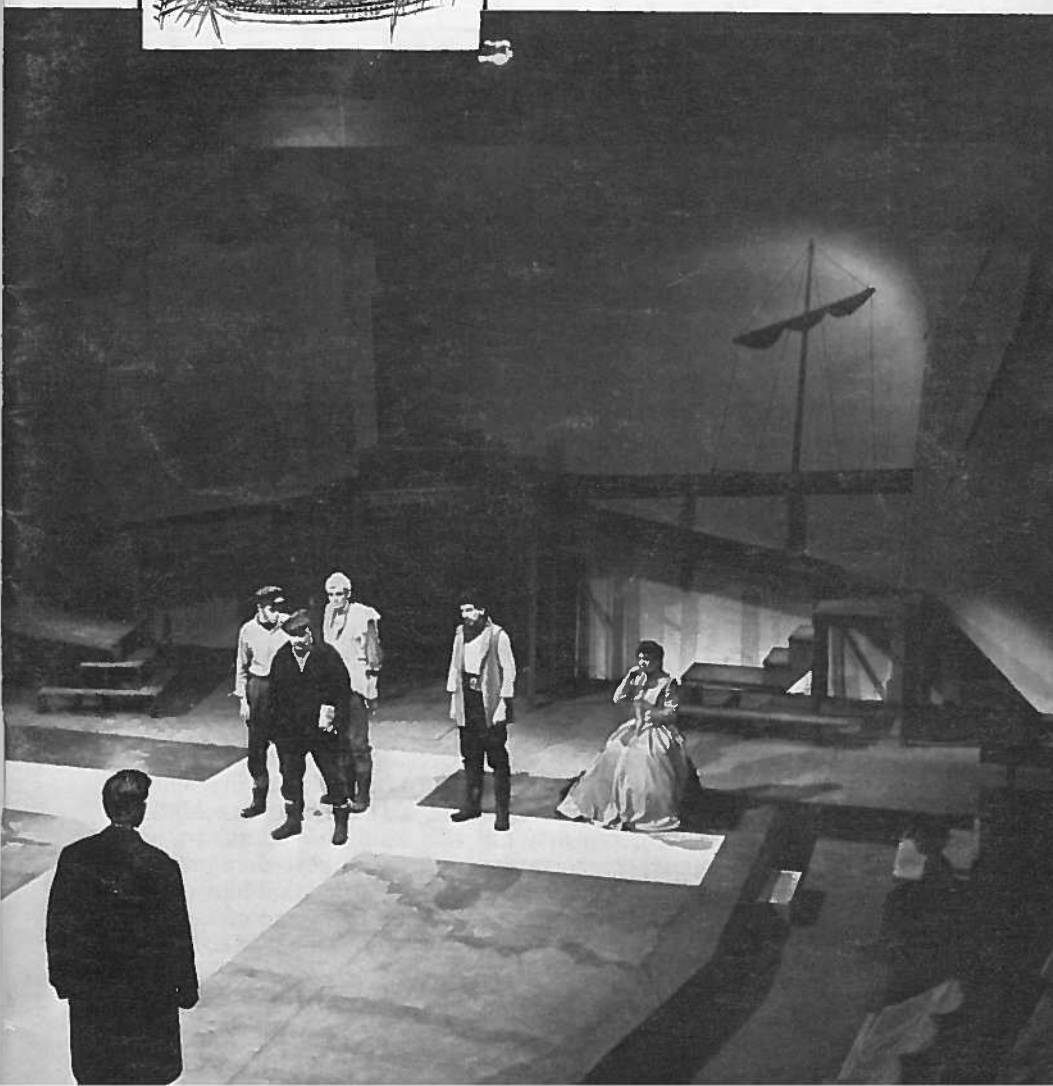


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Cover picture: Ibsen's *Brand* at the new Questors Theatre

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NOTTINGHAM 12 — LEICESTER 1

or How Much is a Theatre?

What a ridiculous question. One might just as well ask how much is a church, or how much is a car. Yet this very question has in fact been posed a while back by the BBC television treatment of the Nottingham Playhouse in *Tonight*, and to a lesser degree in *Monitor*. Neither financial comparisons (ratio 12 : 1) between one kind of theatre and another completely different kind, nor interviews with the man-in-the-street, neatly standing in front of near-slum property are relevant or helpful. The viewer is unlikely to remind himself that the particular critical programme originates from one of the most luxurious and well-equipped studios in the world, those of the BBC's

own Television Centre. How many persons could have been housed on the White City site using the money spent on architecture and equipment there?—Strand Electric switchboards and all! People who live at the end of glass tubes should take care when they throw stones.

The original two studios at Alexandra Palace could still produce plays and all kinds of television entertainment but who would suggest that the BBC should nowadays confine anything but the news there. Yet many of us remember with gratitude the pleasure that Ally Pally gave us before the war, thanks to the enthusiasm and missionary zeal of all those who worked there under the most extraordinary cramped conditions.

Missionary zeal is the key. The Phoenix, Leicester costing £29,500 is a jumping off point and very good one for a movement which may lead one day to a theatre, perhaps costing much more than the £370,000 expended on the Playhouse, Nottingham. For Nottingham represents by no means the height of luxury in size, equipment, or in architecture. Such costs are trivial when compared to that of an aircraft as Sir Basil Spence pointed out so aptly when extravagance was implied in a radio interview about Southampton. One glance at theatre expenditure in Germany and then Nottingham becomes Goose feed.

The BBC's interviewers have at least the excuse that they do not know intimately their subject—*Tonight* may have to cover anything from an atomic power station to the meat content of a Harris tweed worker's lunch time haggis—but what of those theatre people themselves who seem to go out of their way to pour scorn on Nottingham and thereby ensure that no such sums of money will be available in future. The answer is that some theatre people are born missionaries giving of their best when working under conditions of appalling stress and difficulty. The thespian cathedral once achieved affords no place for them—they should move on and establish another mission hall. These pioneers are a most valuable possession not to be wasted. To use to the full a modern playhouse on the rare occasion we get one, we need, perhaps, a different type of men with a different background and training. Or we need men every bit as adaptable, and far more flexible than the most adaptable of the adaptable theatres we hear theories about.

There is no doubt that most crusaders are unhappy when taking life at a more regulated pace. The parson who thrives in a slum parish may not take kindly to the calm of a cathedral close. Yet the cathedral close spotlights an important aspect of theatre not to be brushed aside as irrelevant. There are today few buildings which provide any opportunity for us to enjoy architecture and all it represents. There are even fewer which are going to provide such enjoyment for those who follow our generation. Most theatre work takes place in buildings of a previous age. Thus if new theatres in this country are only represented by temporary mission hall standards then alas, the architecture we leave behind will be so much the poorer.

The Lincoln Center

By now at least two buildings—the Concert Hall and the New York State Theater—of this vast “cultural complex” are completed and in service. The editorial question arises what cover should TABS give the Lincoln Center and after a certain amount of thought we conclude the answer must be none. Remarkable though the Lincoln Center is, and will be, both on the scale of its buildings and the financial outlay necessary to get them constructed and later to run them, it is nevertheless a small venture when compared to the continual outpouring of Opera Houses and theatres in Germany.

Such enterprises are beyond the imaginings in the British scene, it is therefore better that the limited space at our disposal should be deployed on items conceivably within our reach. If the Lincoln Center itself seems to be out of reach, the temporary home in Washington Square for the Repertory theatre pending completion of its permanent palace is not. We are therefore delighted to be able to publish the description of this ingenious theatre by its designer, Jo Mielziner. \$525,000, that is £187,000, for a theatre is conceivable, even if the theatre is only a temporary one.

Jubilation

We want to thank all who wrote congratulating us on our Golden Jubilee. More often such congratulation centred on our methods of celebration, in particular our bumper issue of Tabs, rather than on the mere fact of our 50 years existence. We most enjoyed the letters which stressed the affectionate relationship of Strand and its customers. Our celebrations included a party on March 17th at the Dorchester and three parties in our demonstration theatre. We would have liked to have invited everyone to these functions but in the event, and although we strictly limited ourselves in the matter of invitations, it was a mercy that many of the invited were unable

to turn up. Even so we had some 750 people at the Dorchester. During the evening Sir Bronson Albery proposed the toast (photo alongside) of the Strand Electric. The sons of two of the founders Jack Sheridan (chairman) and Stanley Earnshaw replied and then proposed the toast of the guests. Mr. Robert Nesbitt replied on behalf of the guests. A feature of the evening was the cutting of the birthday cake whose decorations included 50 miniature Patt 23 spots in lieu of lighted candles and an outsize reproduction of our Jubilee Tabs carried out in icing sugar.



Fig. 1. The Questors Theatre, Ealing. View from off-stage prompt side showing lighting bridges overhead and control room top left.

THE NEW QUESTORS THEATRE

by Frederick Bentham

So, at last the new Questors theatre is built, open and working. On April 22nd a gala performance of the first production in the new theatre—Ibsen's *Brand* took place in the presence of Queen Elizabeth the Queen Mother. The first thought must be of the triumph this represents for Alfred Emmet the hon. director and a founder (in 1929) of the Questors company and the driving force behind all their doings. But what a skilled and controlled driving force. Who but the wily Alfred would have the patience year by year to build all the accessory buildings first instead of impetuously expending all the drive on the theatre itself and making do for the rest—perhaps never to be finished. Of course there has been teamwork, and indeed the other simpler buildings were built by members of the Questors themselves—brick by brick. Then again the Questors were lucky in having an architect, Norman Branson (then one of the partners in Hattrell & Partners), who knew their work from personal experience and who took a delight in the challenge of something completely new

and unorthodox. But is "lucky" the right word? I doubt it, with Alfred at the helm I suspect the choice of architect was a matter of extreme care.

Has any amateur theatre, or even professional for that matter, captured the imagination of theatre people and held the press for so long? ALL this while—nigh on eight years—the place was neither built nor in respect of the main building—even begun! Did the Questors coin the expression "Adaptable Theatre"? I do not know, but one thing is certain, it is the Questors one thinks of first when this expression is used. First on the visiting list for theatre people from abroad for years has been a pilgrimage to Ealing to see this Adaptable Theatre building. Many is the time I have had to explain that precious hours spent in visiting Ealing would produce nothing more rewarding than a tree (destined to be felled) in an unkempt garden and a talk around a small model.

Now the place is built what do we find? To begin with we should remind ourselves that the Questors, who originally performed like so many amateur groups in church and other halls, first put their feet on the uphill road to today's theatre in 1933. In October the Roman catholic chapel which was to serve them until it was demolished to clear the site for the new theatre, opened (just!) as their theatre. The conversion of this hall, which they did themselves, concerned the erection of a stage with a permanent flat cyclorama and fixed overhead ceiling masking. There was a 20 amp. main which fed a home-made liquid dimmer board using at my suggestion, the circuit which was to become—many years later—the basis of the Strand Junior HA board circuit. A little later the scout troop who shared the hall departed and the flat floor could be stepped to some extent and fitted with tip-up seats and the place really became a theatre. The seating capacity of 183 meant plays could enjoy a run of three performances and there were four productions a year pre-war. Nowadays there are twelve. There were also from the beginning a variety of other functions, play readings, play discussions, surprise nights and even a recital which included Colour Music! As one would expect the Questors made their own scenery, props and costumes.

Later a technique of building out an apron to extend the stage (itself only 14 ft. deep) was often adopted. On entering the hall one would find scenery around the 20 ft. wide proscenium even though tabs were used; a small scale version of the technique at the London Coliseum shown in TABS Dec. 1963. Sometimes the apron became very deep, a veritable peninsular with a token couple of rows of seats at each side, but lack of width to the hall weighed against the success of this kind of thing.

Against a background of all those years in a decidedly confining proscenium hall it is not perhaps surprising that when the chance came to revolt the results were so startling. The plans of the Adaptable Theatre were first published in 1955 and were described by Alfred Emmet for TABS shortly after. The theatre as now built differs from these plans due to two main reasons. The first is simplification

as part of the continued battle against rising building costs over the period and the second is a leaning towards centre-staging forms rather than end-staging forms as had originally been the case.

In theatres where the bulk of the seating remains fixed complete adaptability is impossible and therefore a decision has to be reached as to which forms are to take first priority. At the LAMDA theatre in Kensington an end stage and proscenium stage basic plan can be adapted with a certain amount of compromise to theatre in the round and peninsular staging*. In the Questors, as built, it is the proscenium and end stage that involve the more compromise. Indeed it looks as if one of the forms of the original scheme—the space stage may be unattainable because of the encircling nature of the bulk of the

* Stratford Ontario, Chichester and all that. When are we going to have some agreed definitions?—Ed.

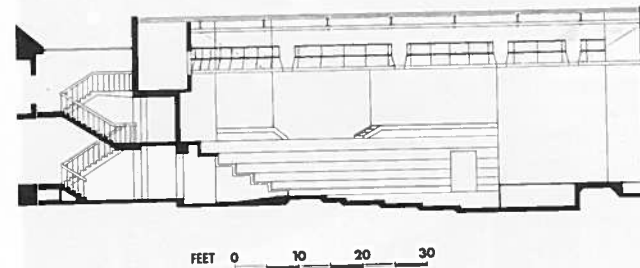
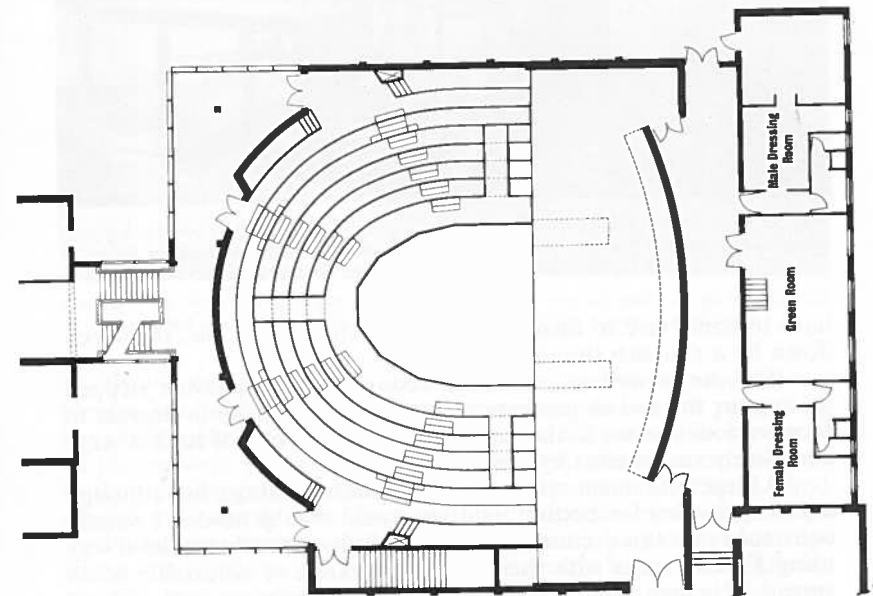


Fig. 2. Plan and section Questors theatre. Note vomitories which can be covered with seating (shown dotted) also stepped section for stalls when peninsular stage is not used.



seating (346 seats) which remains fixed. However, it does not do to be too dogmatic on this point as an experimental theatre like this is bound to hold some surprises.

The balcony seating of the original scheme has had to go, likewise the extensive under theatre basement, but there is still a remarkable amount of space on-stage and off—for such a small theatre. The seating is in a stadium form and wide circulating areas under this allow actors easily to make entrances from vomitories which are not shared by the audience. Those from among the audience who have perforce to leave the room during the play will not, as at Chichester,



Fig. 3. View from off-stage O.P. side showing curved cyclorama on the left and scenic structures for "Brand" in foreground. Curtain track under lighting bridge is for house tabs when theatre is adapted to proscenium.

have to come face to face with actors awaiting their cue, or be run down by a rhubarb shouting rabble.

The centre well or pit of the auditorium can provide stepped seating for the end or proscenium stage or be built up in degrees to form various aprons to the main stage or to provide of itself a stage completely surrounded by audience.

A large permanent cyclorama backs the main stage, but although a pit is provided for bottom lighting should this be needed I remain convinced that this cyclorama should be lit in a strictly localised way using Fresnel spots with their very wide range of adjustable beam spread. It is high time, and certainly more in character with today's

production methods, that banks of floodlighting for cycloramas were "rested". Let us hope the Questors will lead the way in this.

In the Questors theatre the sound equipment shares an excellent front of house control room with the 2-preset 48 way (extendable to 72) System LC lighting control desk. This room has direct access to the lighting galleries over the audience and stage areas. Access to lighting is of serious consequence in an Adaptable theatre. The opening demonstration of St. Mary's Twickenham showed how easy it was to shift all the seating around, even while the audience were present; yet how difficult it would be to shift the lighting around to correspond. St. Mary's has an all over lighting grid, accessible by ladder (TABS 21-i). At the Questors the lighting positions take the form of four lighting bridges and a lighting gallery round all walls except where it would be obstructed by the permanent cyclorama and the control room at the other end. The rails of the lighting bridges can have lanterns clamped thereto at two levels. Additional barrels can obviously be rigged from bridge to bridge where necessary.

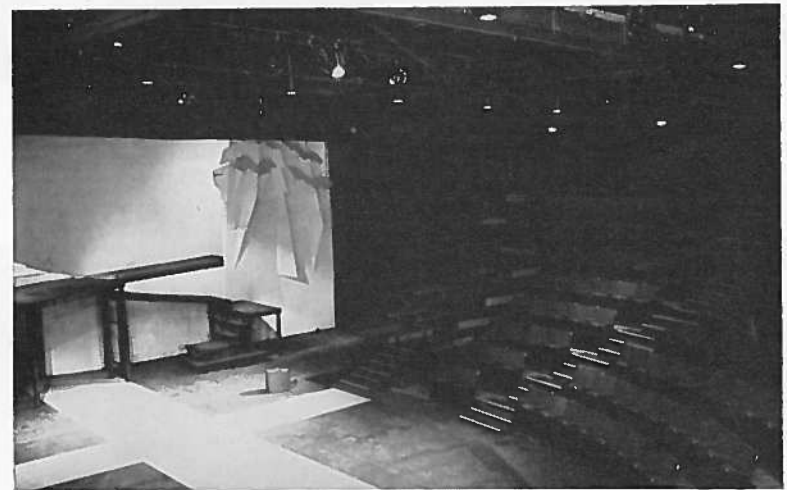


Fig. 4. View under stage-lighting taken from back row of seats to show intimate contact with stage. See also photograph on front cover of this issue.

It will be interesting to see how the bridges work out when the theatre has been in use for some time. For although I personally have had something to do with their design, I do not think we know all the answers yet. Bridges can become very cumbersome and add to the building height simply because a man has to be able to stand up and walk along them. Then again, a bridge can create blind areas for its lighting equipment whereas lanterns on bars can point anywhere. Provided you can get at the lanterns on the bars that is! Difficult enough over a stage but nigh on impossible over stepped seating!

It may be that the solution is not to mount lanterns on the bridge structure itself, but from a bar accessible from a bridge alongside.

Another theory suggests an all over ceiling grid from which square sections can be opened, trap fashion, and lights poked through, but as more and more traps are opened up, unless the most elaborate precautions are taken the place becomes a mass of pitfalls for the man above. Obviously the peninsular forms of stage make great demands on the accurate positioning and masking of lanterns especially where as in the Questors this stage may sometimes be raised somewhat in relation to the front row of seats. It is interesting

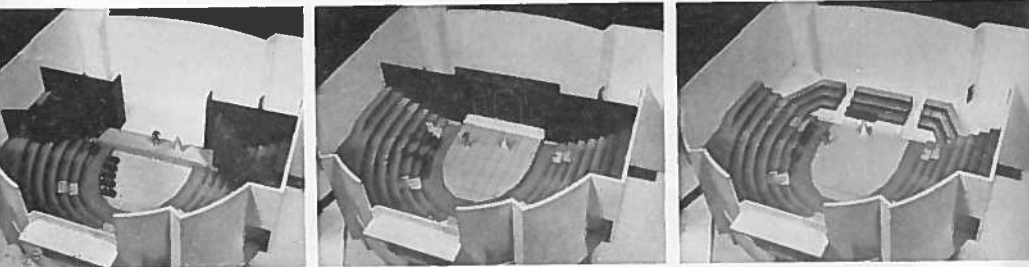


Fig. 5. Models of the Questors Theatre showing adaptability.

to compare the bridges of the Questors theatre with the concealed bridges of the Oxford Playhouse ceiling. Such a comparison does demonstrate the relative simplicity of the end-staging of the latter in respect of demands on lighting. Spotlights at Oxford have to point in one main direction only (towards the stage) whereas at Ealing they may be called upon to point in any direction.

Loads being small the 5 amp. BS 3 pin in-triangle socket outlet has been standardised throughout the Questors theatre and in the case of the bridges these are carried on trunking. At present there is a fair amount of paralleling between outlets to reduce the demand for dimmers to 48. When ultimately the purchase of a third rack adds another 24 dimmers these circuits will be split.

There is a tendency to judge a theatre first by its public areas and secondly by its stage. This is of course not sufficient; what are the off-stage areas and facilities like? At the Questors these are very good indeed and obviously arise from the sheer experience of years gone by. These people know what they need and while at no time has their budget allowed them luxuries, nor has it permitted them to complete all they wanted to do, yet one is conscious everywhere of the thought behind the planning. In reading the site plan one point needs clarification, the extravagantly wide private road down the middle. This is not as some might suppose a grand processional way—the Via Emmet—it is in fact a memorial way. Doubtless one day to be dedicated to the dying Middlesex County Council whose regulations demand it for the benefit of their fire engines in the unhappy event of their being called out to visit theatres.

ANTA-WASHINGTON SQUARE THEATER

by Jo Mielziner

The theatre came into existence through the necessity of having a temporary home for the Repertory Company of Lincoln Center when it became evident that the Vivian Beaumont Repertory Theater was behind in its construction schedule. The budget for the project was based on the cost of a two-year rental of a Broadway house, and it was immensely aided by the generous dollar-a-year offer of land by the New York University.

The earliest thoughts on a temporary structure were of tents and pneumatics, in December, 1962, but local building codes persuaded us towards more substantial thoughts. Thus, we were pressed by economics to enclose a minimum seating capacity of 1,140, and by production demands to include an apparently identical acting area to the Vivian Beaumont Repertory Theater, within much more restricted bounds and to open a season in about one year's time. Hence this is not a theatre to be studied in terms of a permanent operation, for it has many deficiencies in space and facility, and of urgent necessity flaunts many of the canons of good design as set forth by the Board of Standards and Planning for the Living Theatre.

Anta-Washington Square Theater. The seats are coloured in shades of blue that are darker for those near the sides than for those in the centre. This is said to make possible a greater auditorium darkness at performances and minimise the audience's awareness of any unglamorous emptiness.



The Building

Structurally, poured footings and foundation walls support a pre-fabricated outer shell. The 15 ft. deep excavation is lined with a stepped concrete half-bow for the orchestra seating (D), and a flat rectangular backstage area. There is a built-up loge of 6 rows (E), behind the cross aisle at the rear of the orchestra. We consider it to our advantage that the exterior resembles a low storage shed, for the audience's first moment of excitement is its surprise as it passes through the vomitory entrances under the Loge and experiences the total impact of the place. Consequently, we have made no attempt to give the building a false face.

Interior

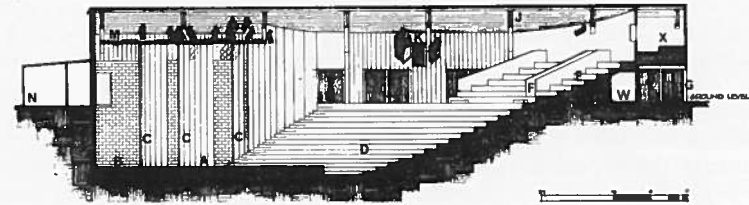
In like manner, we have left the structural members exposed inside the building. Girders (J), purlins, tie-rods, air-conditioning, water pipes, conduit and even all of the stage lighting instruments are in view. The seats are re-covered used ones, and are closer together than is desirable due to the plot limitations. We have attempted to duplicate the layout of the Beaumont Theater's seating with two exceptions: the Loge section (behind the cross-aisle) becomes a 5-row balcony in the uptown theatre, and the fact that we will not be limited to the thrust stage there. Regarding acoustics, we used only our own knowledge of basic principles, and, in all honesty, our acoustics are as good if not better than any theatre we know of in New York.

The Stage

The stage is based on the commitment of the directors to use only the simplest scenic background: various arrangements of movable screens, and three variations of a system of platforms. The basic stage is a central circular concrete floor (A), bounded on three sides by the first row of seats, and it continues to a rectangular area (B) which may be closed off in a variety of arrangements by movable screens (C). These are metal screens with panels of woven, fireproofed wooden slats, some of which are removable to provide openings for entrances at various positions in plan and in elevation. These screens are suspended from tracks (L) and are easily rolled into position. The tracks hang from a grid (M) (of 6 in. I-beams on 6 ft. centres) which also supports a system of cat-walks for focusing and servicing the stage lighting. No facilities are provided for flying scenery, a limitation which naturally will not exist in the permanent theatre.

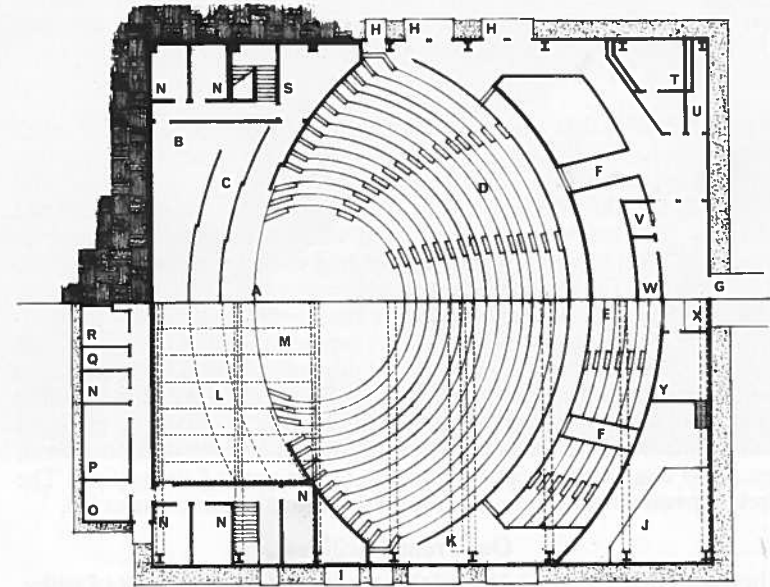
Lighting

The stage lighting system uses 6 instruments per area (3 in each of 2 colours) in the Thrust Stage Areas, and 4 instruments per area (2 in each of 2 colours) upstage of the end seats. There are also two groups of instruments in deeper colours used as down-lights. Added



SECTION ON CENTERLINE
ANTA-WASHINGTON SQUARE THEATER
FOR THE LINCOLN CENTER REPERTORY COMPANY

JO MIELZNER, DESIGNER
1963



ANTA-WASHINGTON SQUARE THEATER
FOR THE LINCOLN CENTER REPERTORY COMPANY

JO MIELZNER, DESIGNER
1963

Key to Plan and Section "Anta-Washington Square Theater"

- | | |
|---|------------------------------------|
| A. Stage Area | N. Dressing Rooms |
| B. Backstage Area | O. Service Room |
| C. Movable Panels | P. Dimmer Boards |
| D. Orchestra | Q. Janitor's Closet |
| E. Loge | R. Men's Toilet |
| F. Vomitories | S. Prop Room |
| G. Main Entrance | T. Women's Toilet |
| H. Exits | U. Manager's Office |
| I. Loading Door | V. Box Office |
| J. Beams | W. Coat Room |
| K. Lighting Catwalk | X. Light and Sound Control Booth |
| L. Movable Panel Tracks | Y. Production Stage Manager Office |
| M. Grid for Stage Lighting, Catwalks,
and Movable Panel Tracks | |

to these are 60 "Specials" to be divided among the three productions. All of the instruments used for area lighting, down-lighting and most of the specials are Century Lighting, Inc. Lekolites of various wattages and lens sizes (from 4½ in. to 10 in.). The instruments are mounted on pipes hung from the purlins, and are all reached from catwalks (M and K), thereby saving a great deal of time in the installation, the focusing and the servicing of the lamps. They and the resistance dimmer boards are rentals. Century Lighting also devised for us two remote control follow-spots, each consisting of a fixed 10 in. Lekolite* with motor-driven iris and colour-change. The beam of this lamp is reflected to the stage by a motor-driven mirror; all of these are remotely controlled by operators in a central glassed-in booth (X) at the rear of the auditorium.

Backstage

It is in this area that the theatre suffers most from the limits of space and finance. The off-stage storage areas (B and S) are too confining for storing of the quantity of "live" scenery, properties and costumes for the repertory. The dressing rooms are crowded (two of them (P) have to be appropriated when the temporary shack in which the switch boards were situated had to be brought closer to the stage and into the main building in order to meet Fire Code rules and regulations), and the work areas for the department heads are non-existent. Consequently, maintenance, repairs, modifications or minor construction cannot be accomplished during rehearsal time, for these functions must be carried out on stage. The majority of the dressing rooms are on grade level and there are entrances to the stage (right and left) from there which are 13 ft. above stage level and, therefore, the actor can enter directly on to the upper part of the setting. The dressing rooms on the lower level enter directly on to the stage.

Out-Front Facilities

The main entrance (G) to the theatre leads into the Outer Lobby, the Box Office and the Checkroom, tucked in under the Loge. Two pairs of double doors right and left lead into the Inner Lobbies, the Rest Rooms (T) and Manager's Offices in the corners of the building. Over the central Outer Lobby is the Control Booth (X-Y) for the Production Stage Managers, the Remote Control Follow-spot Operators and an observation position for the directors or designers.

Conclusion

In conclusion, although we are listing all of the elements which should be part of a thoroughly designed permanent repertory theatre, we are not doing so apologetically. This theatre works splendidly for the purpose for which it was designed. The only really obvious omissions are those that affect the comfort of the audience at intermission.

* Lekolite is a Century trademark. These would be classified in Britain nowadays as Profile Spots.



Fig. 1. Francis Reid at the portable control position in the stalls. 120 dimmer channels on his left and full set of master controls on his right.

THE NEW LIGHTING INSTALLATION AT GLYNDEBOURNE FESTIVAL OPERA

by Francis Reid

Mr. Reid is the lighting director at Glyndebourne and has held this post from 1958. His description of the new control has particular interest for he intends to operate it himself.

Recent advances in electronics and servo-mechanics have made almost any form of lighting control technically possible: the only limitations are financial ones.

It is therefore no longer satisfactory to select equipment for a major theatre by considering which of the available systems seems most appropriate. The approach to the planning of a new system for a particular theatre must be to work forward from fundamental requirements by asking:

- (1) What sort of control do we want to exert over our lighting?
- (2) What sort of desk would enable us to exert this control?
- (3) What are the best available means of converting the programming from this desk into electrical terms?

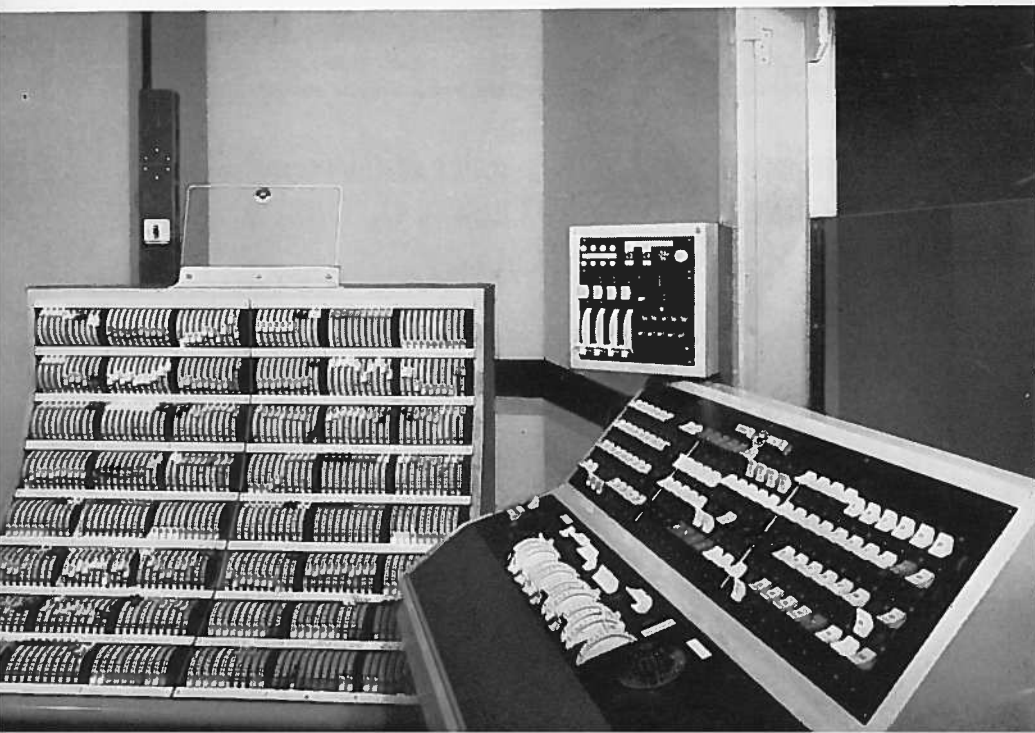
I have tried to apply this approach to the planning of the new Glyndebourne installation: the result is not offered as a universal solution to control problems but as a system tailored from standard parts to meet the requirements of a particular theatre.

The installation has been planned around the possibility of the lighting designer operating the desks himself from first lighting rehearsal to last performance. The "Up-a-point", "Down-half-a-point" routine is inevitable in West End Theatre where the lighting specialist leaves after the first night, but it seems illogical in a Repertory Theatre with a resident lighting director.

There are two essentials for a designer/operator system:

- (1) The actual operational procedure must be so simple that the operator can concentrate completely on the stage action, without being worried by a complex cockpit drill.
- (2) Operation must be possible either from the control room or the auditorium: wherever the producer goes, the lighting man and his levers must follow.

Fig. 2. Main control position with 120 dimmer channels 4-preset on the left and master controls with group selector tablets in the foreground. Small panel by window controls orchestra dimmer, house lights and talk back, etc.



Having accepted this idea as fundamental, I felt that the key requirements of the desk were:—

- (1) Flexibility of speed control.
- (2) Adequate Presetting facilities.
- (3) Clear Indication of present and future lighting states.
- (4) Ease of Plotting.
- (5) Ease of Cue Reversal.

The most important of these requirements, and the one most frequently lacking in existing controls is flexibility of speed control. Good flexibility implies:—

- (1) Immediate dimmer response.
- (2) Proportional Dimming.
- (3) Cross-fading where the ups and downs can move at differing speeds, leading or lagging as necessary.
- (4) Variable grouping to allow speed differentials between groups within a cue.

This ruled out electromagnetic systems: the dimmer had to be solid-state and the response and load independence of the SCR* made the choice simple.

Analysis of old plots (only a valid procedure when it produces negative results because all boards impress their personality on the plots fed to them) showed that, apart from straight fades to and from blackout, most cues involve channels already alive. This confirms my own experience that even the simplest add cue requires a complementary balance, however small, of at least some of the channels previously alive.

On this basis, it appeared that the limiting factor in presetting was not channel selection but dimmer-level selection. For this reason it was decided not to incorporate piston-memories, since they give little improvement in dimmer-level selection under the limited inertia conditions which can be imposed upon a solid-state system.

The system is therefore basically a 4-preset all-electric with very simple (and therefore flexible) mastering arrangements.

The heart of the installation is four standard CRD racks giving a total of 120 channels, each of which will accept any load up to 5 kW. Ninety of these channels are permanently connected to stage outlets while the remaining thirty can be patched to sixty lesser used positions. All channels terminate in two or more sockets, there being a total of 350 15-amp sockets and twenty-four 25-amp sockets.

The master desk is situated in the production control box at the rear of the circle where it has a completely clear view of the stage. The presetting wing houses the four presets, a total of 480 levers being contained in an area 3 ft. 6 in. by 3 ft. The levers are the new illuminated type with scales which light automatically to indicate when they are holding the control current to a dimmer. An idea of coupling the micro-switch in the scale to a second (red) pilot to provide a marker facility was abandoned when the cost was weighed against operational advantage.

* Now to be known as the THYRISTOR cf. THYRATRON.—Ed.

This wing is situated to the left of the operator who views the stage over the top of the master desk. This desk includes a block of 120 three-position tablet switches for dividing the control channels into three groups of any desired composition. These switches operate through relays to avoid the possibility of flicker when a lantern is regrouped while alight. A select switch in the relay energising supply allows the grouping switches to be *preset* one move ahead.

Twelve quadrant levers act as masters for the three groups in each of the four presets. A three position tablet switch associated with each of these preset masters allows them to be grouped on either of two rotary-knob grandmasters or fed independently. A separate FOH master provides an overriding master for all lanterns whose beams would hit the tabs.

An auxiliary box contains levers for Houselights, curtain-dressing etc., operated via a 4-way Saturable Reactor rack.

To the right of the master desk are seats for the producer and his assistant allowing the Lighting Director and Producer to discuss the lighting as necessary. Lighting of the control room is by Patt 12 spots in the ceiling: a selector switch on the desk gives a choice of three intensity levels.

The importance of rehearsal facilities can be judged from the fact that this summer's 78 performances will involve 35 three-hour full-company rehearsals with lights. This does not include the many hours spent in lighting the productions.

The stalls control equipment is built into two units which can be connected very quickly by multi-plugs to armoured cable hoses fished out of a floor-trap in the centre of the stalls.

One unit consisting of preset-masters and grand-masters duplicating those on the main control allows cues which have been programmed on the presetting wing in the control box to be played from the stalls.

The other unit is a set of 120 levers similar in form but not in function to a single preset on the main control wing. Pressure on the scale of an individual lever closes a relay which removes that particular circuit completely from the main control network and transfers it to the appropriate stalls lever. Alternatively all circuits may be transferred by an "all change" push. The scale of any transferred lever is illuminated internally and the transfer is sustained until a cancel button is touched when all channels revert to the master network. This reversion may also be effected from a prominent push button in the control box which lights internally whenever any channels are on the stalls control.

An integrated sound system gives intercom facilities between both desks, the prompt corner, and the electricians all of whom carry inductive loop receivers. The lighting director has a radio microphone to enable him to retain contact when he goes on stage to alter a light position. The Stage Manager, however, has priority over the system: as soon as he presses his "electric's" key, all the inter-electrics traffic is silenced by a relay. To permit rapid note-taking,

there is a switch position which gives the lighting director a direct connection to a magazine tape-deck in his office.

The equipment has been planned for operation in the following way:—

- (1) *Lighting Rehearsals.* Each cue state will be arrived at by using the stalls preset. It will be read off to an assistant in the control box who will plot and set-up on the presetting wing. The actual change can then be tried immediately on the stalls masters and the cue speed determined.
- (2) *Dress Rehearsals.* The assistant operator will set-up the pre-setting wing as plotted at lighting rehearsals. The cues will be played on the stalls masters by the lighting director who will be sitting with the producer and therefore able to discuss the effect with him directly. At the same time, he will be able to try instant adjustments of individual channel intensities by withdrawing them on to the stalls preset.
- (3) *Performances.* The lighting Director will operate the control box masters.

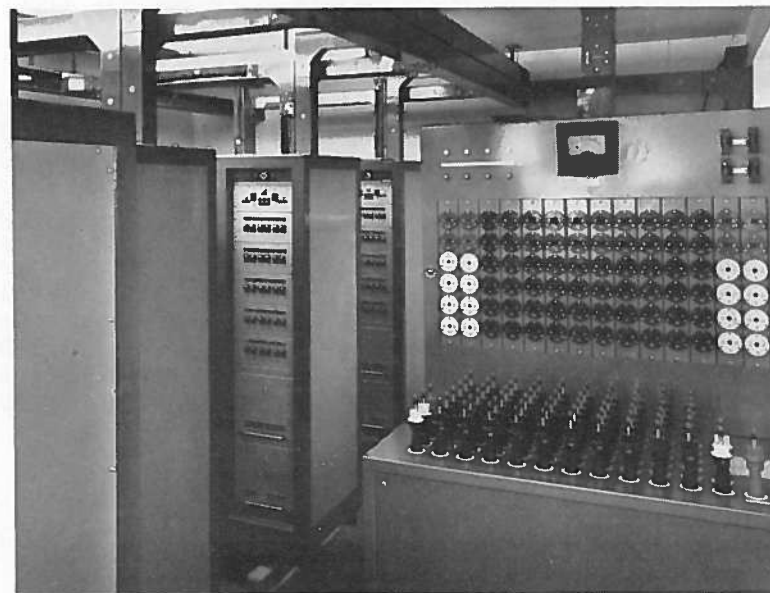


Fig. 3. Part of the dimmer room showing patch panel in foreground and Thyristor (System CRD) racks on the left.

This then is the shape of Glyndebourne Lighting Control for the next twenty years and I feel I can claim that the installation I have just described has succeeded in exploiting the new, rather than miniaturising the old.

AN APPROACH TO THE DESIGN OF HAMLET

by Disley Jones

This production was directed by Benedikt Arnason with Setting, Lighting and Costumes by Disley Jones, for 'The Icelandic National Theatre' in Reykjavik, December 1963.

I tried to design *Hamlet* in Iceland without being clever with the play. The director, Benedikt Arnason and I were bored with people being clever with Shakespeare, loading him with superficial effects, overloading the stage with scenery, putting the characters in funny hats or not in hats, building monuments in the name of simplicity, finding new forms of staging, destroying the plays with a plethora of ingenuity, inventiveness and sheer ignorance. We felt that Shakespeare is not just a playwright but an unparalleled form of theatre in himself, unequalled in history, and should accordingly be treated with the respect due to him. The words still speak for themselves, even in translation, given the right amount of space and light. We tried to solve the problems of mounting *Hamlet* within these terms of reference. As an instance, I have tried to sum up our working thoughts of the problem of the ghost:—

The ghost is no spook, he is a man, an injured sickened man, revengeful and in agony, albeit removed to the different plane of a God like Jove. Don't try to make him look too ethereal, but at the same time don't worry the audience by getting him mixed up with the living where he has to share the same kind of lighting or get his cloak trodden on. Anyway, the odds are that he appeared on the upper stage at the Globe, or whatever Elizabethan stage he trod. By using the setting in similar positions for Act I, Scenes 1 and 4 and Act III, Scene 4 (See Figs. 1 and 2) I was able to find an upper plane which brought him well downstage but with his feet firmly planted a foot above the other actors heads, where he could have all his own lighting to himself and also a recurring circular prowling

Fig. 1

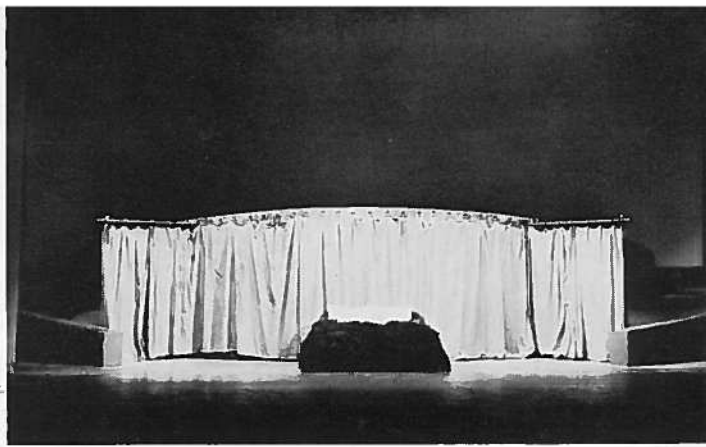
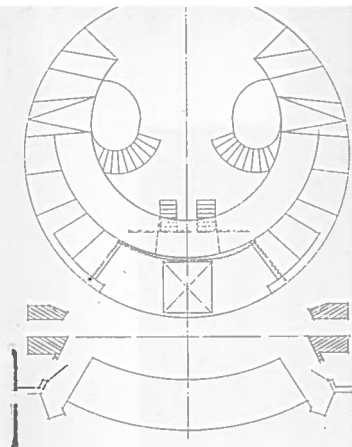
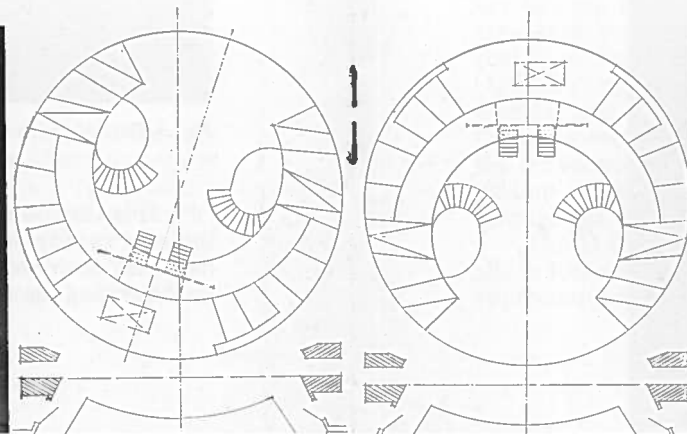
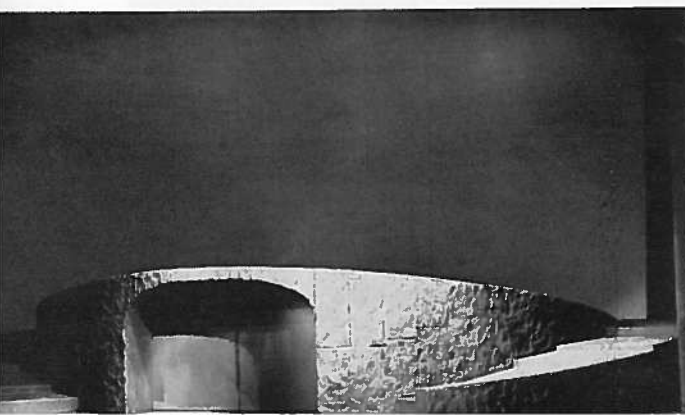


Fig. 2

for eternity moving consistently from S.L. to S.R. In Act I, Scene 5 (Fig. 3) he was able to lead Hamlet away as the stage revolved into the inner darkened stage. In the Closet scene he was able to appear above Gertrude U.S.L. with Hamlet D.S.R. The Queen with the ghost of her murdered husband both confronting Hamlet together, Hamlet's dilemma on two planes of existence.

This seems to me to be the right way of thinking—extending the principles of Shakespeare's stage instead of cutting across them. It was this kind of approach that evolved this particular setting, so that I arrived at a kind of revolving two-faceted Elizabethan stage with what I choose to call the "side-scenes" e.g. Polonius and Ophelia Act II, Scene 1 (Fig. 4), Ophelia and Laertes Act I, Scene 3, and "hide fox, and all after" Act IV, Scene 2, played on the perimeter and the Court scenes always played in the well of the set with entrances from traps up stage centre which helped to create the effect of an enclosed world. The action was continuous, the play being divided in two parts, the first ending with "... so runs the world away", leaving Hamlet on a deserted stage and the second half discovering him still alone, playing the recorder whilst the players

Fig. 3



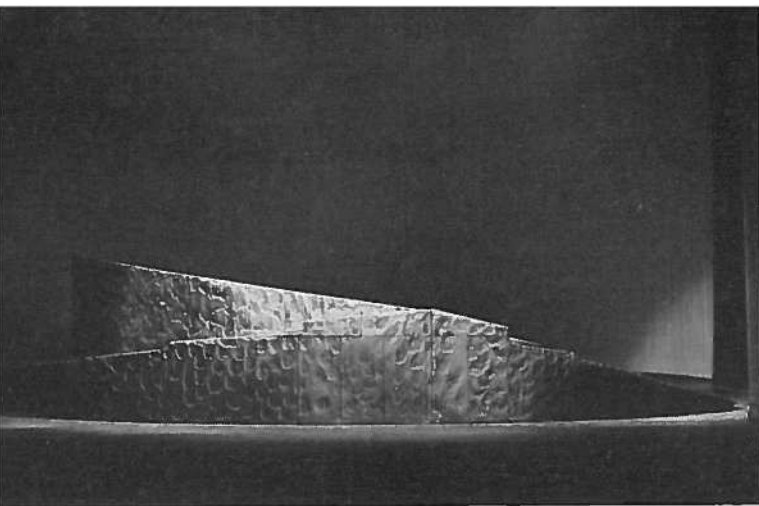


Fig. 4

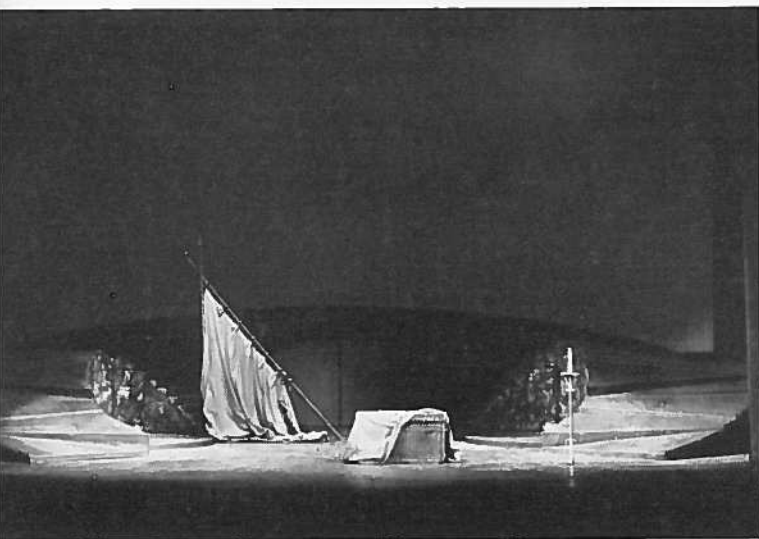


Fig. 5

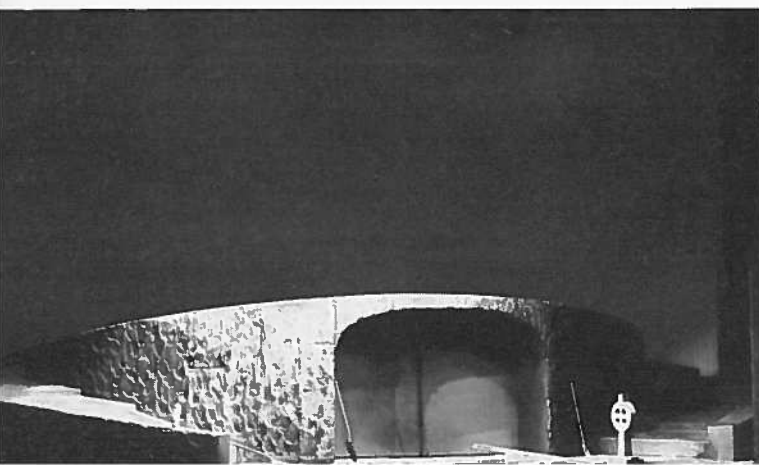


Fig. 6

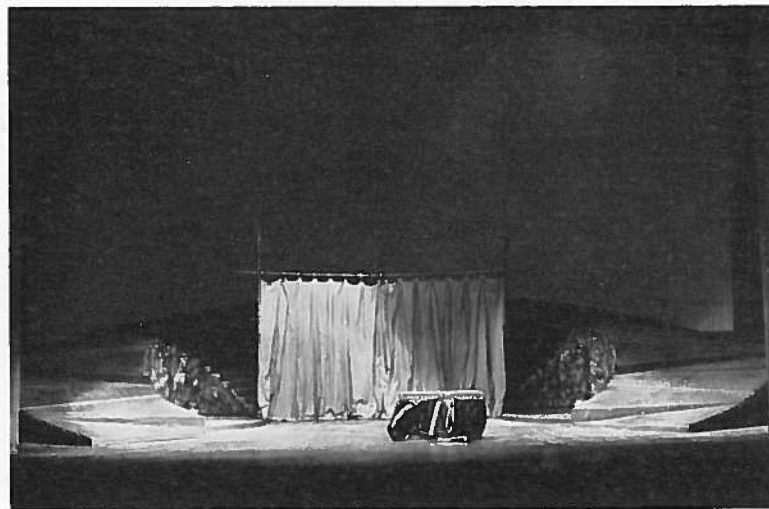


Fig. 7

entered and removed their trappings, a skip and a candle being left for Claudius and "Now might I do it pat . . ." (Fig. 5). This division of the play allowed the Closet Arras (Fig. 2) to be set in the interval and later surreptitiously struck down the grave trap during a full court scene on the other face, the Graveyard (Fig. 6) being then set in its place. The Players set the stage curtains during their first scene with Hamlet (Fig. 7) which leads into "Oh, what a rogue and peasant . . ." and provided an arras for Polonius and Claudius to retreat behind for the Hamlet/Ophelia scene. Fortinbras was cut, chiefly for lack of time.

The whole set was painted black, the texture being effected with Polystyrene worked over with a blow-lamp, and subsequently lightly dry-brushed with silver. The accompanying illustrations have been over-lit, in reality only the actual playing areas were lit with strong key-lighting from different directions—the sun was rising for the graveyard U.S.L. in much the same position as the "Russet mantle clad" of Act I, Scene 1 and used the same back lighting, but Ophelia's mad scenes were coldly lit from low booms D.S.R. Ophelia and Laertes in Act I, Scene 3 took a key-lighting from D.S.L. Booms as from the sea and so on. Consequently, even when the set returned to a repeat position it could be given a new complexion by establishing a different appearance and atmosphere through the key lighting before adding balancing light for visibility.

This is the first time that *Hamlet* has been produced professionally in Iceland and I am informed that it is still playing to packed and appreciative houses.

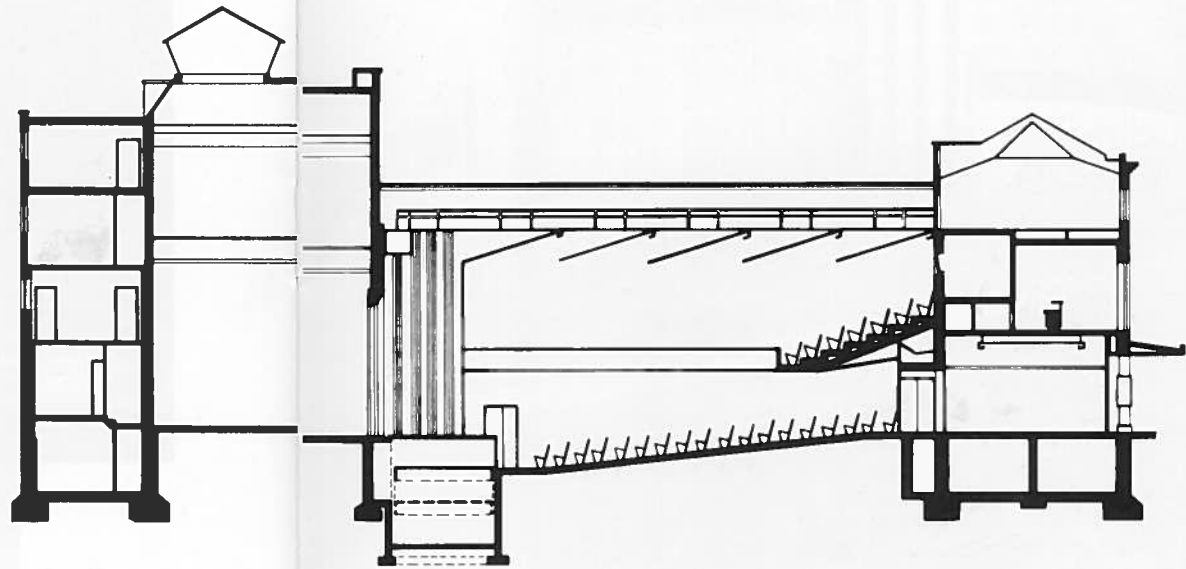
THE OXFORD PLAYHOUSE

The plans alongside and photographs on the following page show the reconstruction at this theatre which was completed early in January. The architect was Martin Card of Fred Rowtree and Son and the consultant was John Wyckham, Technical Director to the Royal Shakespeare Theatre Company. The most obvious change is the way an undistinguished cinema type (though built as a theatre) auditorium of 1938 has become a smart up to the moment theatre. Particularly cunning is the effect of increased width for which the horizontal ceiling cove together with some re-planning of the stalls side aisles are responsible.

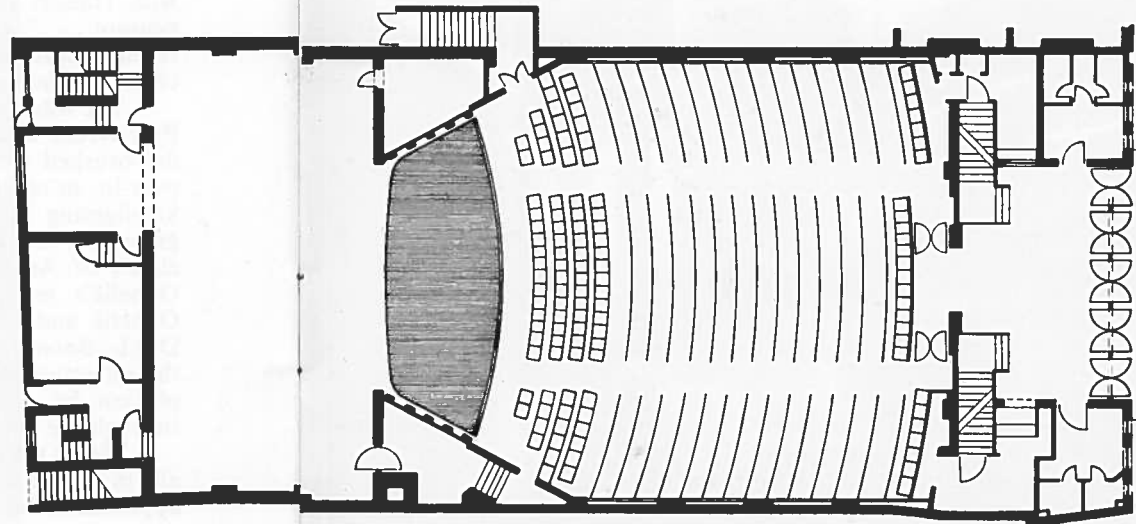
However the reconstruction is not just a matter of a face lift—a new suit of fashionable clothes. Comparatively small changes here and there have provided great improvements as a working theatre, both front of house and back stage. The stalls seating has been increased from 592 to 675 and the circle from 101 to 174.

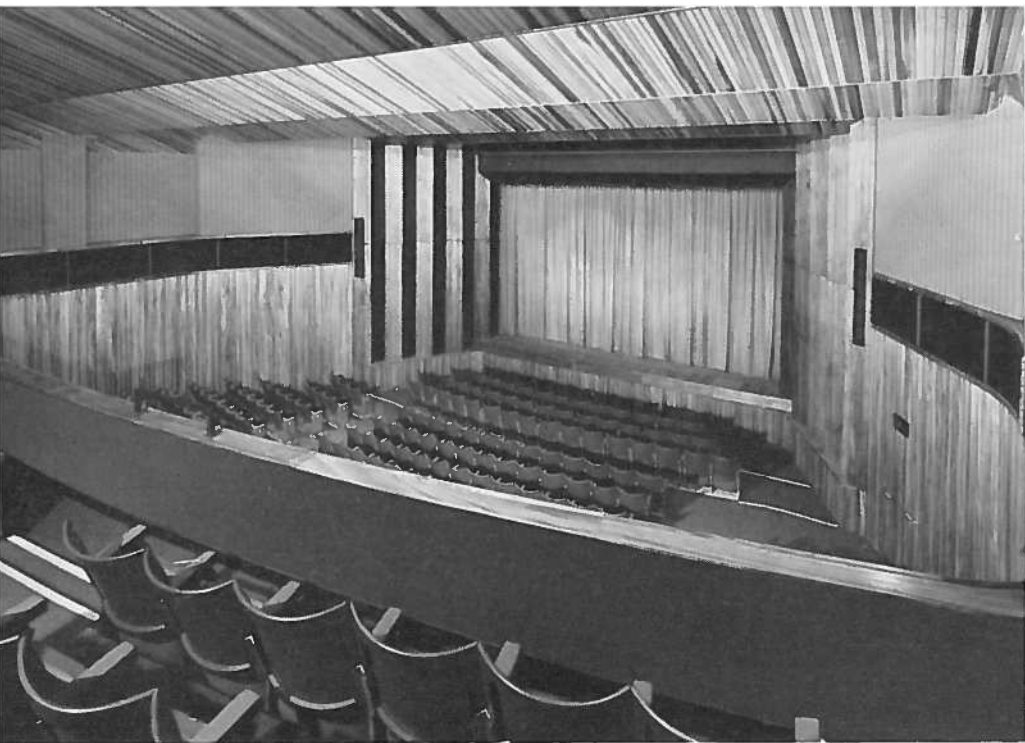
As can be seen the theatre is still a proscenium theatre but the installation of an orchestra lift together with a very adaptable arrangement of removable sound baffles which provide side lighting positions and forestage entrances allows great flexibility within the end stage form. The lift can be used at various levels to give (a) a forestage with traps (b) extra seats to the stalls or (c) an orchestra pit for 40 or so.

The stage wing space has been increased on the Prompt side and there is a completely new electrical system and some new lighting equipment. The five lighting bridges running across the auditorium ceiling are quite remarkable and the freedom to walk anywhere on the ceiling up there without risk, because it is made of wood, is a real joy. Access to the lanterns is perfect and there is no difficulty when setting them in seeing the target one is aiming at, yet they are concealed from direct view of the audience. The lighting control is sited in the projection room at the back of the circle and is a 72-way 2 preset System LC with a certain amount of switching to allow dimmers to control alternative circuits in some cases.

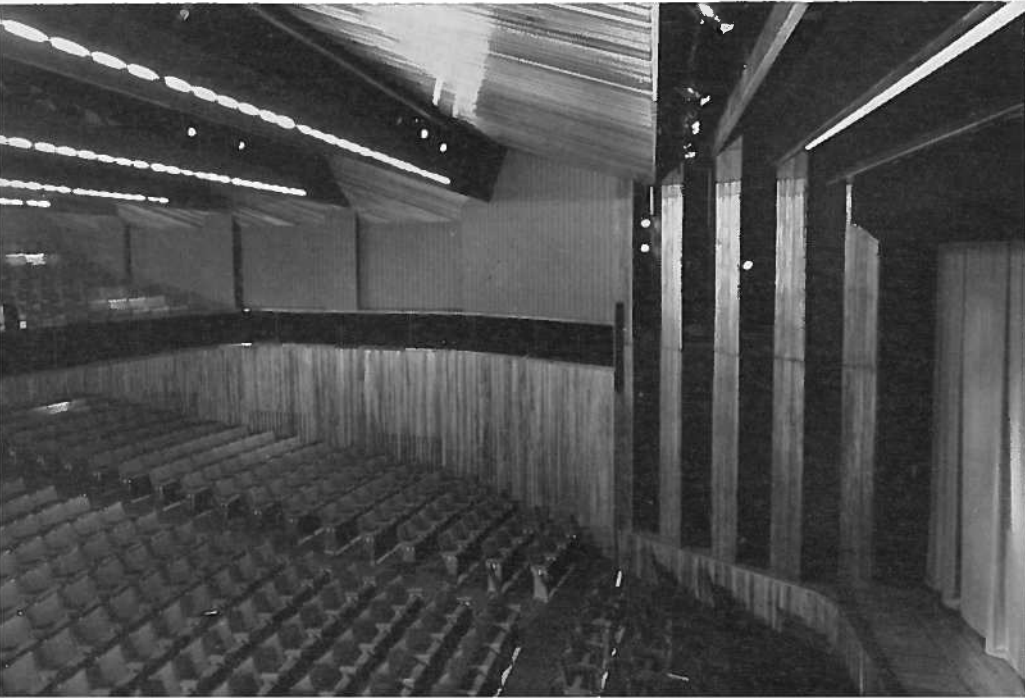


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Oxford Playhouse. (Above) general view from circle of auditorium set for picture frame production. (Below) view from side lighting position. Front rows of stalls remove and lift can be raised to form apron 15 ft. deep. Lift also sinks to form orchestra pit.



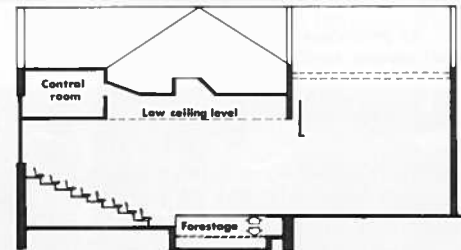
THE GOLDSMITHS' COLLEGE THEATRE

by Lawrence Hayes

Mr. Hayes was on the staff of RADA just after the war, and during the 50's worked for the Central School of Speech Training. He is currently a free lance producer lecturer and consultant.

" You are invited to attend a performance of ' Heaven's New-Born Heir ', a sequence of medieval plays, on the occasion of the opening of the new college theatre, 2nd December 1963 "

Such an invitation has a pleasantly familiar ring these days as a number of independent plans have matured at more or less the same time. Each new building represents an attempt to meet specific demands, in this case the requirements of the Speech and Drama Department of a college whose students' vocation is not primarily theatrical. Later they will come into contact with a wide variety of stage facilities: during training they need conditions under which they can become familiar with at least part of that variety. And, perhaps, the most important consideration is the experience of drama and theatre at their own level during their college life. It was therefore thought that flexibility was essential and, within limits, simplicity desirable: it was hoped that the physical resources would stimulate



Goldsmiths' College Theatre
Architects:
 Messrs. Enthoven and Mock.
Assistant in charge:
 John Monson.
Theatre Consultant:
 Lawrence Hayes.
College Drama Staff:
 Honor Matthews and
 Marjorie Frances.

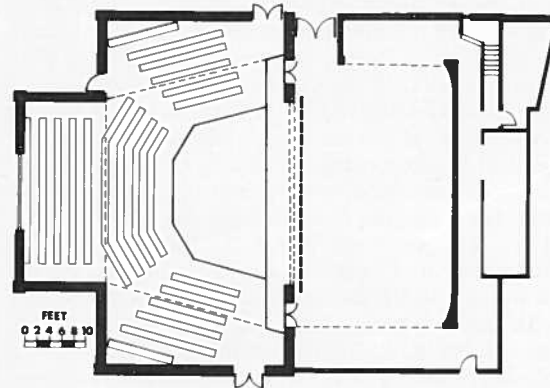




Fig. 1. Goldsmiths' College Theatre. As proscenium stage with forestage lowered and temporary stalls seating partly in position.

experiment without precluding the possibility of conventional presentation.

In one sense this theatre is more a conversion than a new building. It was originally a chapel and later adapted by the college as the Drama Room. It was cruciform in plan and had a dome in the middle of its lofty ceiling. Permission was given for one wing of the cross to be demolished to allow expansion, but, for structural reasons the supporting walls of the internal square had to be retained and spanned by a weight-bearing beam. In practice this meant that one of the valuable characteristics of the old Drama Room, its single volume, was arbitrarily divided into two, one part of which would inevitably house an audience. Hereafter every effort was made to reunite these two volumes, by the placing of the forestage, the fixed seating, the general proportions, the décor: so that the actor and the audience could breathe the same air even though the most distant fixed seat was thirty-six feet from the centre of the forestage. It appeared at the performance in December that the 260 people on the fixed seating fused into an audience and established a satisfactory and intimate unity with the actors.

The forestage was considered to be the one thing essential to the scheme and much of the planning was dependent on its function.

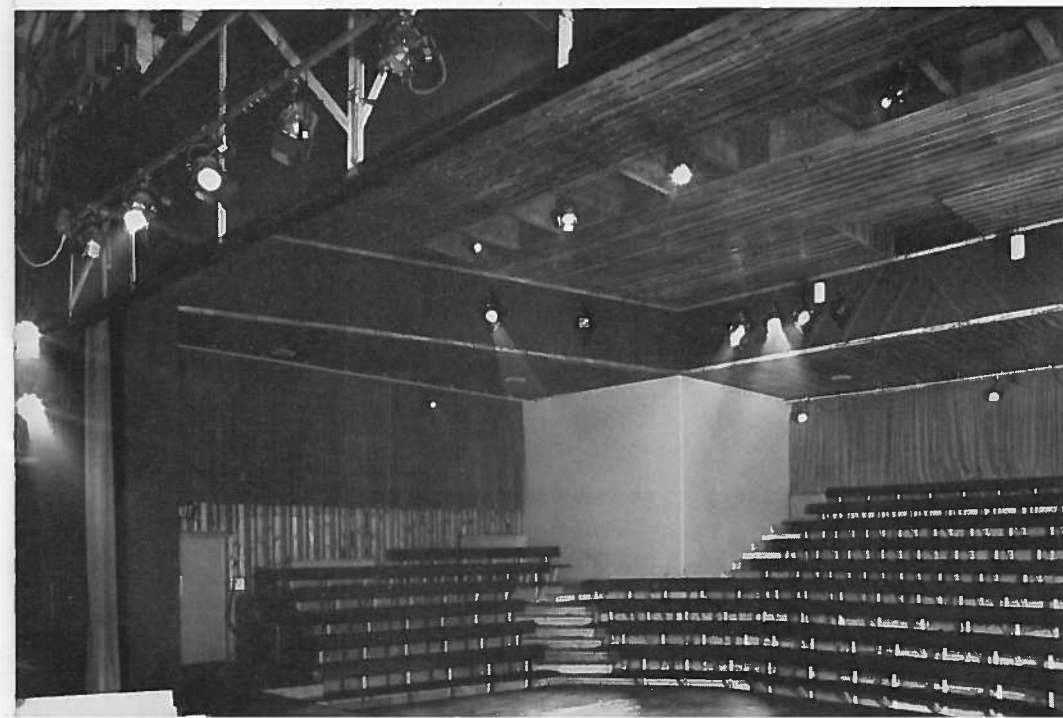
It is in one piece, is operated hydraulically and provides a 14 ft. 6 in. deep working area at any height up to stage level. At its lowest position it becomes the "stalls" floor, giving a stage riser of 3 ft. 3 in. Its maximum width is that of the internal square, 30 ft., which in itself helps to minimise the effect of a dividing wall on the line of demolition.

In the newly available working area a fairly conventional stage was developed, dressing rooms provided at a mezzanine level and some storage provided behind the cyclorama wall. The internal slatted ceiling is supported by longitudinal laminated beams and provision has been made for suspension by line and winch at any point, or points, over the forestage area. Continuous circulation over high and low level ceilings communicates with catwalks adjacent to the suspension members over the conventional stage and the Control Room over the rear seating. The diamond shaped panels between the two ceiling levels are all removable as required.

At selected points over the forestage floor area brass sockets have been plumbed with ceiling sockets to accept 2 in. barrel, thus providing some unbraced vertical suspension. This, in conjunction with other barrel and such material as "Dexion", will allow the producer to design in three dimensions with a minimum of building.

The nature of the work envisaged made it essential for stage-management and sound control to be sited front-of-house when required and the necessary wiring for cueboard and the sound system has been paralleled between the control room and positions

Fig. 2. Stage view with forestage partly raised.



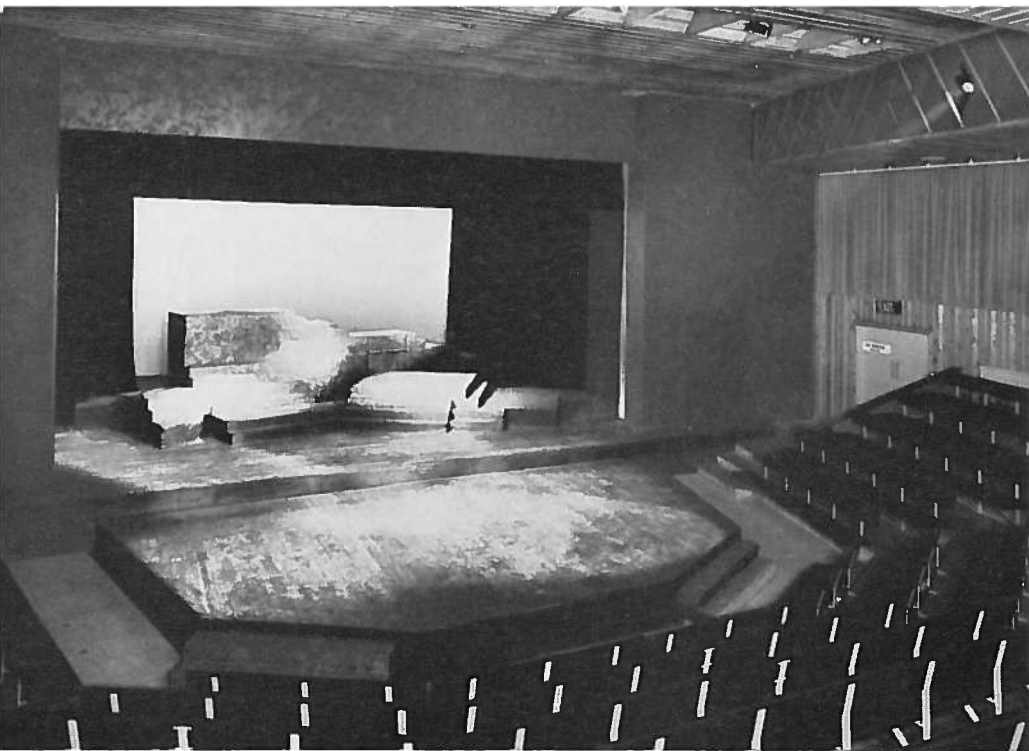


Fig. 3. View of fixed seating in auditorium with forestage raised.

on stage right. Obviously the control room also permanently houses the switchboard and electrical equipment: the window aperture is adequate for three technicians.

Fortunately it was possible to negotiate a single phase supply with consequent simplification of installation. Fifty-nine stage and FOH circuits were planned to cover the estimated requirements of the various actor-audience relationships. (The theatre is not ideally suited to performances "in the round" because even with part of the audience seated on the fixed stage the sense of enclosure is incomplete.) The installation is controlled by a 36-way Saturable Reactor Board at present fitted with twenty-four chokes, of which six are permanently wired to the FOH ceiling centre position. The remaining fifty-three circuits are patched as required. A minimum number of circuits have been paralleled on stage, but the spot bar circuits have been paralleled *en bloc* to a position front of house so that they are available in the event of a temporary additional bar being needed in this position.

The general success of the first production in the theatre indicated that the non-technical students were able to handle the installation, and justified the decision to buy expensive equipment not at present normally found in schools and other places where the students will later be working. Thinking to the future. As old ideas are "rediscovered" and newer techniques become commonplace, the actor, the audience and the play remain: it is with these

elements that the students will be experimenting. It is hoped that what has been provided will be a reasonable working basis, capable of adaptation and development even if the technical equipment is obsolescent in twenty years time.

LIGHTING FOR BBC 2

There were a few qualms among certain members of Strand Electric when it was announced on the evening of April 20th that BBC 2 could not take the air as there was no light. In actual fact the reason was not technical trouble on the new switchboard but the now notorious fire at Battersea Power Station! Strand Electric's contribution to BBC 2 includes much of the lighting equipment, but of course most important is the now usual role of supplying all the lighting controls.

The photograph below shows the Vision and Light Control room in Television Centre's largest studio (11,000 sq. ft.) No. 1. This control uses the new luminous levers which combine the roles previously allocated to separate levers and luminous selectors. As can be seen from the photograph the new lever, although of ample size for finger operation, makes up very compactly and allows the desk to be built conveniently into the control room suite, in spite of the fact that this job has 240 control channels. The bulk of the dimmers are, as previously, servo-operated transformers but controlled rectifier dimmers (Thyristors) are included for the 10kW loads.

At Glasgow a studio of 120 dimmer channels has been built to the same system and includes the same facilities as would be expected of a London studio.

Arrangements for BBC 2 also include modernisation of the Lime Grove Studios and an interesting feature there is the provision of a central dimmer room for all three studios.



THE NUFFIELD THEATRE, SOUTHAMPTON UNIVERSITY

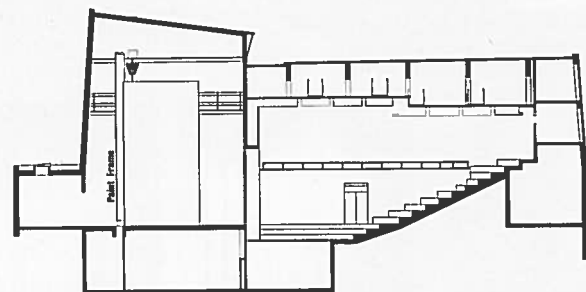
Transcript of a recorded interview with Dr. Richard Southern.

EDITOR: The first question I should like to ask you Dr. Southern refers to your particular relationship to this theatre. Is it true you were Consultant and what is your particular role now?

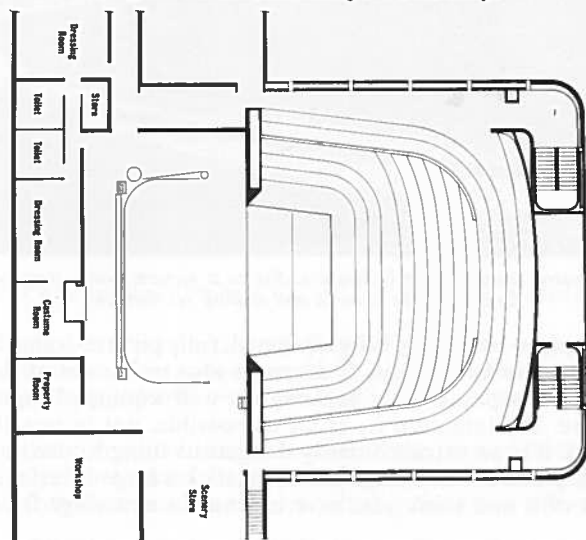
RS: I've played two roles with regard to this theatre. The theatre was originated in the mind of the Vice-Chancellor who said to me one morning before any plans were put on paper, "I want a large lecture hall, but I want to put the lecture hall second. Primary use is a theatre. How can we combine the two making the theatre the first priority?" In order to answer this we went round to one or two lecture halls which could, or could not be used as theatres. One of them was the Beveridge Hall in Malet Street, and another was the lecture theatre in the Tropical Medicine School opposite—all University of London. The Beveridge Hall was ideal from one point of view. It was open stage with the audience on three sides but the auditorium was very flat, and the atmosphere was very still and quiet. We went across the road to the School of Tropical Medicine and we found a lecture hall in which the lecturer's platform was facing the auditorium, and there was no possibility of calling this a quiet, still auditorium, it had a tremendous rake—one of the biggest rakes I have ever seen. "Now", said the Vice-Chancellor, "this is exciting, can we combine the two?" That was my problem. I had to combine an immensely raked theatre with a very flat theatre where the auditorium surrounded the stage. I made two sketches and took them to Sir Basil Spence one Saturday morning. He cancelled the whole of his engagements and produced his designs that weekend. Once the theatre was planned and building begun I left it on one side until it was finished. When it was finished they asked me at Southampton to take the position of Director of Drama in the theatre, which means almost everything from producing plays to running the box office, attending to the publicity, and most important, settling the question of policy of the theatre for the future.

Ed: Now it is a fact, is it not, that although this is a University theatre there is no department of drama there? This is not a parallel case therefore with your work at Bristol University.

RS: There is no school of drama, or department of drama in Southampton, and it is the Vice-Chancellor's declared intention not to have one. The purpose of the theatre is simply to be a place for the performance of shows in the University—an amenity, a normal amenity, of the University. It is chiefly



Nuffield Theatre, Southampton University.



intended for shows produced and acted by the University students. Primarily it is a University theatre. But it has two other extremely important uses. Firstly, it is available to any amateur society outside the University of Southampton, and even outside Southampton. Secondly, and this is an immensely important part of the contribution that the theatre can make to University life, it is a theatre open to use by professional companies.

Ed: It is therefore a theatre both for amateurs and for professionals. This raises the next question, what forms of theatre can they use there? Is it an adaptable theatre, in the true meaning of the word? What type of theatre is it?

RS: It's designed very specifically for two purposes. I would say it is not, strictly speaking, an adaptable theatre. It has two uses. It



Nuffield Theatre Southampton University. Set as a picture frame stage with both forestage lifts lowered and seating set thereon.

attempts to be a fairly fully equipped, fully picture-frame theatre, with certain limitations. It attempts also to be, not at the same time but separately, a reasonably well equipped open-stage theatre. My intention is, as far as possible, not to mix the two. I think it is an extraordinarily dangerous thing to use the whole of the picture-frame stage and then stick a huge forestage out in front of it and think you have invented a new stage form.

Ed: So that in fact it is not intended to be like the Nottingham Playhouse (for example) where a picture frame stage may be brought more in contact with the audience by raising a certain amount of apron stage.

RS: My own intention in planning the theatre was to make the two functions quite distinct. But I am rather shocked to find visiting companies, especially professional companies, who come along with a production designed for a picture frame stage too eager at the possibility of using a forestage. They say "We must have this as well" and bring their actors out on the forestage, out of a picture frame without a previous rehearsal. Now this is very bad for sight lines, and it is very bad for the actors' general relations with the audience because he is landed into something unexpected. It is much better to design a production for an open stage, or for a picture frame stage and not mix your drinks.

Ed: This explains why there are none of the adaptable arrangements at the proscenium such as are represented in what we normally think of as your favourite period—the Georgian theatre—by doors, or in the more recent theatres like the Oxford Playhouse by a series of entrances almost within the thickness of the proscenium. When the Nuffield Theatre is used as an open stage how are entrances to be made?

RS: The entrances to the acting area, that is to the forestage itself, are never intended to be made from any proscenium door, or from any place in the auditorium as they are at Stratford, Ontario, for instance. They are intended to be made only from a wall across the proscenium opening, a scenic wall of course, at the back of the forestage. In other words, the main layout is Elizabethan in intention. There is a technical reason for not trying to use the two together, this being that the seats at the side of the auditorium have been positioned to give a reasonable view of open stage productions. If you bring your players on to the forestage, and at the same time use the main stage, you must have considerable areas which are masked from the side seats. Consequently you ruin the sight lines at the side of the theatre. That is one good reason why you shouldn't mix the two kinds of stage.

Ed: Your first production here did in fact take the Elizabethan form?

RS: Yes. It was a production of *King John* with a scenic wall right in the proscenium opening itself. The actors entered only through this and played entirely in the auditorium on the open stage.

Ed: You have designed the alternative to the picture frame to be an Elizabethan form of stage, or at least what we are led to believe is Elizabethan, and in this respect this theatre is unusual.

RS: Yes. I think it is true to say (I've got to be very careful here) but I think there is no other theatre in England specifically designed to present an Elizabethan type open stage. I like to say Elizabethan *type*, and not an Elizabethan, open stage because it is perfectly obvious that such a shape of stage can be very useful for certain modern open stage productions. I don't want to suggest that it is merely an antiquity, only of interest from the academic point of view.

Ed: What I am anxious to establish is that confusion arises when people compare the Nuffield Theatre with, say, the Playhouse Nottingham, or at Oxford. In both the latter there is a wide, rather shallow apron with entrances at each end which can be used as a supplement to work with the proscenium stage.

RS: The specific wish of the University was to have these two kinds

of stage available. Now in another set of circumstances a university or people commissioning a theatre may wish for something quite different. One example is the new theatre as planned for Nottingham University which has in the past produced some excellent Restoration operas and plays. Their intention is to have their new stage based not on an Elizabethan arrangement but on a Restoration arrangement. It is adaptable if I may use that term, for picture frame production if necessary, but its variant, unlike the theatre at Southampton, will be to suit Restoration and Georgian plays, and of course the distinction of the two kinds of planning is very interesting indeed.

Ed: To come back to Southampton, is this theatre ever intended to be used in any way to resemble theatre in the round?

RS: Quite definitely no. It is not designed for that and it wouldn't suit theatre in the round at all.

Ed: When used as an open stage, is the stage always going to be raised. It will not be a low stage?

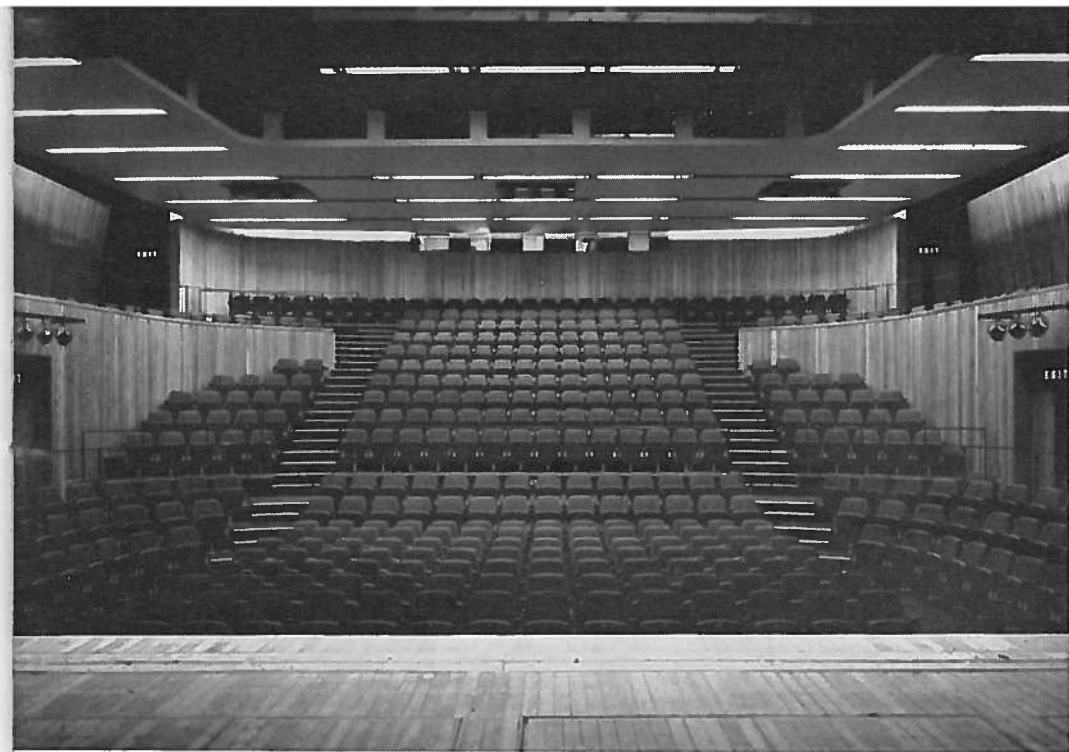
RS: It is almost certainly going to be raised. If it is a low stage you get much worse sight lines. It is intended to be a raised stage, yes.

Ed: We have mentioned sight lines, but this is only half the battle, the question of acoustics arises. Is there any difference in the acoustic required when it is used as an open stage as distinct from a proscenium stage?

RS: Yes there is a most remarkable difference. If you stand on the picture frame stage and face the auditorium in the usual way, you find you have to use quite a considerable amount of projection and speak reasonably slowly in order to get your voice over. I don't mean you have to be unusually slow or anything of that sort, but you have to pronounce more or less in a careful manner. Walk forward on to the fore stage, come into the auditorium, and the whole life of your voice is quickened. You can speak much more softly and very much more quickly and you can reach the very far back of the house with this very quiet, quick speech. The difference in the effect of acting is quite astonishing.

Ed: What about lighting this open stage?

RS: One of the problems in the past that has always faced the designer of an open stage is to prevent the lights on the OP side of the stage shining across and being seen by the spectators sitting on the Prompt side of the stage. At Southampton we



View of auditorium from picture frame stage showing lighting positions overhead.

have made a step in the ceiling corresponding very nearly to the edge of the stage, along the two sides and along the front. In the thickness of this step there are apertures for lanterns and these lanterns can be placed at any point in any one of the ports all round the perimeter of the stage at ceiling level. Not one of them shines in the audience's eyes at any position and yet the lighting covers the stage.

Ed: In your first production, which unfortunately I didn't see, did you use lighting changes? When working in the Elizabethan theatre form do you believe in being purely academic and keeping the light just as illumination or do you use some lighting changes evocative of time and place?

RS: I believe quite firmly in being entirely academic and having perfectly unbroken lighting. But I found the possibility of going against my own dictum and introducing one or two effective changes of light such as for instance a dark room for Arthur's blinding scene were too tempting to be avoided, especially as I had a Strand Preset Control to do them with, and they worked perfectly well.

Ed: This open stage is formed by removing the front six rows of seating and raising two lifts to the same level. Why two lifts?

RS: You can if you wish sink both lifts below auditorium level. The reason for two lifts is that you can sink one lift to auditorium floor level, the other below auditorium floor level and so form a small orchestra pit; or you can sink both lifts below auditorium floor level and so have a large orchestra pit which will hold anything up to twenty-two musicians, a really reasonable orchestra.

Ed: This brings us to the use of the theatre as a picture frame stage, and under these conditions it has to be used sometimes by professionals. How wide is the proscenium opening?

RS: 30 ft. opening by 15 ft. high.

Ed: There is of course a very pronounced proscenium. It was the first thing that surprised me after—I have to admit it—the colour of the seats. You are not out to disguise the existence of the proscenium.

RS: No, not in any way. It is as forthright and definite as we intended.

Ed: It *is* definite. You don't even allow the stage proper to project into the arch at all. It is an opening through which you see the show.

RS: Yes, that is the arrangement and the intention.

Ed: When we go on to the stage the first thing that strikes me is the paint frame up stage. Is there an historical tradition for placing it there? Is there a particular reason for it? For myself I like to see a stage as deep and as unencumbered as possible.

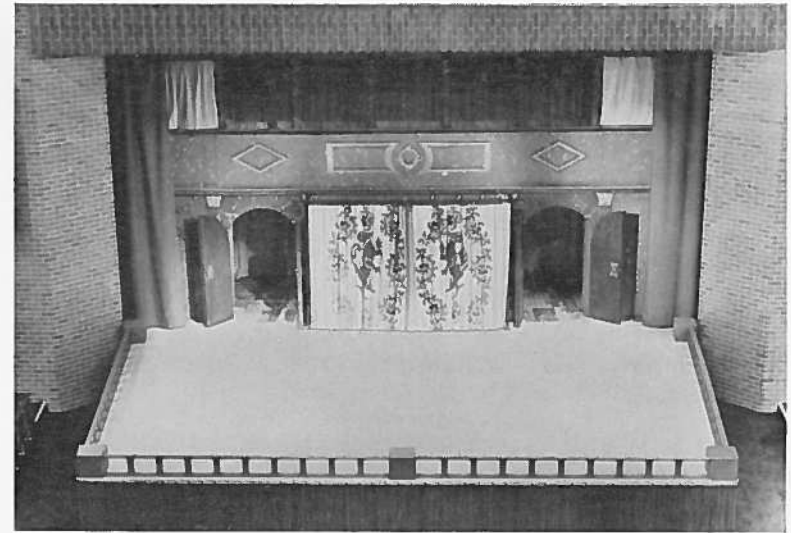
RS: The reason for its being there is pretty straightforward, namely that there is no other place where it could be put. There is no other place in the building which offers sufficient space. It is for the members of the university companies when they paint pieces of scenery and it has been so used already.

Ed: In addition there is the cloth cyclorama which can completely encompass the stage.

RS: It's a roller cyclorama and comes down within 9 ft. of the proscenium wall either side.

Ed: So that both forms of picture frame stage are intended—painted cloths or cyclorama setting. The only trouble seems to be that when they are working with either form the grid seems extraordinarily low. How high is it in fact?

RS: It is 32 ft. It is very low indeed and there are particular reasons for that. They are again part of the University's brief in the designing of the theatre and they had two intentions, first of all the saving of expense, and secondly the reduction of the fire risk as much as possible. This particular grid is so low that we can't use it for the storage of cloths and consequently the fire risk on the stage is reduced quite remarkably. There is not really very much more fire risk on this stage than there is in an ordinary open lecture hall or town hall.



Nuffield Theatre with apron stage lifts raised and Elizabethan scenic wall set in proscenium opening.

Ed: There is however a safety curtain but no counterweight system for the scenery here. Is that again deliberate?

RS: There is a counterweight system for the heavy stuff, the lighting battens and the cinema screen, but the flown scenery will almost always be limited to borders and those go up very easily on handworked lines.

Ed: I must say it gives me a pain to think of that precious space being occupied by a flown cinema screen especially as, if I were using the stage I should obviously want to use the cyclorama to its maximum height.

RS: The cinema screen was a matter of difficulty when it first came into the theatre and was in fact too high, we have now reduced it in height and we can in fact fly it clear of the No. 1 batten, it is just possible to get it out of sight.

Ed: Is there any great difference between the depth of the stage when a cyclorama is used or when a backcloth is used as far up stage as the paint frame allows?

RS: No, there is practically no difference at all, it is a matter of possibly 9 in. and no more. The general working depth of the stage from the proscenium line to the back piece of the scenery, generally speaking the cyclorama, is 24 ft.

Ed: The proscenium line in this case being literally the front edge of the stage, unless of course someone brings up the apron lifts.

RS: No, the proscenium line being as defined in Richard Southern's *Proscenium and Sight Lines*, the line across the proscenium opening at the up stage limit of the opening.

Ed: But in this case that is the edge of the stage.

RS: No it projects a little bit in front of that.

Ed: How many inches?

RS: Six or seven inches.

Ed: Six or seven inches! Well I'll allow you that. But the arch itself—the soffit of the arch—is very deep isn't it?

RS: Yes it is and the top quite definitely stressed with vertical brickwork.

Ed: At one time the proscenium was going to be faced in polished marble, I believe.

RS: It was indeed. And again the beneficial influence of economy was felt and the possibly gleaming marble was taken out of the scheme and we have a warm rough brick surface which does act as a slight breaking up of reflected sound. Much better than the hard smooth marble would have done, in my opinion.

Ed: There is no doubt that once one accepts, which I fear a lot of people nowadays may not, the presence of a strongly defined proscenium, the effect of this auditorium is very dramatic; and I feel that as a result of your explanation of this theatre TABS readers will now have a clear idea of the intentions behind the design.

RS: To sum up, it is intended to do two things, open stage or picture frame. It is not intended to do any third or fourth thing, nor is any mixture of the two intended.