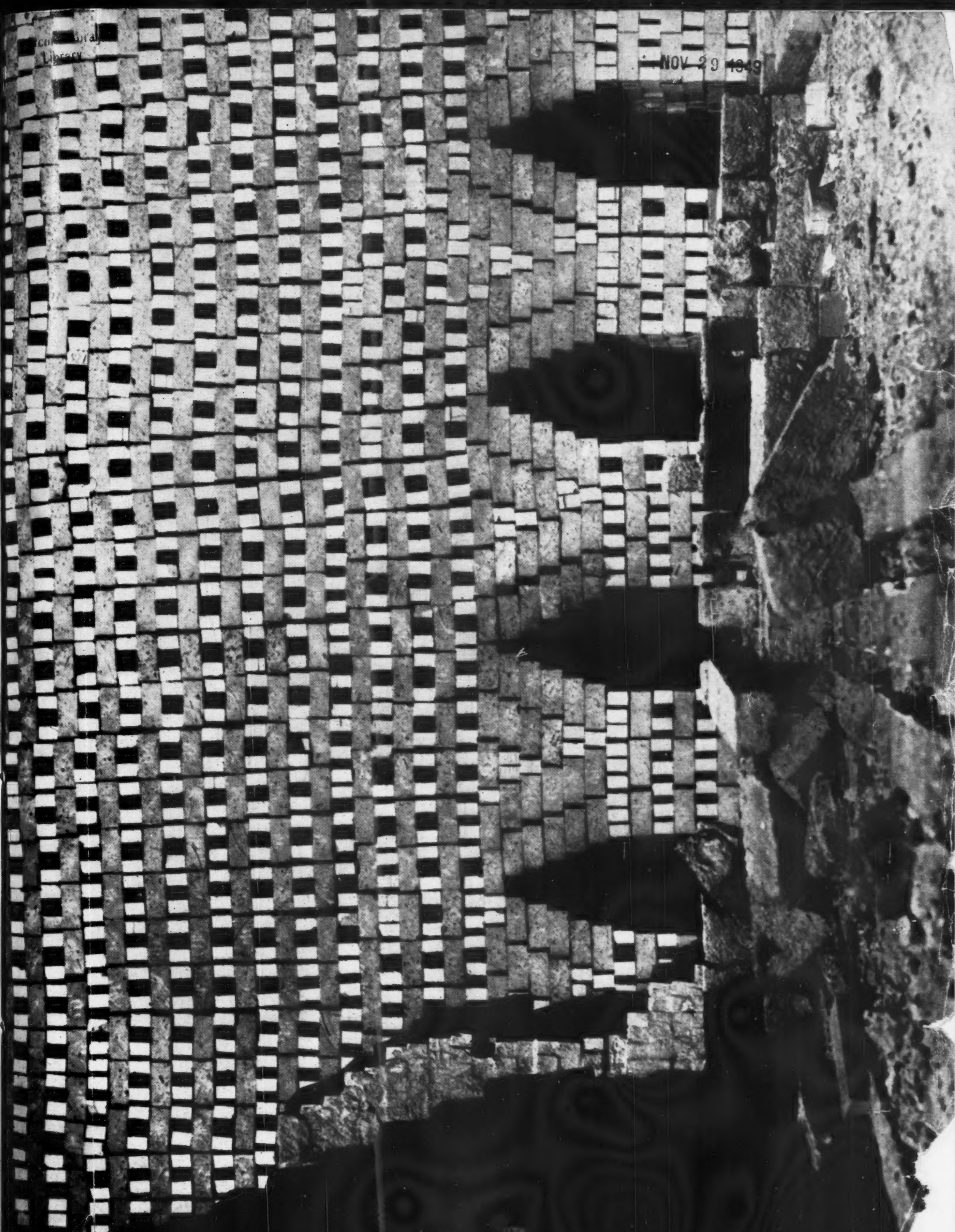


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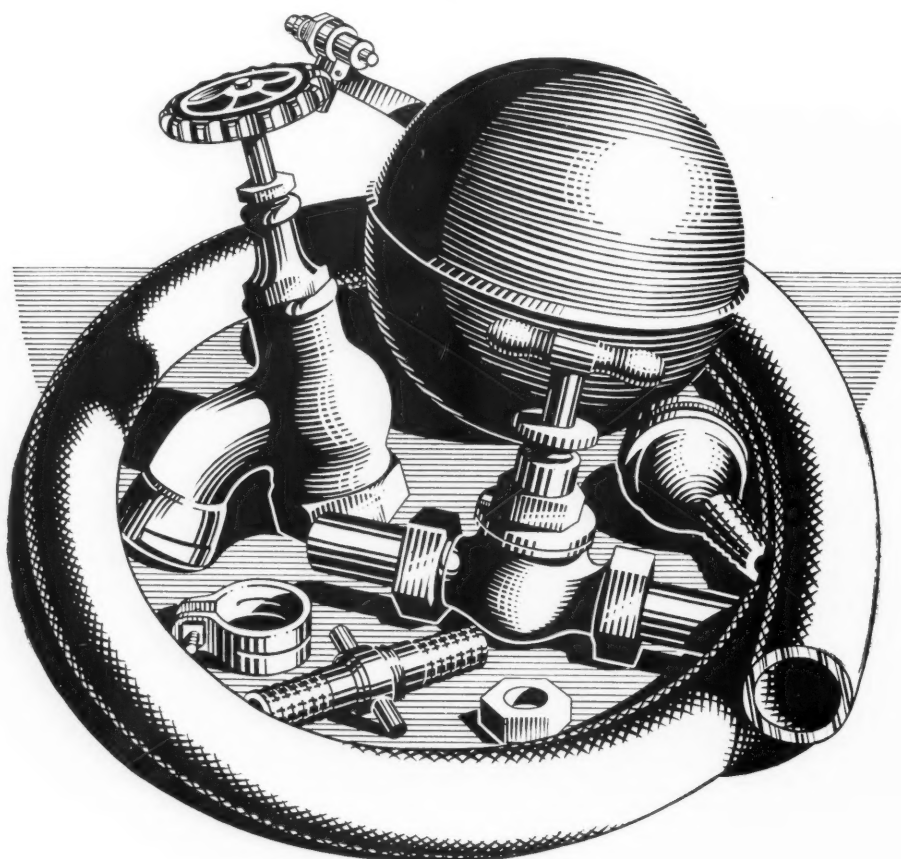
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Traductions Übersetzungen Переводы

THE ARCHITECTURAL REVIEW NOVEMBER 1949

Novembre 1949

Page 279: *Kata Phusin*, par Graham Hough. 'Les Sept Lampes de l'Architecture', par John Ruskin, fut publié pour la première fois en 1849, c.à.d. il y a un siècle. Ce fut le premier livre de Ruskin traitant d'architecture (bien qu'il ait contribué, avant cela, à plusieurs articles parus dans une revue sous le pseudonyme de Kata Phusin—'selon la nature'), et il contient en essence presque toutes les doctrines qu'il devait élaborer plus tard dans 'Les Pierres de Venise' et d'autres écrits. Dans cet article, Graham Hough, à l'occasion du centenaire des 'Sept Lampes', examine ces doctrines et démontre combien l'architecture de nos jours leur est redevable. Ce n'est pas seulement, ainsi qu'il le fait ressortir, qu'un bon nombre des observations de Ruskin sur la fidélité à la matière et sur la vérité de la structure soient maintenant devenues des principes universellement acceptés; ce qui est plus important, peut-être, est le fait que 'Les Sept Lampes' rendit à l'architecture le droit d'avoir une mission publique, et imposa de nouveau aux architectes le devoir de faire valoir, de façon énergique, cette mission vis-à-vis du public.

Page 291: *John Thorpe et les Thorpes de Kingscliffe*, par John Summerson. Depuis un siècle et demi—à partir du moment où Horace Walpole annonça qu'il avait découvert 'un artiste de tout premier ordre'—John Thorpe a constitué le personnage mystérieux de l'architecture anglaise de la dernière partie du seizième et du commencement du dix-septième siècle; c'est à lui qu'était attribué le plan de pour ainsi dire n'importe quelle construction de cette période lorsqu'il convenait à l'écrivain de le faire. John Summerson a entrepris la tâche de résoudre le mystère et présente ici les résultats de ses recherches qui représentent toutes les informations qu'on peut puiser s'attendre à voir recueillies au sujet de John Thorpe pendant quelque temps à venir. Il démontre que l'un des quelques 'faits' généralement acceptés à l'égard de Thorpe doit être basé sur une mauvaise interprétation de sa déclaration dans le célèbre livre de dessins qui se trouve dans le Musée de Sir John Soane, où il est dit qu'il avait posé la première pierre de Kirby Hall, dans le Northamptonshire, tandis que Kirby Hall aurait, en effet, été construit par Thomas Thorpe, son père. La vérité, c'est que John Thorpe n'était nullement architecte mais tout simplement arpenteur—l'un des parvenus et des plus prospères de son époque.

Page 315: *Vers une Architecture Nouvelle: No. 4—Les Appartements d'après-guerre*, par Lionel Brett. Cet article est le quatrième de cette série traitant des tendances de l'architecture britannique contemporaine. Lionel Brett y classe les différents

plans ainsi que les divers genres de constructions courantes, et examine non seulement les potentialités qu'elles présentent mais montre aussi jusqu'à quel point ces possibilités ont été réalisées dans les ensembles d'appartements récemment développés. Finalement, il demande si les grands blocs d'appartements conviennent à une cité telle que Londres, dont le caractère entier se modifie continuellement par suite de leur présence, et où, selon la tradition, il a toujours fallu choisir entre les agglomérations de petites villas et les blocs de logements ouvriers. Autrefois, les habitants de Londres étaient contents de vivre dans d'autres sortes d'habitations—rangées de maisons formant terrasse, bâtiments à trois étages et maisonnettes jumelles à quatre étages—constructions qui ne font, pour ainsi dire, l'objet d'aucun développement à présent; la plupart de ceux à qui incombe la création de maisons d'appartements, 'les unes d'apparence gracieuse, les autres informes et d'autres encore pleines de dignité, s'acheminent dans la fausse direction.'

Page 327: *Le Désert de Retz*, par Oswald Sirén. Un parc situé non loin de Paris, établi vers 1770 et contenant non seulement les traits pittoresques assez usuels d'une pyramide, d'une ruine gothique, etc., mais aussi une maison chinoise et, ce qui est encore plus étrange, une habitation construite sous forme d'une colonne gothique—tel est le Désert de Retz, que Oswald Sirén décrit maintenant pour la première fois à l'intention des lecteurs anglais. L'article est illustré de gravures émanant du livre de Le Rouge 'Jardins Anglo-Chinois' et de quelques croquis non encore publiés se trouvant à l'Académie d'Art et au Musée National à Stockholm, ainsi que de plusieurs clichés pris par l'auteur.

Page 333: *Le Fer Primitif, No. 3: Au Sujet de Wilkinson*, par W. H. Chaloner. Nous présentons un bref commentaire sur la carrière de John Wilkinson, contribué par l'auteur d'un livre qu'il va bientôt publier sur ce grand maître de forges, et illustré de la photographie d'une chaire en fonte fabriquée dans ses usines.

November 1949

Seite 279: *Kata Phusin* von Graham Hough. John Ruskin's 'Seven Lamps of Architecture,' wurde 1849, vor genau hundert Jahren veröffentlicht. Es war sein erstes Buch über Architektur, doch hatte er

vorher bereits einige Aufsätze in einer Zeitschrift veröffentlicht unter dem Pseudonym Kata Phusin 'der Natur gemäss.' Die 'Seven Lamps' enthalten im Wesentlichen alle Gedanken die Ruskin später in den 'Stones of Venice' und in anderen Büchern ausführlich entwickelt hat. Die Zentenarfeier der 'Seven Lamps' gab Graham Hough den Anlass diese Ansichten zu überprüfen und nachzuweisen, wieviel die heutige Architektur ihnen verdankt. Es handelt sich nicht nur darum, wie Mr. Hough betont, dass vieles von dem was Ruskin über Materialgerechtigkeit und Ehrlichkeit in der Architektur sagt, heute als selbstverständlicher Gemeinplatz angesehen wird, es ist vielleicht von noch grösserer Bedeutung, dass die 'Seven Lamps' 'der Architektur das Recht wiedergegeben haben öffentliche Aufgaben zu erfüllen und dem Architekten die Pflicht auferlegt haben, ein öffentliches Aergernis zu sein.'

Seite 291: *John Thorpe und die Thorpes von Kingscliffe* von John Summerson. Während der letzten hundertfünfzig Jahre, seit Horace Walpole's Entdeckung von John Thorpe waren Thorpe, dem geheimnisvollen Baumeister des späten 16. und frühen 17. Jahrhunderts, allmählich beinahe alle bedeutenden Gebäude dieser Epoche zugeschrieben worden, wenn es einem Forscher so passte. John Summerson versucht, das Geheimnis aufzuklären und kommt zu Ergebnissen, die vermutlich unser Wissen über John Thorpe für die nächste Zukunft bestimmen werden. Er weist nach, dass eine der allgemein angenommenen 'Tatsachen' auf einem Missverständnis einer Angabe von Thorpe in seinem berühmten Zeichenbuch im Sir John Soane Museum beruht. John Thorpe war es nicht, der den Grundstein von Kirby Hall in Northamptonshire gelegt hat, Thomas Thorpe, sein Vater, ist höchst wahrscheinlich der Erbauer von Kirby Hall. John Thorpe war überhaupt kein Architekt, sondern ein Bau-Inspektor, wenn auch einer der erfolgreichsten und tüchtigsten seiner Zeit.

Seite 315: *Architektur auf neuen Wegen. 4. Mietshäuser der Nachkriegszeit* von Lionel Brett. Dies ist der vierte Aufsatz in der Serie, die die Tendenzen der englischen Architektur unserer Zeit untersucht. Lionel Brett überprüft die Anlage englischer Mietshäuser, sowohl die vorhandenen Möglichkeiten als auch wie weit diese Möglichkeiten in den neuen Bauten verwirklicht worden sind. Zuletzt stellt er die Frage, ob diese hohen Mietshäuser, die den Gesamtcharakter der Städte verändern, wirklich eine Existenzberechtigung haben, und ob es wirklich wie so oft behauptet wird, nur die Wahl zwischen Einfamilienhäusern und Mietshäusern gibt. Früher haben die Engländer behaglich in Häusern anderer Art gelebt, in Reihenhäusern, in 3stöckigen

häusern und in 4stöckigen 'Maisonettes.' Von Haustypen dieser Art wird heutzutage keinerlei Gebrauch gemacht, und fast alle diejenigen, die für die neuen Mietshäuser verantwortlich sind, 'eine Aufgabe, die zum Teil mit Grazie, zum Teil mit schwerfälliger Unbeholfenheit, zum Teil mit Würde gelöst wird, haben einen verkehrten Weg eingeschlagen.'

Seite 327: *Le Désert de Retz von Oswald Sirén.* Ein Park in der Nähe von Paris, der um 1770 angelegt wurde, und nicht nur die üblichen 'Verschönerungen' wie eine Pyramide, eine gotische Ruine und ein chinesisches Teehaus und dergleichen enthält, sondern auch überraschenderweise das Haus selbst in Form einer geborstenen Säule. Kupferstiche aus Le Rouge's 'Jardins Anglo-Chinois,' bisher unveröffentlichte Zeichnungen aus der Kunstakademie und dem National-Museum in Stockholm und photographische Aufnahmen des Verfassers illustrieren den Aufsatz.

Seite 333: *Frühe Eisenarbeiten 3: Anmerkungen zu John Wilkinson von W. H. Chaloner.* Die ARCHITECTURAL REVIEW bringt eine Abbildung einer Kanzel aus Gusseisen sowie eine kurze Notiz über John Wilkinson's künstlerischen Werdegang vom Verfasser des demnächst erscheinenden Buches über den bedeutenden Fabrikanten des späteren 18. Jahrhunderts.

Ноябрь 1949 г.

КРАТКОЕ СОДЕРЖАНИЕ СТАТЕЙ

Стр. 279. **ГРЭЙЗМ ХАФ. КАТА ФИЗИН**

„Семь светочей архитектуры“ Джона Раскина, впервые была опубликована в 1849 г., столетие тому назад. Это была первая книга по архитектуре, написанная Раскиным (хотя раньше им были напечатаны несколько статей, под псевдонимом Ката Физин, — „согласно природе“). Эта книга Раскина

содержит, по существу, почти все теории, которые впоследствии он развил в „Камнях Венеции“ и других трудах. В этой статье Грэйзм Хаф, по случаю столетия „Семь светочей архитектуры“, рассматривает эти теории и показывает, как много современная архитектура обязана этой книге.

Автор указывает, что важно не только то, что Раскин говорит о точности материала и правдивости структуры, которое является общепринятым понятием, но еще более важным является то, что „Семь светочей“ вернула архитектуре право миссии по отношению к обществу, а архитекторам обязанность быть „публичными людьми“ (будоражить общество).

Стр. 291. **ДЖОН САММЕРСОН. ДЖОН СОРП И СОРПЫ КИНГСКЛИФФА**

Джон Сорп в продолжении полутора столетия (с тех пор как Хорас Волпол объявил о своем открытии „самого замечательного художника“), был тем таинственным человеком конца шестнадцатого и начала семнадцатого веков английской архитектуры, которому приписываются планы почти всех значительных зданий того времени. (по столько по скольку это было удобно автору). Джон Саммерсон решился разрешить эту тайну, и в этой статье он публикует свои открытия, которые представляют все, пока что, известное о Джоне Сорпе. Автор указывает, что один из немногих общепринятых „фактов“ о Сорпе, по всей вероятности, основан на недоразумении его заявления (в известной книге рисунков музея Сэр Джон'а Соанс'а), что он заложил первый камень при постройке Кёрби Холла в Норсханте. В действительности же Кёрби Холл был построен его отцом Томасом Сорпом. Правда состоит в том, что Джон Сорп никогда не был архитектором, а он был землемером, — одним из самых успешных и состоятельных землемеров своего времени.

Стр. 315. **ЛЯЙОНЕЛ БРЭТТ. ПО ПУТИ К АРХИТЕКТУРЕ: 4. КВАРТИРЫ ПОСЛЕВОЕННОГО ВРЕМЕНИ.**

Эта статья является четвертой из серии, рассматривающих тенденции в современной британской архитектуре. Ляйонел Брэтт классифицирует различия планирования, и различия теперь существующих форм строений. Он рассматривает свойственные им возможности, и в какой степени эти возможности

были осуществлены в позднейших разработках схем построек квартир. Наконец автор спрашивает, действительно ли многоквартирные дома более подходят для Лондона, где они меняют весь характер города, и действительно ли то, что выбор состоит (как это часто предполагается) между „коттеджами“ (поселок, состоящий из числа маленьких домиков с полсадами в стиле деревенских коттеджей) и многоквартирными домами. В прошлом лондонцы жили вполне удобно в иного рода зданиях, как например — „террас-хаузы“ (небольшие дома одинаково построенные в один ряд без промежутков между ними), трех-этажных домах и „твин мазонетс“ (четырёх-этажные небольшие домики, разделенные горизонтально на две квартиры, каждая из которых расположена в двух этажах).

В наше время этот стиль жилищных помещений, фактически, совершенно не находит применения. Почти все те, кто ответственны за постройку огромного числа многоквартирных зданий, „некоторые из которых построены с изяществом, некоторые с неуклюжестью, некоторые с благородством, идут в неправильном направлении“.

Стр. 327. **ОСВАЛД СИРЕН. „ЛЕ ДЭЗЭР ДЕ РЕТЦ“**

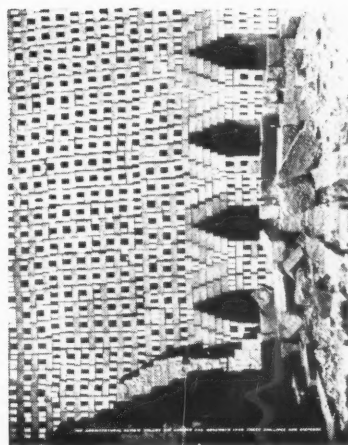
Парк, расположенный вблизи Парижа, распланированный в 1770 годах, и состоящий не только из обыкновенных пирамидальных украшений, готической развалины и т.п., но также и китайского домика, и (страннее всего), дома, построенного в форме готической колонны, как „Дэзэр де Рэтц“, который Освальд Сирен впервые описывает здесь для английских читателей. Статья эта иллюстрирована гравюрами из „Англо-китайских садов“ Ла Руа, вместе с, до сих пор еще не опубликованными, рисунками Академии Искусств и Национального Музея Стокгольма, и фотографиями, снятыми самим автором.

Стр. 333. **В. Х. ЧЗЛЕНЕР. РАННЕЕ ЖЕЛЕЗО 3: ЗАМЕТКИ О ВИЛКИНСОНЕ**

Краткая заметка о карьере Джона Вилкинсона, иллюстрированная фотографией чугунного напоя, сделанного в его мастерских, приложена автором к выходящему выпуску книги о великом железоделии.

THE ARCHITECTURAL REVIEW

Volume 106 Number 635 November 1972



The Cover should be looked at long ways on. It will then be recognized as a progress photograph of a great modern building in which, largely by means of the poignant contrast of the expressive pattern of the *brises-soleil* with the unusually massive form of the *pilotis*, the functional tradition has been brought at least two steps nearer to the realization of a new and specifically contemporary monumentality. For another photograph see the frontispiece.

278 California Brickyard

279 Kata Phusin by *Graham Hough* *The Seven Lamps of Architecture*, by John Ruskin, was first published in 1849, a century ago. It was Ruskin's first book on architecture (though previously he had contributed some articles to a magazine under the pen-name of Kata Phusin—'according to nature'), and it contains in essence nearly all the doctrines which he was later to elaborate in *Stones of Venice* and other writings. Here Graham Hough, on the occasion of the centenary of *The Seven Lamps*, examines those doctrines and shows how much the architecture of the present age owes to them. It is not merely, as he points out, that much of what Ruskin has to say about fidelity to material and truth of structure is now accepted as commonplace; what is perhaps more important is that *The Seven Lamps* gave back to architecture the right to have a public mission and to architects the duty to be a public nuisance.

284 Steel Rolling Mills at Scunthorpe
Architect: *Frederick Gibberd*

291 John Thorpe and the Thorpes of Kingscliffe by *John Summerson* John Thorpe has for a century and a half—ever since Horace Walpole announced his discovery of 'a very capital artist'—been the mystery man of late sixteenth and early seventeenth-century English architecture, to be credited with the design of almost any important building of that period when it suited a writer's convenience to do so. John Summerson set out to solve the mystery and here presents his findings, which represent as much as is likely to be known about John Thorpe for some time to come. He shows that one of the few generally accepted 'facts' about Thorpe must be based on a misunderstanding of his statement in the celebrated book of drawings in Sir John Soane's Museum that he had laid the first stone of Kirby Hall, Northants, and that Kirby Hall must in fact have been built by Thomas Thorpe, his father. The truth is that John Thorpe was primarily a land-surveyor—one of the most successful and prosperous land-surveyors of his time.

301 Aircraft Assembly Hall at Filton
Architect: *Eric Ross*

315 Towards an Architecture: Flats by *Lionel Brett* This is the fourth in the series of articles examining tendencies in contemporary British architecture. Lionel Brett classifies the kinds of layout and the kinds of building now current and considers both the potentialities inherent in them and the extent to which those potentialities have been realized in recent flat development schemes. Finally, he asks whether the large block of flats is really suitable for London, where it is changing the whole character of the city, and whether the choice really is (as is so often assumed) between cottage estates and tenements. In the past Londoners have lived happily in other kinds of building, such as terrace-houses, three-storey houses and twin (four-storey) maisonettes, with which there is virtually no experiment at the present time; nearly all those responsible for the great mass of flat building, 'some with grace, some with clumsiness, some with dignity, are marching in the wrong direction.'

323 Paulskirche, Frankfurt Architects:
Rudolf Schwarz, Johannes Krahn, Eugen Blanck, Gottlob Schaupp

327 Le Desert de Retz by *Oswald Sirén* A park not far from Paris, laid out in the 1770's, and containing not only the more usual embellishments of pyramid, Gothic ruin and so on, but also a Chinese house and (strangest of all) a house built in the form of a broken column—such is the *Désert de Retz*, which Oswald Sirén here describes for English readers for the first time. The article is illustrated with engravings from Le Rouge's *Jardins Anglo-Chinois*, with hitherto unpublished drawings in the Academy of Art and the National Museum in Stockholm, and with photographs taken by the author.

333 Early Iron 3: Notes on Wilkinson by *W. H. Chaloner* A brief note on the career of John Wilkinson, illustrated with a photograph of a cast-iron pulpit produced at his works, is contributed by the author of a forthcoming book on the great ironmaster.

333 Books

335 Anthology

335 Marginalia

335 Intelligence

338 Correspondence

The Authors *Graham Hough*. Born 1908. Educated at Liverpool University and Queens' College, Cambridge. Is at present Professor of English in the University of Malaya. Has recently published 'The Last Romantics,' a work on Ruskin and the pre-Raphaelites which discusses the artistic and literary movement inspired by their work. *Eric Ross*. Age 41. Studied architecture at Southampton School of Art, afterwards gaining practical experience in his father's contracting firm. Chief assistant to W. H. Masters, of Southampton, 1929. In private practice, 1938, in partnership with Eric Brown, designing chiefly industrial buildings. A.R.I.B.A., 1939. At outbreak of war went to Accrington to design and construct aero engine factory for Bristol Aeroplane Company, 1941, consultant architect for same company on largest underground factory in the world at Corsham, 1941 appointed architect to Bristol Aeroplane Company, F.R.I.B.A., 1949.

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THREE SHILLINGS AND SIXPENCE



CALIFORNIA BRICKYARD Charles Eames, American furniture designer, took this photograph of a California brickyard, and the photograph on the cover, because he was struck by the

KATA PHUSIN

The author commemorates the centenary of The Seven Lamps of Architecture, summing up Ruskin's revolutionary concern first of all with nature in architecture (hence the pseudonym Kata Phusin, with which he signed his very earliest architectural papers), then with the moral and social roots of architecture, and ultimately with its religious and representational, that is monumental, scope.

The fact that we celebrate centenaries is an accident of our numerical system, but it is not an altogether senseless accident, since it takes about a hundred years for humanity first to discover its idols' feet of clay, and then to recover sufficiently from the shock to return their gaze from these disappointing extremities to contemplate the figure as a whole. We are just about completing this process with Ruskin, though in his case it has been confused by late and disturbing testimony about his personal life, as well as by the normal change of taste and opinion. It is a hundred years ago since *The Seven Lamps of Architecture* appeared, the first significant work of Ruskin to appear under his own name. Before 1849 'A Graduate of Oxford' was sufficiently well known as the author of two volumes of *Modern Painters*, and some people knew that the graduate was the son of Mr. Ruskin the wine merchant: but it was not until the appearance of *The Seven Lamps* that Ruskin came openly before the public as a self-appointed authority on the arts in general and architecture in particular. He seems to have adopted his role with little doubt or difficulty. In 1849 the habit of speaking with authority was stronger than it is now; and ever since he had preached a sermon at the age of three, with one of the drawing-room chairs for a pulpit, Ruskin had found it only too easy to equate his personal convictions with inspirations from heaven. And not many years were to pass before a large part of the cultivated reading public was willing to accept the same point of view. Shortly after the mid-century *The Seven Lamps* and *The Stones of Venice* became the æsthetic bible, not only of tourists and dilettanti, but of many architects and craftsmen as well. We can thus hardly understand the architectural history of the last hundred years without confronting the fact of Ruskin's enormous influence.

In fact the reverberations of his mighty voice carried back as well as forward, and obscured for many the real origins of the Gothic revival. For a time both Fonthill and St. Marie's Grange were forgotten, and to Ruskin was ascribed the whole nineteenth century concern with medieval architecture, the Georgian country houses enriched with battlements and machicolations, the railway stations like Flemish town halls, the colleges bristling with pinnacles and thick with encaustic tiling. It is only in the last twenty years that a more balanced perspective has returned, and with it an appreciation of the immense debt that Ruskin owed to Pugin. But it must be remembered that Pugin's own name for Gothic was Christian architecture, and he regarded his achievements in this field mainly as a symptom and a testimony of a great revival of Catholicism in England. The Catholic revival was indeed considerable, though never, of course, as complete as Pugin hoped, and it remained somewhat outside the general current of national life. Ruskin as an evangelical Protestant had easier access to the heart of Victorian civilization, and his impact was correspondingly greater. His real achievement, however, is something more than this. It was to base his admiration for Gothic not on literary

CALIFORNIA BRICKYARD Charles Eames, American furniture designer, took this photograph of a California brickyard, and the photograph on the cover, because he was struck by the impressive shapes and rich patterns formed by the mountains of bricks piled up ready to be fired. Here was both a clue to the architectural character the proper use of bricks should create, and a work of architecture in its own right: a mysterious gateway to a separate Babylonian world.



fashion or sectarian hope, but on a massive body of artistic doctrine, doctrine that was all the more massive and influential because it was closely allied with political and moral ideas. No one after Ruskin could regard architecture as the art of providing decorative shelters from the weather, or as a mere department of upper-class culture. More powerfully even than the great Renaissance antiquarians, he established its position as the mistress art, with roots running deep into national and social life. *The Seven Lamps* is his first essay in this direction.

For all their air of inspired authority, Ruskin's convictions were not formed without labour, reflection and observation. *Modern Painters* is in parts an almost manic book, but it contains a closer and more sensitive analysis of the visual appearance of things than the world had known before (or, I might add, than it has known since). *The Seven Lamps* asserts pontifically and *ex cathedra* some very doubtful prepositions, and many that seem to the modern mind to have very little to do with architecture, but no one can doubt that it was preceded by a minute and attentive study of the buildings it describes. Perhaps it was a little presumptuous to establish the principles of architecture in general on the basis of a few churches in Normandy, with side-glances at Venetian Gothic. But this was always Ruskin's method; he used his own studies and his own experience as a short cut to a realm of fundamental principles which he was quite confident that no additional experience could shake. He knew enough, or thought he knew enough, to be certain that Gothic was the only kind of architecture that satisfied the needs of man's essential nature, and to these overriding necessities the needs of the moment and the claims of other schools must inevitably bow.

To Ruskin man's essential nature of course meant man's moral nature, and it was this dominance of the moralist over the technical expert that made it possible, in the not very long-past days when everything Victorian was necessarily funny, to speak of his work not only with ignorance but with impertinence. So much of *The Seven Lamps* is not about architecture, but about morals, human behaviour, how to live a happy and virtuous life, while a book with such a title should be about—what? Ruskin was not writing a handbook of building construction, and was likely enough culpably ignorant of it for one who professes to write on building at all. But what can we reasonably expect to find in a book on the principles of architecture? Considerations of mass, space and proportion—all of which Ruskin gives, in his capricious, unacademic, but extremely penetrating and sensitive way. We should also expect something else—what else will depend on what kind of an art we believe architecture to be. Ruskin has his answer ready. To him architecture is a distinctively political art; that is, it depends on the life of men in community: and therefore the kind of architecture we want will depend on the kind of life and the kind of community we want. Hence a good deal of Ruskin's attention is taken up with these apparently quite unarchitectural problems. Yet if we object to his preoccupation with them I suspect that it is we who are the heretics. To Ruskin architecture showed man's dominance over material in its noblest form, and the study of architecture formed the natural bridge to his later studies in man's material environment—his excursions into politics and economics. The architect while he is on the job is free to consider his technical problem alone: the enquirer into the principles of the art can never be so, for it is the business of architecture to give happiness and fulfilment to both builders and users, and we cannot do this till we know what happiness and fulfilment are. Ruskin's answer is the classical and simple one—man's satisfaction is in the full exercise of his faculties. Architecture should give those who make it full satisfaction for their powers of mind and hand, and those who use and contemplate it full satisfaction for their sense of beauty, their sense of reverence and admiration and their sense of history.

Thus his basic position is clear—yet the total impression of the book, as usual with Ruskin, is sufficiently confusing. And, as usual, the reason is that he is fighting on more than one front. In the first place he is fighting the utilitarians—those who believe that the business of architecture is to satisfy 'the needs of the moment'; and even in his day Ruskin could see that these needs could become so clamorous, so confused and so temporary that nothing enduring could come of them alone. On the other hand he is fighting the commonplace mid-century practitioners who appeared to believe that

architecture could be a matter of copied or machine-made ornament. In addition he is conducting one or two private skirmishes on the side: his predecessor Pugin, for instance, was a Catholic convert, and Ruskin conceived it his duty to free Gothic from its suspected alliance with Romish error, though, to be sure, he had the grace to cut out the more rancorously sectarian passages in later editions.

Far more damaging than the extent of his moral preoccupations is the criticism that he was not really interested in architecture at all—that he found its true significance in the opportunities for the display of sculpture and carved ornament. Indeed he says so in so many words, with that engaging willingness to give himself away that is one of his controversial weaknesses, but also perhaps a sign of inner strength. This more than anything else seems to put him out of court as an architectural commentator; and it is indeed here that his fantasy and crankiness are most painfully in evidence. But, as so often, Ruskin's eccentricities are almost as instructive as his true perceptions; and this odd belief of his, utterly indefensible as I suppose it to be, leads us to the heart of his doctrine, and perhaps to the heart of some of the still living problems of the machine age. Ruskin's love for sculpture and carved ornament led him to a deep interest in the question of craftsmanship; above everything else in art he valued the sensation of life, the direct impress of a man's mind and hand, and he shows his customary penetration in exhibiting that quality in Gothic carving. Above all else he hates its antithesis:

'There is a Gothic church lately built near Rouen, vile enough, indeed in its general composition, but excessively rich in detail; many of the details are designed with taste, and all evidently by a man who has studied old work closely. But it is all as dead as leaves in December; there is not one tender touch, not one warm stroke, on the whole facade. The men who did it hated it, and were thankful when it was done'.

Architecture for him, therefore, involves an intimate and lively relation between the workman and the work. He notes that the architect of Cologne Cathedral is called in the contract for the work 'the master stone-cutter', and he says that one who would form the creations of his own mind other than by his own hand would give barrel-organs to the angels in heaven to make their music easier. And, though Ruskin can support his case by very good æsthetic arguments, the real basis of his conviction is of a different kind—it is only by making the workman something of an artist, something of a creator, that he can ever have a fulfilled and happy life. Although he was to spend many years to come in elaborating this argument, the link between art and political economy is already complete. 'I believe the right question to ask respecting all ornament is simply this: Was it done with enjoyment—was the carver happy while he was about it?' Ruskin's answer to the machine age was that it ought never to have happened. In *The Stones of Venice* he describes the slavery to the machine as more degrading than the worst tyrannies of the ancient world. In 1849 it was still possible to hope that certain areas of everyday creative activity could be reclaimed from mechanism: it was even possible for Ruskin's disciple William Morris to continue the battle till the nineties. But of course it was a losing battle, and in his own old age Ruskin knew that it was lost, as the melancholy footnotes to the later editions of his works reveal.

However, if the battle was lost, how many of the principles behind it survive? Far more than one might at first suppose. If the highest values for Ruskin lay in living hand craftsmanship, the worst degradation was the mechanical imitation of this, the cast-iron tracery and foliation, the machine-made copies of debased Greek and Renaissance ornament in which the age abounded. A battalion of Ruskins could not have restored the conditions of medieval craftsmanship: but Ruskin's influence exposed the worst shams, and our buildings now are more likely to be without ornament at all than to be overloaded with imitations. If the Lamp of Life in Ruskin's sense is extinguished for ever, the Lamp of Truth burns considerably more brightly than it did in the mid-nineteenth century, and most of what Ruskin has to say in this essay about fidelity to material and the frank exhibition of structure would be accepted as commonplace by the functionalists of to-day. Indeed whatever the vices of much Victorian building, its leaders were at least clearly aware of them, and from the pages of Pugin, Ruskin and Morris a complete

set of principles for honest and unpretentious work could be compiled.

Why then the extraordinary difference of atmosphere between Ruskin's writing and anything that would be possible to-day? The answer can be found in the opening paragraphs of the book, where he laments 'the interference of the constructive with the purity and simplicity of the reflective element' in architecture, and that 'this tendency, like every other form of materialism, is increasing with the advance of the age.' It has increased considerably since Ruskin's day; in fact we are now mostly what he calls materialists; we believe that the best part of architecture is utility and the fulfilment of function, while Ruskin believed that these requirements, important as they are, are on a different and lower plane. They belong to building, architecture only begins when they have been satisfied. He is perfectly clear and unembarrassed about this, and insists in so many words that the distinguishing quality of architecture is the addition of *useless* characters to mere building, with the object of making the whole beautiful and venerable. Ruskin does not believe that beauty is the result of perfect adaptation to purpose: he believes that it is something added to buildings which would do the job perfectly adequately without it. In the same way the greater part of traditional literary criticism talks of metre and poetic language as an additional beauty added to plain prose thoughts. We are nowadays remarkably suspicious of this line of thought, and are apt to accept without question the dogmas that beauty in architecture is something that should arise spontaneously out of function, and that the form of a poem should arise naturally out of its content. We ought perhaps to remember that this is by no means the obvious view, and that we have the majority of historic opinion against us; that our fathers for the most part thought of beauty as something worth having in itself, without the need for justifying it on the pretext that it is really a part of utility.

We should also remember another vast difference between the Victorian age and our own—that Victorian culture was still largely a religious culture. Anyone who thought seriously about the arts was likely to feel that their ultimate justification was a quasi-religious one. This was especially so in architecture, since so many of its greatest monuments are churches. The essential function of a church can presumably be fulfilled by any building which will accommodate a sufficient number of worshippers. But it was still obvious to Ruskin that the service of God was something worth glorifying for its own sake, in which any effort and any cost were well sacrificed. Hence the importance of the Lamp of Sacrifice, which Ruskin defies as costliness in labour and materials as an honour to God. He defends this by what I am afraid can only be described as a good deal of Biblical flummery, but it actually rests on the quite intelligible principle of putting our best into our most important work. The achievement of a necessary result at the minimum cost in labour and material formed no part of Ruskin's scheme of values. He believed in continuity and the historic sense, that a man should build even his house not only for his own lifetime, but as an honour and a delight for his children and his children's children. Here speaks the voice of a still settled world, a voice which seems to have less and less application to our caravan culture. But primarily Ruskin is not thinking of houses. He takes the view, which we find still more clearly expressed in his disciple William Morris, that our private lives should be lived in simplicity, and that the human appetite for grandeur should be satisfied in the commonwealth, in the city, in the buildings which the community erects to transact its civil and religious business. And here the grandeur, and consequently the expense of labour and material, should be directly proportioned to the importance of the purpose in view.

Here Ruskin is much more in the centre of the European tradition than Morris, who in later life adopted the orthodox Godlessness of Communism, and its suspicion of the civil institutions of pre-Communist society. In Morris's Utopia the Houses of Parliament are turned into a dung-market, and his passion for historic churches leads to their preservation only as ancient monuments. For all Ruskin's later essays in unorthodox economics, perhaps as a part of them, he has a great respect for the settled political fabric: and for all his varieties of religious experience, a settled conviction that the social order must be founded on a religious base. These things for Ruskin were still really grand, and therefore deserving of all the material grandeur that men could put into

them. (In fact he found too little of it in England, and often complains of the meanness and the petty scale of so much English building). Believing as he does that architecture is a political art he would certainly say (and no doubt does say, somewhere in the thirty-nine volumes of his works) that without this conviction that our civil and religious institutions are really splendid, it is unlikely that we shall embody them in a splendid architecture. For architecture, more than any other art, is the expression of the age and civilisation that produces it; and slum clearance and the closing of the dollar gap, necessary and laudable objects as these may be, are not likely to inspire any of the major splendours. Our battered and cynical generation will hardly recover Ruskin's faith, but I do not see what answer it can make to his arguments.

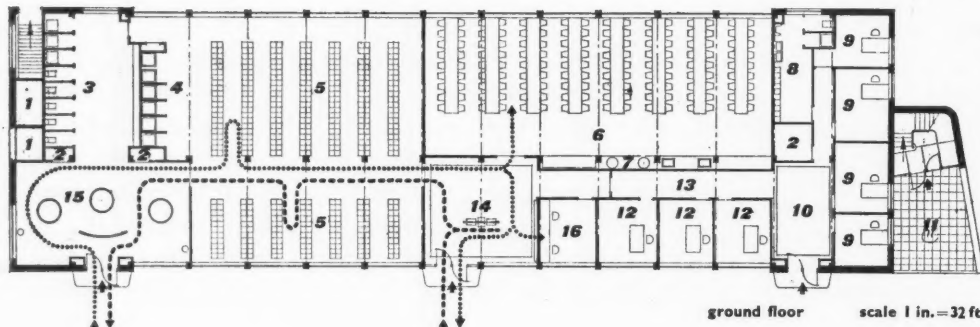
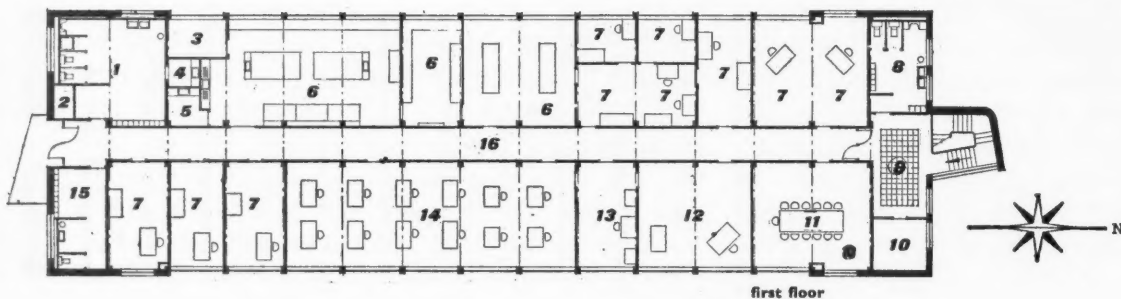
Yet another fundamental doctrine of Ruskin that is at least superficially repugnant to our age is his belief in the close connection of beauty with organic form. But here we have something which, if it were to be properly discussed, would I suspect take us into the profoundest æsthetic depths. He believes that 'all most lovely forms are taken directly from natural objects'. Not that they are beautiful *because* copied from Nature, but because 'it is out of the power of men to conceive beauty without her aid'. This seems to lead to a disconcerting concentration on the forms of leaf and flower and wave, and a startling neglect of the great geometrical harmonies on which architecture mainly relies. I think it is true that Ruskin's power of formal abstraction was very slight; he could make exquisite descriptive drawings, but never became a painter because he had no power of design. So in architecture no one has been more sensitive to the subtle variations of curvature and proportion that give life; but he has less perception of the massive harmonies of form that underly them. But his quarrel with the modern abstractionists is less than it appears, and his principles are of far wider application than he himself can see. Even the most abstract art is some kind of commentary on natural appearances, and has its root in them. Corbusier's system of measurement is elaborately based on the proportions of the human figure. And Ruskin's minute sensitiveness to the forms of nature, though its limitations often cause it to be mistaken for mere literalism, is actually a perpetual safeguard and warning against the aridness and rigidity into which man's sense of form degenerates, unless it is perpetually fertilized by contemplation of the world outside himself.

Ultimately for Ruskin the religious, political and æsthetic considerations were all one. The laws of architecture, he says, are part of the laws that govern all human activity. And beneath all his digressions and eccentricities lies the conviction that all human activity has a common root, that each of man's separate operations is the expression of his whole nature. The kind of buildings we produce will result from the kind of men we are—an unhelpful remark to those seeking the solution to a technical problem, but probably a necessary preliminary to any real solution. It will be hard for Ruskin to be fully appreciated until we are able to recapture this unity of vision.

The mills of God grind small but they also grind exceedingly slow. There is probably not a major statesman since the book was published, not a Prime Minister or Minister of Works or Town and Country Planning, or Chancellor of the Exchequer, but sometime has been bowled over by *The Seven Lamps*, so far as to include in his memory tests several of the Ruskinian aphorisms—yet the only direct result of it all over the last hundred years has been in the bank balances of the jerry-builders. Nevertheless the mills go on grinding and we begin to see now that Ruskin did indeed succeed in turning into a community art what he found a game of the cognoscenti. Though the sentimentalities of sociological cant are tedious beyond bearing, it is probably true to say that there is hardly an architect living today who is not conscious of a mission. In 1949, architects were merely conscious of a sensibility. On the other side *The Seven Lamps* have provided several generations of literate laymen with general principles about architecture; and this more or less informed lay public is an essential for any community art. The fact that the principles are often silly and dangerous doesn't in the least affect the achievement. It is, indeed, part of the achievement; *The Seven Lamps* gave back to architecture the right to have a public mission and to architects the duty to be a public nuisance. And Ruskin achieved this all but single handed in the very teeth of the New Dark Age.

STEEL ROLLING MILL AT SCUNTHORPE

It is rarely that a structure so purely industrial and technical as a steel rolling mill has the benefit of architectural advice. It may therefore be taken as an encouraging sign of greater appreciation in industry of the advantages of good design, from the visual as well as the functional point of view, that Frederick Gibberd was appointed consulting architect for the rolling mills proper in this large new undertaking in Lincolnshire, as well as architect for the electric sub-station and the office and welfare building that form part of the scheme. All three are successively illustrated on the following pages.



OFFICE AND WELFARE BUILDING described on page 288

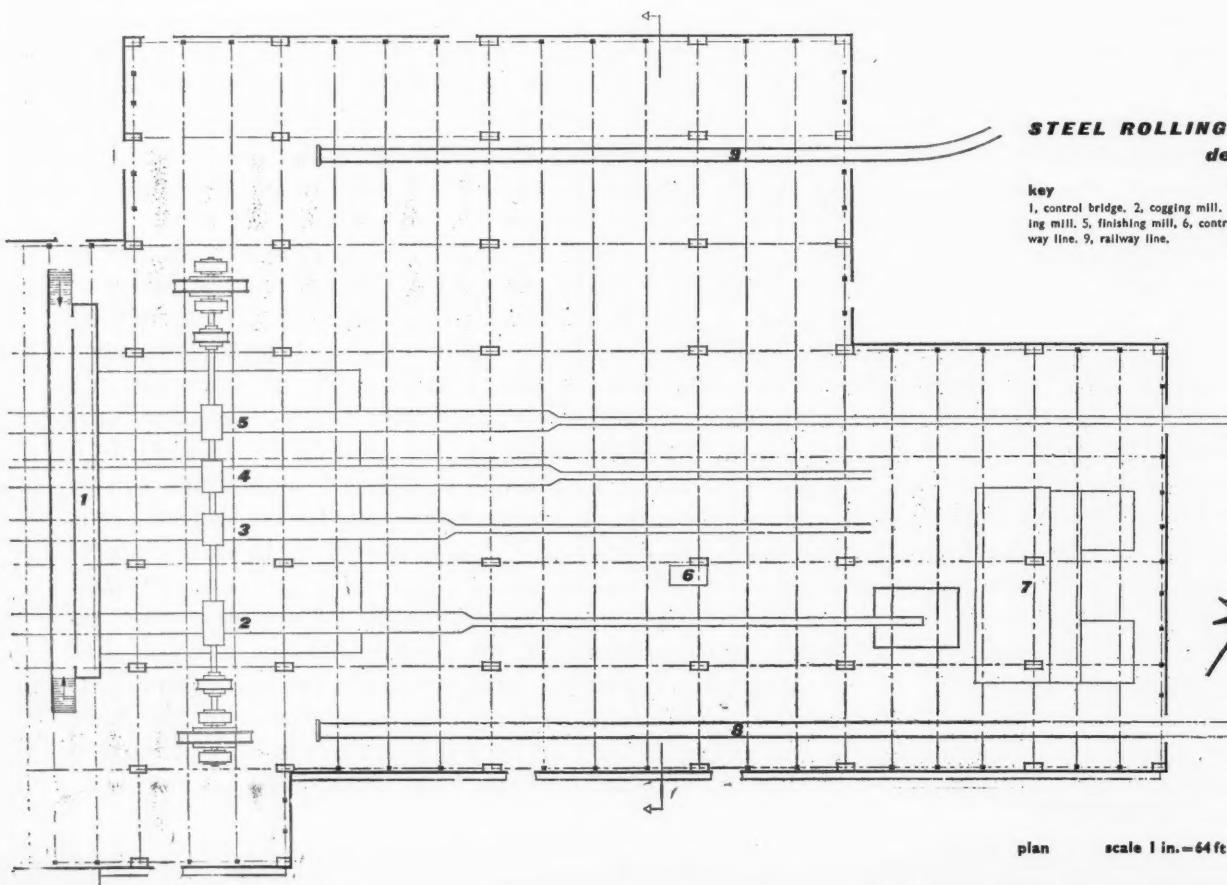
key

first floor. 1, men's lavatory. 2, ventilation duct. 3, store. 4, cleaners' room. 5, dark room. 6, laboratories. 7, offices. 8, manager's lavatory. 9, entrance hall. 10, waiting room. 11, meeting room. 12, manager's office. 13, secretary. 14, general office. 15, women's lavatory. 16, corridor.

ground floor. 1, ventilation ducts. 2, store. 3, workmen's lavatory. 4, showers. 5, locker rooms. 6, messroom. 7, tea-making and hot cupboard. 8, foremen's lavatory. 9, offices. 10, foremen's entrance hall. 11, entrance terrace. 12, foremen's offices. 13, corridor. 14, clocking-in hall. 15, ablutions. 16, pay office.

The dotted lines show circulation of workmen on arrival and departure.

scale 1 in. = 32 ft.



STEEL ROLLING MILL described on page 289

key

1, control bridge. 2, cogging mill. 3, first roughing mill. 4, second roughing mill. 5, finishing mill. 6, control cabin. 7, reheating furnaces. 8, railway line. 9, railway line.



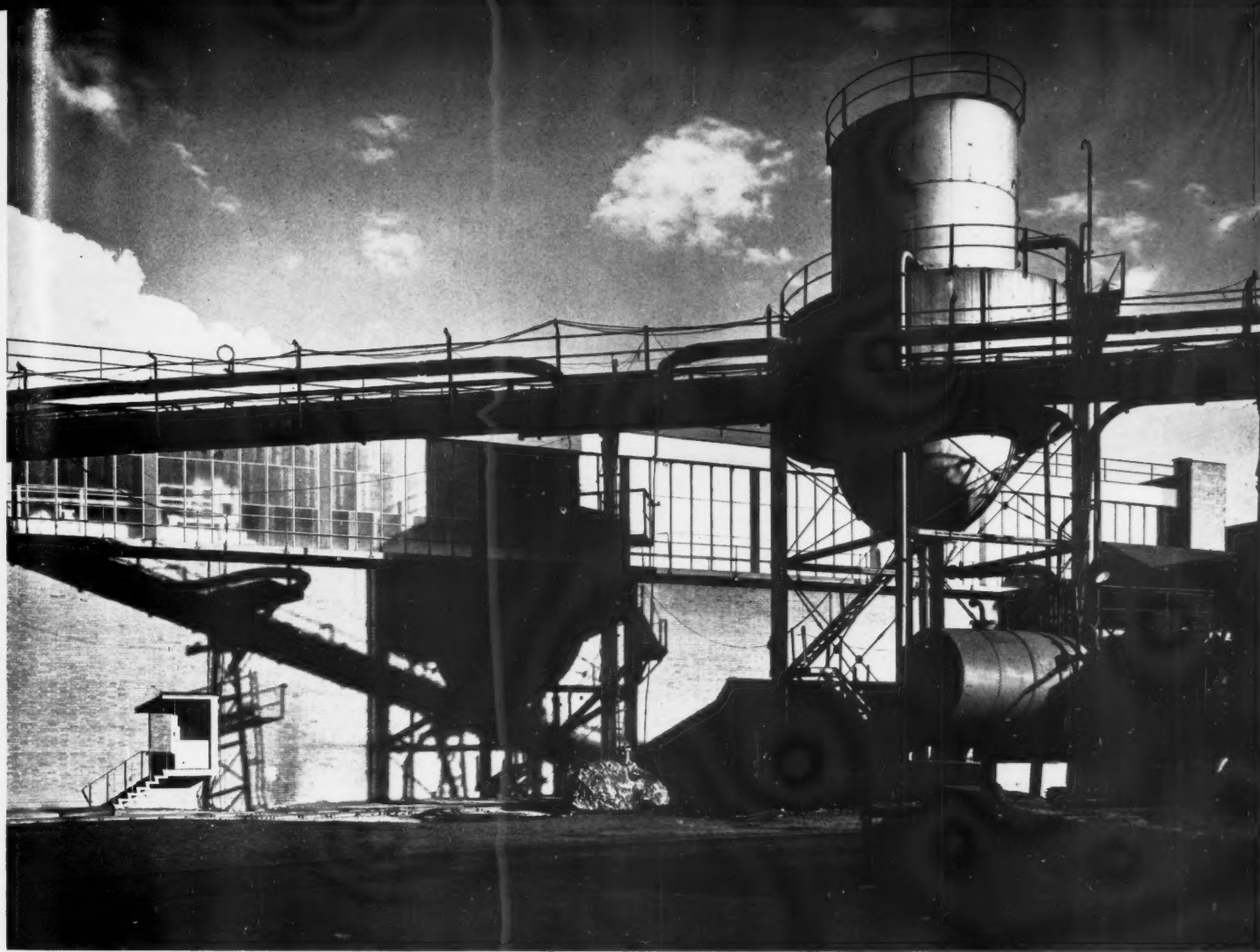
1. no

S

key
1. fan m
lavatory.
generator
set. 13.
boards.
overhead
(6,600-4)

1





1, north-west elevation of electric sub-station.

STEEL ROLLING MILL AT SCUNTHORPE

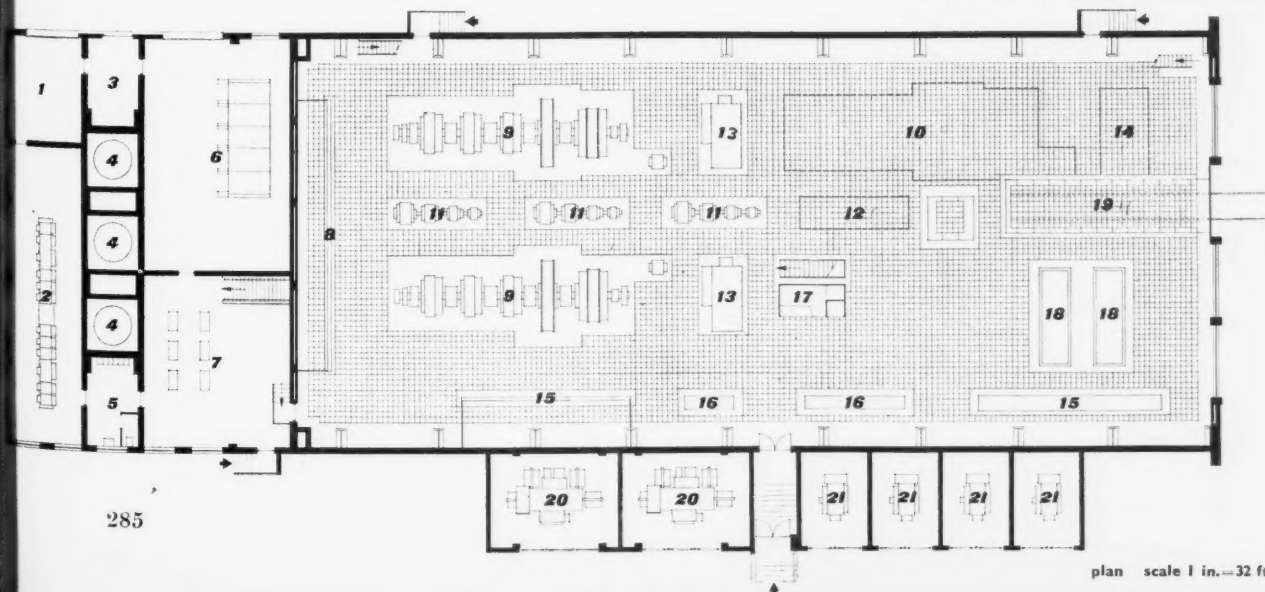
FREDERICK GIBBERD: ARCHITECT

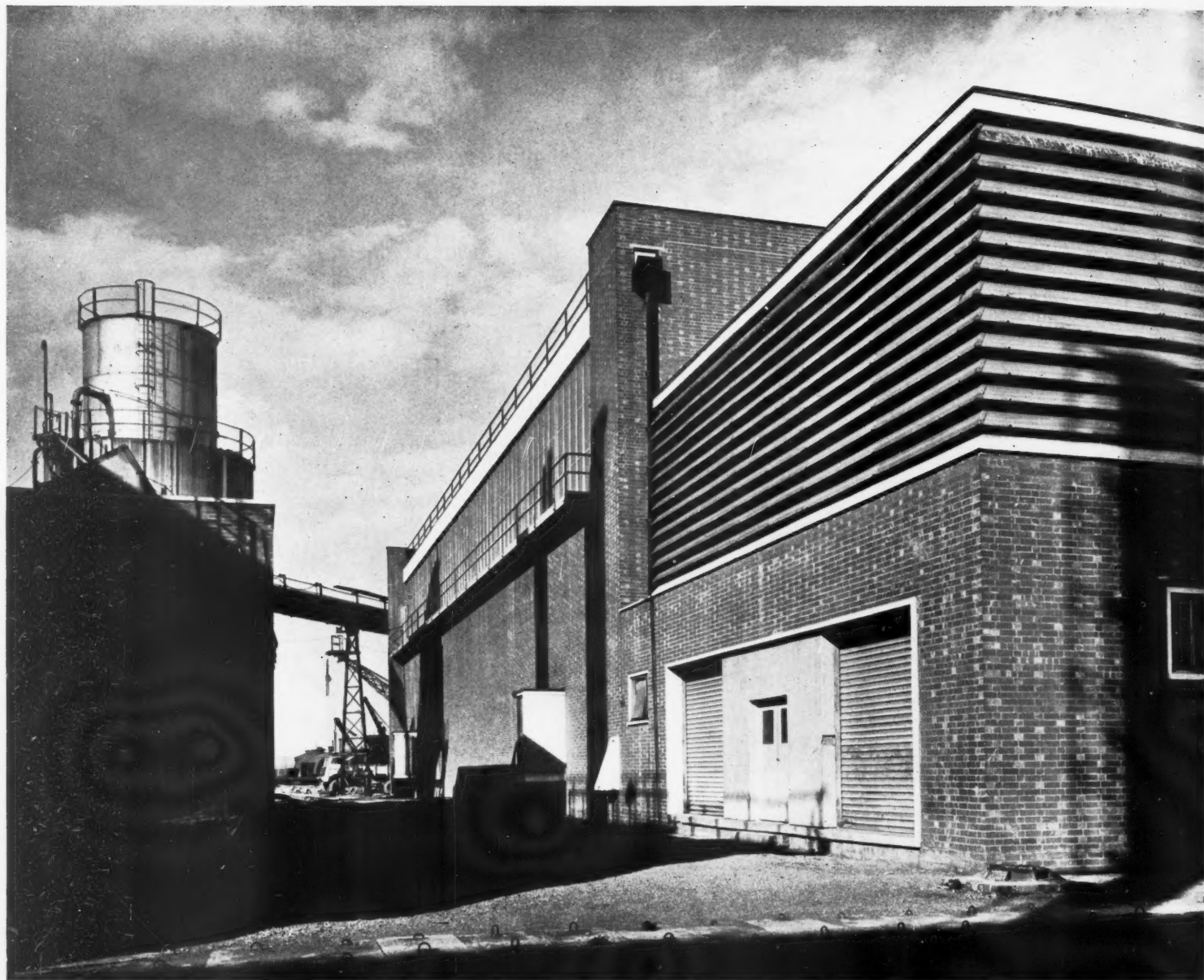
1 electrical sub-station This sub-station supplies and distributes electricity to the power-driven equipment throughout the rolling mill and allied buildings; it consists of a large machine room, 173 ft. long and 70 ft. wide, with a fan house at one end; the transformers receiving current from the grid system stand in front of the building. Inside the machine hall the generators are set into the floor centre, with the switch-gear ranged on the walls; a railway loading dock and a travelling overhead crane are provided for the move-

(contd. on page 287)

key

1, fan maintenance. 2, 6.6 kv. switchgear room. 3, lobby. 4, electric fan. 5, lavatory. 6, 33 kv. switchgear room. 7, sludge room. 8, control board. 9, motor generator sets. 10, future motor generator set. 11, exciter set. 12, future exciter set. 13, slip regulator. 14, future slip regulator. 15, switchgear. 16, control boards. 17, control cubicle. 18, rectifier. 19, loading dock, with railway line and overhead crane. 20, transformers (33,000-6,600 volt). 21, transformers (6,600-440 volt).





2



3
4
5

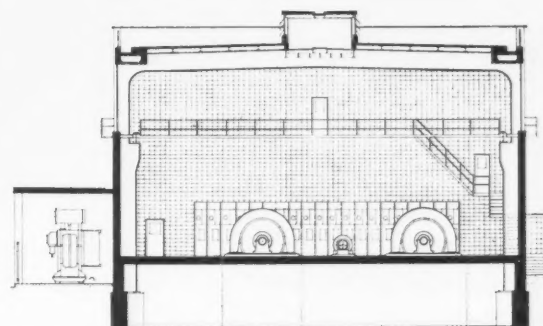
2, north-west elevation from the east, showing ventilating louvres and main entrance doors to the fan house. 3, main entrance, set between the transformer rooms in the south-east

elevation. 4, detail of small entrance porch and staircase; three of these are provided. 5, south-east elevation, from the west, showing the fan house and transformer rooms.

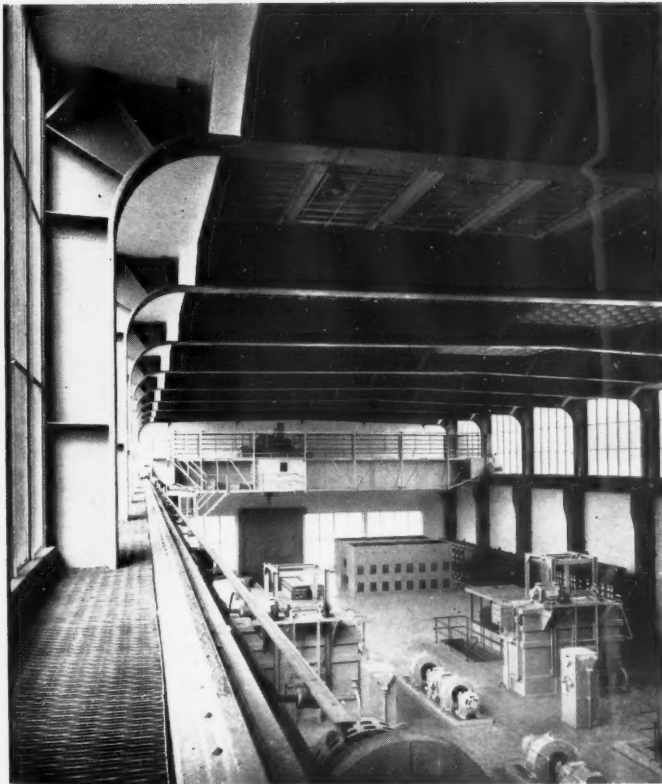
STEEL ROLLING MILL AT SCUNTHORPE

(contd. from page 285)

ment of heavy machinery. Furnace dust in the air constituted a problem, which was overcome by the installation of a pressurised and filtered ventilation system for cooling the motors; the oil filtration plant is sited in the fan house. Construction is of welded steel portal frames, at 18 ft. 6 in. centres, with brick infilling; the frames carry the roof and the beams for the travelling crane. The roof is precast concrete slab, 2½ in. thick, supported on secondary steel beams placed at 6 ft. centres; suspended down the centre of the roof is a fibrous plaster grille which forms the ventilation outlet. Day lighting is from clerestory windows above the crane rails, giving side lighting and permitting blank walls for mounting switchgear. Internal walls are finished in faience tiles, 12 in. by 9 in.; the floor with 12 in. square terrazzo tiling, with darker surrounds to machinery and walls; handrails are polished steel and bronze. Side walls are white glazed; the end wall is cream; the floor is a warmer cream with darker surrounds. The form of the portal trusses is brought out by painting them a dark Vandyke brown—other steel-work at right angles is in grey. Beams over windows are eggshell white, the concrete roof space is powder blue, and the ventilation grille dead white. The control cubicle is grey and ultramarine, and bright colour is provided by the deep chrome yellow doors generally. Externally the brick walls to the fan house and the machine room were designed as a single plane to fuse the two elements together. The louvres over the fan house are covered with flat reinforced concrete slab with concealed supports. The windows, and the cleaning gallery under them, are painted neutral grey; the mullions in front of the portal frames are bright ultramarine. The band of the concealed gutter at the head of the windows is in buff cement. As the fan house is of load bearing brick-work the windows were set into the walls as isolated units, with stone surrounds. All horizontal surfaces have zinc weather stripping to prevent staining and marking of surfaces. A hard reddish brown engineering brick was used so that it could be easily cleaned. To give relief horizontal joists are recessed and vertical ones finished smooth. Metal surfaces generally are painted medium grey, accents of colour being provided by chrome yellow panels to doors and porches, ultramarine mullions between windows, and blue-grey tiling to the main entrance.



section scale 1 in. = 32 ft.



6, interior of the machine room looking to the north-east; the transformer sets are sunk into the centre of the floor and the switchgear is ranged on the wall at the right; 7, east corner of machine room from the crane gallery.

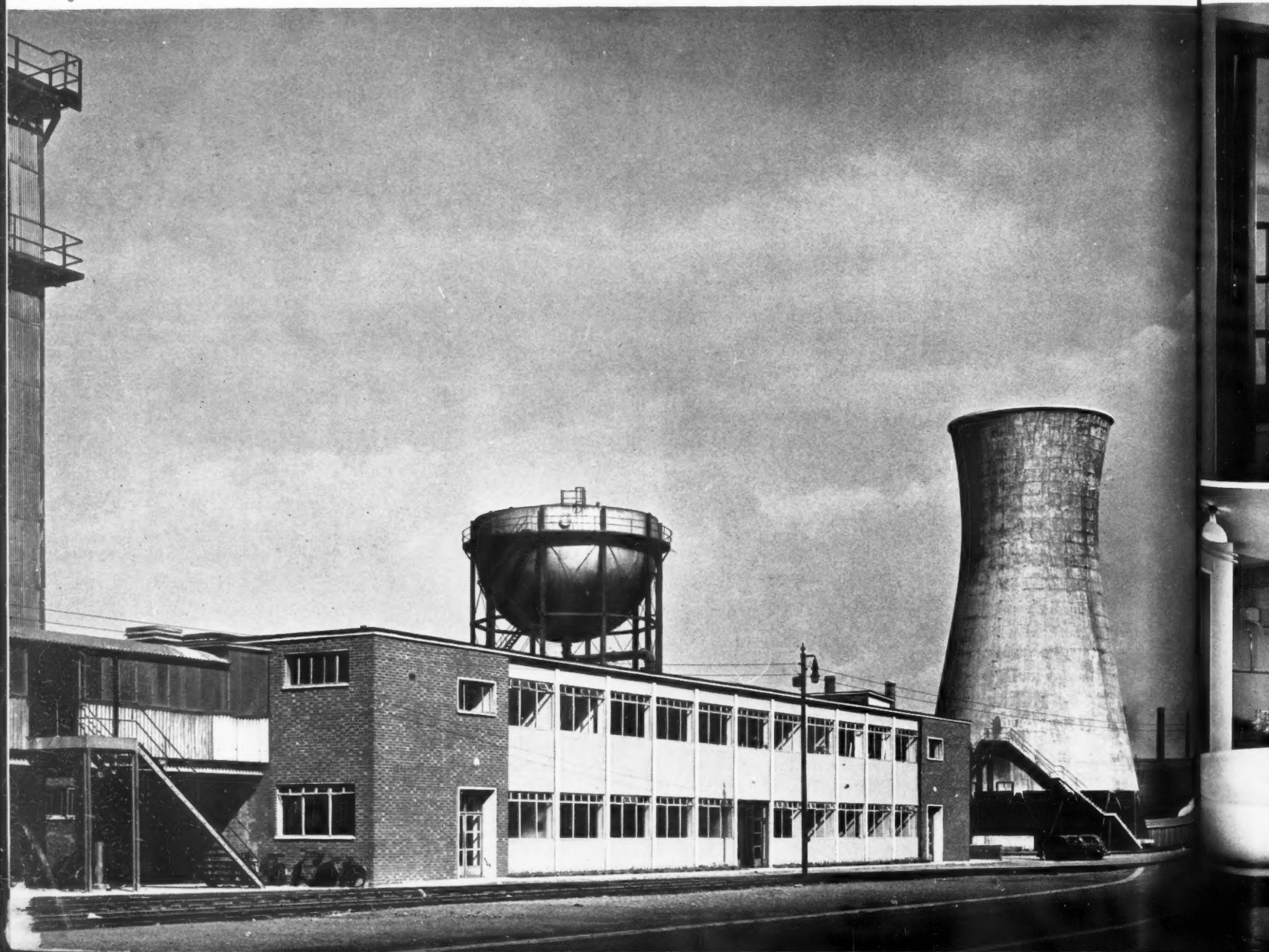
STEEL ROLLING MILL AT SCUNTHORPE



8. laboratory fume cupboards.
9. east elevation with melting shops water storage tank and cooling tower in the background. Facing page, 10, clocking-in hall and foremen's offices. 11, men's ablution room: the curved screen is tile-faced concrete.

2 office and welfare building The upper floor comprises offices and laboratories for the control of the nearby melting shops, to which an enclosed gallery gives direct access. The ground floor contains welfare accommodation for workers and foremen, and foremen's offices. All workers pass through this building on arrival and departure; circulation is shown in the plan on page 284; after clocking-in each man goes to his personal locker, and then through the ablutions room to the works, reversing this procedure after shifts and at meal times. As many men prefer to bring their own food rather than to use canteens, a messroom is provided, with a hot cupboard and tea-making apparatus. The first floor offices and laboratories are entered from a staircase at the north end of the building feeding a central corridor which connects up to the melting shop at the south end. The chief function of the laboratories

9



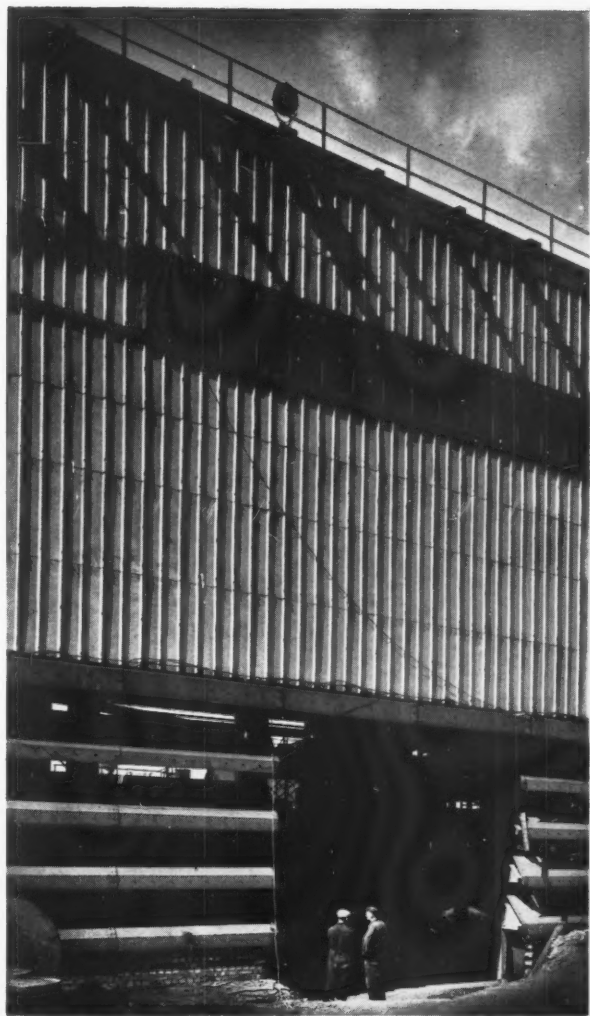
is to make immediate tests of the steel while still molten in the large melting pots. Construction is steel frame with reinforced concrete floors, roof and staircase; end bays are solid 14 in. brick. Stanchions are at 11 ft. centres and are concrete faced; windows stretch between columns; the panel infilling below them is cavity type, the outer skin being $4\frac{1}{2}$ in. tile-faced brick, and the inner skin 3 in. foamed slag. External finishes are pale beige reconstructed stone and rendering; blue-grey tiles; dark reddish brown brickwork; yellow metal windows and Prussian blue entrance doors. Surplus steam from the works provides heating and hot water. A basement of asphalt tanked concrete construction houses machinery for ventilation and heating. Control equipment installed includes a pneumatic tube sample delivery system, telephones, buzzers, electric impulse clocks, etc.; much of this, together with ventilation ducts and conduits, is contained in a false ceiling over the central corridor.



10



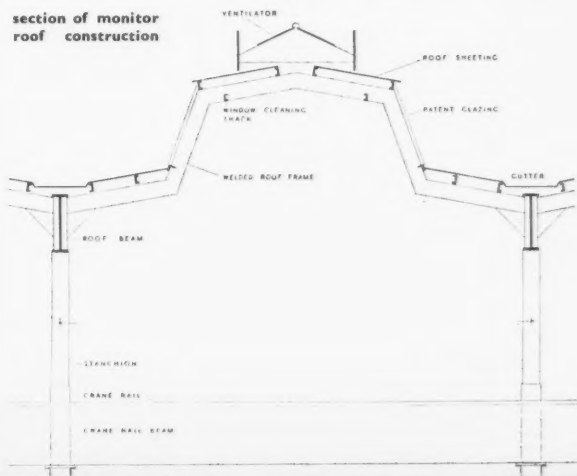
11



12

12, detail of exterior of rolling mill.

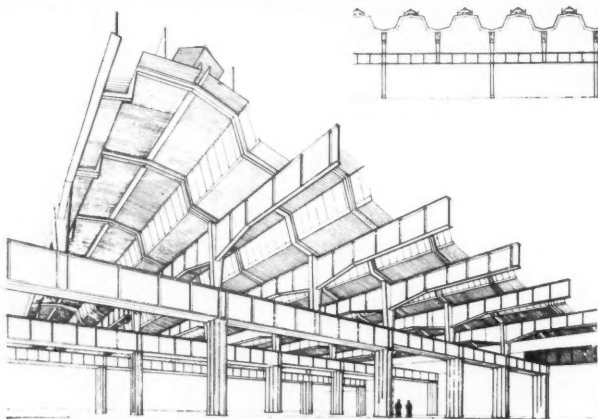
3 steel rolling mill It was required that the new building should be erected over the existing mill without stopping production; this demanded exceptionally capable site organisation. To accommodate rolling racks, mills and overhead cranes, it was essential that supporting columns should be widely spaced, and a bay of approximately 80 ft. by 40 ft. was generally suitable; some bays were increased to 80 ft. width, with the intermediate columns carried on the crane rail beams. A monitor type roof construction ensures an even day lighting throughout. Construction is of plated beams and stanchions; as much work as possible is welded, except for site connections, which are bolted. The welded monitor roof frames are at 20 ft. centres, with light steel





13

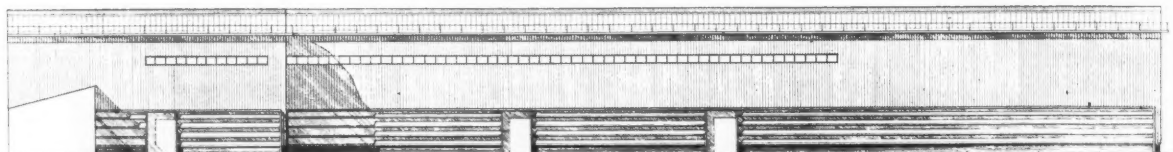
13, interior of the new steel rolling mill, looking towards the control bridge; this gives a clear picture of the roof construction, and illustrates the need for capable site organisation, as the heavy steel rolling machinery shown was in operation while alterations were being made.



perspective and detail of roof construction

channel purlins; the valleys of the roof are covered with steel sheets and the tops of the monitors are asbestos cement sheeting. Side walls consist of light galvanised steel sheet, steel ventilating louvres, and low brick panel walls.

These three buildings are part of an extensive reconstruction programme. The designers working in collaboration with the architect were:—J. M. Kemp, chief designing engineer; K. Paterson, civil and mechanical engineer; J. L. Gaskell, chief electrical engineer; H. Saunders, manager of the constructional department, all of the Appleby-Frodingham Steel Company. Consulting engineers for the rolling mill, Scott & Wilson Ltd. Assistant architects:—Gerhardt Rosenberg, for the rolling mill; J. W. Grimes, for the sub-station; R. J. Double, for the office and welfare building. Site engineer: R. C. Aylmore. Quantity Surveyor: P. T. Walters.



elevation scale 1 in. = 64 ft.



JOHN THORPE

and the
Thorpes of
Kingscliffe

1, detail of the south-east corner of the courtyard at Kirby Hall, Northants.

For more than a century and a half the identity of John Thorpe, the circumstances of his life and even the precise period to which he belonged, have been matters of conjecture. John Summerson here shows him to have been the son of a Northamptonshire mason, an official of the Elizabethan Office of Works, a Surveyor of Crown Lands and, incidentally, an almost exact contemporary of Shakespeare. Although probably an architect in a limited sense, the one building always attributed to him with certainty, Kirby Hall, can no longer be accepted as his, and must be associated with an earlier generation of the Thorpes of Kingscliffe.

EVER SINCE HORACE WALPOLE, coming across an old book of drawings in the Earl of Warwick's library, announced¹, in 1782, the discovery of 'a very capital artist' of the reigns of Elizabeth and James I, the name of John Thorpe has been pretty well known. The book, on which his reputation was made (by Walpole), is now in Sir John Soane's Museum, Sir John having bought it at the sale of the library of the Hon. Charles Greville, second son of the Earl, in 1810. Since then the book has, from time to time, received much attention. C. J. Richardson, who had the free run of the Soane before and after its founder's death, redrew many of the plans and published them, with others, as *The Architectural Remains of the Reigns of Elizabeth and James I* in 1840. He believed, as Walpole had done, that Thorpe had designed nearly everything in the book, and that 'there were very few celebrated houses then existing in

which Thorpe was not engaged².' Although nothing was known of him except his name, Thorpe became the hero of Elizabethan and early Stuart architecture. One ingenious amateur even decided that John Thorpe must be an *alias* for John of Padua, thus solving, at one terrific blow, all major problems of attribution in the reigns of four Tudors and one Stuart³.

The first scholar to approach the problem of John Thorpe with a proper degree of caution was, I think, Wyatt Papworth, the editor of the *Dictionary of Architecture* and Soane Curator from 1892 to 1894. Papworth's article in the Dictionary gives, without superfluous comment, most of the references to Thorpe to be found in the Calendars of State Papers and other printed sources, including the invaluable personal reference, noticed by Peter Cunning-

¹ Prospectus of Richardson's book (in the Soane Museum) quoting Dallaway.

² I do not know who started this *canard*, but it had gained sufficient popularity for Campbell Dodgson to think it worth contradicting in his *D.N.B.* article of 1898.

³ H. Walpole, *Anecdotes of Painting in England*, 3rd ed., 1782. The note on Thorpe and his book is a Supplement, bound in at the end of Vol. 1.

ham⁴ in 1867, in Peacham's *Gentleman's Exercise*. Unfortunately, Papworth misread a sentence in that passage, construing it as an indication that reference was intended to *two* Thorpes, father and son, living in 1612, thus confusing the biographical issue for himself and his successors. Harry Sirt⁵, for instance, writing in 1911, fell into the same trap, which was a pity because some other clues to which he drew attention in that year were (as it turns out) the right ones.

The architectural historians of the last generation, being themselves architects, wrote broadly and discursively about Thorpe's plans, but troubled little about his biographical identity. J. A. Gotch⁶ (1894) wrote of him as 'a practical man,' and of work 'actually carried out,' expressions which brought Wyatt Papworth down on him with a challenging review in the *R.I.B.A. Journal*⁷. Sir Reginald Blomfield⁸ (1897) was, on the other hand, a little contemptuous of him and guessed that he should be classed with Norden, as a measurer rather than an architect—a guess which I now find very near the truth. In the following year, Campbell Dodgson balanced the *pros* and *cons* very cautiously in his *Dictionary of National Biography* article, giving Thorpe the benefit of some half a dozen buildings, including Kirby, Holland House and, of course, the famous plan based on his own initials. Dodgson's assessment has been followed by most recent writers, but a new champion of Thorpe as a designer appeared, rather surprisingly, in the shrewd and experienced H. Avray Tipping⁹, who followed Gotch in believing that he was concerned with Wollaton Hall as well as Kirby and saw him as a potent influence in early Jacobean planning.

Amid all this speculation, the mystery of John Thorpe's identity remained, although any professed historian must have known that a systematic attack on the vast quantities of sixteenth and seventeenth century documents remaining in this country would surely bring the truth to light. Such has proved to be the case; and it has not, in fact, been inordinately difficult to establish the outlines, and some of the details, of the man's career. The results do not immediately solve all the problems represented by his book, but they do place them in a light which, if not brilliant, is, at any rate, steady.

The main facts I have established concerning John Thorpe are these. He was born about 1563, the second son of Thomas Thorpe of Kingscliffe, Northants, a mason, and probably the builder (not necessarily the designer) of Kirby Hall. John went to London in or before 1584, and was one of the Clerks in the Queen's Works till 1601; later, he practised as a surveyor and held various offices as such under the Crown. He died, very old and possessed of considerable property, in 1655.

Round these main facts lies a great deal of interesting material and it will be advisable to deal with it in sections. First, the history of the Thorpe family. Second, the circumstances of the building of Kirby Hall. Third, the story of John Thorpe himself. And, fourth, a reconsideration of his famous book in the light admitted by this new biographical perspective. In this article I shall concentrate on the first three, merely offering a few suggestions relative to the fourth.

The Thorpes of Kingscliffe

Kingscliffe is a large village, full of old stone houses, about nine miles from Stamford. There is a handsome cruciform church, with a central tower and spire. In the north transept, against the east wall and more or less hidden by the organ, is a stone monument with a Roman Doric frame, a broken pediment above and a shaped 'apron' below. This is the monument of the Thorpe family, erected in 1623 by two cousins to honour their ancestors and record their generations. Some scraping vandal has done away with nearly all the inscription, but it is preserved for us by Bridges¹⁰. It begins by telling us of three generations of Thomas Thorpes—Thomas *proavus*, Thomas *avus* and Thomas *pater*—all

buried in one tomb. It then mentions three sons of Thomas *pater*, their names being Henry, John and Thomas, and six daughters, giving under each name the number of sons and daughters begotten and born. The total adds up to the impressive figure of 80—all grandchildren of Thomas *pater*. Then come three Old Testament quotations in praise of fecundity, a statement that the family originally sprang from the Thorpes of Ashwellthorp, near Wymondham, Norfolk, and, finally, a sentence in which the first-born of Henry and Thomas beseech the blessing of God on their descendants. The first-born of John is, rather curiously, omitted, and it must be supposed that he did not participate in the erection of the monument.

Unluckily, the inscription gives not a single date other than that of its erection in 1623, so we have to turn to documents. The earliest and most vital is the will¹¹ of Thomas *avus*, who died in 1558. It is simple and typical. Thomas leaves 2d. to the mother church of Peterborough, the same to the high altar and 4d. to the bells. To his wife, Rose, he leaves his house and appurtenances for her life. Afterwards they are to go to his son Thomas, who is to pay another son, Henry, five shillings a year for twelve years. If Thomas dies without heir male, the house goes to Henry. But the most important bequest (for us) is this: 'I gyve to Thomas my sonne all my toles.' These must have been the tools of a craftsman and, in the circumstances I am about to describe, we can hardly be wrong in assuming that they were those of a mason. The will, therefore, gives us the fundamentally important information that at least two generations behind that of John Thorpe were masons and that John Thorpe's father (Thomas *pater*) had begotten no son by 1558.

Thomas *pater* becomes a highly interesting person as soon as we realize that, if any of the Thorpe family had anything to do with the building of Kirby, it must have been he. He inherited the tools in 1558 and died (the Kingscliffe registers tell us) in 1596¹². His will I cannot find, which is disappointing because one would hope to find there some indication of the position he achieved and the wealth he acquired as perhaps the most eminent free-mason in one of the most aristocratic counties in England.

The next documents of importance are three copies of a Visitation of Northamptonshire, made in 1618 and now in the British Museum¹³. From these we learn about Thomas *pater's* marriages and offspring. He married twice. By his first wife, Elizabeth Frisby of Kingscliffe, he had one son, Henry, and several daughters. By his second wife, whose maiden name we are not given, he had two more sons, John and Thomas, as well as more daughters. Of the three sons, John, the second, was to become the distinguished London surveyor. The eldest son, Henry, who remained in Kingscliffe, will, no doubt, have inherited most of the family property on his father's death in 1596. He married twice and had fourteen sons and three daughters. He was certainly something of a builder, for it appears from the Declared Accounts that he served as a Clerk-of-the-works when alterations were made for the King at Collyweston in 1606. He paid a subsidy in 1609¹⁴, was in trouble with the Privy Council for hunting and killing deer in Rockingham Forest in 1620¹⁵, and died in 1624. His will¹⁶ is an interesting document but provides no further hint that he had anything to do with building; so we can only speculate whether he was the man who continued the building of Kirby in the early years of the seventeenth century.

The third brother, Thomas, became a free-mason of real distinction, not only in Northamptonshire, but in London and elsewhere.

¹¹ DPR Birmingham. Northants and Rutland Wills. Book Q. f. 48 (Cap. 104) Dated July 23, 1558; proved Oct. 26.

¹² 'Thomas Thorpe the eldest the 3rd daie of June anno domini 1596.'

¹³ HARL. 1184 f. 217b.

HARL. 1094 f. 222b.

HARL. 1553 ff. 191b, 88b.

¹⁴ I am indebted to Miss Joan Wake and the Northants Record Society for this information.

¹⁵ *Acts of the Privy Council* (1619-1621), 1930, pp. 101, 113 and 123. He and George Thorpe, his son, claimed the 'right of purlieu.' The Attorney-General accepted recognizances in £100 each from them and others for their attendance in Star Chamber.

¹⁶ DPR Peterborough. Archd. Court of Northampton. Lib. X, p. 261. Henry Thorpe provided for a copy of 'Mr. Perkins his Workes' (William Perkins, author of *Armillæ Aurea*, 1590) to be chained in the parish church. He left to his son Thomas the 'seelinge' (i.e. panelling) in the parlour, 'all the cupples' (i.e. rooftrusses) and other carpentry work of his house. To another son he left his lease of Cliffe Mills.

⁴ *Builder* 1867, p. 206.

⁵ *R.I.B.A. Journal*, April 1, 1911, p. 372 etc.

⁶ *Architecture of the Renaissance in England*, 1894. In his later book, *Early Renaissance Architecture in England*, 1901, Gotch was more cautious.

⁷ *R.I.B.A. Journal*, 1894, p. 507.

⁸ *A History of Renaissance Architecture in England*, pp. 42-52.

⁹ *English Homes*, Period III, Vol. 1, pp. 183-185 and elsewhere. Tipping even considered Thorpe 'likely to have been the designer of Longleat.'

¹⁰ J. Bridges, *History of Northants*, 1791, Vol. 2, p. 432.

2, the north side of the court of Kirby Hall, Northants, shown by Mr. Summerson to have been built, in all probability, by Thomas Thorpe, John Thorpe's father. The attic storey and window dressings are seventeenth century alterations.



He worked at Eltham Palace in 1604, using Northamptonshire stone. In 1605, he was working at Whitehall. Then, in 1607, three warrants¹⁷ were issued for assisting one Thomas Thorpe with transport to bring stone from the counties of Rutland, Lincoln and Northampton for the building of London's Aldgate. Kingscliffe lies near the border of all three counties and the probability that we can recognize Thomas Thorpe of Kingscliffe in this transaction is great. A further reference is in a list¹⁸ of Commissioners for Surveying the Duchess of Suffolk's lands in 1609. Here Thomas Thorpe's name appeared next to that of John, but was erased in favour of Simon Dec. Finally, and most impressively, we find Thomas Thorpe's name associated with those of Robert Lyminge and Thomas Style in the accounts for Blickling, Norfolk, between the years 1619 and 1623. Of this great building, Lyminge was certainly the designer; Thorpe will have been the principal master-mason. For the rest, we know that he married Wyburgh Hunt of Collyweston and had eleven children, but his will I cannot find, nor can I be sure of the date of his death¹⁹.

The history of the Thorpe generations follows closely the pattern of its period. Thomas *avus* is the simple artificer with only his house and furniture and the tools of his trade to leave behind him. His son rises to a status equivalent to the yeoman and almost certainly acquired land²⁰. His sons aspire to gentility: Henry Thorpe styled himself gentleman by 1610²¹, while John Thorpe was probably gentle by virtue of his office in the Queen's Works as early as 1584²². By 1612 John had adopted the coat of arms which I shall have occasion to mention later on. On the monument of 1623, where this coat of arms is blazoned, there is no mention whatever that any of the Thorpes pursued a craft or profession. Gentility had been achieved.

The Building of Kirby Hall

And now let us return to Thomas Thorpe *pater*, the only member of the family who can reasonably be supposed to have laid, or superintended the laying of, the first stone of Kirby Hall. The date of that event, given in the Thorpe book as 1570, corresponds accurately to the dates 1572 and 1575 which appear on the upper parts of the fabric. The owner of Kirby²³ was Sir Humphrey Stafford, whose family had held the manor of Kirby since 1542 and whose grandfather, another Sir Humphrey, had been 'one of the esquires for the body' to Henry VIII²⁴. The Staffords were also 'of Blatherwick,' a parish very close to Kirby and next door to Kingscliffe.

Sir Humphrey Stafford was not a man of any particular importance, and his name rarely occurs in the vast quantity of Eliza-

¹⁷ See *APS Dict.*, s.v. Thorpe (. . .), not the article on John Thorpe. The Privy Council Registers are given as the source of this information, but the Register for the year 1607 does not exist. I have not yet ascertained the proper source, which is more likely to be some City of London records.

¹⁸ PRO. SP (Dom) 15. Vol. 39, No. 83.

¹⁹ For information concerning Thomas Thorpe's connection with Blickling, I am particularly indebted to Mr. James Lees-Milne, of the National Trust.

²⁰ Cal. SP (Eliz.) Vol. 233, p. 679. Grant of lease to Robert Barnes and Tho. Thorpe of 2 messuages in Hanney, Lincs., 1590.

²¹ Kingscliffe Burial Register. 'Roger ye sonne of Henrie Thorpe gent,' Jan. 13, 1610-11. Previous entries have had no such qualification.

²² The first known reference with the style of gentleman is, however, the marriage licence of 1592.

²³ The best descriptions of Kirby are in H. A. Tipping, *English Homes*, Period III, Vol. 1, 1922, and G. H. Chettle, *Kirby Hall* (Official Guide, H.M.O.W.), 1947.

²⁴ So described on the monument in Blatherwick Church erected by his grandson. The monument is very probably a work of Thomas Thorpe.

bethan correspondence which has been calendared; and we have no means of knowing why he should have started to build a house of such great size and startling character as Kirby. It is fair to assume that he knew his great neighbour, Lord Burghley, whose house near Stamford, twelve miles away was, in 1570, one of the main outposts of the new architecture, inferior only to Longleat (then in progress) in its loyalty to the antique taste. Many things about the design of Kirby suggest that it originated in the Burghley circle, which means that not only Burghley but Sir John Thynne of Longleat and Sir Thomas Heneage of Copped Hall may have been among its god-parents. The original plan of Kirby (i.e. the one in Thorpe's book) particularly resembles Burghley House in its north (entrance) front, where the central opening is flanked by two projections, intended, no doubt, to be read as a single, broad gate-tower of the Burghley type. The Kirby plan differs from Burghley chiefly in the development of large, projecting blocks at each corner (embryonic at Burghley) and in the formation of an open courtyard on the south, which novelty, however, I suspect was for convenience rather than beauty and is not quite so important as has sometimes been suggested.

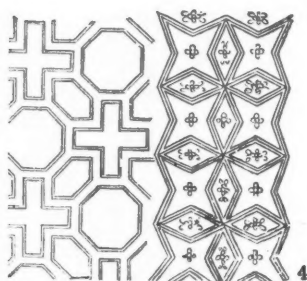
The really novel and exciting thing about Kirby was not so much its plan but the use, in three of the courtyard elevations, of a *giant order*. This, so far as we know, was something absolutely new for England, where the orders had, up to date, been regarded as small-scale decorative features never extending beyond the height of a single storey. Where did the idea of a giant order come from? One possible answer is this. When Sir John Thynne designed Somerset House during the Duke of Somerset's protectorate, there can be no doubt that he (or somebody) had studied Jean Bullant's very recent work at Ecouen²⁵. William Cecil, as Somerset's secretary and Thynne's friend, was on the spot at the time, and when he came to rebuild Burghley he too introduced, very likely under Thynne's influence, at least one feature (the lower part of the courtyard tower) clearly echoing one of the pavilions in the courtyard at Ecouen. But neither at Somerset House nor at Burghley was a giant order introduced, although at Ecouen it is one of the most striking innovations. This idea was still, as it were, in the market. It was snapped up, in 1570, by whoever evolved the design of Kirby. Whoever he was, I think he will have known Sir John Thynne.

Exactly who did 'design' Kirby we shall probably never know and, anyway, it is foolish to look for a single 'architect.' Elizabethan houses, with few exceptions, grew out of irregular discussions between owners and artificers, and possibly a surveyor or two thrown in, all of whom were ready to change their minds and their 'platts' at any moment during erection. Who *built* Kirby is another

²⁵ Thynne's responsibility for Somerset House and the connection with Ecouen are subjects into which I cannot enter here and with which I propose to deal on another occasion.



Le molli ornamenti, e di compartimenti usati, ma in non tutti
 sempre qui sotto disegnate fino ad detto tempo pare di belle



Much of the ornament at Kirby Hall is taken directly from books, notably from Serlio. Thus the ornament of the soffit of the porch, 3, and of the central arch of the north loggia comes straight from Serlio's third book, page 20, reproduced in 4. The capitals of the giant pilasters flanking the north entrance towards the court, 6, were obviously inspired by the design, 5, on page 62 of Book IV. The ornament on the die at the angle of the parapet, shown in the photograph forming the headpiece to this article, is another motif from Serlio. Thomas Thorpe, as mason, may have been responsible for the execution of all stonework at Kirby, including the carved detail. He was probably handed a copy of Serlio and left to interpret it in his own way.



matter. It is, I think, very near to certain that Thomas Thorpe was the principal free-mason for all the work done between 1570, when the first stone was laid, and 1575 when, on Stafford's death, the work seems to have been stopped. He may have been responsible for the execution of all the stone-work, including the decorative features which make the house so very remarkable.

The ornament at Kirby is an entertaining study, lending itself easily to analysis. Some of it comes directly and quaintly out of books. Thorpe had evidently been lent or given a copy of Serlio²⁶. From this he took, among other things, the 'Vitruvian scroll' which runs along the coping of the parapet²⁷; the ornament on the soffits of the arch of the porch and of the central arch of the loggia²⁸; the caps of the two giant pilasters flanking the latter opening²⁹; and the enrichment of the dies which support the finials on the bay-windows³⁰. He also, it seems, had a copy of John Shute's *Chief Groundes of Architecture*, published in 1563. The plates in this, however, did not appeal to him so much as the title-page³¹, from which he stole the arabesques, with candelabra and *putti*, which adorn the panels of the two central pilasters of the loggia. Thirdly, he used Hans Blum's *Quinque Columnarum etc.*³² for the Ionic capitals on the long sides of the quadrangle. There are other palpable 'quotations'; such, for instance, as the rich paterae in the friezes of the small doorways. These come either from a Flemish engraving or (very likely, I think) from a tapestry border of the period.

When one has subtracted all the borrowings at Kirby Hall there is still quite a lot to be accounted for. Thus, the three ornamental gables on the hall block, including the especially rich frontispiece over the porch, derive from no engraved source (except in an almost invisible sequence of Serlian enrichments) but are, more or less, inventions, deriving their character from a current school of design rather than specific sources or authorities. This brings us to the question: what sort of masons were the Thorpes and what type of design were they practising before the great task of Kirby was put into their hands?

This question has to be resolved without the aid of documents and the answer must be speculative. If we look round Northamptonshire for houses and funeral monuments of the 1560's having affinities with Kirby Hall (a task facilitated by the splendid photographic survey which G. Bernard Mason is now completing for the N.B.R.) we shall soon come across a dozen or more cases worth close examination. At Dingley Hall³³ is a two-storey porch dated 1558, the unmistakable prototype of the porch at Kirby. It is similar in silhouette and proportion, but less refined in detail, the entrance arch being pure native Tudor. This could be a late work of Thomas Thorpe *avus*, who died in the year it was dated. Then, at Apethorpe³⁴ is a chimney-piece of 1562, closely related to a (possibly much earlier) chimney-piece at Boughton³⁵; and both these are loosely related to the porch and chimney-piece at Deene Park³⁶, a mere half-hour's walk from Kirby. All this work is in a style which seems to have come to this country from France and the earliest examples of which (e.g. the tomb and gatehouse at Layer Marney, Essex) date from 1525-30³⁷. How this type of design spread about the country we have no exact means of knowing, but it probably spread as the result of contacts between masons rather than through the medium of engravings. Masons

²⁶ The most recent edition available in 1570 would be the quarto of 1566, containing Books 1-6, but the edition of 1559, comprising only 5 books, contains all the material relevant to Kirby.

²⁷ Serlio, 1559 ed. Bk. 4, p. 72 verso.

²⁸ *ibid.* Bk. 3, p. 20.

²⁹ *ibid.* Bk. 4, p. 62.

³⁰ *ibid.* Bk. 4, p. 63.

³¹ Although Shute's book was printed by Thomas Marshe, the title-page bears the monogram of Cawood, another Elizabethan printer, who had previously used the same blocks in *Acts in the Parliament*, 1555. See R. B. McKerrow, *Printers and Publishers Devices* (Bib. Soc.), 1913, p. 47: *The First & Chief Groundes, etc.*, ed. in facsimile by Lawrence Weaver, 1912.

³² Hans Blum, *Quinque Columnarum exacta descriptio atque delinatio*, Zurich, 1550.

³³ *English Homes*, Periods 1 & 2, Vol. 2, pp. 133-4. J. A. Gotch, *Old Halls . . . of Northants*, 1936, Pl. 65.

³⁴ *English Homes*, Period 3, Vol. 2, pp. 1-20. Gotch, *Old Halls, etc.*, Pl. 61.

³⁵ J. A. Gotch, *Early Ren. Arch.*, 1901, Pl. LVI, and *Old Halls etc.*, Pl. 90.

³⁶ *English Homes*, Period 3, Vol. 2, pp. 21-30. Gotch, *Old Halls, etc.*, Pls. 39 & 41.

³⁷ Gotch, *Early Ren. Arch.*, 1901, pp. 17 & 18, Fig. 12.

who could do work in the new style were in request at the end of Henry VIII's reign and used to pass from house to house, recommended by one building enthusiast to another. John Chapman, who worked for Sharrington at Lacock, for Thynne at old Longleat and for the Duke of Northumberland at Dudley is a well-known example³⁸. I lately found some carving of this period at Bristol³⁹ which is exactly repeated on a fireplace at Bisham, Bucks. The Thorpes seem to have acquired this Anglo-French style of ornament and practised it in Northamptonshire. I am pretty sure that we are safe in attributing the Dingley porch to them and the fireplaces are certainly of the same school. But by far the most impressive example of mason's work, from the point of view of its relationship to what we find at Kirby, is the Griffin monument at Braybrooke.

This monument is a massive affair, filling the whole width of a transept window. It commemorates three members of the Griffin family, the builders of Dingley, and was probably erected soon after 1568⁴⁰. That it is from the same hand as the non-bookish detail at Kirby is almost certain. The vases surmounted by heraldic beasts reappear (rather simplified) on the Kirby gables; so does the scallop-shell in its moulded hood; while the clumsily fluted frieze of the monument is found on the Kirby chimneys. The panelled dies of the pedestal recall the mantelpieces at Apethorpe and Deene and the baluster-shaped Ionic columns are versions, in the round, of the pilasters on the Apethorpe mantelpiece, whose date is 1562.

The value of this monument is that, in conjunction with the related works I have mentioned, it shows us what kind of ornament Thomas Thorpe was doing before Sir Humphrey Stafford employed him to build Kirby and before somebody put Serlio, Shute and Blum into his hands. For Kirby is the work of a Tudor mason with a considerable knowledge of the Anglo-French fashion in ornament who has suddenly, and probably on somebody's instructions, taken to books. I doubt very much if he read the books; he simply used them as a quarry, borrowing a Serlio fireplace-jamb to enrich a die, an antique mosaic design for an incised soffit ornament and Shute's publisher's title-page for the filling of a pilaster panel! This untutored larceny is amusing. But the wonderful thing about Kirby is the way that Thorpe's feeling for his art produced a really lovely house and one which enchants the eye long before the mind has been aroused to ask the why, the how and the whence.

Sir Humphrey Stafford died in 1575 and his representatives almost immediately sold the incomplete Kirby to Sir Christopher Hatton. The purchase money was paid in 1578. Now Sir Christopher was already far advanced with his own house, Holdenby, a house very much larger than Kirby and based (as he himself confessed) on Burghley's new house

³⁸ *English Homes*, Period 2, Vol. 1, p. 361. Also W. Douglas Simpson in *Archaeological Journal*, Vol. 101 (1944), p. 119.

³⁹ A surviving fragment of St. John's Conduit. See *Listener*, Dec. 2, 1948.

⁴⁰ This was the date of the death of Sir Edward Griffin, the builder of the porch etc. at Dingley.

Another book which must have been in Thomas Thorpe's possession when he built Kirby Hall was John Shute's *First and Chief Groundes of Architecture*, published in 1563. From the title page of this, 7, he borrowed the design of candelabra, putti and arabesques to ornament the panels of the two central pilasters on the north side of the court, 8.

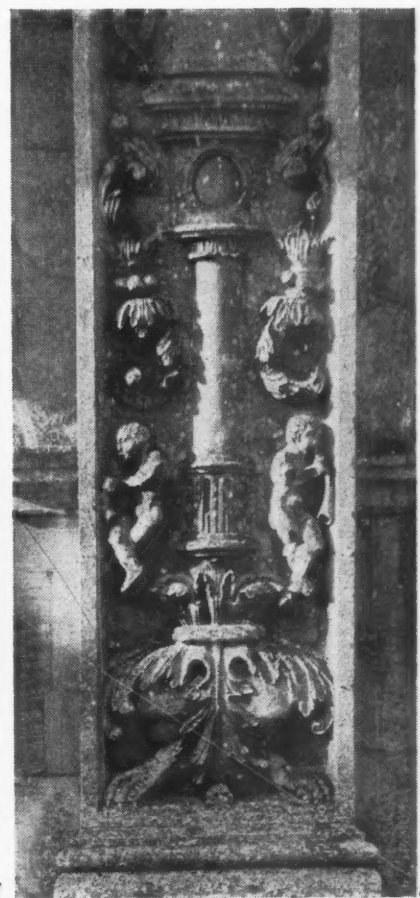
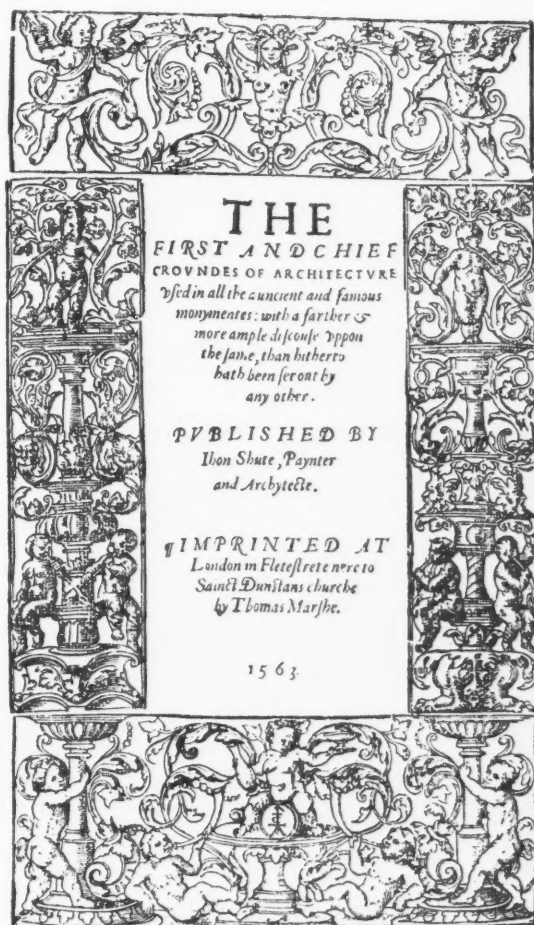
at Theobalds⁴¹. Little remains of Holdenby, but there are still, incorporated into the small existing house on the site, a porch and some chimney-stacks, precisely in the style of Kirby⁴². So it looks very much as if Hatton had procured the services of Stafford's principal free-mason. For a year or two, Thomas Thorpe may well have been looking after both houses at once. At Kirby, Hatton is supposed to have built the prominent southward extension, terminating in twin bay-windows; and it was he, perhaps, who ordered the completion of the gallery block with its range of Flemish strap-work gables. In this work, we lose sight of Thomas Thorpe and his style. I do not believe that he could have turned so readily to the strap-work technique as to build those gables at Kirby. Were they his, I feel that they would either have been patiently copied from de Vries or strongly tinged with the Anglo-French ornamentalism which was his early and persistent predilection. I suggest that one of two things happened. Either Sir Christopher Hatton turned another mason on to Kirby when the place became his, or the gables and the south-west wing are later than his time and later than Thomas Thorpe *pater*. If the latter is the correct answer, it is, of course, possible that the strap-work represents the style either of Henry or of the youngest Thomas Thorpe⁴³, brothers of John. As we have seen, Henry acted, on one occasion at least, as clerk-of-works to the Crown; while there is every indication that Thomas was a mason of a very high order indeed. Either may have been in charge of Kirby for a considerable time. It is rather significant that certain designs in the Thorpe book do strongly reflect the style of the Kirby gables. They are, I feel sure, in the hand of John Thorpe; but, as we shall see in a moment, John Thorpe did not sever himself entirely from Northamptonshire and it would not be extraordinary if some of his drawings reflected, or indeed influenced, the style of the other brothers.

So much for the association of the Thorpe family with Kirby.

⁴¹ See E. St. J. Brooks, *Sir Christopher Hatton*, 1946, p. 158.

⁴² *Country Life*, Vol. XXXII, p. 528.

⁴³ Especially those on pp. 108 and 115-6.



The two-storeyed porch of Dingley Hall, Northants, 9, which is dated 1558, is obviously the prototype of the frontispiece to the hall block at Kirby, 10, though it is cruder in detail and has a Tudor entrance arch. Dingley is in a style of which the original sources seem to have been mainly French.

Henry Thorpe died in 1624⁴⁴ and Thomas, most probably, in 1626⁴⁵, after which date we need not look for further connections between the family and the house. There was, to be sure, yet another Thomas (grandson of Thomas *pater*) in the parish but of him we know nothing except that he died intestate in 1642⁴⁶, at the age of 48. Four years before that, the work proceeding at Kirby had changed to the pure Italian style of the Carolean court; and the name of Thorpe had been extinguished by that of Nicholas Stone, and, perhaps, the even more illustrious name of Inigo Jones.

The Life of John Thorpe

We return now to our central character, John Thorpe, the surveyor. The combined pattern of the Thorpe genealogy and of dated events in John's career suggests that he was born in, or very near, the year 1563⁴⁷. Thus, he was about seven when the first stone of Kirby was laid. This gives rise to the acutely awkward question: did he or did he not lay that stone? Personally, I find it difficult to believe that the famous text, *Kirby whereof I layd y^e first stone A^o 1570*, is not in John Thorpe's hand. I have looked at it, critically as well as casually, hundreds of times; I have compared it letter by letter with other texts; and always my judgment tells me that it was written by John Thorpe. Which being so, I cannot but suggest that it is not impossible that the stone *was* laid by a little boy of seven. It is conceivable that the text is a record of the first significant date in John Thorpe's memory, a record made, of course, when he was a mature or an aged man; the record of an occasion when his father, in a spirit of whimsicality or sentiment, placed his hands on the first stone of the great new house⁴⁸.

Whatever the exact truth, it does not radically affect our story, since it is obvious that John Thorpe cannot have borne any responsibility for Kirby. He will probably have learnt the rudiments of drawing from his father. He may have got to know something more about draughtsmanship and surveying as a result of the periodical presence in the district of Ralph Treswell, an agent of Sir Christopher Hatton's, and whose Northamptonshire surveys of 1580 onwards still exist⁴⁹. But the first firm date in his career is supplied by the presence of his name in the Declaration of Accounts of the Queen's Works for the year ending March 31, 1584⁵⁰.

John Thorpe's removal, at the age of about twenty, from Kingscliffe to London is not surprising; many younger sons of yeoman families were leaving their villages at a much earlier age to be apprenticed in the capital. What is, at first sight, rather astonishing is that he should walk straight into a Clerkship in the Queen's Works at the decent salary of 12d. per day. Only influence in a pretty high quarter could have effected that; but such influence was not remote in the case of a lad whose father was almost certainly known to Sir Christopher Hatton; and whose home was within walking distance of the palace of the great Burghley himself.

Anyway, Thorpe was installed in London by 1584 or, just possibly, a year earlier. Of the nature of his employment, the

⁴⁴ Will as quoted in note 16, p. 292.

⁴⁵ Admon. Thomas Thorpe sen., late of Kingscliffe, Apr. 6, 1626. DPR Peterborough. Northants Admons., 1595-1639, p. 163.

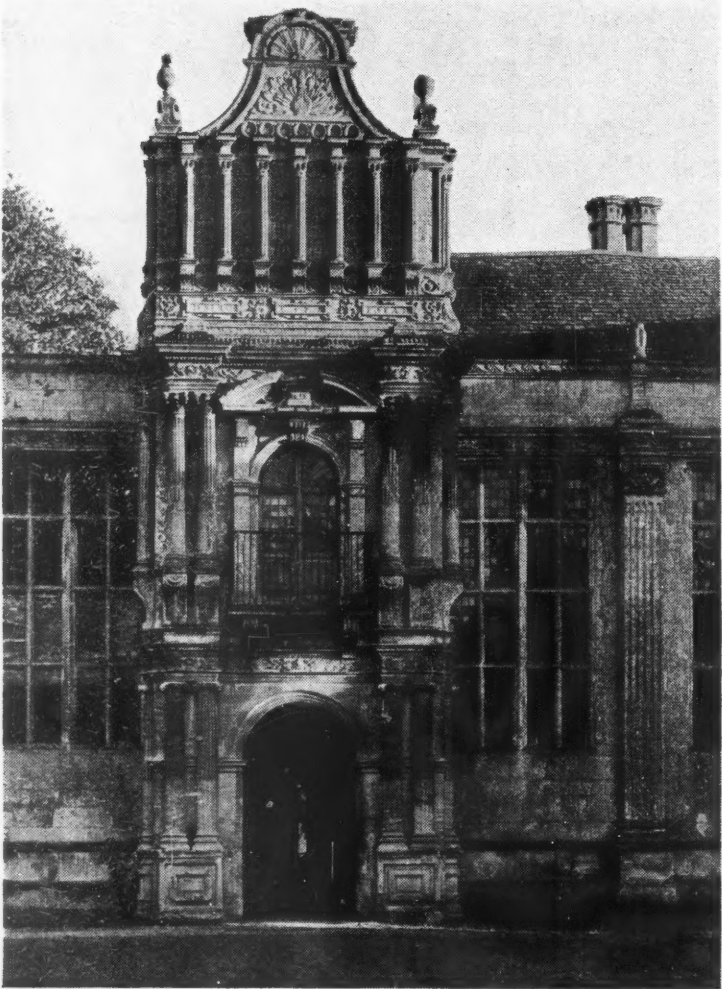
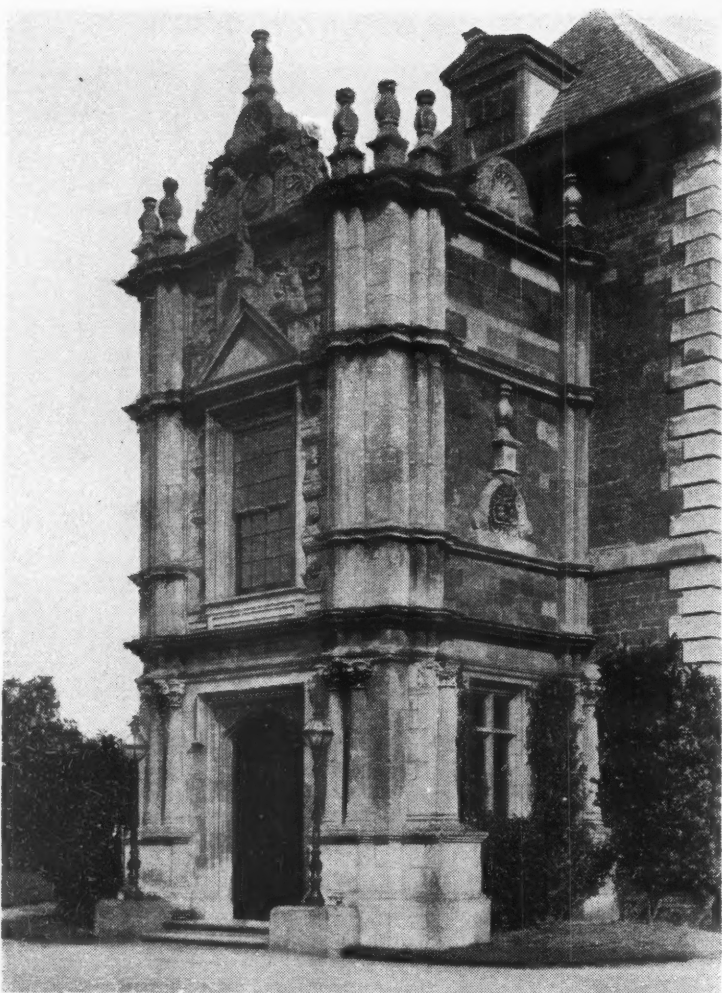
⁴⁶ Admon. Thomas Thorpe, late of Kingscliffe, Jan. 8, 1642. DPR Peterborough. Northants Admons., 1639-1684, p. 22.

⁴⁷ We know that his father had no male issue when his grandfather made his will in July 1558. If Henry was born before the end of the year and three daughters within the next three years it would be possible for John to have been born in 1562. But he was the first child of a second marriage, so if we allow an extra year to cover the 'decent interval' we arrive at 1563. A later year is unlikely as it would make him less than 20 at his appointment in the Queen's Works.

⁴⁸ There is one other possibility. John Thorpe may have copied the Kirby plan from a drawing on which somebody else (e.g. his father or Sir Humphrey Stafford) had written the text, and copied the text with the drawing. In favour of this is the fact that the text is neither signed nor initialled, whereas other observations on plans in the book are usually subscribed.

⁴⁹ Among the Finch-Hatton MSS. at Lamport Hall (Northants Record Society) FH 272.

⁵⁰ The year covered is 1584-5 N.S. Unfortunately, the accounts for the previous year are missing so we cannot be sure whether Thorpe obtained his office in 1583 or 1584. In the accounts for 1581 and 1582 there is no mention of Thorpe.



Accounts⁵¹ give us an accurate idea. Four or five or sometimes more clerks were employed in the Queen's Works, all at the same daily wage. They were allocated to the various undertakings for which the Surveyor of H.M. Works was responsible, these consisting principally of the Tower of London, Whitehall Palace, Somerset House, Greenwich and Hampton Court and any other Royal palaces which required repair or alteration. The functions of the clerks differed. Some were clerks of the works; others were clerks in a more strictly clerical sense and engrossed the accounts. Wherever John Thorpe's function is specified, it is usually as one of the latter class, but he also appears occasionally as 'the Surveyor's Clerk' as distinct not only from the 'Clerk of the Works' but also from 'the Comptroller's Clerk.' Probably the functions were, to an extent, interchangeable but it is worth noting that John Thorpe does not appear on any occasion as a practical superintendent of building works. On the other hand, he made an elaborate survey of Eltham Palace⁵², probably in 1590, and was making drawings in his book at least as early as 1596⁵³.

In 1584-5, Thorpe was engaged on Whitehall, Hampton Court and Oatlands. In subsequent years he put in long stretches at Whitehall but occasionally worked at the Tower, at Greenwich, at Richmond and, in one year, 1596-7, at two Surrey houses which were being prepared for a Royal Progress. None of the work carried out during his time was of any great importance; it consisted largely of maintenance work, minor alterations like the insertion of new doors and windows, and the occasional construction of fountains or ornamental seats in the several Privy Gardens. His fellow-clerks included several interesting people who, with their senior officers, constituted perhaps the most competent circle of architectural opinion in the country. Thorpe served under four Surveyors—Thomas Graves⁵⁴, the designer of the first Banqueting House; Thomas Blagrave; Robert Adams⁵⁵, expert on fortifications; and William Spicer⁵⁶. Among the Clerks, the most persistent name is that of John Marshall; other clerks were Matthew Switzer (of whom more presently), Simon Basil⁵⁷ (1595 to 1598, in which year he became Comptroller) and Robert Stickles⁵⁸ (from 1598). A certain John Symonds⁵⁹ had been one of the Clerks shortly before Thorpe's arrival (Thorpe may have had his place); he died in 1597, leaving small legacies for mourning rings to many of the officers of H.M. Works, including Thorpe. These people were all of some account, mostly rather older than Thorpe and reasonably well off. There were, no doubt, perquisites attached to the clerkships and we know that Stickles and Symonds certainly, and the others almost certainly, took fees for supplying 'platts' to gentlemen about to build⁶⁰. Switzer owned land, Stickles is one of the few Jacobean to be referred to in print by a contemporary⁶¹ as an 'architect,' and Symonds, whom we know as a clever designer, whom Burghley sometimes employed, was able to divide among his friends, when he died, a wardrobe of the most princely, not to say pretentious, character.

⁵¹ PRO. A.O.I. 2413 (Nos. 13-15), 2414 (Nos. 16-20), 2415 (Nos. 21-25), 2416 (Nos. 26-30), 2417 (Nos. 32-33). The accounts for 1602 and 1603 contain no references to Thorpe.

⁵² PRO. MP. f.228. The date is that suggested by the editors of HMC (Vol. 234).

⁵³ Assuming that this date, given on pp. 225-6 of the book, is the date of the drawing and not simply of the house.

⁵⁴ Add. MSS. 18766 f. 16b. For the Banqueting House of 1581, see Holinshed's *Chronicles*, quoted in *Shakespeare's England*, 1916, Vol. 1, p. 99. Graves d. in 1594.

⁵⁵ He d. 1595 and was buried at Greenwich, where Simon Basil erected a monument to him. The inscription is recorded by Vertue (Walpole Soc.) Vol. 1, p. 144, Vol. 5, p. 77. His plans of fortifications etc. were handed over to Burghley by his brother (R. C. H. M. Hatfield, Vol. 5, p. 378) and some are now at Hatfield.

⁵⁶ Possibly the William Spicer of Nunney who made a contract with Sir J. Thynne in 1559, or else his son.

⁵⁷ He d. 1615, when Inigo Jones succeeded him.

⁵⁸ He d. 1620. PCC Soame 63. Mentioned by Stow, *Chron.*, p. 769 as 'an excellent architect of that time.' A lodge at Richmond is given with his name by Thorpe, p. 150.

⁵⁹ He d. 1597. PCC Cobham 61. His 'platts' were divided between two legatees. There is a signed drawing by him among the Hatfield plans (Vol. II, No. 2).

⁶⁰ When Sir Edward Pytts built his house at Kyre, Wores., begun 1588, he paid John Symons 20s. for a platt; later he obtained platts from several others including Robert Stickles (1613). *The Antiquary*, 1890, where Pytts' account of the work is printed.

⁶¹ Stow, *Chron.*, p. 769.

Thorpe remained at Her Majesty's Works for seventeen or eighteen years, his employment ending, apparently, in September 1601. He was then about 38, with a family. He had married, nine years previously, the daughter of a well-to-do woodmonger of St. Martin-in-the-Fields, Simon Greene⁶². Greene, in his youth, had come up to London from the country⁶³, his native parish being Bampton in Huntingdonshire, which is but 20 miles, as the crow flies, from Kingscliff. So the Greenses may have been known to the Thorpes before John Thorpe's arrival in London. Rebecca Greene was 17½ when she married John Thorpe⁶⁴, at St. Martin's, in 1592. He was about 29. She bore him a large family of children—five sons and seven daughters, according to the Kingscliff monument; the first son (b. 1598) was, of course, christened Thomas in loyalty to the three original generations. The Thorpes lived in St. Martin's Parish, and John Thorpe continued to live there till the end of his life. The precise location is not apparent until 1640, when the rate-books⁶⁵ disclose that he was in Little Church Lane, a narrow street (destroyed in 1830) near the east end of St. Martin's Church; but it is clear from the similar ordering of the earlier rate-books that he had been there at least since 1607.



11, the Griffin monument at Braybrooke probably shows the kind of work Thomas Thorpe was doing before the pattern-books of Serlio, Shute and Blum came into his hands. Compare the finials with those shown in the titlepiece, page 291.

After his departure from the Queen's Works, Thorpe's activities are at first obscure. He had evidently hoped to get one of the higher places in the Works, probably that of Comptroller, for there is a letter at Hatfield⁶⁶ from Sir Henry Neville to Sir Robert Cecil recommending his suit for a reversion. Neville wrote from Paris, being Ambassador there at the time, and this has given rise to the idea that Thorpe may have been in his *entourage* there; but there is no doubt that he was fully engaged in the Works up to the autumn of 1601. At the same time, one cannot help connecting the presence, in Thorpe's book, of a plan of a house in Paris, dated 1600⁶⁷, with

⁶² Foster, *London Marriage Licences*, p. 1339.

⁶³ As he states in his will.

⁶⁴ She was baptized in St. Martin-in-the-Fields, Apr. 29, 1575.

⁶⁵ At Westminster Public Library, Buckingham Palace Road.

⁶⁶ HMC Hatfield, Vol. X, p. 140.

⁶⁷ 'Monsieur Jammé in Paris his howse 1600,' p. 163.

Neville's embassy of that and the previous year.

Neville's recommendation may have been of rather doubtful value, for by the end of the year the Ambassador was locked up in the Tower for complicity in the Essex plot. Nevertheless, it is in Government employment that we meet Thorpe next. In August, 1604, he was paid £40 for 'surveyinge certayne of his mat^{ies} lands for suche purpose as his mat^{ie} hath appointed⁶⁸.' Towards the end of the same year he was paid £53 3s. 4d. for something more explicit, having been sent, 'by commandment of the Lord Treasurer of England' (i.e. the Earl of Dorset) to the Isle of Sheppey to survey certain (unspecified) lands⁶⁹. His fee was £40; the rest of the sum was for travel and attendance and for the accidental laming of his horse in the course of the survey.

So, by 1604, Thorpe had become an independent, and highly paid, surveyor of land for the Government. Thereafter, entries in the order books⁷⁰ are frequent. There was another expedition in that year to Sheppey, accompanied by John Gawber, a fellow surveyor. Then, in 1605, Thorpe was first in Kent and Sussex, surveying 'lands and tenements' and later in Northamptonshire, his home county, to survey Holdenby House, which had passed to the Government on Hatton's death. In 1606, he was paid for work in Lincolnshire and Hampshire and a large additional sum for his work at Holdenby. The Holdenby job was apparently very thorough, since Thorpe and three assistants were 'a longe time employed in drawing down and wrighting faire the plotts,' with 'the severall rates and valewes' of both house and land. About the same time, he surveyed Amptill House, Beds., and Theobalds, Robert Cecil's own home, then being exchanged, at the King's desire, for Hatfield. There are several other references, between 1606 and 1611, to these two great estates, where Thorpe was evidently the surveyor principally involved in the exchange; and in the British Museum is a fine coloured map⁷¹ of Theobalds bearing his name and the date 1611. From February 1606 to August 1609 he was acting as a Commissioner for the sale of Royal woods in Northamptonshire, Huntingdon and Rutland, the rate of pay (including expenses) being the high one of 15s. per day. Further amounts are entered to him for the portage of large sums of cash from Northamptonshire to the Exchequer. He was again nominated⁷² a Commissioner in 1609, this time in connection with the sale of the Duchess of Suffolk's lands, and it is in a draft list of this Commission, bearing the Earl of Salisbury's signature, that his brother's name (as we suppose) was inserted and then removed.

Thorpe's duties in Northamptonshire at this period took him back to Kingscliffe (a Royal manor, as its name implies) more than once, so it is not fanciful to see the later Kirby work (perhaps by one of his brothers) reflected in drawings in his book. He was at Kingscliffe in 1609, inspecting a house he must have known all his life—Westhay Lodge⁷³, occupied by the Ashley⁷⁴ family, one of whom married John Thorpe's youngest sister, Jane⁷⁵. Thorpe signed a report⁷⁶ recommending that the Lord Treasurer be moved to have repairs to this house put in hand, seeing that other Royal lodges in the county had been similarly favoured.

Constantly, during this period, we find Thorpe acting with the famous John Norden⁷⁷, a man 15 years or so his senior, who had already projected and partly written his series of county histories and had held surveyorships under the Crown since 1600. Ralph Treswell, whom we met earlier on as Sir Christopher Hatton's agent, also reappears as one of the Crown surveyors, now associated with his son, Robert, who, from 1597, combined the family pro-

fession with the office of Somerset Herald. The association of the younger Treswell, Norden and Thorpe crystallized permanently when in 1610 Treswell was appointed Surveyor-General of Woods South of Trent and when, a few months later, Norden and Thorpe were nominated his assistants.

The three men were to divide Southern England between them. John Thorpe's patent⁷⁸, which issued on April 21, 1611, charged him with the survey, personally or by deputy, of 'all our Castells, Parks, fforts and Lodges' in nine counties: Middlesex, Surrey, Essex, Hertfordshire, Kent, Berkshire, Buckinghamshire, Northamptonshire and Rutland. 'Survey' in this context did not necessarily involve making drawings. The appointment was an inspectorate and Thorpe was merely to 'testify' to the Lord Treasurer concerning work required to be done on Royal buildings in these counties. For this work he was to receive an annuity of £20 for life, with 10s. a day travelling expenses.

This appointment meant that during the following years, Thorpe was constantly travelling about the country, either inspecting and reporting on buildings or else completing special survey assignments. Thus, in 1616, he joined Norden in surveying Kirton, Lincs., a county outside the terms of his patent⁷⁹. In the Cambridge Library is a list, of about this date, of 'Bookes of Survaies delyvered in by Mr. Norden and Mr. Thorpe⁸⁰.' During the summer months of each year he must have been always on the move and there is no doubt that, during his travels he collected information about houses and copied the more up-to-date plans into his book. Systematic research on all the manors known to have been visited by Thorpe would probably enable us to identify many more of the plans than has hitherto been possible.

It is now perfectly clear what Thorpe's life-work really was. From 1604 onwards, he was one of the busiest and most eminent land-surveyors in England. By 1610, his position was such that he was able himself to become the owner of a quite considerable property. He bought from his old colleague in the Works, Matthew Switzer, two estates, on which he laid out no less than £960. It is as surprising to find Switzer, of whom we know next to nothing, in possession of so much land, as to find Thorpe able to buy it at such a price. One hundred and four acres of it was at Winkfield, in the Forest of Windsor; the remainder (19 acres) was at Egham and consisted of a close of meadows called Thames Meads and a grove of woods⁸¹. There were dwelling-houses on both properties and, judging by the price, the rents accruing from them must have been considerable. One can only regard the transaction as a large capital investment on Thorpe's part, calculated to keep him in decent circumstances for the rest of his life, while leaving something substantial to his family at his death.

At Egham, Thorpe paid a quit rent of 6d. for his land; his name appears in a Rental of 1622⁸² and, from time to time, in the Manor Court Rolls till 1654, the year previous to his death⁸³. It is unlikely that he resided either at Egham or Winkfield.

It was in 1612, two years after the purchase of land and one after the issue of the patent, that the book appeared in which is that unique personal reference to John Thorpe which I mentioned earlier. The book is *The Gentleman's Exercise*, by Henry Peacham. It had appeared previously in 1607 under a different title⁸⁴. But the 1612 edition, which also appeared with the title *Graphice or the Most Auncien and Excellent Art of Drawing and Limning disposed into three Bookes*, by Henrie Peachum, London, printed by W.S. for Johne Browne, is the first in which the Thorpe reference occurs (on page 172). The book is largely a primer in heraldry, and Peacham adopts a lively form of dialogue between teacher and pupil. He shows his pupil a coat of arms (engraved in the text) and asks him to describe it. The pupil does so, correctly. Peacham then proceeds:

It did belong to the Abbot of Tame, whose name was *Thorpe*, and now borne of Master *John Thorpe* of the parish of Saint *Martins* in the Field, my especiall friend, and excellent

⁶⁸ PRO Pells Order Books. E 403. 2724, p. 79.

⁶⁹ *ibid.* p. 158.

⁷⁰ References to Thorpe in the Pells Order Books are as follows: E 403, 2724, pp. 79, 158, 167; 2725, pp. 93, 111, 146; 2726, pp. 21, 41, 43, 123, 137, 161, 172, 204; 2727, pp. 23, 68, 133, 229; 2728, pp. 90, 200, 252, 254; 2729, p. 77; 2731, pp. 85, 126; 2732, p. 162; 2733, p. 96; 2734, p. 93; None in 2735 or 2736; beyond that number I have examined only 2740, 2745 and 2749, none of which contained Thorpe references.

⁷¹ Cotton. Aug. 1, i. 75.

⁷² Ref. previously given.

⁷³ Possibly a Royal hunting lodge. See *VCH Northants*, Vol. 2, p. 579, where, however, a different site is suggested. I am told that there is a derelict farmhouse in the parish still known as Westhay Lodge. The OS shows it about a mile N. of the village, W. of the Stamford road.

⁷⁴ Kingscliffe Burial Reg. 'John Ashley of Westy Lodge, Jan. 7, 1598.'

⁷⁵ Visitation pedigree already quoted.

⁷⁶ PRO. SP 14, Vol. 44, No. 48. Endorsed 'a certificat of ye repayre of Tho. Ashlyes lodge in Westhay 1609.'

⁷⁷ See the exhaustive article, with many references, in D.N.B.

⁷⁸ PRO. Patent Rolls. C. 66. 1902.

⁷⁹ Cambridge Univ. Library. Ff. 4.30.

⁸⁰ Cambridge Univ. Library M.m.iii.15.

⁸¹ PRO. Close Rolls. C 54. 2053.

⁸² PRO. SC 11, Roll 626.

⁸³ This was discovered by Mr. Frederic Turner and communicated by him to the late Arthur T. Bolton, Curator of the Soane Museum. Unfortunately, Mr. Turner did not give his sources.

⁸⁴ *The Art of Drawing with the Pen and Limning in Water Colours, more exactly than heretofore taught, and enlarged; . . . published for the behoofe of all young gentlemen, by H. Peachum, Gent.* London, 1606.

Geometrician and Surveieur, whom the rather I remember, because he is not onely learned and ingenuous himselfe, but a furtherer and favorer of all excellency whatsoever, of whom our age findeth too few.

Having bestowed this tribute, Peacham is reminded that he has two other friends in the same parish, 'lovers of learning, and all vertue.' One is a Master Christopher Collard, who does not otherwise come into our story. The other is Thorpe's father-in-law, Simon Greene, the woodmonger, whom we now find dignified with the office of 'Purveyor of his Majesties Stable.' Finally, Peacham throws another bouquet to 'the aforementioned Master John Thorpe his sonne, to whom I can in words never be sufficiently thankfull.' It is the 'his' in this passage which Papworth and others read as an expanded genitive, instead of a pronoun referring to Greene, the proper interpretation.

Peacham, seen through his writings, was a quaint, vivacious character with that romantic love of pedantry so characteristic of his time and some skill as a draughtsman⁸⁵. He was about 13 years younger than Thorpe. Why he had reason to be so grateful to him we are not told, but we are in Peacham's debt for handing down to us the only glimpse of John Thorpe as a person which we possess.

The coat of arms⁸⁶, which Peacham takes the opportunity of displaying to flatter his friend, had perhaps been adopted by Thorpe not very long before. There is no grant to John Thorpe or any of his family in the College of Arms⁸⁷ and it looks as if he merely assumed the arms on the grounds of some putative relationship to an Abbot of Thame. The bearings were assumed not only by John but by the Thorpes of Kingscliffe, for in a sketch in one of the 1618 Visitations the arms of 'John Thorpe of London' have a crescent for difference (he being a second son). The coat of arms without difference occurs on the Thorpe monument in Kingscliffe Church. John Thorpe adopted a personal motto. It is not given by Peacham but is noted in the Visitation. It reads: *Supervidens non videns*. Obviously it alludes to Thorpe's profession of *surveyor* or *surveyor*, but its precise meaning is far from clear. 'Surveying, not seeing' is a nonsensical motto in the circumstances, unless one construes *videns* as meaning either 'prying' or 'envying,' neither interpretation being probable.

Sixteen-twelve was the year of the death of the brilliant and adored Henry, Prince of Wales. Prince Charles, succeeding to his titles, succeeded also to estates held by him, and we find Thorpe, with Norden and Norden's son, periodically engaged on the survey of these. The Prince's Surveyor-General was a placeman, Sir Richard Smith, for whom Thorpe deputized. We find both of them, with Sir John Denham (the judge, father of the poet-architect) presiding at a Manor Court near Egham in 1618⁸⁸. Three years later there is a warrant to Sir Adam Newton, the Prince's Receiver General, to pay £50 to Thorpe in respect of surveys of a number of the Prince's estates⁸⁹; while later in the same year (1621) a warrant of a like nature for £72 is mentioned in Sir Adam Newton's Account Book⁹⁰. From these documents we also learn that the Nordens and Thorpe were receiving a joint salary of £20 a year in the Prince's service.

This work for the future Charles I is the last we hear of John Thorpe's professional activities⁹¹. He was about 58, owned, perhaps, considerably more property than we are aware of and may also have adventured to some extent as a speculative builder⁹². This latter possibility is suggested by an extremely interesting incident recorded in the Acts of the Privy Council for 1616. On September 18 of that year, instructions were sent to the High Sheriff of Middlesex to demolish certain houses which contravened the Proclamations forbidding the erection, without permission, of new buildings around London. A few cases of 'principall offenders' were selected for instant demolition as a deterrent to others; and among these principal offenders was John Thorpe. His case is instanced as follows:

⁸⁵ Article in D.N.B.

⁸⁶ Az. a star or betw. three crescents ar.; for crest, a cock gules, beaked, combed, legged and wattled or (Burke, *Gen. Arm.*).

⁸⁷ For this information I am indebted to Mr. Anthony Wagner, Richmond Herald.

⁸⁸ Information by Mr. Frederic Turner (see Note 83 above).

⁸⁹ This document was acquired by the Soane Museum and is inserted in the Thorpe volume.

⁹⁰ PRO. E 101, Bundle 435, No. 9.

⁹¹ The last entries in the Pells Order Books (E 403. 2733-4) are under the years 1613-15 and relate to expenditure on repairs at Richmond Park.

⁹² *Acts of the Privy Council*, Jas. I, Vol. 3, pp. 14-15 and p. 36.

John Thorpe hath begunne to erect three tenements so neere St. Martin's [in the Fields] Church as if they goe on, will much hinder the lights of the same church, and give greate annoyance to the same. They are to be pulled downe. The Sheriff later reported that this had been done.

This is the only specific evidence we have of Thorpe being associated with building work. There is nothing, of course, to suggest that the houses were to be of the slightest architectural importance, or anything more than common London houses erected for leasing or for sale. But this evidence does enormously increase the likelihood that some, at least, of the plans for London houses given in Thorpe's book are his own work. Indeed, there is actually a plan⁹³ for '3 houses for the cytty or for a country house' which may have some relation to the three tenements so defiantly begun hard by St. Martin's Church.

The demolition incident, combined with what we know of Thorpe's other property interests in Surrey, Berkshire and Northamptonshire and the absence of his name from records of official survey work after 1621, suggests that in later middle age Thorpe turned from professional life to the development and increase of his personal estate. After his 60th year (or thereabouts) we all but lose sight of him. His old age was spent in the austere London of the Civil War and the Commonwealth. We know that he went on living in his house in Little Church Lane, and we catch a last oblique glimpse of him right at the beginning of the troubles. Early in 1643 his father-in-law, Simon Greene, died⁹⁴. He left a substantial estate, his son Richard being executor and residuary legatee. To John Thorpe he left a token gift—'ten pounds in gold to make him a ring.' The will was proved by Richard, but trouble was to follow. Richard, although an elderly man, took up arms and joined the King at Oxford⁹⁵. This was discovered when Parliament began to turn the financial screw on the inhabitants of London and Middlesex. A compulsory loan was levied, the instrument created for this purpose being the Committee for the Advance of Money. Simon Greene must have been assessed before or about the time of his death, for his estate came under the scrutiny of the Committee. Richard Greene's whereabouts was discovered, he was classed as a delinquent and his share of the estate sequestered. Two other legatees, John Thorpe and a certain William Dalton, probably a servant of old Greene's, were hailed before the Committee and ordered to show, within a fortnight, what the deceased had died worth, what debts were due to him, how much of the estate was already in Richard's hands and what charges and legacies had been paid. That was at the end of 1644. Apparently Thorpe and Dalton were able to satisfy the Committee, because in the following July it was ordered that, apart from the sequestered residue, all the legacies should be paid⁹⁶.

Ten years of life remained to John Thorpe. Of his large family, almost all had died, most of them in the plague epidemics so clearly reflected in the zig-zag statistics of the St. Martin's registers. In 1643 he probably had only one son, John, and one married daughter, living⁹⁷; and the son probably died in 1646⁹⁸. For the last years,

⁹³ p. 18 in Thorpe's Book.

⁹⁴ Will in PCC, Fines 108.

⁹⁵ Ca. SP (Dom). Committee for Advance of Money, 1642-56, Part 1, p. 492.

⁹⁶ *ibid.*

⁹⁷ These are the only grandchildren of Simon Greene mentioned in his will. Most of Thorpe's other children appear to be accounted for in the St. Martin's Burial Registers, but as other Thorpes are found in the registers it is impossible to be sure of identifying them.

⁹⁸ St. Martin-in-the-Fields Burials '20 June 1646 Johes Tharp.' Tharp or Tharpe was the spelling adopted by the clerk for all Thorpe entries at this time.

pose you in the blazon of se
your cunning, and to see
by your Master: heere is a
this:



Coy
He b
betw
Em
take
a star
contr
rowe
never

Henry Peacham, in *The Gentleman's Exercise*, calls John Thorpe 'a furtherer and favorer of all excellency whatsoever, of whom our age findeth too few.' He also gives Thorpe's arms, 12, which were assumed on the grounds of a supposed relationship to an Abbot of Thame.

only the Parish rate-books and the Court Rolls of Egham certify his continued existence. He paid his rates regularly until 1650 when he was able to pay only 3s. 6d. in 14s. In 1651 he paid nothing. The rate-book for 1652 is missing and in that for 1653 his name no longer appears. The following year, 1654, is the last in which he is found in the list of tenants at Egham. The date of his death is thus fairly clearly shown. He was not buried where we should expect, in the churchyard of St. Martin's; but in the register of the adjoining parish of St. Paul, Covent Garden⁹⁹, for February 1654 (1655 N.S.), we find the following entry: 'Feb. 14, John Thorpe, buried in the church-yard.' As no Thorpes are discoverable in the rate-books of that parish it looks as if John Thorpe, in the last years of his long life, moved to the house of some friend or relation in St. Paul's parish and his bones lie, therefore, under the shadow of Inigo Jones's famous church. He must have been about 91 or 92.

I have not found John Thorpe's will and, as in the case of so many Commonwealth wills, the quest is probably a vain one. If it ever comes to light it will not, perhaps, tell us more than we already know about his life. But it will resolve one tantalizing problem. At Kingscliffe, there is a tiny row of three almshouses, one of which bears the following inscription:

Aedificavit charitas
Inhabitabit paupertas
Ornabit honestas
Durabit omnis aetas
Ex Dono Johannis Thorp ariñ año 1668

Can this John Thorp be our John Thorpe, who died 13 years before the almshouses were built? I think it possible. Thorpe possessed land and houses at Kingscliffe; a survey in the Public Record Office¹⁰⁰ shows that in 1609 the property yielded £4 4s. 1d. per annum. He may well have provided in his will for the building of almshouses out of revenue; if so, it would account for the period of years which elapsed between his death and the building of the almshouses. No other John Thorpe, likely to have made a gift or bequest of this nature, is discoverable and it would be wholly characteristic of the times for a man in Thorpe's position to provide for a benefaction of this kind: a token of loyalty to the soil which bore him and at the same time a personal monument to endure, as the inscription so confidently asserts, for a whole age.

The Man and the Book

Having now got a reasonably clear picture of John Thorpe, his origin, life, work and death, what are we to think of him as a character in the history of his time? We know now exactly how to class him professionally. As Blomfield shrewdly guessed, he was a land-surveyor, a man of the same type as John Norden, the map-maker and topographer about whose career there has never been any mystery. Beside these two names we could place many others, for surveyors were no rarity in Jacobean England. They were, indeed, swarming all over the countryside, to the considerable advantage of their employers and the no less considerable fury of small tenants comfortably holding house and land on some vague basis of manorial rights which nobody ever troubled to define or confirm¹⁰¹.

But Thorpe was not wholly typical of his class. More accurately, the class to which he belonged (I mean, surveyors in general) had not yet produced a uniform type, and Thorpe was one of the many variants within his own professional group. What makes him different from most other Jacobean surveyors is the exceptional knowledge of architecture shown by his book. This is easily accounted for: in the first place by his parentage, and in the second by the fact that he spent the first part of his career as a Clerk in the Queen's Works. He might easily have succeeded to the Comptrollership and eventually even to the Surveyorship, had opportunity and patronage moved in a different pattern. As it was, he became a successful land-surveyor, with a strong personal and professional interest in buildings, an interest richly reflected in that remarkable volume which, when his life as a land-surveyor

had been wholly forgotten, caused him to be honoured for a whole century as the great 'Elizabethan architect.'

That book remains to be analysed and edited at some future time. But its general character is now obvious. It is a record book. The large majority of plans and elevations are derived either from Thorpe's own surveys or from drawings by others to which he had access. All the drawings (with trivial exceptions quite obviously of another generation) are, I believe, by Thorpe himself. The variations in orthography are accounted for partly by the length of time over which the book was compiled and partly by a clerkly ability to cultivate different styles. Some of the drawings are copied directly from du Cerceau and de Vries; the five orders are from Hans Blum, the book which Thorpe's father had used at Kirby and whose Latin text Thorpe very likely translated for the English edition of 1608¹⁰².

Does this mean that Thorpe is to be divested absolutely of the rôle of architect? Not quite. I am sure that he never designed a building of any great importance. But I think it highly probable that, in common with his fellow clerks in the Queen's Works, he produced 'platts' and 'uprights' for people in the circle of lesser court officials in which he himself moved. There is a distinct group of designs in the book, bearing the names of such people, and sharing various characteristics of arrangement, silhouette and detail. Some or all of these plans may be Thorpe's own work¹⁰³. They do not constitute him much of a designer and I suspect that they reflect the fashions current in Thorpe's set rather than any particular thoughts and feelings of his own. In so far as he was an architect (a word probably never applied to him in his life-time) he was not, I think, a considerable or influential one.

John Thorpe's fame is a freak of history. It rests and will continue to rest, not on the massive labour and industry of his official career, nor on the monument in Kingscliffe Church or the age-enduring almshouse, but on the 280 worn pages of the small calf-bound folio which lives in the strong-room of the Soane Museum. That things should have fallen out so, that Thorpe's personal handiwork should still engage and absorb students and lovers of architecture, is a tribute, poetical and just, to the man who was 'not only learned and ingenious himself, but a furtherer and favorer of all excellency whatsoever.'

¹⁰² *The Booke of Five Colunnes of Architecture . . . gathered . . . by H. Bloome out of Antiquities . . . Translated out of Latine into English by I.T., London, fol. 1608. A MS. copy (not in Thorpe's hand) is in Sloane 904, ff 26-37.*

¹⁰³ An interesting and convincing paper on this subject, dealing mainly with Nottingham House, was read by Mr. Patrick Faulkner to the Archaeological Institute, Nov. 1948.



13

13, the almshouses at Kingscliffe, Northants, were built, according to the inscription on one of them, 'Ex Dono Johannis Thorp' in 1668. John Thorpe the surveyor, who died in 1654-5, owned land and houses at Kingscliffe, so it is possible that these almshouses were built in accordance with the terms of his will (hitherto undiscovered).

⁹⁹ *Registers of St. Paul's, Covent Garden. Vol. IV. Burials. HARL. SOC.*

¹⁰⁰ PRO. LR 2. Vol. 221 (Misc. vols. of surveys) pp. 120-122.

¹⁰¹ *The Surveyor's Dialogue* of John Norden, 1607, gives a graphic account of the conditions prevailing.

AIRCRAFT ASSEMBLY HALL AT FILTON

ERIC ROSS: ARCHITECT

*David Aberdeon and P. N. Taylor, principal assistants
Brian Colquhoun and Partners, consulting engineers*

The group of buildings illustrated on the following pages has been put up for the Bristol Aeroplane Company for the construction and flight testing of the series of Bristol Brabazon aircraft, the first of which made its maiden flight on September 4. They are situated on the Company's estate at Filton, on the outskirts of Bristol, alongside the 2,750 yard runway specially constructed for this aircraft. The buildings consist of the assembly hall of three bays, together with a canteen for the workmen and administrative staff engaged on the Brabazon, a boiler house, various workshops and storage buildings and a two-storey block of offices and workshops for B.O.A.C., who have recently taken over the westernmost bay of the assembly hall as the principal maintenance base for their Atlantic service.

The buildings are set among grass, planted with small trees, and linked by covered ways or neatly finished concrete drives, the whole providing the best possible proof that even semi-industrial buildings need not be surrounded by untidiness and squalor. They are dominated by the huge bulk of the assembly hall, which turns its back on the runway and faces a seven-acre concrete apron, excavated into the grassy slope forming the southern boundary of the site. This slope, curving round to the west, protects the apron from exposure to the wind. The placing of the assembly hall facing south was also determined by the advantage of reducing heat loss through the wide folding doors by giving them the warmest aspect, and the advantage of being able to light the assembly hall by a large window at the back which, facing north, does not cast sun shadows from glazing bars across the working space of the interior, and is free from glare.

A link taxi-way for towing the aircraft curves round the group of buildings from the eastern edge of the apron, crosses a branch railway line and leads to the main runway, the take-off point of which is due north of the assembly hall. The runway, 2,750 yards long and 100 yards wide, and involving the disappearance of a whole village in its construction, was surveyed and laid out by the architect of the buildings. The runway cost over £2,000,000, and the buildings £3,000,000, out of the £12,000,000 so far spent on the Brabazon project.

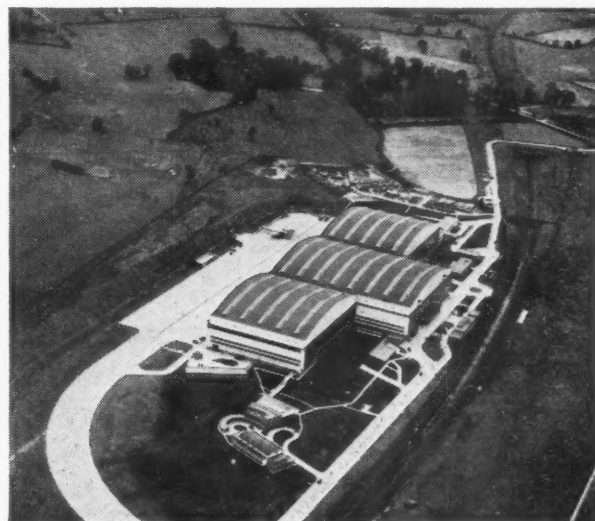
The assembly hall consists of three bays, equal in span (358 feet between main steel supports) but with the centre bay 420 feet deep and the two side bays each 270 feet deep. In the original lay-out the three bays were intended respectively for fabrication and initial assembly of the Brabazon, for final assembly and for use as a flight shed to house the aircraft during trials. After the building was virtually completed, however, the principal maintenance base for the B.O.A.C.'s Atlantic service was transferred to Filton from Canada and the westernmost bay of the assembly hall taken over for this purpose. The centre bay now serves as the fabrication and assembly bay and gives occasional flight-shed accommodation for the prototype Brabazon; while the easternmost bay has become the final fabrication and assembly bay for the prototype and subsequent aircraft, and also the flight testing bay.

That this change was possible at such a late stage is a tribute to the flexibility with which the whole lay-out was planned, and the need for it illustrates the wisdom of flexibility even in the case of highly specialized industrial buildings. Few production programmes are absolutely definitive. The eight acres of floor space inside the assembly hall was kept free of buried pipes, heating panels and so on, allowing the position of the jigs on

which the aircraft is built up to be altered in accordance with changes in the production lay-out.

The whole of the three-bay assembly hall, in fact, is designed as a large envelope with the internal ancillary structures standing free of the main supports. These chiefly consist of drawing and supervising offices, lavatories and stores, and they are arranged in a series of galleries along the back and sides of each bay, passing between the bases of the main arch ribs. The external character of the assembly hall is also that of a simple envelope—or rather of three adjacent envelopes, each with its own flatly curved roof. Their sheer size is naturally the most impressive thing about them (a minimum clearance width of 300 feet in each bay was required, and a minimum height of 60 feet to the underside of crane hooks suspended from the roof). The overhead electric crane system, for which the steel roof with its travelling crane bridges and catwalks is specially designed, had to be capable of lifting a 10 ton load anywhere over the erecting bay. This requirement explains the complicated tangle of steelwork, which might otherwise seem to be somewhat heavy, that fills the roof-spaces of the assembly hall.

Especially impressive in scale are the continuous sliding-folding doors which occupy the whole of the south front of the assembly hall. They are arranged in



An air view of the whole group of buildings looking from the north-east. In the centre is the triple assembly hall fronting on to a seven-acre concrete apron. From the apron runs the curved taxi-way leading to the main runway on the right-hand side of the picture. On the near side of the assembly hall is the group of ancillary buildings consisting of canteen, boiler house and stores.

three pairs, one to each bay, so that they can open and close either to the sides or the centre, giving three openings each 330 feet wide or six openings 143 feet 6 inches wide. The overall opening is 1,045 feet long and 65 feet 9 inches high. Each of the six doors is powered by two 5 h.p. electric motors, by means of which the whole front of the assembly hall can be opened up in two minutes. For lightness, strength and resistance to corrosion, the doors are constructed of aluminium.

Facing the doors, the north side of the assembly hall is largely occupied by a window (see page 305) 1,000 feet long and 50 feet high. This window is the principal source of light for the interior, though it is supplemented by a small amount of roof-lighting and clerestory wall lighting. It provides well diffused day lighting, good enough for detailed technical operations, in all parts. For night work a complete artificial lighting system has been installed. A mixture of mercury-vapour and tungsten-filament lamps (designed to give a light nearly approaching daylight colour) is arranged in groups mounted on the overhead catwalk, 75 feet above the floor. There are 450 groups, each with a loading of 2,300 watts. The hall is heated by warmed air distributed from high-level nozzles fed through vertical ducts. These rise from steam-operated unit heaters fixed to the base of each of the 42 legs of the main arch ribs. Additional heating units automatically come into operation when the main doors are opened.

The external colouring of the assembly hall has been carefully studied. The folding doors along the south front are pale green, the canopy over them (which is returned at the ends down to ground level, framing the doors) is painted white, the wall surface above, terminating in the curves of the triple roof, is pink and the asbestos sheathing of the side walls cream. These changes of tint help to define the shape of the hall, and prevent it from appearing as a mere amorphous mass; in particular they make easier the transition of the eye from the huge simple bulk of the assembly hall to the more variegated forms and colours of the ancillary buildings. One of the architect's most difficult aesthetic problems was to prevent the assembly hall—117 feet high to the crown of

its roof, and covering eight acres of ground—from completely dwarfing the buildings grouped around it. He has achieved this very satisfactorily by linking the small buildings together to form units of a reasonable size—the boiler house, and the canteen, for example, are linked by a crescent of storage buildings (see page 309), enclosing a small service yard and making one group about 280 feet by 220 feet—and by designing them as simple geometrical masses, which get most of their architectural character from boldly defined door and window openings. The windows for the most part are grouped into large enough units to avoid a too diminutive, domestic scale.

The ancillary buildings are mostly faced with a reddish brown brick, making a strong contrast to the white-painted asbestos sheeting used for certain wall panels, as for instance for the infilling beneath the gallery windows of the canteen (page 310). This picks up the wall texture of the main assembly hall. Rubble stonework, with joints that are perhaps somewhat harshly defined, is also used in places, externally and internally, for decorative effect.

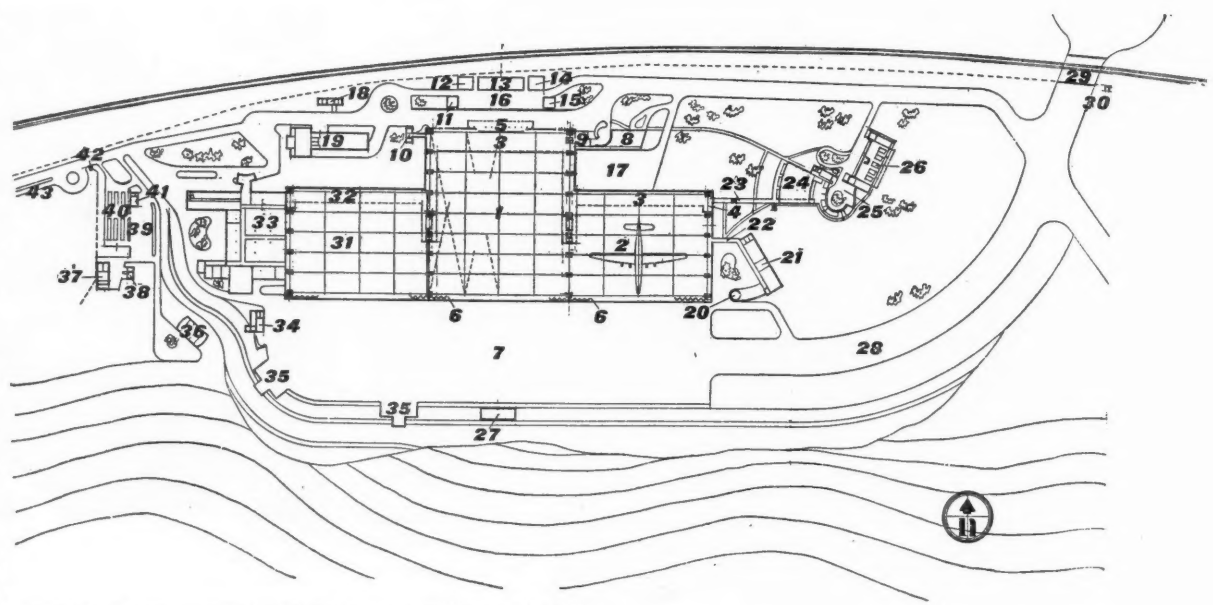
The ancillary buildings are in two main groups. At the eastern end of the assembly hall, between it and the curved linkway which joins the assembly hall apron with the main runway, are the boiler house, the inflammable stores, the canteen and the petrol pump-house. The boiler house (plans, page 308; photographs, pages 309-310), which has a shell-concrete roof whose curve echoes those of the main assembly hall, houses four boilers, providing steam for the whole site. At either end are the main fuel oil tanks set in 18 inch brick enclosures. The plate-glass screen forming the west wall has specially designed bow-string type ribs for wind resistance. The canteen (plans, page 308; photographs, pages 310-313) has seating capacity for 500 workpeople and 60 administrative staff. The main dining hall for the former, on ground level, is fan-shaped in plan; small rooms for the latter are on the first floor above the kitchens and are reached by a gallery crossing one end of the main dining hall. This is a high airy room glazed at the curved end, outside which is a covered walk of light tubular construction. A similar covered way connects the canteen with the assembly hall.

North of the assembly hall are an electric sub-station, a fire station and various workshops, and attached to the

(contd. on page 307)



- key
- 1, fabrication and assembly bay
 - 2, final assembly and flight bay
 - 3, galleried office and workshop accommodation
 - 4, lavatories
 - 5, covered unloading area
 - 6, sliding-folding doors
 - 7, concrete apron
 - 8, operatives' cloakrooms and entrance
 - 9, main entrance
 - 10, first aid unit
 - 11, compressor house
 - 12, maintenance shop
 - 13, sub-station
 - 14, truck charging station
 - 15, fire station
 - 16, low level compound
 - 17, car park
 - 18, trade effluent waste treatment station
 - 19, heat treatment and anodizing shop
 - 20, petrol pump house
 - 21, inflammable stores
 - 22, covered link to inflammable stores
 - 23, covered link to canteen
 - 24, canteen
 - 25, canteen service yard
 - 26, boiler house
 - 27, static water tank
 - 28, link road from apron to runway
 - 29, level crossing gates
 - 30, level crossing gate house
 - 31, B.O.A.C. maintenance bay
 - 32, galleried offices
 - 33, B.O.A.C. workshops, offices and stores
 - 34, garage, petrol pump house and fire station
 - 35, aircraft fuelling bays
 - 36, fuel storage tanks
 - 37, inflammable stores
 - 38, used oil storage
 - 39, car park
 - 40, cycle and motor-cycle park
 - 41, duty car station and drivers
 - 42, gate house
 - 43, bus queue space and shelters for public transport services





2

1 THE ASSEMBLY HALL

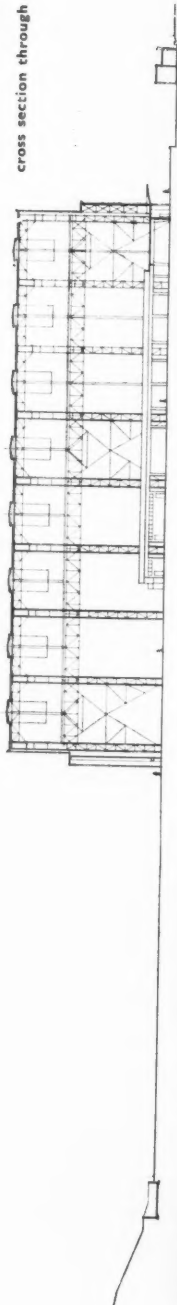
2. looking across the apron into the easternmost bay of the assembly hall. The sliding-folding doors have been opened wide for the Brabazon to emerge, and the aircraft itself is seen on the apron. When this photograph was taken the tail of the aircraft was still not complete. The doors of each bay of the assembly hall have a clear opening of 330 ft. The wing-span of the Brabazon is 230 ft. 3. the south front of the assembly hall with the doors of the centre and east bays closed and those of the west bay, which has now been taken over by B.O.A.C., open. Several B.O.A.C. aircraft are being serviced on the apron. The gable ends of the roof of the assembly hall, which are faced with corrugated asbestos, are painted pink, the aluminium doors are green and the door canopy and surround white.

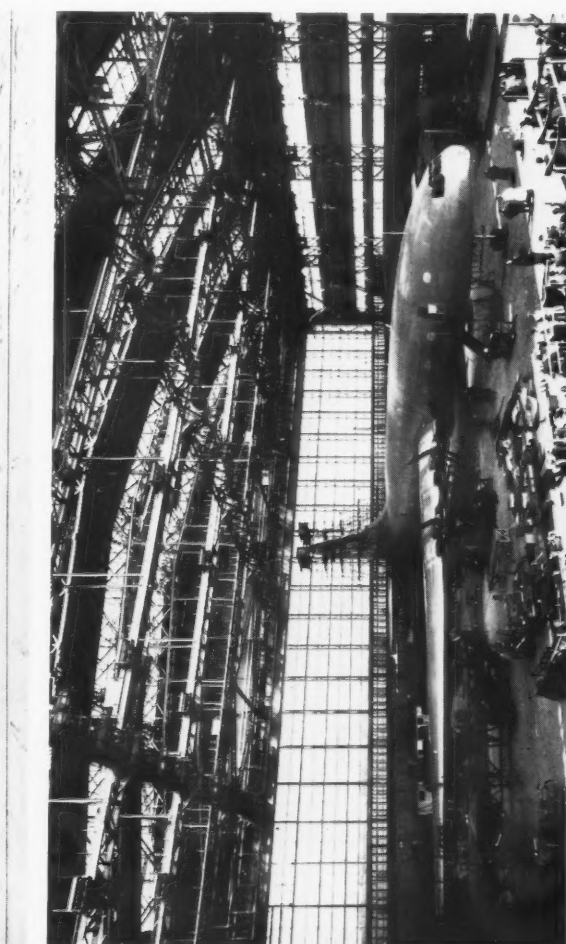
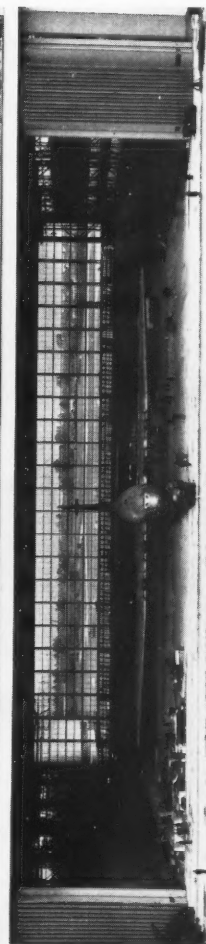
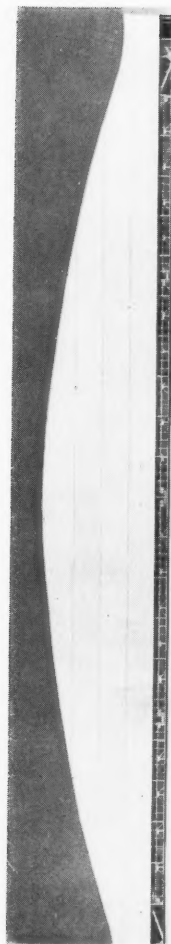


3

AIRCRAFT ASSEMBLY HALL AT FILTON

cross section through assembly hall scale 1/64 in. = 1 ft.





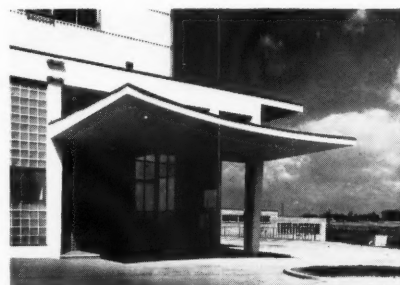
4 (facing page), south front of the assembly hall with the Brabazon on the apron. The building is 1,052 ft. long, and virtually the whole front consists of sliding-folding doors, one bay of which is seen open in the picture. Each leaf of the doors has a small window at eye level, and there is clerestory and roof lighting in various places, but the principal source of light for the interior is the large window, 50 ft. high, occupying nearly the whole north wall. It is illustrated in the pictures on this page. 5, looking into the east bay, over the top of the Brabazon, at the window in the far wall. 6, the interior with the window in the background, beneath which is the range of offices and workshops planned on galleries along the back and sides of each bay. The mass of steelwork in the roof consists, in addition to the roof structure itself, of a crane system, capable of lifting 10 tons anywhere over the assembly area, and its accompanying catwalks, etc. The roof structure is brought down to the ground on arched lattice ribs at 50 ft. centres. The legs of the lattice ribs of the centre and side bays are kept independent to allow for movement, but nest within each other as shown in the diagram on the right. 7, the assembly hall at night, showing the great windows lighted from within. 8, immediately inside the window, looking along the face of it at gallery level.



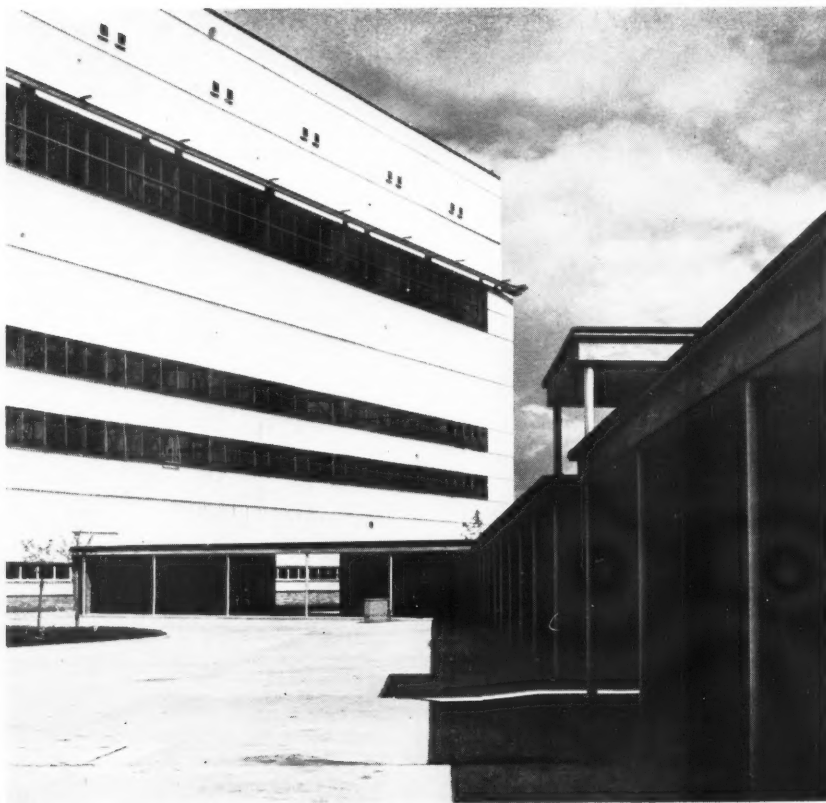


9

9, the assembly hall and ancillary buildings from the north-east. The boiler house and canteen are on the left and in the foreground is part of the runway, 2,750 yards long and 100 yards wide, specially built for the Brabazon's trials. 10, visitors' entrance at the corner of the projecting centre bay of the assembly hall. It leads to a reception room and thence to the series of offices at gallery level enclosed within the main structure. 11, side wall of the assembly hall, faced with corrugated asbestos and glass, seen from the courtyard surrounded by the inflammable stores on the east side. 12, north front of the assembly hall facing the main runway. On the extreme left is the visitors' entrance hall. The concrete canopies below the main window cover an unloading area. The rail above the window runs round all sides of the building except the south, and carries an electrically operated bos'n's chair for glass cleaning and general maintenance.



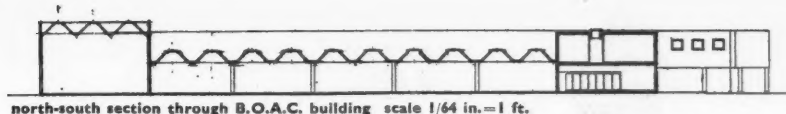
10



11

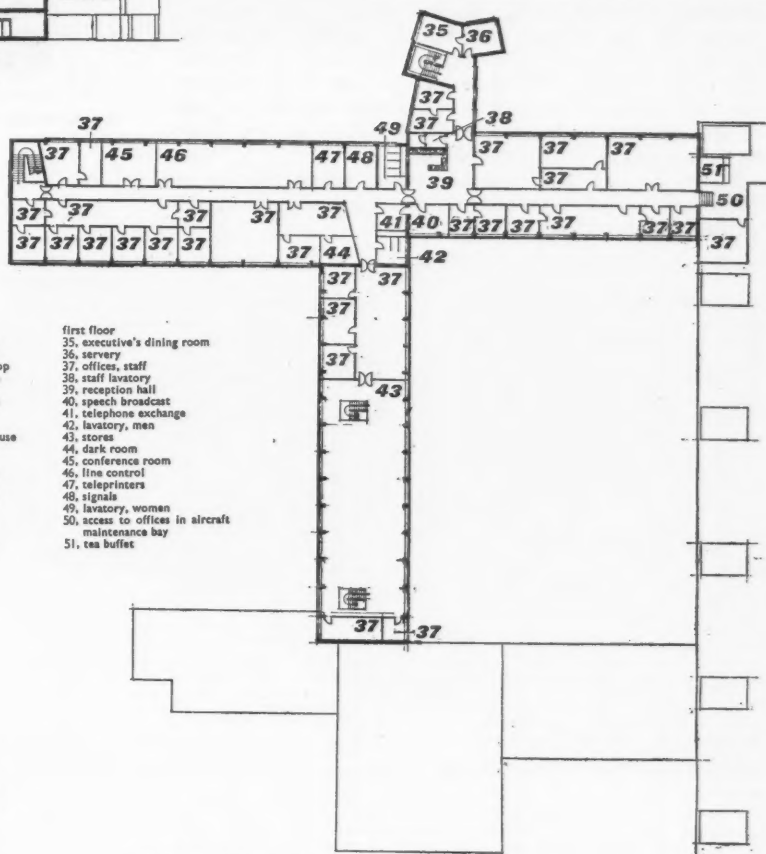


12



north-south section through B.O.A.C. building scale 1/64 in. = 1 ft.

AIRCRAFT ASSEMBLY HALL AT FILTON



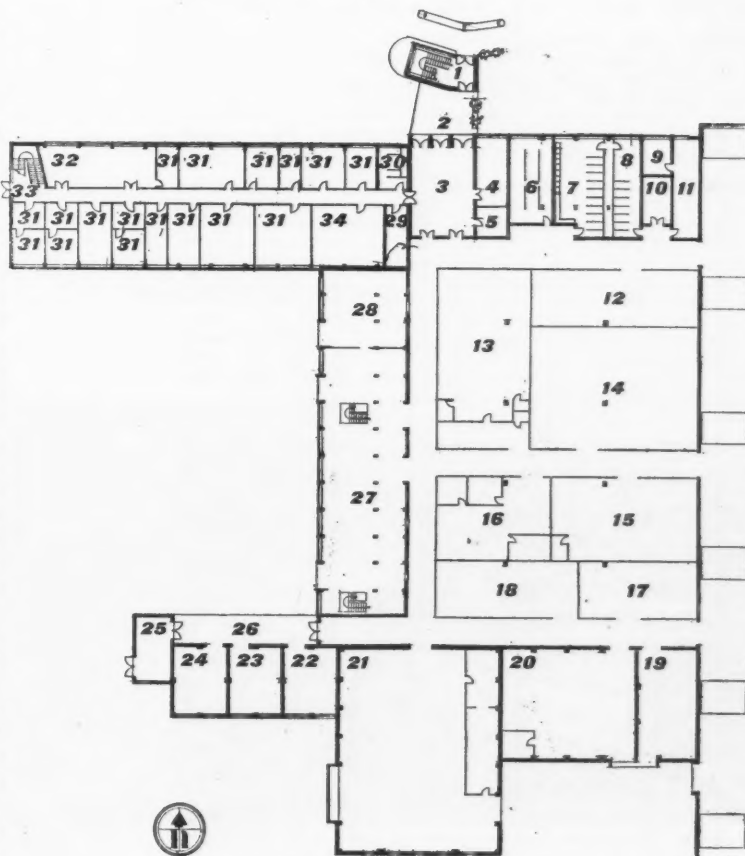
B.O.A.C. building: first floor plan

(contd. from page 302)

western end is a two-storey block of offices and a single-storey range of workshops built for the use of B.O.A.C. when it was decided that the westernmost bay of the assembly hall should be screened off from the other two and put to independent use as a B.O.A.C. maintenance station. This block (plan on this page, photographs, pages 313-314) is therefore an afterthought, but it has been skilfully designed to fit into the general composition of small-scale structures grouped round the base of the hall. The single-storey workshop area, where clear floor-space, free of columns, and good natural lighting was required, has an unusual form of concrete roof-construction (see section, above) consisting of a thin slab prismatic roof, formed as a continuous series of 45° slopes. The slabs are only 3 inches thick and were poured *in situ* without top shuttering, after testing to discover a concrete mix stiff enough to avoid slumping.

The B.O.A.C. offices and workshop are connected internally with the assembly hall. They accommodate 600 people and include training quarters, which are reached from the entrance at the extreme west end. The main working entrance is beneath a free-standing entrance porch on the north side. From the same porch a staircase provides direct access for visitors to the first-floor offices. The main assembly hall also has a special visitors' entrance, on the eastern flank of the central bay (see page 306). There is an elegantly furnished entrance hall, with concrete roof and external canopy cantilevered from the gallery offices. From this entrance, glass doors lead through into the main envelope of the assembly hall and a staircase leads up to a reception hall and offices at balcony level. The upper gallery at this point has an 'egg-crate' ceiling of steel sheeting to preserve a human scale. Through this, and through the glass entrance doors, the visitor obtains dramatic glimpses of the large spaces of the assembly hall interior beyond.

The whole group of buildings at Filton has been erected in a remarkably short time. Government approval of the project was given in March, 1946, the first contract of a quarter of a million pounds was awarded and work on the site actually begun in April, 1946, the Bristol Aeroplane Company began occupation of the assembly hall in September, 1947, and the whole project was completed in September, 1949. The Government decision to move the B.O.A.C. maintenance base to



B.O.A.C. building: ground floor plan scale 1/64 in. = 1 ft.

Filton was taken in November, 1947. The additional buildings required for this purpose were erected between April, 1948, and August, 1949, but the partially completed buildings were already in use by B.O.A.C. in October, 1948. The architect therefore had to cope with the difficult procedure of working out almost all the details of his design while the actual building of the basic structure was already proceeding.

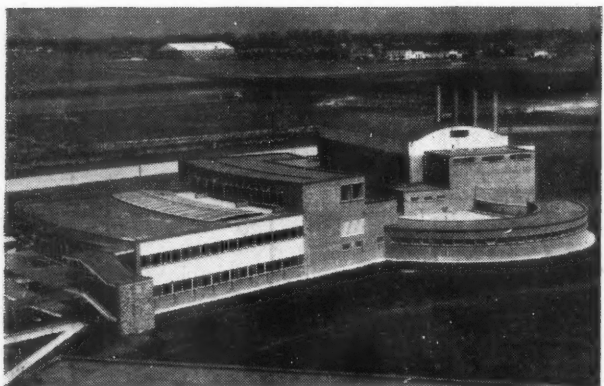
Following are some further notes on the forms of construction and the materials and finishes used in the various buildings.

assembly hall Structural steel framework spanning each bay in the form of two-pin arch latticed ribs tied at the haunches and set at 50 ft. centres. Those for the outermost bays are 7 ft. wide and those for the centre bay 5 ft. wide. To allow for movement and expansion of each bay, the arch ribs carrying the flanking bays are independent of those carrying the centre bay and the two columns rest inside each other at the junction (see drawing on page 305). Movement is allowed for at foundation level by resting the main ribs on 10 in. diameter steel pins set in open arch pits 2 ft. 6 in. below floor level. Each arch rib has its own foundation in the form of a concrete block, the largest of which (those under the nesting gable ribs) being 50 ft. by 30 ft. by 9 ft. deep. Roof of steel decking covered with half-inch insulating board and mineral-faced felt. Roof lighting by continuous strips of wired glass fixed in aluminium bars between the main ribs. All sides except the south have 11 in. hollow brick walls up to 15 ft. External cladding of asbestos cement sheets, insulated with fibre board. Sliding-folding doors of extruded aluminium structural sections, clad externally with pressed aluminium sheeting and internally with half-inch fibre board. North window of quarter-inch polished plate glass, in sheets 5 ft. by 3 ft. 6 in., set in aluminium bars. Floor of 9 in. reinforced concrete on 6 in. concrete base.

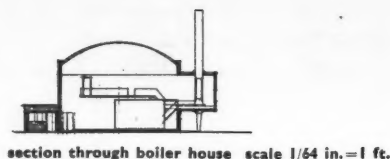
boiler house Shell concrete barrel vaulted roof varying in thickness from 2½ in. to 3½ in., sprayed internally with asbestos for insulation and covered externally with mineral-faced felt. Concrete platform for draught fans, motors and main flues partly cantilevered from rear and partly carried on mushroom-type concrete columns, providing points of support beneath each chimney. Quarter-inch plate glass front with bow-string type ribs for wind resistance. Jointless flooring; plastered walls.

canteen Steel frame construction with 11 in. cavity brick panel walls, with the exception of main dining hall, which has walls of similar construction to assembly hall. Suspended floors and roofs of precast concrete beams. Roof finished in asphalt. Floors: jointless flooring, quarry tiling or terrazzo. Aluminium skirtings throughout except with tiled floors. Walls plaster except for tiled dados in canteens.

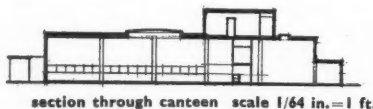
B.O.A.C. building Concrete frame for two-storey portion, steel not being available at time of construction. Columns and beams precast in horizontal position on site, then hoisted into position and fabricated as for structural steel. Lateral stiffness given by flat roofs and floors of concrete cast in situ. Single-storey buildings have hipped plate roof of 3 in. concrete slabs cast in situ. 11 in. cavity panel walls, with 18 in. structural brick walls in certain places. Fluted asbestos panels as infilling between ground and first floor windows of administrative block, with inner skin of hollow blocks. Granolithic floors for workshops; terrazzo for entrance halls and staircases, with steel balustrading and aluminium handrails.



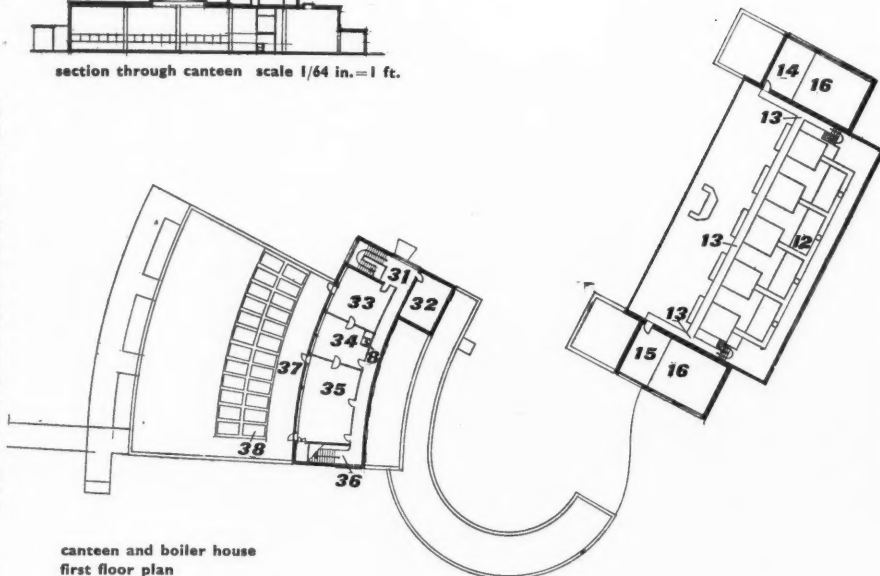
The group of buildings of which plans are given on this page, and photographs on the following pages, seen from the upper part of the assembly hall. It consists of a canteen (on the left) and a boiler house linked by a semi-circular single-storey storage building.



section through boiler house scale 1/64 in. = 1 ft.



section through canteen scale 1/64 in. = 1 ft.

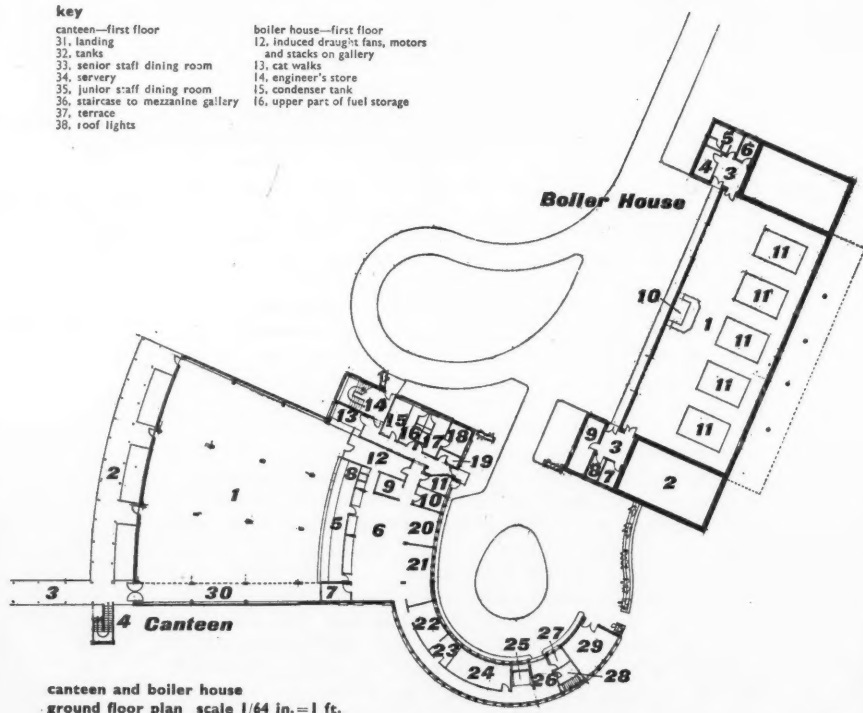


canteen and boiler house first floor plan

key

canteen—first floor
31, landing
32, tanks
33, senior staff dining room
34, servery
35, junior staff dining room
36, staircase to mezzanine gallery
37, terrace
38, roof lights

boiler house—first floor
12, induced draught fans, motors and stacks on gallery
13, cat walks
14, engineer's store
15, condenser tank
16, upper part of fuel storage



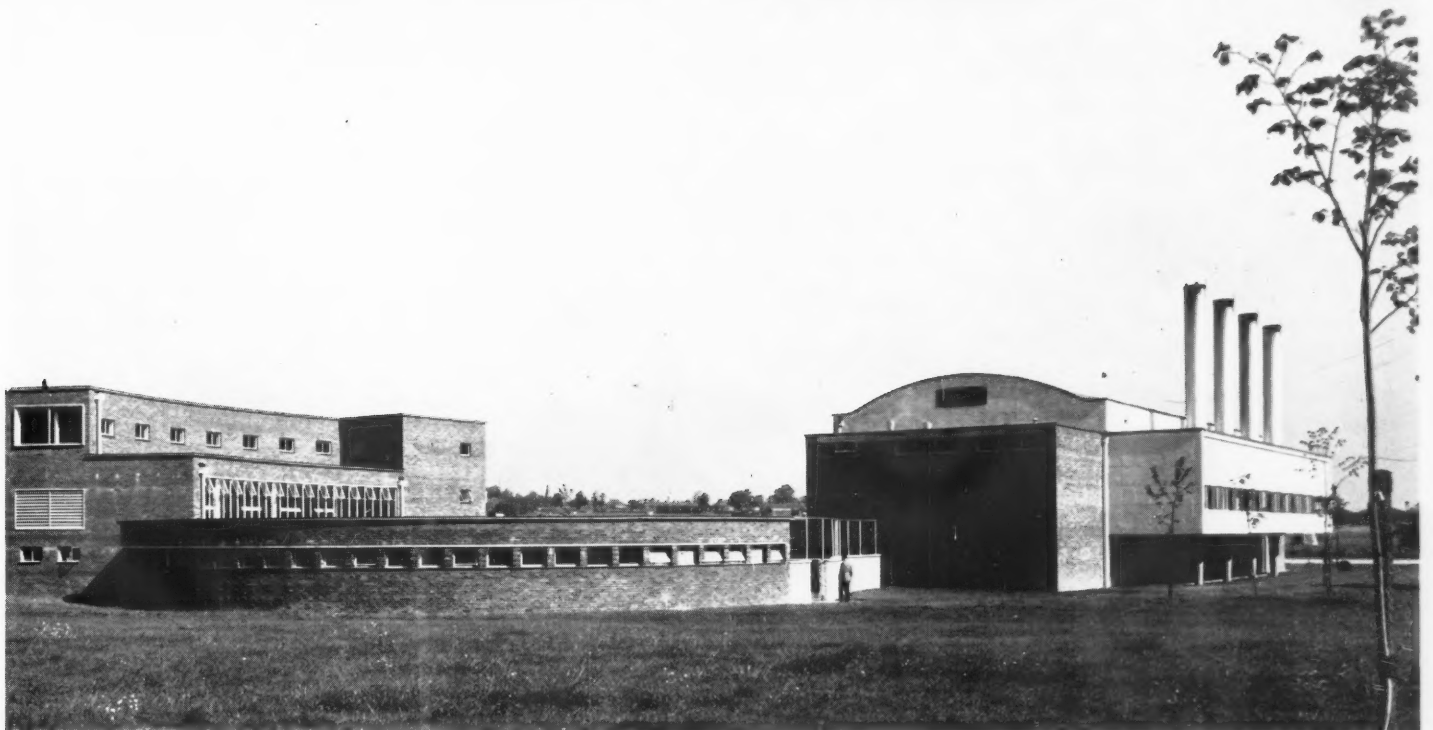
canteen and boiler house ground floor plan scale 1/64 in. = 1 ft.

key

canteen—ground floor
1, operatives' dining hall—500 seats
2, covered access to dining hall
3, covered link to main assembly hall
4, staircase to mezzanine gallery
5, servery
6, main kitchen
7, switch room
8, food lift to staff dining room
9, washing up, pots
10, chef's office
11, garbage store
12, washing up, cutlery
13, tea buffet
14, main entrance
15, office

16, lavatory, men
17, lavatory, women
18, women's rest room
19, cleaner's store
20, pastry preparation
21, general preparation
22, vegetable preparation
23, vegetable store
24, dry goods store
25, refrigerator
26, goods entrance
27, checker
28, salt store
29, gardener's store
30, gallery at mezzanine level to first floor

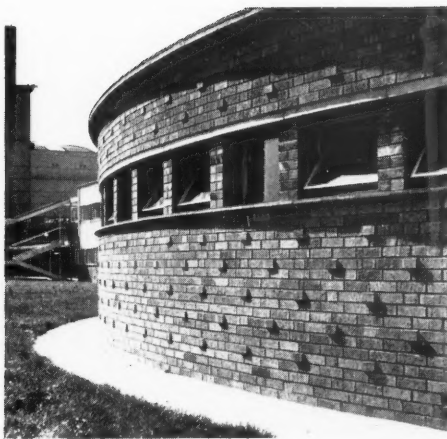
boiler house—ground floor
1, main boiler hall
2, fuel tank rooms
3, lobbies
4, office
5, lavatory and shower
6, switch room
7, store
8, store
9, calorifier room
10, control desk
11, boilers



14

2 THE BOILER HOUSE

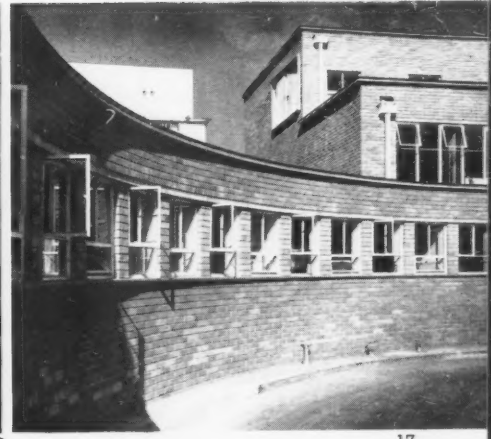
The group of buildings east of the assembly hall, 14, consists of a canteen and a boiler house linked by a semi-circular range of stores enclosing a service yard. They are all of brick, but the boiler house has a shell-concrete vaulted roof (echoing in its shape the roof of the assembly hall) and a concrete platform projecting on its east side to carry the induced draught fans, motors and main flues. This platform is partly cantilevered and partly supported on mushroom-type concrete columns immediately beneath each chimney-stack. 15, 16 and 17, three details of the semi-circular stores building linking the canteen and boiler house. The rustic facing bricks are of a reddish brown colour.



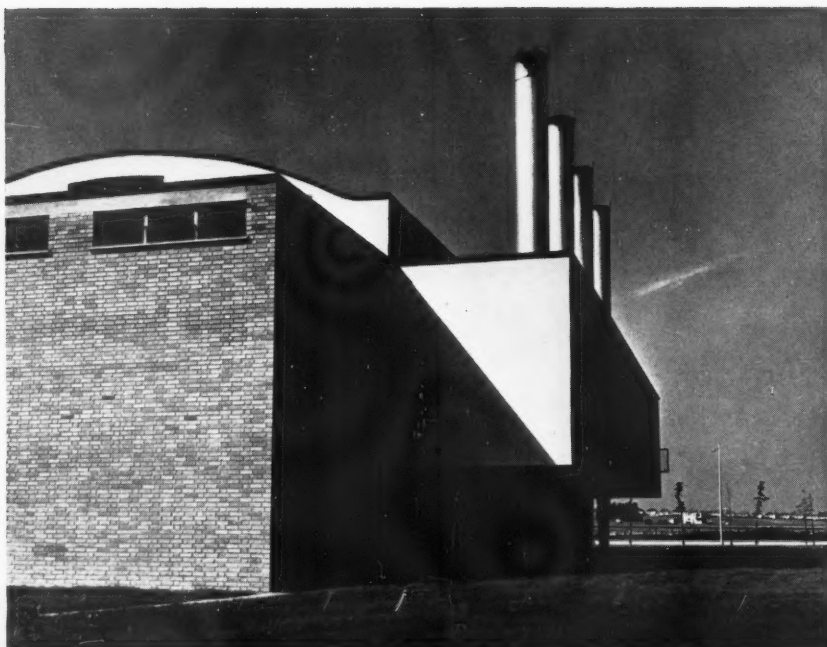
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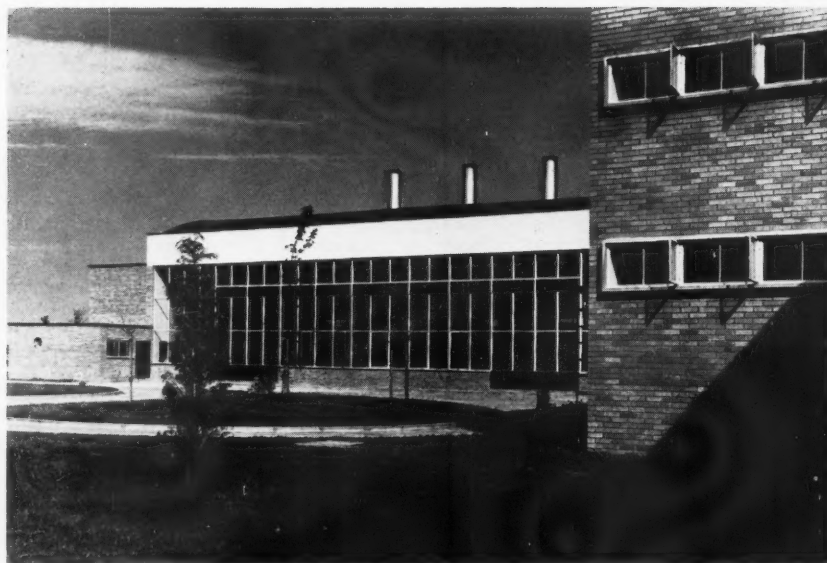
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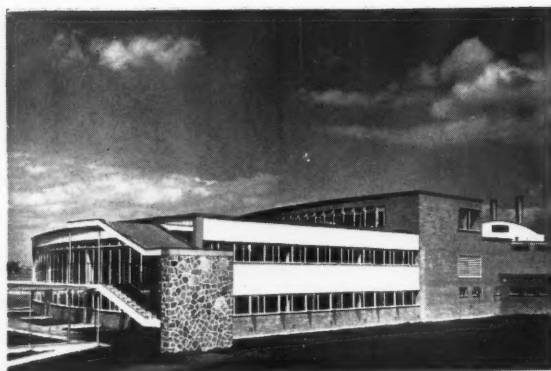


19

18, the boiler house from the south. The main chamber, in brick with a shell-concrete roof, is on the left and the cantilevered platform carrying the fans and main flues on the right. 19, from the west, showing the large window that lights the main chamber. This has bow-string type ribs for wind resistance and special movement joints as part of the head fixing. The ribs can be seen in 20, an interior of the boiler house showing also the vaulted roof. Steam is provided for the whole site from the four boilers.



20



21

3 THE CANTEEN

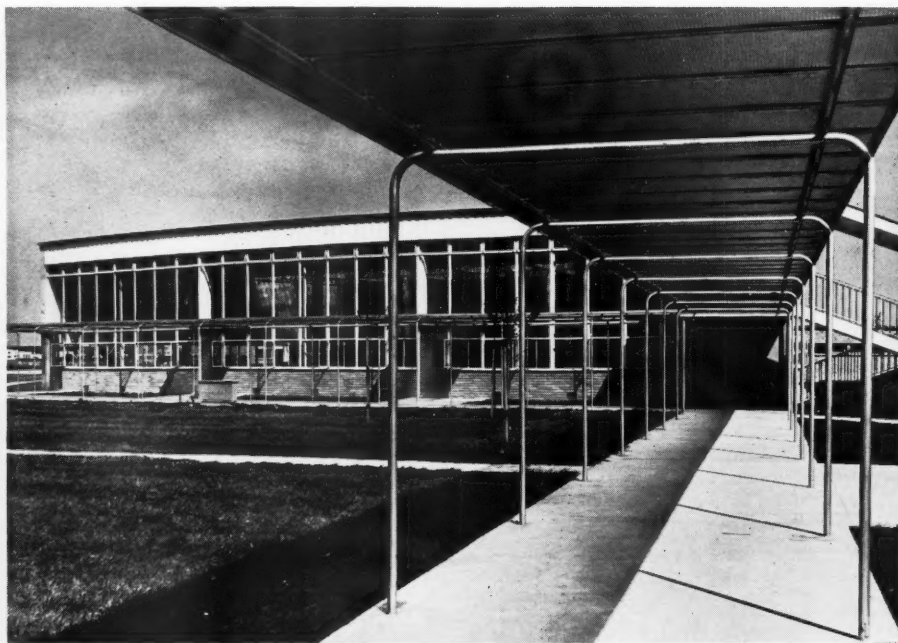
21, south-west view of the canteen building with the boiler house chimneys beyond. The canteen is linked with the assembly hall by the covered way on the extreme left (see general plan, page 302) which is also continued, 22 (facing page), round the curved west front of the building outside the windows of the main dining-hall. From the end of the covered way the workpeople go direct into the main dining-hall, and the administrative staff climb the stairs and pass along a mezzanine gallery (lit by the range of windows in the asbestos-faced south wall) to their own dining rooms on the upper floor of the two-storey portion of the building.

AIRCRAFT ASSEMBLY HALL AT FILTON

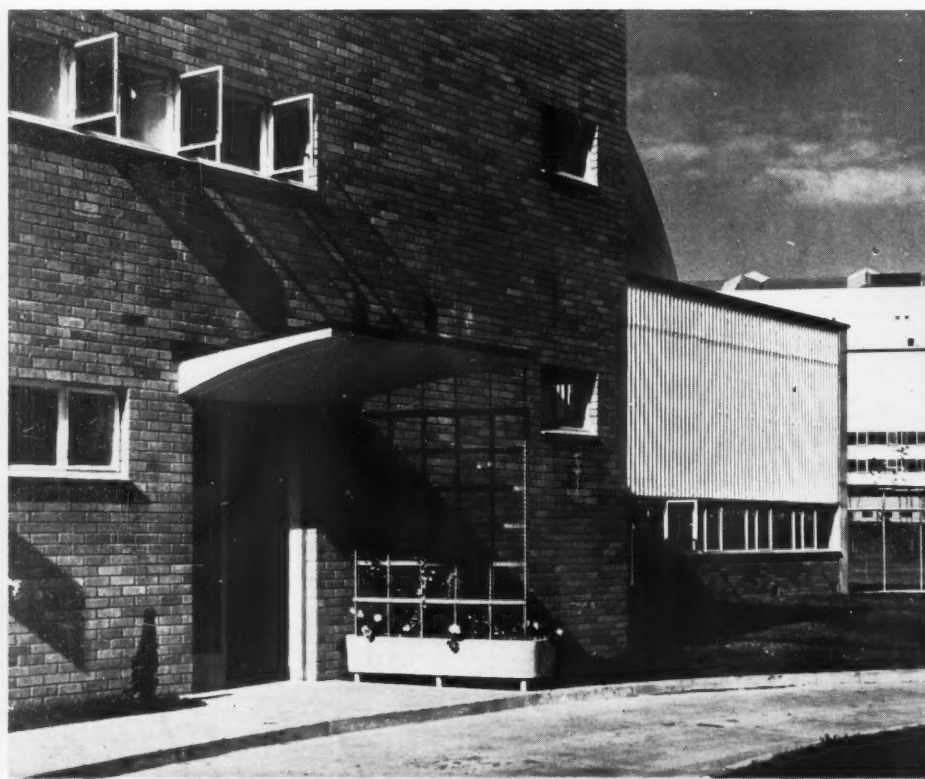


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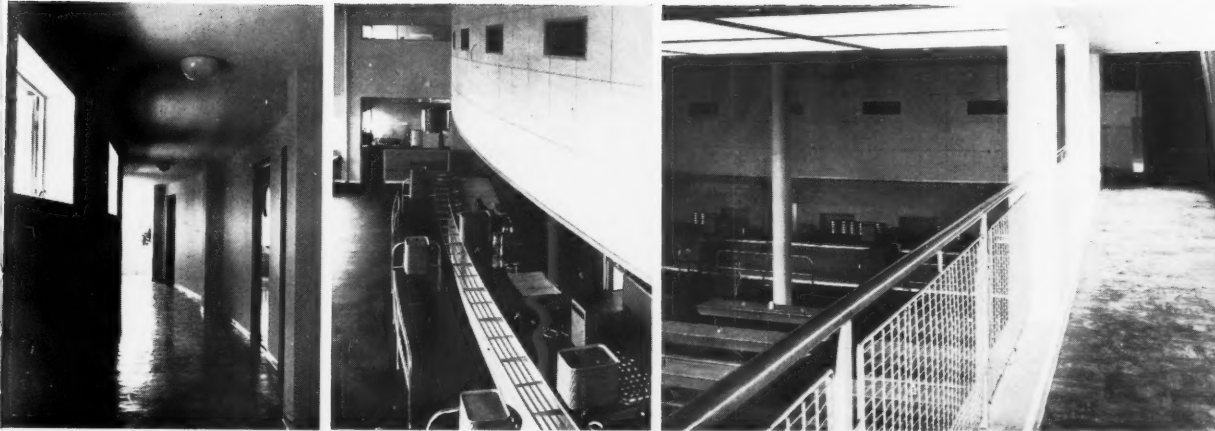
23, covered way by means of which the workpeople and administrative staff from the assembly hall reach the canteen. 24, view from inside the covered way, showing also the curved west front of the canteen with its large windows that light the main dining-hall. On reaching the canteen the workpeople go direct into the main dining-hall at ground level; the administrative staff go up the open staircase seen in 23 to their smaller dining rooms on the first floor. 26, detail of this staircase, which is of concrete construction with an end wall of rubble stonework. The covered way is a light tubular structure and its floor surface forms part of a system of concrete paths, laid out across the grass with which the spaces between the various buildings are planted. 25, detail of the entrance to the administrative part of the canteen on the north side of the two-storey portion. This portion is of brick, finished in reddish-brown rustic facings. On the right of the photograph is the return end of the one-storey main dining-hall, faced above the windows with corrugated asbestos, and beyond can be seen the assembly hall.



23
24



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28 29

27, first-floor corridor giving access to the administrative staff dining-rooms in the eastern portion of the canteen building. The floors are rubber, with skirtings of aluminium. 28, the service counter in the main dining-hall which seats 500 people. 29, looking down into the main dining-hall from the mezzanine gallery at its southern end, which gives access to the staff dining-rooms from the covered way leading from the assembly hall.

4 B.O.A.C. OFFICES



30
31

30, staircase detail, and 31, north-west view of the two-storey office block built on to the western bay of the assembly hall for the use of B.O.A.C. It is a concrete frame building with rusted brick external facing. The panels between the windows are of fluted asbestos. The staircase, which can also be seen through the end window in 31, is finished in terrazzo, with a steel balustrade and aluminium handrail.

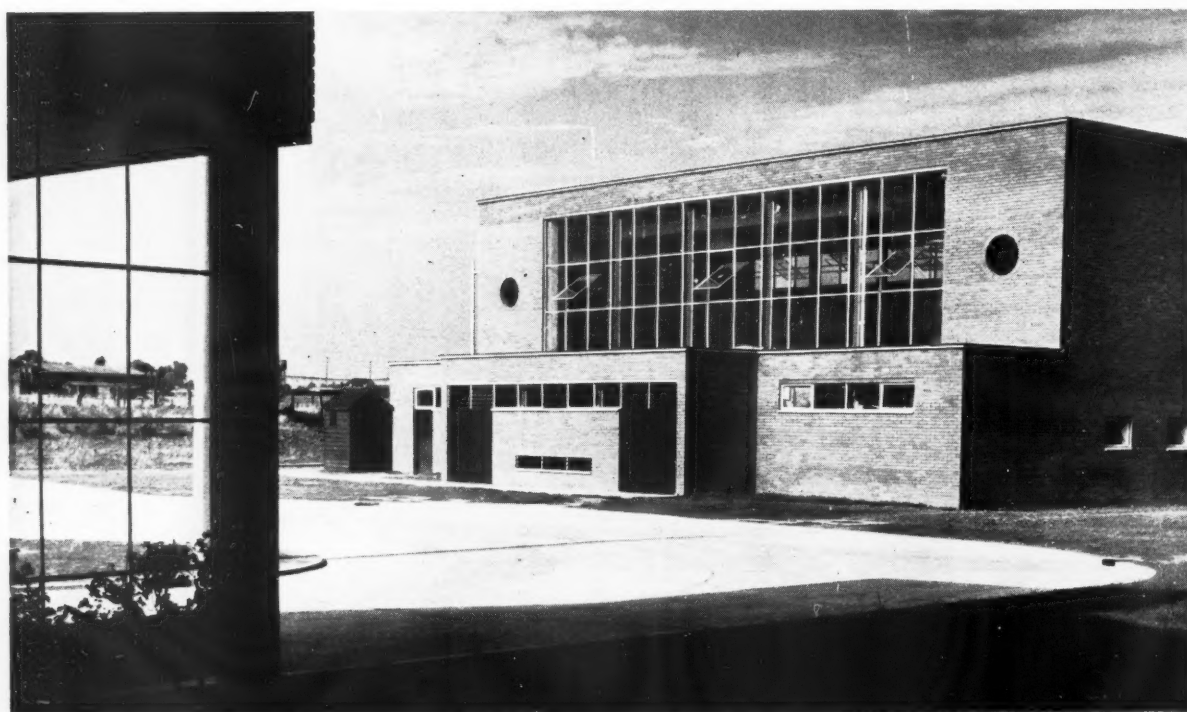


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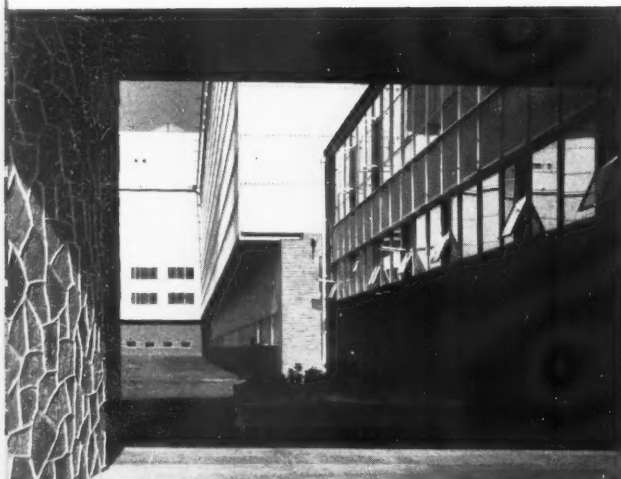
AIRCRAFT ASSEMBLY HALL AT FILTON

32, general view of the whole scheme from the west, to show the relationship of the buildings illustrated on this page. In the background is the west bay of the assembly hall, now used by B.O.A.C., and beyond it the projecting centre bay. In front of the latter is the anodizing and heat treatment building, of which 33 is a closer view. On the right is the

administrative portion of the B.O.A.C. building (see preceding page) which is connected internally with the west bay of the assembly hall. The B.O.A.C. office block has a projecting entrance vestibule and staircase wing, which can be seen in the centre of 32. 34, looking towards the assembly hall from beneath this entrance wing. 35, the entrance wing from the east.



33



34
35

TOWARDS AN ARCHITECTURE

POST - WAR FLATS IN BRITAIN

Previous articles in this series, which discussed the standard reached and the trends discernible since the war in the more important branches of architecture, have dealt with small houses (October 1948) and schools (September 1949). This article deals with flats which, especially in London, constitute the chief part of the post-war housing effort and are the form in which contemporary design is making the strongest impact on the urban scene. Houses, flats and schools are, together with industry, the categories of building specifically exempt from the current ban on capital expenditure. Post-war industrial buildings will be the subject of a later article.

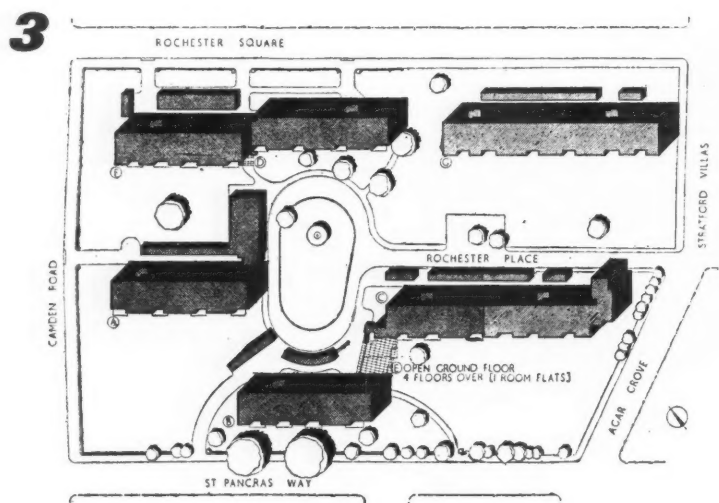
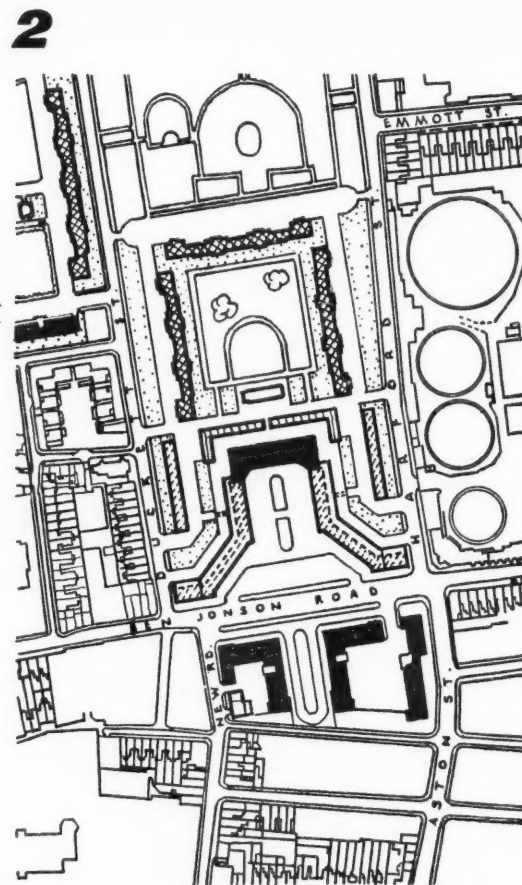
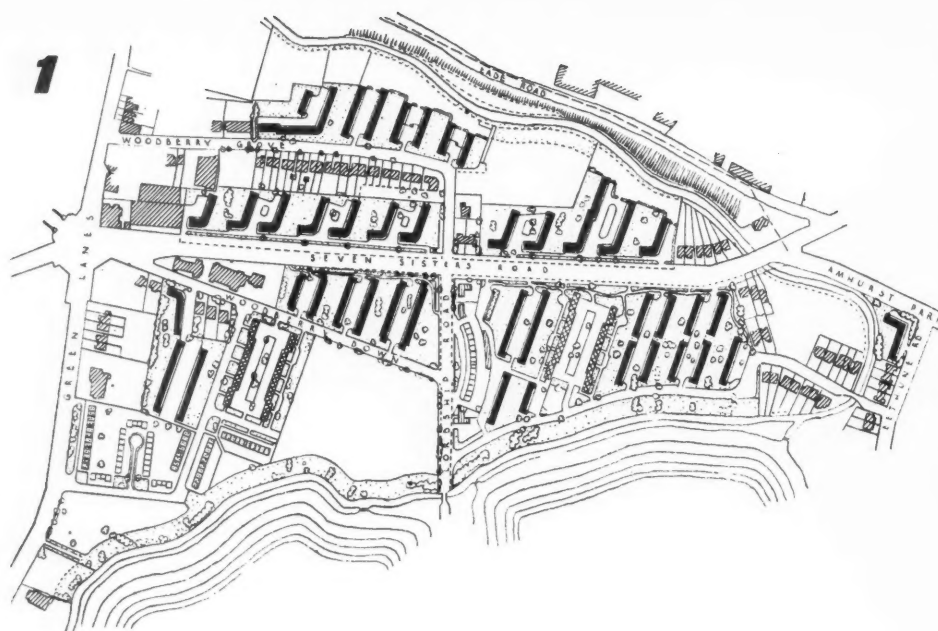
Blocks of Flats, Tenements, the dreary words seem to have exercised a baleful influence on British designers ever since the problem has faced them. Of course there are other reasons for the rarity of a really effective solution. It is difficult to think of any architectural problem so compounded of contradictory elements. Domesticity, yes, we understand that; and we have traditional ways of expressing it. Monumentality, too, we respect at a distance. But can domesticity be expressed in ten storeys, or should the Little Man have to live in a monument? And there are other forces pulling in opposite directions—correct orientation, for instance, versus free and intimate grouping; what people want versus what they ought to have. The result has been that the large group of flats, unlike the tall office block, the garden city, the concert hall, the primary school, has not yet developed a characteristic contemporary form. It lacks Myth. It is, perhaps, significant that Le Corbusier, outstanding inventor of modern architectural symbols, has failed with the block of flats. The residential quarters of *La Ville Radieuse* were as

inhuman as the frightening *Unité d'Habitation de grandeur conforme* now rising at Marseilles.

The critic must not imagine that there is much he can do to help. E. M. Forster, in a recent essay, examines the ways in which criticism can help the artist.

'One can eliminate a particular defect perhaps; to substitute merit is the difficulty. I remember that in one of my earlier novels I was blamed for the number of sudden deaths in it which were said to amount to forty-four per cent of the fictional population. I took heed and arranged that characters in subsequent novels should die less frequently and give previous notice where possible by means of illness or some other acceptable device. But I was not inspired to put anything vital in the place of the sudden deaths.'

'The second way in which criticism can help the artist is more specific. It can help him over details, niggling details, minutiae of style. To refer to my own work again, I have certainly benefited by being advised not to use the word "but" so often.



The row pattern and the axial build-up. The two examples from L.C.C. estates given here, 1 and 2, illustrate the monumental scale of some post-war schemes. 1, the L.C.C. Woodberry Down Estate at Stoke Newington, and 2, the L.C.C. Ocean Estate at Stepney.

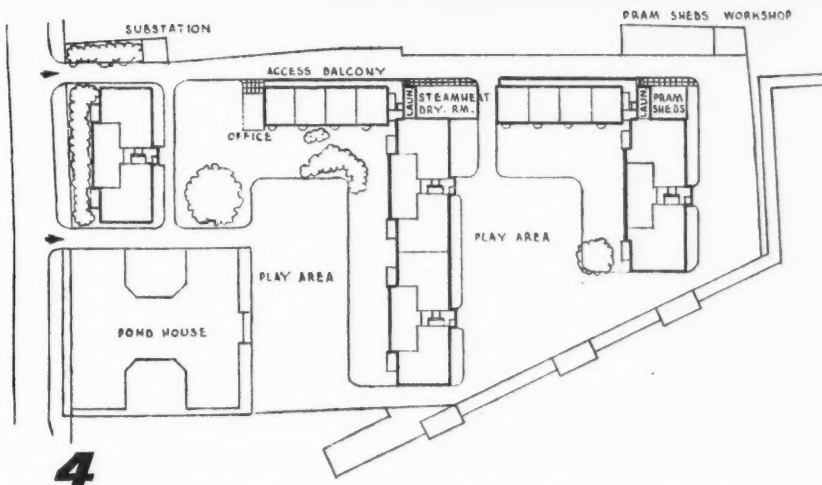
3, a pleasantly balanced layout combining correct orientation with a certain degree of informality; an estate at St. Pancras Way, designed for the St. Pancras Borough Council by Norman and Dawbarn.

I have had a university education, you see, and it disposes one to overwork that particular conjunction . . . The man who has a legal mind should probably go easy on his "if's." Fiddling little matters. Yes, I know. The sort of trifling help which criticism can give the artist. She cannot help him in great matters.'

If, therefore, I now examine critically one or two aspects of contemporary flat design, it can only be within these severe limitations. Great buildings can only be produced by architects.

The basic characteristic of flat design is that it is repetitive. Whereas the house may or may not be grouped with other houses, the flat must be. Now this repetitive character, as we shall see when we discuss the façade, makes it exceptionally easy for the designer to achieve some sort of order. Any pattern, however commonplace, repeated more than twice

sets up some sort of rhythm, though it may be a very tiresome, sleepy or boring rhythm. On the whole, for fairly obvious reasons, our present machine civilization expresses itself naturally in repetitive patterns. Running away from axiality with its concentration on the unique object and its suggestion of a hierarchical society, we have happily taken refuge in simple repetition, and have been ready to accept without a qualm a straight row of identical thousand-foot skyscrapers. In this visual climate, once the 'correct' answer has been found to some average requirement, its indefinite repetition seems sensible and variations seem merely whimsical. There result layouts like the L.C.C. estates at Woodberry Down and Minerva Street, 'blown-up' versions of Victorian bylaw housing in which every humane consideration has been sacrificed to a theory of orientation which probably runs counter to many of the tenants' pre-

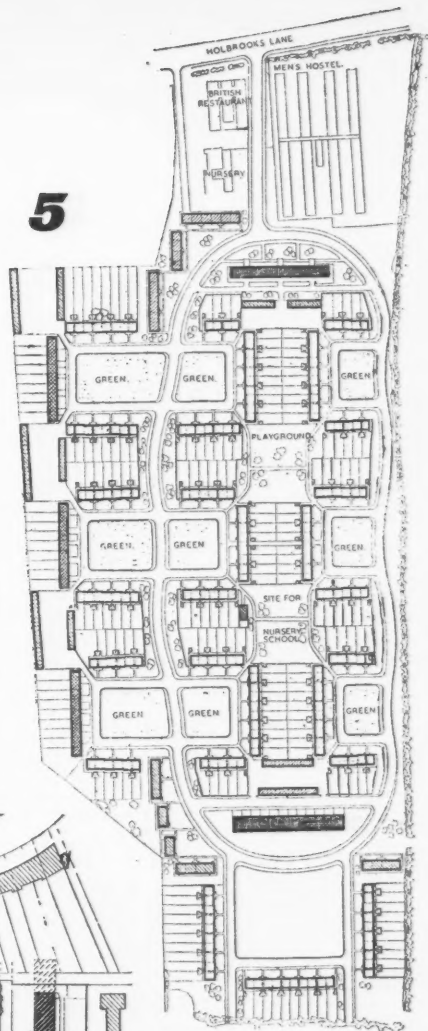
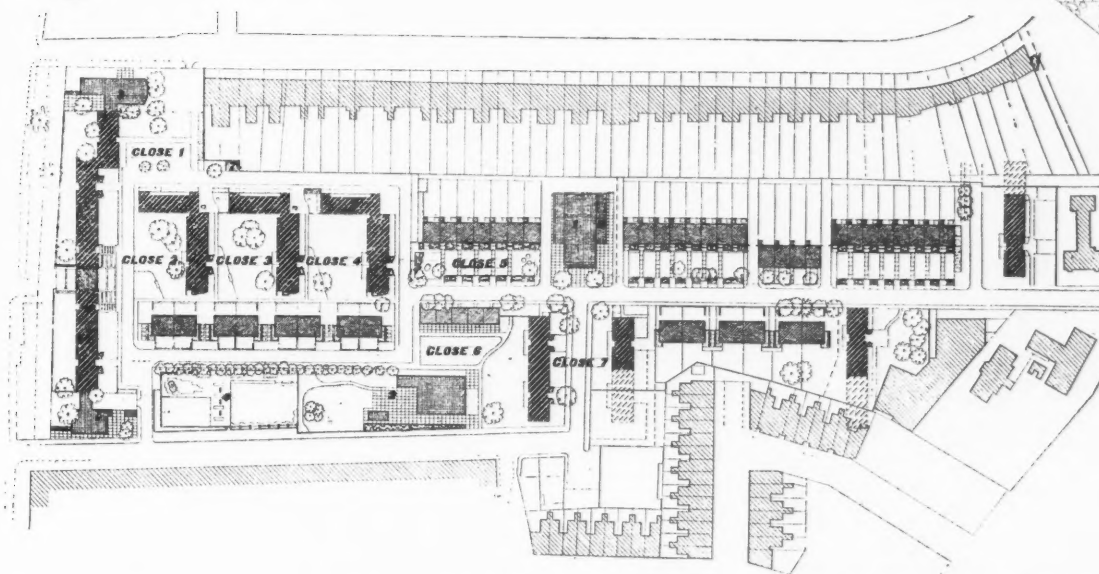


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4, New Pond House, designed by Edward Armstrong for the Chelsea Borough Council, is, like 3 on the facing page, pleasantly balanced and correct in orientation, whilst continuing to retain some informality.

5 and 6 show mixed development schemes carried out in a sensitive manner. 5, an estate designed for the Coventry Corporation by the City Architect, D. E. E. Gibson. 6, the Somerford Grove Estate, designed by Frederick Gibberd for the Hackney Borough Council.

6

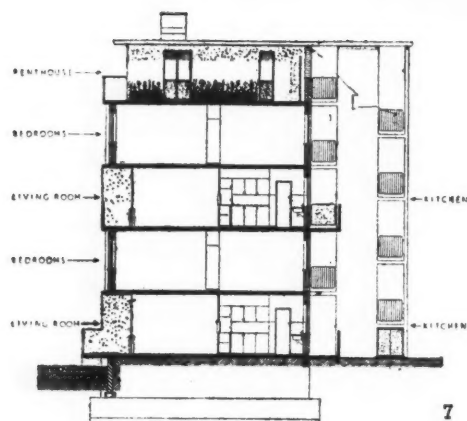


ferences. In any case examples exist (Mr. Dawbarn's scheme at St. Pancras Way is one) where parallel blocks have been sensitively disposed and one does not feel that any one factor has thrown the designer off his rocker.

Unbearably dreary though the row pattern can be, it is at least less inappropriate than the full-blown symmetrical build-up of which regrettable examples are also appearing in London. The tall block of flats is a big instrument and in these days of little architectural squeaks it is fatally easy to make a terrific noise with it, piling up climaxes that end in the back yards of surviving slums and minor axes that lose themselves among pram-stores. If there is one thing that must be ruled out by the nature of modern domestic building, it is the grand manner.

Tucked away between these extremes are a few examples of a viable line of advance. They seem to

have two things in common, a mixing of heights and types and a loose and seemingly artless juxtaposition of forms. Mr. Armstrong's nicely balanced New Pond House, Mr. Dawbarn's modest and effective group at Hackney and, on a larger scale, Messrs. Powell and Moya's great scheme for Pimlico, are all helped by the diversity of their clients' requirements. Perhaps the most promising of this group is Mr. Gibberd's half-finished Somerford Grove Estate at Hackney, which in its grouping of one-, two- and three-storey dwellings round an exceptionally generous provision of community buildings, the whole intimately domestic in scale and character, could serve as a model to so many housing authorities. One would add to this sadly short list Coventry's very respectable group of flats and houses were it not for a certain frigidity in its rectangular planning and a curious wiggle in its roads. It seems—if one must risk a generalization—that even



The two-tier maisonette, with penthouse above, provides the advantages and character of the separate house at a reasonably high density, and without the cramped feeling of the narrow-fronted terrace house. 7, the section, and 8, the main façade, of a block of flats at Kenmure Road, Hackney, designed by Edward D. Mills for the Hackney Borough Council.

where the site has nothing to say to the architect and a formal rectilinear layout seems inevitable it should, nevertheless, be avoided. This is, of course, clean contrary to our classic building traditions; but can, perhaps, be justified by the fact that the individual dwelling is so tiny an element in the total effect that humanity and domesticity can only be preserved by a deliberate muffling of the dominant rhythms.

Of planting among post-war flats there can be little evidence as yet, except where some lonely surviving tree, scrubbed down and sterilized and railed off like a Ministry of Works ruin, stands disconsolate upon the asphalt. One still hopes for changes of level, cobbles, gravel, water—anything for a break from the tired grass laced by unofficial footpaths. And where big trees can be accommodated, tall buildings seem to look better, for some reason, behind London planes than anything else.

And now to come to the building itself. We ought first to recognize, in fairness to the post-war architect, that all these buildings are to some extent makeshifts. Unreliable deliveries, official restrictions, above all inferior workmanship, have everywhere blunted the tools of architectural expression. It is hardly surprising, in these circumstances, that while some

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designers have overridden these difficulties, others have foundered beneath them.

The decisive element in the appearance of a block of flats is, of course, the means of access. Broadly speaking, there are three :—

1. Central vertical circulation with more than two entrances from each landing.
2. Repeated vertical circulation with two entrances from each landing.
3. Central vertical circulation with gallery access.

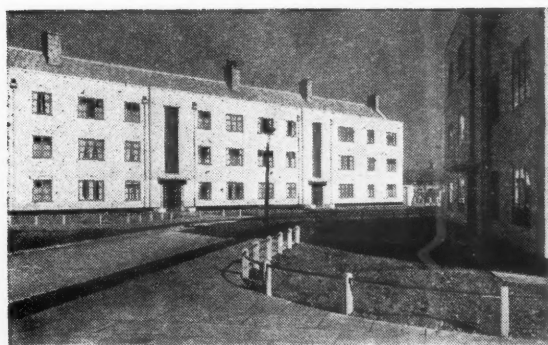
The first gives us the 'star' type block made familiar by Swedish practice. This can be briefly dismissed. Partly, no doubt, because of the insolation problems which it poses, there is only one important post-war example, Messrs. T. P. Bennett's group for the Hornsey Borough Council. It would be interesting to know on what grounds the neo-Georgian style was chosen for these 7-storey blocks, whose inherently modern shape has often in the past been given an interesting contemporary expression. As it is, these feel the *heaviest* buildings in our whole collection.

The second group is now the largest, and seems to be driving the rather cheaper gallery type out of existence. It produces the familiar 'slab' building, and it comes in all heights up to ten storeys. Characteristic

are its blind ends, its 'service' side dominated by the strong vertical accents of the staircases, and its 'living' side, where the designer can amuse himself with patterns of window and balcony. One ought here to note an important distinction between the low block and the high. Up to about four storeys the scale remains domestic; individual windows and balconies do not blur into a pulsating rhythm, and there seems no call to pull the design together by throwing a frame round it or opening up the ground floor. Beyond that height, unless something like that is done, the design loses all human scale and might as well go on for ever. Among low buildings, for example, Messrs. Booth and Ledeboer's charming little block at Lambeth and the Glasgow Corporation's group at Pollok are happier buildings than the Poplar Borough Council's block at Blair Street, where certain contemporary *cliches*, helpful, perhaps, with taller buildings, create an unnecessarily mechanistic atmosphere. On the other hand, many L.C.C. estates, of which South Lambeth and St. Vincent are characteristic post-war examples, demonstrate that beyond a certain height flat-blocks cannot resemble, and should not be designated, a house.

To impose control over the strong rhythms set up

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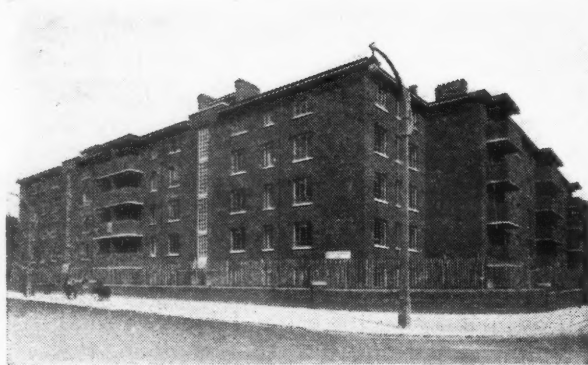
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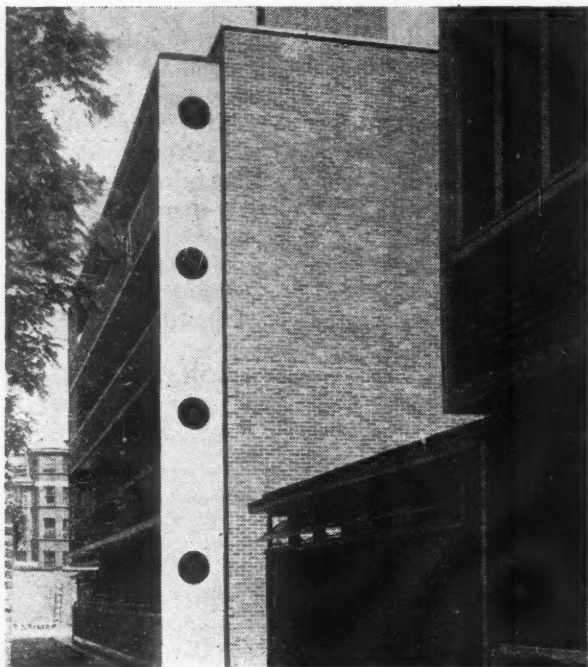
The three-storey block, in which a domestic scale and feeling is still obtainable, though it may be lost by insensitive detailing. Facing page, 9, Pollok Estate, Glasgow, by the Glasgow Corporation Housing Department. 10, flats at Elder Road, Lambeth, designed for the Lambeth Borough Council by Booth and Ledeboer. Left, 11, Brook House Estate, Hoyton, Liverpool, by the Liverpool Corporation Architect's Department. 12 and 13, rear and front elevations of a block of flats at Blair Street, Poplar, by the Poplar Borough Council Architect's Department.



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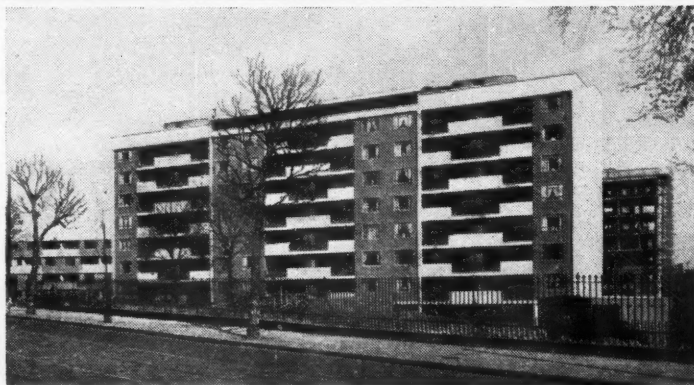
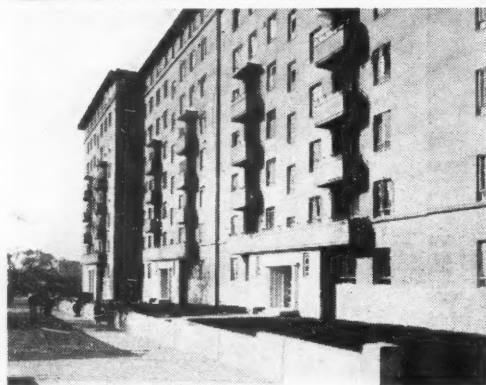
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The five-storey block may be entirely laconic and non-committal, as in 14, a block of flats in the Fulham Road, by the Fulham Borough Council, and in 15, at Pitt Street, Liverpool, by the Liverpool Corporation Housing Department. Or it may try to speak to the senses as in 16 and 17. New Pond House, Chelsea, 16, was designed by Edward Armstrong for the Chelsea Borough Council. 17, flats at St. Pancras, designed by Norman and Dawbarn for the St. Pancras Borough Council.



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The tall block, with its repetition of small units, sets up an insistent rhythm. This rhythm can be controlled in various ways: by setting it on 'pins' like Priory Court, Walthamstow, 18, designed by the Walthamstow Borough Architect and constructed with a vibrated reinforced concrete frame; by putting a frame round it, as in Heming and Chitty's steel framed blocks at Cromer Street, for the St. Pancras Borough Council, 19; by adding monumental elements, as in the L.C.C. Woodbery Down Estate, 20, a steel framed block by the L.C.C. housing architects; by superimposing a larger-scale pattern, as has been done on the Rosebery Avenue Estate, 21, a reinforced concrete box frame block designed by Tecton for the Finsbury Borough Council.



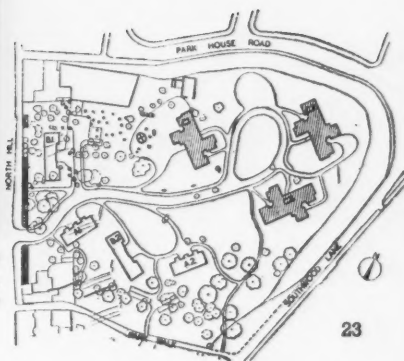
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22

A rare example of free grouping, with elevations that are far from free. 22, Hillcrest, Highgate, designed by T. P. Bennett and Son for Hornsey Borough Council. 23 is the site plan of this scheme.



23

by repetition is the most interesting, as it is the most difficult, problem in the design of tall blocks. A general rule would seem to be that the tune must have a beginning and an end—in other words that the bounding lines, ground floor (eye level), roof and ends, should be given some emphasis. One cannot but feel, for instance, that Messrs. Tecton's group at Rosebery Avenue, in spite of the rather chilly and abstract nature of its balcony pattern, is in this respect more successful than Mr. Chitty's great block in Dombey Street, whose relentless grid starts at the pavement and goes on—for how many storeys?—one loses count. Or, among less experimental designs, one notes how in spite of some crude detailing the Walthamstow Council's blocks, by a now classic method, gain in lightness over, for instance, Messrs. Howes and Jackman's interminable wall of buildings along Albion Road, Stoke Newington.

Of the last category, balcony access, the London County Council remains chief exponent, and it seems hardly necessary to reiterate, after so many years, how ill these stampeding horizontals and bullnose corners marry with the Utility-Georgian which adjoins and the pitched roofs which surmount them. There was a time when a certain thrill was to be had from the 'modern' air of long balconies (one remembers the first photographs of Lawn Road). Nowadays the concern

of most architects is to lighten the load, as has in fact been effectively done by Mr. Chitty at Holborn, by Messrs. Tecton at Finsbury, and by the Glasgow Corporation at Pollok. The use of maisonettes, of which Mr. Mills's cleanly designed block in Hackney is my sole example, is one way of getting the best out of balcony access.

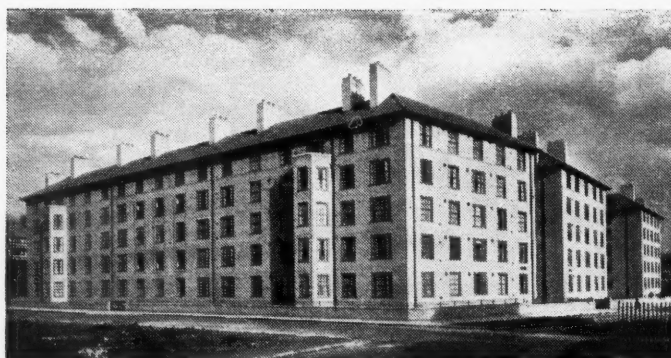
It is, by the by, interesting to find that Style is not quite the dead horse one had imagined. It gives us a set of final categories into which the work here criticized can be fitted without difficulty. They are:—

1. *Completely Negative (tenement tradition):*—
Fulham; L.C.C. Gascoyne Estate; L.C.C. Flower House Estate; L.C.C. Minerva Street Estate
2. *Neo-Georgian:*—Hornsey; Liverpool; L.C.C. passim
3. *Style Corbu:*—Holborn; Finsbury; Walthamstow; Poplar
4. *Style Corbu (British Variant):*—St. Pancras; Hackney; Chelsea; Lambeth; Stoke Newington; St. Marylebone; Glasgow; Coventry
5. *Jazz:*—L.C.C. Woodberry Down
6. *Art Nouveau:*—Bermondsey

This list, incidentally, shows to what an overwhelming extent this whole problem is a London problem. Outside the metropolitan region, two-storey houses are the rule, flats a rare exception. It is in



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Two characteristic examples of standard five-storey L.C.C. tenements. 24, the living side of the Mersey Estate at Islington. 25, the access side of the St. Vincent Estate, also at Islington.



26

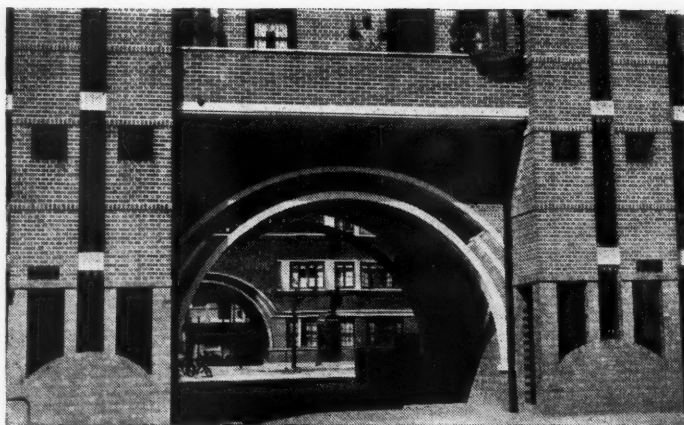


27

'Disconsolate upon the asphalt.' Flat landscaping at its worst. 26, Flower House, an L.C.C. estate at Lewisham. 27, another L.C.C. scheme, Dinmont Estate at Bethnal Green.



28



29

Two entrances. 28, jazz, at the L.C.C.'s Woodberry Down Estate. 29, art nouveau. All the schemes shown on this page are by the L.C.C. housing architects, except 29, which was designed by C. J. Burnett for the Bermondsey Borough Council.

London alone that flats are being put up in numbers sufficient to change the whole character of the city, so that one is bound to ask oneself whether the change is for the better. If the Londoner himself, eyes on the pavement, on the approaching bus or the passing face, is too close to say, let him ask a foreigner. Or re-read Rasmussen's *London, the Unique City*. The answers will be unanimous: these buildings may be necessary, but they are not London. And are they necessary? Cottage estates or tenements; mild or bitter—is the range really so restricted? Plainly not. A higher density in the suburban estates, in the new towns, would obviously permit a lower density inside. Specifically, the lack of experiment with narrow-

fronted terrace-houses, with three-storey houses, with twin (four-storey) maisonettes is disheartening in that these are just the sort of dwellings in which London people have been happy, and which in their modern form could create exactly that intimacy of scale, that marriage of individuality with formality, which is the essence of our native building tradition. With such types of dwelling, too, we could escape from both the winding suburban road and the draughty row pattern and re-create the short street and the shady square. Looking back over this great mass of building, one cannot but feel that nearly all those responsible for it, some with grace, some with clumsiness, some with dignity, are marching in the wrong direction.

The Paulskirche at Frankfurt-on-Main was a large Evangelical (Lutheran) church of the late eighteenth century. Architecturally it was notable for its elliptical plan; historically it had the distinction of having been the meeting place of the first German parliament in 1848. Gutted in the late war, the building has now been restored for the Frankfurt city authorities as an assembly hall, and the REVIEW here presents the result as of special interest in representing a style of architecture favoured in post-war Germany.

PAULSKIRCHE, FRANKFURT

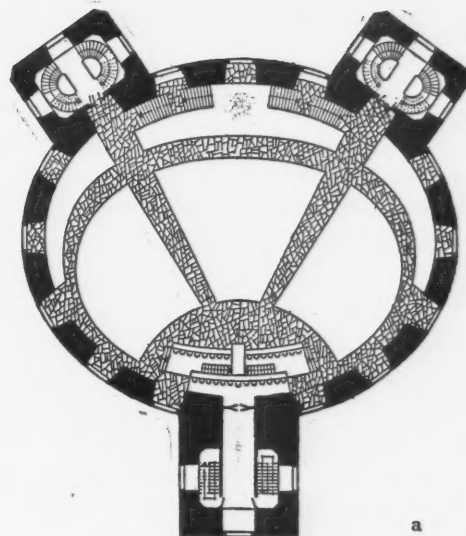
RUDOLF SCHWARZ, JOHANNES KRAHN, EUGEN BLANCK, GOTTLÖB SCHAUPP, ARCHITECTS

IN 1848, AFTER the first bourgeois revolutions in the various German member states, the first German Parliament met in Frankfurt. They chose a large and rational building, the church of St. Paul (Paulskirche) as their meeting place. And there, a hundred years ago, met this parliament of poets, idealists, scientists and philosophers, and all the most reputable and honourable representatives of an early Victorian middle class. The building has ever since shared some of the sentimental attachment which German progressives have felt for the first abortive attempt at an orderly and honourable revolution.

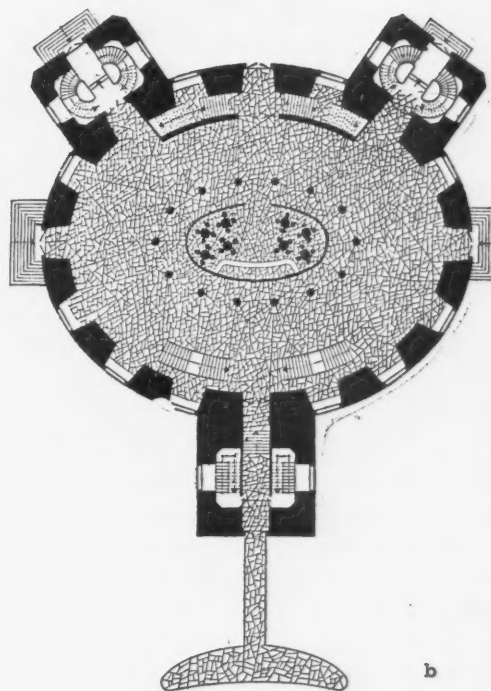
It could not have been a more suitable building: large but not grand, light and rational, in the classical manner of the early nineteenth century, without imagination or mystical power, but pleasant and in good taste—in a cool protestant way.

The building was gutted during one of the air raids of the last war, and a competition was held to obtain designs for its reconstruction. 109 designs were sent in. Some were dressed in a modernized version of genteel baroque, a few others in super-renaissance or early twentieth century treatment. But by far the majority produced miniature Brown Houses and Reichs-Chancelleries—with fewer columns, fewer eagles, fewer flag poles, but still a sort of impoverished Nazi architecture. A very few designs were different. The city authorities of Frankfurt decided to avoid the dilemma in which the promoters of the Crystal Palace Competition must have found themselves, and decided to withhold the final commission, but to invite the architect of the first premiated design to form a team for revision and overhaul of the scheme which was to be executed. This team of youngish architects, most of them Roman Catholics of a serious and Eric Gill-ish type, set about their task with an attitude that tackled all problems *a priori*, and, therefore, created something that has greatness although it is improvised.

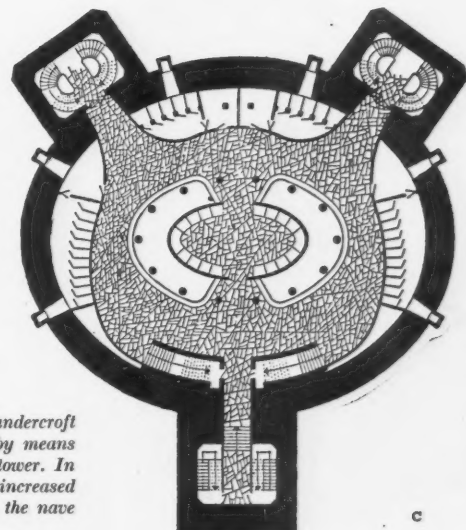
The gutted interior showed the mathematical purity and scale of the vast elliptical plan. It was decided to keep to this large and tall shell,



a



b



c

The plans on the right are: a, nave or main hall floor; b, undercroft or entrance floor; c, crypt. Formerly entry into the nave was by means of a door, reached from outside by steps, in the base of the tower. In the reconstruction the steps were removed and the doorway increased in height to give direct access to the undercroft, from which the nave is reached by twin flights of curving stairs.

INTERIOR

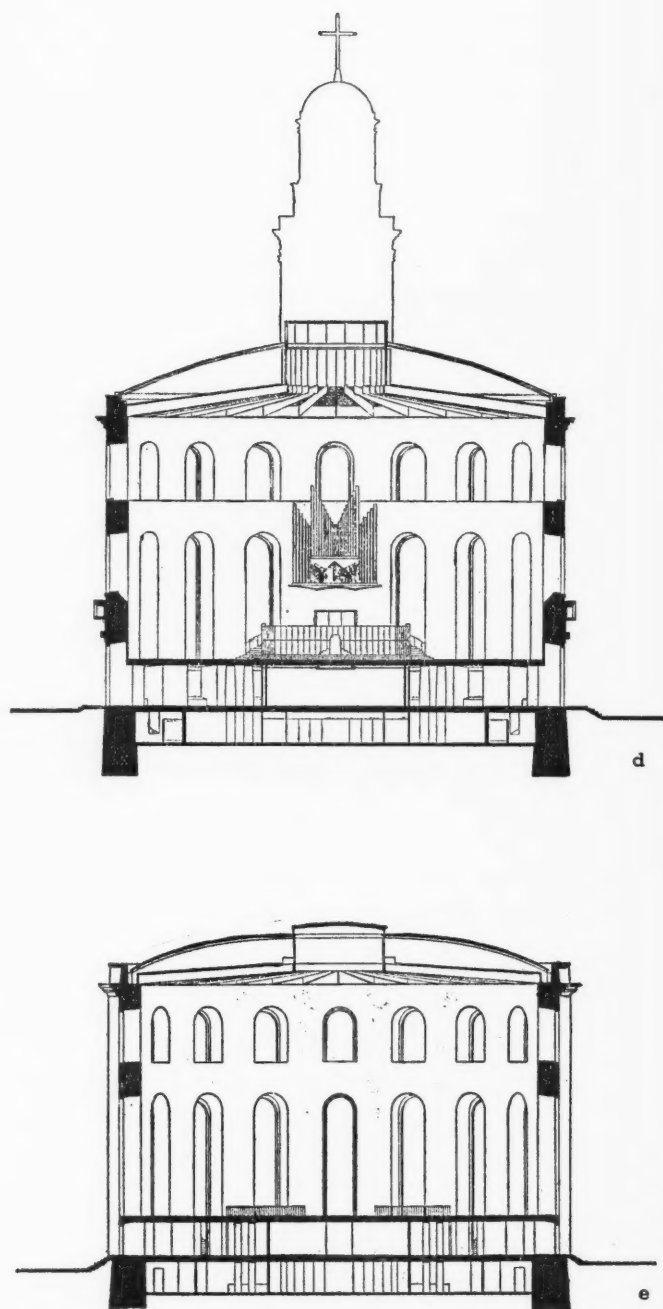
to excavate about 20 feet below the original floor level, down to the foundations of the old church, removing the flight of steps that used to lead up to it. The old entrance has thus been increased in height; tall and narrow, it leads right through the tower of the old church, like a narrowing tunnel, and into a 12-foot high crypt-like hall with 14 structural columns of marble. The centre of this crypt or foyer is occupied by a large oval cell, the meeting room for a quorum of the members of whatever congregation, assembly, congress or parliament might meet above, in the large hall. The wall of this cell, like the *ara pacis Augusti*, is to be decorated with a mural that celebrates the blessings of peace. Two solemn open staircases lead from the foyer into the large hall. The human scale of steps and stair rails and balustrades is carried into the vaster scale of the hall. Human scale is retained in the rows of seats, the rostrum and the platform. The design relies on the scale of the crowded auditorium for its visual as well as for its acoustic properties. Above the audience the walls soar to an apparently tremendous height. Actually it is a matter of about 60 feet. A large skylight opens the light suspended ceiling. The rhythm which was originally given by the columns of the old church is now indicated by the strings of tubular lights which are suspended from the ceiling and reach to within a few feet of the floor. This design of lighting allows a variation of spatial relationships—broad and low, with the upper parts of the church in dim light—or like a dome with brightly lit piers.

All subsidiary activities and all mechanical equipment have been housed with immense care in such a way that the great simplicity of the two main floors is not marred. Entrance passage, foyer and hall are the three elements: in the intention of the architects there is a symbolical ascent in these three: the tunnel; the low darkish ante-room; the light, free relieving impression of the big hall: darkness to light, heaviness to freedom, lowness to height, oppression to relief. The architects of the Paulskirche are not afraid of religious bathos. The elliptical skylight that looks down on to the assembled audience may yet receive the old emblem of the Divine Eye. And the cross that crowned the old tower is to stand over the new building, whether it is to be used as a church or a political assembly house.

Gerhard Rosenberg



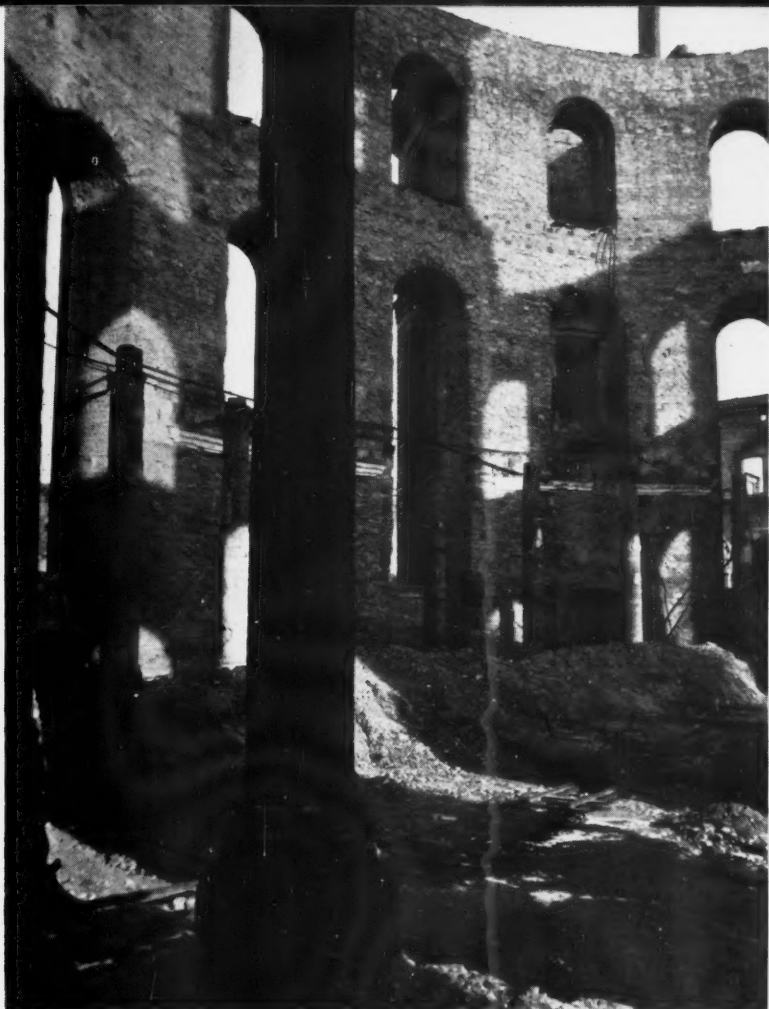
1, the Paulskirche, which was begun in 1786, but not completed till 1833, in its former state.



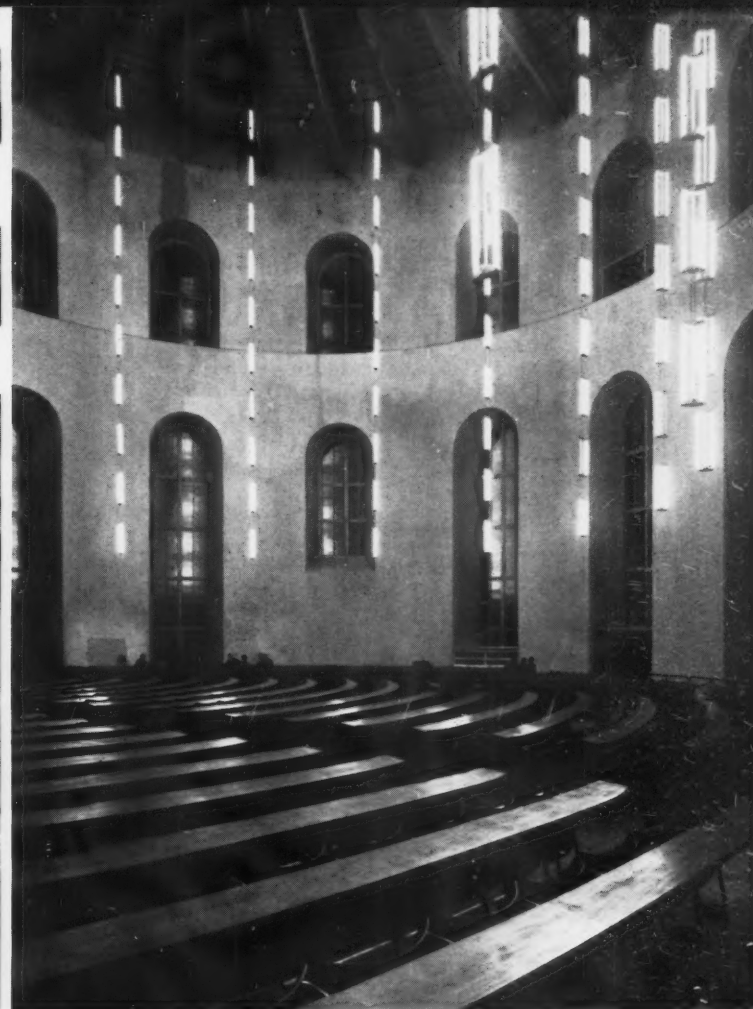
d, section taken along the longest chord of the ellipse, looking towards the tower. e, section taken along the longest chord of the ellipse, looking away from the tower.

d

e



2



3

PAULSKIRCHE 2, the gutted interior. 3, the nave as restored. The rafters, which radiate from an elliptical skylight, are suspended from a shallow dome of steel tubes, and this suspended ceiling is covered with open textured woodwool slabs over a network of battens. The tubular lights preserve the rhythm given to the old church by the columns supporting the gallery. 4, the organ on its cantilevered slab. 5, the pulpit or rostrum, which is carved from a single block of marble. The platform behind is eventually to be hung with tapestries.



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LE DESERT DE RETZ

Much research has recently been done into the origins, the development and the significance of picturesque landscaping in England. Of its effects on France and of the transformation it underwent there, we—and, indeed, the French—know less. Professor Sirén, who has recently completed a book dealing with Chinese influences on European gardens—a companion volume to his *Gardens in China*—here describes one of the most fantastic and picturesque estates of France, and one which is most rewarding in its present state.

IT IS NOT generally realized in England that Hubert Robert, the great painter of arcadian landscapes with classical ruins, was also a designer of gardens. His official title was 'Dessinateur des Jardins du Roi'—which makes it clear that he was employed not as a gardener in the narrow, everyday sense (as people are apt to believe), but as a theorist, a purveyor of ideas. Among the gardens that may be attributed to his inspiration is that of Méréville (on whose walls there formerly

hung some of the views of the place painted by Robert himself), Rambouillet (in part), and—the most fascinating of all—the Désert de Retz, or Désert de Monville as it was originally called.

The Désert de Retz is not far from Paris, on the outskirts of the village of Chambourey, between St. Germain-en-Laye and Marly. Work on the gardens began in 1771, when the site was acquired by François Racine de Monville, one of the talented amateurs of the arts who flourished so abundantly in the fertile soil of the Ancien Regime. This de Monville had a subordinate but lucrative place at court, and was well known not only as a musician on the harp and as a draughtsman, but also for his skill as an archer. His artistic interests evidently played an important part in his life, and like so many of the dilettanti in the Paris of his day, he was much impressed by the new English style of gardening. But as befitted the personal friend of several of the most prominent French artists of the time he never lost any of his faith in French classicism, and in consequence his creation of Désert de Retz was thoroughly French in feeling, even if the original inspiration was English. No one who has visited the place, and felt the charm of those of its architectural embellishments which still survive, will be surprised to learn that Hubert Robert had a part in their actual shaping.

The plan reproduced in the thirteenth volume of Le Rouge's famous *Jardins Anglo-Chinois* (which is almost entirely devoted to the Désert de Retz) gives a rough idea of the extent of the original layout, together with the general arrangement of the paths, the disposition of the buildings, and some of the planting. The ground itself slopes down from the woods of Marly on the north-east to the south-western meadows, partly cultivated and dotted with scattered clumps of trees, and on to a little lake. The wooded part of the park is now neglected and unapproachable, for trees and undergrowth have been allowed to grow unchecked. But the surrounding wall is in part still preserved, as also some of the huge stone blocks at

the north gate. On the other hand the west gate, which was the main entrance from the St. Germain side, is now no more; there is simply a gap in the wall. The unsuspecting stranger who enters the place by the narrow and traffic-worn village street would hardly guess that he is coming into an old park; and if he has not a keen eye with which to pierce the trees and bushes he may easily pass the main building without discovering it, so well is it hidden by the exuberant vegetation.

If the Désert were a normal house of several storeys, such concealment would be out of the question; but in fact it is utterly different from anything one might expect. In form it is nothing more nor less than a gigantic broken column, covered with creepers, which grow even through the windows, and possessing to a remarkable degree the atmosphere of the Castle of the Sleeping Beauty—though a castle sans princess or, indeed, any other inhabitant. For the building is in full decay, the glass gone from its windows and the doors from their hinges.

The Prince de Ligne, in his *Coup d'oeil sur Beloeil*, says that the Désert looks like a fragment from some colossal building which, like the tower of Babel, had provoked the wrath of God. As may be seen from Le Rouge's engravings and other contemporary illustrations, among which must be mentioned a contemporary drawing in Indian ink in the National Museum in Stockholm, originally the three lower storeys only had windows, rectangular, square and oval respectively, in the flutings of the column, while the fourth had a roof light. The building culminated in a jagged skyline, as of a real ruin which had long been exposed to wind and rain—an illusion which the grass and creepers planted from the first on the crest of the wall served to heighten.

In recent times, the jagged skyline has unhappily been smoothed away, and the top of the building plastered. In addition a number of square windows have been opened in the uppermost storey—a measure made necessary by the fact that the roof-lighting had ceased to function. The offices and the kitchen were confined to the base of the column, which had an entrance on one side but otherwise was almost hidden in the ground, as if only partly excavated. The impression that the building is half buried is now even stronger than it was originally, thanks to the luxuriant growth of the surrounding trees and bushes, which have advanced right up to the walls (and make adequate photography almost impossible). At the same time the encroachments of the vegetation conceal the worst evidences of the neglect that has allowed the building to fall into a state of ruin beyond that which its contriver ever intended.

One might suppose that the circular form would have given rise to awkward problems in planning the distribution and communication of the rooms. But it is not so. The main storeys had four rooms grouped around a central spiral staircase. The two larger rooms on the piano nobile serving as salon and boudoir are oval, while the two smaller, bedroom and antechamber, are semi-oval. The spacing between the

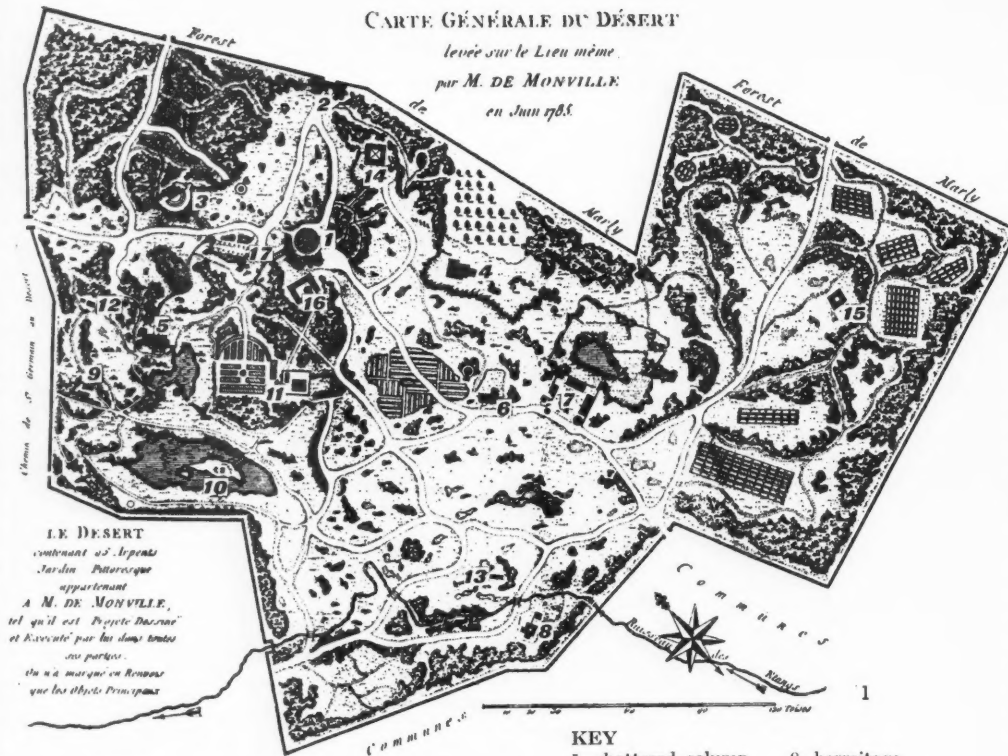


PAULSKIROHE, FRANKFURT

6, the undercroft, which serves as an anteroom to the nave or main hall, showing the structural columns of dark marble and the aluminium rails protecting the stairs that lead to the cloak-rooms in the crypt proper. This low ante-hall forms a highly successful introduction to the nave above, adding by contrast to the effect of vast height due to the vertical emphasis of the two ranges of windows (which, through the destruction of the gallery, have gained in drama what they have lost in functional raison d'être). The floor is of stone and the walls are rendered with a mixture of glass silk and adhesive, in appearance like rough plaster. This has been used for the sake of its acoustical qualities. The oval compartment in the middle forms a small room for meetings. 7, another view of the undercroft. 8, the crypt proper, which contains cloak-rooms and all necessary mechanical equipment.

CARTE GÉNÉRALE DU DÉSERT

levée sur le lieu même
par M. DE MONVILLE
en Juin 1785



curving walls of the rooms are wardrobes and passages, so that nothing is wasted. The consistency with which oval curves are everywhere introduced gives the interiors a rhythm as unusual as it is charming, particularly on the third floor, where the windows, and the large mirror over the mantelpiece in the salon, are oval too.

A little beyond the house itself, on a hill in the wood, a broad platform supports a pyramid. This structure, which is almost entirely covered with ivy and other creepers, is now vaulted over by the tall trees, and its stone surfaces are dappled by the light which filters in between their branches; the fascinating play of brown and green against a background drenched in light is so strikingly like Hubert Robert that it must have been created, or at any rate inspired, by him.

Not far from the pyramid, which had a practical use as an ice-house, come into view the ruined gable and some fragments of the walls of a little Gothic church, also covered with creepers and thus in perfect accord with its neighbours in this idyll of the Picturesque. At first glance this ruin is so convincing that one may be in doubt as to its real age, but one soon sees that it, too, was actually designed as a ruin, like the house and the pyramid and like, too, certain other pieces of garden furniture now no longer in existence, such as the tomb and the hermitage, and one which still is (though more ruinous than formerly, since stones have begun to fall out of its pedestal)—the so-called 'petit autel presque ruiné,' a conical structure decorated with masks and garlands and crowned by a leaning urn.

Also more convincingly ruinous than its designer could have contrived unaided is the so-called Temple of Pan in the north-west part of the park, where time has helped by letting the roof collapse and loosening the coarse plaster from the brick walls in random patches. This building is circular and has an incomplete Doric peristyle. Originally it stood free on its hill, where it was visible from a considerable distance around, but it is now almost concealed among the trees.

From this hill there was formerly a splendid view over the dell and the little lake, in whose waters was reflected the building which in some ways was the climax of the whole layout—the Maison Chinoise. The only one of the buildings at the Désert de Retz that was not designed as a ruin, the Maison Chinoise was completed with the utmost care down to the smallest detail. This makes all the more distressing its present state of probably irremediable disrepair, due chiefly, it is said, to the damage caused by foreign soldiers quartered in it at the end of the last world war.

The original architectural features of the Maison Chinoise are, however, still clearly recognizable. It is a low elongated rectangle with a deeper and higher centre projecting on both sides; the upper storeys narrow as they approach the top. The roofs are given character by their soft curves—in the two lower parts convex, in the topmost stage concave—and drawn-out eaves. This imparts a Chinese air to what is otherwise more French than Far Eastern. For the

(contd. on page 335)

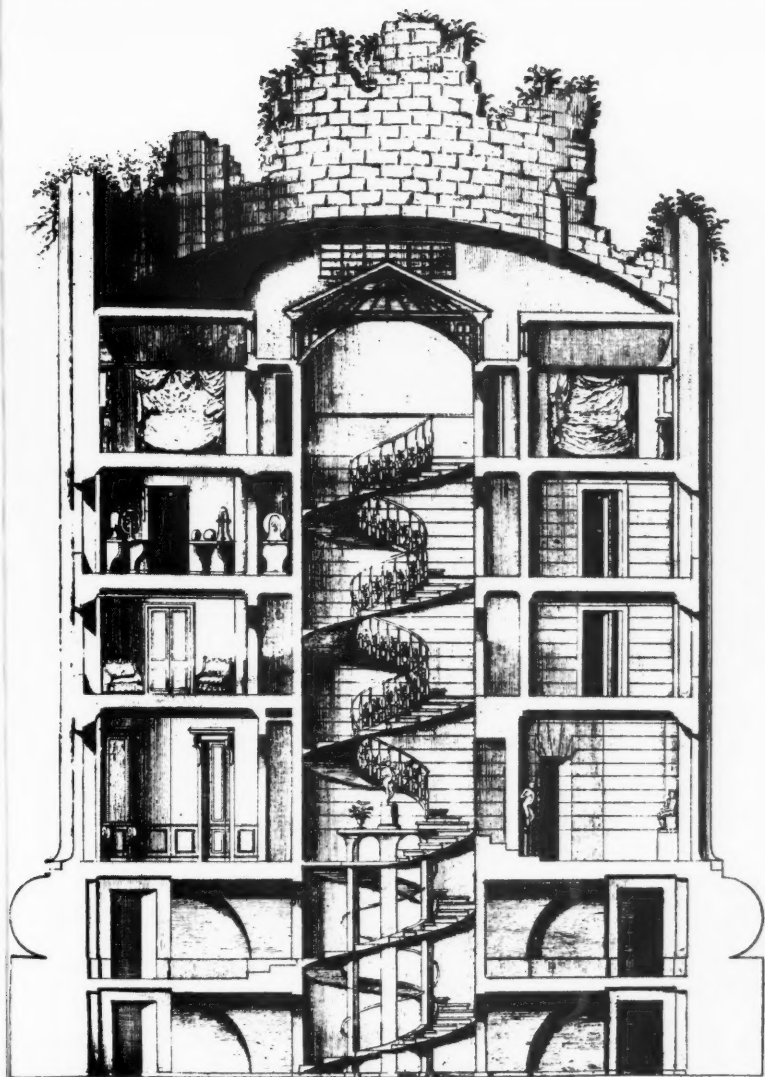
1, plan of the Désert de Retz, prepared in 1785, and showing the principal objects in the gardens.

KEY

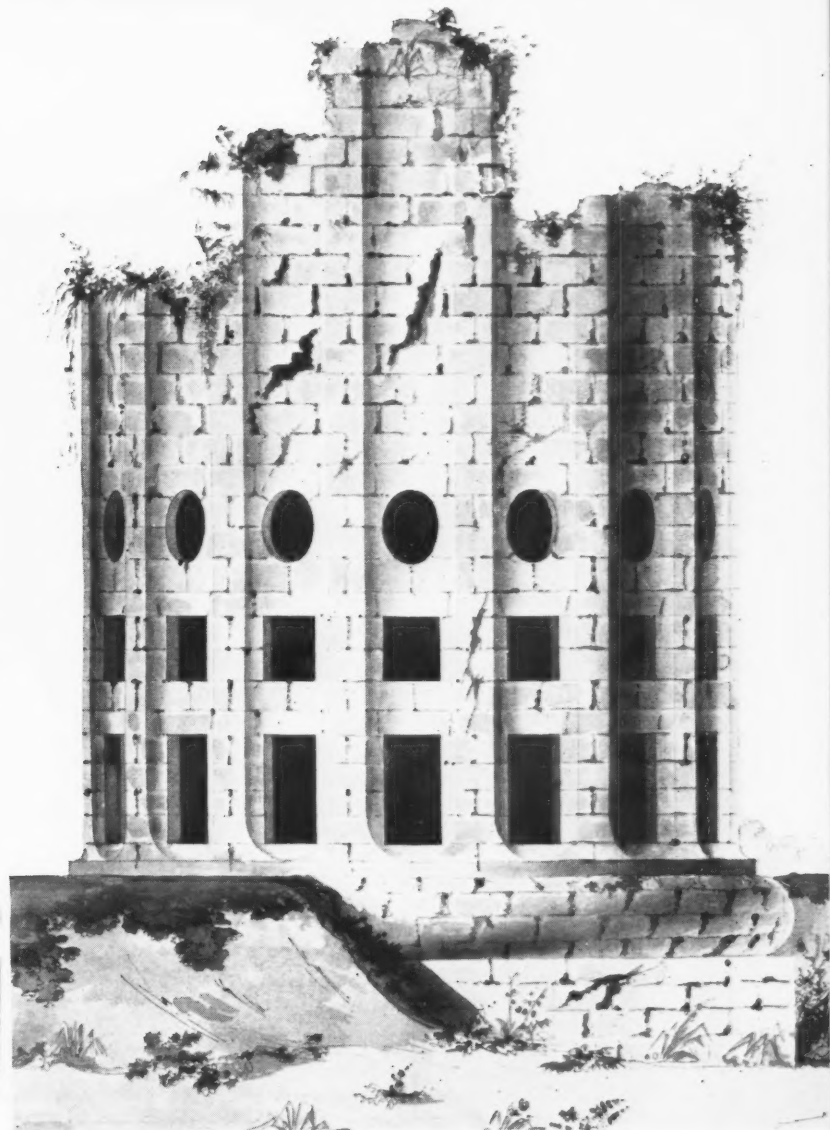
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|---|----------------------------|
| 1, shattered column (see facing page). | 8, hermitage. |
| 2, entrance to the gardens, constructed of rocks. | 9, orangery. |
| 3, temple of the god Pan. | 10, the Isle of Happiness. |
| 4, ruined gothic church. | 11, hothouses. |
| 5, maison chinoise. | 12, thatched cottage. |
| 6, dairy. | 13, tomb. |
| 7, farm buildings. | 14, pyramidal ice-house. |
| | 15, obelisk. |
| | 16, communes. |
| | 17, open-air theatre. |



2, gateway to the Désert de Retz. This engraving, and the plan of the estate, 1 above, are from Vol. XIII of Le Rouge's Jardins Anglo-Chinois. The two fauns, each carrying flaming torches in either hand, must be part of the special setting for an evening entertainment. We cannot be sure, from the engraving, if the figures are ephemeral statuary or servants in costume.

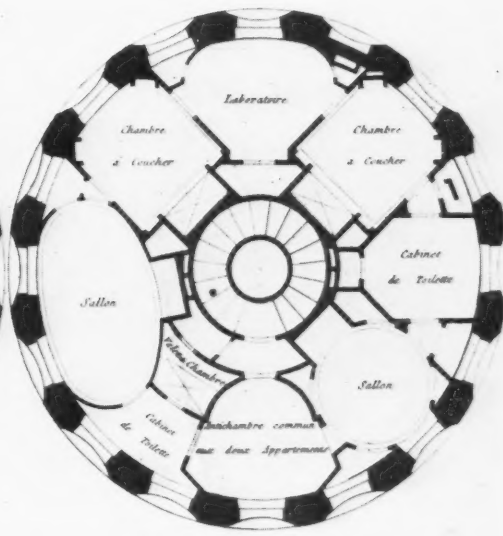
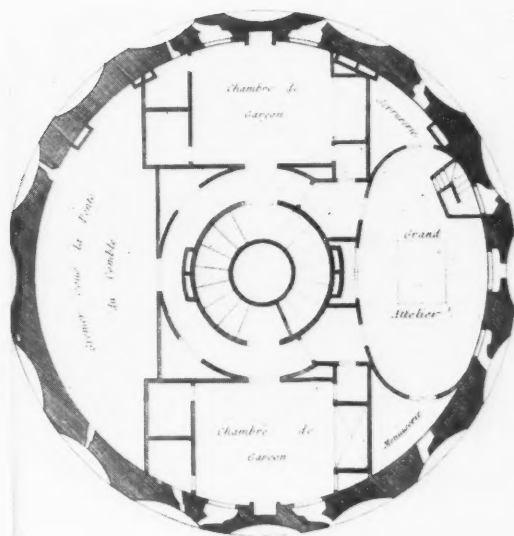


3



4

LE DESERT DE RETZ The house is one of the most daring follies of the eighteenth century. It is of three storeys proper, and as the plans, 5, of two of these show, the interior contains quite a large number of rooms, many of them with the curving walls so much liked in the later eighteenth century. The ingenious way in which these curves are fitted into each other and linked up with the central circular staircase must have delighted Parisian amateurs. The tour de force of the design, however, was to house all these rooms inside a stone casing which pretends to be the ruinous fragment of a fluted column of Babylonian size. The section, 3, and the plans, 5, are from Le Rouge's *Jardins Anglo-Chinois*. 4, an elevation of the house, is from a French drawing of circa 1780-90 now in Stockholm.



5



6, the maison chinoise is the best preserved of the furnishings in the gardens of the Désert de Retz, although even here the neglect of the nineteenth century has assisted to give it its present picturesqueness. The building is far from correct in its chinoiserie; but the general motif must have been copied from drawings and other illustrations. Of the elegant interiors of this summer-house of five rooms, very little is left in position.

6



7



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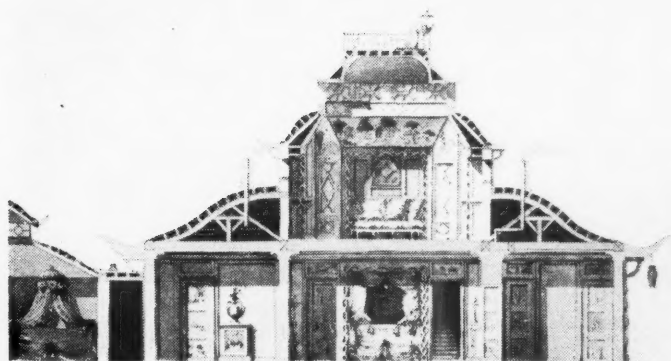


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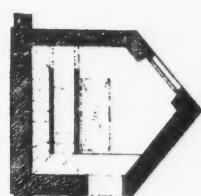
In its present state the house is battered and neglected. 7 is the view from one of the oval windows into the dark, unchecked foliage of the park. 8, the house rising from the spreading greenery, shows an upper row of rectangular windows added at a later date. 9, the temple of the god Pan, in the north-west corner of the gardens, was originally free-standing and less ruinous than it is now. 10, the ruined altar with its leaning urn; its original state appears in 14 on the facing page. All the photographs on this page were taken by Oswald Sirén.



11



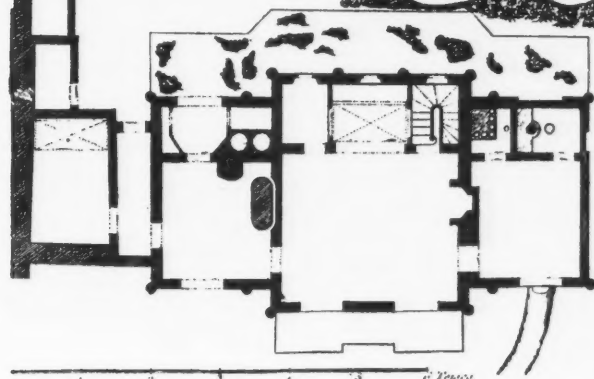
12



Géométral de la Maison Chinoise



Jardin devant la Maison Chinoise



Portion en Retour de la Maison Chinoise



13

Petit Autel presque Ruiné



14

LE DESERT DE RETZ The maison chinoise was originally placed in a wriggly little garden of its own, with a winding rivulet; it is hard to say whether the garden was more Chinese or Early Picturesque English in layout. The house shows just how French, au fond, the conception of the design was; it might just as well have chosen Rococo as Chinese garments. 11 and 12, from two of the exquisite Stockholm drawings, give an idea of the elegance and luxury of the eighteenth century detail, meant to be wholly Chinese outside, but essentially French inside. 13, plan of the maison chinoise and of the original garden, with a detail of the decoration. 14, the ruined altar with its leaning urn. 13 and 14 are from *Le Rouge's Jardins Anglo-Chinois*. Work on the gardens of the Désert de Retz began in 1771, in which year François Racine de Monville purchased the site near the village of Chambourcy, between St. Germain-en-Laye and Marly. The Chinese House is thus later than Sir William Chambers's book and his essays in Chinese taste at Kew.

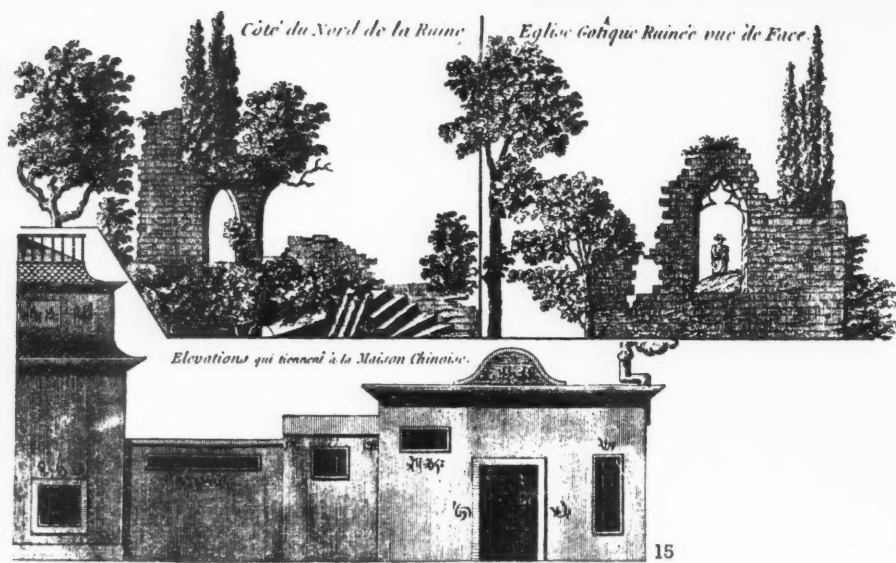
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rest, the Chinoiserie of the building is mostly in its decoration, in the carved and painted ornaments of the façades, the vase-shaped chimneys, the bells at the jutting corners of the roof, and in the crowning railing of the balustrade on top of the lantern. It is evident that the designer of the Maison Chinoise had no real Chinese models or other sources to refer to, but only ornamental drawings, such as he copied to the best of his ability on the high door-panels and rather more freely in the

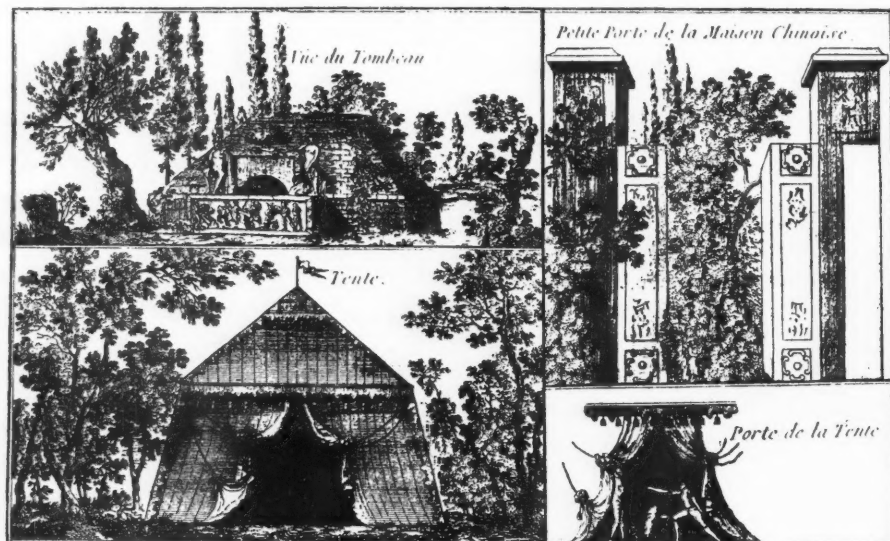
bamboo pillars and their brackets. Altogether, the architectural value and interest of the building are due less to the individual elements of Far Eastern decoration than in the free and elegant way in which they have been adapted and made homogeneous with a structure that is essentially French.

The same impression of elegance and imaginative adaptation was formerly conveyed by the interior; but this is now in an even worse state than the outside of the

building. The whole was furnished in exquisite taste as a comfortable little dwelling of five rooms (with the kitchen perhaps in a special wing), and it was doubtless used at certain times for living in. On the ground floor there were a drawing-room and two lesser rooms, while the big room on the upper floor was furnished as a library. Furniture and ornaments were all in the Chinese taste and coverlets and draperies of Chinese silk, but the fine acajou panelling in the



15, a part elevation of the maison chinoise, and two views of the Gothic Ruin, which still exists although almost overgrown. In the engravings the unmistakably Chinese rhythm of the tree-shapes and architectural shapes—note the fretwork tracery—proves that even in Gothic disguise the spirit of chinoiserie prevailed.



16, plate 25 from Le Rouge's *Jardins Anglo-Chinois*, illustrating various decorative details. The Tomb looks as if it were lifted straight from a Piranesi or a Hubert Robert painting; and Robert had, indeed, the title 'Dessinateur des Jardins du Roi' and may well be credited with the design of the Désert de Retz.



17, the Ice House, near the main gateway, is in the shape of a pyramid, and again obviously harks back to the Roman Campagna. This engraving shows that there was originally formal planting around it; time has changed the slender supplings and now it is vaulted over by trees well over a century and a half old.

library was in a free Louis XVI style. Chinese and French motifs were harmonized so skilfully and so gracefully that the whole place did not seem to be an imitation at all. Even when I first visited it this was still, to some extent, true. There were then some typical remnants of the original furnishings. But even these are now battered and torn beyond repair.

In these circumstances a series of hitherto unknown drawings in the Academy of Art and the National Museum in Stockholm are of the greatest importance, showing as they do the original state of the building. Four folio sheets have been preserved, but as they are numbered ii, iii, iv and vii it is evident that originally there were more, illustrating perhaps all the buildings of the Désert de Retz. These elegantly executed drawings are not signed, and nothing is known about the artist. But the fact that they have come into Swedish hands—some of them probably belonged to F. M. Piper, the great Swedish garden designer of the late eighteenth century—indicates that they were acquired, possibly even ordered, for some particular use in Sweden, and one is tempted to assume that Gustavus III wanted them in connection with work at Haga and Drottningholm. If this was so, it is possible that Louis Despréz was commissioned to do them. In that case he did not draw them from nature, but must have copied them from an older series, with an accuracy equalled only by finesse of execution. But whether such was the origin of these drawings or not, both historically and aesthetically they are the most valuable documents relating to Désert de Retz that have come down to us. They show details which are missing in Le Rouge's engravings, as well as in later ones, and with their delicate tints help us as nothing else can to visualize 'la maison chinoise' as it used to be.

The Prince de Ligne, in the work already referred to, writes that the Emperor of China himself might have approved the Chinese House, which he calls 'un modèle en recherches.' Of the site he observes: 'At the foot of the house water gushes forth from a large mask, and then flows in the form of a pleasant stream with two small islands, to continue downhill by successive terraces, which are designed like part of a small French garden.' As an illustration of the rapidity with which taste changes, it should be recorded that Alexandre de Laborde, describing Désert de Retz in his monumental *Description des Nouveaux Jardins de la France* in 1808, refers to the Maison Chinoise as 'un exemple du mauvais goût qui régnait à cette époque et de la dépense que l'on faisait pour ce détestable genre de magnificence.'

Today, nothing remains of the stream and the terraces mentioned by de Ligne, and the lily pond close by is largely overgrown. Yet, when the light is favourable, the eye may still catch a glimpse of the undulating roof-line of the pavilion reflected in the pond, and something of the old beauty and harmony is released for a moment in the summer air.

Early Iron

3 Notes on Wilkinson In a report to the French Government on certain aspects of the English iron industry in 1775 the *Sieur Marchant de la Houlière* noted that John Wilkinson and his brother William were making at Bersham, among other things, cast-iron doors and porches. De la Houlière proposed to bring William to France in order to introduce into that country the art of 'making iron . . . of a more solid, sharper and less imperfect quality and casting from it in the pleasantest shapes many things which are very costly when executed in wrought iron, such as balconies, balustrades, railings, grates and bars.'

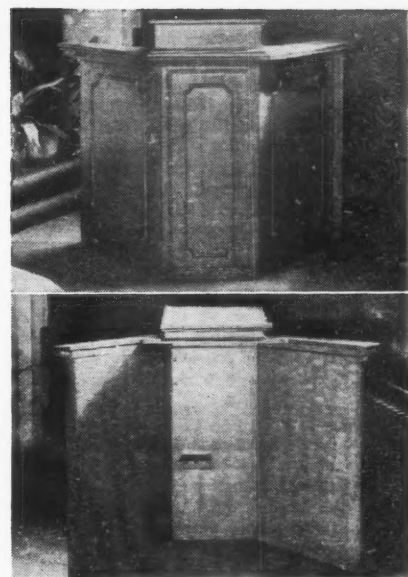
In 1776, John Wilkinson was named in an Act of Parliament, 16 Geo. III, cap. 17, together with the ironmaster Abraham Darby III (1750-1791) and eleven other gentlemen, as one of the trustees empowered to raise £5,000 for constructing and maintaining a bridge of 'cast iron, stone, brick or timber' across the River Severn at Coalbrookdale in Shropshire. Although the castings for this iron bridge, the first in the world, were eventually executed by Darby's Coalbrookdale (or Quaker) Iron Company between 1777 and its completion in 1779, Wilkinson's energetic advocacy of iron is said to have been the deciding factor influencing the trustees to adopt the new structural material. The bridge is well enough known. Its architect was Thomas Farnolls Pritchard of Shrewsbury (d. 1777) who drew up the plans in 1775.

Between 1777 and 1781, John Wilkinson undertook to provide forty miles of iron piping in connection with J. C. Perier's scheme for improving the water supply of Paris, in place of the wooden or lead piping in general use at the time. These pipes were manufactured at Willey New Furnace,

near Broseley, but owing to shipping difficulties which arose during the American War of Independence, a number of them never reached their destination and may still be seen supporting porches and farm buildings near Castlehead, the country seat which Wilkinson erected about the same time near Grange-over-Sands in the Furness district of Lancashire. The remains of his hot-houses and vineries at Castlehead reveal that he used cast iron for the window-frames and ventilators of these buildings.

Wilkinson is credited with having built, about 1790, 'an iron chapel' for the Methodists worshipping near his great works at Bradley, in Bilston, Staffordshire. Upon examination of the surviving historical material relating to this chapel, it would appear that although pillars and window-frames of cast iron were used in the building, the rest of the structure was of wood, brick and stone. It was destroyed by fire in the course of the nineteenth century, but an interesting feature of the original chapel survives and is housed on the same site in the present Hall Green Street Wesley Methodist Church at Bradley—the neat iron pulpit illustrated here, which was cast at Wilkinson's works nearby.

W. H. CHALONER



1, cast-iron pulpit made, circa 1790, by John Wilkinson, at Bradley. 2, interior of pulpit.

BOOKS

A NEGLECTED VICTORIAN

THE CONSCIOUS STONE: THE LIFE OF EDWARD WILLIAM GODWIN. By Dudley Harbron. Latimer House Ltd. 12s. 6d.

EDWARD GODWIN was a very remarkable man. He was in more than one way so far in advance of his time that only now, sixty-two years after his death, can we see him in perspective as one of the first of the moderns. If we can, this is due entirely to Mr. Dudley Harbron's patient research. His book is a moving story well told of a lovable many-sided man who was in revolt against the Victorian gloom about him, and worked unceasingly towards a lighter, cleaner, more imaginative style.

Trained as an engineer, he approached architecture with an untrammelled eye. He was one of the mainsprings of the aesthetic movement, but also foresaw functional architecture, utility furniture (which he called 'economic' furniture) and much else. The simplicity of the best modern buildings would have delighted him, for his outstanding gift was to awaken interest through form. In the sixties already he pleaded for the unity of the arts and the necessity of allowing the architect to design the furnishings and decorations of a building as well as the building itself. There was indeed nothing he could not turn his hand to. 'One of the most artistic spirits of this century,' Oscar Wilde called him. He designed buildings ranging from the Northampton and Congleton Town Halls and Irish castles to studios in Chelsea—especially the memorable White House for his friend Whistler in Tite Street. He was a forerunner of Reinhardt as a producer of plays in the open-air and the arena, a man of letters, a Shakespeare scholar and an expert designer of

period costume, properties and scenery. In the theatre he was supreme, as Inigo Jones had been before him, designing dresses for Ellen Terry at Bristol in the sixties when she was little more than a child and afterwards, notably when she acted in Tennyson's *The Cup* at the Lyceum, robed as a Priestess of Artemis. His greatest triumph came in 1886, shortly before his death; he transformed Hengler's Circus into a Greek Theatre and produced Todhunter's *Helena in Troas*. The fact that here evidently—and the large audience of rank and fashion saw it at once—one master-mind had been directing the whole, marked the beginning of a new era in theatrical history. Godwin demonstrated that what the architect is to the building, the 'producer' is to the play, and from this demonstration all modern production was to flow.

Janet Leeper

SCOTLAND

ART IN SCOTLAND. By Ian Finlay. Pp. viii, 186. Illustrated. London: Geoffrey Cumberlege, Oxford University Press. 1948. 15s.

VISION OF SCOTLAND. By G. S. Fraser. Pp. 180. Illustrated. London: Paul Elek. 1948. 25s.

WHILE neither of these two books is primarily concerned with architectural matters, each has something to attract anyone who is interested in the fascinating and peculiar architecture of Scotland. Mr. Finlay, in particular, performs a most useful service by relating Scottish architectural developments—almost for the first time—to the whole artistic evolution of the country from Celtic times until the present day. While his architectural references are necessarily limited, he writes throughout with considerable knowledge and insight. He does justice to the remarkable sculptural achievements of the Celtic period, but emphasizes how, when Scotland was absorbed in Medieval Christendom, the native

tradition was too 'weak and elusive' to produce variations of Romanesque and Gothic comparable to those of England, France and Germany. Scottish buildings of the twelfth and thirteenth centuries have a character of their own, but it is mainly derived from a smallness of scale and a relative simplicity of design. Nevertheless, in buildings like Dalmeny Kirk, the Abbeys of Dunfermline and Kelso, or the Cathedrals of Glasgow and Elgin—and Mr. Finlay might surely have added Dunblane—the Scottish builders attained a very creditable architectural level indeed.

After the War of Independence, which forced Scotland away from England towards France and the Low Countries, there comes a more obvious 'national individualism' symbolized by the great burgh churches like St. Giles' at Edinburgh, the smaller collegiate churches like St. Monans or Corstorphine, the monumental granite Cathedral of Aberdeen, or, in secular architecture, the gaunt tower-houses of the Scottish baronage. In such buildings one may detect the decline of medieval art, but Mr. Finlay rightly points out that, for Scotland at least, they form the prelude to a period of quite extraordinary brilliance. It is in the sixteenth and seventeenth centuries that 'Scots feeling and the Scots character express themselves through the arts with a power for which they are only now beginning to get the credit.' Throughout most of this 'vernacular era' there is little hint of real renaissance influence. In the tolbooths and houses of the burghs or the towers of the lairds 'design was uniformly functional'—old-fashioned perhaps by contemporary continental standards but full of vitality and charm. These buildings in themselves give the lie to the theory that Calvinism blighted the arts in Scotland after the Reformation, a point which Mr. Finlay elaborates almost overmuch, albeit with learning and cogency.

It is less easy to follow him in his criticism of

Scottish architecture of the eighteenth and nineteenth centuries. Admitted that 'the classical invasion' involved a break with native tradition, admitted that the reaction from classicism produced much that was precious in 'Gothick' and much more that was vulgar and ludicrous in 'Scottish Baronial,' the fact remains that each period deserves a more reputable place in architectural history than Mr. Finlay is prepared to admit, the classical for its persisting Scottish quality, the baronial for its persisting sense of architectural form. By contrast, he is very fair in his assessment of the work of Sir Robert Lorimer, although he fails to appreciate the considerable community of outlook which Lorimer shared with the more highly regarded C. R. Mackintosh.

Taking it all in all, this is a judicious and well-informed book, so much so that the occasional lapses from grace are all the more jarring and surprising. To name only three, a mere glance would have assured Mr. Finlay that there is no Norman porch at St. Giles', Edinburgh; the kirk at Invergarry, credited to the seventeenth century, actually belongs to the twentieth; and it is hard to conceive how the argument that the older Scottish rubble buildings were harled and limewashed, is assisted by a reference to an unidentifiable lecture.

As its name suggests, *Vision of Scotland* is altogether more impressionistic in its approach. Mr. Fraser is concerned to depict 'the whole reality of Scotland' and attempts to do so, not without a measure of real success, by means of a general survey and six regional essays supplemented by a lavish assemblage of photographs and drawings. He writes with enthusiasm and a refreshing freedom from the peevishness that has spoiled too many recent works of this kind. His description of Glasgow is particularly good; to Edinburgh, on the other hand, he is less than fair; while his regional groupings are too wide and miscellaneous to be accurate. To treat of Fife and Buchan, for example, as slightly varying parts of 'the North-East' is misleading, to say the least of it. When it comes to Scottish architecture, again, Mr. Fraser's enthusiasm cannot compensate for his sheer deficiency of knowledge. The photographs, admittedly, are magnificent, but whether the somewhat nightmarish quality of the drawings is representative of Scotland may be very seriously doubted.

Ronald Gordon Cant

HISTORY THROUGH ART

ART IN MEDIAEVAL FRANCE, 937-1498. By Joan Evans. Oxford University Press, 1948. 63s.

'It is . . . historical development and not . . . style, which is the object of this book' Dr. Evans states at the end of the first paragraph of her preface. Once that is realized the reader, layman or expert will find nothing but high enjoyment in it. Dr. Evans has not set out to describe how architecture or sculpture or tapestry developed from stage to stage in the course of five centuries, nor how each of these stages corresponds to one in the development of thought and feeling in France. The main divisions are The Benedictines, The Cistercians, Bishops and Chapters, Augustinian Canons, The Mendicant Orders, The Carthusians, King and Court, The Citizens, The Villagers. She looks at art from the point of view of those for whom it was made. Her aims are a historian's more than an art historian's, but she pursues them with a knowledge of French art unparalleled in Britain, a knowledge acquired over twenty years and more. During all those years this book must have gradually grown in her mind, until she began to write it down, drawing on a wealth of local details vividly remembered and felicitously expressed—the setting of trees behind a church, the colour

of stone in a dusty provincial town, and so on, and on an accumulation of little known incidents which one never tires of listening to. How Claus Sluter's Jeremiah from the celebrated Moses Fountain, a piece of sculpture aesthetically as successful and historically as bold as a Donatello, originally wore spectacles of gilded brass, how Jacques Coeur's Gothic town house at Bruges has already sham windows for façade purposes as if it were of the Renaissance or the Age of Taste, and how his *donjon* was meant as a strong-room not as a keep, how madly luxurious the table decorations of French fifteenth century princes were, how a master painter in 1393 marked a place on a page with a note to his assistant telling him to leave a blank where he wanted to fill in a figure himself ('ne faites rien ci, car je y ferai une figure qui y doit estre'), how the Hospital at Beaune in Burgundy, founded in 1445, had from the beginning a special room for paying patients, and so on.

The book is illustrated by 200 excellently chosen and excellently printed pictures and has a seven-page bibliography of principal works consulted. The number of further books and papers quoted in the footnotes is legion. Out of all these and a great warmth of sympathy this rare achievement of a book has been made.

Nikolaus Pevsner

IMPULSE, CONVENIENCE AND DEMAND

SHOPS AND STORES. By Morris Ketchum, Jr. Reinhold, New York. Chapman and Hall, London. 60s.

THIS is probably the most important book on shop and store planning and design so far produced. It is an exemplar of the American scientific approach applied to this particular problem with great thoroughness and as a result of the experience gained from designing literally hundreds of shops. To one accustomed to work on a modest scale this mass of carefully argued and logically presented material is somewhat shattering in its effect.

Goods are divided into the three categories of my title and if the unsuspecting customer is unfortunate enough to want anything in the last category, in any of Mr. Ketchum's shops he will have to be possessed of devilish sales-resistance if, in his inexorable journey past impulse and convenience goods to the furthest corner of the highest floor, he has the money left or even the will to buy the humble object he has to have of necessity!

The small shop is considered as part of a shopping centre; the large store as a complex of indoor shopping streets; walls as display and advertising zones; the lobby as a pulled-in sidewalk; the mere customer is considered in terms of age, sex, income bracket and eye-brow cut-off. Each and every aspect of selling is subjected to the same kind of scrutiny—almost terrifying in its penetration, as the few random examples quoted above, but it goes as a great tribute to the author's balance of mind that one can find after reading over 150 pages of enthusiastic writing, a statement such as this: 'The passing crowd has little time for even the best of store fronts.'

Despite a tendency to repetition and the very full development of his arguments, the author carries the reader's interest step by step, and the obvious soundness of his precepts seems incontrovertible, it is not until one reaches the logical conclusion and finds that Mr. Ketchum's ideal shop entirely dispenses with daylight and has an artificial climate because light and air do not lend themselves to control, that one's critical faculties revive and there is at least room for doubt as to whether this is what the average Englishman wants, even if he could afford it. Thus aroused one also begins to wonder what will happen to the sales-graph when every man on the sidewalk knows that it is

only in a small shop that he will be able to buy a razor blade without passing acres of impulse merchandise and his wife knows that it is only via the primrose path of 'notions,' 'greeting cards,' 'candy' (perhaps even 'men's furnishings') that she can at last reach the zone where babies' diapers may be visually departmentalized?

This is indeed an excellent, very well illustrated, comprehensive and provocative book and its value as an analysis is not diminished even if some of us are not convinced that we would prefer to see merchandise rather *less* well and have the sun streaming through the windows, or have some good dark colour in spite of its low reflective value.

Bryan Westwood

SHORTER NOTICE

THOMAS TAYLOR, REGENCY ARCHITECT, LEEDS. By Frank Beckwith. Publications of the Thoresby Society: Monograph 1.

Even as the provincial architects of the early nineteenth century go, Thomas Taylor of Leeds has hitherto been an obscure figure. Sometimes he is even given the wrong initial, and gets called 'J. Taylor'—an error which the present reviewer has been guilty of trying to perpetuate. Yet when Taylor died, in 1826, the *Leeds Intelligencer* could remark, without any flagrant violation of truth, that he had built 'more churches than any architect of the present day.'

The actual number, according to Mr. Beckwith, was sixteen, all in the north and all Gothic. This total gains in impressiveness when one learns that his first church (and Mr. Beckwith thinks his best), at Liversedge, was begun only in 1812. Among other things, Taylor, who had worked under James Wyatt, also designed Leeds Court House (Grecian, but long ago demolished), and came second in the competition for the Leeds Commercial Buildings against Goodwin, Chantrell, Salvin, Barry, and the successful competitor Clarke. (It is an interesting comment on the competition system at that time that Barry's design should have got no votes at all and Salvin's only five, while Chantrell, a Leeds man, got seventeen.)

Taylor was no very considerable architect. But, as Mr. Beckwith says, he made his mark. In exploring his career and relating it to the background of his age in this well-written and fully documented monograph, Mr. Beckwith has done a valuable piece of work. If only one could believe that he will have many imitators!

M.W.

Other Books Received

PEINTURES ROMANES ET VESTIGES GALLO-ROMAINS. By Jean Laffarque and Georges Fouet. Edouard Privat.
RESIDENTIAL LIGHTING. By Myrtle Fahs Bender. Macmillan. 55s.
FREDERIC HERBERT MANSFORD. The Ecclesiological Society. 10s. 6d.
FORM AND FUNCTION. By H. Greenough. Cambridge University Press.
SOLID AND LAMINATED WOOD BENDING. By W. C. Stevens and N. Turner. H.M. Stationery Office. 5s.
J. L. DAVID—THE PAINTER. by Helen Rosenau. Nicholson & Watson. 10s. 6d.
THE ROADWAY TO RECOVERY. By C. T. Brunner. British Road Federation. 5s.
A STAGE FOR POETRY. By Gordon Bottomley. 105s.
SELF TRAINING FOR INDUSTRIAL DESIGNERS. By John Gloag. George Allen & Unwin. 8s. 6d.
ANATOMY FOR INTERIOR DESIGNERS. Whitney Publications Inc. \$3.50.
BUILD YOUR OWN ADOBE. By Paul and Doris Allen. Oxford University Press. 16s.
JERUSALEM CITY PLAN. By Henry Kendall. H.M. Stationery Office. 21s.
THE GEORGIAN BUILDINGS OF BATH. By Walter Ison. Faber & Faber. 52s. 6d.
EDINBURGH. Auspices Outlook Tower Association. Oliver and Boyd. 5s.
WHEN THE CATHEDRALS WERE WHITE. By Le Corbusier. Routledge. 15s.
THE APPEARANCE OF HOUSING ESTATES. Ministry of Health. H.M. Stationery Office. 6d.
FASHIONABLE BRIGHTON, 1820-1860. By Anthony Dale. Country Life. 42s.
MASKS OF WEST AFRICA. By Leon Underwood. Alec Tiranti. 6s.
BUILDING CONSTRUCTION. By J. P. C. Bowden and E. G. Bartle. Isaac Pitman. 6s.

ANTHOLOGY

Buy British

Is there a portal, colonnade, or dome,
The pride of Naples, or the boast of Rome?
We raise it here, in storms of wind and hail,
On the bleak bosom of a sunless vale;
Careless alike of climate, soil, and place,
The cast of Nature, and the smiles of Grace.
Hence all our stucco'd walls, Mosaic floors,
Palladian windows, and Venetian doors.

One might expect a sanctity of style
August and manly in an holy pile,
And think an architect extremely odd,
To build a playhouse for the Church of God;
Yet half our churches, such the mode that reigns,
Are Roman theatres or Grecian fanes;
Where broad-arch'd windows to the eye convey
The keen diffusion of too strong a day;
Where, in the luxury of wanton pride,
Corinthian columns languish side by side,
Clos'd by an altar exquisitely fine,
Loose and lascivious as a Cyprian shrine.

Form'd on his plans, our farms and seats begin
To match the boasted villas of Pekin
On every hill a spire-crown'd temple swells,
Hung round with serpents, and a fringe of bells;
Junks and balons along our waters sail,
With each a gilded cock-boat at his tail.

J. CAWTHORN (for recitation at Tunbridge School,
where he was headmaster), 1756.

1740. From Simpson (quoted by J. Essex to the Society of Antiquaries): '(Lincoln) is by far the noblest Gothic structure in England . . . whoever had the conducting of it was well acquainted with the noblest buildings of old Rome.'
1750. 'Annual consumption of tea, 2,325,000 lb. at 5/- (Cf. 1706, 54,600 at nearly £1).'
1760. From a letter by H. Walpole to G. Montagu: 'Conveniences in every bed-chamber; great mahogany projections . . . with holes with brass handles and cocks, &c.'
1769. From Coade's Catalogue (1784): 'Psyche fitted up with spring-tubes for lights (5 gns.), . . . busts of the Madonna (15/-), Queen Elizabeth (3 gns.), Homer, Marcus Aurelius, Cicero, Edward VI, Vandyck, Lord Chatham.'
1778. From a letter by F. Burney to S. Burney: 'Cute enough that, Miss Sukey.'
1792. From E. Darwin's *The Economy of Vegetation*:
'Soon shall thy arm, Unconquer'd Steam!
afar
Drag the slow barge, or drive the rapid car.'

INTELLIGENCE

The *Chambre Syndicale des constructeurs en ciment armé* is organising, in Paris, a centenary celebration of the invention of ferro-concrete. It will be held from November 8-10, and speakers will include Freyssinet and Auguste Perret.

Jaromir Krejcar, the Czech architect, died in London on October 5, aged 56. He was professor of architecture in Brno until he left Czechoslovakia following recent political changes, and came first to France and then to England, where he joined the staff of the Architectural Association School. He was the designer of the Czech pavilion at the 1937 Paris exhibition.

The foundation stone of the L.C.C. Concert Hall on the South Bank was laid by the Prime Minister on October 12. A photograph is on page 340.

Foots Cray House, the Palladian mansion recently acquired by the Kent Education Committee, was destroyed by fire on the night of October 18.

Garden for U.N. Headquarters

Plenty of attention has been given to the architecture of the United Nations building in New York City, but the fact that the site will be one of the few open spaces in overcrowded central New York—and is therefore deserving of the most careful landscape attention—has scarcely been discussed. With the idea that the United Nations site should not be considered in a perfunctory way, or worse still cursed with the dreariness of the usual New York park design, a scheme (a sketch of which is reproduced on page 336) was drawn up by Christopher Tunnard to explore the possibilities of the garden both as a setting and as a public space.

The area is not large in comparison with the mass of the buildings but is fortunately much more adequate than the pocket handkerchief given to Rockefeller Center. Other advantages are the deck over the East River Drive which removes traffic from the view on that side, and the tunnel under First Avenue which eliminates it on the other. The site engineering in general has handsomely prepared the way for an uninterrupted landscape treatment. Prof. Tunnard's scheme is extremely simple in its main elements, with more complex changes of scale and detail in the less prominent parts. The site is so completely dominated by the building masses that any formal or axial treatment, as hinted at in earlier official sketches,

MARGINALIA

This Month's Anthology

The verses by J. Cawthorn for recitation at Tunbridge School are one of many *trouvailles* deposited in Mr. E. F. Carritt's *A Calendar of British Taste from 1600-1800 being a Museum of Specimens and Landmarks chronologically arranged**, an admirable, exasperating, immensely widely read, crotchety, wholly delightful book. The author has packed into its 400 odd pages well over 2,000 bits from all kinds of authors. Bits referring to coffee and tobacco, to Gothic and Chinese, to newspapers and melancholy, to Chaucer and Homer, to food and wine prices, and to the bequest of a negro servant in 1702 as part of someone's goods and chattels. Much, of course, is well known, but far more is quite out of the way. So here instead of any further comments are a dozen passages in chronological order as arranged in the book:

1628. From Earle's *Micro-Cosmographie*: '(The antiquary) will go you forty miles to see a saint's well or a ruin'd abbey.'
1673. From *The Grand Concern of England*: 'Coaches and Caravans are one of the greatest mischiefs that hath hapened of later years to the Kingdom.'

1679. From Evelyn's diary: 'The grotts in the chalky rock are pretty; 'tis a romantic object.'
1681. From C. Cotton's *The Wonders of the Peake*:
The primitive casements modell'd were
no doubt
By that through which the pigeon was
thrust out,
Where now whole shashes are but one
great eye,
T'examine, and admire thy beauties by.'
1696. From Gregory King's *State and Condition of England*: 'Average incomes at this time: Nobleman £3,200, Bishop £1,300, Baronet £880, Knight £650, Esquire £450, Country Gentleman £280, Merchant £400, Lawyer £154, Dignified clergyman £72, Inferior clergyman £50, Freeholder £90-55, Farmer £42-10s., Shopkeeper £45, Artisan £38.'
1697. From Celia Fiennes's *Diary*: '(At Chatsworth) you went down two steps into the bath big enough for two people; at the upper end are two cocks to let in one hott the other cold water.'
1709. From Macky's *A Journey through England* ('Hampstead's') nearness to London brings so many loose women in Vampt-up clothes to catch the City apprentices, that modest company are ashamed to appear here. . . . It seems to me to be overstock'd with Jews and sharpers.'

* Routledge & Kegan Paul, 1949, 21s.

could not succeed in appearing anything but arbitrary, apart from being out of sympathy with the architecture itself. The new design does have strong directional lines but they are softened by the weaving of the tree pattern, which, with its irregular bays and openings, provides a setting for sculpture not always immediately seen. At the same time the whole site, with the exception of the Delegates' Garden, is open to pedestrian circulation, either in shade or sunlight.

Prof. Tunnard proposes that only the Delegates' Garden should be set apart from the rest between the General Assembly and the lower part of the Secretariat. It has several quiet places and a good deal more colour in the way of flowers, mosaic pavements and mural paintings on the walls. It is rather heavily screened—the wind off the river is sometimes disagreeable—and the screens help to make the intricate pattern, which is seen as often from above as from the ground. A large central pool helps to define the pattern; at one end of the pool the water churns and bubbles in the warmer months; in winter it becomes an ice fountain. As wide a range of plants as possible is included here—and it is surprising how wide it is, from birch and rhododendron to bearberry and ivy—and a number of sculptures which it is hoped the United Nations will commission from the world's great artists.

Exhibitions

When this issue of the REVIEW is published there will still be a few days left in which to see the J. Leslie Wright collection of British water colours and drawings at Burlington House. Certainly it should not be missed by anyone who can contrive otherwise. Mr. Wright has been forming this collection, at Haseley House, Warwickshire, during the past twenty years, and this is the first time it has been exhibited to the public *in toto*. Altogether there are 371 pictures on show, representing nearly all the best known British artists of the eighteenth and early nineteenth centuries, together with a fair number of the less celebrated but still not negligible. In point of numbers, Gainsborough and Rowlandson are the most fully represented

of all, the former with twenty-three works and the latter with no fewer than thirty-nine, while there are twenty-one Girtins, fifteen Turners, fifteen De Wints, and so on. The critic must be forgiven a somewhat statistical approach because few people outside a limited circle of connoisseurs and art historians can have been aware till now of the richness of this remarkable private collection. Coming to individual pictures, and more particularly those with an architectural or topographical starting point, Girtin's 'Lowther Castle' contains a sense of space and place and weather that requires that it should be mentioned, while the same artist's 'St. Alban's Abbey' (reproduced on this page) is one of the finest interiors present. The latter picture has of course the additional historical interest of showing St. Alban's before the restoring Lord Grimthorpe got to work, and the same kind of interest attaches to Sandby's 'Chiswick House' (no. 3, page 338) drawn before the destruction of the steps on the garden front of Burlington's villa. Among the Cotmans, 'St. Mary's Abbey, York,' 'Remains of a Norfolk Church Lantern Tower'—cannot someone identify it?—and a marvellously sensitive little pencil and wash drawing of Quidenham Hall, Norfolk, stand out; Bonington's 'St. Etienne, Beauvais' and 'Paris' (the latter said to have been his last work) are memorable; and on a rather lower level there are some successful works by T. S. Boys. The tiny 'Italian Gateway' by Humphry (or as the catalogue has it, Humphrey) Repton is something to which it may be legitimate to direct REVIEW readers' attention, while Clerisseau's two drawings of the celebrations at Ranelagh of the birth of George IV (with figures by Zucchi) and Donowell's 'View of the Grand Walk, Marylebone Gardens' have a bearing on the subject of London's past pleasures which should not be lost on them. (November 6).

If the riches of Mr. Wright's collection have been a surprise to many, that the Arts Council should have thought that the late James Pryde merited a one-man show at the Tate Gallery must have been a surprise of a different kind to many more. The intention of the Arts Council, one must suppose, was to do Pryde proud; the effect of their action has been to make it clear, once and for all, that Pryde was a minor artist who occasionally painted a good picture but



2, St. Alban's Abbey by Thomas Girtin, from the J. Leslie Wright collection of British water colours and drawings exhibited at Burlington House.

had not the stamina or the intellect to rise to any consistent level of achievement. Although he had a romantic attachment to columns and the other apparatus of classical architecture his buildings lack weight and substance, and justify themselves most fully when, as in 'The Red Ruin,' they are used simply as elements in a two-dimensional pattern.

Finally, a note on a new-comer, Stanley Squire, who recently held his first exhibition at the Hanover Gallery. The prevailing colour at this show was a bluey-green; the prevailing subject-matter aquatic, with figures whose anatomy may have owed something to Henry Moore, but whose souls were their own. There was also a nice line in meat-hooks, which seemed to have become aquatic too, and to have woken into a slow eel-like sort of life. Altogether this was a show one was glad not to have missed. (October 8).



1, Christopher Tunnard's project for the garden surrounding the U.N. headquarters in New York. This sketch (by Charles Prentice Thompson) shows a bird's-eye view of the site, looking from the new pedestrian entrance at 47th Street across to the picturesque industrial slums on the other side of the East River. The delegates' garden is hidden behind the projecting general assembly.



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3, Chiswick House by Paul Sandby, another water-colour from the J. Leslie Wright collection exhibited at Burlington House. 4, The Red Ruin by James Pryde, shown at the exhibition at the Tate Gallery. From the collection of the Viscount Cowdray.

CORRESPONDENCE

Post-War Schools in Britain

To the Editors

THE ARCHITECTURAL REVIEW

DEAR SIRs,—With reference to the article on the above appearing in the September issue of THE ARCHITECTURAL REVIEW, I should like to say how much I admire the excellence of this production, particularly from the presentation point of view. We would all agree on the splendid contribution to colour treatment in schools pioneered by Mr. Medd and also give credit to the authors of the designs illustrated, which indicate the general advance which is being made in school design and standards of finish.

In making the following comments on the article, I do appreciate that the treatment of the subject is academic and no attempt has been made to make a complete survey covering all the factors which have influenced design up to date.

Unfortunately, however, by omitting to place sufficient stress on the economic aspects, which, after all, are the main issues to-day, the writer has failed to point out the dangers involved if architects try to aim too high in giving expensive 'tailor-made' jobs which the country cannot afford. More attention should have been given to the real task of the architect which is to provide good schools of simple design which can be erected quickly at the lowest possible cost.

Further, I should like to point out that the post-war schools which are now reaching completion can be described as little more than a transition from sub-standard hutment schools to full standard construction and were started under the stress of great

urgency. In Middlesex, for example, over 23,000 new school places have been provided and occupied since building commenced soon after the war; this programme could only be carried out in the time required by the use of standardized construction of a strictly utilitarian character.

The writer has completely missed the point of the one-storied building in attributing this to the daylight factor alone; the initial preference for one-storied buildings was not in any way due to the difficulty of applying the daylight factor to two-storied work, but was necessitated by the need for speed and the use of light-framed construction brought about by the acute shortages of steel and other building materials.

The many educational advantages of single-storied building might well have been mentioned, since this is a particular aspect of school planning which is least understood by the general public. It is true,

[continued on page 340]

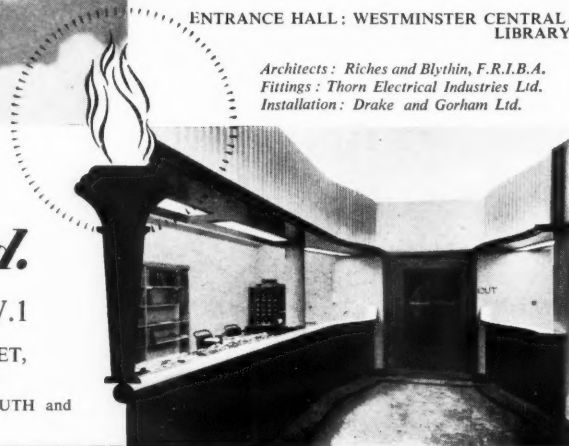
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5, a model showing the revised design, by the L.C.C. architects Robert Matthew and J. L. Martin, for the Concert Hall now being erected on the south bank of the Thames.

continued from page 338]

of course, that a school having a proportion of two-storied work can be more satisfying aesthetically and can reduce the total site coverage or lateral spread; but I would point out that, unless we revert to the compactness of the old inflexible plan, the actual difference is much less than might be expected.

Yours faithfully,

C. G. STILLMAN.

London, S.W.1.

Functionalism and Canon

To the Editors

THE ARCHITECTURAL REVIEW

DEAR SIRS,—"Functionalism . . . we have fought it for 20 years." So says Philip Johnson in *The Frontiersman*, his Frank Lloyd Wright article in

your August issue. This is a strange statement, one that says, in effect, that the author has consistently opposed attempts to produce an architecture fitted to human requirements, opposed therefore the only sound basis for any valid contemporary architecture. This can only come from a consideration of the possibilities for the development of man as a living, growing organism. This must be the basis, and extends far beyond a narrow, mechanistic view of enclosing space purely for the actions of people living and working as they do at the present day. It reaches into the consideration of man as a biological organism, living in a society of great complexity, into the psychological reactions of man to the surroundings—natural, man-made, and his fellow men, and exploring how best the architect may provide for man's fullest development. To

create such an environment, a first essential is for the architect to have available all the most recent technical resources of our civilization, and be free to use them in a rational and economical manner.

In the same issue is a further chapter of 'Canon'—its aim, 'towards a consistent theory of modern architecture,' an admirable idea, but which has so far breathed scarcely a whisper of the basis outlined above. If functionalism is mentioned, it is only in order to attack it, and if people enter into the discussion, the original quotation is distorted so as to depreciate the idea as strongly and maliciously as possible (I refer to the August issue, mentioning 'Plan 3' editorial; a reading of the original will show its real meaning, which is far from 'Canon's' comment). The author of 'Canon' has become lost in a visual aesthetic maze, and seems to believe that the only way out is to plunge deeper, firing wildly at any rationalization which may cross his path.

Please let us realize that architecture is more than a visual sensation, and has tremendous effects on our way of living, and the development of our communities.

Yours sincerely,

TONY MOORE.

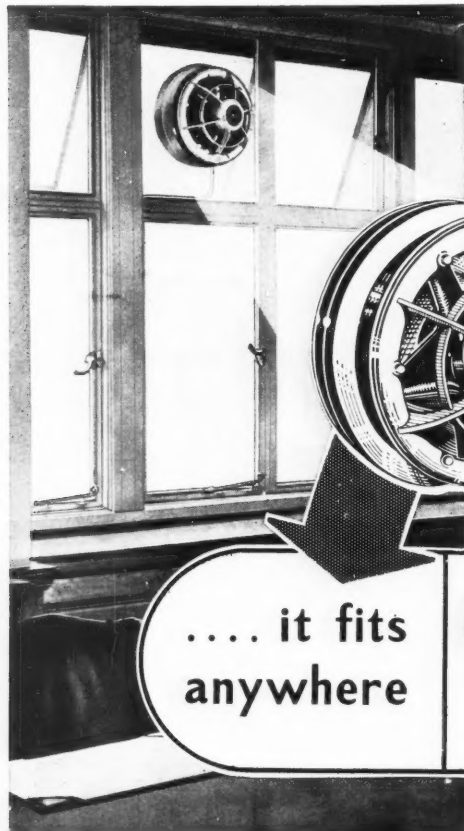
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[continued on page 342]



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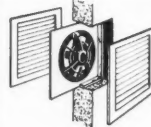
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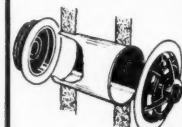
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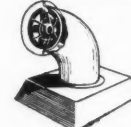
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continued from page 340]

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Acknowledgments

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English Publishers

The English publishers of the following books, which were reviewed in our September issue, are as follows:

Elie Saanen by A. Christ-Janer (Chicago University Press) Cambridge University Press. 84s.

California Pictorial by J. van Nostrand and E. M. Coulter (University of California Press) Cambridge University Press. 55s.

Corrections

On page 144 of the September issue of the REVIEW, the density of the Somerford Estate at Hackney was described as being 'about 100 dwellings per acre.' This should have been 'about 100 persons per acre.'

In the caption to illustration no. 5, on page 118 of the August issue, a coffee table and chair were wrongly described as being by Elie Saanen. They were designed by Charles Eames.

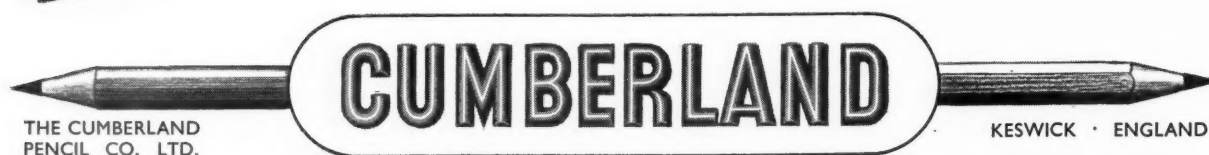


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