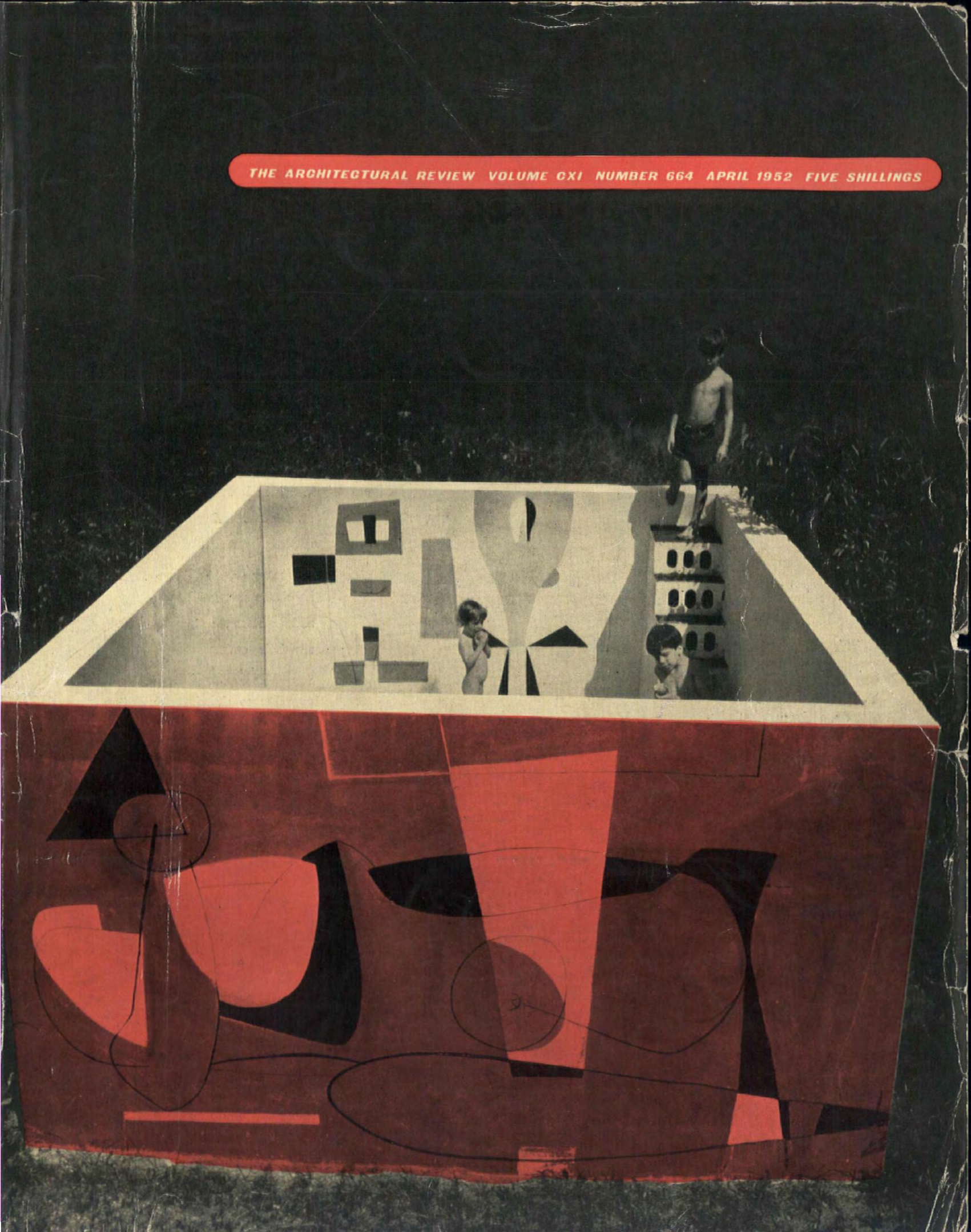
THE ARCHITECTURAL REVIEW VOLUME CXI NUMBER 664 APRIL 1952 FIVE SHILLINGS



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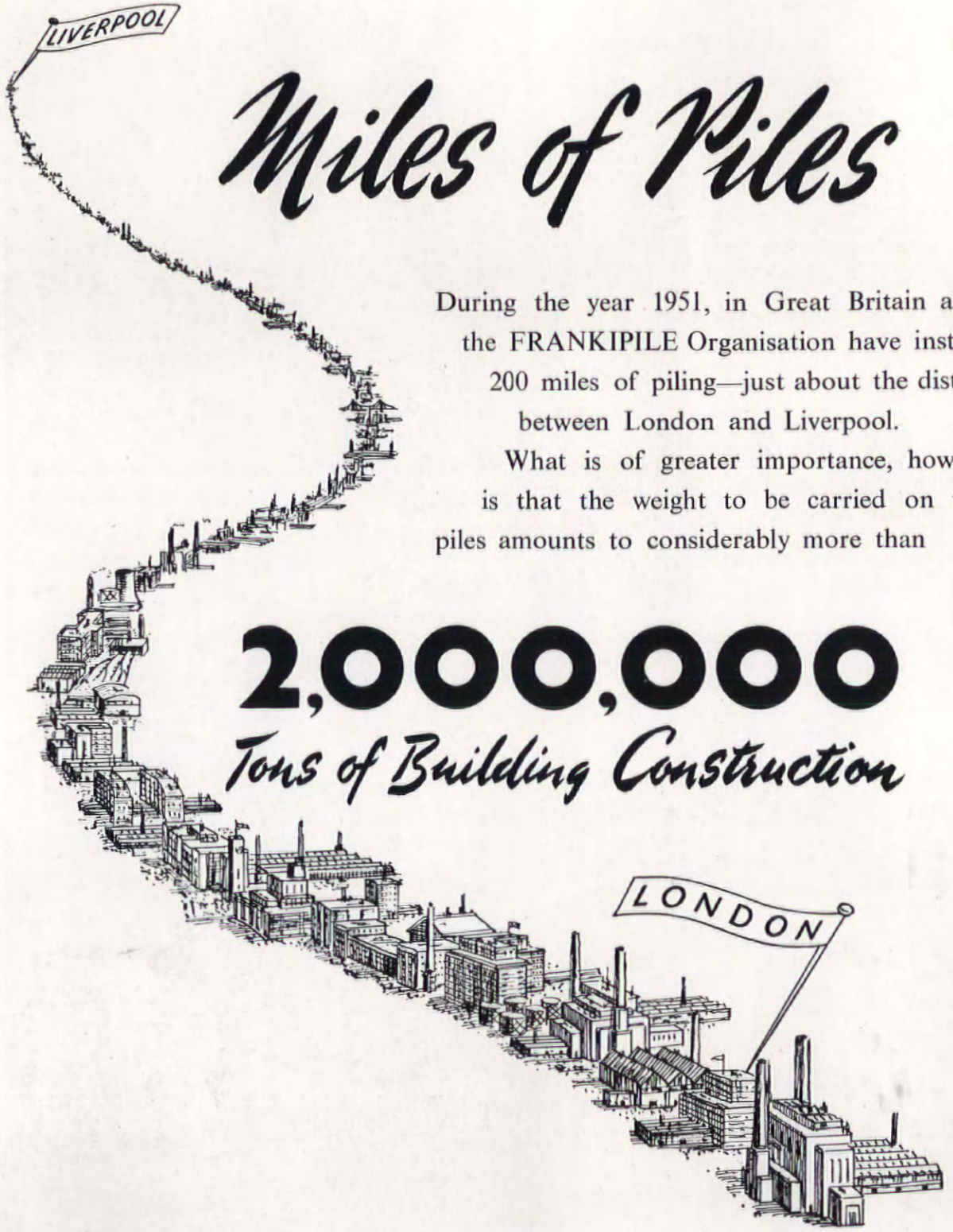

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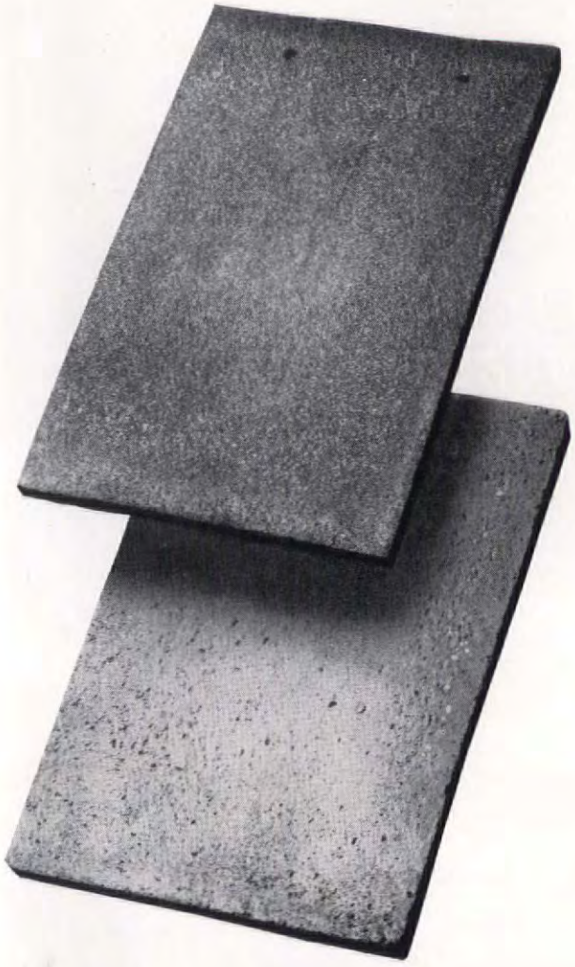

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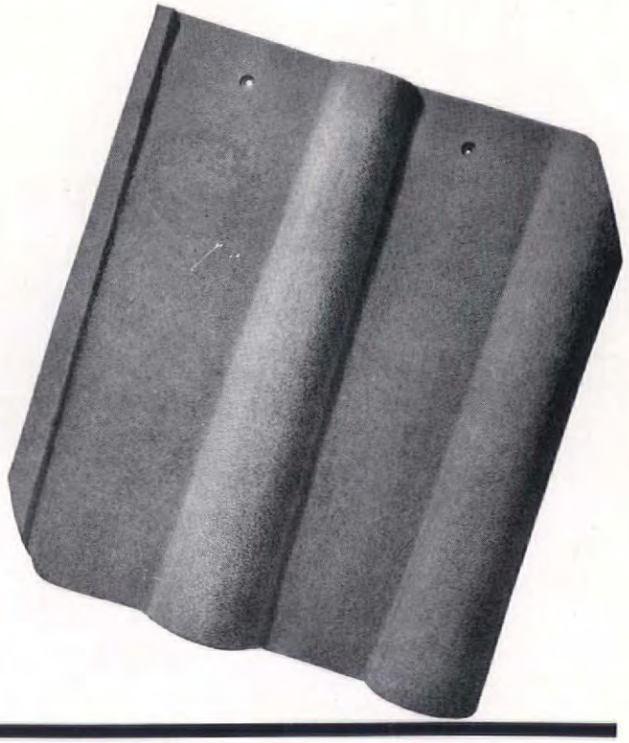

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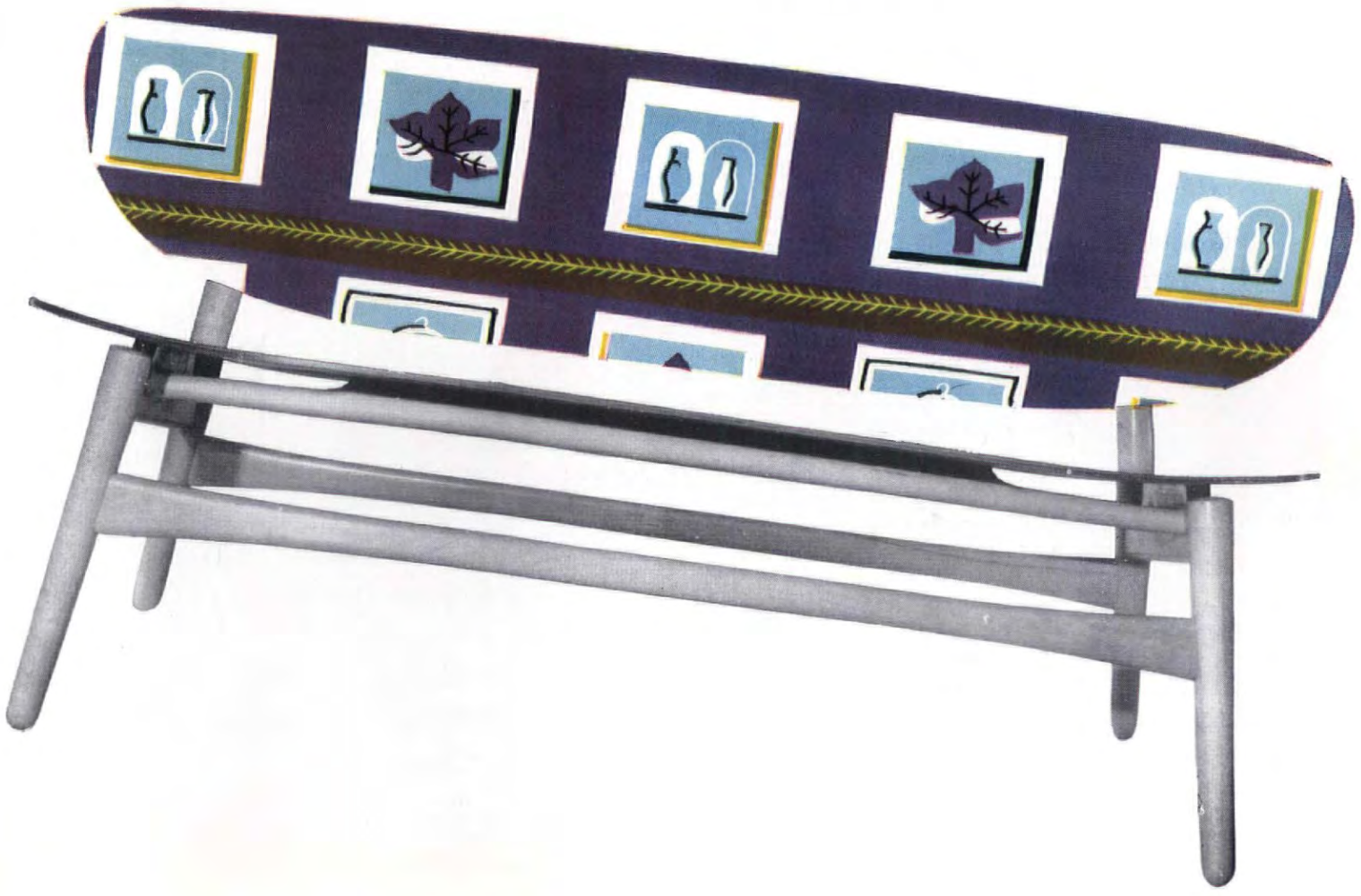

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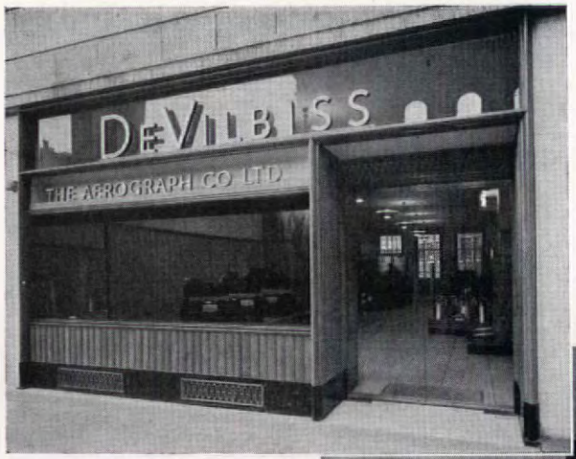

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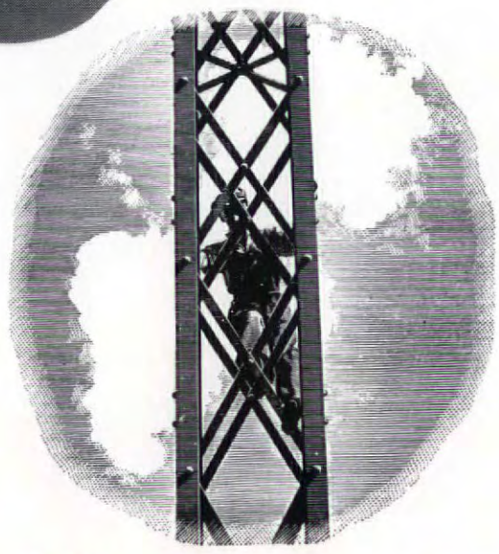

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Photograph by courtesy of the Architect: Jack S. Thompson, Esq., A.R.I.B.A., Roofing by Wiggins-Sankey, Ltd.

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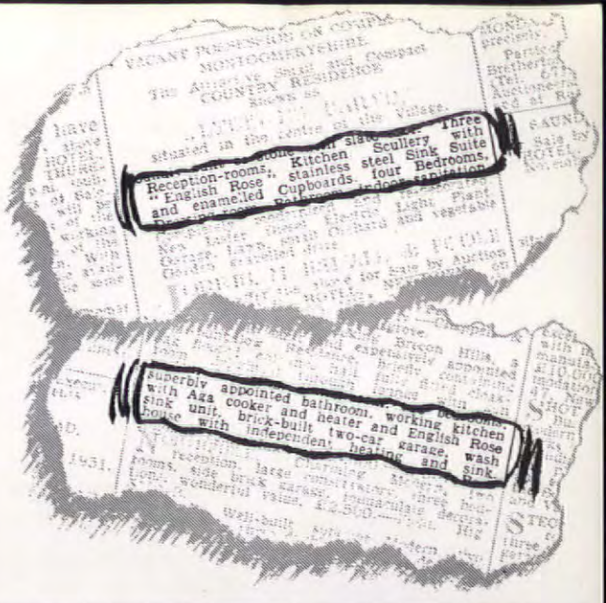

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MIDLAND CONVERSION

By courtesy of the
Midland Hotel Co., Birmingham

The Midland Hotel Snack Bar

The Midland Hotel Cocktail Bar

The well-known American Bar at the Midland Hotel, Birmingham, has been entirely remodelled by Gaskell & Chambers. Although major structural alterations have been avoided, the character of the whole room has been modernised and customer service considerably improved. Features are the cream hide upholstered snack bar and the fascia enclosing the new cocktail bar; both are shown in the above illustrations.

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The Church

The character of the church is predominantly of the late fourteenth century.

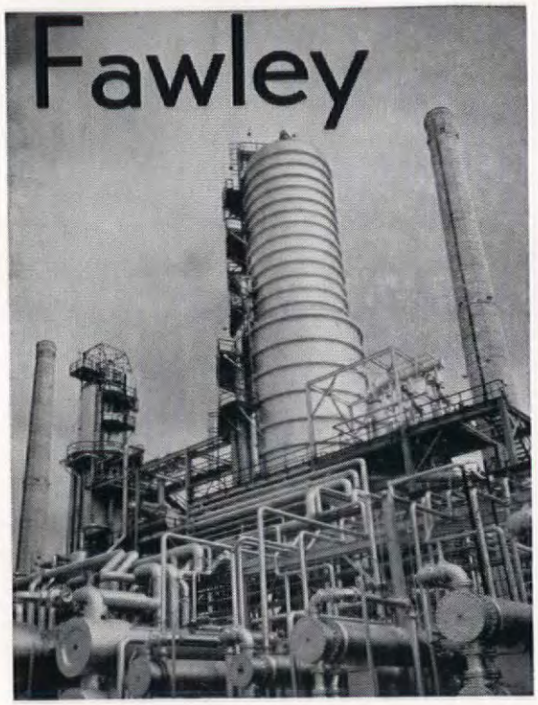
Among alterations to the church during the fifteenth century was the insertion of two rose windows of unusual and very effective design. The timber roof appears to have been repaired at the same time, if not entirely remade.

The gilt brass chandelier appears to be an original Flemish work of the late fifteenth century.

The electrical installation consists of four concealed 150 watt floodlights, and two striplights concealed in each window.

Refinements at Fawley

HOW A PROBLEM OF MATERIALS WAS SOLVED AT EUROPE'S BIGGEST OIL PLANT



THE FAWLEY REFINERY *represents one of the greatest feats of industrial enterprise since the war. Its huge Administration Building (Architects: Messrs. Lanchester & Lodge) was floored almost exclusively with Accotile.*

On the left is shown a typical Accotile floor, in the lecture and conference room. A great variety of designs may be achieved with Accotile.

THE SPEED with which the Esso Company's new refinery at Fawley was completed has in itself been a notable feature of this great enterprise. But it has involved some "tall orders" for architects and builders; for instance, in order to meet their deadline, Messrs. Lanchester and Lodge, the architects, were faced with the task of completing the entire Administration Building, from start to finish, *within a year*.

This meant that only readily available materials could be specified; at the same time, the assignment was far too important to allow any compromise where quality was concerned.

Choosing a Floor

One problem of great importance was, of course, flooring. A material had to be found which would come up to exacting requirements of design and durability and yet be readily available.

The material chosen was Accotile, the asphalt tile flooring made by the Armstrong Cork Company. Practically the whole of the Administration Building has been floored with Accotile, as well as the canteen, medical block, and laboratory administration offices. In all, rather over seven thousand square yards of Accotile were laid by Armstrong's own Contracts Department in conjunction with Gabriel Wade & English, Ltd., Southampton. Accotile was the only asphalt tile used.

Qualities of Accotile

Accotile provides an extremely durable floor (floors laid in this country in 1938 and 1939 are still giving excellent service) which has a strong resistance to alkaline moisture. Hence it can be laid without the necessity of a damp-course, although it is not a damp-course itself.

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Standard Accotile is easily cleaned by washing with water, and is resistant to stains and most dilute acids. Where conditions make it advisable, a special Grease Resisting Accotile is recommended.

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THE ARCHITECTURAL REVIEW

Volume 111 Number 664 April 1952

The Cover shows the solarium of a 'house garden' on Long Island, designed by Bernard Rudofsky; the murals are by Costantino Nivola. This house garden is described and illustrated with more photographs, and its significance as a successful attempt to 'reintroduce architectural features as space-defining elements into landscape design' is discussed, on page 268.

The Authors *Sigfried Giedion*, Professor of the History of Art, Zurich Institute of Technology, born Switzerland 1894. Studied first engineering and later art history under Woelfflin. 1928, General Secretary CIAM. 1935, Hon. ARIBA. 1938, Charles Elliot Norton Professor, Harvard University. 1949, appointed to new chair Massachusetts Institute of Technology. Publications include *Space, Time and Architecture* and *Mechanisation Takes Command*. *H. McG. Dunnett*, born 1909, on leaving school was dumped into the City, took 8 years to escape. Graduated in Commerce at LSE in the meantime; this produced a travelling scholarship to study 'art in industry' in Europe. Became Secretary of DIA. After peaceful war with RAF turned to writing, and later, exhibition designing in association with Peter Bell. *Eric S. de Maré*, architect, born 1910. Swedish parents, Huguenot ancestors. First record of family architect was that of a crusading ancestor who set up a castle at Marecia, Palestine. Himself born in a speculative villa at Enfield, Middlesex. Educated St. Paul's School and the AA School. For four years chief Assistant Editor of the *Architects' Journal*. An amateur by nature, now earns a living as freelance writer and photographer, filling in spare time and more as Secretary of the Company of Free Men, a crusading body which exists to establish Social Credit and which he founded last year with a fellow architect. Published work includes *Britain Rebuilt*, *The Canals of England* and *Scandinavia*. To be published shortly: *Time on the Thames* and *Gunnar Asplund*. Now engaged on a work on British bridges.

SUBSCRIPTION RATE: The annual post free subscription rate, payable in advance, is £2 18s. 0d. sterling, in USA and Canada $9. An index is issued half-yearly and is published as a supplement to the REVIEW.

THE ARCHITECTURAL REVIEW

9-13 Queen Anne's Gate, Westminster, S W 1 · Whitehall 0611

FIVE SHILLINGS

Every age has imagined the events leading up to Christ's resurrection, celebrated this month in the festival of Easter, in its own way; but they have not often been represented with such dramatic realism as the Aleijadinho *gave his life-size wooden groups in the side chapels of the sanctuary church of Congonhas do Campo, Brazil. In February the* REVIEW *cover showed part of the Carrying of the Cross; here is a corner of the Last Supper, with Judas and his money bag in the centre of the scene and a cup-bearer, whose eighteenth-century dress must have made early worshippers in the church feel even more like witnesses of the actual event, standing by the door.*

Sigfried Giedion

SIXTUS V

AND THE PLANNING OF BAROQUE ROME

In the short space of five years and four months during which he was Pope, Sixtus V so changed the face of Rome that a priest returning there after his death wrote that he could hardly recognize the city. With his awareness of the city as a complex organism in which æsthetic and social factors were inseparably interlocked, Sixtus laid the foundations of modern town planning. Dr. Giedion made this study of the subject for the new edition of Space, Time and Architecture *which will shortly be published by Harvard University Press.*

Rome, Paris and London—the most important foci of Western Civilization—created the prototypes of the large cities of today. Rome's contribution came first. It was the work of the Popes of the sixteenth century, systematized and epitomized by Sixtus V. Under his initiative the limited, wall-girdled, star-shaped City of the Renaissance was converted into the City of Baroque, with those boldly drawn traffic lines which still form the warp and weft of the modern city.

Yet by the beginning of the Renaissance, Rome was a desolate city, at the end of a millennium of decline. When the Popes moved from the Lateran to the Vatican they preferred to build a new suburb, and so the *Borgo Nuovo* gradually grew round the Basilica of St. Peter. Thus, about 1500, when the Popes began to rebuild the medieval Rome in earnest, the Popes became the greatest builders of the world. Neither they nor their leading architects and planners were ever Roman by birth or upbringing. Julius II, a Rovere from Urbino, and Leo X, a Medici from Florence, called in their close compatriots—Bramante and Raphael from Urbino and Michelangelo from Florence—to carry out their grandiose schemes: and so it continued even in the time of Baroque Rome.

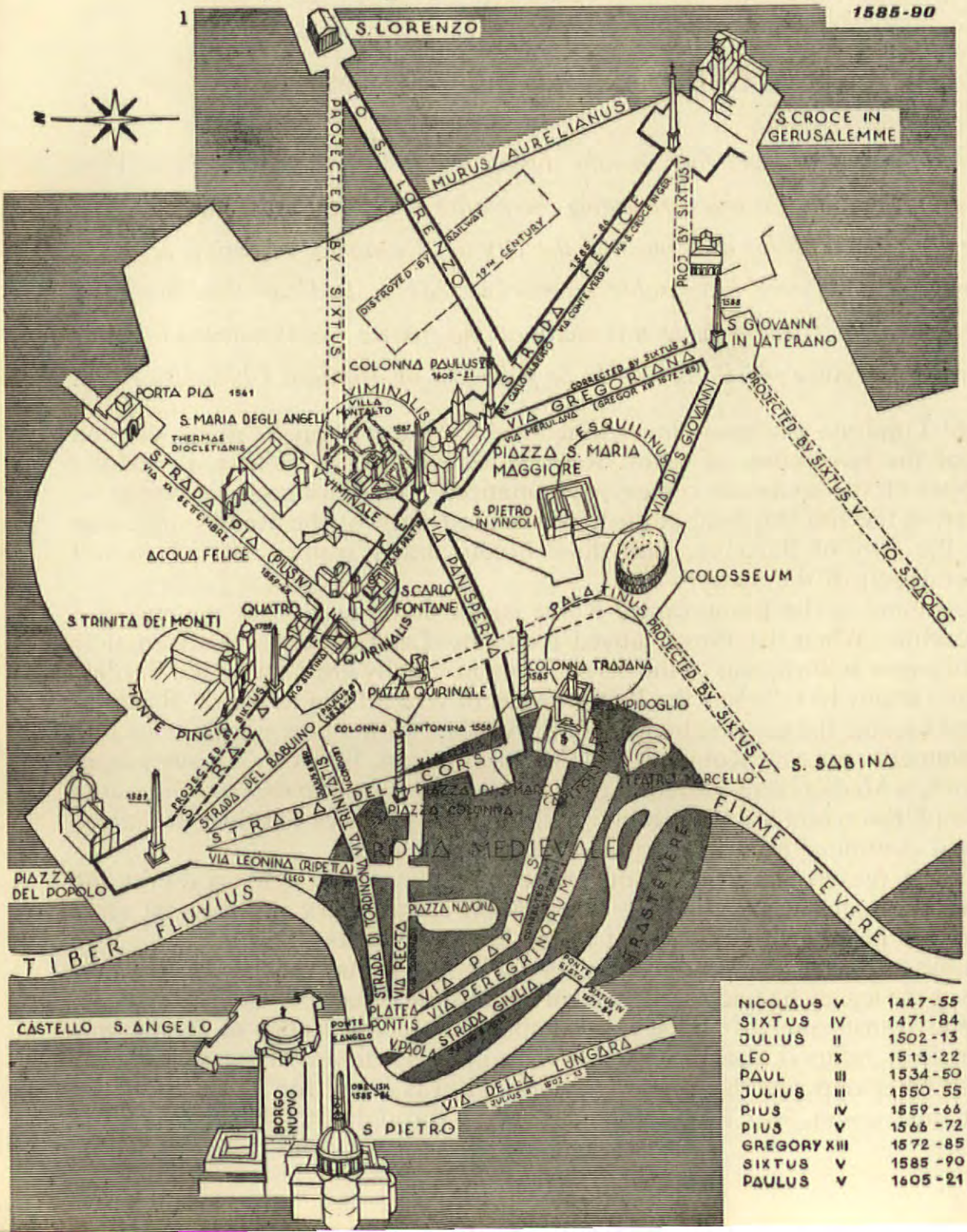
There is no clear reason for this curious state of affairs, although no doubt the atmosphere of the Eternal City kindled the imagination of its rulers and the vast scale of their undertakings in its turn kindled that of the immigré artists.

It is not possible to see Sixtus V's master plan for Rome in its true setting, without at least a glance at the legacy he had received from the Middle Ages and the Renaissance. The first energetic transformer of the scarcely habitable medieval core of Rome was Sixtus IV, the uncle of Julius II, the ruler from 1471 to 1484. Medieval Rome was wedged into a fold of the Tiber opposite the *Castello S. Angelo*. It was noted for its unsalubrious climate and, for this reason, had been left undeveloped throughout the period of the

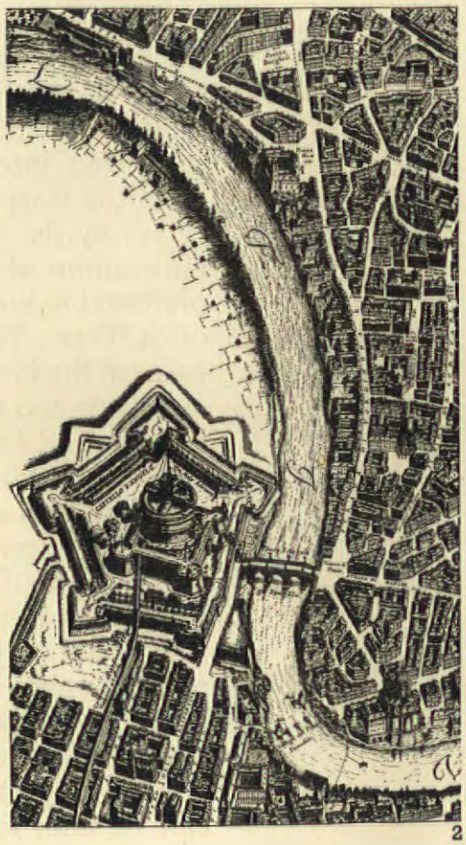
ancient Roman Empire. Medieval Rome had spread out from this centre slowly and chaotically in the directions of the Capitol and of the Theatre of Marcellus, near the Tiber (1).

Transformation of the city began outside the medieval core in the *Borgo Nuovo,* the area that connected the Vatican with the *Castello S. Angelo.* This castle served the Popes as treasure house, prison and place of refuge in times of invasion or revolt. Its dominating position is obvious in Falda's map (2) which also shows the parallel Renaissance streets of the *Borgo Nuovo.*

The *Ponte S. Angelo*—the bridge on the axis of the castle—now became the most important entry into the central area and gave its name to the Renaissance business centre. Here was the Papal mint and here assembled the foreign banking houses and great mercantile organizations such as the Chigi, the Medici and the Fuggers from Augsburg. Here, in fact, was the Wall Street of Renaissance Rome and, in this small district, decisions were made that sometimes affected the monetary, diplomatic and ecclesiastical fate of the whole of Europe.



The diagrammatic map shows the planning carried out by Sixtus V against the background of what existed before. Streets built by Sixtus V are marked by heavier lines; the limits of medieval Rome are shown by dark hatching and the outline of Rome under Marcus Aurelius by the line of the Aurelian wall. It becomes obvious that Sixtus V planned his streets organically, as a spine, strengthened by structural connections wherever these were demanded by the Roman topography. Below, 2, is part of Falda's map showing the Castello Sant' Angelo and the parallel Renaissance streets of the Borgo Nuovo to the west of it.



2

MEDIÆVAL CITY STREETS Already from the time of Nicholas V (1447–55), the Popes had been occupied with the formation of the piazza at the bridgehead—called the *Forum Pontis* in Bufalini's map of Rome (1551) and the *Piazza di Ponte* in Falda's later map (1676).[1] Soon this piazza was to become a focal point from which, directly or indirectly, radiate the main arteries through the mediæval city. These streets bear proud names. There is the *Via Peregrinorum*[2] that, by piercing together a number of short lengths of irregular mediæval lanes, now led finally to the *Theatre of Marcellus*. The *Via Papalis*, which carries an even more splendid name, makes an equally tortuous connection with the Capitol and then—further on—with the Lateran. A third important through-connection is the *Via Recta*—in part of ancient origin[3]—which, not without some difficulty, makes a connection with the later formed *Piazza Colonna* and the *Corso* (*Via Lata*).

The *Via Peregrinorum*, *Via Papalis* and *Via dei Coronari* were all partly of mediæval origin and partly composed of fifteenth century improvements. In his Papal Edict of 1480, Sixtus IV, the *Restaurator Urbis*, commanded that all building projections and street obstructions be cleared away. This was the most instrumental single act of improvement of the urban conditions of the city.

RENAISSANCE CITY STREETS It was during the Late Renaissance that the Popes, especially Paul III, 1534–49, successfully completed their work around the *Piazza di Ponte* by establishing short and direct connecting streets from the piazza to the Mediæval and Renaissance roads across the city. This pattern of short but radiating streets is the first of its kind. It included the *Via Paolo*, leading to Bramante's *Via Giulia*, and the *Via Panico* which, a short way along its route, connects with the *Via dei Coronari*.

Finally, one of the most important through-routes of Renaissance Rome—the *Via Trinitatis*—had its source at the *Piazza di Ponte* by means of the northbound *Strada di Tor di Nona*. The *Via Trinitatis* was also started by Paul III and was continued by Julius III, 1550–55. It is shown already on Leonardo Bufalini's map of 1551 as a long straight line, traversing for the most part still unbuilt sections of Renaissance Rome, and terminating near the Renaissance church of Sta. Trinità dei Monti, at the foot of the Pincio hill, where it enters into the sphere of activity of Sixtus V.

Sixtus V and his pontificate

THE PAPAL THRONE Only members of the nobility and the ruling houses of Italy were usually elected to the Papal throne. There were, however, exceptions, even in a period such as the end of the sixteenth century, when the steadily increasing privileges of the nobility had usurped the mediæval rights of the people. So it was possible for Sixtus V, a man from the lowest strata of society, to be invested with the highest dignity of spiritual and temporal power to which a mortal could aspire. It says much for the inner strength, vitality and instinct of the Catholic Restauration that it had the courage—at this very dangerous moment—to elevate a man such as Sixtus V to this office; a man who, regardless of his ancestry, was clearly born for action.

LIFE OF SIXTUS V Sixtus V was the Papal title chosen by the Franciscan mendicant friar, Felix Peretti, who had entered the order at the age of 12. His father, a small tenant farmer and gardener of Dalmatian stock, filled with visions of the future destiny of his son, had given him the name of *Felix*. This name Sixtus V—in contrast to other Popes—never laid entirely aside. He bestowed it upon the two projects that lay nearest his heart, and also nearest the place of his residence as a Cardinal, the Villa Montalto, north of Sta. Maria Maggiore: the *Strada Felice*—Rome's grandiose north-west south-east highway—and the *Aqua Felice*—the water system which brought life to the hills of the south-east.

The Pope must be wise and the Pope must be aged—for it is not intended that he should reign too long. This gave rise to a tragic conflict for each of the great Popes, between their desire to carry out their schemes and the limits imposed by death. The life of Sixtus V illustrates this situation. He had a swift and splendid career up to the rank of Cardinal: his theological erudition was profound; his religious zeal limitless; as a Lenten preacher he was all-inspiring. As Friar Felice he was, at 35, the pitiless inquisitor of the Republic of Venice. When he acquired the purple robe at the age of 48 he assumed the title of Cardinal Montalto, the name of the village where he had entered the Franciscan order and close to his own birthplace of Grottamare. After the death of his protector, Pius V, the Cardinal was left aside during the whole of the reign of Gregory XIII, who was very coldly disposed towards him. Sixtus V was 64 when he was elevated to the Papal throne, and 69 when—weakened by a long inner discourse with Spain—he succumbed to malaria within the walls of his unfinished Quirinal Palace.

Just five years and four months were allotted to this great organizer for the immense tasks he desired to accomplish—in politics, in administration, in town planning. Nowhere is his race with death more apparent than in the incredible rapidity with which he carried through his building programme. Again and again his architect, Domenico Fontana,[4] remarks that nothing could be accomplished quickly enough to please his beloved lord.

the master plan

In the first year of his reign work was started upon the *Strada Felice* (and completed); the transport of the obelisk in front of St. Peter's; the viaducts and canals for the *Aqua Felice;* the Lateran Palace and Basilica; the clearing round Trajan's Column; the drainage of the Pontine marshes (with 2,000 workers). Besides all this, work was proceeding at a frantic pace

[1] For more detailed information see C. Scaccia Scarofumi *Le piante di Roma*, Rome, 1939.

[2] Pietro Tolmei 'Le strade a Roma e l'Opera di Sisto Quarto,' *Urbe*, 1937.

[3] Its most famous section, the *Via Coronari*, named after the sellers of rosaries—is today almost a slum. Anyone who retraces Ludwig von Pastor's walks—after a lapse of little more than a generation—cannot but be shocked at the speed with which decay has followed upon neglect and disfigurement of the buildings. Vgl. L. von Pastor *Die Stadt Rom zu Ende der Renaissance*, 3rd edition, Freiburg, i. B., 1916.

[4] Domenico Fontana was one of the first architects who came to Rome from the far north—from Melide on the Swiss side of the frontier lake of Lugano. It is interesting to note that both Francesco Borromini and Carlo Maderno (builder of the nave of St. Peter's and Fontana's nephew) came from the same village, and belonged to the same clan.

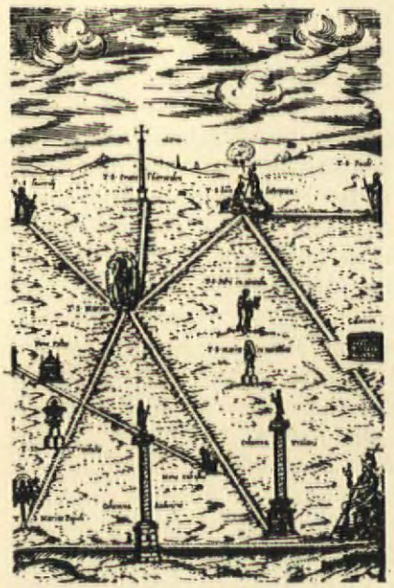
on his sumptuous chapel at Sta. Maria Maggiore. This list may serve as sufficient illustration of the simultaneity of his urban planning and building.

In the domain of planning, Sixtus V was one of those rare men who are able to organize, assemble the facts and execute the scheme. He took over the work of his predecessors, integrated this with his own plans, and pointed out the way for future development. He allowed nothing to stand in the way of the realization of his plans. Only death itself could check—all too soon—his unbridled energy. Already before the time of Sixtus, a strange phenomenon had taken place in Rome. Instead of developing, as most cities do, from east to west, modern Rome had grown from west to east—or, more exactly, from north-west (the Vatican) towards the more salubrious hill regions of the south-east.

LATE RENAISSANCE SECTIONS BEFORE SIXTUS V Between 1503 and 1513, Julius II had laid out two straight streets on either side of the river Tiber: the *Lungara* on the right bank, the *Via Giulia* on the left. His successor, Leo X, 1513–1521, planned the *Strada Leonina* (*Via Ripetta*), the most easterly of the three streets that radiate from the *Piazza del Popolo*. Paul III, 1534–1549, was responsible for its pendant—the *Via Babuino;* while the central, axial street, the *Via Lata* (today the *Corso*) has always been the entry into Rome from the north. It is typical that two of the few Renaissance churches of Rome that stand here—Sta. Maria del Popolo and, on the summit of the Pincio, Sta. Trinità dei Monti—were only completed under Sixtus V. Now the development took an energetic leap towards the south-east. From the deserted Quirinal hill Pius IV, 1559–1565, shot a straight bowline across more than a mile to Michelangelo's unexcelled *Porta Pia*, 1561. This street, first named after him, the *Strada Pia*, is now the *Via del Quirinale* and the *Via XX Settembre*. Here we are already amidst the sphere of Sixtus V's scheme. Lastly, the immediate predecessor—and opponent—of Sixtus V, Gregory XIII, 1572–1585, straightened out, rather fragmentarily, the old road that connected Sta. Maria Maggiore with the basilica of S. Giovanni Laterano.

ECCLESIASTICAL IMPULSE FOR SIXTUS V PLANNING At his accession to power Sixtus V thus found a series of fragmentary developments extending, in chronological order, from west to east. He was able to bring all of them together into a unified scheme—his master plan. The first impulse for this new transformation was, above all, an ecclesiastical one. Road connections should link the seven main churches and holy shrines which had to be visited by the faithful during the course of a day's pilgrimage. Behind this enterprise can be seen the Counter-Reformation and the newly awakened vitality of the Church. The desire of Sixtus—as expressed by Pastor—was to make the whole of Rome into 'a single holy shrine.'

To the clergy and pilgrims, Sixtus' plan appeared as a simple street connection between the holy places. There is a poem of praise of the works of Sixtus V, written by the Oratorian monk Bordini in Latin hexameters (1588)[5]—at a time when the work was still under way. This is illustrated by a rudimentary sketch-plan (3) in which merely the main churches and their connecting streets are shown. These streets form a star radiating from the basilica of Sta. Maria Maggiore to the various churches—'*in syderis formam.*' The star-like plan has given rise to misunderstandings concerning the real purpose of the scheme—which was, in fact, of an entirely different nature.



3, G. F. Bordini's sketch plan of 1589 reducing Sixtus's street planning to a simple system of connections between holy places.

DOMENICO FONTANA Unfortunately we do not possess any of the architect's original plans: and my search for them has been without success. Maybe they never existed. In Domenico Fontana's work on the projects he carried out under Sixtus V, he only makes a few brief remarks '*on the streets opened by our lord.*' Yet these are of immense importance because they constitute the first published evidence of a point of view which has determined the street layout of a modern city. This is sufficient reason for some of Fontana's passages to be included here. He begins by describing the general problem:

'*Our lord, now wishing to ease the way for those who, prompted by devotion or by vows, are accustomed to visit frequently the most holy places of the City of Rome, and in particular the seven churches so celebrated for their great indulgences and relics; opened many most commodious and straight streets in many places. Thus one can by foot, by horse, or in a carriage, start from whatever place in Rome one may wish, and continue virtually in a straight line to the most famous places of devotion.*'

The line of roads was carried through, regardless of the many difficulties that were encountered: overcoming all natural obstacles and tearing down whatever was in the way. At the same time, Sixtus was well aware of the marvellous diversity of the Roman topography, and he made use of its 'various and divers perspectives . . . to charm the senses of the body.'

'*Now at a truly incredible cost, and in conformity with the spirit of so great a prince* (*Sixtus*) *has extended these streets from one end of the city to the other, without concern for either the hills or the valleys which they crossed; but, causing the former to be levelled and the latter filled, has reduced them to most gentle inclines, and charming sites, revealing in several places which they pass, the lowest portions of the City with various and divers perspectives; so that, aside from the devotions, they also nourish with their charm the senses of the body.*'

Thus Fontana presents the basic intentions of Sixtus. Two-thirds of the City of Rome, as is well known, lay within the Aurelian walls. Of this the

[5] Franciscus Bordinus, *De Rebus praeclare gestis a Sixto V*, Rome, 1588. Very rare: copy in the Library of the Palazzo Venezia, Rome.

hill areas, which had the best climate, were practically uninhabited, and, indeed, barely habitable. Nothing was there except 'Some church towers, dating from the Middle Ages, projecting from among some anciently revered basilicas. The whole deserted region seemed destined for ever to be the abode of prayers and silence. The only habitations were monasteries and a few scattered hovels.'[6]

It was these hills of ancient Rome, open to the winds of the Campagna, and stretching from the Pincio in the north-east to the hills of Esquilin, Quirinal, Viminal and Celio, that Sixtus wanted again to make accessible. To accomplish this, he immediately set to work to change a simple network of roads into a multiple urban transport system.

'The wish is now serving to refill the City, because, these streets being frequented by the crowd, houses and shops are being built there in the greatest profusion where formerly one was impeded by the many turnings of the road.'[7]

Following the practice of the Middle Ages when founding new cities, Sixtus encouraged building activity by granting various privileges. One of his biographers[8] records how Sixtus' own sister, Donna Camilla, who was shrewdly aware of commercial advantages, built some shops on a part of the Esquilin near Sta. Maria Maggiore, which she let profitably.

The change in the city was so great and so rapid that a priest, returning to Rome after Sixtus V's death, remarked that he could hardly recognize it any more, 'everything seems to be new, edifices, streets, squares, fountains, aqueducts, obelisks.'[9]

THE STRADA FELICE The greatest pride of Fontana was, however, the *Strada Felice*, which bore the name of the Pope, and which was started and completed within one year—1585–6. This great street slopes downhill from the obelisk before Sta. Maria Maggiore (now the *Via de Pretis* and the *Via quattro Fontane*); then it climbs up to the summit of the Pincio and the church of Sta. Trinità dei Monti, which Sixtus dedicated in 1558,[10] and which thus becomes linked to Sta. Maria Maggiore upon the Esquilin hill. The final stretch, which was never completed, was intended to lead downwards again to the obelisk in the *Piazza del Popolo*. This is clearly shown in the fresco in the Vatican (4). The Spanish Steps, planned by Sixtus as a link between the lofty Sta. Trinità dei Monti and the heart of the city—by means of the *Via Trinitatis* (today *Via Condotti*)—had to wait until the eighteenth century before being built (6).

On the far side of Sta. Maria Maggiore, the *Strada Felice* continues in an undeviating straight line to the church of Sta. Croce in Gerusalemme. In the second half of the nineteenth century this stretch of the road was to serve as the backbone of one of the most weari-

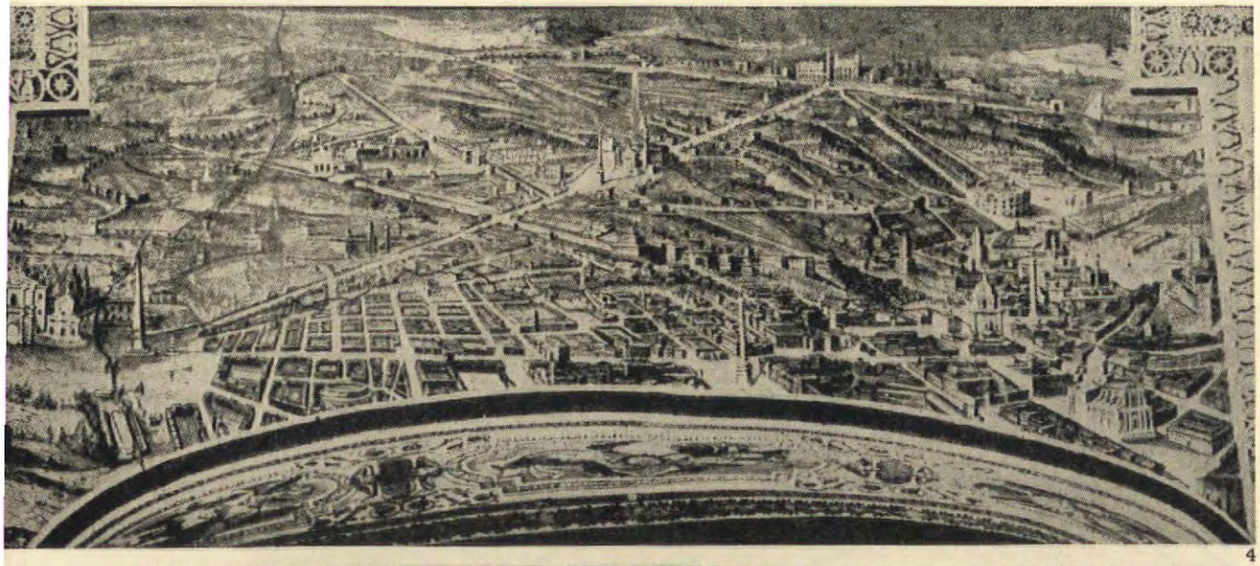
[6] Ludwig von Pastor *Die Stadt Rom zu Ende der Renaissance*, Freiburg, i. B. 1916, p. 102. This little book describes in great detail the condition of Rome before the time of Sixtus V.

[7] The quotations from *Della Transportatione dell' Obelisco Vaticano et delle Fabriche di Nostro Signore Papa Sisto V Fatte del Cav. Domenico Fontana Architetto di sua Santita Libro Primo*, Rome, 1590, have been kindly translated by James Ackerman.

[8] A. von Hübner, *Sixtus der Fünfte*, Leipzig, 1871, vol. 2, p. 173.

[9] *Lettere di Angelo Grillo*, Venice, 1612, quoted by Antonio Muñoz, *Domenico Fontana*, Rome, 1944, *pg.* 39.

[10] The obelisk before this church was only erected in 1789 by the neo-classical Pope Pius VII.



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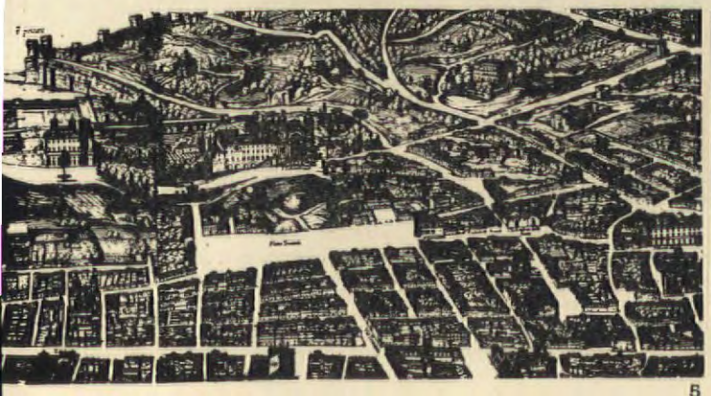

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4, a detail from the fresco of 1581 *in the Vatican Library which shows Sixtus's master plan of Rome. It is orientated from north-west to south-east. Medieval Rome and the Vatican are both cut away by the arch of the Library door, so that the view is concentrated upon the undertakings of Sixtus V. The picture is dominated by the straight line of the Strada Felice which runs from the Piazza del Popolo on the left, past Sta. Trinità dei Monti to Sta. Maria Maggiore and then on to the Lateran. Part of Tempesta's map of* 1593, *5, gives an excellent insight into the changes of this part of Rome during the late sixteenth century. The hill before Sta. Trinità with its winding footpath is the site of the later Spanish Steps,* 6, *built by Specchi and de Sanctis between* 1720 *and* 1725. *These steps, connecting the church with the Piazza di Spagna, mark the summit of baroque skill in modelling external space. Tempesta's map is evidence that their design was largely functional.*

somely dull districts of Rome, and various names were then given to different sections of the road.

A road along which five carriages could drive abreast—in other words a five-lane road—must have seemed somewhat extreme to the Romans, for this was at the beginning of the change-over from horse and sedan chair to coach and carriage.[11] Sixtus V scarcely ever forgets to include in his frescoes one of the primitive carriages of the period, with open front and back, and its horses as a reminder of the improvements he had brought about in such a short span of time.

SIXTUS' PLAN NOT STAR-SHAPED Fond as Sixtus V was of the area around Sta. Maria Maggiore, he never thought of making the basilica the centre of a star-shaped street pattern, as in the 'ideal cities' of the Renaissance. His was no paper plan. Sixtus V had Rome, as it were, in his bones. He himself trudged the streets the pilgrims had to follow and experienced the distances between each point, and when, in March, 1588, he opened the new road from the Coliseum to the Lateran, he walked with his cardinals all the way to the Lateran Palace, then under construction.

INTEGRATION OF NEW AND OLD Sixtus V spread out his streets organically, wherever they were demanded by the topographical structure of Rome. He was also wise enough to incorporate with great care whatever he could of the work of his predecessors. Sometimes he improved upon their work, as in the straightening of Gregory XIII's *Via Gregoriana* (7 and 8) or the raising and levelling of the *Strada Pia*. He traced his own *Strada Felice* to form a most happy conjunction with the *Strada Pia*.[12] The angle at which they cross is not quite a right-angle; but Domenico Fontana placed four fountains here, fed by the waters of the *Aqua Felice* so that the deviation disappeared, and the importance of the crossing was emphasized. The spot has added interest from the vistas afforded in each direction: Michelangelo's *Porta Pia*; the obelisk of Sta. Maria Maggiore; the giant late-Roman statues of The Two Horse Tamers at the Quirinal nearby; and, continuing the perspective of the *Strada Felice*, up hill and down dale to Sta. Trinità dei Monti and the Pincio.[13]

MASTER PLAN FRESCO IN VATICAN LIBRARY Sixtus V integrated his new web of streets not only with stretches of existing roads but also with the needs of the city itself. The fresco that he had painted on the ceiling of the Vatican Library in 1589 is far from exact, either in scale or completeness, but, by giving an indication of what Sixtus V would have done, if time had given him the chance, it conveys the idea of his master plan better than the maps of what was actually carried out.

On the left side of the fresco is the obelisk at the *Piazza del Popolo*. The straight line of the *Strada Felice* runs up to the obelisk of Sta. Maria Maggiore and continues on to S. Giovanni Laterano. From here a connection is outlined to the distant church of San Paolo fuori le Mura and, in the opposite direction, to the nearby Sta. Croce in Gerusalemme. The stretch connecting the Lateran and the Coliseum has already been mentioned.

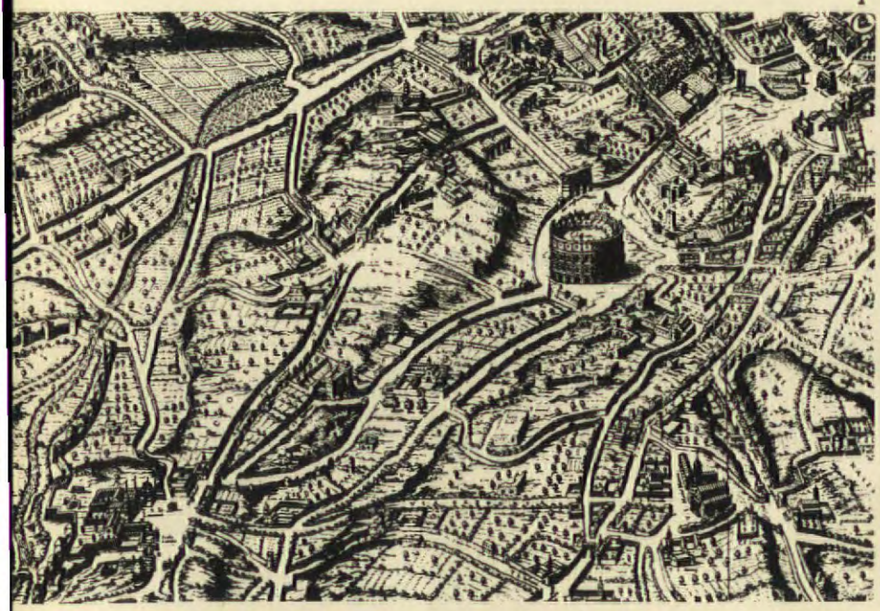
Returning to Sta. Maria Maggiore, we find another road leading direct to Sta. Croce in Gerusalemme, and particularly interesting for this period—a connection to S. Lorenzo fuori le Mura which would not have stopped at the old Roman town wall (9). Finally, con-

[11] Ludwig von Pastor *Sisto V, Il creatore della Nuova Roma*, Rome, 1922, p. 15.

[12] This junction proved extremely valuable after 1870, when the building up of this quarter came into full swing following the confinement of the papal authority to the Vatican and the sequestration of the papal lands.

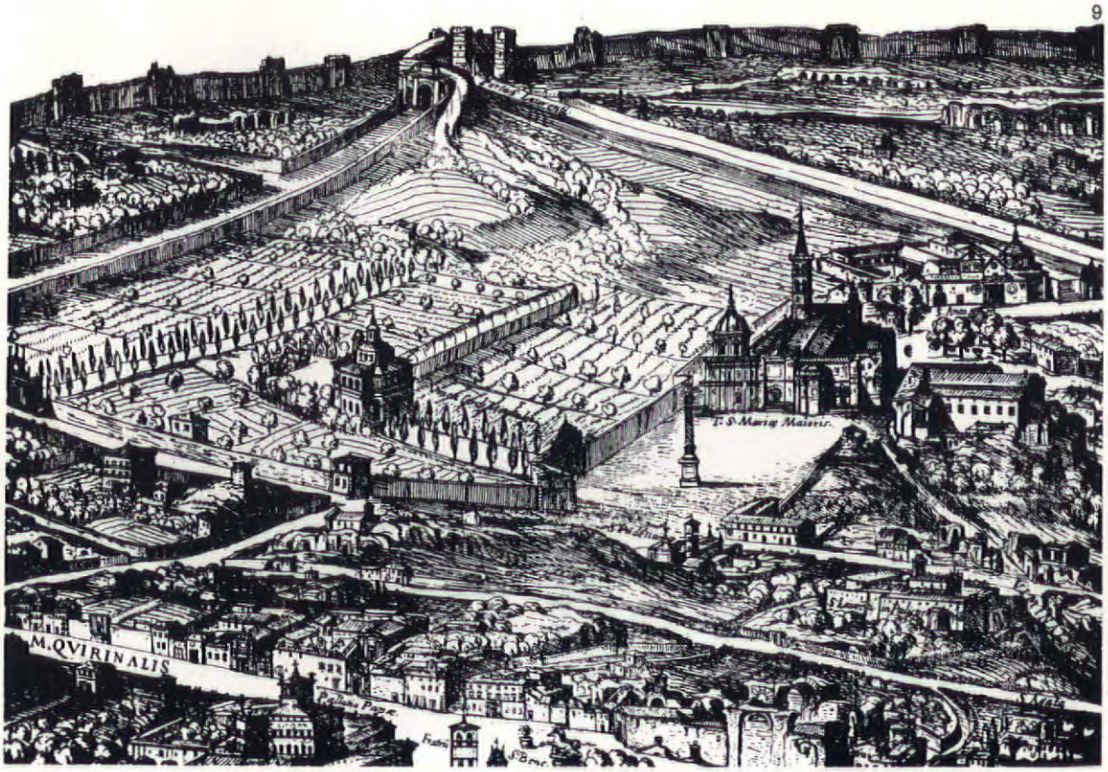
[13] The obelisk before Sta. Trinità dei Monti dates from 1787.

7



The area between the Coliseum and the Lateran from Du Pérac's and Lafrery's map, 1577, 7, and from the map by Antonio Tempesta, 1593, 8. The countrylike character of the hill districts shortly before the time of Sixtus V is clearly shown in the former, as well as the haphazardly winding roads. The Lateran is on the left and Sta. Maria Maggiore, in its country setting, on the right. It is also clear that the Via Gregoriana, built by Gregory XIII, consisted of one short straight stretch in between the two churches. Tempesta's map, made shortly after the time of Sixtus V, cannot easily be compared with the other because of their different orientation. Even so, one is at once aware of the immense changes that occurred within these few years. A straight road now leads from the Coliseum to the obelisk before the Lateran Palace and from there a straight line (the improved Via Gregoriana) runs right across the map to Sta. Maria Maggiore (off the map to the left). This, Sixtus's favourite church, was also connected by a straight route (part of the Strada Felice) to Sta. Croce (at the top of the map).

9



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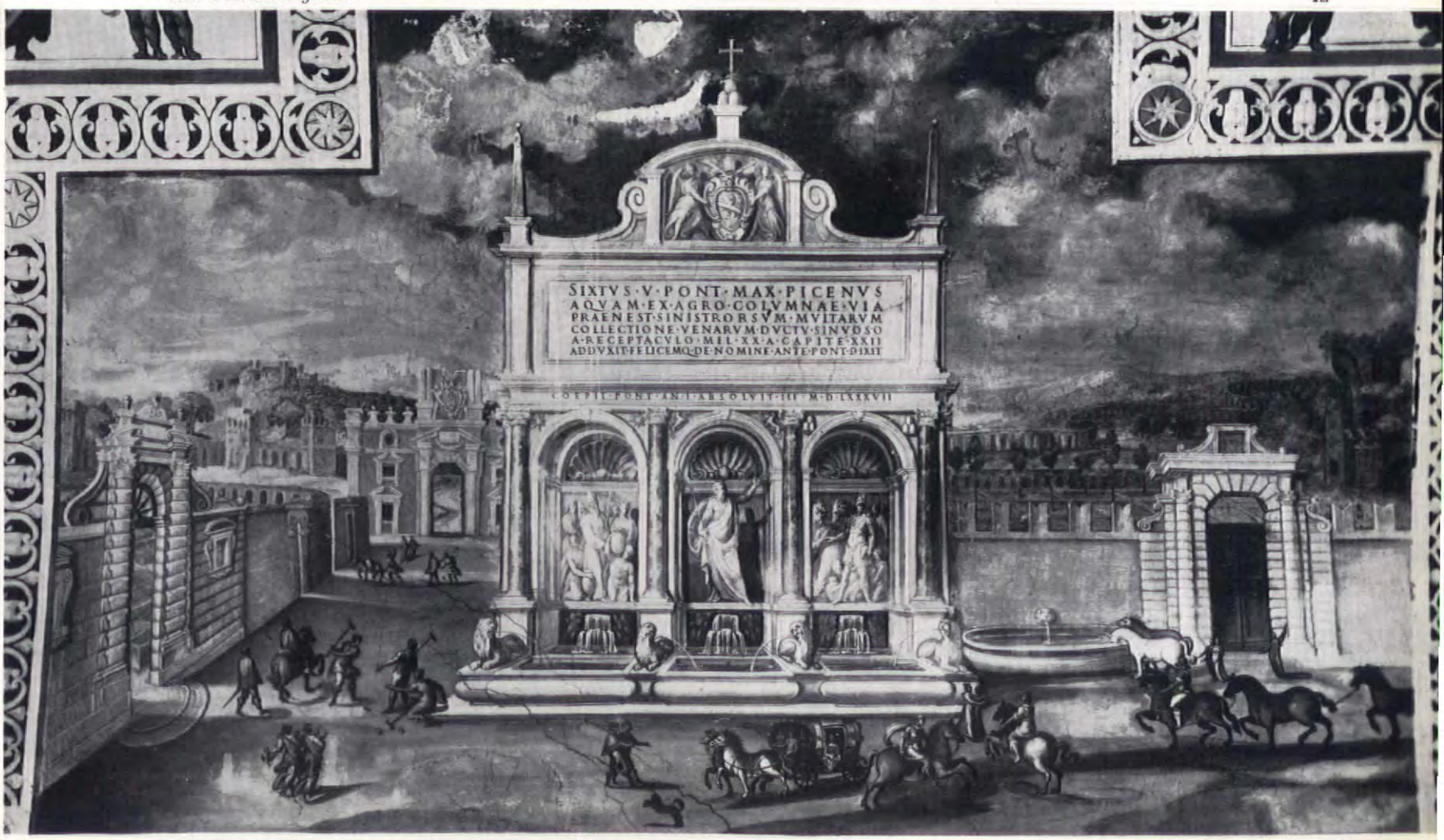
9, *Sta. Maria Maggiore and the Villa Montalto,* 1593, *from Tempesta's map. Sta. Maria Maggiore, with its monastic buildings, stood alone upon a deserted and waterless spot on the Esquilin Hill when the Cardinal Montalto (later Sixtus V) purchased the site for his Villa Montalto in* 1581. *In Tempesta's map the wall-girdled estate with its 'palazzotto' and tower and two avenues of cypress trees is clearly shown as well as the newly created square and the obelisk before Sta. Maria Maggiore, while, behind the church, Sixtus V's new road to S. Lorenzo pierces through the Aurelian wall. The Strada Felice is not easy to discern as Tempesta felt obliged to curve it to depict the rugged nature of the land.* 10, *Sta. Maria Maggiore and its obelisk,* 1587, *from the fresco now in the Collegio Massimo. This fresco once decorated the buildings that Sixtus V erected along the outer wall of his estate for his household staff.* 11, *the opposite view of the obelisk today.*

12, *the Moses Fountain,* 1587, *from the fresco in the Vatican library, symbolizing the triumphal entry of the Aqua Felice into the hill areas of Rome, which had been without a water supply for more than a thousand years.*

12



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The large basins of the Moses Fountain, 15, *were designed for practical use as a water reservoir for the local people, while a special trough was provided on the right for the use of animals, see* 12. *Even today,* 16, *the basins of the fountain are in constant use: the Egyptian lions still spit water for thirsty passers-by.* 13 *shows the Moses Fountain beside the Strada Pia, from a drawing of* 1616. *Here, too, Sixtus V provided a square which, under the special circumstances, served both a practical and a social function, and to this day retains its original character,* 14.

14

15

17, *the washhouse at the Piazza delle Terme from a fresco in the Collegio Massimo. Here, two long basins were installed for the use of all who wished to clean their linen. Covered washhouses for bad weather and greater privacy were also provided.*

17

tact with the old city is secured by a road (*Via Panisperna*) leading direct to Trajan's Column and the *Piazza S. Marco* (*Venezia*). A web of cross streets interconnects these main arteries, but this is not the place to go into further details.[14] If time had permitted, Sixtus V would have redeveloped the whole of Rome with streets, squares, water supply and buildings.

SQUARES AND OBELISKS Rome had been unable to create proud civic cores—expressing civic spirit in monumental terms—such as were built in Florence, Siena or Venice. The squares of Rome were off back streets, such as the *Piazza Navona* which followed the outline of Domitian's stadium. These squares were used for markets or carnivals, but they possessed no buildings of social significance. Even the Capitol, for all its architectural grandeur, occupied a rather isolated site. Sixtus V gave a far more energetic impulse than any Pope, before or since, to the creation of squares all over the city. Many of these were related to churches, but not by any means all.

18, *the Antonine Column and the beginning of the Piazza Colonna*, 1588, *from Bordini.*

In front of his own buildings—the Lateran and Quirinal—and wherever his streets met, Sixtus V made provision for ample open space, sufficient for much later development. An example of this is the large area he reserved in front of the Baths of Diocletian, close to his own estate of Montalto, which developed into the *Piazza delle Terme*, the square of the nineteenth century railway terminal. By clearing away the Antonine Column (18) and tracing the outline of the *Piazza Colonna* (1588), he created the present-day centre of the city. Trajan's Column near the Coliseum with its enlarged surrounding square was thought of as a link between the old and new city.

Like a man with a divining rod, Sixtus V placed his obelisks at points where, during the coming centuries, the most important squares would develop. Of all his enterprises, the most sensational and spectacular for more than a century was the dismantling, transportation and re-erection of the obelisk before St. Peter's, 1585–86. It was the only obelisk that still stood upright where the Emperor Caligula had placed it at the *spina* of Nero's circus. Since Nicholas V the Popes considered transporting and re-erecting the obelisk, Gregory XIII particularly. But nobody dared to attack the problem. Erudite architects like Baldassare Peruzzi measured in his drawings even the broken obelisks which lay near the mausoleum of Augustus. So it was no new idea that Sixtus V had, but he alone possessed the necessary daring, trusting the Italian technology of his time, which was the most highly developed in the world.

19, *the obelisk before St. Peter's shortly after its erection*, 1588, *from Bordini.*

However, more important from our point of view than the re-erection of the obelisk was its siting in front of the not yet existing façade of St. Peter's and between Bernini's not yet existing colonnades (19).

The last of the four obelisks that Sixtus V was able to set up was given perhaps the most subtle position of all. Placed at the northern entrance to the city, it marked the confluence of three main streets (as well as the often projected but never executed final extension of the *Strada Felice*). Two centuries later the *Piazza del Popolo* crystallized around this spot. The only other obelisk to occupy such a dominating position is that of *Place de la Concorde*, set up in 1836.

the social aspect

AQUA FELICE Sixtus V was the first of the modern town planners. From the beginning he was aware of the city as a complex organism, and knew that the beauty of open squares and wide streets had to be buttressed by social implementation.

The very day that he entered the Lateran as master he made the decision, as we are told by Domenico Fontana,[15] that he would provide a water supply—the *Aqua Felice*—for the hill areas of the city, which had lain deserted since the destruction of the Roman aqueducts built by Alexander Severus, A.D. 222–235. Sixtus V intended to conduct water to the very highest points of the Roman hills—the Esquilin, Celio, Viminal, Capitol and Pincio. The main difficulty was that there was only a very small fall from the springs that he had purchased near Palaestrina, sixteen miles away; and the topography seemed to make it impossible for the conduit to be laid in a straight line. The problem was solved by carrying the conduit for seven miles along a high arched aqueduct, and seven miles under ground. Within eighteen months the work was successfully accomplished. It was an exciting moment for Sixtus V when, in October, 1586, water was for the first time running in the gardens of the

[14] Excellent information on the execution of some of the work of Sixtus V can be found in the *Avisi di Roma*, some of which were published by L. von Pastor '*Geschichte der Päpste*,' vol. 10, Freiburg, i. B. 1926, pp. 591–609, and in F. Orbaan, '*The Sixtine Rome*,' Rome, 1911.

[15] op. cit., p. 43.

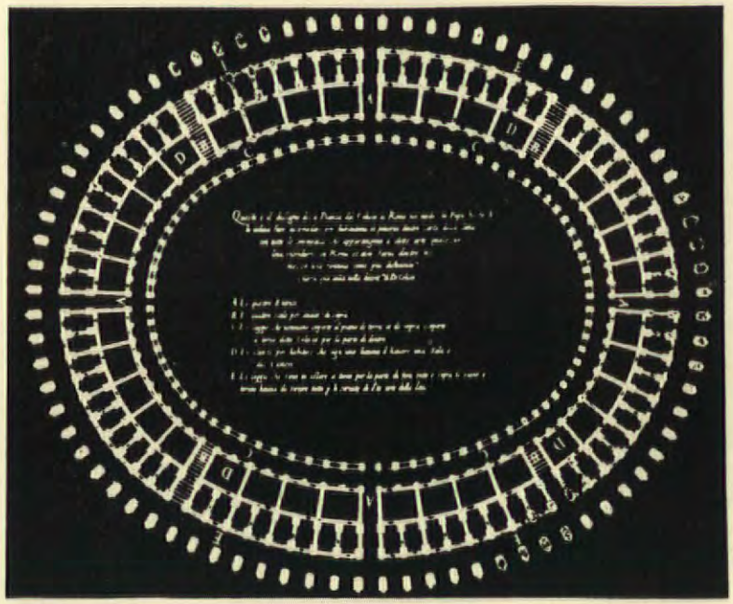
Villa Montalto. In 1589 it gushed from all the twenty-seven public fountains.[16]

Other Popes had restored the aqueducts that served the lower parts of the city, and Gregory XIII had had the intention of carrying out the same venture as Sixtus V, but he had been frightened by the technical difficulties and high cost, and had never got further than preliminary negotiations.

SOCIAL ESTABLISHMENTS On the fresco in the Vatican Library, the monumental entry of the *Aqua Felice* into the city is marked by the three-arched Moses Fountain, 1587, which sticks out, very white and out of proportion, on the *Strada Pia* (12). Even in the seventeenth century this fountain was considered as being in very bad style (*pessimo stile*),[17] and it seems strange enough that such mediocrity should have been possible only two decades after the death of Michelangelo. The real purpose of this fountain can be seen in another of the Vatican Library frescoes. It is not intended as a show-piece. It is partly a reminder that this part of Rome had had no water for over a millennium, but above all it is a social institution. The Egyptian lions are spitting water for the use of the passers-by (16); the three large basins serve as water reservoirs for the local inhabitants (12); the marble barriers are there to protect them from pollution by animals, while to the right is a special basin for the use of horses and cattle.

Near to the Moses Fountain, on what is now the *Piazza delle Terme*, Sixtus V installed a public wash-place with two long basins (17) 'for anybody who wanted to wash dirty laundry.' He further provided an enclosed space containing a covered wash-house 'for bad weather and where the women could stay without danger of being bothered by anybody (*alcuna sorte di persone*).[18] This sixteenth century establishment reminds us of the hesitating experiments at erecting public laundries in England around 1830, and in France under Napoleon III.

THE COLISEUM ADOPTED FOR WOOL MANUFACTURE By far the largest basin of water that Sixtus V offered was meant for the rinsing of wool, an encouragement to the woollen industry. It was changed in the eighteenth century into the theatrical *Fontana Trevi*. When Sixtus V came to power he found the treasury exhausted and the city full of beggars and unemployed. He dealt with this by building poor-houses and by employing thousands of workers upon his programme of public works. But this did not prove sufficient, and he decided to develop export trade by reviving (of course by foreigners) the old Roman wool and silk industries. He made a law that mulberry trees must be planted everywhere, and one of his last schemes was for the transformation of the Coliseum into a wool-spinning establishment. There were to be workshops on the ground floor and dwelling apartments for the workers in the upper storey (20). 'He had already begun to excavate the earth and to level the street, working with seventy wagons and a hundred labourers, so that if the Pope had lived only one year more'[19] the Coliseum would have become the first workers' settlement and large-scale unit of manufacture.



20, *Sixtus's plan for transforming the Coliseum into a manufactory for wool spinning, from Domenico Fontana, 1590, showing living quarters for the wool spinners on the upper storey and working areas on the ground floor.*

THE GRANDEUR OF SIXTUS V There is no doubt that Sixtus V's extraordinary passion for town planning stands out spectacularly from among his other achievements. In other ways than in the somewhat naive inscriptions upon obelisks and slabs of marble, his name is deeply engraved upon the face of Rome.

Sixtus V was clearly aware of the great complexity of modern urban planning. This is the reason for the striking assurance with which he attacked the most diverse urban problems at one and the same moment, but this simultaneity in urban planning is only one of the facets of this great organizer.

There were not many quiet hours during his pontificate. The Church was again in danger. Germany was divided and in disorder; France on the verge of becoming Protestant; Mary, Queen of Scots, had been executed, the Spanish Armada destroyed, and England lost forever to the Catholic faith. Most wearisome of all were the never-ending controversies with the arrogant and ambitious Philip of Spain, which, Pastor believed, Sixtus V paid for with his life.

Against this uncertain political background, Sixtus V attempted to fashion Rome as a world capital where the Pope would reside as eternal arbitrator of the balance of power between temporal states. This did not happen. Rationalism forced development into another direction. But the religious faith of Sixtus V had inspired him with an optimism that enabled him to accomplish the seemingly impossible. One cannot plan cities if one does not believe in life.

[16] L. v. Pastor, op. cit., pp. 426–433; A. D. Tani, 'Le acque e le fontane di Roma,' Rome, 1926, p. 49.

[17] Cf. biography of Domenico Fontana *in* G. Baglione, Rome, 1644.

[18] Domenico Fontana, op. cit., p. 88.

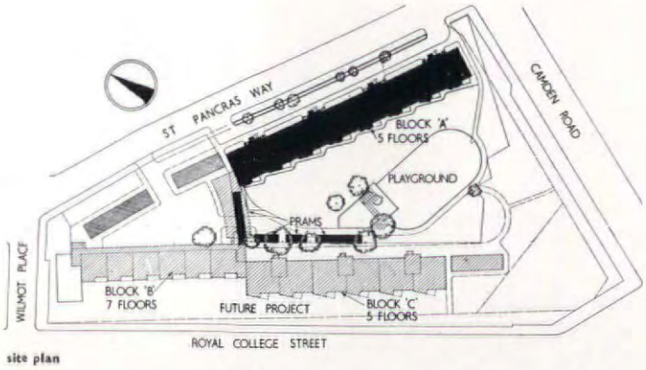
[19] Domenico Fontana, op. cit. Book two, 1605, p. 18.

FLATS IN ST PANCRAS

NORMAN AND DAWBARN : ARCHITECTS

1

South-west façade of the completed block. The bricks are yellow stocks with the living room bays finished with venetian red cement rendering.

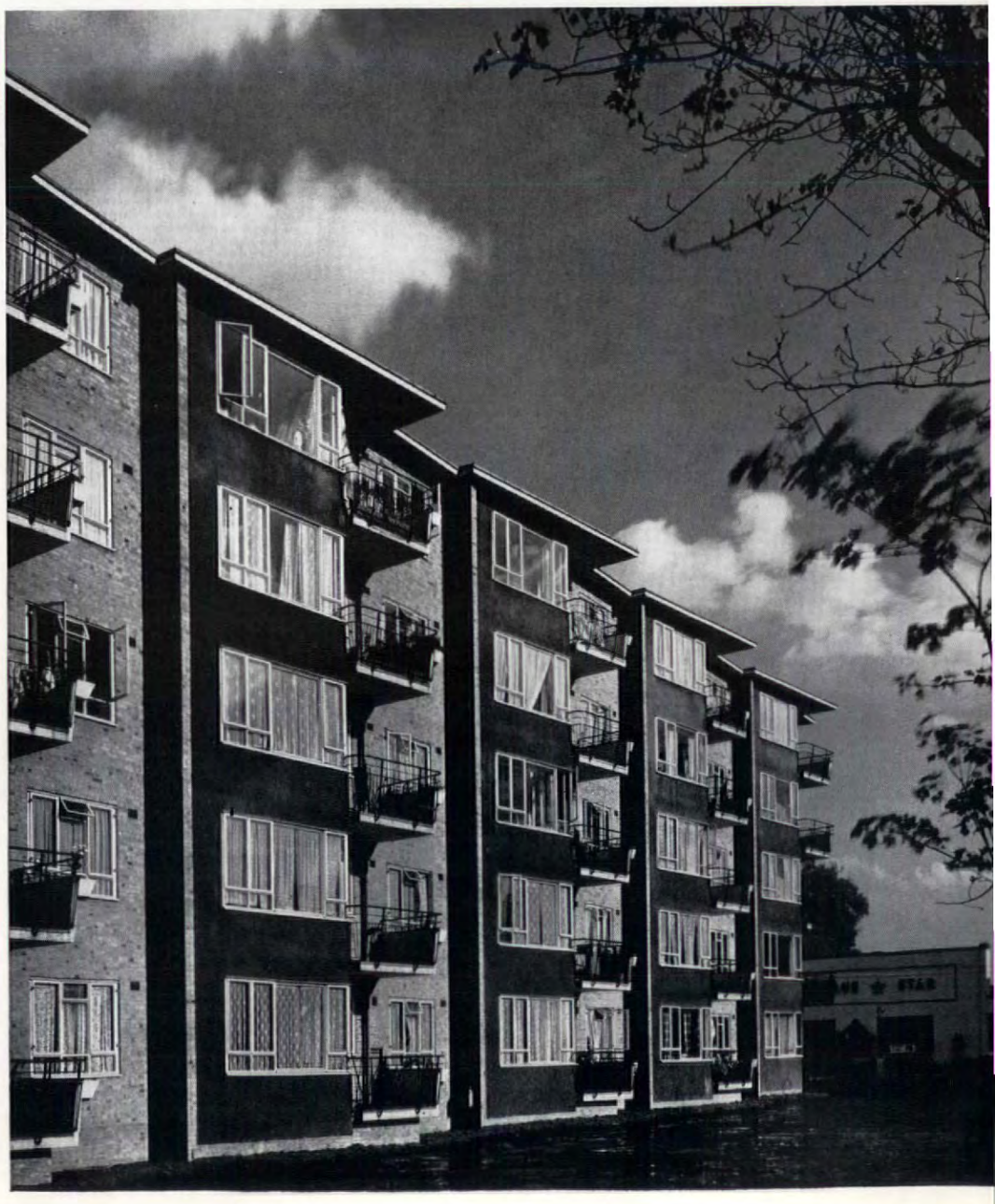


site plan

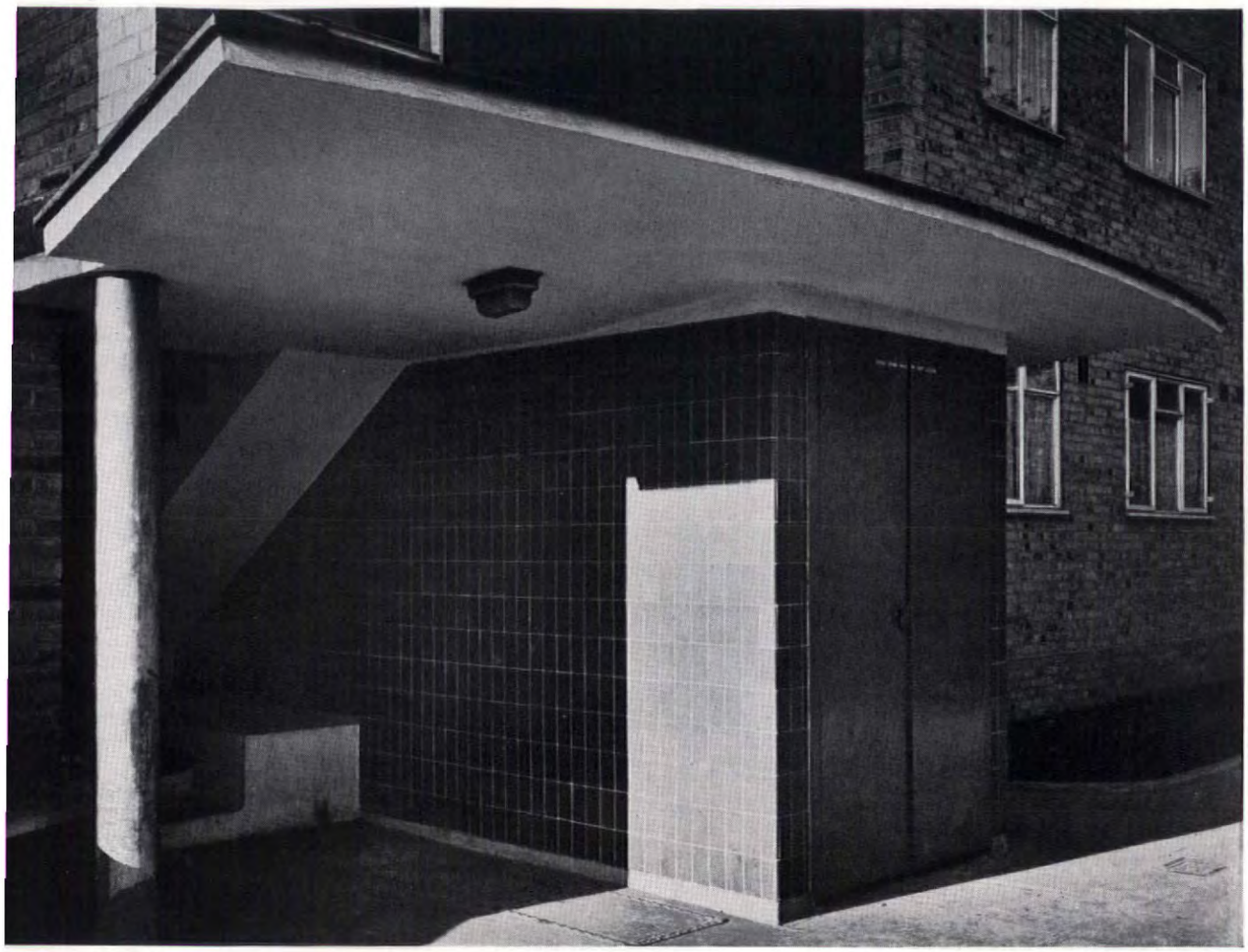
The first part of a scheme for 105 flats for the Borough of St. Pancras consists of a block of 40 flats bordering St. Pancras Way,* on the north side of the island site. A row of existing trees on the north-east side of the block has been retained to screen the flats from noise and dust. This and future blocks are sited with their ends towards the main traffic route, Camden Road, to reduce noise disturbance. As the completed block is only five storeys high, it has been possible to keep the cills of top floor windows within 42 ft. of the ground and single escape only is necessary. Each staircase serves two flats on each floor and each unit of 10 flats is complete with its own lift and refuse chute. The living room, kitchen and balcony in each flat form a single unit overlooking the gardens, enabling the housewife to keep an eye on children playing, while she works in the kitchen.

*Facing an earlier scheme by the same architects on the other side of the road See AR, August, 1949.

2

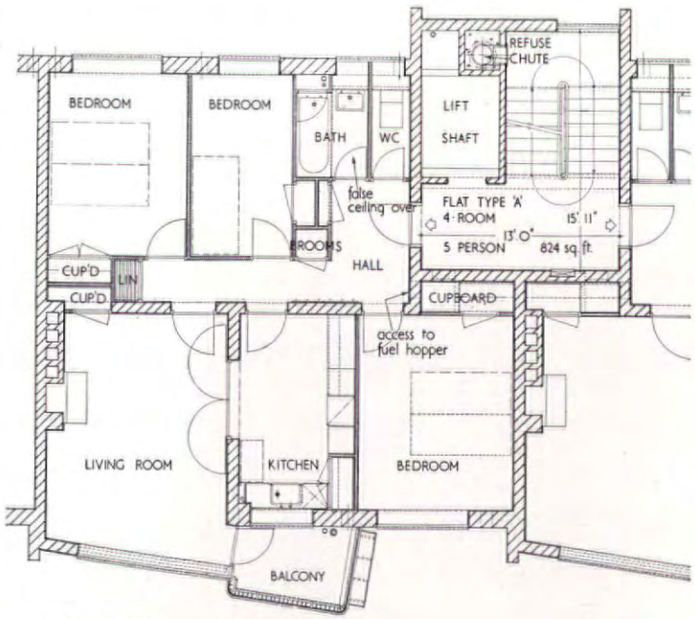


Looking east towards Camden Road. Living rooms, kitchens and balconies are planned as a single unit all facing on to the gardens.

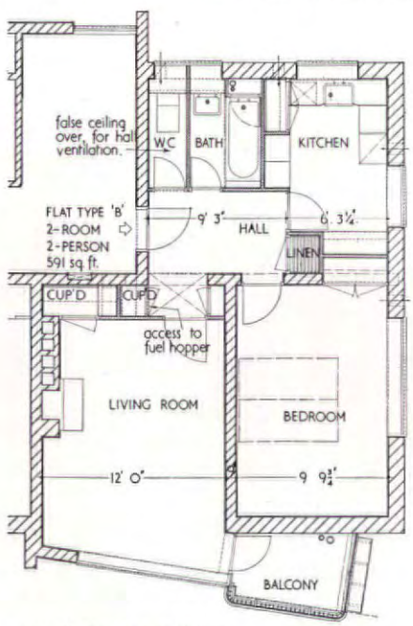


One of the four staircase porches. Staircases serve two flats on each floor ; there is one lift for every ten flats.

Construction is of load-bearing brick with certain highly stressed portions in the lower storeys built in engineering bricks to avoid increasing the thickness above 13½ in. The spine wall is 13½ in. thick up to third floor level and 9 in. above. Party walls are 9 in. brickwork, and partitions are of 2 in. cellular breeze blocks. Cavity walls to living room bays have a 4½ in. brick outer skin, 2½ in. cavity and 2 in. breeze block inner skin. Floors and roof are

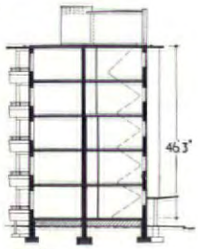


type 'A' flat, typical plan scale: 1/12 in. = 1 ft.



type 'B' plan, 3rd and 4th floors

typical floor plan, block 'A' scale: 1/48 in. = 1 ft.



section

4

The south-east end of the entrance façade from across St. Pancras Way showing one of the staircase towers.

of reinforced concrete hollow tile construction while the staircases, ground floor and cantilevered balconies are of solid reinforced concrete. Brickwork is of yellow stocks with staircases, towers and walls of living room bays, venetian red cement rendering. The roof is covered with three-layer felt laid in hot bitumen and finished with fine shingle; windows are standard EJMA casements painted broken white. Floor finishes are asphalt tiles or 1 in. deal t. and g. boarding on 1 in. glass silk blanket as insulation against impact noise.

FLATS AT DAGENHAM

NORMAN AND DAWBARN: ARCHITECTS

The Heath Park Estate, which is being built for the Borough of Dagenham, will cover more than 39 acres and provide accommodation for 2,397 people in 597 dwellings. The central part of the estate, for which the architects received an FOB award, is illustrated here.

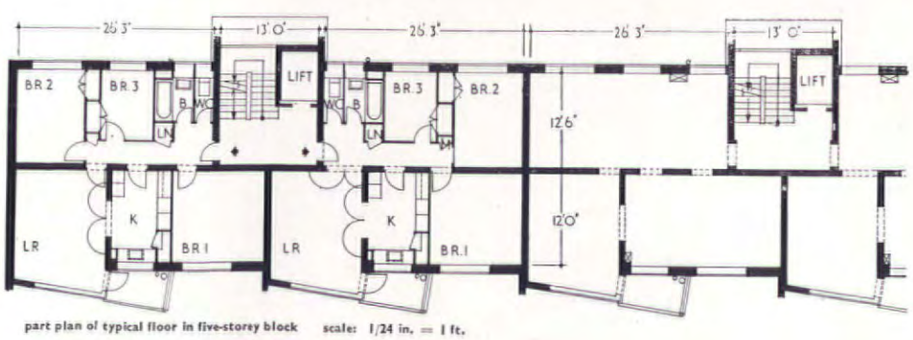
The estate consists of three and five-storey flats, semi-

5

East façade of the five-storey block. The outer walls have Leicester multi-rustic facings. Window frames are painted white.

6

6, on the right, the west façade of the five-storey block. The layout of the estate was designed to include a district heating system for the space heating and hot water supply for this and also for an adjacent LCC scheme and the county primary school. Heating ducts run approximately through the centre of buildings under ground floors. There are no open fires or flues, but electric power points have been provided. Bills of quantities were prepared for dwellings equipped for either district heating or traditional heating and on the early contracts the comparative costs were:— (a) Contracts 1 and 2, £1,377 per house with district heating and £1,415 per house with traditional heating, (b) Contract 3, £1,611 and £1,578, respectively, per flat. The higher price per flat is due to the cost of the boiler house being included in this contract. The above costs exclude specialists' work in connection with heating installations, which comes under the heating contract but includes heating ducts in houses and flats.



part plan of typical floor in five-storey block scale: 1/24 in. = 1 ft.

detached and terraced houses, and bungalows for old people. Six flats on the ground floor of one of the three-storey blocks are for disabled people and their families.

Outer walls of the flats are of load-bearing brickwork, 13½ in. thick; cavity party walls are 11 in., and spine walls 9 in. (13½ in. on ground floor and first floor of five-storey block). Ground floors are reinforced concrete slabs while all other floors, as well as the flat roofs, are of patent hollow pot RC construction.

Three-storey blocks have outer walls faced with mild

7

8

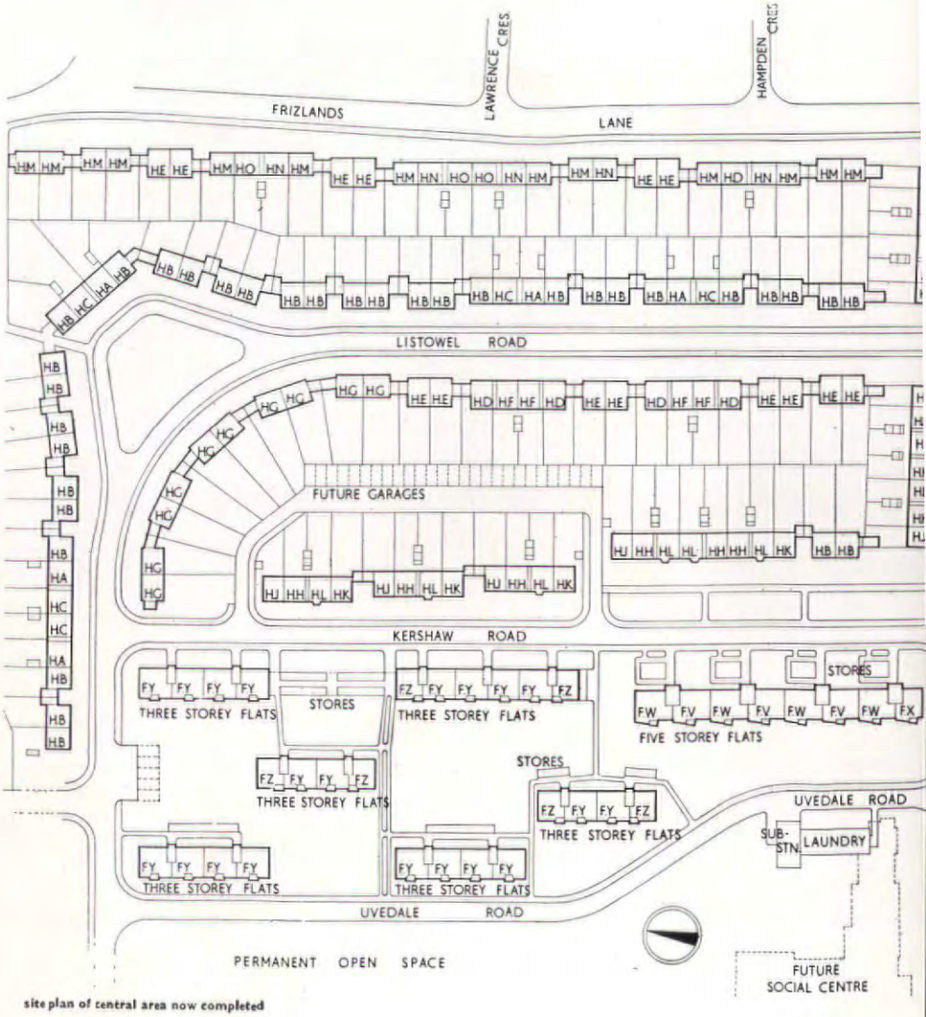
9

8, the west façade of a three-storey block with the five-storey block in the background, 9, terrace houses, shown in the site plan of the estate on the right, with the east façade of the five-storey block beyond.

7, looking north at the five-storey block with a three-storey block on the left. 10, detail of the cantilevered reinforced concrete balconies at the north-west corner of the five-storey block.

10

stock facing bricks. The outer walls of the five-storey block have Leicester multi-rustic facings. Floors are finished with asphalt tiles on cement screed, 1½ in. overall. Roofs are covered with foamed slag cement-insulation laid to falls, covered with three layers of felt laid in hot bitumen, with grit finish. Staircases are of reinforced concrete with granolithic screed finish. Walls and ceilings are plastered and distempered, while staircase walls are of cement-glaze, coloured light green, grey, cream or coral. Corrugated steel asbestos balcony fronts on three-storey blocks are painted with a plastic paint for weatherproofing and coloured blue or teak.



site plan of central area now completed

Eric de Maré

BUTTONING UP

In the end people get not the sort of town they want but the sort they deserve. The town is not just a node of commerce, administration and culture. It is a symbol of a general philosophy. Today our philosophy is confused and despairing and so are our towns. One belief we retain from the past, though we are only half aware of it—it is the worst inheritance from the puritan revolution which finally produced this technical age —the belief that everything is all right so long as you are (a) working, (b) not enjoying life too much. Thus both without and within the Policeman controls us—for our own good, of course.

This attitude is expressed in the municipal works of the Town Council, the keep of the puritan burgher tradition. Everything must be seemly, rigid and controlled, for the Devil is lurking at every corner; never relax, beware of beauty and keep the urinals reeking of Lysol. In visual matters at least we still hang cats on Mondays. We button things up, tight as a Policeman's jacket, partly, of course, to save us also from the lethal things that buzz about the streets.

But in spite of the Policeman in us, we still seek pleasure. One of the pleasures we seek in towns is easy, social, gossipy intercourse. As Gordon Cullen wrote in the January issue: 'To congregate, to be able to stop and chat, to feel free out of doors should be one of the reasons people live in towns and not by themselves.' A town, liberated from a too tidy restraint (after all, life isn't tidy), should give the feeling of this free assembly—a sense of spacious urbanity, a sense that your every move is not being watched and

regimented; that you can, in some parts at least, come and go as, where and how you please.

On the next pages are some examples of unnecessary and restrictive buttoning-up, of the segregation of each part of the town for one purpose only. They show how essential it is that we should accept, retain and rejoice in the lively multiple-use of certain parts of the town where the spacious, inconsequential flow of people and vehicles is tolerated without rigid visual articulations and trammels to free movement. In fact there are still cases where, by a miracle, this charming, tolerant, multiple-use is in action today. One of them is the market place of Ross-on-Wye, among the most delightful of smaller English towns. Though an old place it still works well except in one particular which we shall come to. On the summit of the hill the church rises above a small park where, from the Prospect, you have a lovely view of unspoiled country across the river. The town is clear cut and does not sprawl. The high street winds gently like the river half-way up the hill and there it suddenly broadens out generously to embrace an ancient market hall of worn stone having a covered place among the ground-floor pillars. It is the bustling Work Centre of the town, the commercial core and the complement of the quiet Contemplation Centre higher up. The whole place has an informality which is seen at its best on market days on a genial summer morning. Crowds in summer prints and coloured shirts mill among the stalls which spread out into the roadway; wares are scattered on the street floor itself in oriental confusion. The daily shopping chore becomes a pleasure both for housewife and vendor in this gay mêlée, almost continental in its happy holiday mood of relaxation. Mixed purposes here—selling, buying, walking, cycling, motoring, telephoning or just standing about discussing the late events, while upstairs is not, as one would suppose, a local museum containing a shark's skeleton and a Victorian doll's house but, reasonably enough, the Food Office. Around and across the encompassing streets lie the shops—the stationer's, the grocer's, the bakery where elevenses are now being served. People stroll across the streets unconcernedly, cars and cycles roll by and no one is run over.

Here is the country town's centre working naturally as it has worked ever since towns were first built. Thus they should be allowed to go on working. This is the human ideal and the Policeman's bane. There he stands, poor fellow, buttoned up tight in the far corner of the town hall directing the traffic where the streets narrow. 'Time they pulled the blessed thing down,' he mutters, wiping his helmet band and glancing back at the serene old market hall. How easy would be the Policeman's lot if it weren't for restless, unpredictable people.

He fails to understand that the trouble lies, not in the narrowness of the approach roads and the blockage of the market hall, but in the heavy arterial traffic he is there to direct—traffic which has no business in the town at all and should have its own by-pass outside the precincts. That is the threat to the town hall and the natural life that is still enjoyed around its useful and accommodating arches. That is where interference is needed. Leave the market hall and its netted and free, encompassing space alone. The local people are thronging there; they want it, they need it and (dare one say so?) they enjoy it.

The function of a city, said Aristotle, is to make men happy. Part of human happiness comes from the quiet isolation of the individual, in creative or contemplative mood, from the herd. Part comes from social intercourse, from feeling one with the herd. Towns should cater for both needs. These pages deal with the latter need, and hence with one of the multiple-use areas. First un-buttoned.

1

un-buttoned

2

1, *an example of tolerant multiple-use at a quay-side at Sete in the south of France. Here is a sense of mutual allowance, liberalism, of easy give-and-take. Everyone has his job to do and his enjoyments; therefore, live and let live in social goodwill. Out of gear with that lorry for thirty seconds while the good wine is rolled by,* 2. *When work is over join in a game of boules on the railway line—the Policeman too.*

Now Buttoned-up. Partly because of our puritan tradition, the attitude of town officials is too often restrictive. Particular areas are needlessly given one tight function, or are not allowed to perform any function at all. The recent rash of fenced-in public gardens is an example. In fact we are constantly reminded that those who run our towns consider a crowd to be noisy, messy and naughty. Assembly, getting together out of doors, where it is not denied altogether, is therefore made uncomfortable and dangerous.

3

buttoned

4

3, *the market place at Ross-on-Wye, a happy English case of unbuttoning; this picture, however, shows the buttoning-up process just beginning; arterial traffic is threatening; the Policeman is already on the job.* 4, *the common fate of many a focal point, the war memorial at Chudleigh hideously buttoned-up, an example of the puritanical tight-lipped-but-not-very-bright, little islandism. Keep the living away from the dead; they might steal a flower, or worse, sit down and watch the world go by.*

5

6

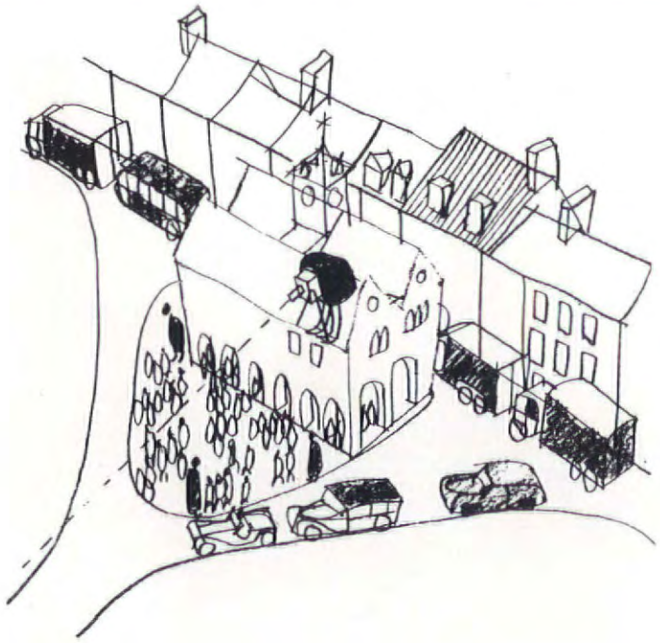
7

5 and 6, two views of a squalid little buttoned-up area near the town centre, Yeovil, the English garden tradition at its lowest ebb and serving a mean, un-English purpose. The attitudes of the people in the photographs provide all the comment needed. 7, a continental and special example round the cathedral at Tarragona, Spain; Heaven is barred; the quiet gathering place is strictly protected from unsacred humanity. This is the negation of the cathedral close tradition, of the serene space where Everyman, in contemplative mood, can stroll or sit.

Threatened with buttoning, Ross-on-Wye is at the moment one of the few good English examples of the other thing. The centre is an ancient, unbuttoned area in use to this day—an area of lively, social multiple-use where different functions do no conflict and authority does not frustrate the human desire for easy intermingling

un-buttoned exemplar

8



11

8, 9, 10 and 11, multiple-use in practice in the ancient market place of Ross-on-Wye. No tidy restrictive tight-little-islandism here. The market hall is open on the ground floor all around and the market spreads out helter-skelter on to the streets. Here the chief charm of living in a town can be enjoyed—lively, gossipy, social intercourse. Here is the town centre in its natural, unrepressed mood, the town centre as it should be but rarely is; the puritan Policeman's headache. Here is no rigid, one-purpose use of an area, but one of flowing liveliness. **11,** *looking down from the upper floor of the market hall (now the local Food Office) on to the jumble of stalls below. Above, a sketch by Gordon Cullen showing the way the high street spreads out generously as it approaches the market hall, but also the danger, the threat, that menaces the life of the town—arterial traffic.* **12,** *the view down the high street from the first floor of the market hall with its sense of spacious ease and no unnecessary formal restraints. The camera perched on the roof in the drawing reveals the viewpoint of this photo.*

12

13

An ancient ritual of junketing, of buying, selling, strolling, watching, talking, shouting, riding up and riding by, or just standing is taking place, 13. *Mr. P.B. of Pontypridd is there in a comic hat, engaged in free trade. He is the Jester, the free man, yelling his wares with uninhibited gusto and enjoying the life of the open market place—as unbuttoned as his surroundings.*

Here at Ross the life of the market place, an entirely successful piece of social and visual improvisation, is menaced by a dangerous piece of traffic improvisation. The narrow, medieval street plan is allowed to carry arterial traffic, and a stream of lorries of exceptional size fills the town from dawn to dusk. These monsters break through into the market place, providing a constant threat to life at the fringe of the crowd and, unless a by-pass is soon built, to the use of the area as a place of congregation.

the threat

14 15

16

17

18

Here in **16** *and* **17** *is the threat to the unbuttoned social centre of Ross—the traffic of vast lorries which the Policeman vainly tries to keep moving. He thinks his job would be easier if the market hall were pulled down; his job would be easier still if the town did not exist. Either the town or the arterial traffic has no business here. The advantages of Ross's magnificent hill site are also nullified by traffic.* **18**, *outside the Royal Hotel, from the terrace of which you would survey twenty miles of open country—if the cars and lorries would allow.* **14** *and* **15**, *two photographs thrown into one, show the whole story—and its moral.*

PACKAGED FURNITURE

Danish designers of contemporary furniture have always admitted the debt that they owe to the English eighteenth century. In this Danish packaged chair a second 'loan" is implicit, for the 'tennis racket' construction of the built-up side units is a British technique, here most ingeniously applied, with the aid of built-up laminations and synthetic resin glues. The value of the packaging principle in the manufacture and distribution of furniture has already been demonstrated in Sweden. Although this design is the only one of its type yet produced in Denmark, it is a first-rate example of the principle, and one also that looks, in spite of its mixed ancestry, typically Danish.

H. McG. Dunnett

PACKAGED FURNITURE

Compared with most household commodities, furniture distribution involves heavy charges for handling and storage. War-time experiments by a progressive Swedish retail store to reduce selling prices by reducing distribution costs resulted in the 'packaging' of furniture becoming their normal practice. Tentative steps in the same direction have followed in most furniture producing countries, and their contribution is assessed in the article that follows.

Every now and then one comes across a gadget or the application of a technical idea which strikes one as an obvious winner. This at least was the writer's reaction to the display at the Building Centre in January, 1947, of the Swedish 'knock-down' furniture, made by the Stockholm store Nordiska Kompaniet, to the designs of Elias Svedberg. The dining-chair particularly, packed so neatly into a cardboard carton, requiring only a screw in each leg and the back to be screwed to its supports, to turn it into a good-looking, sound piece of furniture. A number of other furniture units could be assembled with almost equal ease by anyone with a little patience, a screwdriver and a spanner. Yet to judge from its impact on the home manufacturer, this exhibition might never have taken place, for nothing comparable has yet emerged from the factories of the British furniture industry.

This article does not, however, set out to criticize out of hand an industry which, it must be remembered, is still very largely controlled by utility regulations and purchase tax. These factors, as was pointed out in an earlier article,* have had a very cramping effect on the development of contemporary furniture design in this country, and it is only during the last two years that the situation has to some extent improved.

The production of 'packaged' furniture (an adjective which is preferable to either knock-down or demountable, since it not only sounds better, but is more definitive) involves special problems of considerable difficulty in design, manufacture and distribution. The object here is to consider these problems from all aspects.

The idea of furniture which can be put together or taken apart is, of course, not new. Large wardrobes, sideboards, tallboys and tables have for many years been made in sections which could either be screwed together or merely placed one on top of the other to become one unit of furniture. Beds, too, are examples of furniture which can be knocked down. But the reason for making this furniture in sections was to enable large furniture units to be man-handled through doorways and up flights of stairs. The assembling was done by the firm delivering the furniture or by the removal men, not by the purchaser.

Recent developments in packaged furniture have come about for reasons other than the physical one of getting it into and out of rooms. With the smaller units used nowadays this presents no problem. The object today is primarily to reduce the costs of distribution and through this the selling price.

High distribution costs, i.e., the costs involved from the time an article leaves the factory until it is in the consumer's hands, are the bugbear of all large-scale manufacturers, and investigations have shown that they are higher for furniture than for most other types of consumer goods. The advantages of a flat carton of packaged parts are self-evident in terms of vehicle space and man-hours. In the second place, a heavy item in the retailer's costs is for storage in warehouse or showroom. Packaged furniture would take up a fraction of the space required for the same piece assembled. A third saving arises if the very considerable losses which normally occur as a result of damage to stock in transit and in store can be avoided. Allowance has to be made in overheads, not only for actual damage but also for employing polishers to repair damaged stock, and accounting for the cost of wasted transport between customer, shop and manufacturer involved when repair or replacement is

* See AR, March 1951.

necessary. One glimpse of a big retailer's stockroom, with its new furniture stacked unprotected, covered in dust and sometimes two and three tiers high, would underline the value of a packaged product.

Part of the early novelty and, of course, another opportunity for saving on the cost of distribution, arose from the idea that purchasers would enjoy the fun of putting together their own furniture. Subsequent experience has shown that this is only practicable with the more simply constructed coffee-tables and chairs. Most cupboard units now have to be assembled in the shop and delivered complete, owing to their greater complexity and the need for rigidity. In practised hands, however, this is quite a straightforward job.

On the manufacturing side, economies in production are possible, but they depend on a number of factors. In practice, the making of packaged furniture tends to be a more exacting process than that of making ordinary furniture by conventional methods. The normal joints are only suitable for prefabricated parts. Few purchasers are willing to bother themselves with glue, with boring screw-holes or with using any but the most elementary tools. For joining the different sections together special fixings must be devised, which are not only simple to use and few in number, but will be sufficiently rigid and robust throughout the life of the furniture.

Equally important is the accuracy with which each part is made. Tolerances which are more of the order of metal than of wood manufacture are essential, and this problem is not made easier by the natural tendency of wood to move. For example, in a chair comprising several sections, each of which is made as a separate job, perhaps hundreds in a batch, the sections may be fitted together for the first time by the ultimate purchaser. If they do not fit, back they will have to go via the retailer to the manufacturer. The purchaser will be less keen on the whole idea of packaged furniture and possibly the retailer likewise.

To achieve the necessary accuracy in manufacture, special machinery is essential. Skilled operatives must be in charge of it and production must be continuous to obtain the most effective results from both. Very careful designing and preliminary planning of the complete production process is a prerequisite. Continuous large-scale production requires sales on an equivalent scale, or at least a good prospect of them before a manufacturer will venture into a high capital expenditure.

It is interesting to observe at this point that in Sweden, where the idea has achieved most success, it was not a manufacturer but the Nordiska Kompaniet, the largest retail store in Stockholm, which sponsored it and undertook production in their own factory. Thus the risk of manufacture was assumed by the organization which was not only most likely to gain from it but also the one best able to exploit it to the full—the large-scale retailer. A purely manufacturing concern, on the other hand, could never be sure that the retailers would be willing to stock the products at all, or even if they did, that they would fix a price which passed on to the consumer the savings in distribution. Even if the goods were sold at retail prices fixed by the manufacturer and advertised direct to the public, the manufacturer would have to fix a price which took into account the distribution economies, involving a trade discount to the retailer much lower than that normal on furniture. It would be very difficult to persuade retailers to accept these terms.

The experience of Nordiska Kompaniet suggests that this is so, for although they sell through their own store, their manufacturing company also attempted to distribute through smaller retail shops in other parts of Sweden. In fact they had considerable difficulty in getting their 'Triva' range of packaged furniture accepted at all by these smaller shops, their resistance to it being rather greater than that of the ultimate consumers. This resistance was overcome in the end, mainly it is surmised, because the furniture could be bought at the Stockholm store, if necessary by post.

Sales of 'Triva' furniture have continued to increase since it was introduced in 1944, and the range has been added to year by year. The coffee-tables, dining-chairs and tables and the small easy-chairs have been the most popular pieces, with the cupboard and storage units less so. This is attributed to the difficulty of designing the latter on packaged principles without making them look rather unusual, presumably a disadvantage when quantity sales are aimed at. In general, the distribution economies hoped for have been achieved.

On the manufacturing side the experience of NK has been equally interesting. They now find that, having established the very exacting standards and processes required in the production of packaged furniture, it is now more economical to produce their conventional built-up furniture by the same methods, although it is delivered assembled from the factory. Naturally large-scale production is essential before these benefits can be achieved, but it has resulted in a higher quality of furniture at a cost per unit which was impossible otherwise. Indeed, it is considered that these new manufacturing methods offer far greater opportunities for rationalizing the manufacture of furniture than do the more conventional methods.

In contrast with progress in Sweden, developments elsewhere have in few cases passed much beyond the experimental stage. This pre-eminence of Sweden is due partly to the wider acceptance of contemporary design there than elsewhere and partly to the enterprise of Nordiska Kompaniet in persistently pushing the sale of it.

The Swedish 'Triva' productions form the most complete range of packaged furniture so far designed. The dining-chair and table, easy-chair and cupboard units referred to earlier must be well known by now. The chair and table can be put together with a minimum number of screws and nuts, though the cupboard unit was never intended for consumer assembly. The easy-chair is not entirely knock down since the seat and back are in one piece. Its built-up side units are attached to the seating section by four bolts. A more recent design is a small chair, partly in moulded plywood which knocks down for bulk packaging, with the nuts and bolts clearly visible and accepted as part of the design.

Denmark has not so far entered the field, though

sweden

All the designs on this page are by Elias Svedberg and are made by NK of Stockholm. The chair, 1, *is shown with a set of the components spread out on the floor. The dining table and chairs in* 3 *were the original designs in the 'Triva' series. The detail,* 2, *shows the simple method for fixing the table-legs. The chair components comprise two built-up leg and back sections which cross over under the seat and fit together. The seat, back and the one-piece stretcher screw to the frame and provide rigidity. Chair and table pack flat into cartons.* 4, 5 *and* 6 *demonstrate the variety of designs since evolved. The individual package is no longer employed since bulk-packaging is more economical and more useful for pieces of furniture which the consumer is not expected to construct for himself. Upholstery and shaped chair backs naturally make a single package rather bulky, but the benefit is obtained in course of distribution.* 7 *and* 8, *a table and a pair of cupboards. The construction of the 'Triva' cupboard is based on grooved framing and screws, and the whole structure can be 'knocked down' flat. They can be placed on top of one another, as well as side by side.*

1

2

3

4

5

6

7

8

sweden *The latest 'Triva' chair is designed for bulk packaging in three variations. The standard design,* 11, *has a plywood seat and back.*

9

10

Another model, 9, *has a transparent plastic back and a seat of interlaced plastic strips, while* 10 *is a standard model with plywood arm-rests.*

11

denmark

One of the most interesting structural devices adapted to chair design recently is the 'tennis racket' design evolved in Denmark, 12. *The side pieces are each in one piece built up from cut and moulded laminations. The seat and back slot into the side pieces and the stretchers screw in with reverse threads. The components are illustrated on page* 240. *This example has a leather cover. Upholstered variations with and without arms are also made, as the photograph of a suggested boardroom,* 13, *shows. The table is not 'packaged' though constructed on the same principle. Designer: Peter Hvidt and E. Molgaard Nielson; manufacturers: Fritz Hansens Eftfl.*

12

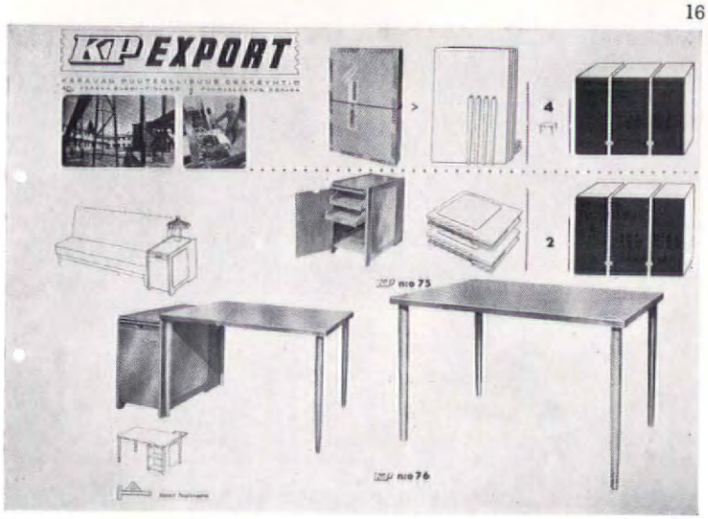
13

finland *Both Sweden and Finland have had an eye on the export market in developing 'packaged' furniture. The table,* 16, *which has screw-in legs, and the cupboard pack four and two, respectively, to the carton. The stacking Finnchair,* 14, 17 *and* 18, *is 'bulk-packaged' with a simple screw-in assembly,* 15. *Of more interesting construction, perhaps, are the chairs,* 19, *of which there are several variations,* 22, *some of which stack,* 21. *The parts,* 20, *clamp together by means of key-hole slots. Designers: A. and I. Tapiovaara.*

15

14

16



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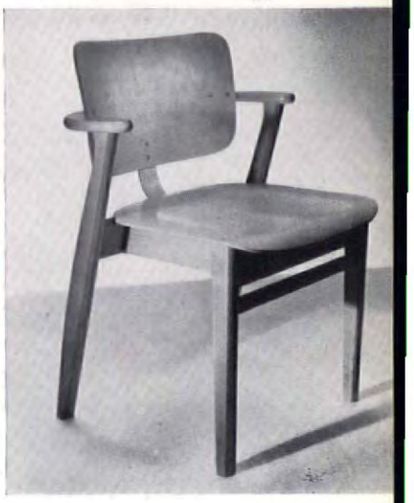

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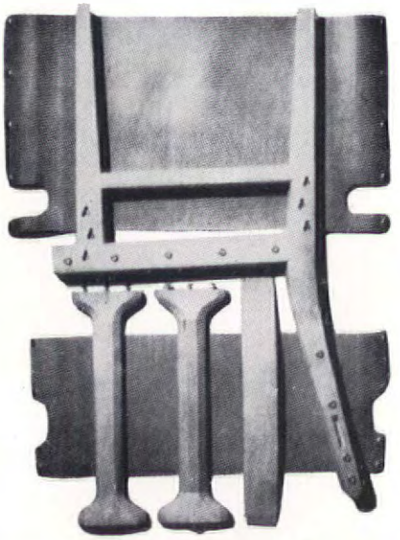

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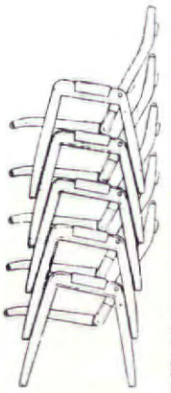

22

switzerland

Designers in Switzerland have so far confined themselves firstly to small 'packaged' tables of relatively simple construction such as 23, 25, *and the traditional 'camp-stool' design,* 24. *The other examples,* 26 *and* 27, *have a patent metal locking device attached at the bend of the legs. Designer: H. Bellmann; manufacturers: Wohnbedarf A-G. The second Swiss development is quite a new departure and has been adapted to tables, cupboards and bookcases which are rather stilted in their design,* 28 *to* 34. *The components consist of legs with supporting brackets,* 29 *and* 33, *and strips of linen are sandwiched between two sheets of wood, the edges of which are chamfered at* 45° *to make a simple hinge,* 33, *or a multiple hinged unit for a cupboard,* 31. *Designers: W. and E. Guhl.*

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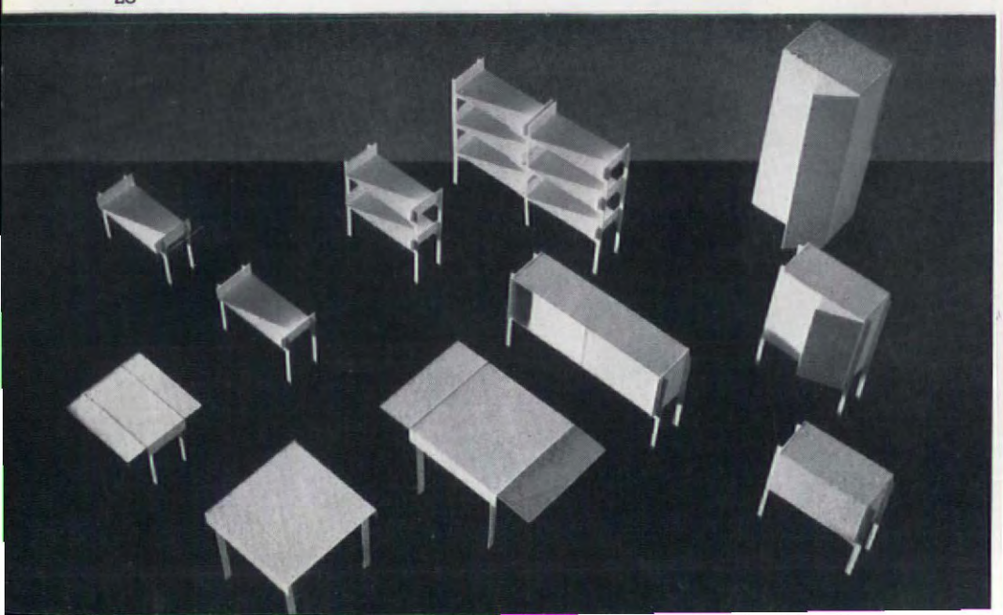

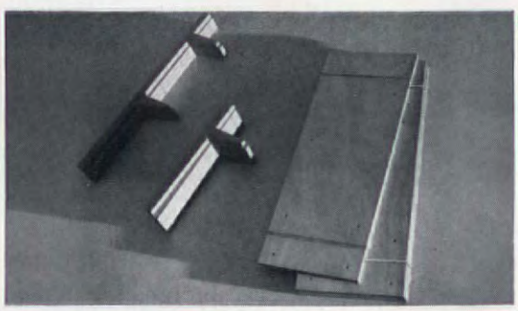

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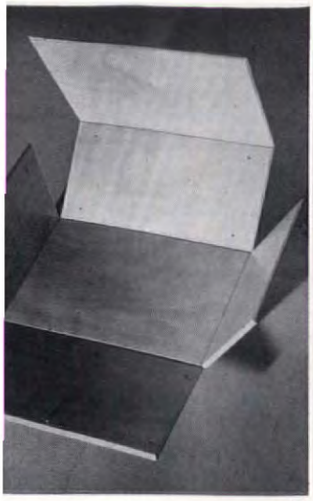

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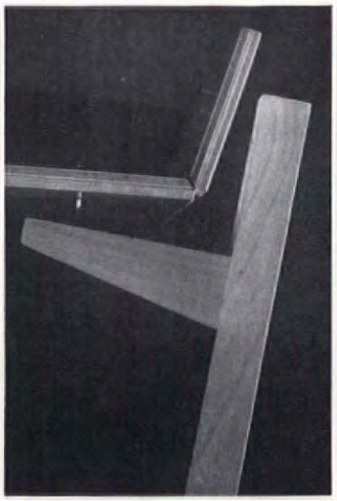

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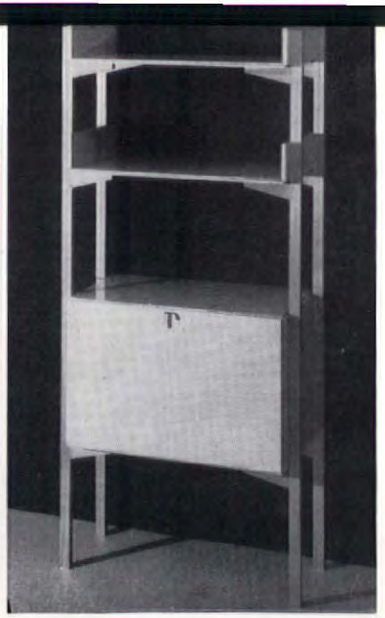
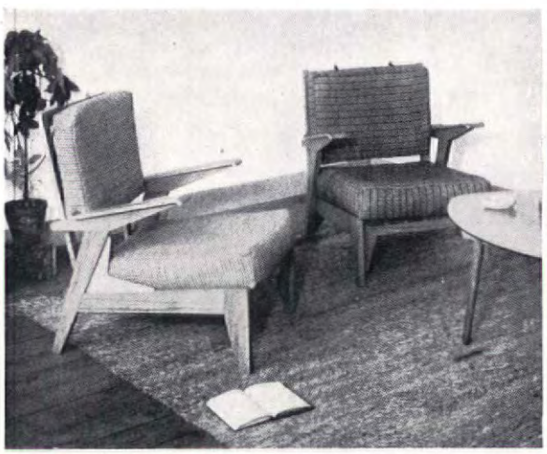


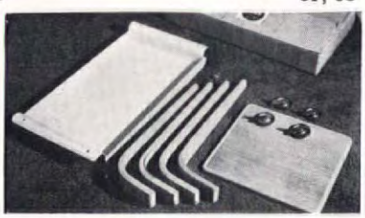
34

holland *The easy-chair, 35, comprises built-up sides braced with cross pieces screwed to them. In the case of the dining-chair, 36, the back legs and the rail supporting the seat are in one piece with the side-frames projecting halfway down the back section. The structural bracing of the front is, therefore, at right angles to that of the back, ensuring good rigidity. Designers: J. Niegeman with B. Brand and C. Schelling. The trolley, 37 and 38, is of laminated construction held together with screws. Designer: C. Braakman; manufacturers: Utrechtsche Machinale Stoel en Meubelfabriek.*



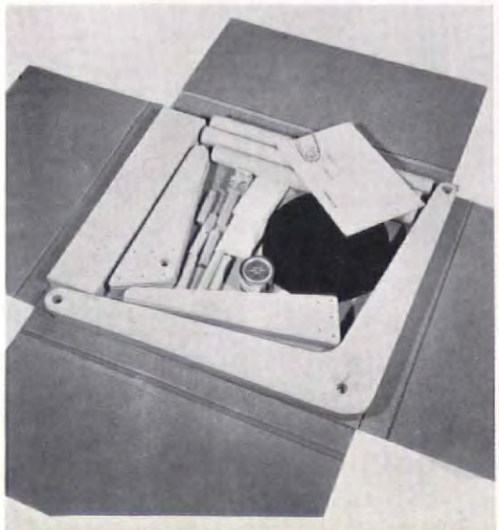
35, 36

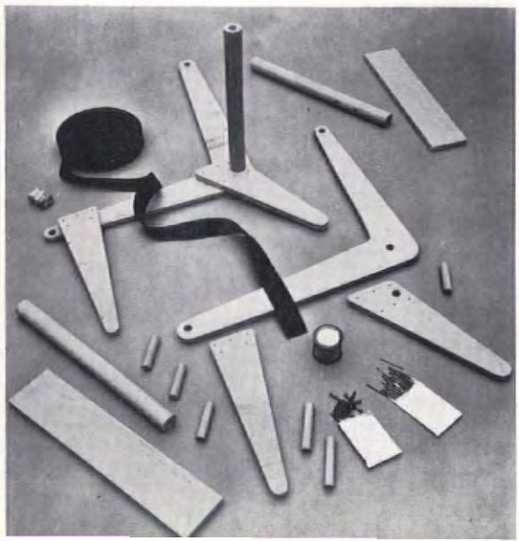
37, 38



usa *Since mail-order business is such an established tradition in the United States, it is surprising that this aspect alone has not produced more interest in 'packaged' furniture. The chair illustrated in 41 is one of a variety of designs of different sizes all constructed in the same manner. As the carton shows, 39, the chair 'knocks down' to a greater degree than usual, into about twenty components, 40. Nails, screws, glue and webbing are necessary in its construction, which is more than most purchasers of 'packaged' furniture are usually expected to deal with. Manufacturers: Klaus Grabe Inc.*

39, 40, 41





france *Until last year's Triennale at Milan, French designers had paid little attention to 'packaged' furniture. At that exhibition one of the most ambitious designs so far produced was shown,* 42 *and* 43, *a cupboard fitted with two drop-front flaps and a number of sliding trays for crockery. It is made in polished wood with sheet plastic on working surfaces, and the whole structure is held together by screws inset in the shelves. Designer: André Renou; manufacturer: La Cremaillère. The chair,* 44 *and* 45, *is designed in metal, a new departure, and plywood. Each back leg-cum-back rest is combined in one pressing, and each front leg and seat support is of bent tubing welded to the pressing,* 46. *Back and seat screw to the frame. Designer: Henri Prouvé; manufacturer: Atelier Jean Prouvé.*

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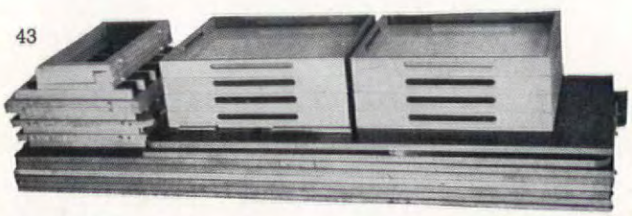
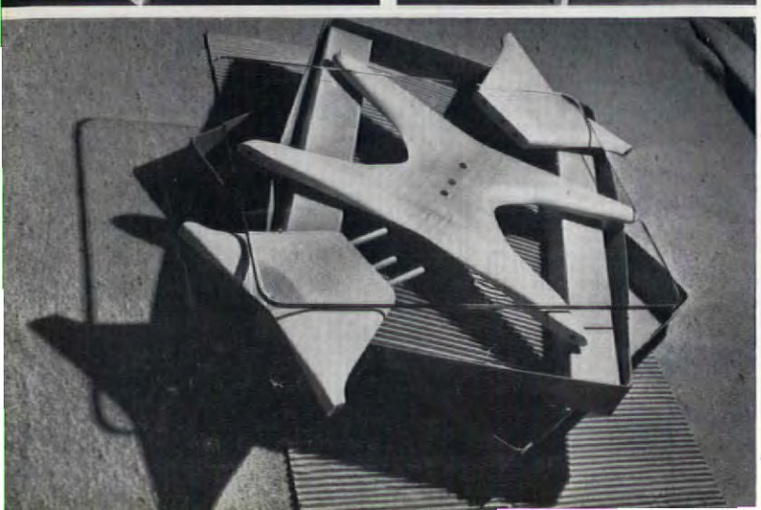


46

u k *The easy-chair,* 48, *with laminated frame,* 47, *is one of the few examples of 'packaged' furniture so far produced in this country. Designer: Eric Lyons; manufacturers: Packet Furniture. The glass-topped coffee table,* 49, *has a cruciform solid wood support fixing with dowels. Designer: Herbert Berry.*

47, 48



49

italy *Characteristically, the Italian chair,* 50, *is unlike any other in form and technique. The crossed members grip the legs and the seat is slung from them. Wire bracing is employed to keep the various parts braced and rigid. Designer: Franco Albini.*

50

one of the most interesting chairs designed in recent years—the tennis-racket construction designed by Peter Hvidt and O. Molgaard Nielson and produced by Fritz Hansen's—consists of two laminated sides, a moulded plywood seat and back in two parts, which slot into the sides and are held together by four screw-in stretchers with reverse threads. These joins are, however, normally glued as well in course of assembly.

Developments in Finland really originated with the furniture designs of Alvar Aalto before the war which, though they were not designed for individual packaging, were nevertheless generally knocked down for bulk consignment. Since the war the designers Annikki and Ilmari Tapiovaara have designed three types of chair, a table and a small cupboard. The Finnchair, as the first is called, produced in this country under licence by Morris of Glasgow, is not only a packaged chair but stacks as well. It knocks down into nine parts, but is bulk packaged, ten chairs to the carton. The easy-chair is an entirely different design comprising two hairpin shaped sidepieces for arms and legs, two stretchers which clamp into place by means of keyhole slots, and a shaped seat and back in two sections. The table is extremely simple having only a top and screw-in legs, and is packed four to the carton. The cupboard knocks down completely, drawers and all, and is packed two to the carton.

In Switzerland, as in Sweden, the idea has been taken up by a retail furniture store—Wohnbedarf, of Zurich, with designs by H. Bellmann, though it has not yet been carried to the same lengths. Designs for small packaged tables were produced in 1948. A year later E. and W. Guhl designed quite a simple method of making packaged cupboard units and bookshelves which avoided the need for joints, and reduced to the minimum the number of screws needed. This was done by forming each side from two skins of wood with a layer of linen glued between them, and chamfering the inside edges at an angle of 45°. The cupboard section thus resembled a collapsible cardboard box. This section was then screwed to legs built up with horizontal brackets, which were already drilled to take the screws.

The first productions in Holland, designed by J. Niegeman in collaboration with B. Brand and C. Schelling, were for a dining-chair and an easy-chair. The 'Pastoe' trolley, produced in 1950, is interesting since it is one of the two examples of packaged furniture designs which utilize bent laminations, a rather surprising fact since this material would seem more appropriate to this type of furniture than solid wood.

In spite of the many designs for furniture which have appeared in Italy since the war, little attention has so far been paid to packaged furniture. The knock-down principle has been employed by Franco Albini for one chair design of unusual structure. In it, a plywood seat is slung between two short front legs and two tall back legs; two split diagonal stretchers grip these near the base, and wire is used to brace the whole structure.

The first French designs appeared at the Triennale in Milan last summer, and consisted of an upright chair and a fitted dining-room cabinet. The chair, designed by Henri Prouvé for Atelier Jean Prouvé, breaks new ground in that the frame is of metal. The cabinet is probably the most ambitious knock-down design yet manufactured. Designed by André Renou and produced by 'La Cremaillère,' the whole structure is held together with nuts and screws inset in the shelves.

In the USA, the only packaged furniture of which the writer is aware is that produced by Klaus Grabe Inc. This is rather crude, indeed almost naive in design, though it is remarkably low in cost by American standards. The work of assembly, moreover, looks distinctly alarming, the chair package being supplied with screws, nails, glue, upholstery tacks and webbing, while the tools required are hammer, screwdriver and in some cases a small hand-drill. Considering the distances involved in transporting furniture in the States, the high degree of mechanization there and the abundant supplies of suitable timber, it is surprising that more has not been done in this field.

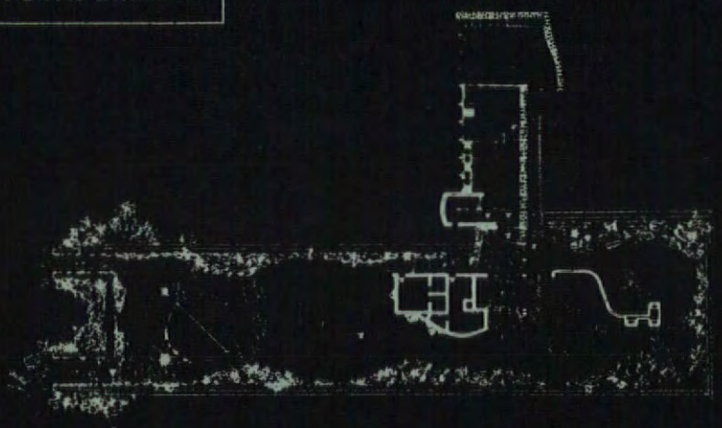
So far in Britain we know of only two examples of packaged furniture. An easy-chair, produced by the Packet Furniture Company and designed by Eric Lyons, appeared shortly after the war. Its seat and back were supplied built up on bent laminated frames, with curved sides forming legs and arm-rests in the same material. More recently a small occasional table has been designed, made and marketed by Herbert Berry, consisting of a cruciform pedestal in three, largely hand-made, wood sections, two of which plug into one another and grip the third by means of dowels. This supports a plate-glass top.

From these foregoing examples of packaged furniture, it will be apparent that experiments are being made in all the accepted furniture-producing countries, though as yet on a relatively small scale except for Sweden and perhaps Finland. Both these countries have an eye on their export markets, where obviously the reduced bulk and liability to damage in transit and storage are attractive features. Undoubtedly the main problems lie on the production side. This needs to be carried out by methods which are new to furniture industries the world over, and any risk-bearer must have a reasonable prospect of success before embarking on the capital outlay necessary in plant, design and planning. Moreover, this type of production lends itself to the simple lines of contemporary furniture rather than to conventional designs, and there is not yet more than a limited demand for the former in any country apart from Sweden.

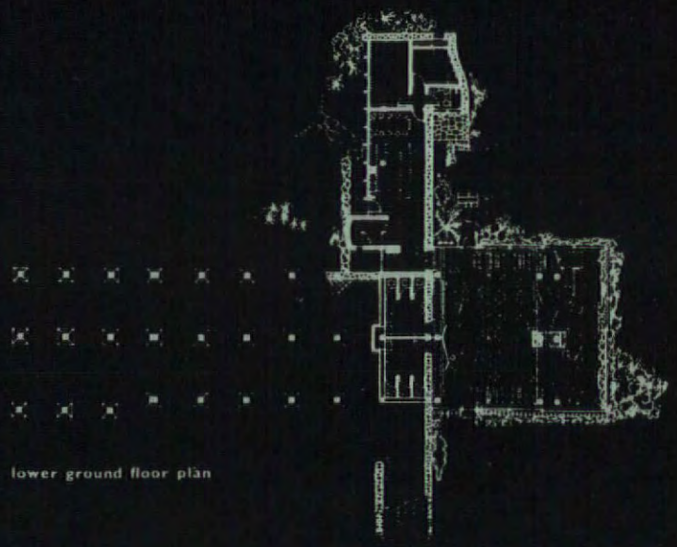
Two other factors, however, have begun to change the original ideas on the subject. The novelty has naturally worn off and it is unlikely that consumer assembly will be of much importance in the future. A more serious argument against this, even in a pulp-producing country like Sweden, has been the rise in the cost of packaging materials. As a result, bulk packaging is now being adopted in preference to individual packages, enabling full advantage to be taken of the knock-down principle and at the same time permitting a reduction in the weight as well as in the cost of a consignment.

Thus it may well be that the original sales appeal of packaged furniture will soon vanish, permitting the knock-down principle to find its proper place on its own merits, as a means of making and distributing furniture.

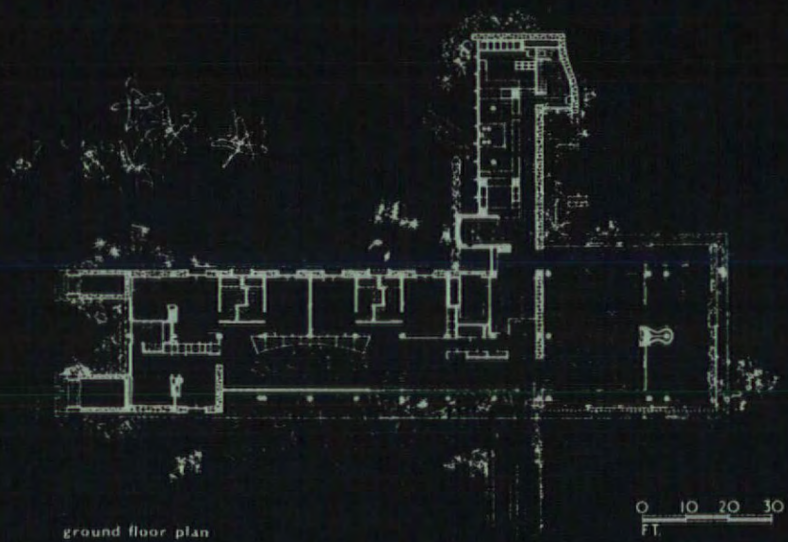
PUNTA BALLENA



roof plan

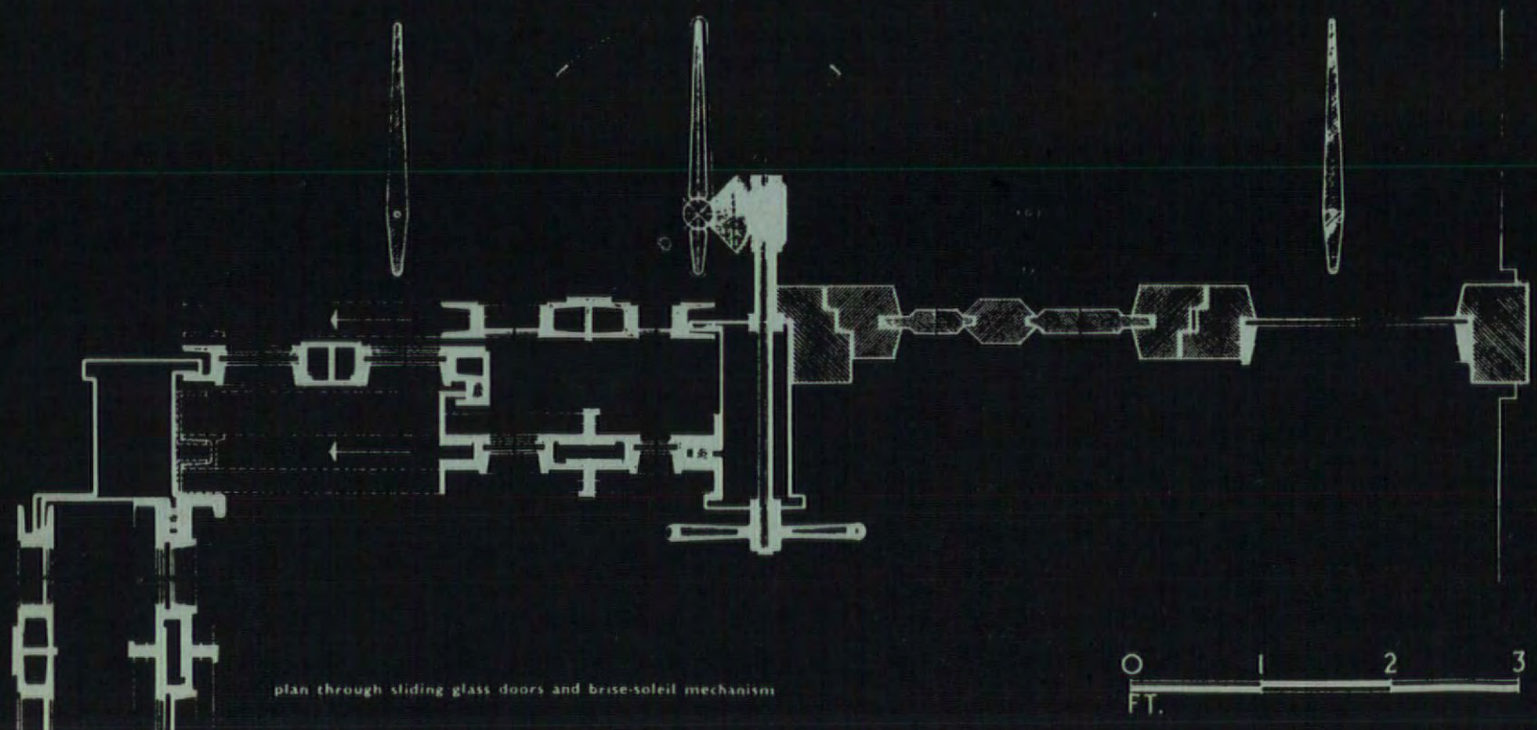


lower ground floor plan



ground floor plan

Situated at the mouth of the River Plate the bay of Punta Ballena has everything necessary for a perfect holiday resort: a fine beach, nearby lake and foothills, the magnificently planted Lussich woods and a sub-tropical climate. Some 3,700 acres of this virtually unknown terrain are at present being developed with the aim of attracting holidaymakers from all over the world. Apart from the small hotel, night club and restaurant shown here in plan and illustrated on the following pages the development includes social and civic centres, residential areas, agricultural and industrial estates, airport, yachting harbour, golf course and so on. The original plan and landscape proposals were the sole responsibility of Antonio Bonet.



plan through sliding glass doors and brise-soleil mechanism

CLUB HOUSE AT PUNTA BALLENA

URUGUAY

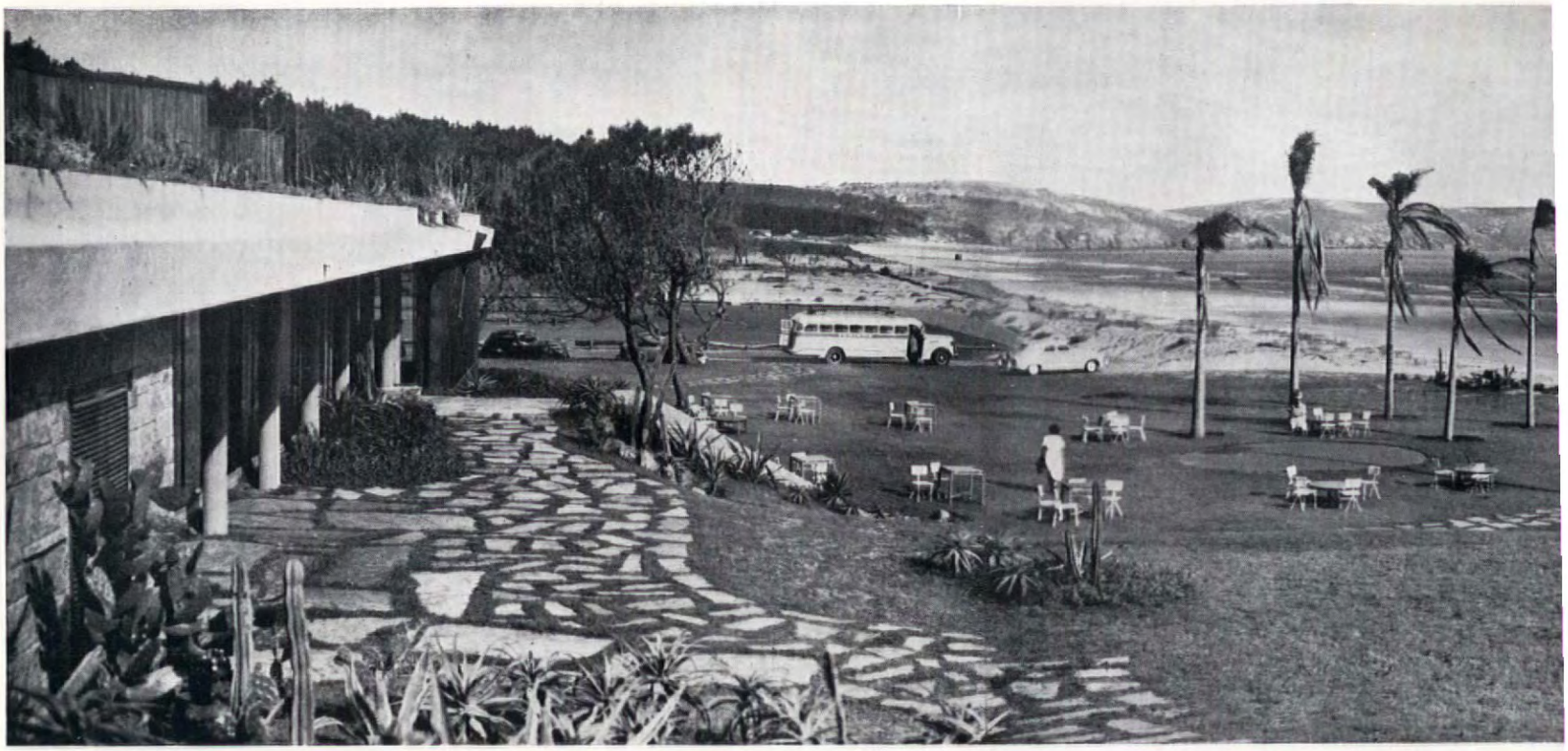
ANTONIO BONET: ARCHITECT

The Solana del Mar, combining restaurant, night club and small hotel, at Punta Ballena, is sited between the Lussich Park and the sea. Lussich woods and gardens contain a remarkable collection of tropical and sub-tropical plants, many of them acclimatized in Uruguay only after prolonged difficulties. When the woods were sold there were fears that this magnificent park might suffer through commercialization. However, the architect, who was also responsible for the landscaping of

1

2

1, view of the beach through the vertical wooden brise-soleil. 2, the shore façade of the club house. Its scale and siting have been related to the natural surroundings with great care; the ground to the left rises to meet the roof, which is itself landscaped.



3

3, a general view of the bay of Punta Ballena and the foothills beyond. To the left can be seen the Lussich woods reaching to the shore. 4, the bay seen from the upper ground floor lounge with the sliding glass doors opened. The restaurant can be seen beyond.

4

CLUB HOUSE AT PUNTA BALLENA

Solana del Mar, succeeded in enhancing its informal character by the use of curved roadways, simple wooden bridges and winding footpaths.

The main architectural element of the Solana del Mar building is its reinforced concrete roof slab supported on reinforced concrete columns. This slab contains on the underside a radiant heating panel while the upper surface is laid out as a roof garden. Internal partitions are of wood in vertical strips similar to the roof garden windbreak. Solid walls are of blue-grey granite blocks in different sizes dry laid with no openings. Columns are finished in grey-green and the concrete roof overhangs in white and grey. Floors are laid at ground level with squares of granite in a regular pattern and at first floor level with blocks of *incienso*, a hard Paraguayan wood.

6

5, the carefully contoured slopes leading up to the roof garden. The steps which start the ascent to it are seen in 6 and 7, which also show the vertical, adjustable brise-soleil along the one wall of the restaurant (details of this are given

5

on page 250). The cantilevered wooden staircase in 10 with metal handrail leads to the roof garden and is illuminated at night from below. 8, the two storey dining room from inland. 9, wall of the bedroom wing; the concrete roof overhang is finished grey, and the stone wall is of blue-grey granite. The louvred screen is of natural cedar and conceals the windows of the bathroom.

CLUB HOUSE AT PUNTA BALLENA

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9 | 10

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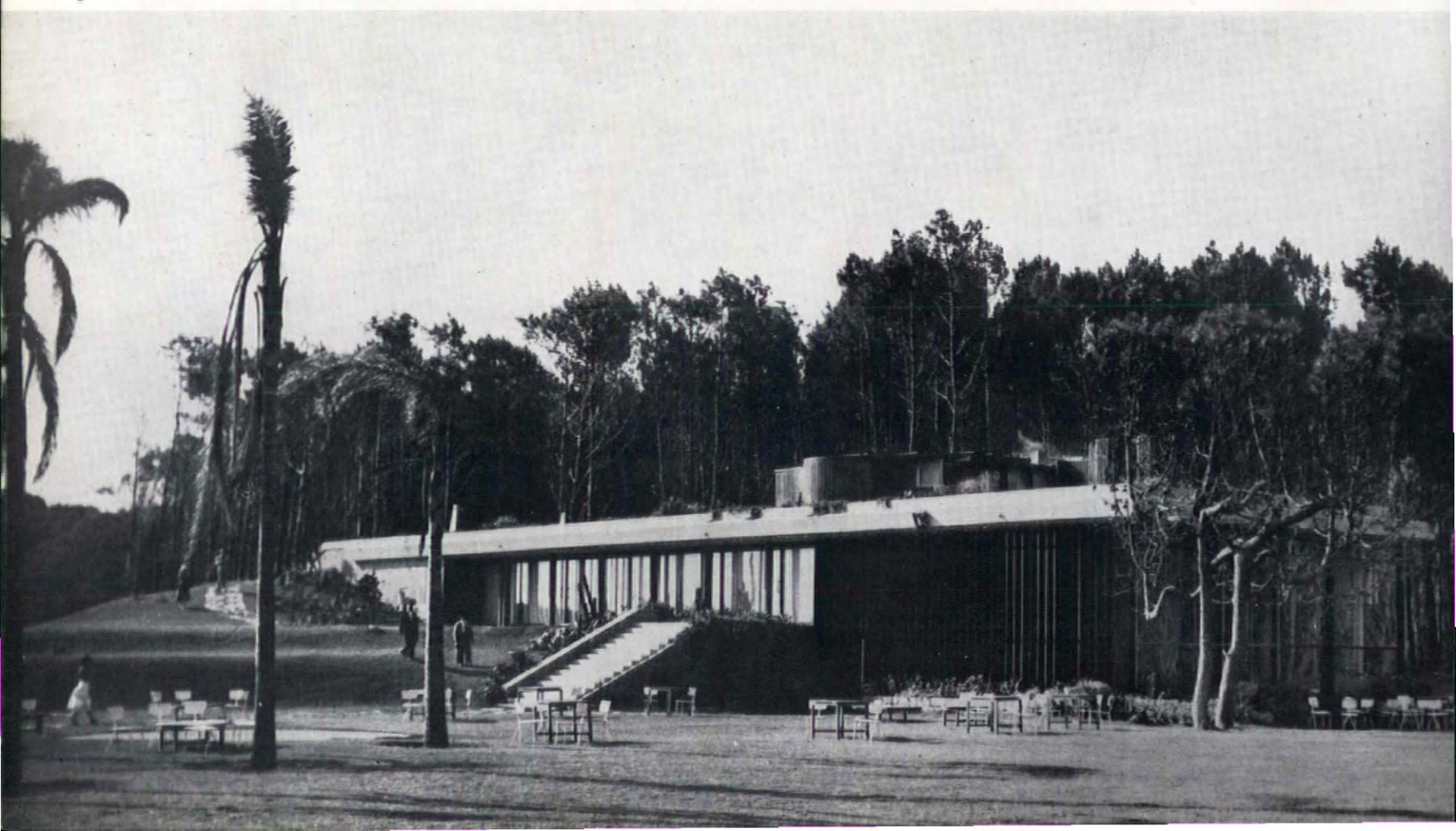
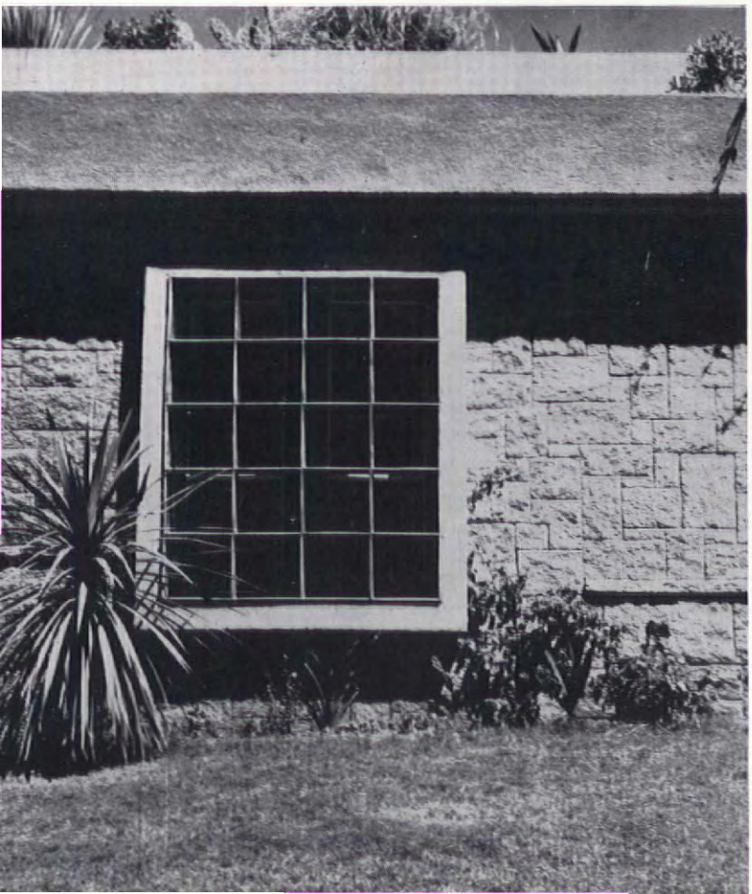
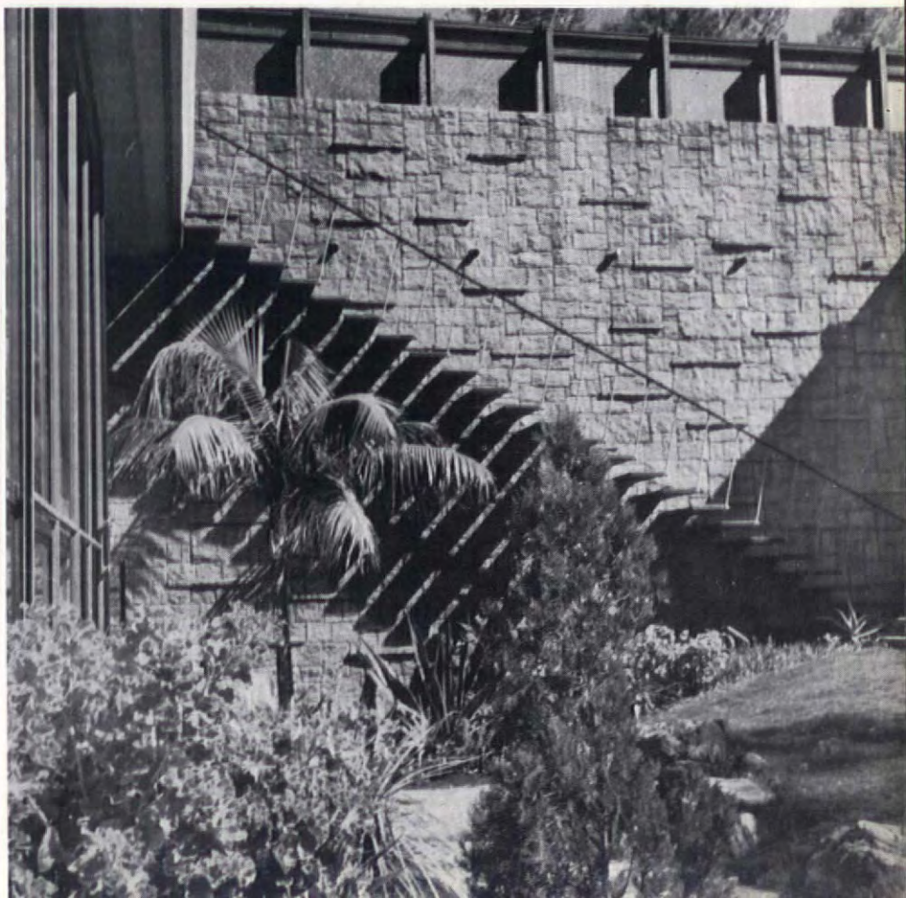
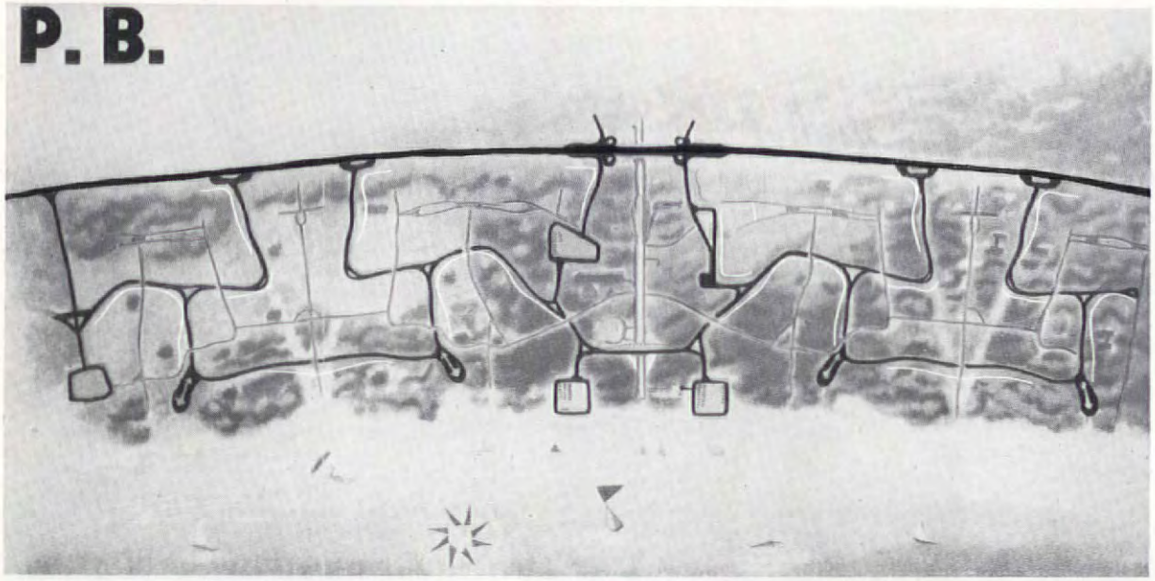






CLUB HOUSE AT PUNTA BALLENA

Solana del Mar and the 90 acres that surround it, all of which has been planned by the architect Antonio Bonet, form the first section of the 3,700-acre Punta Ballena development scheme which is sponsored by a commercial company. Its position is marked on the small map of South America right. 11 shows the road planning of this first 90-acre section which includes one of the residential units and part of the social and civic centre. Building sites are sold with electricity, water and drainage services laid and ready for use. The main arterial road, by-passing the development to the rear, links it with Montevideo, capital of Uruguay, and Buenos Aires. Secondary roads, shown in dark grey, which avoid crossings, are curved both to prevent speeding and to preserve the natural informality of the woods. Pedestrian paths, pale grey on the map, cross secondary traffic roads only by wooden footbridges, of which 12 is a typical example. The roads are surfaced with coloured concrete.



11

12

J. M. Richards

LONDON PLAN

The publication in 1943 of the Abercrombie-Forshaw County of London Plan was one of the outstanding events of that era of forecasts and promises during which replanning of all kinds was being pushed forward, stimulated by the bombing and by the need during war-time to interest people in the brave new world they were fighting for. The plan was an inspiring achievement—at least on paper. Since then a lot of things have happened to London that are not only on paper, some of them not altogether consistent with the proposals set down in the plan. These have made us wonder whether this much-publicized plan was not largely wishful thinking—whether the planners were as actively in control as they pretended.

The recent publication of the County of London Development Plan provides the opportunity of discovering what the planners' firm intentions are and to what extent the Abercrombie proposals are being put into practice. It is comforting to discover that, except in one or two important particulars, the London County Council is following the Abercrombie plan pretty closely, though it still must not be forgotten that the fact that plans are being made is no guarantee that they will be carried out. The Development Plan, based on far more exhaustive surveys than Professor Abercrombie had at his disposal and on consultation with some 630 other authorities, is, however, a necessary first step.

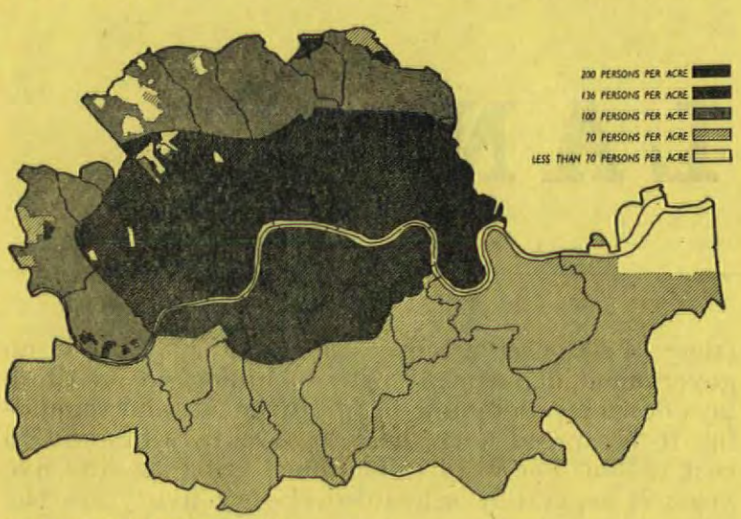
The plan, which has now been formally submitted to the Minister of Local Government and Housing (since the Conservative election victory there is no government department with 'planning' in its title), lays down a programme of improvement and rebuilding to be spread over the next twenty years and to cost £540m. The work to be done during the first five years is separately scheduled. Every five years the whole plan is to be reviewed.

The Abercrombie-Forshaw plan was based on a number of essential concepts which, while not necessarily new to planning theory, had not previously been applied on such a scale or given the seal of municipal approval. These include the idea of community structure—of a city being divisible into self-contained balanced communities, composed of residential neighbourhoods separated by main thoroughfares and equipped with the necessary schools, open spaces, shopping facilities and so on. This community and neighbourhood structure, as well as being based on analysis of what is desirable socially, is in London's case a recognition of the city's origin as an amalgam of villages each of which still preserves, to a great extent, its own identity. The other basic concepts upon which the Abercrombie plan was founded are the green belt to limit the spread of building, the special treatment of precincts with a function and a character of their own—such as the university precinct in Bloomsbury, the government precinct at Westminster and the legal precinct in the shape of the Inns of Court, of which only the last now has a true precinctual character free from the intrusion of main

road traffic and other unwanted activities—and the classification of residential areas into density zones.

On the whole these concepts are preserved in the Development Plan, although the slow rate of building since the war has hardly allowed a recognizable neighbourhood structure to emerge in the communities due for large-scale replanning. The green belt has been preserved in principle, but the Abercrombie plan included a recommendation that a small amount of building might be allowed to encroach on the green belt and the LCC has, unfortunately, interpreted this as permitting large-scale housing developments. Their out-county estates—Oxhey, Hainault and others, differ but little from the pre-war speculative estates that the green belt legislation was intended to put a stop to. The immediate target has, moreover, been reduced from four acres of open space per thousand of population to two and a half.

Finally, the principle of density zoning has been adhered to in the Development Plan with the modification that an extra zone has been added in order not to disturb unduly the fairly compactly built-up and not yet obsolete inner suburban residential areas.



1, *proposed residential densities.*

Instead of three roughly concentric zones of 200, 136 and 70 persons to the acre, there are four of 200, 136, 100 and 70. In certain central London boroughs there are difficulties in keeping densities down to the maximum figure, and special arrangements have been agreed for higher densities in the first five years of the plan provided the excess is balanced by a subsequent development at lower densities. Several boroughs have already been forced by the pressure of the demand for living accommodation to permit an increase in their population since the war instead of the decrease recommended in the Abercrombie plan.

This difficulty brings us to the main weakness of the Development Plan as now formulated. Its successful implementation depends too much on considerations outside the LCC's control altogether. The densities laid down and the land requirements for open space, education and other needs assume a progressive reduction of London's population to approximately 3,150,000 at the end of twenty years and an ultimate population for the county of three and a quarter million, the difference being due to the fact that large areas where the present density is lower than that allowed for in the zoning plan are not likely to be developed during the next twenty years. This estimate of total population means that 380,000 people must be rehoused outside the county—145,000 in the first five years (of which 69,000 can be accommodated in the LCC's out-county estates) and 235,000 in the remaining fifteen years. The Development Plan, in order to house this sizeable overspill, largely relies on the device invented for the purpose by Professor Abercrombie: a ring of new towns to be built in the Home Counties. Eight new towns have been started, but their growth has been disappointingly slow, and the present economic situation does not offer many hopes of speeding them up. Nevertheless, on their success in absorbing London's overspill depends the success of London's own development plan.

The position, therefore, is that unless the Government can push forward its new town policy much faster than it is doing at present, the LCC's plans for accommodating London's population must fail and its whole density zoning, its open space policy and many other hopes and intentions will have to be radically revised. Nor is the operation of the new town policy, slow though it is, being properly directed towards serving its intended purpose. The plans for moving the population from London to the new towns are being implemented through a close association between each new town and those Metropolitan boroughs on the fringe of London that are nearest to it. But the chief purpose of organizing an overspill of population is not to relieve the housing shortage at the periphery, but to reduce overcrowding at the centre, and the central boroughs have too little opportunity of joining the hoped-for migration to the new towns. The best solution—one that has already been put forward—would seem to be to allow the LCC itself to take responsibility both for constructing and populating certain neighbourhoods in each of the new towns.

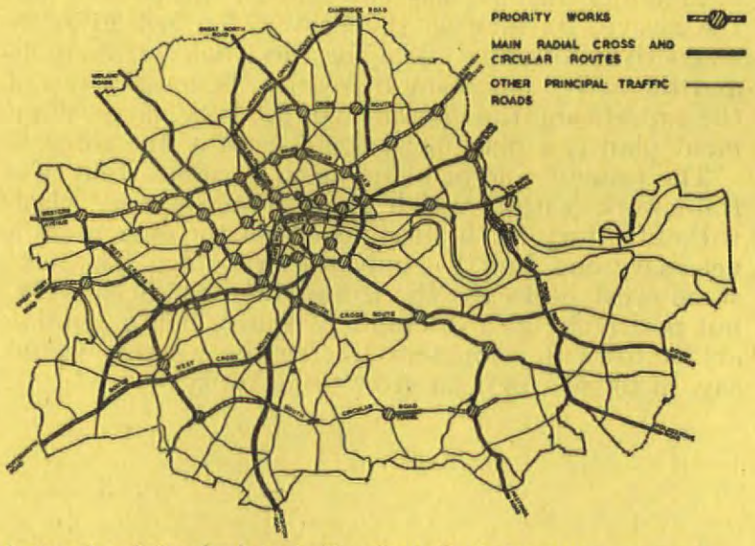
Another reason why the new towns cannot fulfil their purpose as quickly as was calculated is that their own industries—which are essential if they are to become balanced communities and not mere dormitories—inevitably depend to a certain extent on workers already trained for them and even on workers already employed by the particular factory that has been persuaded to move to the new town, and it cannot be expected that these can be drawn exclusively from the areas from which, according to the overspill policy, the new town population was meant to come. In the case of new industries, moreover, there has been an unfortunate conflict of Government policy at the highest level: on the one hand the declared policy to encourage the siting of new industries in the new towns; on the other the anxiety of the Board of Trade to send it, for political and economic reasons, to the depressed areas like Tyneside and South Wales.

Still another difficulty in the way of the redistribution of industry, on which so much of the success of the London Development Plan depends, derives from a weakness in the 1947 Town and Country Planning Act. There are at present some 1,500 acres of industry

in the 'wrong' places; that is, not conforming to the zoning of land-use in the Development Plan. The idea is that the industries thus unsuitably located will gradually move, but there is nothing in the Act to ensure that the land vacated thereby will not be reoccupied by new industries moving into London, thus not only perpetuating the present confusion of land-use, but enlarging a labour market that is already too great and aggravating the present traffic congestion due to the mass movement of people to work in central areas. The LCC has no power to prevent new industries from moving in as fast as old industries move out. It can terminate 'nonconforming' users, but only at the cost of heavy compensation payments towards which the Government would make but little contribution. There is a good case, on national grounds, for reducing the size of London's labour market, but the LCC cannot assume the initiative in doing so without at the same time assuming a considerable financial burden, because if the solution is to be a wide dispersal of industry, the Council is unable to recover what it loses on compensation in some districts by means of betterment in others.

To return to the provisions of the Development Plan itself, there are two important functional aspects of London that it still leaves uncertain, and one in regard to which it appears virtually to accept defeat. The first two are the future of the large wholesale markets—Covent Garden, Billingsgate and the rest—whose replanning* has always been regarded as one of the keys to the better organization of London on traffic grounds alone, and the future of the system of railway termini. Both these questions are shelved for the time being. The issue on which the Development Plan appears to accept defeat is that of the most desirable main road pattern. The Development Plan departs radically from the earlier plan in the sense that it abandons the system of ring roads on which Professor Abercrombie's solution of London's traffic problem was based. He proposed an A ring road approximately on the Euston Road circuit and a B ring road beyond Regent's Park. After subsequent investigation it was decided that the first was impracticable; that is, that an arterial fast-traffic route could not be provided nearer the centre than the B ring road. This, however, was condemned as impossible by the Ministry of Transport, who suggested an alternative route for the A ring road. This, in its turn, has been discarded by the LCC on grounds of cost, with the result that their plan is left with no clearly defined arterial road structure, but only a programme of tinkerings with the existing structure, which will involve the expenditure of millions of money, but cannot achieve any effective solution. The fault this time lies with the Ministry of Transport—another example of the LCC's own planning measures having to face defeat from causes outside the Council's control.

* Though not, it is to be hoped, their removal.



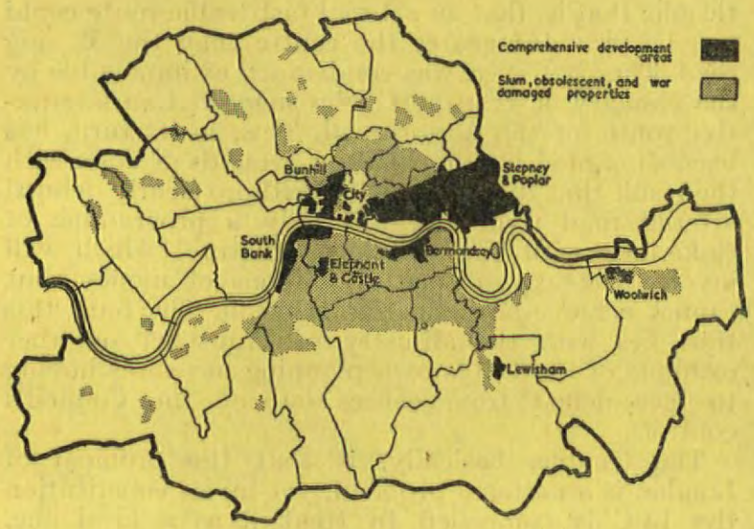
2, general road plan showing priorities allocated in the twenty-year programme.

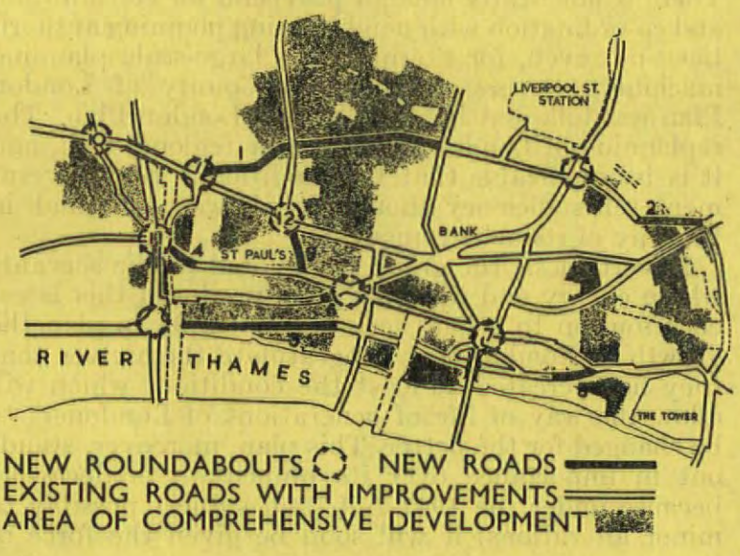
The trouble, basically, is that the problem of London is a national problem, yet by its constitution the LCC is compelled to treat it as a local one. There is not nearly enough provision for consultation and co-ordination with neighbouring planning authorities—not even, for example, the large-scale planning machinery envisaged when the County of London Plan was followed by the Greater London Plan. The replanning of London is at least a regional task, and it is insupportable that the traditional local government self-sufficiency should be allowed to stand in the way of its achievement.

Nevertheless, the group of devoted public servants whose energy and industry have produced this latest contribution to a long series of attempts to plan the growth of London may congratulate themselves that they have created at least the conditions which will allow the way of life of generations of Londoners to be changed for the better. This plan, moreover, stands out in importance over its immediate predecessors because under the 1947 Act (and subject possibly to minor alterations) it will soon be given the force of law.

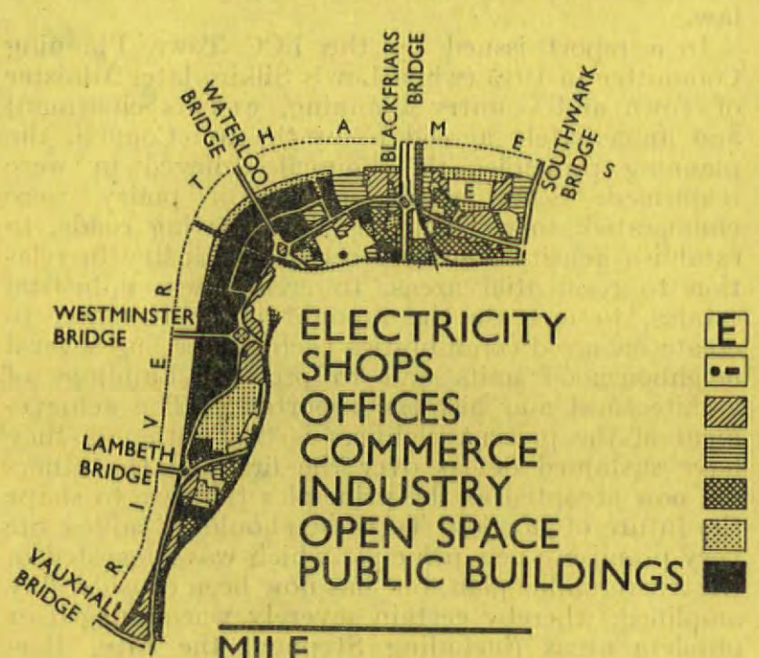
In a report issued by the LCC Town Planning Committee in 1945 (when Lewis Silkin, later Minister of Town and Country Planning, was its chairman) and immediately agreed to by the full Council, the planning principles the Council believed in were reaffirmed. Seven major points of policy were enumerated: to construct a series of ring roads, to establish density zones, to relocate industry in relation to residential areas, to create new industrial estates, to increase the amount of open space, to create balanced communities each comprising several neighbourhood units and to preserve buildings of architectural and historic importance. The achievement of the present planners is that although they have sustained defeat over the first, all the others are now accepted as the principles that are to shape the future of London. To these should be added the very promising new principle which was suggested in the Abercrombie plan, but has now been considerably amplified, whereby certain severely war-damaged or obsolete areas (including Stepney, the City, Bermondsey and the South Bank) are set aside for comprehensive development at one time.

To this extent the tremendous labours of the LCC planners have not been wasted. But they must continue unremittingly, because it would be a grave mistake to imagine that the completion of the Develop-





NEW ROUNDABOUTS ○ NEW ROADS ——
EXISTING ROADS WITH IMPROVEMENTS ═══
AREA OF COMPREHENSIVE DEVELOPMENT



3, opposite, comprehensive development areas shown imposed on main areas of slum, obsolescent and war-damaged property. 4, below, comprehensive development of the city. 5, bottom, South Bank comprehensive development area.

ment Plan means that London has now been planned. A Development Plan merely clears the ground for action and outlines the method of attack. The planning process itself takes place as the plan is interpreted in practice and continues as long as the city itself continues in being.

And the work must not only go on; it must go on in a far more positive sense. It is no disparagement of the planners' achievements so far, to say that if the object of their labours is to bring order out of the chaos that London has become, neither density zoning nor any of the other negative, permissive measures which every town plan must contain can do more than protect the citizens from certain abuses arising from disorganization and muddle. The administrative planners, in completing the Development Plan in its present form, have won at least half their battle, and done so after a heroic struggle, but the process of creative planning has not even begun. Unless it begins quickly we may find the result of purely legalistic, negative planning is a London quite indistinguishable—visually and in many other vital respects—from an altogether unplanned London.

We have had enough experience since the war of developments—whether in the shape of over-bulky and unwisely sited office blocks, of barrack-like housing schemes too concentrated for their locality, of encroachments on open spaces that can ill be spared or of threats to fine buildings surviving from the past—which are clearly undesirable, but which planning as practised at present does not seem to be able to prevent. A few of these, it is true, represent the completion of schemes already undertaken before the present planning powers came into force, but the lesson to be learnt from all of them is not that even stricter controls are required, but that such things are bound to happen if planning remains largely restrictive. They are the result of the absence of an all-embracing positive idea of how London should grow, of a failure to visualize its future development and pursue this vision of a new city actively.

Planning, in fact, has two moods, the passive and the active. As long as the passive (or legislative or restrictive) mood is taken for the whole of planning and the active mood smothered by the indifference of the experts and the ignorance of the laity, no development plan is a plan in the true sense of the word.

The present role of planning in London—that of a framework within which rival interests may clash without injury to the basic needs of the citizen—is a necessary one, but it is only the first stage. The next stage must be to *use* the framework, not negatively, but positively; as a discipline within which a genuine art of town development (or, as the REVIEW would say, of townscape) can grow to maturity.

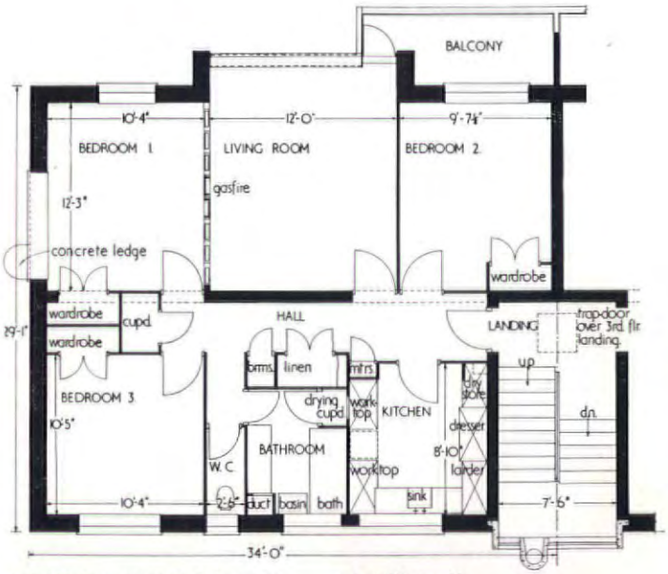
FLATS IN PORTOBELLO ROAD, LONDON

ARCHITECTS: EDWARD ARMSTRONG AND FREDERICK MacMANUS

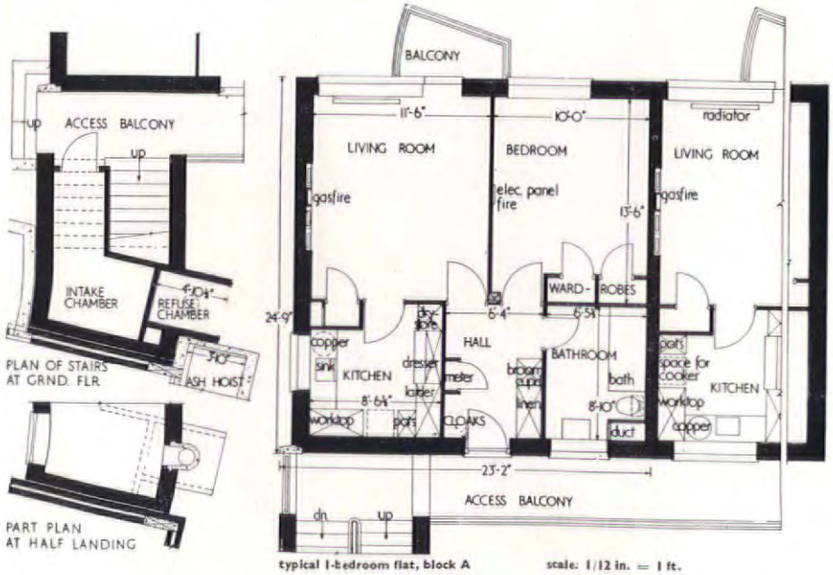
When completed the Portobello Court scheme will accommodate 680 persons in six blocks and 158 dwellings. Changes in level have been exploited by terracing the layout and varying the heights of blocks. The larger flats are provided with a utility bathroom, larger than the usual bathroom, which accommodates (in addition to bath and basin) home laundry equipment and a gas drying cabinet. Walls are of load-bearing brickwork, the floors and roofs of reinforced concrete and hollow tiles with partitions of breeze concrete blocks. The facing bricks are brown Sussex. Balcony fronts and copings are in fair-faced concrete, painted, and window spandrils are panelled in painted, fluted asbestos. Floors are finished with cork-plastic composition throughout; walls are generally plastered and decorated with special one-coat distemper, while staircase walls have a glazed plastic paint finish.

1

1, *west and south facades of block C.* 2, *below, the west and south facades of block A.*



typical 3-bedroom flat, blocks C, D, E and F scale: 1/12 in. = 1 ft.



typical 1-bedroom flat, block A scale: 1/12 in. = 1 ft.

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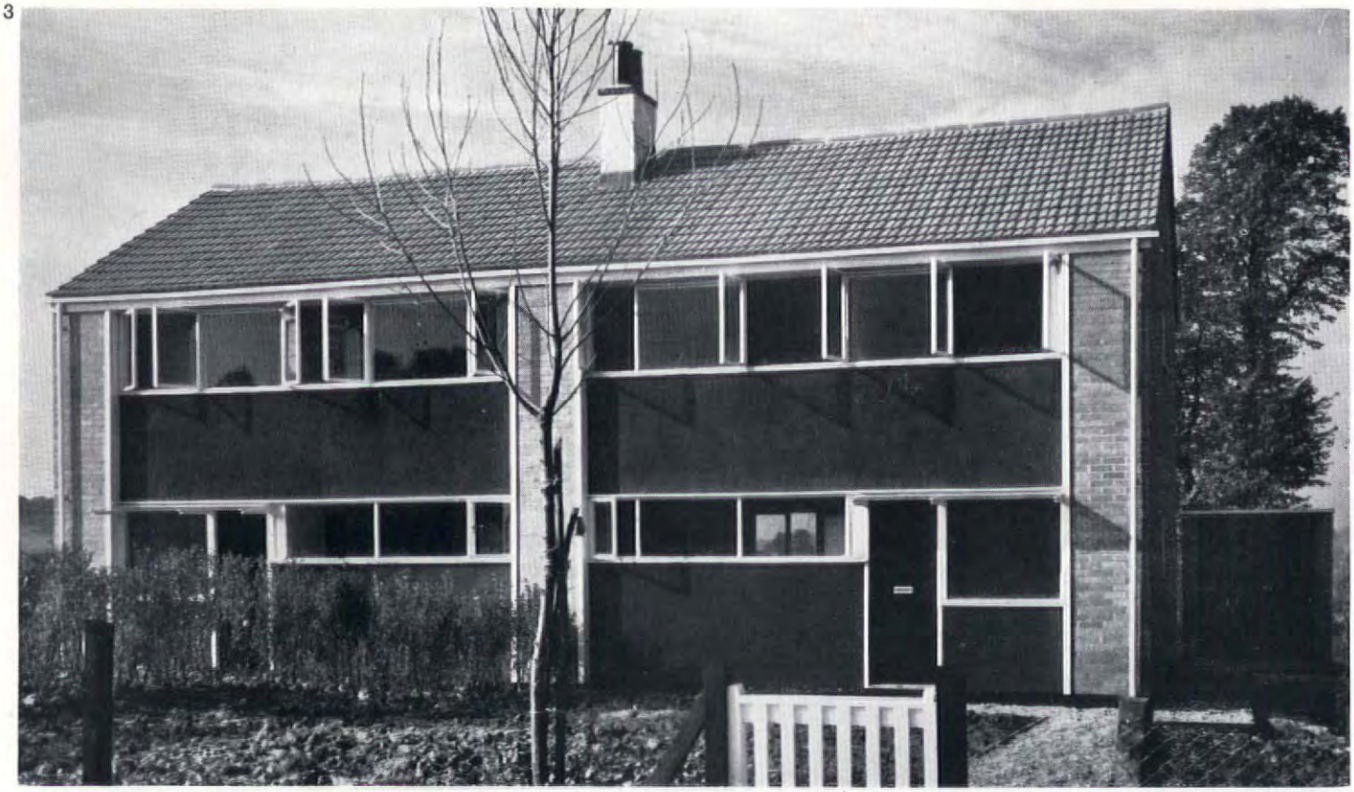
3



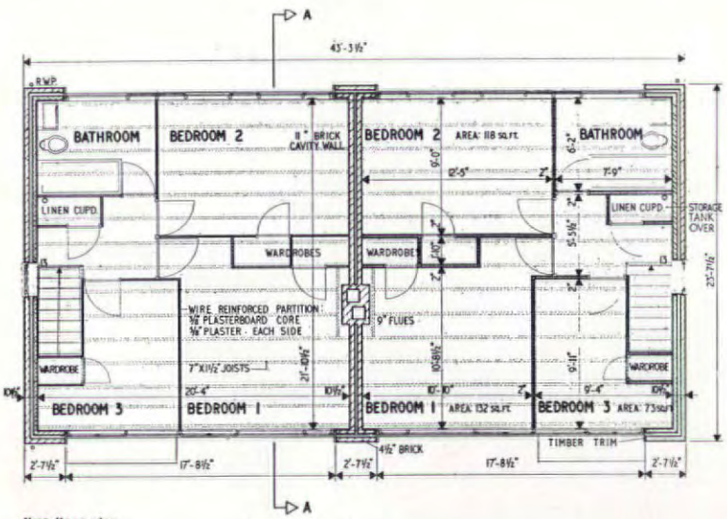
The west facade.

DEMONSTRATION HOUSES IN WILTSHIRE

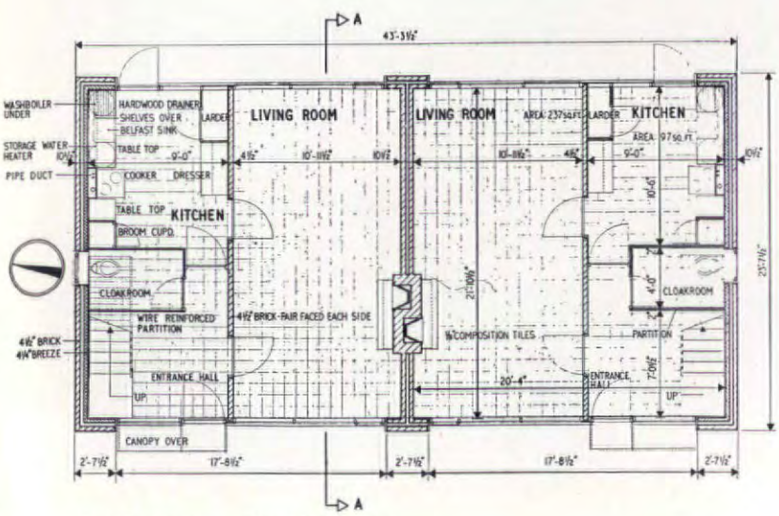
DESIGNER: ERIC CHICK

These two semi-detached prototype houses have been constructed more cheaply than the normal council houses in traditional materials, without lowering standards of space or comfort. Highworth Council, Wilts, gave every encouragement to the experiment and have now decided to proceed with a block of terrace houses designed on similar principles. Small builders with a minimum of plant can carry out the work, as the economies effected do not depend on mass-production. The weight of materials handled during erection was about 125 tons—65 tons less than usual—and the Type 1 houses illustrated here cost £2,576 per pair at September 1, 1951 prices. The technique and methods of construction could be applied to many forms of building. End walls, party walls and cross walls are of traditional brick construction and carry all the loads. A new system of wall construction (which can be briefly described as 3-ply apron walls formed in-situ) is used for the remaining walls where traditional methods are uneconomical.* Here cementated wood-wool slabs are used; their assembly is shown in the diagram opposite. Windows and doors have been concentrated in one large frame with full length timber jambs and a head formed by the soffit and fascia, with lightweight walls as infilling panels where windows or doors are not required. The frames are assembled on the floor slab by bolting the ground floor and first floor window units to the jambs. The complete assemblies, when erected, form jigs for the load-bearing walls. Facings are Cotswold colour concrete bricks; red cement spatter-dash on rendering for apron walls: roofs are of dark grey interlocking tiles and ironwork and woodwork are painted white.

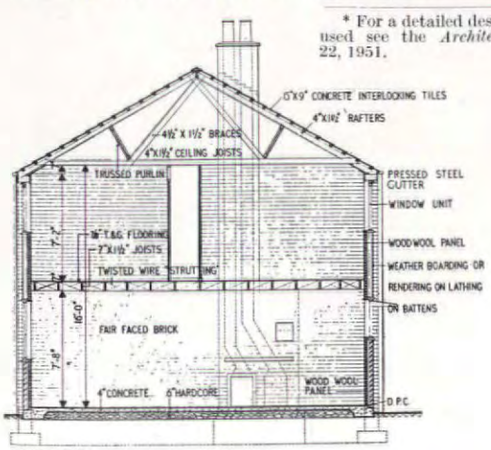
* For a detailed description of the materials used see the *Architects' Journal*, November 22, 1951.



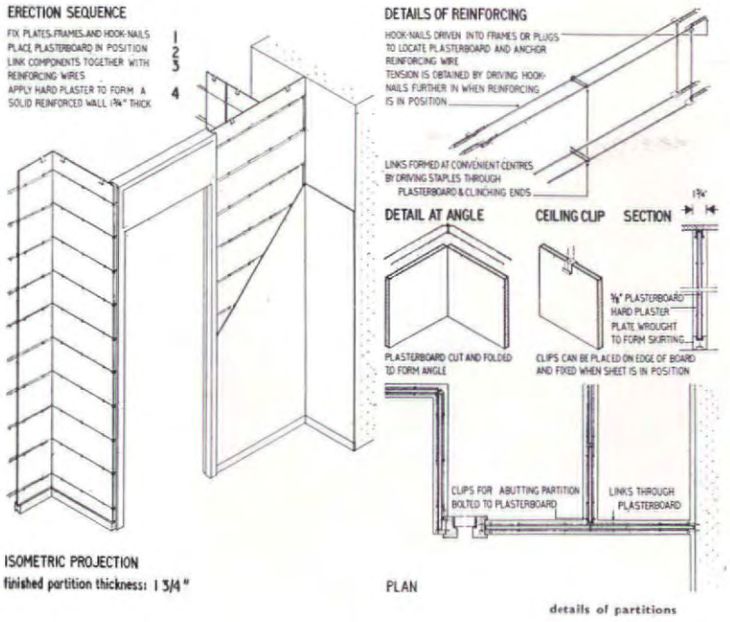
first floor plan



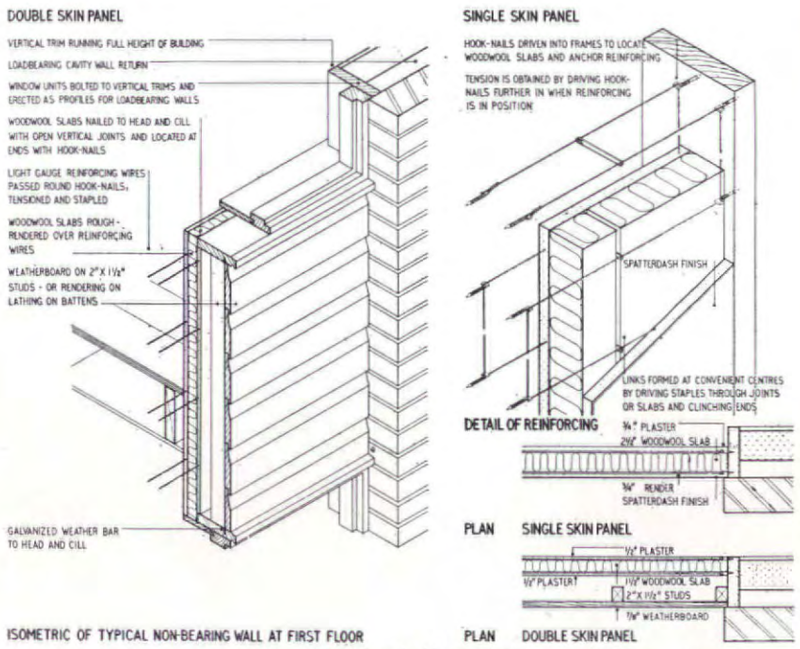
ground floor plan scale: 1/12 in. = 1 ft.



section A-A



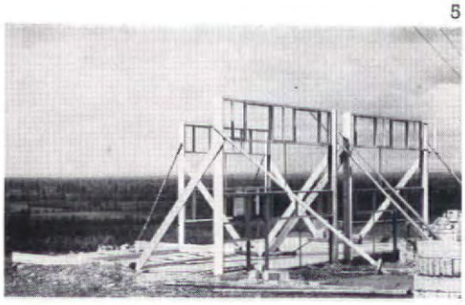
details of partitions



details of non-load bearing walls scale: 1/2 in. = 1 ft.

4

5



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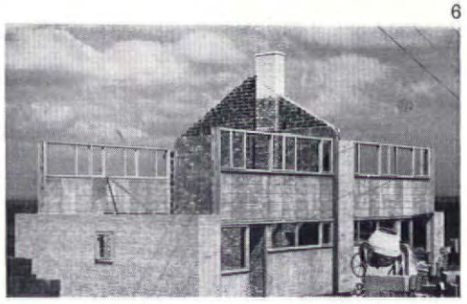

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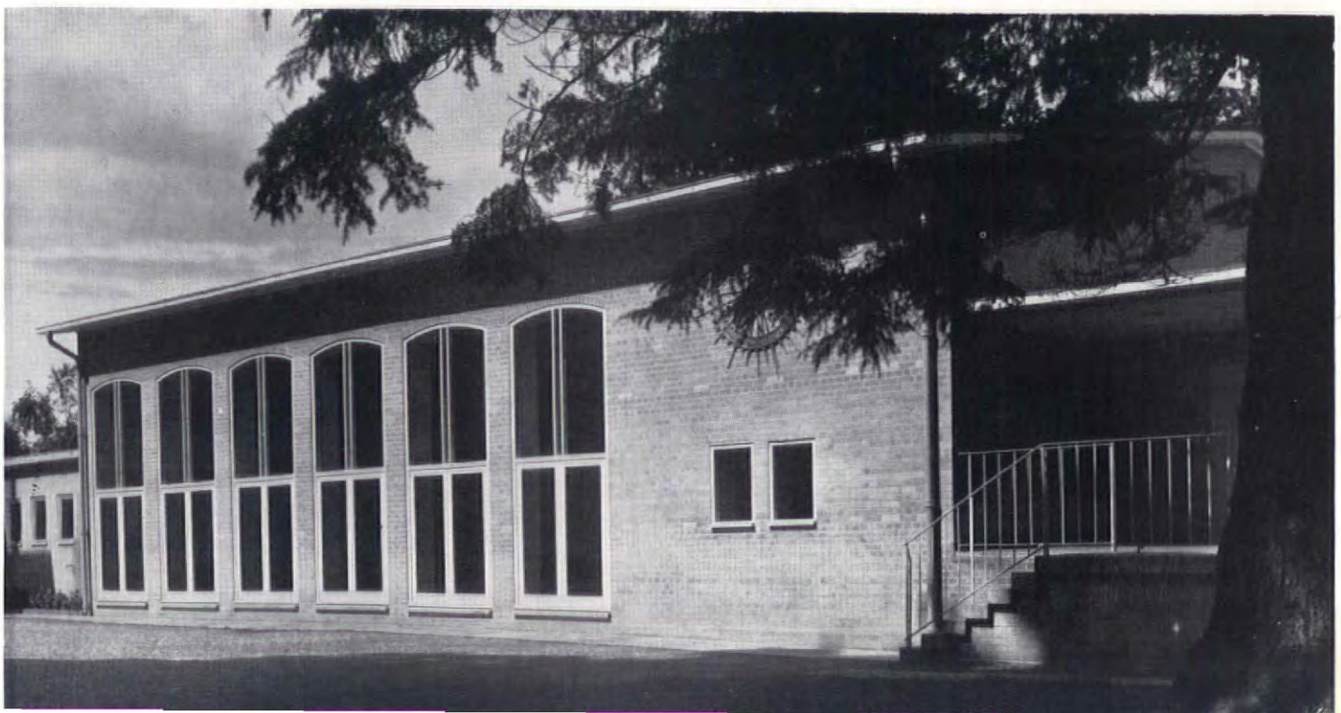
4, partitions shown before application of plaster. 5, window units bolted to vertical trims. 6, brick bearing walls built against profile of vertical trim. 7, twisted wire floor-joist reinforcement.

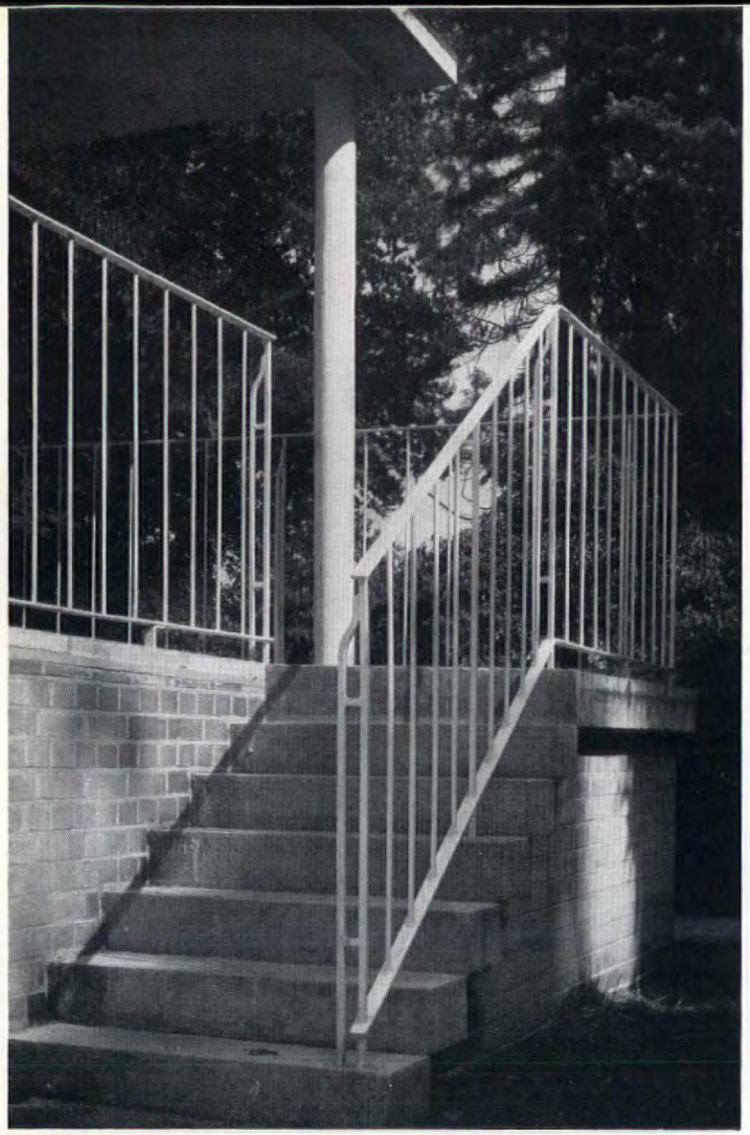
SCHOOL EXTENSION NEAR TUNBRIDGE WELLS

ARCHITECTS: PITE, SON AND FAIRWEATHER

An old country house just outside Rusthall, Tunbridge Wells, was converted some three years ago to provide accommodation for 30 children and staff as a special school for girls. The buildings illustrated here are the new assembly hall, foyer and practical room, which are connected to the original building by a short ramped corridor,

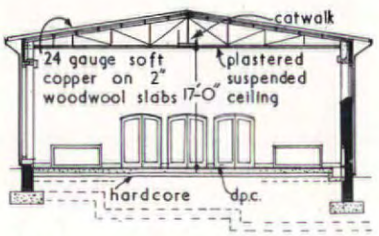
8, *south elevation of new assembly hall.*



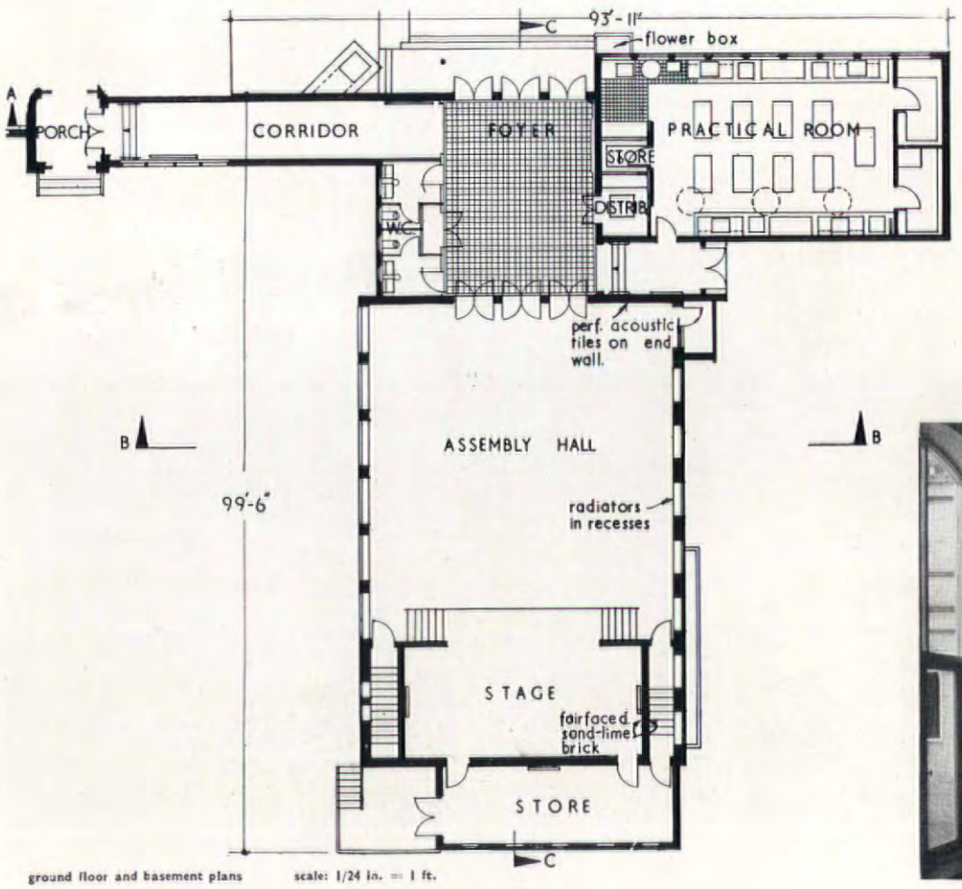


9, *steps leading to the back stage entrance to the assembly hall.*

and a boiler house which has been converted from the original stables. The assembly hall has been planned to flank the entrance court and not obstruct the fine views which are seen from the common rooms in the old building. The assembly hall and practical room have load-bearing cavity brick walls, hollow-tile flat roof slabs and suspended floors. The assembly hall roof is carried on light steel trusses and purlins. To construct the boiler house the whole of the front stone wall of the stables was removed and the elevation remodelled in brickwork and precast concrete. Internally, the assembly hall and practical room are plastered, but elsewhere walls are of fair-faced buff-coloured brickwork with plastered ceilings. All walls are white and the ceiling is pale blue; the end wall of the assembly hall is covered with perforated acoustic tiles. The walls in the practical room are dove grey, the ceiling white, doors blue-grey or silver-grey with white frames.

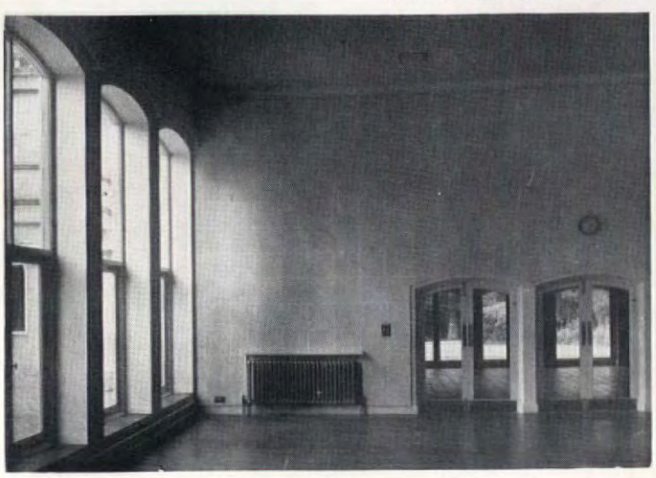


section B-B



ground floor and basement plans scale: 1/24 in. = 1 ft.

10, *the assembly hall, looking towards the entrance doors.*



BOOKS

SUBJECTIVELY SPEAKING

LES THÉORIES DE L'ARCHITECTURE. *By M. Borissavliévitch. Paris, Payot,* 1951.

This book is a reprint. The first edition came out in 1926. There is always a risk in reprinting a work a quarter of a century old; in the case under review, it appears somewhat questionable whether the author is filling a gap. He is passionately interested in æsthetics, and not, as the title would suggest, in the history of architectural theory. His measuring rod is a theory of his own for which he claims absolute objective validity, and from this position he ostracizes without hesitation all architectural theories from Vitruvius to Alberti and on to Viollet-le-Duc and Wölfflin. In perusing the book, I could not help envying M. Borissavliévitch for the certainty of his conviction. 'In my opinion,' he says on p. 313, 'architecture is not concerned with science. Consequently he (the criticized author) is mistaken.'

In spite of such shortcomings, the book can render some service. Those who want a summary of the theories of Schopenhauer, Adamy, Thiersch, Göller and others will not be disappointed; but the choice of writers whom Borissavliévitch deems worthy of inclusion is arbitrary. Of the English-speaking world, for instance, only Sir John Belcher is discussed at any length (he is referred to as Beltcher, in spite of the 30 odd pages about him) and Claude Bragden and Geoffrey Scott are not so much as mentioned. Since the author's approach is non-historical, his misunderstandings and misrepresentations are too many to be enumerated. His chapter on Alberti is particularly weak, and consultation of Paul-Henri Michel's excellent work on that architect (1930) would have paid dividends.

M. Borissavliévitch condemns classical æsthetics for being based on absolute values disregarding the percipient who passes the æsthetic judgment. He claims to have found the nodal point of architectural æsthetics in the subjective physiology of vision; i.e., he replaces geometry by the concept of optico-physiological time-space. His position is not as new as he would have us believe. He represents a trend of thought which began in the late eighteenth century, and some of his ideas were anticipated even by such writers as Temanza and Milizia. With his radical subjectivism the author goes some way, without himself being aware of it, towards a twentieth-century theory of architectural æsthetics. However, a contemporary architectural theory would have to incorporate the recent research into binocular vision, the results of 'Gestalt' psychology, and the modern time-space concept.

It cannot be left unmentioned that the book abounds in misprints, and that the diagrams are so small and indistinct that some of them are utterly unintelligible.

R. Wittkower

TRAVEL

TURBANS IN STONE

Along both banks of the Bosphorus and on the south side of the Golden Horn stretch the cities of the dead. Few English travellers in Turkey, from Lady Mary Wortley-Montagu to Lord Byron, have failed to allude to these vast and sinister cemeteries, dark with cypresses, and peopled with turban-topped tombstones—lurching and leaning at drunken angles. Moss-grown, marble denizens of these neglected funerary fields, rampant with nettles, thistles and a giant species of horse parsley, they convey the grotesque message of their *memento mori*, in their likeness to faceless, limbless human beings, more as caricatures of the living than as monuments to the dead.

Byron wrote of—

A turban carved in coarsest stone,
A pillar with rank weeds o'ergrown,
Whereon can now be scarcely read
The Koran verse that mourns the dead. . . .

Another traveller, Miss Julia Pardoe, whose gilt-tooled picture-books, *The City of the Sultan* and *The Secrets of the Harem*, rivalled in popularity the keepsake albums of Lady Blessington, was surprised to observe picnic parties and musicians disporting themselves in the gardens of death. 'It is believed,' she told her readers, 'that on special anniversaries sparks of fire exude from the graves, and lose themselves among the branches of the cypresses by which they are overshadowed. An idea so eminently poetical,' added Miss Pardoe, unfamiliar as she was with the properties of marsh gas, 'that it induces a disinclination to canvass its rationality.'

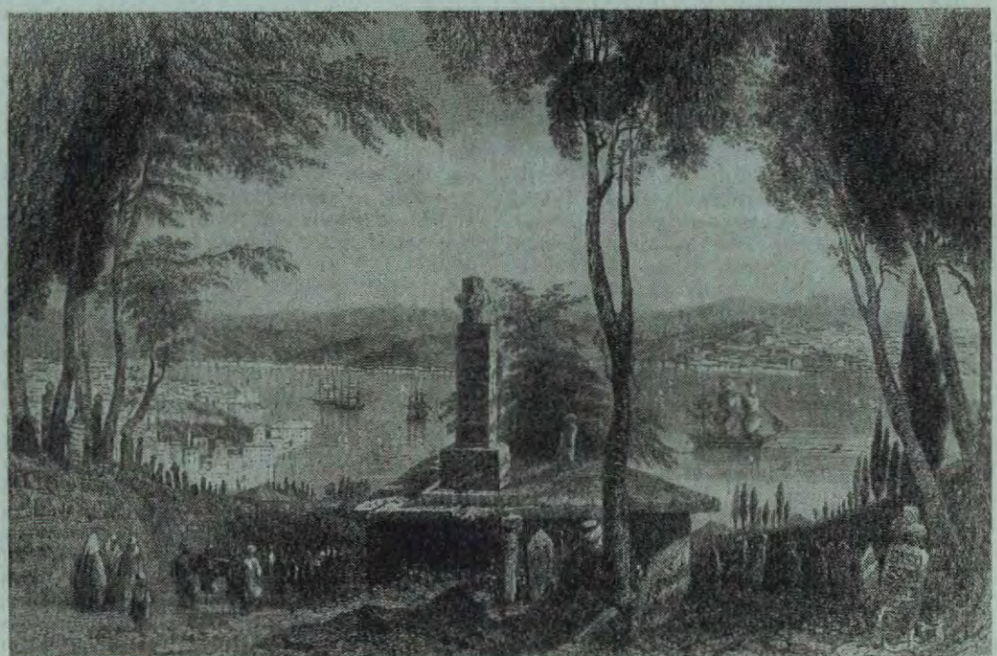
The mode of burial caused not only incandescence, but also distinctive effluvia to emanate from Turkish tombs, for the corpse was not enclosed in a coffin, although it was brought from the house to the graveside in a *tabut*, a box of rough planks over which were thrown one or two pieces of black brocade, embroidered with texts from the Koran. The body, wrapped only in its *tefkin*, a three-fold shroud, was then lowered into the ground, and the *tabut* broken up. The planks were used to form a kind of crude shed over the corpse, which was supposed to continue in a state of subterranean semi-sensibility for a few days. This breathing space also afforded room for a visit from the angels Munkar and Nekir, whose routine duty it was to descend into every new tomb, pull up the recently defunct by the hair with a sickle into a sitting position, and submit him or her to a catechism on various points of the Moslem creed. If the victim's replies to this *viva voce* examination were not considered satisfactory, he was beaten about the head with a red-hot mace until he yelled aloud.

More than one European traveller in Turkey was shocked to hear shouts from a freshly excavated sepulchre. Baron de Tott, member of a French military mission to the Bosphorus, once saw a Turk disinterred after his cries from the grave had drowned the voice of the priest pronouncing the final prayer above him. This officiating *imam* (the Baron noticed) showed great reluctance to grant permission for an exhumation, in the fear that he would have to forfeit his funeral fees.

The quick found themselves so frequently among the dead because prompt burial was held to relieve the sufferings of the newly discarnate soul. The latter left its body at the hour of death and awaited at the tomb the arrival of its fleshly envelope. So, in the days of the Sultans, cadavers were rushed to their last resting-place with almost indecent speed —and with every friend vying with his neighbour for the post of pall-bearer. 'He who carries a dead body forty paces,' says the Koran, 'is forgiven a major sin.'

Rapid interment was, again, in strict conformity with the teaching of the Prophet (a precaution in tropical climates as practical as his precepts about ablution and prayer): 'Make haste to bury your dead so that they may the sooner enjoy the eternal beatitude.'

No like obedience was observed to Mohammed's veto on memorial monuments. The Prophet had categorically prohibited the



The tomb of a court eunuch in the cemetery of Eyub, looking down upon the Golden Horn.

tesnim or mound of a grave to be marked with 'objects of wood, or of lime, or of brick, or of marble.' Yet from the earliest times, the Turks have excelled in the designs of their cenotaphs and sarcophagi. These were not constructed, in Byron's words, 'of coarsest stone,' but often of marble brought from the quarries of Proconnesus. For several centuries the primary pattern remained unchanged. Yet within this pattern the architectural taste of each period was distinctly defined.

The *mezar tashi* or tombstone falls into four types: monuments to men, *memurlar* or civil servants (as apart from other males), women, and children.

Men's Tombs: the head-stone terminates in a turban, the shape and size of which denotes the rank and profession of the deceased.

Civil Servants' Tombs: head- and foot-stones take the form of two truncheon-shaped pillars, sometimes springing from a circle of acanthus leaves.

Women's Tombs: the head-stone is usually an erect slab, carved with a motif of flowers or fruit, or else—less commonly—surmounted by a knob like a small mushroom.

Children's Tombs: these follow, in miniature, the form of the adults' graves—turbaned head-stones for boys, floral or 'knobbed' head-stones for girls.

A graveyard near the Galata Tower.

The erection of funerary monuments was itself a contravention of the Koranic law. A similar disregard for divine didactics was also shown in the decoration of tombs, and this grew greater with each century. The representation of the human form and natural objects, forbidden by the Moslem liturgy, at first restricted the stone-mason to abstract patterns and elegant executions of the Arabic script. This severity was soon relieved by the addition of discreetly stylized flowers and fruit, later to be followed by pedestrian examples of pure representation which were to degenerate, in the nineteenth century, into the most inane vulgarity.

The earliest Turkish tombs, of the fifteenth century, are still Seljuq in spirit. Thick, clumsy, archaic script crams the squat, round or square head-stones. But with the succession of Suleyman the Magnificent began the classical age of Ottoman art. The dwarfed ungainly graves of the first invaders give place to plaques and pillars perfectly proportioned. The inscription, finely spaced, is arranged in horizontal panels on the ogee-topped marble slabs. Tombs of pashas and the nobility start to display the intricate floral designs and multi-petalled rosettes that were to become traditional. The craftsmanship is unimpeachable, the carving exquisite, the symmetry soulless—in fact, there is something aloof and arid, something too correct about the classical, sixteenth century style.

With the seventeenth century came a crowdedness and an ebullience by contrast with which the designs of the previous decades, in their restraint, seem puritanical and prim. Particularly was this true of women's tombs. The *lâle*—the tulip, the favourite flower in Turkish mural decoration—first appears, with elongated cup and curved, tenuous stem as the main motif on many female monuments.

The cemetery of Scutari on the Asian shore of the Bosphorus.

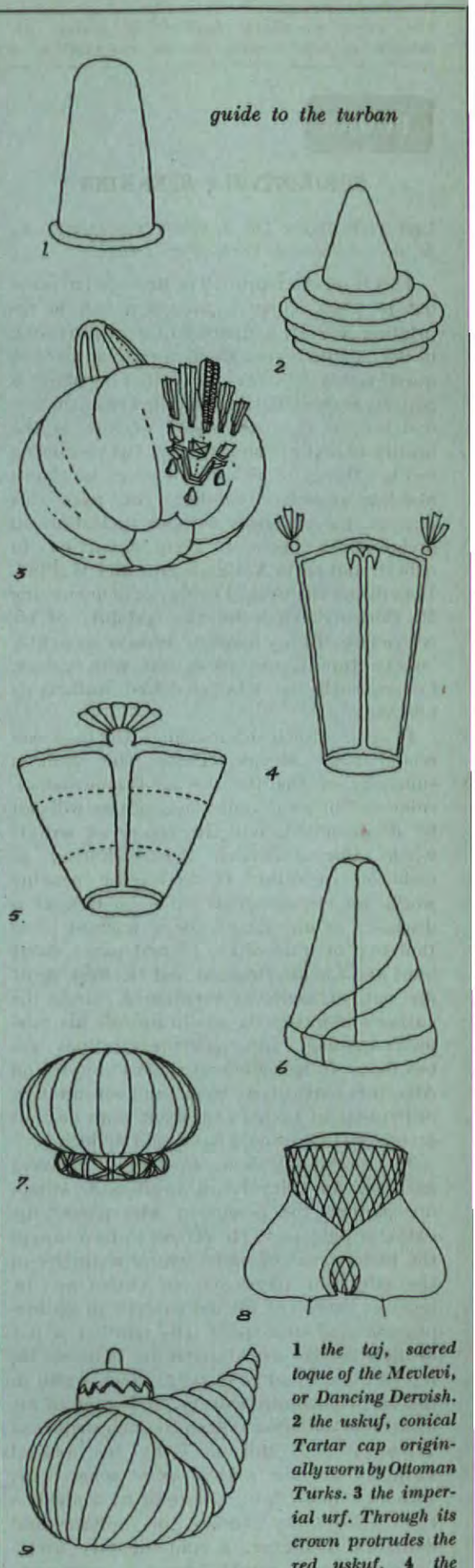
The epitaph itself seldom departs, in its wording, from a traditional formula. It records the rank, age and death-date of the deceased, ending with an exhortation to the passer-by to recite the *Fatihha*, the first chapter of the Koran. Sometimes, in the case of the exaltedly distinguished or the much beloved, the mourning message is more original. And occasionally, as in English churchyards, a less elegiac note is sounded: 'Recite the *Fatihha* for the soul of Esseyit Halil Agha who perished from his wife's prolixity.'

Above the epitaph the shoulders of the head-stone narrowed into a neck. This short stele sustained the stone turban, sculptured separately and socketed. Well over fifty kinds of turban can be counted in the cemeteries of Stamboul. They range in shape from thimbles to thistles—from the simple *taj* of the Dancing Dervish to the ornate *urf* of Sultan Murad II.

But Sultan Mahmud II was responsible for a complete change in the design of tomb-stones, since he outlawed the turban for secular use and put the fez in its place. Religious orders retained a modified form of turban, like a shallow inverted basin, wound diagonally with tight, close folds held in place by a broad transverse band. The fez survived as the national headgear for a century until condemned by Kemal Ataturk in 1925, to be succeeded by such symbols of progress and civilization as the bowler, the boater and the snap-brim felt. Where the deceased was himself the victim of a violent death, tradition alleges that the turban was tilted on its stone neck.

Western influence was to doom the design of the *mezar tashi*, as it was to debase most forms of Ottoman art. At first, in the eighteenth century, the European accent was slight and sophisticated. Rococo charm softened the hard classical outline, inflecting the original oriental pattern with a pleasant air of pastiche. But by the second decade of the nineteenth century, all had changed for the worse. Italianate scrolls and formless florid abstractions choked the head-stones. Literal representations of the most debased and ludicrous kind crept in—first the bow of an archer, or the anchor of an admiral, discreetly interposed within the Arabic inscription. Then, by the eighteen-nineties, a succession of rising suns, swords, ink-pots, weighing-machines, cradles, sextants, chemical retorts, spades, scissors, oars, harnesses served to distinguish more literally the age, calling or character of the late lamented. Now turbans in stone no longer mark a Turk's earthly remains. Avid to adopt all or anything that is worst in Western architecture, the faithful of the Prophet find their last repose beneath cubes of concrete. Iron tubing, more suited to a plumber's paradise, surrounds each sepulchre. Every head-stone is inset with a fadeless portrait of the loved one, printed in sepia on an oval porcelain plate.

Jonathan Curling



1 *the taj, sacred toque of the Mevlevi, or Dancing Dervish.* **2** *the uskuf, conical Tartar cap originally worn by Ottoman Turks.* **3** *the imperial urf. Through its crown protrudes the red uskuf.* **4** *the mujavezza, a mitre of white linen with tufts attached.* **5** *the selimi, adapted from the mujavezza.* **6** *the lofty kalavi, which distinguished the tombs of the highest officers of the state.* **7** *the khorassani, first worn by secretaries of state departments.* **8** *the kavuk, the informal wear of the Sultan's attendants and ushers.* **9** *the special saruk worn by picked janissaries.*

turbans in stone

10

11

, early nineteenth century tomb with fez olacing turban. 11, a truncheon-shaped civil rvant's tomb. 12, tombs of the sons of Ali ie Lion. 13 and 15, women's tombs. 14, a urteenth century (pre-turban) turkish tomb. , a zade or prince's tomb.

12

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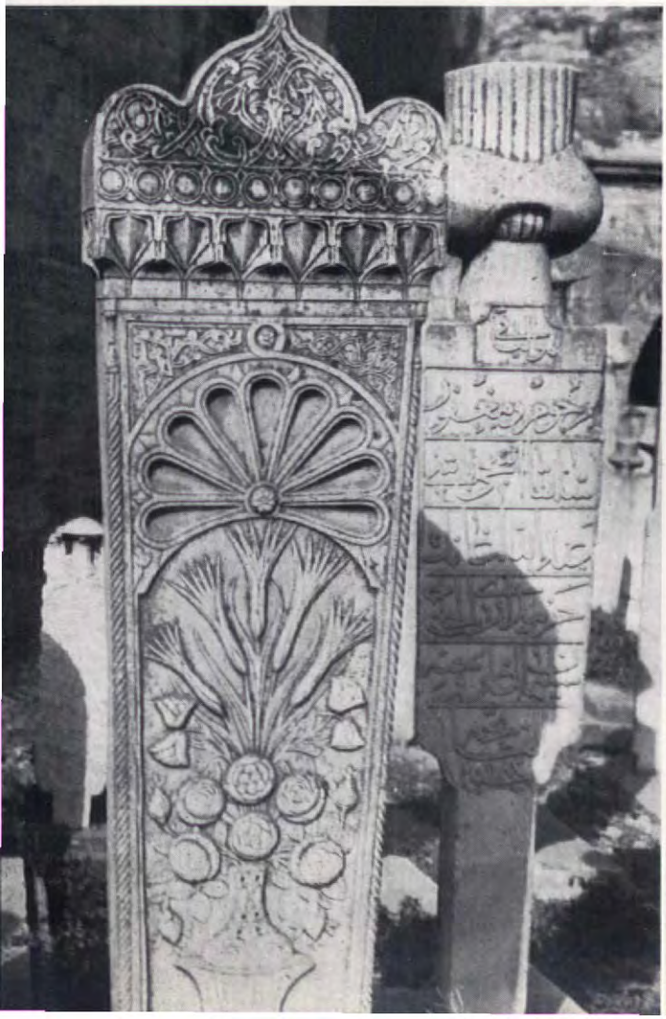


14
15

16

INDOOR PLANTS

PEPEROMIA GLABELLA (Piperaceæ)

The Peperomias are a genus of tropical and sub-tropical plants native to Central and South America. The varieties grown for conservatories or for house decoration are suitable for use as trailing plants in much the same way as Zebrinas. All of them have stout succulent leaves which allow them to stand changes of temperature though they are not of course hardy. The most common species are *P. Sandersii var. argyeia*, sometimes known as *P. arifolia*, which has attractive bright green and white striped leaves and *P. obtusifolia* which is rather more erect in habit than other species and has dark, shiny green leaves. *P. glabella* is a comparatively recent introduction with thick,

fleshy, dark green leaves and pink stems. It has rather a bushy form and can be used as a trailing plant.

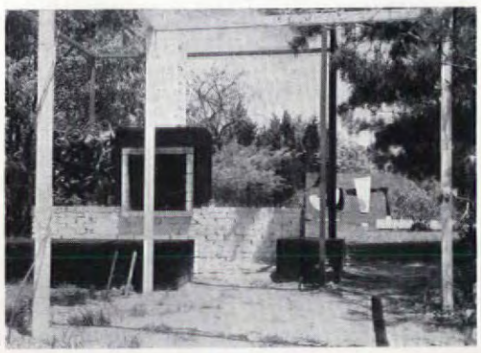
P. glabella is particularly sensitive to gas fumes and it will react to the presence of gas by dropping its leaves. All of these species should be kept shaded from strong sunlight, though on dull days they will need all the light they can get. They should be watered frequently and their soil kept moist. Peperomias should be grown in fibrous peat and loam with some sharp sand. Their foliage is occasionally affected by a virus which marks the leaves with depressed rings. It will eventually stunt the plant. There is nothing to do but destroy it when this occurs. **H. F. Clark**

LANDSCAPE

AN OUTDOOR HOUSE ON LONG ISLAND

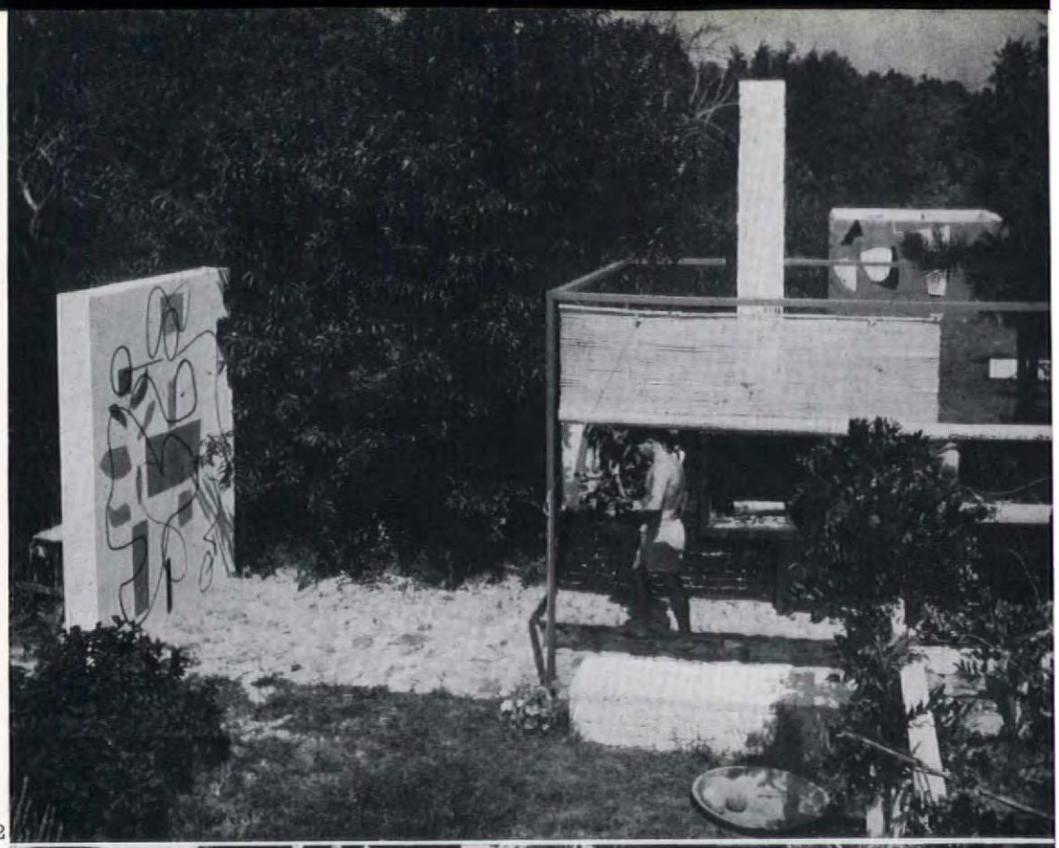
That breaking down of the barrier between indoor and outdoor space which is one of the most fundamental characteristics of modern architecture has given us the concept of the outdoor room. Here, to add meaning to the phrase 'indoor-outdoor living,' is an outdoor house. At least that is what it is looked at one way. Looked at another way this 'house garden' (as its architect, Bernard Rudofsky, calls it) represents an attempt, and a most successful one, to reintroduce architectural features as space-defining elements into landscape design. In the gardens of the Baroque the definition and control of space was one of the chief functions of architectural features; when it came to landscape the eighteenth-century picturesque, having forsworn the use of the wall as a garden feature, employed architecture to create incident rather than to control space. The present age, whose will-to-form owes so much to the picturesque, is faced with the problem of evolving a garden architecture of its own which shall fulfil both functions.

The hub of the plan is formed by the cooking terrace, 1, with its white painted brick chimney, its black and white painted fireplace, black brick benches and black cement block wall (to the right in 6)—a



1

notable modern application of the black and white tradition; the wooden frame defining the lateral and vertical boundaries of this outdoor room is painted red. At one end of the cooking terrace is a continuation of its paved floor, 2, bounded at the end by a free-standing stuccoed wall, with an abstract mural by the painter Costantino Nivola, 5. To the south-west stretches the pergola, whose white painted wood frame forms ten perfect cubes, 3; during summer bamboo screens are hung



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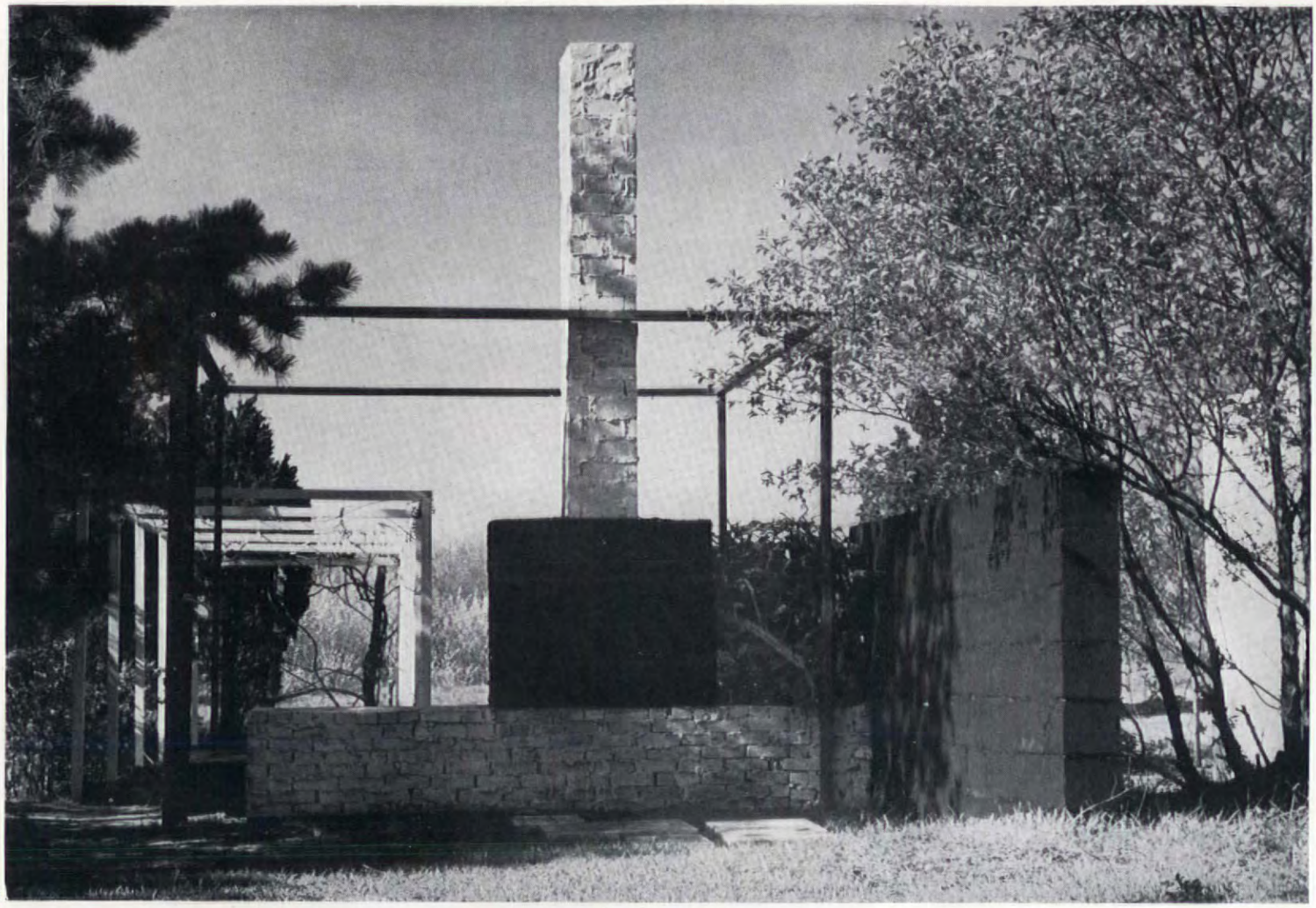

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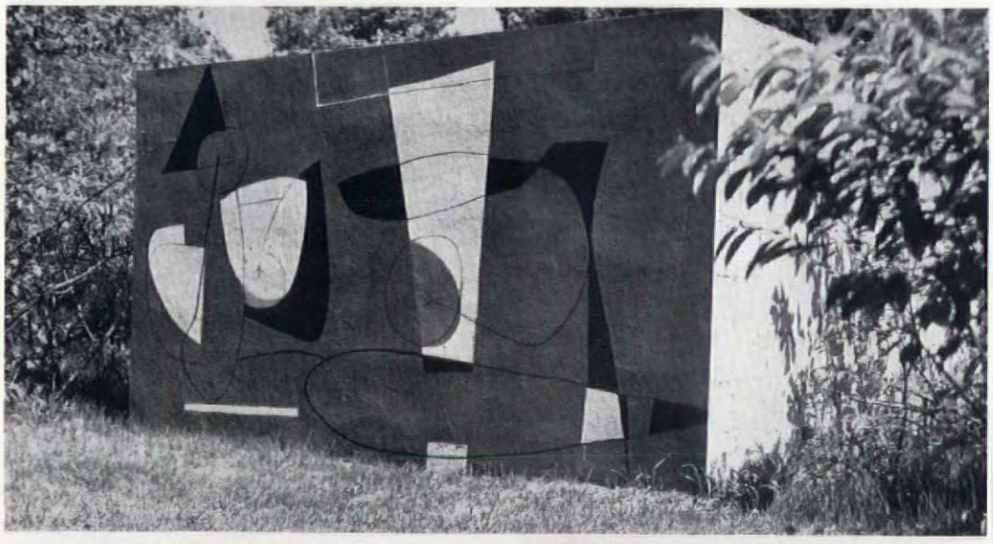


7

from this as a device for sun control. At the other end of the site stands the solarium. This, 7 and cover, is an oblong room without roof or any openings in the walls, accessible by stairs only; its floor is partly of red brick set in sand and partly of mown grass, and its white walls reflect the rays of the sun to such a degree that nude sunbathing is possible on cold sunny days when several layers of clothes are required outdoors; the murals here too are by Nivola. A particularly successful feature is the stuccoed free-standing wall that is pierced

8

by one of the two main limbs of an old apple tree; the rough bark of the tree and the smooth surface of the wall enhance each other's qualities by contrast, while

9

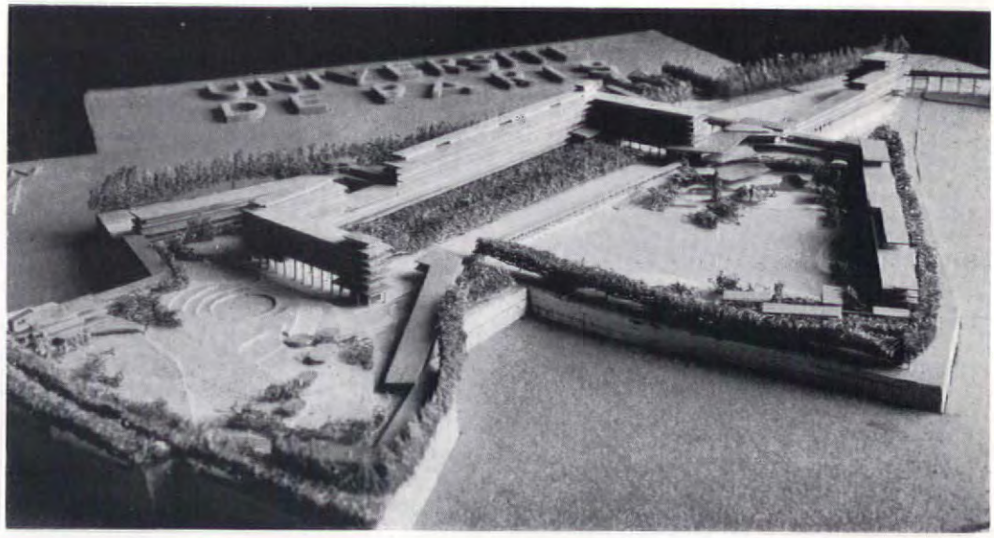
the shadowgraphs of the branches supply a mural which changes from hour to hour with the movement of the sun and from season to season with the coming and going of the leaves; in 4 another motif is added to this mural by the shadow of the fish trap hung up to dry. (The long bench, of which one end appears in this photograph, is made of cement blocks, painted white.)

Andrew Hammer

COLOUR

DISTINGUISHING THE UNDISTINGUISHED

Every town contains a vast number of buildings that are undistinguished even by possession of outstanding ugliness. Unpromising material, certainly—perhaps the least promising in the whole townscape. Hopeless cases? No; but clear cases, as often as not, for applications of the black-and-white prescription. For black-and-white (or its equivalents), among its many other properties, is able to give life and character to buildings which in themselves are quite lacking in both attributes—in short, to distinguish the undistinguished. The Hereford shop below, left to itself (as the right half has been), is as undistinguished as any that the nineteenth-century flood-tide left behind it. The other half has been given a black-and-white treatment, with results that speak for themselves. Straightforward as it is and ought to be, such treatment has its subtleties. The new consequence which this portion of the façade has acquired is largely due to the slight increase in its scale achieved by the simple, yet subtle, device of making the painted quoins a size bigger than the bricks of which it is actually built. When a coat of paint can do this, there is no need to despair of any building, however dim. **R.M.**

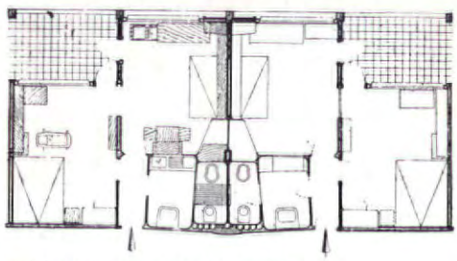


WORLD

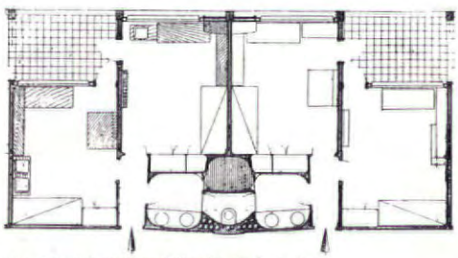
RESIDENCE ANTONY

Eugène Beaudouin, recently announced as architect of the projected UNESCO building in Paris, is also architect of a new students' hostel now under construction for the University of Paris. The building, a model of which is seen above, is on the outskirts of the city near the Parc de Sceau, and will house three thousand students, with accommodation for 400 married ones. The site is 30 acres in extent, and will be opened to the public as a park.

Rooms are planned for a minimum floor space of 13 yards square with a height of nine feet. Each room will open on to a balcony shared by three other rooms, and on to a bathroom shared with one other.



plan of typical accommodation for married students



plan of typical accommodation for single students

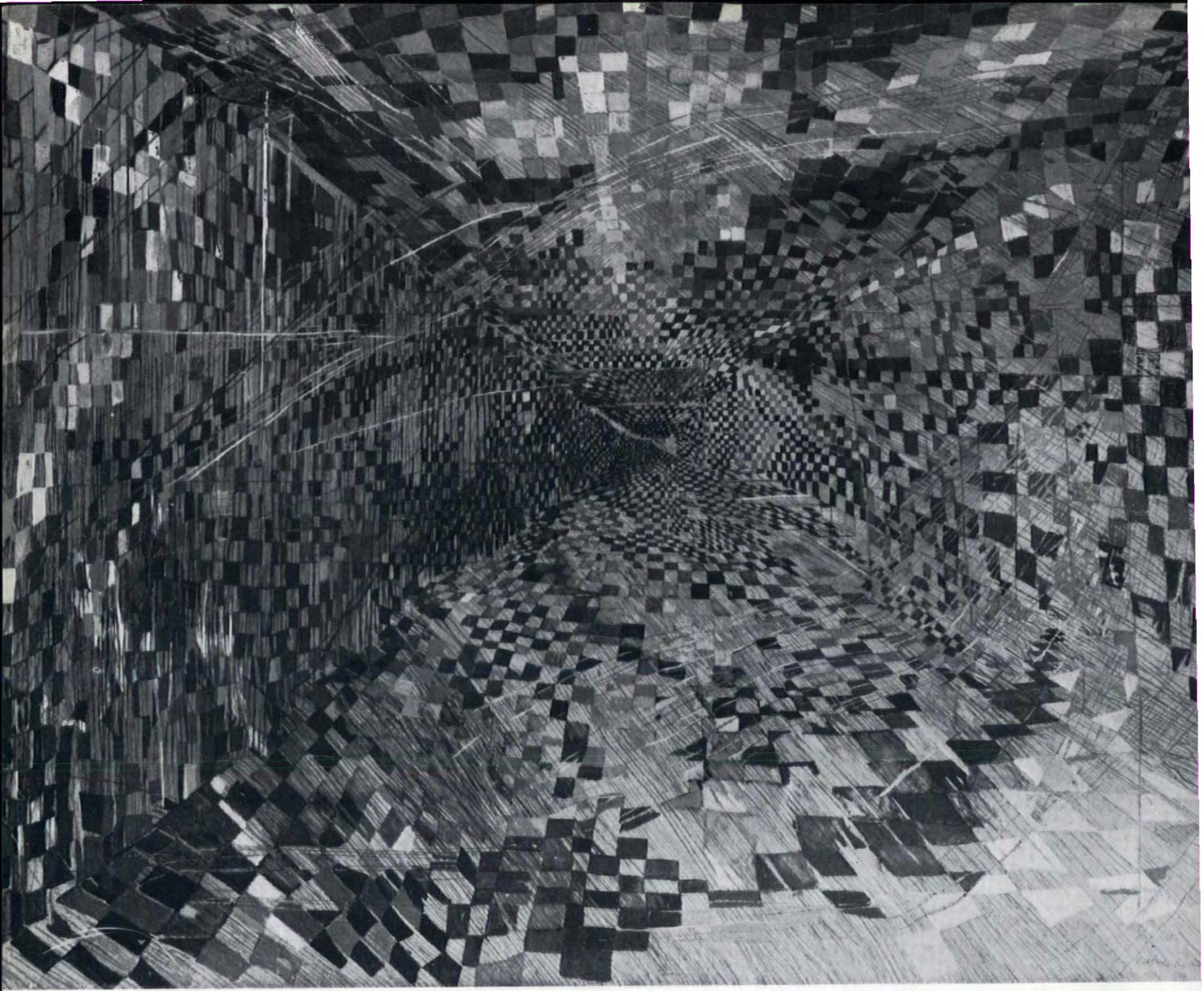
The hostel will also include restaurant, gymnasia, library and reading-room, concert and meeting hall, shops, garages, music rooms and laboratories, studios, study rooms, indoor and outdoor swimming baths, welfare and medical organizations, crèche and administrative offices.

'L'Architecture d'Aujourd'hui,' Oct.-Nov. 1950

PAINTING

AN EXPLORER OF SPACE

Of all the abstract painters whose work has been seen in London since the war none has more claim on the attention of architects and others con-



cerned with the qualities of space, and its mysteries, than Vieira da Silva; for no other is engaged in so adventurous and fruitful an exploration of just those qualities and mysteries. Or so, at any rate, one visitor to her recent exhibition (her first in England) at the Redfern Gallery believes.

Abstract, I said; but the term, as often, needs qualification. Vieira da Silva's paintings are rarely abstract in the sense that the subject that touched off the flame of creative activity has been altogether refined away; not only do her paintings have names, but it is possible to remember them by them. Her work at the Redfern fell into three main groups: first, there were those paintings which took as their theme the enclosed space of a room; secondly, there was a group inspired by contemplation of the chaos and colour of southern ports; thirdly, a group that had something in common with town plans, or perhaps rather with photographs of towns from the air—less interesting spatially these, but none the less effecting a new and memorable transmutation of the visual material of our age. There were also some small gouaches, most of them quite representational and showing a Piperian eye for the more elaborately contrived textures of nineteenth-century buildings and an ingenious and wholly successful use of the typewriter in rendering them.

Many of Vieira da Silva's paintings, especially in the second group, lose too much in losing their colour to reproduce satisfactorily in half-tone. But *Chambre sans Limites* (above) may serve to give some meaning to my words when I say that in front of the finest of them one feels almost as if one was witnessing the actual creation of space; certainly it illustrates Julian Trevelyan's just and well put observation that she has 'introduced, as in music, the dimension of time; her pictures no longer empty themselves at one in a single instant, but play themselves at their own speed, the eye being carefully directed through the intricacies of their elaborate structure.'

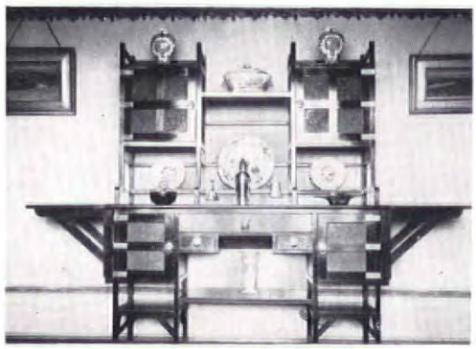
Although London has not seen Vieira da Silva's paintings before in any strength, she is represented in a number of private English collections. Born in Lisbon in 1908, she went to Paris at the age of

nineteen and there studied sculpture under Bourdelle and Despiau and painting under Friesz. Since then she has lived in many places, including (1939-47) Rio de Janeiro, where in 1945 she painted some murals for the Ministry of Agriculture. In Paris she is represented in the Musée d'Art Moderne, in New York in the Museum of Modern Art. **Marcus Whiffen**

FURNITURE

A GODWIN SIDEBOARD

Following the publication of Professor Pevsner's Art Furniture *in the January issue, Mr. Philip Carr has sent in a photograph of a surviving Godwin sideboard (see p. 47, no. 14)* in the possession of Mrs. Hartree, daughter



of the architect Frederick Jameson, a friend of Godwin and Whistler and distinguished as a translator of Richard Wagner. Meredith's last novel *The Amazing Marriage* was dedicated to him. Mr. Carr's father and uncle belonged to the same circle. His father was Joseph William Comyns Carr, founder of the Grosvenor Gallery (greenery-yallery), his uncle Jonathan Carr, the promoter of the Bedford Park garden suburb. **N.P.**

CRITICISM

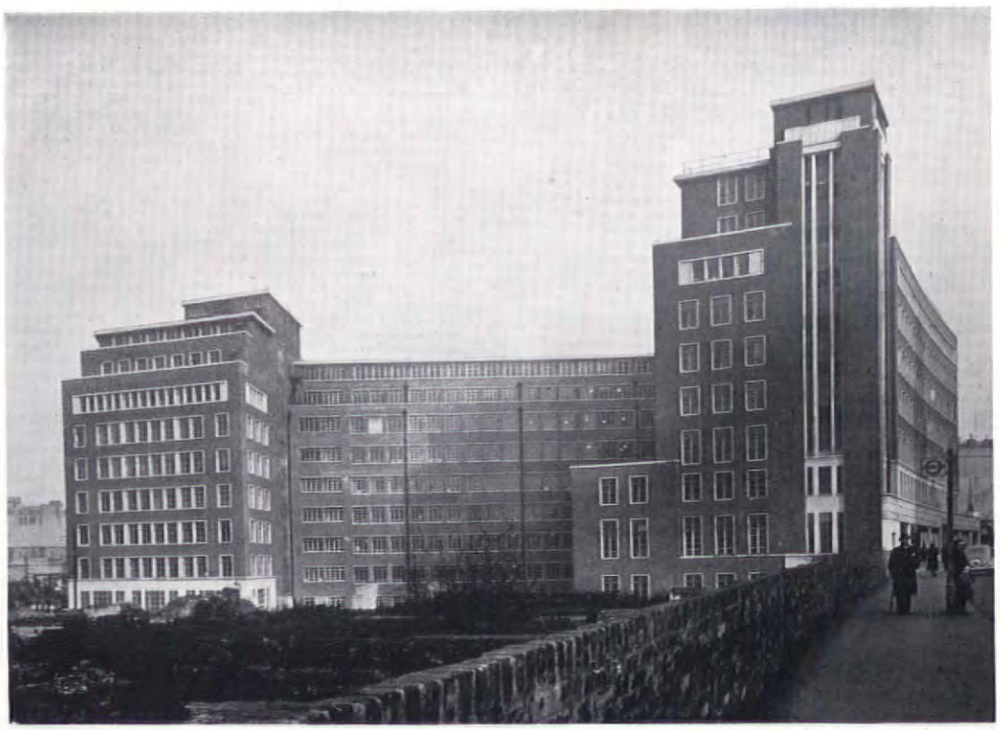
ATLANTIC HOUSE—AND SOME OTHERS

It is impossible not to regard the massive office blocks which have sprung up lately all over central London—and of which many more are planned—as a menace, threatening the whole scale and character of the City. If their intrusion into the London landscape is necessary, that calls for special efforts in the way of creative planning of the kind for which a plea is made in the article on page 257 of this issue. The amount of accommodation the owners insist on piling on to sites already built up all round—the result, of course, of inflated land values—poses a number of town-planning problems: overcrowding of pavements and public transport when thousands more workers are discharged from each building at the rush hour; obstruction of the light and air reaching surrounding buildings due to the immense bulk of the new ones; their destructive effect on the scale of the neighbourhood they will inevitably dominate.

The more practical of these problems, such as the first two cited above, are no doubt being studied closely by the planning officers at the LCC and elsewhere. They can be solved by restrictive legislation and control. But there are few signs that problems like the last, which require a positive over-all view of the kind of London that is wanted in the future and its visualization in three dimensions, are receiving proper attention. Experience of the Lessor Scheme (sponsored by the Ministry of Works and involving the erection by private financial enterprise of blocks of offices for long-term lease to the Government) does not suggest that the sites for the largest office blocks are being chosen according to any coherent plan—in fact, on any more planned system than the chance availability of war-damaged sites—nor that their architectural effect on their immediate locality is being properly considered. A walk up Shaftesbury Avenue or along New Oxford Street or Theobald's Road reveals all too clearly what visual chaos arises as a result of the provision of the new office accommodation that London needs not being made the occasion of a co-ordinated piece of creative planning.

A strong case can no doubt be made for allowing this accommodation to take the form of far bulkier buildings than have occupied the same sites hitherto. This only strengthens the arguments for the most careful design of each building in relation to its surroundings and for taking steps to ensure a high standard of architecture. To build to a considerable height is not necessarily disadvantageous in central London, but there are good and bad ways of doing it. Dr. Holden and Professor Holford, in their 1947 City of London Plan, put forward a 'daylighting code' which implied the abolition of the small internal courtyard and the concentration of high building at the centre of the site, stepping down thence towards the perimeter. This is clearly the most intelligent method in the case of a closely built-up area, not only from the point of view of internal lighting, but of preserving the human scale in the street. It eliminates the towering street façade that turns narrow city byways into gloomy canyons, and it reduces the visual bulk of the building, since concealed courtyards no longer cause the building surrounding them to read deceptively as one solid mass. The change its adoption will bring about in urban street perspectives and skylines can be accepted without alarm provided the total effect is planned and not left to chance.

But it must not any longer be left to chance, for this relatively new category



1. *Atlantic House, Holborn Viaduct; T. P. Bennett and Son, architects. An extension of the same size is later to occupy the vacant foreground.*

of building is now beginning to loom very large over our urban horizon. The first of these vast new office blocks to be built in the City of London, where the problems

2, *Atlantic House, Holborn Viaduct.*

discussed above arise in a particularly acute form, has just been completed—or, rather, its first instalment has been completed; it is eventually to be double its present size. It is called Atlantic House (1 and 2) and is situated between Holborn Viaduct and Charterhouse Street.

Atlantic House, thirteen storeys high (including basements), exemplifies several of the characteristics of large office blocks discussed above. The two upper storeys of the Holborn Viaduct façade are set a little way back, but there must be at least eighty feet of sheer wall rising straight from the pavement immediately across the road from the City Temple and Wren's church of St. Andrew's, Holborn. The whole has an unnecessary massiveness, which effect is added to by the staircase towers, aggressively vertical in treatment, set in strident opposition to the horizontal lines of string-courses and parapets. The general treatment of the windows, too, as individual openings crowded close together in the brick wall surface, retaining the shape but none of the graceful proportions of Georgian windows, adds to the effect of massiveness, perhaps because it suggests a fortress-like construction of solid brick rather than the steel frame that in fact lies behind it.

The other complaint that must be made is of the absence of refinement in the detail, and the insensitive relationship of parts generally. Modern technique allows—in fact demands—just as high a degree of refinement, though naturally of a different kind, as orthodox construction and the renaissance styles that went with it. But in Atlantic House we see none of the precision and elegance wherein lie the æsthetic potentialities of modern building technique. Its internal arrangements are no doubt efficient, and no doubt it provides excellent office accommodation, but the total effect is only to aggravate the process of brutalization from which London architecture is now suffering.

That such a beginning should have been made to post-war rebuilding within the boundaries of the City is particularly depressing because the City contains one of the LCC's areas of 'comprehensive development,' chosen because of the opportunity their great extent of war damage offers of rebuilding them in a more coherent form. The LCC have shown at Lansbury—which is part of another area of comprehensive development, comprising the worst damaged parts of Stepney and Poplar—how a large area can be planned as a whole and a degree of architectural control exercised. The case of Atlantic House does not suggest there is much hope of co-ordinated rebuilding, and still less of properly envisaged landscaping, in the City. And Atlantic House is not the only case. An office block of equally insensitive

3, *King's Beam House, Mark Lane; Howard and Souster, architects.*

external appearance is almost complete at the corner of Mark Lane and Great Tower Street (3). A second large structure is now going up alongside it. A block more vast than any is projected at Bucklersbury, right in the centre of the City, towering over St. Stephen's, Walbrook, and the

4, *Belfort House and Lacon House, Theobald's Road; Major A. S. Ash, architect.*

5, *St. George's House, New Oxford Street; Lewis Solomon architect.*

6, *St. Anselm's House, Davies Street; Howard and Souster, architects.*

Mansion House. And there are many others. Nor is the menace confined to the City. The numerous office buildings already constructed under the Lessor Scheme, in Theobald's Road, New Oxford Street and Shaftesbury Avenue (4 and 5), have already been referred to. There are others in Mayfair (6), Shepherds Bush and at Olympia (the latter admittedly on a somewhat less congested site) and many more are projected both for official and private occupation; for example, an immense block in Baker Street that may set the tone and scale for the whole redevelopment of the Eyre estate. London is changing faster than we think. If these projects continue to achieve no higher artistic standard than the examples named and illustrated, it will soon have changed vastly for the worse. It is tragic that only ten years after the event we should be forced to remember so ruefully the hopes that were raised about the more civilized London which was going to emerge from the ruin of war.

J. M. Richards

ANTHOLOGY

INDOOR-OUTDOOR LIVING

Outdoor use of certain interior features like stairs and halls was an essential charm of ancient and medieval city building. The picturesque character of Amalfi, for example, is derived from an amazing mixture of various indoor and outdoor features. The effect is such that one feels that he is both inside a building and out in the open space at the same time, and that he is on the ground level and on one of the upper stories at the same time. That is because it is difficult to encompass the varied combinations at once. Places like this were the original stage settings that the theater later sought to imitate in backdrops. It is most unlikely that our dull modern layouts will ever serve as models for dramatic settings.

CAMILLO SITTE (*The Art of Building Cities. Chapter X. Modern Limitations on Art in City Planning*). Reinhold, New York, 1945.

MARGINALIA

In Anthology

We sometimes talk of 'indoor-outdoor' living as if it was a new conception. In fact, as the extract in Anthology this month may serve to remind us, it is nothing of the kind: rigid distinctions between indoors and out in the sphere of town planning represent a relatively modern development. Here and there, as Eric de Maré's article on pages 233 to 239 shows, the old pattern survives; how to restore it where it does not must be one of the first concerns of those engaged in the active planning of the new London within the framework of the Development Plan discussed by J. M. Richards on pages 257 to 260.

In this Issue

Architect of Club House near Punta Ballena (see pages 251-256). ANTONIO BONET, born in Barcelona, 1913. Worked as Assistant Architect in the design and construction of the Spanish Pavilion in the Exposition Internationale de Paris, 1937, together with Sert and La Casa; worked in Le Corbusier's studio from 1937 to 1938. Built several modern works in Argentina between 1938 and 1945 (Town Planning, Architecture, Furniture). Drew up the plan for Punta Ballena (Uruguay) and built the first part of his project, together with some other works, between 1946 and 1948. Since January 1948 has been permanent adviser of the 'Estudio del plan de Buenos Aires' (Buenos Aires Planning Board) and since August 1950 adviser on Town Planning to the Ministerio de Economia de la Provincia de Buenos Aires. Now devotes himself to the study of industrialized construction. Is a member of the Argentine group of CIAM.

The Care of Ancient Buildings: Two Courses

A two-week residential course in the protection and repair of ancient buildings is to be held at York from September 8 till September 20, 1952. Organized by the Academic Development Committee of the York Civic Trust (from whose Secretary, 1, Museum Street, York, further particulars may be had), the course is under the direction of W. A. Singleton of the University of Manchester. The programme includes twenty-eight lectures, while practical study will occupy a third of the time, visits being arranged to buildings in or near York which are of special interest or where repair and maintenance work is being carried out; students will also have the opportunity of surveying a building in need of attention and of making their personal recommendations, which will then form the basis for a general discussion. The Trust hopes to repeat this course in the spring of 1953 and to supplement it by a series of one-week courses during the same year, each of these latter being devoted to preservation and repair work in a particular building material.

The REVIEW, as it has already made clear (*Monuments, Money—and Men?*, November, 1951), believes that the training of architects in the preservation of ancient buildings must sooner or later, and the sooner the better, be undertaken in the architectural schools. Nevertheless, there will be a place for such well-considered interim measures for many years to come.

Not sufficiently publicized is the Lethaby Scholarship, an annual award, the object of which is to enable selected students to study the repair of ancient buildings at first hand. The closing date for the receipt of applications for this year is April 16. Further particulars may be had from, and applications sent to, the Secretary, The Society for the Protection of Ancient Buildings, 55, Great Ormond Street, London, W.C.1.

Topography: Picturesque and Historical

Those who thought that Shell Guides were things of the 'thirties have recently been put right in the pleasantest possible fashion by the appearance of a new one, *Shropshire* by John Piper and John Betjeman (Faber and Faber, 12s. 6d.). The general principles on which the Shell Guides are compiled are known to most REVIEW readers; for those to whom they are not a passage from the foreword of this latest one may be quoted:

> Our attitude to medieval work has been not so much archæological as architectural, and we have been more interested in the evident beauties of a clear crown-glass window than in the hidden stories of a double piscina, and in the virtue of a well-planted churchyard than in a fragment of fourteenth-century tracery. We have often mentioned whether or not a church has been scraped of its plaster by Victorians, and some buildings which may be of archæological interest —such as Stapleton—we have dismissed briefly because not only has its texture been removed but its original builders' intentions can now hardly be guessed. We have mentioned, usually, when a village has been affected by new houses, pylons, gas works, reservoirs, main roads and conifers. And particularly we have remarked on previously unnoticed examples of good Georgian, Victorian and even Edwardian architecture and planting.

An admirably clear statement, which could be improved only in one detail—by the substitution of 'picturesque' for 'architectural' in the first sentence. The Shell Guides are unique among contemporary guide-books in that they are the result of the examination of present-day Britain from a consistently picturesque viewpoint; this is both what gives them their special value now, and what will constitute their chief interest for historians of taste in times to come. Shropshire proves a happy hunting ground for the picturesque eye; the quarry bagged by Mr. Piper's pen and camera ranges from the ruined Jacobean mansion at Moreton Corbet to the anything but ruined Victorian Eye, Ear and Throat Hospital at Shrewsbury, from an ecclesiastical wallscape at Tugford to a yucca-bedecked balcony (secular) at Church Stretton, from fourteenth-century sculpture in stone at Chetton to nineteenth-century tombs in cast iron at Madeley. The gazetteer directs the inquirer to many more things of these and many other kinds. But it would be interesting to hear what grounds there are for supposing that George Steuart (architect of St. Chad's, Shrewsbury) was 'possibly a relation of "Athenian" Stewart' [*sic*], or for calling him 'a pioneer of the Greek Revival.'

An architect who *was* a pioneer of the Greek Revival was Thomas Johnson, of Warwick, who in 1779 designed and built the gaol (now County Buildings) in that town in a style which would have been even more indubitably Greek if the builder in him had not cheated the architect—and his clients—by omitting from his Doric columns the fluting originally intended. He was also a pioneer of the Gothic Revival, as he showed in designing the church of St.

Nicholas, Warwick, in the same year. Mr. Philip B. Chatwin, in *Old Warwick* (Compton-Dando, 3s. 6d.), does not see fit to mention Thomas Johnson, while inside St. Nicholas' he has eyes only for 'the interesting brass in memory of Robert Willardsey, the first vicar (1424).' In short, Mr. Chatwin's approach is historical and not picturesque. Which is not to say that he has not written a book that every visitor to Warwick, however short his stay, should certainly both read and carry round.

The third topographical publication to be noticed is in a sense both historical and picturesque at once. For the drawings by J. C. Buckler that are reproduced in *Drawings of Oxford* (Bodleian Library, 2s. 6d.), are largely picturesque in intention—'he clearly aimed at producing attractive views of Oxford rather than precise architectural drawings,' writes the editor of the volume—but 'the emphasis in this selection is on drawings which show some buildings or architectural feature still extant, for in this way the extent and nature of the changes which have taken place in Oxford can best be seen.' John Chessell Buckler, the eldest son of John Buckler of aquatint fame, left his mark as a restorer on several Oxford buildings and many more elsewhere; as an architect he was runner-up in the Houses of Parliament competition and designer of Magdalen College School; he died in 1894 at the age of a hundred. One hopes that this little book of twenty-four of his drawings will fall into the hands of many Oxonians, both town and gown, and help to awaken or enrich (as may be needed) their awareness of their surroundings.

M.W.

Talking of Design

All who read Richard Guyatt's inaugural lecture at the Royal College of Art, 'Head, Heart and Hand,' in last July's REVIEW will be interested to hear that the whole series of inaugural lectures have now been published under the title of *The Anatomy of Design* (Newman Neame, 5s.) with an introduction by Robin Darwin, Principal of the College. The other professors are Rodrigo Moynihan (painting), Frank Dobson (sculpture), R. D. Russell (wood, metals and plastics), R. W. Baker (ceramics), R. Y. Goodden (silversmithing and jewellery), Madge Garland (fashion design), and Basil R. Ward (architecture). All have something worth hearing to say, and the book forms a stimulating symposium on design questions. Not the least interesting of the lectures is Frank Dobson's essay in autobiography, from which a passage may be lifted for the benefit of those who enjoy nice distinctions. Dobson's father was a painter of designs for Christmas cards—'Artist (floral designs)' was his own description—producing the originals from which the stencils were cut.

> 'This my father would describe as Art. But, on being questioned by me after my having seen Royal Academy pictures, as to what sort of art that was, he replied that work shown in the RA was High Art, and that the fellows who did these pictures were The Nobs. Again, answering my query after a visit to the National Gallery, he informed me of another kind of art which was Great Art. . . .'

R. D. Russell, in his lecture on furniture, invokes the Wottonian trinity of Commodity, Firmness, and Delight; Margaret Llewellyn, in *Design and Our Homes*, does the same thing in effect when she writes: 'There are three very simple tests which we can use in judging whether an object is well designed or not. . . . Does it do its job properly? Is it well made and of suitable materials? Does it look well?' This little book is addressed to quite another audience, its purpose being to raise ideas for discussion and suggestions for activities in groups and classes in the Co-operative movement; it touches on everything from teacups to townscape. How admirable—and of what enormous potentiality for good—that the Co-operative movement should interest itself in questions of design! How admirable too that the Council of Industrial Design (joint publishers of the book with the Education Department of the Co-operative Union) should be associated with them in this important venture! *Design and Our Homes*, which costs 1s., deserves every success.

A.H.

The late Harry Batsford

[*News of the death of Harry Batsford was received too late to allow of any but the briefest announcement in the February issue. The appreciation now published below has been contributed by John Russell.*—EDS.]

Others, more competent than myself, can estimate the contribution of Messrs. Batsford, during the 108 years of their existence, to the popular understanding of architecture. Harry Batsford himself took a discreet pride not only in the monumental volumes produced under his guidance before the war of 1914-1918, but also in the more controversial and designedly popular series of the 1930s; but it is not as a publisher that he is first remembered by those who, like myself, were taken up almost in infancy and given the freedom of his learning, his enthusiasm, and his never-obtrusive counsel. Among older scholars, Mrs. Esdaile and Miss Margaret Jourdain delighted in the individual richness of his nature; and it was he who encouraged—to name only a few—Christopher Hobhouse, James Pope-Hennessy, James Lees-Milne, Marcus Whiffen and John Harvey at an early stage in their careers.

Such encouragements are, in themselves, not much more than the normal courtesy of a good publisher to his authors; but it was Harry Batsford's peculiar talent that he was able to impart even to the most sluggish and hesitant beginner some semblance of his own pauseless, semi-demoniac activity. Physically, he imposed himself even at a considerable distance by his stamping tread and fits of violent coughing; when climbing a staircase he could be identified through the thickest of walls by the bump and slither of the pannier-like satchels which accompanied him everywhere; and his conversation, once started, could well continue for sixteen hours, sustained only by a tin of Irish stew and a glass of herbal lemonade. Like Shakespeare's Beatrice, he 'had a good eye, and could see a church by daylight'—all too well, indeed, for those who, after a long day's sightseeing, were shamed into driving him across twenty miles of twilit moorland in search of a chimerical aumbry. Himself indifferent to shifts of taste, he astonished even the most modish of connoisseurs by his secret mastery of their new-found subject; and although his own preference was for deserted places and high, far-ranging views, he could never be out-walked in a town, and I remember how, on the hottest day, he would climb and re-climb the precipitous streets of Auxerre in search of the least and the smallest of its many fine churches. His own habits were very simple, and he preferred the bed-and-breakfast of a village street to any luxurious hotel; in his seventy-first year, in the richest eating-country in the world, he was happy to sit on the grass in the water-meadows of the Eure and eat Canadian pilchards with an old steel ruler. Perhaps it was on a motor journey that he was seen at his best; for then he would prop himself high up in the back of the car and treat his map as if it were a transparency through which he could foretell the landscape in its tiniest detail. A flow of comment, allusion and schoolboy oaths would enliven the dullest marches; and the guide-books would gradually fill with those paper markers that seemed to grow in his pockets, much as watercress, at one period, seemed to grow in his hat. The interior of the car gradually filled with ash; papers flew through the air as if endowed with Mr. Harry's own energy; the unaccountable strands of his hair were hoist in the wind; and only his neck-tie held fast—attached as it was to the front of his shirt by a paper-clip of enormous dimensions. He personified, even for an unbeliever, the beauty of true Christian good manners. In a long acquaintance I never saw him seriously discomposed; even when we were apprehended as suspicious characters in a remote Warwickshire village in the nervous summer of 1940, Mr. Harry's transparent good nature triumphed, and he contented himself with removing his boots as a token of pacific intentions. Of his passion for architecture there could never be any doubt; and in this, as in everything else, his inclination was always to put aside what was notorious and large in favour of what was plain, inviolate and true.

John Russell

INTELLIGENCE

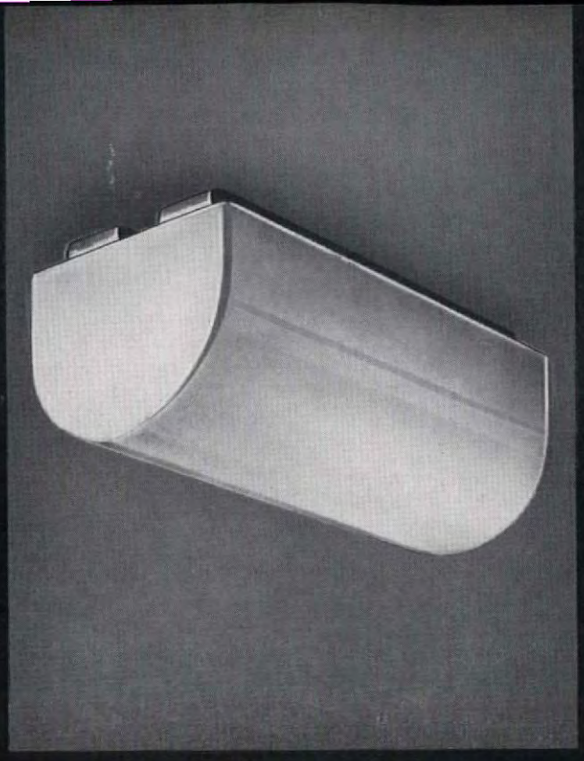
The London County Council published last month in book form at 30s. a detailed analysis of the Development Plan discussed on page 257.

The first prize of 1,000 guineas for a design submitted in a competition for a housing scheme at Golden Lane, London, sponsored by the Corporation of London, has been won by Geoffrey Powell, of London.

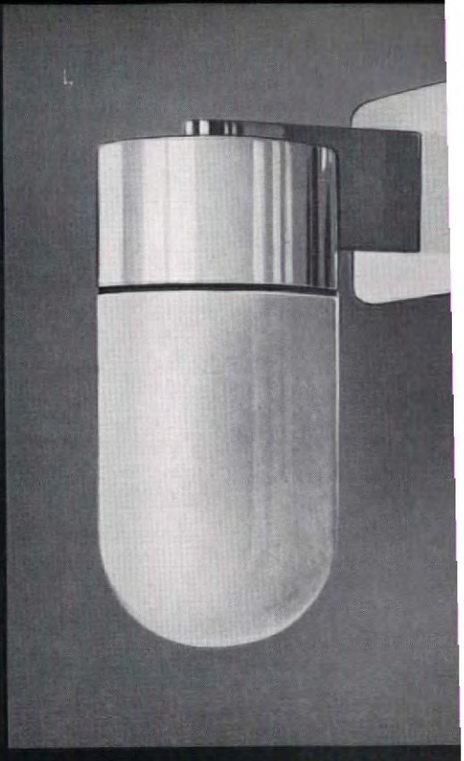
It is announced by the Council of the University of Liverpool that Mr. R. J. Gardner-Medwin, Chief Architect and Planning Officer to the Department of Health for Scotland, has been appointed to the Roscoe Chair of Architecture.

The twin eighteenth-century stone houses on the north side of Cavendish Square, London, are being restored following bomb damage. They are being linked by a bridge across the mews which separates them, on the face of which will be a 13-foot-high statue of the Madonna and Child by Jacob Epstein,

U.7H Flush. Bracket Recessed. Finishes: chromium and off-white. Glass: white flashed opal. Lamp: up to 60 watts. Socket: 2-amp 3-pin. Switches: 5-amp for lamp and socket.



U.100 Ceiling. Trough. Finish: cadmium. Glass: white flashed opal. Lamp: up to 60 watts.



U.22 Bracket. Well-Glass. Finish: chromium coinage bronze. Glass: white flashed opal. Lamp to 60 watts.

The high efficiency of ULTRALUX Lighting Fittings is the result of constant research and experimental work. Several new designs have now been added to this comprehensive range. Easy to instal and maintain, these new fittings will enhance the fine reputation of the UTRALUX range. Illustrated here are just a few of the designs. The complete range can be seen at the Lighting Centre in Knightsbridge, where you can also see our other ranges, Tubalux (fluorescent) Versalite and Mondolite.

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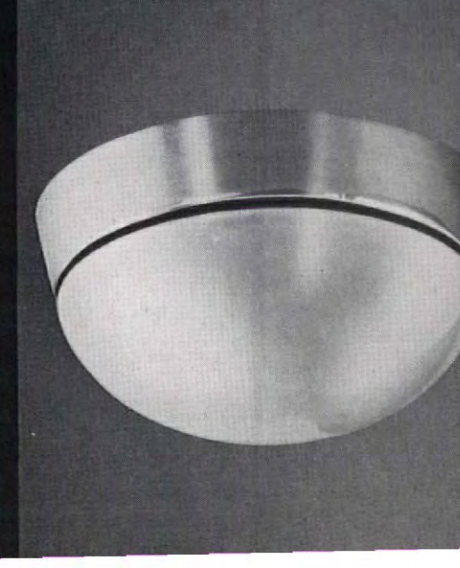
U.27 Ceiling. Conical. Finish: chromium or coinage bronze. Glass: white flashed opal. Lamp: up to 150 watts.

U.6 Ceiling. Small Conical. Finish: chromium or coinage bronze. Glass: white flashed opal. Lamp: up to 60 watts.

U.4 Ceiling. Bowl. Finish: chromium or co bronze. Glass: white flashed opal. Lamp: up to 60 w



cast in lead. The architect for the restoration is Louis Osman.

The paying days at the Iveagh Bequest, Kenwood, on Wednesdays and Fridays, when hitherto a shilling has been charged for admission, have now been abolished. The present dining room is temporarily closed whilst the room above is being adapted as a lecture room. The pictures from the dining room are exhibited on the first floor. During 1951, 103,749 people visited the Bequest.

EXHIBITIONS

There is much to be said against exhibitions of photography; most photographs which can survive a minute's handling or live through the space of time between the turning of two pages die overnight when displayed on the walls of a picture gallery. Nevertheless, against the exhibition of photographs by Cartier-Bresson put on by the Institute of Contemporary Arts there was nothing to be said at all: every one of them remained utterly alive and we were altogether the gainers by the opportunity of studying bromide prints made from the original negatives instead of the half-tone reproductions in which we had seen many of them before. The explanation of this is that Cartier-Bresson has, perhaps beyond any other photographer, the power of finding order in the apparent chaos of reality; even those of his photographs whose taking must have been the result of a swift decision have formal coherence. Unlike most photographers, he accepts the discipline of his medium to the extent of almost never trimming his prints. Yet so freely does he work within the bounds set by that discipline that one was astonished to realize that every print at the ICA was, in fact, of the same proportions.

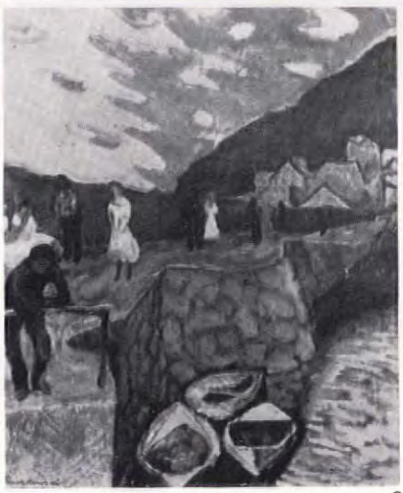
From photographs to photographic painting, from the brush of Walter Stuempfig (born in Germantown, Pennsylvania, in 1914), at the Hanover Gallery; photographic not in the old sense of every detail being depicted with equal minuteness, but in its borrowing of the camera's compositional devices and lighting effects and in its perpetuation of the momentary. Some of Stuempfig's paintings were striking enough at first sight, and others offered food for long, literary imaginings; yet in spite of the impressive muster of collectors in the foreword to the catalogue it was difficult to imagine one would wish to live with any of them.

The most interesting of the exhibitions open at the time of writing, that of Vieira da Silva at the Redfern, is noticed separately on page 271 of this issue. Roland, Browse and Delbanco, next door, who more than once recently have taken it upon themselves to remind us that Expressionism is a tradition of continuing vitality in the mid-century, were showing a score of recent pictures by Z. Ruszkowski. Born in Poland in 1907, Ruszkowski has since lived in Paris and now lives in England—this as a matter of general interest because he is not the kind of painter to be deflected from his chosen path by any accident of locality; there is nothing specifically 'Cornish,' I would say, about *Mousehole Harbour*, reproduced here, but in common with other of Ruszkowski's sombre paintings it has a monumental quality which may be thought to give it a greater universality of appeal than could any infusion of the spirit of place. Upstairs, Roland, Browse and Delbanco were showing some nicely painted and cosy little pieces of a Sickertian type by Bernard Dunstan, and some anything-but-cosy yet undeniably decorative pieces by Edward Smith, who is a twenty-nine-year-old Detroit-born former student of the Ecole des Beaux Arts and of the Royal Academy and Central Schools; perhaps Smith has yet to find himself, as they say, but at least he obviously has the energy to keep on looking.

Finally, at least for the purposes of these notes, there was the Lefevre with Winifred Nicholson and Vivancos. Winifred Nicholson is a lyric painter who at her best can convey with startling directness such fundamental yet (for the painter) elusive things as the brilliance of new leaves and the wetness and deepness of the sea; it is only when she is not at her best that it matters that her paintings have no bones. Miguel G. Vivancos is a Spanish exile who took to painting silk squares for a living at the age of fifty, never having painted before, and surprised both his employer and himself with the quality of the results. That was in 1947 and since then he has been acclaimed by Picasso as the best of all the primitives who are painting at present. *Marguerites*, reproduced here, is a good specimen of his mosaic-like manner.

Andrew Hammer

1 2



3 4

1, St. Rita's School *and* 2, Cresson Street, *by Walter Stuempfig (Hanover);* 3, Mousehole Harbour *by Z. Ruszkowski (Roland, Browse and Delbanco);* 4, Marguerites *by Miguel Vivancos (Lefevre).*

CORRESPONDENCE

COID Progress Report

The Editors,
THE ARCHITECTURAL REVIEW

SIRS,—As a one-time member of the industrial staff of the COID personally engaged in the difficult task of obtaining exhibits for the South Bank exhibition, I would like to make some comments on your article in your December issue.

The difficulty of obtaining suitable exhibits for the Festival is not yet fully appreciated. One must recall the vigorous campaigns carried on by certain sections of the Press against the venture, and its political implications, and one must take account of the terms offered to exhibitors which were not particularly generous. Often manufacturers had to be persuaded to commit themselves to expenditures of several hundred or even thousand pounds some months before the opening, at a time when the site was a mess of mud, the buildings behind schedule, and propaganda against the exhibition at its most intense. To many it must have then seemed a most dubious venture, and one can only record with gratitude that there were many manufacturers who were prepared to make an imaginative gesture to support the exhibition. There was certainly little money in the display budgets to purchase exhibits which could not be obtained free of charge. If the Council had been prepared to make no concessions, there would have been no exhibits in large sections of the exhibition. The standard of the exhibits could only be the best available, and the products were

not necessarily those of the best design on the market. The demands on the products of any one manufacturer had to be limited to the amount he might be willing to loan. Sometimes this meant calling up the second line reserves for, I think, in not more than two or three instances was there any money to pay for special exhibits, because the display budgets were inadequate.

As individual members of the Council, we hoped the standard achieved was the highest practicable—that was often far from our ideal, but there was no alternative. It is never pleasant to have to lower one's standards, but there are occasions when it must be done.

One thing I am certain is that all members of the COID shuddered as they walked past the souvenirs kiosks filled with horrors. Protests, I am sure, were made to the FOB authorities by the Council. The blame for lack of action must rest with the Festival Authorities, for they were responsible for running exhibitions. The Council had no authority on the site, and often received little co-operation.

To answer further criticisms of the Council's work, I can assure your readers that all members of the Group to which I belonged carried on a vigorous 'war' on bogus streamlining, excess chromium, the three line cliché, etc., and sometimes, to our satisfaction, we managed to get these altered. They could be found in the exhibition, but only for the reasons stated above.

Your criticism that the Council has not resolved its attitude towards the crafts is a valid one. The danger of identifying a body like the Council with the Craft movement lies in the fact it is likely to make relations with manufacturers more difficult. Engineers like to talk to engineers. 'Arty Crafty' is a term of industrial abuse. After all there exists a centre for crafts, so let the Council concentrate its attentions on industry. For this reason it is unfortunate that the Council should have disposed of the services of so many of its technical staff in favour of the general information services.

In conclusion I think it would be fair to say that, as far as I could see in my limited position, the policy of the COID was in no way influenced in the selection of exhibits by the Board of Trade. Aesthetic standards were compromised by practical exigencies.

Yours, etc.,

Radlett, Herts. J. K. PAGE.

Sun Control

The Editors,
THE ARCHITECTURAL REVIEW

SIRS,—Your interesting article on sun and glare did not mention the use of toned glass in regard to the latter, which may well alter the design of buildings in the tropics as much as the original manufacture of glass did in this country. The traditional practice has been small windows, but manifestly if the human being has smoked glass for spectacles and not blackened lenses with a single clear hole in the middle, the same principle of distribution of light can apply to windows. Toned glass was used successfully in large windows at Livingstone Airport, and passengers in the lounges may enjoy agreeable pictures of runway, sky, and bush, without soon afterwards suffering from headache.

Yours, etc.,

London. G. A. JELLICOE.

Sans Pancras . . .

The Editors,
THE ARCHITECTURAL REVIEW

SIRS,—I consider that the article very cleverly headed 'Sans Pancras, sans eyes, sans everything' (AR, October, 1951) was written sans practical consideration. It has been thoroughly proved that the sans serif lettering adopted for use in the underground and main line Railways is both legible and generally in keeping with its surroundings. In cases where the lettering has not been fitting it has always been the architecture of the station that is crying out for alteration. However, the writer of the article states that the original iron lettering (which he himself must admit is barely legible) suggests all the mysteries and adventure of the iron road and seems to complain that the new lettering is too much in keeping with the pace of present-day life.

Would the writer expect a special wrought iron sign to be put up at considerable cost just to satisfy his whims, instead of a well-designed standard sign allowing much more to be spent on the re-designing and modernizing of these railway stations?

I hope that the article is merely a misguided attack on the British Railways and that we are not approaching an era of architectural taste resembling that of our Victorian forefathers.

Yours, etc.,

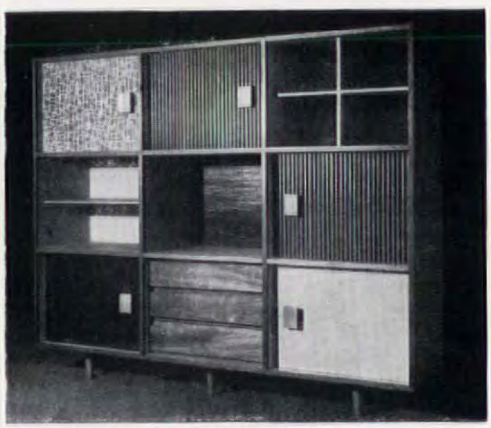
Aylestone, Leicester. PATRICIA M. PRATT.

The author of the note referred to writes: '*No, I didn't think that a special wrought iron sign should have been put up to satisfy what Miss Pratt regards as my whims: I would have been quite content if the old sign had been left up. I am sorry that Miss Pratt should think that I said or implied that that sign 'suggested all the mysteries and adventure of the iron road'; I was assessing it in terms of the townscape, and not relating it to what happens beyond the booking hall; and I don't agree that the lettering was 'barely legible.' To say that the sans serif lettering used by British Railways is legible is equivalent to saying that the Lessor Scheme buildings don't fall down. We have as much right to look for something more than legibility in lettering as we have to look for something more than structural soundness in buildings.*'

TRADE & INDUSTRY

Cellobond Synthetic Resin Adhesives

It has been noted more than once in the pages of the REVIEW that many of the moves towards better contemporary furniture design in this country come from outside the furniture industry. At the recent British Furniture and Allied Trades Exhibition in London, British Resin Products took the process one step further in their own exhibit by commissioning a designer—Ian Bradbery—to design, and the Airscrew Co. and Jicwood to make, unit furniture, to demonstrate the value of their synthetic resin adhesives to furniture manufacture. In the form of a single fitment, it is in fact composed of individual units which can be assembled in multiples either side by side or one on top of the other. The single unit effect is provided by the cladding surrounding the units and by the cover strips concealing the joints between units. These can easily be fitted or removed and are obtainable in lengths suited to various arrangements.



5, unit furniture designed by Ian Bradbery and made by the Airscrew Co. and Jicwood at the recent Furniture Exhibition in London.

A second exhibit was a corrugated plywood, designed to provide architects and designers with an attractive new medium. It is light in weight but strong, and suitable for wall panelling. By varying the profile of the corrugations it can be used in door construction as a lightweight core and further, if two sheets are glued together with the corrugations at right angles to one another, it can be used for doors without facings. Other possible uses are in partitioning and roofing.

6, corrugated plywood at the recent Furniture Exhibition.

The basis of this material and of the unit cupboards are Cellobond adhesives. These synthetic resins withstand damp and wet, extremes of temperature and microbe attack and they make joints of great strength. They can be used at room temperatures and are quick-setting when heated. They are equally suited to bonding metals and plastics.

Gas Space Heater

One of the advantages of gas-heating from the national standpoint is that gas has a high coal utilization efficiency quite apart from the fact that it is smokeless and clean to use.

William Sugg & Co. have recently taken convection heating by gas a step further with their 'Halcyon' series of flued and flueless space heaters by producing a range of appliances for domestic, industrial, school and similar uses, with the remarkably high operating efficiency of almost 80 per cent. They incorporate a heat exchanger with a silent electric fan designed to 'assist' natural convection rather than produce a forced draught. This enables a wide diffusion of heat from a hall heater through the open doorways within a house, for example, since the output is somewhat large for heating the average sized room only. Suitable safety devices operated by a thermosensitive bi-metal strip are fitted. Though designed originally as flued space heaters, they

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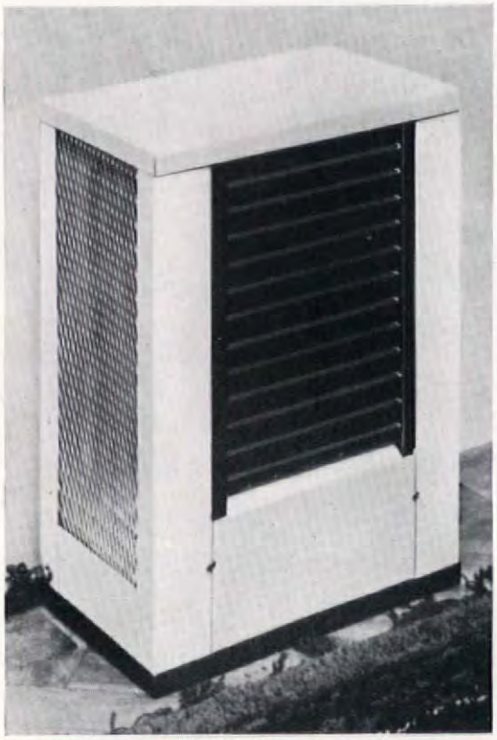


7, the 'Halcyon' Model K gas convection heater manufactured by Wm. Sugg & Co.

continued from page 278]

operate quite satisfactorily without flues since the combustion products are thoroughly and rapidly mixed with the main air stream.

The model 'K' illustrated is 24¼ inches high, 17¼ inches wide and 14¾ inches deep, weighs 50 lbs., has a gas rate of 30 cu. ft. hr., an electricity consumption of 25 watts, and a heat output of 12,000 B.Th.U./hr. Other models include wall fixing, wall suspension and built-in low-level types of varying sizes, fuel consumption and heat output.

Hawksley Buildings for Australia

This country is usually regarded as the home of tradition, and all too frequently the home of outworn traditions. In some cases the latter label is all too accurate but happily, as with all generalizations, there are many instances where the contrary applies. There can be few better examples of this than the enterprising idea of providing houses for a country 12,000 miles distant from the place where they are made.

Hawksley Constructions of Hucclecote, Gloucester, have already supplied hundreds of prefabricated single-storey buildings to Australia for use as schools, offices, houses and for other purposes. Whatever the purpose of the building, the general design which is based on panel construction is standard though the dimension can be varied according to the size of wall panels and roof span used. These panels can be supplied in 8 feet, 9 feet, 11 feet or 12 feet 6 inches, sizes depending on the ceiling height required.

Wall construction consists of a framework of light alloy extrusion, braced with timber beams, faced externally with ribbed light alloy sheets and internally with hardboard or plasterboard. A glass wool padding between skins provides insulation.

A second internal wall of timber frame construction is faced on both sides with hardboard or plasterboard. Doors and surrounds, and windows fully glazed are incorporated with the panels. The roof panels are of a light alloy coated on the outside with a thin film of pure aluminium, the polished surface providing good insulation and high resistance to corrosion. The panels are supported on light alloy trusses. As much as possible of the electrical and plumbing installation is built into the panels during construction.

Two New Products from 'International Paints'

Two new paints have recently been marketed by International Paints, Grosvenor Gardens, S.W.1. The first, called 'Interlight,' contains no natural drying oils, so that alkalis do not affect it. It may thus be applied to new plaster, once this has dried out reasonably, without fear of saponification. It is thinned with water, but has the durability of oil-paint, and is therefore recommended for exterior use on brick, cement, stone and similar materials. It is also resistant to acids, fungus growth, grease and oil, and may be applied over creosote and similar products.

The second new paint is 'International' SE Primer for use on light alloys. These metals must be 'etched' and primed before painting. This new primer does both operations in the one application, and may be air dried or stoved.

Van Riebeeck Festival Fair, Capetown

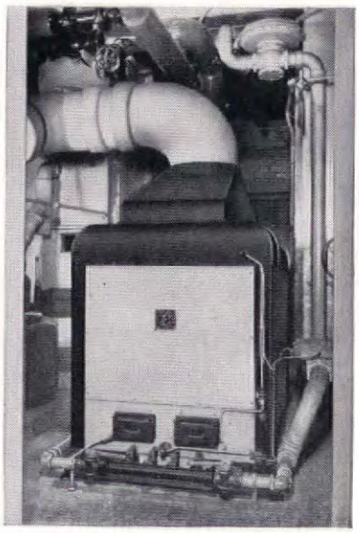
Participation by British manufacturers in overseas exhibitions has been on the increase since the war. This occasion is the three hundredth anniversary of the landing at Table Bay by Van Riebeeck and his settlers. The Fair, in which Pilkington Brothers are participating with a display of glass products and the twenty-foot model of their great twin grinding and polishing manufacturing unit already shown at the South Bank, is part of a Festival lasting nine weeks and covers a comprehensive range of South African activities. The Fair lasts from March 14 until April 5.

Booklets Received

Formica Forum. This is a new publication issued by the De La Rue Plastics Division for the purpose

[continued on page 282

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



Heating installation by

H. W. Dutton & Co. Ltd., 25 Victoria Street, London, S.W.1

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Potterton Gas-Fired Boilers

THOMAS DE LA RUE & CO. LTD.

(GAS GROUP)

Imperial House, 84/86 Regent Street, London, W.1. Northern Area: 4 Albert Square, Manchester, 2. Midlands Area: Portobello Works, Warwick.

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of disseminating all available information on the uses and applications of plastic laminates. Since Formica is distributed all over the world, there should be great opportunities for the interchange of information of this kind.

Dunlop Festival Book. This collection of photographs recording the contributions of the Dunlop and associated companies to the various Festival exhibitions revives the fading echoes of 1951. Well produced, with many excellent illustrations, it is a welcome souvenir of an historic occasion.

Bison Information Book. Issued by Concrete Ltd., this publication brings up to date the first edition of 1946. It deals with Bison systems of reinforced and prestressed concrete floors, prestressing techniques, constructional information and provides a section of information sheets. There are also examples of jobs in which Bison floors have been used, together with a selection of useful tables, LCC Regulations and the British Standards Code of Practice applicable to floor construction.

H. McG. Dunnett

CONTRACTORS etc

Flats in St. Pancras. *General contractors:* Perrys (Ealing) Ltd. *Sub-contractors: Stock bricks:* Cement Marketing Co. *Engineering bricks:* Uxbridge Flint Brick Co. *Gas carcassing:* North Thames Gas Board. *Hollow tile floors and R.C. construction:* Helical Bar & Engineering Co. *Lifts:* Hammond & Champness Ltd. *Pressed steel door frames and special metal staircase windows:* Frederick Braby & Co. *Electrical installation:* Hartley Electromotives Ltd. *Standard E.J.M.A. windows and special windows and casement doors built-up from E.J.M.A. standard sections:* Jayanbee Joinery Ltd. *Gas-ignited smokeless fuel fires and glazed tile surrounds and hearths:* John Knowles & Co. (London). *Refuse chute hoppers:* Haywards Ltd. *Glass silk insulation blanket:* Fibreglass Ltd. *Fuel bunker fittings:* Light Steelwork (1925) Ltd. *Instantaneous gas water heaters:* Ascot Gas Water Heaters Ltd. *Asbestos cement flower boxes:* Turners Asbestos Cement Co. *Asphalte tile ('Accotile') flooring and built-up bituminous felt roofing:* Neuchatel Asphalte Co. *Sanitary fittings:* J. H. Sankey & Co. *Glazed wall tiling, external (frostproof) tiling, electric panel fires and tiled surrounds:* A. Bleakley & Co. *Balcony and staircase balustrades, refuse chamber doors, rails and wheeled stands for refuse containers, sliding shutters and ventilator cowls for refuse chutes, playground shelter roof:* Universal Metal Furring & Lathing Co. *Lettering for name of block:* The Lettering Centre. *Kitchen fittings:* Peerless Built-in-Furniture Ltd. *Refuse pails:* Alfred Syer Ltd. *Cement glaze finish to walls of staircases and entrance columns:* Robbs Cement Enamel Finishes Ltd. *Terrazzo paving to staircases and terrazzo 'cold slab' shelves in larders:* Mosaic & Terrazzo Precast Co. (Staines). *Ironmongery:* Nettlefold & Moser Ltd. *Electric tubular heaters in linen cupboards:* Wardle Engineering Co. *Time switches for public lighting on staircases:* Venner Time Switches Ltd. *Garden work:* Gilliam & Co. *Plumbing:* J. H. Shouksmith & Sons. *Demolition and excavation:* W. W. Drinkwater (Willesden) Ltd. *Glazing:* Rayner Davies & Co. *Plastering:* J. H. Jenner & Co. *Tarmacadam paving to playground:* Constable Hart & Co. *Joinery:* James Prepared Woodwork Ltd. *Painting:* A. J. Lucas & Son. *Paint and distemper:* Imperial Chemical Industries Ltd.

Flats at Dagenham. *General contractors:* The Borough of Dagenham, Engineer & Surveyor's Department (Direct Labour Organization); S. R. Bryett; Thomas Bates & Son; C. S. Wiggins & Sons. *Sub-contractors: Mild stock bricks, 'Pragos' 2nd stocks:* Cement Marketing Co. *Leicester multi-rustic bricks:* Henry J. Greenham Ltd. *Dark brown facing flints:* Uxbridge Flint Brick Co. *Metal windows:* Crittall Manufacturing Co. *Metal door frames:* Crittall Manufacturing Co.; John Thompson (Beacon Windows) Ltd.; Morris Singer Co. *Sanitary fittings:* Wiggins-Sankey Ltd.; John Bolding & Sons. *Standard doors:* Jayanbee Joinery Ltd.; Thomas Bates & Son; Evos Ltd. *Standard kitchen fittings:* Jayanbee Joinery Ltd.; Thomas Bates & Son; Kandya Ltd. *Roof tiling:* J. H. Sankey & Son; Wiggins-Sankey Ltd. *Ironmongery:* Lockerbie & Wilkinson (Birmingham) Ltd.; Nettlefold & Moser; Froy & Sons. *Accotile flooring:* The Neuchatel Asphalte Co. *Electrical installation:* Evans & Shea Ltd.; Eastern Electricity Board. *Fencing:* A. J. Binns Ltd. *Gas installation:* North Thames Gas Board. *Specialists reinforced concrete work:* Caxton Floors Ltd.; Helical Bar & Engineering Co. *Lift installation:* J. & E. Hall Ltd. *Felt roofing:* D. Anderson & Son. *Cement glaze:* Modern Surfaces Ltd. *Ironwork:* Universal Metal Furring & Lathing Co.; Light Steelwork Ltd. *Balcony sheeting:* Durasteel Ltd. *'Lambda' concrete frames:* R. E. Eagan Ltd. *Lettering and name panels:* The Lettering Centre. *Dry hydrant mains:* Mather & Platt Ltd. *Quarry floor tiling:* Broad & Co. *Roof tiling:* W. Heath. *Terrazzo work:* Art Pavements & Decorations Ltd.

Flats in the Portobello Road, London. *General contractors:* Y. J. Lovell & Sons. *Sub-contractors: Asphalt:* Permanite Ltd. *Reinforced concrete:* Y. J. Lovell & Sons. *Artificial stone:* Joseph Mears Ltd.; Marley Tile (London) Ltd. *Roofing felt:* Permanite Ltd. *Partitions:* Broad Acheson & Co. *Glass:* Aygee Ltd. *Patent flooring:* Whitney-Fairchild Ltd. *Central heating:* Young, Austen & Young Ltd. *Gas fires:* 'Radiation' panel fires supplied by the North

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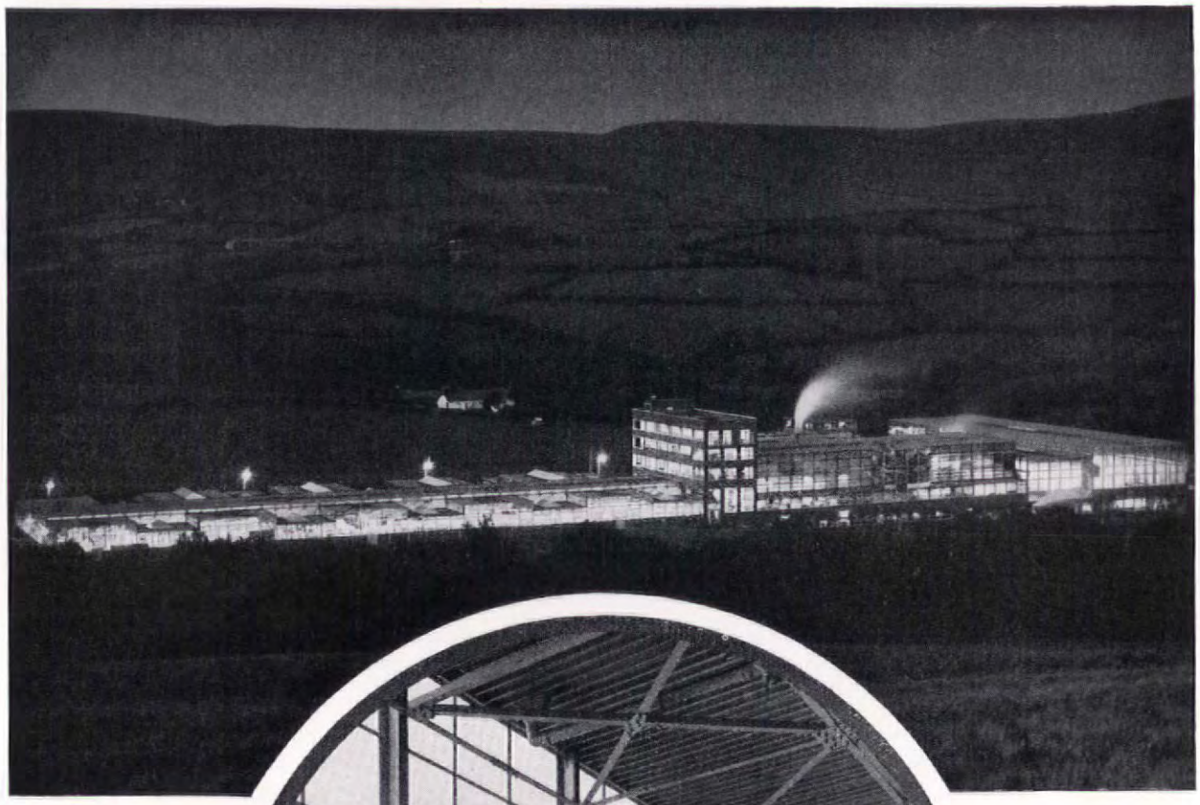

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Thames Gas Board. *Gas installation:* North Thames Gas Board. *Electrical installation and light fixtures:* Berkeley Electrical Engineering Co. *Electric fires:* Bratt Colbran Ltd.; supplied by Berkeley Electrical Engineering Co. *Plumbing:* Richard J. Audrey Ltd. *Sanitary fittings:* John Bolding & Sons. *Door furniture:* Nettlefold & Moser Ltd. *Metal casements and door frames:* Crittall Manufacturing Co. *Escape staircases, balustrading and site rails:* St. Peter's Metal Works. *Plaster:* W. A. Telling Ltd. *Internal and external decorations:* South London Decorators Ltd. *Balcony railings:* S. W. Farmer Ltd. *Standard doors:* Montague L. Meyer Ltd. *Carved stonework:* James Walker Ltd. *Tiling:* Carter & Kernahan Ltd. *Grass areas and tree planting:* Garden Landscapes (London) Ltd. *Kitchen fittings:* W. Crosby Ltd. *Lifts:* Express Lift. *Lettering and signwriting:* Buckleys (London) Ltd.

Demonstration Houses in Wiltshire. *General contractor:* Percy Chick. *Sub-contractors: Joinery:* Samuel Elliott & Sons. *Interlocking roof tiles, woodwool slabs and ground floor paving:* The Marley Tile Co. *General supplies:* Stephensons. *Electrical contractors:* Warne Bros. *Pressed metal rainwater goods:* C. H. Coates Ltd. *Plumbing:* A. B. Haddow Ltd. *Plastering:* G. Brooks Ltd. *Ironmongery:* Yannedis Ltd. *Glazing:* H. Hunter & Co.

School Extension at Tunbridge Wells, Kent. *General contractors:* F. J. Moreton & Son. *Sub-contractors: Asphalt:* Oddi Asphalte Ltd. *Hollow tile floors and roofs and reinforced concrete:* The Kleine Co. *Buff sandlime facing bricks:* Ryarsh Brick & Sand Co. *Special facings:* High Broom Brickworks. *Selected hard pressed bricks below D.P.C. level:* Sussex & Dorking Brickworks. *Structural steel:* Boulton & Paul Ltd. *Steel catwalk:* Haywards Ltd. *Copper:* Frederick Braby & Co. *Bituminous felt and thermotile:* D. Anderson & Son. *Glass lenses:* J. A. King & Co. *Dome lights:* Pilkington Bros. Ltd. *Cast lead sundial:* Stoner & Saunders Ltd. *Kwao strip flooring:* Hollis Bros. Ltd. *Patent flooring, stair-treads:* The Granwood Flooring Co. *Central heating:* Dennis Paine & Co. *Electric wiring:* Gilbert & Stamper Ltd. *Electric light fixtures:* The Merchant Adventurers Ltd.; Holophane Ltd. *Plumbing:* J. V. Geer & Sons; *Sanitary fittings:* Associated Clay Industries Ltd. *Door furniture:* Yannedis & Co. *Casements, window furniture:* Mellowes & Co.; Arens Controls Ltd. *Rolling shutters:* Denison, Kett & Co. *Fireproof doors:* Veneer-craft Ltd. *Plaster:* W. A. Telling Ltd. *Suspended ceiling:* Gyproc Products Ltd. *Metalwork:* Bayliss, Jones & Bayliss Ltd. *Tiling:* Carter & Co. (London). *Paints:* Wm. Harland & Son; Cement Marketing Co. (Snowcem). *Shrubs and trees:* Kent County Council Estates Department. *School fittings:* Kent County Council Supplies Department. *Water supply:* Tunbridge Wells Water Co. *Perforated acoustic tiles:* May Acoustics Ltd.

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