

# TABS

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### Adaptable England

These are great days for the Adaptable theatre. The Questors Ealing foundation stone was truly laid by Sir Michael Redgrave in July albeit with most of the structural steelwork already in position. Obviously a different principle from that adopted for the National theatre long years ago. St. Mary's Training College, Twickenham, described in last April's TABS, demonstrated three of its forms with excerpts from student productions "In the Round", "Arena" and "Space Stage" to an invited audience last May. By ingenious shunting of half the members of the audience the rostrums were easily re-arranged in the forms required. Lighting was, however, token only and is obviously the most difficult item to arrange in such a wholesale upheaval as a demonstration like this involves. This is not surprising when one recalls the time and trouble involved in lighting a change of production on the *same* stage. Lighting is precision work and in intimate actor-audience relationships such as are implicit in today's adaptable theatres the tolerances become even finer.

### A Trilogy of Theatre Forms

Another theatre, that for LAMDA in Kensington, has also opened with a demonstration of three forms in one evening separated by two intervals of fifteen minutes each. The bulk of the seats are in the normal proscenium or open end stage relationship with excellent views of the stage because of the very high risers to the rows of seats. Side seats added for other forms tend to be token because of their lesser number and one feels that productions will inevitably be directed at the bulk. THARK was presented on a proscenium stage, THE BACCHÆ on an open stage and THE GREEN COCKATOO on a rather more enclosed arena. This last gave the TABS reporter the most satisfaction. The Inn in Paris set with its many properties provided a wonderful atmosphere. Adaptable theatre seems to be breeding what might be called a Thespian Divertisement in which one takes choice bits of this and that to show off the theatre building.

### Adaptable and Surprising

This temptation has been resisted in the most remarkable of the adaptable theatres to date—the May Fair. This theatre is remarkable not so much for its adaptability but for its surprise. For almost overnight there suddenly springs up in the last place one would look for it, a serious theatre in the heart of a luxury hotel. A full description of this theatre, which opened with Pirandello's SIX CHARACTERS IN SEARCH OF AN AUTHOR, was an obvious must for TABS and on page 4 we have an article by the theatre's artistic director, Brian Taylor.

### Lecture Programme

In view of the world readership TABS has now achieved we have decided that it is no longer proper to occupy a full page with details of lectures which are of interest only to those within reach of London. Beginning with this issue the Head Office lecture programme will be separately printed and sent out with home issues only.

### Recorded Lectures

All three lectures, either revised or in brand new editions, open our demonstration theatre programme. These may be booked for local showing subject only to a booking fee of one guinea. Full particulars for loan in the U.K. on application to Head Office, London. Copies of all three are now deposited with Strand Electric, Toronto, Canada, and Strand Electric, Melbourne, Australia. Copies of No. 1 and No. 3 may be borrowed from Joan and Russel Reid, Wellington, New Zealand, and Nos. 2 and 3 from G.E.C., Johannesburg, South Africa. Application in each case should be to the appropriate branch or agent.



## MAY FAIR THEATRE

*by Brian Taylor*

Just over two years ago when we were presenting cabaret in the Candlelight Room at the May Fair Hotel, I became very disturbed at the lack of attention a restaurant audience gave to artists in the show. Diners thought food more important than presentations and wine more important than the quality of a performance. It was probably this, more than anything else, which sparked off the idea to build a permanent theatre in the Candlelight Room of the Hotel because, up to that time, we had only been toying with a plan to present summer theatre in the main hotel ballroom. Edward and Harry Danziger, owners of the May Fair who all their lives have been in show business of one sort or another—films, television, theatre—immediately saw the possibilities and within forty-eight hours we had appointed an architect, George Beech, A.R.I.B.A., and the rough sketches were in hand.

If only the rest of the operation could have been as quick, the theatre would have been opened twelve months ago.

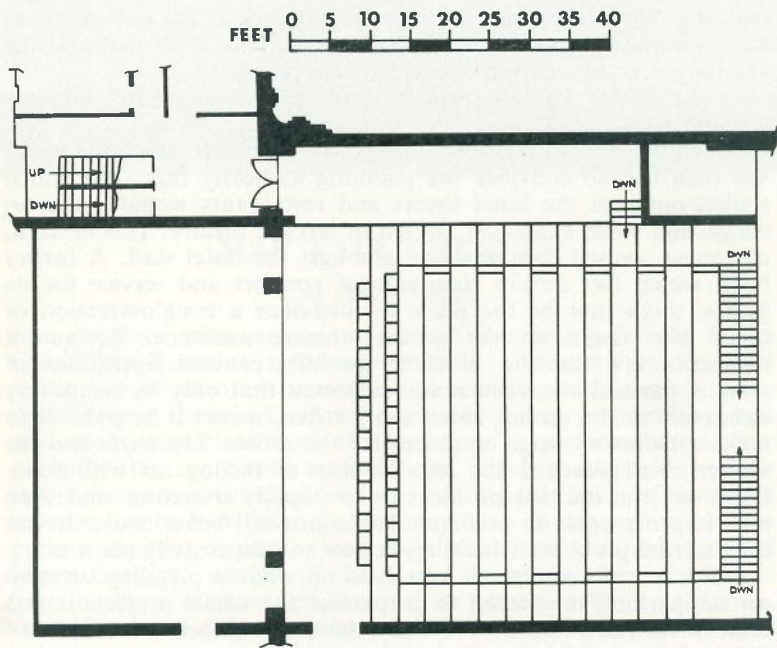
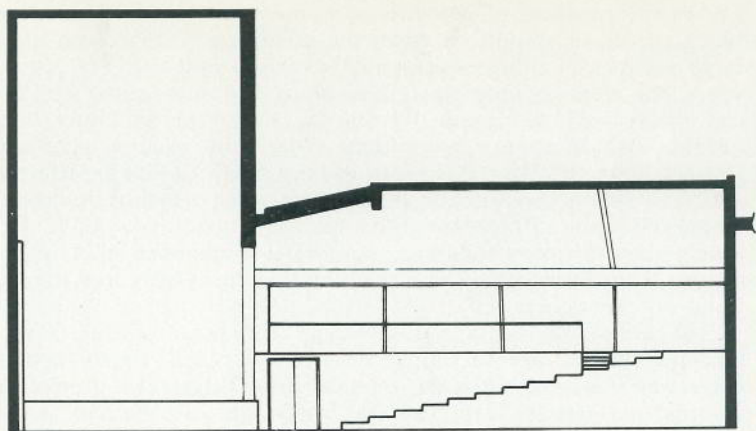
Naturally, any new construction has to adhere to local planning regulations and conditions. Every property developer in London

knows the problem of convincing planning authorities that a new block of offices should be given the go-ahead. Yet because of the large number of office developments carried out over the last few years, the steps in obtaining permissions and subsequent building, can pretty well be classified from the start. On the other hand, because Britain cannot boast that it has built even a handful of theatres since the War, it is much more difficult to find a pattern on which to base a construction programme when a theatre building is embarked upon. Presumably the Germans who have built some ninety theatres since the War, now have a standard plan of procedure. They have the answer to all the basic problems, and they can build on experience.

When we set about our building, there was no blue print of working instructions to tell us how to start and where to start; there was goodwill but little practical knowledge. The project was **complicated because it did not start on virgin soil. We had to hack** out from the very centre of the hotel a large enough space to accommodate an auditorium and a fly-tower. It was at this point that we ran into problems with the planning authorities—no new theatre had ever started this way. In the past in London, and that past was mainly a pre-War era, theatres had always been built first and the ancillary accommodation added afterwards.

At the May Fair the primary problem was to ensure complete fire and sound separation from the hotel itself. We had to be prepared to place a double skin of bricks and concrete on all the walls. We then had to convince the planning authority that exits which spilled out into the hotel foyers and restaurants would cause no congestion when audiences arrived or left the theatre. This in itself, of course, caused consternation amongst the hotel staff. A luxury hotel which has certain standards of comfort and service for its guests, might not be the place to introduce a conglomeration of types who make up the general theatre audience. Restaurant managers saw the end of their carefully evolved operations of service, particularly when it was apparent that only by temporary upheavals in the service areas and kitchen, would it be possible to **make satisfactory stage entrances for the artists.** The chefs and the service men preached the impossibility of mixing art with food. However, the internal problems were rapidly overcome and even now improvements in accommodation are still being made. It was the external problems which began now to bear heavily upon us.

For a while our plans were held up while a planning decision on car parking threatened to jeopardise the whole project. It was difficult for the authorities to understand that a theatre audience of 300 people would have no more cars than a restaurant serving a similar number. Finally, good sense prevailed, and the construction work started.



*Section and plan May Fair theatre. Rear stalls exit is not now as shown but located in top right corner.*

But now already the snows were upon us and deliveries of steel from Scotland were seriously held up until the roads were clear enough for vehicles to move South. Fortunately, a great deal of the work could proceed under cover. The breaking into eight hotel bedrooms above the stage to form the fly-tower, meant a whole series of complaints from hotel guests who were treated throughout the day to the sounds of pneumatic drills and the banging of hammer and chisel. The symphony of noise never left us. It is an astonishing fact that there seems to be no way of constructing anything without having to bang something. At times, the noise was too much for the guests and for conference gatherings using neighbouring suites—the work just had to stop or the guests threatened to walk out.

A stage eventually arrived when we felt we could set an opening date. Mr. Edward Danziger had seen a production of "Six Characters in Search of an Author" in New York which he felt was an ideal opening presentation for the new theatre, but it was essential we opened within a certain number of weeks as the director and cast already had other long-term commitments.

Now the race to finish the theatre became a major headache. Promised deliveries failed to materialise early on in the project and only the most vigorous cajoling and threatening managed to pull the work back on to schedule. (Strand Electric, however, never once erred in their promise and determination to finish the job on schedule.)\*

By early June the play was set in rehearsal, and the director and artists were desperately waiting to use the stage for their final run-throughs. Last minute hitches, including a heavy cloud-burst which found a way through an open gully into the theatre and ruined the decoration of one of the walls, held us up for another forty-eight hours and then, finally, with four days to go before the opening night, the cast at last could move in to rehearse. Three overnight sessions were then necessary to light and set-up, while work continued in the theatre on carpet laying and seat numbering—jobs which caused the minimum interference with the work of the artists.

On the opening day itself, a final clearance from the Lord Chamberlain's office was still not to hand. Certain work had not been finished to the complete satisfaction of the technical officers concerned and finally, with just one hour and a quarter to go, all was ready. The cleaning staff then descended. The place was brushed, swept and vacuumed, and the audience began to arrive.

There, open to them on schedule, was a new 267-seat theatre, constructed so that the seating is adaptable for either proscenium staging, auditorium staging or theatre-in-the-round. Its fly-tower has thirty double purchase counterweight lines and the Strand board is a 48-way L.C. remote control preset board operated from an all-glass fronted control gallery running the entire length of the

\* Unsolicited but pleasant to hear nevertheless.—ED.

rear of the theatre. In the control gallery is also housed amplification equipment as well as rack positions for television studio sound and vision control room equipment.

The "show must go on" had been our password for many weeks. I am happy to record that on June 17th it did and London gained a new theatre. A trend I hope that will help reverse a situation we should never allow to happen—the "CLOSED" notice outside a theatre.

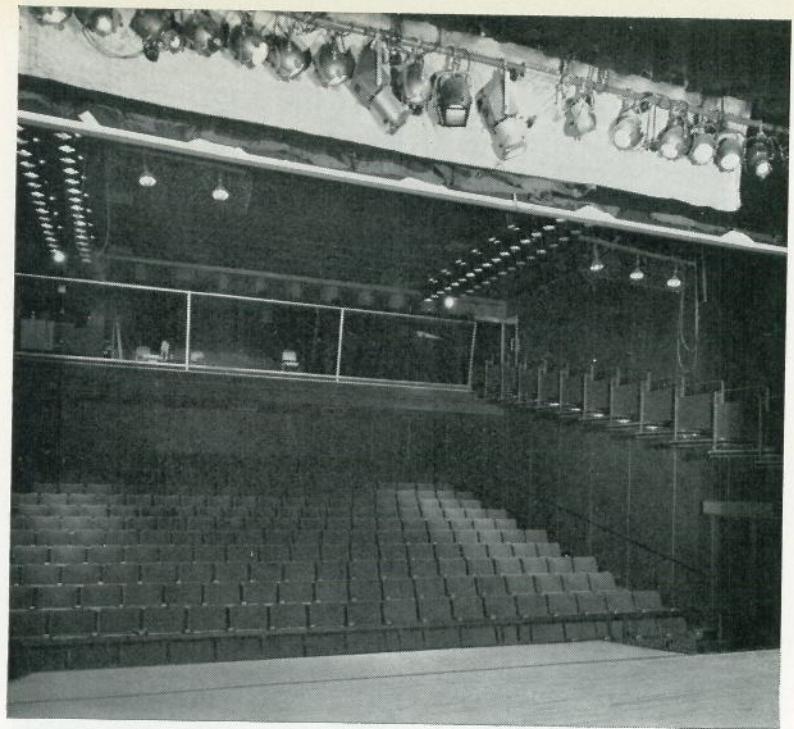
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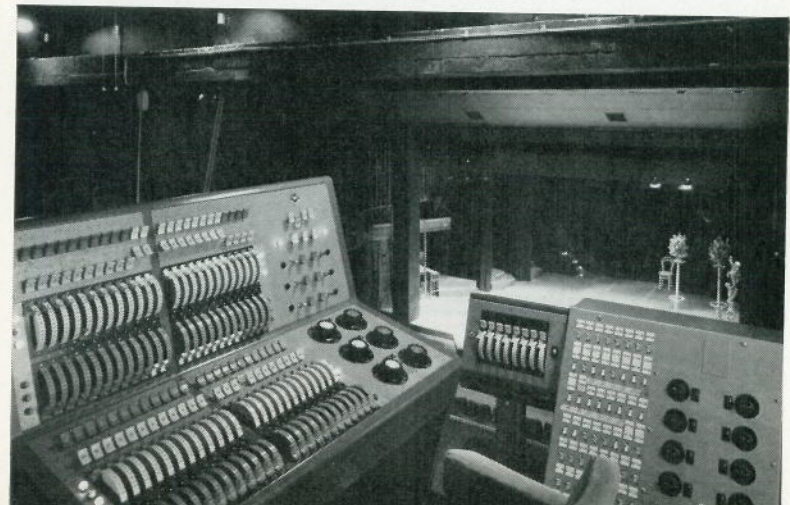
The auditorium is basically a flat floor area. All seats are stepped on removable rostrums and these, together with the removable stage, are claimed to make four forms available; normal proscenium setting with audience, setting with apron and audience seated in front and on sides of apron, platform stage with audience on two sides of platform area, theatre-in-the-round with audience completely surrounding stage.

The photographs do not do justice to the colouring of the auditorium, the seating is in a rich red, and the walls are covered with flood silk of dark green and navy blue.

The photograph (page 4) shows the proscenium stage with tabs lowered. On the right is a musicians gallery which in this case is

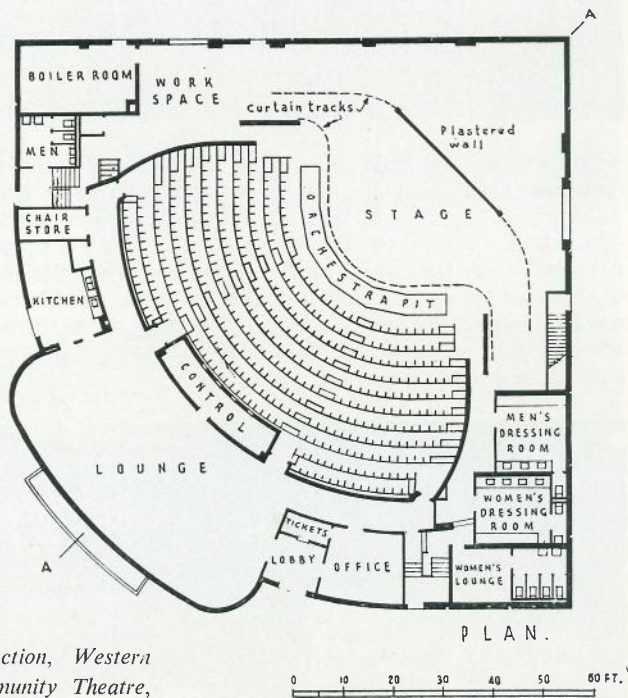


used for extra audience seating. Above this is a lighting gallery which connects with the glass enclosed control room at the rear of the auditorium (see above). The photograph (opposite) shows the stage opened up. The two square columns either side are permanent, being part of the supporting structure of the building above. Actors' right of the stage has a set of counterweight lines, double purchase so as not to obstruct the stage, but they are likely to be intrusive none the less for open stage work. Photograph (below) shows preset lighting control and patch panel.

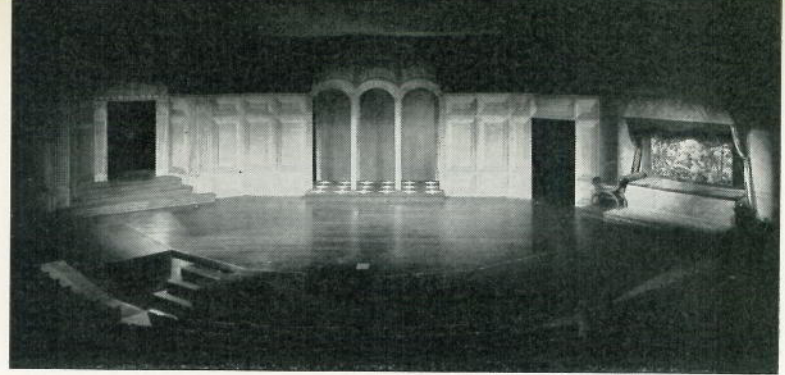


## THEATRE OF WESTERN SPRINGS

In the September 1961 issue of TABS Percy Corry described this theatre and we published a plan; reproduced again here as that issue of TABS is out of print. A production of *DARK OF THE MOON* was illustrated in an all too dark photograph at the time. We have now received from Jane Burns, the director of the theatre, three photographs of productions which show very well the possibilities of this space stage. James Hull Miller, the designer of the theatre described his principles in an article *THE PICTURE STAGE WITHOUT THE FRAME* in TABS of December 1961. The effect of the great unframed width of setting, areas of which can be brought into prominence by lighting, shows well in all three photographs. This is true open staging with the stage as part of the auditorium, yet scenery can be extensively used.



Plan and Section, *Western Springs Community Theatre*, with seating for 415.



*Taming of the Shrew*, *Western Springs*, May 1963.



*On Borrowed Time*, *Western Springs*, December 1962.



*The Male Animal*, *Western Springs*, February 1963.

## THE LIGHTING DESIGNER IN THE THEATRE

by Richard Pilbrow

*Mr. Pilbrow, a director of Theatre Projects (Lighting) Ltd., is a well known lighting designer who is much in demand and has a long list of varied stage productions to his credit. He, like Gavin Campbell of television (see our last issue) believes in planning his lighting in detail.*

The use of dramatic lighting in the theatre has in the last thirty years revolutionised stagecraft and staging methods. The appearance of our stages has been radically altered by the creative use of light, and the current alterations to the form of theatre, with experiments in various audience stage relationships, are powerfully influenced by this "new lighting".

Since the days when Adolphe Appia and Gordon Craig first predicted the potential that then lay dormant in lighting, outstanding directors and designers have laid the foundations of this new subsidiary art form in the theatre. As awareness of the dramatic potential in lighting has been realised, and as technical resources have developed, so the position of an individual, the lighting designer, has been established. An individual, who should ideally combine technical knowledge and skills with creative imagination to use lighting to its fullest extent, in support of, and in harmony with a dramatic performance. It could be argued that it would be better if the director or designer were to light their productions. Some individuals, gifted in this direction, are able to do so, and with very great success, but increasingly it is found that the artist has not always the technical ability nor the technician the artistic imagination, and perhaps neither fully appreciates the power of the dramatic instrument they are handling.

The advent of the lighting designer has often meant increased technical complexity, yet despite the gloomy criticism of some lighting "theoreticians" his services have never been in greater demand. How does the lighting designer work, and what is his contribution seen from artistic, technical and economic viewpoints.

Various directors and designers require a varying degree of co-operation from the lighting designer. Happily, he is increasingly regarded as an integral member of the creative production team. For it is quite essential that the lighting designer be at the earliest discussions on the production. Thus he is aware of basic creative decisions as to production style, and visual intention, is able to contribute toward them, and is able from the beginning to influence technical decisions. While lighting might be thought of as a rather ethereal affair, the results of which are hard to describe in detail, it is nevertheless bound by physical limitations (space for equipment, shape of the theatre, capacity and type of control board, the staff available as operators, etc.) possibly more than any other branch of the theatre. The lighting designer, in his dual rôle of artist and technician, should never attempt to block ideas that seem impossible,

but should influence them in a "possible" direction, and then go home to work out how to do it!

After these initial discussions to establish intention and style, the lighting designer, apart from wrestling with particular problems that might strongly affect the set (perhaps the preparation of a projection scheme, or assisting the set designer with an unusual hanging plot), develops in rough his ideas and begins mentally to place his equipment. When the set design has been completed, and after visits to early rehearsals to see that the director is using the stage as he intended, or to find how he has altered his ideas, the detailed preparatory work begins. There is nothing vague or uncalculable about lighting. Every detail can be planned exactly in advance. Beginning with a clear idea of the desired result each item of equipment can be selected, placed exactly, its setting decided, a colour chosen, and finally its intensity, scene by scene, *can* be calculated in advance. This is not to suggest that the lighting becomes a rigid, unalterable formula—far from it, for many changes and improvements will be found when actually in rehearsal. But basically hours can be saved, expenditure can be cut, and the results improved by the lighting designer having a clear conception of his intention and following it through by detailed preplanning.

At the end of this planning period the lighting designer will have translated his visual ideas into terms of lighting equipment. This equipment will be detailed in a Layout Plan (Fig. 2), and a Layout Schedule, with list of equipment required and probably a circuit distribution list. These should cover every detail, to enable the stores or workshops to prepare the equipment, supplying correct cable runs, connectors and lantern accessories carefully labelled and ready for use; and to provide the electricians working on the production in the theatre, with an accurate "work order". This enables them to rig the equipment, and connect it all up correctly without the necessity of close supervision, and can reduce the time taken on "fitting up" very considerably.

At last comes the final stage. The lighting designer has watched rehearsals and has refined and modified his ideas, the equipment is rigged and the scenery built and ready and the actual process of lighting begins. Here again, "pre-planning" can save time and money. Firstly all the equipment has to be focused. In many ways, this is the most important part of the lighting, and has to be carried out quickly, but accurately. There is seldom time to experiment, and it is essential that every lantern that has been hung is there for a very definite purpose. Of course alterations may have to be made due to some unforeseen contingency, but the focusing process should be a matter only of translating the plans into reality.

Once all the lanterns are set, the actual performance of the lighting has to be plotted into switchboard terms. This balancing of intensities, and establishing the changes of effect—actually painting the stage with light—can often be carried out without a special

“lighting rehearsal”. If sufficient preparatory thought has been given, it is possible to light the production during an early technical work-through rehearsal with the company. A further time-saver is to prepare in advance, an actual board cue-plot. Then each state of lighting can be set-up and the designer has simply to carry out minor adjustments, if his theoretical homework has been accurate enough! Lastly the period of dress rehearsals carrying out adjustments, modifying a lantern’s setting, altering the timing of a cue, and cleaning up many details to integrate the lighting with the performance.

The result should be lighting in harmony with the play and with the director’s and designer’s intention, not simply to illuminate their work and that of the actors, but to support and intensify it in performance.

As an example of working methods I take “Baal”, by Bertolt Brecht, recently seen at the Phoenix Theatre, directed by Bill Gaskill, designed by Jocelyn Herbert, and presented by Oscar Lewenstein. The play, which Brecht wrote when a young man, is in 23 scenes, and is written in a savage free style, often crude and harsh—“adolescent-epic-poetic”.

In broadest outline the “story” follows the self-destruction of the poet Baal through lust and greed for self-degradation. After several scenes in Baal’s attic and around his home town, he rejects society and leaves with his demoniac friend on a series of poetic destructive episodes, he returns, murders his partner and is hounded out of society where he dies alone in filth and squalor. Starting from a norm of the earlier scenes the play’s style heightened as the action took Baal out of the city on his wanderings and to his eventual end. This was fascinatingly echoed by Jocelyn Herbert’s magnificent settings, a series of ravishing stage pictures, wrought from textured and weathered flown walls or simple objects set against a vast cyclorama with scene projections. The lighting, taking the empty “Brechtian” stage with the huge oatmeal coloured cyclorama as its starting point, progressed with the play, intensifying its romanticism through Baal’s wanderings, then becoming starker and more dramatic through to the final sequences.

The cyclorama was 55 ft. high and wrapped about the whole stage. There was no other top masking and the lighting equipment and flown scenery hung in sight (Fig. 1). The scene projection equipment used was two 5-kW Reiche and Vogel projectors with 18 cm. objective lenses. These were mounted one on each flyfloor. Their beams crossed to opposite halves of the cyclorama, making a virtually invisible centre join, and providing a picture approximately 68 ft. wide and 32 ft. high. The projectors were placed 32 ft. above stage level, so all flown scenery and lighting equipment had to be above that height. In fact to gain the maximum height effect from the cyclorama the back bar (Bar 6) was flown at 41 ft. and all other

bars and scenery were stacked above the line from 41 ft. upstage to 32 ft. downstage. The only exceptions being spotbars 1 and 2 immediately behind the proscenium (and therefore downstage of the projectors) which were at 23 ft. and 25 ft. (The proscenium border approx. 21 ft.) The main problem when lighting with a projected background very close to the acting area is avoiding spill or “bounce-light” on to the projected image. Two steps can be taken. First provide a floor that absorbs as much light as possible and reduces reflection to the minimum, second avoid as far as possible use of light from the direct front, use rather crosslight or ideally a box position. Whilst at the Phoenix there is an adequate box boom position, it is far from ideal, as the deep box limits the angle and coverage of the stage.

From this lighting layout one can see the placing of equipment. The F.O.H. were each set into a particular scene and used individually when a flown screen would prevent light spill on to the cyclorama. Each side of the auditorium are box booms, three pairs of patterns

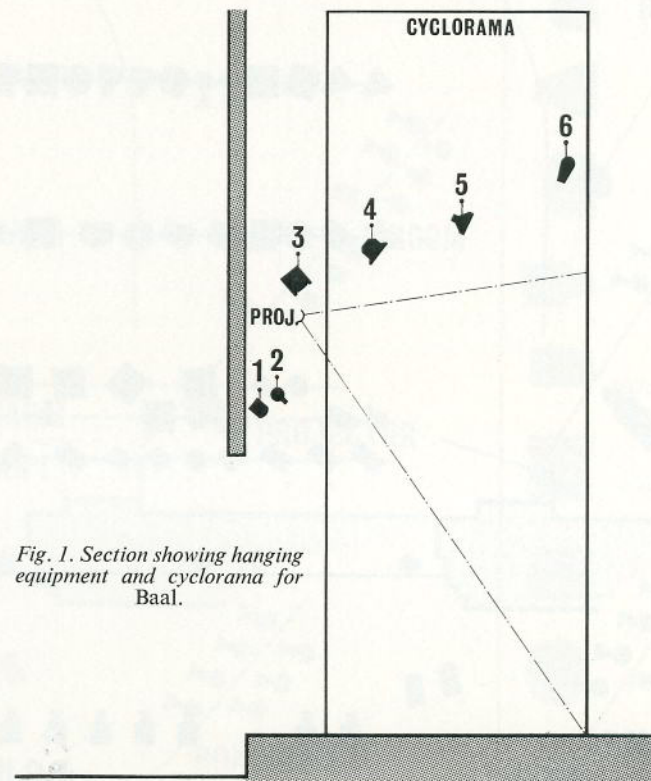


Fig. 1. Section showing hanging equipment and cyclorama for Baal.



23N (500-watt narrow angle profile spots) giving three various colour tints to the downstage acting area and a special unit. Supplementing this crosslight are the right and left booms which with the boxes were basic "actor-light". On both booms are special cross "slit-lights" for the final scene when faces appear out of almost darkness. On the right boom, and supplemented by the right ladder are some special units (1-kW pageants) providing motivating sunlight into various scenes. Bar 1, a mixture of Patt. 123 500-watt Fresnel spots and Patt. 43 1-kW focus lanterns is principally "actor-light" centre and upstage. Bar 2, the same with some scene specials.

Bar 3, Patt. 243 and Patt. 123 Fresnel spots flooding the bottom of the cyclorama. Bar 4, Patt. 49 1-kW floods lighting mid-cyclorama in three colours, grey, straw and "dirty night" (3 straw, 32 Blue, 55 Chocolate) also Patt. 243 Fresnels downlighting in "Brechtian" open white. Bar 5, Patt. 60 500-watt floods flooding the cyclorama top also special backlighting units. Bar 6, backlighting special scenes.

The scene notes which follow (some illustrated) will clarify further:—

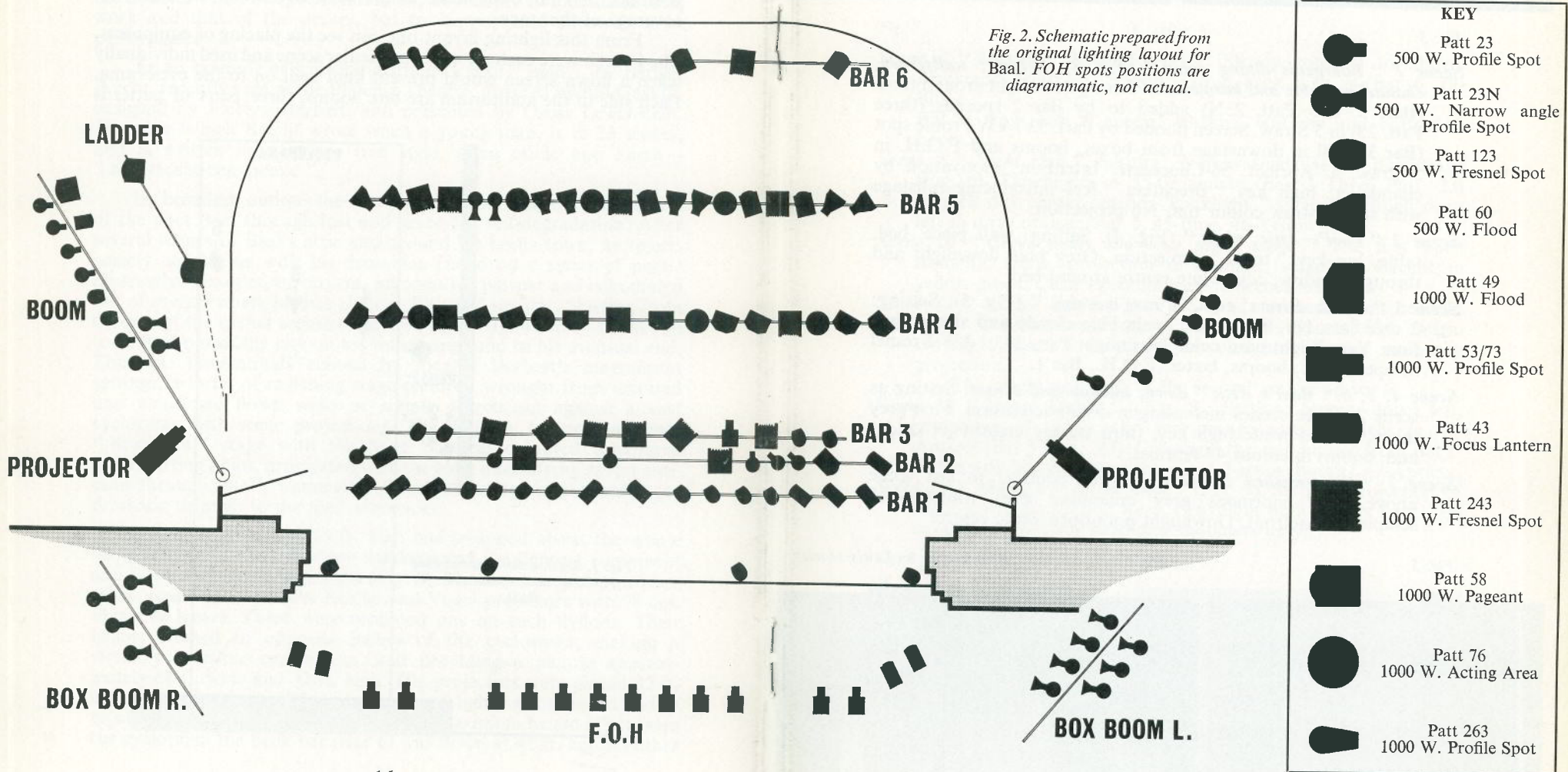


Fig. 2. Schematic prepared from the original lighting layout for Baal. FOH spots positions are diagrammatic, not actual.

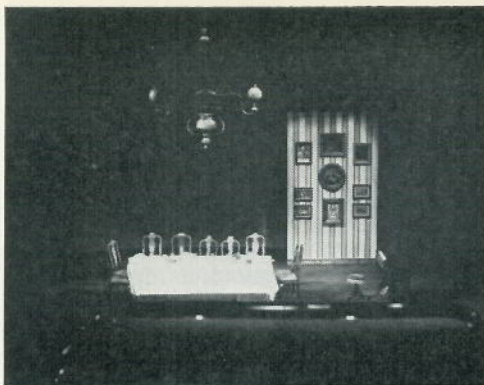


Fig. 3



Fig. 4

**Scene 1 "Bourgeois dining room"** (Fig. 3). Setting: wallscreen, chandelier, table and harmonium. Strong downlight around table (Bar. 5, two Patt. 23N) added to by Bar 2 specials (three Patt. 23) in 3 Straw. Screen flooded by Patt. 53 1-kW Profile spot (Bar 3). Fill in downstage from boxes, booms and F.O.H. in 3-Straw, 47-Apricot, 56-Chocolate. Intention: motivation by chandelier, high key "Brechtian" feel introducing fullstage with sallow straw colour tint. No projection.

**Scene 2 "Baal's Attic, night"** (Fig. 4). Setting: wall piece, bed, table, low-key "town" projection. Grey blue downlight and through window, cold white centre around bed.

**Scene 3 "Truck drivers' café. A raw morning"** (Fig. 5). Setting: 2 café flats, bar, tables, etc., pale blue clouds and sky projection. Very bright hard cold. Downlight Patt. 243 1-kW Fresnel in open white, booms, boxes, F.O.H., Bar 1.

**Scene 4, 5, 6 "Baal's Attic" dawn, midday and sunset.** Setting as scene 2. Three scenes increasing in dramatic tension. First grey misty, second white high key, third starkly crosslit (*R* ladder and boom) in colour 47-Apricot.

**Scene 7 "Whitewashed Houses"**. Strong contrast to last scene above. Full enormous grey cyclorama with whitewashed sculpted housefront. Downlight pool open white centre.

Fig. 5

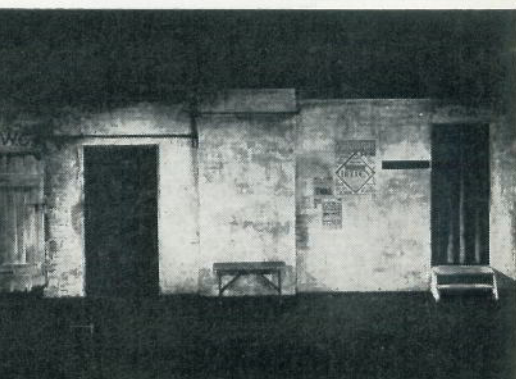


Fig. 6

Photographs by Lewis Morley

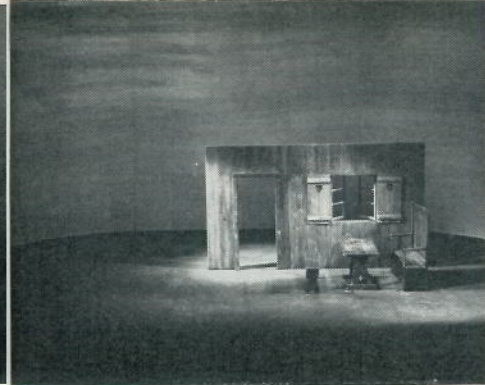


Fig. 7

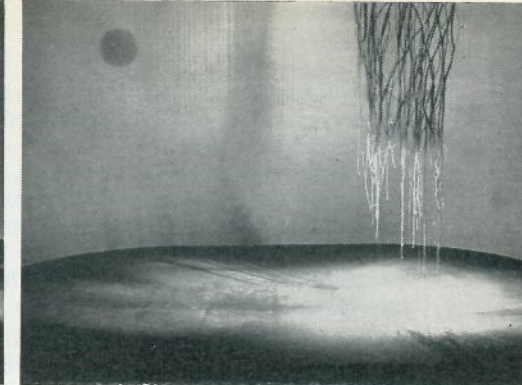


Fig. 8

**Scene 8 "Maynight beneath trees"**. Strong contrast to above. Blackness. Shaft of "moon" from back high *R* (Bar 6, 18-Blue).

Fill in from box *R* special 40-Blue, 60-Grey and bottom *L* boom.

**Scene 9 "Night club"**. Setting: Whitewashed flat far downstage (Fig. 6). Downlight in 55-Chocolate (Bar 2 Three Patt. 23) to pick out plaster texture. Backlight "stage" through door left in dirty orange (Bar 5, 45-Blue, 46-Yellow).

**Scene 10 "Green fields and blue plum trees"**. The first open romantic scene, projection of orchard, stage left backlit in yellow green. Clear open contrast to scenes 8 and 9.

**Scene 11 "Village Inn"** (Fig. 7). Setting: inn wall—benches and table. Continue emotion of Scene 10. Sunset feel, warm crosslight from *R* ladder, boom and box. Brown wash sky projection. . . .

. . . The heightened style of the second act led on to:—

**Scene 18 "Hazel Shrubs"** (Fig. 8). Setting: branch down left, projection of yellow sky and orange sun, backlight in 47-Apricot (Bar 5 Patt. 243). Crosslight through branch from Bar 1. Fill in with box *R* 47-Apricot, box *L* 3-straw, boom *L* 47-Apricot.

**Scene 19 "Maple tree in the wind"** (Fig. 9). Setting: projection of night storm clouds and trees. Crosslight both booms Patt. 23N in 40-Blue, 60-Grey head and shoulders only.

Fig. 9



With a hundred and thirty-seven instruments in use on a 98-circuit Grand Master direct-operated dimmer board, the production had 82 light changes. With a few exceptions, such as lighting, the front traverse curtain used between scenes to avoid monotony, the production finally presented conformed quite closely to the original plan. The lighting, apart from the ambitious use of projection, made a contribution to the whole that thanks to the excellent board operators (five in number) at the Phoenix, fitted unobtrusively into Bill Gaskill's production.

Conclusion? The art of dramatic lighting is a young art. The potential in its contribution to the living *actual* performance of theatre is a very considerable one. Probably efforts today to realise this potential will seem puny and inadequate in years to come; but aided by the technical progress continually made by stage lighting equipment manufacturers, such as Strand Electric, the lighting designer of tomorrow will push back the boundaries of his technique and further the contribution of lighting to the living theatre.

## WHAT IS A THEATRE FOR?

by Frederick Bentham

What is a theatre for? The immediate reply will be "For entertainment." Entertainment in the largest sense perhaps, since instruction, the flogging of lost or up and coming causes, religion, politics, and so on, can all be dished up very successfully as entertainment. No one would deny entertainment is way out in front of all other reasons for a theatre and is, it would seem, the only valid reason. Does this theory stand up to all known facts? Can one, for example, ask "entertainment for whom?" After careful analysis I have come to the conclusion that if we do put this question the answer must be "for the entertainment of those who work in theatres."

The moment we throw overboard the long cherished belief that actors are the servants of the people and recognise that in a really successful theatre the audience is scarcely ever considered, all becomes clear. Throw away Irving's "your humble and obedient servant" and it becomes much easier to do two things. The first is to understand how the theatres as we know them come to be as they are, and secondly to design a new theatre. Clear away the confusing fog of designing a theatre for the audience and difficulty ceases.

It is only fair that I should explain in some detail how I have come to formulate my *pro bono* *artista* theory of theatre. In recent years I have become more and more surprised that a theatre which by derivation means "a place for viewing" should have managed for so long to ignore completely the principles of sight. Everyone

seems to accept that theatres have every right to charge for stalls seats, which provide a view of the stage from too low down and a view which is bound to be obstructed unless the two seats immediately in front have not, by some lucky chance, been occupied. The less said about the angle and amount of view from the rest of the theatre, except for the Dress Circle, and not all the seats there, the better. In theatres all over the world the curtain rises (if not, as is likely today, already permanently risen) to provide a view of the proceedings on the stage which will have to be hard won by dodging one's head about and which is bound to be a travesty of what the producer saw when he conceived his production from the unobstructed eighth row.

Let us not think things were any different in the good old days of Will Shakespeare, long before the Italianate degeneration attacked our playhouses. The audience of the Globe had appalling sight lines

with, as Leslie Hotson\* points out, the sun in their eyes or the wind and rain as an alternative. Only the actors were high and dry, cosseted under a splendid roof. Which roof, incidentally, with its cool shadow almost certainly made the stage goings-on harder for the audience to see. Nor do I think the basic principle was any different in the Classic Greek theatre. After all who would want

to go and sit all day to hear Greek plays in Greek "sitting on backless stone steps"† where Peter Moro, even when ouzo-fortified, found half an evening's performance in discomfort long enough. Percy Corry says somewhere of present-day audiences that "they are conditioned to discomfort" and in this we have the whole secret of why audiences throughout the ages have so meekly submitted to playing their role of second fiddle to those who take their money.

Why do audiences persist in going to theatres when the whole business of obtaining tickets might be said to suggest that they are treated as impertinent trespassers in some secret rite of which they are lucky to be permitted to fight to obtain a glimpse. As we shall see later this technique of "no room at the inn" is an essential part of the theatrical lure; once it becomes known that there are plenty of seats going for a show usually there remain plenty of seats.

How did this habit of theatre going ever get formed? The answer is religion. The Greeks got drawn into theatre going as a



"... a place for viewing."

\* *Shakespeare's Wooden O*, Leslie Hotson. Rupert Hart-Davis, London.

† *TABS*, Vol. 20, No. 2, September, 1962, page 15.

religious rite. One took a day of Sophocles much as one might, centuries later, go to church on Sunday or take part in Lenten retreat. We know in mediæval times theatre was also mixed up with the church—the mystery plays. The mystery being how the audience of the time saw or heard anything. But as they saw even less of the rites of the Mass carried on in Latin behind the rood screen in the local cathedral, the audiences were already conditioned. The next cunning step came when in the Reformation audiences were, just in time, strengthened in their resolve to go to the theatre by being forbidden to go there. So long as the head of the Church of England continues to appoint her own special censor the theatre is safe in Britain.

Safe for what? Safe for those who work therein and enjoy themselves. Now we admit what a theatre is for it becomes easier to appreciate the true merits of what goes on today. Take the habit of thrusting the stage forward into the audience. Who wants a fore-stage? Certainly not an audience, for as one of them I know how important it is for action thereon to take place on *the other side* if it is to be seen from the circle. Then again, why push a stage out so far in a theatre where it was already difficult to see properly in pure pros. days. The object is, of course to improve the actor-audience relationship. Note the wording, “the actor-audience” not “the audience-actor”. Most of the moves towards the modern vital theatre are for the actor. If the audience are near he does not have to use so much voice, so much make-up, such large gestures or walk so far as of old. So that he can have this, the audience—poor mutts—have to sit too close. No one in his senses takes a front row for choice, the view is too distorted and nearness and faraway-ness become exaggerated. Having ensured all seats are too close the next step is to ensure that there are even more side seats than heretofore by using a three-sided stage; or better still why not give the audience a certain chance of a back view by putting them all round.

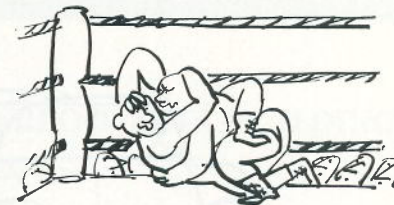
It must not be thought, however, that theatre is purely an actors' benefit; far from it. There are the directors (as they are now called), the designers, the critics, the suppliers of stage machinery and sound reproducing equipment and, of course, the manufacturers and users of stage lighting. Nor must the staffs of the theatre be forgotten for they must be there because they like the life.



“... audiences were already conditioned.”

The phenomenon we are investigating is not restricted to Britain. The great mechanical stages of the German theatre only become comprehensible if we apply the Bentham *pro bono artisto* theory. They are built for the engineers who design them. Who in the audience ever has the fun of seeing the machinery at work? If it does happen to be used it will be in a blackout or behind a curtain, or during the day between productions. The wonderful games of three dimensional chess played on the lifts and rolling stages to keep four productions in play at Gothenburg, for example, are played to an empty house at 6 p.m. before the show, *not during it*. Who in the audience of BLITZ can get but a fraction of the pleasure that Mr. Ian Albery and his production team must have had in putting the show on. Exhausting problems to be solved, hours of technical rehearsals all conspire to present the supreme rewards of a piece of theatrical mountaineering. The audience sees more or less (depending on their seats) of what to them is a good show, but the real moments of ecstasy were for those who got the show on for the first night. Sean Kenny, perhaps, is less selfish than most, for he does at least attempt to share the fun of his machinery among his audiences.

Who wants fifteen separate blues in “Cinemoid” and asks for more; it must be the lighting designer so that he can spend happy hours choosing his colours. Certainly his audience, who have difficulty telling No. 18 from No. 20, will get nothing from the subtle distinctions between No. 62 and No. 17, or No. 63 and No. 32. In



“... because they like the life.”

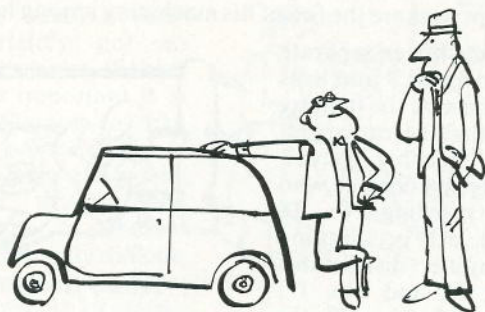
lighting equipment and switchboards the absence of audience participation is just as marked. They were completely satisfied with Hassard Short's lighting for WALTZES FROM VIENNA in 1931. They raved and went delirious over it. Or at least the critics did for them. The lanterns were comparatively few in number by today's standards and both they and the switchboard used were simple to design and manufacture. No science, no transistors, not a single relay; who the devil wants these things—these improvements? Whoever wanted the Light Console or really enjoyed it except its inventor? And so the evidence goes on.

Who wants three dimensional built scenery when from the audiences' point of view painted shadows and perspective are bound to look more solid? The solid scenery is there for the pleasure of the designer who knows it is solid, for the joy of the man who made it solid, to allow the men who have to get it there on the stage and later strike it, the happiness of exercising their craft, and perhaps above all the solid column is there for the benefit of the L.C.C. inspector. In lighting sometimes so little comes from the vast installation

checked down and down on dimmers through happy hours of trial and error rehearsal that the audience cannot see at all. At other times the lighting is so blinding as to set their eyes blinking and watering. Need I go on? I think not.

Theatre architects take heed. Concentrate on the stage and the eighth row in the stalls where the director sits and you concentrate on the true purpose of the theatre. Design a theatre round its director and the people who will actually play there and you will have a successful theatre. Design it round what a committee thinks the public—the audience—needs and the result will be a white elephant. A theatre is for theatre people not their paying guests.

Overstatement, perhaps, and yet I wonder. Let me close my case with the question “which theatre in recent years produced the



“... built for the engineers who design them.”

most active campaign from theatre people to save it from demolition?” The answer, of course, is the St. James. But I ask you did any of them sit in it as a member of the audience and if so where? Finally, how often does one hear today that the barrier to the perfect theatre is the large audience. What can this mean except that we want to keep our mysteries for the chosen few? The theatre which has got the most consistent praise of any in recent times (from myself included) is the Hampstead Civic with a capacity of a mere 160 persons. Here was perfection, a *full house* for every performance, never mind the fact that a good production there would have to run fifty years to be shared by an audience of any size. I rest my case *pro bono artisto* and if you like to add “*pro bono Strand Electrico*” it will be fair comment.



## UNIVERSITY OF WATERLOO ARTS BUILDING

by Philip Rose

One of the most exciting theatre projects in Canada since the Stratford Festival theatre opened its doors was realised earlier this year by the completion of the new Arts Building at the University of Waterloo, Ontario. The Stratford influence can be clearly seen, although there are many factors in the design which stamp the Arts Building with its own unmistakable personality.

In plan the auditorium is similar to Stratford, although designed to seat only 504. No seat is more than 38 ft. from the stage and the entire seating area is stepped.

The main stage projects 20 ft. into the auditorium and on three sides has wide tread steps around the perimeter descending into a shallow moat. Portable sectional flooring units are available to cover the steps and so increase the stage area for such things as orchestral and choral performances.

The theatre is intended to serve the usual needs of a university and is meant to be multi-purpose in its scope. Mechanical gimmicks have been resisted and in fact the only parts of the structure which move are two large wall panels which back the main stage and the cyclorama. The rear of the stage is taken up by four white tread steps rising into a small proscenium type area, the maximum opening of which is 16 ft. This can be reduced to nil by the two timber covered



wall panels which move on from left to right. They hang from a heavy track and are moved by hand.

At the rear of the proscenium area is a flat canvas cyclorama having a fore and aft travel of 10 ft. The stage depth behind the proscenium is only 11 ft. From the rear edge of this to the wall at the rear of the stage is a continuous pit and it is within this dimension that the cyclorama moves.

The main staging difference between Waterloo and Stratford lies in the opportunities offered the producer and designer in the proscenium area. At Stratford the background is of a permanent architectural character.

A tunnel leading from beneath the seating area gives access to the main stage and provision has been made for doors at each side of the proscenium arch should they be found desirable in certain productions.

The lighting of the stage proper is provided by directional equipment. Two rows of slots are set within the main ceiling, the outer row having a total of 12 Patt. 263, 1,000-watt elipsoidal profile spots, and the inner row of total of 10 Patt. 23S, 500-watt mirror spots fitted with Fresnel lenses.

Over the stage is an architectural canopy, one function of which is acoustical. It contains 14 Patt. 123, 500-watt Fresnel spotlights, along with several Patt. 23, 500-watt profile spots.

The aim of the lighting layout of course is to provide directional lighting of any part of the stage area from at least three sides, bearing in mind the use of some degree of colour on occasions and the need not to disturb members of the audience through glare, whether it be direct or reflected.

The under side of the canopy is, of course, matt black, and the stage floor and stage walls are finished in dark oak in order to reduce reflected light. With such a stage one must ensure that all the lighting is completely under control, optically and electrically with chance playing a very minor role.

Immediately up-stage of the proscenium arch is a spot pipe having 8 Patt. 123 spots and at each side of the stage are vertical booms fitted with a mixture of Fresnel and profile spots. The cyclorama is lit top and bottom with 150-watt magazine compartment batten having a total of six colour circuits. This equipment can be moved up and down the stage depending on the location of the cyclorama. Floor pockets are provided both within the proscenium area and around the main stage. The lighting control is provided by a 54-way SR remote control system with the desk in a room at the rear of the seating from where the operator has a fairly good view of the stage. The dimmer racks are neatly stacked away back stage.

The stage manager has his control position also at the rear of the auditorium opposite to the lighting control room. From here he uses voice cueing as well as warning and go light cueing to the strategic locations. The sound console is also located in the stage manager's control room.

One important function of the auditorium is as a lecture theatre and projection facilities are provided with a portable rolling screen at the rear of the main stage. For use during lectures a small remote control desk can be plugged in at the front of the stage. It provides the switch and dimming control of eight of the stage lighting circuits which can be selected in advance as well as control of the house lights, both switched and dimmed, and of the main supply contactors. The cue lights to the projection room have a duplicate set of control switches on the remote desk, thus giving the lecturer complete control of all the facilities he is likely to require.

Around the auditorium is a wide promenade designed to serve not only as an access area to the auditorium but also as an art gallery allowing for exhibitions of painting and sculpture.

Those who have seen the Arts theatre are loud in their praises. It has the right atmosphere and there can be no doubt that over the next few years Canada can expect significant contributions from the new theatre at Waterloo.

The architects and engineers for the complete project were Shaw and Moffatt, Toronto.

## REPORT ON A SCHOOL INSTALLATION

by F. W. Martin

This survey was initiated by a visit to Head Office from the Drama Mistress. She complained that although she had been provided with a brand new Strand Electric installation it did not conform with present practice as she understood it, and did not enable her to light her production as she wished to do. She suggested, therefore a visit when we were next in the area to see what could be done, if anything, to improve matters, bearing in mind that they had recently spent a considerable amount of money on the installation and could not afford to pay for drastic modifications. The only information was that it was all our equipment and a brand new hall.

Two days later I took the opportunity on the way back to London of making a detour and calling at the school. I met the lady and the Headmaster and was taken into the new hall which proved to be the usual school hall approximately 80 ft. long 40 ft. wide with a small balcony at one end and an orthodox proscenium stage with a small forestage at the other. The hall ceiling is fairly high and the whole presents a good daytime appearance tastefully decorated in matt white and pastel green giving an impression of good solid respectability and prosperity with, incidentally, decorative pendant fittings sited so as to impede the F.O.H. spot beams. The stage itself has an opening of about 24 ft.  $\times$  14 ft. and has a depth of some 18 ft.

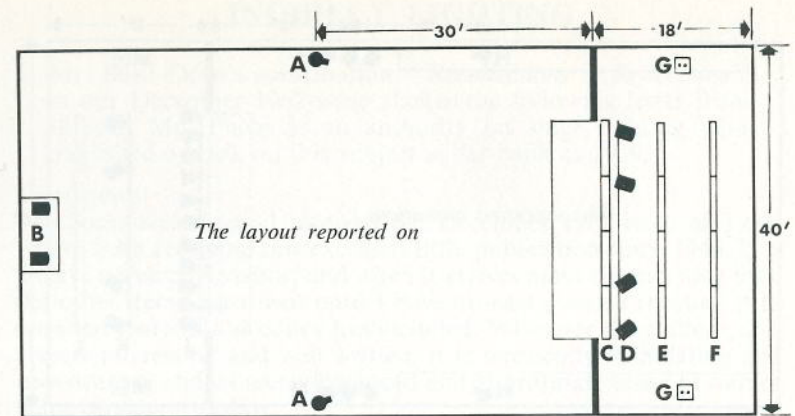
The lighting equipment installed is as follows:

A. Front of House Spots	2—Patt. 23 Profile Spots,	4 circuits
B. Projection Room	2—Patt. 243 Fresnel Spots,	2 circuits
C. No. 1 Batten	4—6 ft. lengths 3 colour Batten,	3 circuits
D. Spot Bar	4—Patt. 45 Junior Spots,	4 circuits
E. No. 2 Batten	4—6 ft. lengths 3 colour Batten,	3 circuits
F. No. 3 Batten	4—6 ft. lengths 3 colour Batten,	3 circuits
G. Stage Dips	2—Patt. 60 Floods with stands,	4 circuits

These 23 circuits, and 1 spare, are controlled from a Junior H.A. Slider Dimmerboard sited actors' left.

The F.O.H. spots were located one on each side wall and too far away from the stage. Thus the beams were at too flat an angle to be useful for normal productions and gave shadows on the back of the set. In addition, of course, there were not enough of them to light the large area formed by the forestage and that part of the stage not covered by No. 1 Batten. The two lanterns in the projection room were presumably for use as following spots but being soft-edged the resultant spill light on the ceiling is useful only for programme reading! The ports, too, are a little on the small side to enable full use to be made of hard-edged following spots, but the positions could be used if these were really considered essential.

On the stage it is impossible, due to the use of battens, to accent the light so that one side of the set can be brighter than



the other, nor is it possible to light in areas. The battens, of course, produce plenty of light but only in a general flood. The spot bar is not sufficiently equipped (4 spots only) to enable any subtle effects to be obtained, it is also up-stage of the No. 1 batten which does not help in the all-important down-stage areas. The mid-stage lighting is also a flooding batten which proves an embarrassment producing a different colour on the bottom of the backcloth to that given by the rear flooding batten. Unless, of course, No. 2 batten is masked off by dropping in No. 3 border, whereupon the border itself is too bright. The rear batten is far too close to the rear cloth to enable it to be used for colour mixing, if such a thing is wanted. The masking of the whole stage is by the usual borders and legs, and the whole of the upperworks over the stage is painted white. A further complication is that the battens are fed through multicore cable from wall connector boxes and not plug boxes.

The scheme, I was relieved to discover, was not prepared by us and was of the sort still too common which could only have been acceptable some 30 years ago when three or four colour battens and footlights were still firmly entrenched.

The immediate action suggested was as follows:

The existing 2 F.O.H. spots to be left *in situ* and set to do down-stage area of the forestage only.

There is a deep pelmet board each side of the hall and one Patt. 23/S and two Patt. 123 (with barndoors) each side should be erected on this pelmet board nearer the stage. This will give four F.O.H. lanterns each side connected in pairs on the four existing circuits and the Patt. 23/S will mask off at the proscenium sides and the Patt. 123's light centre stage.

The No. 1 magazine batten to be removed completely and replaced by a spot and flood bar. There are three batten ways and

## INDIRECT LIGHTING

Mr. Basil Dean's contribution "*Recollections & Reflections*" in our December 1962 issue elicited the following letter from Illinois. Mr. Fuchs is an authority on stage lighting who published a book on this subject as far back as 1929.

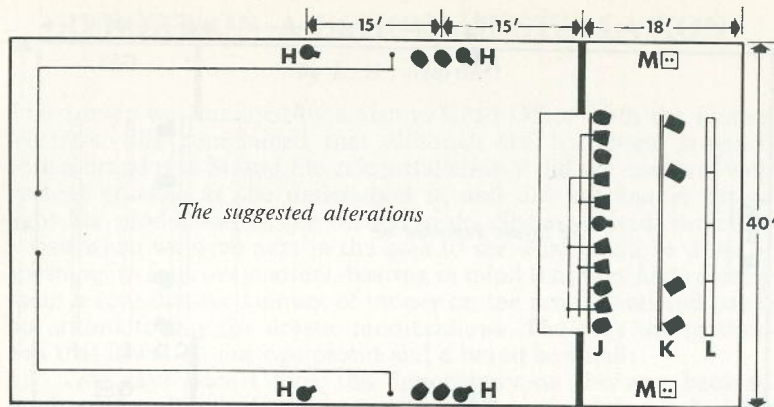
Gentlemen:

Some weeks ago I received the December 1962 issue of TABS. I have been receiving this excellent little publication since 1946. It is always a welcome visitor, and when it arrives amid the morning mail the other items must wait until I have at least glanced through it to see what material the editor has included. Whatever the content, it is always interesting and well written, it is frequently stimulating and provocative, and its nicely-balanced and appropriate sense of humor helps brighten the day.

Accompanying Basil Dean's article in the current issue I found an illustration that recalled to me vividly a day almost forty years ago when Louis Hartmann and his crew, in the basement of the Belasco Theatre in New York, hoisted to the ceiling Hartmann's "indirect borderlight" unit, consisting of six incandescent spotlights with their adjustable bowed circular reflector discs. These discs were of light sheet steel covered with silver leaf, which in turn was coated with transparent lacquer. The reason for raising the unit above head level was to enable me to take a picture of it from below in what would be its normal operating position.

Having had previous experience with the photography of light ray patterns, I came prepared with a carton of cigarettes, which I distributed to the crew in return for their services in standing beneath the equipment and blowing up clouds of thin cigarette smoke that helped define the sharp "back-focused" incident beam of light from each spotlight and the semi-diffused reflected beam from the corresponding reflector disc. I took front and rear views, at various time exposures, and managed to get several fairly good negatives which showed the operation clearly. I gave some prints to Hartmann, who I presume in turn gave one to Mr. Dean along with the sample reflector disc which Mr. Dean brought back with him to England. I, too, was much impressed with the possibilities of reflected "indirect" light for stage lighting purposes, and I used a picture of the Hartmann unit in 1926 in a bulletin on stage lighting that I wrote with Mr. A. L. Powell for the Edison Lamp Works, and again in 1929 in my book, *Stage Lighting*. This picture was a rear view, the same as appeared in TABS. In 1930 Mr. Hartmann used the front view picture, in line cut form, in his volume *Theatre Lighting*, which is a most interesting record of the stage lighting work done by Hartmann in Belasco's service.

I later experimented with indirect light from the borderlight and teaser positions but eventually abandoned it because the equipment proved too bulky for most stage conditions. I did find it



four spot ways on the board making a total of seven so that this spot and flood bar to be two flood circuits of three Patt. 137 floods each; fitted with hoods. The five remaining circuits to be spots, Patt. 123 with barndoors.

The wall connector boxes to be replaced by plug boxes and the existing spot bar to be moved to a midstage position. The rear batten to be moved away from the rear cloth.

The next stage is for No. 2 batten to be removed and the two projection room circuits to be paralleled to further sockets F.O.H. on the pelmet board to obtain extra circuits. This would give six circuits on the board feeding F.O.H. spots and it is suggested that these circuits should feed a 12-way socket box with the sockets in pairs. Twelve separate circuits to be run back from the F.O.H. spots position to terminate in flexible leads and plug tops thus allowing the spots to be plugged up as desired for a production.

The alterations would provide the following:

H. Front of House Spots	4—Patt. 23 Profile Spots	} 6 circuits
	4—Patt. 123 Fresnel Spots	
J. No. 1 Barrel	4—Patt. 123 Fresnel Spots,	4 circuits
	1—Patt. 23 Profile Spot,	1 circuit
	6—Patt. 137 Junior Floods with hoods,	2 circuits
K. No. 2 Barrel	4—Patt. 45 Junior Spots,	4 circuits
L. Cyclorama Barrel	4—6 ft. lengths 3 colour Batten,	3 circuits
M. Stage Dips	2—Patt. 60 Floods with stands,	4 circuits

The 24 circuits controlled by a Junior H.A. Slider Dimmerboard.

With this equipment creative stage lighting, not just doubtful illumination of the actors, can be achieved. It may come as a surprise to some, but the initial cost of the old and the new are near enough the same.



practicable and very effective, however, in the footlight position (as well as logical, since under natural conditions most light from below is diffused reflected light). As a result I have designed indirect footlights for many of the larger and more liberally-budgeted stages that I have planned over the years. This indirect footlight is no longer a hand-crafted curiosity; it has been in commercial production for some ten years.

Indirect lighting, I have found, is also very effective in tight spots such as behind doorways and other entrances. Borrowing techniques which I picked up during a stint of lighting for motion picture production, I often use reflecting shields about three feet square, with matte and sometimes semi-matte surfaces, in conjunction with spotlights; sometimes I even have a section of the rear of scenery painted for what photographers have come to call "bounce light" effect. I have found that if the rear of ground rows are painted white (or with aluminium paint) and the sky base-lights directed onto them, the horizon light at the base of the sky will be softer and better blended than if the light is used directly on the sky. I feel that indirect light has some distinctive advantages which can help achieve what Mr. Dean refers to as "natty" lighting, and which warrant wider use and experimentation with it on the stage, certainly for production styles of the highly finished and "natty" type, where lighting should be applied deftly and unobtrusively. I think Mr. Dean has done the lighting art a service in calling attention to the stage use of indirect light in his very interesting *Recollections and Reflections*.

I look forward to receiving future issues of TABS. My best wishes to it, to Strand, and to members of the organization.

Sincerely,

Theodore Fuchs

N. U. SPEECH BUILDING, EVANSTON, ILLINOIS