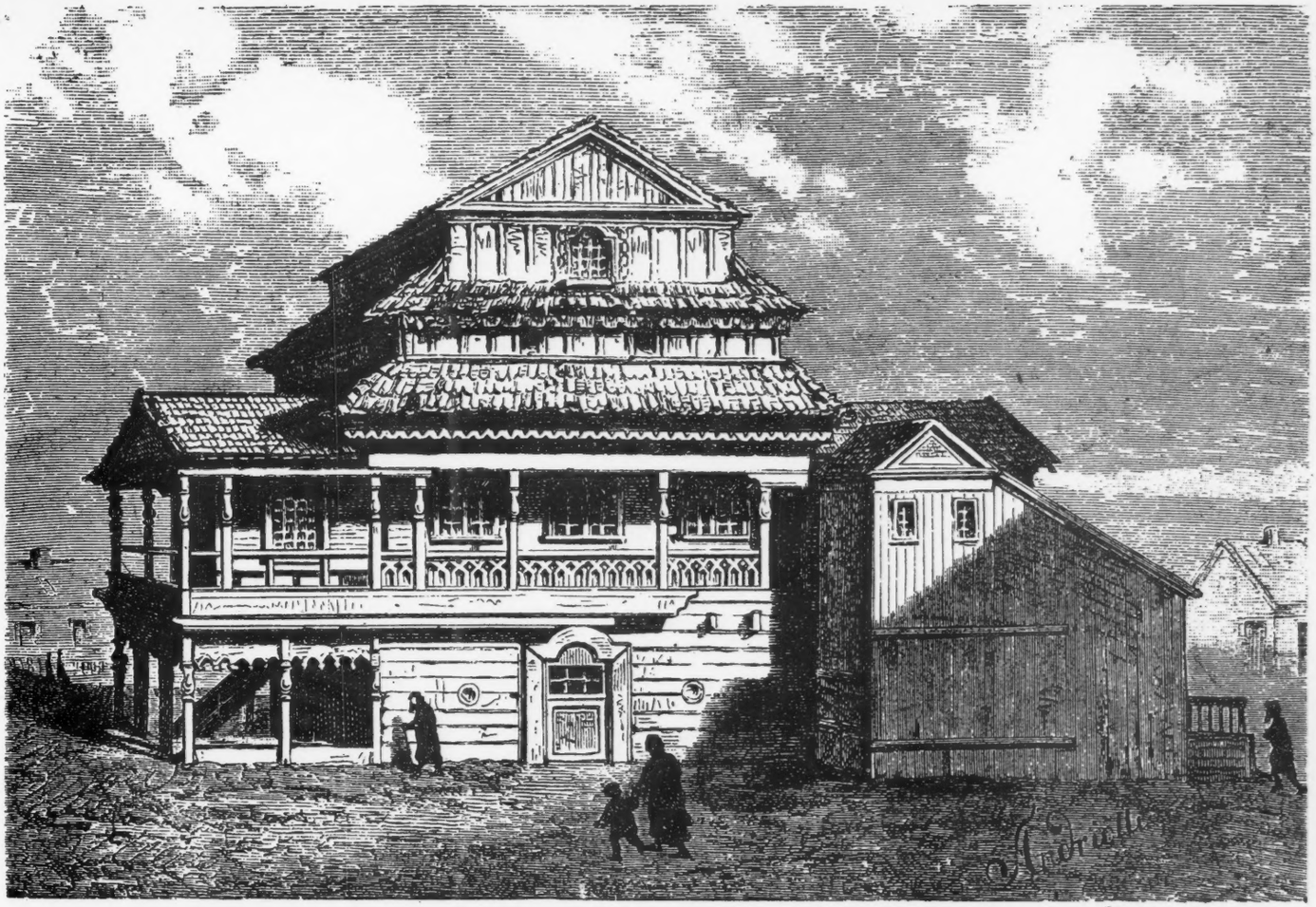
11

12

Church and low Sunday school wing from the east, **11.** In **12** the same view at closer quarters after three young trees had been planted. The contrast between the sharp and sparingly moulded front of the church and the somewhat more conventional stone wall of the Sunday school is no doubt conscious. The trees are clearly part of the composition.



SYNAGOGUES OF EASTERN EUROPE

THE ARCHITECTURAL REVIEW does not go in for atrocity stories and has tried to avoid undocumented reports of war damage. But it must be assumed that of the synagogues to which this article is devoted very little survives. The most characteristic work was in timber. And after the burning of synagogues in Germany during the years in which the Nazis only waged their private war against the Jews at home—what can possibly have saved wooden Jewish temples in Poland, Moravia, the Ukraine and the surrounding countries? The stone buildings we may, after the war, still hope to find at least as shells, but for the wooden ones the photographs on the following pages are bound to prove a record of immense value. They were collected by Mr. Loukomski during extensive travels in 1933-36. Visits were paid to 144 synagogues and innumerable drawings brought back. With the aid of what is left of these—for unfortunately many fell victims to the Spanish war and the flying bombs—Mr. Loukomski is planning to publish a book, as soon as conditions will permit. Meanwhile this is a pre-view of what is most important among his materials. Mr. Loukomski's approach to Jewish architecture is that of an unbiased architectural critic. He is best known as the author of books and papers on Renaissance and classicist masters: Giulio Romano, Vignola, Palladio, Sangallo and Charles Cameron (see THE ARCHITECTURAL REVIEW, January, 1943). There is with this record no danger of his falling into the theological or nationalist traps, which have proved the undoing of a considerable amount of literature on Jewish art and building.

By Georges Loukomski

introduction

THE aim of the following pages is to bring out the Jewish characteristics of Jewish religious architecture and to prove the existence of an original Jewish style apparent in the plans, elevations and decoration of synagogues, though as a matter of course expressing itself in the terms of the ruling styles of whatever country and period they belong to.

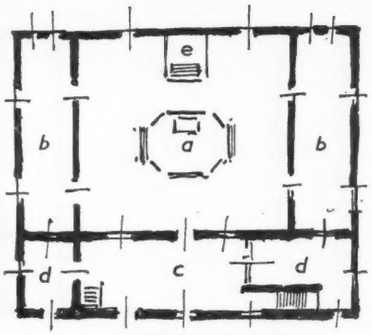
The oldest surviving synagogues of Europe, stone buildings in Spain, Italy, Portugal, Germany, Czechoslovakia, Holland and England, are in their architecture nowhere specifically Jewish. They can therefore here be left out of consideration.

It is to Eastern Europe that one has to go to find the most consistent and religiously and nationally most eloquent Jewish buildings. To these, the synagogues of Poland and the adjacent countries, Moravia, Bohemia, Lithuania and the Ukraine, this article is therefore confined.

It is strange how scarce are the scholars who have as yet analysed, grouped and systematically presented Jewish architecture of the East in its sources, development and types. The majority of those who have written on it have been non-architects, chiefly theologians, philologists and historians, that is men whose primary interest was not visual. It may be connected with this fact that so much opposition exists against the thesis of a genuinely Jewish achievement in architecture. All kinds of sources have been claimed to explain the splendours of the synagogues, especially the wooden synagogues, of Poland without having to admit their essential originality.

Thus for instance A. Mickiewicz, the celebrated Polish poet of a hundred years ago, suggested that the masons of Syria had brought their ancient traditions of building into the countries of the East. He even tried to connect Noah's Ark with Polish synagogues. Mathias Bersohn, the Polish scholar whose important papers came out about 1900, took up these romantic suggestions and also pointed to Syrian temples as the examples of Jewish temples. It was not difficult to

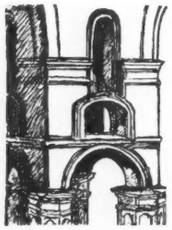
WOODEN SYNAGOGUES

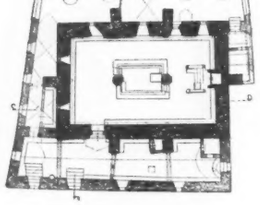


Some Wooden Synagogues in Poland and their approximate dates

BILGORAJ C. 18
BOGOLI c. 1750
BRZEZANY C. 17
BRZOZDOWCE C. 17-18
CHODOROW 1652
CHYROW 1740 (5500)
DZIALOSZYN C. 18
FELSZTYN C. 18
GLEBOKIE C. 17
GNIEWOSZYCE C. 17
GRODNO c. 1750
GWOZDZIEC 1640
JABLONKA C. 18
JABLONOW 1650-1680
JANOW C. 18
JARYSZOW C. 17
JAZLOWIEC C. 17
JEDWABNE 1770
JEZIORY C. 17
JOZEFOW C. 18
JURBORG 1790
KAMIENIEC-LITEWSKI C. 18
KAMIONKA-STRUMILOWA 1730
KONSKIE C. 18
KOPCZYCE C. 17
KURNIK 1767
LANCKORONA
LUTOMIERSK 1767-1772
MIEDZYSZYCE C. 18
MOGILNICA C. 17
NASIELSK after 1750
NOWE MIASTO C. 18
NOWOGRODEK (Lomzynski) C. 17
ODELSK C. 18
OLKIENIKI C. 17
OSTROLEKA C. 17
OSTROWIEC C. 17
PARECZOW C. 18
PECZIENIEZYN c. 1750
PILICA C. 18
PODKAMIEN C. 18
POHREBYSZCZE C. 17
POLANIEC C. 17
PRZEDBORZ C. 18
ROPCZYCE C. 17
SIEROSZYCE C. 17
SLESIN C. 18
SLUZEWO C. 18
SNIADOW 1768
SOBOTA C. 18
SOPOCKIN C. 18
STANISLAWOW C. 17
STRYKOW C. 18
SUCHOWOLA c. 1750
TARYSZOW C. 18
TELAKI C. 18
TOMASZOW-MAZOWIECKI C. 18
WARKA C. 16
WIELUN C. 18
WOLPA after 1650
WYSOKIE-MAZOWIECKI C. 16
ZABLUDOW 1712 (5472)
ZGIERZ C. 18
ZLOCZOW C. 17
ZYDACZOW C. 17

STONE SYNAGOGUES

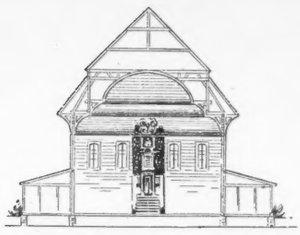




The Synagogues of Cracow

1. STARA, WIELKA (Great) c. 1356
2. REMUHSHUL founded c. 1553
3. RABI EISIG BESISCH JEIKELES founded 1640
4. HOJSHE SCHUL founded c. 1590
5. KUPASCHUL founded 1648
6. POPERSCHUL founded 1620

The dominant interior feature of the stone synagogues discussed in this article is the Bema *or Almemor, that is the central reading pulpit. In wooden synagogues it has often a canopy on four piers, in stone buildings these piers are raised right up to the top so that they form the support of the vault of the whole room. The three examples here drawn by the author are Nowogrodek on the left, Slonim right top, and Maciejow right bottom. The Bema plan, however, is not, it seems, the most ancient synagogue plan. Medieval synagogues are of a different type. One of the most precious surviving examples (if it still survives) is the Old-New Synagogue in the Ghetto of Prague, a two-aisled building with six Gothic rib-vaults on two polygonal piers. It dates probably from the late thirteenth century. Its plan is reproduced on the left. Plan and interior arrangement are very similar in the oldest of the Cracow synagogues, the Stara Wielka, a photograph of which appears on page 144.*



invalidate this hypothesis. The most typical Polish synagogues are built of timber, and there is nothing but stone available as a building material in Syria.

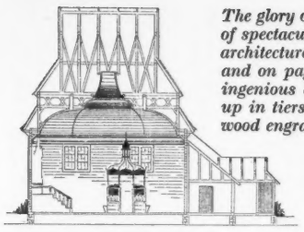
While Mickiewicz and Bersohn went abroad to find the origins of Jewish architecture in Poland, others have looked to sources possible closer at hand. Thus Professor Szyller attempted the proof that the wooden synagogues of Poland provide a clue to the style of heathen religious architecture in Eastern Europe. Their argument is that the first synagogues of the ninth to eleventh centuries would just as likely have imitated the forms of existing heathen temples of the sixth to tenth centuries as later synagogues of the sixteenth and seventeenth imitated those of the then existing Christian temples.

Professor Pavlutski of the University of Kiev got nearer the truth by pointing to similarities between Jewish and Christian wooden temples in Poland and also between synagogues and barns or similar farm buildings. This view has found much favour with Polish scholars—at the expense of those qualities in synagogue architecture which raises them high above any of the non-Jewish timber buildings. There is sometimes an unpleasant flavour of nationalism in these controversies. Moklowski, for instance, says against Bersohn and his emphasis on what is Jewish in Jewish buildings: "Jewish separatism should have no place in independent and impartial research." Wrong as this remark is, one can in fact find Jewish nationalism confusing the issue almost as badly as Polish nationalism. For among Zionist Jews the preconceived conviction occurs that no nationally Jewish forms can or must exist outside Palestine, and that therefore the synagogues of Poland cannot be representative of true Jewish culture. The depressing result of this kind of argument from the Polish as well as the Jewish side is that, once the Jewish style in Poland is not accepted as Jewish, architecturally creative power must be denied the Jews altogether. Thus political prejudice obscures scholarly investigation.

A word must in this context be said about the designers of synagogues. Polish writers tend to overstress the participation of Polish architects. However, it can be proved that certain synagogues of the seventeenth and eighteenth centuries were built by Jews, such as Simcha ben Salomon Weiss of Luck. The synagogues of Lutomiersk, Zloczów, and perhaps Kurnik were designed by Lilel Benjamin of Lask, the synagogues of Przedbórz, Szydlów, Dzialoszyn and Pinczów are, it seems, the work of Jehuda Lejba, who was not only a mason but also an outstanding decorator. More evidence on the architects of synagogues will, it is to be hoped, come out, when local research is resumed.

wooden synagogues

The plains of Western Russia, the Ukraine, Lithuania, Poland and the bordering countries (Bohemia, Moravia, Moldavia and Rumania) were inhabited entirely by Slav races until the eighth, ninth and even tenth centuries. The earliest Jewish immigration was that of the Khazars from about 1725 onwards. They and others somewhat later came in by way of the Caucasus and the Crimea, between the Dnieper and the Danube, the Dvina and the Black Sea. They were, no doubt, familiar with heathen conditions and even buildings. Later, waves of Jews came from the West, from Germany and Bohemia (and among them were also some few Jews who had been expelled from Spain). Theirs had been the countries with a centuries old and flourishing tradition of stone architecture—Christian as well as Jewish. Now they had to settle down in, and make the best of, villages and small towns in and around which building stone was scarce and timber plentiful. They saw good use made of timber by the Poles and realised that, if they wanted temples at all, timber was



The glory of East European Jewish architecture are the timber synagogues. There are plenty of spectacular stone buildings designed and erected by Gentiles, but there is nothing of wooden architecture to emulate the synagogues discussed in this article and illustrated on these pages and on pages 140 to 148. Their manifold and picturesque outlines and their elaborate and ingenious construction are equally striking. The most prominent motifs are the roofs built up in tiers of varying pitch and the grouping of centre room and corner pavilions. The wood engraving on the extreme left is of Nasielsk, the large one on page 139 of Jurborg (Jurbarkas, Georgenburg) on the border of Lithuania and East Prussia. The sections show from left to right Lutomiersk, Chodorów and Gwozdziec. The plan is of Pohrebyszcze. It is typical of the usual accommodation and arrangement, with central Bema (a), Thora Shrine on the wall facing the entrances (e), side rooms for women (b), a central anteroom (c), and waiting rooms in the pavilions (d).

the only material to build them with. Thus it can safely be assumed that the earliest synagogues of Poland were wooden structures, although surviving stone synagogues in Poland go back to the fourteenth century, while none in timber are preserved earlier than the sixteenth. It would be vain to try and guess what these first Jewish buildings of Poland looked like. It is probable that local timber technique and timber motifs were blended in them with functional requirements of the synagogue and certain elements of Western stone architecture. What is more important than such hypotheses, is the fact that the Jewish immigrants soon developed in an original way whatever they may at first have taken over from local timber traditions, and that the result of their adaptation and transformation surpasses in æsthetic qualities anything known of secular or ecclesiastical Polish timber architecture.

Who were the designers of these synagogues ? The tendency has been too much to attribute them to Polish, German or Czech architects. Even if this can occasionally be verified in the case of stone buildings, the assumption seems quite absurd where we are concerned with timber architecture. The wooden synagogues of the Polish villages were built by the villagers with local means and materials, and by collective effort. Most of these villages and small towns—the larger towns have no timber synagogues—were wholly or predominantly Jewish. Why should Gentiles have been specially invited from outside to supply designs of so Jewish a kind ?

Wooden synagogues can be divided into three types, all completely different from those of the neighbouring churches. The first and simplest is rather reminiscent of the Polish hay or grain storing barns. The second is square and has a pyramidal roof in one or, by division with decorated cornices (podcienie), in two or even three tiers. Sometimes (as at Wolpa) the eaves are curved up as in Chinese temples. The third type is oblong and has a roof enriched with arcades (for instance Sniadów).

Inside, synagogues are characterised by four or six columns according to whether the plans are square or oblong. These columns support the roof which is always left open without an intervening ceiling. Sometimes the roof is richly decorated (Chodorów). The centre of the synagogue is the Bema or Almemor—the raised reading platform. Sometimes the pillars of the Bema support the roof. The sight of these columns rising to the roof and disappearing in its vastness is a magnificent spectacle. The interiors are, as a rule, sumptuously decorated by paintings on wooden panels or on plaster, and by wood carving of fantastic richness around the Aron-Hakodesh, the receptacle for the Scrolls of the Law. These *chefs-d'œuvre* of decorative art, especially those from the 16th to the end of the 17th or the beginning of the 18th centuries, would deserve separate detailed treatment. They are equally interesting as folk art and as documents of iconography.

As for the paintings, they are of great importance in the wooden synagogues, but almost entirely absent in those built of stone. Jehuda Lejba, Benjamin Hileil, David Friedländer, I. Zussmann (of Brody), and Chaim, son of Issaak Segal (of Sluck), predecessor and ancestor of the well-known present-day painter Marc Chagall (from Vitebsk), are some of the best painters. Friedländer and Lejba have already been mentioned as architects too. The most beautiful wall paintings are to be found in the synagogues of Mohilev (Russia), Przedbórz, Szydlów, Lutomiersk, Ostrowiec, Iablonów and Felsztyn ; of all these paintings those of Iablonów are the most interesting. Among the synagogues of the eighteenth century those of Kurnik, Wyszogród, Grójec and Gąbin are marked by a curious Louis XVI taste, while the most ancient painting (according to Szyszko-Bohusz) displays a well-defined Turkish influence. David Friedländer had done his best work at Grójec, Segal at Mohilev, Zussmann had worked not only in Poland, but also in Bavaria (Kirchheim, Bechhofen and Horb in 1707–1740).

To return to the exteriors now and their characteristics, it is possible to place them in some morphological, if not always historical, order. The simplest and oldest synagogues have only one slight break in their outline and no curves. At Przedbórz the break is close to the eaves. The building has been made the object of a special article by Professor Szyszko-Bohusz, and may go back to beyond 1500.*

Pilica is similar, but the enrichments such as the front gallery with its double stairs and the rounded gable point to a later date. Orsza is as simple as Przedbórz ; the break in the roof line, however, is here placed half-way up. Zydaczów shows exactly the same principle. On principle there is no difference either at Telaki, though the general effect is considerably altered and enlivened by the curved gradient of the roof.

All these roofs have gables. A variant of the type replaces the gabled by a hipped top-part of the roof. This we find at Peczenieżyn and Kamieniec-Litewski, two clean-shaped straightforward little buildings.

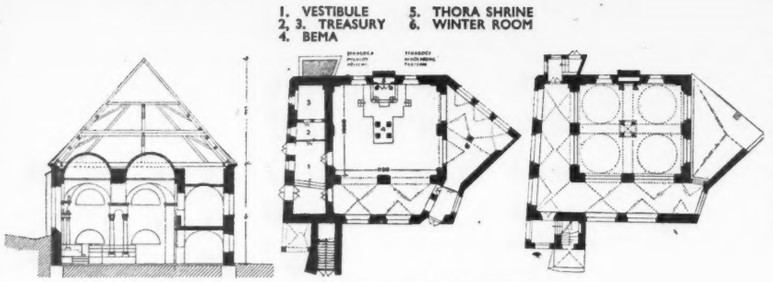
The two breaks so far met can be combined, and the result will be a two-tier effect. A good many of the most important synagogues belong to this type, for instance Ianów, one of the oldest surviving ones ; Lanckorona which may not be any younger, Grodno with its corner pavilions on which more will be said later, and Zabludów, a gem of timber construction and decoration. The corner pavilions appear here too, and the gap between the small bottom step and the taller middle step is concealed by vertical planks with a zig-zag decoration. Replace the gabled top-part of the roofs of this type by a hipped roof, and you have the synagogues of Nowe Miasto with vertical planking hiding both breaks and therefore an exceptionally severe outline,† and Iedwabne, a building of particularly successful proportions.

Again another variation is to make the bottom step tall and the middle step short. This is done at Brzozdowce. It will be easily seen how much such adjustments of proportion affect the appearance of the whole building. A comparison may, for instance, be instructive between Brzozdowce, Iedwabne and Iablonów. At Iablonów both steps are about equal, and the gable is considerably smaller than either. Chodorów represents the same type as Iablonów but on a larger scale. Where this type is provided with the curved roofs of Telaki and the corner pavilions of Zabludów an effect of fantastic magnificence is achieved. The synagogue of Wolpa is one of the most splendid timber buildings in Europe. The corner pavilions incidentally do not seem to have had any utilitarian reason. The plan illustrated on page 140 explains the functions of the various rooms in wooden synagogues.

Only two more sub-species must be mentioned. They are represented by the synagogues of Gwozdziec and Sniadów. Gwozdziec has three tiers instead of two and a contour of surprising richness. Sniadów, on the other hand, possesses a round-headed arcade between the lowest and the second tier at about the height of the corner pavilions.

* (" Sprawozdania Komisii do Badania historii Sztuck piecknych." Edited Academy of Science of Cracow, 1913, 1914 and 1925.)

† But Nowe Miasto was reconstructed not very long ago, and the unusual straightness of the contours may be due to this.



Section and plans of the stone synagogue at Nikolsburg (Mikulov) in Moravia, built in 1723. Photographs appear on the facing page.

Some Stone Synagogues of the fifteenth, sixteenth and seventeenth centuries

BRODY	MACIEJOW	STRYJ
BUCZACZ	NOVOGRAD-WOLYNSKI	SZAROGROD
CHELM	NOWOGRODEK	SZCZEBRZESZYN
GNIEZNO	PINCZOW	SZYDLOW
HUSIATYN	PINSK	TARNOPOL
JAROSLAW	POMORZANY	TARNOW
KAZIMIERZ NA WISLE	PRZEMYSL	TREMBOWLA
LANCUT	RZESZOW	WILNA
LUBOML	SANDOMIERZ	WYSZOGROD
LUCK	SLONIM	ZAMOSC
LWOW	SOKOL	ZOLKIEW

stone synagogues

The oldest surviving stone synagogue in Poland is at Kazimierz, a suburb of Cracow, though Bohemia can boast, of course, of a much older Jewish religious architecture. The Alt-Neu Synagogue at Prague belongs to the thirteenth century, the synagogue of Kazimierz to the middle of the fourteenth. Its type is still that of the Romanesque and earlier Gothic synagogues of Worms, Ratisbon and Prague—double-aisled with two shafts supporting the ceiling. There was no bema yet at that time.

We are on safer ground when we reach the second half of the sixteenth century. The synagogue of Remu or Moses Isserlisa at Cracow is of 1553. Then follows a series of the seventeenth century, especially its first half. However, in 1648, many synagogues of the Ukraine, Moravia, etc., were destroyed (see below). But since the second half of the seventeenth century new synagogues were again erected.

The interiors of sixteenth and seventeenth century synagogues in Poland are characterised by the huge bema, the group of four thick piers placed close to each other in the centre of the building. They are connected by arches and support a miniature vault of which they form the corners; sometimes they also support the large vault of the building itself. The incorporation of the bema into the structure of the synagogue is no doubt the most original motif of Jewish architecture. There is nothing like it in any building of any other cult. The resemblance to Christian canopy altars is only superficial (except where—as at Lublin and Vilna—the use of columns instead of piers indicates inspiration from Christian sources) and that to the *Charola* in the church of the Templars of the Convent of Christ at Tomar in Portugal, dating from the eleventh century, is accidental.

Outside, the stone synagogues of Eastern Europe have equally marked peculiarities. The basic form is severely cubic. The windows have hardly any decoration. The roofs are hidden by tall parapets and these are almost invariably adorned with blank arcades. In the earlier examples (Zólkiew, Luck) these arcades are semicircular, plain but harmonious and slightly reminiscent of the Romanesque style of Italy. Instead of one we sometimes find two and even three superimposed rows of arcades. Above the arcades the parapets are set off against the sky by fanciful crenellations. Nowhere, however, in the decoration of synagogues do we meet any of the human or animal forms so typical of the Renaissance in Poland (houses in the market place Kazimierz, in the Jan Sobieski square Lwów, town hall at Sandomierz, castles at Baranów, Staroie Sélo, Iaroslaw, etc.). The reasons for this are religious. The representation of man and beast was not permitted in Jewish temples.

The general form of Polish stone synagogues is strangely similar to that of the mediæval exchange buildings of Spain, for instance the Lonja at Palma, Valencia and Saragossa. But a link between these two types of buildings can hardly be established. The number of families which came from Spain after 1512 was small, and in any case there are synagogues of this type in Poland which were obviously built before 1512.

The earliest synagogues in Polish towns are hidden away in the Ghettos. In the sixteenth century they were given more prominence, until towards the seventeenth they often became the outstanding feature of their towns. How was this possible? That is the question which yet remains to be answered. The answer is to be found in the political history of Poland. Ever since the time of Boleslav the pious (first Statute of Kalisz 1264) the Polish Kings had favoured the Jews. The grandees followed the kings, and statute after statute confirmed liberties amongst which the choice of place and size of synagogues appeared prominently. Of the later privileges the most important are those of Casimir the Great (1334). They were confirmed by Withold in 1388. In the following centuries, in spite of further pro-Jewish statutes, the isolation of the Jews increased, whilst their economic functions were taken over by Polish merchants. Anti-Semitism spread and culminated in the massacres of 1648 perpetrated by Bogdan Chmelnicki, Hetman of the Ukrainian Cossacks. From this period the Jewish position in Poland remained precarious. Synagogues were still built, but the specific architectural traditions disintegrated gradually. It is for this reason that no buildings of a later period than the eighteenth century are discussed in this article.

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Chief Rabbi Dr. Herz, of London
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Architect Kluss, of Warsaw
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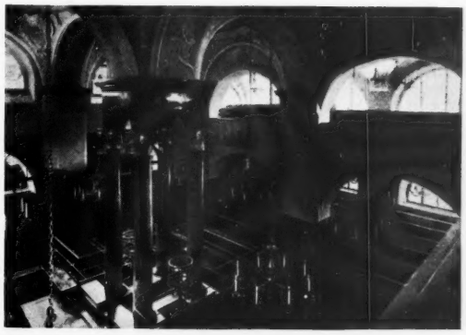
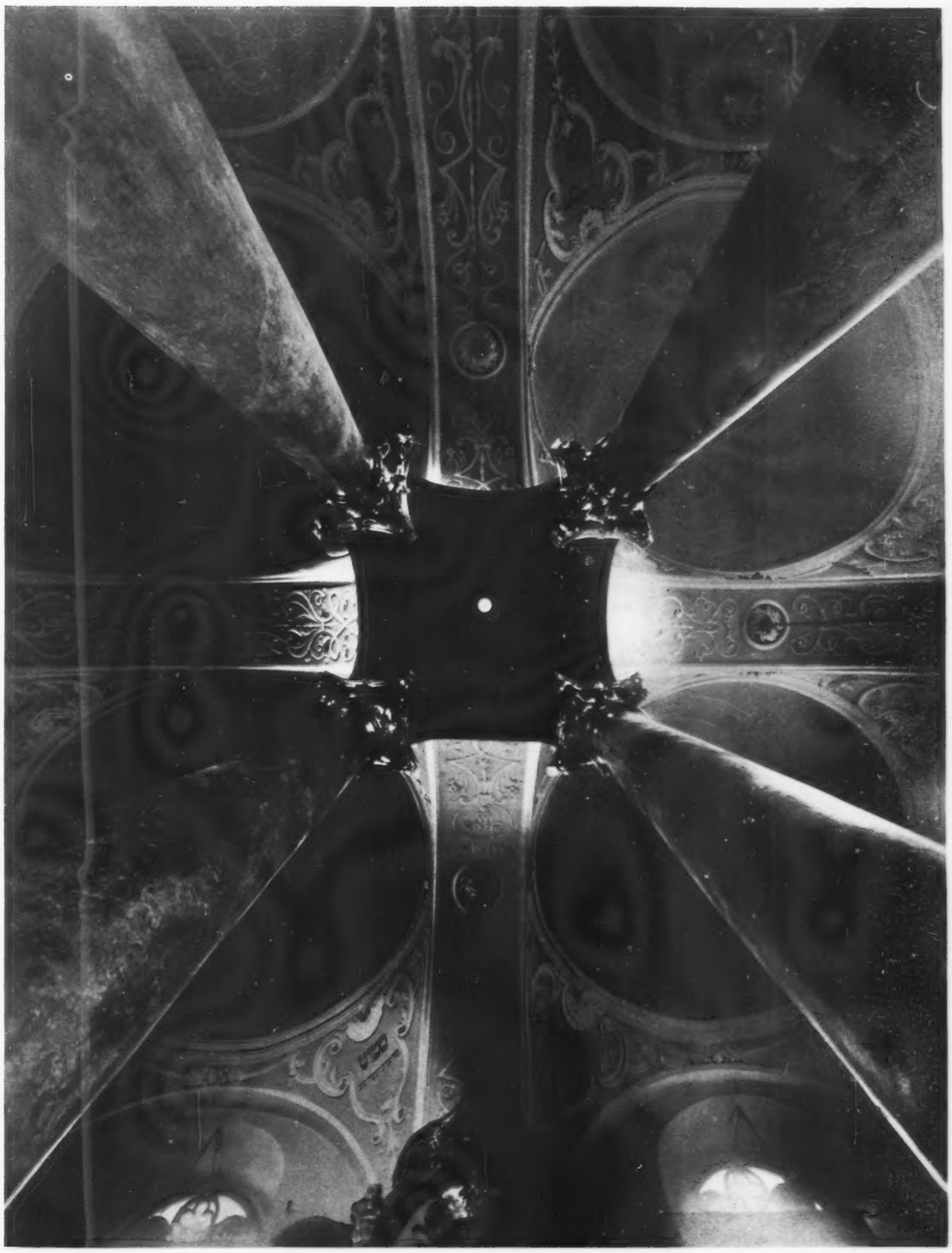
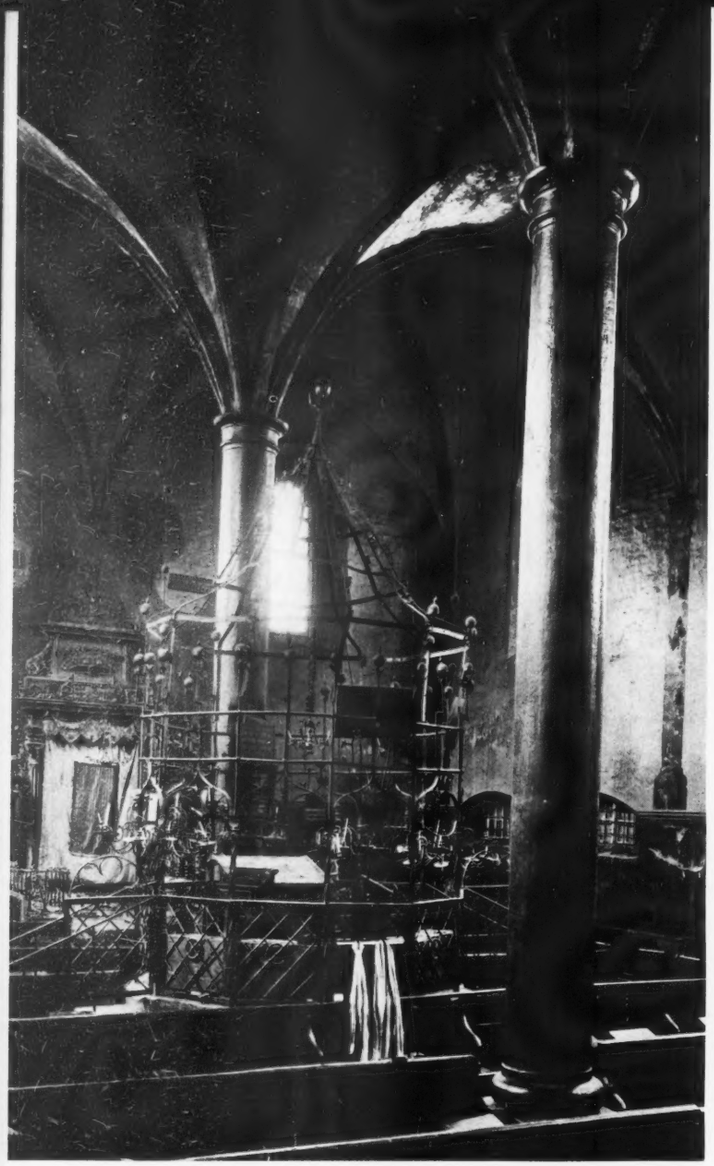
Mr. M. Wertheimer, of Budapest
Architect S. Zajczyk, of Warsaw

INTERIORS STONE

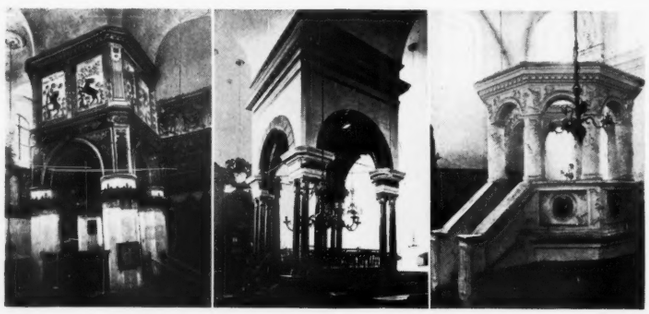


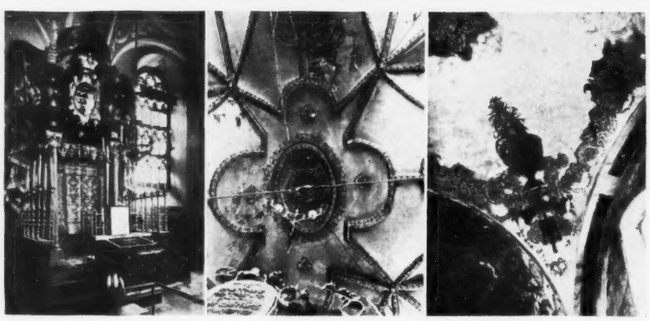
The synagogue of Nikolsburg (Mikulov) in Moravia is an outstanding example of Jewish architecture in the eighteenth century. The specifically Jewish features, especially the *bema* in the centre whose four columns support the vault, are faithfully kept, but the detail and ornament is of the Gentile style then ruling in the countries of Central Europe—decorative motives of French, late Louis XIV, origin. The date of the building is 1723. Plans and section can be compared on the previous page. The size of the interior is about 30 ft. by 35 ft. The vault consists of four saucer domes on pendentifs constructed of brick.



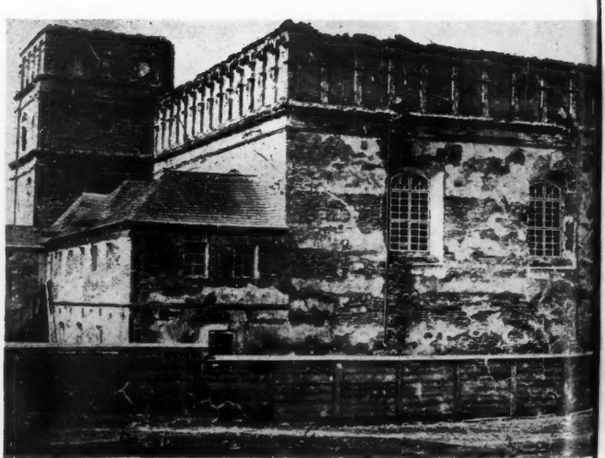


The large picture on the left is of the interior of the Stara Wielka Synagogue at Cracow, a fourteenth century building in the Gothic forms of contemporary churches. If the equipment is left out of consideration, the interior might easily be some monastic hall. The vignette on the other hand shows a characteristically Jewish structure with its heavy central bema. It is an eighteenth century drawing of the sixteenth century synagogue at Lancut in the Podolia district of Poland. Of the two strips below the top one is of three bemas, from left to right: Luck, Lublin, Chmielnik. The Thora Shrine (Aaron-Hakodesh) in the bottom strip, left, is at Nikolsburg (see previous page). The two ceiling details are stucco work at Zamosć (Lublin district) and at Usow (Aussee, in Moravia).



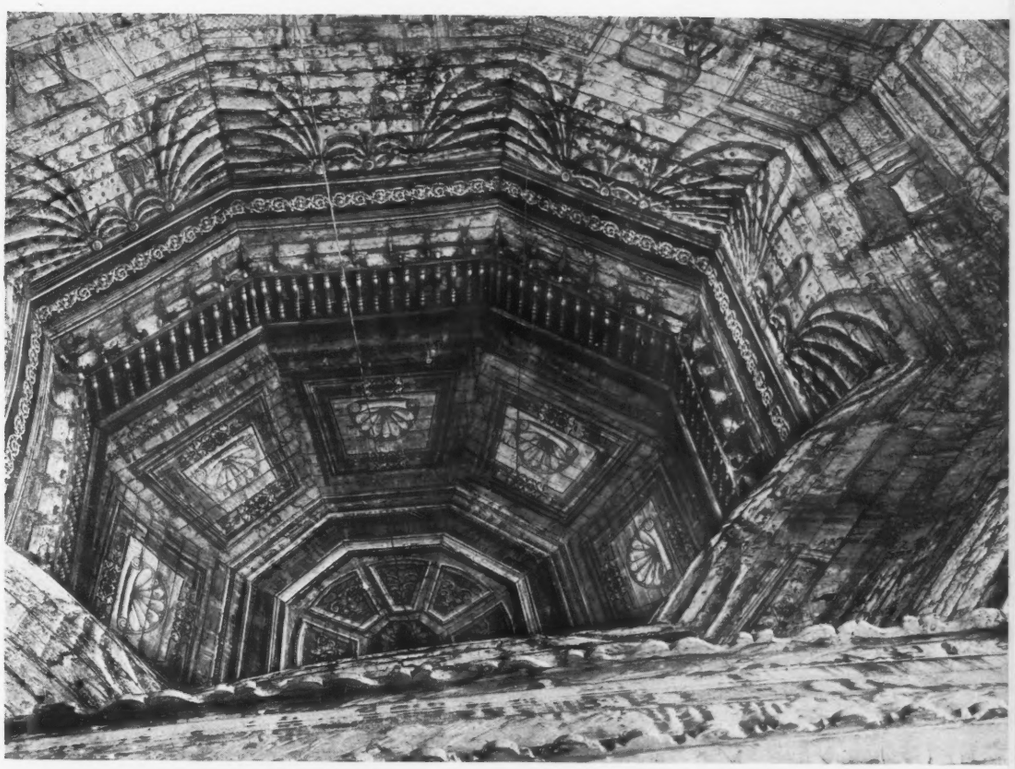


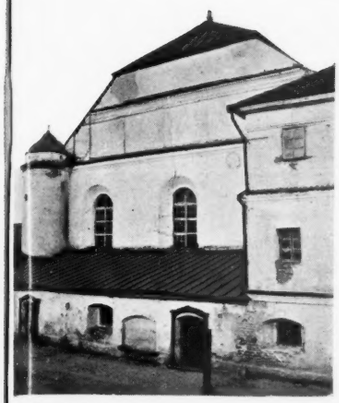
EXTERIORS STONE

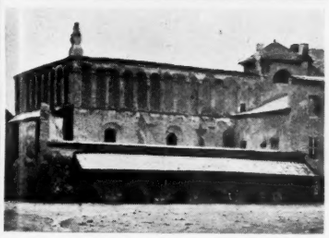


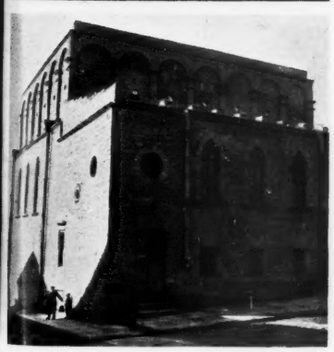
The typical fortress-like exteriors of Polish stone synagogues. The top arcade is a Polish Renaissance feature not confined to Jewish buildings. On this page: left, Luboml (Wolynia), right, Luck (Wolynia). Facing page from top to bottom: Pinsk, Zolkiew (Lwów district), Cracow, Brody (Podolia), Tarnopol (Lwów district).

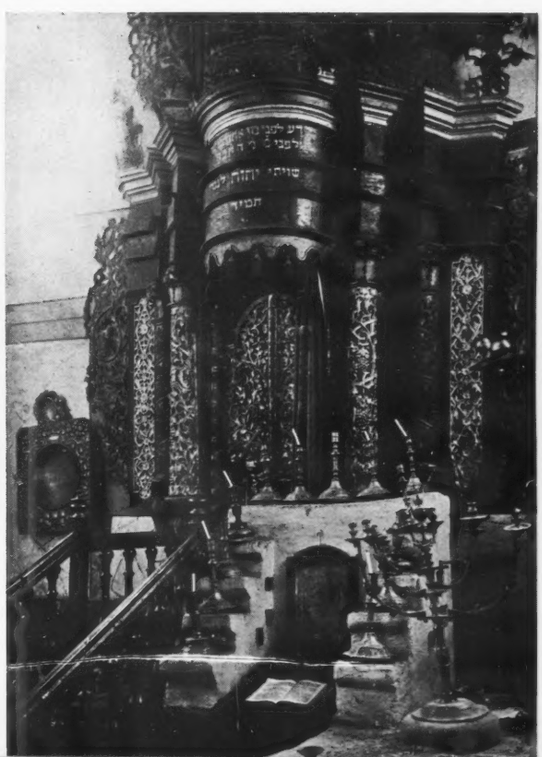
INTERIORS TIMBER

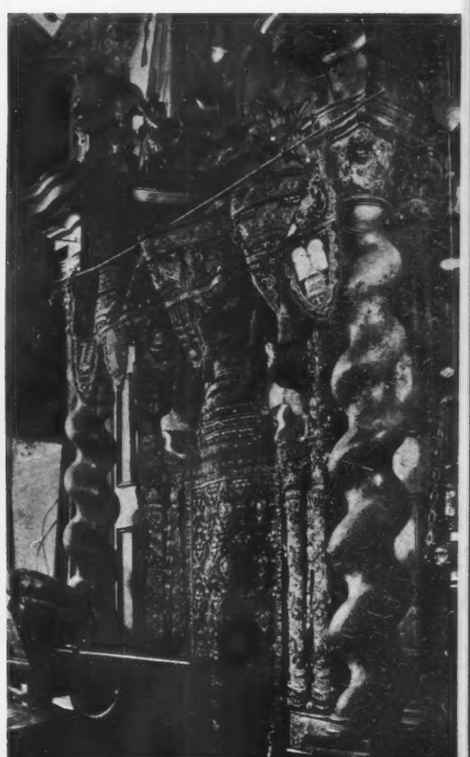




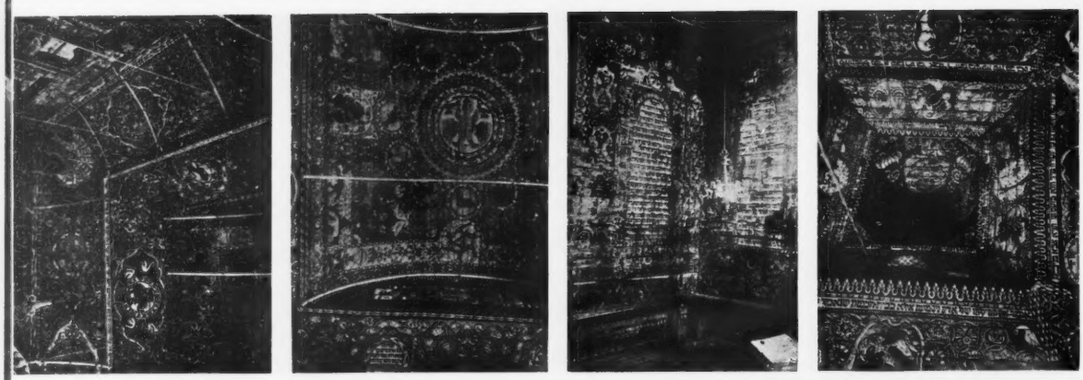








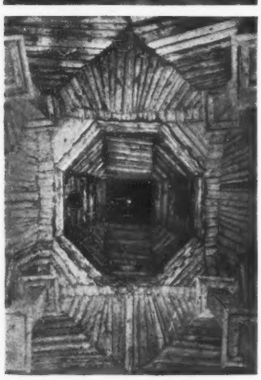
Top : The magnificent timber-work with painted decoration at Nowe-Miasto (Kalisz district). Middle : Bema, and Thora Shrines from other synagogues. The carved detail is from Druia (Wilna district). Bottom : the Thora Shrines at Kurow and Königswart.



Details from the painted decoration of Polish synagogues.

Wall painting at Grójec near Warsaw with Jewish religious symbols. Eighteenth century.

EXTERIORS TIMBER



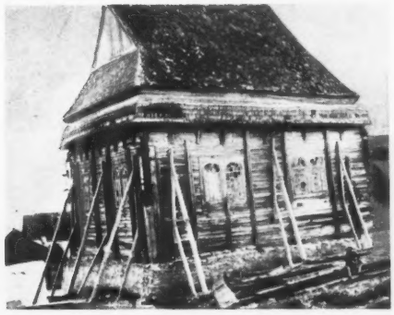
The glory of the Polish timber synagogues are their roofs. Many types are analysed in the text to this article. They have all in common a great variety of outline and a most ingenious interior construction. The two photographs above show the intricate beam and rafter work inside the roof and its boarding up below. On the right two views of one of the most spectacular buildings : Zabludow in the Bialystok district.



Przebórz
Przebórz
Orsza



Pilica
Pilica
Telaki


Kamieniec-Litewski
Janów
Lanckorona



Grodno
Nowe-Miasto
Jedwabno



Sniadów
Sniadów
Wolpa

WOLPA

Wolpa, a village in North Poland about twelve miles south-east of Grodno, possessed perhaps the most perfect example of Jewish timber architecture in the world, rich and fanciful, yet balanced. The building dated from the late seventeenth or early eighteenth century. Its destruction by the Nazis constitutes a major loss to regional European architecture.

East Budleigh, Devonshire, of which a large water colour forms the frontispiece to this issue, is one of the most often-visited of pretty villages. It is described in a recent guide-book as "a typical, quaint Devon village, where thatched cottages abound and Time seems to make the least possible change in its peaceful charms." It has the authentic Uvedale Price qualities of intricacy, variety, varied levels and skylines. The colour is varied, but there is much strong contrast, and little naturalism, though many of the roofs are bright green with moss. The prevailing colour of cottage walls is pale apricot; there is white interspersed, and a few houses are of brick. The total colour effect is of "that rich, mellow, harmonious kind so much enjoyed by painters."

Swaffham Prior, Cambridgeshire, on the left, has a simpler combination of "painter's" colour. The walls are of colour-washed plaster, the chimneys of unpainted brick, the roofs are of East Anglian pantiles, steeply-pitched—once thatched. The towers of the two churches in one churchyard are a picturesque feature of the village, though in colour of the "harmony with the landscape" kind.

Ystradfellte, Brecknockshire, below, is a remote village on the moorlands at the head of the Vale of Neath. In a half light, or on a dull day, the buildings of local dark grey moorland stone with their weathered slate roofs, collected round the stone church, look very much a part of the landscape itself; but a few whitened walls, and the single apricot-washed wall of the New Inn make it extremely picturesque in the contrast-with-nature manner, these details providing strong accents that serve to jog the eye and memory about the man-made character of the buildings.

At Newton St. Cyres, near Exeter (drawing at foot of this page) the natural reddish-ochre of the cob walls is combined with the painting or rather washing of some cottages in yellow, white and also apricot.

COLOUR IN THE PICTURESQUE VILLAGE

"The characteristic beauties of a village are intricacy, variety and play of outline; whatever is done should be done with a view to promote these objects. . . ."
"Inequality of ground, existing trees and bushes or old buildings should not only be retained, but should suggest the character of the new building. . . ."
"An improver who found an old building in which not only the forms were of picturesque irregularity, but the tints were of that rich, mellow, harmonious kind so much enjoyed by painters [would not, if he had studied pictures] suffer them to be destroyed by plaster or whitewash. . . ."
On the other hand "a nondescript plastered house would gain neatness and evenness of colour from a coat of whitewash. . . ."

UVEDALE PRICE: *Essay on Architecture*, **1798.**

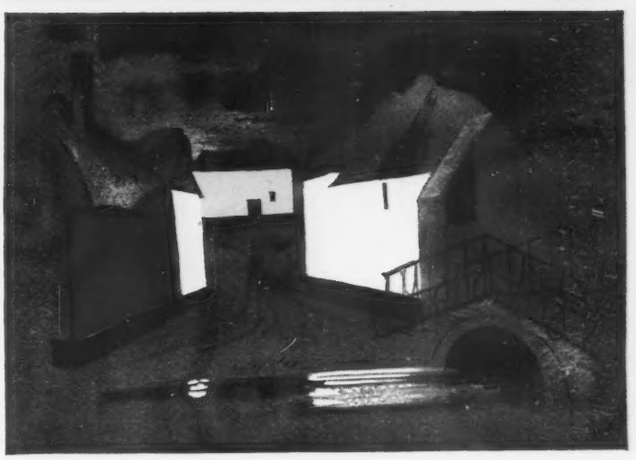
By John Piper

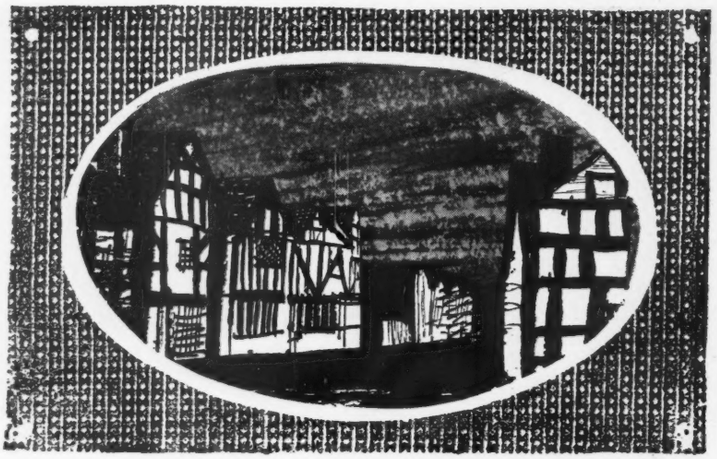
When motorists and char-a-banc trippers agree that a village is "one of the prettiest in England," as they often do, how far are they echoing the sentiments of the Picturesque movement of nearly 150 years ago? Are they really, if unconsciously, judging by an accepted code? How much has the code altered? What are nowadays the accepted conventions and admired requisites? How far can the motorist help us to formulate some new rules for picturesque colour in villages? I believe he can help a great deal. Every guide-book is his spokesman, just as every guide-book owes a debt to Uvedale Price. It is one of the principles that can be agreed upon by every traveller, planner, artist and local inhabitant, because it has years of tradition and precedent behind it.

Colour can make or spoil the prettiness of a village. And it seems clear from tourists' experience, and from consistent guide-book reading that to-day we recognise, or countenance, three distinct types of picturesque colour in groups of buildings.

1. An unvaried, or little-varying, colour throughout the group, that has a close relation to the surroundings.
2. Colours that are highly contrasted in themselves, or one colour (or white) that is in violent contrast with the surroundings.
3. Sentimental painters' colours.

Colours of the first group are found in all those villages built mainly of local materials, of any age. The local materials echo the colour of the surface or geological features of the neighbourhood. Stone, whether sandstone or granite, repeats the colour of neighbouring quarries, tracks and field walls; timber-frame construction with brick or plaster filling in woodland districts echoes the colour of trees and tilled soil; brick and flint buildings in districts where chalk and clay converge, reflect the same light that glances from the flints lying in chalky ploughed fields; and so on. The chief characteristic of this type of picturesque village is that there are no violent colour contrasts with the surroundings: the village looks as if it had grown from the soil. Its beauty springs from the fact that here man's interference with nature is camouflaged from the start, and





the camouflage becomes more complete with the passage of time. This beauty is, compared with the beauty of the next group, a " cultivated " one, deriving from a sense of " oneness with nature."

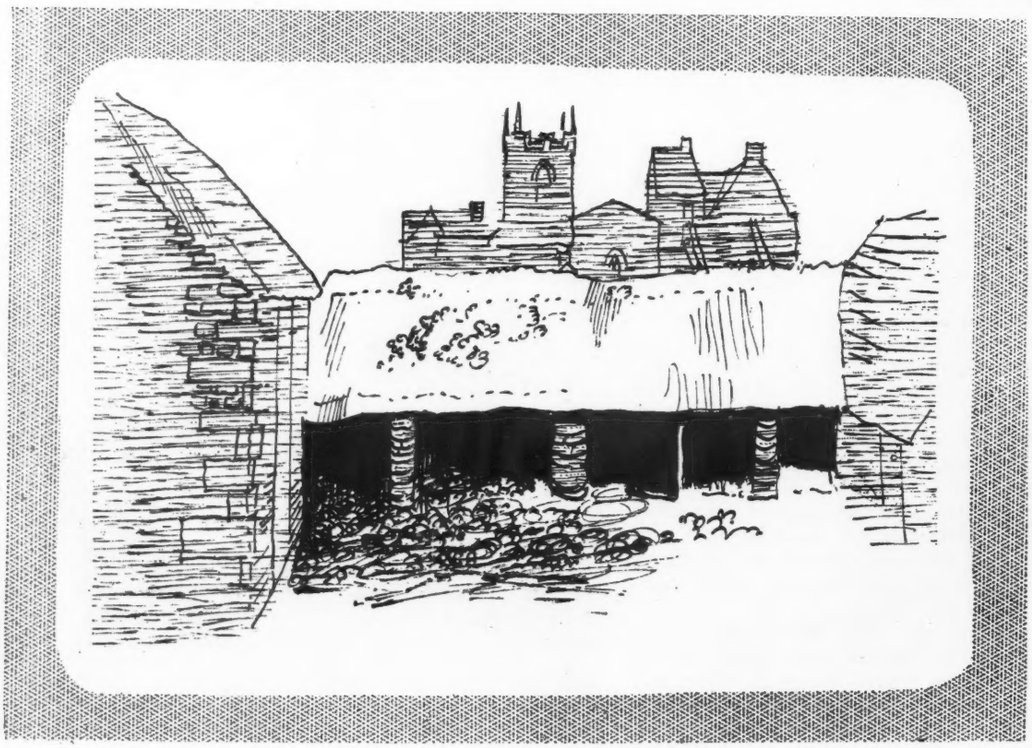
Colours of the second group are the primitive-instinct colours, that please because of man's desire to advertise his presence in face of an (originally) unfriendly Nature. Groups of buildings, however irregular or however formal, are painted or whitewashed to make their presence obvious, not to conceal it. Quoining, graining, marbling, black and white or coloured patterning, including the blackened and whitened half-timber work of Cheshire, Shropshire and elsewhere, belong to this group. The tourist of the present day favours this group more than did Uvedale Price and his contemporaries. The colour of many a modern by-pass villa is a slap-dash, unconscious attempt to ally this primitive instinct with " cosiness."

The colours of the third group which I have called the " sentimental painters' colours," may be used singly or in combination, in isolation or combined with the first or second groups, and may be widely disposed through a group of buildings, or used in small areas only, making accents. The favoured colours are the warm yellows, Venetian reds and ochres, powder blue, pinks and shades of apricot. The coloured illustrations show several actual uses of such colours. The group is really a variant of the primitive-instinct group ; and while it can produce highly picturesque results, is often mishandled.

THE TWO EXTREMES

Top : *An irregularly-planned village of a, roughly, even tone and colour (the Cotswold village of Shilton, Oxon.). This village has the personal-camouflage type of beauty. The beauty is one of harmony of colour as well as of shape—harmony with surroundings. It might be called the " Batsford Book " type of village as opposed to the " Photocrome Company " type. Cotswold stone forms all the walls, including the field-boundary walls that thread in and out of the village beside road and footpath. The roofs are of stone slabs, darker and more varied than the walls by weathering, but both roofs and walls echo the prevailing geological, if not surface, colour of the neighbourhood, agreeably harmonising with trees, fields, roads and quarries. Such a village mellows with age, as it receives gradually nature's more complete camouflage of moss and lichen, as well as the subtle, detailed additions of the patchings and stoppings of repair work.*

Below : *A model village, regularly planned and of a colour that contrasts violently with the natural surroundings—white. (Milton Abbas, Dorset.) The whitewashed houses, as like as peas, are connected with the colour of nature only by their thatched roofs which in fact, in spite of the " soft " outlines, serve only to make the facades more dominant in their rectangularity. The trees carefully planted between each further isolate them.*



THE THREE TYPES

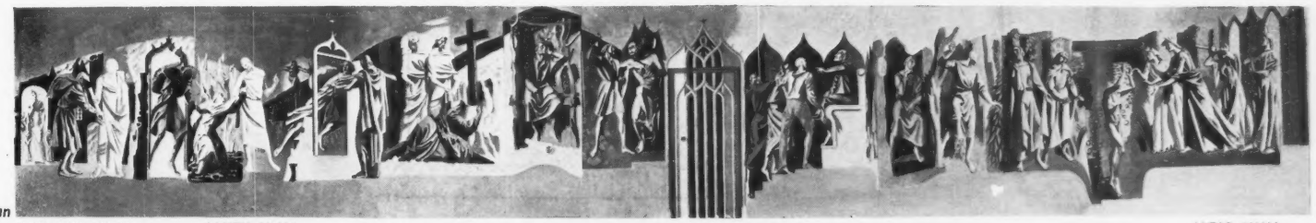
The village of one over-all colour is seen at the foot of this page (Shutford, Oxon), self - camouflaging, that further camouflages itself as it weathers ; the whole set in a landscape with which it more or less agrees, in tone and colour. The village is entirely built of Cotswold stone, with split-stone roofs. There is some thatch, which is near enough in tone and colour not to disturb the general effect. The range of colour is from gold to umber, with some intervening warm greys.

An example of the village which, by violence of tone and colour contrasts, advertises its man-made state (Ombersley, Worcs.) appears on top left of this page. The black and white patterning of half-timber is the most popular and obvious variety of the type.

To the third type, the " painted " village, belongs Newton St. Cyres (see foot of previous page) with its combination of ochre, yellow, white and apricot.

By no means all villages that belong, so far as colour goes, to these three types are picturesque. Some conventional formal picturesque elements must be present also, such as varieties of level, irregularity or extreme regularity of planning, roughness and variety of outline. But colour in any case is an element of prime importance.

WALL-PAINTINGS IN THE CRYPT OF ST. ELIZABETH'S, EASTBOURNE

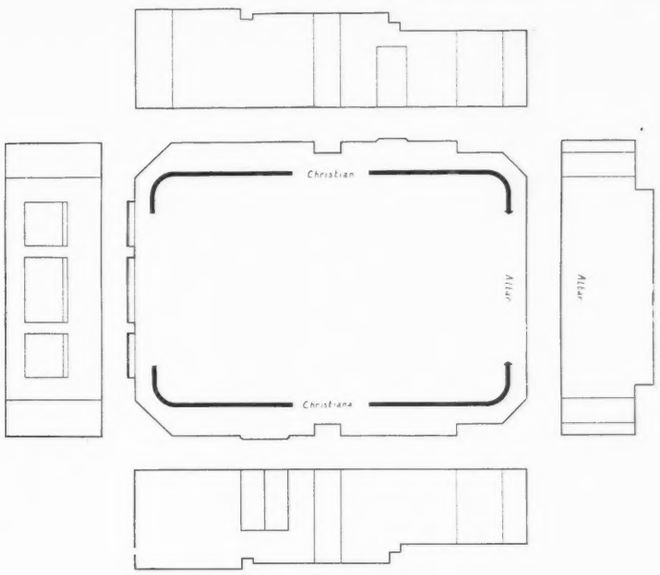


Christian

ENTRANCE WALL SOUTH WALL ALTAR WALL

Christiana

ENTRANCE WALL NORTH WALL ALTAR WALL



Christian in prison and escaping from prison

Hans Feibusch's work was first brought to the notice of readers of THE ARCHITECTURAL REVIEW in connection with wall-paintings which he did for Maxwell Fry. Some eighteen months ago he happened to re-read *The Pilgrim's Progress* and was struck by the suitability of the story for paintings in a church of today. The simplicity, the sentiment, the beauty of the images, and the monumental qualities, he felt, would appeal to a modern congregation and held out many possibilities for the modern painter. Mr. Feibusch discussed his vision of such paintings with Sir Charles Reilly who in his turn spoke about it to the Bishop of Chichester.

Thus an opportunity was created for the paintings to be carried out. The crypt of St. Elizabeth's, Victoria Drive, Eastbourne, is a nondescript room, forty-six by twenty-six feet in size. During the period of intense air-raids over the South Coast, it had been used as a shelter and become dear to the congregation who came to prefer it to the vast, cold and uncomfortable church above. They now wanted to beautify it and turn it into a Memorial Chapel. The subject of *Pilgrim's Progress*, representing a spiritual crusade, symbolical of the present war, appealed to them.

The room offered to the artist long stretches of wall and thus permitted the paintings to be developed in one continuous frieze all the way round. The fact that one wall consisted entirely of windows and that in the centre of the opposite one the altar was to be erected, determined the direction in which the story would have to flow. It had to start on either side of the windows, move along on opposite walls and join on the altar wall, behind the altar. To reproduce the parallelism of the two opposite friezes it has been necessary in the photographs above to reverse the bottom frieze.

The walls of the crypt are low ; 11 ft. at the window end, coming down to 8 ft. 6 in. at the corners of the altar wall and rising to 10 ft. above the altar. Not much vertical movement could, therefore, be given to the frieze and, as the artist wanted to use life-size figures, different ways had to be evolved to avoid the monotony of an alignment of shapes of equal size. Here the presence of two girders supporting the ceiling and dividing it into three sections proved of considerable help. Each of them was given a different colour and the colour was carried right down the wall to the floor, thereby breaking up the walls into a dark part next to the windows, a light one at the altar end, and a medium one in between. This has, of course, the additional advantage that it corresponds to the trend of the story, which moves from darkness into light.

By compositional means, such as frequent diagonals, the development of the story towards the altar is clearly emphasized. The figures and settings keep everywhere to a shallow relief so that no counter-direction upsets the main movement.

Colour is used throughout to emphasize the action and symbolize the spiritual meaning. Beginning with dark browns and purples, black and sulphurous yellow, it goes on to the bright blues, pink and orange around the altar. The changes take place gradually, a new colour being introduced in small areas at first, and eventually given a dominant place. Some colours run right through the whole work, linking up the various colour schemes, but performing different tasks every time. The general effect is sombre in the first third, lighter but cool in the second, and gay and festive towards the end.

As to the episodes depicted, Christian's progress is on the south wall, Christiana's on the north. Christian is seen leaving wife and children and imploring the help of Evangelist (who, by the way, bears the features of Sir Charles Reilly). He then falls into the Slough of Despond, is rescued, is pulled through the Wicket Gate while a little devil loosens an arrow at him, and reaches the Cross where his burden drops from his back. He falls asleep in the Peaceful Arbour—this scene is painted on a pillar jutting out from the wall. He fights Apollyon ; then—on the other side of a door which in this place breaks the continuity of the wall—is dragged before Judge Hategood, is imprisoned, escapes from prison, comes to the shepherds in the Delectable Mountains, and finally crosses the Water of Death to be welcomed by angels issuing from the gates of the Celestial City.

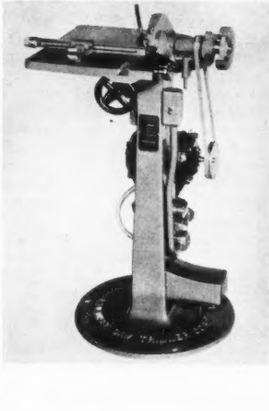
On the opposite wall Christiana is first visited by a Heavenly Messenger, while two demons try to hold her back. She then sets out on her journey accompanied by a young girl, Mercy. They are beckoned through the Wicket Gate, to the annoyance of the arrow-shooting devil. Then—again after an interruption by a door, not, incidentally, opposite the one in the south wall—the women go on their way, preceded by their guide, Greatheart. They flee before a giant, Grim, and reach the House of the Interpreter, where they are welcomed by a heavenly damsel and have supper with the host. They avoid the temptress, Madame Bubble, and come to the Delectable Mountains. Finally Christiana, too, crosses the Water of Death.

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.

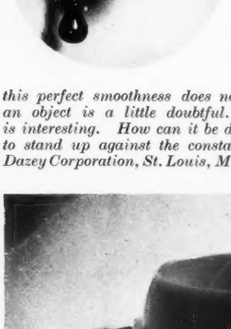
62 *Evolution and revolution. The Mexican glazed earthenware frying pan is a good contrast to the "Pyrex" glass frying pan with its detachable handle. Corning Glass Works, Corning, N.Y. (Photo: Sunami, Museum of Modern Art).*

63 *In 62 the processes of making were the main difference between "before" and "after." The functional and aesthetic qualities of the old and the new product were on the same level. In 63 manufacturing skill has hardly changed between the old and the new printer's saw, but functionally as well as aesthetically there is all the difference. The old model was bitty in appearance and impossible to keep clean, the new (designed by Barnes and Reinecke) is clear in shape, gives the operator foot, body and storage room, and, by the way, increased sales by sixty per cent. Milwaukee Sawtrimmer Co., Milwaukee, Wisconsin. (Photo: S. McKinney).*



64 *Pyro-Shell boxes made of Lumarith (a product of the Celanese Plastics Corporation) are light, transparent, water-proof and corrosion-proof. Their patented ribbed construction gives them considerable impact strength. They were originally manufactured for fishing baits, but are now used for many purposes by the United States fighting forces. Bill De Witt Baits (Shoe Form Company) Inc., Auburn, N.Y.*

65 *The "Kadette" Radio Co., designed in 1939 with its moulded Beetle case made by the Beetle Products Division of the American Cyanimide Corporation is still the most frequently quoted example of modern design in small American radio sets. To save space the soundhole is placed on top. It was designed by Barnes and Reinecke. (Photo: Shigeta-Wright).*



66 *The "Dazey" super juicer as it was originally produced in aluminium, and as, in its plastic form (methyl methacrylate), it was redesigned in 1941 by Barnes and Reinecke. Three colours; green, yellow, red and black each combined with white make it adaptable to various kitchen colour schemes. The new squeezer is obviously a cleaner looking job than its predecessor and one that will work more cleanly, too. There are nowhere odd bits sticking out. Whether this perfect smoothness does not reduce strength of character in an object is a little doubtful. The wall fixing of both models is interesting. How can it be done strongly enough, one wonders, to stand up against the constant top pressure on the squeezer? Dazey Corporation, St. Louis, Missouri. (Photos: Shigeta-Wright)*

A DESIGN EXHIBITION

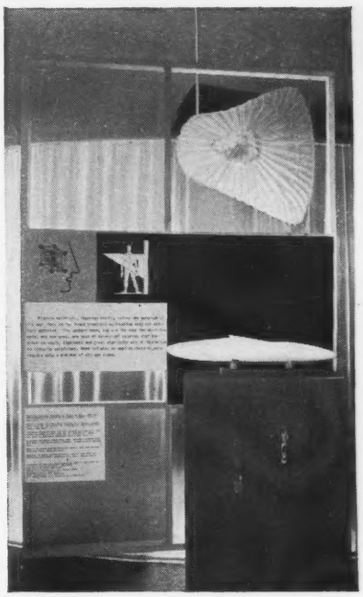
The foundation of the Council of Industrial Design may mark a milestone in the development of modern design in England. It has started at a propitious moment, a moment when the public is looking to the Government for better social insurance, better education, better houses, and also better domestic equipment. Industry, moreover, is ready to overhaul plants, and designs to be ready for the export race which will start as soon as the war is over. Exhibitions are to be one of the principal jobs of the Council. Will they be good enough in the selection of the products shown and in their display to convince the home public and a discriminating public abroad? It may be worth while in this connection to illustrate in a few pictures exhibits and displays of a design show recently held at the Museum of Modern Art in New York. The show was organised by Serge Chermayeff and formed part of the fifteenth anniversary exhibition of the Museum. Its theme was the relations between function, technology and form, that is a theme which applies as much to this country as it does to America.

As long as design was the craftsman's job, his knowledge of his material, his technique, and the purpose of his product enabled him to relate these things and thus to produce good design. The change from handwork to industrial production has broken down this fundamental relationship and has led to new features such as the introduction of elements for the sake of sales appeal. These elements are false whether they take the form of applied ornament, ornament to make things " antique," or of stream-lining to give an up-to-date appearance.

In contrast to this attitude to design there is the approach based on three major factors: technological evolution, technological revolution, and organic design. These three things can provide us with better tools for living. By technological evolution is meant the modification and improvement of the shape of an object to serve a special purpose or function, as, for instance, in the evolution of hand tools which achieve their perfected shapes over a period. Technological revolution is a question of new methods of operation and new materials. And in both these cases organic design plays its part and all three factors are interrelated. Thus the basic shapes in, for example, flat irons and kettles can be modified to improve manipulation and maintenance. The simple hand tool is revolutionised in the form of the electric razor or the mechanical slicer. Traditional forms are modified by new requirements, which need a new design approach as in the stacking of kitchen ware. Both from the point of view of new requirement and new invention, in many objects there is a complete freedom from traditional association. How has this opportunity been used?

The exhibition goes on to review some typical products; the radio, most free from tradition, but most misinterpreted, 65, the telephone, a good design because it need not be " styled " for sales appeal; the typewriter, showing a consistent tradition of straightforward design; the light fitting, over-decorative in the home, but sensible in industry; furniture, in the process of revolution, 69. Finally there are the new materials and processes, 67 to 70, with their new formal possibilities and the recognition of the home as the centre in which so many items of industrial design must be related to each other. Here the interest shifts from the isolated object to the integrated group. For example, the individual fittings of the bathroom are replaced by the composite design.

This is the story of the *Design for Use* show. The illustrations on this and the previous page will further amplify it. They are reproduced by the courtesy of the Museum of Modern Art.



68 *The new materials offer completely new possibilities. This screen shows on top the inflated Vinylite sun hat used by the American army in the tropics. The same material is used in the construction of the folding boat designed by Wm. H. Miller, Jnr., shown in the plaster model below. The selection of this material is based on its strength, lightness, great elasticity and waterproof qualities. It is also impervious to climatic conditions. (Photo: Sunami, Museum of Modern Art).*

69 *Vinylite is again the material of which the seat of this experimental chair is made. It is inflated and covered with a netting which is supposed to adapt itself singularly well to the weight and shape of whatever person sits on it. It is not likely that chairs will ever be made in quantity looking exactly like this model, but as an example of adventure in design it is worth recording.*

70 *The protective Vinylite headgear shown in use. Inventor Richard Delano; Designer Wm. H. Miller, Jnr., 1943. (By courtesy of the manufacturers, Gallowhur Chemical Corp., New York).*

67 *This illustration shows the display of moulded plastic objects and moulded paper shapes, with a moulded plywood sculpture by Ray Eames on the left standing against a Vinylite screen. The objects suspended from the ceiling are jettison tanks, and a plywood boat hull. (Photos: Sunami, Museum of Modern Art).*

DESIGN REVIEW next instalment **wallpapers**

BOOKS

A Plan to be Thankful For

CATHEDRAL CITY—A PLAN FOR DURHAM. By Thomas Sharp. The Architectural Press. 5s.

HERE is a town plan to be thankful for in many ways. First it is pre-eminently concerned with the character of the town. Density of population, slum clearance, open spaces, zoning and all the other paraphernalia, necessary paraphernalia no doubt, of modern town planning are there, but the unique character of Durham and the function it serves for the nation come first. It is because the author sees this wider aspect so clearly that this report of his, appearing at this critical moment when the industrialisation of the one remaining non-industrial city of the north-east is threatened, may save the town. The Minister of Town and Country Planning, in whose hands its fate now lies, can hardly turn his back on it and allow the giant electricity generating station, three times bigger in bulk than the Cathedral, which the Central Electricity Board, the Town Council and the County Council alike demand, to be built. Thomas Sharp rightly points out that the character of this cathedral and university and county town is not a local possession but a national one, and it is for a national Minister to preserve national interests. This burning question may be settled when this notice appears, but his brave defence of cultural interests, of which the above is an excellent example, is characteristic of the whole report. The author, perhaps, because, unlike so many town planners, he is not an architect by profession, is much bolder in pointing out architectural blots than is usual in such a report. The Shire Hall for instance, the largest secular building in the town, " with its blood-red terra-cotta façades covered by an infinitude of extremely bad detail, must be one of the most grotesque buildings ever erected in a city with any claim to architectural distinction." A well-known public house standing on a prominent site should be pulled down, not to assist any proposed street widening, but because it is a bad piece of architecture.

The author is not only destructive, however. He is very wide in his architectural sympathies and anxious to preserve the best of all periods. The medieval city, with its roofs piling up one over the other to the Castle or Cathedral appeals to him equally with the suavity of a fine sweep of Georgian buildings. The people of Durham are made fully aware not only of their blunders but of the richness of their heritage and with so philistine a Council, as they appear to have, this is not only a brave but a very valuable thing to have done.

Durham's chief problem with its steep and narrow streets is a traffic one, and that the author neatly solves in the modern way of a tunnel, in this case a tunnel through a ridge of hill, which easily justifies itself. The new central road for which this is designed provides elsewhere excellent sites for new ranges of public buildings. These rather unfortunately appear among Mr. Webb's delicate drawings of medieval roofs as big plain masses too akin one fears to that of the threatened power station, a point of presentation which may deceive the laymen. If this new road and Mr. Sharp's other suggestions—one is glad that there is very little vague zoning in this scheme—are carried out, Durham will remain Durham with its picturesqueness and character not only unspoilt but enhanced and yet be a far more efficient city for its special purposes.

A final thing to be thankful for is the admirable manner in which the report is produced with good type, plentiful and good illustrations, some coloured, and the whole at a price within everyone's reach. At five shillings, if the paper can be obtained, it is assured of an immense sale, and with the humanity of its outlook combined with its practical good sense, of a corresponding influence for good far beyond Durham.

CHARLES REILLY

The Present State of Architecture

BUILDING TODAY. By Martin S. Briggs. Oxford University Press. 5s.

BUILT IN U.S.A. By Museum of Modern Art. New York. $3.

PERHAPS I should say at once that I have for many years now had a sincere regard for the contribution which Mr. Briggs has made to the literature of architectural history. His early and courageous efforts in a then unpopular field, which resulted in *The Heel of Italy* and *Baroque Architecture*, his later *Architect in History* and *A Short History of the Building Crafts*, are works that have broadened our knowledge and increased our understanding. I therefore cannot fail to be disturbed when I find myself at a number of points in disagreement with his present book.

A book of this kind is, of course, difficult to compile. It is one of a series : a handbook and primer for the general reader. As such it must cover a lot of ground without becoming involved in too much technical detail. The writer has an obligation to give an impartial and objective presentation of the facts. Above all its value depends on the correct assessment of broad principles. Now I cannot say that Mr. Briggs does not do these things ; he includes a great deal of useful information ; his choice of illustrations is catholic ; but it is on such broad principles as he appears to indicate that I can seldom agree with him.

In his early pages, I find myself brought up with a start, for example, by such sentences as, " Style is something more than fashion ; it is a matter of personal taste." " Style " and " Taste " are words liable to misinterpretation, but if Mr. Briggs means by this sentence what I suspect that he does, I see at once that my conceptions of the historical development of architecture are likely to be different from those held by Mr. Briggs. What he sees as " a swing of the pendulum," presumably from one type of taste to another, I see in quite a different light. I cannot in my own mind separate architectural " style," in the broad sense of Greek, Roman, Gothic or Renaissance, from developing social and economic forces, nor its form from the technical means available and the psychological needs of each particular age. I am consequently not surprised to find that Mr. Briggs appears to see what is happening today merely as a battle of styles, and not as I see it—as a vitally important period of transition : that he accounts for modern architecture as an importation from Central Europe, and overlooks the historical background of social, technical and formal changes which have been so well illustrated in the building work of this country in the last hundred years : that he considers the war period one of paralysis in building, when, in point of fact, important organisational changes have been made, scientific research is being formulated into building codes, and technical possibilities have been so increased that it can be regarded as certain that rebuilding will be no mere question of a return to peace-time standards. For an increasing number of architects, the pre-war " Battle of Styles " will be as far off and remote from the problem in hand as those of the nineteenth century.

I do not wish to misrepresent this book by isolating quotations from the general context. It presents a general survey. It is a survey which could only have been written by one who has both observed and read. At an easy conversational level, it touches on the position of the architect, on planning, structure, materials, heat, light, sound and town planning, and in passing on many other matters which are the day-to-day occurrences of general practice. It also describes typical buildings—including examples as far removed from each other as the Brotherton Library at Leeds, a Connell Ward and Lucas house, Buckfast Abbey and factories on the Great West Road. It can therefore be said that a picture is presented of " Building Today " : that it gives a cross section through the building work of this country.

My main criticism of the book as a whole, which is implied in the detail criticism that I have raised, is simply this : that a picture of building today without relation to the conditions which produce it, is without direction. It does not enable the reader to appreciate those forces which lead to development, and those which are being replaced or transformed. It is therefore a " still " which may present confusing and even conflicting views and from which it is difficult to judge the relation to the past and the possibilities inherent in the future. I feel that these are matters of importance to anyone reading this book who may be about to enter the profession.

* * *

The new Museum of Modern Art publication *Built in U.S.A.* 1932-44, forms an interesting contrast to *Building Today*. The buildings in this book have been selected with one particular object in view. The 206 plates are intended to demonstrate contemporary architecture (perhaps for clarity I should say " Modern" architecture). More particularly they are selected to show the development of a growing and authentic American version of the " International Style " and the works illustrated have all been built since 1932, when the Museum staged its international exhibition. The book is, therefore, in itself a direct result of the broad policy of the Museum which is to proclaim the developments of modern architecture abroad, but also to show its adaptation, to acknowledge the debt but to show also the influences of the American background at home.

This interplay of contributing forces is outlined in a short introductory text. One naturally expects to find reference to the American vernacular which is now being given its proper estimate, and to the work of those who built up America's own more or less continuous and unselfconscious regional traditions. To these influences must of course be added the outstanding creative work of the architects, Sullivan and Lloyd Wright, and others.

From this American background comes the reaction to the austere geometry of European work in the twenties, but also the ready acceptance of the Scandinavians, Aalto and Markelius, in 1938 and 1939. It also explains the differences between modern architecture in the United States, and its contemporary and counterpart in Brazil, which was so well illustrated by another of the Museum's recent publications *Brazil Builds*. In reviewing this last mentioned book I once before discussed the question of these national differences of treatment and approach. What we are seeing today within the modern movement as a whole seems to me to be, on an international scale, not unlike those regional and local differences within a style (as, for instance, in our own Georgian), which give to that style so much of its wealth of interest. In so far as these national differences can be based on differences of background and requirement, and can avoid the futility of personal mannerisms, and difference for its own sake, they can only act as an enrichment. The work shown in this book has demonstrated not only that America is contributing its proper share to this development, but that modern architecture itself has the flexibility, the adaptability, and the breadth of general principle to be able to meet the different psychological and physical needs of men.

" Modern Architecture," the introduction says, " has its roots in the concept of democracy." When one sees in this book the houses and schools, the factories and the office buildings, and the way in which the needs of the individual and the social group are met—above all in the great Tennessee Valley experiment—one is inclined to agree. But when the question is turned to whether the democracies can use modern architecture, it is neither so simple nor, for us in this country (with all the impending urgency of rebuilding upon us), so academic. For modern architecture implies ordered knowledge of social requirements, a building industry geared up to a high pitch of technical proficiency and including the backing and guidance of scientific research in every branch of its work. Without this, it will be idle to hope for any full achievement or lasting result.

J. L. MARTIN

Three Bogies Laid

WILL PLANNING RESTRICT FREEDOM ? By Harold J. Laski. WHAT WILL PLANNING MEAN IN TERMS OF MONEY ? By E. F. Schumacher. HOW WILL PLANNING AFFECT LAND OWNERSHIP ? By E. S. Watkins. The Architectural Press. 6d. each.

THESE three pamphlets put one in mind of the good old hymn :—

Lead kindly light amid th' encircling glo—oom
Lead Thou me on
The night is dark and I am far from ho—ome,
etc.

At least that is their effect if one happens to read them immediately after perusing a copy of Sir Patrick Abercrombie's latest plan, in which he continues the game of blind man's buff with the population and industry of Greater London, which he began last winter.

Professor Laski's pamphlet explains the vital connection between an economy planned for the greatest good of the greatest number and the survival of democracy, which, as the author points out, was born less than twenty years ago, and has been out of commission for a considerable part of that time. We have no reason to take the survival of democracy for granted.

Dr. Schumacher's pamphlet covers fresher ground. In it an economist of the Keynes School discusses Town and Country Planning in terms of Post War housing, building, social security, economic planning and finance. Naturally on 42 pages no exhaustive treatment is possible. But this does give one a bearing by means of which one can steer through the delightful mazes of the Greater London Plan without hopelessly losing one's sense of direction and getting stuck then for life. Starting from the assumptions (1) that 4,000,000 houses must be produced during the first ten or twelve years of peace, and (2) that there must be *steady* employment in the building industry if building costs are to be brought and kept in line with other items in the cost of living, Mr. Schumacher goes on to point out : " Building at the rate of 400,000 dwellings a year, without scrapping on a commensurate (and later on even larger) scale, would absorb undeveloped land at the rate of about 70,000 acres a year to no purpose at all. Within four years of the end of the war vacant houses and their adjuncts might occupy as much as 200,000 acres of land. It is obvious that this would mark a most serious failure of social

policy" (p. 36). Now "it is the very essence of the price mechanism that as supply exceeds demand prices must fall. *A fall in rents in old houses will induce an increasing number of people to prefer an old house at a low rent to a new house at a high rent.* Thus an increasing number of the currently produced houses will find no purchasers or tenants unless their rent is lowered too . . ." (p. 33). "Private owners will refuse to sacrifice income and incur heavy expense by scrapping their property. Thus the community, represented by the State or some special public agency, must do the scrapping if it wants the new houses" (p. 35). "We conclude, therefore, that (on the assumptions we have made) the contemplated building programme must become a "scrap-and-build programme" as from 1947. The rate of scrapping will have to rise from something like 300,000 in 1947 to something like 350,000 by 1957, and will have to rise beyond 400,000, i.e., the rate of new building, later on when the number of families will decline rapidly. If this is accepted it becomes immediately clear that such a programme cannot be carried through unless it is put within the framework of a general scheme for the replanning of Britain" (p. 36). "If it is held that unfortunately for good or ill most of our industry is already located, then it must also be held that for good or ill most of our housing is already located, and the idea of building 400,000 new houses a year with the number of families practically stationary, becomes absurd" (p. 38). The principal advantage of wholesale rebuilding—once really insanitary houses have been replaced—is connected with the layout and environment of the whole district, country-side or region, and even quite a small area cannot be properly planned unless the location of industry is planned with it.

Read this pamphlet and then re-read the County of London and the Greater London Regional Plan. The trouble is well worth taking if one is interested in the subject at all.

Dr. Schumacher brings out the connection between town planning, the building industry and the rehousing programme. He fixes their position in the post-war economic set-up which is gradually taking shape. In doing so he presents us with a conception of planning which is only rarely met with in official circles. The majority of planners do not know enough about economics, and the majority of economists do not give enough thought to town planning and building to get out of the tangle. (See: "Castles in the Air," *The Economist*, December 16, 1944).

Mr. Watkins's pamphlet of the trio is just as good as the others, although it covers ground that should be more familiar to architects. But is it? If so, the pamphlet still remains an excellent refresher, if not it will prove a lucid introduction to the maze of legislation referring to land-ownership, and a shrewd commentary on what reforms will be needed to achieve any worth-while changes.

AILEEN TATTON BROWN

The Finale of Mumford's Trilogy

THE CONDITION OF MAN. By Lewis Mumford. Secker & Warburg. 25s.

THIS is the third volume of a series of which the first was *Technics and Civilisation* (1934), and the second *The Culture of Cities* (1938). It is one of the most challenging books of our time. What Lecky's *History of European Morals* attempted to do for the Victorians, this book does for us and more, for it is a guide to the future Western man must follow, if he is to survive. It is a study of human development from the days of the Greeks, until now, an exploration of our cultural heritage, a reassessment of our civilisation. History is reviewed in the light of modern psychology. Just as Freudians help their patients to relive their past in order to cure their neuroses, so Mumford tries to redeem modern man from his sickness by making him conscious of his history.

In a work of such sweep and daring there are inevitably over-simplifications, and specialists may dispute Mumford's findings in their particular sphere of knowledge, but the merits of the book outweigh its weaknesses. Above all it is no patchwork but a whole, for from beginning to end it is informed by one idea—what Mumford calls "the primacy of the person." The great periods of culture are in Mumford's view those that gave scope to the whole man and when nature and society were understood as a unity. In the heyday of Greek culture it was possible for a statesman like Solon to be a distinguished poet, a tragic dramatist like Sophocles to take his turn as a general. "Out of an organic society arises an equally organic sense of the person."

So also in the Middle Ages. "In his æsthetic consciousness the medieval craftsman, even the dumb peasant, lived on a higher level than his modern counterpart; his feelings were more fully developed if his intellect was less sharp, for he daily had the experience of a sacred art. The Church gave collective dignity to human life at large as no other institution had ever done."

But change is essential to organic development. A good custom can obstruct life no less than a bad, and without a perpetual challenge would do so. In the nineteenth century "even more than the Church, nationalism gave to the inhabitants of every country and region a common faith; belief in an ideal past, hope for a common future . . . and produced a legion of martyrs and saints." "Nationalism was the re-assertion of group personality in the face of organised repression of personality." "Under nationalism the repatriation of the folk took place." And then—national self-respect becomes belligerent self-assertion and reaches its final state of disintegration in fascism.

The book is not a string of generalisations. Its charm comes from its concreteness and its touch with the homely, as well as with the world of art and literature. Take the section "The culture of the country house." "The Country House spread over Europe, from the gardens of the Medici to the polders of the Low Countries, from the palaces of the Loire to the great houses of the Cotswolds and finally from Europe to America, in the stately tide-water mansions of Virginia." Then comes the decline. "What is Suburbia but an attempt to universalize the setting of the Country House?" "In the long run, Country House existence was an aimless existence . . . The Abbey of Thelema ends up its career as Heartbreak House, and is chopped to the ground with the Cherry Orchard."

In the last chapter Mumford makes it clear that the only way out of the dissolution of society and the barbarism into which we have regressed is by a new integration of human personality. The most terrible feature of this new barbarism is that we all share it but are no longer conscious of the depth of our degradation. The crimes of Nazidom have been amplified by our indifference to them in the days of appeasement. "The democratic peoples cannot conquer their fascist enemies until they have conquered in their own hearts and minds the underlying barbarism that unites them with their foes." For as Western man becomes increasingly the slave of the machines he has invented, his primitive impulses, balked of outlet, find their expression in the return to barbarism. (Note that Spengler had already pointed out that mechanism was leading us back to savagery but such was his hatred of the machine that he welcomed it and urged us to embrace it.) From the fifteenth to the early twentieth centuries, exploration and colonisation had given these impulses an outlet, but after 1918 these doors were almost all of them closed. The expansion of the last four centuries—in land, population and industry—was thought of as an endless process whereas it was extremely unusual. We are now approaching the period of equilibrium but it must be a dynamic equilibrium, not Byzantinism. Co-operation must replace conquest, social need, not profit, become the criterion of industry. Above all there must be an educational reorientation. "The ideal personality for the opening age is a balanced personality: not the specialist but the whole man."

FRANCESCA M. WILSON

"Oh, Very Pretty Wall, Sir!"

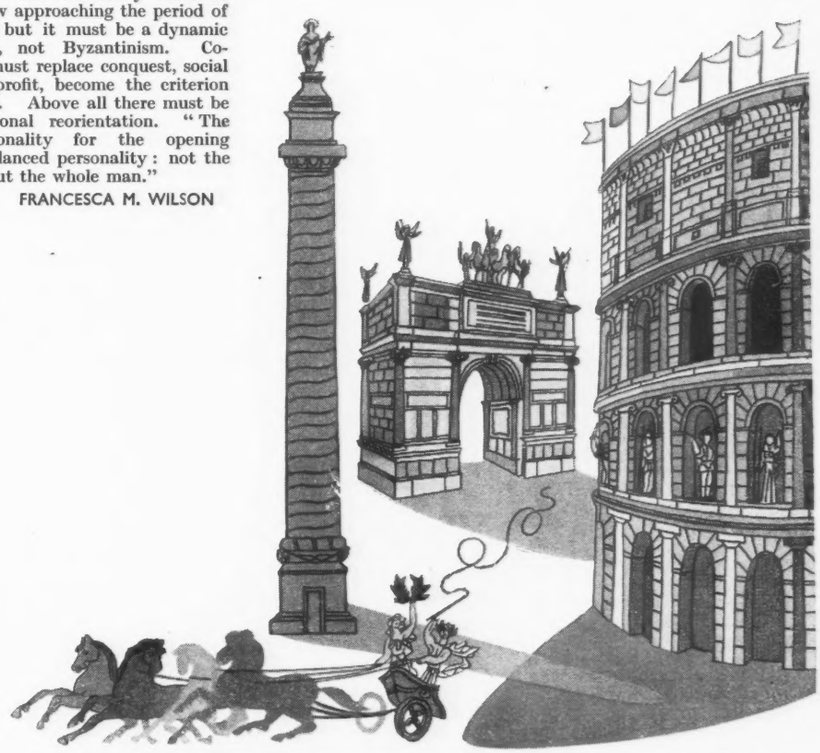
BALBUS. By Oliver Hill and Hans Tisdall. Pleiades Books, Ltd. 7s. 6d. net.

A HISTORY OF THE COUNTRYSIDE. By Margaret and Alexander Potter. Puffin Books, Ltd. 9d.

CHILDREN, as every parent is daily reminded, are individuals—not just a lower-height group, and not even Mr. Dennis Chapman could discover whether Beatrix Potter is generally preferred to Lewitt-Him, or Kathleen Hale to Margaret Tarrant. Nursery opinion, in fact, is more than unpredictable. Like sticky situations at the front, it is "fluid," changing with a ruthless rapidity which must break that traditionally unbreakable object—a publisher's heart. To the pictures in *Balbus*, for instance, the first reaction of my daughter (aged 4) was what advertising men call "resistant." A few days later she was a pushover for them. The opposite might have been expected, for to adult eyes at least the brilliance of the first impression—the scarlet cover is a miracle of gaiety—loses something of its lustre with closer acquaintance. For this Hans Tisdall's drawings are certainly not to blame, for they are clever and exciting throughout. Every building from S. Sophia to the Monastery of Melk, and from the Colosseum to the Crystal Palace, is shown in riotous tuppence-coloured polychrome—a fantasy which, even if it raises a Banister Fletcher eyebrow or causes disillusion in later life, at least makes every page a delight to the eye. Like all good decorators Hans Tisdall (better known perhaps as Aufseeser) makes skilful use of the space *between* the drawings and his effects are considerably helped by distinguished layout and typography. Oliver Hill is less successful with his text. An intelligent ten-year-old (who liked the pictures) stated that the words are "not very interesting except to grown-ups," and her crony (aged twelve) declared "there are too many big words." Children do not insist on words of one syllable, but they like livelier sentences than, say, this one—"These vast undertakings are unmistakable proof of the grandeur of Roman Achievement." So, too, for that matter does that often forgotten army of parents which has to read such sentences aloud.

The faults and virtues of *Balbus* are reversed in the *History of the Countryside* by Margaret and Alexander Potter. Here the text is clear, interesting and concise while the drawings by adult standards are over-facetious and insensitive. The story covers much the same ground as *Your Inheritance*, and is full of good simple sense. Presentation—as it used to be called in the studio—is not up to the standard which we are accustomed to expect from Mr. Carrington's colony of Puffins.

HUGH CASSON



ROMAN ARCHITECTURE. Hans Tisdall's visions from Balbus, *reviewed on this page.*

Sculpture of York

YORK MONUMENTS. By J. B. Morrell. B. T. Batsford. 3 guineas.

IF only there were more books like this. England will never learn to appreciate her heritage of sculpture without them, and those competent to interpret it will not be able to do so until data and illustrations are made available on a large scale. Alderman Morrell is a modest benefactor. He knows that it would not be for him to analyse the style of Stuart or Rococo monuments. He is satisfied with presenting what there is. His text is limited to two pages of preface and general introduction and twenty of introductions to the various periods dealt with: Gothic, Tudor, and Early Stuart, Caroline to early eighteenth Century, Georgian, and Gothic Revival to twentieth Century.

The fair share given to the last hundred years is especially praiseworthy. There is a delicate 1824 wall memorial with a classical inscription slab against slender Gothic decoration, a ponderous somewhat Owen Jones looking memorial of *c.*1855 by Gilbert Scott, Dean Duncombe's monument by Street and Boehm, Archbishop Thomson's by Bodley and Thorneycroft, and the Boer War Memorial in the Minster by Voysey.

On the last plate are two open-air memorials: Bodley's for the Boer War, and Lutyens's for the First World War—an illuminating comparison.

In the earlier chapters one would have welcomed better illustrations of the Gray Monument of 1255, a very important document, and also plenty of Warburgian shots of the seventeenth and eighteenth century monuments. Some (for instance Ingram, Minster 1625, or Strafford, Minster 1695, or Savile, Minster 1784) are in their details very rewarding indeed. In the originals one can see them only with the help of a strong torch. It is in such cases that photography and reproduction in books can amount to discovery.

The volume ends with a catalogue of York sculptors.

NIKOLAUS PEVSNER

Madam, your Antiques are Showing

GOODBYE, MR. CHIPPENDALE. By T. H. Robsjohn-Gibbings. Illustrated by Mary Petty. Alfred A. Knopf. 1944. $2.

THE three of them began to discuss how they would treat the room. Elliot was all for Louis Quinze, while Isabel wanted a refectory table and Italian chairs. Brabazon thought Chippendale would be more in keeping with Mrs. Bradley's personality.

"I always think that's so important," he said, "a person's personality." He turned to Elliot. "Of course you know the Duchess of Olifant?"

"Mary? She's one of my most intimate friends."

"She wanted me to do her dining-room and the moment I saw her I said George the Second."

"How right you were. I noticed the room the last time I dined there. It's in perfect taste."

The scene is Chicago. It is 1920 in Somerset Maugham's latest novel, *The Razor's Edge*. It could as well be anywhere from Beacon Hill to the Promenade des Anglais anytime between now and then. Mary Petty has often drawn it for us in the *New Yorker*. The bric-à-brac comes from the Hearst Collection sale at Gimbels, that is, all but the too too English butler and the French maid who flutters dusters nostalgically out of œil-de-bœuf Fifth Avenue château windows and, of course, the dear people (Henry James left them behind), those good Americans whom Wilde said go to Paris when they die. These are the victims of Mr. Robsjohn-Gibbings's fun. For years Messrs. Lancaster and Betjeman have been quietly making us laugh at ourselves over this matter of common-sense good taste; but Mr. Gibbings has a new approach; he digs us heartily in the ribs—or rather in those of our American cousins (for he writes for their benefit) and like little Audrey laughs and laughs because he knows, he's been in the racket himself. Mr. Gibbings is an Englishman who emigrated to Manhattan during those lean late twenties. He writes with a racy americanese as only a foreigner would dare, and if it were for this alone and the exquisite Mary Petty illustrations this book would be worth having. But there is more to it. It is quite the most deliciously, maliciously knowledgable exposé yet of both the antique business and its bastard, the decorating racket. Frankly it seems almost libellous, no one is safe.

We all know the bedtime stories of yankee millionaires buying French monasteries ready made and filling them with four-posters, "slept in by Queen Elizabeth, or the Empress Josephine, or Cleopatra, or all three," as James Duveen once ribbed. Our blood has quickened as we thought of Curzon saving Tattersalls from rape literally on the Docks like some melodrama hero of the eighties, and of fabulous prices paid for indelicate furniture elegantly decorated after Angelica Kauffmann.

And not only rich but poor Americans go in for this sort of thing. New York is packed with junk-shops selling off nineteenth century Birmingham knick-knacks, and the kind of china one wouldn't see in a Brixton boarding-house, and all the sweepings from the attics of Europe to meet this more plebeian demand. Junk and antiques and decorators serve snob appeal even more in the U.S.A. than elsewhere. A London-New York dealer told me he never sees his clients but sells through the decorator boys who buy à la mode with little regard to excellence (curiously enough collectors' pieces can often be picked up "on the cheap" through fear of fakes). Since the days when Stanford White—who was assassinated, though it is not believed for architectural reasons—and the Duveens supplied period "props" to the American New Rich, as Disraeli's Baptist Hatton had given Norman blood transfusions to the English industrial barons half a century back, snobbery has dominated all other values, and such names as Thomas Chippendale have been accepted as mystic symbols of good taste. It is a fashionable nomadic habit of New Yorkers to up tents in the Fall and since few well-to-do Americans (they aren't scarce) would dream of refurnishing even an apartment without a decorator, trade is pretty good. But the pragmatism of American business demanding that it must always be better requires continual change. There is the story of the lady who built and discarded five houses in rapid succession before catching up with the latest fashion. Sixty different styles in the last fifty years Mr. Gibbings tells us and plumbs for Fifth Avenue Chippendale and whitewash by Syrie Maugham—for our part we simply adore Louis Quartz in the offest whitest panties. He traces with almost marxist dialectics the effect of supply on demand, how in fact the "trade" has always been able to sell surplus supplies of warming pans or whatnots by judicious press work, and how even Burton's Arabian Nights (unexpurgated edition) effected a roaring trade in orientalia. The crisis came when the antique market showed signs of drying up and every period had been reproduced, and crossbred, at least twice. But somebody remembered the junk-shops.

At this stage Mr. Gibbings cuts a pretty rug. He slashes out so viciously at junk in general that he is sure to hurt deeply many of the island race who love nothing better and are natural collectomaniacs. If it isn't Crystal Palace souvenirs its old copies of *The Times*. There is seldom vice in it, though it may be partly an economic hangover from two or three blockades and the sales brought about by the deaths of endless great maiden aunts. Many of us have our own junk which has usually been found in the box-room or at a jumble and is quite amusing and cheap. Even Miss Mitford's hero of *Highland Fling*, Albert Memorial Hall, precious though he is, has our sympathies when he risks his life to save the Winterhalters and the wax flowers, and leaves the Raeburns in the burning baronial hall, an act for which he was never forgiven. But the squalid interest in the contents of nineteenth century servants' bedrooms and the considerable trade in expensive reproduction victoriana which is having such a lengthy vogue in the States is surely quite another thing. Pity though we may the clever boys and girls who arranged mother's flowers so nicely, "they really must take up interior decorating," it is they who have brought us to this chaos of antiquarian slumming. Under the delicate fingers of the interior decorator, often recruited from amongst the amateurs which *Vogue* lists under "international set," the bric-à-brac is elevated to macabre and consistently styled *interieurs*. I remember in this connection the New York apartment of a french emigre titled lady, which made Mae West's boudoir look as dull as a cafeteria in the Y.W.C.A. Reasonable people may believe this sort of thing is only seen on a Cedric Gibbons set or in the more chi-chi night clubs; which seem to vary from a lugubrious funerality of black walls plastered with caricature rocaille and velvet drapes, not unlike the Giaour's cave in Vathek, to fru-fru architectural take-offs on Carmen Miranda; this is not so. This is the dream room of every shop-girl in the Bronx; the outward and visible sign of successful womanhood. How Ruskin, who accused every stone cherub of simulating a bat on a barn door, would turn in his grave.

The Press tends to make us believe the U.S.A. is in the midst of a modern Renaissance; Mr. Gibbings will disillusion anyone on this point. *Architectural Forum*, *Pencil Points* and the not so well known but excellent *Arts and Architecture* are way ahead of general opinion. The ideal is still largely a Cape Cod Cottage furnished in Grand Rapids mission style, and if the war has stimulated ideas they form around the eclectic streamlined flatroof with corner windows (preferably prefabricated in plastics). "We have asked (of the house)" as *Arts and Architecture* (July 1944) put it, "that it be the crutch of our sentimentality, a boon to our vanity, a means by which we prove to our neighbours that we are better or richer or more knowing than they. We have actually submitted the house to the kind of thoughtless faddism with which we accept the season's fashion in hats." The fight in the States has been as hard as anywhere, both in the profession and the schools and outside. It killed Sullivan, and Wright says it nearly killed him. Though there is a considerable amount of good stuff it is as yet only a flash in the pan. We must remember in England we have seen nothing for five and more years. But the Luce Press champions progressive architecture unstintingly, and the *New Yorker* carries on an engaging campaign, through humorists like Arno and Tayler, against pompous antiquarianism. The younger architects have proved their soundness in War Housing projects. Modern furniture is at last coming out at competitive prices and being sold by at least one of the big mail order firms. There is the glimmer of a dawn.

Perhaps the last chapters of *Goodbye, Mr. Chippendale* will seem flat after the earlier champagne but in fact they are both essential and sound, being the sober plea for rational optimism after a bomb has wiped out some replanning obstacles. I feel the suggested reading is rather terrifying to the average layman but one leaves the book convinced if not already converted by its sincerity and greatly entertained by its wit, attractive format and by Mary Petty's drawings. Obviously the book to give to difficult clients for Christmas or any time.

FELLO ATKINSON

SHORTER NOTICES

BEAUTIFUL NORFOLK BUILDINGS. Sketches and Notes by Stanley J. Wearing. Soman-Wherry Press, Norwich. 7s. 6d.

Books such as this are always useful. Mr. Wearing draws well in a factual and yet sensitive way, and his sketches come out well in the half-tone plates of which the book has forty-four. Eleven Norwich churches are shown, and the Quaker Meeting House, Sprouston Windmill and the Dolphin Inn. Of the hundreds of village churches of course only a few appear, but the choice is good—more successful perhaps than from the available examples of domestic architecture. There are no drawings of church interiors or house interiors.

How necessary it is for more and more such modest and inexpensive recording books to come out, illustrated by drawings or by photographs of the quality of those taken in recent years for the National Buildings Record.

HOMES FOR ALL. The British Broadcasting Corporation looks at the problem. Littlebury & Co. 7s. 6d.

It is odd how broadcast discussions fall flat when taken out of their atmosphere and put into print. To perpetuate "Please go on, Mr. Brunton" or "Sir Harold, now what are your ideas of the future?" seems quite unnecessary. What may come off as a conversational conversationalism, fails as a literary conversationalism. The purpose of such a book is surely served much better by a coherent, straightforward treatment. Moreover, the book is undistinguished in printing and layout, has badly chosen illustrations (the dullest of American Prefabrication) and a jacket which prepares one rather for a building society's pamphlet to advertise a new suburban estate than for a serious book on problems of housing.

POST-WAR BUILDING STUDIES. Numbers 11, 12, 14 and 15. Ministry of Works (H.M.S.O.). Number 11, price 1s. 6d. Number 12, price 2s. 6d. Number 14, price 1s. Number 15, price 9d.

HOUSING MANUAL, 1944. (H.M.S.O.). Published by the Ministries of Health and of Works. Price 2s.

The Ministry of Works *Post-War Building Studies* have been reviewed in June, 1944 (No. 1, on House Construction); July, 1944 (Nos. 2, 3, 6 and 7, on Schools, Plastics, Gas Installations and Steel Structures); and November, 1944 (No. 8, on Reinforced Concrete Structures). Now two new numbers have come out: 11, on Electrical Installations, and 14, on Sound Insulation and Acoustics. These reports have been prepared at the initiative of the Post-War Buildings Directorate by committees convened by a variety of different bodies ranging from the Acoustics Committee of the Building Research Board to the Board of Education, but it is as well to bear in mind that their recommendations have not necessarily been accepted. By contrast the *Housing Manual* 1944, compiled jointly by the M.O.W. and M.O.H., contains the Government's recommendations. It deals with the single subject of local authority housing and is to a large extent based on recommendations contained in various *Post-War Building Studies*. It is more comprehensive and much more cautious. For instance, while the *Post-War Building Studies* dealing with gas and electricity recommend that houses should be fully equipped for gas and electricity respectively, the *Housing Manual* merely remarks: "When both fuels are available it *may* be possible at small cost to provide installations allowing either to be used." What the post-war building studies provide is an authoritative review of the technical possibilities in each field together with many useful suggestions as to how current practice might be improved. They come as a godsend to the profession, bridging as they do the immense gap which has existed between time-honoured text-books and new methods and materials, about which there has often been little information available apart from that in advertisements. It would be most useful if similar studies could be published at regular intervals, even though it may always be advisable to read them with an eye to the prejudices of the convening body.

ANTHOLOGY

A Smug View of Manchester in 1805

Manchester is built principally of brick ; the modern houses and streets are spacious and handsome, but the ancient streets are narrow, and the buildings mean, ruinous and defaced with smoke. It contains numerous churches, and some humane and literary institutions : it employs a great part of a population of from eighty to ninety thousand inhabitants, in manufacturing cotton, and in various businesses connected with this. . . . I have employed no small part of the time since I have been in Manchester in visiting these extensive manufacturing establishments, which are the wonder of the world, and the pride of England. The proprietors have, in the most liberal and attentive manner, afforded every facility which could give me the fullest view of those works that furnish to the United States so large a part of their clothing. . . . Some of them employ twelve hundred people, notwithstanding the application of the steam engine, as a moving power, in a great multitude of the processes. . . . The manufacturers, who are of both sexes, and of all ages, appear generally pale, thin and deficient in muscular vigour. The fine fibres of the cotton irritate their lungs ; and the high temperature necessary in most of the processes, together with constant confinement in hot rooms, and, more than all, the debauched lives which too many of them lead, make them, at best, but an imbecile people. The wages of the labouring manufacturers are high, at present, but so few of them lead sober and frugal lives, that they are generally mere dependents on daily labour. Most of the men are said to be drunkards, and the women dissolute. . . .

The country for many miles around Manchester is tributary to the great establishments. Spinning, weaving, and other preliminary operations are performed in the villages and cottages, and the fabrics are brought into town to be finished. While I was walking with some of my stage companions through a village near Warrington, a shower caused us to seek shelter in the cottages, and we found the people employed in this manner ; their appearance was neat, cheerful, and comfortable.

BENJAMIN SILLIMAN (*A Journal of Travels in England, Holland and Scotland . . . in the years* 1805 *and* 1806).

MARGINALIA

This Month's Anthology

Benjamin Silliman (1779-1864) was professor of chemistry and natural history at Yale, and the most prominent representative American scientific man of his generation. The immediate purpose of his journey to England was to buy books and scientific apparatus for his university. He met such men as Humphrey Davy, John Murray and Thomas Hope. In his *Journal* he appears somewhat pedestrian. His view of Manchester is characteristic of its date in its complete lack of insight into any problems arising out of the conditions of machine production, and its ready acceptance of what must be the " liberal and attentive " manufacturers' views of their workers. " Manufacturer," by the way, it will have been noticed, means in Silliman's notes " operative." Another point of interest is the survival down to the time of Silliman's journey of domestic industry in the cottages around a manufacturing centre, and the contrast between the neat and cheerful home workers and the pale and thin factory workers.

War Damage in Norway

From Bergen comes the sad news that the Hakon's Hall, Norway's most important secular building of the Middle Ages, has been destroyed by an explosion in the harbour.

War Damage in Germany and North Italy

The following are reports reaching this country via *The New Pallas*, a mimeographed Swiss news sheet on matters relating to art and architecture. The facts given refer to January to November 1944. They are based on Axis evidence and may be inaccurate or tendentiously exaggerated. Meanwhile, in the absence of official Allied information, they may be worth recording :

GERMANY

BRUNSWICK : Cathedral, Castle, St. Magnus, the other mediæval churches, the Alte Wage, and over 88 half-timbered buildings " said to have been entirely destroyed."

FRANKFORT : Carmelite Church, St. Katharine, St. Nicholas, St. Paul, Kaiserhalle, and many old houses " gutted or destroyed."

KARLSRUHE : Palace and theatre " reported destroyed."

LEIPZIG : St. John's (with Bach's tomb), the Old Town Hall, and the University Church " destroyed."

MUNICH : Church of the Theatines, St. Boniface, St. Michael's, University, principal parts of the Royal Palaces, Old Town Hall, Residence Theatre, Maximilianeum " said to have been destroyed or gravely damaged."

STUTTGART : Stifts-Church " reported destroyed," New Palace " gutted," Hospital Church " gravely damaged."

TRIER : Church of the Holy Virgin " gravely damaged."

NORTH ITALY

FAENZA : International Museum of Ceramics " reported destroyed."

FERRARA : Cathedral " said to have been gravely damaged."

MANTUA : Monastery of S. Francesco " reported gravely damaged."

MILAN : Eighty paintings of the Seminario Arcivescovile have been burnt and Tiepolo's early frescoes at the Palazzi Dugnani destroyed.

MODENA : Cathedral " said to have been hit."

PADUA : Carmine and Eremitani Churches " said to have been gravely damaged." Palazzo della Ragione hit and fourteenth-century frescoes destroyed.

PARMA : Steccata Church, Ducal Palace, Pilotta Palace, Farnese Theatre " reported destroyed," Correggio Room at the Convent of St. Paul's and Government Palace " said to have been gravely damaged."

To these German reports an American must be added, a lecture by Rensselaer W. Lee given at the Metropolitan Museum in New York on December 28, 1944. In this (see also below) he mentioned the following results of air reconnaissance :

GENOA : Annunciata : left aisle lost ; many palaces, including Doria-Pamfili, Bianco and Rosso " heavily damaged."

MILAN : Ospedale Maggiore and Palazzo Marino " charred ruins "; Castello Sforzesco, Brera Palace, Palazzo Litta, Casa degli Omenoni " suffered severely " ; Palace of Justice " gutted."

TURIN : University, entire north side burnt out ; Valentino Palace, south pavilion badly damaged.

Baroque Losses in Italy

The worst casualties amongst buildings of the Italian Baroque were summed up by Rensselaer W. Lee in his lecture mentioned above. They are :

CIVITAVECCHIA : Bernini's Arsenal " almost entirely destroyed."

FRASCATI : Borromini's Villa Falconieri " half-demolished " ; Villas Lancellotti and Ruffinella " badly scarred "; Villa Aldobrandini, " right half of plaster facing stripped away."

NAPLES : Annunziata, Gerolamini, S. Paolo Maggiore, S. Pietro Maggiore " severe damage " ; S. Chiara " interior badly injured." Altogether about 40 churches damaged.

PALERMO : Gesù " seriously hurt " ; S. Giuseppe dei Teatini dome destroyed, upper parts of church damaged ; Olivella Church " interior literally destroyed," Oratories of S. Lorenzo and S. Zita " stucco decoration suffered severely."

TIVOLI : Villa d'Este, several rooms destroyed, gardens damaged.

The Housing Emergency

General Sir Frederick Pile, former Officer-in-Command of Anti-Air Defences, has been made Director-General for the production and erection of houses, and Sir Reginald Stradling, Director of Building Research in the D.S.I.R., chief scientific adviser on experimental and development work. Can it be taken from these two appointments that the Government is beginning to take housing seriously ? It is time. Mr. Sandys, the Minister of Works, admitted in Parliament recently that, owing to the heavy repair-work still to be done to damaged houses, no more than 10,000 men are at present available for the temporary and permanent housing programme. It is the intention of the Ministry to start immediately after the defeat of Germany raising the building force to one and a quarter million. Half a million operatives should be added during the first year following the end of the war in Europe.

So Mr. Sandys hopes. Mr. Willink, Minister of Health, meanwhile hopes to complete 220,000 houses during the first two post-war years, and looks proudly at 145,000 temporary houses —no, at forms allocating 145,000 temporary houses to local authorities. But we have grown a little tired of Government planning and housing hopes backed by so little action.

The Merseyside Plan

The plan has been published for the development of Merseyside which Mr. Longstreth Thompson has prepared for the Ministry of Town and Country Planning. He co-operated with the Merseyside Advisory Joint Committee and Mr. C. H. James. It covers an area of 450 square miles. Its most interesting single feature is the rejection of new satellite towns. Improvement of the existing urban structure is recommended instead. Extension should take the form of radial spurs. 71,000 dwellings will have to be replaced in the next 25 years. New industries are needed, too, to employ an additional 100,000 people. Of individual suggestions the following should be mentioned : an underground railway, an intercontinental airport, and a new high-level bridge over the Mersey.

The Canterbury Plan

Dr. Charles Holden and the City Surveyor of Canterbury, Mr. H. H. Enderby, have completed their plan for reconstruction and development of Canterbury. The City Council has now invited criticism from the Ministry, and other interested bodies. The plan recognises the dominating role of the cathedral and insists on the preservation of moderate building heights and intimate, narrow streets in the town centre. It suggests new civic offices by the Dane John, a new shopping street parallel to the existing one, a removal of East Station farther east, an extension of West Station, an inner ring boulevard just outside the City walls, a two-mile belt of open space, and an outer ring encircling the belt.

Sir Ian's Successor

Mr. C. D. Spragg has been appointed Secretary of the R.I.B.A. He has been on the Institute's staff since 1913 and became Acting Secretary when Sir Ian retired last year. His task in the years immediately after the war will be a formidable one. Plenty of reaction, inertia and vested interests will have to be fought.

A Research Director

Tarran's of Hull, one of the firms whose emergency houses have been accepted by the Ministry of Works,

have appointed to the Board of Directors Miss Elizabeth Denby, whose research into housing in Britain and abroad is known to experts all over the world.

Replanning in the Swiss Hôtellerie

Some interesting pamphlets have come to hand from Switzerland showing up a major Swiss planning problem: the future of the catering industry. It is apparently considered an established fact that the kind of clientele which made the luxury hotels of Switzerland flourish in Edwardian days will never return, and indeed no longer exists. What should therefore be done with the stately piles of St. Moritz and Interlaken, of Lugano and Luzern, and Pontresina and Montreux? The answer as set out in *Nationalrat* Dr. A. Meili's well-produced pamphlets, is complex. Apparently "Butlinisation" plays a not inconsiderable part in Swiss thought, as it does here—and as, alas, it did in Dopolavoro and Strength through Joy. No country, large or small, democratic or otherwise, can escape the *Zeitgeist*, it seems.

CORRESPONDENCE

Perpendicular Fantasies

The Editor,

THE ARCHITECTURAL REVIEW

SIR,—In his notice of my book *Henry Yevele* in your March issue, Mr. J. M. Hastings makes a number of sweeping assertions and denials which are demonstrably incorrect. Since Mr. Hastings is evidently (as the moderns say) "allergic to" my method of presentation, I shall as far as possible avoid comment on matters of opinion, or controversial issues such as the origins of Perpendicular.

1. My book "is in fact a plea for a return to that style" (Perpendicular). On the contrary, I suggest (p. 55) that Yevele's work should be *studied* "by those who desire to build up a *new* and sincere English architecture."

2. My "book is about nothing but history and archæology" in spite of my disclaimer. The point is that the book *includes* a popular outline of facts which up to the present have been exclusive to the readers of learned publications. If Mr. Hastings cares to do so, he can check all the principal facts from the references on my p. 79.

3. Lethaby (*Westminster Abbey and the King's Craftsmen*, 1906, p. 220-1) *did in fact* suggest that the King's Masons probably invented "Perpendicular"—"his historical conscience" did *not* prevent him!

4. That I "have not explored the subject is quite evident." Now I am in no position to know how far Mr. Hastings has explored the subject, but what I have been trying to do for nearly 15 years past is to collect, from printed and MS. sources, every fact that can be discovered about English architectural master craftsmen who flourished before 1550 A.D.; thanks to the generous co-operation of other research workers, the compilation now covers over 600 individuals, many of them provided with extensive biographies. A selection from the material, with full references, has been published in the article quoted at the end of my bibliography (p. 79). I need hardly say that I shall welcome corrections, provided they rest upon a firm ground of fact.

5. I have "been reading Lethaby, but without acknowledgment." That every worker in this field owes a profound debt to Lethaby hardly needs to be expressed, but in my book references to him will be found in six places (see Index) at pp. 3, 27, 28, 40, 54 and 79—in the last of these cases I suggest that Lethaby's two books on the Abbey "should be read by every student of the period."

6. Lethaby "as a scholar . . . made many mistakes, and they were serious." Mr. Hastings has presumably his grounds for this general assertion, but in the case in point his sources seem to have misled him. The facts as to the building of St. Stephen's Chapel are these: The still existing Chapel of St. Mary (or Lower Chapel, or Crypt) was completed between 1319 and 1326, but may contain part of the work begun between 1292 and 1298, when the Palace was devastated by fire. The accounts quoted by J. T. Smith (*Antiquities of Westminster*, 1807) and by Brayley and Britton (*History of the Ancient Palace . . . at Westminster*, 1836, e.g., p. 150) show positively that Master Thomas of Canterbury designed the *details* of the upper Chapel, for on the 27th of May, 1330, he was paid 6s. on his "coming first to Westminster, and beginning there upon the new Chapel of St. Stephen, and working at the tracing upon the molds" (*in trasura super moldas operanti*). It is, however, quite possible that the main outlines of the work (though *not* its advanced detail) had been settled by Master Thomas's predecessors, for already in 1329 the timber roof and vaulting had been worked, as is proved by two long inventories of stored materials now in the Public Record Office. (E.101/467/6(1) and 467/7(1)—I may add that I have myself collated these inventories with a later one printed by Smith, with results which are due to appear in the forthcoming number of the *Transactions* of the London & Middlesex Archæological Society.) The upper Chapel was not structurally complete until 1345-6, when an account (printed by Smith) shows that the roof was being put up.

7. Master Thomas had been in charge of minor works about the Chapel as early as 1325-6 (P.R.O., E.101/469/10), while William de Ramsey was one of the masons at work. On the evidence available I think it is fair to describe Ramsey as "one of Thomas of Canterbury's assistants."

8. Yevele's works—all I have attempted to do is to set forth Yevele's known output and to make a number of suggestions which depend upon varying combinations of documentary and structural evidence; so far as war conditions permitted, all my suggested attributions were illustrated, in order to allow the reader to judge for himself. I have dealt with some of the evidence in a more critical manner in a note in *Archæologia Cantiana*, vol. LVI, 1944.

Yours faithfully,

JOHN H. HARVEY

2 *March*, 1945.

This letter has been submitted to our reviewer whose reply is printed below.

The Editor,

THE ARCHITECTURAL REVIEW

SIR,—Mr. Harvey's letter really needs a somewhat long and considerably complicated reply, but I will be as short as I can.

The dating of the Under Chapel

Mr. Harvey sticks to the accepted dating: 1319-1326. This can be disproved in a simple way. John de Norton's account for Michaelmas, 1319 (Brayley and Britton, p. 120) records payment to a tiler for working "*circa coop'turam capelle S'c'i' Steph'i.*" Disregarding the exact meaning of the phrase, it is enough to note that St. Stephen's Chapel is in existence *in* 1319. As it was built on top of the Under Chapel, and could not be begun until this was completed, it follows that the Under Chapel—St. Mary in the Vaults—was completed before 1319. The unbiased reader may feel that it cannot be as simple as all that, but I can assure him that it is.

What happened was as follows. Mackenzie noted this entry and turned it grandilo-

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quently, "as appears from the Rolls 13-20 Edward II, the *edifice* was far advanced, or nearly completed, being roofed in and slated"(!) Lethaby misread Mackenzie, and wholly misrepresented him. For "edifice" he substituted "Under Chapel," he then, no less than twice, stated that the *Under Chapel* was completed between 1319 and 1326, giving Mackenzie as his authority. Mackenzie (The Collegiate Chapel, etc., Intro. p. 1) of course meant *St. Stephen's Chapel*. His whole (quite false) thesis was that Edward II completed the chapel, and that Edward III "altered" it. He had to do this to account for the Perpendicular characteristics. Like Mr. Harvey, he found the detail "too advanced." Thus we have a very interesting case of confusion being worse confounded. To anyone who disagrees, the answer is, read Mackenzie, and see.

The Fire at the Palace in 1298

The fire of 1298 must have been a bad one, as the King moved to the Archbishop of York's Palace of Whitehall. Matthew Paris states, "*Abbatiæ vicinæ ædificia cum Palatio regis devoravit.*" This is obviously exaggerated. Westminster Abbey and Westminster Hall were not burnt. There is no evidence that the "works" of the New Chapel were burnt either. The impression that it was *not* burnt is very strong because a Memorandum was made of work ordered by Edward II. The phrase "burnt in the time of the King's father" recurs. But the New Chapel is not mentioned. The fire has been "introduced" into the subject to account for our not hearing about the chapel from 1298 to 1307. As Lethaby says, "It seems nothing was done." But this is explicable on quite other grounds. Tout has abundantly shown that Edward I was practically bankrupt at the end of his reign. His finances were in so bad a state that his accounts became utterly confused. It seems impossible to exaggerate the matter. (See Tout, *The place of Edward II*, etc., pp. 36-38, 81, 82.) "No Wardrobe accounts were enrolled between 26 E.I and I E.II . . ." (Tout, p. 37.) It is very curious that these are the years during which we hear nothing of the New Chapel (1298-1307). The building accounts seem to have been Exchequer business, and not Wardrobe, but the general confusion is manifest. It is important, however, to recollect that this does not mean that no building was done, only that the *enrolling* was not carried out. The conclusion is that we have no right to stress the fire when considering St. Stephen's. There is no point in doing so. And if we hear nothing of the Chapel from 1298 to 1307, there is a very good and sufficient reason.

The "Coming" of Master Thomas of Canterbury

It is difficult to handle this subject in a concise manner. It is the "*locus classicus*" of error. First, between 1327 and 1330 it appears that no building was done—I presume because of the violent political upheavals. Edward III only got rid of Mortimer by 1330. Secondly, since the Lower Chapel was completed *before* 1319, the very large sums spent between 1319 and 1326 were spent on St. Stephen's, the Upper Chapel. This is not a guess, "the new chapel of St. Stephen" is specified, by name, at the beginning of John de Norton's account of 1319. But Lethaby, having a fixed idea that the *Lower* Chapel was then being completed, hailed Thomas's "coming first" to Westminster as the *beginning of work on St. Stephen's*. He even altered the wording to suit his case. Mr. Harvey gives it correctly, "coming first to Westminster, and beginning there upon the new Chapel of St. Stephen . . ." Not so Lethaby, who has, "coming first to Westminster, *at the beginning* of the new Chapel of St. Stephen . . ." This is a very bad and dangerous mistake. It will be seen that Mr. Harvey, though he gets the wording right, is following Lethaby's erroneous conclusions. He ascribes the Upper Chapel to Thomas of Canterbury. He goes much further, he says, "The accounts . . . show positively that Master Thomas of Canterbury designed the *details* of the Upper Chapel . . ." Misstatement could hardly be exceeded. We have the accounts for 1330, and can see exactly what Thomas was at. "*In trasura super moldas operanti*" is neither here nor there, except that it cannot mean, as Mr. Harvey thinks, "working at the tracing upon the molds." The clerks wrote bad Latin, but not as bad as all that. "Working at the tracing would be, as we get it in the same place, *super* trasuram." The first phrase should be rendered "working upon the molds, in Trasura"—"in the Tracing-House," the place where the Master mason worked, and where the molds were kept hanging up. (See Willis, Camb. Arch. Soc. Journal, vol. I.)

Scaffolding is erected at the E. end of the chapel, and work begins on the "*east gable.*" Nothing could be clearer, and nothing could give a better idea of the state of the building in 1330. We have also the purchase of a cable of hemp "for drawing up stones, by a windlass, *to the top of the chapel.*" Thomas also buys "form pieces" for the *upper windows*. Why "upper"? Because St. Stephen's had a clearstory. It would take too long to demonstrate this, here, but it will be shown in its place. What indeed the accounts show "positively" is that Thomas did *not* design the details of the Upper Chapel, but went straight to work above the line of the heavy interior cornice, *below* which Mr. Harvey's "advanced detail" made its appearance, and which the accounts of 1330 and 1331 suggest was in place *before* 1326. (See Brayley and Britton *History*, etc., pp. 150-153. J. T. Smith, *Antiquities*, etc., pp. 183-184.)

As Mr. Harvey notes, Thomas of Canterbury had been working at the Chapel in 1325-6, so that his "coming first" in 1330 should simply mean that he was now Master mason in charge of the whole work. Why Mr. Harvey speaks of the Alura as a "minor work" does not appear. It was the passage way between the Painted Chamber and the King's pew at St. Stephen's (C. L. Kingsford, *Archæologia*, vol. 68, p. 1 and seq.). It was possibly the model for Ramsey's Cloister at St. Paul's, also. This is extremely important. William Ramsey was working with Thomas of Canterbury in 1325-6. Mr. Harvey has pointed this out himself, but failed to draw the conclusion which seems to follow. *Ramsey took the St. Stephen's style with him when he went to St. Paul's in* 1332. More than this, the suggestion can be most strongly advanced that in the Cloister and Chapterhouse of St. Paul's *we see the Alura of St. Stephen's and the Oratory "between the new chapel and the Painted Chamber.*" It is all a question of dating. (Smith, p. 205.) The dating having been wholly wrong, it has not been realised that St. Stephen's is prior to the work of St. Paul's. In which case, Mr. Harvey's contention that Ramsey "invented" the Perpendicular style seems to me to rest on no evidence at all. While Lethaby thought that the beginning of the St. Paul's work and the beginning of St. Stephen's chapel were practically simultaneous (1330 and 1332) any amount of guessing was possible, but as I indicated, it did not seem to me that Mr. Harvey had explored this part of his subject.

At the end of his life, Lethaby made some very important statements. (Old St. Paul's, *The Builder*, vol. CXXXIX.) Firstly, he demonstrated in a masterly way the approach of Perpendicular in the E. Front of Old St. Paul's (*c.* 1280); secondly, he said that we should have to revise all our views about "borrowing" from France; and thirdly, he suggested that a study of the Eleanor Crosses and St. Stephen's would probably give us the origin of Perpendicular. That is, he admits that his remarks on the Chapel in *Westminster Abbey and the King's Craftsmen* are by no means to be taken as such a study and are not the last word.

Yours faithfully,

26 *March*, 1945. J. M. HASTINGS