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PIAZZA
SOUTH BANK


ROOF STRUCTURE
Royal Festival Hall
STEEL
STRENGTH AND SECURITY
Architects to the London County Council:
Robert H. Matthew, A.R.I.B.A., and staff.
Consulting Engineers:
Scott and Wilson, M.M.Inst.C.E.
General Contractors:
Holland & Hannen and Cubitts Ltd.
Steelwork by
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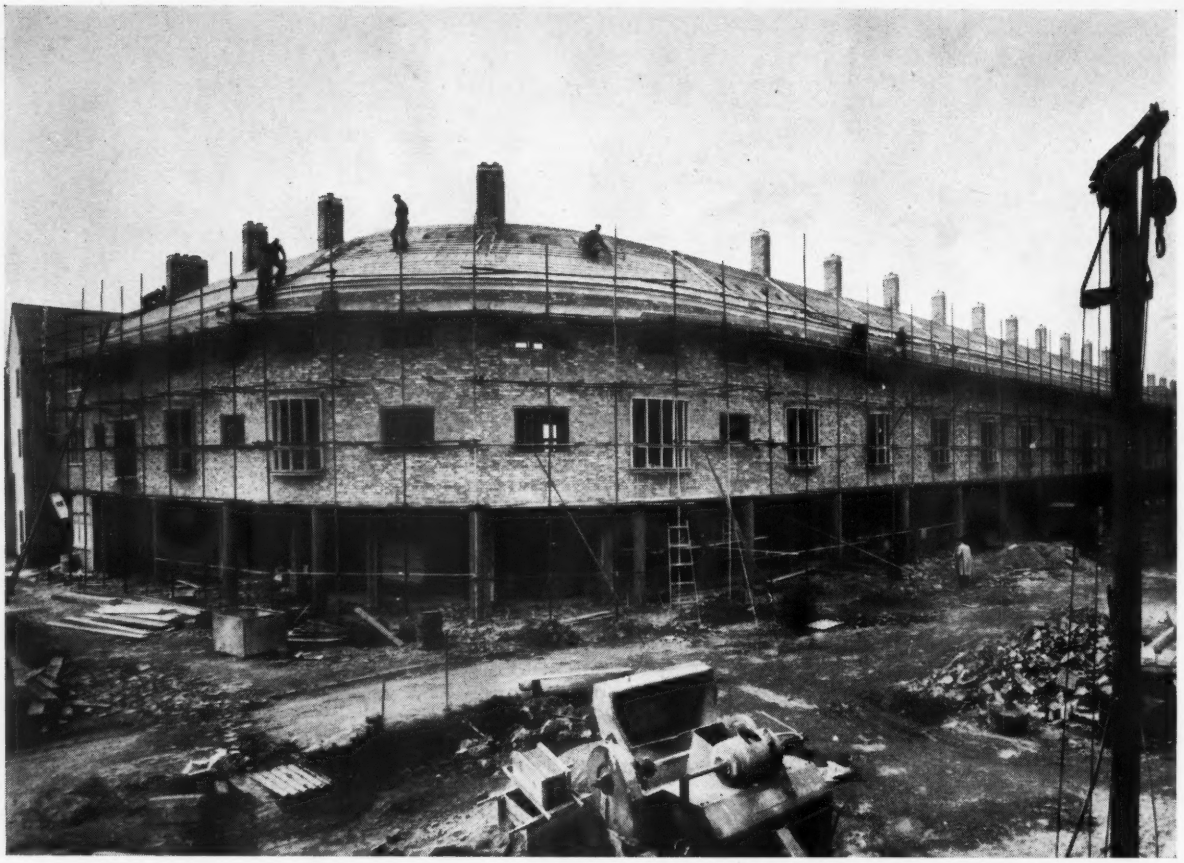
LONDON, W.1.



Lansbury Neighbourhood, London County Council Stepney/Poplar Reconstruction Area — Shopping Centre and Market Place.

The Festival of Britain

EXHIBITION OF ARCHITECTURE

This London County Council development is the first stage of a shopping centre and market place to serve Lansbury and other adjoining neighbourhoods in the Stepney/Poplar reconstruction area. It consists of 38 arcaded shops, 39 maisonettes, 4 flats and 2 public houses, with ancillary garages, etc., grouped on two sides of a market place for 136 stalls and a covered market. The market place is being constructed on behalf of the Poplar Metropolitan Borough Council.

The illustration shows SISALKRAFT 60/60 (heavy) grade Reinforced Waterproof Building Paper used for sarking under random slating, as specified.

Photograph by courtesy of Robert H. Matthew, Esq., A.R.I.B.A., Architect to the Council, and Frederick Gibberd, Esq., F.R.I.B.A., M.T.P.I., Appointed Architect. Contractors: Leslie & Co. Ltd. Roofing Contractors: E. F. Williams, Ltd.

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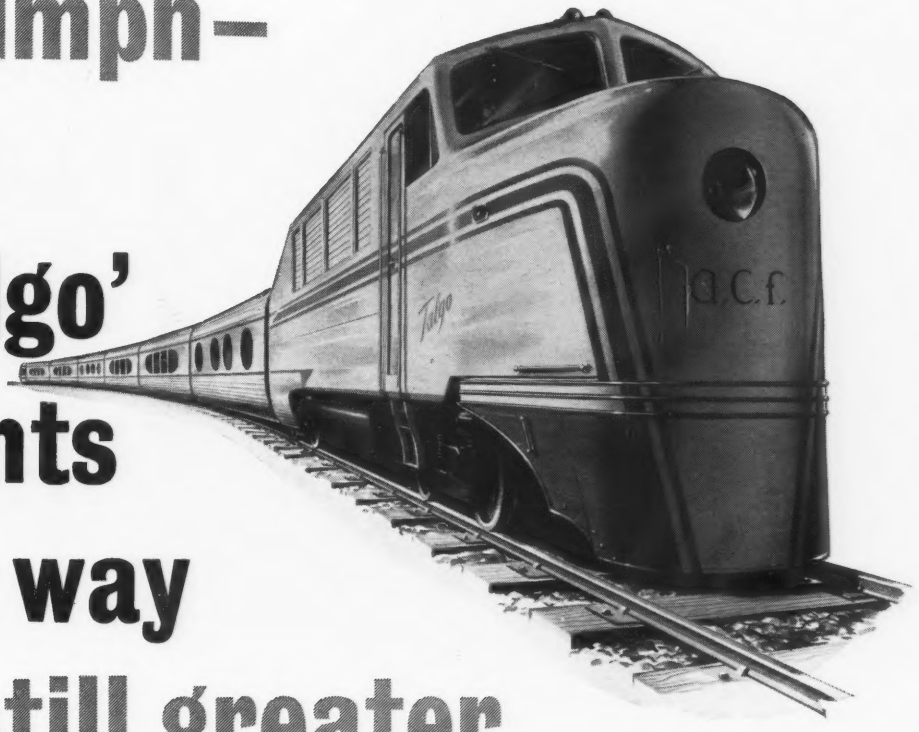
an engineering triumph— the 'Talgo' points the way to still greater developments...



The "Talgo"
The new aluminium train designed for service in Spain.

Nowadays we have hardly time to marvel at our own achievements before some new, some greater project is under way. Progress is inevitable. Just as inevitable as the fact that aluminium is part of this process of progress. It is happening all the time, and all the time aluminium is enabling it to happen. Engineers, technicians and designers are finding that the metal that helps them most is aluminium.

Progress has brought ever-increasing new uses of aluminium. Keeping pace with these developments requires adequate supplies of this light metal, produced in the most economical manner through an integration of the many stages of production from the mining of bauxite, shipping of raw materials and generating of hydro-electric power, to the ultimate extraction and fabrication of the metal—all assisted by research, technical and commercial services. This co-ordination is achieved through Aluminium Limited, the Canadian Parent Company, whose subsidiaries are located chiefly in the British Commonwealth.

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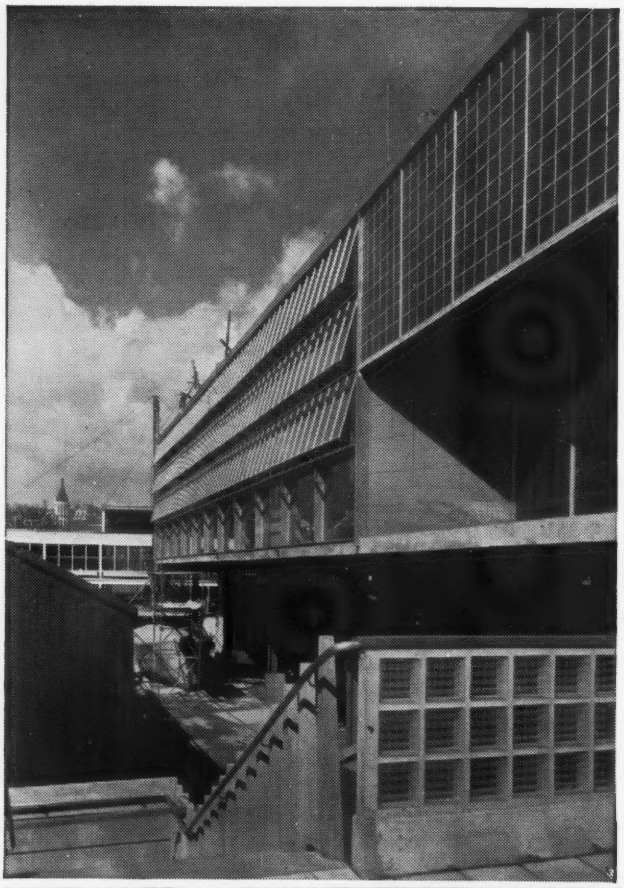

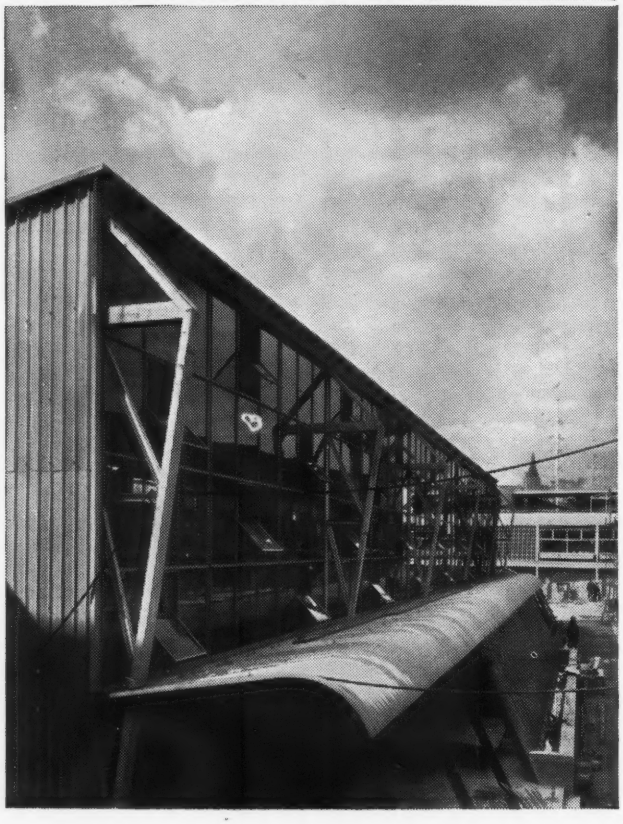

FESTIVAL OF FENESTRATION

We all like light and sunshine. The Festival architects have worked on this principle. Windows and glass are all round the visitor to the South Bank wherever he walks. Many of these windows were produced by Williams and Williams, notably in the Transport Pavilion. This building, designed by Rodney Thomas of Arcon, is housing the nostalgic Schneider Trophy Seaplane, early and modern locomotives and other exhibits relating to travel. It is an interesting example of how Williams and Williams have been able to co-operate with architects to produce glazing of such outstanding design.

The great 45ft. × 100ft. opening windows of the Transport Pavilion are one of the exhibition's most interesting architectural features. The structural steelwork forms four bays, the two in the centre opening to allow ventilation to the building. Williams and Williams steel sash windows have been used on both the fixed and opening bays. Note how horizontal plate glass at the bottom of each bay contrasts with the upward sweep of the glazing above.

Biggest panes of glass in the Pavilion In the side of the main structure, below the tall side windows, there are Williams and Williams steel sash windows containing 6′ 6″ × 20ft. single panes of ¼″ polished glass.

Glazing as a means of contrast The architect has, in the north wing of the Transport Pavilion, used various forms of windows to form contrasts. It is a method of using windows that is novel and interesting (top left).

Three ranges of Aluminex Patent Glazing over 100ft. long and 15ft. deep surmount a long pressed Aluminium window from the Roften Factory of Williams and Williams, which is 6ft. deep. The slim tracery of Aluminex is admirably offset against this horizontal range of glass. Butting on to the Aluminex, is a range of steel sash windows. It is glazed in foot squares of reeded glass and is in crisp contrast to the Aluminex beside it.

Teleflex gearing on the Pavilion Teleflex gearing is installed on the range of Aluminex mentioned above. One hand control completely opens the three ranges of Aluminex in 15 seconds. The actual weight of Aluminex on the single hand operated control is three tons.

At the rear of the Pavilion there is a stretch of universal steel casement which illustrates the use of Teleflex with ordinary steel windows (bottom left). Opening lights, staggered into alternate lines of seven and eight are hand controlled, as on the Aluminex stretch, from one single point. Teleflex gear can of course operate on single lines, or even one light instead of in series, as in this building.

The curved windows on the approach ramp totalling an overall length of 132ft. with the height varying from 20ft. to 28ft. were also constructed by Williams and Williams.

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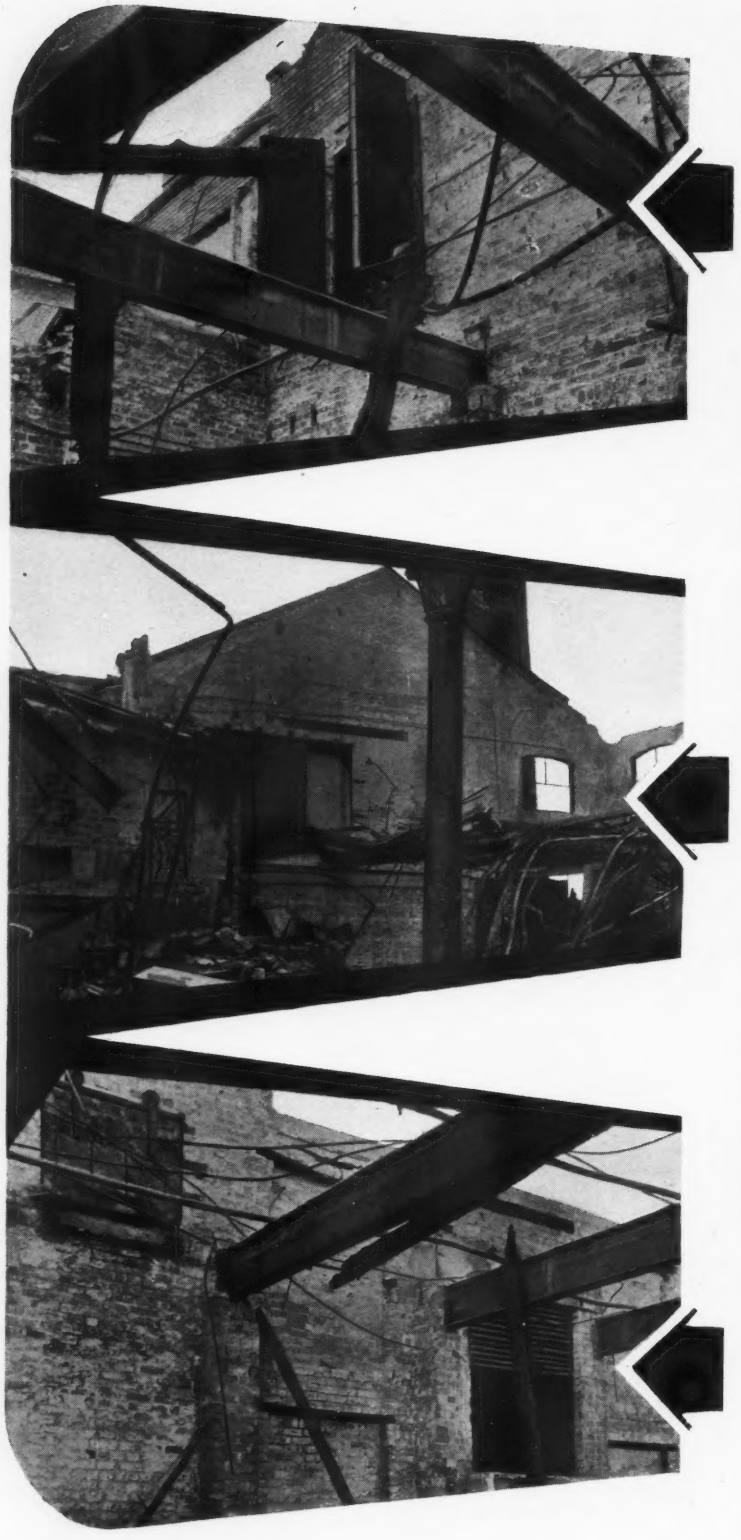

M&P Fire Doors halt blaze

On the night of March 24th, 1950, Mather & Platt Fire Doors checked the spread of fire at premises occupied jointly by a firm of raincoat manufacturers and a firm of food manufacturers. The installation of Fire Doors and one steel rolling shutter built to F.O.C. requirements had been completed only three months previously.

80,000 Coats destroyed in adjoining premises

Press reports say that "Within a few minutes flames had swept the length of the 100 yards by 75 yards building, destroying 80,000 raincoats being made up for Government orders." The party wall which separated the premises of the food manufacturers from those of the raincoat manufacturers was pierced by a series of openings, protected by Mather & Platt Fire Doors and a Steel Rolling Shutter. The Doors and Shutter fulfilled their purpose perfectly. The fire was completely checked at the party wall.

Mather & Platt FOC Shutter guarding a vital stairway

A special problem was presented by a flight of steps leading down from the first floor of the gutted building to the ground floor of the building which remains intact. It was solved by the installation on one side of the wall of a steel rolling shutter built to F.O.C. requirements, and on the other a Fire Resisting Door. The Steel Rolling Shutter held the fire in check at this point.

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MANCHESTER, 10

CELOTEX LOOKS BACK AT THE GREAT EXHIBITION 1851

The Buildings Court

"One of the most interesting and important departments in the Great Exhibition was that . . . known as the Buildings Court which contained a great variety of ornamental works, chiefly of an architectural character, and also samples of cements, artificial stone and other compounded materials intended to be used as substitutes for stone and marble" *('Contents of the Crystal Palace' London 1852).* In these days, the phrase 'and other materials' would no doubt include Celotex, but Celotex is not a substitute for stone or marble, nor indeed, for anything else. It is a modern building material in its own right, with its own outstanding qualities, chief among which are structural strength and a high degree of thermal insulation.

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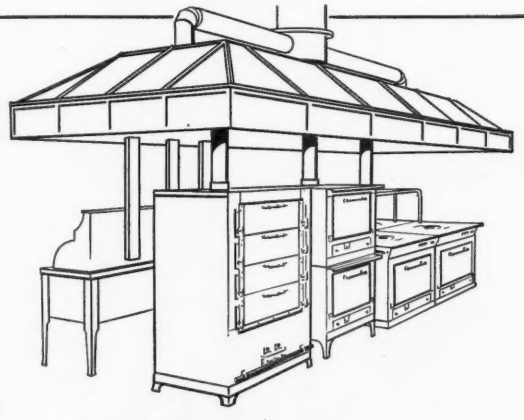
An iron-bellied pot

IN THE YEAR 1709 Abraham Darby, having taken out a patent for "a New Invention for Casting Iron-Bellied Pots in Sand without Loam or Clay," started his foundry at Coalbrookdale in Shropshire, and it was from Coalbrookdale that the foundry industry spread to the Falkirk area in Scotland.

Today, in Scotland, the Allied Ironfounders group includes such famous names as the Falkirk Iron Company, founded in 1810 ; the Callendar Abbots Foundry ; M. Cockburn ; Dobbie Forbes ; the Forth & Clyde & Sunnyside Iron Companies ; and McDowall Steven. The *auld alliance* between Falkirk and Coalbrookdale still lives, for the Coalbrookdale foundry is now one of the twenty-two leading firms which constitute Allied Ironfounders Ltd.

The fine products of these Scottish foundries are known throughout the world. They include Falkirk Heavy Duty Equipment, as installed in the New House of Commons, Cockburn Luxury Baths, and the Rayburn and the Truburn Cookers. Among the Heating Stoves are such household names as Otto, Diana, Apollo, Jupiter. Open Fires include the New Marathon, Haddon, New Zenith and Vector. Then, again, there is the vast range of rainwater and soil pipes. Indeed, there is hardly a home in the whole of Great Britain which is not indebted for some of its comfort, and its happiness, to the Scottish foundries which are members of Allied Ironfounders Limited.



Falkirk Heavy Duty Equipment

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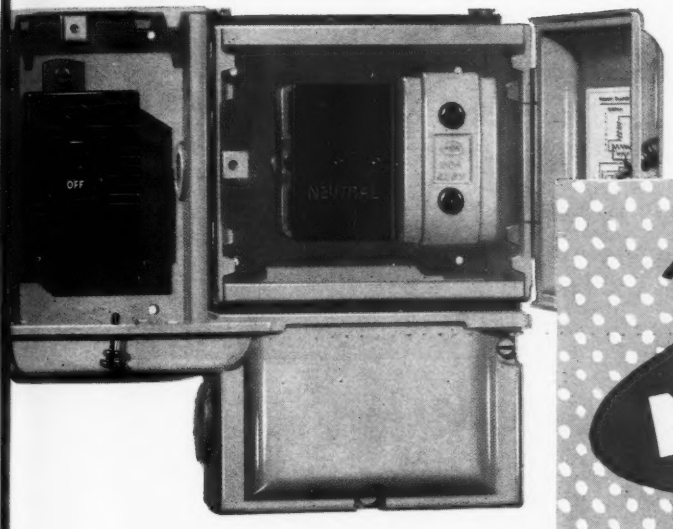
ALLIED IRONFOUNDERS LTD. Mortimer House, Mortimer Street, London, W.1

Good design in the electrical installation



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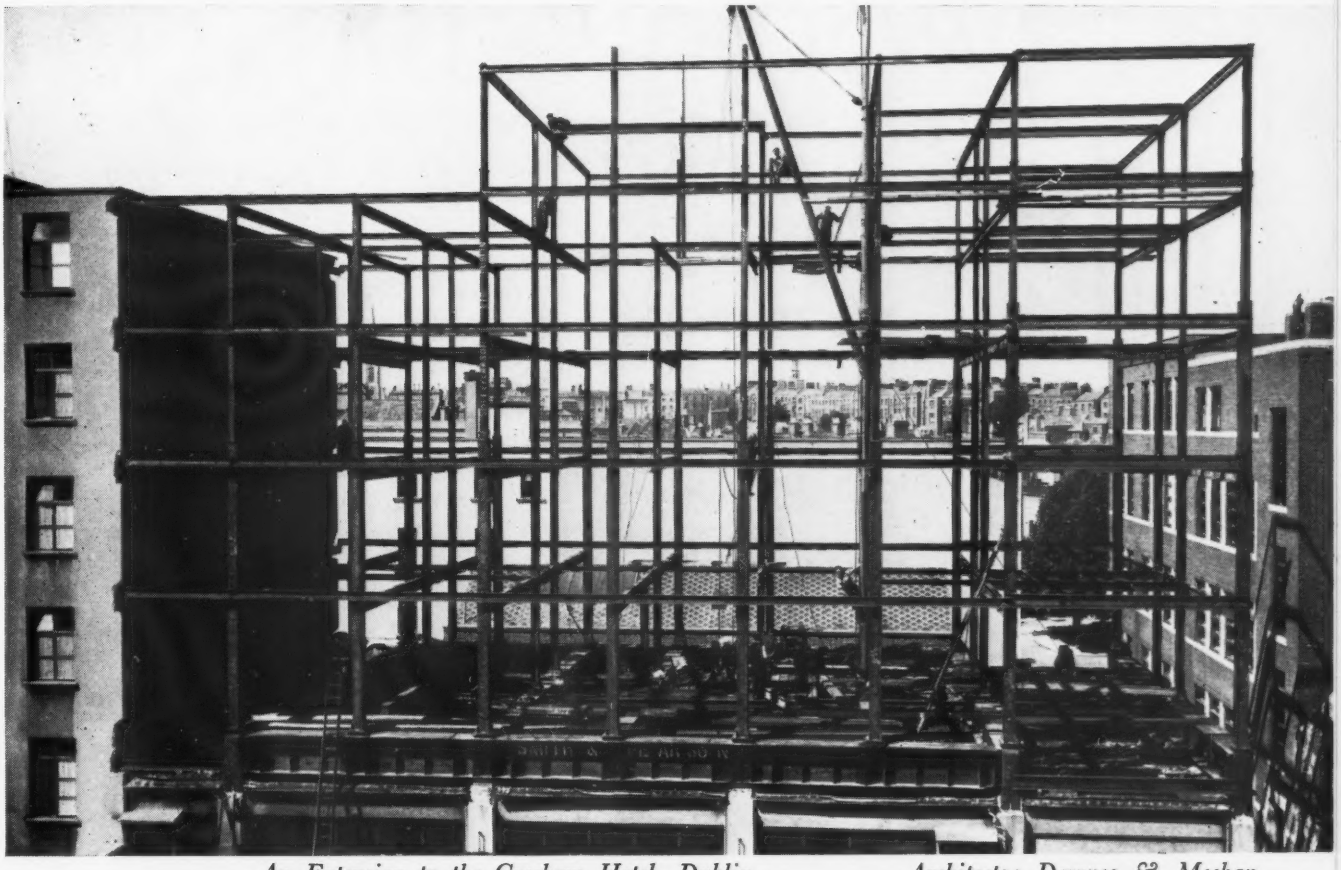
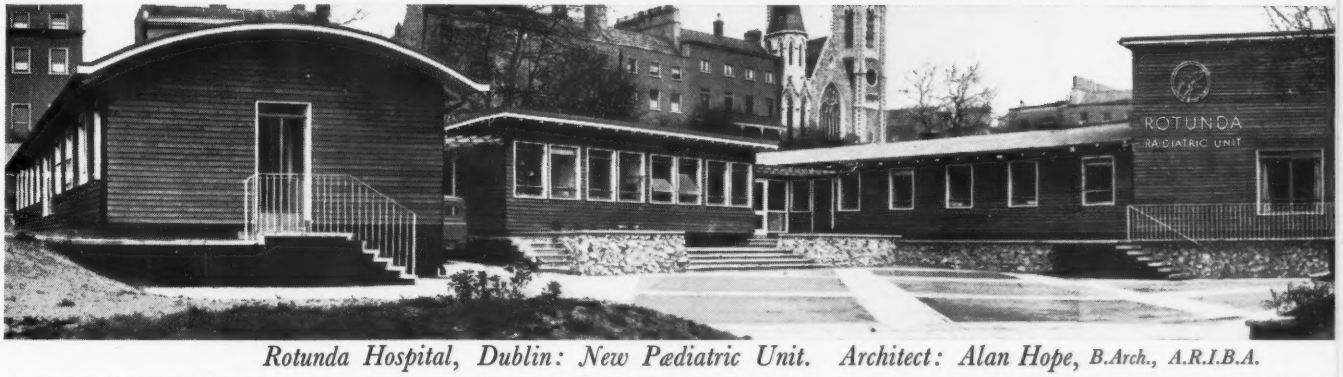


An Extension to the Gresham Hotel, Dublin. *Architects: Downes & Meehan*



Rotunda Hospital, Dublin: New Pædiatric Unit. *Architect: Alan Hope, B.Arch., A.R.I.B.A.*

Newcastle Sanatorium, Co. Wicklow. *Architect: Alfred Phillips, M.R.I.A.I.*

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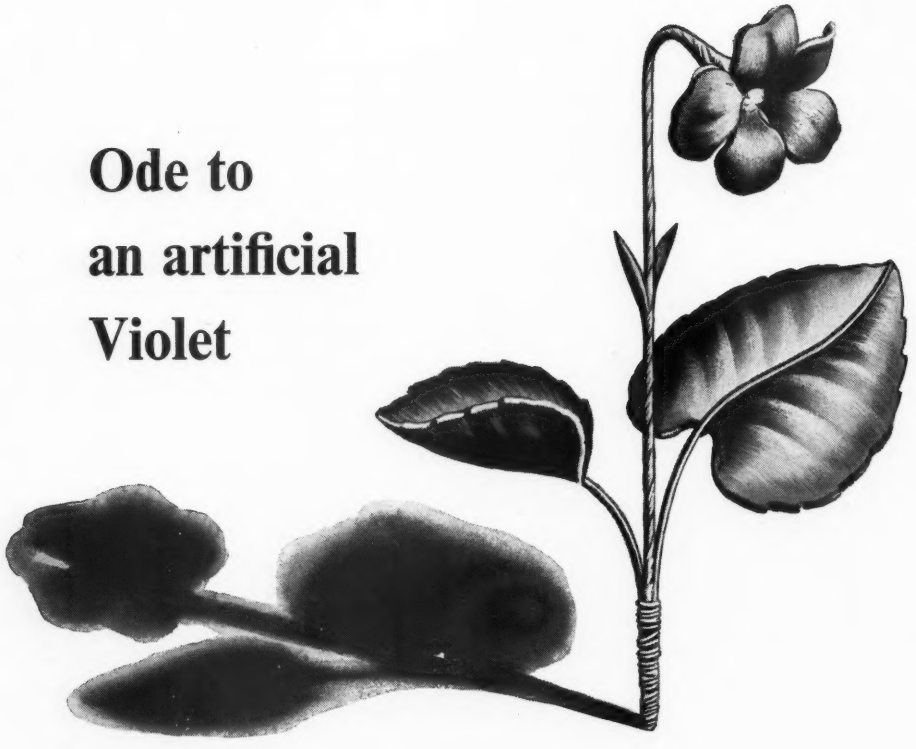
Ode to an artificial Violet



Shelley, Wordsworth and Keats *might* have written odes to artificial flowers—but it hardly seems likely. Ingenious as they are, flowers of paper and silk have little to inspire the poet.

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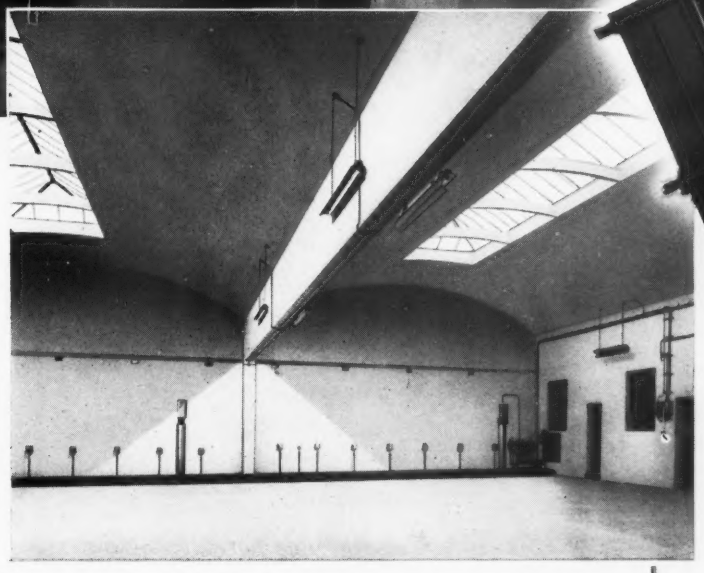
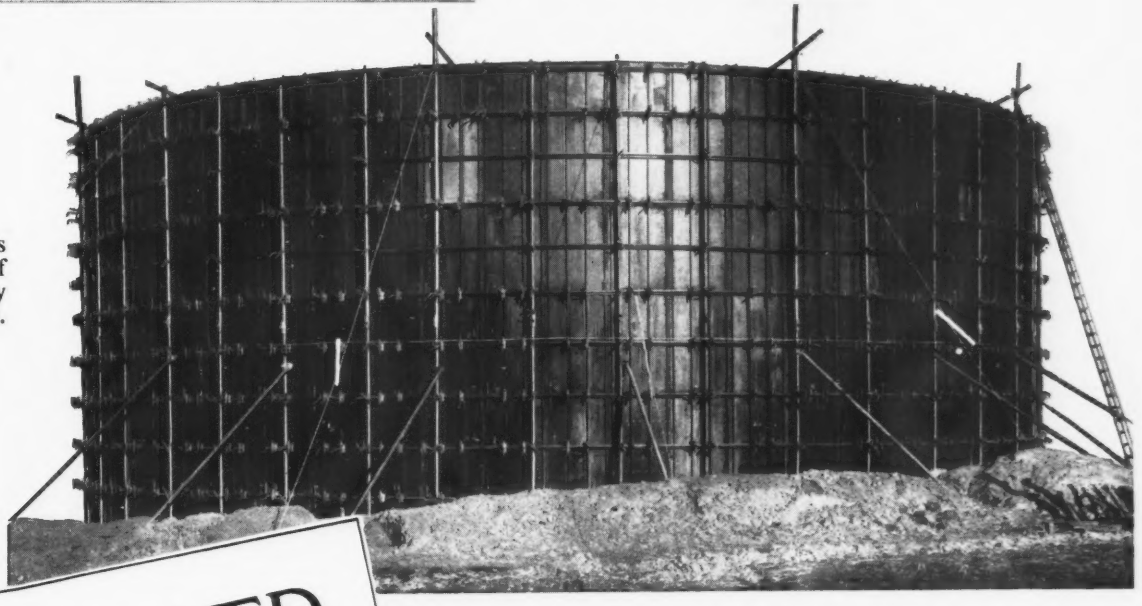


Flexible Formwork

Illustration left shows the result of concrete poured directly on the "Kwikform" Flexible Formwork. Milk Distribution Centre for Midland Counties Dairy Ltd. Architects: Messrs. Harry W. Weedon & Partners. Contractors: Messrs. C. Bryant & Son Ltd., Birmingham 10.



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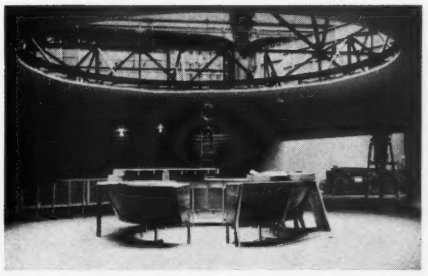

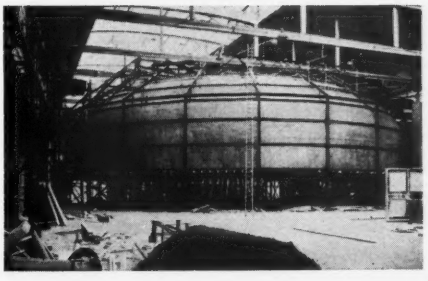

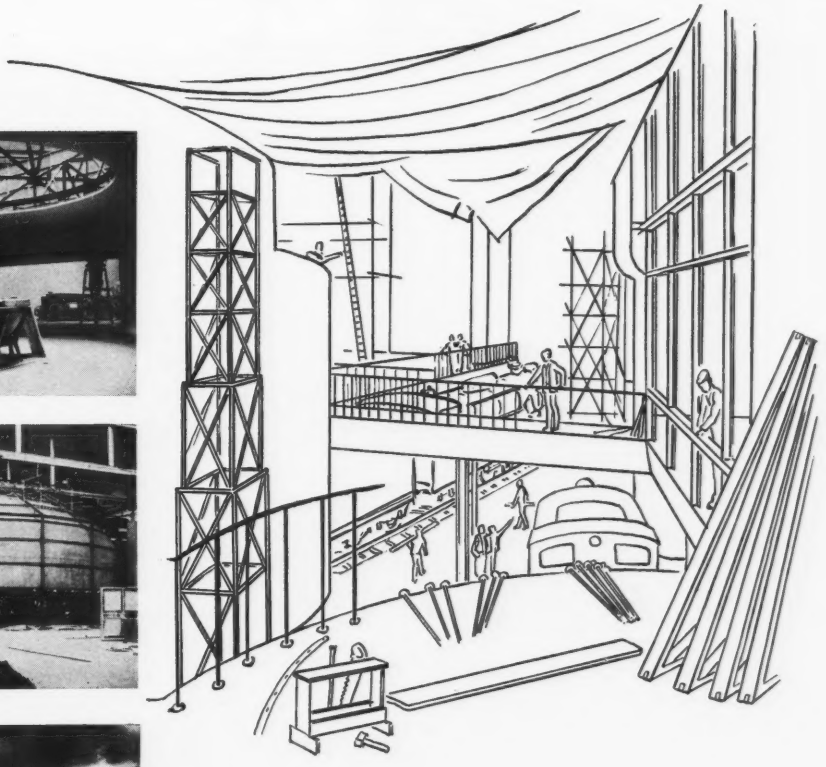

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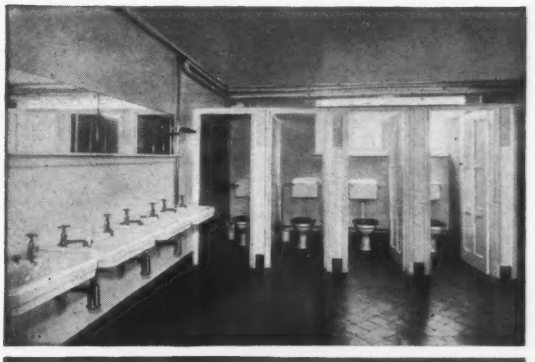

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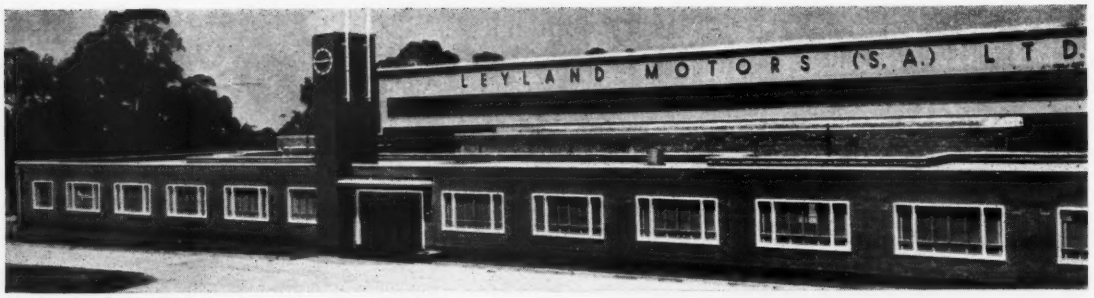

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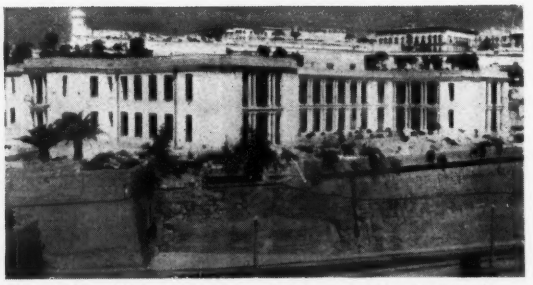
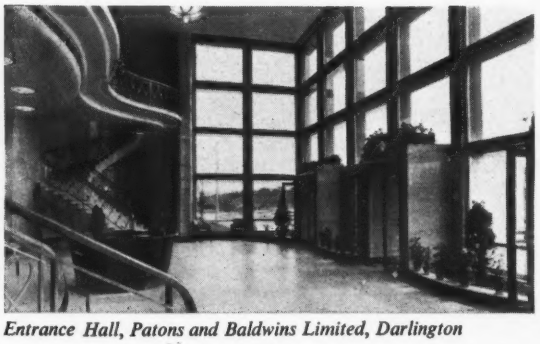


King George V Merchant Seamen's Memorial Hospital, Malta

Flats at Hurlingham, Fulham



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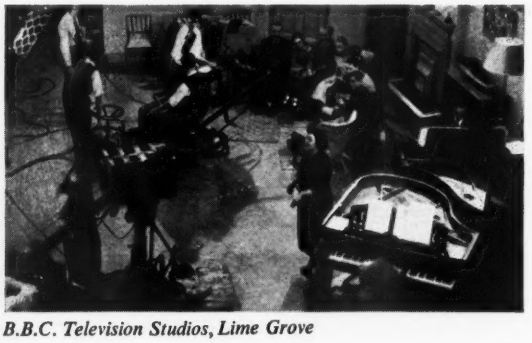

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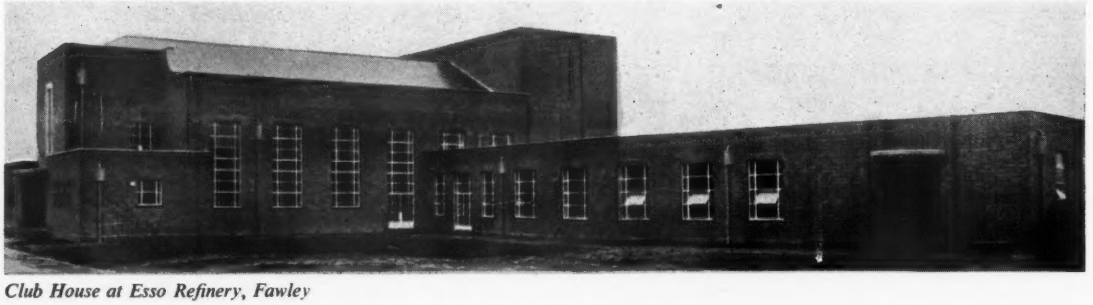

Club House at Esso Refinery, Fawley

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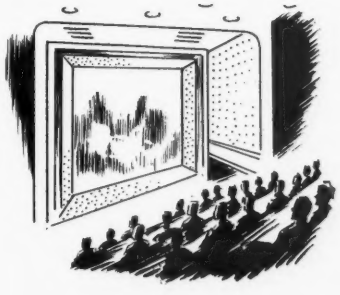

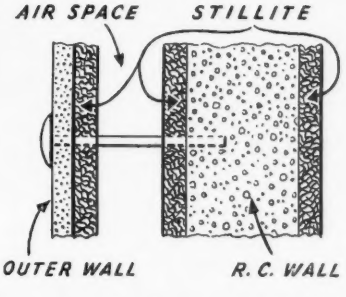

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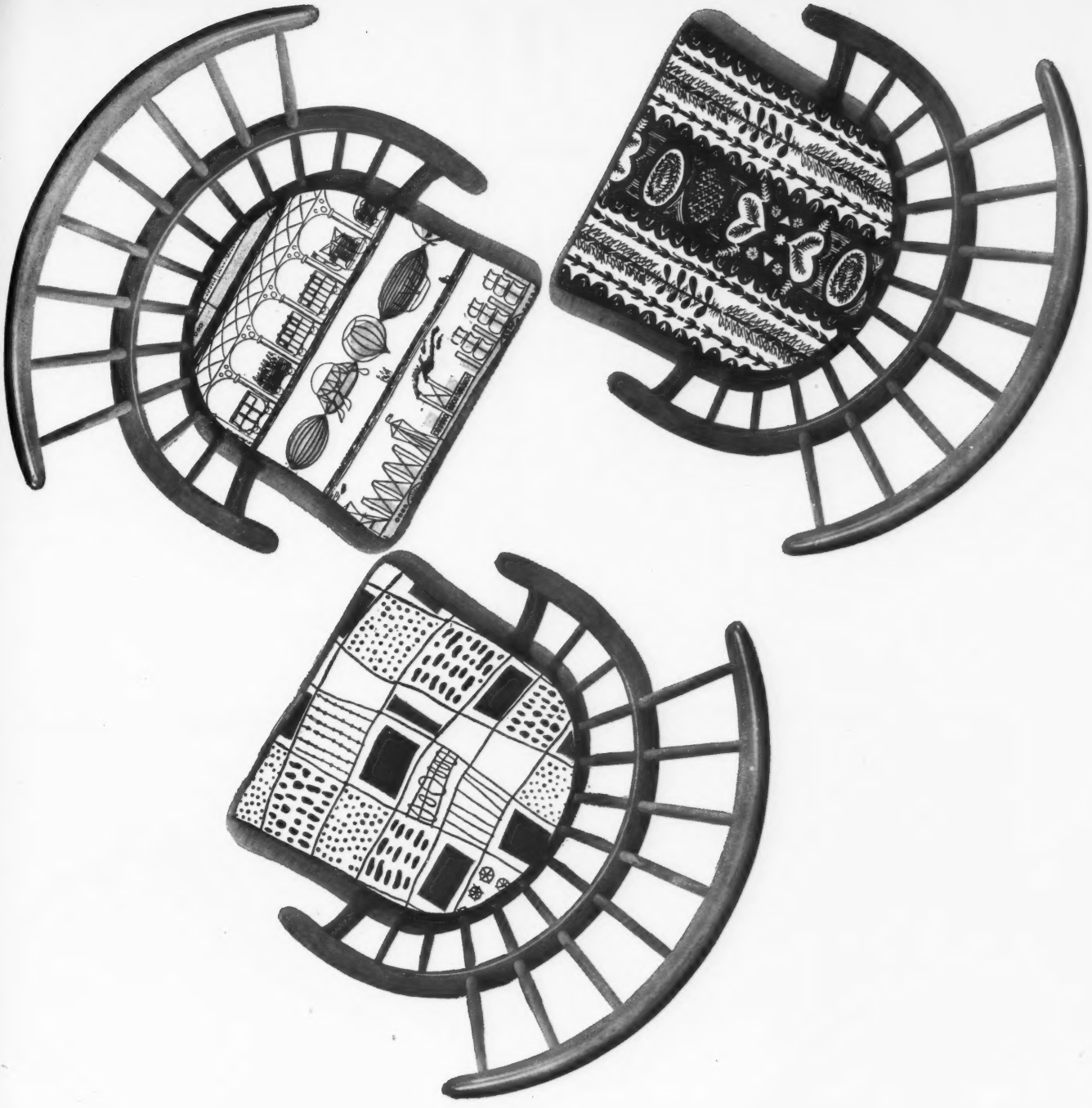

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South Bank Exhibition

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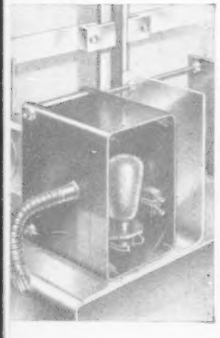

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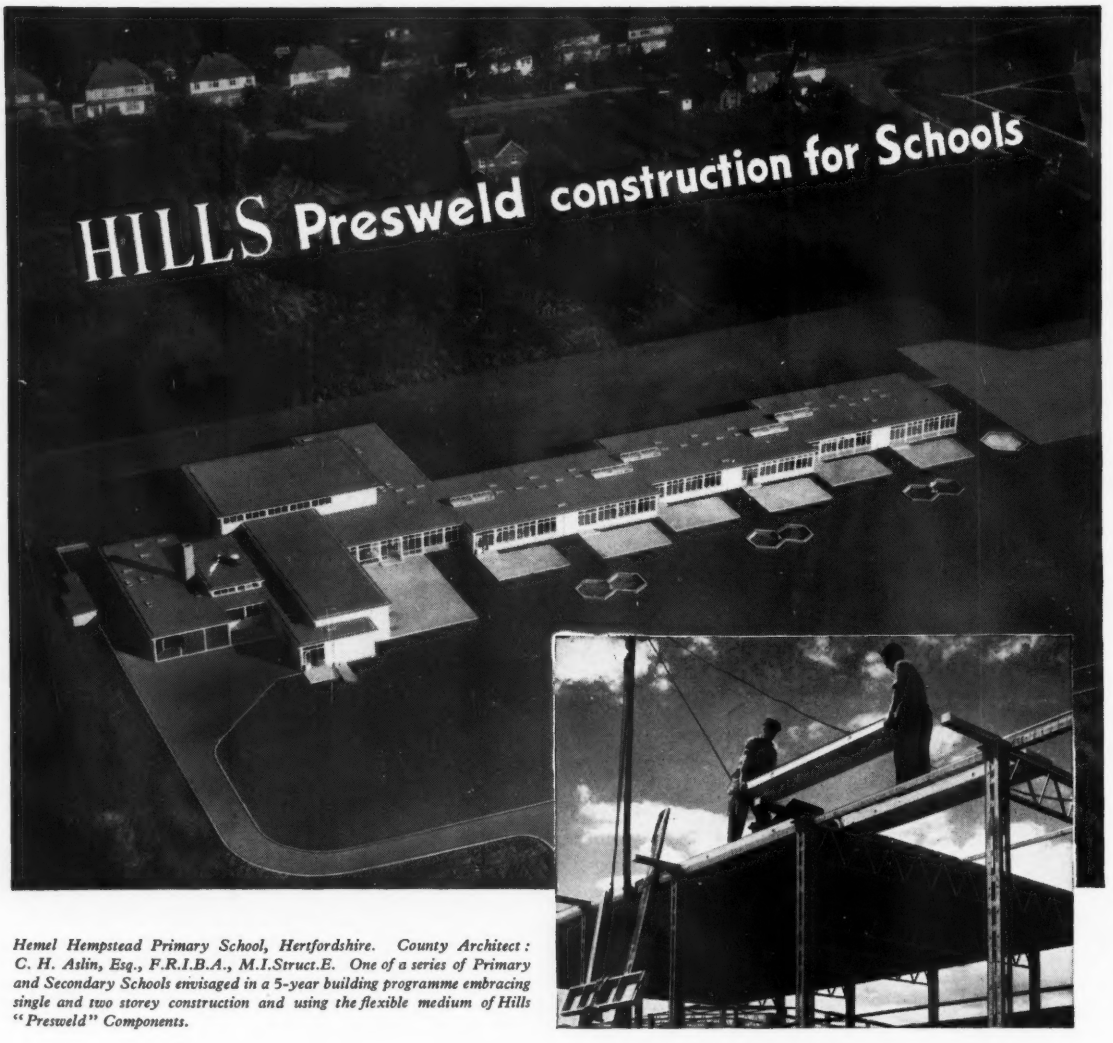

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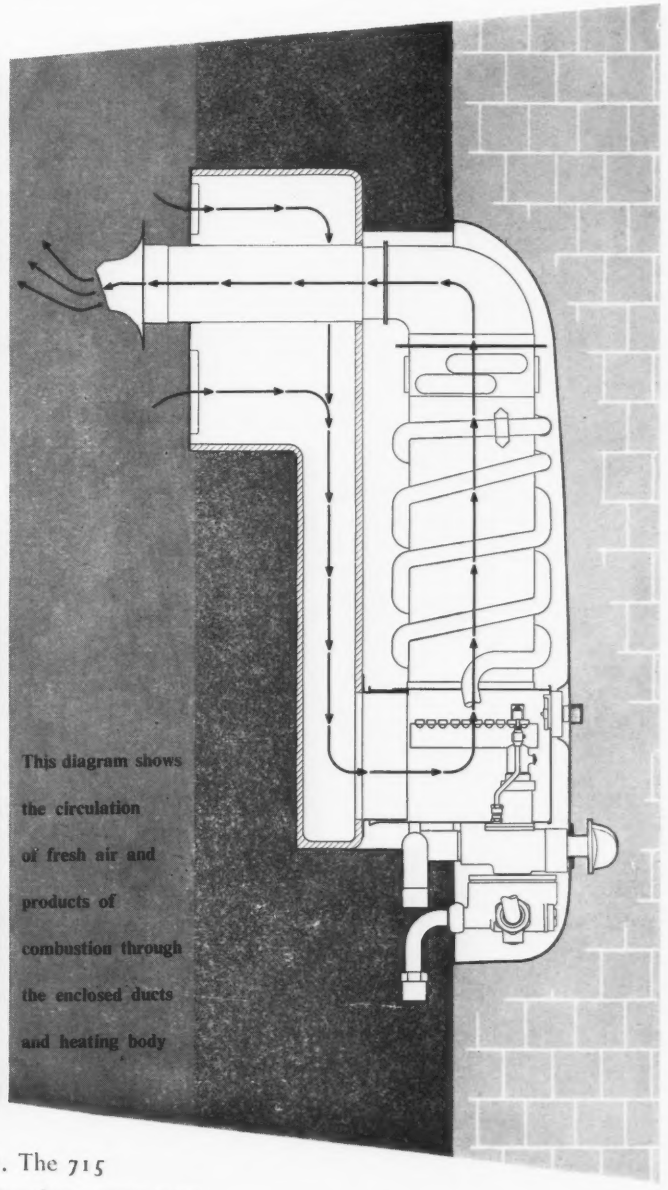

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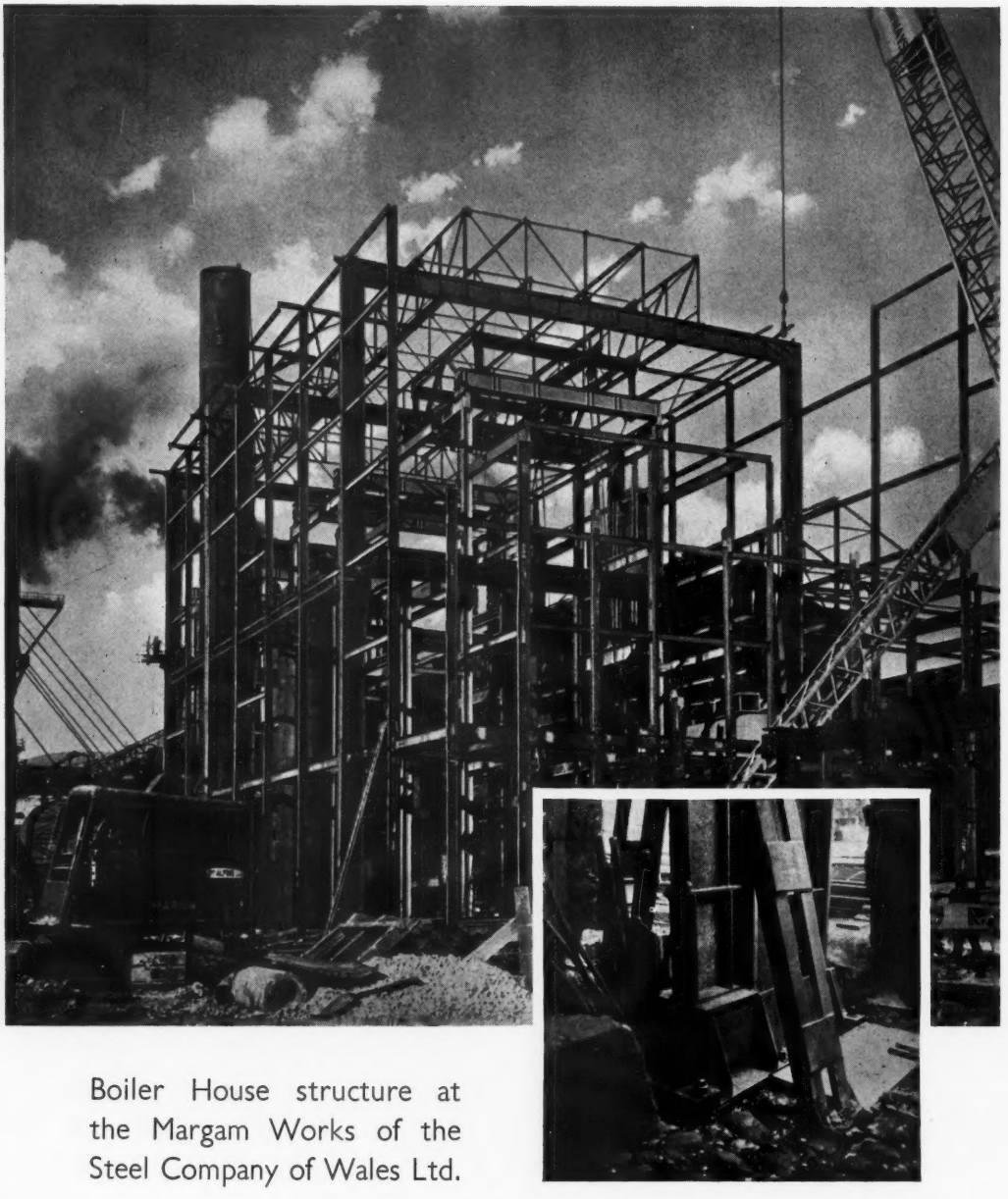

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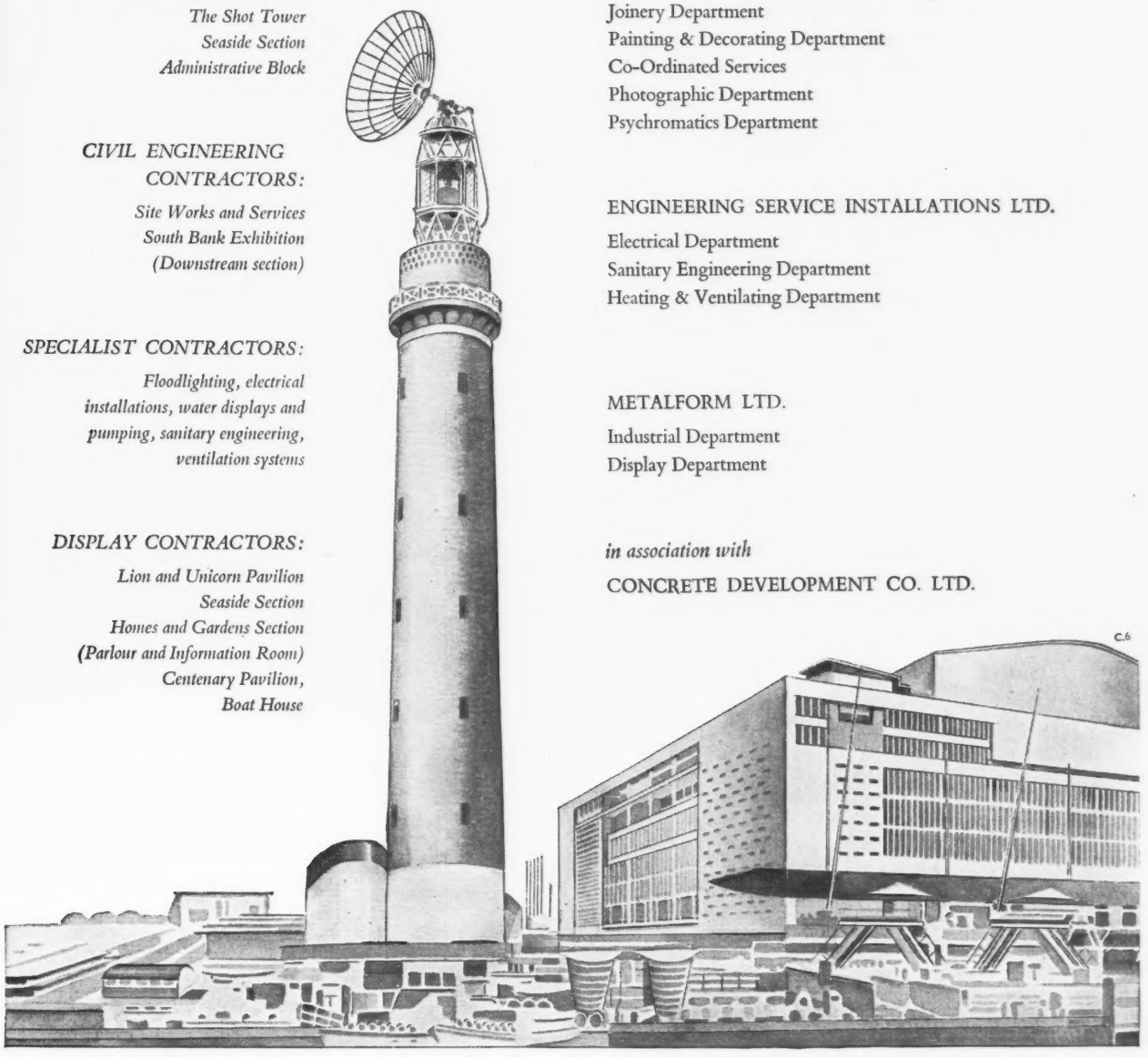

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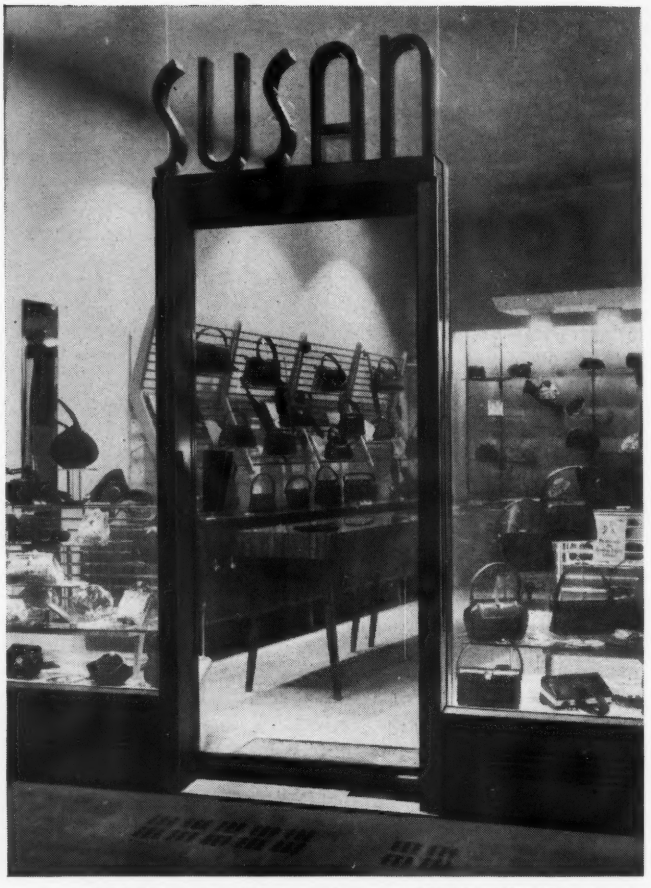

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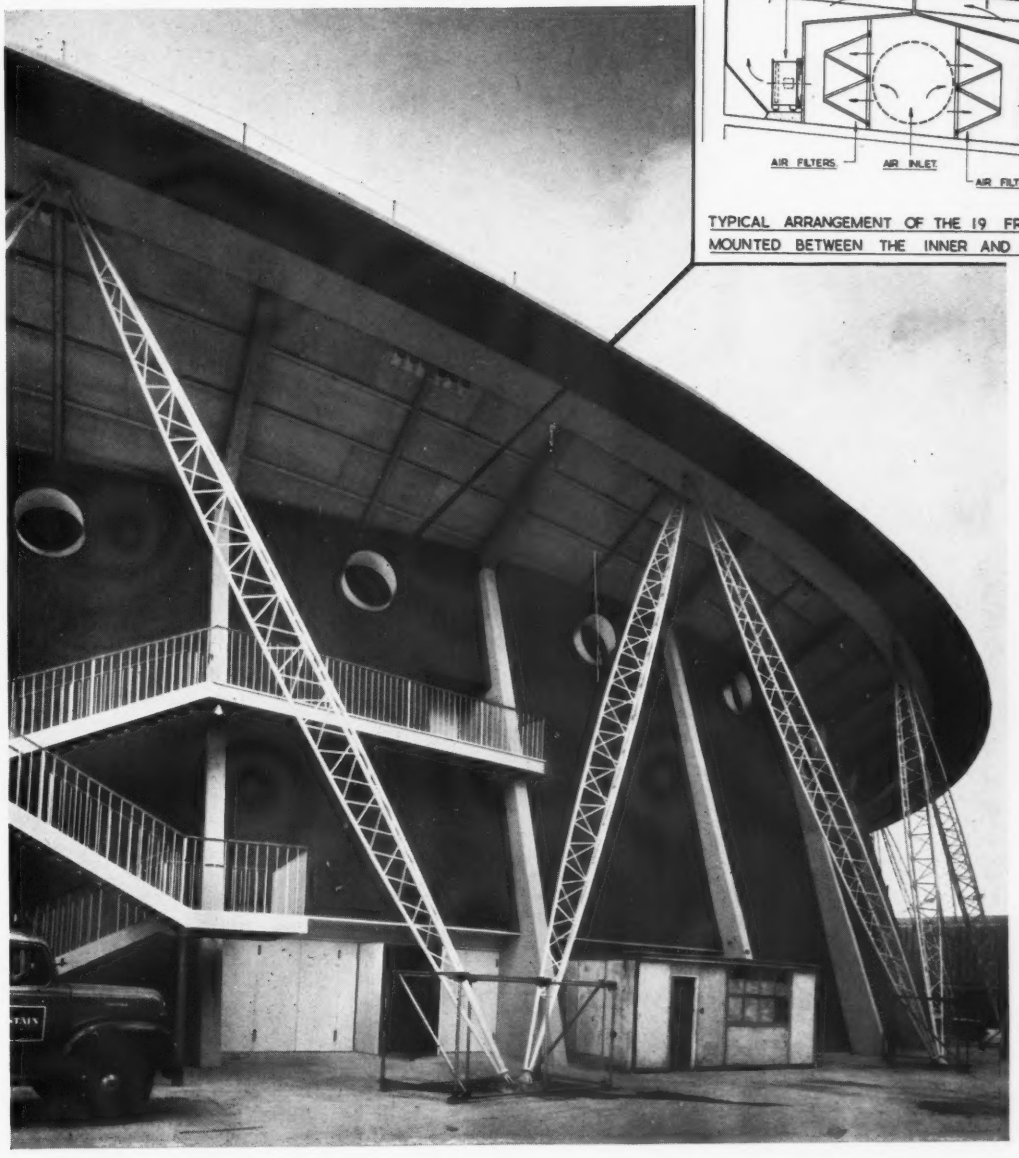

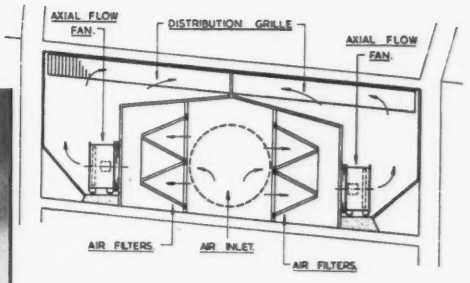

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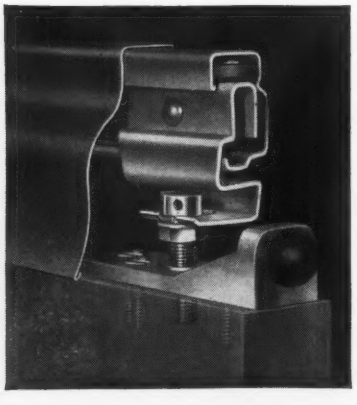

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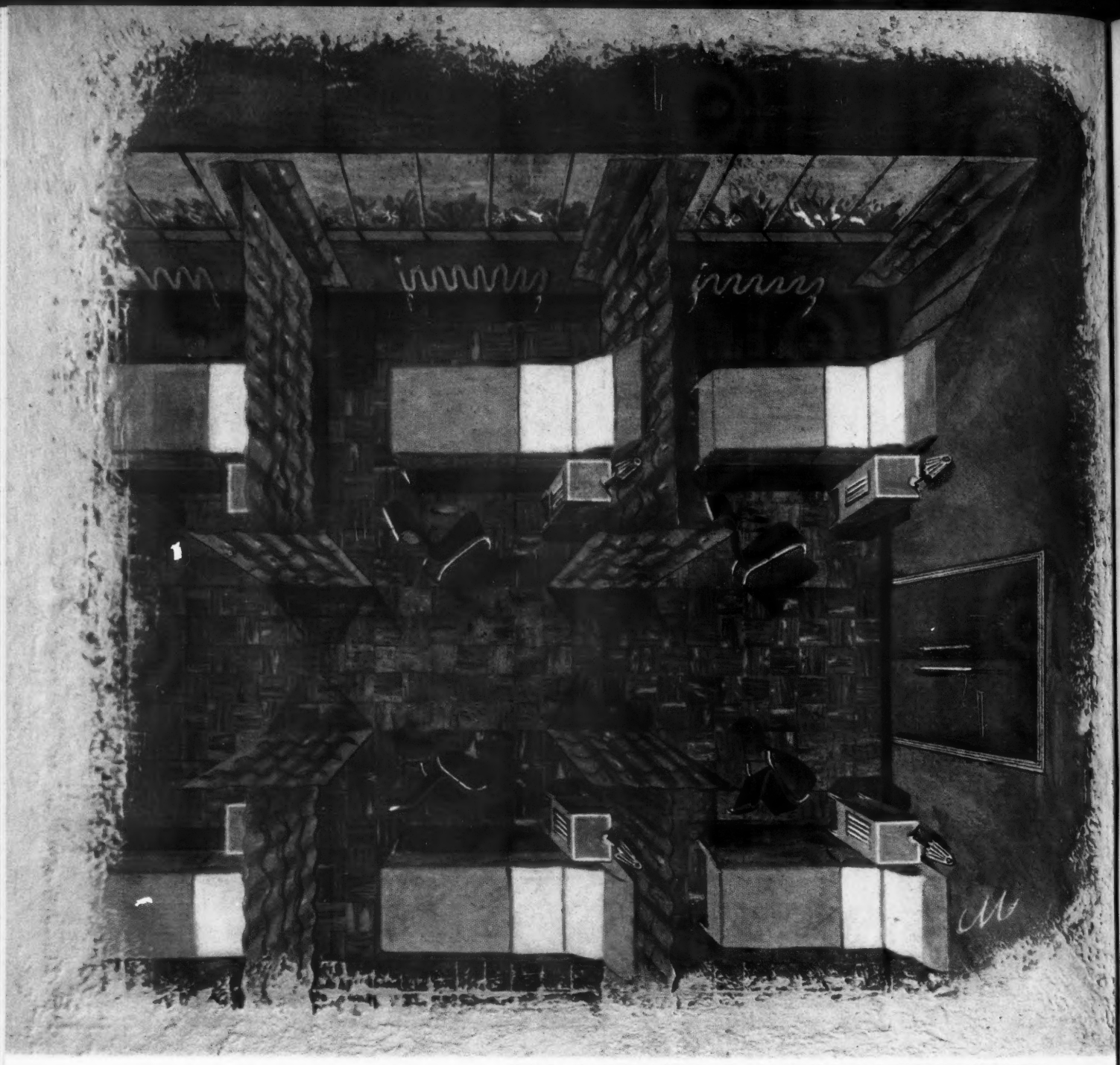

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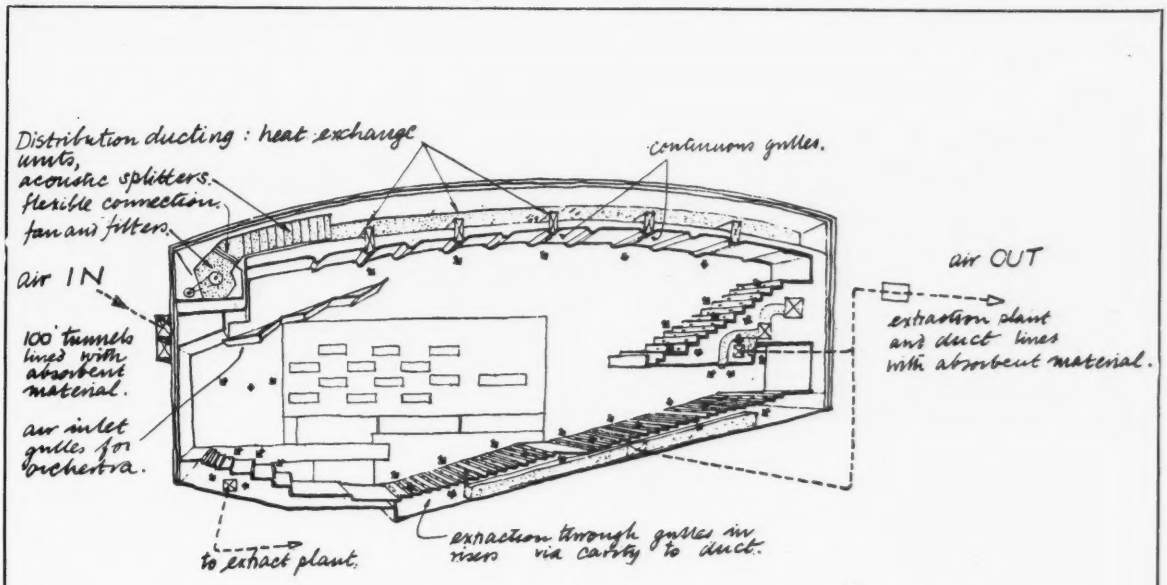

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SPECIAL ISSUE ON THE

SOUTH BANK EXHIBITION

Volume 110 Number 656 August 1951

The Cover The South Bank exhibition may be regarded as the first modern townscape, not only by virtue of the fact that its buildings and furnishings are designed in the contemporary idiom throughout, but equally because its layout represents that realization in urban terms of the principles of the Picturesque in which the future of town planning as a visual art assuredly lies. One of the most successful features of the exhibition seen from this point of view is the way in which existing buildings lying outside the boundaries of the site have been brought into the picture: practical recognition is thus given to a truth which town planning theory is too apt to overlook—that in the modern world the town planner's job is as much the re-creation of the old (through the establishment of new relationships between it and the spectator) as the creation of what is physically new. The cover, with a diorama showing the Houses of Parliament, Whitehall Court and St. Paul's superimposed on a plan of the exhibition, emphasizes this significant aspect of the South Bank achievement. It was designed by Gordon Cullen and D. Dewar Mills.

The Architects Biographies and photographs of the many architects who were engaged on the South Bank exhibition appear in Marginalia on page 139.

price of the Review *The steadily increasing costs of production, especially the recent fantastic rise in the price of paper which has gone up by anything from 60 per cent. to 100 per cent. (varying with the type of paper) during the last few months, have made it necessary to increase the selling-price of* THE ARCHITECTURAL REVIEW. *As from last month the price is 5s. a copy, and the annual subscription is £2 18s. 0d. including postage. Price in USA and Canada $9 per annum.*

THE ARCHITECTURAL REVIEW

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FIVE SHILLINGS

1, *the exhibition at night, looking down the main concourse from one of the riverside terraces. Left, the transport building; centre, Station Gate; right, entrance to the Land of Britain with the York Road screen beyond.*

FOREWORD

The Festival of Britain was conceived at a moment when the temperature chart of British history, which throughout recorded time has fluctuated violently between fever heat and absolute zero, could be seen by the whole world to register several degrees below normal. There was no reason—no excuse even—for holding another Great Exhibition, except those provided by memories of the Prince Consort's courage and enterprise a hundred years before and Paxton's engineering genius.

Building on these flimsy foundations, Sir Gerald Barry's vision and Herbert Morrison's faith and pertinacity have nevertheless managed to confront an austerity-ridden people with an exhibition which forcefully reminds them of their traditional ability to make the big gesture effectively whenever they give themselves the chance. They have conjured it up on a, literally, heaven-sent site on the South Bank of the Thames in the middle of London, which their team of designers, led by Hugh Casson, have translated into a triumphant demonstration of the vitality of contemporary British architecture.

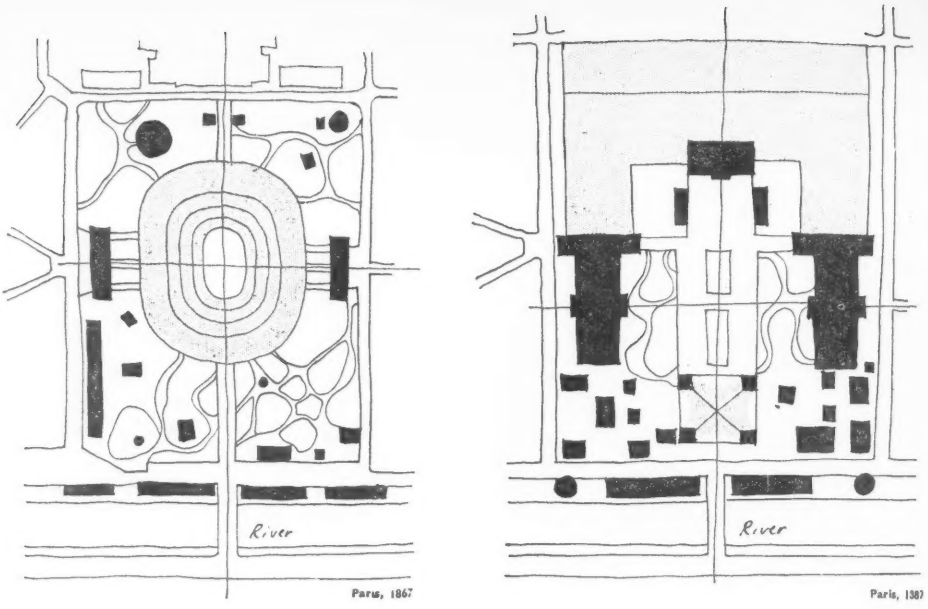
In accordance with the criteria by which most things are nowadays judged, the success or otherwise of this brave enterprise will no doubt be measured for political purposes in terms of crowds clicking through the turnstiles or the stimulus given to our export trade, but architects have a more reliable criterion: the physical structure of the exhibition itself. Judged by what is to be seen on the South Bank, 1951 shows every sign of achieving the inconceivable and proving itself the peer of 1851, from the success of which stemmed much of Britain's prestige during a hundred years and her reputation for vision and initiative.

It is clear to all those who have followed the development of the modern movement in architecture, and who comprehend the ideas for the future still only implicit in it, that at the South Bank exhibition we have not only a major architectural event but a work of art which—like the Crystal Palace before it—has potential world-wide influence.

Like the Great Exhibition of 1851, whose centenary it worthily celebrates, it is in its own way a pioneer. The earliest exhibitions asserted the architectural respectability of engineering, and culminated in Paris 1889, when Gustave Eiffel gave the world his famous tower. The exhibitions which followed contributed first of all new non-antiquarian styles of decoration (*art nouveau* was propagated in Paris 1900 and jazz-modern in Paris 1925) and then a new non-antiquarian style of architecture. Stockholm 1930, designed by Gunnar Asplund, for the first time showed modern architecture on a scale that allowed visitors to feel they were entering a world belonging to their own time. Subsequent exhibitions contributed ideas about the modern use of various materials—for example, timber in Aalto's Finnish pavilions at Paris 1937, and New York 1939. They also established the modern style of display design (landmarks are the Polish and Swiss pavilions at Paris 1937 and Misha Black's first large-scale displays at Glasgow 1938).

But the *planning* of all these exhibitions was, on the whole, orthodox. It was based on the axial avenue, the cross avenue, the *rond-point* and the vista—in fact on the *Beaux Arts* tradition, which was at its height when the first great exhibition not contained (like

Though the great exhibitions have done much pioneer work in the fields of engineering, architecture and display, their planning has remained almost wholly conventional. Except for the rather more freely planned exhibitions at Stockholm in 1930 and Zurich in 1939, every important exhibition has hitherto been laid out on monumental Beaux Arts lines, which the South Bank, with its informal landscaping, has completely abandoned. On the right are the plans of four famous exhibitions: the first great Paris exhibition of 1867, that of 1889, on the plan of which all the subsequent Paris exhibitions have been based, Glasgow 1938, the first British exhibition to make use of modern ideas in architecture, and the 1939 New York World Fair, at which the conscientious modernity of the architecture consorted particularly oddly with the formal, axial plan.



Paris, 1867 Paris, 1889

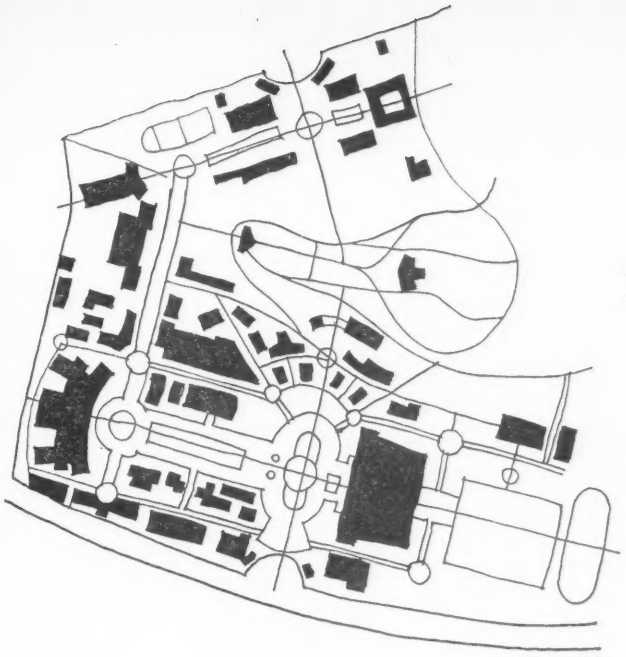
the Hyde Park exhibition of 1851) in a single building was laid out in Paris in 1867. The achievement of the South Bank 1951 is that it presents a complete departure from this tradition. It is planned in an informal style, much better suited to exhibitions than the geometrical style, since it does not exclude the elements of expectation and surprise and gives opportunity for contrast and variety of scale; and it is more useful for trying out planning ideas for permanent use elsewhere, since the geometrical style is seldom suitable for modern towns with their emphasis on multiple use and their need to allow for slow organic growth.

The South Bank exhibition thus fills the traditional exhibition role of nursery of new ideas in a particularly timely fashion, since the problems presented to its designers, especially the small size of the site, reflected many of the problems that constantly confront architects and planners in this overcrowded island: how to give a feeling of space while economizing in the use of space; how to achieve a compact urban character while avoiding congestion—visual and actual; how to weld the ideas of many architects into a whole without stifling originality or imposing uniformity; how to marry the new with the old so that one does not harm the other but, on the contrary, so that the qualities of each enhance the other.

These problems occur with special frequency in that most difficult but at the same time most exciting of all post-war architectural tasks, the building of the new towns. In fact the South Bank exhibition can itself be regarded as a new town. It is a temporary town (or, more precisely, the non-residential quarter of a town) deposited on the banks of the Thames where all can learn the lessons it contains and appreciate the ideas it contributes.

But though the planning of the South Bank is revolutionary so far as exhibitions are concerned, the planning principle it represents is by no means new. It is only new in its urban application. It is well known in landscape planning and was the basis of the Picturesque theory of landscaping which British gardeners developed in the eighteenth century. This theory, now recognized as one of Britain's major contributions to European art, demanded that the latent possibilities of any site should be exploited to the full in order to produce a layout with a character peculiar to that site alone. It thus opposed the renaissance theory of superimposing a new character by the use of rigid geometrical forms. The Picturesque landscape was as irregular, as rich in surprises, as skilful in the use of the happy accident as nature herself. Indeed as far as England is concerned it recreated nature herself; for what are often taken for the natural beauties of the typical English countryside are in fact synthetic beauties largely derived from the Picturesque improvements of the eighteenth century.

English towns, unfortunately, had the benefit of no such improvements. When they



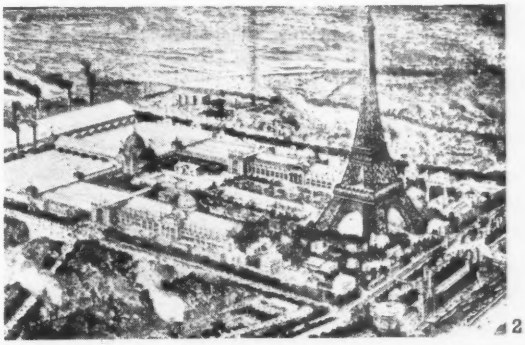
Glasgow, 1938

New York, 1939

outgrew the formality of the Georgian market square, their further growth took the form of a series of accidents, without any understood principles to turn them into happy accidents. In our highly urbanized civilization there is a clear need to add to the codes of hygienic and traffic engineering practice by which the shape of our towns is already controlled to some degree, an equivalent visual code of practice, if only to prevent all our towns becoming identical waves in an endless sea of bricks and mortar.

The plea has been made in THE ARCHITECTURAL REVIEW,* and elsewhere, that this could be achieved if town-planners adopted a modern version of the Picturesque principles that were applied so successfully by country planners in the past. It has been suggested as a theory, but there has been but little opportunity of putting it into practice. At last an opportunity was offered by the South Bank exhibition site, where the Picturesque theory has been followed with triumphant results. That is the great contribution of the exhibition to contemporary architecture; it demonstrates how successfully the informal principle of town-planning, so well rooted in the English countryside, can be transplanted to the English urban landscape. It shows what rewards we may expect if we apply the same principles to the tasks with which our town builders are confronted today, especially the construction of new towns and the reconstruction of obsolete city centres.

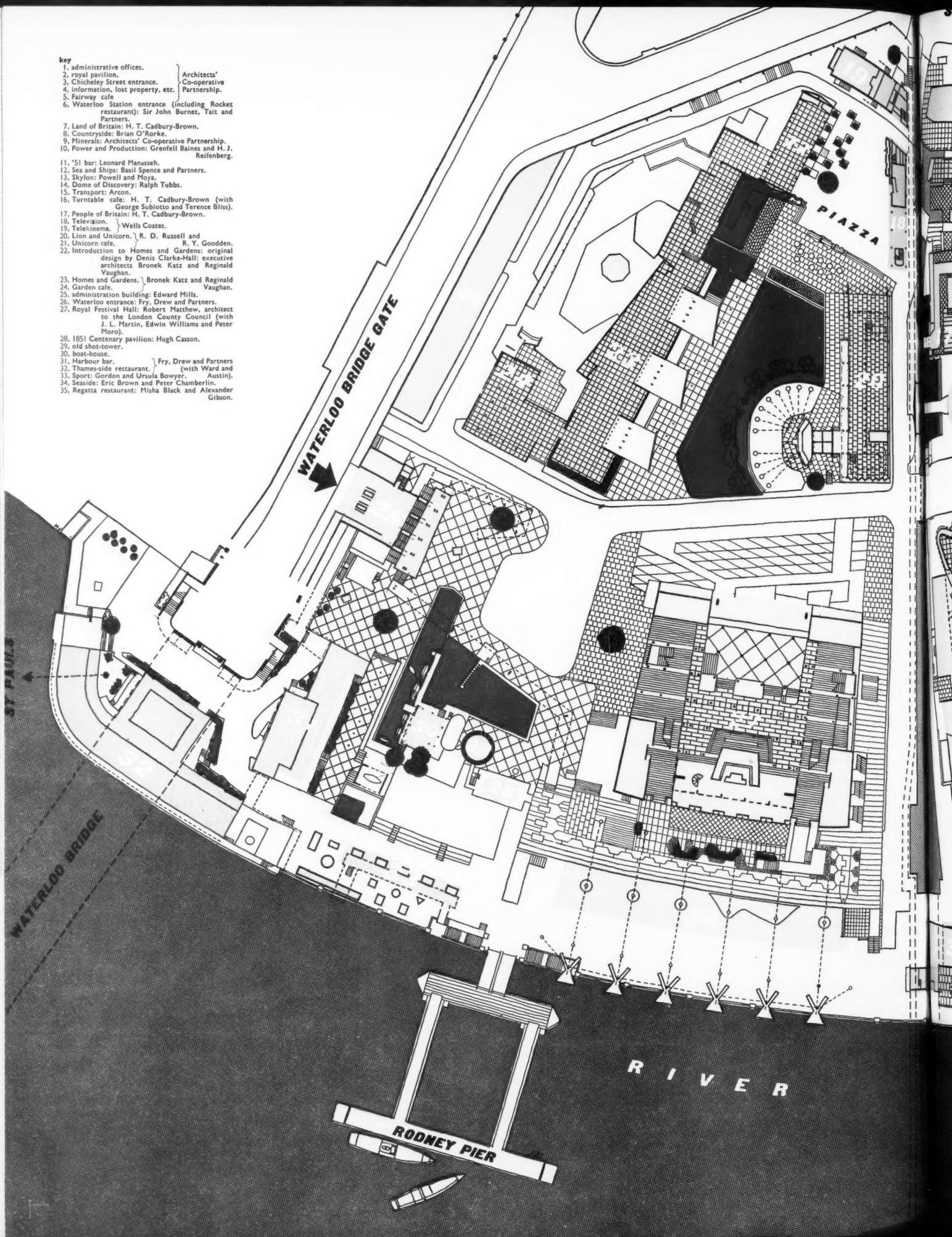
Stand in the centre of the main concourse at the South Bank exhibition. Except for the difference that the architecture, being exhibition architecture, shows certain legitimate exaggerations of style and tricks of display which would not appear in permanent buildings, you might be in the main square of a modern town—but not a town that endeavours to exclude the humdrum world around and about it, of which it must always remain a part. At the end of the concourse is the River Thames, and beyond it the buildings of an older London. These are neither apologized for nor ignored in the planning of this foretaste of a new London. They are skilfully woven into the scene, so that historic and modern architecture serve as back-

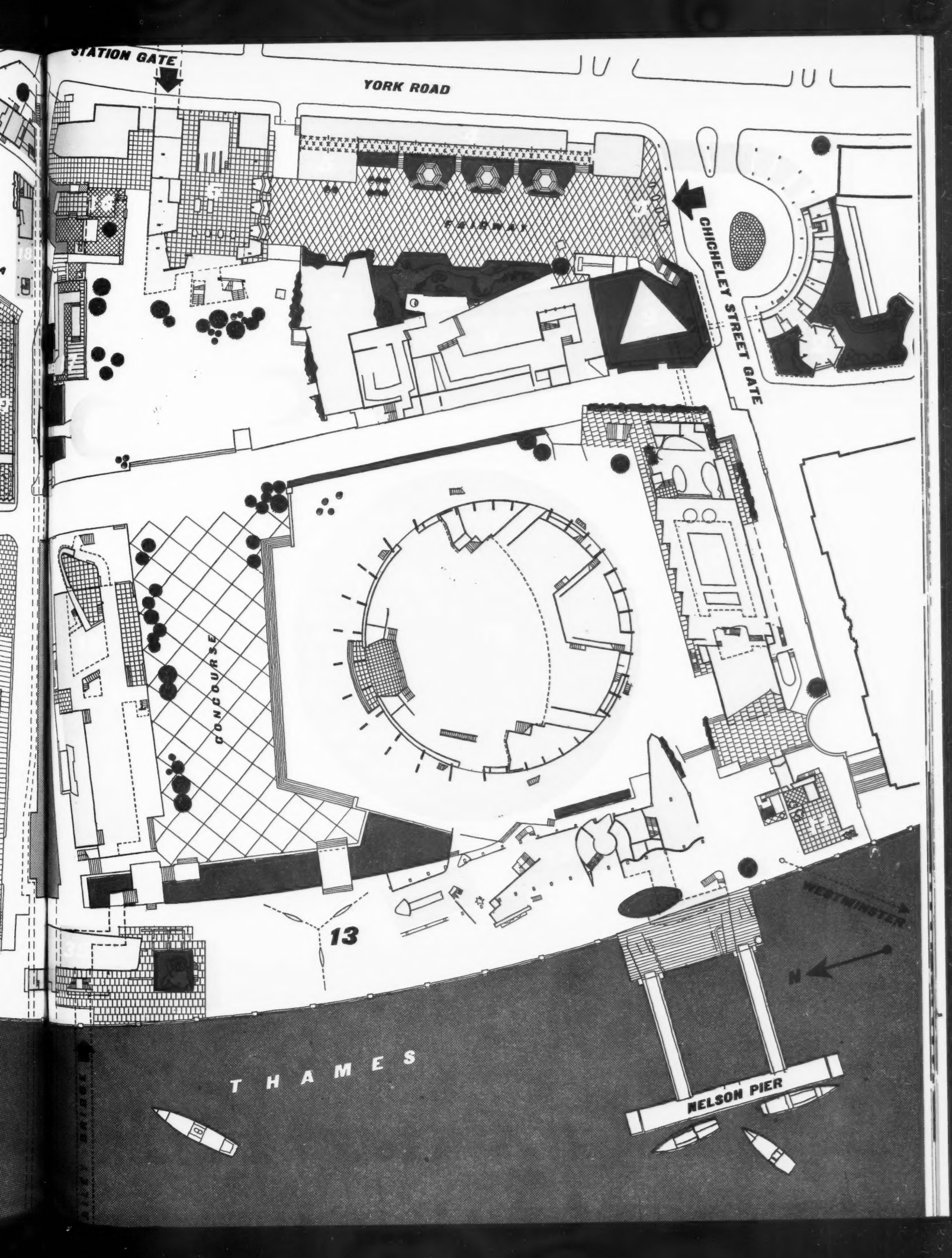


2

No exhibitions have had a greater influence on architecture than the series held between 1867 and 1937 on the Champ de Mars, Paris. Their formal style of planning, however, has not changed since the Eiffel Tower was erected as a climax to the main axis in 1889. 2, an aerial view of that exhibition on which the plans of subsequent Paris exhibitions were based.

* *Exterior Furnishing or Sharawaggi: The Art of Making Urban Landscape*, by the Editor, Jan. 1944; *The Second Half Century*, by the Editors, Jan. 1947; *Hazards of the Art of Introducing Obstacles into the Urban Landscape Without Inhibiting the Eye*, March, 1948; *Townscape: A Plea for an English Philosophy Founded on the Fine Rock of Sir Uvedale Price*, by I. de Wolfe, Dec. 1949.


key
1, administrative offices.
2, royal pavilion.
3, Chicheley Street entrance.
4, information, lost property, etc.
Architects' Co-operative Partnership.
5, Fairway cafe
6, Waterloo Station entrance (including Rocket restaurant): Sir John Burnet, Tait and Partners.
7, Land of Britain: H. T. Cadbury-Brown.
8, Countryside: Brian O'Rorke.
9, Minerals: Architects' Co-operative Partnership.
10, Power and Production: Grenfell Baines and H. J. Reifenberg.
11, '51 bar: Leonard Manasseh.
12, Sea and Ships: Basil Spence and Partners.
13, Skylon: Powell and Moya.
14, Dome of Discovery: Ralph Tubbs.
15, Transport: Arcon.
16, Turntable cafe: H. T. Cadbury-Brown (with George Subiotto and Terence Bliss).
17, People of Britain: H. T. Cadbury-Brown.
18, Television.
19, Telekinema.
Wells Coates.
20, Lion and Unicorn.
21, Unicorn cafe.
R. D. Russell and R. Y. Goodden.
22, Introduction to Homes and Gardens: original design by Denis Clarke-Hall: executive architects Bronek Katz and Reginald Vaughan.
23, Homes and Gardens.
24, Garden cafe.
Bronek Katz and Reginald Vaughan.
25, administration building: Edward Mills.
26, Waterloo entrance: Fry, Drew and Partners.
27, Royal Festival Hall: Robert Matthew, architect to the London County Council (with J. L. Martin, Edwin Williams and Peter Moro).
28, 1851 Centenary pavilion: Hugh Casson.
29, old shot-tower.
30, boat-house.
31, Harbour bar.
32, Thames-side restaurant.
Fry, Drew and Partners (with Ward and Austin).
33, Sport: Gordon and Ursula Bowyer.
34, Seaside: Eric Brown and Peter Chamberlin.
35, Regatta restaurant: Misha Black and Alexander Gibson.
PIAZZA
WATERLOO BRIDGE GATE
ST PAUL'S
WATERLOO BRIDGE
RIVER
RODNEY PIER


STATION GATE
YORK ROAD
CHICHELEY STREET GATE
CONCOURSE
13
WESTMINSTER
N
THAMES
NELSON PIER

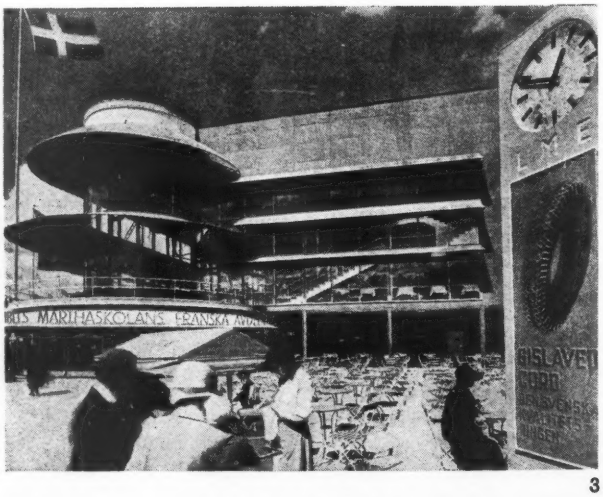
ground and foreground respectively in a succession of cunningly contrived compositions.

Here is the first example of Picturesque planning translated into urban terms. The existing buildings around the site, with their varying scales and silhouettes, take the place of the existing natural features on which the eighteenth-century landscapists based their designs. The Palace of Westminster and Whitehall Court are the rock-strewn hill and the well-placed clump of trees towards which the spectator's eye was subtly directed and against which artificial features in the foreground were set. The Thames is the natural lake, tamed to serve the landscape gardener's purpose. And in the arrangement of the exhibition buildings themselves is the same carefully contrived alternation of concealments and disclosures that gave the eighteenth-century picturesque landscape its elusive charm.

If the great triumph of the exhibition is its general layout, contrived with so much imagination by Hugh Casson and his colleagues on the Presentation Panel, special credit must also go to H. T. Cadbury-Brown for his detailed landscaping of the main upstream area, to Peter Shepheard for landscaping and garden design downstream, and to the many architects who have made brilliant use of the many other devices traditional to the landscape designer: water to provide an invisible but effective barrier; changes of surface underfoot to point the difference between a courtyard and a thoroughfare; changes of level; contrasts between apparent enclosure and a sudden glimpse of far distance. To these are added equivalent devices applicable only in an urban context. All are contrived for the benefit of the moving, not the stationary, spectator.

It is obviously impossible, even by devoting a whole issue of the REVIEW to illustrating the exhibition, to record everything of note in it, representing as it does the work of some dozens of architects over a couple of years. It has therefore been thought best, in this special issue, to concentrate on those aspects of the exhibition that have most to contribute to the progress of modern architecture and town-planning. These, in the opinion of the Editors, as the observations above explain, lie within the province of landscape planning. This issue therefore begins with a tour in photographs and drawings in which the points of three-dimensional planning are illustrated, and further analysed in a running commentary.

But the lessons contemporary planners can learn from the exhibition are not confined to broad questions of layout and landscaping. In the long run



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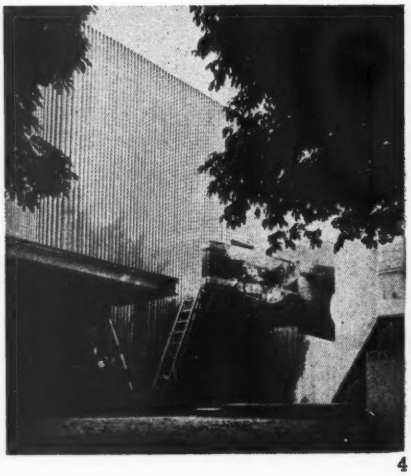

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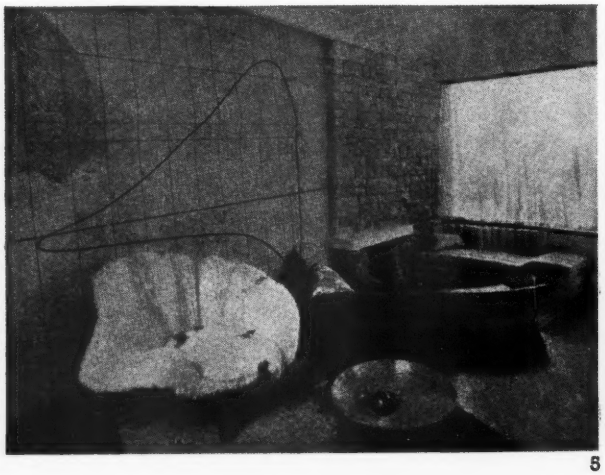

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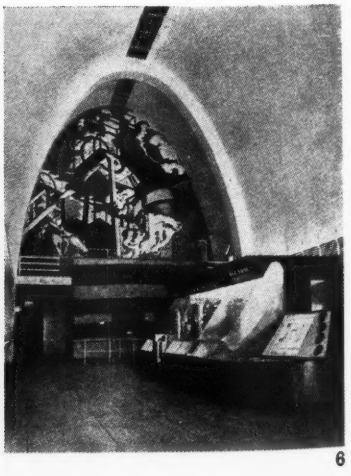


6

Exhibitions as testing grounds for new ideas. 3, *Stockholm* 1930, *by Gunnar Asplund, Europe's first large-scale display of modern architecture.* 4, *Aalto's Finnish pavilion in Paris,* 1937, *which had a profound influence on the use of timber by modern architects.* 5, *inside the Polish pavilion at the same exhibition, first evidence of a new style in interior design.* 6, *one of Misha Black's displays at Glasgow* 1938, *establishing a style that was to dominate exhibition design for many years.*

the quality of a planner's efforts depends just as much on the way his principles are put into practice, on neatness of finish and character of detail. In this respect, too, the South Bank exhibition sets a remarkably high standard and is rich in lessons for the city architect and municipal engineer. The second section of this issue therefore takes the form of a pattern-book in which aptly designed details are collected together from all parts of the exhibition under various headings, chosen to indicate either the problems well-thought-out details can help to solve (such as how to guide pedestrians in the right direction without unsightly railings) or the actual objects that most need the designer's attention (such as lettering and street furniture).

The architecture of the exhibition buildings must also be put on record, so that its influence can remain after they have been cleared away, and a third section of the issue briefly illustrates the principal buildings with plans and exterior and interior photographs. But though the buildings are temporary, they are to be followed by some form of permanent building development. So successful are some of the ideas that have been tried out on the South Bank that a strong case can be made out for incorporating them in the permanent development of the area. In a final section of the issue Gordon Cullen makes his own choice of the exhibition features he would like to see preserved and depicts them in a possible future permanent setting. Charity begins at home, and if the South Bank exhibition of 1951 is to go down in history, as seems likely, as the fountain-head of a new style of urban development, it will be appropriate if some of its lessons are applied to the task of giving new dignity and vitality on a permanent basis to the part of London it at present occupies.

In apportioning credit among the many designers responsible for the outstanding qualities of the exhibition as outlined above, mention must first of course be made of those members of the Presentation Panel who controlled both architecture and display from the beginning under the chairmanship of Gerald Barry, director-general of the Festival. They were Hugh Casson, director of architecture to the Festival, Misha Black, James Gardner, James Holland and Ralph Tubbs.

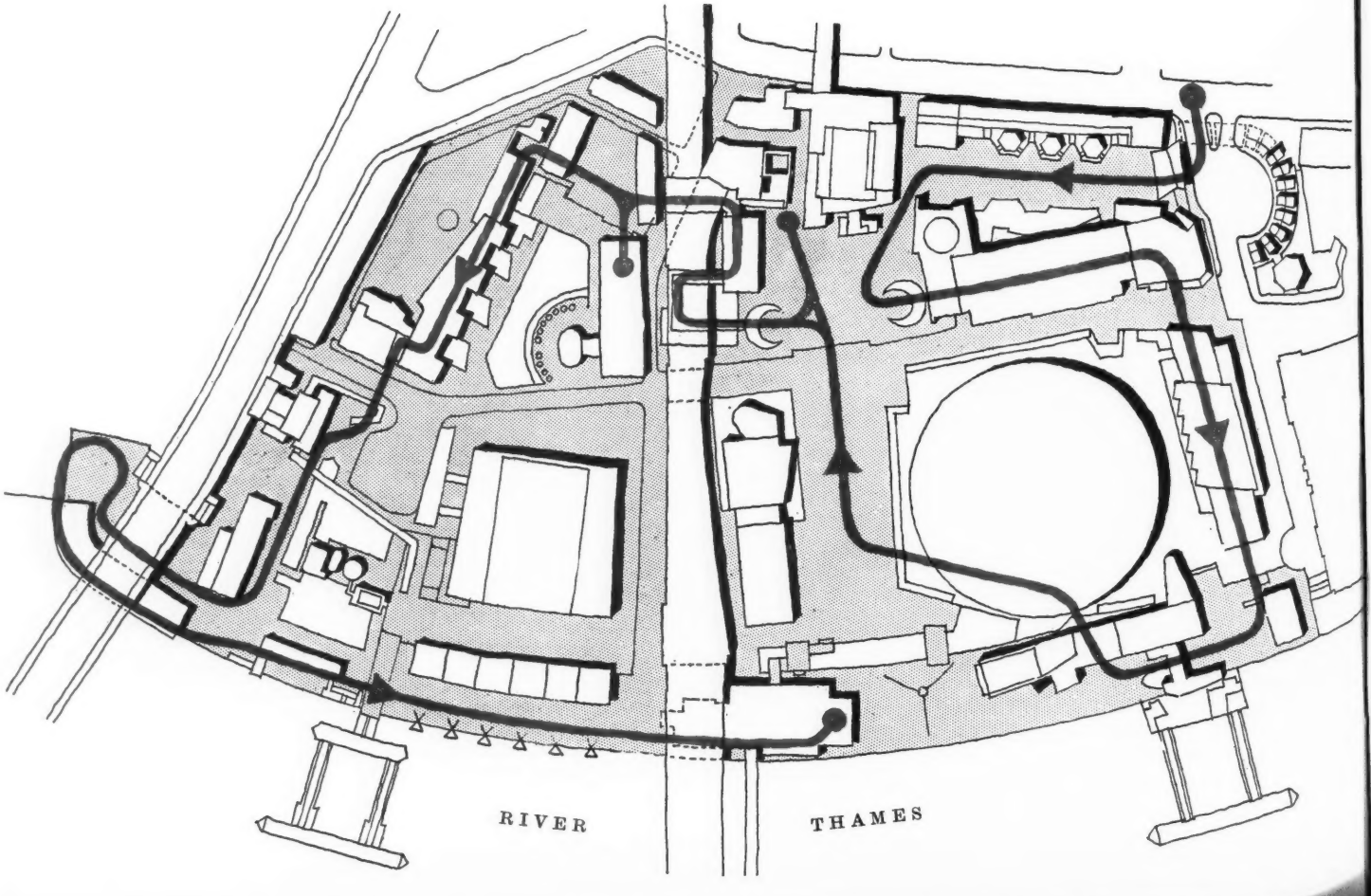
They worked under the general guidance of the Council for Architecture, Town Planning and Building Research, one of the two advisory councils (the other dealt with science) set up by the Government when the Festival was first planned. The members were H. V. Lobb (chairman), H. V. A. Briscoe, F. J. Forty, W. G. Holford, Robert Matthew, Rowland Nicholas, Sir George Pepler, J. M. Richards and Howard Robertson.

When construction on the South Bank site was under way, members of the Presentation Panel were appointed co-ordinating architects and display designers for different areas, as follows. Architects: downstream section, Hugh Casson; upstream section, Misha Black; area immediately round the Dome of Discovery, Ralph Tubbs. Display designers: downstream section, James Gardner; upstream section, James Holland. H. V. Lobb was later appointed controller of construction for the whole site, being responsible for the progress of buildings and displays but not for their design.

H. T. Cadbury-Brown was architect for the main concourse and surrounding areas in the upstream section, and Peter Shepheard, landscape architect for the equivalent downstream areas. H. F. Clark was consultant landscape architect for the whole site, assisted by Peter Youngman and Marie Shephard. The names of the architects for the separate buildings are given where illustrations of the buildings occur on the following pages. The superintending engineers were Freeman, Fox and Partners in association with R. T. James and Partners. The lighting consultant was L. C. Kalff.

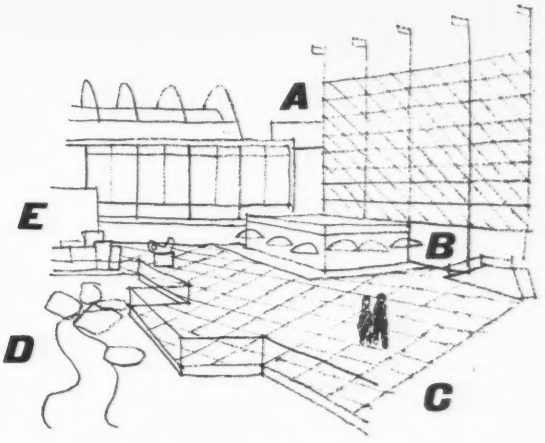
THE EXHIBITION AS LANDSCAPE

On the following pages the reader is taken for a tour round the South Bank exhibition in search of the subtleties of landscape planning that give it so much of its distinction, but whose full significance is not necessarily apparent at the first glance. For in town planning much of the art lies in concealing conscious intention—in contriving the happy accident—and it is as a highly successful exercise in the art of the town-planner that the exhibition should first of all be regarded. It makes a real contribution to town-planning technique, and as the visitor walks round it, with its thematic story unfolding before him, he might well be exploring a subtly designed town. He is led from point to point and his interest is continually renewed by the skilful use of the devices the town-designer, as well as the exhibition architect, exploits—or should exploit—in order to heighten vitality and underline the personality derived from the nature of his site: expectation and suspense, the relaxation provided by the quiet enclosure, the shock of the surprising view, the contrast of the familiar with the unexpected, changes of level, tempo and scale. These are all employed in the exhibition, both indoors and out, and are analysed on the following pages with an eye on their permanent application in town building. The itinerary followed in this tour of the exhibition in its guise of a newly planned section of London conforms roughly to the sequence in which the exhibition buildings are officially supposed to be visited. It is shown by the coloured arrow on the map of the exhibition below.



7

The tour begins at the Chicheley Street entrance, 7. *Inside the white railings is the exhibition; outside is London. The chequered pavement of the first exhibition courtyard is carried beneath the railing to link the two.* 8 *(foot of page), a general view of the first courtyard—the Fairway—with the garden in front of the Countryside building in the foreground.*

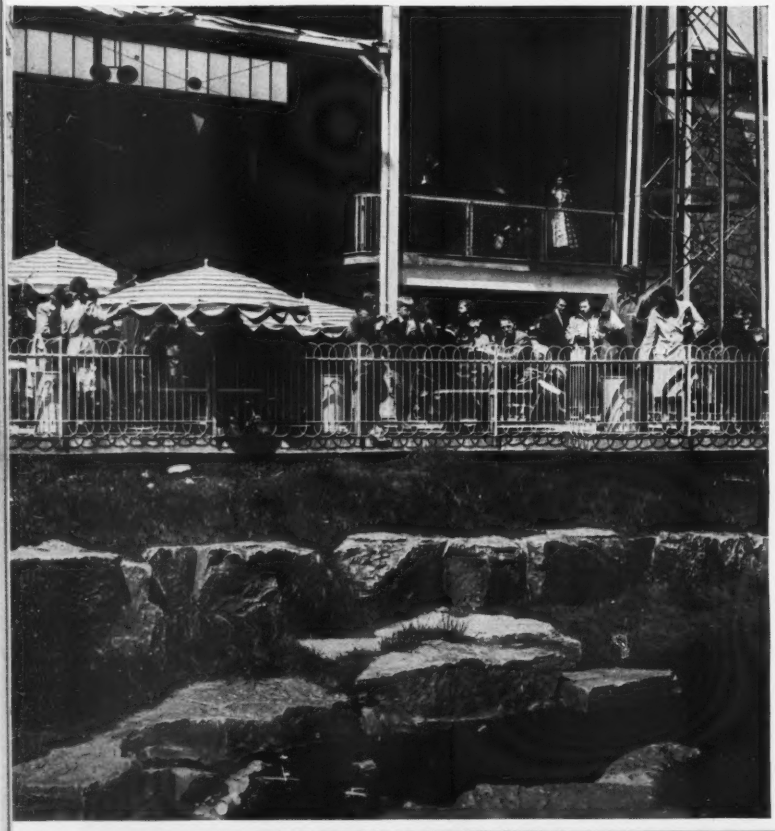


Inside the Chicheley Street entrance you are in a different world from London, but not in one of those formal layouts that generally accompany the architecture of display. You might be in a permanent town, a town designed to satisfy the multiple needs of daily life yet with an eye for all the incidental effects that the informal type of planning allows and that add so much to the vitality of the whole: changes of scale and texture; unexpected contrasts between the hard geometry of buildings and natural greenery; movement and mystery and the gradually unfolding view.

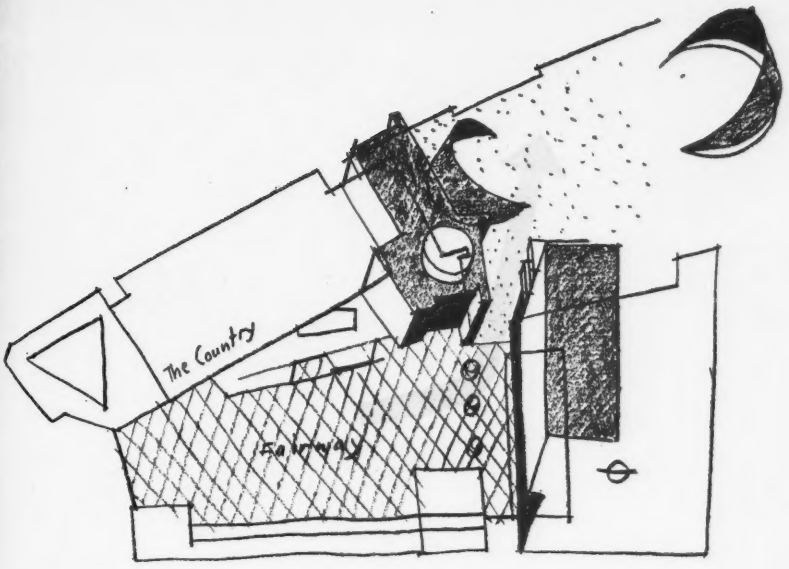
Consider the entrance courtyard—the Fairway, 8—as a small-town piazza, planned for pedestrians only. The multi-coloured screen on the York Road side, A in the sketch above, might be the façade of an office building or department store. At its foot is a recessed sidewalk, B, somewhat raised, serving a terrace of shops, and in front a row of little kiosks, poised over pools of water whose reflections add more sparkle to the scene. The building at the end, E, also has a recessed lower storey, suggesting that the pedestrian will find the barrier there not final. Between them, in the corner, is a small café, enclosed within transparent walls and extended in the form of an open terrace only separated from the pavement of the piazza by knee-high boxes of flowers—an agreeable adjunct to any town square. Liveliness is given to the other side of the piazza by

8

enclosed piazza . . . .



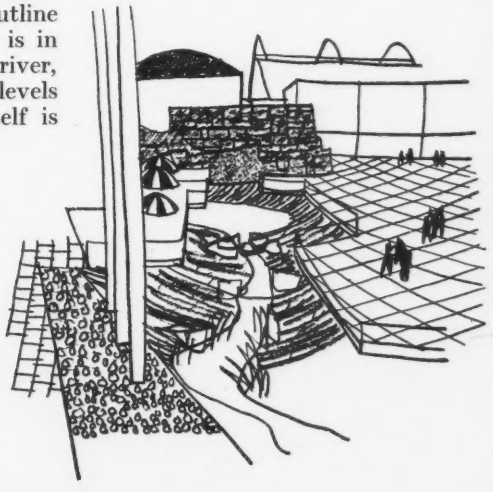
9	10
11	12



a naturalistic garden, D, sunk a little way below it and protected by an elegant railing, C. There is a shallow stream, boulders, rank grasses and an occasional scrubby bush—a perfect foil (see sketch at foot of page) to the determined urbanity of the piazza. The garden is meant to be enjoyed as decoration, not physically experienced.

Beyond the garden rises the Countryside building, 9 on facing page, which is open to the air, and the pedestrian in the piazza looks into it, as he might into a covered market. In fact, it is a display of agricultural machinery. The eye is made to focus in turn on the wall paintings at the back, the moving machines in the centre and the implements in the foreground, with the result that the apparent width of the piazza is extended by the depth of this building. Another café terrace, half indoors and half out, overhangs the garden, 11. Further along, where the end of the adjoining building, the Land of Britain, breaks into the piazza in the form of rough stone walls, what might have been a dull passage in the design is imaginatively used to provide a kind of vertical garden in a minimum of space, a garden of roughly formed crags and boulders, 12, contrasting agreeably with the smooth chequered pavement.

As in a well-planned town, the exhibition makes the most of the space available by not disclosing itself all at one glance. By breaking it up into a sequence of enclosures the planners have greatly increased its apparent size. This particular enclosure, the Fairway, is planned with a fine sense of drama, because (see sketch plan above) only as you approach the far end do you become aware of the relatively narrow exit, 13. You turn the corner of the wall occupying the foreground of 10, the sense of enclosure being retained to the last. Then, with a shock of surprise, you find yourself on the brink of a vast territory, 14. It extends away before you, drops to a lower level, takes in the white plumes of the fountains and proceeds uninterrupted to the romantic outline of Whitehall Court, which is in fact on the far side of the river, but so skilfully are the levels managed that the river itself is



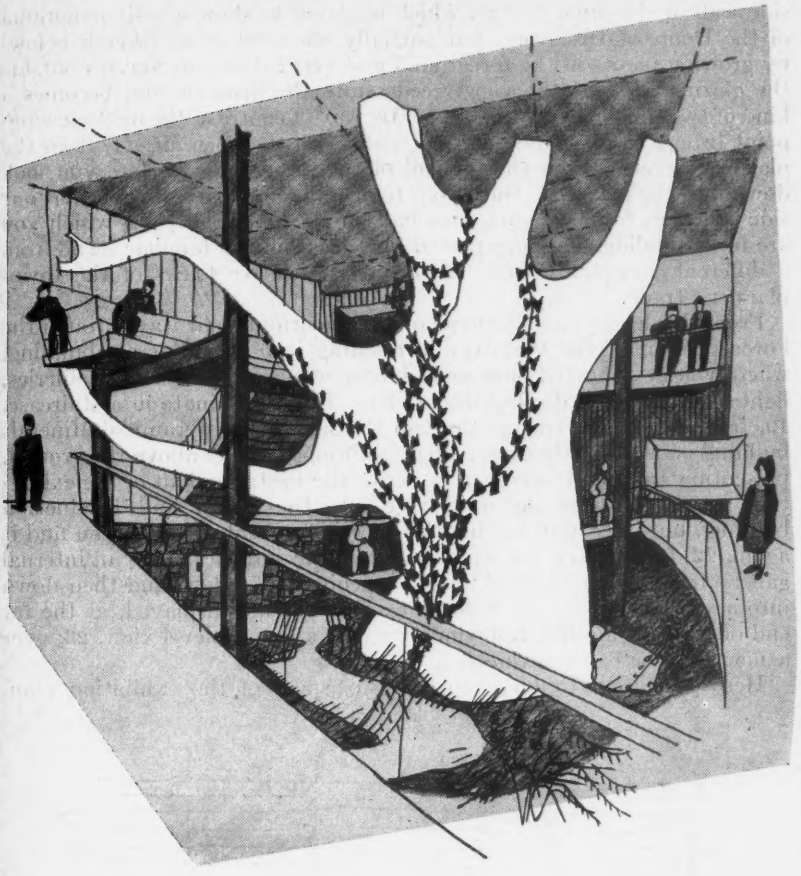
13

14

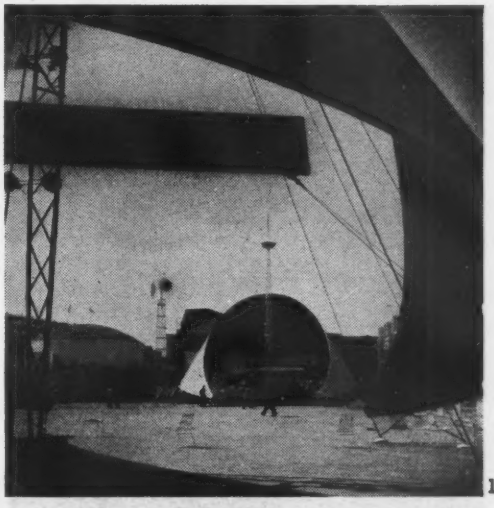
15

13, through the narrows from the almost totally enclosed piazza to the contrasting openness of the main concourse. 14, the view down the main concourse, closed by the romantic outline of Whitehall Court on the far side of the river. Above the riverside promenade rises the Skylon. 15, swinging left on entering the concourse the visitor sees for the first time the largest building in the exhibition, the Dome of Discovery.

open concourse . . . .



17, the aluminium cone which marks the entrance to the Land of Britain seen from within the corresponding cone (shown on the facing page) on the opposite side of the upper platform of the main concourse. 18, the foot of the great tree, standing in a woodland garden, round which the flora and fauna of the British Isles are displayed.



17

18

not yet seen and its whole width is brought into the apparent area of the exhibition. You are now at the head of the main concourse, the limits of which are defined on either flank by the long glass façade of the Transport building and the rising curve of the Dome of Discovery. Above the entire scene the Skylon is poised as a dramatic punctuation mark.

The upper platform of the main concourse, 16, is flanked by cone-shaped aluminium porticoes, leading into the two main sequences of exhibition buildings. Into the left-hand one, 17—the entrance to the Land of Britain—the itinerary now takes you. Entering a sort of cave-mouth between rough stone walls set into a boulder-strewn hillside, you are swallowed up in a sequence of dimly lit chambers depicting the geological evolution of the British Isles. At the far end you are released into the Natural Scene, a brightly lit space (in contrast to the darkness of the other) dramatically rising in height and filled with the cries and whistles of birds. In the centre is a massive, twisted plaster tree, round which (see drawing above) runs a robust wooden gallery of ramps and steps, making spatial play in a limited area. The gallery is asymmetrical and creates a changing perspective from level to level. At the foot of the tree, 18, is an irregular woodland garden of leaves and wild flowers. And water, the most versatile element in the exhibition vernacular, lies in quiet sandy pools.

Climbing upwards and obtaining an impression of liveliness and flexibility of plan from the sight of other visitors crossing your path below and above you, as you and they circulate among the ramps and staircases, you eventually emerge on the upper level of the Countryside building into a long gallery devoted to crops and produce. At this point, and at many points afterwards, another speciality of the exhibition plan becomes apparent: the effectiveness of the frequent panoramic views, framed within the interior structure of the buildings, that are contrived so as to furnish unexpected but well-composed pictures of the bright outdoor world. They occur at all levels. 20, for example, allows you a glance back across the centre of the concourse through the escape doors at the end of the first floor produce gallery you have just reached.

A subtle variation of the same theme is performed along the whole

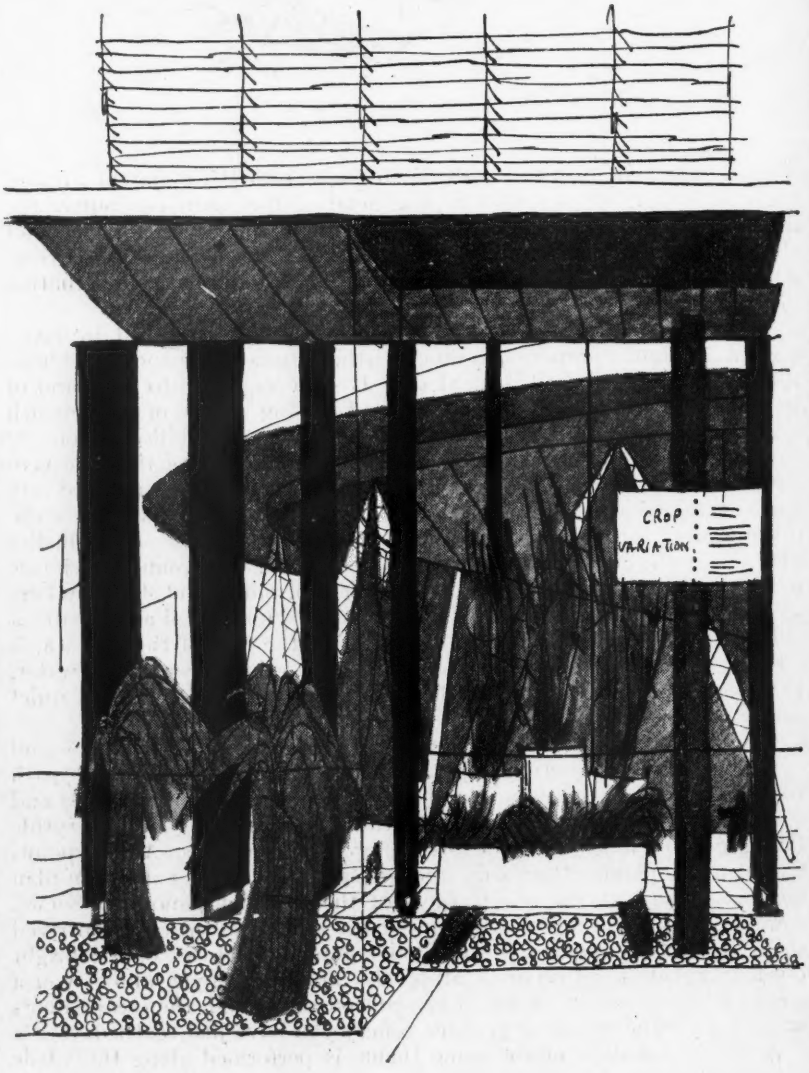
side wall of the same gallery, which is glazed to show a wide panorama of the Dome of Discovery, but partially obscured again (sketch below) by growing plants in the foreground and vertical canvas louvres outside the glazing, so that the view recedes into the distance and becomes a kind of two-dimensional drop-scene. By way of contrast, the next viewing-point brings you to close-quarters again with the open air: 21, from the platform reached from the far end of the same gallery. Here you look down into the piazza in which your tour began and are reminded that one side of it was formed by an open hall, in an upper gallery of which you are now standing. The unexpected presentation of a familiar scene from a different viewpoint is one of the most effective tricks of the town-planner's trade.

From this level you descend again, and continue your way through the lower portion of the Countryside building into the Minerals building, where you are plunged once more into a sequence of cave-like galleries, lighted only by the displays themselves. These terminate in a staircase, 19, from which you emerge through the side of the pyramidal Minerals building on to a lightly constructed footbridge, 20 feet above the ground, presenting another dramatic view across the upstream half of the exhibition site. You cross the footbridge into the Power and Production building, but instead of leaving the view just revealed to you you find it again, 22, framed in a tall window. The route now lies along an internal gallery from which you look into a machine hall below, and then down into a second hall, in which machine products are displayed, at the far end of which is another tall window giving a ground level view, 23, over a new quarter of the exhibition.

Here you are introduced to a fresh aspect of the exhibition plan.

19

19, *a staircase rises up from the darkened lower floor of the Minerals building to daylight again and a footbridge leading to the Power and Production building.*



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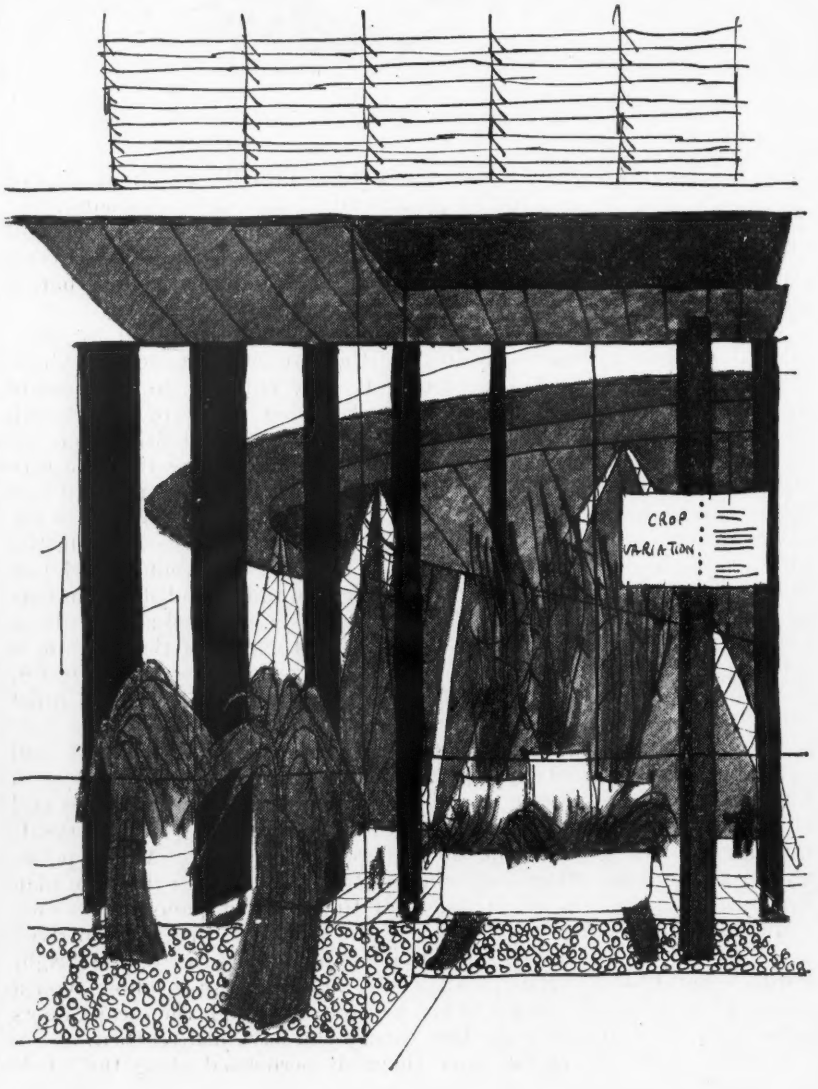
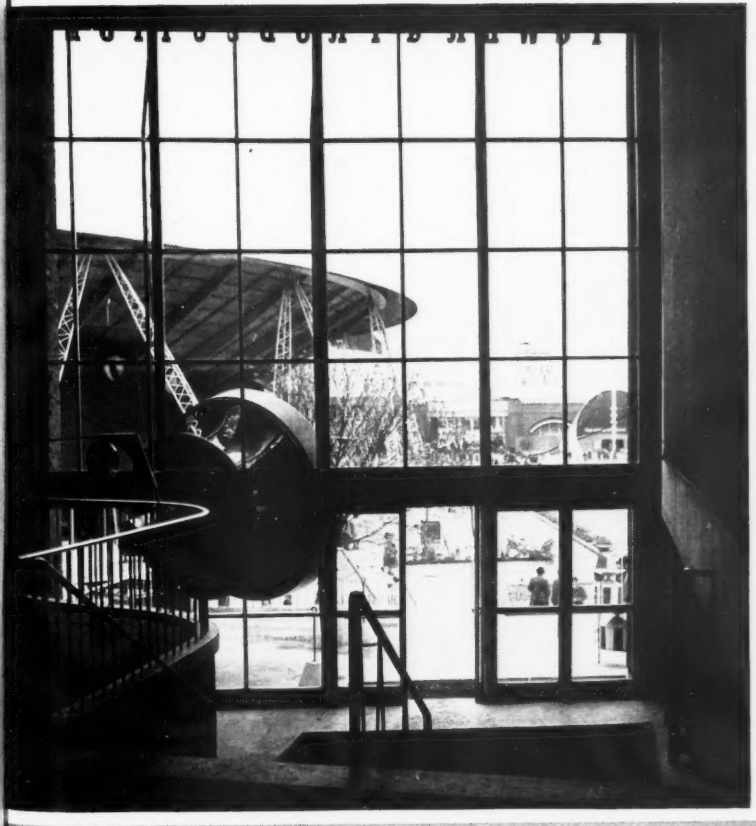
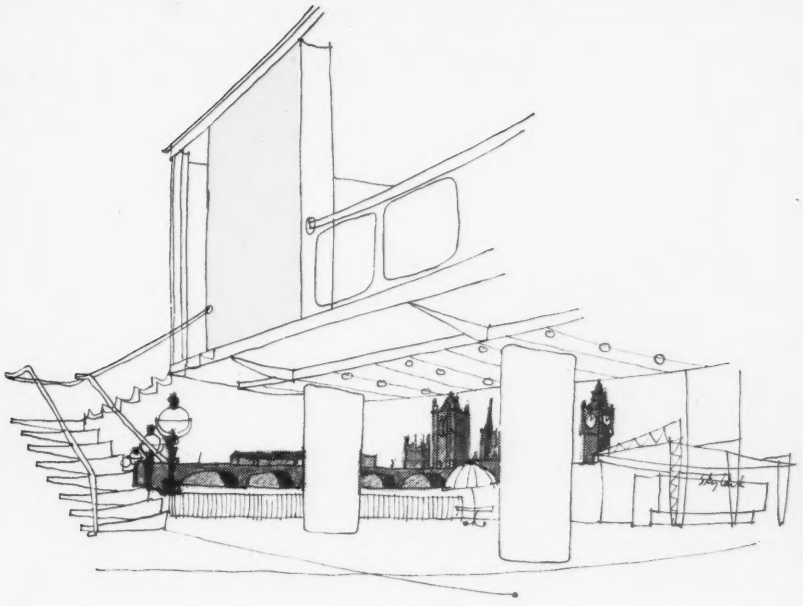


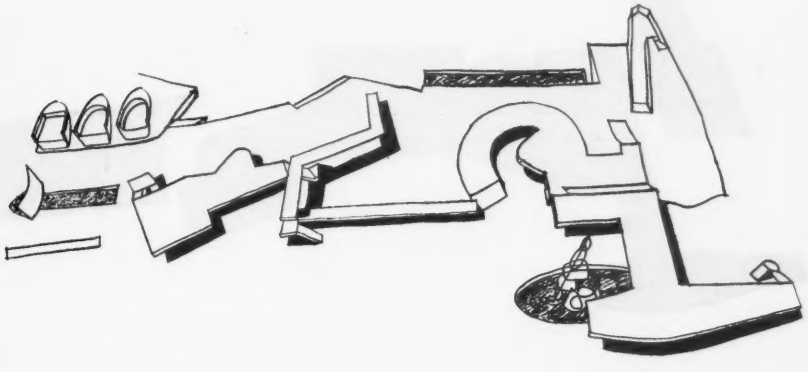


20 | 21
22 | 23

westminster backcloth . . . .



Hitherto you have been exploring a closed world, sufficient to itself. Only for a moment, when looking down the length of the concourse, were you aware of an older London in the shape of a distant romantic skyline. Now you are brought close up to it—or rather it (the panorama of London) is brought close up to you. You are reminded that this newly laid out town is part of a larger city, with which it shares a busy river highway. The exhibition planners have made magnificent use of a site in the geographical heart of London from which, among other groups of famous buildings, the towers of the Palace of Westminster make a better composed group than from any other viewpoint. These have been skilfully woven into the exhibition scene. They can be admired in the open, as in 24, a view from the terrace of the '51 Bar, or framed by exhibition architecture as in the sketch above, where they are seen beneath the projecting wing of the riverside Sea and Ships building.



The Sea and Ships building, 25, 26, 27, sums up in miniature the multi-level internal-external type of planning in which the exhibition specializes. Strung along the river front, a sequence of galleries, ramps and staircases leads you in and out among the exhibits—model ships and full-size parts of ships; marine objects of all kinds; diving gear and fishing gear—sometimes spanning over pools of water, sometimes under cover and sometimes in the open air (the coloured areas in the sketch plan above are those which are roofed over). The visitor views them from all levels and at the same time sees, as an appropriate background to them, the busy life on the river itself and hears the sound of breaking waves simulated by the mobile water-sculpture that stands in front.

On leaving the Sea and Ships display you turn your back on the river,

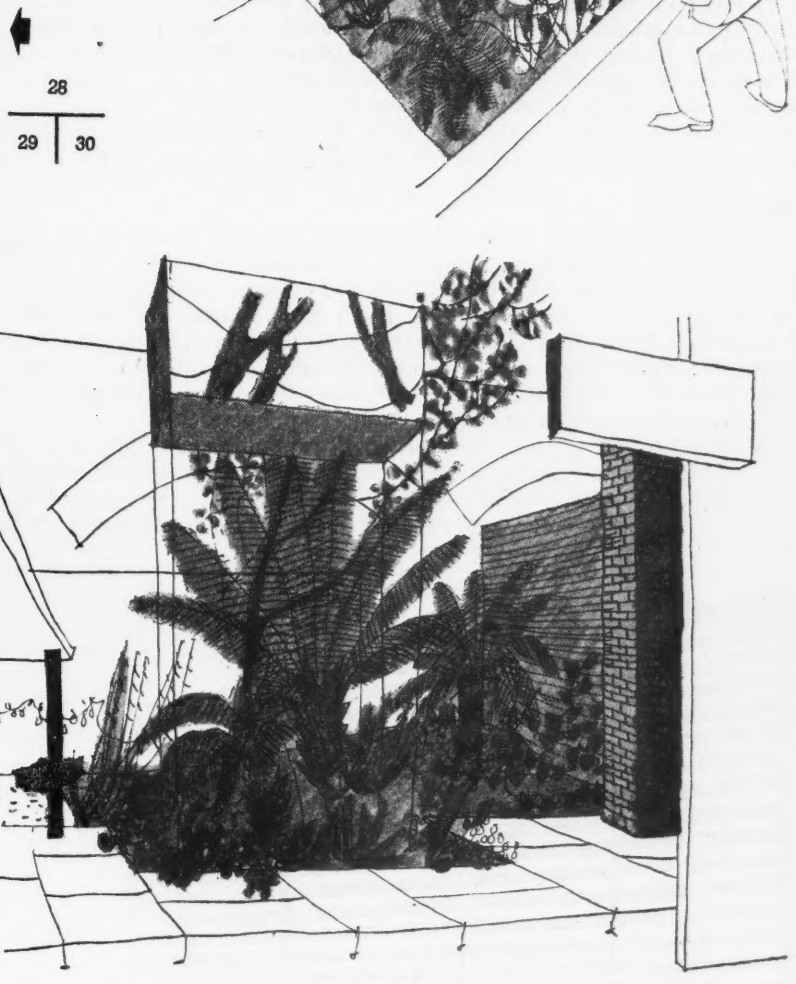
25

26

27

Sea and Ships display: 25, ship models on show beneath a suspended roof; 26, pool and staircase with the riverside promenade beyond; 27, basin of the water sculpture, with the openwork structure of the building on the right.

the insubstantial wall . . . .



descending from the riverside promenade to the lower level of the main concourse. The exhibition regains its identity as a self-contained town. The concourse becomes the intersection of two main avenues. Trees line the sidewalks and offer a flickering view across the street. The Transport building, 28, becomes a department store which uses its whole façade as a show window of impressive depth owing to the transparency of its external wall. Kiosks and flower tubs divide and so extend the foreground. A bus is parked in a side street, and under a railway bridge a brightly coloured mural startles the spectator who thought that painting belonged exclusively to the city art gallery. A truncated Concert Hall looms mysteriously above the bridge.

Beyond the intersection another piazza opens out, a few feet higher. Here again trees alternately obscure and reveal. The high flung arch of the Waterloo Station Gate, 29, with its prominent viewing galleries,

31

32

31, entrance to the People of Britain. 32, garden within, seen from two levels as shown also in the sketches alongside.

provides an imposing contrast to the level forecourt. It has no end walls, being open to the air, so that the sky is seen through as well as above it. In a corner of the piazza, an open café is perched on a raised terrace, 30. The slight change of level, allied with a little planting, is sufficient demarcation between the pavement and the café terrace, which disappears beneath its lightly supported slab roof to become a two-level café-bar cleverly contrived underneath the arches of the railway viaduct that bisects the exhibition site.

In the background of the same picture, 30, is a disappearing wall in a rather different sense: a mural painting used not only as decoration but to break down the apparent solidity of a flat wall and give spatial complexity to an arrangement of basically simple architectural elements.

From this upper platform of the main concourse, there begins the second stage of the exhibition itinerary, by way of another cone-shaped aluminium portico, seen in 29, and then a footbridge, 31 and 33, which carries you over a shallow pool of water into the dark recesses of the railway arches. Before emerging into the downstream half of the exhibition you pass through the galleries depicting the story of the People of Britain, ingeniously planned on several levels so that the circulating streams of visitors pass over and under each other, 32 and 34, contriving a number of surprising spatial effects in a confined area, as when they come upon a jungle garden spread out beneath their feet, 32, and meet it again at eye level a little while later. An impression of this two-level planting is given in the sketches on the previous page, and at the top of the facing page is a diagram showing the circulation within the People of Britain galleries.

Half-way round the sequence of galleries the wall dissolves and you are taken by surprise by another view of the main concourse, 35, which you seemed long ago to have left behind. It is seen not only framed, as in the photograph, by the gallery posts and railings, but also partly obscured, as in the sketch immediately below, by a louvred screen through which the familiar view is given a new character by being separated into thin slices. This is a horizontal counterpart of the vertically fragmented view from the upper gallery of the Countryside building.

A little further along, at the corner of the building, is a break-away into a café. It is planned with exceptional cunning. The one-way circulation of the exhibition requires—and is provided with—occasional escape routes, so that the visitor does not feel too strictly regimented; or so that

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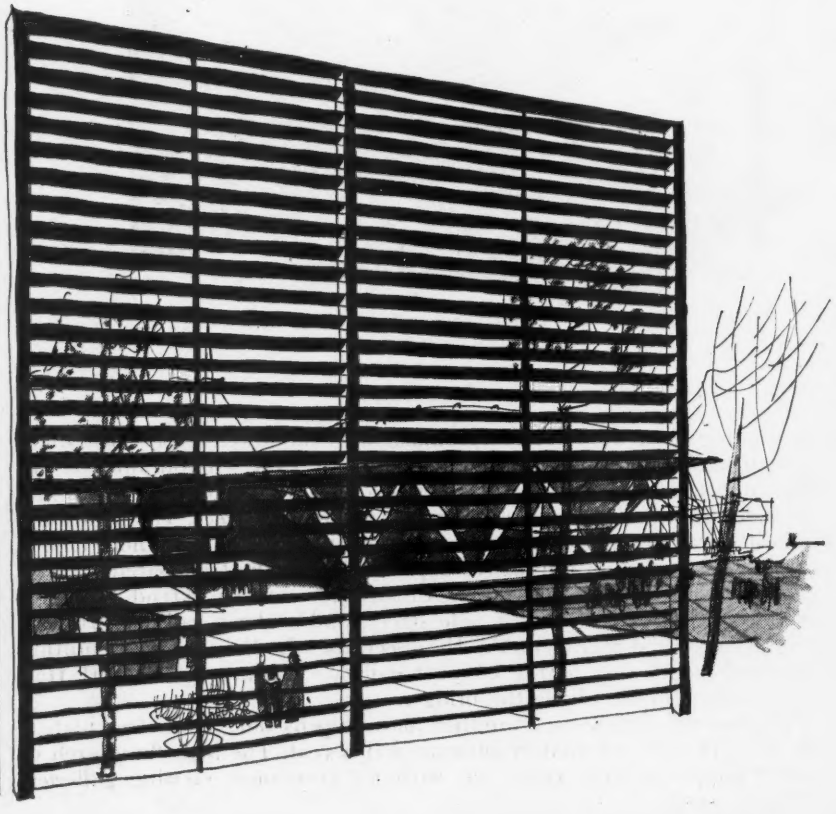
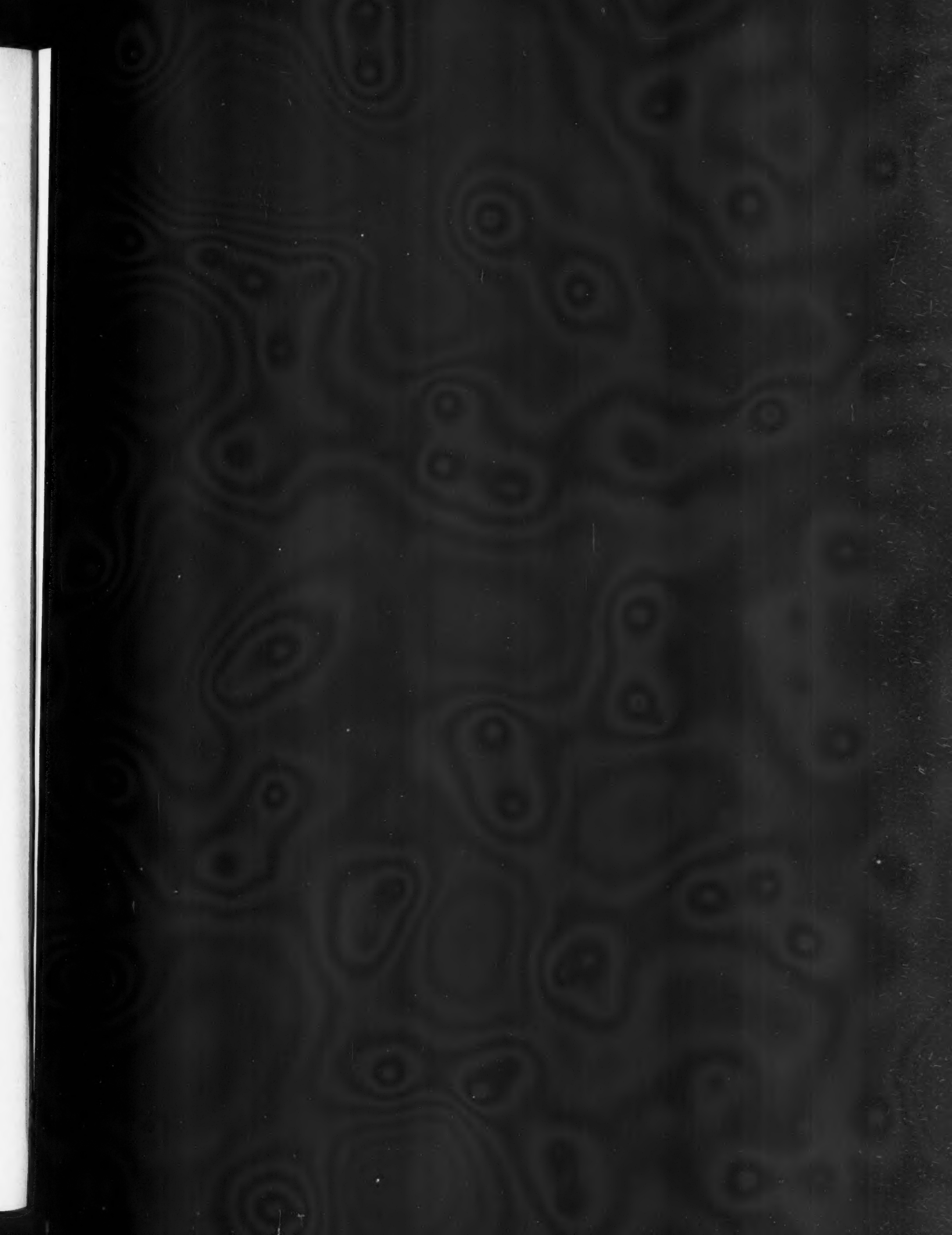
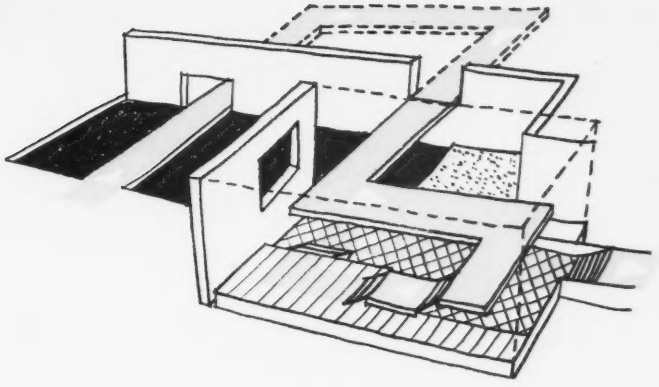
33, entrance to the People of Britain by a footbridge across a water garden. 34, multi-level planning inside. 35, view back into the main concourse.



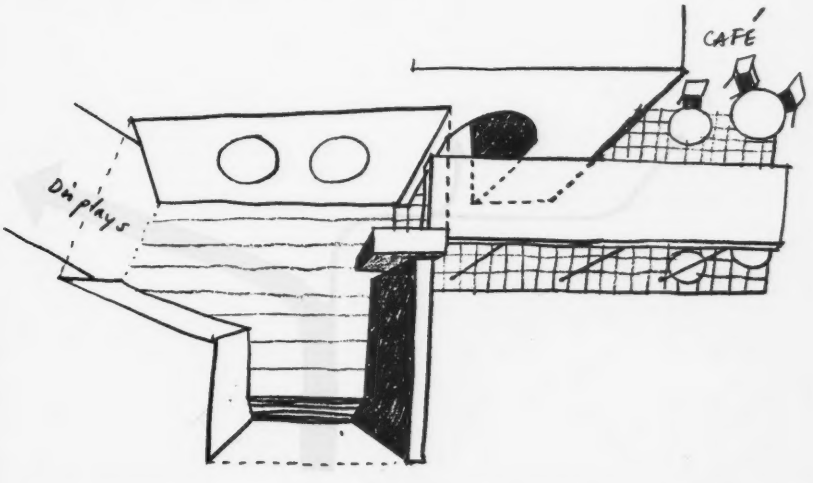




the window-shopper, if this were a pedestrian shopping arcade in a new town—as a building so planned well might be—can slip away as soon as he is bored or fatigued.

As you approach the corner of the People of Britain building, therefore, before turning to make the final passage underneath the railway, you are invited, but not too forcibly diverted from your tour of the exhibits, by an open concrete grille beside a doorway, 37, leading into a paved passage. On turning through the doorway a boldly lettered arrow points the way to a side entrance to the same vaulted café—the Turntable café, 36, that you inspected previously from the concourse. This side entrance is so ingeniously planned (see diagram below) and the doorway from the People of Britain so discreetly masked, that no one in the main concourse is aware of it and there is no tendency for the visitor unwittingly to enter the sequence of display in the People of Britain at a half-way point. Without any physical barrier the one-way traffic is maintained.

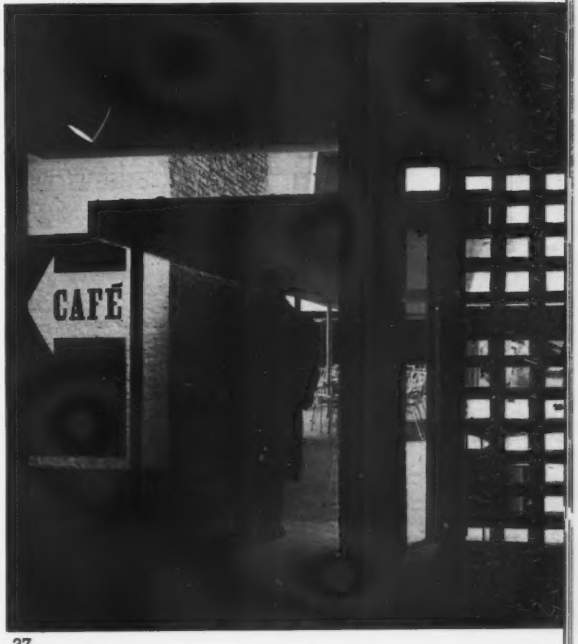
Continuing the tour you plunge beneath the railway, emerging from the darkness the other side into the open air and the downstream half of the exhibition. Once more you step into what might be the busy market-square, 39 (overleaf), of a real town. There is another enclosed piazza—though not so completely enclosed as the Fairway. The architecture here is rather different in scale. It is quiet, intimate and a little formal, in contrast to the more aggressive exhibitionism of the upstream architecture. This difference between the two halves of the exhibition not only underlines the difference of theme, but produces a pleasantly varied character very different from the insistent clamour for attention, never letting up for a moment, which characterizes most exhibitions and many town centres.



You enter the piazza through the pillared lower storey of the television building. On your left, raised on a low platform, is the calm, dignified façade, discreetly monumental, of the Lion and Unicorn building, 38, as it might be some small public building commanding the town square. On your right, the far side of the piazza is closed by the Telekinema and

37, break-out from the People of Britain into the Turntable café. The lettered arrow points the way to 36, *a two-level café terrace beneath the railway viaduct.*

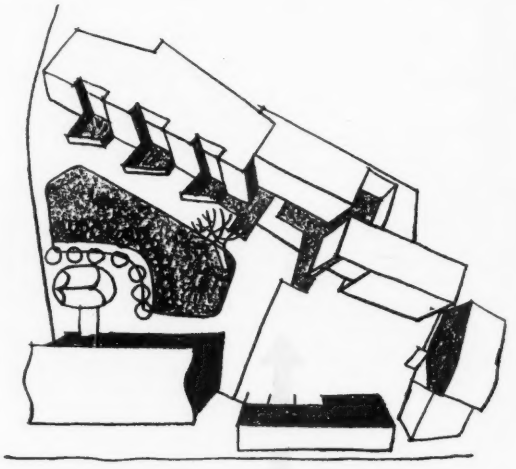
36



37

the narrow exit beyond the television building, 40, suggests a street ready to lead you away into other quarters of the town. Facing you is the variegated façade of the Homes and Gardens building.

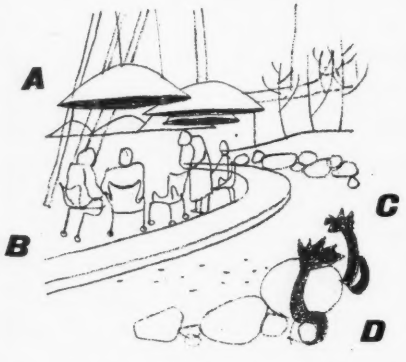
The piazza provides for several different uses: for normal pedestrian traffic, for more leisurely promenading, for sitting in the sun, 41, and (a little in the background) for eating and drinking out of doors, since the fourth side of the square (see sketch plan below), partially closed by the



Lion and Unicorn building, is also bounded by an informally planted garden containing the Unicorn café, 43.

Here and elsewhere in the piazza the designers have made skilful play with a number of the many devices that are at the town-builder's disposal in his task of giving character and vitality to the urban scene: minor changes of level, 40; informal planting, 40 and 41, to provide a foil to steps and paving and screen off a garden area for rest and reflection; the invisible wall, 42, beneath which the exterior paving is carried into the building, making the closest possible visual connection between inside and outside.

In the Unicorn café, 43, exemplary use is made of a number of other devices whose use the town-builder has taken over from the landscape gardener. At C in the sketch below, water not only adds liveliness to the garden layout through its changing surface and its reflections of the sky, but provides the perfect barrier, defining the limit of the café area without interrupting the view. No railing is required; only a low stone kerb, B, with which the rough boulders bounding the water garden on the other side, D, make an agreeable contrast. The hanging umbrellas, A, likewise obstruct the view as little as possible, while providing the necessary shelter. They indicate the location of the café for a distance, and give the flat garden an interesting skyline. Their rounded forms and strong colours make a lively contrast with the wiry shapes of the white-painted furniture.



The colour-scheme of the piazza shows evidence of the most careful study and the walls of the buildings (like the floor of the piazza) are rich in texture. The upper wall of the television building is plastered in sky blue, with large letters in yellow; the quilted wall of the Telekinema is earth brown, and the introductory pavilion to the Homes and Gardens building carries canvas panels broken into triangles of pale green, black and chocolate brown. These clear colours are relieved by the grey texture

38, the paved platform in front of the Lion and Unicorn building, facing on to the downstream piazza. 39, looking into the piazza, beneath the television building from the exit from the People of Britain.

38

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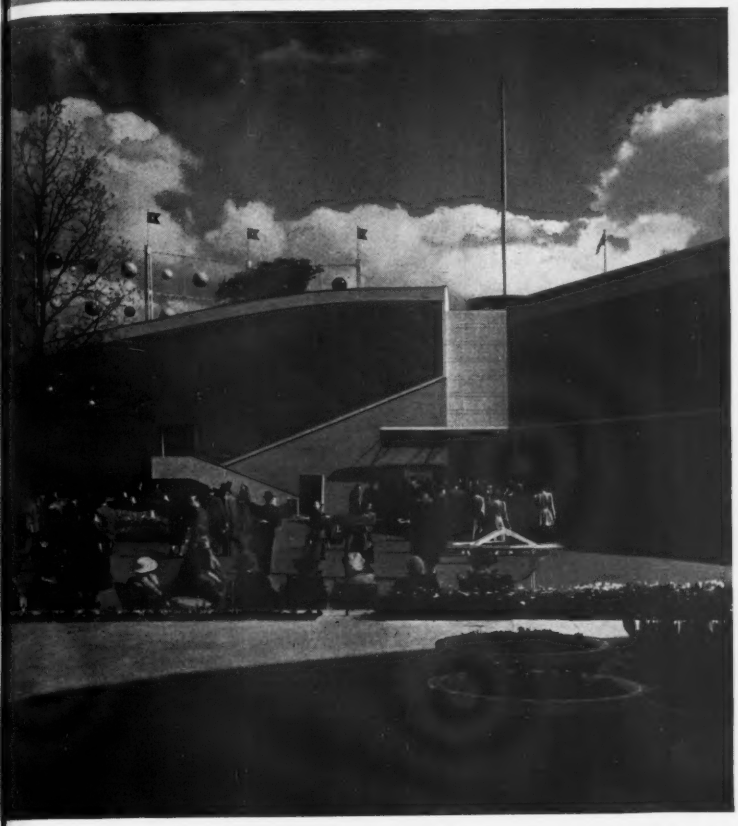

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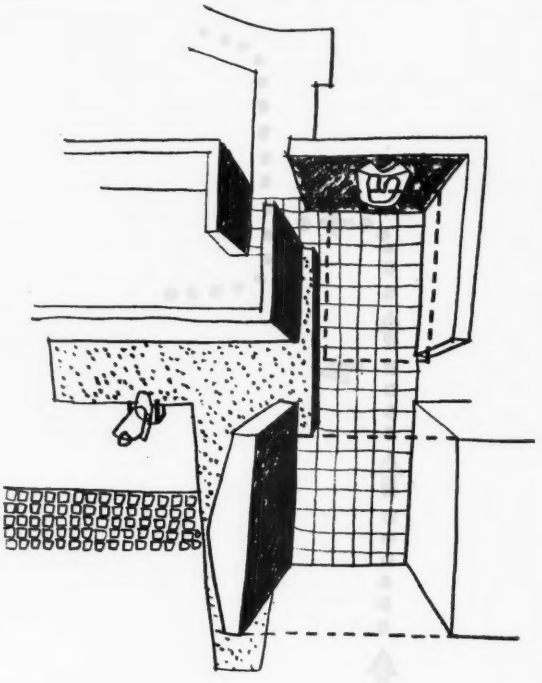
Entrance to Homes and Gardens: **44**, *first portico;* **45**, *closed vista;* **46**, *open view to left;* **47**, *concealed turning;* **48**, *entrance left, break-away right.*

of the flint gable wall of the same Homes and Gardens pavilion, by the brownish brickwork of the main Homes and Gardens building and by the vertical white lines of arrises, columns and flagpoles. The main view riverwards from the piazza passes between the formal planting in front of Homes and Gardens on the one hand and the irregular café garden on the other, to find a climax in the old shot-tower, a striking study in planned landscape.

On a smaller scale an even more striking bit of planning is the entrance to the Homes and Gardens building illustrated in the series of pictures on the left and in the sketch plan immediately below, on which the photographic viewpoints are marked. It is another instance of the concealed opening used on a larger scale in the Fairway piazza in the upstream section, for as you move from the piazza towards the portico formed beneath the superstructure of the introductory pavilion, 44, you



are confronted, in despite of the invitation extended by the bold inscription, not with a doorway but with a blank wall, 45, given some degree of formality by a piece of sculpture centred on it. As you move forward there is a sense of gathering confinement, which is suddenly dispelled a few paces further on by an unexpected view to the left, 46, across a lawn, a sunken pool, a sculptured figure and the distant shot-tower—a playback, as it were, of the view you have lately left. The foreground is unobstructed, but the slightly raised level of the lawn is sufficient to deter you from straying in this direction. As you approach nearer the blank wall, 47, you are enclosed again on both sides, and partly roofed in by a geranium-decked trellis, throwing a pattern of shadows on the pavement. An opening now reveals itself in the left-hand corner which, approached more nearly, 48, reveals itself as a double exit, straight on down a ramp—a break-away into another courtyard—or sharp left into the comparative darkness of the interior of the building.

The Homes and Gardens building lives up to the second part of its name by assiduously introducing the garden indoors and providing views of outdoor greenery. 49 (facing page), flower boxes protect a plate-glass window beyond which is a children's garden and another courtyard with its partially concealed bandstand. 50, a planted window-cill, and beyond it still another view of the piazza you have recently left. 51, a miniature formal garden, displaying a variety of floor textures. It is slightly sunk below the roadway outside, giving quite a new aspect to the half-seen exhibition concourse beyond. 52, another formal garden with a garden terrace in the background, showing the decorative value in an urban

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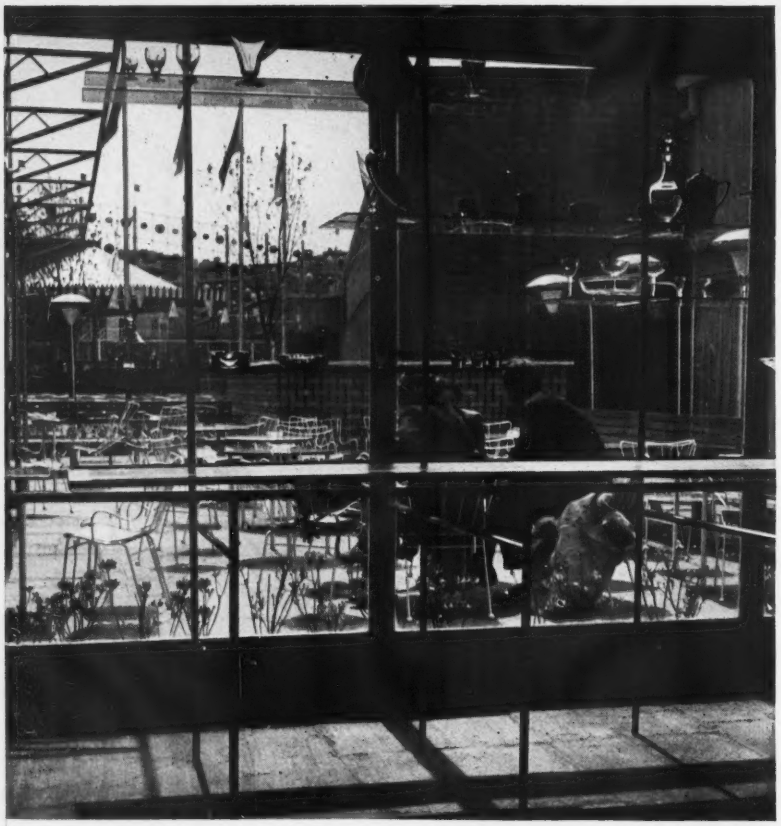
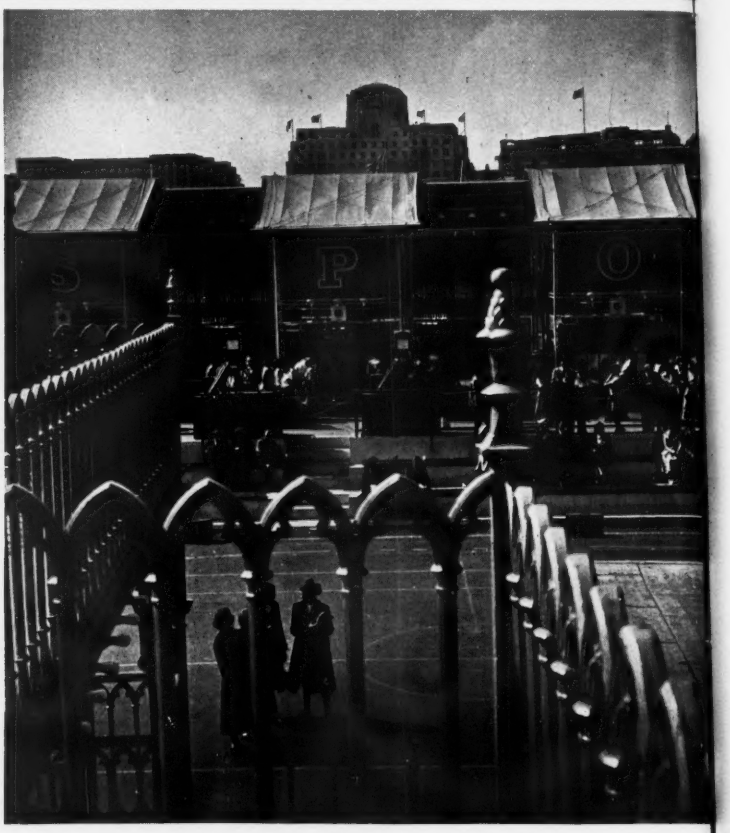
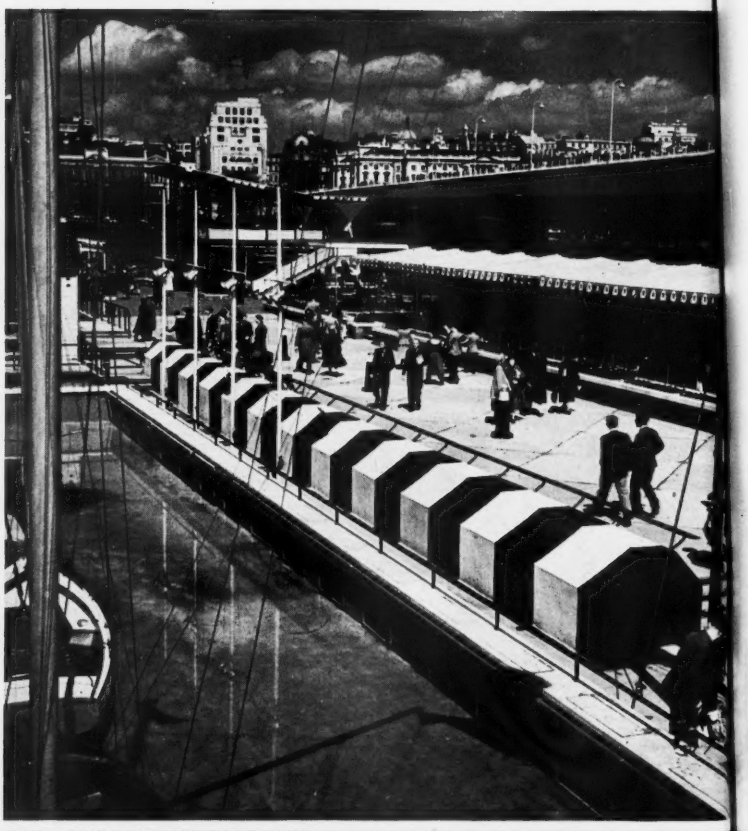
51	52

foreground and background . . . .





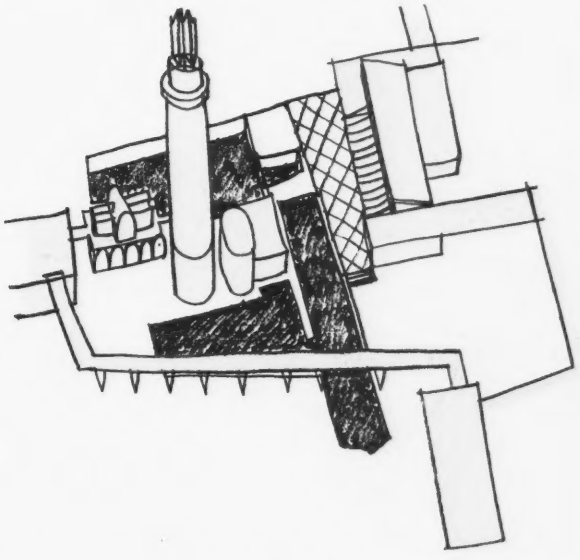


53	54
55	56

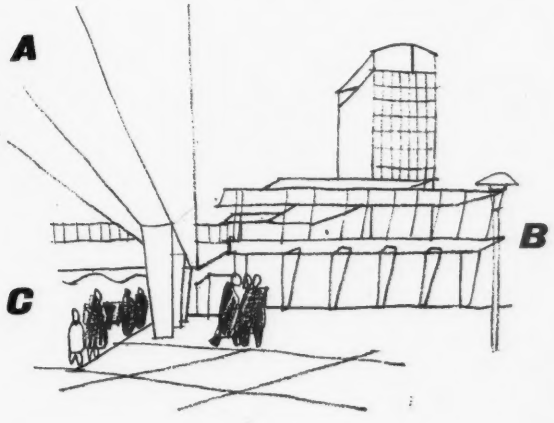
setting of minute quantities of planting when combined with a well-chosen variety of materials and textures.

At the far end of the Homes and Gardens building is another unexpected view, 53, through a glass screen whose vertical plane is decisively marked by a display of pottery and glassware in front of it, to the mysterious back courtyard already glimpsed in 49. In the near corner of the courtyard is a café (seen more clearly in 57) and beyond it a bandstand—an exhibition side-show casually revealed. Beyond that again is a busy background of boundary screen and flagpoles.

You emerge from Homes and Gardens into the main concourse of the downstream section, 55, dominated by the steel and glass observation tower that marks the Waterloo Gate. The entrance platforms (B in the sketch at bottom of page) at its foot extract plenty of drama from floating roof-slabs and cantilevered galleries and the deep shadows cast beneath them. From one of the half-landings a narrow footbridge, A, springs right across the concourse and boating-pool to provide a direct link between the Waterloo entrance and the Royal Festival Hall, to which it gives access at terrace level. Within the land arches of Waterloo Bridge, C, are the entrances to the Schools and Health displays, where an intriguing sense is given of being both indoors and out. The wide roadways of the concourse are



relieved by flowers and sculpture, 58, and from it a paved street, 56, runs down to the river between the boating-pool on one side and a raised café terrace on the other. There are glimpses of the river hereabouts, but this stretch of the river front (where the north bank panorama opposite is at its dullest) has been deliberately closed off by the semi-transparent Sports display, 54, adding an element of mystery to the riverside treatment, using suspense and surprise as foils to the open display of riverside scenery encountered elsewhere. 54 is taken from the cast-iron and concrete gallery containing the 1851 memorial exhibit.



57, concealed courtyard and garden café, seen through a pottery display in the Homes and Gardens building. 58, flowers and sculpture as foreground to the Waterloo concourse.

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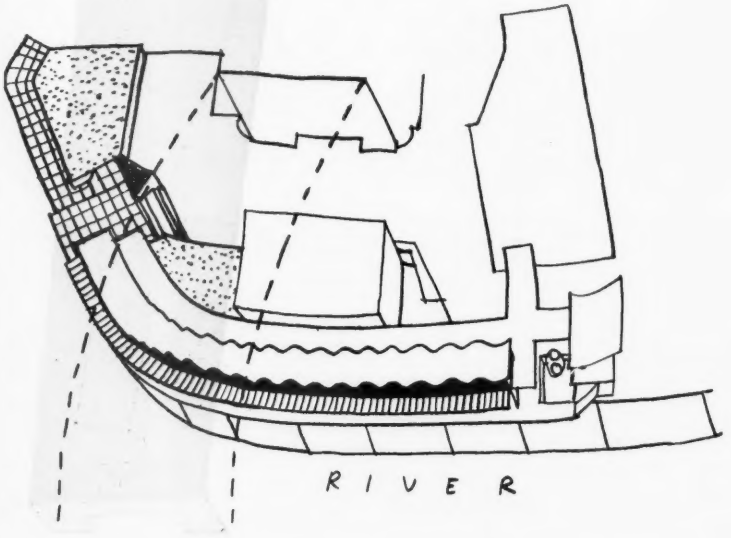
Thames-side restaurant: 59, *downstream terrace;* 60, *clerestory landscape;* 61, *board-walk and river view.*

This is closely linked to the shot-tower, and they jointly provide a high focal point in the centre of this irregularly planned area as the sketch on page 99 indicates.

On approaching the river the itinerary takes you round to the right, behind the Thames-side restaurant with its pretty undulating roof and underneath the first land arch of Waterloo Bridge. It then brings you out on to a terrace (in the top left-hand corner of the plan below), and confronts you with a new and surprising aspect of this magnificent riverside site: the view *down*-river, 59 and 62, entirely different in character from the up-river view you admired from the Sea and Ships building and the terrace of the '51 Bar.

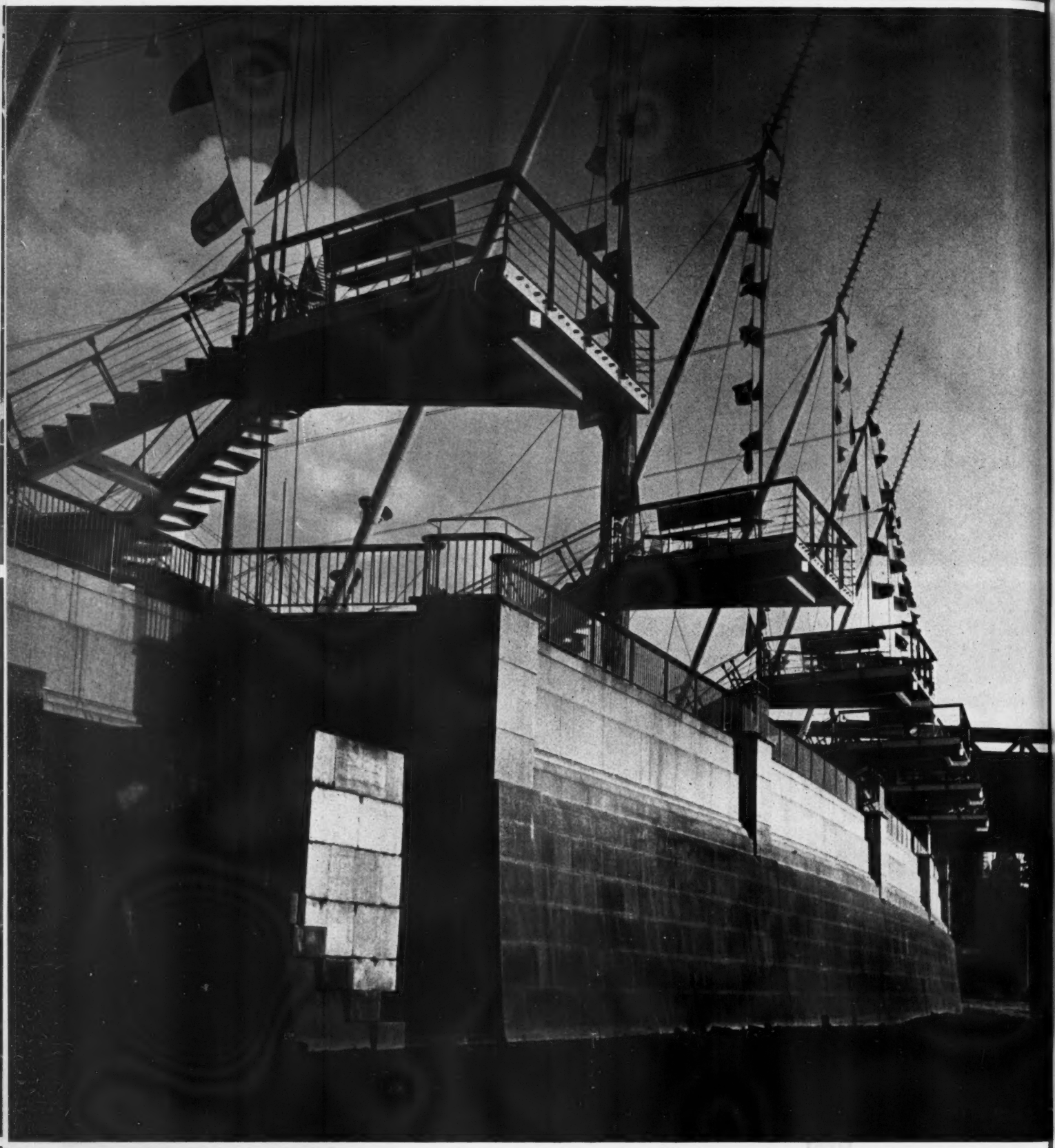
On the right is working London, a tangle of grimy jetties, cranes and warehouses rising picturesquely from the foreshore mud. Beyond them is the wide sweep of the river as it curves away towards the south and beyond that the skyline of the city crowned by the dome of St. Paul's. An exhilarating view and a perfect platform from which to admire it, near enough to the water to feel its coolness in the air, a thing a Londoner can rarely do in spite of the fact that his city has grown up along the river.

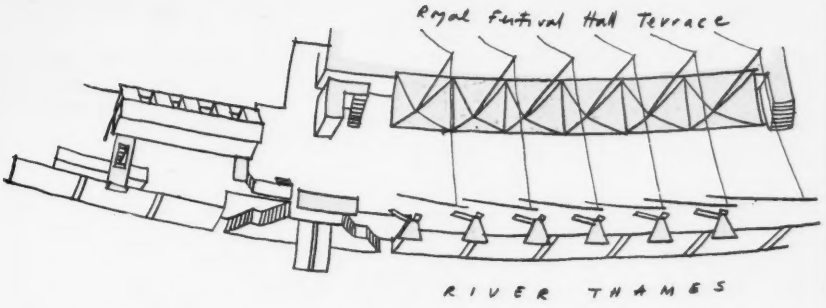


The Thames-side restaurant is equally well-sited to provide the same experience. It is worth entering first of all by the down-river entrance to observe, in the entrance vestibule, the clerestory windows, 60, past which you are surprised to see walking foot-passengers on Waterloo Bridge, outside the exhibition grounds altogether—a landscape view at an unexpected level. But you must return thence, through one of the openings in the glass screen that forms the river wall of the restaurant, on to the narrow board-walk outside, which follows the curve of the restaurant the full length of its river front. This board-walk, 61 and 63, has a row of tables along its outer edge and thus combines the functions of open-air café and river promenade. It has nautical-style railings, a red and white striped awning for shelter and a boarded floor with open joints through which the movement of the water can be seen beneath your feet, giving a wonderful feeling of the immediacy of the river.

The board-walk, like the restaurant, passes beneath Waterloo Bridge, after which the downstream view, 63, is exchanged for the upstream view, 64. In the background is the serrated skyline of Whitehall Court, already familiar as the climax of the upstream concourse. The board-walk terminates in a staircase, 65, leading up to a viewing deck from which a new waterfront panorama is obtained. The staircase, cantilevered out over the river wall, gives the visitor a remarkable sensation of being swung for a moment, as it were, right outside the exhibition, an effect

62 | 63
64 | 65





enhanced by the open risers through which the exterior face of the river wall, as well as the river itself, can be seen.

Up-river from this viewing-deck, as far as Hungerford railway bridge, is another stretch of riverside promenade behind which rise the terraces of the permanent Royal Festival Hall (see sketch plan at top of page). Suspended above it, and overhanging the river wall, are look-out platforms, 66 (facing page) and 68, smartly painted and beflagged, and designed with all the economy of means and forthrightness of effect traditional to nautical engineering. Their function is to enable a visitor who climbs the double flight of stairs to feel isolated for a moment from the bustle of life on land. They are a spirited addition to London's riverside amenities which, like the Thames-side restaurant and board-walk, might well be preserved after the exhibition closes.

Along the inland side of the promenade stretches a continuous awning, providing a parallel promenade under cover, and a pleasant area of shadow to contrast with the brightness and sparkle of the rest. It accommodates various outdoor displays evocative of seaside life and leisure. With its freely planned kiosks and entertainments it might, indeed, be the water front of a river or seaside resort. It can be seen in the background of 69, and 67 is taken from underneath it. In the centre of 67 is the base of one of the masts which, by a system of cables and counterweights, hold up both the awning itself and the look-out platforms illustrated on the facing page.

At the up-river end of the promenade, as you emerge from the shelter of the awning, there is a view, 70, up a service side street, alongside the flank of the Royal Festival Hall, the terrace of which forms a side-walk at a higher level. You then pass beneath the railway bridge, 71, on to the

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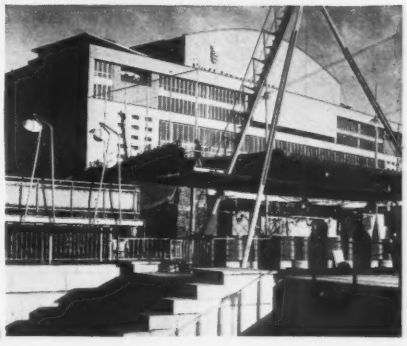

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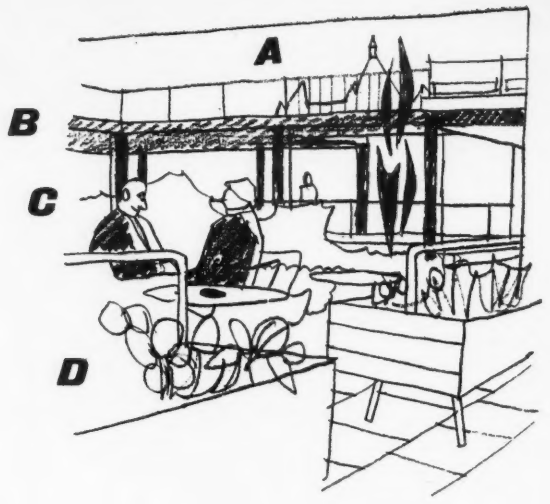
Downstream river front: 68, *look-out platforms;* 69, *seaside parade with awning (in the background the Royal Festival Hall);* 70, *side street and flank of Royal Festival Hall;* 71, *under the railway bridge to the upstream section.*



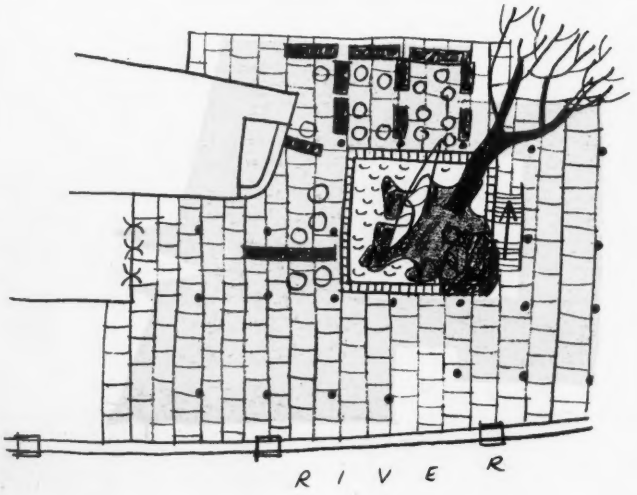
upstream promenade, meeting again the distant view of the towers of Westminster, framed this time by the terraces of the Regatta restaurant.

This three-storey restaurant combines with its own system of open terraces the terraces and staircases required to receive visitors who approach the exhibition across the Bailey footbridge specially built over the Thames alongside Hungerford Bridge. They arrive at a high level and are brought down to the riverside promenade (and thence to the main course), on the landward flank of the restaurant, **73**. The opportunity is used to create an intricate composition of platforms and staircases which frame both river and exhibition views. In the middle is a garden, **75** and **76**, designed to be seen from the various surrounding levels, and alongside it an overhanging wing of the restaurant, **74**, shelters an outdoor bar (see sketch plan below), with sitting space incorporated in the garden.

The design of this garden and the terraces around it is an object-lesson in the intelligent use of many of the landscape devices which this exhibition so aptly demonstrates for the benefit of the future town-builder. Several of them are illustrated in **76**: the low flower boxes (D in the sketch above) to rail off the sitting area without the need for obstructions at eye-level; sculpture, water and greenery arranged in an informal way, C, to give variety of texture and set off the rigid lines of the architecture; variety of levels, B, to provide the unexpected view; transparency of structure, A, to take full advantage of the lively prospect across the river. This river view, the climax of the exhibition, to which the visitor's eyes are continually encouraged to return, is seen best of all from the upper terrace of the restaurant, **77** (overleaf), where the panorama of London buildings constitutes an older counterpart to the buildings of the temporary new town on the South Bank—a permanent *North* Bank exhibition.

The river view is at its most romantic at night. **72**, *looking across from one of the terraces of the Regatta restaurant to floodlit buildings on the north bank of the Thames.*

72



73 | 74
75 | 76

north bank exhibition . . . .

77

THE EXHIBITION AS A

TOWN BUILDER'S PATTERN BOOK

A civilized urban landscape depends just as much on the quality of its incidental details as on the quality of the buildings the town is composed of. Good architecture can be ruined by clumsy street furniture, by the ill-considered design of railings, steps and pavements, by bad lettering or by a failure to make proper use of trees and plants. On the other hand, if all these details are well handled, they are capable of transforming bad architecture, if not into good, at least into an acceptable whole, so that it becomes a variegated and only partially apprehended background to a satisfactorily designed foreground scene.

A special virtue of the South Bank exhibition is that details of this kind are, almost without exception, of a remarkably high standard—imaginatively conceived and intelligently carried out. It is, or should be, an object lesson to town-planners, borough engineers and others responsible for the design of roads and their furniture, public spaces and their layout, and of all the other incidentals that occupy the foreground of the urban landscape. It should be studied with special attention by the designers of our new towns, where the scene is not already confused by the mistakes of the past and where there is therefore a rarely found opportunity of setting up new standards in urban design.

Other parts of this issue illustrate the buildings of the South Bank exhibition and the layout of the grounds in its larger aspect. On the following pages the photographer's eye is focused on the smaller external details. The examples chosen from the many interesting pieces of detailing in the exhibition are those which provide the best precedents for future use in new towns and old—the nucleus of a town-builder's pattern book. They are arranged under the following headings, which correspond to a distinct type of problem that the town-builder has to solve and echo the title under which the REVIEW has dealt with similar problems in the past.

the functional tradition* To decide, as we must, that the acknowledged historical styles of architecture are no longer relevant to the needs of to-day does not mean abandoning all reference to the past. Alongside and contemporary with the historical styles there has always existed a tradition of non-stylistic architecture, derived from a straightforward fulfilment of function by the simplest engineering means, and from the logical use of materials. This anonymous architecture, whether in the form of large structures like bridges, harbour works and warehouses or of small details like handrails, steps and bollards, provides a valuable basis for a rule of thumb solution to many design problems, and is well in tune with the spirit of our own age since we, too, lay stress on fitness for purpose and truth to material. The exhibition contains several good examples of the functional tradition of design which show how readily it is adaptable to modern needs.

the nautical style A variant of the functional tradition, with a special character of its own, is to be found all round our coasts wherever the forthright demands of the shipwright and the seafaring man have gradually shaped building materials to their purpose over many generations. The attributes of the nautical style are a robust shapeliness, which is given an easily recognizable personality by the frequent use of whitewash and tar, originating as aids to visibility, but evolving with time into a decorative vernacular. The riverside situation of the

* See THE ARCHITECTURAL REVIEW, January 1950.

exhibition has inspired several of the architects to explore the possibilities of this nautical idiom, which seaside and riverside towns elsewhere would do well to study too.

intricacy comes to modern architecture Several buildings on the South Bank show modern architects successfully at work on the task of building up a richer vocabulary of effects than was current a few years ago, when simple geometry was admired for purity's sake. Intricacy is shown to be attainable by the use of all-over pattern, by the use of transparent planes visually superimposed and by other means that naturally come from an imaginative use of modern materials and structure techniques.

sky pattern The severe horizontal roof-line that has dominated architecture for many years—indeed, since the Georgian revival supplanted Norman Shaw romantic at the beginning of the century—is at last being broken. It is characteristic of the contemporary emphasis on lightness and spatial effects that it should be broken not by a picturesque silhouette of gables and chimneys, but by transparent structures making a pattern with the sky. It is the kind of effect that can bring sparkle and variety to the urban landscape when skilfully contrived, but can ruin it when allowed to happen accidentally as when the sky becomes almost blotted out by a network of overhead wires.

interrupted view Closely related to the use of pattern against the sky, as a visual technique of great potential value to the town builder, is the use of screens of various degrees of transparency to make the most of a distant view when some sense of enclosure is, nevertheless, desirable, and to define the limits of a foreground space without creating an absolute barrier. On the South Bank are numerous examples of this technique skilfully used: glimpses of the exhibition grounds through the horizontal louvres of Venetian blinds that cover the windows of some of the buildings or form the outer walls of others, views of the river half revealed by bamboo or planted screens on restaurant terraces, glass showcases indoors that permit a view of the outdoor activities beyond. An intriguing sense of being half indoors and half out might well be similarly contrived in the shopping arcade, the café terrace and elsewhere in permanent town architecture.

the use of hazards From the interruption of the view to the interruption of physical progress. There are many places where the town-planner needs to guide the pedestrian in one direction rather than another and prevent his feet straying where they shouldn't. Rather than rely on the solid wall or the forbidding high iron railing he can make use of many more imaginative means, generically known as 'hazards,' which, instead of putting a solid barrier in the pedestrian's path, *suggest* a barrier by subtle psychological means: by the use of slight changes of level, of water, of grass and of planting. The potential decorative value of these is illustrated in many parts of the exhibition.

exploiting the third dimension Town-planners are beginning to understand that their art is not only one of drawing lines on the ground, but of projecting them into the air. But in their rediscovery of the third dimension they have not yet exploited it to the full as some examples of the dramatic use of levels at the South Bank suggest. A contemporary architecture of slender structures, bold cantilevers and transparent walls lends itself particularly well to three-dimensional planning and all the visual effects which that implies.

planting in odd corners A recurrent problem in the layout of streets and squares, of which too few municipal authorities are even aware, is how to treat the odd corners, the small areas of unusable space at road junctions, where the pavement suddenly widens, where the blank wall of a building faces a public square. If they are ignored the result is an air of neglect and a receptacle for dirt and paper bags. As many towns of Scandinavia show (and many imaginatively treated corners of the South Bank) such odd corners can be effectively filled in with informal planting, adding a touch of greenery where it is needed most. Municipal planting is generally restricted to public parks and gardens of some extent, but planting on a minute scale is proportionally far more rewarding, though it must be done wittily and without formality. What is not required is the heavy hand of the municipal engineer.

wallscape Variety of texture in wall surfaces, whether produced by changes of material or by the application of colour or other decorative surface, makes an important contribution to the progressive enrichment of their vocabulary which modern architects are now seeking. The range of materials and textures to be seen on the South Bank is immense and their applicability elsewhere is obvious.

street furniture A special virtue of the South Bank exhibition is the care given to the design of all the items of equipment that stand on and around the pavements: seats, lamp-posts, litter containers and the like. They charm the eye individually and give unity to the whole scene, illustrating the value of well-designed furniture in any urban landscape.

lettering Campaigns against bad lettering in public places have resulted in the elimination of many ill-conceived, showy Victorian and Edwardian styles, but have replaced them by rather negative styles, of which a genteel good taste is the only virtue and in which the orthodox Roman letters or the sans-serif letters popularized by Eric Gill are preferred to the more robust letters of the older English display traditions, such as the Egyptian. Now that the fashion for Gill has served its purpose of establishing the value of restraint and simplicity, town designers are free to introduce more *character* into the lettering they use, with the aid of colour, relief and the strongly defined square serifs which an earlier generation evolved for similar purposes. The effectiveness of this signwriter's tradition can be seen in almost every building on the South Bank.

functional tradition

The functional use of pebbles to give variety of pavement surface. 78, thrown down loose, and kept in bounds by a stone kerb: the terrace outside the Lion and Unicorn building (R. D. Russell and R. Y. Goodden, architects; Peter Shepheard, landscape consultant). 79, embedded in cement to form traditional cobbled paving on the terrace of the Royal Festival Hall (Robert Matthew, architect to the London County Council).

78
79

80, railings, decking and canopies linking the boardwalk outside the Thames-side restaurant (Fry, Drew and Partners, architects) with the riverside promenade. This and the external stair, 81, at the Dome of Discovery (Ralph Tubbs, architect) illustrate the modern use of traditional functional elements—traditional in the sense that they might have come out of stock at any time since the materials they employ were first brought into use.

80
81

There is also a functional tradition of exterior paintwork, as exemplified in the base of the old shot-tower, 82, painted black and white by Hugh Casson to contrast with the stock brickwork above. In accordance with tradition, the window-cills and window-reveals in the tower are white also. Another example of the traditional use of colour, both functional and decorative, is the black and white painted kerb on the far side of the boating pool.

82

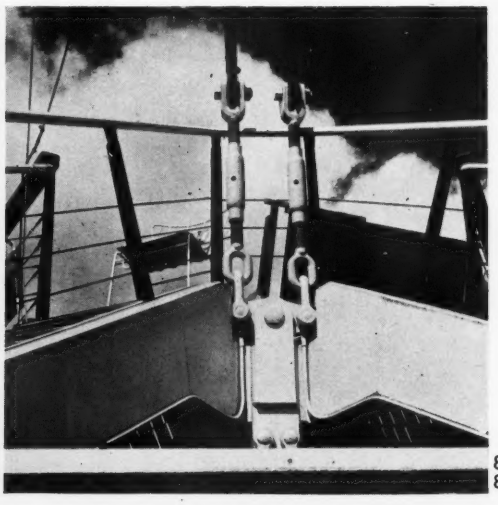
functional tradition

The posts forming a chain barrier, 83, in the Sports section (Gordon and Ursula Bowyer, architects) are a sleek adaptation of the traditional quayside bollard. The white painted railings, 84, in front of the Countryside building (Brian O'Rorke, architect) use a traditional style of park railing with great elegance. Note the uprights planted direct into the grass just clear of the pavement edge, and the slight angle at which the railing is canted inwards.

83
84

nautical style

The constructional techniques and characteristic finishes evolved by generations of shipwrights and dock engineers are well adapted for use in modern architecture, which takes the same delight in economy of line and structure. They are aptly used in the design of the look-outs that overhang the river wall in front of the Seaside section (Eric Brown and Peter Chamberlin, architects). 85 and 86, typical details.



85
86

87, one of the same look-outs, seen from below. The platforms are carried on a light steel framework suspended from a mast (another familiar ingredient of the nautical style) by a system of cables which are then taken back to support the canvas roof of the displays behind. For both brilliance and charm of effect this combination is one of the most successful things in the exhibition. It is the ideal waterfront treatment for the Royal Festival Hall and should be retained permanently. Notice also in this picture the appropriately nautical character of the railing that surmounts the river wall, with its handrail of polished wood. It is *genuine* nautical detail, not an architect's approximation to it.

87

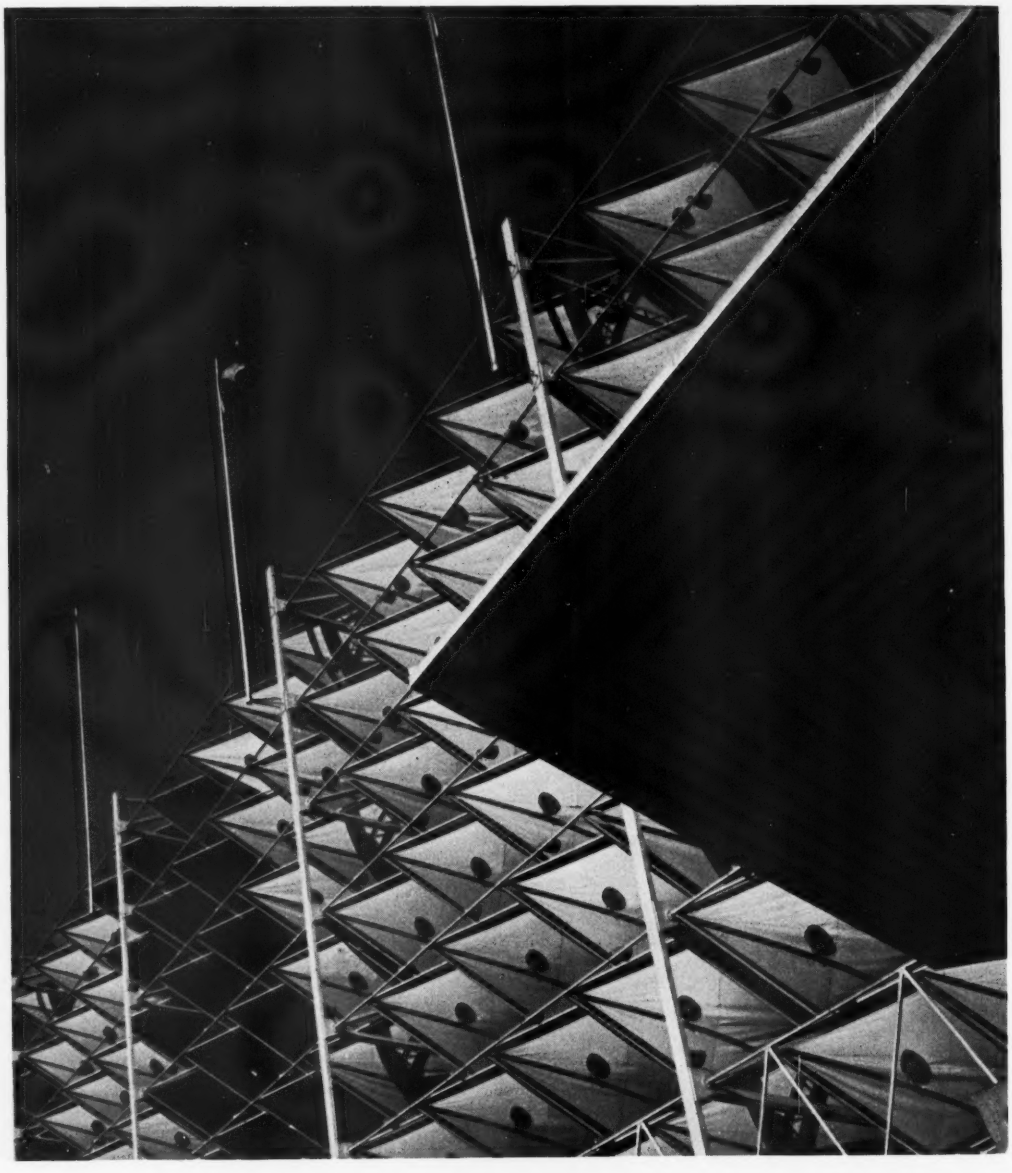
88, nautical-style railing, with wooden handrail and stretched canvas panels, on the boardwalk outside the Thames-side restaurant (Fry, Drew and Partners, architects). Note the open-jointed timber decking which permits glimpses of the river beneath one's feet, enhancing the sense of the immediacy of the water. Timber decking is also used in the Sea and Ships building, 89 (Basil Spence and Partners, architects), where it is surmounted by another standard type of nautical railing.

88
89

90

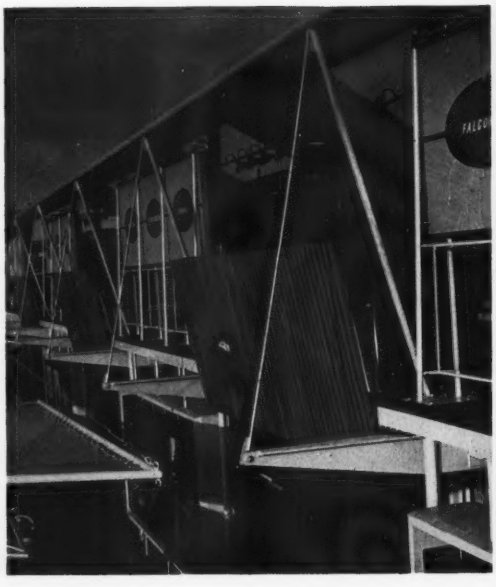
The previous examples of the nautical style show modern architects taking over genuine nautical elements and techniques and incorporating them in their own designs. 85 to 89 might be parts of a liner or a landing-stage. In 90 the process is taken a stage further. This crow's-nest decorating the Seaside section (Eric Brown and Peter Chamberlin, architects) is a fantasy inspired by nautical structures, but adapting them to its own purposes, an example of a live tradition reinterpreted and given a very different character in the process. This is in fact a skit on the nautical style. The success of such a skit depends on the wit of the designer, which in this case is of a high order. It is legitimate in an exhibition; elsewhere it has obvious dangers.

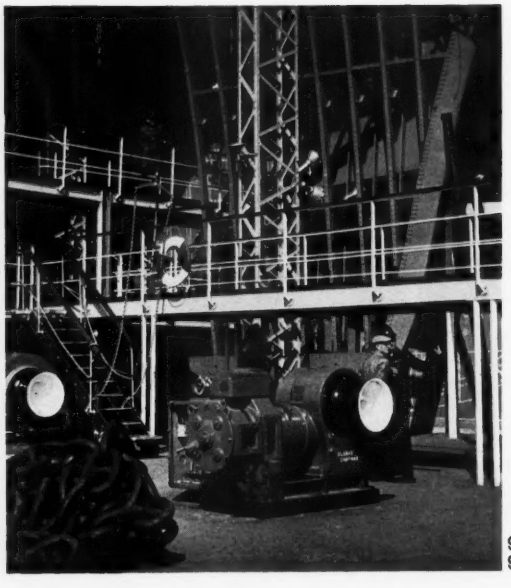
intricacy comes to modern architecture



91

A remarkable richness of texture is achieved in the screen, 91, separating York Road from the exhibition grounds (Architects' Co-operative Partnership) by an intricate arrangement of panels of coloured canvas stretched on a welded tubular steel framework to form a three-dimensional pattern. On the right of the picture is the underside of the timber roof of one of the kiosks (by the same architects) which stand over pools of water at the base of the screen.



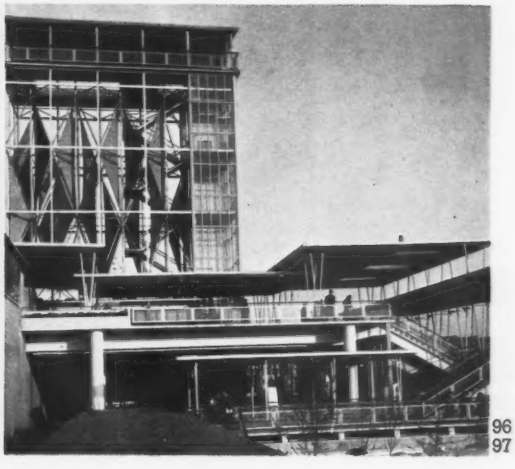


92
93

Two examples of the intricacy of effect obtainable when all three dimensions of a structure are visible at the same time. Both the sport exhibit, 92 (Gordon and Ursula Bowyer, architects), and the Sea and Ships building, 93 (Basil Spence and Partners, architects; James Holland, display designer) are conceived not as buildings to contain exhibits but as a kind of skeletal architecture consisting of the exhibits themselves and access gangways for the public woven among them.

94
95

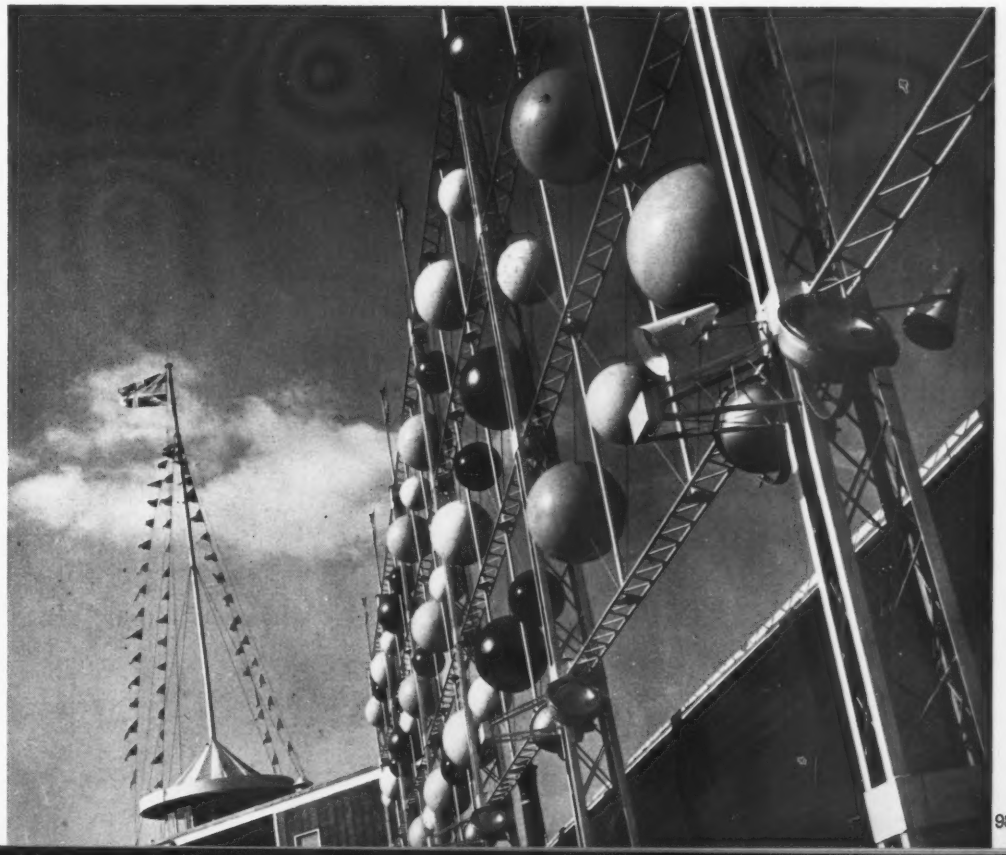
Intricacy is introduced into the larger view by the use of masts, flags and their supporting lines and cables, arranged in a regular pattern and helping to define, as it were, the receding planes of the picture. 94, Seaside section (Eric Brown and Peter Chamberlin, architects). 95, Unicorn café (R. D. Russell and R. Y. Goodden, architects). In the background are the old shot-tower and the temporary rear wall of the Royal Festival Hall.



96
97

The effect of intricacy in 96 is produced by the array of vertical elements in different planes: the strongly marked vertical angles of the buildings, the background flagpoles and the foreground railings. The façade of the Homes and Gardens building (Bronek Katz and Reginald Vaughan, architects) seen from one of the garden balconies designed by Gordon Cullen. In 97, the Waterloo gate (Fry, Drew and Partners, architects) intricacy is produced by the transparency of the whole structure and by the use of floating slabs intersecting and overlapping at various levels.

sky pattern

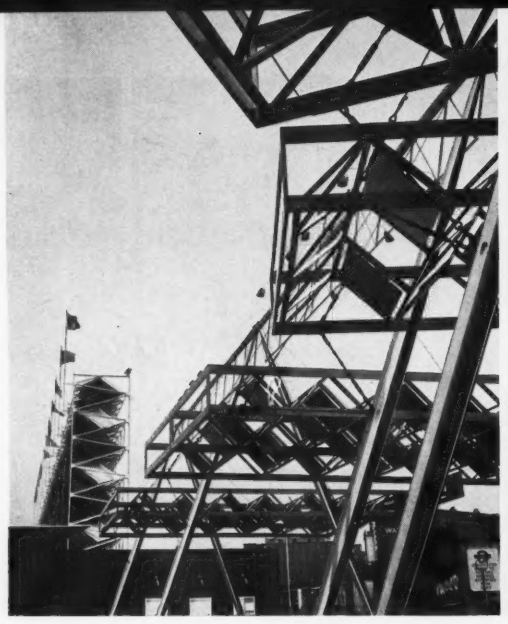


98

This light steel framework, 98, decorated with coloured balls, is designed both to provide a lively pattern against the sky and to distract the eye from the buildings visible beyond the boundary of the exhibition at the north-east corner. Edward Mills is the architect of this screen and of the observation post (seen in the background of the picture) which stands on top of his administration building.

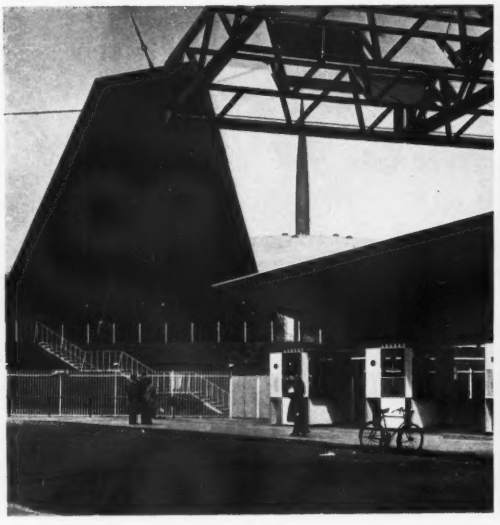
sky pattern

99, a complicated sky-pattern provided by the open-work canopies suspended above the Chicheley Street entrance (Architects' Co-operative Partnership). The essential character of the skylon, 100 (Powell and Moya, architects) lies likewise in its dramatic silhouette, accentuated by the near invisibility of the cradle of cables that supports it. In the foreground the boldly overhanging roof of the Dome of Discovery (Ralph Tubbs, architect) contrasts with the delicate outline of its lattice steel struts. On the left, the transparent structure comprising the Sea and Ships exhibit.



99
100

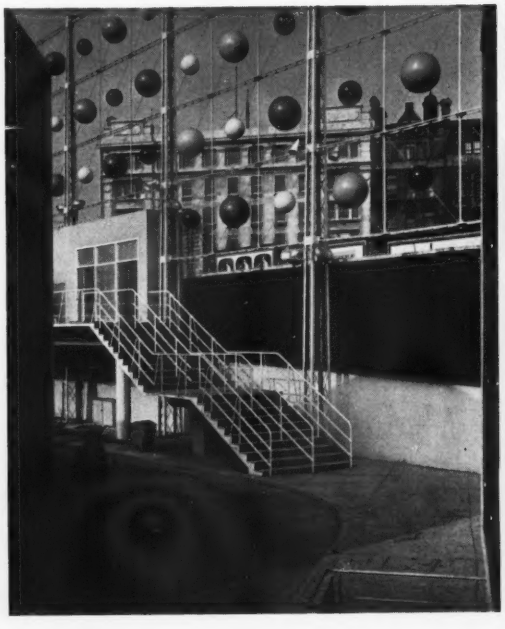
101, a variety of sky-patterns: the coal-faced concrete tetrahedron housing the mineral exhibit, the open-work canopy over the Chicheley Street entrance illustrated above and the angular concrete hood cantilevered over the pay-boxes and turnstiles. All are by the Architects' Co-operative Partnership. In the distance is the skylon, also shown from below in 102, with one of the exhibits outside the Sea and Ships building, showing how the same æsthetic quality is also found in functional—especially maritime—objects.

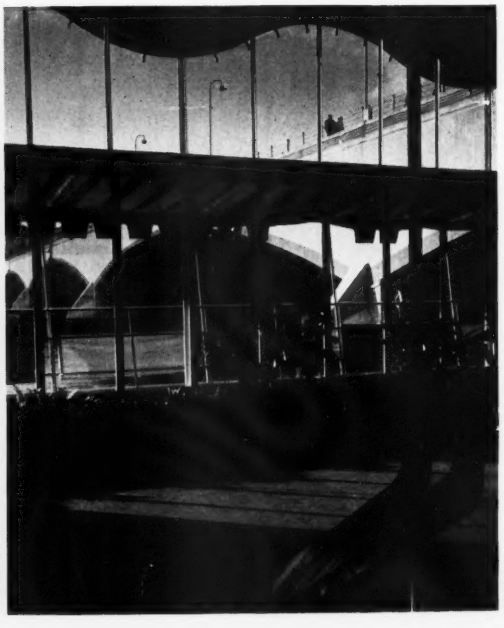


101
102

the interrupted view

The screen at the north-east corner of the exhibition, 103 (Edward Mills, architect—see also previous page) focuses the eye of the spectator on the coloured balls suspended within it and throws the London buildings beyond far into the background. That is the functional use of the interrupted view. Its decorative use is shown in 104, where the river scene is interestingly framed for the benefit of the visitor sitting in the Thames-side restaurant by the vertical members of the glazed side wall and the canopy and balustrade of the board-walk beyond (Fry, Drew and Partners, architects).





103
104

105, a bamboo screen used to partially reveal the view of the Palace of Westminster from the terrace of the '51 bar (Leonard Manasseh, architect) providing an interesting change of texture. The arched bamboo pergola frames the sky in a geometrical pattern and makes a ceiling of lights after dark. 106, pottery and glass arranged on glass shelves in the Homes and Gardens building (Robin Day, display designer) provides a well-defined foreground to a glass screen beyond which are intriguing glimpses of the café and courtyard beyond.

105
106

99
100

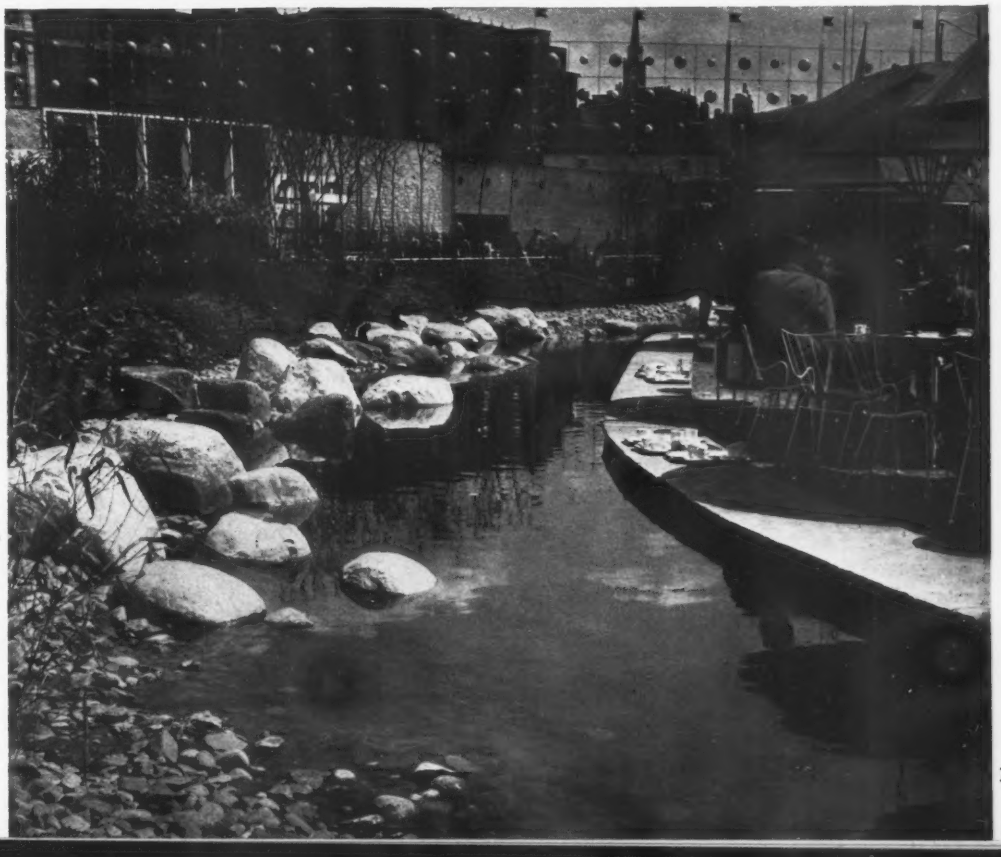
the use of hazards

The use of hazards is the technique of guiding people in a required direction without resorting to railings or other obstructive barriers. In 107 the flower boxes are a decorative way of preventing the unobservant walking through the plate-glass windows of the Homes and Gardens building (Bronek Katz and Reginald Vaughan, architects). The short wooden spikes on the upper surface, to prevent their being used as seats, are hazards of a rather different kind. 108 shows flower boxes similarly used at the Regatta restaurant (Misha Black and Alexander Gibson, architects) to enclose the seating area of the garden bar without obstructing the view in or out.

107
108

101
102

Water is one of the most effective hazards because there is no temptation to overstep the boundary it defines. It is sufficient, therefore, to mark the boundary only with a clearly visible low kerb, like the stone edging separating this water garden, 109 (Peter Shepheard, architect) from the Unicorn café, from which the visitor gets an uninterrupted view over the garden. This picture also shows the effectiveness of the decorative screen already illustrated in preventing the buildings outside from intruding into the exhibition landscape.



109

103
104

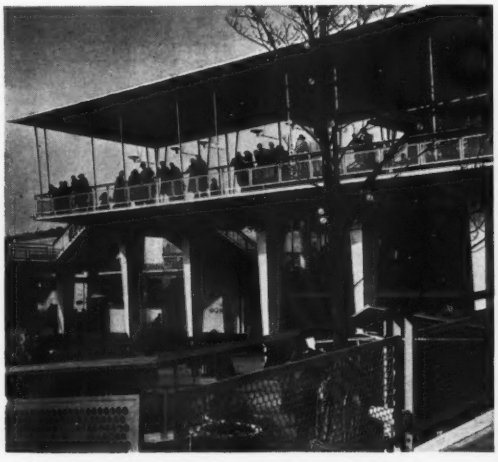
the use of hazards

Pools of water, 110, effectively guide the visitor's feet towards the steps leading to the Fairway kiosks (Architects' Co-operative Partnership). When traffic is to be canalized along one definite route water constitutes the most effective deterrent against the visitor straying elsewhere, as in the entrance to the Land of Britain, 111 (H. T. Cadbury-Brown, architect). The planting is by Peter Youngman and the sculpture by Henges.

110
111

exploiting the third dimension

The cantilevered or lightly supported slab, intensifying for whoever stands on it the drama of being poised in mid-air, is effectively exploited in the various terraces of the Waterloo gate, 112 (Fry, Drew and Partners, architects) and the Embankment gate, 113 (Misha Black and Alexander Gibson, architects). The garden is by H. F. Clark and Peter Youngman.



112
113

The same kind of drama is created internally in the Lion and Unicorn building (R. D. Russell and R. Y. Goodden, architects), where a lightly railed-in gallery spans from one end of the building to the other. This unfinished view, 114, shows the minimum interruption of the view down on to the floor of the building on one side and down to the ground outside on the other through the glass wall that opens one side of the building to the sky.

114

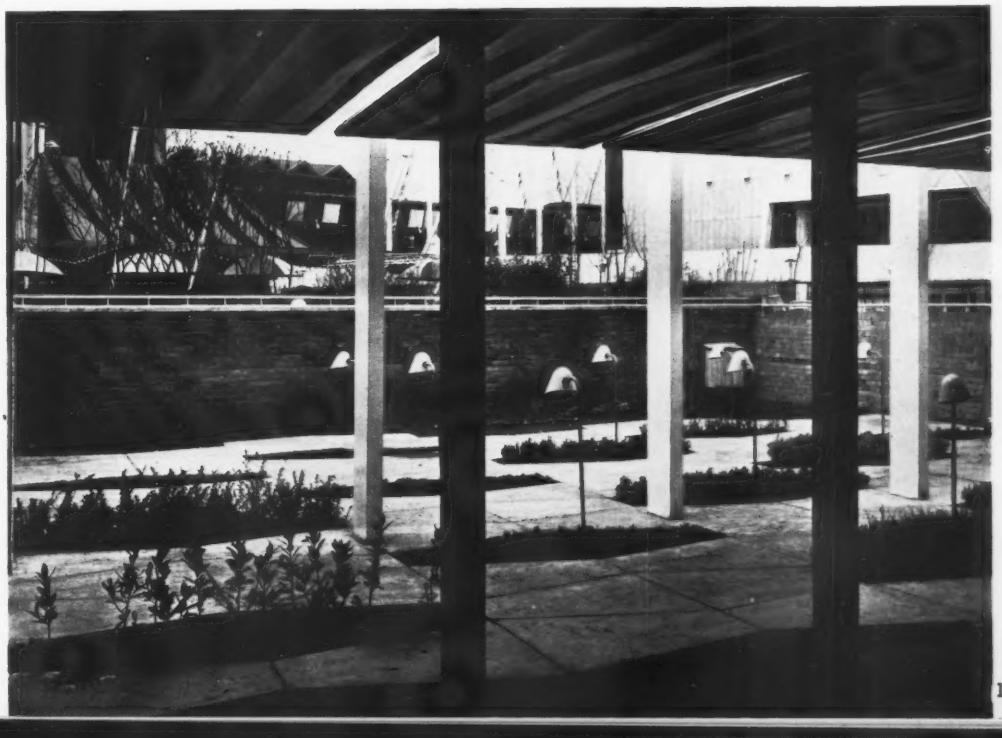
115
116

A sense of being agreeably poised on the edge of a precipice is also given in the '51 bar, 115 (Leonard Manasseh, architect) and the Regatta restaurant, 116 (Misha Black and Alexander Gibson, architects) where glazed walls are taken right down to the floor and restaurant chairs placed immediately inside them. The sculpture below the '51 bar is by Daphne Hardy.

117
118

The third dimension is fully exploited by the design of gardens in section, as it were, as well as in plan. The planting, 117, on the Royal Festival Hall Terrace (Robert Matthew, LCC architect) is composed of hexagonal concrete flower boxes which can be piled on top of one another both to allow changes of level and to provide additional depth of earth. 118, a more naturalistic garden at the end of the Fairway piled up at a steep angle so that it can be seen from a distance almost, as it were, in plan. The conventional flat garden occupying the same area would be overlooked (H. T. Cadbury-Brown, architect; planting by Peter Youngman).

planting in odd corners



119

Opening out from the galleries of the Homes and Gardens building (Bronek Katz and Reginald Vaughan, architects) is a series of sunk gardens which admirably demonstrate the value of a small planted area as a foil to architecture. The herb garden, 119, by Peter Shepheard, consists of a regular pattern of beds set in a square of paving of various textures.

planting in odd corners

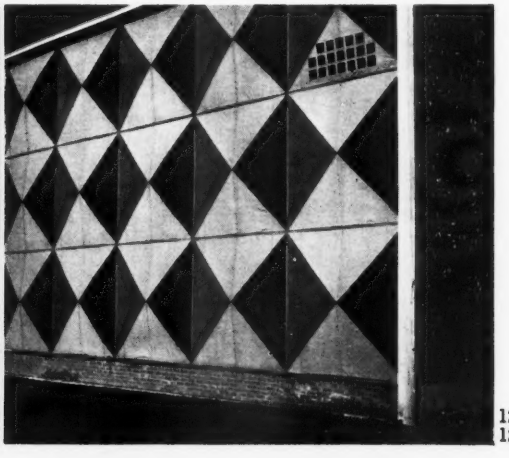
120

120, miniature oriental-style garden, occupying a concrete trough slightly raised off the ground against the brick wall of the Turntable café, alongside the Station gate (H. T. Cadbury-Brown, architect).

121
122

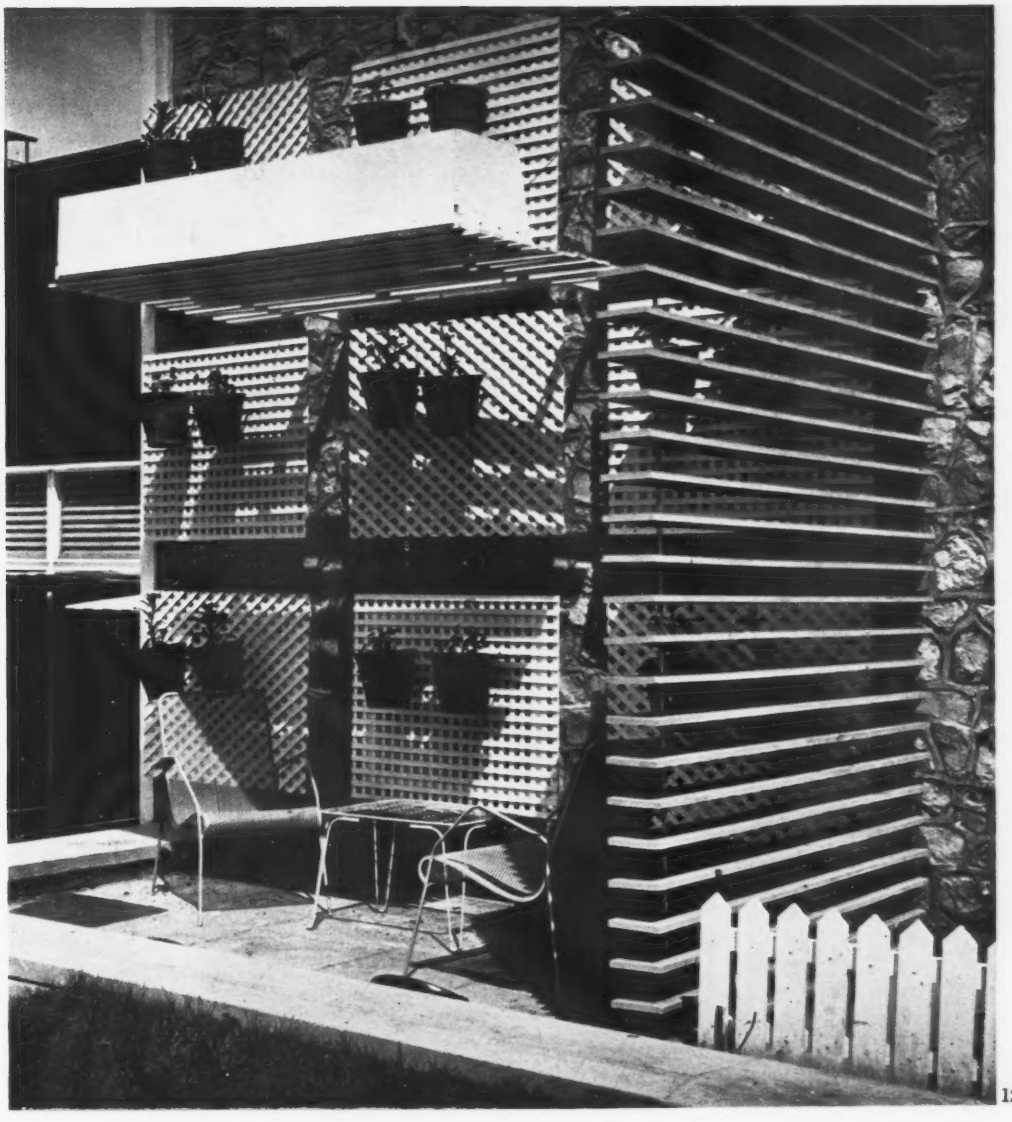
121, another way of enlivening the odd corners around a building: plants in circular pots form a temporary garden (by Peter Shepheard) behind the Royal Festival Hall and, as in 119, provide a foil to various textures of paving. Squares and other open spaces also have their odd corners which, if not carefully treated, become a receptacle for dirt and rubbish. Such a corner, 122, is filled in by the three-dimensional Fairway garden already illustrated in 118.

wallscape



123
124

Varied wall texture is one of the most obvious means by which modern buildings can be given more colour and richness. 123, the timber flank of the Sea and Ships building (Basil Spence, architect; planting by Peter Youngman). 124, introductory pavilion to Homes and Gardens—stretched canvas panels on the left; flint walling on the right (original design by Denis Clarke-Hall; Bronek Katz and Reginald Vaughan, executive architects).



125

125, great richness of wall texture is attained in this miniature terrace—a kind of formal garden planned vertically—designed by Gordon Cullen outside the Homes and Gardens building. The elements employed are rubble stone walling, white-painted trellis (square and diagonal), timber slats, plants in pots, board fencing and the complicated shadows each of these casts on the others.

street furniture

The South Bank maintains a very high standard of design in the various items of furniture that stand about on the pavements and piazzas. 126 and 127 are two of the most successful: the standard cigarette bin, by James Cubitt and Partners—the top and legs are black; the body partly yellow and partly red and white stripes—and the standard litter box, by Jack Howe, in grey with a yellow letter. The container is removable. There is also a single model, for placing against a wall.

126
127

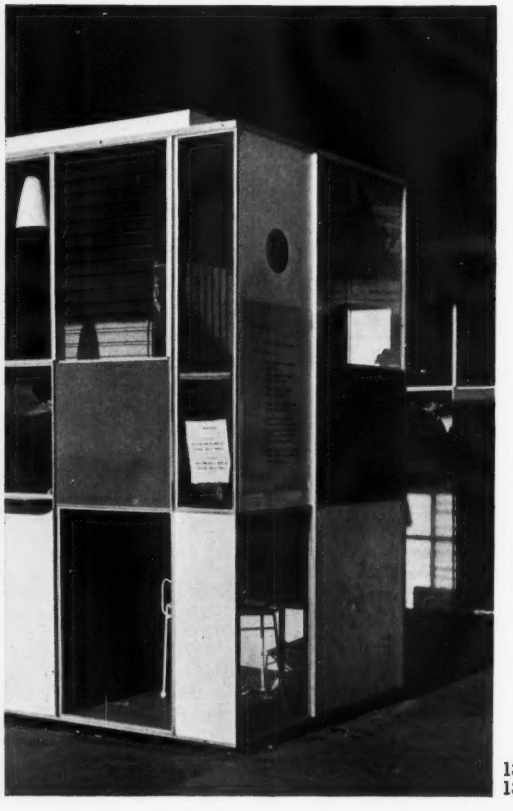
A standard outdoor chair used throughout the exhibition. This model is known as the 'Antelope' and was designed by Ernest Race. It is of bent steel rod, painted white, with a plywood seat painted in various colours. 128 shows a group of the chairs empty. 129 shows their elegant appearance when occupied.

128
129

In many parts of the exhibition grounds light fittings are placed among the plants so as to illuminate them at close range at night, as in 131. The fittings shown in both these pictures were designed in the Festival of Britain office, as were the circular plant pots in 130, grouped by H. T. Cadbury-Brown outside the entrance to his People of Britain building. The building in the background of 131 is the Telekinema by Wells Coates.

130
131

132, portable signpost, with lettering in white on grounds of various colours, used throughout the exhibition and designed by Robin Day and Milner Gray. 133, paybox at the Chicheley Street entrance, by the Architects' Co-operative Partnership. This geometrical arrangement of transparent, louvred and solid panels constitutes a style of design well suited for telephone boxes and similar structures in town streets.



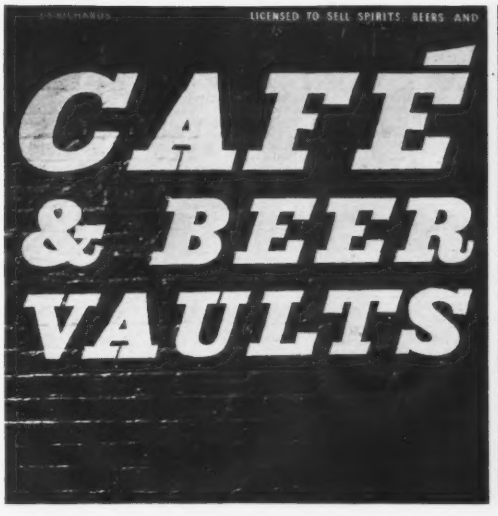
132
133

lettering

External lettering throughout the exhibition was under the general control of Gordon Cullen. In the past when the usual tasteless array of commercial lettering has been brought under control it has been replaced by a genteel roman or by the—for display purposes—characterless Gill. Here there has been a welcome return to the well-tried early nineteenth century tradition of bold Egyptian-style letters with square serifs. 134, cut-out letters mounted on the screen of wooden slats enclosing one side of the Turntable café. The script lettering above makes a lively contrast (Terence Bliss and George Subiotto, designers).

134

135, the italic form of the same style of letter, painted on the wall at the side entrance of the same café. 136, standard direction signs (by Milner Gray) in the same style as on the signpost already illustrated in 132. Below are three out of the large number of signs, mostly employing pictorial symbols, that have been devised for use in standardized form all over the exhibition.

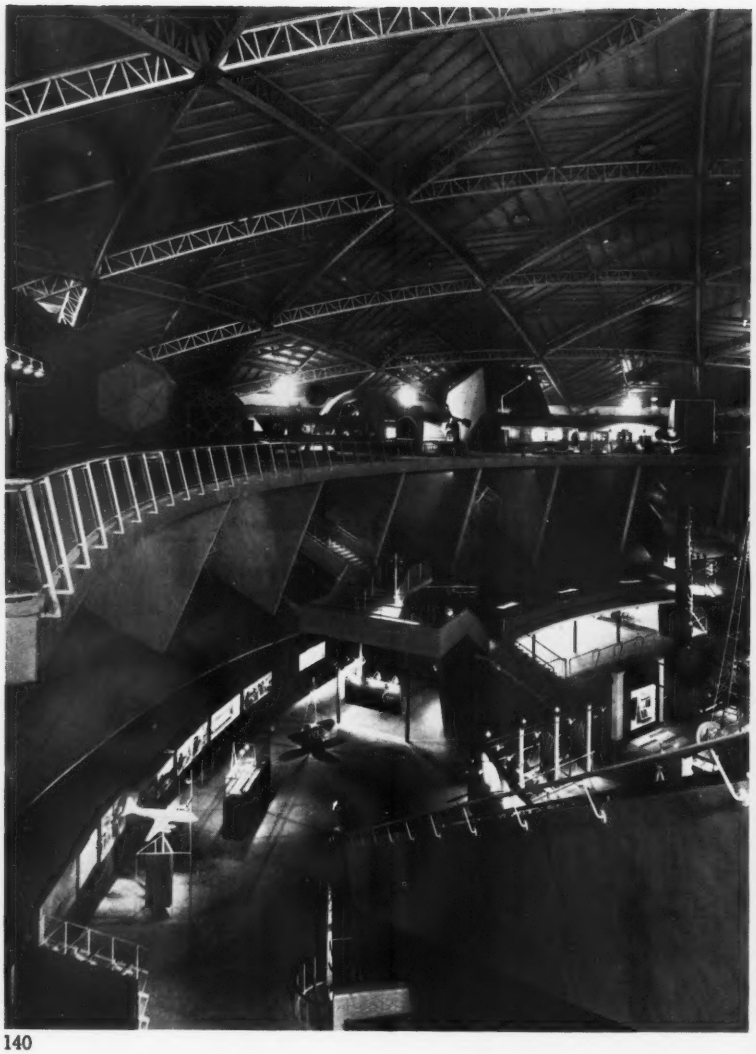


135
136

137 and 138, two variations of the square-serif, Egyptian-style letter used by Misha Black on a wall panel at the entrance to the Regatta restaurant and by Fry, Drew and Partners against a background of polished copper outside the Harbour bar. 139, an example of the use of large letters for their decorative effect on the landward side of the Sport exhibit (Gordon and Ursula Bowyer, architects).

137

138
139



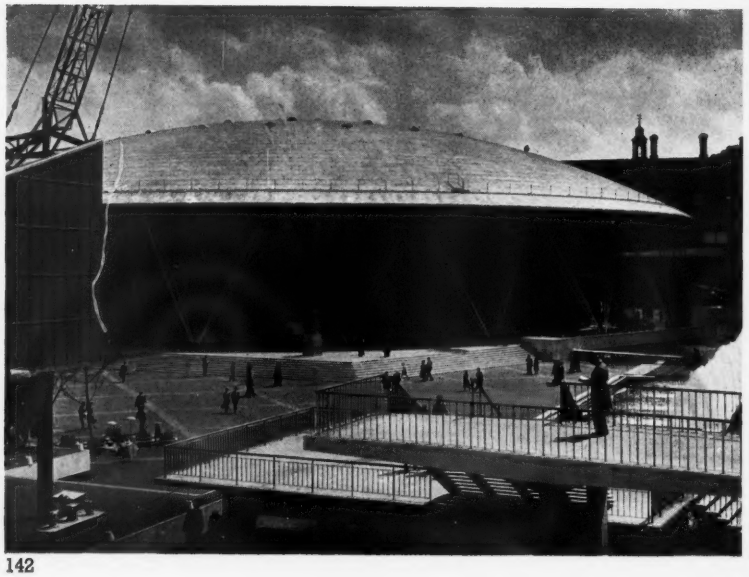
140

141

DOME OF DISCOVERY

ARCHITECT: RALPH TUBBS

The dome itself consists of a network of aluminium alloy ribs, intermediate rafters and purlins, covered with aluminium sheeting and resting on a circular ring girder of welded mild steel. The girder is supported 45 feet above ground by 48 diagonal struts of tubular steel. The diameter at the base of the struts is 365 feet. There are three internal galleries, the highest supported on a ring of reinforced concrete fins, 15 inches thick, arranged radially and narrowing towards the ground, and the other two supported on a steel frame. The gallery floors are of precast concrete slabs. The interior is enclosed by a double-skin drum wall, placed eccentrically to the dome above. The top of the wall intersects an inverted cone of aluminium descending from the eaves of the dome. Consulting engineers: Freeman, Fox and Partners. 140 and 141, two interiors showing the galleries and staircases. 142, the exterior looking across the main concourse. See also photos 15, 22, 81 and 100.



142

J. M. Richards

THE EXHIBITION BUILDINGS

Elsewhere in this issue attention is concentrated on the layout, landscaping and external detailing of the South Bank exhibition, rather than on the architecture of the buildings, because in its landscape treatment lies the special contribution made by the exhibition to contemporary design. But the buildings as individual examples of architecture must not be ignored. They represent together the largest display of the modern architectural idiom that the British public has seen, and they provide a fair test of the designing abilities of the younger generation of British architects. Several of the buildings are the first major work the architect responsible has carried out. In this article the principal buildings are discussed and criticized, and on the pages that follow they are briefly illustrated, the greatest attention being paid to those buildings which are not shown—or are only touched upon—in the illustrations in other sections of the issue. The general views on the following pages should therefore be studied in conjunction with the details appearing on the preceding pages to which cross-references are given in the captions.

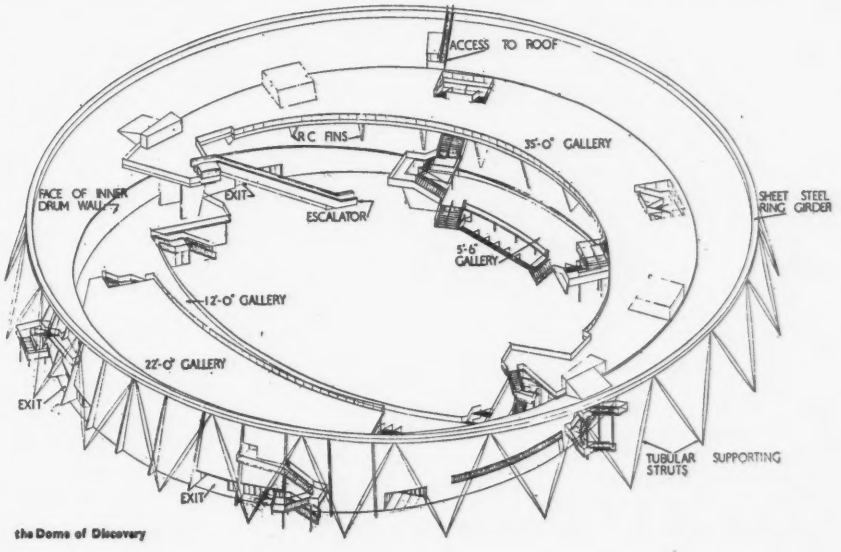
By far the largest building in the exhibition, and potentially the most interesting, is the Dome of Discovery (Ralph Tubbs, architect; Freeman, Fox and Partners, engineers). It is also the most disappointing in so far as it falls short of getting full value out of a grandly simple idea, that of roofing in a great space with a lightly constructed saucer dome supported on its extreme edge by a system of struts, themselves as light as possible in appearance. The three internal galleries are supported quite independently of the dome structure, the top one being cantilevered from a circle of reinforced concrete fins, radiating from the centre, and the others resting on a steel frame.

The essential attributes of this ambitious conception are the apparent effortlessness with which so vast a space is enclosed and the lightness with which the roof is poised on its supports. The opportunity of creating a distinguished—an æsthetically satisfying—piece of architecture lay in exploiting them to the full. When the dome was under construction it showed every promise of doing so. There were thrilling moments when the fragile latticework of the interior dome structure, lightly resting on its slender struts, could be seen simultaneously with its smooth outer surface, giving a wonderful effect of dramatically enclosed space. But as the curtain walls went up this effect was lost. It often happens that the skeleton of a modern building reveals the drama of its construction more impressively than the finished result, but in this case the total enclosure of the perimeter by a solid wall completely belies the nature of the structure. This wall, spanning between massive raking ribs, and the downward-sloping soffit above it, though both are only infilling, look as if they support the dome and appear to employ an unnecessary weight of material for the purpose. So instead of a wide-spreading roof delicately poised on the minimum support, the effect is of a heavy circular wall carrying a disproportionately insubstantial aluminium roof. A dynamic structure has become a static one.

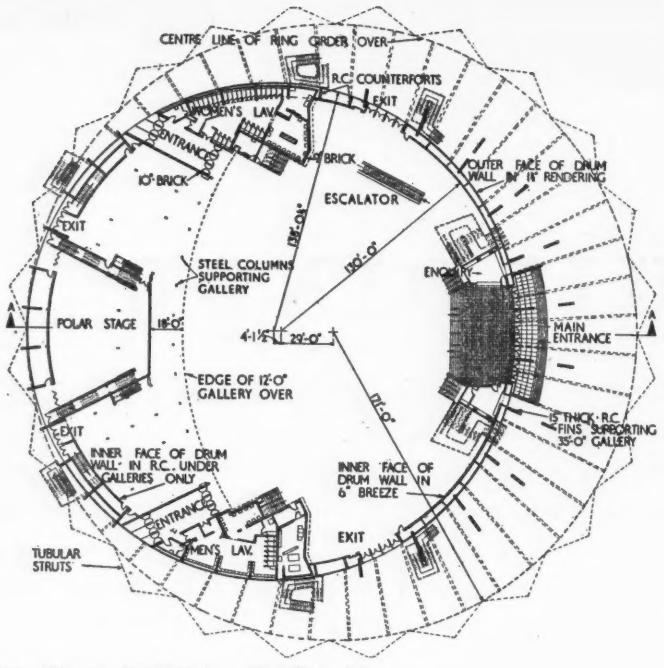
It was no doubt necessary, if the maximum use was to be made of the interior for display purposes, that the perimeter of the building should be totally enclosed, but it would surely have been practicable to have stopped the wall short of the underside of the dome, and contrived some less substantial form of soffit, thus better expressing the character of the wall as a mere curtain. The dull colour with which the walls, the soffit and their rather clumsily proportioned ribs have been painted adds to the heavy effect, though it has the advantage of setting off the delicate lines of the tubular steel supporting struts and the gracefully detailed outside staircases, which are painted in light colours. It might have been even more effective to have broken up the wall surface by painting it in some kind of free pattern that cut across the vertical ribs, as a way of destroying its apparent structural solidity; adapting, that is to say, the technique of dazzle-painting used on ships in war-time. Architects do not make nearly enough use of the experience camouflage artists acquired during the war of how to create and destroy form by the application of colour.

The Dome of Discovery is well placed on its platform, and the overhang of the roof on the side next to the main concourse, resulting from the fact that the circle of the outer wall and galleries is not concentric with the circle of the dome, provides a vigorous frame to the view up and down the concourse, making a useful contribution to the pictorial variety of the exhibition landscape.

If the foregoing remarks about the dome seem unduly severe, that is because it is a building which demands to be criticized



the Dome of Discovery



Dome of Discovery: ground floor plan scale 1/96 in. = 1 ft.

by high standards. They are a tribute, that is to say, to the boldness and imagination that went into its initial conception. In its interior, these qualities are much more clearly revealed. The great span of the roof, emphasized by the criss-cross pattern of its aluminium lattice structure, is truly impressive; so is the contrasting sweep of the strongly defined concrete galleries. The effect is somewhat marred by the confusion of displays on the ground floor, which are planned without any apparent relationship to the circular form of the building. They are also sadly out of scale with it, the only interior displays properly in scale being the large abstract constructions which occupy each bay between the concrete fins, round the upper perimeter.

The numerous displays (by the Design Research Unit) are nevertheless full of ingenuity, but this is perhaps the place to remark on the tendency apparent throughout the South Bank exhibition to indulge in over-elaborate display technique. It is inevitable in so large an exhibition that there should be a certain amount of repetition of the various tricks which have become the display designer's stock in trade, but in too many places these obscure, instead of underlining, the message the exhibits are meant to convey. A possible explanation is that British exhibition design, which emerged so brilliantly during the war under the leadership of Misha Black, and has since maintained a standard as high as anywhere in the world, had as part of its war-time task to evolve a technique of translating into visible terms concepts which were not visual in themselves. Whether the purpose was an exhortation to dig for victory or a reminder of the part played by the Merchant Navy in defeating the submarine menace, there were no goods or other exhibits to which the display had merely to draw attention and create a suitable background. The designer's interpretation of the idea was the whole exhibit.

Many clever devices were invented to meet this need, but they cannot be carried over to the display of actual objects such as industrial products. This was shown at the first important exhibition held after the war, 'Britain Can Make It' at South Kensington, where the designers brought into play so many tricks of the propaganda trade that it was often impossible to tell whether the object on which one's attention was focused was one of the exhibits or merely part of the setting.

This tendency to over-installation is apparent in many parts of the South Bank, especially where products are shown rather than ideas. Inside the Dome of Discovery there is a mixture of both. The special fault here is that the scientific displays are adorned with a profusion of murals, peepshows and pictorial symbols whose significance (except as decoration) is not made clear enough to enable them to convey any message to the lay public, and which are a mere distraction to the serious student. The need that one feels for more explanatory labels on pictures and models is an indication that the medium employed is not always fully integrated with the purpose it serves.

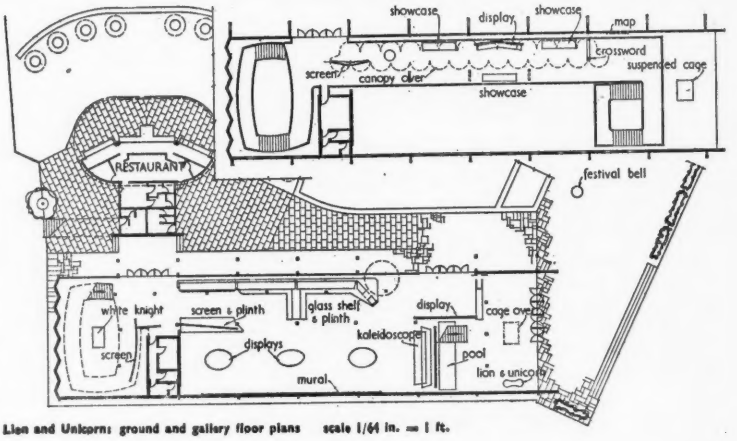
One other building, besides the Dome of Discovery, has been treated frankly as a container for exhibits—an airy shed within which they can be freely disposed at various levels. This is the Lion and Unicorn building (architects, R. D. Russell and R. Y. Goodden), the most important in the downstream half of the exhibition and, on the whole, the most successful building of all, in that it is absolutely consistent throughout in taste and style. The lightly constructed envelope, with two walls wholly of glass and an arched timber roof, is essentially simple; it is elegantly proportioned and beautifully finished, especially in the detailing of the staircases and the gallery that flies from end to end of the building. The display (by the same architects together with Richard Guyatt) is equally elegant and sophisticated in a somewhat Scandinavian style.

The interior is immensely rich, almost to the point, in some places, of being visually indigestible. The side wall, for example, is faced with a delightful yellow wallpaper, flocked and patterned. This is pierced with small eye-shaped windows, superimposed on it are the royal arms woven from chains of black wooden discs and in front of it stands a complicated mural painting. The display in the gallery likewise consists of a competing array of screens, models, showcases and hanging panels bearing inscriptions which tend to compete one with the other. But since this building deals with abstract ideas and has, like the war-time exhibitions already mentioned, itself to translate them into visual terms, the designers had more excuse than most for indulging in a multiplication of decorative conceits.

The airiness and transparency of the building, in any case, and the fresh, light colours employed, enable exhibits to be arranged in a quantity that would be oppressive in a darker toned interior or between solid walls. The displays show unusual imagination and lightness of touch. A huge wicker cage, the starting-point of a flight of symbolic doves, and a lion and unicorn in plaited straw are perhaps the most charming. The building also contains a mural painting by Edward Bawden which is one of the best in an exhibition where the lavish use of murals has on the whole neither produced a high standard of art nor established it in an interesting relationship to architecture.

A completely different approach to exhibition architecture from that of the Dome of Discovery and the Lion and Unicorn building is shown by the Sea and Ships building (architects, Basil Spence and Partners), where there is no enveloping structure. The exhibits *are* the building. All fairly large in scale—ship models, marine engines and the like—they are disposed along the river front at various levels and surrounded by a complex system of galleries, staircases and gangways to allow the public to circulate among them. The whole structure is transparent; there are no continuous walls or floors; floating roofs are suspended from a series of lattice-steel frames.

The appearance of the whole is naturally rather complicated, and perhaps lacks unity of scale, but it is an effective piece of display and introduces a sense of design in depth that provides a welcome change from the skin-tight surfaces so prevalent in modern



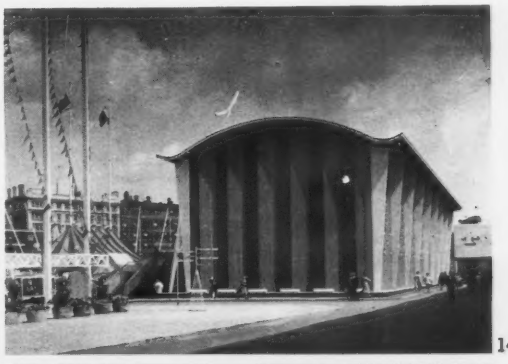
Lion and Unicorn: ground and gallery floor plans scale 1/64 in. = 1 ft.

143

LION AND UNICORN

R. D. RUSSELL AND R. Y. GOODDEN

A steel-framed structure, carrying a lamella roof of oak (span 45 feet). The eaves curve upwards and project 7 feet 3 inches. The north and east walls are wholly of glass. Consulting engineers were R. T. James and Partners and E. Lewis. **143**, the south wall from the gallery, showing the flocked wallpaper designed by Richard Guyatt and, at its foot, a painting by Kenneth Rowntree. **144**, the exterior from the west. The end wall is marbled. **145**, the glazed entrance front. See also photos 38, 42, 43, 78, 95, 109 and 114.



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SEA AND SHIPS

BASIL SPENCE AND PARTNERS

Roofs and walls are suspended from a row of 17 lattice-steel frames of 50-foot span, varying in height from 40 to 45 feet. Staircases and gangways are mostly steel with hardwood decking. Wall surfaces (when not formed by the exhibits) are cement rendered on steel framing or aluminium. Consulting engineers, Freeman, Fox and Partners. **146**, rear of building from Dome of Discovery. **147**, looking across river front showing mobile water sculpture by Richard Huws. See also photos 25, 26, 27, 89, 93, 100, 102 and 123.

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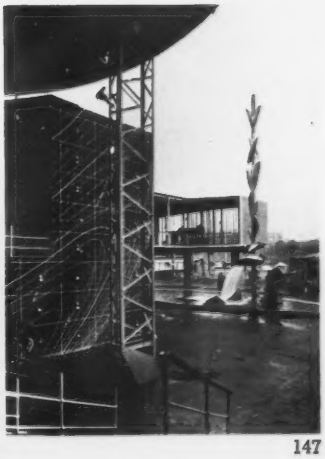

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150

COUNTRYSIDE

BRIAN O'RORKE

Main structure is a Dutch barn with 20-foot bays. The main roof is asbestos; partitions are timber slats, stone or brick. Consulting engineers, R. T. James and Partners. **148**, the exterior of the food-crops gallery, showing the green canvas louvres shading the glasshouse which forms the outer wall. They move through 90 degrees, and are operated by motor. Below are the livestock pens. **149**, looking out of the open side of the Dutch barn. **150**, the end of the Dutch barn, with model dairy and milk-bar. On the left is a section of the large wall painting by Leonard Rosoman. See also photos 9 and 18 and (for the stream and rock-garden immediately outside) 11 and 84.

151

152

LAND OF BRITAIN

H. T. CADBURY-BROWN

With the exception of the upper part of the drum of a concrete dome the whole structure (a large part of which houses machinery operating the displays) is faced externally with a landscape of rocks and stone. The north side, **152**, is Yorkshire stone, in the form of outcrops on a grassy hillside. On the west is a wall of red sandstone, catching the afternoon sun. On the south (see photo 12) is square-formed Forest of Dean stone. See also 118 and 122. The display inside, **151**, depicting the structure and formation of the earth, is by V. Rotter.

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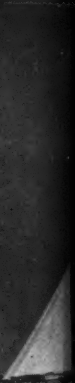

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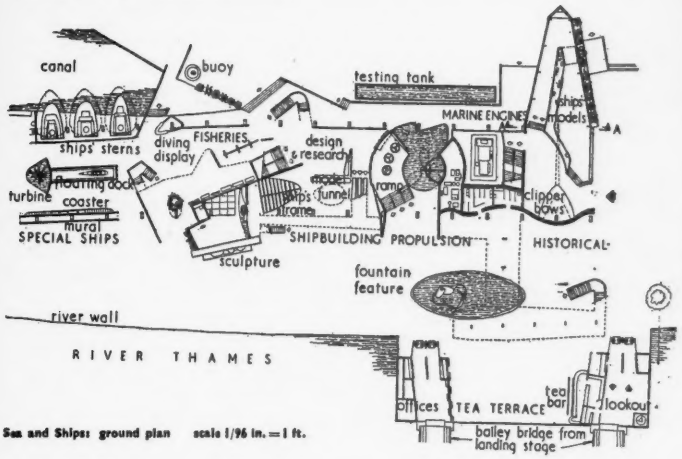
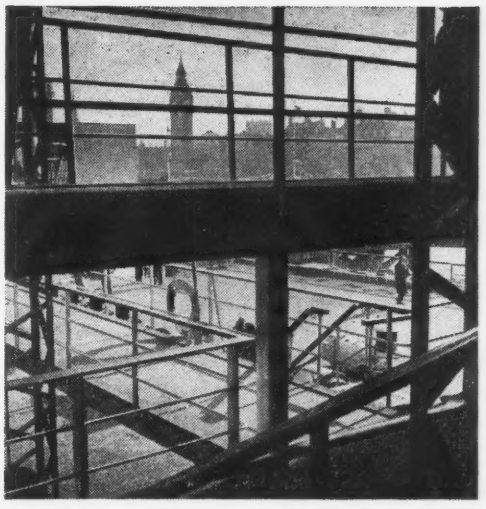
architecture. Its appearance of intricacy too is appropriately reminiscent of the confusion of struts and gantries seen in a shipbuilding yard. The river front of the Sea and Ships building is marred by a painting and a work of sculpture that are among the poorest, as well as being about the largest, in the exhibition. As some compensation, in front of it is an enchanting mobile water sculpture by Richard Huws.



Sea and Ships: ground plan scale 1/96 in. = 1 ft.



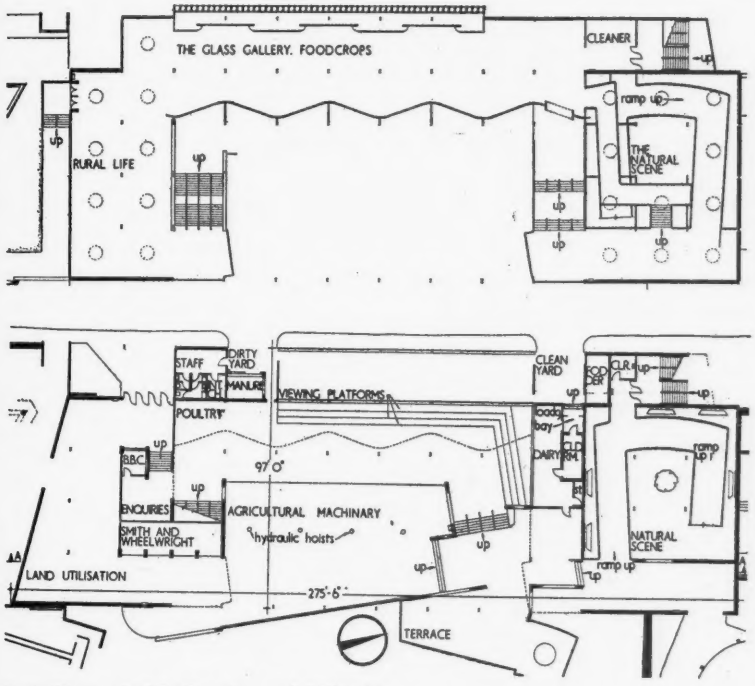
153, looking towards Westminster from within the Sea and Ships building, showing some of the many open galleries and stairs.

The Countryside building (architect, Brian O'Rorke), like the Sea and Ships, takes the visitor back and forth on a three-dimensional itinerary, ingeniously planned. It has a pleasantly unassuming exterior, employing as great a variety of materials as the average group of farm buildings. An interesting detail is the use of vertical hinged louvres of green canvas to screen the large upper window on the side facing the Dome of Discovery. The other side is open, and the visitor in the piazza outside looks across a pleasantly naturalistic stream, bordered with grass and rushes, into a large Dutch barn. Here, as elsewhere in the exhibition, a feeling of being at the same time indoors and out adds vitality to the architecture, and the scale of the displays is skilfully adjusted accordingly.

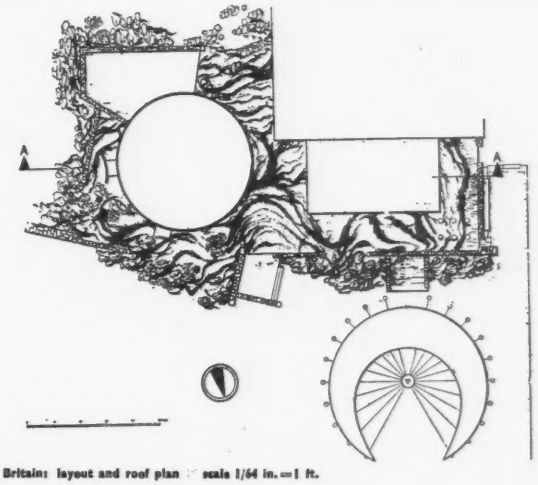
The display in the Countryside building (by F. H. K. Henrion) is, taken all round, the most brilliant in the exhibition; there is real poetic feeling in the design of the great plaster tree, growing into the ceiling of the section entitled The Natural Scene, round which are stout timber galleries bearing exhibits which depict the flora and fauna of the British Isles. At its foot is a woodland garden. Inside the Dutch barn the tendency to over-elaboration in display, already remarked, results in the effect of a good wall painting by Leonard Rosoman being confused by sculptured figures on the pillars and other motifs hanging from the ceiling, and in the upper gallery a straightforward layout is similarly marred by unnecessary rows of gaudy umbrellas on top of the showcases.

The Countryside building is approached by way of a sequence of galleries dealing with the Land of Britain, the entrance to which (architect, H. T. Cadbury-Brown) is through an effectively placed and imaginatively designed rock-strewn hillside, one of several instances in the exhibition of miniature naturalistic landscaping effectively used as a foil to the brittle geometry of much of the architecture. The most notable are those which, unlike the conventional town garden, which is spread out flat as a pocket handkerchief, are piled up in the angle between two walls or planted in layers, so that the effect of greenery operates in three dimensions.

The Power and Production building (architects, Grenfell Baines and H. J. Reifenberg) had a particularly difficult site, overshadowed by the rather aggressively baroque mass of County Hall and without any vantage point from which it could be seen as a whole. The architects also had the problem of providing internal lighting suitable for display but not unsuitable for the use of the machine hall as an operating factory. The building is a straightforward structure, mostly of yellow stock bricks, with an appropriately industrial character. Interest is given to the exterior by a series of projecting bays, with sawtooth roofs, glazed at the end, and to the interior by the exposed tubular steel framework, forming a pleasant roof pattern.



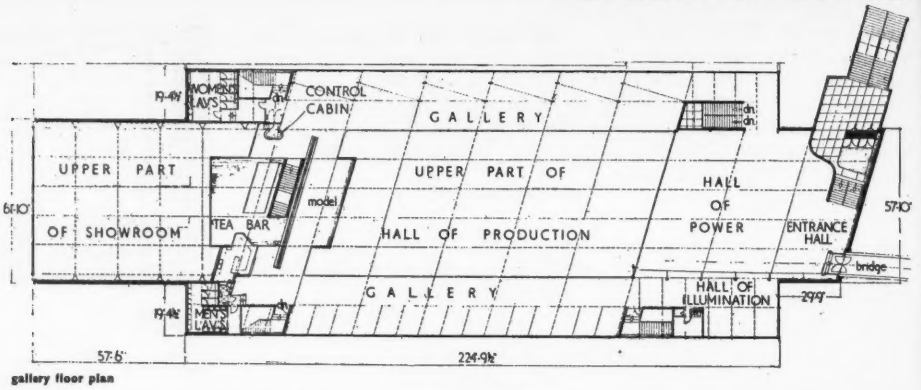
Countryside: ground and first floor plans scale 1/64 in. = 1 ft.



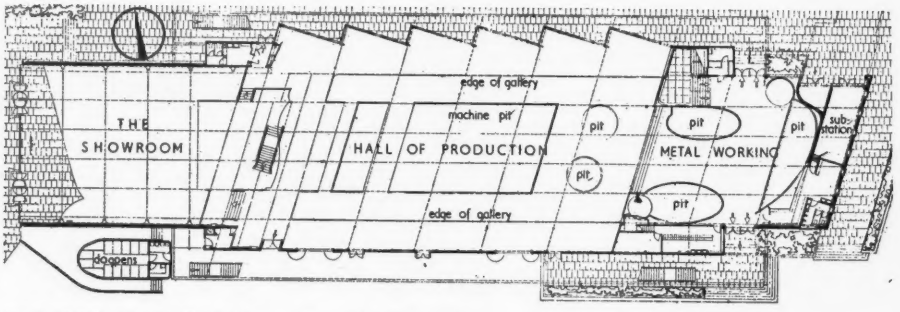
Land of Britain: layout and roof plan scale 1/64 in. = 1 ft.

The remaining large exhibition building in the upstream half of the site is the Transport building (architects, Arcon). It has a bold cliff-like façade of glass, through

154, *Television building, by Wells Coates, with way through beneath far end. Reinforced concrete construction; hollow tile floors; plaster walls.*



gallery floor plan



Power and Production: ground and first floor plans scale 1/64 in. = 1 ft.

which the displays of aircraft in the upper sections are visible—this is particularly effective after dark—surmounted by a somewhat complicated roof structure. The glass enclosed access ramp at the end away from the river is not very happily attached to the main building. Inside there are some dramatic display effects, and some very oddly designed concrete staircases with their treads bent at right angles to form a balustrade, which are not very practical and quite unusually ugly.

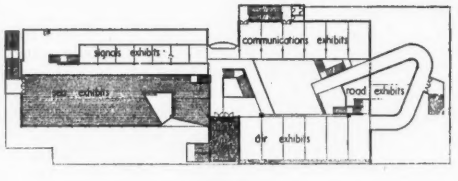
Downstream the buildings change their character, being less imposing and more domestic in scale. Grouped round the same piazza as the Lion and Unicorn building, already discussed, are the unpretentious, neatly designed little Television building by Wells Coates and the Homes and Gardens building by Bronek Katz and Reginald Vaughan. The latter, a long, low structure in a pleasantly coloured brick, is planned in a number of bays to accommodate a sequence of model rooms, and opens out at intervals into small formal gardens, sunk below the level of the roadways outside.

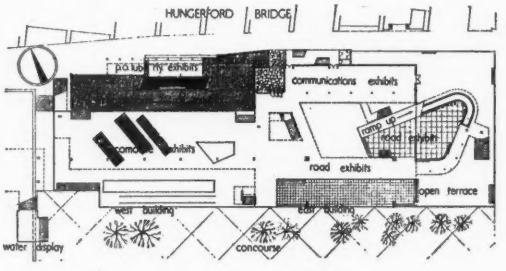
These gardens are charmingly designed in themselves and the views into them from inside the building cleverly contrived. They are supported by some interesting trellis and other treatments on the flanking walls (designer, Gordon Cullen). The internal display packs a great many ideas, and even more products, into the space. There are some excellent qualities in both, as well as a certain amount of furniture that is not up to the high standard of design achieved elsewhere in the exhibition.

This article is concerned with buildings rather than display, and so can only mention in passing the Schools, Health, Industrial Design and People of Britain sections which are installed, usually with remarkable skill, under the arches of Waterloo Bridge approach and Hungerford railway bridge, and the Sport and Seaside sections, which take the form of open-air displays. The former (by Gordon and Ursula Bowyer) consists of a series of showcases arranged on two levels and connected by galleries and arcades. It is an intriguing piece of solid geometry, pleasant in colour and with the additional virtue of getting a great deal into a small space. The Seaside section (by Eric Brown and Peter Chamberlin), as well as showing a light touch in display, has the outstanding merit of recognizing the things that really matter in the tradition of English seaside architecture and reinterpreting them in a modern way.*

There remain to be discussed two classes of building, both of considerable importance because they play a large part (together with the landscaping, dealt with in another article, and the use of colour and lighting) in establishing the architectural character of the exhibition as a whole: the three main entrances and the various restaurants and bars. The Chicheley Street entrance (by the Architects' Co-operative Partnership) includes a semi-circle of management offices, the upper floor of which takes the form of a series of glass-fronted boxes slung from steel bipods—an eccentric and somewhat uneconomical way of providing office space, but legitimate in this situation where an arresting form of construction provides a refreshing contrast to the staid architecture of York Road and suggests the architectural excitements to be found inside the turnstiles.

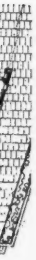
Between these offices and County Hall is the Royal Pavilion, which again seems to employ unusually complicated means to support a simple plywood roof. In this instance the result has not the same liveliness and elegance; its proportions are uncomfortably squat. Liveliness returns in the entrance itself: a row of sensitively designed pay-boxes—like abstract paintings projected into a third dimension—is surmounted by a boldly cantilevered concrete slab which makes a vigorous angular silhouette against





Transport: ground and first floor plans scale 1/128 in. = 1 ft.

* See the Functional Tradition and the Nautical Style, page 107 of this issue.



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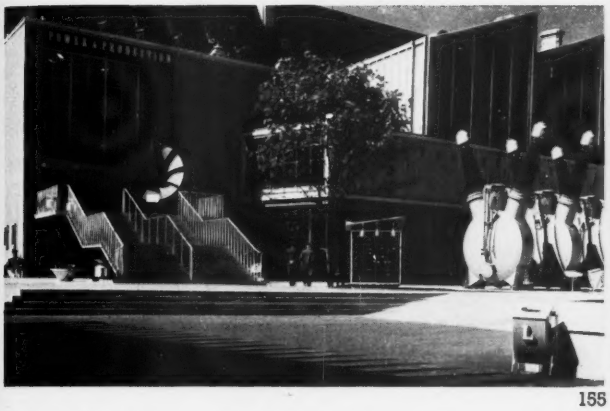

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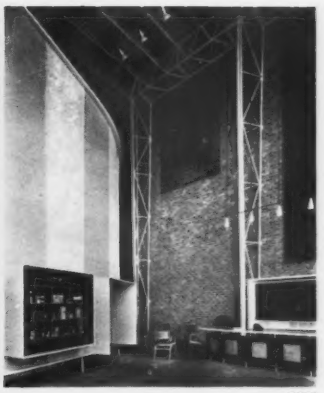

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POWER AND PRODUCTION

GRENFELL BAINES AND H. J. REIFENBERG

The building consists of a large machine hall, flanked by cantilevered galleries, and a smaller show-hall for finished products. It has a structural framework of welded tubular steel with external walls of brick, concrete panels and asbestos cement. The consulting engineer was F. J. Samuely. **155**, the main entrance staircase, leading direct to gallery-level, from outside the Dome of Discovery. The large windows on the right are part of a row of six, arranged in a saw-tooth pattern both in plan and section. **156**, the glazed end of the show-hall for finished products, facing the river (see also photos 22 and 23). **157**, the interior. The white-painted tubular steel frame is seen against a dark blue ceiling.

TRANSPORT *ARCON*

The building is steel framed, except for a ramp in reinforced concrete. Walls, where not glazed, are mostly of asbestos sheet. The main roof is the same. Floors are precast concrete slabs. The consulting engineer was F. J. Samuely. **158**, the main glass facade facing the concourse. Railway locomotives and other vehicles are displayed in the open air beneath the first floor overhang. Aircraft are suspended from the ceiling, as shown in the interior, **159**, of the main display hall. The photograph shows the two types of stair used throughout the building, both composed of precast concrete units cantilevered either side of a central spine. The example on the left has a plated steel balustrade; that on the right includes a concrete balustrade as part of the same casting. See also photos 1, 14, 16, 20 and 28.

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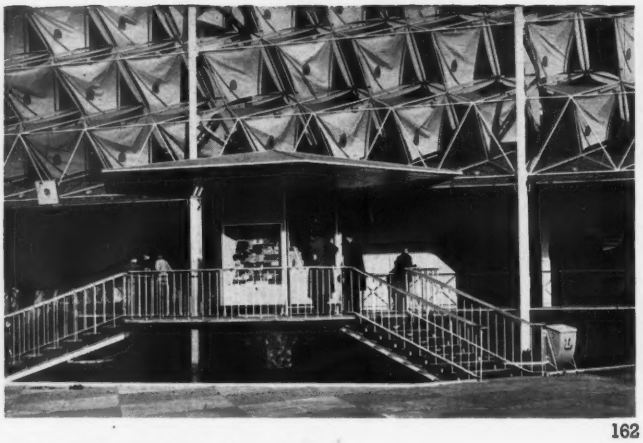
161

SPORT

GORDON AND URSULA BOWYER

A series of kiosks, some independent, others linked. Part of the display, on an upper level, is viewed from a raised platform of caulked teak strips, partly protected by canvas awnings. These can be seen in **160**, a broadside view of the display looking towards the river across the athletic arena. **161**, one of the independent kiosks, with canvas roof laced to a tubular frame. See also photos 54, 83, 92 and 139. The consulting engineer was Lawrence Kenchington.



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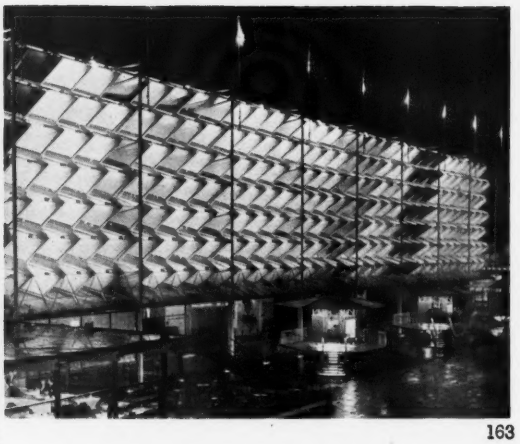

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ENTRANCE SCREEN

ARCHITECTS' CO-OPERATIVE PARTNERSHIP

Between the Fairway piazza and York Road. It is of welded tubular steel with coloured canvas panels (about 1,000 in number) arranged in a diagonal pattern. Consulting engineers, Ove Arup and Partners. **163**, the screen illuminated at night, showing also the café (bottom left), the terrace of information and other bureaux beneath the screen and the kiosks in front of it, on platforms poised over pools of water. **162**, a detail (in daylight) of one of these kiosks. See also photos 7, 8, 10, 21, 91, 99, 101, 110 and 133.

164

51 BAR

LEONARD MANASSEH

This bar and terrace are at first floor level, built above a rectangular brick and reinforced concrete building containing lavatories and an electricity sub-station. At one end (away from the river) rises a 5,000-gallon steel-framed water-tower. Consulting engineers were Freeman, Fox and Partners. **164**, from the east, showing the water-tower at left, the access by open steel stair and the terrace at right, with bamboo screens and cane pergola on alloy tubing. **166**, the exterior at night. The sculpture is by Daphne Hardy. **165**, interior of the bar, looking towards the river. See also photos 24, 105 and 115.

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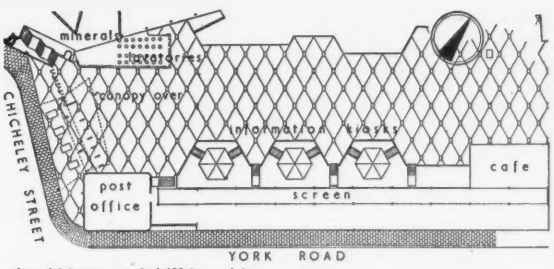
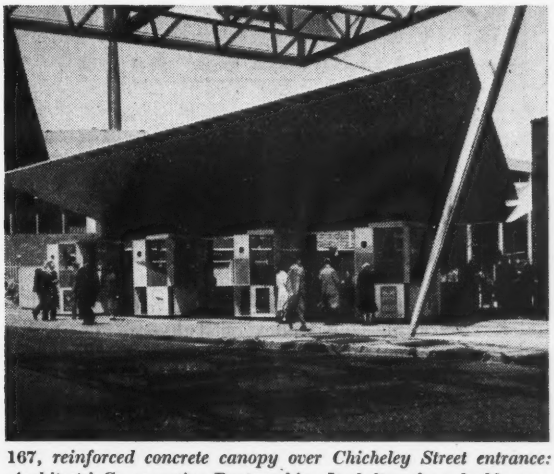


plan of fairway scale 1/128 in. = 1 ft.



167, *reinforced concrete canopy over Chicheley Street entrance: Architects' Co-operative Partnership. It shelters four double pay-boxes, framed out of standard aluminium extrusions.*

the sky and provides a first-rate example of the drama that is waiting to be extracted from modern methods of construction.

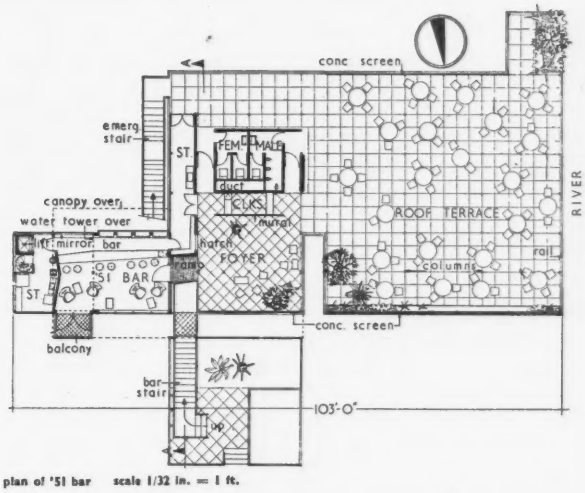
The same architects designed the screen backing on to York Road. It rises above a terrace of information and other offices, in front of which is a series of little kiosks hung over pools of water and terminating in a small restaurant. These, together, form a charming piece of design, right in scale, elegant in construction and making good use of water and subtle changes of level. The three-dimensional harlequin design of canvas panels decorating the screen of tubular scaffolding is one of the most successful bits of exhibitionism on the South Bank.

By contrast the Waterloo Station entrance gate (architects, Sir John Burnet, Tait and Partners), which also has a restaurant attached, is very heavily handled. There is nothing intrinsically unsatisfactory about the idea of a series of laminated timber arches with a roof suspended from them, but it needs to be carried out with a precision and delicacy lacking in this instance. The detailing is coarse, especially that of the viewing platforms and stairways facing the main concourse. The heavy, insistently rectilinear, elevation to York Road is reminiscent of the modernism of the 1930's and provides an encouraging reminder of the warmth and sensitiveness that the modern movement has acquired since then.

The other main entrance (the Waterloo Gate by Fry, Drew and Partners) is much more delicately handled, and the precipitous descent from the high level to the level of the exhibition grounds has been cleverly exploited. The various ramps, stairs and canopies, and the slender footbridge leading across the boating pool to the concert-hall terrace, make an intriguingly complex pattern of horizontal planes and show (in contrast to the Waterloo entrance just referred to) how elegant a material reinforced concrete, imaginatively used, has now become. The engineers were Ove Arup and Partners.

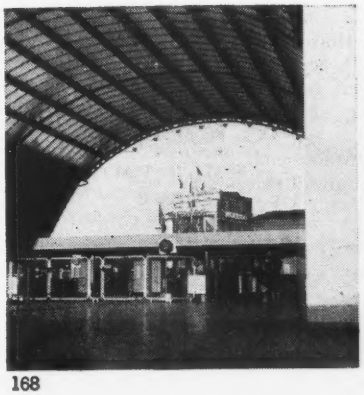
Of the restaurants and bars, the four most interesting are the '51 Bar alongside County Hall, the Regatta Restaurant, which also forms the landing platform at the end of the Bailey Bridge, the Thames-side Restaurant beneath Waterloo Bridge and the Harbour Bar. In addition the small Turntable Café carved out of the arches of Hungerford railway viaduct should be mentioned not only for its skilful planning on different levels and its admirable lettering,* but because it contains a mural painting by Julyan Trevelyan which is one of the best in the exhibition.

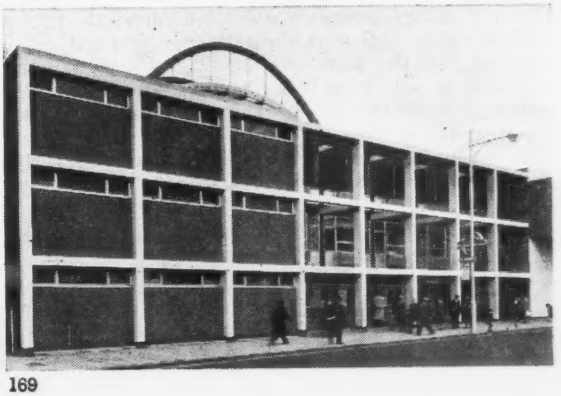
The '51 Bar (architect, Leonard Manasseh), though modest in size and obscurely situated, is a most elegant and sophisticated design. Raised on a platform provided by one of the service blocks, it consists of a small foyer and bar and a large roof terrace decorated with, and lighted from, a cane pergola. The Regatta Restaurant (architects, Misha Black and Alexander Gibson) is more ambitious internally, but surrounded as it is by the spectacular architecture of large exhibition buildings, has rightly been kept very simple externally, being an unassuming, pleasantly proportioned arrangement of flat walls and wide windows, surrounded by elegantly detailed stairways and terraces, one of which is cantilevered over a delightful garden and shelters a little outdoor bar. Inside the Regatta Restaurant much play is made with decorative motifs based on crystal structures. A designer is entitled to use any motif that comes his way, but its merit lies solely in what he makes of it. The patterns displayed here are most interesting when they are furthest removed from their crystallographical starting-point, and it shows some confusion of thought on the part of the Council of Industrial Design, whose purpose it is to encourage the use of good designers (not to suggest that science can do the work for them) that the Council should have sponsored this somewhat naively conceived exposition of a not altogether new idea.



plan of '51 bar scale 1/32 in. = 1 ft.

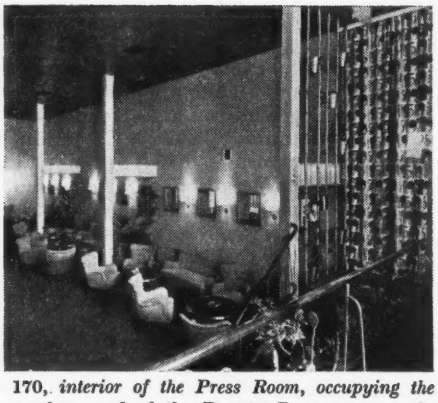
* See page 121.



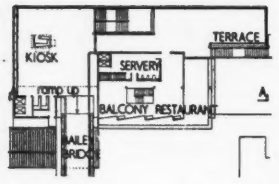


168, *inside the Waterloo Station entrance gate (by Sir John Burnet, Tait and Partners). The building also contains offices, a restaurant and lavatories.* **169**, *the elevation to York Road.*

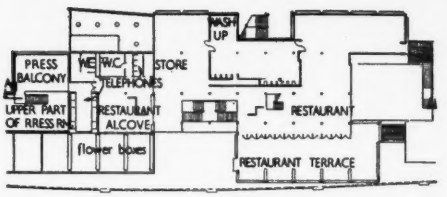
168 169



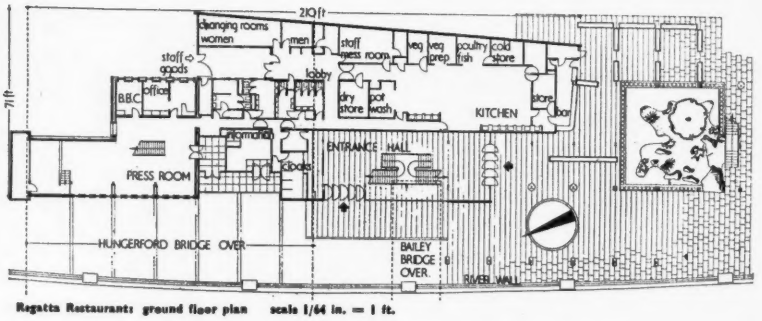
170, *interior of the Press Room, occupying the northern end of the Regatta Restaurant on the ground floor. Designer, Misha Black.*



second floor plan scale 1/96 in. = 1 ft.



first floor plan scale 1/96 in. = 1 ft.



Regatta Restaurant: ground floor plan scale 1/64 in. = 1 ft.

The Harbour Bar is the nearest thing on the South Bank to a continental terrace café. Slightly raised above the pavement and facing the boating pool, it has the traditional striped awning and particularly well-thought-out interior detailing, the work of Ward and Austin who also designed the interior of the Thames-side Restaurant. The building in each case is the work of Fry, Drew and Partners. The special merits of the Thames-side Restaurant from the planning point of view, with its boardwalk bringing visitors into the closest possible contact with the river, are discussed elsewhere in this issue.* It is pleasantly detailed inside and out and its lightly constructed undulating roof makes an interesting contrast with the massive concrete above as it disappears beneath one of the land arches of Waterloo Bridge.

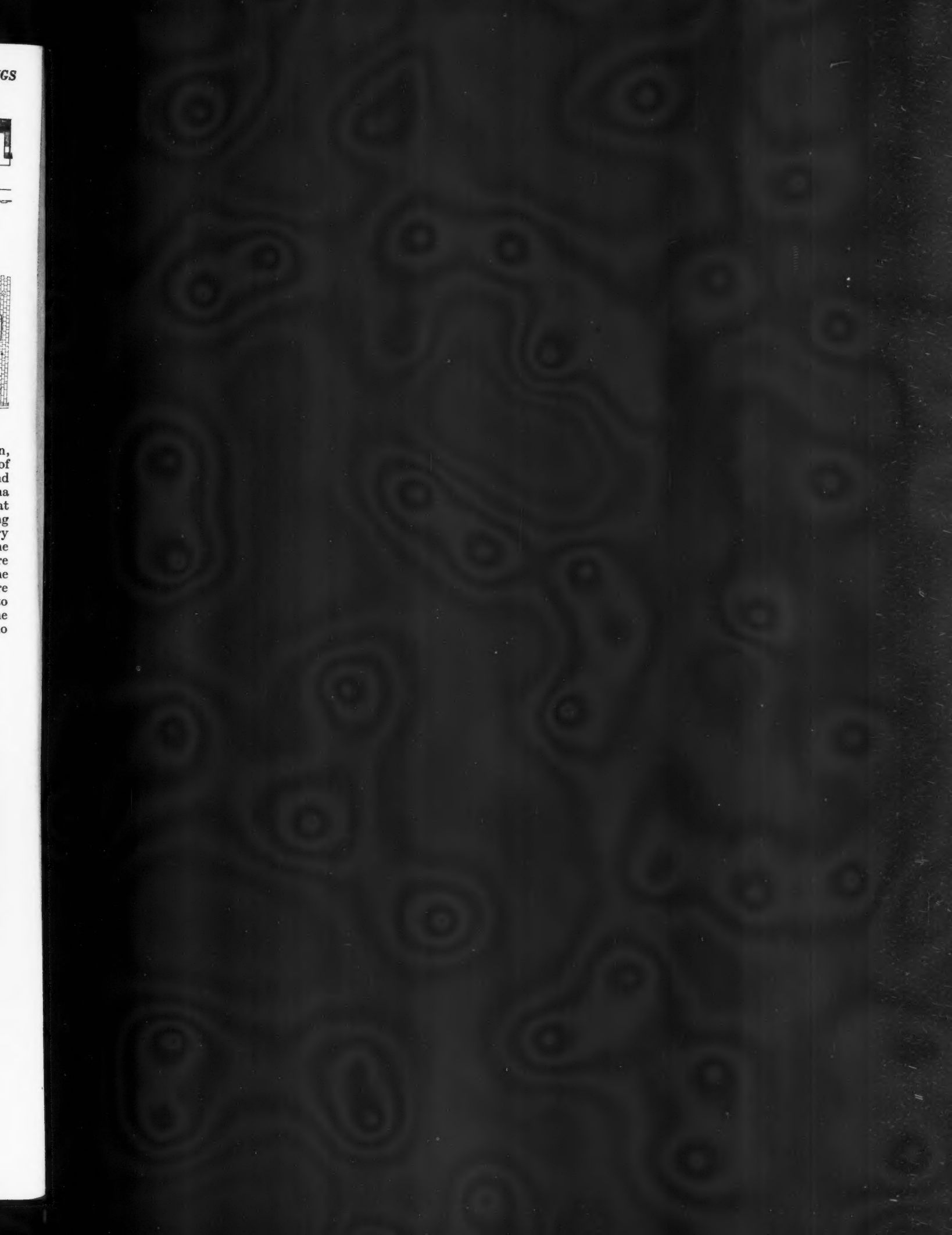
Finally, there are two incidental buildings, of a high quality of design, which must not be overlooked. Edward Mills's thoroughly workmanlike administration building with external gallery access alongside Waterloo Bridge approach—it happily combines the straightforward character demanded by its utilitarian function with a lightness and a sparkle that enables it to provide a sufficiently festive background to the exhibition scene—and Wells Coates's Telekinema. The design of the latter involved special planning problems of a kind not normally presented to an architect. They are too complex to be described here, but seem to have been solved most successfully. The various levels inside are interestingly expressed elevationally. It is not a showy building; indeed it does everything asked of it with a deceptive appearance of ease—always a sign of a well-considered design—and is in fact one of the most mature pieces of architecture in the exhibition.

A word of praise should also be given to the 1851 Centenary Pavilion, a miniature Crystal Palace mounted on a Victorian gothic cast-iron staging. It has been charmingly designed, with just enough period character—faintly ironical without being disrespectful—by Hugh Casson and James Gardner, and skilfully linked to the base of the old Surrey Shot-tower. The latter, after years of public disregard, has had the attention of all London focused on it while it plays the important role of a campanile, setting off the horizontal roof-lines of the various downstream enclosures. It emerges from the ordeal as full as ever of vigour and assurance. It has equal value, regarded as a vertical feature, with Powell and Moya's Skylon which dominates the upstream section, the one an example of the real architectural distinction that often emerges from the solid functionalism of early nineteenth-century engineering, and the other a first-rate demonstration of the romantic potentialities of twentieth-century building science, imaginatively exploited.

In conclusion the general verdict can be confidently pronounced that with only one or two exceptions the buildings throughout the exhibition maintain a very high standard of planning and design, and a remarkable consistency of style considering the number of architects employed—a tribute to the single-mindedness and diplomacy of the co-ordinating architects, Hugh Casson and Misha Black. The only reservation one feels inclined to make is that though a consistent idiom is admirable up to a point it is irritating when it involves the repetition of the same design cliché. Every other building on the South Bank uses somewhere a rubble stone wall as a foil to smooth concrete or glass, and contains somewhere one of those fashionable raking stairs; a stair, that is, in which the string is not at right angles to the line of the treads. But these are minor matters beside the general stimulus likely to be given to design by the fact that on the South Bank, for the first time, the public can move around in a landscape that could belong to no other age than the present.

171, *the* 1851 *centenary pavilion, by Hugh Casson. It is raised on a concrete slab, supported by cast-iron columns and linked by a gallery to the interior of the old shot-tower.*

* See page 100.



172

HARBOUR BAR

FRY, DREW AND PARTNERS
(INTERIOR: WARD AND AUSTIN)

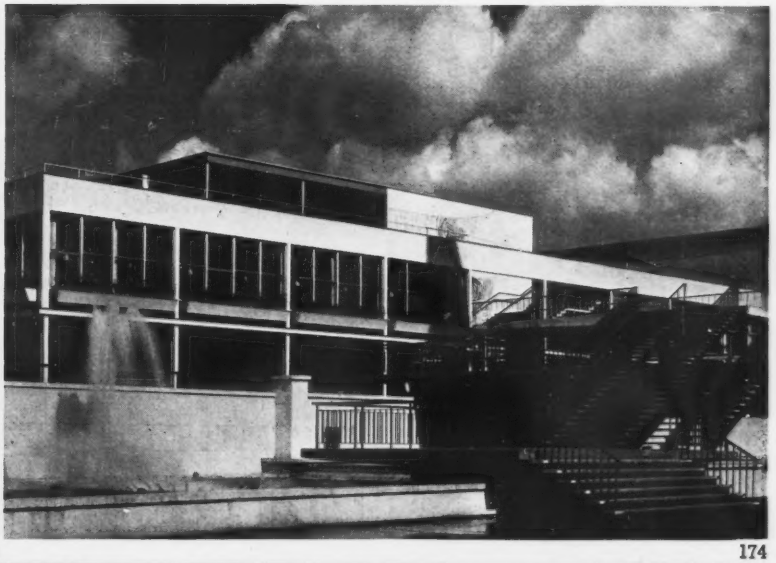
A semi-open-air bar and buffet, constructed mainly of tubular steel uprights and very light tubular steel lattice trusses supporting a red and white striped canvas roof. See also photos 56, 82 and 138. **172**, the bar from the direction of the river, showing in the background the Waterloo gate and observation tower by the same architects (also illustrated in photos 55, 58, 97 and 112). It consists of an arrangement of platforms, stairs and ramps in reinforced concrete, including a post-stressed concrete bridge in four spans, some as much as 76 feet, but with a structural beam nowhere exceeding 22 inches in depth; also a steel and glass tower containing a lift. The consulting engineers were Ove Arup and Partners.

REGATTA RESTAURANT

MISHA BLACK AND ALEXANDER GIBSON

Seats about 500. There are also open terraces and an outdoor bar, **173**, beneath one wing of the restaurant, looking on to a garden (see photos 75, 76, 108, 113 and 116). **174**, from the concourse. The stairs on the right lead to the Hungerford Bridge entrance. **175**, the entrance hall from the riverside promenade, with painting by John Tunnard. **176**, the top of the staircase leading to the main first-floor restaurant. See also photos 74, 77 and 137.

173



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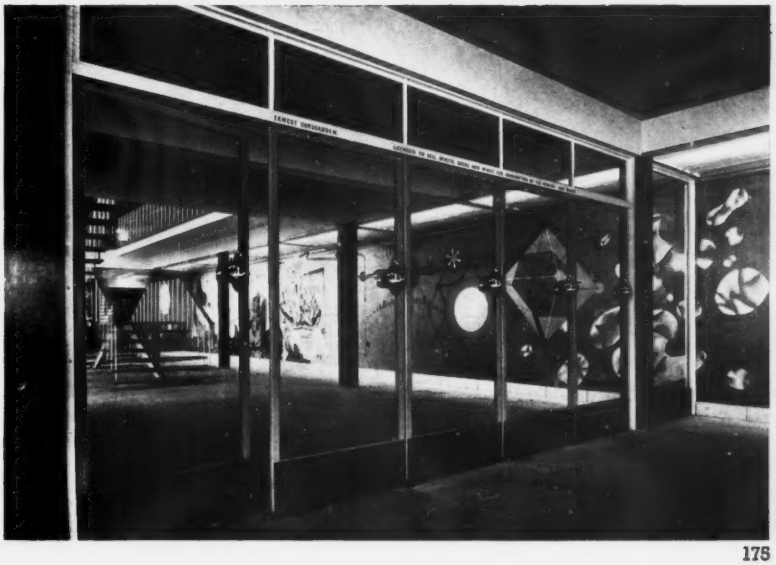

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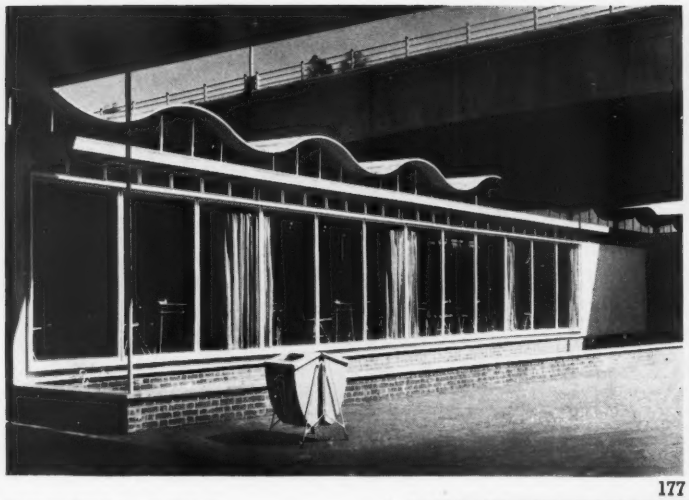

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178

THAMES-SIDE RESTAURANT

FRY, DREW AND PARTNERS

The building extends beneath Waterloo Bridge and follows in plan the curve of the new river wall. Its riverside elevation is completely glazed and outside it is a boardwalk, with room for one row of tables, overhanging the water and sheltered by a canvas awning. The main restaurant has an undulating roof consisting of a continuous 2-inch aluminium and cork sandwich slab used as a series of arches and inverted arches. It has a span of 27 feet and is supported on 3-inch steel tube columns. Engineers, Ove Arup and Partners. **177**, the landward side. **178**, the interior. **179**, the boardwalk, **180**, looking through the glazed river front. See also photos 61, 63, 64, 80, 88 and 104.

179

180

181

ADMINISTRATION

EDWARD MILLS

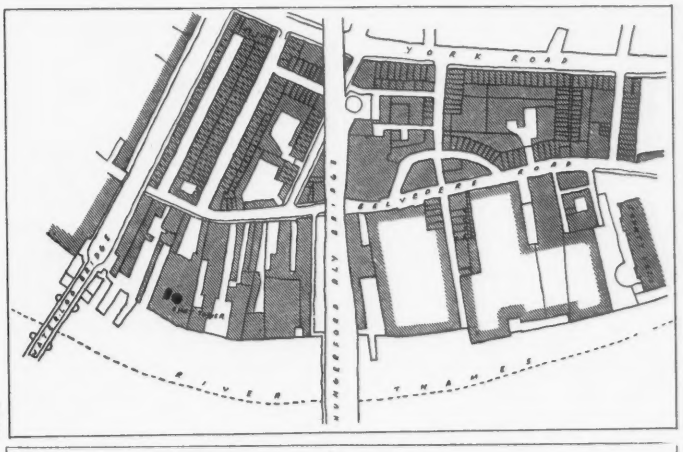
A long narrow four-storey steel-framed structure on the eastern boundary of the exhibition, containing offices, canteens and so on, all reached from external galleries. Floors are of reinforced concrete on steel joists and external walls hollow terra-cotta blocks rendered. Balustrades are wrought-iron tubes with coloured canvas panels. On the roof is a tank room and observation post with a central flag-pole. Consulting engineers, R. T. James and Partners. **181**, the elevation to the exhibition. For the decorated screen on the right, see photos 98 and 103.

Gordon Cullen

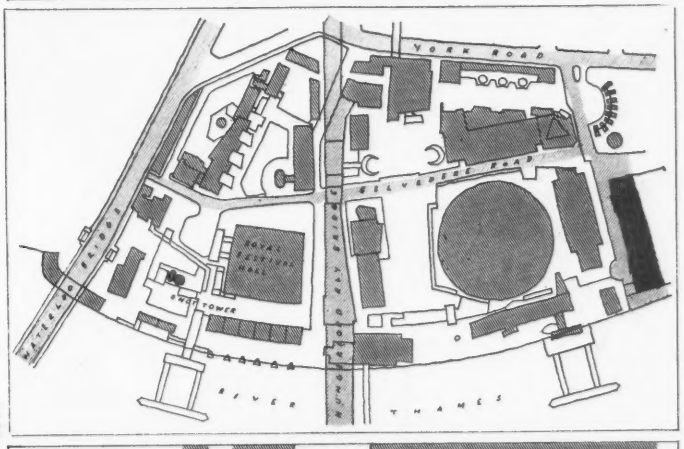
SOUTH BANK TRANSLATED

The County of London Plan envisaged the development of the South Bank as an integral part of Central London. The temporary use of part of the site for the Festival has demonstrated some of the possibilities of the site and opened our eyes to the form this permanent development could take. On these pages Gordon Cullen suggests a translation of the planning conceptions (that have made the South Bank exhibition so successful) from the Exhibition to everyday London.

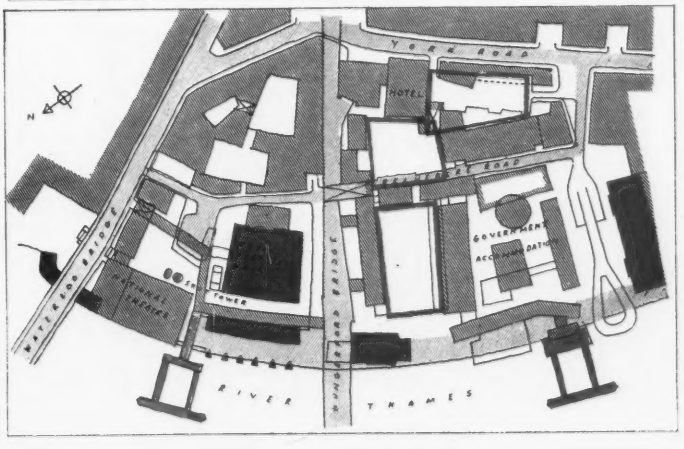
1939



1951



The Future



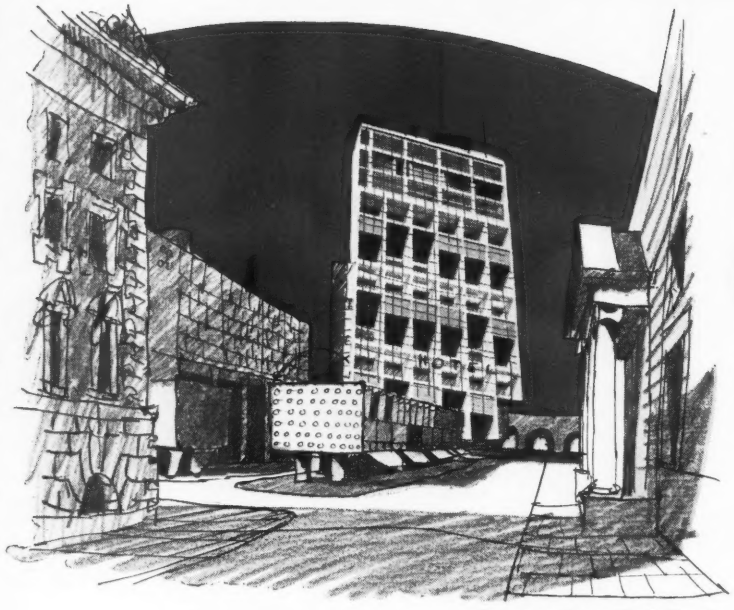
When the Festival of Britain has run its course the South Bank site of 27 acres will become what might be described as a planner's vacuum. But not entirely, since the Royal Festival Hall has already been built, the National Theatre is to go alongside it and Government accommodation will straddle the upstream section. But these are zoning proposals and cannot tell us about the nature of the development. In the 'thirties new building became a battleground on which the modern style of architecture struggled to establish itself. The Government-sponsored South Bank exhibition shows how well this battle is now going. Today's new building projects must become a battleground for modern planning. *The first salvo in this new battle has been fired in this same South Bank site, and the preceding pages of this issue will have demonstrated how effectively some of the best principles of modern planning, or Townscape as its visual aspect is called, are employed there; how buildings and the space and floor which they enclose or bound are regarded TOGETHER to produce scenes and progressions of emotional value. This article attempts, very simply, to translate this planning conception from EXHIBITION into a permanent part of everyday London.*

The plans alongside show:

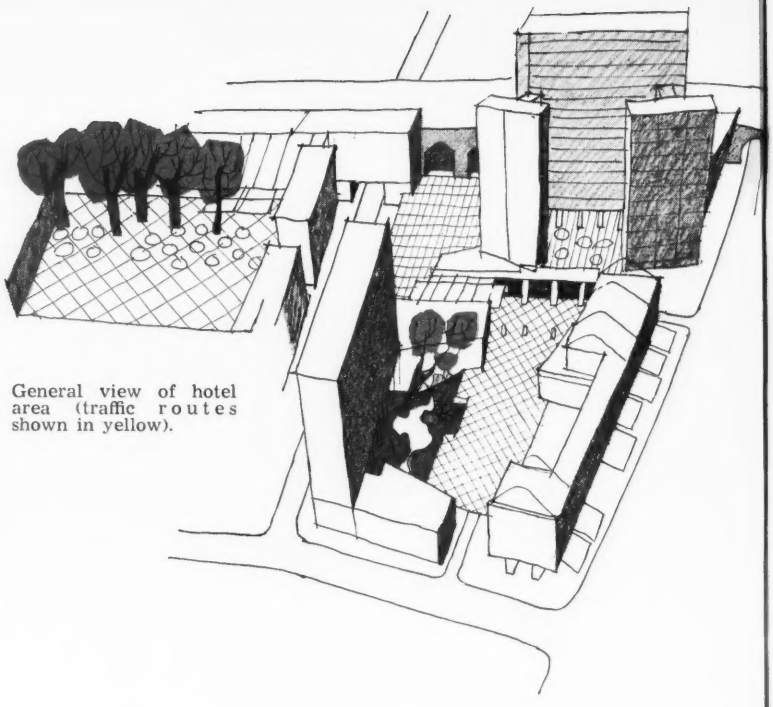
1939 — The river bank is industrial, based on river transport. The Surrey Lead Works is marked by its shot-tower. Behind this zone lies a mass of small streets of two and three storey houses.

1951 — The County of London Plan reserves the area as a cultural and office zone. The war has helped to clear the site and the exhibition stimulates the erection of the Royal Festival Hall and embankment. Some of the roads, the bridges and the shot-tower (and of course the river) are all that remain of the old pattern. The new pattern is one of meandering quadrangles.

The Future — Government offices, conference rooms and hostels; a large hotel and the National Theatre are the main buildings envisaged to replace the exhibition. Although the exhibition pattern is retained the density of building is greatly increased in the scheme put forward herewith.



Entrance from York Road

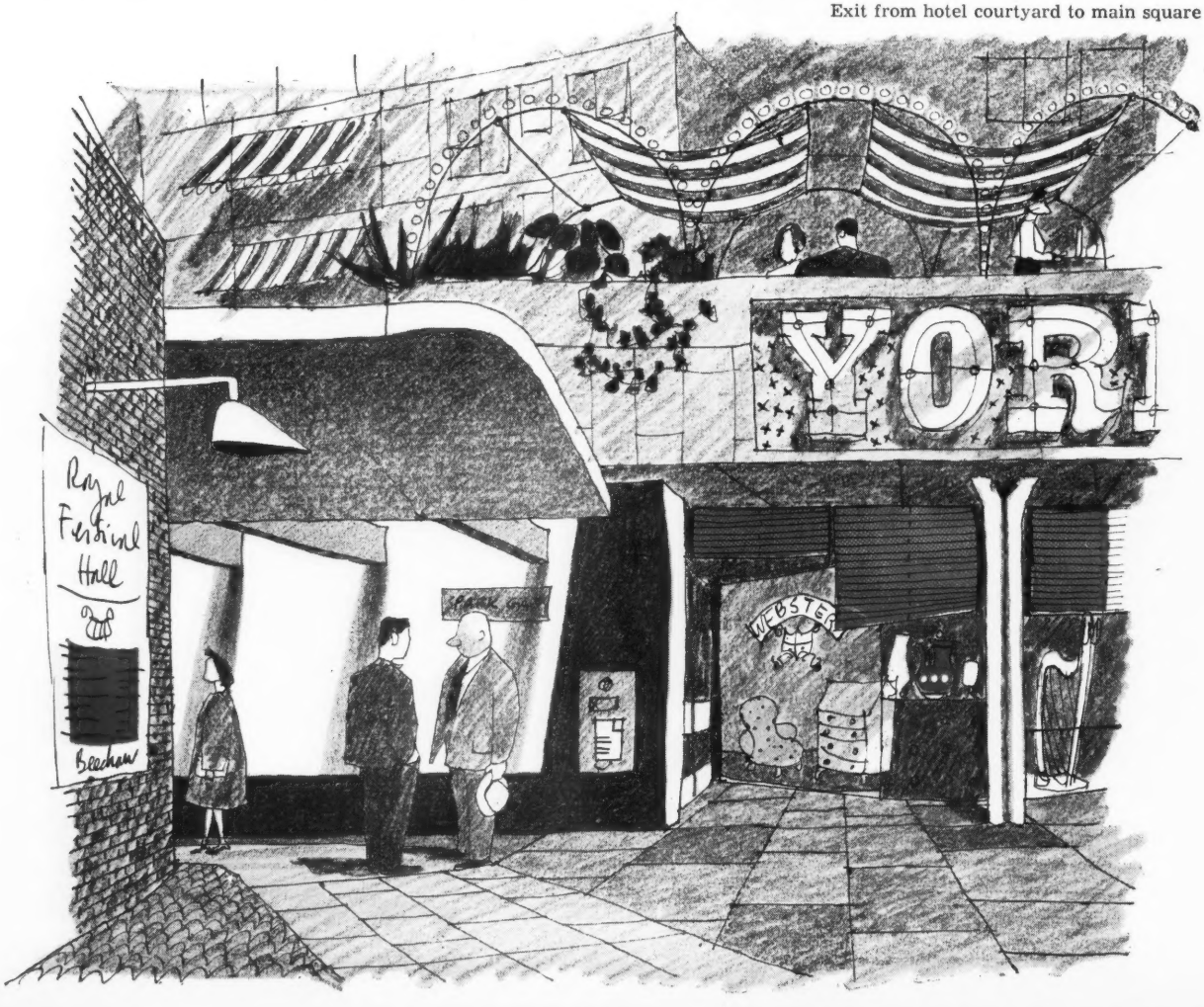


General view of hotel area (traffic routes shown in yellow).

HOTEL ZONE

Entering the site from York Road at what is now the Chicheley Street entrance to the exhibition there will be a courtyard flanked on the left by a garden and on the right by hotel ancillaries such as grill room, ballroom and shops. The courtyard will be a drive-in for hotel traffic but with pedestrian priority. Interest at eye level (the lack of which renders so much of London a bore) is thus provided by garden, paving, shops and restaurants. The exit from this square in the direction of the river is, as at present, a concealed narrows (see page 81) but is accentuated by providing a covered way in the form of a tunnel running between hotel and public house. This preserves the feeling of enclosure and at the same time emphasizes the point of exit.

Exit from hotel courtyard to main square

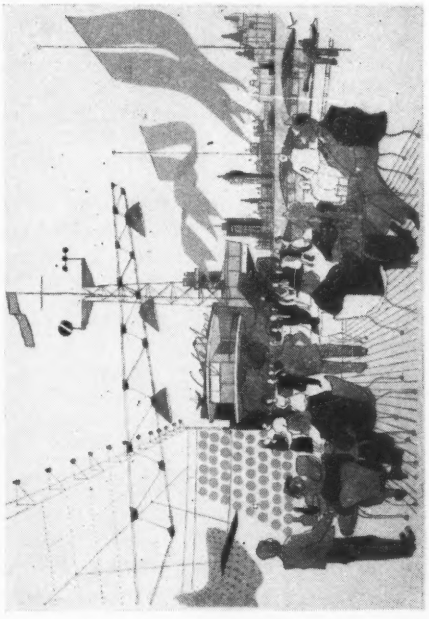


View along the Piazza to Whitehall Court

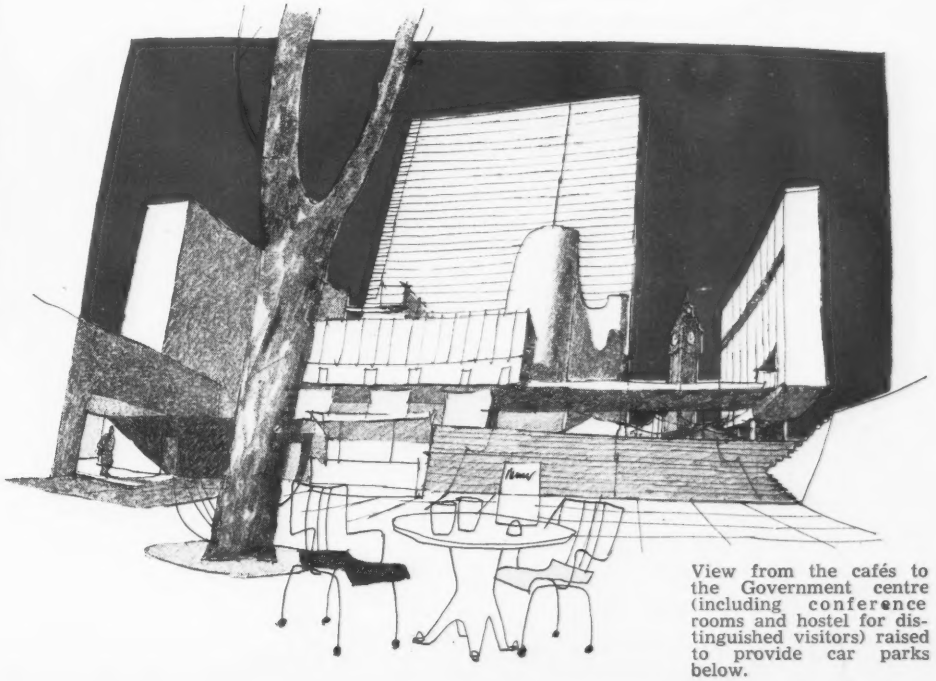
PIAZZA

A purely pedestrian area (occupying part of the present main exhibition concourse) flanked on the west by Government buildings and on the east by cafés. As at present Whitehall Court, across the river, provides the fourth wall of the enclosure brought more sharply into focus by the raised terrace which cuts out the intervening river. It is proposed to keep the Regatta Restaurant on the river front.

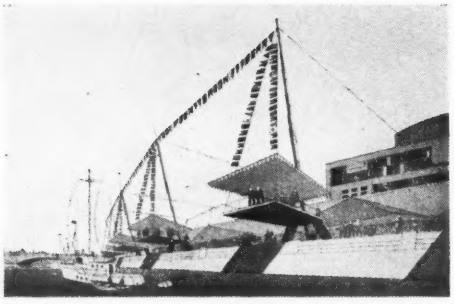
The two drawings on this page show the contrast of scale aimed at in this area. The cheerful and intimate nature of the cafés on the one side and the lofty, sculptural effect on the other.



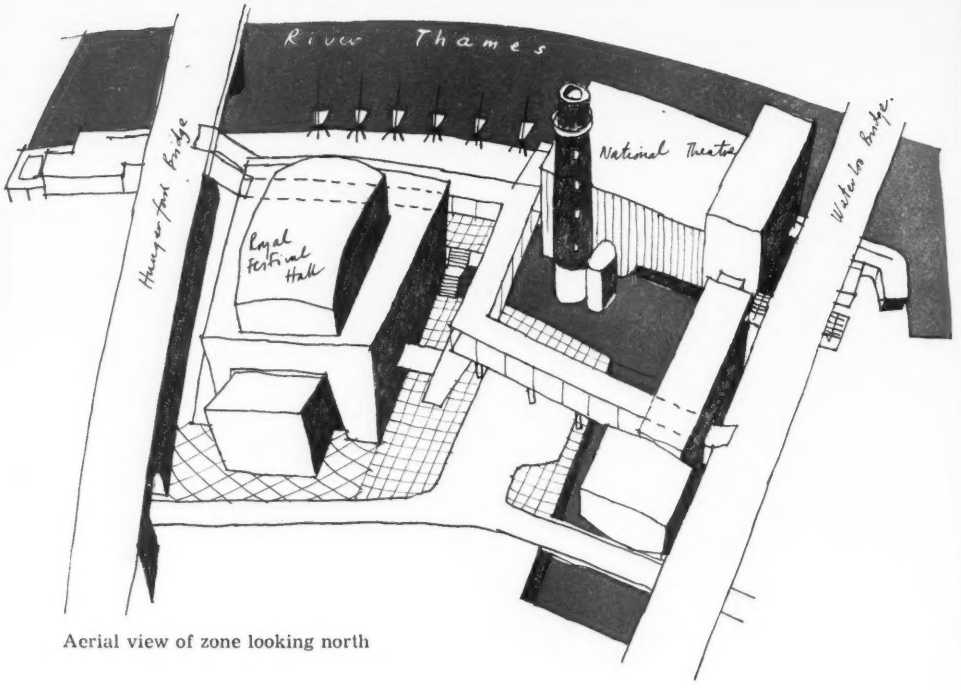
A flashback to the REVIEW scheme 'South Bank Regained' (A.R., January, 1949). A similar arrangement is again proposed for the riverside development in the present scheme.



View from the cafés to the Government centre (including conference rooms and hostel for distinguished visitors) raised to provide car parks below.



The Seaside section of the South Bank exhibition which it is proposed to preserve in this REVIEW scheme for the permanent development of the area.



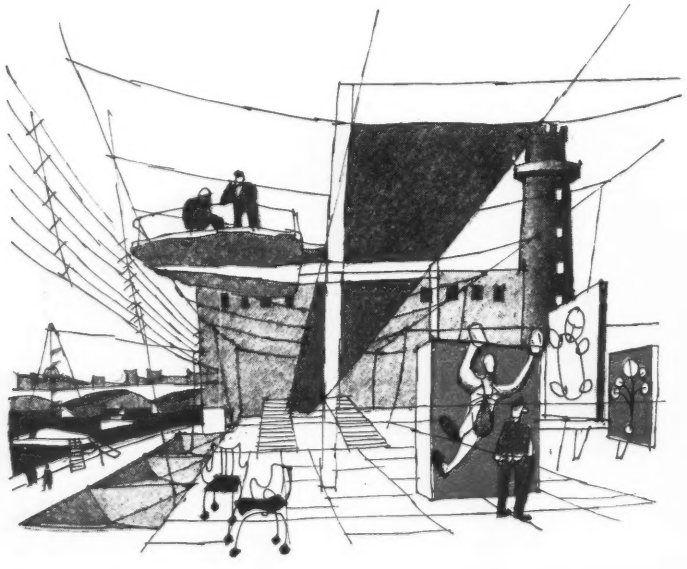
Aerial view of zone looking north

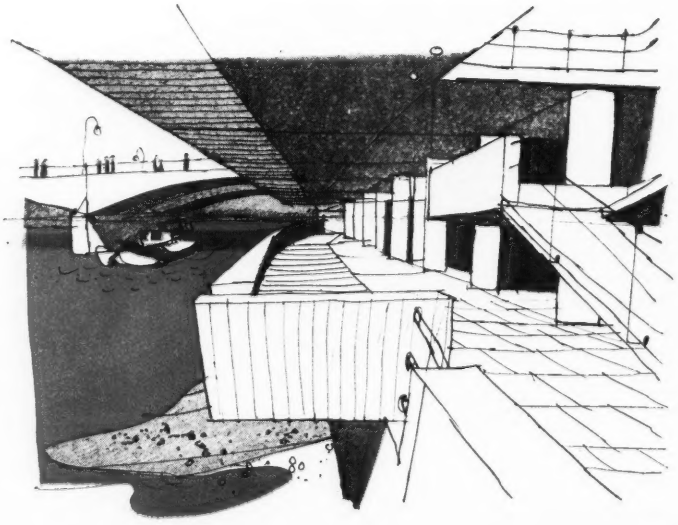
ROYAL FESTIVAL HALL AND NATIONAL THEATRE ZONE

It must be pointed out at the start that the proposals shown here are put forward on its own responsibility by the REVIEW, and are not based on official schemes.

The proposals involve the siting of the National Theatre right on the river wall. There are in fact only two possible alternative sites for the building: either on the river or set back to line up, approximately, with the façade of the Royal Festival Hall. The latter position cuts up the available open space into two pieces when it would seem desirable to increase the sense of space on a small site by making one large courtyard and utilizing the space of the river itself. It would further have the effect of establishing a linear development along the river bank which may be desirable with a continuity of building but may not be so successful with the axial monumentality already established. If, as we hope, Hungerford Bridge becomes pedestrian, then a meandering causeway linking it to Waterloo Bridge at high level would bring the pedestrian to any desirable point of the site in all weathers. (An important consideration in the attempt to popularize the South Bank after the Festival has closed.) The Thames-side restaurant would be kept, and approached as at present along the embankment, but under the overhang of the National Theatre. Also preserved is the Seaside Section, the only change being the substitution of shops for the exhibition displays. The courtyard which gives access to both the Royal Festival Hall and the National Theatre, would be treated as a water square; out of the water rises the shot-tower.

Below, left, a view looking towards the National Theatre from inside a glazed, all-weather causeway, which, it is suggested, should link Hungerford and Waterloo Bridges. Below, right, the National Theatre overhanging the river bank near Waterloo Bridge and the catwalk leading to the Thames-side restaurant.





A flat roof is as watertight as its joints.

The problem of making watertight expansion joints in flat concrete roofs can be solved by the use of Expandite rubber waterstops.

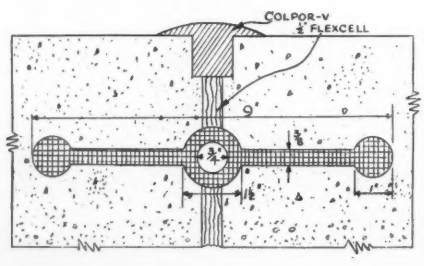
These waterstops were developed in the first place for sealing joints in hydraulic structures and are widely used by hydraulic engineers.

Three different sections are available, and, as shown in the illustrations below, the complete joint consists of the waterstop, Flexcell cane fibre joint filler, and a surface seal of one of the Expandite rubber-bitumen sealing compounds.

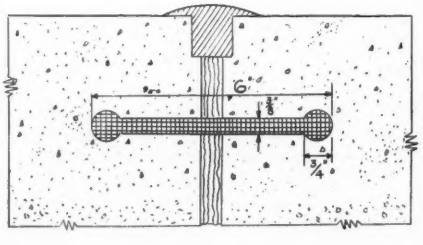
This is but one example of the general problem of sealing joints where there is movement. Government, Consulting and Municipal Engineers are constantly sending us drawings and asking for our suggestions on the treatment of joints in all types of structures. Can our Technical Department be of assistance to you?

Sealing 'joints which move' is our speciality.

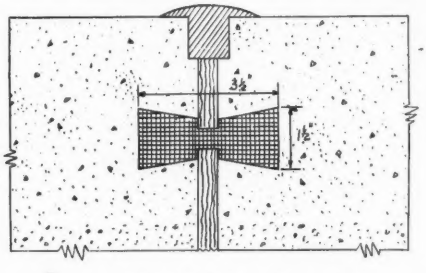
TYPE A TO ACCOMMODATE EXTREME MOVEMENT IN TENSION OR SHEAR



TYPE B FOR JOINTS WHERE RELATIVELY LESS MOVEMENT IS ANTICIPATED



TYPE C A MORE ROBUST SECTION FOR JOINTS WITH COMPARATIVELY SMALL MOVEMENT



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ANTHOLOGY

Recipe for Good Design

To The Leading Men of Manchester. Are you to be remarkable in all that renders manufacture useful in material, perfect in completion and wonderful in despatch, and yet slavishly bow down to the earth before France—humbly beg *her* to design your patterns, and gratefully pay *her* whatever in *her* superiority, she may choose to demand? Shall England kiss the ground before her rival any longer with feudal humbleness, year after year, month after month, day after day, hour after hour; when by the same judicious efforts which have given France her rank, you can place yourselves on the same level, and then rise above it?

Surely one of the greatest anomalies of the period is that Manchester should be without a School of Design! Why should Manchester be without? What has raised Lyons to her just superiority in taste? I appeal to you all, gentlemen, to read the examination before the committee of the master manufacturers. I appeal to you all to dwell on the bitter complaints made by master and mechanic of the want of instruction—*the only want.*

We can beat other nations, say they, in production—we can beat them in material, but in taste, in design, we are vastly inferior; and it came out in the evidence, that where we had proved equal and superior was in that very branch wherein the masters had procured instruction for the apprentices.

* * *

In a nation so celebrated for common sense as the English—in a town so distinguished for capital and diligence as Manchester—what plausible pretext can be urged against the establishment of that which has given superiority to our neighbours? So that, first, the mechanic should begin by learning to draw the figure, as in Lyons—the elements of all design being the same, whether for the artist or the artisan; secondly, that when he could draw the human figure competently, and when, by the examination of competent persons, he is pronounced competent, he should proceed to the ornamental school (more particularly *his* necessity), that, having begun with the most difficult, he will proceed with the least so with comparative pleasure. Having given evidence of power in drawing the figure, and then the ornamental, he should proceed to chemistry and colour, its principles and its combinations, and botany, in as far as the difference, species, and forms of plants are concerned; then will be required, first, lectures on anatomy and design, second lectures on ornament, colour and botany; thirdly, instructions how to apply the acquired knowledge to manufactures.

* * *

There is no easy way of attaining greatness in anything; and it is not the least extraordinary characteristic in both English and French, that the one, gay, thoughtless, and volatile, without common sense, should conduct their design in art and manufactures with the greatest degree of it; and that the other, distinguished by this characteristic should, in the practice of the arts, give proof of no common sense at all.

Allow me to warn you, as I have warned the government before; suffer not *your* school to be rendered ineffectual by pompous pretence, or ingenious and malicious affectation of superior knowledge.—What is the first requisite in design? The figure.—What the next? The figure.—What the third? The figure.—Without that knowledge, your skill in colour, in chemistry, in botany, in ornament, as applied to design, will be useless; you will spend your money, raise your buildings and pension your instructors, in vain, and find yourselves, after thousands are gone, little more advanced than when you subscribed the first guinea. That Manchester may keep her capital to reward her own genius, and the genius of her own country, by founding a sound and practical school of design, based on no narrow views, no paltry envies, no mean apprehension, but open to all whom God has gifted—high or low, rich or poor, the refined artist, and the modest mechanic—is the constant hope and earnest desire of your grateful and obedient servant,

BENJAMIN ROBERT HAYDON (*The Manchester Guardian*, September 13, 1837).

MARGINALIA

South Bank Architects

The South Bank exhibition, illustrated on the preceding pages, is the work of a large number of architects, of whom portraits and brief biographical notes are given herewith. The series starts with the architect-members of the Presentation Panel, who laid out the site and co-ordinated the designs of the various buildings; it continues with the landscape architects and consultants and concludes with the architects of the individual buildings.

HUGH CASSON, Director of Architecture, Festival of Britain: member Festival Presentation Panel: responsible for layout of downstream section, South Bank Exhibition and 1851 Centenary Pavilion: born 1910; trained Cambridge; private practice from 1937 with the late Christopher Nicholson: Camouflage Officer, Air Ministry 1940–44: Technical Officer, Ministry of Town and Country Planning 1944–46: since then in private practice.

MISHA BLACK, OBE (right), member Presentation Panel: responsible for layout, upstream section: Chief Display Designer, Dome of Discovery, Architect in conjunction with Alexander Gibson of Regatta Restaurant, Embankment Gate, and decoration of Bailey Bridge: born 1910: designer of Steel, Coal, Shipbuilding and Public Welfare Halls, UK Pavilion, Empire Exhibition, Glasgow, 1938: Designer, MARS Group Exhibition, 1938, Public Welfare and Maritime Halls, British Pavilion, World's Fair, New York, 1939: Principal Exhibition Architect, Ministry of Information, 1940–45: Director Design Research Unit since 1946. Exhibition consultant to UNESCO. Alexander Gibson (left) was trained at the AA: worked with Gropius and Fry and Norman and Dawbarn: joined DRU 1948.

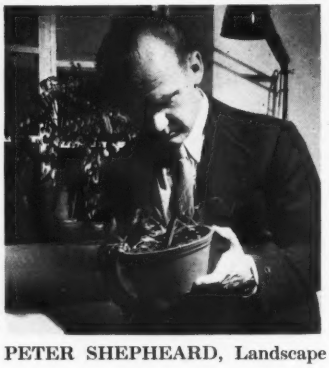
3 RALPH TUBBS, member Presentation Panel and architect Dome of Discovery: born 1912: trained AA: Secretary MARS group in 1939: member of Council and Executive RIBA between 1944 and 1950: vice-president AA 1945–47: most recent work, Indian Students' Union and Hostel under construction at Fitzroy Square, W.1.

4 JAMES GARDNER, OBE, member Presentation Panel, Co-ordinating Display Designer, Downstream Section, Display Designer People of Britain and Centenary Pavilion: born 1907: after art school course spent six years designing jewellery, later general publicity work: during war years Chief Development Officer camouflage for Army: Chief Designer 'Britain Can Make It' Exhibition: responsible for 1951 display in Main Hall, Olympia Ideal Home Exhibition: Chief Designer Festival Pleasure Gardens, Battersea Park: industrial design work for BEA including aircraft interiors.

5 JAMES HOLLAND, member Presentation Panel, Co-ordinating Display Designer for Upstream Section, Joint Display Designer (with Basil Spence) for Sea and Ships Pavilion, Co-ordinating Designer for Festival Ship 'Campania,' head of Festival Office Design Section: born 1905: trained Royal College of Art: worked on Peace Pavilion, Paris International Exhibition 1937: murals and display treatment UK Pavilion, Glasgow Exhibition 1938 and New York World's Fair 1939: joined Exhibitions Division MOI 1943: Chief Designer (Exhibitions) COI, 1947.

6 H. F. CLARK, general landscape consultant: born 1902: in private practice with Christopher Tunnard until 1939: Consultant Landscape Architect to Holborn Borough Council (reinstatement of the Bloomsbury Squares, St. Giles Churchyard Garden and playground) 1947. Consultant to Stevenage Development Corporation since 1948: from 1946 Lecturer in Landscape Architecture at Reading University and the Department of Civic Design, School of Architecture, Liverpool University.

7 H. T. CADBURY-BROWN, architect for main concourse and surrounding area in upstream section, The People of Britain and the Land of Britain: born 1913: trained AA 1930–35: began private practice in 1937: won competition for British Railways Town Office 1937 and for Central Feature, Women's Fair at Olympia, 1938: served Royal Artillery 1939–45: taught at AA 1946–48: recent work for CID and Harlow New Town Corporation: member RIBA Town Planning and Public Relations committees.

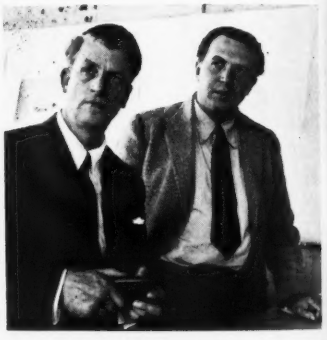


8 PETER SHEPHEARD, Landscape Architect, Downstream Section: born 1914: trained Liverpool: 1937–40 assistant to D. L. Bridgewater: 1940–43, Ministry of Supply, Royal Ordnance Factories: 1943–44 with Sir Patrick Abercrombie's staff on Greater London Plan: 1945–47, Ministry of Town and Country Planning working on Stevenage master plan: 1947–48, Deputy Chief Architect, Stevenage Development Corporation: 1948 onwards in partnership with D. L. Bridgewater working on housing (including work at Lansbury), schools and landscaping: Member of Councils of RIBA, ILA and AA.

9 R. D. RUSSELL and R. Y. GOODDEN, architects Lion and Unicorn, and Unicorn Café: R. D. Russell, trained AA 1924–27: with Gordon Russell Ltd. 1928–34: staff designer Murphy Radio 1936–42: ship camouflage RNVR 1942–46: RDI 1948: professor in charge, School of Wood, Metals, Plastics, RCA. R. Y. Goodden, trained AA 1926–31: consultant industrial designer, glass, silver and pottery and private architect 1932–39: radar operator RAF and ship camouflage RNVR 1940–45: private practice 1947: RDI 1948: professor in charge, School of Silversmithing and Jewellery, Department of Industrial Glass, RCA.

10 ARCHITECTS' CO-OPERATIVE PARTNERSHIP, architects of Administrative Offices, Royal Pavilion, Chicheley Street Entrance, York Road Screen, information and lost property offices, kiosks, etc., Fairway Café, and Minerals pavilion: C. K. Capon, P. L. Cocke, M. H. Cooke-Yarborough, A. W. Cox, L. M. De Syllas, J. M. Grice, M. A. R. Powers: partnership formed in 1939 with eleven partners all qualified in that year at AA: responsible since war for Bryn Mawr Rubber Co.'s factory, South Wales, research programme on hospital design for St. Albans and Mid-Herts Hospital Board, prefabricated schools for Herts and Derbyshire County Councils and Coventry and Sheffield City Councils: whole partnership does part-time teaching at AA.

11 W. WELLS-COATES, OBE, architect Television building, Telekinema and interior of Royal Pavilion: born Tokio 1895: joint BA, BSc (Engineering) McGill University: war service 1915–19, research degree, engineering, London University: 1928, private practice, London: early work, BBC Studios Broadcasting House, Cresta Shops: founder-member MARS group 1933: in charge Fighter Development RAF 1940–45: RDI 1944: resumed private practice 1945.



12 ERIC BROWN and PETER CHAMBERLIN, architects and designers of The Seaside. Eric Brown is head of the Department of Architecture, Kingston School of Art and Peter Chamberlin is deputy head.

[continued on page 141

Central fitting for the Royal Pavilion, designed by A. B. Read, R.D.I., A.R.C.A., F.S.I.A., Director of Design.

Light ON THE FESTIVAL SCENE

We supplied to the Festival Exhibitions more than five thousand electric lighting fittings, either of special design, or chosen from our Mondolite, Tubalux, Ultralux and Versalite ranges.
In addition we were chosen as the contractors for the main portion of the electrical installation at the South Bank Site.

TROUGHTON & YOUNG LTD

143 KNIGHTSBRIDGE, LONDON, S.W.1. TELEPHONE: KENSINGTON 8881 (15 LINES)

13 B. KATZ and R. VAUGHAN, architects Homes and Gardens: B. Katz, born 1913: trained Technical University, Vienna 1935: worked with Gropius and Fry in England 1936–39: DCRE's Office, London, West Area, 1940–42: designed exhibitions for MOI and MOS 1943–45: appointed exhibition consultant to UNESCO, 1947: R. Vaughan, born 1906, trained AA: Architect to Municipality of Penang for three years: Chief Assistant Maxwell Fry and later to Gropius and Fry, 1933–38: served RE 1939–45.

14 POWELL and MOYA, architects of Skylon: Philip Powell, born 1921: trained AA 1939–43: worked in office of F. Gibberd: part-time teacher Kingston School of Art 1947–49. Hidalgo Moya, born 1920: trained AA 1939–43: worked in office of F. Gibberd: part-time teacher AA 1947–48: partnership together since 1946 (with Michael Powell who left to become Assistant Housing Architect, LCC in 1950) and won competition for Westminster City Council's Pimlico Housing Scheme 1946.

15 G. GRENFELL BAINES and H. J. REIFENBERG, architects Power and Production pavilion: G. Grenfell Baines, born 1908: after working as junior in office of rating surveyor and valuer from 1923 became junior draughtsman with Lancs. County Architect: trained at night school and later Manchester University: won Southern Rhodesia Parliament House competition, 1937: now in partnership working as planning consultants of Aycliffe and Peterlee. H. J. Reifenberg, born 1904: graduated Berlin Technical University, 1922: private practice in Berlin, 1924. Came to England 1938 and became British subject.

16 EDWARD MILLS, architect Administration Building: born 1915: trained Regent Street Polytechnic: worked in offices including Maxwell Fry's and Gropius': private practice since 1936: worked in India, Nigeria, W. Africa, S. Africa: buildings include Factory Canteen and New Process Building, Dagenham, Flats at Hackney, St. Hellier Methodist Community Church, etc.: research work includes design of modern chemical laboratories, low rental housing and slum clearance.

17 MAXWELL FRY and JANE DREW, architects Waterloo Entrance, Harbour Bar, Thamesside Restaurant: Maxwell Fry, born 1899: trained Liverpool University School of Architecture: partnership 1927–34: with Gropius 1934–36: practised alone 1936–39: war service in War Office and RE West Africa: Town Planning Advisor, West Africa, 1943–45: returned to England setting up partnership with his wife (Jane Drew): works include flats for Lewisham Borough Council and Harlow New Town, Ibadan University, Nigeria, Hospital and Schools at Kuweit: member Royal Fine Art Commission. Jane Drew, born 1911: trained AA: partnership with J. T. Alliston from 1934–39: during war designed aircraft factories, and research in kitchen planning: chairman RIBA exhibition 'Rebuilding Britain,' 1943: Assistant Town Planning Advisor to the Resident Minister, West African Colonies 1944-45: first woman council member AA and ARC: now designing hospitals, flats and school in West Africa: editor 'Architects' Year Book.'

18 GORDON and URSULA BOWYER, architects of Sports Section: Gordon Bowyer, born 1923: trained Regent Street Polytechnic School of Architecture 1940–44: architectural and industrial design assistant 1944–46: taught at Regent Street Polytechnic 1946–48: private practice since 1948, mostly exhibition work. Ursula Bowyer, born 1926: trained at Regent Street Polytechnic 1942–46: worked as architectural assistant 1946–49: in partnership with her husband since 1949.

19 BASIL SPENCE, architect Sea and Ships: born 1907: trained at Schools of Architecture, London and Edinburgh Universities: worked with Lutyens for year: designed Scottish pavilions, Glasgow Exhibition, 1938 with T. S. Tait: Chief Architect, 'Britain Can Make It' Exhibition, 'Enterprise Scotland' (1947): at present working on housing at Sunbury-on-Thames, Dunbar and Selkirk, three schools, a shopping centre and a theatre reconstruction.

23 LEONARD MANASSEH, architect of '51 Bar: born 1916: trained AA: CRE North London and private firms working on canteens, kitchens, aircraft factories, etc.: 1943–46, pilot, Fleet Air Arm: 1946–48 under C. H. Aslin, Herts County Architect, on police housing and schools: 1948–50, a Senior Architect with Stevenage Development Corporation, designs for Town Centre, housing, shops, etc.: won competition for Luxury Restaurant, South Bank Exhibition (abandoned for economy): 1950, Director of Preliminary School AA.

24 GORDON TAIT, architect Station Gate: born 1912: trained AA: partnership with Sir John Burnet, Tait & Partners since 1939: served as pilot RAF during war: pre-war work largely on Glasgow Exhibition 1937-38: at present engaged on three schools, 300 London flats, a nursing home and maternity hospital, Scotland; a large City office block and a bank in Portsmouth.

20 21 22 ARCON, architects Transport Pavilion: Rodney Thomas, trained University College, London, School of Architecture 1919–22: studied painting at Slade: private practice 1931–39: partnership with Raglan Squire 1941–43: founder-partner Arcon 1943, in charge of the unit responsible for Transport building. Edric Neel, trained Cambridge School of Architecture, 1932–35: worked with W. Wells-Coates 1935–37: private practice 1937–39: architectural staff Cement & Concrete Assoc. 1939: one of founders of Arcon partnership, 1943: member Board of Assoc. for Planning and Regional Reconstruction, and of School Planning 1945–49: A. M. Gear, trained Nottingham University School of Architecture 1929–31: worked in various offices in Nottingham and later London: during the war with Professor Holford and Sir Alexander Gibb and Partners: joined Arcon 1943, partner 1946.

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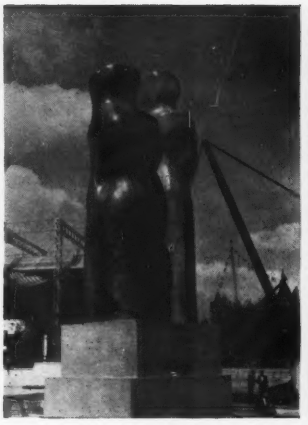
EXHIBITIONS

Even if one allows for the fact that much of the painting and a little of the sculpture is purely illustrative, and so should be considered under the head of exhibition technique rather than as works of art in their own right, the South Bank exhibition provides, incidentally, a very considerable show of contemporary English art. The critic, however, is confronted with a difficulty about which he may justifiably feel annoyance: the ten-shilling catalogue, so far as painting and sculpture are concerned, is utterly inadequate. Not only is there no index of any sort; the individual entries fail to give the most elementary particulars (title and material or medium—to ask nothing more) about the works to which they relate.

Taking the sculpture first, it is hard to resist the reflection that size and æsthetic quality tend to be in inverse ratio, at least in that upstream section of the exhibition where Charoux's *Islanders* glare defiance over the river in the direction of Scotland Yard, and Keith Godwin's *Neptune*, on the end wall of the Sea and Ships pavilion, does his best to ignore Daphne Hardy's Lehmbruckian girl outside the '51 Bar. But in any case there are only three, or perhaps four, works of sculpture which live in their own right—as something more than evidence of the taste and talent of their creators. One is Henry Moore's reclining figure outside the Country pavilion; in this the feeling of power in repose conveyed by the posture and by the dynamo-like conformation of the chest or diaphragm is reinforced by the raised linear patterning of the bronze with its resultant sense of surface tensions. Another is Barbara Hepworth's pair of biolithic figures, or *Contrapuntal Forms*, on the podium of the Dome of Discovery; here duality has been resolved with truly monumental effect. The third really notable sculpture—the order is geographical, assuming entry by the Chicheley Street Gate—is Reg Butler's *Bird Cage* at the downstream extremity of the site beyond the Thames-side Restaurant. With an extramural crane as background, this has been rather unfortunate in its placing; in articulation and in complication of structure, however, it goes a step further than anything Butler has previously done, while maintaining the surface richness of his smaller recent works. And the fourth? Certainly it is not a likeable work, and it belongs to a convention which many may feel to be outworn, yet Epstein's leaping figure near the entrance to the Homes and Gardens pavilion has a certain quality of positiveness which is lacking from so much of the other sculpture; it must be admitted that the artist knew where he was going, even by those who think it was the wrong direction.

In addition to these four outstanding works, there are several of considerable charm. Karin Jonzen's dancing nymph at the end of Waterways certainly takes a high place among them, while Lynn Chadwick's copper cypress tree by the Regatta Restaurant is as pretty a garden ornament as one could hope to find. (There is a characteristic hanging mobile by the same artist at the top of the Waterloo Bridge Gate viewing tower.) Richard Huws' water mobile—the seventh wave is always the biggest, or is it?—is a diversion whose popularity with all comers is deserved; Barbara Hepworth's revolving abstract in concrete in the garden of the Thames-side Restaurant is enjoyed by many who would never admit to a liking for abstract art.



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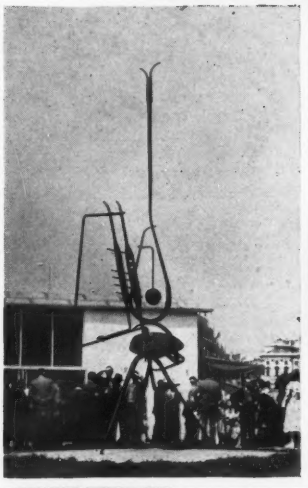

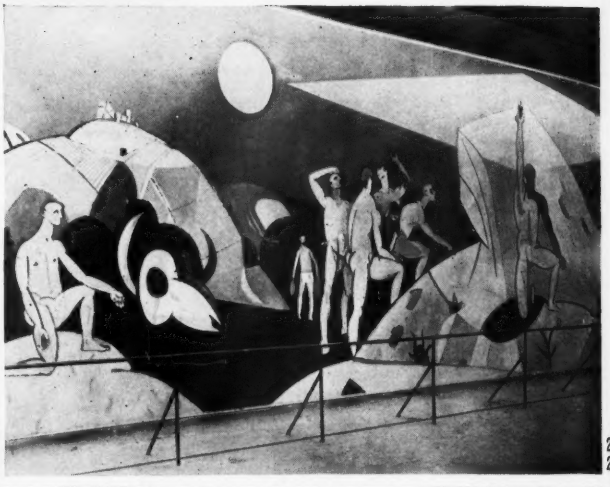

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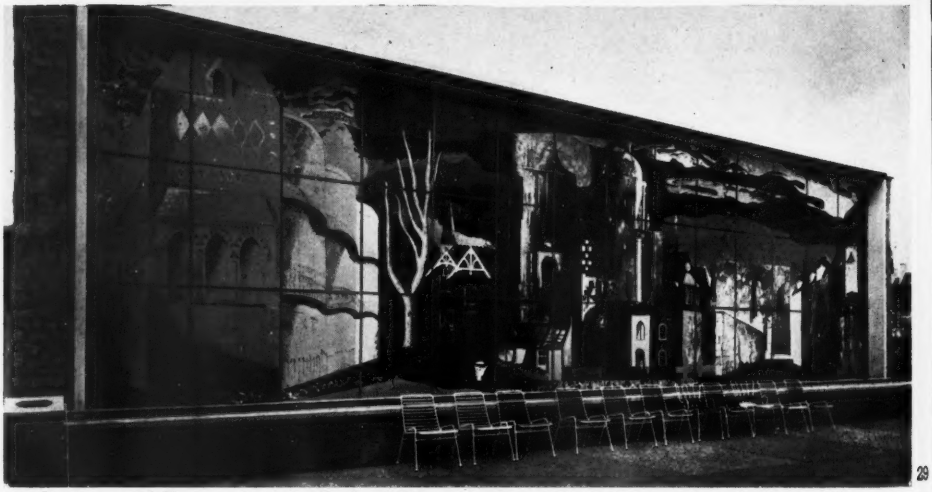

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25, Contrapuntal Forms, *stone, by Barbara Hepworth;* 26, Reclining Figure, *stone, by Henry Moore;* 27, Bird Cage, *iron, by Reg Butler;* 28, Discovery, *by Keith Vaughan;* 29, *Mural by John Piper.*

But it is time to consider the paintings. Out of doors, the three largest are John Piper's mural on the end of Homes and Gardens, John Hutton's on the Sea and Ships, and Felix Topolski's under the railway. Piper's architectural fantasy, in which one picks out parts of Kirby Hall, Castle Howard, the Brighton terraces, etc., is easily the most successful of these three: the scale and the amount of incident are both just right. Hutton's shipbuilding mural is too much like a small painting, or a number of small paintings, enlarged up: the confusion that is Topolski's *Cavalcade of Commonwealth* can be regarded, at best, as a gallant failure. Victor Pasmore's calligraphic abstract in ceramic ware on the east wall of the Regatta Restaurant, on the other hand, is a triumphant success; here is a mode of external decoration which surely has great potentialities for the future. And another technique whose existence

[continued on page 144

30 *Foyer of the Royal Festival Hall showing teak strip flooring.*

architects might profitably remember is that of *sgraffito*, worthily represented on the South Bank by Augustus Lunn's wall at the Seaside.

Indoors, or let us say under cover, the most extensive mural is Leonard Rosoman's *Seasons* in the Country pavilion (which, however, lacks punch), and the most notable work of art is without question the big Sutherland in the Land of Britain. Taking other buildings in the order of the catalogue, in the Minerals Josef Herman's expressionist *Miners* and in the Sea and Ships James Boswell's *Drifters* may be noted as playing the very different parts that their settings demand of them with some success, though neither is intrinsically very remarkable. In the Dome of Discovery Keith Vaughan's *Discovery* makes an effective decorative gesture; John Minton, in his *Exploration*, has for all his skill as an illustrator got bogged down in the problem of representing sixteenth-century seamen and twentieth-century aeroplanes in a manner at once fresh and realistic—and, indeed, it may well be an insuperable problem for our age. In the Lion and the Unicorn Edward Bawden's *Country Life* mural on the end wall and Kenneth Rowntree's serial *Freedom* do what they set out to do wittily and well; the '51 Bar contains a mural of the Crystal Palace by Julian Trevelyan, which has a feeling of spontaneity welcome after so many set pieces; Ben Nicholson contributes a mural in the Thames-side Restaurant.

A survey of this length must necessarily be highly selective; nor will everyone agree with the selection. However, there is one conclusion which many people are likely to carry away with them from the South Bank, and that is that the painters and sculptors have not risen to the occasion in the way that the architects have. They should reflect that, in so far as the private experience has taken the place of the public occasion as an effective stimulus to artistic production, contemporary painters and sculptors are the victims of an historical process rather than active delinquents.

TRADE & INDUSTRY

Hardwood Floors

There must be more innovations in technique and design in the Royal Festival Hall than in any other recent building in Europe. It is therefore an interesting fact that the material chosen for a very large part of the flooring was the traditional hardwood. The implications are obvious, for the timbers and finishes selected are an undoubted asset to the design while their hard-wearing qualities are too well known to require comment.

The flooring has been laid throughout by Vigers Bros. Ltd. That in the foyer is laid in teak and Muhimbi strip, the first, of course, being a timber of long-standing reputation, since it is stable and possesses a rich appearance in colours varying from light gold to dark brown. Its oily nature has the advantage of minimizing 'dusting.' Teak has also been used for the auditorium. Muhimbi, an extremely hard wood from Uganda, is here used for the first time in a floor of any appreciable size in this country. In colour it is not unlike walnut.

[continued on page 146

continued from page 144]

In the Restaurant the floor is in white maple strip laid on a sub-floor of yellow deal. As its name suggests it is very light in colour, being a sapwood, but despite this it is very hard and capable of standing up to the most severe wear and tear.

The staircases are unusual both in design and in the construction of the treads. The treads which overhang the concrete stair are built up with cores of Gurjun, a strong durable timber, light reddish brown in colour, from the Far East. Each core is cased in with teak and bolted to the concrete stair. The floors are all waxed, with the exception of the Muhimbi, which is treated with 'Bourne Seal,' a preparation with a tung oil base, and then burnished with steel wool.

An important technical problem which had to be met was that of moisture content, for the proximity of panel heating and the variations in temperature within the building, whether heated or otherwise, can have a considerable effect on the timber. The relative compressibility of the timbers used therefore required careful assessment.

Vigers Bros. Ltd., Broadway Chambers, Ludgate Broadway, E.C.4.

Research in Brick Making

The London Brick Company has recently completed a new Research Laboratory, designed by C. C. Handisyde, FRIBA, at Stewartby, the largest brickfield in the world. Although research has been carried on since 1928, this new development will intensify research into the nature of clay materials, brickmaking processes and new clay products.

The modern architect wants a lighter weight brick possessing better thermal qualities than are at present possible. Builders, in fact everyone, require to reduce the site-costs of construction. The industry is naturally facing competition from other products which for various reasons lead to a lowering of these costs.

Increased knowledge of what happens to a brick as it passes from the green brick to finished brick should result in greater uniformity of product, and thus an improved one.

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[continued on page 148

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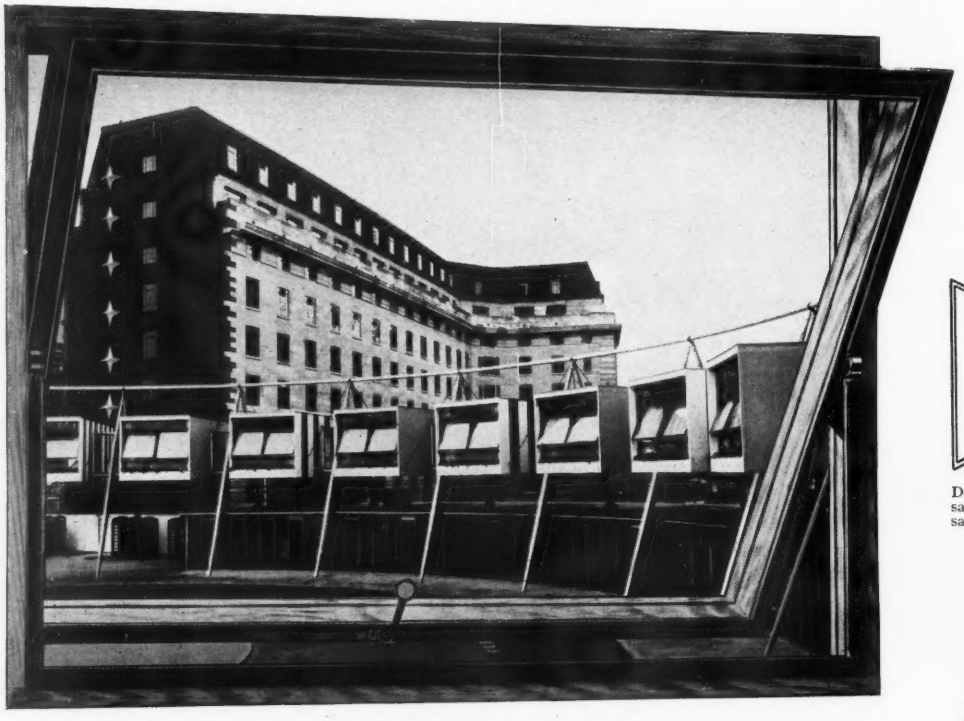

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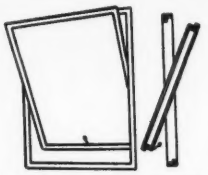
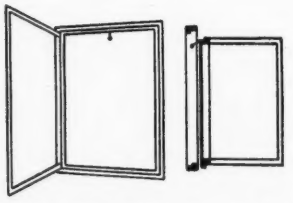
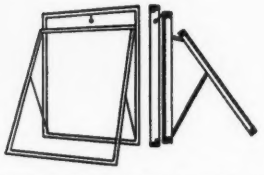


Window open for normal ventilation.

Window inverted for cleaning.



Double glazed window inverted and sashes separated for cleaning. (Outer sash side hung.)



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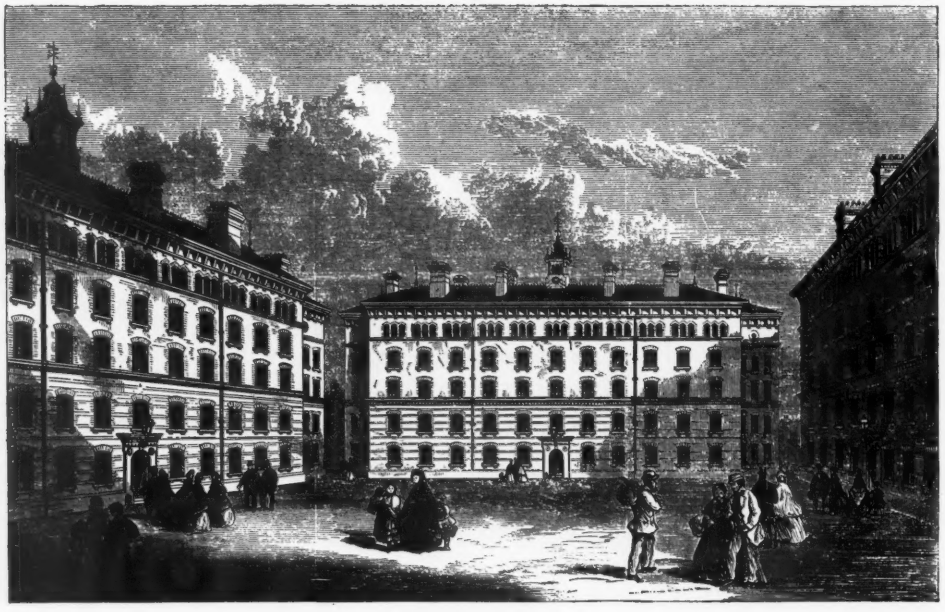

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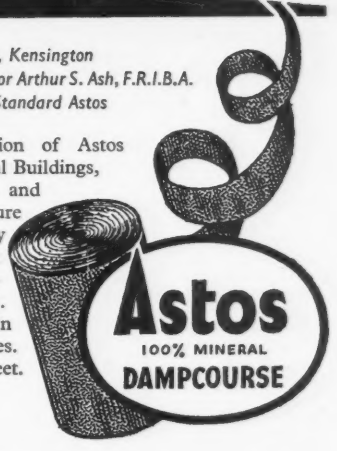

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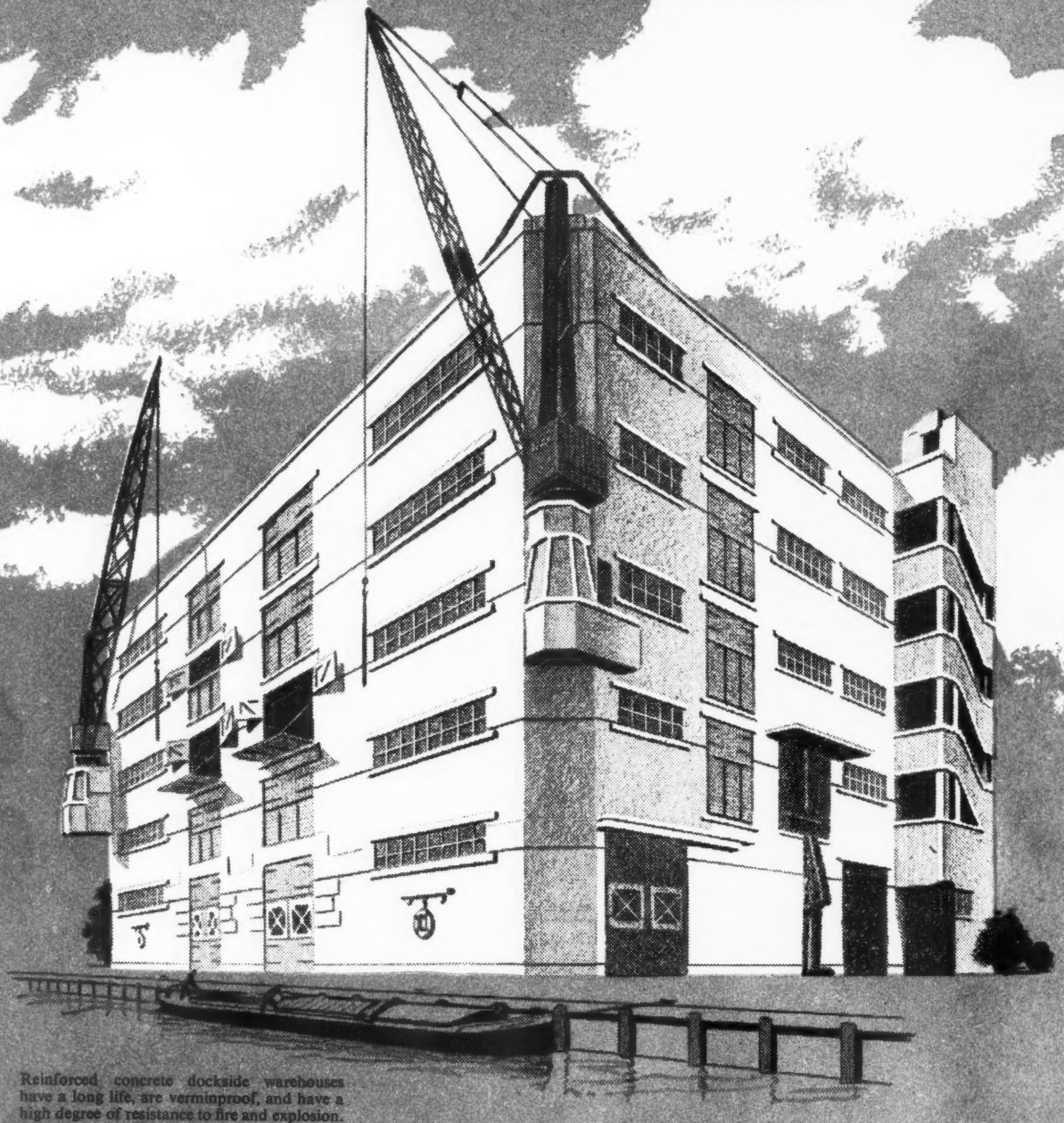

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