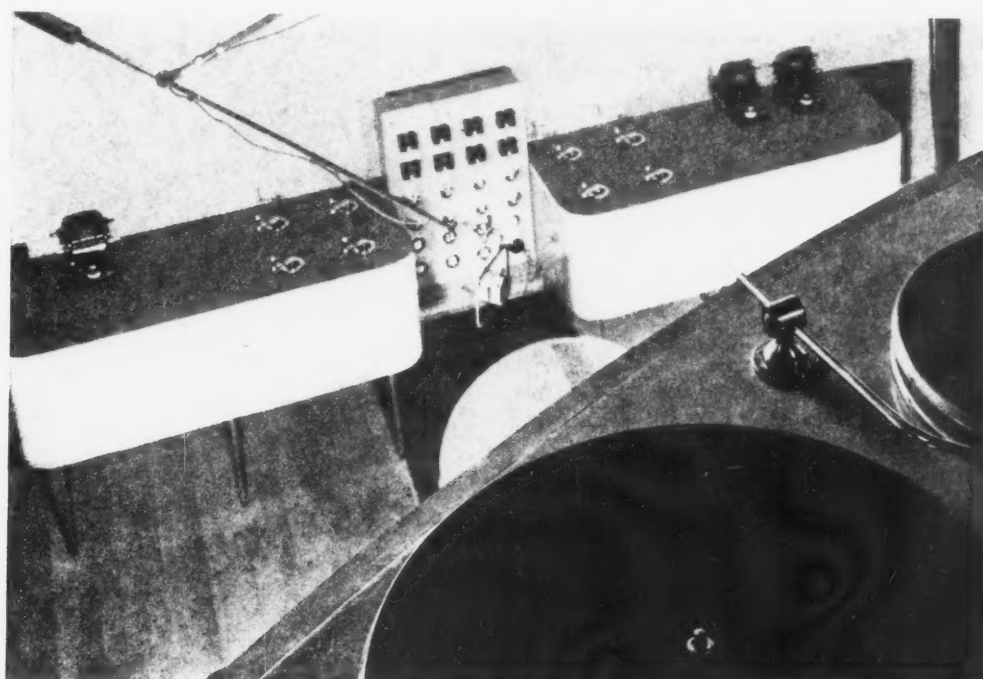


THE ARCHITECTURAL REVIEW

AUG 1 1932

A Magazine of Architecture & Decoration



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No. 429

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V A U D E V I L L E S T U D I O B . A .

by Raymond McGrath

Studio B.A. is designed for vaudeville, musical comedy and light feature programmes. It is a double-height studio with a balcony and a permanent stage. The purpose of this stage is to provide a theatrical setting for vaudeville. The gallery and pit accommodate public audience. Folding screens take the place of the usual proscenium, and spot-light turrets are arranged upon either wing of the balcony. The walls above and below this balcony are stretched with a polished woven flax cloth. Chairs and settees are covered with a basket-weave fabric. The yellow doors are faced with laminated resin (see 50, 51, 52).

PLATE I

August 1932



The New Tower of London

By the Editor

A PUBLIC SERVICE is a dead horse to flog. There is continual criticism of the telephone, the Post Office, the Office of Works, the Board of Health, the Board of Fisheries, the Court of Arches—no department, however obscure, which has been touched by officialdom, has a word of praise. Owing to its extreme importance and official position, the B.B.C. has naturally come in for a considerable amount of adverse criticism. Such criticism is largely nothing more than a mere habit of a nation which is still only able to admire private enterprise.

Of all public departments the B.B.C. is perhaps the most enlightened. On the occasion of the conversation that was to be held between a German U-boat commander and a British naval officer on the sinking of ships, the B.B.C. proved too enlightened for the Government, which put a ban on the conversation—a curious reversal of the usual process.

The enlightenment which the B.B.C. employs in its programmes, it has also employed in its new building. There has been one drawback which the architect has had to face and which he has done his best to master—the exigencies of the site. The consideration for Ancient Lights and the peculiar shape of the site, which is a peninsula surrounded by Langham Street and Portland Place, appear to have prevented Lieut.-Colonel G. Val Myer from exploiting the full possibilities of the plan. Why this particular site was chosen, it is not for us to inquire, but it certainly proved a hard task for the architect. The plan, as Mr. Howard Robertson says, is somewhat like that of a fortified medieval castle. "There is the central Donjon, the Keep which is the inner core, and round it are more public apartments, the service ways, like the outer ring of the defences. In the new building the public might invade the corridors, and even the offices; but the staff of the B.B.C. could take refuge in their inner fastness, lock themselves in, live, cook, eat, circulate, and even produce music, plays, and noises-to-taste without in any way being disturbed. In fact, the planning of the building is such that the whole of the business directly connected with broadcasting is housed in the heart of the structure, while round this nucleus, and isolated from it by a continuous corridor, are all the departments for a complicated administrative work." From Portland Place the inner fastness of the building can be seen. It juts out above the mass of offices by which it is encased; a stone tower cut short, pierced by seven roundels.

For the inner fastness some of the best architects in the country have been employed. An impressive anonymity surrounds the works of a public department, yet no political crisis need be precipitated if we say that Sir John Reith has shown what might be expected of him—a broad judgment—in accepting, without respect to personal taste, the suggestions of the architects for the treatment of the studios. Nor need the lid blow off the Constitution if we add that it was Commander V. H. Goldsmith, the Assistant Controller, who had the wisdom to employ these interior architects, who bade them arrange studios that express the function of the building, unhung with swags dear to managing directors and unhampered by the trappings of period decoration. In this he has shown foresight and courage worthy of the best traditions of the B.B.C.

The interior gives some idea of the complexity of this organization. Around the core of the building runs a passage from which are entered the offices of the complicated administrative side. Artists make melody in the inner fastness insulated from and unheard by the clerks who add figures and address envelopes without. Meanwhile in the basements the machine which gives life to the inner fastness shows that the engineers are artists themselves. The neatness and efficiency of this machinery of the B.B.C., which is its beauty, is symbolized by the illustration on Plate IX.

Were this new building the chief offices of a large soap combine, or a new hotel, it would be pleasant matter to illustrate and describe. When it is the centre of a great public service, it has a double significance. People will come to London to see it; instead of swooning at Savoy Hill, they will see what to them will be a new Tower of London. On the covers of magazines, on films, in catalogues, in guide books, in all the many means of publicity the new B.B.C. building, its studios, its gadgets, its engineering devices, will appear.

Since it is to be a new Tower of London, a focal point and a trade-mark for Broadcasting, it becomes something more than a mere block of offices, enclosing a sound factory; like the Tower of London itself, it becomes a national monument. For this reason THE ARCHITECTURAL REVIEW devotes a whole issue to Broadcasting House, as it did to the Shakespeare Memorial Theatre. But where the latter must draw its audience to Stratford the former can entertain the world.

1

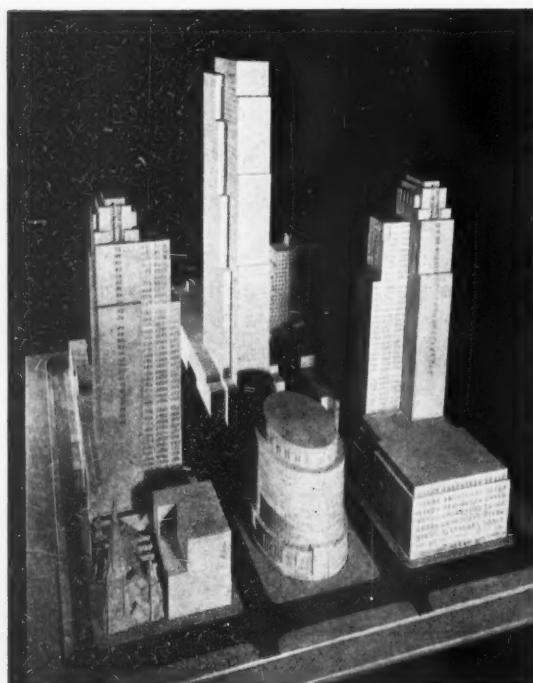


1 The Berlin Haus des Rundfunks is the joint home of the three German Companies—the Reichs-Rundfunk Gesellschaft, the Funk-Stunde, and the Deutsche Welle. The three-pronged plan of the building expresses this triple ownership.

Unlike Broadcasting House on its West End site, the Haus des Rundfunks is on the town boundary opposite what is known as the Radio Garden, an exhibition quarter of Berlin corresponding to the London White City. This is the edge of the New Berlin, where surprising novelties such as Amerika House are now to be found.

Viewed from the air the grouping of the Rundfunkhaus is impressive and its planning expressive. The architect was Professor Hans Poelzig—now in his sixties—a veteran of the modern movement. He is best known for his Grosses Schauspielhaus, Berlin (1918–19), the Capitol Cinema, Berlin (1924) and the Deli-Kino, Breslau (1927).

2



2 The projected Radio City, New York, rises into the air because it has no alternative. Obviously an unrestricted and not a city site offers the greatest planning advantages for a broadcasting building. In London and New York the choice of location is restricted, whereas in Berlin the studios are outside the city proper, and the possibilities of spacious and symmetrical planning have been great. In New York the disadvantages of the city site, surrounded by heavy traffic, will no doubt be largely overcome by placing the studios many stories above ground level.

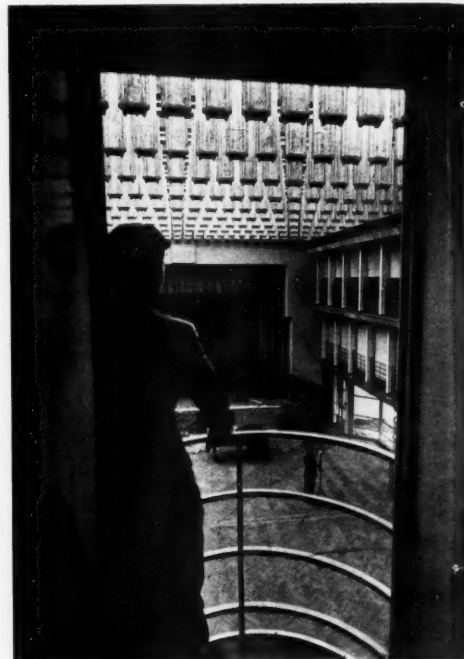
3



3 Smaller, but none the less a skyscraper, is the Dutch Labour Party's Broadcasting Station at Hilversum, designed by Snellebrand and Eibink, completed April 1932. It stands in the garden of a small Victorian villa, part of which is retained as offices. There are two studios—one large and one small—and a tower (illustrated) in steel and concrete with a carillon of bells played from the gallery of the large studio.

4 Studio interiors, governed and restricted as they are by the complex technical requirements, present an extraordinary variety of designs and treatments. In many cases there is no architectural treatment at all, consideration being given merely to the bare acoustic necessities.

4



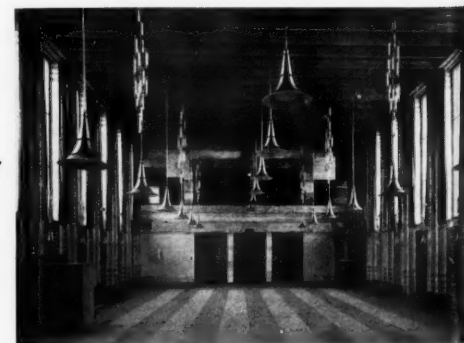
5



6



7



German technical ingenuity has reached its high-water mark to date in the interior of the large studio at Hamburg. The ceiling is broken up, in accordance with German acoustic practice, with stalactites which house the general lighting. The galleries are treated with variable absorption panels. One wall of the studio moves mechanically to alter the studio volume as desired. There is a rising platform for the orchestra.

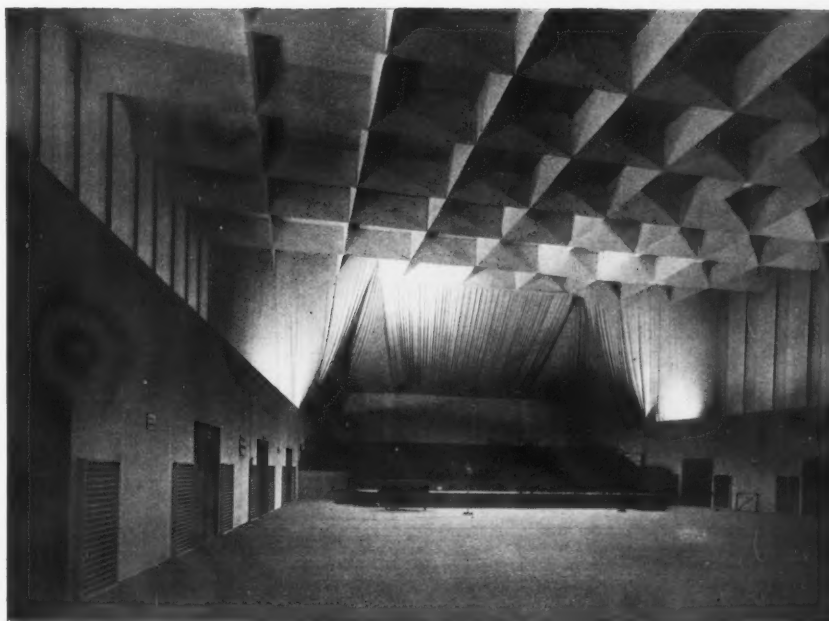
5 The studio at Stockholm is elegant in the Swedish manner. Its furniture is good, but unfortunately this is not apparent from the photograph.

6 The studio at W.A.B.C., New York, is typical of many American studios which are good acoustically, but do not go very far architecturally. Some of the best American studios are in Chicago. A very interesting feature of this studio illustrated is the method of recording microphone or instrument positions by lettering the skirting.

7 The large studio at Munich, with its ample natural and artificial lighting, is a good example of German consideration for the artist. This photograph was taken from the organ grille, which corresponds to the audience balcony. The two suspended squares are baffle microphones.

8 The interior of the great studio in the Rundfunkhaus, Berlin, is insulated against air-borne aeroplane noise. Many experiments have been made with the acoustic treatment of this studio and the impressive treatment illustrated is an experiment with fabric.

9 The interior of No. 9, one of the old studios at Savoy Hill, London, shows a first fine B.B.C. yearning for the beautiful. Many oscillations have disturbed the Corporation's ether since this was done. It is naturally out of harmony with the splendid simplicity of the Transmitter Hall at Brookman's Park (10), which is a B.B.C. example of what a Transmitter Station should be. In the new studios at Broadcasting House an attempt has been made to satisfy the first fine yearnings and carry on the good traditions of Brookman's Park.



8



9



10



11 THE NEW TOWER OF LONDON. By Lt.-Col. G. Val Myer.— This view is taken from Langham Place with Portland Place to the left and Langham Street to the right. The new building parts the roads like a battleship floating towards the observer. The architect has tried to echo the curves of Nash's church of All Souls', Langham Place, whose portico may be seen on the right of the photograph. The narrowness and restriction of the site can be seen clearly from this point. There is no room for interior lighting courts. The battleship shape is seen only from the point where the observer is standing; from the portico of All Souls' church the effect of a battleship disappears.

BROADCASTING HOUSE

By Robert Byron.

The following amongst others have been responsible for the building and equipment of Broadcasting House.

M. T. RENDALL, C.M.G., LL.D.
Of the Board of Governors of the B.B.C.

V. H. GOLDSMITH.
Chairman of the Studio Decoration Committee.

G. C. DAILEY.
Secretary Studio Decoration Committee.

R. WADE.
Office accommodation.

G. VAL MYER, F.R.I.B.A.
The Architect.

M. T. TUDSBERY, M.I.C.E.
The Civil Engineer.

Studio interiors designed by—
RAYMOND McGRATH, B.Arch., A.R.I.B.A.,
The Decoration Consultant.

S. CHERMAYEFF.
WELLS COATES, B.A., B.Sc., Ph.D.
EDWARD MAUFE, M.A., F.R.I.B.A.
DOROTHY WARREN TROTTER.

Sculptures by—ERIC GILL.
VERNON HILL.

External floral decorations by—
LADY ALLEN OF HURWOOD.

N. ASHBRIDGE, B.Sc., A.M.I.C.E.
The Chief Engineer, B.B.C.

H. BISHOP, B.Sc., A.C.G.I., A.M.I.E.E.
Assistant Chief Engineer.

A. L. KIRKE.
A. B. HOWE, M.Sc. } Acoustics.

B. N. MacLARTY.
W. K. NEWSON. } Installation.

Design and Manufacture—
F. M. DIMMOCK.
C. H. COLBORN, B.Sc., A.M.I.E.E.
A. G. DRYLAND, M.C., B.Sc.
Acting Engineer-in-Charge.

AS early as 1926 the B.B.C. had begun to out-grow its home in Savoy Hill and was on the look-out for a new one. In 1928, a syndicate of undivulged composition offered to provide not only a site in Portland Place, but an architect capable of designing a building to fit that site—no easy task. The offer was accepted, the work put in hand. Now, in 1932, the Langham Hotel is faced by a rival and more prepossessing monster, whose points, though not of the first order, make a certain show and a certain contribution to London's gaiety.

The finished building, as all those concerned with its erection are exhaustively aware, represents the outcome of a struggle between moribund traditionalism and inventive modernism. Struggles of this kind are not as a rule conducive to good architecture, and still less to good decoration. But in this case, fortunately, the struggle ended in a victory which largely favoured the modernists; for when it came to organizing the interior of a building of such a necessarily complex plan, the combined brains and help of a corps of architects and engineers were required. The result is that, internally at least, the B.B.C. has set an example comparable to that of the Underground



12

Ariel hearing celestial music.

By ERIC GILL.

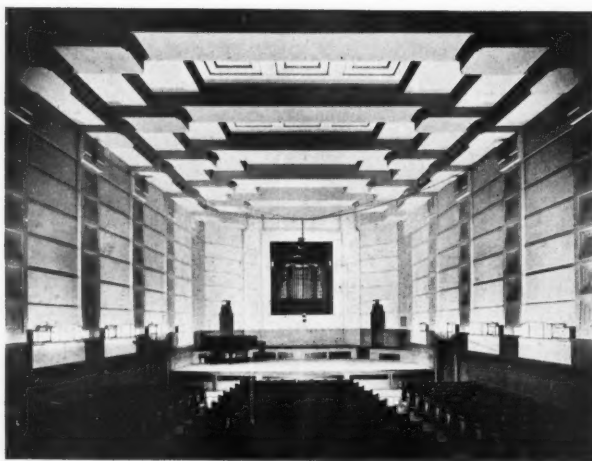
and in pleasant contrast with that of such powerful and tasteless bodies as Imperial Chemical Industries and the Bank of England.

To see a great public corporation making some effort, however belated, to use the real talent available in this country has become a rare spectacle and one for which, however irritating the procedure of that corporation in other spheres, it is impossible not to be grateful. Owing to the conscious

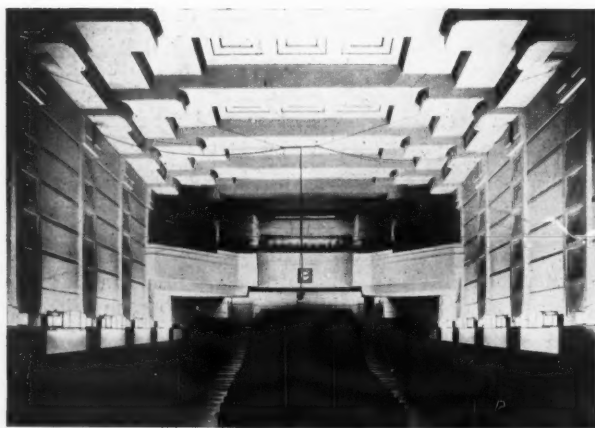
antagonism between traditionalism and modernism which prevails at the present time, and to the issue of false but none the less influential morality which by some obscure English means have become involved in it, the action of the B.B.C. in employing specifically modernist decorators has been a courageous one. For that body, more than any commercial institution, is liable to criticism from all strata of the public and is morbidly sensitive to such criticism. This courage has borne fruit. How well that fruit will bear the test of time and changing fashions remains to be seen; but very well, is the probable answer. For modernism here is strictly functional, not only in theory—as everywhere else—but in practice also. Thus it escapes being mannerized; and it is mannerisms that date. Instead, where the limits of the functional are exceeded, there is laughter, sometimes a little



13 The main entrance hall at Broadcasting House.



14 A view of the concert hall looking towards the stage.



15 The auditorium of the concert hall.
All the work illustrated on this page was designed
by Lt.-Col. G. Val Myer.

strained and conscious, but generally satirical and irresponsible. There are no after-thoughts, reminiscences, allusions, or decorators' tricks. Thus, with all its manifold faults, the building stands apart from other buildings of its size and kind as something novel and refreshing. Judged with strict impartiality, without regard for the circumstances—those eternal English circumstances—under which it was produced, it might be, and has been, called a failure as an æsthetic entity, a confused agglomeration of good and bad ideas unco-ordinated or unredeemed by a single mind or certain taste.

But having regard to the circumstances, the prejudices and personalities involved, and the example set by recent buildings of similar size, the entity does credit to the Corporation as a frank avowal of past mistakes and an expression of determination not to repeat them. The aim, in the latter stages, has been to employ the talent of original thinkers. That this aim has been allowed to preponderate to the extent it has is largely due to Commander V. H. Goldsmith. Without his energy many, if not all, of the opportunities for giving a lead to the struggling minority of artists who are able and bold enough to think for themselves must have been sacrificed.

The task of the critic in appreciating, or even mentioning, the work of Lt.-Colonel Val Myer is rendered painful by a letter from that gentleman which appeared in the June number of *Building*. Correspondence was apparently invited on the question of whether contemporary architecture should be subject to criticism. That such a question should even arise demonstrates the extraordinary state of affairs that has resulted from the mischievous etiquette which prevents architects from expressing their truthful opinion of one another's works. Lt.-Colonel Val Myer writes: "The great difficulty in the way of art criticism of any kind is the fact that the majority of critics owe their existence, as such, rather to their literary or journalistic gifts than to their knowledge or taste in the art upon which they give opinions . . . With regard to professional critics, their livelihood depends upon their market value, and that, unfortunately, bears a much closer relationship to the originality of their viewpoint than to the soundness of their criticisms . . . Perhaps at the hands of a writer whose own architecture is recognized as the work of a master one might welcome a little gentle analysis, but, generally speaking, I think it is better to say nothing if one cannot say nice things . . . In conclusion I have no hesitation in saying that, although no architect is likely to object to criticism in the form of praise, there must be very few architects who welcome printed disapproval of their work."

Lt.-Colonel Val Myer's building for the B.B.C. is being paid for with public money, and it is public money that has made his name as an architect. I will attempt no analysis of the building, gentle or otherwise. But speaking not as a professional critic prostituting himself for the meagre husks thrown by *THE ARCHITECTURAL REVIEW*, but as a former licence-holder, I would beg Lt.-Colonel Val Myer not to suppose that he is doomed henceforth to comfortable oblivion. If he chooses to set himself up as an avowed enemy not only of critics, but of all those people who are concerned for the decent appearance of our streets, and as champion of that state of mind which makes possible, and then condones, the disfigurement of our streets—if so, then the challenge will be accepted.

The interior of the building has several unpleasing features—apart from the labyrinthine pokiness of the sound-proof tower in which the studios are confined. Of these features the least successful are the chapel by Edward Maufe, and the concert-hall by Lt.-Colonel Val Myer. The entrance hall and the council chamber are happier efforts on the part of the latter, approximating, in shape, to the semi-circular and exhibiting a pleasant use of Hoptonwood stone and Tasmanian oak as wall-coverings. There remain the studios in the tower. These are the most satisfactory part of the building, and display the taste of the Corporation in its best light.

Mr. Raymond McGrath was chosen as the chief specialist to be employed in the decoration and, as it proved, adaptation, of these apartments. Some were reserved for treatment by Mr. McGrath; others were delegated to persons whose ideas were considered in harmony. But a very important, very noticeable, and very successful outcome of Mr. McGrath's direction is the standardization of fittings throughout. The technical furniture, house telephones, signal lights, orchestral chairs, microphone stands, door lettering and signposting are all of a uniform type, no matter whose the general scheme of the individual studio. In all cases their design is admirable, displaying, in conjunction with severe economy of form, the grace of true functionalism. The materials used have been chosen for their durability and suitability, not for their saving of expense or air of vulgar extravagance. Thus these details give the whole range of studios an air of quality and finish comparable in its own way to that imparted by the filigree cipher of a French eighteenth-century key. It should be realized also that the demand both for these standard fittings and for individual materials such as wallpapers and chair coverings have provided a welcome incentive to British manufacturers to resuscitate their dying taste and possibly, by this indirect means, that of the public also. For though Mr. McGrath's inspiration is necessarily to some extent Continental, the materials used are all of British, or at least imperial, origin.

Of the studios themselves photographs must convey the chief impression. The more severely functional rooms were delivered to Mr. Wells Coates, who has made charming play with dramatic control tables, gramophone counters, observation windows and their like. Mr. Coates' rooms and their fittings are the finest achievement in the building and they show what the phrase "design in industry" could mean if an introduction were effected between Mr. Coates and a few industrialists. Mr. Serge Chermayeff has allowed an orderly but vivid fantasy to run its course in the military band studio, an apartment of grotesque shape to which he has given an air of sanity without sacrificing any of its sparse amenities. Dorothy Warren Trotter has fitted up a small talks studio in the manner of a country-house library by Komisarjevsky. And Mr. McGrath himself has undertaken the main studios and dressing-rooms in the basement. Here colour in both fields is the chief medium of decoration. The fields have a sort of three-dimensional relationship to one another and thus give form to rooms which, in themselves, have no form. This is the proper use of colour, whether in painting or decoration. What Mr. McGrath might achieve if he were his own architect in an enterprise on a similar scale to that of Broadcasting House has yet to be seen.



16 Sir John Reith, the Director-General's, room at Broadcasting House.

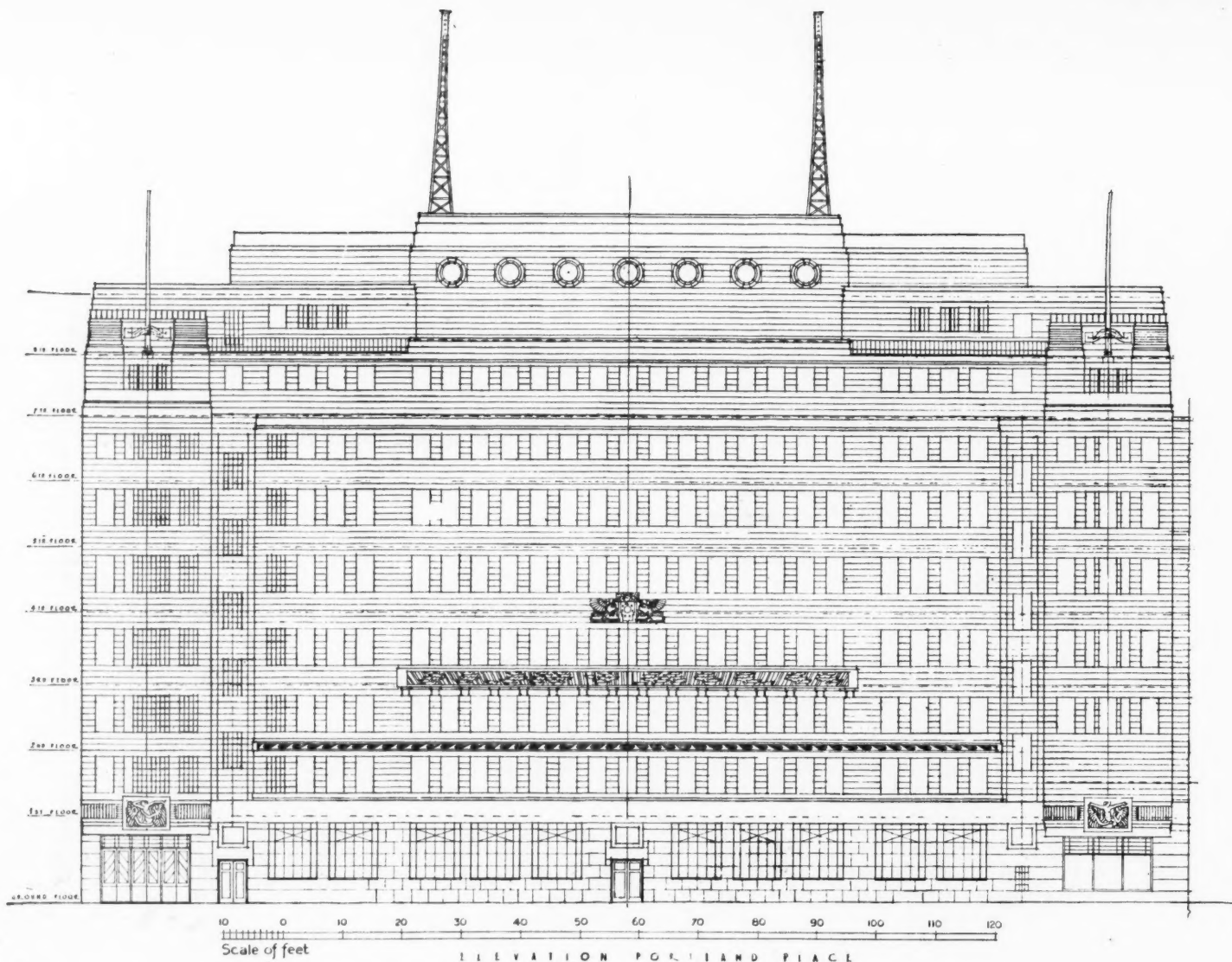


17 The council chamber.

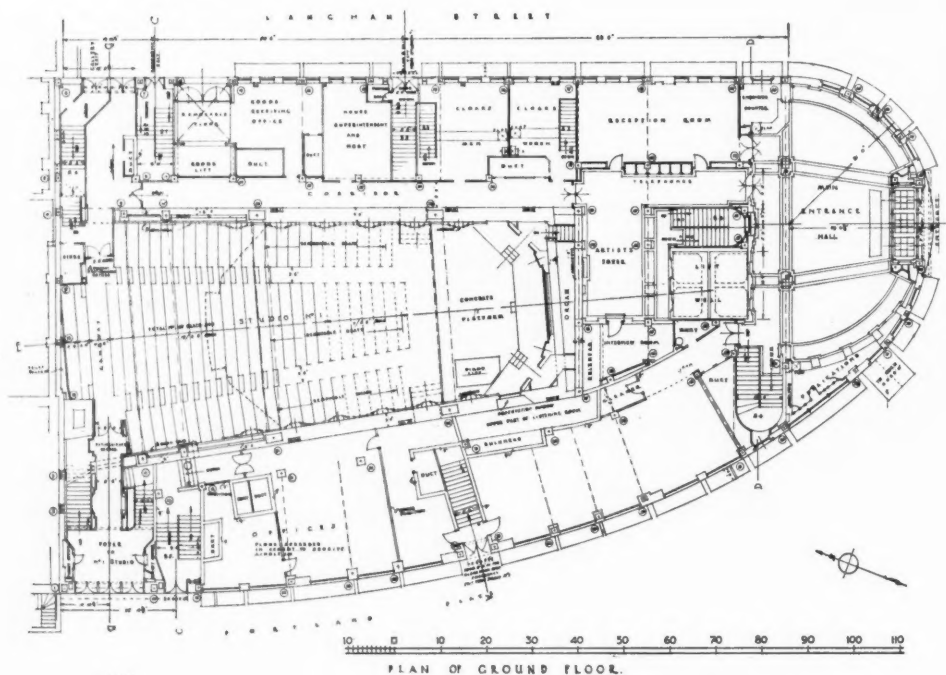
The illustrations on this page are also the work of Lt.-Col. G. Val Myer.



18 The ground-floor studio lift hall. On the right of the hall is a programme showing the events in progress in the various studios.



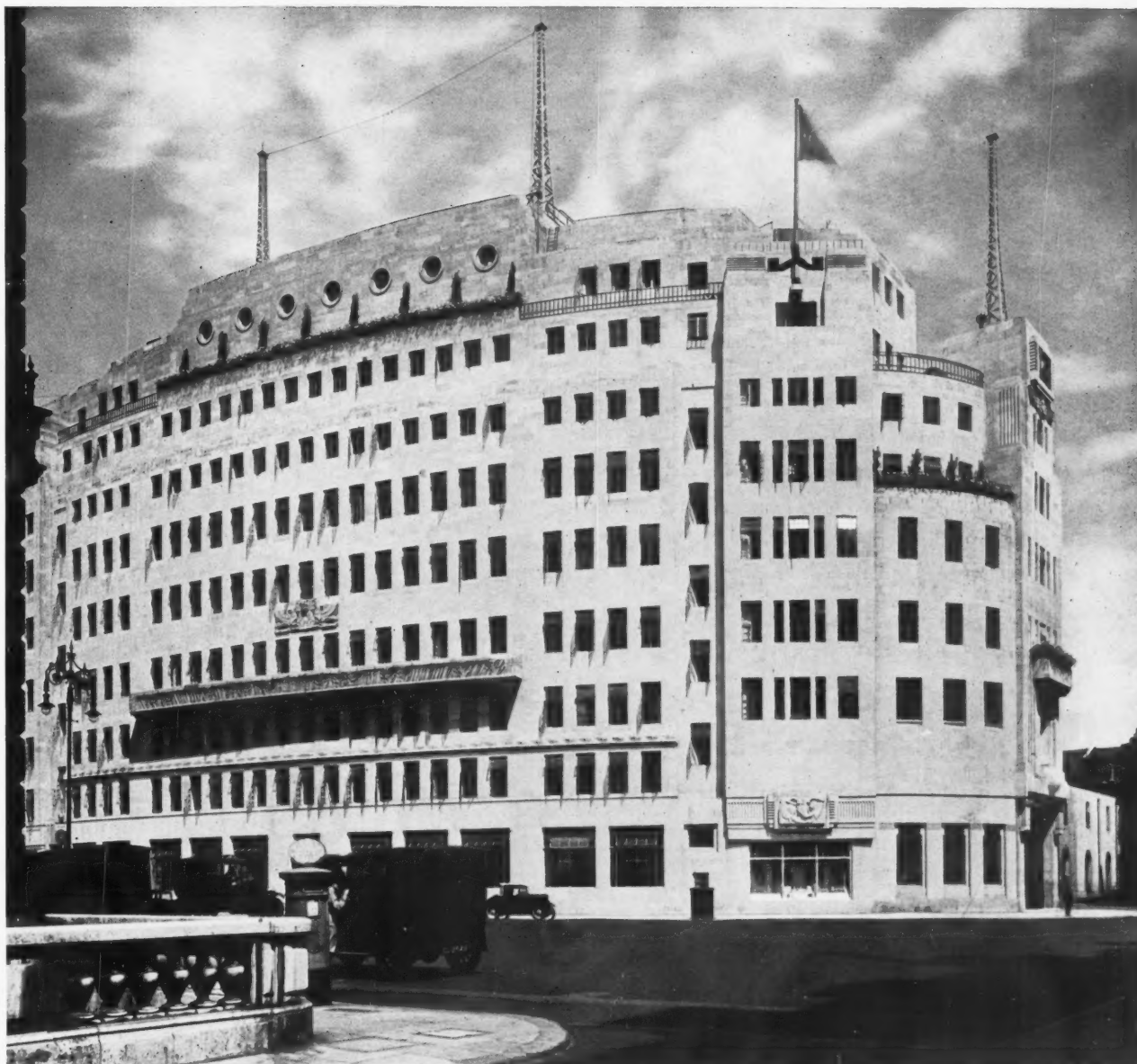
19



20

BROADCASTING HOUSE 19. The Façade in Portland Place, by Lt.-Col. Val Myer. The rectangular brick tower in the middle of the building is surrounded by a passage like the lower deck of a liner, from the inside of which doors enter the studios and machinery-rooms, while the outside doors communicate with the administrative offices. As Professor Reilly writes in *The Listener*, "the architect has had to wrap his studio block completely round with offices, so that externally the most distinctive portion of his structure does not show at all except for the short length of plain walling with seven roundels in it at the top of the Portland Place front, and three small receiving aerials on the roof. . . ."

20. Ground-floor plan showing the entrance hall illustrated on page 48, designed by Lt.-Col. Val Myer; this leads to the concert hall, designed by the same architect and illustrated on page 48.



BROADCASTING HOUSE, LONDON

By Lt.-Col. G. Val Myer.

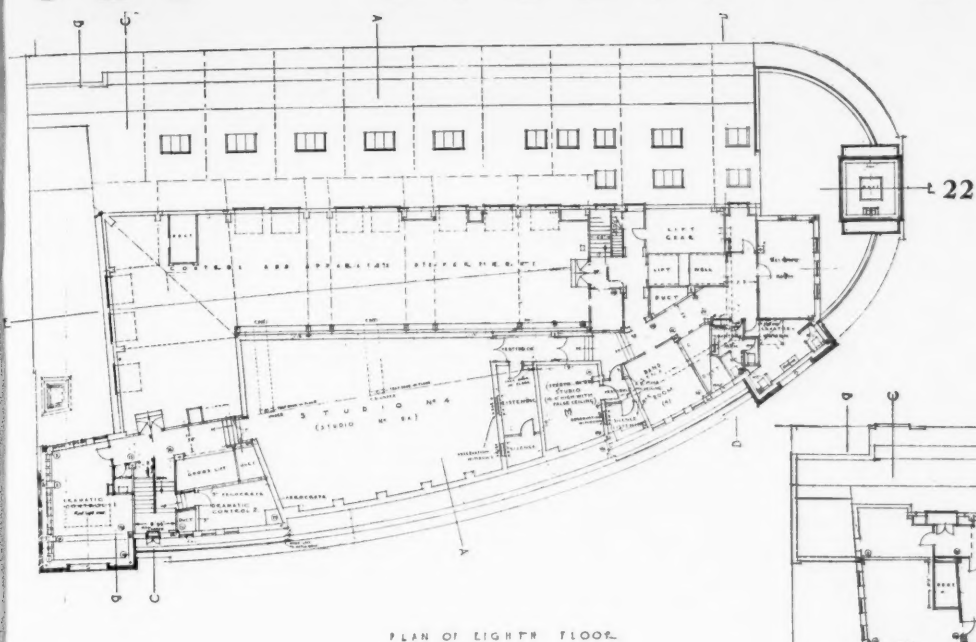
Perhaps the architect, as Professor Reilly suggests in an article in *The Listener*, refrained from turning the windows into long continuous sheets of glass in the logical modern way out of respect for Portland Place. The coat of arms and the balcony frieze consisting of birds and rays of light are by the architect. The vigorous reliefs in the base of the two bays (only one of which appears in this illustration) are by Eric Gill, who is also to complete the bronze group to go in the niche over the entrance door.

PLATE II

August 1932



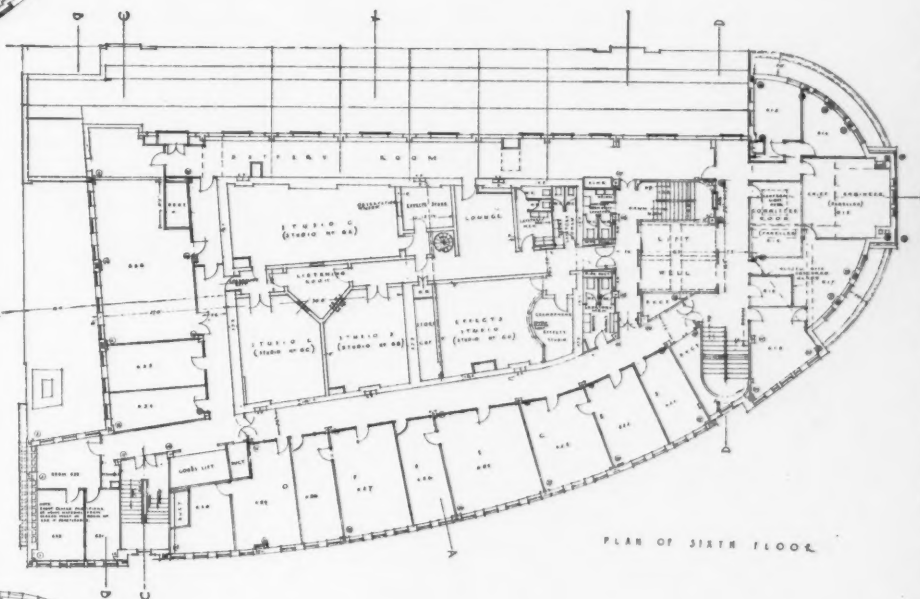
THE STUDIO FLOOR PLANS



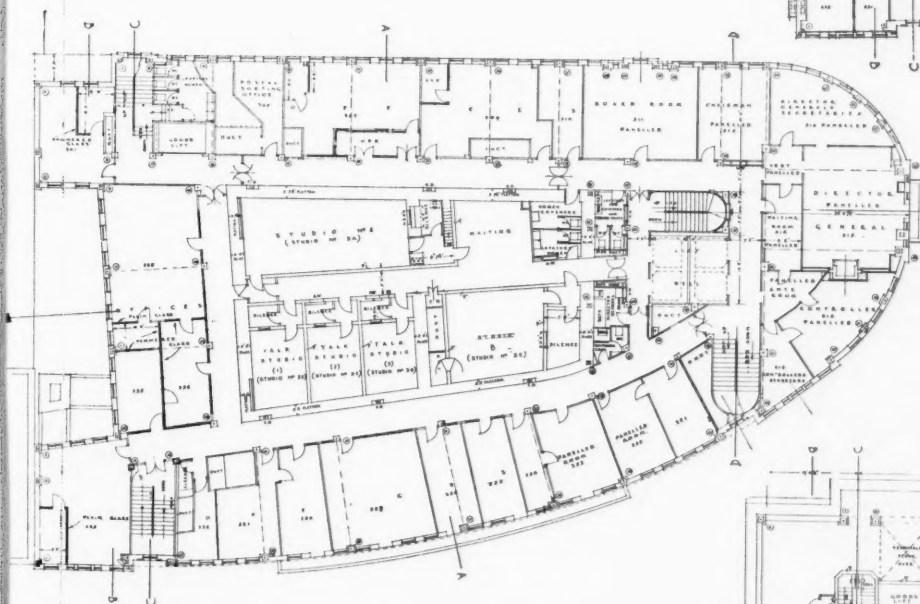
PLAN OF EIGHTH FLOOR.

23. Plan of Sixth Floor. This contains the Productions Group Studios and the Dramatic Effects Studios 6d, 6e, 7e, designed by Wells Coates, illustrated in page 58.

23



PLAN OF SIXTH FLOOR.



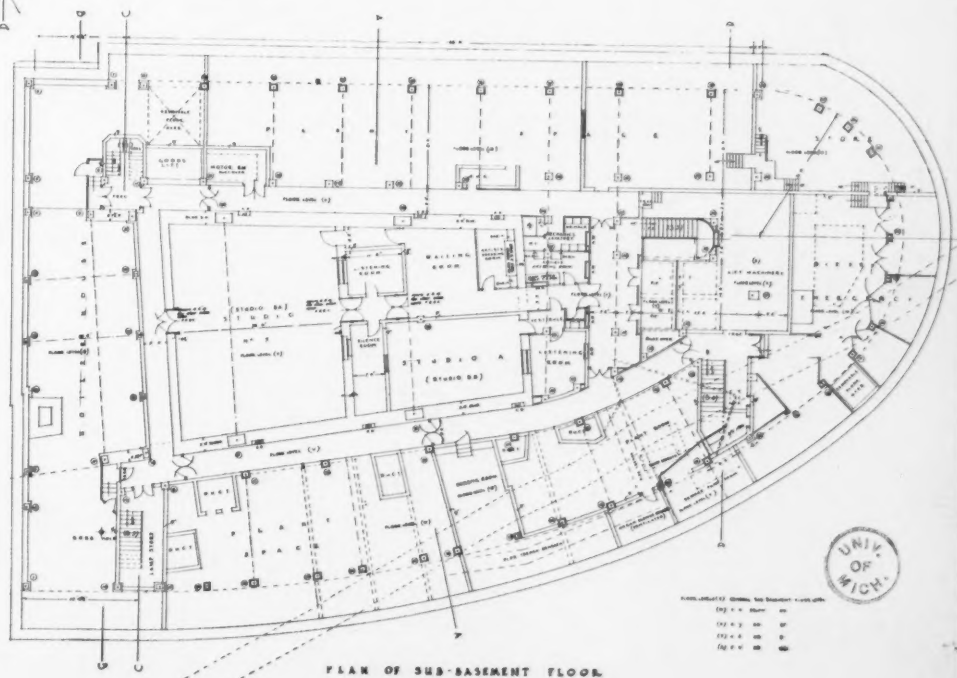
PLAN OF THIRD FLOOR.

24. Plan of Third Floor. This contains the Chapel Studio 3e, designed by Edward Maufe, illustrated in Plate III. The Talks Studio is designed by Mrs. Philip Trotter, and illustrated in Plate III.

24

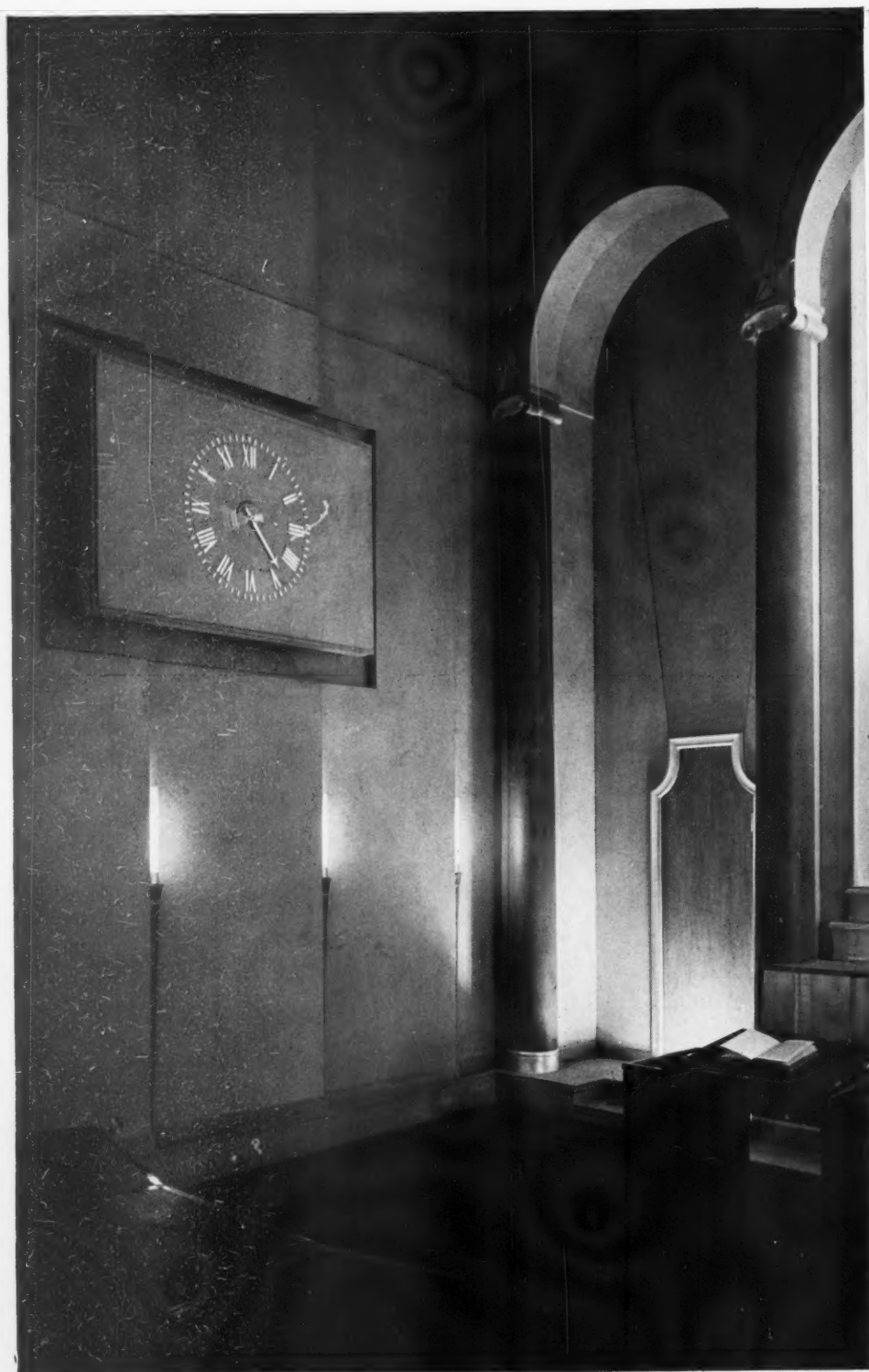
25

25. Plan of the Sub-Basement Floor. This contains Studios B.A. and B.B., designed by Raymond McGrath, and illustrated in Plates VI and VII; from the waiting room adjoining them is approached the Ladies' Dressing Room, also designed by Raymond McGrath, and illustrated in page 63.



PLAN OF SUB-BASEMENT FLOOR.





26

26. STUDIO FOR RELIGIOUS SERVICES. Designed by Edward Maufe. A detail of a side wall. The large square panel is an intake for ventilation. It has been turned into an ornamental feature by Mr. Maufe, who has added a clock. The hands and figures are of metal gold and silver gilt.

27. STUDIO 3^D. Designed by Dorothy Warren Trotter, in the Greek Revival Style of the early nineteenth century. The fire-recess is marbled to imitate vert antique. On the oval Pembroke table is the microphone and reading desk for the giving of talks.



27

RELIGIOUS SERVICES

By Edward Maufe

The purpose of this studio is to provide a setting for religious services or religious music.

The walls are lined with acoustical wall board in 4 ft. widths fixed vertically with 4 in. breaks at each joint, and in each break is fixed an electric fitting throwing its light towards the "east end." This consists of three tall arches. In the centre one is the altar finished in silver leaf. Concealed lighting gives to the cyclorama above an impression of infinite distance, the flowers standing on the altar being silhouetted against it. The side openings have doorways with threshold lights. The general colour is a pale Italian pink; the columns are green with silver gold caps. The signal lights are incorporated in silver stars over the two centre columns; over the outer ones are fixed an alpha and an omega. The carpet is an Italian Pink Wilton with a scattered pattern of buffs and greens. The ceiling is painted blue with silver cross and rays. The furniture is oak limed a grey-pink with grey hide tops and rustless steel edgings.



STUDIO 3 D

By Dorothy Warren Trotter

The design of this intimate book-room has been inspired by the formal *Greek* manner of the early nineteenth century. Its main features are five tall bookcases, in unstained and wax mahogany, enclosed by reeded pilasters, transomes, and a continuous architrave, which gives cohesion to the design. The mitre-blocks are relieved by bright brass stars. These details are repeated in the segmental window, the door, the mantelpiece, and the skirting boards. The panels above the transomes are of pale yellow opaque glass. By means of concealed strip-lighting these panels and the false-window form luminous planes.

The cedar-pink tone of the mahogany is the dominant in the colour scheme. The walls are stippled in a slightly lighter pink; the curtains of pale green silk are draped to form the classical swag and tail. The fire-recess is marbled to simulate vert antique. Glowing golden browns, reds, and greens of the finely tooled old leather book-backs are repeated in the richly coloured small full-length portrait of Washington over the fireplace and in an oval felt-work picture of Laurence Sterne with his blind Maria.

Two finely carved armchairs, one of them from Arnold Bennett's collection, a small lyre-shaped settee, an oval Pembroke table and a miniature secretaire—all good Regency pieces—furnish the room.

PLATE III

August 1932



The Studio Interiors

By V. H. Goldsmith

ASSISTANT CONTROLLER OF THE B.B.C.

Chairman of the Studio Decoration Committee.

THE style of treatment of the interior of Broadcasting House was first for settlement. That such a question should arise at all was an indication that the house would not fall into the hands of the period-decorator as is so often the case when there is a lack of particular interest in the visual arts—once the matter was raised for debate, the logical and practical arguments alone were bound to convert to modernism those accustomed to controlling a medium demanding so much freshness of outlook as broadcasting.

The first battle was won. The old-world charm of Jacobean, and the graces of Versailles were resisted; that anachronism was saved. That this was no obvious decision will be realized when it is remembered what force of tradition supports "period," and how many modern buildings there are in which, in the directors' rooms, the only places handled by a "decorator," various forms of expensive, unnecessary and meaningless carving have marred the rooms whose proportions alone should have been their recommendation—and the wood whose natural simplicity should have saved it the indignity of being fretted into dust-catching leaf-work. With the period idea, was bowed out also the suggestion that each studio might represent a different country, the pretty-pretty Japanese, perhaps the pagodas of Burma, a few elephants' heads in the Indian room, and a log cabin for Canada.

More serious issues remained to be dealt with. There are many modern decorators, and "modernism" is so often a manner instead of a method of working, and can be freakish and unpractical just as the anachronistic is likely to be. No theories as to "modernism," such as the banishment of the curve and others, must be allowed to supersede reasoning from the requirements of the job. It was essential to ensure that the designs should follow that obvious, but so often neglected, slogan of the Design and Industries Association: Fitness for Purpose. It was desirable to hold to the logic of modern design—simplicity, avoidance of "decoration" added to essential surfaces; to ensure that design should arise from necessities of structure, and should spring from, and not endeavour to conceal, function; that decorative features springing thus from design should all have a definite purpose and be subordinate to the whole; that no detail should attempt to stand alone as an object of intrinsic interest.

This was an opportunity of modern decorative design on a more extensive scale than is common, and was perhaps, up to this moment, the greatest opportunity in this country.

It was felt that as a public institution the Corporation must bring the same courage of outlook to its employment

of the visual arts as it endeavours to bring to its utilization of the arts of speech and music. The latest discoveries in new materials and their applications must be explored.

The next question for settlement was whether one or several interior designers should be employed. To restrict all this varying work to the capabilities of one man was felt to be unsound. The dictation of speed was against such a solution. The decision to spread the work amongst several carried with it at once the necessity of a unifying control, and a decoration consultant for all these studios and such other parts of the interior as were not being handled by the architect of the building, was thereupon appointed to co-ordinate the whole.

The choice fell on Mr. Raymond McGrath, who had been the first Research Student in Architecture at Cambridge University.

Too great a number of collaborators was ruled out by time and convenience, and after examination the general plan was adopted of giving a group of studios to a single designer. Departure from this was only made on the third floor, containing the religious studio and various talks studios, and the children's hour studio. These, by the nature of their uses, could not well be grouped—the individual units calling for designers who had specialized in particular directions.

Later consideration made it necessary to leave one of these talks studios and the children's hour studio, as well as some of the productions studios on the sixth and seventh floors, in an experimental and uncompleted state, capable of use technically, but without the form, line, and colour calculated to help and stimulate broadcasters.

Had not the psychology of the broadcaster been a consideration in the decoration, film studio practice could easily have been followed. In the film studio, not only do production and rehearsal precede a "shot," as they do for some of the work of broadcasting, but "shots" can be repeated until the desired result is achieved. This repetition of "shot" is not possible in broadcasting, hence every help must be given to the artist in his one and only actuality.

The architect of Broadcasting House, Lt.-Col. G. Val Myer, undertook the largest studio or concert hall, and the low-relief panels therein which flank the auditorium are by Mr. Gilbert Bayes.

Mr. Edward Maufe, who built St. Saviour's Church at Acton, and is one of the five selected architects for the Guildford Cathedral Competition, was appointed to design the studio interior for religious services.

Mr. Serge Chermayeff, responsible for the interior of the Cambridge Theatre in London, one of the most admired

THE STUDIO INTERIORS

28



modern works of the kind in Europe, was allotted the eighth-floor group containing the second largest studio in the building as well as an intimate discussion studio, and a talks studio on the third floor.

Mr. Wells Coates, who had specialized principally on functional design in factories and business premises, was allotted the News Studios and the productions group. These contain also the effects rooms and the dramatic control rooms, both of them workshops demanding severe efficiency of treatment. The productions studios required a non-committal note of pleasing design which would yet not interfere with the imagination of actors called upon to play therein scenes in drawing-rooms or country, at sea or in the air. Though the structural features of this design have been followed, the decision to leave the studios as experimental has entailed them remaining incomplete.

Mrs. Philip Trotter was appointed for a talks studio which the talks branch of the B.B.C. desired to represent a small and quiet library such as might be found in an old town or country house. This is the sole example of an earlier type of decor and is carried out in a modernized Empire tradition. Those who sit at the desk in this studio may derive inspiration from the fact that they are in the chair in which Mr. Arnold Bennett wrote the majority of his works.

Mr. McGrath himself carried out the basement group containing the vaudeville and dance band studios and certain other interiors requiring special treatment outside the studio "tower"—the two Press listening halls, the artists' green room, and the staff restaurant.

The search amongst designers' work by the Decoration Committee was carried out on lines which it had predetermined, and it is interesting as exemplifying this that Mr. Raymond McGrath, Mr. Wells Coates, and Mr. Chermayeff were individually selected at a time when the Committee was unaware that they already formed a group working in close harmony.

The functional requirements of each studio were settled, formally, by the institution of a Technical Decoration Sub-committee, and effectively by its Chairman, the Civil Engineer of the B.B.C., Mr. M. T. Tudsbury, M.Inst.C.E., obtaining requirements from the appropriate engineering departments, and by the secretary, Mr. G. C. Dailey, seconded for the purpose from the programme branch, ensuring that requirements were considered and crystallized by the appropriate departments of the programme and talks branches.

Subsequent to the presentation, by the designers, of the schemes embodying these requirements, the various details were all checked and reconsidered. Liaison between the designers and those responsible for the eventual use of the studios was thus constant, the formal approval coming from the board of this sub-committee.

Its secretary was also secretary of the Studio Decoration

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28 The band-room on the eighth floor, panelled with a protecting dado of birch plywood, has unit benches of ebonized wood covered with standardized removable cushions covered in black and grey tweed material. The red composition floor gives colour to the room.

S. CHERMAYEFF.

29 The eighth-floor waiting-room is best appreciated from the colour photograph. Its floor is mosaic tiled in a carpet-like pattern. The lighting is from the two trough lights suspended over the lemon-yellow-topped tables.

S. CHERMAYEFF.



30—31 The studio was a dungeon before decoration. The tall, artificial window which has been introduced gives airiness and banishes any feeling of confinement. The electric fire throws a pleasant glow over the floor and lights up the satin copper colour of the metalwork and skirting. There is a natural wool rug lying over the close-covered floor; the effect is of elegant simplicity almost Japanese. S. CHERMAYEFF.

Committee, thus forming an effective channel through which principle and detail flowed and intermingled.

When it is remembered that the position of every piece of ventilating equipment, every lamp, every signal light, microphone lead, bell push, observation window, telephone, and every piece of furniture was fixed dependent on the precise needs of the programme in each individual studio or to admit of varying programme requirements in the larger studios, that in addition thereto every material used, from quality of paint to nature of fabric, was subject to restriction as to its sound-absorbing or reflecting qualities, its position and area, it will be realized that never have interior designers had to solve a problem more severely conditioned than that of unifying these multiple needs into a rhythmic whole. It explains why these designers in spite of working under a Studio Decoration Committee prefer to be entitled "designers" and not "decorators."

Every object which was to appear in the studio tower was brought into the scheme; careful attention was paid to the lettering throughout. It is now the recognized practice that any new addition, other than for temporary and experimental ends, shall be examined as to its appearance. Dozens of odd articles—small switches on walls and tables,

microphone stands big and small, music stands, conductors' rostrums, stools, chairs and tables appear in studios in response to some need. Unless their appearance is controlled, an harmonious studio soon has the knick-knack appearance of a second-hand shop, and the money and effort originally spent on producing harmony and restfulness for the broadcaster is wasted.

In regard to the acoustic requirements mentioned above, it is of interest to mention as an example of the limitations imposed upon the designers, that paint could not be applied to the buff-coloured composition boarding which forms the majority of the studio walls; that this boarding could not always be relegated to positions free from hard wear; that curved surfaces were frequently banned; pictures, where allowed, had sometimes to stand unglazed; fabrics of specific texture were demanded in certain positions and disallowed in others; and high-reflecting surfaces, such as glass and polished wood, were welcomed in limited extent, and disallowed at certain points.

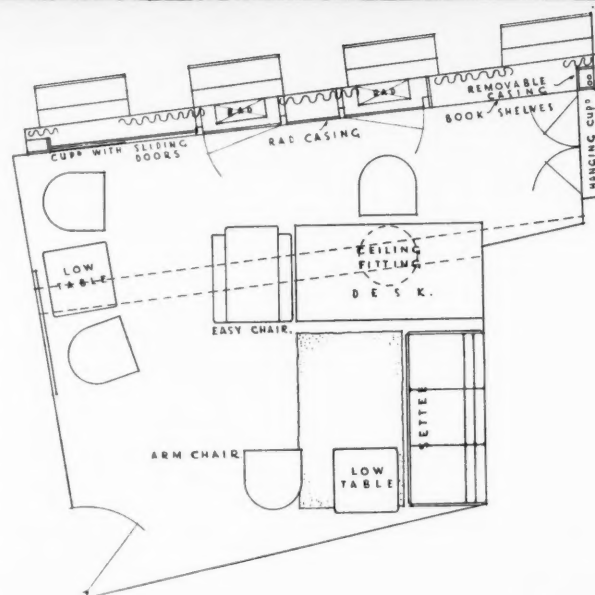
The economic demand to "Buy British" became insistent when the planning of schemes was well in hand. Owing to the conservatism of British manufacturers up to that time, many of the most suitable articles and materials could only



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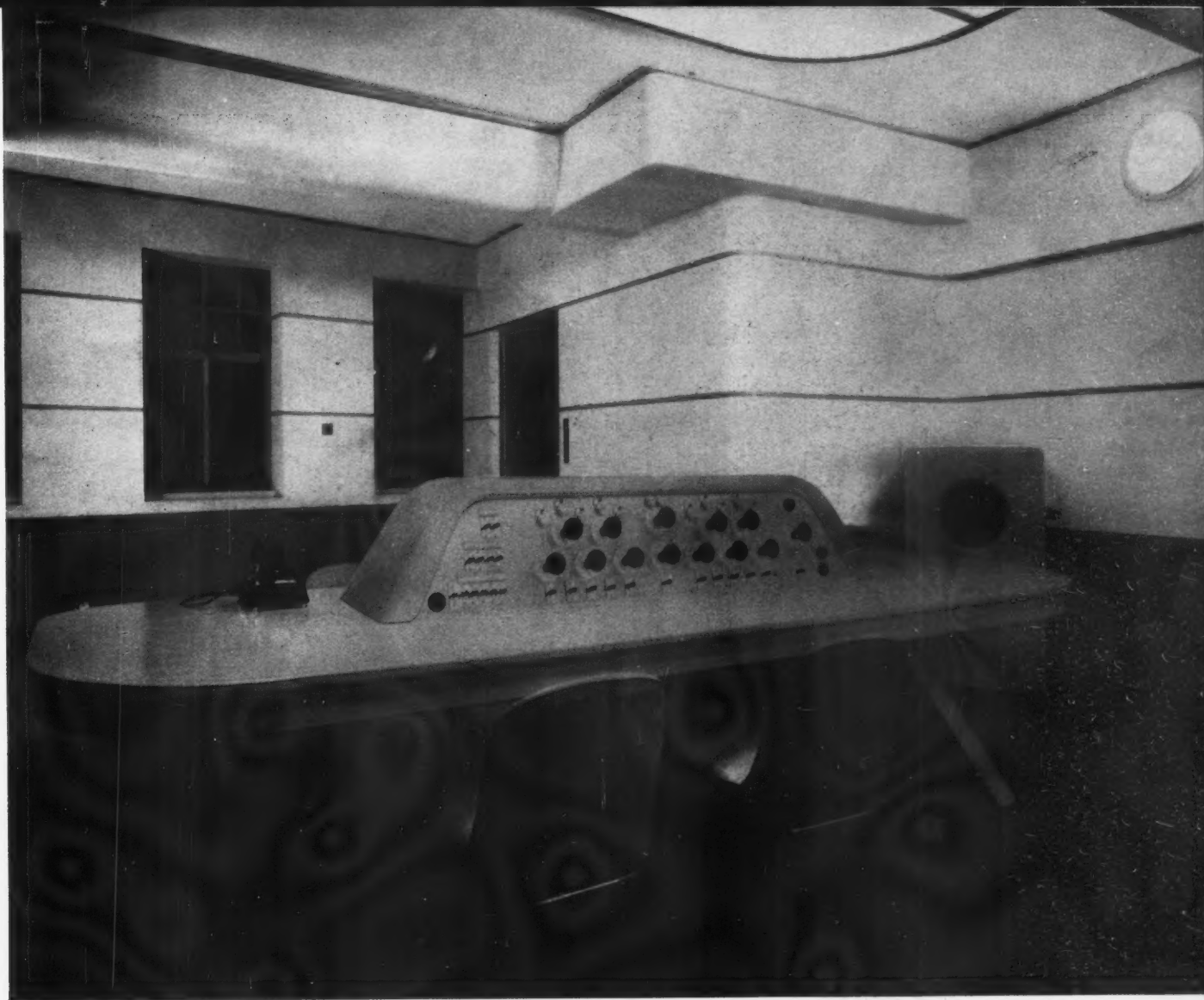
be obtained on the Continent. The Corporation's veto on these purchases, however, entailed the necessity of quickly obtaining British substitutes. At any other time this would have resulted in abandonment of some of the most useful articles, but the patriotic wave that swept the country, emphasized by the knowledge that an order would be given if the article could be produced, resulted in a few of the more advanced manufacturers overcoming their prejudice in favour of tradition, and weaving fabrics of specially needed texture, setting up machines to produce papers of special surface or synthetic materials for panelling, and undertaking the construction of articles comparable in quality and design with the best goods of foreign design and manufacture. These articles have now become part of their stock. British industry has thus benefited; but it is regrettable that it should not be in the normal course of industrial experiment, nor by a greater welcome from manufacturers to the efforts of such bodies as the "Design and Industries Association," that this came, but only by the abnormal and temporary stimulus of a special campaign.

Finally, when all details had been thrashed out and proposals investigated, the studio designs were approved on perspective drawings, by the programme departments immediately concerned, by my colleague on the Studio Decoration Committee, Mr. R. H. Eckersley, Director of Programmes, and on behalf of the Board of Governors by Dr. Montague J. Rendall.



32 Director of Talks' room at Broadcasting House: a scheme of panelling and furniture designed by S. Chermayeff. The colour-scheme is in warm browns and natural oak tones. The separate radiators have been unified in a long horizontal casing, and the curtains give a fine continuity to the windows. Above the desk is an adjustable fitting with dual lighting. A piece of Maurice Lambert sculpture, loaned to the B.B.C., "The Gulls," stands on the desk. The plan shows how the odd room shape has been ingeniously arranged for space and convenience.

S. CHERMAYEFF.



THE DRAMATIC CONTROL ROOM No. 1

By Wells Coates

BROADCAST plays are produced from the Dramatic Control Room. As many as ten separate studios may be brought into use during the production of a single play. Half the actors may be in one group of studios, half in another, and all "noises off" are in the Dramatic Effects Studio. The equipment of the room consists of a loud-speaker for listening to the progress of the production, telephones for communicating to the main control room, and the dramatic control unit itself, in which is incorporated a microphone for giving instructions to artists during rehearsals. The control of all these circuits is literally in the *hands* of the producer, and during transmissions instructions may be given to artists and studio officials by means of headphones.

At the dramatic control panel table sits the producer, who gives the actors in other studios their cues by switching on cue lights controlled by the keys on the dramatic control panel, or governs the volume of sound going out to the ether by turning the control handles which, if necessary, can cut out any studio or actor. Thus, when dramatic effects like rain, wind, or the hoofs of a

horse are required, a switch will give the cue to the dramatic effects studio on another floor, and the turning of a control handle will increase the sound or diminish it until the producer cuts it out by turning the handle back.

This table (see 117) is framed up in streamlined tubular steel sections, supported and fixed to the floor at one end by two free-standing legs. At the other end the legs are enclosed to form an accessible duct for the collection of converging wires and cables rising from the floor duct. The panel enclosure and table are in mahogany laminwood, the whole cellulosed a lavender grey.

The studio walls are acoustically treated with $\frac{1}{2}$ -in. insulwood building board. The low dado, the skirting, the architraves to door, and the continuous horizontal cover strips are in grey rubber, and the floor is close carpeted.

The panel is illuminated by day through a flush laylight glazed with georgian-wired rough-cast glass lightly sandblasted, over which flood-lights are arranged for night illumination.

The chairs are in enamelled tubular steel, and have bucket seats.



O R C H E S T R A L S T U D I O 8 A

By S. Chermayeff

The large studio 8 A, on the eighth floor of Broadcasting House, is designed for orchestras, military bands, brass bands, musical comedy and revue. This studio, the highest in the building, is outside the main studio tower.

The acoustical requirements demanded certain proportions of absorbing and reflecting surfaces, which have been so arranged as to obtain a protective dado to the height of 5 ft. The bands above and ceiling are untreated building board protected by aluminium strips. The circular intake ventilation pans on the ceiling have been adopted as motifs and are repeated in the door handles and in the design of the cork floor.

The unit settees are covered in tweed giving the colour relief with the cellulosed doors. The lighting wall pans permit entry of daylight and are duplicated by ceiling fittings to eliminate shadows over the total floor area (see 58, 59, 60).

PLATE V

August 1932

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EIGHTH FLOOR WAITING-ROOM

By S. Chermayeff

Floor and skirting carried out in 3 in. tiles. Dado in oak-plywood. Interchangeable twinlock settee cushions and armchairs, upholstered in tweed. Curtains, cotton loose-weave. Desk chair covered in cellulosed leather. On the end wall a reproduction of "The Cornfield" by John Nash (see 29).



WAITING-ROOM FOR VAUDEVILLE STUDIO B.A. AND DANCE BAND STUDIO B.B.

By Raymond McGrath

A pleasant place below ground. The curved settee is covered with a fabric of cotton and ramie. The wall covering is a straw-coloured washable lincrusta with an engraved pattern. The floor is rubber, inlaid with a directional design (see 48, 49).

PLATE VI

August 1932



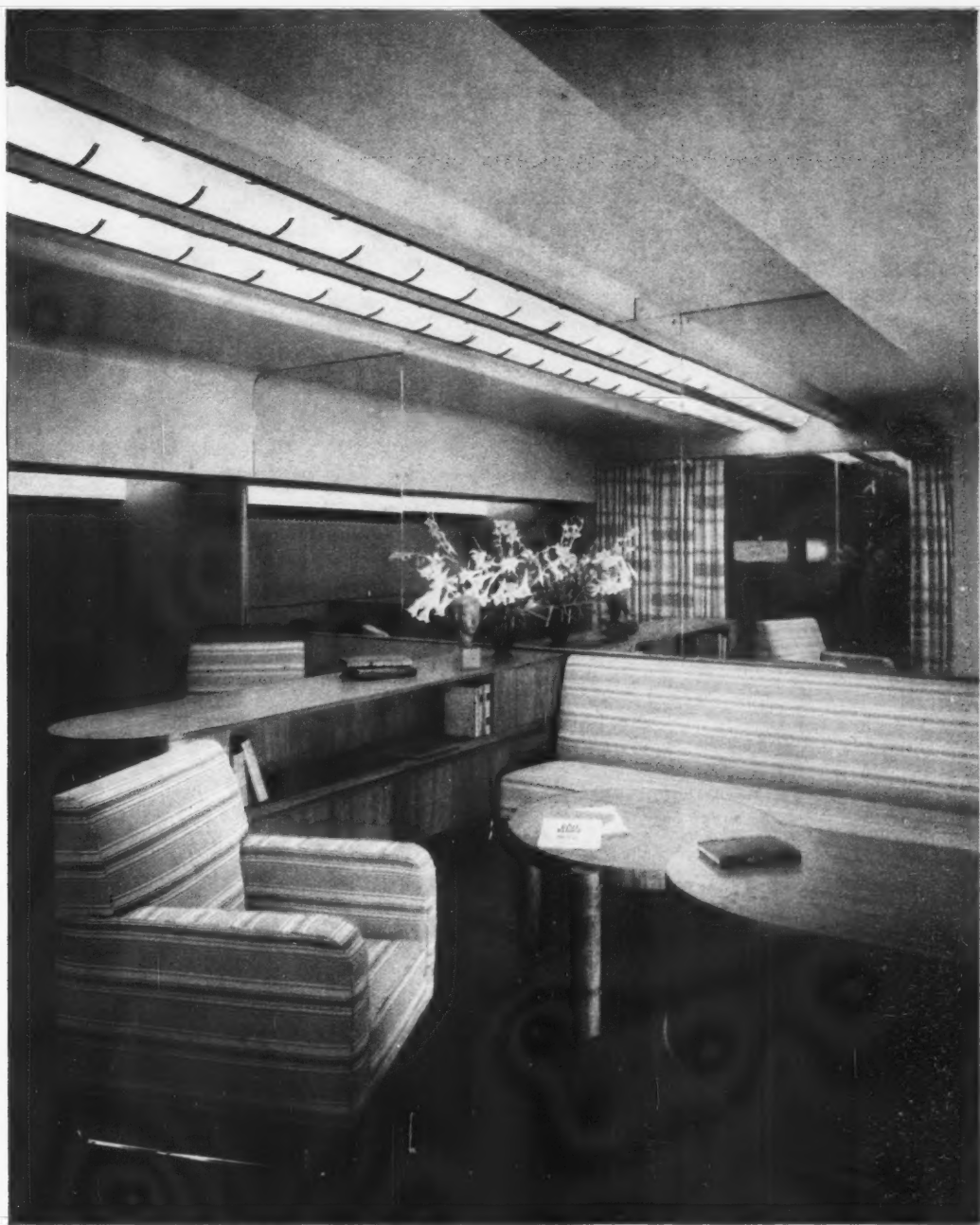
D A N C E - B A N D S T U D I O B B

By Raymond McGrath

The studio is designed for dance bands, octets, and chamber music. The scheme is light, combining the delicate reflections of mauve-blue laminated resin sheets with the light red of flax fabric, the sand-colour of the building board, and the bright copper of the metalwork.

PLATE VII

August 1932



A CORNER OF THE GREEN ROOM

By Raymond McGrath

Looking into the mirrors on the south wall. The room is painted in a scheme of greys, pinks, and greens. The furniture is in Australian walnut. Chairs and settees are upholstered in a variety of specially woven fabrics. The continuous ceiling light-troughs are glazed with curved sheets of double-flashed green lighting glass.

PLATE VIII

August 1932

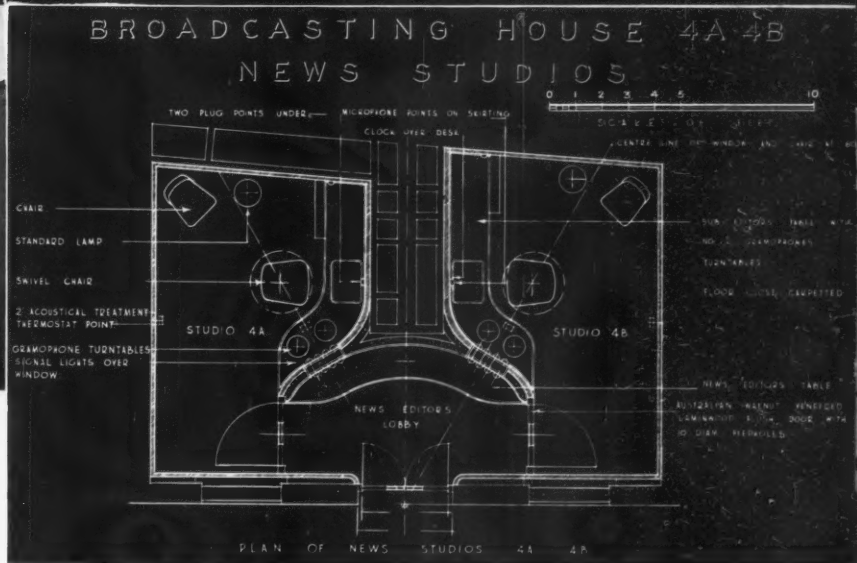
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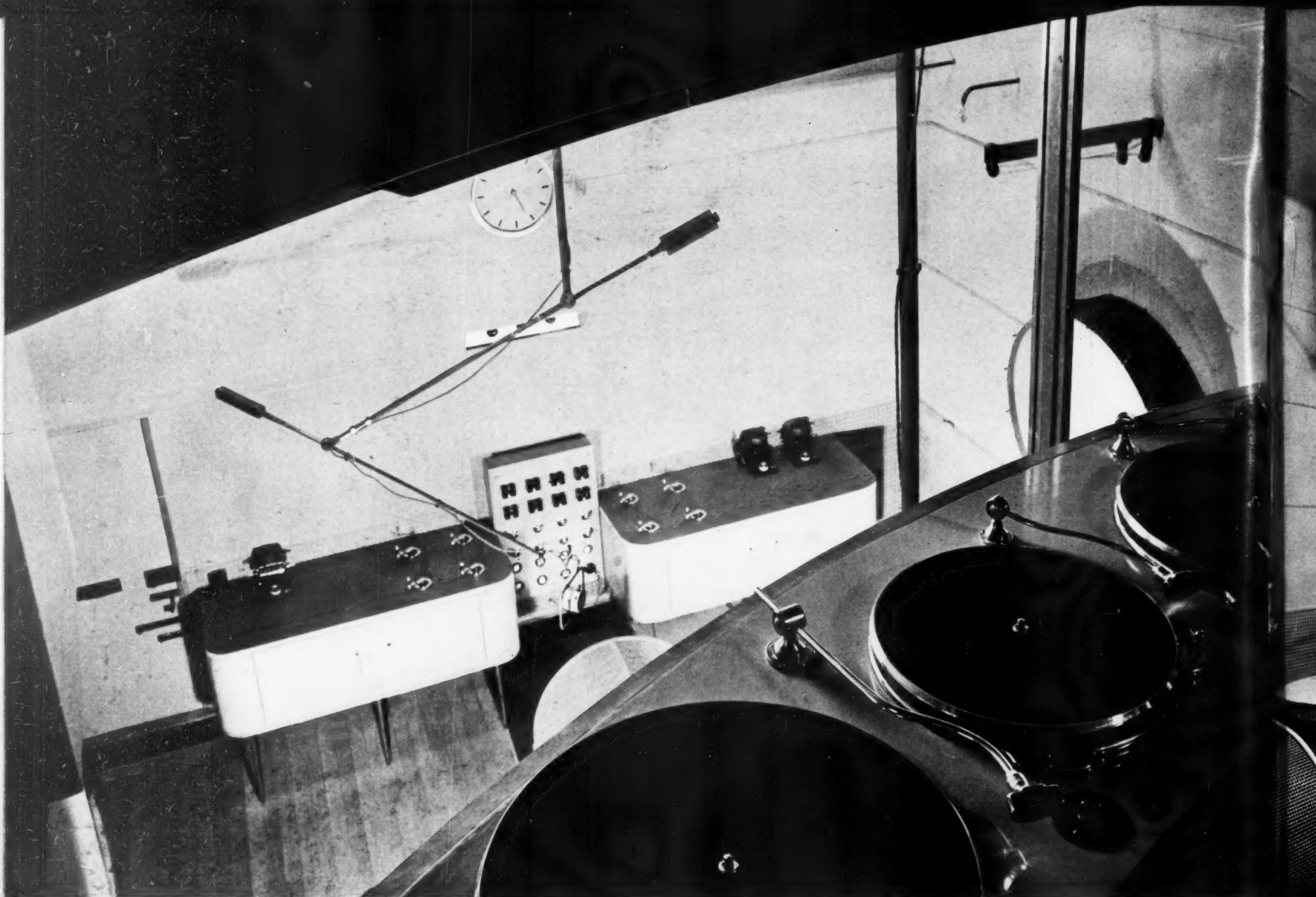


NEWS STUDIOS 4A and 4B.—These two small studios, with central News Editor's Lobby, are used for the reading of all news bulletins, and on occasion for gramophone recitals. Elaborate detailed requirements are equipped with operative ease and comfort in a very small space. **33** shows the fourth-floor corridor and entrance to the studios. The dado and flush doors veneered with Australian walnut, the skirting and other woodwork ebonised mahogany, and the metalwork iridescent anodized aluminium. **34** shows at left the News Editor's Lobby and at right Studio 4B with its curved return reading and gramophone desk, swivel chair, extensible microphone fitting, and



balanced arm standard lamp. The acoustic treatment on walls and ceilings is 2" rockwool covered by various fabrics. The outer fabric, silver grey in tone, was "upholstered" to the walls and ceilings. **35** is a view looking from the waiting lounge towards the sixth-floor corridor, in the Productions Group Studios.

By WELLS COATES



37

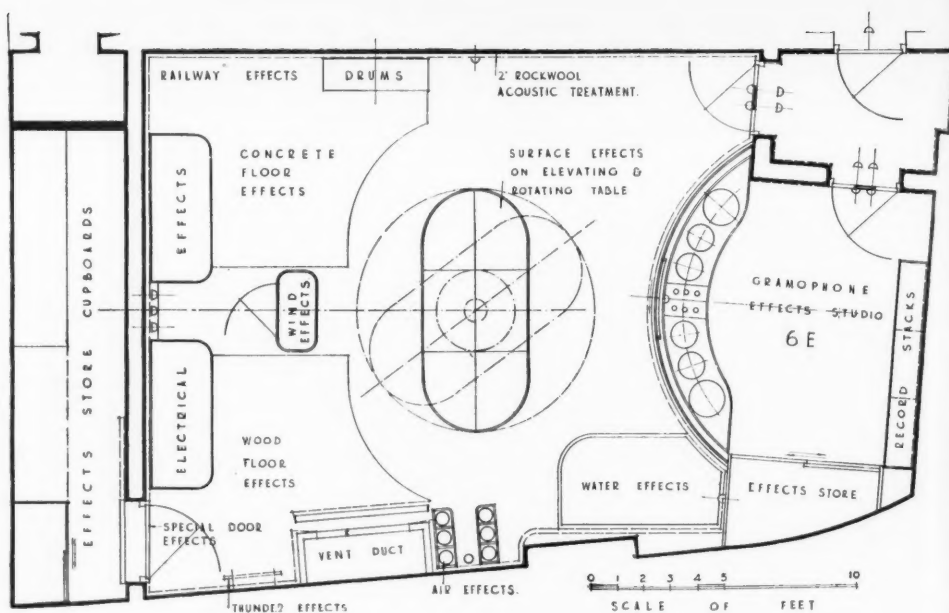
Dramatic Effects Studios 6D, 6E & 7E and Equipment.—In the large Effects Studio 6E and in the Gramophone Effects Studios 6E and 7E *en suite* with it, all the “dramatic effects” are produced for broadcast plays. The Effects Studio 6E is equipped with a large variety of machines and apparatus for the production of every conceivable noise.

A central operating table has a top which is faced with five different materials for the convenient manipulation of various surface effects. The table is rotated to bring it into proximity with other machines or effects, and can be elevated or depressed for similar reasons. A large water-tank supplies the service of water, rowing, anchor noises, and other equipment includes an electrical effects group with “tram-car” controls, motors, wind-machines, suspended sheets and drums for thunder effects, a compressed-air group for air effects, and a “railway-noises” group.

In the Gramophone Effects Studios 6E and 7E are two elaborately fitted cabinets shaped to the curve of the windows overlooking the Effects Studio 6D, each containing six gramophone turntables, a speak-back microphone, and other instruments. The horizontal windows separating the gramophone from the Effects Studios 6E and 7E (the latter forming a “balcony” to the lower studios) are curved on plan, double glazed, with a central sliding frame for direct verbal communication between the studios. The metal-work is in anodised aluminium alloy. Two special microphone fittings designed on a new principle, are suspended from points in the ceiling in such a way that the microphone can be placed in any position in the space of the room and there remain automatically balanced, thus freeing the floor of microphone stands and cables.

37 is a view from Gramophone Studio 7E looking down to the “electrical effects” group along the far wall of Studio 6D. 38. Plan of Studios 6D and 6E (7E is above 6E).

By **WELLS COATES**



38



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The acoustic treatment of walls and ceilings is 2 in. of packed rockwool covered by various fabrics, the outer one being a light cotton dyed grey. At the lowest band of the walling, a more durable facing material has been introduced, in the form of a $\frac{3}{16}$ in. rubber sheet perforated to allow the sound to pass through to the rockwool.

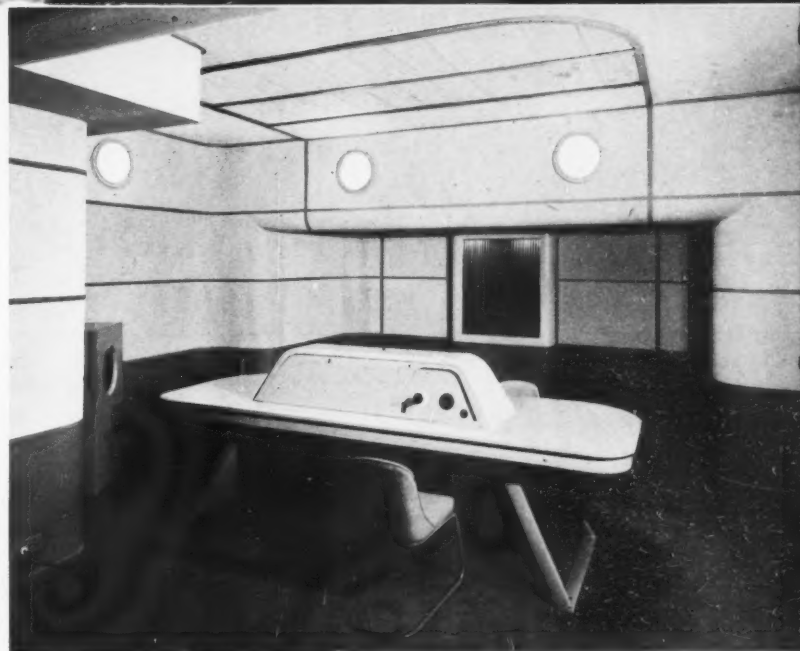
A portion of the floor of the effects studio is carpeted, another left in plain concrete, and another as a "wood" floor for all "floor" effects. Special doors are provided for slamming, latching, locking and sliding "door" effects.

The equipment generally is in laminated wood, cellulosed a light mauve-grey, with tubular steel supports and fittings, some in anodised aluminium alloy and others stove-enamelled a dark grey. The flush plywood doors are veneered with Australian Walnut, grey-brown in tone, and the skirting is ebonised hardwood.

39 is a view looking towards the gramophone studios from Studio 6D, showing the large ceiling bowl fittings and the water tank at right.

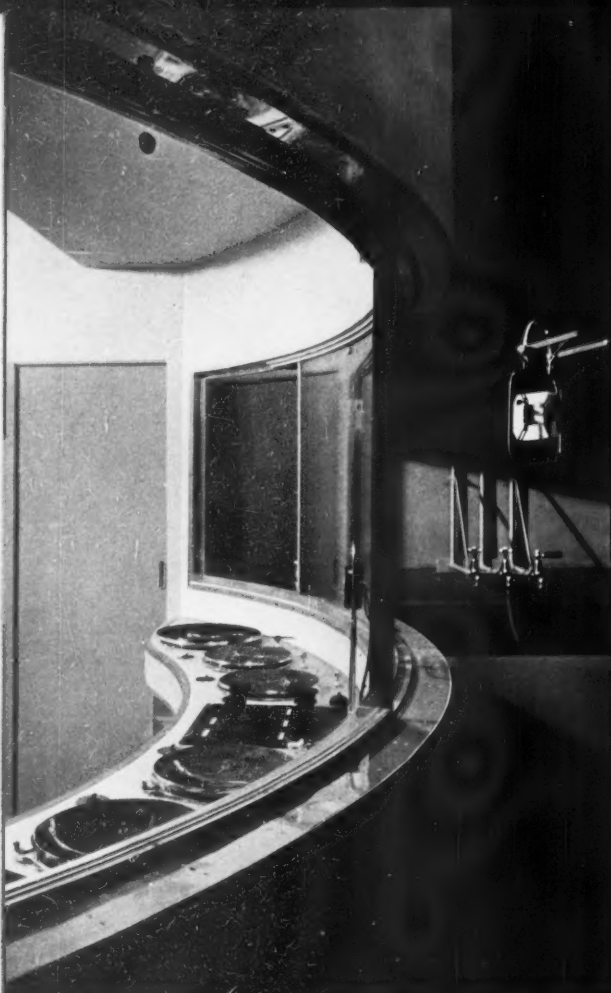
40 is a view from the entrance door to Studio 6D, looking towards the electrical effects wall, showing the suspended and balanced arm microphone fittings, and in the foreground the central elevating and rotating "operating" table.

41 is a view of the Dramatic Control Room No. 1, on 8th floor, also designed by Wells Coates, showing the "volume control" operator's panel at the back of the Producer's Dramatic Control Panel Table, described elsewhere in this issue. It is from this Control Room that the producer "mixes in" the noises produced in the Effects Studios.

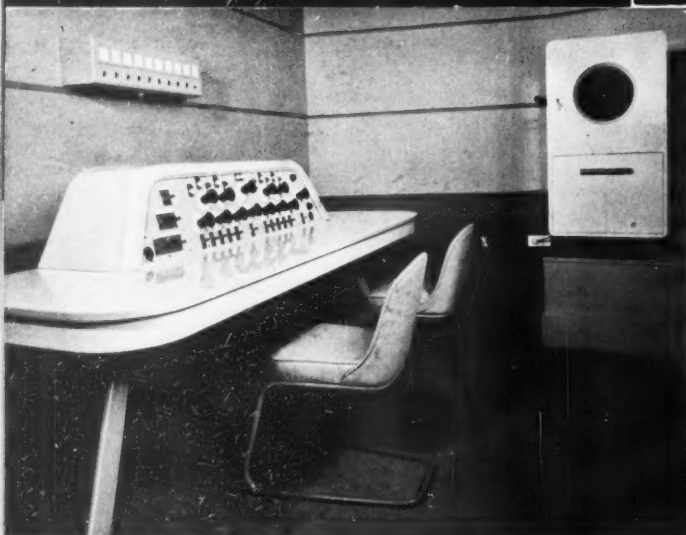


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By WELLS COATES



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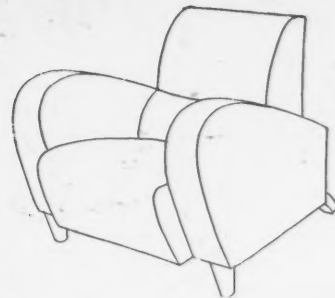


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42 is a detail view of the curved window separating Gramophone Effects Studio 6E and Dramatic Effects Studio 6D, showing the six turntables with central six-way mixer, and the "water effects" tank in the background. 43 is a close view of the gramophone turntable bank, in studio 6E, showing the felted shelves for the service of records actually in use during a production. The two end turntables take the new 16-in. records. The mauve-grey

cellulosed laminated wood furniture and equipment in the "effects" studios have flush grey-rubber angles on all exposed arrises. 44 is a view of the Dramatic Control Panel in the small Dramatic Control Room No. 2 on 8th floor, showing the return-light studio indicator on the wall over, and loud-speaker at right. 45 is a detail view of a corner of the small Experimental Dramatic Effects Studio 7D, on 7th floor, showing the electrical effects benches and the balanced arm microphone fitting.

By WELLS COATES



46

46. The third floor waiting-room is divided from the corridor by a heavy wool curtain, buff and grey with stripes of vermilion and blue.

The curved settee and easy chairs are upholstered in a coral-tweed type of fabric. The carpet is by Marion Dorn.

The bell-shaped vase is an ash receptacle which cannot be overturned.

47. The lighted proscenium in the Press Listening Hall No. 2. This room is used by the Press critics. The loudspeaker cabinet to which they listen stands in this proscenium.

There are no external windows and the problem was to create a feeling of space and height in a room which is buried underground.

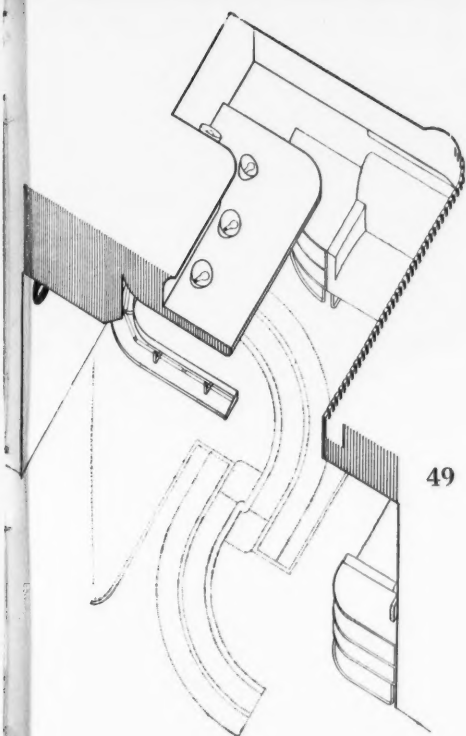
Mr. Eastland Fortey is at work on an architectural mural decoration which, in the finished room, is lighted from a ground-glass panel below and gives a sense of aerial perspective so that one would seem to be on a skyscraper rather than underground.

48. The waiting-room to Studios B.A. and B.B. Shelves and trays of light give an airiness to the otherwise low ceiling. The curved settee is covered with an apple-green cotton and ramie cloth. (See Plate VI.)

The floor is rubber, inlaid with an abstract design.

A wall ash-tray may be seen right.

49. An isometric section of the waiting-room, showing the arrangement of the lighting and the position of the ventilation cornice.

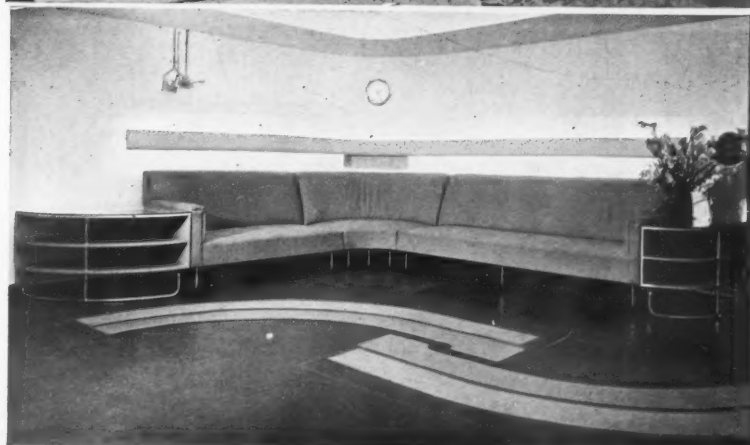


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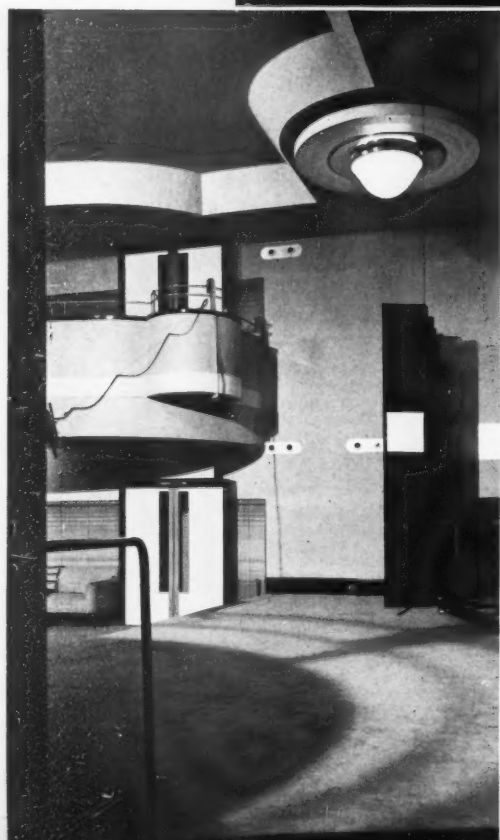
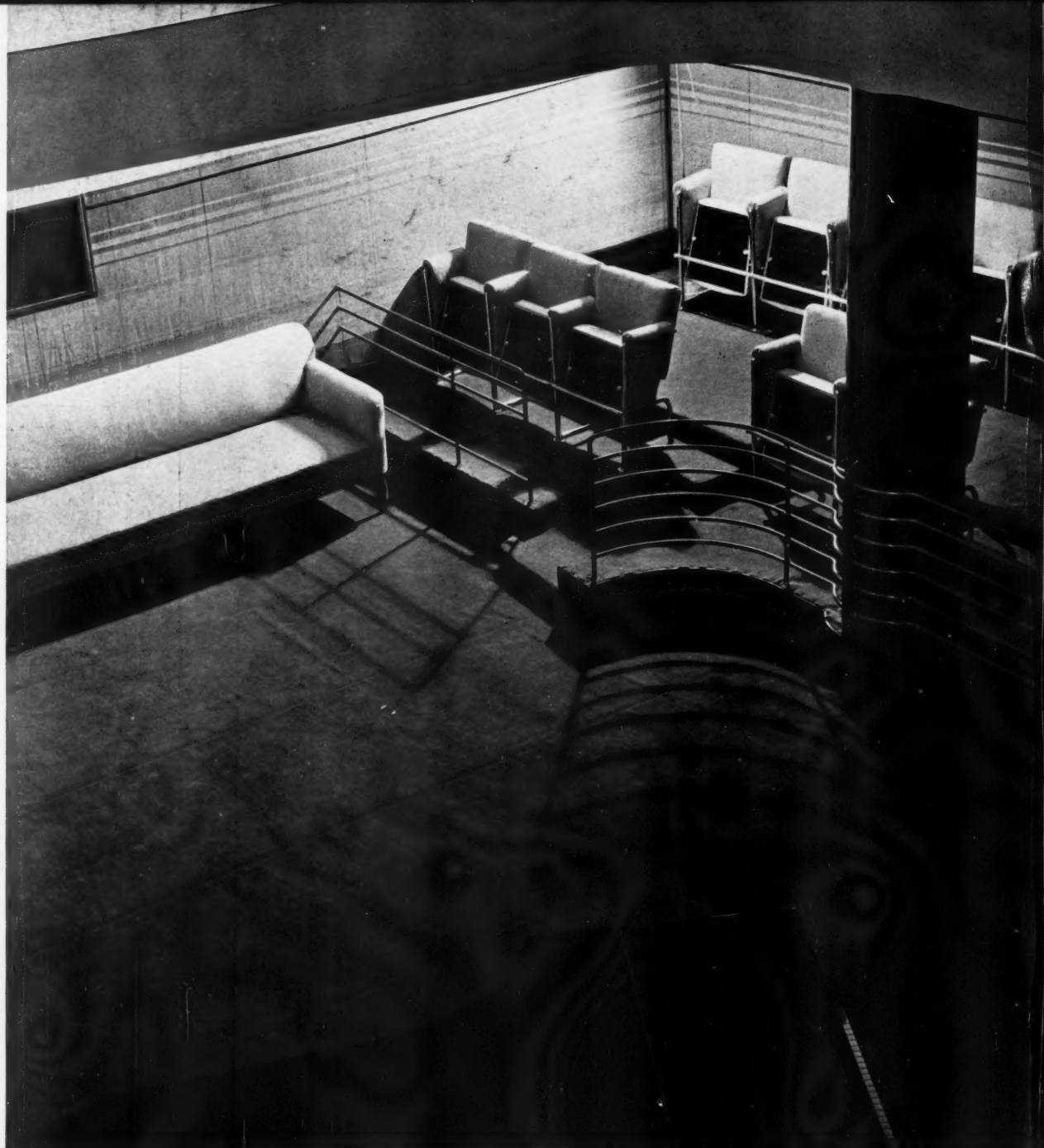


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By RAYMOND McGRATH

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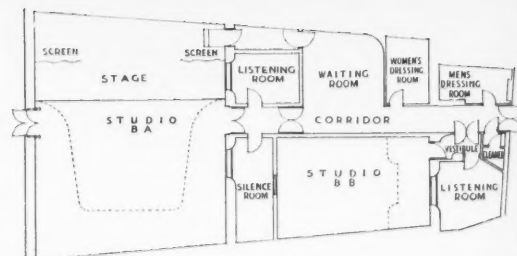
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50. This miniature theatre (Vaudeville Studio B.A.) provides the artist with an audience and atmosphere. The walls surrounding the pit and balcony are covered with felt and stretched with a grey and tangerine fabric woven from polished flax. The main body of the walls is covered with building board, excepting the black dado of the stage, the black and yellow screen and the yellow doors, which are veneered with resin sheets.

51. Folding screens take the place of the usual stage wings. In the turrets at either end of the balcony spot-lights are mounted.

52. The plan of the sub-basement group of studios, Vaudeville Studio B.A., Dance Band Studio B.B., and the waiting-room and dressing-rooms.

53. Theatre chairs in chromium-plated tubular metal upholstered with an orange worsted fabric shot with fawn cotton in a basket weave.



52



53

By RAYMOND McGRATH



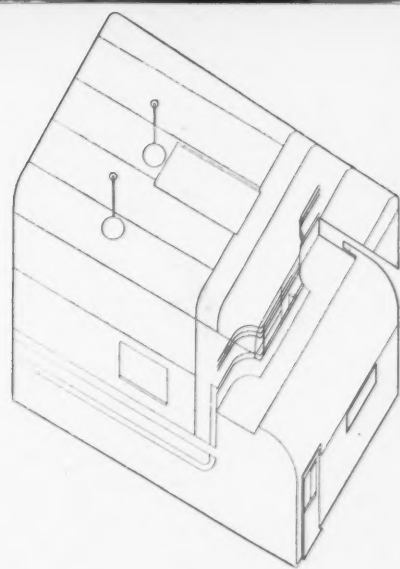
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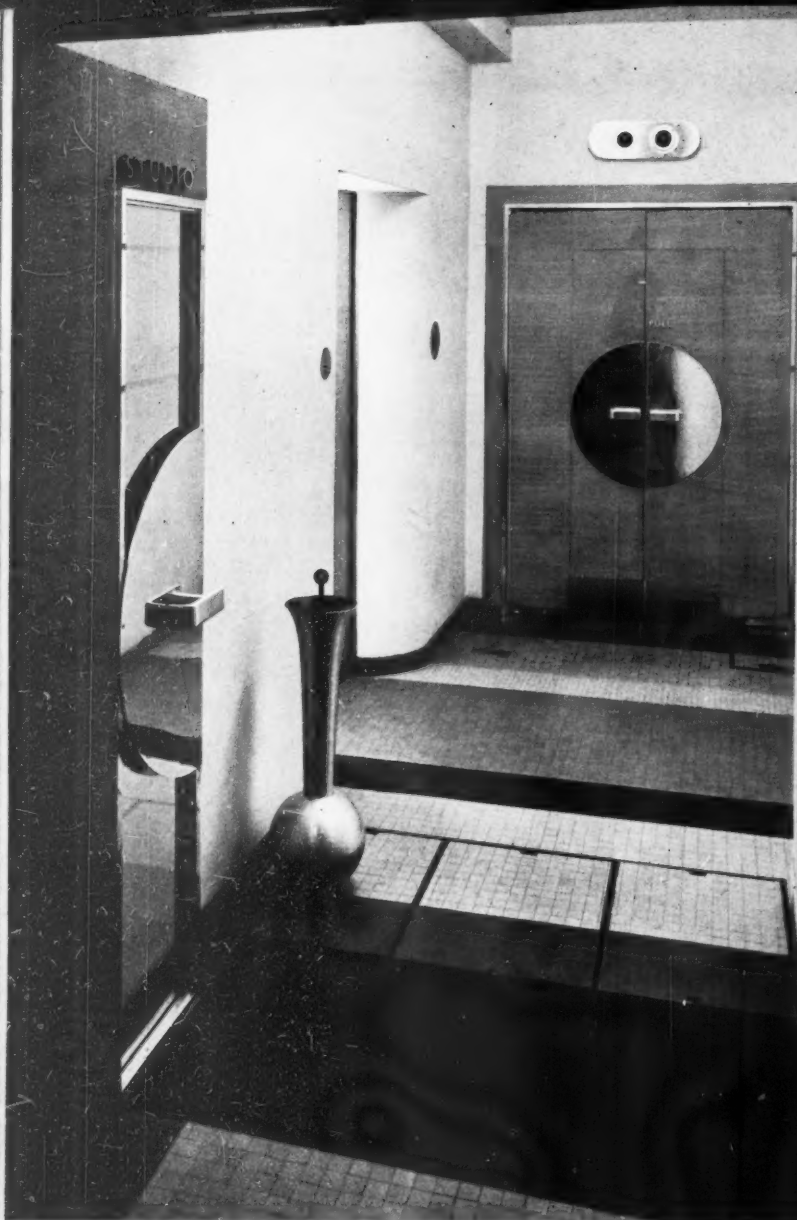
54 A dressing-room for the Vaudeville Studio B.A. A wall of black glass and a wall of white glass quadruple this small space. The ceiling and the other two walls are covered with an engraved lincrusta of modern design, the silky texture of which reflects and refracts the light.

55 Looking down from the balcony in the Dance Band Studio B.B.

56 An isometric sketch of Studio B.B., looking up with the floor cut away, to show the ceiling treatment and small audience balcony with its copper rails.



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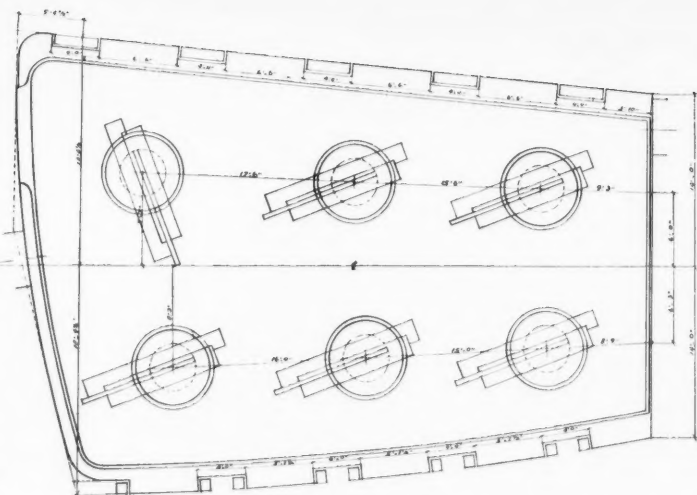
57. Looking north to the entrance doors of the Orchestral Studio 8A. The doors are faced with oak ply; the metalwork is polished aluminium alloy. Spaciousness is increased by the pale yellow walls and a note of richness is provided by the tile mosaic laid in tones of brown in a carpet-like pattern. 58. Looking into 8A through the open doors. The colour harmony is one of natural colours; warm browns of the cork floor, warm greys of the birch plywood dado, buff building board on walls and ceiling above. The rows of



59

unit settees are covered with coral red fabric. 59. The general view of the studio, showing the principal lighting from the wall boxes, those on the right-hand side admitting daylight in addition, this being the only studio with an external wall. Additional lighting on the ceiling ventilation pans eliminates any possibility of interference by shadow. 60. The ceiling plan of 8A shows the decorative painted motifs which make one pattern of the ceiling lights and circular ventilation baffles. This painted motif is repeated to an immense scale in the pattern of the cork floor.

60



By S. CHERMAYEFF



61 Easy-chair in the listening halls and green room. RAYMOND McGRATH.



62 Easy-chair in the eighth-floor waiting-room. S. CHERMAYEFF.

materials was banned, Mr. McGrath wrote to thirty English firms in an attempt to find a substitute for trolit. The result was laminated sheet, made from white paper impregnated with liquid synthetic resin, obtainable in almost any colour, but never before manufactured as a wall covering. I understand, however, that since its inception at Broadcasting House it has become a standard product.



63 Fixing synthetic resin sheets, veneered on plywood, in studio B.A.

Details

By F. R. S. Yorke

HAVING in mind the decorative work at Savoy Hill I shudder to think of what might have happened had a traditional motif been employed as a basis for the interior design of the studio block at the new Broadcasting House, and I feel that the directors of the B.B.C. are to be congratulated for having had the courage to abandon the pursuit of the styles, for having employed Mr. McGrath as decoration consultant, and for having given him, within limits imposed by the structure, a free hand, and the opportunity to produce an interior that is in harmony with the essentially modern purpose of the building.

Mr. McGrath was faced with an immense amount of work. After the primary organization had been decided technical difficulties that appeared almost insuperable had to be overcome. Wires were collected and distributed, conditioned air intakes and extracts, lighting points, microphone, loud speaker, and gramophone positions were arranged, and connections were made.

But when the studios had at last taken their internal form, and were ready to be decorated and furnished, he and Wells Coates, Serge Chermayeff and Edward Maufe, who collaborated with him on the interior design, discovered that, with few exceptions, instead of being able to select fabrics and furniture from standard ranges, they must, in order to get what they really wanted, design. And when tariffs were introduced and an order appeared to the effect that only British goods were to be used, the field of the "ready-made" became even more restricted. I can remember only one or two standard types of furniture in the building; the little metal and canvas "nesting" chairs (64) in the orchestral studios, the music stands, and some stools, and only one standard patterned wallpaper, that used by Mr. Wells Coates in the lobby between the talks studios, and discovered only after an exhaustive search through the makers' samples.

At the outset it had been decided that copious use should be made of German fabrics, and that the necessary resonant surfaces should be provided

by trolit, a German cellulose sheet recently introduced into architectural work by Walter Gropius.

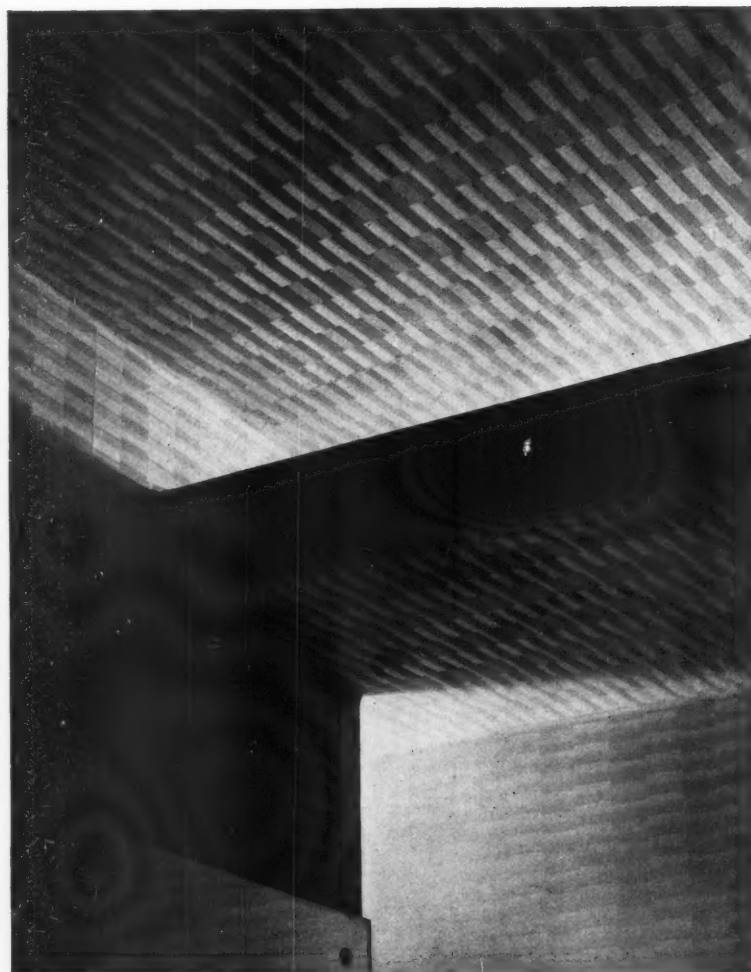
Such materials were unobtainable in England, and when the use of foreign

Another result was a series of fabrics, used in lieu of the German ones, excellently designed by Mr. McGrath and Mr. Chermayeff, and executed by a British firm who intend to include them in their standard range (61 and 62).

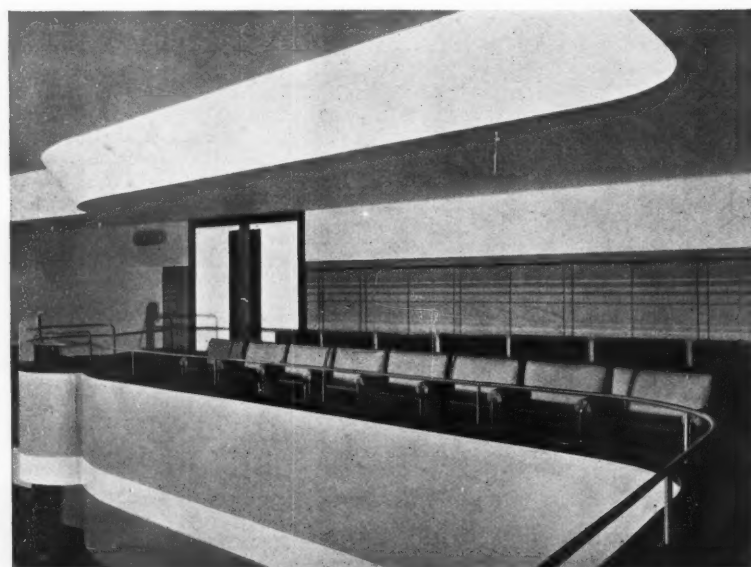
It had been decided that double-flashed glass should be used to produce an even diffusion of light in the electrical fittings. This special type of glass, flashed on both sides, had never before been manufactured in England, and had been imported from abroad, but a British firm undertook to make it especially for this job, and it is now, I believe, a standard British product.



64 Tubular steel nesting chairs used throughout Broadcasting House, designed by Joseph E. Leopold Quittner, of Vienna, and manufactured in England.



65 A modern washable lincrusta in one of the dressing-rooms, designed by Raymond McGrath. The surface of the material is embossed with a variety of delicate textures which produce an interesting play of tone.



66 A special hard-wearing and dust-proof acoustic fabric is stretched over felt on the gallery walls in studio B.A. It is woven from polished flax. Designer, RAYMOND McGRATH.

Mr. McGrath realized that many decorative materials have fallen into disrepute merely because they have never been rightly handled, and his creative imagination has evolved designs which, applied to such materials, give them a positive value.

For instance, having decided that the possibilities of lincrusta had never been fully exploited, he contrived a pleasant impressed pattern, which has as its object the refracting of light rays in varying degrees of intensity, and this met with such success that the manufacturers decided to adopt it as a standard line. At Broadcasting House it was used in several fast colours as a wall covering in corridors and waiting-rooms (65).

To fulfil the acoustic requirements certain areas of walling, notably the dadoes in the vaudeville and dance-band studios, were prepared for a covering of coloured synthetic horsehair fabric, a continental product which, it appears, cannot be made in England. It is impossible to dye natural horsehair, and a mixture of coloured cotton and horsehair was, for technical reasons, out of the question, so the architect was confronted with the problem of finding a substitute for the synthetic material, and eventually, after a number of experiments, a fabric with the requisite acoustical properties and a hard dustproof surface was produced by glazing woven flax cloth, and this was used, with a striped pattern in grey, tangerine and fawn in the vaudeville studio, and with horizontal and vertical stripes in fawn, orange and blue in the dance-band studio (66 and Plate I).

* * *

The work as a whole is particularly interesting in that it reveals the individuality of several men, all of whom have achieved distinction in the field of twentieth-century architecture, and though in a broad sense their efforts are directed towards the same end, and the design owes its vitality to an insistence on the functions of the building, and never really loses sight of utility, it is obvious that they have quite dissimilar ideas regarding the appearance that should be presented by the modern interior.

The aim has been to provide in the studios permanent settings that will have a stimulating effect upon the artist and, without distracting his attention, contribute to the excellence of his performance.

Practical requirements to a great extent influenced the design. Having discovered the essentials, probably the architect's most harassing job, technical details—always more than usually involved in a building of peculiar and complicated nature—were settled, and the design of such subsidiary units as air-conditioning controls, colour signals, direction indicators, and so on, were standardized throughout the scheme; for with so much and such varied equipment simplification was essential.

It was, however, the acoustic requirements that to the greatest extent dictated the character of the interior. The choice of materials, wall finishes in particular, and the proportions and condition in which they were employed, was decided within definite limits at the outset, and since in most cases the provision of large areas of soft plaster, thick felt or compressed fibre board was essential, and these materials are not of a particularly durable nature, the designers were confronted with the problem of protecting vulnerable areas, and arranging the more permanent materials in positions

where hardest wear was to be expected.

In the work generally there is an entire absence of traditional motif, but that Mr. Maufe still leans towards the classic—modernized of course—is evident from the Ionic tendency of the gilded caps to the stately green columns, which flank the altar in the religious service studio, and the "Roman" grille between this apartment and its silence room (Plate III).

Mr. McGrath, as his work shows, understands a great deal about colour harmonies and contrasts, and knows exactly how to combine unusual shades and materials to produce lively effects.

His vaudeville studio, a brightly coloured apartment in the sub-basement, is arranged as a miniature theatre, complete with stage, pit and gallery. The problem of providing an adequate stage with maximum economy of space was solved by substituting folding screens for wings (51).

At the stage end, a shoulder-high dado of black beati is surmounted by a lemon-yellow band of similar material, and the walls generally are a soft buff, the natural colour of the compressed fibre board with which the studio is lined for acoustical reasons. Its soft, absorbent quality is an excellent contrast to the silky, reflecting sheen of the beati surfaces (Plate I).

The theatre seats, specially designed for silent action, have a framework of plated tubular steel and are covered in orange-coloured worsted, shot with fawn cotton in a basket weave (53).

The electric light fittings, inverted bowls of bent glass covered by a mesh of steel wire, are suspended from the large circular ventilation pans at ceiling level, and are surrounded by a band of mirrored glass.

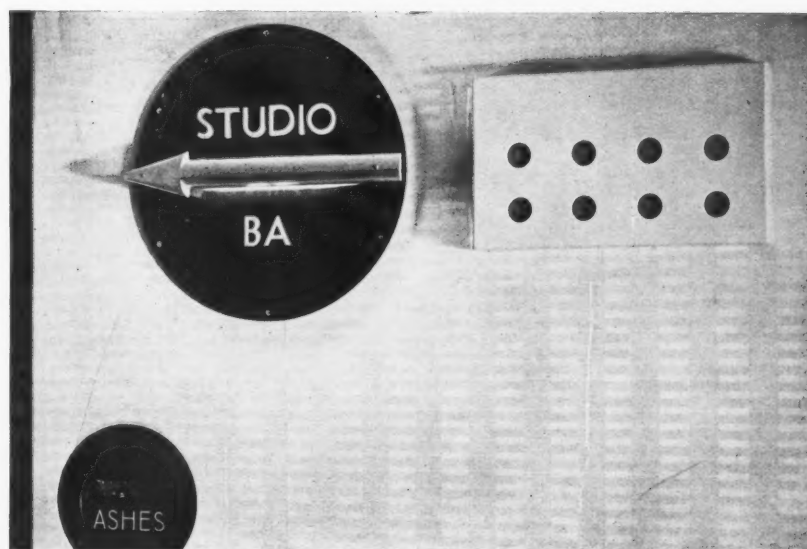
Having in mind "Finella" I feel that the green room is really more typical of Mr. McGrath's work. It has a pink painted dado capped by a narrow strip of wood painted blue, a black skirting, and walls covered with pale green mohair fabric laid on felt. The room is in two parts, between which hangs a coarse textured linen material curtain, with a pattern in pale green and yellow on a cream ground (Plate VIII).

In the artists' waiting-room, on the third floor, there are a number of particularly interesting specially designed pieces of furniture (46).

A settee, covered in an orange-red patterned fabric made in England to a German design at less cost than the imported original, is built up in three trapezium shaped sections, so that the seat is, in effect, curved. The seat has a sharp rake towards the back and is particularly comfortable (46).

A small circular table with cylindrical shaped legs of ebonized hardwood has a top of orange laminated board. The colour, because it goes right through the material, has a "depth" that is not common to all synthetic facing materials, some of which have a less pleasing, paint-like surface finish.

In this room is an unspillable ash holder which stands on a weighted spherical base and, acting on the punch-ball principle, returns, when pushed, to an upright



67 An installation group in studio B.A. waiting-room—studio directional sign, artists' turn indicator, and bronze standard wall ashtray.



68 A drawing of the ashtray by Raymond McGrath. Cigarettes may be left when the artist enters the studio for a few minutes and fall into the receptacle if not retrieved.

position. It is made in bronze and its vase-like neck, which stands some 3 ft. above the floor, and the upper half of the base are satin-silvered. The lower part has a gunmetal finish. Inside the neck is a grooved tray which holds unfinished cigarettes, and through this projects a metal knob by which the fitting is drawn towards the user. This knob, when turned, releases the lower part of the base, which is the actual ash container, for cleaning purposes (46).

Fixed to the wall is an arrow-like direction indicator, mounted on a circular board which is covered with small squares of copper foil paper. The arrow conceals in its curved hollow shaft a tubular electric lamp which illuminates the sign (67).

Mr. Wells Coates, who is responsible for the design of rooms of a more technical nature, is not so playful. His work is essentially architectural and its severity ensures that men who work day after day, or even at regular intervals, in the dramatic effects and dramatic control rooms, or the news announcers' studios, will not suffer from distraction or fatigue born of continual contact with a too pronounced environment.

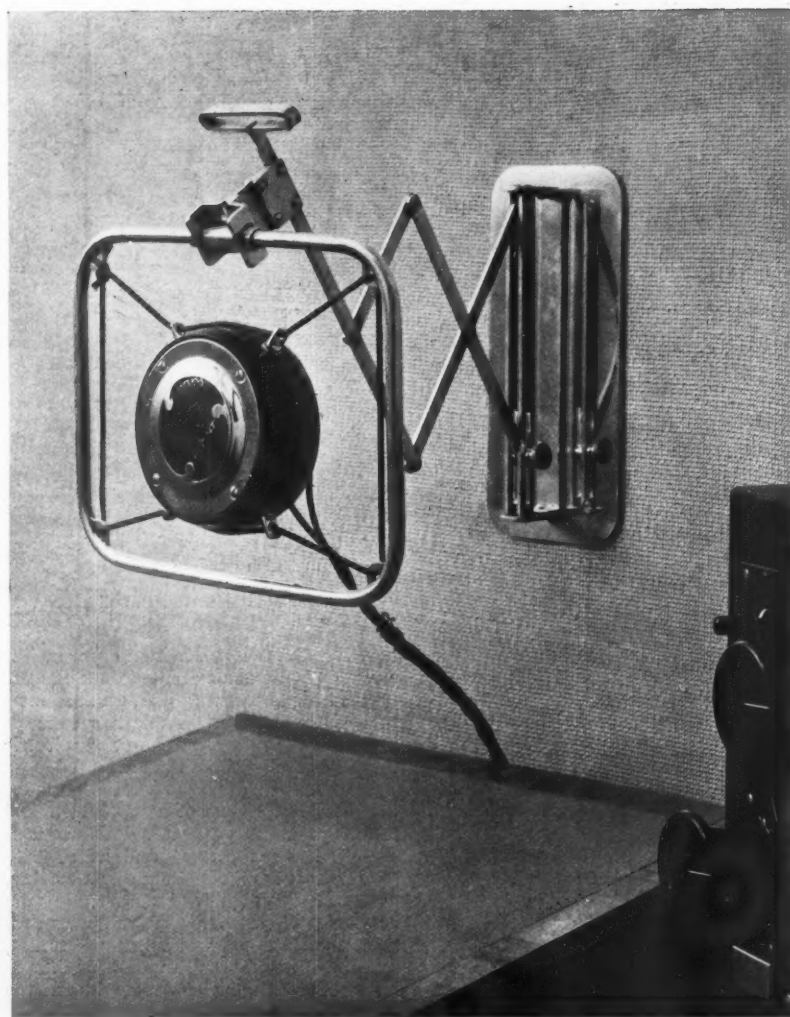
The space devoted to the little group which comprises two studios, intended primarily for the announcing of news items, but used also for gramophone recitals, and a news editor's lobby, is very limited, and can serve its complicated purpose only by virtue of ingenious planning (34, 35, 36).

The lobby acts as a buffer between the corridor and the studios, and in the curved partition which separates it from the latter are two observation windows through which the news editor can see the news announcer, with whom he keeps in contact by means of colour signals. A circular window in the door, in the main wall, allows persons in the studio to be observed from the corridor despite the intervening lobby.

The curved shape of the partition is dictated by the arrangement of the gramophone turntables and the announcer's desks, which are so arranged that the announcer need not leave his seat, but can refer to his notes and operate two gramophones by a slight movement in his swivel chair (34).

The acoustic groundwork on the partitions and walls is covered by a silver-grey fabric, composed of interlaced strands of hemp and synthetic silk which are woven

DETAILS



69 A detail in the News studio, showing the outer fabric covering the 2-in. packed rock wool acoustic treatment to walls and ceiling; and the extensible and swivelling microphone wall fitting (in aluminium alloy) over the announcer's desk. Designed by WELLS COATES.

in such a manner that artificial lighting is reflected off the silk and gives to the material a tightly woven appearance, whereas, having been selected primarily for acoustic purposes, it actually contains a high percentage of voids. The fabric is stretched from skirting to ceiling, and all joints are carefully sewn (69).

The lobby walls and ceiling are painted dove-grey, and the furniture here and in the studios is of laminated board veneered with Australian walnut. The two gramophone turntables are built into fittings of similar wood, which enclose, at the pedestal end, large microphone decoupling units.

The swivel chair, of special design, is upholstered in Bedford cord.

In the dramatic control room the dramatic control panel—an ingenious contrivance in which are gathered together wires from microphones distributed throughout the building—is given the form of a table, framed up in streamline tubular steel sections, laminated wood and plywood, all cellulosed a lavender-grey.

The actual panel, which rises at a steep angle from the table-top, is in cellulosed aluminium, and the dials and controls are of black composition (117 and Plate IV).

It is supported at one end by two free-standing legs; at the other end the legs are joined by a sheath of cellulosed plywood, which serves as an accessible duct to accommodate the collection of converging wires which rise from the floor duct and are connected at various points within the panel.

The work of Mr. Chermayeff is robust; he uses materials boldly and has an interesting sense of colour. His *pièce de résistance* is the orchestral studio, a large, high room on the top floor, which lends itself readily to a vigorous treatment (Plate V).

Because this room is asymmetrical, and a rectangular treatment would accentuate its irregular shape, a circular motif is employed as a basis for the general design. This is first apparent in the six ventilation inlet pans which hang a few inches below the ceiling, and are combined with long

sections of lighting trough, in polished aluminium alloy and straw-coloured flashed opal glass, to produce decorative banjo shapes (59 and 60).

In the floor, which is laid with squares of cork in five shades ranging from light buff to black, the motif is repeated, and a large circle in a central position suggests a grouping area for the band.

The double doors at each end of the room are sprayed with brilliant blue-green cellulose. The door furniture and all metalwork that is subject to regular handling, such as the clock face and the electric light fittings, is in polished aluminium alloy, which has a surface that perspiration does not discolour. Specially designed settees, which are arranged around the walls, have a framework of chromium-plated tubular steel, and interchangeable covers in orange-red tweed which can be reversed or removed for cleaning purposes.

Mr. Chermayeff designed a U-shaped table for the debates studio (70) at which several people can sit around a central microphone, and a lecturer's desk incorporating a sloping slot for the reception of sheets of MSS. as they are read and brushed aside by the speaker and a drawer in which they are collected, and from which they may be recovered in a neat pile at the conclusion of the address.

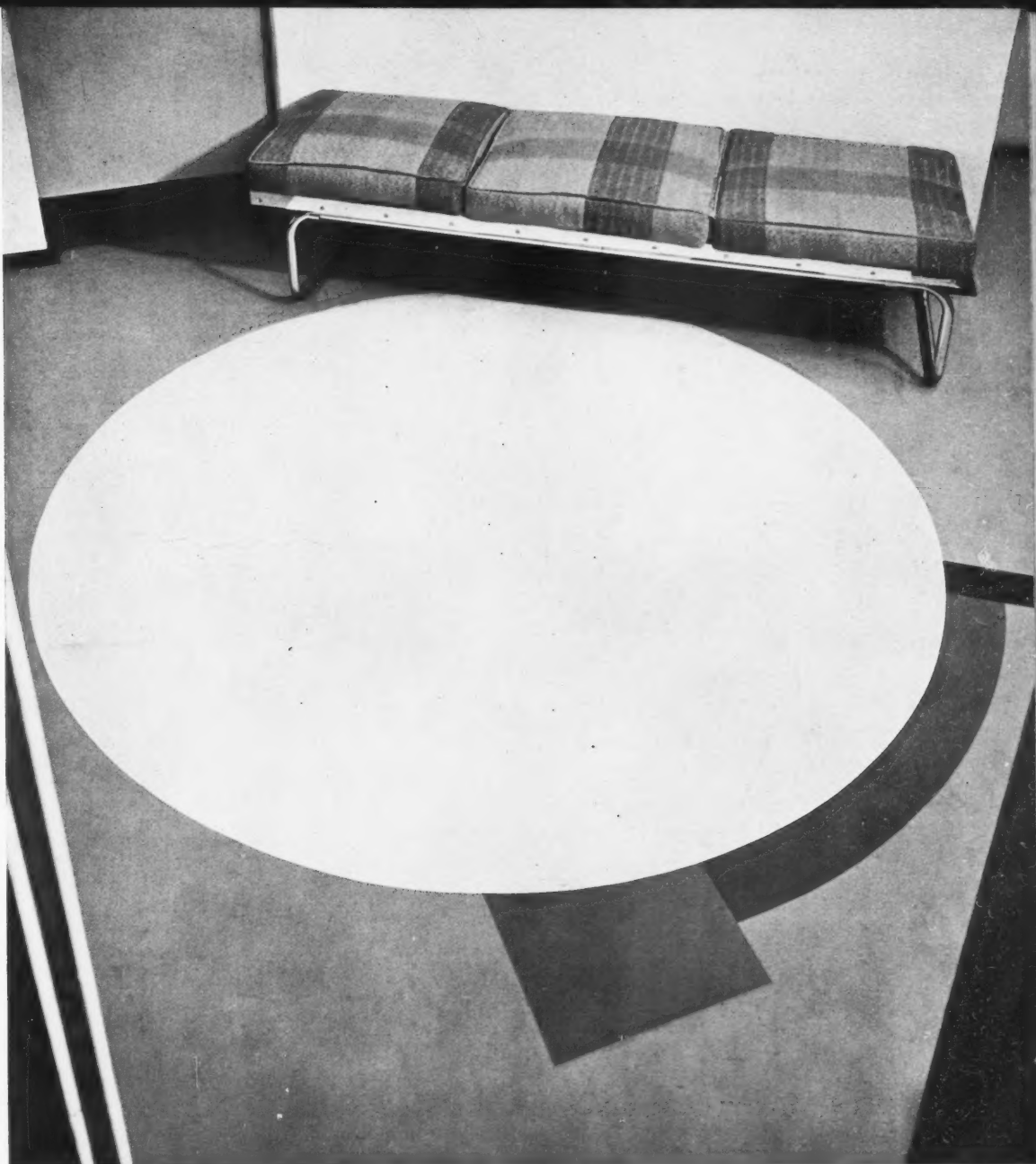
Though such individual fittings as these, which are designed for a special purpose, are not likely to create a general demand, there appears to be no reason why the chairs and settees with metal frames and covers of excellently designed fabric that are more than usually comfortable and by no means unduly expensive, tables and desks in tubular steel and veneered laminated board, and electric light fittings, unencumbered by ornamental encrustations, should not be repeated and prove a lucrative proposition to the British manufacturers.

That they are capable of producing these things when someone else takes the initiative has been proved at Broadcasting House, but it is significant that had it not been for tariffs the majority of the orders would have been placed abroad, not because the foreign product is better made, but because the continental manufacturer realizes that there is a growing demand for well-designed fabrics and furniture, and he considers it his business to see that this demand is met.



70 The horseshoe debates-table in 8B. The microphone stands inside. S. CHERMAYEFF.

SELECTED DETAILS



71. An inlaid rubber floor in the Ladies' Cloakroom on the 8th floor. The inlaid disc is white, its surround is pink-grey with accents of bright red. The settee is covered with a coral red fabric. The walls are cream-white.

71

72. The 8th floor corridor leading from the lifts to Studios 8A and 8B. This corridor was lowered to accommodate pipes and conduits. Comfortable head room was maintained by a system of sunk lights flush with the ceiling. Walls are pale yellow, floor cream coloured composition.

73. The first pair of double doors leading to Studio 8A.

74. A corner of the Ladies' Cloakroom showing radiator casings, dressing table and mirror. The extraordinary shape of this room and the strange beams and casings which appear have been given a curious charm by the designer.



72

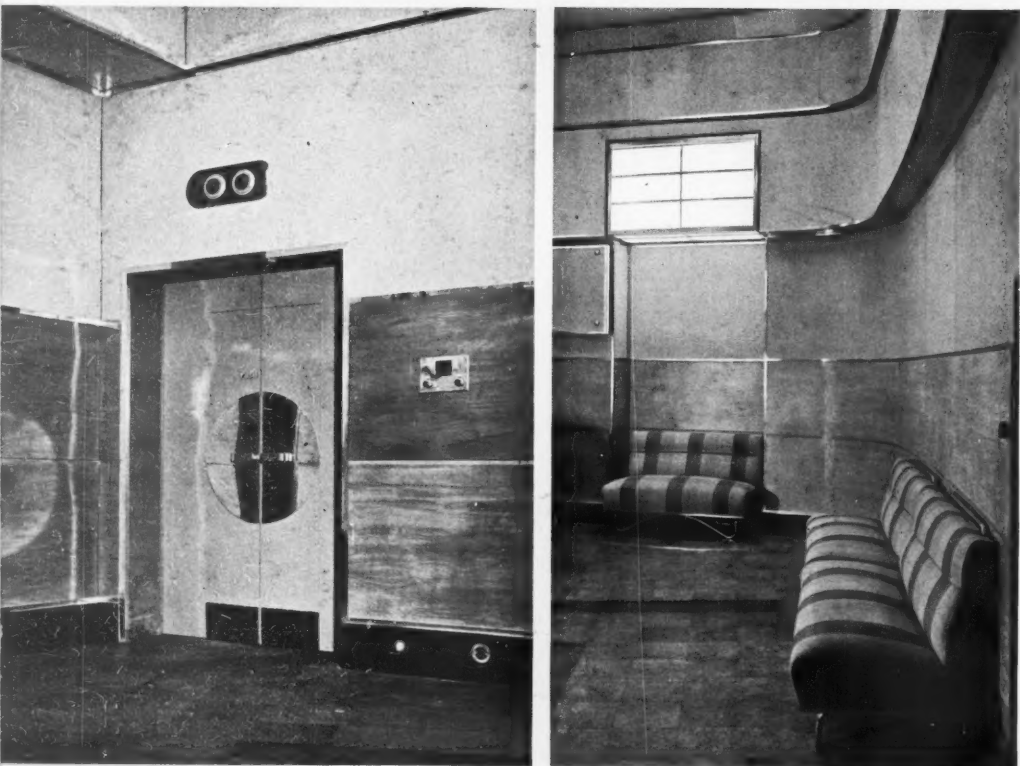


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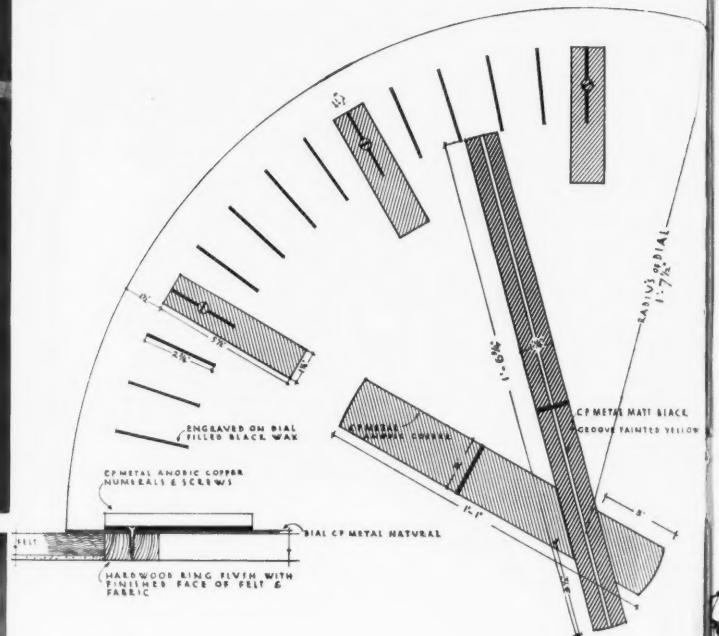


74

By S. CHERMAYEFF



76a

77
&
78

70

79



79. The Assistant Controller's room at Broadcasting House. The built-in fittings are in oak. The desk, desk chair and single chairs are in tubular steel finished with a heavy deposit of copper, brushed and lacquered. The desk top is $\frac{1}{2}$ " clear plate glass. The upholstery is a specially designed blue fabric in cotton and artificial silk. The standard lamp is adjustable by raising and lowering the flex.

80. An isometric view of the Assistant Controller's room, showing the carpet laid in three tones of brown following the curve of the glass desk.

The window curtains are gold-brown velvet.

81. The Office of the Chairman, Mr. J. H. Whitley, M.P., panelled in oak, by Col. G. Val. Myer. The furniture by Raymond McGrath is in Queensland walnut. The swivelling and tilting desk chair has a bronze base. The chairs are upholstered in brown water-proof leather, the carpet is sage green, the curtains are dark cream artificial silk.

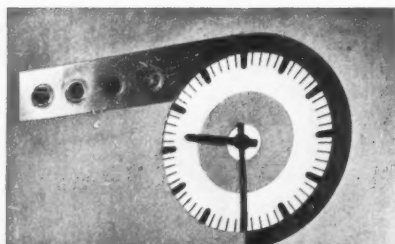
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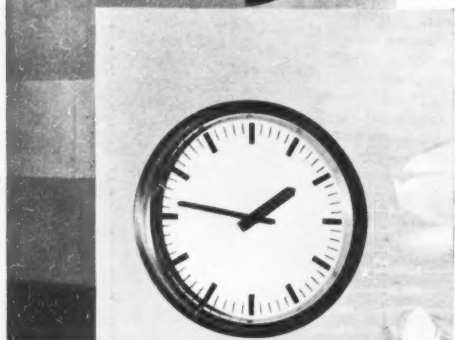


By RAYMOND McGRATH

82



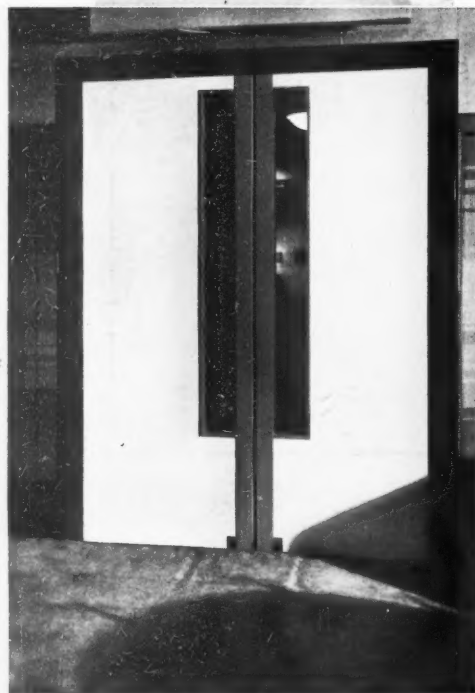
83



82. The clock in Studio B.A., combined with signal lights. The clock face is constructed of a yellow composition resin board to which the markings of the same material are cemented. Designed by Raymond McGrath.

83. The standard 10" clock used throughout listening and silence rooms in Broadcasting House. The face is matt white. The hands are matt black with a thin line of white. Designed by Raymond McGrath.

84



84. The double doors to Studio B.A., glazed with horizontally wired glass, with cellulosed metal frame and meeting stiles. The doors are veneered with a yellow composition resin board. Designed by Raymond McGrath.

85. A small table with yellow tops made of a composition resin board on a tubular frame. Designed by S. Chermayeff.

85



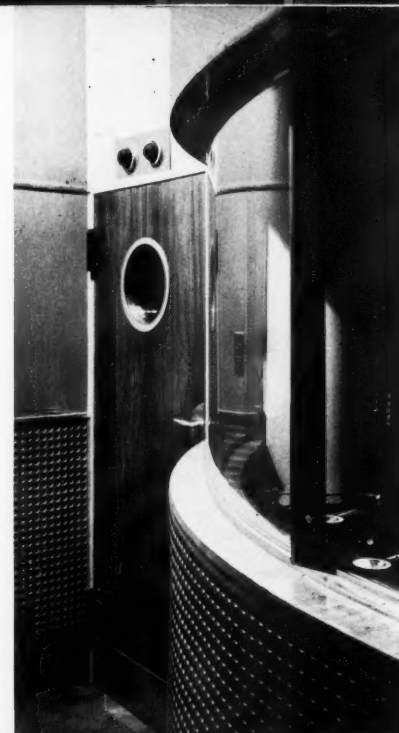
86. Looking through the pair of double doors of Studio 7E, to the 7th floor corridor. The "dummy window" has here been replaced by a combined mirror and lighting fitting with convex diffusing glass, the surround being in anodized aluminium alloy. Designed by Wells Coates.

87. A corner of the Effects Studio 6D, 6E, showing the perforated rubber dado covering to the 2" packed rockwool acoustic treatment. Designed by Wells Coates.

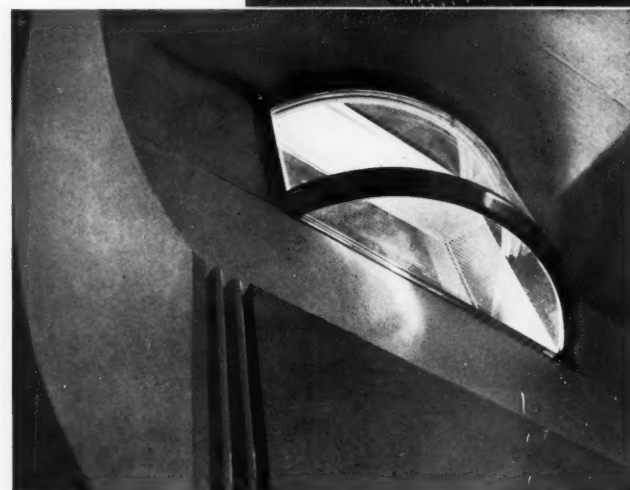
88. Looking up to the double-glazed and georgian-wired glass-silled observation window over Productions Studio 6A, showing the streamline-tube louvres at left of ventilation pan. Designed by Wells Coates.



86



87



88

6

7

8



A CORNER OF THE CENTRAL CONTROL ROOM

Showing five of the eight rehearsal control positions; these are arranged four on either side of the rehearsal supervisory position. From the latter the supervisor can "cut-in" on any rehearsal which is in progress, for checking purposes. All microphone rehearsals are controlled and checked in the same way as actual transmissions.

In the left centre of the photograph can be seen the back of the control room power-discharge board, and above it, the heavy copper bus-bars which carry the low-tension current to the amplifiers. One of the fuse-bays attached to the amplifier-bays can be seen on the extreme left.

The whole of the broadcasting equipment at Broadcasting House was designed and installed by the Engineering Branch of the B.B.C.

PLATE IX

August 1932

BROADCASTING HOUSE • TECHNICAL DESIGN • BY WALTER GOODESMITH

Grateful acknowledgment is made to the Engineering section of the B.B.C. for information and permission to reproduce graphs and photographs.

- A. Construction.
- B. Acoustics.
- C. Air-Conditioning, Ventilation, and Heating.
- D. Lighting.
- E. Installation.

A.—CONSTRUCTION

Outstanding points in which Broadcasting House differs from an ordinary building are :—

A central block within an outer shell bridged at each level by a continuous corridor, having no rigid structural frame connection to the outside belt of offices, which are steel-framed in the usual manner.

An inner tower of solid brick walls and self-contained floor structure.

A suspended anti-vibration ceiling slung from a reinforced concrete floor.

The dual purpose governing the design of Broadcasting House is that it shall be a broadcasting station and an administrative building.

An outstanding aim was to cut out extraneous noises penetrating from the street and to prevent sound being transmitted from studio to studio.

Outside the tower in the sub-basement the air-conditioning plant is placed, as also the boiler-house, oil fuel storage tanks, lift machinery and emergency generating plant, electrical transformers and main switchboard.

The retaining wall surrounding the site is a steel frame with temporary steel raking shores bolted to verticals to take the thrust until this could be transferred to main framework.

To gain greater depth in the concert hall it was found necessary to project beyond the north wall of the studio tower, thus necessitating web-plate girders 10 ft. 6 in. deep at second-floor level.

A rights of light problem on the east side prevented the central placing of Studio 8A, which extends over to the outside wall on the west side, thus providing an acoustic and engineering problem of isolating the studio from offices below and the control-room, etc., adjacent.

An artesian well of 7½ in. bore has been sunk, but only as a stand-by supply, as the building is supplied by mains from the Metropolitan Water Board.

There are four passenger lifts, one bank serving offices, the other the studio tower. They have a speed of 400 ft. per minute with twenty-four passengers, automatic levelling and two speed doors.



89

The "bowels of the ship."



90 A large steel "bloom" in position on the grillage. This piece of solid steel weighs approximately seven tons and will distribute a load of over one thousand tons from one of the stanchions carrying large plate girders in Studio No. 1 that will be superimposed upon it. In the foreground to the right can be seen the rivet heads of the lower grillage that has already been grouted with concrete.

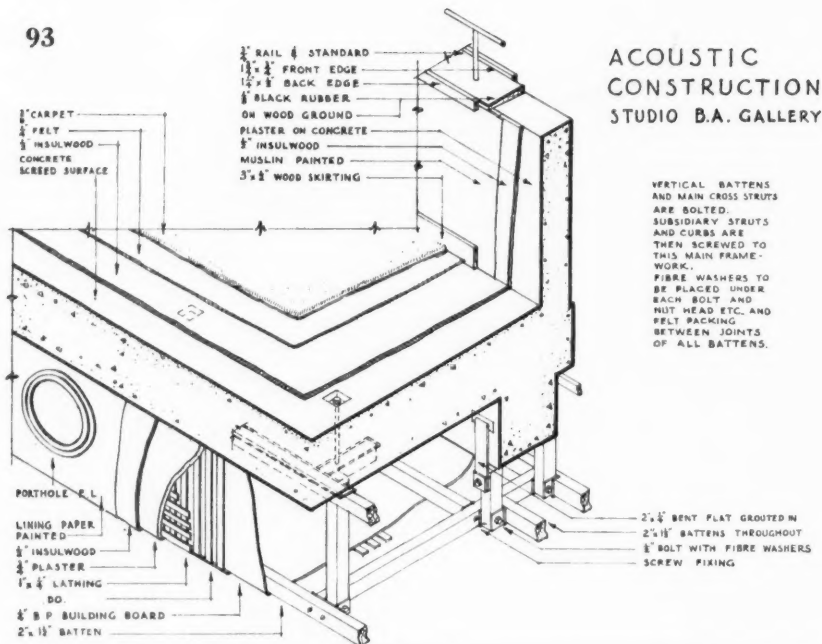


91 Corridor ceiling construction. The method of sound-deadening ventilation trunks is clearly shown.



92. On the left are the ten-foot six plate girders and mass brick wall of the studio tower—the isolating corridor—with the steel frame of the office block on the right, structurally separate from the studio tower.

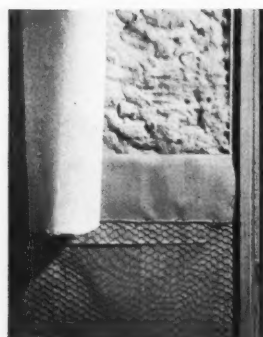
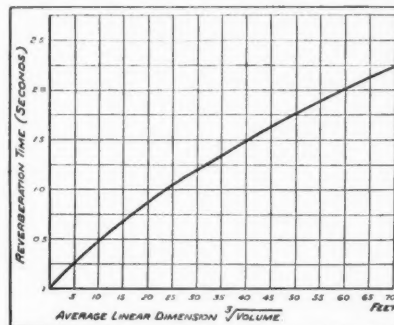
93



Studio	Principal Use	Reverberation Time	Approx. Dimensions			Volume
			Length	Width	Height	
BA	Vaudeville, Light Musical programmes ..	1.1 secs.	44	36	19	30,000
BB	Octets, Chamber Music, Recitals ..	0.85 secs.	29	18	19	10,000
Concert Hall	Orchestral and Band Performances ..	1.75 secs.	106	42	31	135,000
1A	Children's Hour and Dance Band ..	0.6 secs.	35	15	19	10,000
1B	Talks	0.35 secs.	15	11	9	1,500
1C	Talks	Dead	15	11	9	1,500
1D	Talks	0.35 secs.	15	11	9	1,500
1E	Religious broadcasts	0.8 secs.	21	18	19	7,000
4A and 4B ..	News	Dead	12	7	8	670
6A	Large productions studio	0.85 secs.	36	16	18	10,000
6B and 7B ..	Speech in plays and piano music ..	0.6 secs.	19	19	9	3,200
6C and 7C ..	Speech in plays	Dead	19	19	9	3,200
6D	Effects	Dead	23	19	19	8,300
7D	Gramophone effects	Untreated	13	12	9	1,400
6E and 7E ..	Speech in plays	Dead	13	8	9	860
7A	Speech in plays	1.1 secs.	33	33	9	1,500
8A	Orchestral and Band music	1.1 secs.	51	33	16	27,000
8B	Debates and discussions	0.45 secs.	16	13	10	2,100

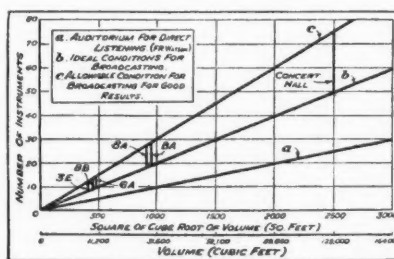


94 The partition walls of cellular concrete blocks with eel-grass sheets sandwiched between.



96 The method of treating studio walls with sound-absorbing wool so as to allow for a very small or no reverberation period.

95 Optimum reverberation time for studios for broadcasting music which shows slightly less reverberation values than Watson's curve for speech and music in an auditorium.



97

The subject of acoustics in broadcasting is of such importance and the field covered so large that little justice can be done to the subject in this short space.*

Close co-operation has been absolutely essential between the acoustic engineer and architect, as in some cases new materials have been used for the first time.

It is interesting to note that the degree of silence necessary for good broadcasting is seven decibels above the threshold of hearing; this, in the words of an expert, is the equivalent of "the sound created by the rustling of leaves set up by a gentle breeze in, say, a perfectly quiet spot on a summer's night."

The most interesting structural acoustic item in Broadcasting House is the mass brick wall some 4 ft. 6 in. thick at the base with the provision of buffer floors at the second and fifth floors as an interposed strata of libraries and store-rooms, etc.

The interior sound-proof walls consist of outer walls of 4 in. cellular concrete blocks, between which is sandwiched a layer of sound-proofing quilting.

Most of the walls were then rendered with a soft plaster preparatory to receiving the final finishes of a decorative nature varying from the resonant wood surfaces to absorbent rock wool.

The ceilings and floors have been formed with a Truscon floor core, from which has been hung a ceiling suspended by wooden hangers bolted to concrete above and to felt-wrapped steel flats below, which carry the expanded metal ceilings.

An interesting experiment was carried out in Studio B.A. gallery ceiling—the whole framing for the ceiling being carried out in soft wood, limewashed, fibre washers being used under all bolt heads and nuts, and felt packing between the junctions of all timbers, no metal being used except for bolting and screwing (93).

Slots cutting the plaster ceiling into large squares have also been resorted to in some cases, the slot being loosely filled with felt, the whole then being covered, in one case with a canvas. The ceiling was finished off with a flat oil paint.

Floors were treated with a layer of bituminous-bound pumice concrete, over which was laid sound proof quilting and then floor boarding ready to receive building board, felt, carpet, etc.

Four types of building boards have been used in the studios, and have been applied in the majority of cases on to a solid plaster backing held by mastic cement, their absorption being then practically constant over a range of 100 to 4,000 cycles per second, with an absorption value of 25 per cent. approximately.

Felt and wallpaper treatment as well as the addition of a suitable fabric to this, has been used, 1 in. ordinary hair felt being cemented to the plaster wall first, then covered with lining paper and soft porous wallpaper or fabric with an absorption of approximately 40 per cent. over the whole range of frequencies concerned.

* It is dealt with more fully on p. liv.

C.—AIR CONDITIONING, VENTILATION, AND HEATING.

A comprehensive specification was first drawn out by the B.B.C. indicating the essential requirements.

The problem then became one of introduction, control and extraction of an artificial supply of air without noise whilst maintaining humidity, purity, and a standard temperature of 72 deg. F.

The sound-level of the ordinary Carrier plant with "commercial silence" was not low enough for microphone inaudibility, so that extra precautions were necessary.

By virtue of the acoustic treatment the studios are well insulated against heat.

Four air-conditioning plants are provided which serve the twenty-two studios, listening-rooms, Press listening-halls and waiting-rooms, and all machinery and other rooms below the street level. Each plant consists of a supply and extract fan, a dehumidifier (and humidifier), steam heaters, and automatically controlled dampers.

The ventilation system has been so arranged that a particular plant serves studios as remote from one another as possible to minimize risk of air-borne noises travelling between them.

Carefully insulated distributing ducts have been carried along the corridors surrounding the tower, through the solid brick wall into studios.

The air supply in the studios is automatically controlled by a thermostat, the exposed element of which governs the heating and ventilation by the reaction of its surface to the air in immediate contact with it.

HEATING

As all floors above ground other than the studio tower block are supplied with natural light and air it is necessary to provide for artificial heating, and this is done by the accelerated hot-water system fed from two steam calorifiers in the boiler-house. Hot water is also supplied to all lavatories. Two oil-fired boilers with excellent equipment of auxiliaries are installed to supply the necessary steam for hot-water heating and service calorifiers, the air-conditioning plants, and the canteen kitchen.

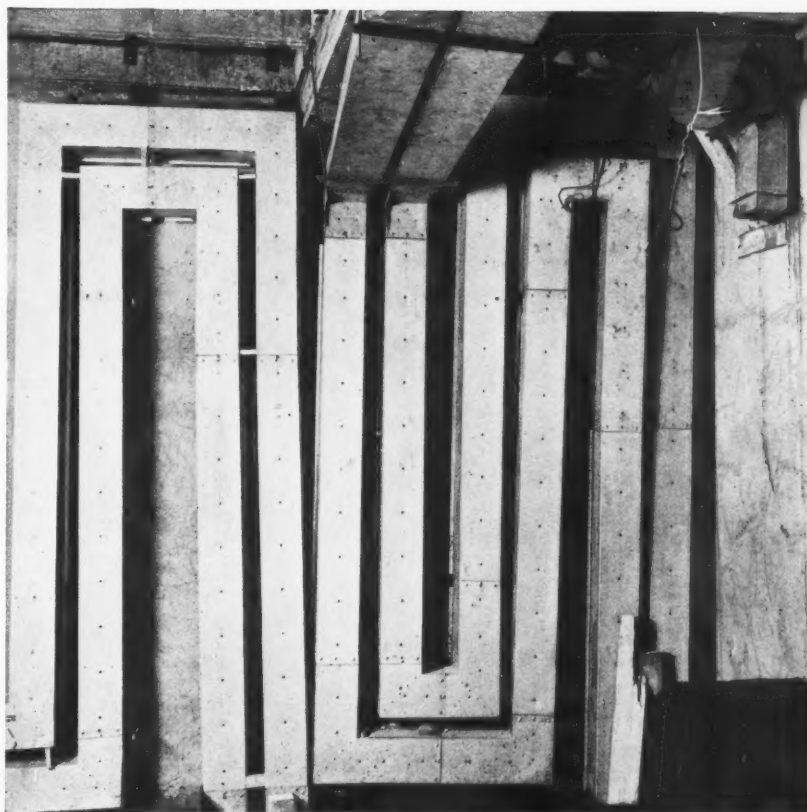
REFRIGERATION

For cooling the studios in summer a refrigerating plant is installed.

D.—LIGHTING

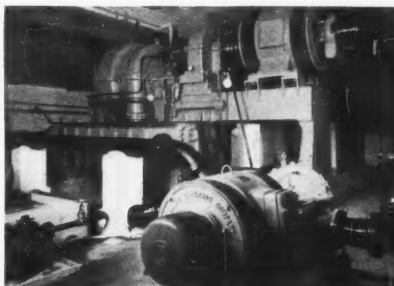
The lighting problem has covered the whole range of application from completely concealed to individual direct lighting fittings. The intensity values have been governed by the functional requirements of the studios, each being studied individually.

As the heat from electric lighting had to be taken into consideration a table of allowable wattage for each studio was prepared and had to be adhered to, to avoid interference with air-conditioning problems.



98

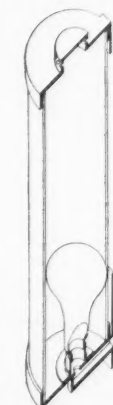
A studio forest of ducts.



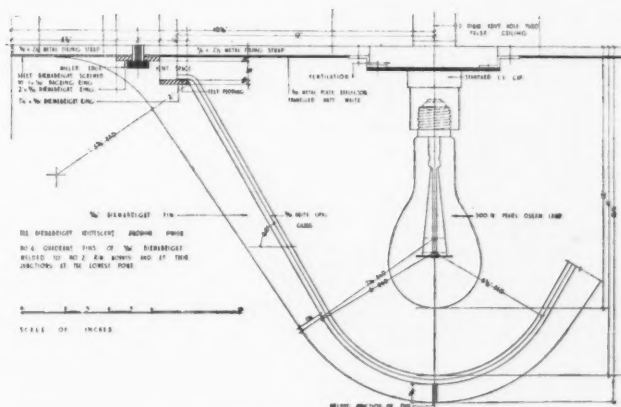
99 Refrigerating equipment for studio air-conditioning plant.



100 One of the fans and fan motors of the Broadcasting House concert hall air-conditioning equipment. (Note vibrating insulating joint.)



101 Section through dressing-room lighting bracket.

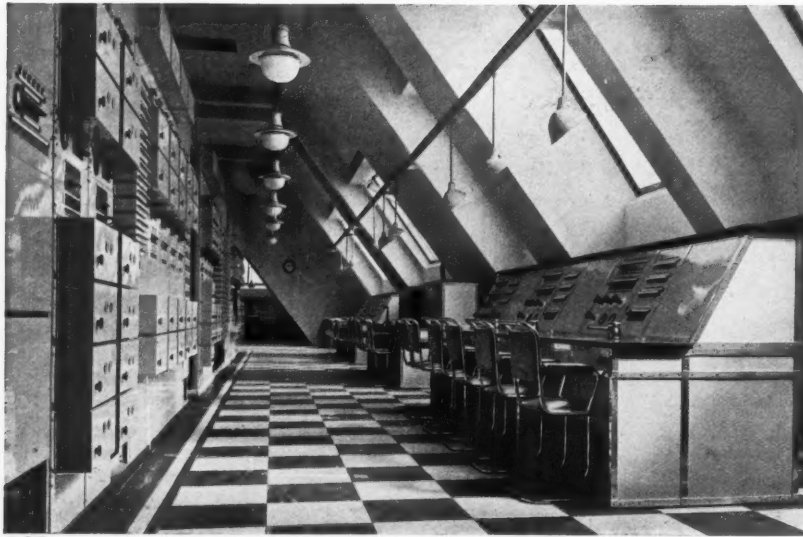


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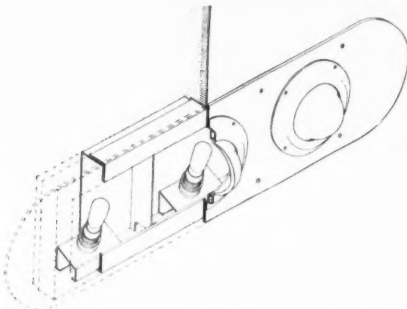
A large ceiling light fitting in the effects studio.

BROADCASTING HOUSE

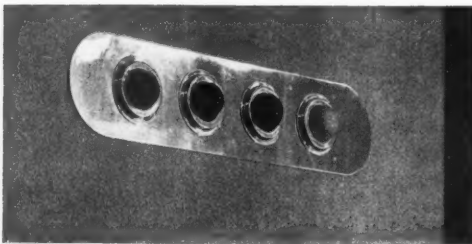
E.—INSTALLATION



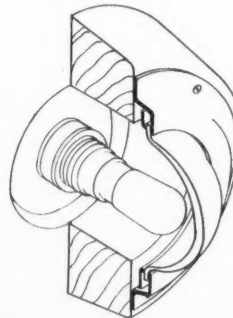
103 The transmission end of the control room on the top floor.



104 Standard triple signal light. The part section shows metal box with movable holders for adjusting the 15-watt clear lamps. The required colours of red, blue, green, orange or white are obtained by use of coloured pot-glass bowls.



105 A quadruple signal light in polished stainless steel.



106 Standard single signal light in corridors. Note the same standard lamp, rim and glasses as used in triple signal light.



107 Floor indicator. Cream on a black laminated Erinoid figure on a red wooden block and a shallow black box which opens on a side hinge to reveal a complete list of offices and occupants on that particular floor.



108 In the waiting-room of the vaudeville and dance-band studios. A wall directional sign with illuminated arrow, lit from behind, with portion of the artists' call indicator to the right, which flashes the cue number to the waiting performers on the settees nearby.

The expression of form and function and the housing of the multitudinous array of installation, instruments, and works has been given long and careful attention.

The control-room, "nerve centre of the studios," is an expression of well-planned efficient orderliness presiding over the 22 studios, 9 listening-rooms, 5 echo-rooms, 2 dramatic control rooms, etc., and is connected by a land line to Brookmans Park, from whence the actual broadcast is "put on the air."

SIGNAL LIGHTS

The signal lights are the "policemen" of the studios. They are placed in controlling positions and at the entrances and exits to studios.

A scheme of four colours and white has been adopted. Standardization has been attempted as far as possible by using specially designed metal boxes built into the wall, which house the wiring lamps and holders. To these are screwed metal cover-plates in various finishes conforming to decoration schemes, on top of which again are screwed metal rims which hold the coloured glass bowls. Single yellow lights mounted on blocks are placed outside each studio and indicate that the studio is in use. Inside the lobby as well as inside the studio and listening-room there are placed blue and red lights mounted side by side—blue indicating that a rehearsal is taking place with the use of the microphone, and the red shows when the studio is actually in use for final broadcasting. Green lights in the larger studios are used as cues for artists, whilst the white light inside the studio indicates that "You are wanted on the telephone."

DIRECTIONAL SIGNS

Over the entrance door to the studio tower an illuminated box-sign designates all the studios on that particular floor. Just inside the corridor one perceives both wall and ceiling types of illuminated signs placed immediately outside the respective studios, so that a minimum of time is expended in locating any required studio.

An interesting floor-directional sign has been placed in the office block, consisting of a flat box mounted on the wall, with a large floor number on the front. Upon opening the door one discovers that a complete guide to all offices and their occupants on that respective floor is given, thus avoiding undue publicity and eliminating names on doors, these being designated by numbers only.

CLOCKS

Synchronized electric clocks have been installed throughout, and in most cases have a specially designed standard dial finished a matt white on metal base, complete with bezel. The dials vary in other cases with a polished or anodized metal finish. In some cases, however,

E.—INSTALLATION (continued)

special designs have been evolved incorporating the clock with adjacent signal lights, as in Studios B.A., B.B., and 8A, and in the case of the Green Room an entire departure from the ordinary expression has resulted in a delightful glass dial and leaf-like hands.

MICROPHONES

The problem of housing the microphone for various conditions has produced some interesting solutions.

Microphones ranging from about 2 lb. to 11 lb. in weight have been used, and in nearly all cases are required to be interchangeable. They have generally been mounted singly, but in some cases doubly, as in Studio B.A.

In the Effects Studio two doubly counterbalanced arms enable the microphones to be positioned in any part of the void of the room.

In Studios Nos. 1 and B.A. suspended types are used, the microphone and cable being attached to supporting wire stretching from side to side.

The Talks Studios are provided with adjustable table stands.

Three types of movable microphone stands mounted with three rubber-tyred wheels have been evolved with a vertical travel between the heights of 3 ft. 6 in. and 10 ft. 6 in. :—

- a. a tripod with counterbalanced arm at the head and a horizontal movement of 360 deg.;
- b. a microphone moved vertically between top and bottom pulleys by a continuous belt, with an adjustable ring support to house the microphone in a horizontal or vertical position, with weights to accommodate the range of the microphone (109);
- c. a telescopic stand.

MIXER DESK, ETC.

Six-way mixers, three-way mixers, announcing desks and control desks in the music-control cubicles have been housed in wood frames with an ebonized finish.

Special metal and leather chairs have been made for use with mixer desks.

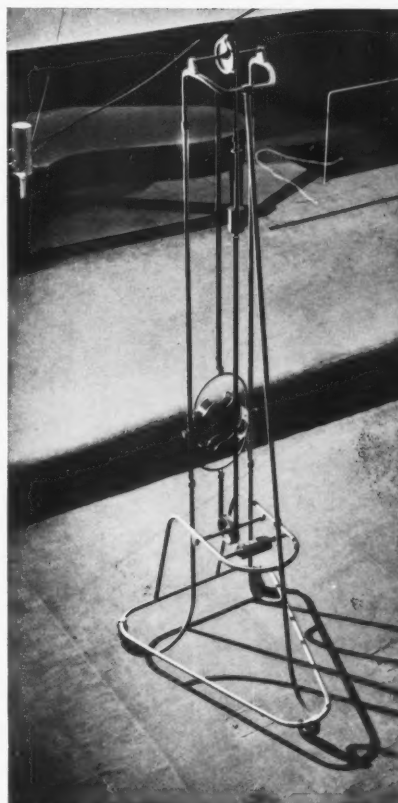
LOUD-SPEAKERS, GRAMOPHONES

Forty loud-speaker cabinets have been made in laminated mahogany veneered with an ebonized finish in most cases, and gunmetal handles, the loud-speaker being packed tightly in position by a surround of rock wool (112).

A mobile gramophone cabinet housing two turntables and records and electrical instruments is another very fine expression of installation furniture (111).

HOUSE TELEPHONES

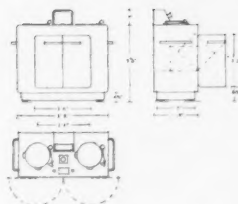
The studios are equipped throughout with house telephones, to which are plugged headphone receivers. These have been housed flush with the wall surface. The control-room and band-room buzzers with their plugs are also housed with covers to match the adjacent metal finish (114).



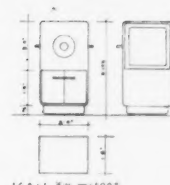
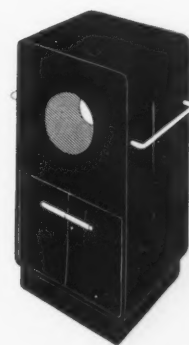
109 A large microphone stand with a double ring which may be turned in a horizontal or vertical plane as required with a continuous belt action allowing a vertical movement of the microphone between the heights of 3' 6" and 10' 6".



110 Dramatic effects studio, showing the ingenious doubly counterbalanced arm microphone fitting. The cable is attached to the arms by open clips, and the weight of different microphones is balanced by a fine screw adjustment on the weighted ends of the arms. The microphone can be moved to any desired point in the space of the room and remain there perfectly balanced, thus freeing the floor space of stands and cables.



111 Mobile gramophone with a double turntable. The instrument and record rack are inside. When transmitting it is not audible to the naked ear.



112 The baffle or loud-speaker cabinet which is standard throughout the building.

BROADCASTING HOUSE

E.—INSTALLATION (continued)

EFFECTS AND DRAMATIC CONTROL

The Effects Studio and Gramophone Studios contain numerous examples of well-designed installation, and nothing short of a visit to them enables a proper appreciation to be made.

The dramatic control panels finished in cellulose grey are excellent examples of "designed" installation (117).

GENERAL

A large programme indicator has been placed in the artists' foyer on the ground floor, and indicates at a glance the use of the studios for the day.

Artists' call-signs are used in waiting- and dressing-rooms in the vaudeville group.

Inset ashbins have been built in flush with the walls outside the studio doors in the corridors, for "No smoking" is the rule in studios; the design enables parts to be removed for cleaning. A weighted round-bottom balanced floor type is in use, as shown in a view of third-floor waiting-room (46). A table model of anti-fume type has also been designed.

TECHNICAL DESIGN

The installation equipment illustrated in this article are to the designs of the following architects:

Raymond McGrath.

Nos. 93, 101, 104, 105, 106, 107, 109, 111, 112, 113, 114, 115, 116.

Raymond McGrath and Serge Chermayeff.

No. 108.

Wells Coates.

Nos. 102, 110, 117.

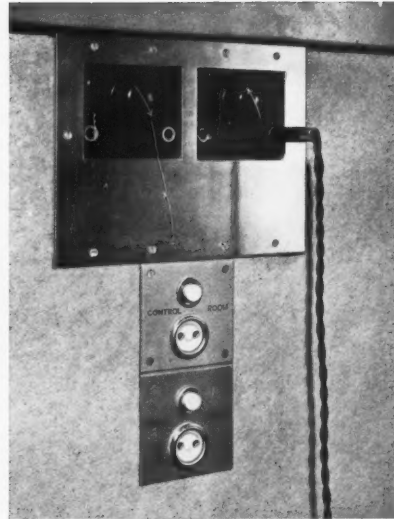
With the collaboration of the Technical Staff of the B.B.C. on the following:

Nos. 104, 105, 106, 109, 110, 111, 112, 113, 114, 115, 116, 117.

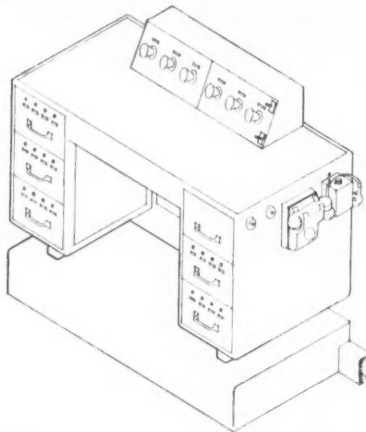
There is much installation equipment not illustrated herewith on account of limited space; much of it, however, appears in general and special views of studios elsewhere in this issue.



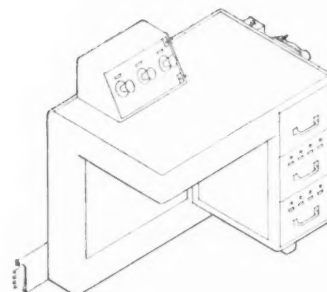
113 The vaudeville listening room with its six-way mixer desk mounted on a platform, thus necessitating the specially designed high mixer chair. It is placed centrally under the observation window to obtain a clear view of the studio beyond. Telephone, house telephone and pushes are mounted on the right side of the desk, while to the left on the wall is dimly seen a standard clock.



114 A standard double house telephone box recessed in the wall and covered by a plate, with control room and band room buzzers under. The lead plugged in on the right connects to a pair of headphones, which enables the programme to be heard without disturbance to others in the studio, the knob giving volume control.



115 A six-way mixer in the listening room. Used with large studios where it is necessary to "talk back" to the studio.

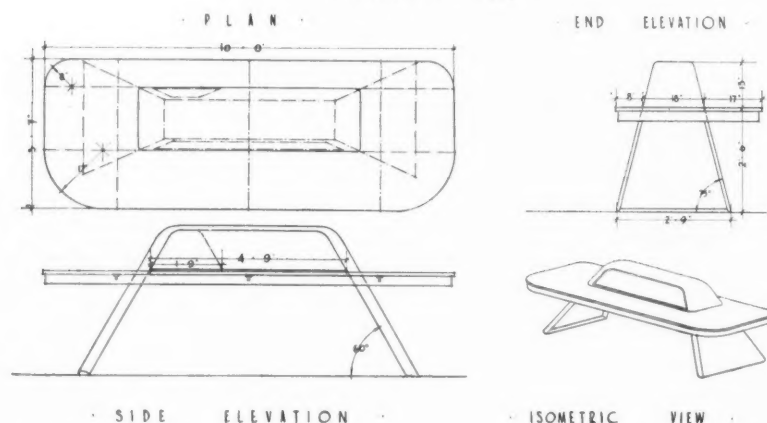


116 A three-way mixer in the listening room. This smaller type is used in positions not served by a six-way mixer.

BROADCASTING HOUSE DRAMATIC CONTROL ROOM TABLE.

SCALE OF FEET

DWG NO. B.B.C. 1011



117 Dramatic control panel. The enclosed raking leg houses perfectly the installation wiring from the panel to the floor wiring ducts, and ample space is provided for the producer and his assistants on the surrounding table top.

REMARKS ON THE MODERN TASTE

BY HUMPHREY REPTON

FROM DESIGNS FOR THE PAVILLON AT BRIGHTON, LONDON, 1803.

THE natural effect on the human mind of acquired wealth is either an ostentatious display of its importance to others, or a close application of it to selfish and private enjoyment; and very frequently both in the same individual. And this effect may be traced in the modern practice of what is called improving both Houses and Palaces.

It is much safer to depart entirely from any given style than to admit changes and modifications in its proportions that tend to destroy its character. Thus when we are told that "a Pediment is old-fashioned, and a Doric Column too thick and clumsy," the corruption of Grecian Architecture may be anticipated. And since the rage for Gothic has lately prevailed, the sudden erection of spruce Gothic Villas threaten to vitiate the pure style of those venerable remains of ancient English grandeur, which are more often badly imitated in new buildings than preserved or restored in the old. It is not therefore with a view to supersede the known styles that I become an advocate for a new one, but to preserve their long-established proportions pure and unmixed by fanciful innovations.

* * * * *

The numerous difficulties in reconciling the internal convenience of a house to the external application of Grecian Columns of any order at length banished Columns altogether and introduced a new style, which is strictly of no character. This consists of a plain building with rows of square windows at equal distances; and if to these be added a Grecian Cornice, it is called a GRECIAN BUILDING; if instead of the Cornice certain Notches are cut in the top of the wall, it is called a GOTHIC BUILDING. Thus has the rage for simplicity, the dread of mixing dates, and the difficulty of adding ornament to utility, alike corrupted and exploded both the Grecian and the Gothic Style in our modern buildings.

Without a bigoted attachment to EITHER, everyone must confess that there are a thousand beauties and graces in EACH which deserve our admiration, although they cannot without violence be made subservient to modern residence.

In this Enquiry no mention has yet been made of the difference of climate and the influence it may be supposed to have on the different styles, because grace and beauty of form in ornament and decorations may be considered without always annexing ideas of utility; if they can be blended, it is the perfection of Art in every province; and in the choice and adaptation of new forms to new uses, consists the genius of the Artist.

But there is another consideration of greater importance which relates to the MATERIAL of which the building is constructed.

The EYE will not be pleased with THAT to which the MIND cannot be reconciled; we must be satisfied that the construction is safe, and that the material is equal to its office. The resistance of iron is greater than that of stone; but if iron Columns be made to represent stone, they will appear too light and weak. On the contrary, if stone Columns be made to resemble metal, they will appear too heavy and massive; and if either of those materials be made to imitate wood, not only the relative strength of these must be considered, but also the PRINCIPLES OF CONSTRUCTION, which are totally different in the Grecian and Gothic Styles.

MARGINALIA

The Centre of the World's Thoughts this Month

This is the library of the Parliament Buildings, Ottawa, the scene of the Ottawa Conference: the only part of the old building opened in 1866 which survived the



fire of 1916. It will, however, be noticed by comparing the style of the library with that of the building which adjoins it that every effort has been made to harmonize with the style of the library.

A New American Architectural Magazine

A new monthly magazine entitled "Shelter—A correlating medium for the Forces of Architecture," has appeared in America, which badly needed a periodical to illustrate and champion *avantgarde* over there. The illustrations and typography are good and unusual. The subject-matter is rightly not confined entirely to bricks and mortar, but to moving architecture, which is becoming more and more important. There are photographs of ships, steel masts, aeroplanes, and yachts. Architecture, in this magazine, becomes a more comprehensive term, as, indeed, it should, for the editors realize that "shelter" can be mobile as well as static. Shelter is the right word.

A British Broadcasting Station that was never Built

John A. Campbell is a Scottish architect who, like the late C. R. Mackintosh, enjoys a much greater reputation in Germany (where he has become a sort of myth) than in either his own country or England. In 1914 he was invited to accept the Professorship of Architecture in the University of Munich, though at that time none of his designs had ever been carried out. Campbell was only persuaded to accept this invitation with the utmost difficulty because, as he puts it, he could not, and would not, give lectures; did not want to have to walk round the atelier more than once a fortnight or so; and that even if he did look round it as often as that he could not hope to find more than one student in twenty to whom he could offer any sort of useful guidance. Amazing though it may sound that any academic body could have agreed to such eminently unacademic conditions, the Rector answered that the University was perfectly willing to allow him the complete professorial liberty he required. Had the war not intervened Campbell would have taken up his duties in the autumn of the same year. As it was he spent the next few years in that "haven of rest," Ruhleben.

After the war was over Campbell returned to England a flaming xenophobe, eager to become a hundred per cent. British architect. From then until 1929 he practised as such, first in the country and later in London, where he had offices in Soho Square. During this period most of his work consisted of small country houses and cottages, done for bread and butter, "in the Cotswold manner," which he always refused to show his friends. With characteristic generosity Sir Edwin Lutyens once passed on an important commission to him, saying he understood Campbell was far more fitted to carry it out than himself; but, unfortunately, this building never materialized. Shortly afterwards he was approached by Mr. Eckersley, who was then Chief Engineer of the B.B.C., with the request that he would design two type stations for

the Corporation: a large Regional Station in a big city, and a smaller one suitable for an industrial area. In the former design long blank wall spaces of plain brickwork are handled in the manner which has won Campbell the unstinted praise of some of the most famous German architects. The only decorative motifs are keystones, etc., carved with simple stylizations of different essential parts of broadcasting machinery. It is a thousand pities that as a result of Mr. Eckersley's retirement this fine composition was never actually built. In 1929 Campbell returned to Germany, where he had been asked to design several villas, and opened an office in Berlin. Here he found the work he could not find in London at a time when nearly all German architects were beginning to be idle as a result of their country's increasing economic difficulties. In December 1931 he came back to England (where he is said to be practising once more) owing to the fact that building in Germany had by then been brought to a virtual standstill.

A friend of Campbell's once said that as a result of questioning him repeatedly about his architectural training he had been able to glean just three relevant pieces of information: that as a boy Campbell used to "wander about back streets in London looking at doorways"; that at some unspecified period in his career he had "thought he would like to see what Palladio had done in his (Palladio's) own part of the world, and that in Vicenza he had learned a lot in a negative sense"; and that later on he had settled in Germany without quite knowing why.

Proceedings of the Rye Rural Council, July 1932

Colonel Buchanan: "We are here to do what the ratepayers want. If they want water we must give it to them."

The Chairman: "If I were here to do what the ratepayers want I would pack up immediately."

