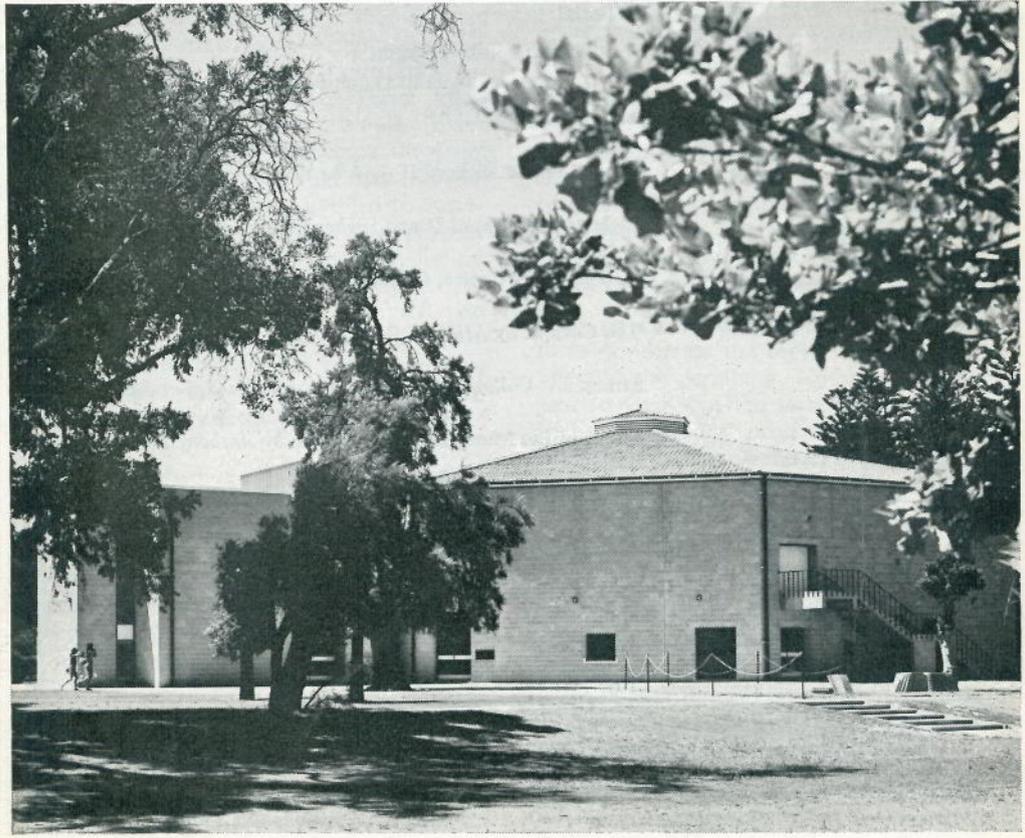




TABS

March 1970 Vol. 28 No. 1



TABS

Published by
Rank Strand Electric Limited
29 King Street, Covent Garden,
London W.C.2

Editor: Frederick Bentham

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Cover picture:

The Octagon Theatre, University of Western Australia, Perth. (Architects: Hill & Parkinson with Roger Johnson).

The interior of this thrust stage theatre was described and illustrated in our last issue.

The Pursuit of Happiness

If we accept that when given a choice most people do not just work for money but for the pleasure of doing certain jobs then some strange features appear. The man who likes meeting people will usually be found doing just this and the man who likes doing stage lighting will get as near to that as he can. It is also possible to combine the two. There could even be someone who likes wall draping and he will be found practising his, to others, insipid craft in some cinema reconstruction or other. Many of the things men practise are ancient crafts indeed, after all the Bayeux Organisation were wall draping in 1066.

What we do not realise is that a lot of jobs that we may regard as painful necessities are also satisfying occupations for those that pursue them. Those international conferences for example. There are not only people who enjoy them but they like them so much that they leave no stone unturned or form unfilled to ensure that they will go to more and more of them. Thus conferences tend to be held for the conference people and a closed circle of intense activity goes on year by year which is an end in itself. Of course it is unlikely to do much good but it can do no harm either and it serves the perfectly justifiable purpose of keeping a group of people happy.

Trouble only arises when one of these circles of activity impinges on another. Thus we mentioned "no form unfilled" just now and many would-be conference attenders are deprived of their pleasure because they cannot face the task of filling up the many application forms. Now these forms are not a necessity as such except to that other circle, those who love devising forms. We others tend to think of the form devisers as a gang of hard driven wan-faced officials toiling away in those frightful government blocks of offices or those dingy town hall basements.

This is not so. Those who invent, design and make forms are people who have gravitated to that work because it exercises a fascination for them—they can no more resist it than your true theatre man can resist the lure of what can be roughly classified as "The Footlights" or "The Salisbury".

Today's problems all stem from the moment any enterprise becomes too large to be carried in the head of the man running it. From then on the specialists take over and the centre becomes populated by form devisers while in the field of battle, where work of a productive kind may take place, more and more time is spent filling up forms to feed back information about that work.

No harm in this, it may be said. Communication is important, and feedback is a well known engineering principle, and it is the fashion to clothe all governmental and commercial activity in an aura of science and engineering. Much as it used to be the practice to try to force the English language into a Latin grammar type straitjacket.

To return to our subject, so far we have form devisers at the centre and the form fillers at the periphery. Nothing has been said so far about the form readers. This has until recently presented a difficulty, the better the form—the more complete it was as a work of art in its own right, the less likely it was to get read. The deviser himself had by then got tired of that particular example and had moved on to further creative (in the form sense) activity: in any case the form was never intended for him. It was intended for the man at the centre so that he could read the things in order to keep himself informed. Of course he had no time for ploughing through all that detail so underlings made a précis.

Nowadays it is a matter of their punching up the information to feed a computer. The machine then stands at the ready for

the questions. So there it is full of the commonplace and also the most remarkable—the unique. The trouble is it can only answer the questions it is programmed for and the question to extract the unique has to be unique in itself. What is known as the law of averages goes into action and answers are obtained in terms of the multitude, which means the obvious. This is why reports and enquiries so often produce such commonsense answers—fancy doing all that to find out what any fool knows, is often the reaction on reading them.

Now the ideas that are worth having are neither *common* or *sense*. Can any prospect be offered that our computer will produce

Toccat and Fugue in D Jumbo

It is strange that the Toccata and Fugue in D Minor should have become the best known to the public of all the organ works of Johann Sebastian Bach. Those were the days before modern marketing took over, otherwise it would have been pointed out to him that his Toccata and Fugue in F Major would be bound to win as “top of the ops”, no future for something with Minor in the title.

In our enlightened times in “D Jumbo” or in “F Super Jumbo” would get over the problem perhaps. Nothing less than the large size will sell and we have been firmly told that the expression “Junior control” should not be used for our switchboards in America. Strange because to us junior seems inflated to an importance out of all proportion to his years over there.

All this nonsense has been provoked by a criticism that by allowing Brian Legge to use the title “Two Minor Theatres” in our last issue we were running them down. How are we ever going to keep our feet on the ground and classify theatres properly if we cannot imply that some are smaller and/or equipped to less complete standards than others? A big book is not necessarily more important than a little one. Is the quartet a lesser form of chamber

something worth having therefore? Some hope lies in the fact that occasionally a computer goes completely berserk. We read the kind of thing in our papers, a gas bill in thousands of pounds for a three-roomed houselet with no gas, only electricity.

Thus a commonplace question might by chance produce an original answer or an original question a commonplace answer. In either case the result could be really exciting—a swing into a novel course of action. All we have to do therefore in order to enjoy a happy new decade is to ensure that certain computers will not be programmed to see the error of their strays.

music than the octet?

There can be no doubt that we have in recent years collected a number of very interesting and important theatres of various types whose very success lies in the fact that they were designed to the discipline of a particular target—a statute of limitations—and did not aim to ape their wealthier brethren. What are we to call these?

The expression Little theatre has become associated with the amateur theatre and excellent though the work of some of these is, it is essential to make a distinction between such a theatre and one where professionals work night in, night out to earn their living. To revive the expression “Minor theatre” seemed the answer but alas! Surely it is not too much to expect that the theatre which makes its living from giving the true value to words should learn the true value of words. Meantime verbal inflation rages and we have perhaps to design a new classification for Cinemoid sheets: Large, Extra Large, Jumbo, Super Jumbo and Double Jumbo. Since the last named will be the 49 by 21 inches we always made it, the question is “how large is the large?”; the answer to be truthful is “pretty small, yes! pretty small!”

One to Root Two

Take a sheet of paper one metre in area. What one metre by one metre? Not so: 841 millimetres \times 1189 millimetres. Why? Because the new SI Metric system allows us only metres or millimetres and that is what you get if you decide to have a sheet of the proportion of $1 : \sqrt{2}$ with an area of one metre. Fold this A0 sheet once and you get A1, twice for A2, three times for A3, four times for A4 and five times for A5 which is the new shape of TABS. Go on to fold up to A7 and the answer is the TABS Lighting Compendium we introduced a year ago. It is said to be impossible to fold any sheet of paper whatever its size and nature more than eight times, so there are limits to this exercise readers will be glad to know.

The magic sheet is the A4. There was a little enamel plate stuck on the middle-class home: “No Hawkers No Circulars” it proclaimed. Nobody has bothered to say such a thing for decades now because they know it would have no effect whatever. The deluge of paper circulars—“mail shots” we believe the technical term is—cannot be stopped.

Alone the architects have for some years now taken a firm stand; A4 or else, they declare! There are other conditions. The sheet must contain a reference, SfB number; not just anywhere but in just the right place to muck up the layout. This has since been “improved” and we have the CI/SfB number. This, it so happens, has only been accepted, we are told, by Britain and Iceland; therefore two references must appear. Thus it is that the inoffensive Pattern 123 500-watt Fresnel spot is burdened with CI/SfB 520 (63.1) Xh4 and SfB (1961) (85): nor is this all, for the first implies that the spotlight is classified as stage lighting. In fact it is also suitable for and much used in television studio work. This means that a different reference is required, but the system does not permit two references to be printed on the one sheet. Never mind, the “shot” arrives and

the system swings into action. No mercy is shown to anything that is not A4, straight into the wastepaper basket it goes. Those that measure up correctly are examined for SfB reference and all the rest; then seized by the office girl with sterile tongs and inserted immediately in the appropriate place within the series of tin tombs dedicated to the purpose.

The astute reader will note that during the process no-one has read anything except the reference number and there would appear to be little chance that anyone will, during the time that the literature has any newsworthy relevance. The question will therefore be asked—Is the architect’s office able to derive any benefit from the process? The answer must be a conditional affirmative. Should the SfB number fall in the right range then the girl has to stoop to the filing cabinet and should the mini-skirt still be with us . . . !

The A5 Tabs

The change to metric in page size for TABS may require some experiments in format before we feel at home once more. The use of colour is a coincidence. There is no intention of including a regular colour supplement but only on those occasions when the nature of the material justifies it. We welcome comments on the present layout and indeed suggestions readers may have for the improvement of this journal.

Looking Back

An index for TABS Vols. 25, 26 and 27 is available free of charge for those who wish to bind their copies.

Looking Forward

The Century Lighting article promised for this issue has been delayed. However Ed. Kook reports he is at work checking his references in the theatre library at Lincoln Centre.

Edward II and Richard II

The Grand Tour of the Prospect Theatre Company*. Five countries, ten theatres.

The production of *Edward II* which has become almost a cult in the past months was conceived originally and principally in terms of presentation at the Assembly Hall for the 1969 Edinburgh International Festival. Never in their wildest dreams can the architects of the Hall have envisaged its use as a theatre (if they had they might have been the earliest creators of that spectre of TABS pages—the multi-purpose hall) but each year sees the transformation from a dark and heavy-beamed religious aspect to a theatre seating over 1,380 people and provided with dressing rooms, a lighting rig and control, sound and stage management positions and a long thrust. This last is conditioned by the unalterable shape of the Moderator's dais and has been a feature of Assembly Hall productions since the late forties. The original concept, exemplified by Tyrone Guthrie's production of *The Three Estates*, was built around the combination of the thrust approached by tiers of steps and using auditorium entrances. From a basic level of 4 ft. 6 in. treads were installed to include the 9-ft. level of the North Gallery in the playing area. The auditorium, despite the height of the stage, was predominantly above stage level and the other three galleries give good sweeping views across the stage.

Many variations on this basic theme have been attempted, all aiming at the integration of the environment of the actor with that of the spectator but tempered always by the nature of the building and the controls of the multifarious bodies which have an interest in it. If one includes the Army who issue passes during the Tattoo the tally is seven. The disadvantage of this particular thrust stage has been the imbalance between the focal point of the

by John Faulkner

auditorium and the strong point of the stage which also suffered from growing imperceptibly from the floor rather than having a strong shape of its own. Despite the erection of a physical barrier round the stage area for the 1968 production of *Hamlet* the length of thrust remained and the isolation of the actor remained a problem.

The setting for *Edward II* was a twofold innovation. The acting area, a disc of brass and aluminium in concentric circles at once brought the strong point of the stage within the same area as the focal point of the auditorium sightlines as well as widening the playing area by six feet. The circular motif was repeated in a curving forestage, sweeping glass fibre ramps from the disc to the gallery and a ring nestling, in the crowded lighting rig, which was on a rake convergent to that of the disc. The total area was substantially the same as the original but projected into the audience space six feet less.

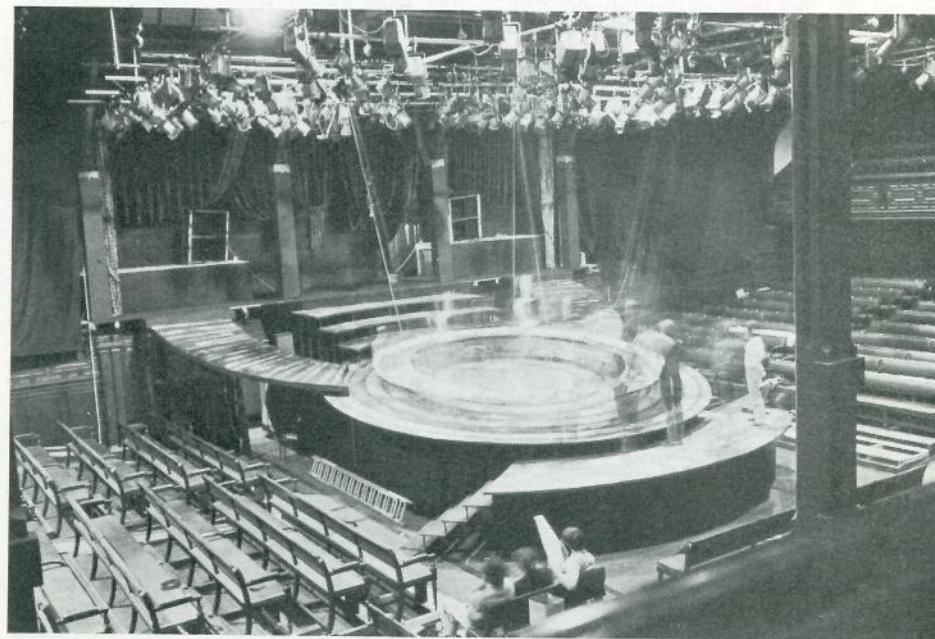
The whole procedure of conversion occupies more than three weeks and the energies of a score of people. As the project is to build a theatre (interior only) this is not however excessive. Some of the dimensions are. The lighting rig is suspended from a scaffolding structure tied in to the main beams of the 65-ft. span timber roof and its all-up weight is four and a half tons including the one hundred and fifty plus lanterns—a blob of hammer finish for every square yard of grid. For the control we were fortunate enough this year to persuade the BBC to loan their control box, high in the West Gallery. From here the operator has a superb view of the stage and rig, although the audience missed some of his more florid operating gestures.

With two plays in the repertoire the week which was devoted to focusing and basic plotting was not over generous, but the previous year's experience had produced some useful guidelines for this enlarged layout. The angles are so steep and the area so small that even more care must be exercised to avoid spillage, while the odd levels of setting and hall make work with both ladder and Tallescope very trying.

Conditions of work were, however, a passing inconvenience, merely the culmination of eight months of planning and discussion. From the first production meetings in January 1969 it had been plain that while the setting for Edinburgh was to be of paramount importance there were many other projects which had to be dovetailed to the basic idea of the disc, forestage and ramps. At first only a proscenium tour in the DALTA season was intended subsequent to a visit to Eastern Europe, but so

much replanning occurred during the year that only one play, *Richard II*, went to Czechoslovakia, a season at the Mermaid was incorporated and as a final transmogrification the repertoire has been put into the Piccadilly Theatre for a season. The total number of recognisable variations on the basic theme was eight but the total number of alterations beyond calculation. The circle with the horns haunted the drawing-board for a full year.

It was fortunate that the initial period was concerned with planning solely for Edinburgh and the preparation of a mock-up rehearsal setting. It was during this period that the Mermaid season was mooted and the whole building programme had to be rephased to include non-flammable (as opposed to normal fire-proof) materials. More important than this an open stage was added to the already existing list of proscenium and proscenium with apron. This welcome by-



Edward II and Richard II: Rigging the original Prospect Theatre Company production at the Assembly Hall, Edinburgh.

*Director, Toby Robertson: Admin. Director, Iain Mackintosh: Tech. Director, John Faulkner.

product did not altogether relieve the weight of what became an almost obsessive search.

One of the features of *Edward II* was the gold and silver chain décor with a heavy, square, four-inch link which was to be simulated in plastic. The industry did not seem ready for urgent enquiries for non-flammable, injection mouldable plastics and there were moments, after ploughing through the complete list of suppliers to the *QE II*, when no solution seemed likely especially in the face of the Mermaid regulations. As is usual in these situations the memory of a chance meeting on a barge in the Grand Union Canal provided the answer, and tooling soon commenced for what was to be an effect truly worth all the effort spent in its execution. The structural problems of the settings were compounded on the one hand by the topography of the Assembly Hall and the demands of the future shapes the sets would have to take. In addition different types of adhesives had to be found to bond brass and aluminium to wood (and to resist attack with everything from boot to broadsword) and methods devised to effect a speedy change-over from the glittering metal and barbarity of *Edward II* to the cloth of gold pomp of *Richard II*, bearing in mind constantly the loading doors of the Ilyushin 18! Time brought the answer to all these problems sometimes, as above, from an unexpected source but more often as a result of patient probing and research.

To the general question of how a setting and lighting complex designed specifically for an awkward arena stage (for want of any other description) could transfer to three other dissimilar types of theatre was one which did not find a solution through the same methods. It was obvious that, from the actors' point of view, the major difference would lie in the position of the audience which would be ranged entirely in front. Groupings, therefore, which from three sides were strong would turn into uninteresting straight lines and clear open groupings into a tangle of masking problems. The first urge was to bring the whole set out through the proscenium, to re-

create as far as possible the relation between the two which would operate in Edinburgh. Immediately fire and safety regulations arise, for the iron curtain would then be obstructed, necessitating expensive alterations and the provision of hardwood buffers and seals. The lengthened time of fitting up would also militate against this.

From the point of view of lighting this half and half position is unsatisfactory since even in those theatres normally using a forestage or apron it is rare to find a position from which that area can be lit in such a way that there can be a smooth pick up from Apron to F.O.H. to spot bar coverage. Even had there been a possibility of justifying all the various expenses in time and money it would scarcely have been artistically viable to come through into the auditorium at Cardiff or Leeds where the proscenium shape is dominant. Tracking back on the thinking we discovered that there was an unexplored avenue. We had all taken for granted that the basic relationships between the constituent elements of the set would have to be maintained to preserve the strength of the design. This had led to the proscenium/apron variation being looked at in the same terms as the Edinburgh/Mermaid variation, that is the preservation of strength by the height and rake. This in fact was only true of Edinburgh and the Mermaid. Where the audience was in a pure frontal position, height and rake meant a great deal less. The Mermaid was therefore treated as an entirely separate project.

As the rake of the auditorium is so steep it was essential (but not for the same reason as at the Assembly Hall) to maintain the height of the rear rostrum and the rake of the disc. At Edinburgh the central position of the stage had made it simple to achieve the illusion that the disc/ramps/treads complex was floating, unsupported, and that the actor appeared rather than entered. At the Mermaid the audience were presented with the front elevation only; it was the different massing of the chains which had to be used to provide a background against which the metal disc could seem to



Richard II. Prospect Theatre Company directed by Richard Cottrell. Production designed by Tim Goodchild on a stage designed by Kenneth Rowell. Photos Michael Peto.



float. Contrary to normal practice the set was also allowed to project (albeit a mere eighteen inches) into the auditorium. This invasion of the audience space, however slight, aided the bridging of the gap between the different formats. Other, more peculiar, aspects of the Mermaid's back-stage layout produced some strange spiral entrances and congestion which made the company long for the wide open spaces of the Assembly Hall. At the Mermaid, as indeed everywhere, *Richard II* was less of a problem. The overall gold tone tended to isolate itself against predominant blackness and the less episodic nature of the play lent itself to the stage with ease once the inevitable masking problems had been solved. On the printed page this transition seems one of logic and of order; in the course of the tour it entailed the virtual rebuilding of the understructures, whose superstructure was still in use in Edinburgh, and decimal calculations of clearances on, for instance, the cantilevered centre trap in *Edward II*, which had

had a generous clearance in Edinburgh, and had now to operate in 2ft. 9 in.

As soon as the idea of keeping the rake both for the apron and proscenium theatres was abandoned, the workable solution seemed to offer itself almost unbidden. At both Cambridge and Southampton the disc could sit flat on the stage (and project through the iron) and elements of the original mock-up rehearsal set could be added to keep the height relationships. This was unplanned; it was extremely fortunate that the mock-up had been visualised as having the mock disc flat in the rehearsal room. In the apron format this levelling had the effect of concentrating the action, for although all the stage was then at the same height the action was contained on the patterned surface as it moved through the proscenium arch. It is pointless to pretend that the whole flow of the action could be maintained with the intervention of the proscenium wall and the lack of depth. Despite cutting down the length of the old



Edward II. Prospect Theatre Company: Directed by Toby Robertson: Designer, Kenneth Rowell. Photo, J. Gilbert.



Edward II: at Nuffield, Southampton. 30 ft. pros. 430 seats. Photo, J. Daniell.

thrust in Edinburgh we had been using over 40 ft. It was the framing of the setting and the difficulty of picking up evenly from apron to setting line with the lighting which most exercised our minds. Acoustic problems too always have to be watched as the action moves from inside the proscenium to the apron as well as the physical relation between actor and audience when he crosses "the line".

This part of the enterprise had been left in preparation in England while the bulk of the company were flown off to British week in Vienna and to give two performances in Bratislava of *Richard II*.

Here we had elected to construct a simple rostrum set from stock and to mix local lighting equipment with gear brought from England. During the rest of the sections of the tour, the planning and execution being integrated, the problems were more those of artistic choice than of technicalities. The experiment was interesting but not to be recommended as a general method of resolving the transport and fit-up deadlines

on such a tour. The end result was a splendid version of *Richard II*, but it was a version not the original. The rapturous receptions were some compensation.

It was then from this unreal make and mend world that we returned to commence the DALTA tour. The apron configurations were, as mentioned above, restaged with some relation to the Assembly Hall idea. In the proscenium theatres there was no room for manoeuvre. The simple device of raising the disc on a 9-in. base and combining this with an adapted version of a second set of rehearsal rostrums surrounded by a classic four-leg and border masking liberally hung with chain created a more than adequate picture within the frame. The whole still kept a floating feeling by the lavish use of old-fashioned blackness. Shortly after this the *Daily Telegraph* characterised the company as one which built its sets specifically for touring and rebuilt to suit each individual theatre. Too true!

Whilst we had thought that the idea of



Edward II: at New Theatre, Cardiff. 30 ft. pros. 1,410 seats. Photo, J. Daniell.

Edward II: at Grand Theatre, Leeds. 33 ft. pros. 1,560 seats. Photo, J. Daniell.



the circle had been given most of the treatments to which it lent itself, the Piccadilly project proved this to be untrue. We had been up in the air, down at ground level and in between. The Piccadilly gave us the opportunity to add a further dimension—downwards. By removing portions of the modular stage and combining this with coming out into the auditorium and up from the disc via the old unsupported ramps we achieved the continuous sweep of entrance and exit which had danced before us like a will-o'-the-wisp for the better part of that year of production effort.

Lighting for Edward II and Richard II

by John B. Read

My original brief was to design the lighting layout and lighting design for both productions at Edinburgh.

A rig had to be planned that would be flexible enough to serve both productions equally without necessitating elaborate re-focusing and recolouring during production changeovers. The size of the installation had to be considered carefully, the number of lanterns and dimmer ways used, the availability of equipment and above all the cost.

Rigging is expensive, especially where a building such as the Assembly Hall is used only once a year on a Festival Theatre scale.

A lighting grid built from 2 in. OD scaffolding has to be erected and tied through a false ceiling to the main roof rafters with a minimum of twenty suspension points. The equipment must then be evenly distributed over the roof area. Internally wired spotbars can then be clamped to the grid or lanterns can be placed straight on to the grid itself and cables roped to the scaffolding.

The structure has to hang 4 ft. below the false ceiling and this is just far enough from the stage for a reasonable throw.

On the D.S. edge of the set the spotbar height was 17 ft. 6 in. from the stage. At the U.S. edge of the raked disc it was 16 ft. and the clearance at the top of the ramps was only 11 ft.

The last setting now combines all the various ideas which have been behind the other guises which the disc has assumed and the ease with which the adaptation was made argues very loudly for more flexibility of this sort in the design of stages. Space and ease of operation rank in this case above machinery or a designed "multi-purposeness". To bring the wheel full circle I can point out that perhaps the Assembly Hall architects did have something however unconsciously to commend them in leaving a space to be used.

The spotbar height partly influenced the choice of lanterns. Also the grid was fully exposed with no proscenium or masking to hide it, and most members of the audience had an equally good view of stage and lighting equipment.

I decided that profile spotlights would be better than Fresnel lanterns fitted with barn doors for shuttering unwanted spill from the auditorium, and that the smaller P.C. lens would be less distracting. The remaining factor to be considered was beam angle and coverage.

The question was how many areas to divide the stage into, and from how many positions I must light the actors. Of the 1380 seats at the Assembly Hall at least 500 were side positions, and needed a key light to the actors from their direction. This meant that most stage areas had to be illuminated from three or four positions forming 270 degrees. This did not mean it was necessary to have four lamps to an area all on at once, but it was an advantage to be able to use them at various levels.

The main disc measured 21 ft. in diameter and split up very conveniently into three measurements of 7 ft. across its centre line. Therefore the complete disc made up nine areas of about 7 ft. in width.

Using a wide angle pattern 264 with a lens height of about 16 ft. and with the lantern 13 ft. 6 in. away from the centre of the area to be illuminated, it was possible

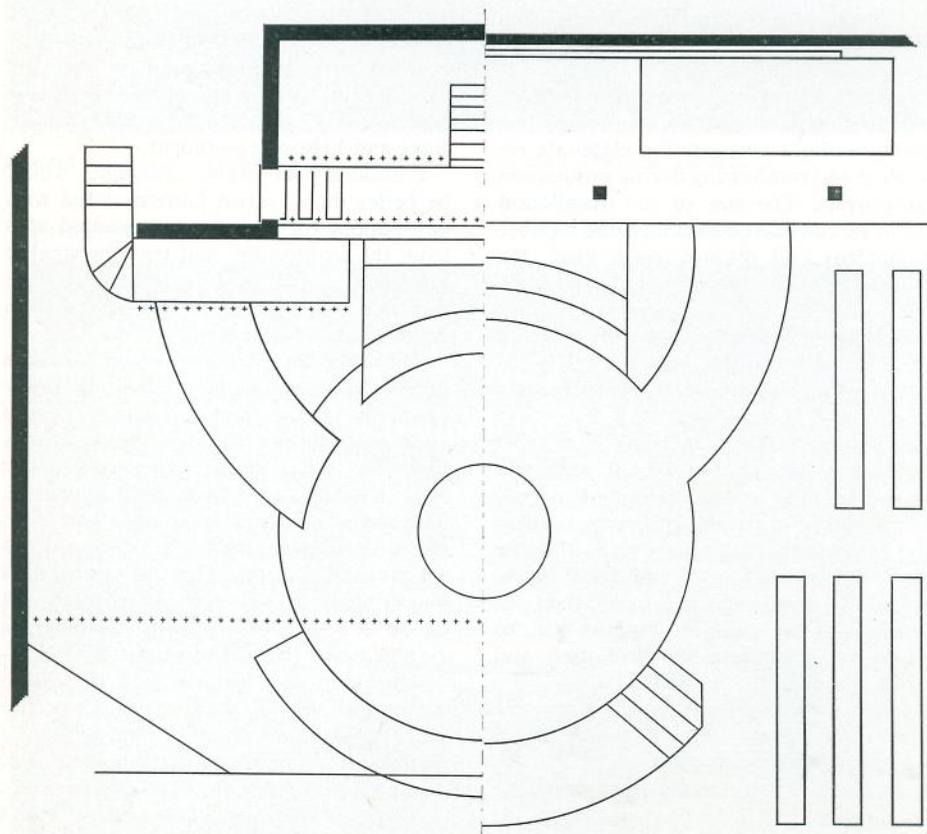
to achieve a coverage of about 8 ft. in width and an angle of 40 degrees to the actors' faces. When the height between lens and stage decreased the distance between lantern and area had to be increased. The ramps and main stairs required a number of lanterns to complete the coverage and with requirements for acting light alone I ended up with many more lanterns on the plan than we could possibly control, or afford. Severe cutting had to take place in order to get the rig down to a realistic number of lanterns.

While working on the lantern layout I began to think about the form of control. From looking at the plan 40 channels seemed impossible, 80 would have been the ideal, but not available. Fortunately we

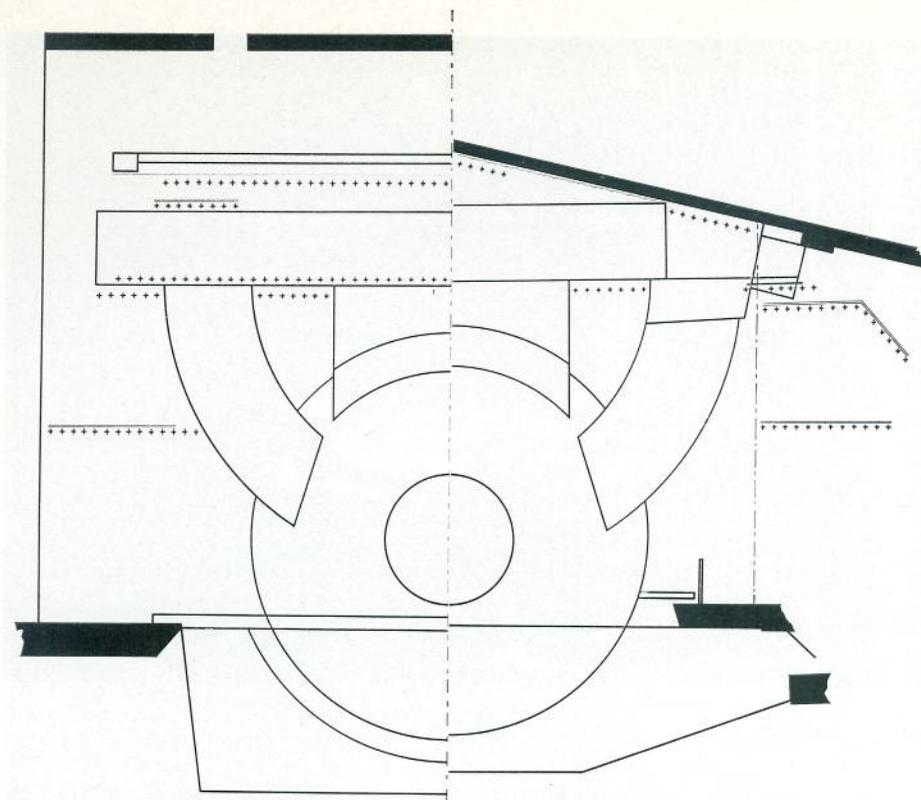
were able to get a JP/60 3-preset board, fitted with 2K dimmers and with the facility of having 30 channels terminating on a switch panel with a choice of an A or B outlet.

A second operator was employed to switch circuits, to re-plug and to look after the racks during performance. The desk was placed out front in the BBC sound box and the board operator had a good view of the stage.

Focusing went according to plan. It was proved a great advantage to be able to shutter unwanted light from the auditorium and to create as tight an illuminated area as possible. The coverage worked out well, there were no dark holes—but nothing to spare.



Plan: Edward II and Richard II
 R.H. plan: original, Assembly Hall, Edinburgh. Thrust Stage, 1380 seats.
 L.H. plan: adapted for Mermaid, London. End Stage, 48 ft. wide, 498 seats.



Plan: Edward II and Richard II. R.H. plan: Arts Theatre, Cambridge; Pros. Stage 26 ft. wide plus forestage with entrances, 600 seats. L.H. plan: Nuffield Theatre, Southampton. Pros. Stage 30 ft. wide plus forestage without entrances, 430 seats.

The actual lighting took the time. I had forgotten how different lighting for the open stage can be. The rules and the experience attached to proscenium arch work do not apply. Balance between direction and the number of lanterns used is critical. One needs many more lanterns to give a complete coverage for everyone in the house, but if they are used badly the result can be flat and uninteresting. With careful use of level it is possible that most people will be able to see the actors' faces within the mood and atmosphere that the play and the director demand. Subtle changes may be necessary to favour one section of the audience and then the other. This usually fits in with a change of mood or staging.

Most of the rig was set for basic coverage and as already stated was profile equip-

ment. We did use some Fresnel equipment which consisted of pattern 223 1Ks and pattern 243 2Ks. The pattern 223s were used for heavy colour washes and the 2K 243s for specific backlight jobs. General backlight was formed from the basic rig—what was backlight for one section of the house was frontlight for another. Each production had about 12 specials used only for that production. The only equipment refocused or recoloured between the productions were backing lamps that could be reached from a 6-ft. ladder.

I had planned the number and type of lighting changes to be made after having discussions with the director and after watching run-through rehearsals.

We allocated three morning sessions for lighting *Edward II* and agreed with the director that we could continue to light



Edward II: scenic and lighting rig at the Mermaid Theatre, London. Lighting for all versions of both productions by John B. Read.

throughout the actors' rehearsals in the afternoons and evenings. This proved a very good method of working. We were able to clean up the lighting as the actors rehearsed. I had worked with the switchboard operator many times before and knew his ability to handle multiple cues with ease and to reset very quickly. We had both used the JP/60 control before and therefore knew exactly the type of cues that we could achieve best.

Part of *Richard II* was lit at a lighting rehearsal and the remainder was lit with actors on stage during a stopping rehearsal. *Richard II* was a much more gentle and softer show for lighting and it was a pleasure to work on this production in contrast to *Edward*.

From the Assembly Hall to the Mermaid. The set had to be modified to fit on to the stage. The sweeping ramp entrances had to be cut down and the strength that these unsupported ramps gave to the Edinburgh set was lost. However, additional grey chains were added to the sides of the

stage to give a new depth.

Changes in the lighting layout had to be made. The audience were no longer on three sides—just out front, and so the rig could be developed towards the proscenium version that the play would need later. I redesigned the basic coverage and had to use many more Fresnel lanterns to do the job.

There were very few profile lanterns available here at the time and I did have great problems with spill and cut-offs. In my opinion there is no substitute for profile lanterns for open stage work. The Fresnel gear became very useful once the set was put behind the proscenium arch.

Transferring cues to the Mermaid was a difficult job. The Edinburgh board was a three preset JP/60. The Mermaid control is a 54-channel SR board with no preset but two group masters. Circuits can be selected to either master, or switched independent of the master but remaining under the control of their own lever. A crossfade can be done on this board using

masters but if the cue involves moving live circuits to a new level a lot of work has to be done by hand. The Edinburgh plot was a complete state of crossfades with level changing all the time and it was the worst type of plot to transfer from a JP board to an SR. Naturally we wanted to use the lighting sequences in the same way as we had done at Edinburgh, but some modification had to take place. Fortunately the board operator agreed to plot a "board-state" plot as opposed to a "running-state" plot, and then sort it out afterwards. *Richard II* proved the easier of the two productions to transfer and we were able to rely on straight additions and subtractions on group selection with some lever movement by hand if necessary.

Edward was much more difficult with its three-part cues moving a great number of circuits to level and then changing level on the fast sequences. I tried the additions

and subtractions technique as far as possible and "cooked" the level on some cues to make sure it was right for others. However, the complexity of the lighting was too difficult to do this all the time, and we had to rely on the operator to do manual lever changes as well as master crossfades. It took two operators to work the show, and we pushed the equipment to the limit of its flexibility.

Lighting in Vienna was unrewarding and I was pleased to get back to Cambridge with a fully British rig including an LP system. *Edward* went on the LP so easily and the operator did the show on the first night perfectly without a dress rehearsal. Cambridge saw a new lighting layout—this time for proscenium arch plus apron. Pros. booms and perches became useful and with the proscenium in place, more low-angle side lighting was necessary. The basic set was modified. The disc was



Edward II: Piccadilly Theatre, London. 30 ft. pros. with modular stage floor removed to open up to basement. 1140 seats.

placed at stage level, and so spill off the sides of the disc on the surrounding stage cloth didn't seem to matter. What became important was to avoid spill on to the side masking.

On to the New Theatre, Cardiff,* and the set went completely behind the pros. for the first time. For me it regained a new strength, and was easier to light. We didn't have a gap between apron to pros. line FOH and spotbar coverage that can happen at Cambridge and Southampton.

Leeds with a 36 channel Grand Master, a 40 channel bracket handle and 12 temporary dimmers needing three operators saw a simpler version of the lighting for both productions and most cues were cut to additions or subtractions with a very

minimum of crossfading level, and Birmingham saw the show on a CD‡ for the first time.

The standard of lighting has varied from theatre to theatre throughout the tour. We have modified the layout and the design to fit the various types of theatre, sometimes losing sight of the original Edinburgh design and sometimes developing it further, and we have now well proved lighting layouts for open stage, end stage, pros. arch with apron or a plain pros. arch theatre.

* SP-80 3 preset 3 group.

‡ CD-120 2-preset 14 group (servo dimmers).

National Arts Centre

Ottawa

by Frederick Bentham

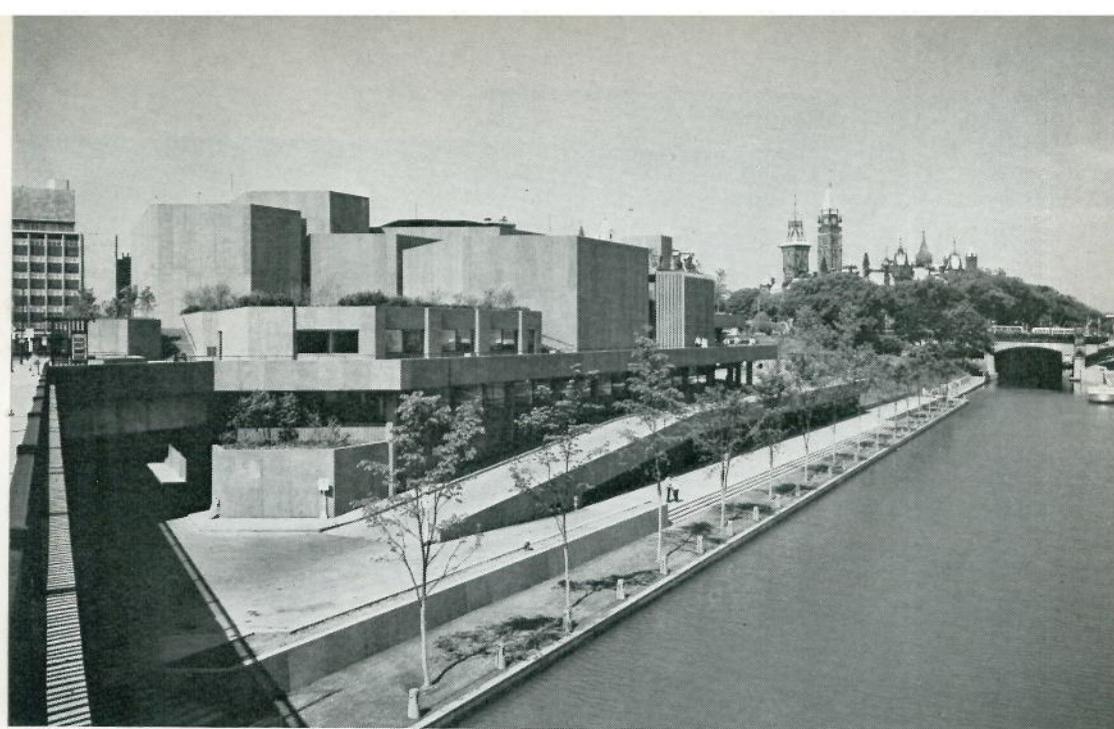
To understand this theatre complex it is necessary to take account of the site—Confederation Square. This sounds a grim way to begin, as if there were something to explain away, and in fact that is just what there is. The building does not look like a theatre from the outside, at least not what one has come to expect of a theatre.

The reason is that many of the other buildings in Confederation Square are so theatrical. The word "Square" suggests a regularity which in fact it does not have. The open ground slopes considerably down to the canal where the National Arts Centre is situated so it is out of the question that any building down there could dominate the others by height anyway. Down by the canal should not deceive. The Rideau canal is neither the grimy, semi-derelict cesspool down by the gasworks of the unknowing or the delightful meandering man-made stream that we,

IWA members who know their English canals, love. This canal is straight and wide with trees and is such as to encourage arrival by state barge—if there were such a thing in Canada.

At the top end of the square is the Parliament House looking like an outside version of Waterhouse's National History Museum in South Kensington. The dominant feature of the townscape is not this important building, however, but the fantastic Hotel Laurier. Arriving in the half light as a stranger, Ottawa seems to consist of this and nothing else. There it towers a nightmare French chateau of a thousand and one rooms. Each of which to judge by the one I slept in, is a complete stage set. I found myself perambulating my room taking pinches of snuff and gracefully flicking away the residue with a flourish of my lace cuffs.

This French extravaganza was built by



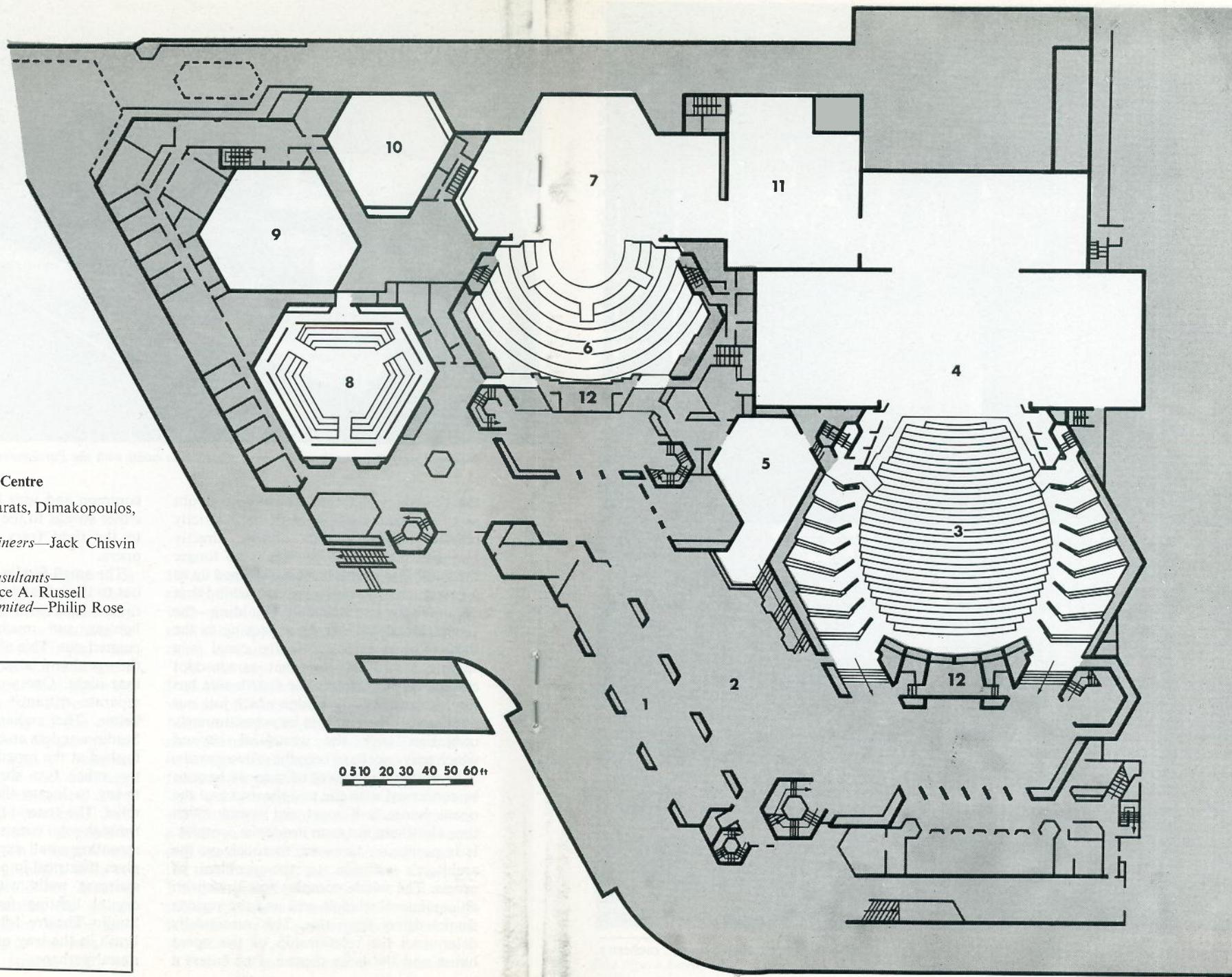
National Arts Centre, Ottawa, beside the Rideau canal with the Parliament House on the skyline.

the Canadian National Railway no doubt as a complete contrast with their strictly classic railway station almost directly opposite. That great basilica is no longer the seat of trains but has been cleaned up as a government reception palace. Behind that is a Victorian Italianate building—the Grand Hotel I think. As a backing to the theatre when seen across the canal is a sloping street of somewhat nondescript commercial buildings. The fourth side has the Mackenzie King bridge which juts out nobly across the canal but becomes strangely utilitarian over the wasteland beyond which may once have been the railway yards.

From the TABS point of view we have to be concerned with the two theatres and the opera house and must not spend much time elsewhere not even inside the complex. It is necessary, however, to touch on the architect's solution to the problem of access. The whole complex was drawn on an equilateral triangle grid and the various shapes derive from this. This successfully determines the relationship of the opera house and the large theatre. One enters a

common and very large entrance hall and either swings to the left for the theatre and to the right (very appropriately) for the opera.

The small Studio Theatre is literally way out to the left and requires a long trek to a rather back of beyond lobby where the lighting and much else seem to have petered out. This effect is heightened when the opera and large theatre are not playing that night. One wonders whether a quite separate entrance would not have been better. The audience which packed the Studio wanders around in lone pairs gazing hushed at the roped-off distant wonders of the other two shrines while desperately trying to locate the overdiscreet signs to relief. The general lighting level is very low throughout, consisting of thousands of repeating small exposed lamp bulbs. This gives theatrical impact, for example, to the staircase wells with their great vertical crystal lighting features but I fear the Studio Theatre lobby requires something brash in the way of lighting, to match the mural perhaps.



National Arts Centre

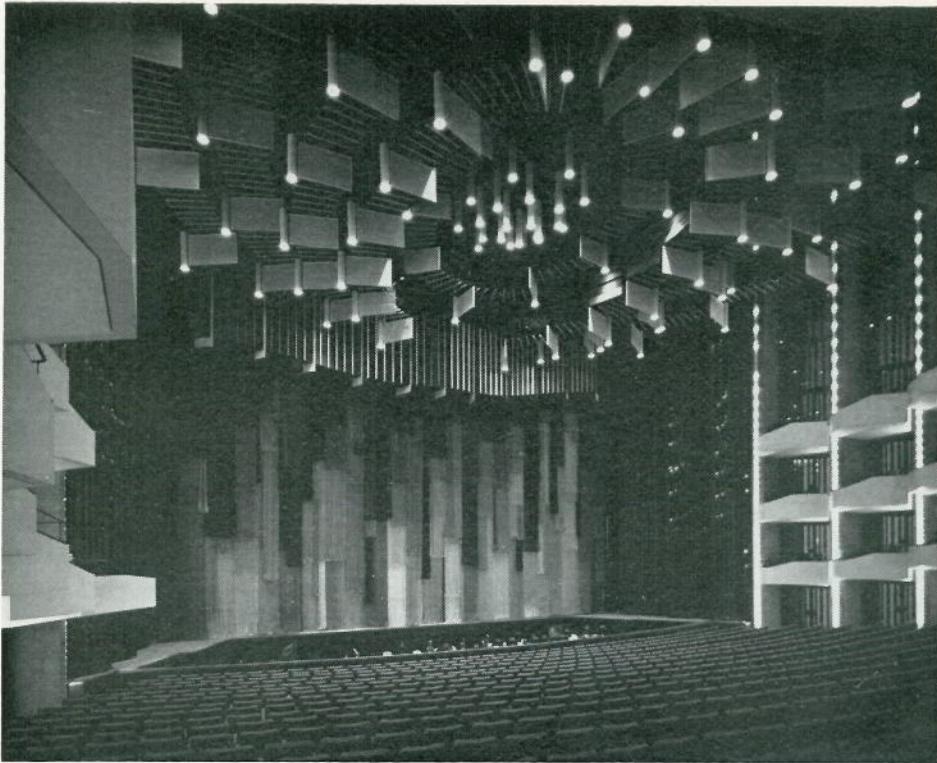
Architects—Affleck, Desbarats, Dimakopoulos, Lebensold, Sise.

Consulting Electrical Engineers—Jack Chisvin & Associates.

Technical and Theatre Consultants—
for the Client—Wallace A. Russell
for Strand Electric Limited—Philip Rose

- 1. Main Entrance
- 2. Foyer
- 3. Opera House
- 4. Main Stage
- 5. Le Salon
- 6. Theatre
- 7. Theatre Stage
- 8. Studio
- 9. Rehearsal Room
- 10. Rehearsal Room
- 11. Workshop
- 12. Control Room

0 5 10 20 30 40 50 60 ft



The Opera House, Ottawa, showing "the" curtain and forestage area set for medium sized orchestra.

The architect Fred Lebensold has created a dramatic visual experience which has all the extra force which comes from the fact that what is there is permanent, and there to stay. He throws down a challenge for all to take up, the Lebensold Laurier of our time so to speak. Incidentally he takes jolly good care by means of deep angled mullions to ensure a virtual impossibility of seeing that "hectorical" edifice from his own grand opera foyer.

The key to the whole drama is that an opera house auditorium must be theatrical to succeed whereas a theatre auditorium must not. At Ottawa everything is cunningly composed, even the restaurant, so that the right dramatic lead is established for entry to the grand *salle de l'opera*. At this moment for the first time height is not only

allowed to take over, but as the photographs show is encouraged to do so. This of course helps to keep the stalls (orchestra) floor of well over one thousand seats* from appearing too wide. The verticals continue up and lose themselves beyond the ceiling. There is in fact a lot of space way up there and it has adjustable arrangements to control the volume and acoustic character required for the various uses of the hall.

Opera itself will not be the principal user and the place is even required to show films. For concerts the orchestra pit rises on lifts and the usual American band shell prevents the on-stage forces getting lost up in the grid. The entire top of the false proscenium can be raised and lowered (35 ft. max. and 22 ft. min.) also to suit the current

* Total capacity of Opera House is 2,165, but this increases by 107 or 207 when a smaller orchestra or no orchestra is used.

activity and carries a set of loudspeakers.

To build an opera house is to build a cathedral and one must not grudge the architect his ceiling, a great floating "castle perilous" requiring sorties by heroic volunteers to go and adjust the stage spotlights up there. The obstacle race type of ceiling is not of course peculiar to this building, they appear common in American new theatres—I suspect the acoustics merchants get in first. However ample amends have been made in the Studio Theatre as we shall see later. The opera house, as it should, allows the audience to see itself in its setting and manages to suggest side boxes and yet retain good sight lines. The walls between the verticals are of glass which is productive of subtle effects good and evil in about equal proportion. To enclose an opera house in crystal walls is not inappropriate anyway. The banners

and other hanging, well let's say it, "impedimenta" of the ceiling appear as black, grey and silver, the real colour of the place coming from the crimson seats and above all *the curtain*. It is said that "le rideau" formed an important part of the Benois sets for *Petrushka*; here the curtain is the climax to which the place has been building up. It cost 75,000 dollars and leaves a big problem behind it when flown away; how to keep up with the Tabes? Another set of orthodox crimson opera festoons lurk behind to furnish singers and ballerinas with their "curtains".

The stage is large, but not extravagantly so, being 65 ft. 6 in. deep with 42 ft. 6 in. of rear stage in addition and a width of 182 ft. 9 in. including side stages. The structural proscenium is 70 ft. wide by 45 ft. high with an adjustable false pros. to vary the width from 59 ft. to 45 ft. The grid gives



The Opera house, Ottawa, showing continuous "Continental seating" and floating ceiling.



The Theatre, Ottawa: showing semi-circular forestage raised.

88 ft. clear flying height and, all in all, sensible provision seems to have been made for the likely mode of use. There is none of the motorised stage machinery or vast off-stage areas common to a German opera house but then this place is not in use for resident opera production day in day out.

Something approaching a resident company exists for some of the time next door because it has been decided that the Stratford Ontario company will go into

winter quarters there. A large structure reproducing their famous backwall, balcony and thrust stage can convert the theatre into a very tolerable replica of the Festival homestead.

The theatre suits this arrangement well because the major part of the seating, equilateral triangles permitting, conforms to a near semi-circle and the audience are focused for the downstage-cum-forestage area. The Stratford stage form imposes an

THEATRE CAPACITY		<i>Apron Stage</i>	<i>Prosc. Stage</i> (with orch. pit)	<i>Prosc. Stage</i> (no orch. pit)
Orchestra (stalls)		609	521	521
Balcony		190	154	154
Apron Elevator		-0-	-0-	138
Total Seating		<u>799</u>	<u>675</u>	<u>813</u>
DISTANCES				
	Front of thrust stage to last row orchestra		46 ft.	
	Front of thrust stage to last row balcony		50 ft.	
	Proscenium footlights to last row orchestra		66 ft.	
	Proscenium footlights to last row balcony		69 ft.	

aggressive thrust of straight lines rather than the gentle contact of semi-circle stage edge to semi-circular seating of the theatre's own thrust stage form. It so happens that even in their own house the rows of seats curve. There are but 800 seats in the Ottawa theatre compared with 2,258 of the Festival itself, but here in winter time this should be sufficient.

The theatre also permits proscenium production with the usual infill of seats and/or orchestra in the then lowered forestage area. Seats out to the extreme sides are not

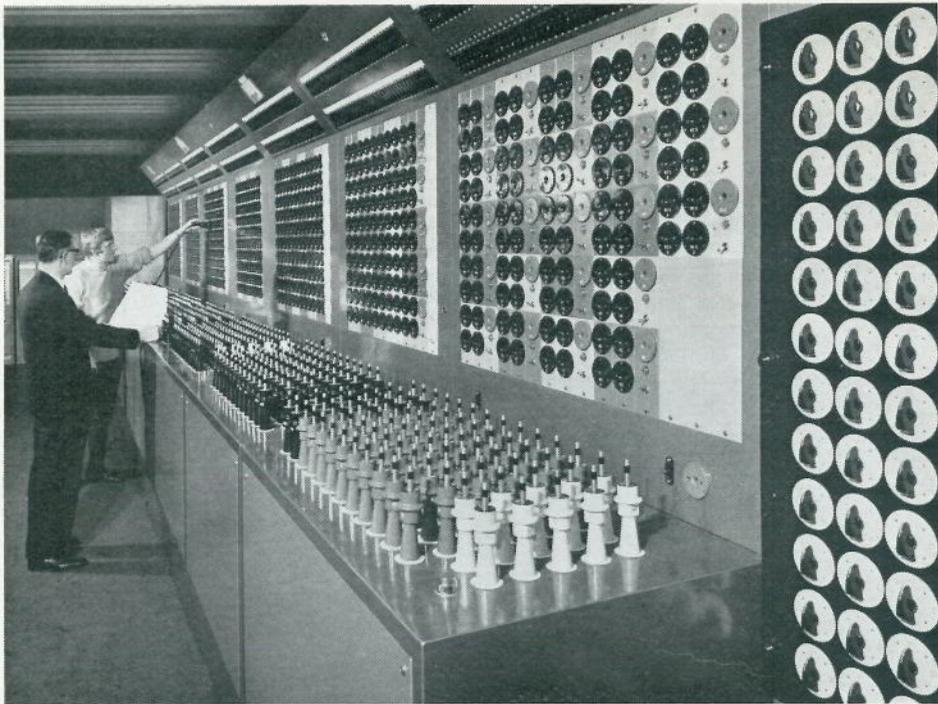
then occupied. Any degree of adaptability on this scale must spell some compromise and the result is summarised in the table.

The structural proscenium opening is 68 ft. wide by 28 ft. high with a false pros. adjustable from 57 ft. wide by 25 ft. high to 41 ft. wide. The main stage is 45 ft. 2 in. deep from curtain with a clear flying height of 58 ft. 2 in., the width of stage including side stages is 120 ft.

For my article in the last issue of TABS the architects of the two theatres featured in my tale took the precaution of taking me



The Theatre, Ottawa: showing lighting positions in ceiling and part of Stratford Festival thrust stage.



Ottawa: one of the five Patch panels (photo: BICC).

over their theatres themselves whereas in this case it was Andis Celms the Technical Manager to the National Arts Centre who kindly performed this office. Maybe this does give one's writing a somewhat different slant and once again poor lighting positions and other mundane considerations tend like King Charles' head to edge their way into my architectural saga. The life of the lighting man in the ceiling of the theatre at Ottawa also has its ups and downs but does not appear to call for physical courage. Anyway it is infinitely better here than in the Stratford Festival Theatre. It is also sad that the lighting control room for the theatre is so dreadfully cramped, but it should also be added that the room in the Opera House is pleasantly spacious and has a fine view.

There are 676 lighting circuits in the opera and 572 in the theatre, patched to 250 and 180 dimmers respectively. Mimic diagrams repeat the behaviour of all

circuits back in their respective control rooms. There is a good case in an enterprise of this vast scale for splitting the cord and jack patch panels so that one centre is at fly gallery level and the other at stage level. But there is no sense at all in dismissing this latter section to a basement involving a route march to get at it. Patching requires instant accessibility, it is part of the plugging up and setting process, especially in a theatre like this which is so dependent on visiting companies, some even playing one night stands only.

The lighting controls are of the IDM/R Instant Dimmer Memory type. Instead of the usual lever each dimmer has a tablet—a rocker key which can be touched at the top to increase the light and at the bottom to decrease. Finger off and the process stops. Precise indication when necessary is obtained by a push in the rocker which gives a dial reading. The actual plotting of dimmer positions and reproduction is

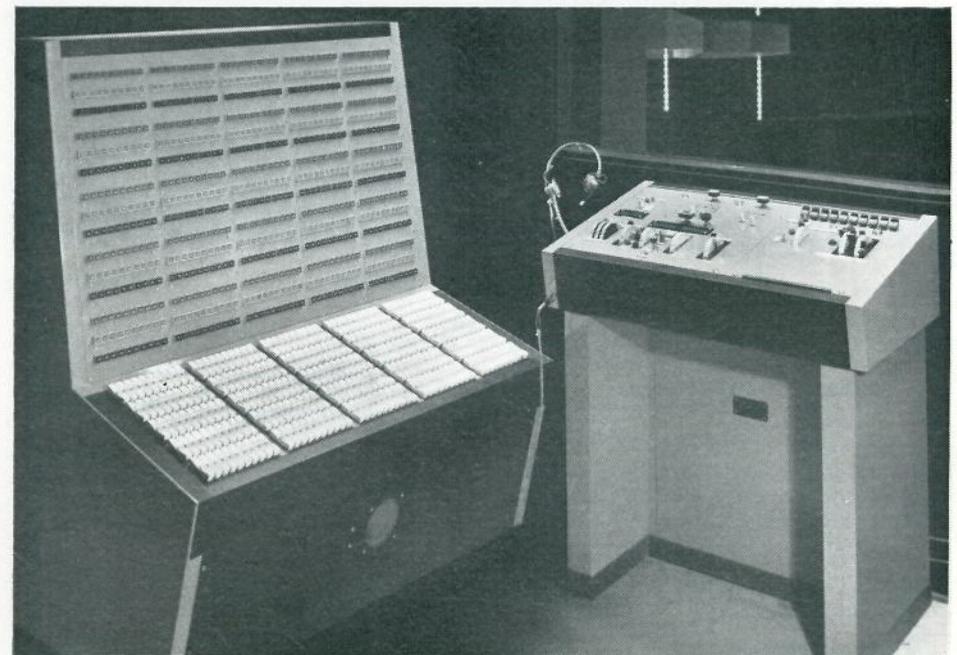
magnetic and instant. The advantage of the rocker is that no matching is necessary when making modifications. There are tape programmers for repertoire playing. Luminous lever two-preset controls at the stage end make it unnecessary to go to the front of house when setting or testing lighting.

The scenic workshop and get-in facilities are shared by the Theatre and Opera House—a large area lying between the two stages and insulated from them by two sound-proof doors. This is a happy arrangement though the large sound-proof doors do not move as sweetly as the great (yes, really great!) “bronze” ones to the ceremonial reception room front of house. These latter are quite remarkable—real fingertip control.

The dressing rooms are also shared—a kind of subterranean hotel block with connections to all three theatres. Theoretically this allows each to enjoy the amount of

this kind of facility required by the particular performance. After all Elizabeth Schwarzkopf could fill the Opera House for a recital and require only an accompanist. It does not follow that all the big casts are in there. However, putting teams of strangers alongside and among each other does not, I was told, work out.

The Studio Theatre is an irregular hexagon with a balcony carrying a single row of seats all around. There is a lighting gallery above that. The main floor can be set for various formations using simple platforms and seating rostrums. Several variations have been tried, but in practice the one used when I was there tends to be adopted to avoid all the moving around and it works well anyway. This arrangement provides a centre stepped terrace block with a similar block angled to it on each side—three hundred seats in all. This formation gives some embrace of the open acting area—the floor itself. A gangway runs up the point of



The Opera House, Ottawa: IDM/R Lighting Control with the 250 dimmer rocker controls on table surface left and master control desk right.

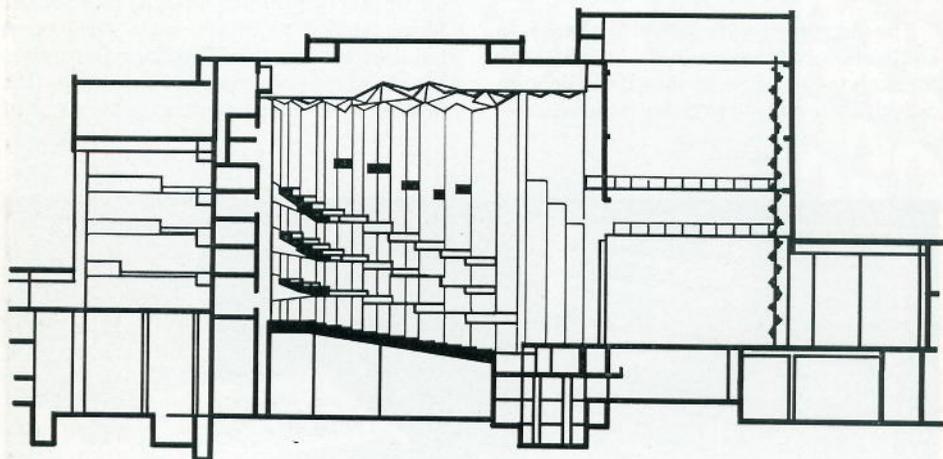
junction of each block. The Studio Theatre then resembles somewhat the plan of the Gulbenkian Theatre, Canterbury (England), described in the last issue of TABS. Incidentally it seats roughly the same number, so it is no miniature affair.

There is a lift with traps which allows the acting area floor level to be changed at the point of focus of this arrangement and also can be used to move things to basement storage. When I was there a squarish stage platform had been erected instead and plastic translucent flats along its three edges were used to give a fourth wall confrontation. Every seat was taken for the evening of four plays by Jean Claude

van Italie. The Studio audience hardly let its hair down, however, but sat there with its grown-up children to allow them, as it were, to taste a strictly regulated dose of "thespian outrage".

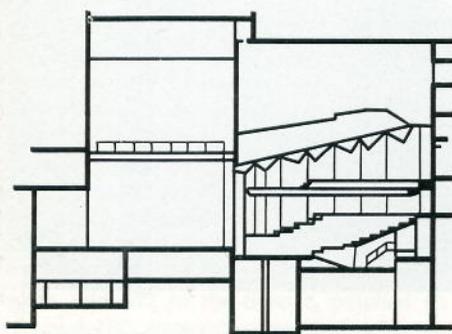
The entire Studio ceiling is formed of a frame, any sections of which can be removed as required. Not only this but almost any part of the supporting structure can be removed whenever it is in the way. There is a splendid amount of height above the frame allowing some degree of flying in and out to be practised.

Daylight is not encouraged for working areas as far as I could see. There is none in the dressing rooms and some surprise was

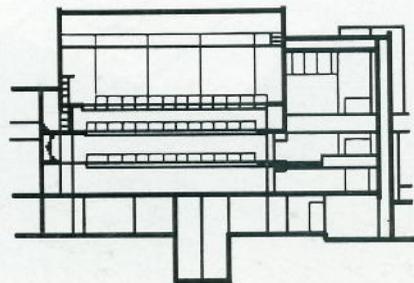


OPERA HOUSE

National Arts Centre, Ottawa: sections to same scale.



THEATRE



STUDIO

0 5 10 20 30 40 50 60 ft



The Studio Theatre, Ottawa: the seating and terraces are movable.

expressed that our Equity demands it; evidently no complaint is made on that score. There are separate rehearsal rooms and much else that it has not been possible to describe. Ventilation and air conditioning is lavish in the way that is taken for granted over there.

This is an architect's theatre, designed and built first, populated later; indeed, although opened last June it can hardly be said to be in full swing yet. To someone accustomed to the intensive use of say the Covent Garden Opera House, Ottawa has the curious feel of being a building for visitors. Visitors who perform backstage,

who make up audiences and even who just come to be conducted around like tourists in a stately home or palace of another age. The theatrical soul to make it tick has to be imported for each and every occasion, it does not appear to live there. What does live there is the soul of its architect and Ottawa is fortunate that it chose a man who was able to create a building which can be visited as a complete theatrical experience in itself. Ottawa is also to be congratulated on getting the place built in a modest amount of time—this is not always the way of opera houses as at least one world-famous city can testify.



The Cockpit

by Michael Warre

The Cockpit in Marylebone will rejoice the hearts of Centre Stagers, or Theatre in the Rounders, but will give drama teachers and youth leaders food for thought about Centre Stage lighting. Commissioned by the I.L.E.A. as their first "purpose-built youth arts workshop", it was designed by Edward Mendelsohn to be "in full use by pupils in their last years at secondary school during the day and by young adults committed to explore some creative activity in depth every evening of the week".

An attractive entrance hall with coffee bar and box office leads directly into the theatre. Backstage there are two dressing rooms, wardrobe, spacious workshop and storage rooms on each side of the stage well. Off the entrance hall is a rather small director's office, and above, are three

studios one of which houses an electronic music laboratory. The units are neatly dovetailed together into a very satisfactory organic unity of design. Cost £100,000.

The theatre itself is a space 45-foot square which can give accommodation to 100 facing an End Stage 20 ft. by 38 ft., 138 on three sides of a Thrust Stage, and 177 surrounding a Centre Stage 21-foot square —of this the practical working area is officially 14-foot square, as 3 ft. 6 in. must in principle be kept clear for gangways on all four sides. The seats are stackable tip ups and specially designed to lock together on the bleachers that surround the stage.

In case readers are unfamiliar with the bleacher technique, it can best be defined as a stack of self-supporting rostrums resembling a chest of drawers. Each rostrum

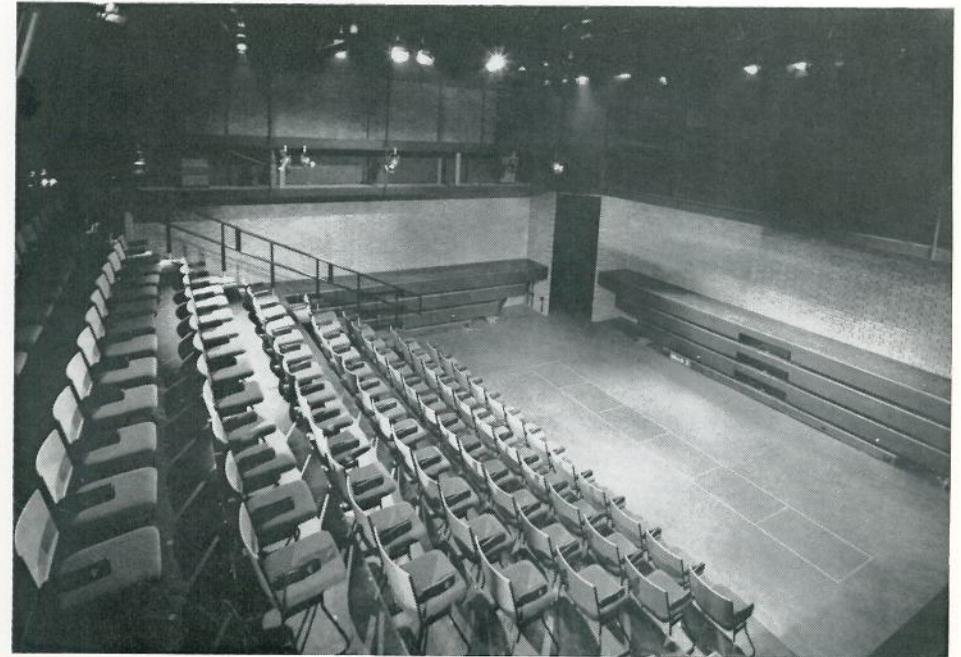
is on castors and bears upon the rostrum below. The bottom drawers here are 8 in. by 2 ft. 10 in. and run on the floor, the upper ones are 1 ft. 4 in. by 2 ft. 10 in. and have built-in steps for access. On three sides of the stage there are chests of four bleachers 4 ft. 8 in high and 2 ft. 10 in. deep. On the fourth side, seven bleachers are buried flush with the wall below the control room. This big block is of course intended for the End Stage variant, and the front three bleachers have the added sophistication of extension pieces to make all the seat rows the same width. This is because the four corner entrances to the Cockpit necessitate the front three rows terminating at an angle of 45° (see photograph opposite). When all the bleachers are withdrawn there is a working area 38 foot square.

The usual drawback to the bleacher system is the problem of housing the seats when not in use; in this instance there are two storage rooms below the stage, capable of packing away all the unwanted seats.

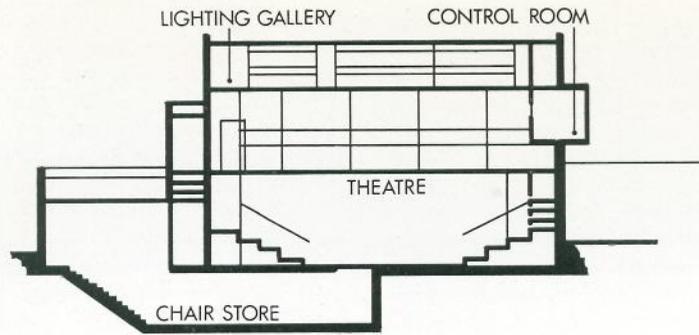
Access to this area is by means of traps and an ingenious mobile lift.

The trapped area of the stage is 21 ft. by 2 ft. 8 in., cut in six sections of 3 ft. 6 in. length. These are on four wheels and run left or right on a track beneath the stage. Two locking bolts can release the offstage pair of wheels, so that when not required the trap will hang vertically below stage suspended from the track by its on-stage pair of wheels. The traps are very solidly constructed with 3 in. by 3 in. joists, and would seem to be too heavy for a quick silent change. A light metal cross-bracing would be more suitable than wooden joists. The stage well contains the lift—7 ft. by 2 ft. 8 in. with a 6 ft. drop—which is built as a mobile unit on wheels and when raised, replaces two traps anywhere along the 21 ft. cut. The lift is hand operated by a winch and jackscrews.

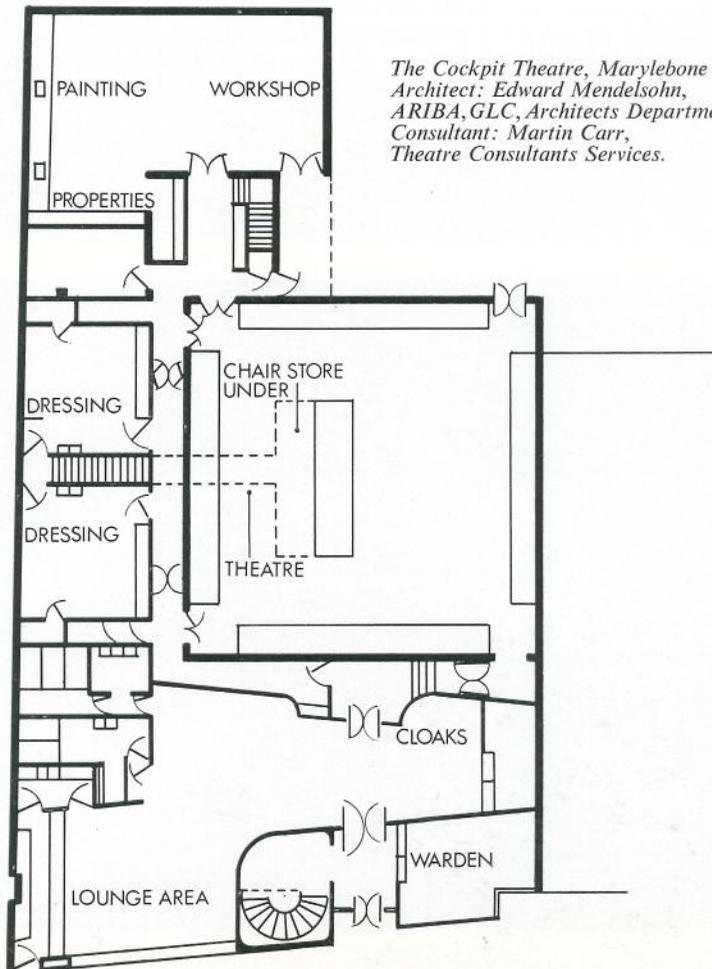
On the four walls of the Cockpit there are two galleries. The lower, with a clearance of 12 ft 3 in., contains on one side



The Cockpit Theatre set for end stage the theatre in the round seating tiers are seen stacked.



0 5 10 20 30 40 50 ft



*The Cockpit Theatre, Marylebone
Architect: Edward Mendelsohn,
ARIBA, GLC, Architects Department.
Consultant: Martin Carr,
Theatre Consultants Services.*

the control room. The higher, at 20 ft. 6 in., gives access to a steel T shaped catwalk over the stage. The control room commands a complete view of the working area and houses equipment that would be the envy of any undernourished rep. The equipment comprises a 40 way SP, 2 preset wall mounted desk with all circuits 2kW; a group of 5 effects circuits: a cue board by Stagesound for light cues and intercom, with a multi-pin socket which can be plugged in back stage if required; a Garrard 401 with Lenco pick up; two Ferrograph 3 speed tape decks, and a Stagesound mixer panel with, it seemed to me, enough inputs and outputs for four dimensional stereo; finally, a house telephone with eleven outstations. All this, specified by the consultant Martin Carr, is beautifully laid out, and will be a joy to any incoming tenant.

The lighting control allows for 24 lanterns on the top gallery and catwalk, and 16, either on the lower gallery or shared: 12 on top, 4 on stage level. Lanterns in use at the moment are a mixture of 23, 123, 223 and 264. It seemed to me that there is too great a preponderance of soft edges, which may well lead to spilling over the audience if unskilfully set, as the angles are so steep. The ducting on the pin rail round the galleries has a useful cable tray below, but the circuit numbers are stamped on the faces of the sockets and thus invisible when a performance is in progress.

Backstage there is a large workshop/dock with 12 ft. 3 in. high get-in from the car park and a 12 ft. 3 in. door to the stage area. The workshop is in process of being equipped with excellent I.L.E.A. standard benches, tools and cupboards, a sink with teak draining board and a mortice machine.

The two dressing rooms are each designed to accommodate up to 12, with two wash

basins and a shower. The mirrors are not continuous, but leaved in four units of three fold. This is nice for four, but entails facing a joint in the mirror when more than four are making up. There are only five 60 watt lamps per run of mirrors, which is inadequate, and the mirrors themselves are not high enough to be used standing. Another six inches would have allowed this, and by reflection, doubled the power of the lamps above. The wardrobe is well equipped and can be used as an extra dressing room for four or five.

The general finish and detail throughout the building is excellent. On a matter of personal taste, I liked the colour of the brick work in the foyer which is warm, but not the neutral grey walls in the auditorium which I find depressing—they neither absorb reflected light or make a positive decorative statement. The chair seats are of the same grey, which with their plywood backs seem to underline the feeling of austerity not elsewhere apparent in the building.

The whole scheme however, as will have been seen, is admirably conceived and executed and it only remains to congratulate the I.L.E.A. on their enterprise from which nothing but good can come.

Cockpit Theatre Marylebone Stage Lighting Circuits

24 Top Gallery
16 lower Gallery
12 Cross Catwalks
4 Stage and Pit
(Relay Patch)

Control

SP 40/2 2-preset 3-group
40 × 2 kW Thyristor dimmers
80 kW 240 volt



Stranmillis College Studio Theatre, Belfast

by Colin R. Latchem*

Stranmillis College is an attractively sited college of education set on 46 acres of rising wooded ground less than three miles from the heart of Belfast. An extensive building programme is currently transforming and enlarging the college, which has a student population of 1,250, and in November 1969 a new studio theatre was opened. The immediate result was that the Drama Department, previously restricted to working within the confines of a proscenium stage in a pre-fabricated hall/refectory, was able to enjoy

* Mr. Latchem is senior lecturer in Art at the College.

the challenge of a large, new adaptable theatre.

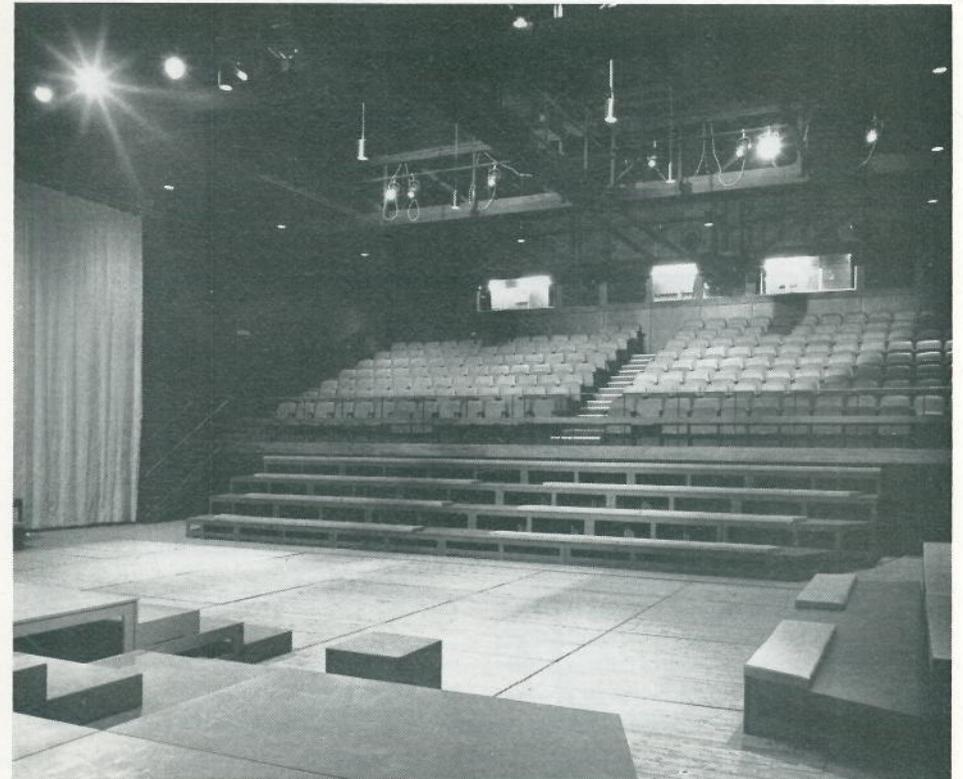
The new theatre can be converted to accommodate audiences of up to 400 for major productions and recitals, but it is primarily a studio theatre where degree and certificate course students of English and Drama prepare for speech and drama work in schools. Their courses involve Drama in Education and Theatre Arts. It is vital that their work takes into account the variety of halls and stages that may be encountered in schools throughout Northern Ireland. It was originally intended to meet these needs with a studio

theatre on the lines of St. Mary's College, Strawberry Hill, Twickenham (TABS 21,i), but as planning progressed and the site and adjoining buildings were taken into account, something rather different emerged, as the drawings show.

The theatre is basically a rectangle 54 ft. wide and almost 87 ft. long. It is an integral part of a drama block; tutorial rooms and a small practice theatre lie below. Unlike Strawberry Hill, the theatre has 200 permanent tiered, tip-up seats at one end so that invited audiences can be accommodated. This still leaves a flat area of floor 54 ft. by 56 ft.; portable folding rostra can be placed over this to create different acting levels and also to provide tiered seating surrounding thrust- and arena-type acting areas of various shapes and sizes. Another valuable aid to reshaping the theatre is an extensive canvas

cyclorama which moves freely over tracks and points to enclose the various acting areas. The rostra used are of the type described in the Department of Education and Science Building Bulletin No. 30, *Drama and Music* (H.M.S.O.), but they were constructed to the architect's specifications to meet the particular needs of the theatre, and padded vinyl seats matching the upholstery of the permanent Pel seating were made to fit the rostra. The large rostra/chair store under the tiered seating houses all these portable items with ease.

The floor of the acting area is of tongued and grooved softwood, stained and matt finished. As at Strawberry Hill, a large central area is trapped for special effects and entrances. The removable sections are 6 ft. by 2 ft. by 6 in., light enough to be easily lifted by students and yet strong



Stranmillis College Studio Theatre: arranged as an end stage.

enough to be used as supplementary rostra. Should a producer require the effect of a raised end-stage, this can be achieved by removing all of these floor sections and their steel frame supports, and erecting some folding rostra units in the 30 ft. by 20 ft. opening to form tiered seating. The end-stage thus achieved would be 54 ft. wide from wall to wall and 24 ft. deep (20 ft. deep if the cyclorama is

used).

The inside of the theatre has been kept as neutral and as unobtrusive as possible. All the walls, doors, convector heaters and other fittings have been painted a matt blue-grey (BS 9-098) and only the old gold of the seating and velour house tabs (when these are in use) provides any relief of colour.

Lighting is by twenty Patt. 223, 1,000 watt

Fresnel spots (with barn-door fittings) and twenty Patt. 23 250/500 watt profile spots (four fitted with iris-diaphragms and four with narrow-angle conversion). To ensure real flexibility in positioning, all the lanterns are fitted with 6 ft. heat-resisting leads. There are 80 socket outlets in the fixing positions, i.e. the grid and catwalk complex which covers the entire area of the theatre at 20 ft. above floor level, and the four vertical barrel positions on the side walls. There are also 6 trapped outlets in the floor and a sunken section for footlights. The system is powered through a 3-phase supply and in the interests of safety the areas served by each phase have been segregated.

The lighting and sound control rooms, double-glazed for sound insulation and connected by a sliding door, command an impressive view of the theatre from the rear of the permanent seating. The JP 40 3-preset lighting control board, instead of being vertically mounted as is usual in the wings of theatres, is mounted almost horizontally in a desk console. This was made possible by using a modified version of the JP 40 similar to one manufactured by Strand for Grampian TV. The master dimmers in this control unit are quadrant faders instead of the usual rotary type. A change-over switch in the control room transfers the house lights from the normal supply to a 5 kW way on one of the two J.T.M. 20 channel dimmer-racks, the other 19 ways being 2 kW rating. The emergency signs and step lighting automatically come on at the change-over.

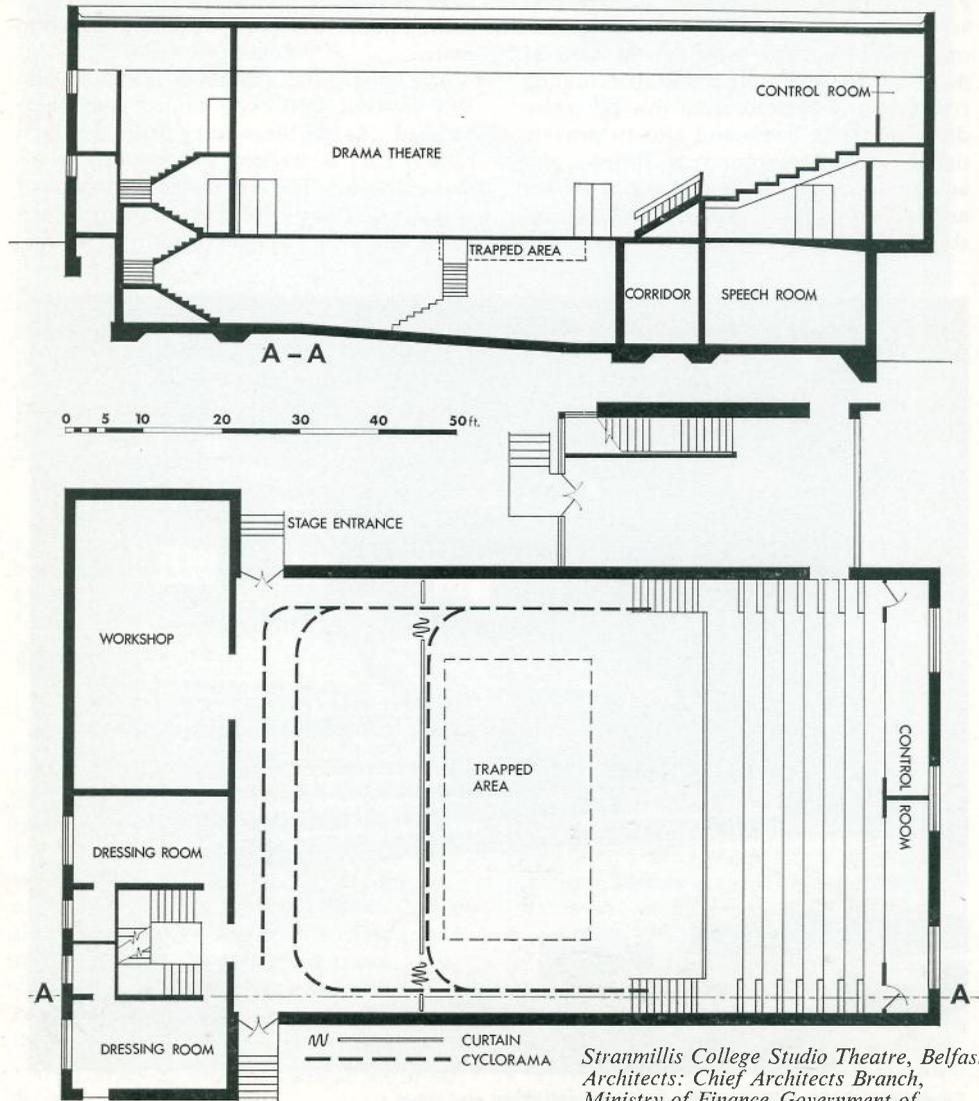
To help the students to learn the basics of stage lighting a portable Junior 8 dimmerboard of the type most commonly used in schools has been provided and there are four 30 amp. outlet points in the theatre into which this can be plugged for practice lighting.

The main two-channel sound system consists of two column loudspeakers permanently mounted on the side walls of

the theatre and two mobile bass reflex cabinet speakers which can be plugged in at various points around the theatre. The controls, together with two tape-recorders, a transcriber deck, microphone and monitors, are mounted on a desk console in the sound control room. An ultra-sensitive microphone suspended above the acting area is linked with monitor speakers in the dressing rooms and control rooms for cueing purposes, and the internal telephones are on a ring main system with call lights instead of buzzers; conference buttons allow up to four people to converse simultaneously. Sliding folding doors lead directly out to a sizeable workshop and scene dock, and the theatre is equipped with two attractive dressing rooms, two large wardrobe stores and a sewing room.

The theatre is now in daily use and the students and lecturers are constantly discovering new exciting possibilities. The first major production has already been mounted and the potential of the open stage was demonstrated very effectively when the students presented a spectacular version of *Everyman*. Audiences were invited to imagine that the theatre was the market place in Wakefield almost 500 years ago and that they were participants in the festivities of Corpus Christi Day. A prologue, specially written by the students, set the play in its historical context as a morality play and showed how mediaeval Biblical drama combined religious and secular traditions. Actors, stage staff and audiences all agreed that the theatre "works". Sight-lines are good and despite earlier forebodings the acoustics are excellent and actors are audible from all points in the acting area.

The building meets local authority requirements as a place of public entertainment and it is hoped that recitals and productions by touring artists will bring a new dimension to the social and cultural life of the college and provide further means of establishing closer links between the college and the community at large.



Stranmillis College Studio Theatre, Belfast
Architects: Chief Architects Branch,
Ministry of Finance, Government of
Northern Ireland.

Magic of the Managers

"Theatre Administration" by Elizabeth Sweeting. Pitman £2. 10s. 0d.

Elizabeth Sweeting's book is most valuable. It is short, full of common-sense and mercifully funny. It not only contains much valuable information but points to where further information can be found.

It is a practical guide, not, except in its implications, an instruction manual on how you ought to be running your theatre. For example, the section on the qualities one should look for in box office staff (pages 147-8) is entirely sensible. If one had such a box office one might not need the P.R.O. that is described elsewhere; which makes one think. It is also a relief to know that the "laugh-in" technique with a matinée tea tray is not just one manager's jaundiced view of what should be done.

The book is not only practical but relevant. The framework to support theatrical enterprises exists—through the Arts Council, the Foundations, local authorities and, most important, a public that is generally affluent but increasingly uneasy and unsatisfied because it does not feel fully involved either in the work situation or in the entertainment most readily available—television; indeed its children are so uninvolved that they are rejecting all that they see. Surely there is an opportunity here for the vision that only the living theatre can give.

It will be invaluable as a handbook to existing managers and to the thousands of organisers of amateur performances; but it should also be read by all with aspirations to run theatres and especially by boards of directors and other enthusiastic citizens with voluntary and part-time responsibility for the craft. Their role will become more important if, as the book suggests, the theatre is to play a greater part in the social and educational life of the community. The book is excellent in drawing attention to the relationship between the part-time director and the

by Anthony Barnes

full-time administrator or artistic director. It is weak only when it has to describe the structure of this relationship (it is strong on describing what is more important: the spirit). The diagram on page 88 does not indicate that the management committee should consist of the key professionals and at least the Chairman of the directors (although the text has said this on an earlier page); nor, incidentally, does it mention the Accountant. Miss Sweeting also lapses from her Arnoldian High Seriousness when, in chapter 28, she concerns herself with the almost incestuous complexities of West End Theatre Managements. After all, the Lord Chamberlain's writ no longer rules. These failings are unimportant except that they may add to the myth that there is magic in being a manager. There is not. Managers must know their lines, they must be professional in their approach to the job and, as with actors, not all who hear the call are chosen.

But how good Miss Sweeting is on describing the administrator's task and those of his subordinates and in claiming a considerable freedom for the artistic director. The paragons of virtue whom she describes will not be found in every theatrical enterprise, but a sympathetic understanding and complementing of the defects of the incumbent administrator or artistic director can be provided by outsiders on a board of directors. How good again she is on ascertaining the facts first. Her board members should be as professional as they are in their business or political lives and as the actors are for whom they work. They should do their homework and should ensure that their paid staff also do theirs—and then trust them. Chapter 15 is crucial to the whole subject, the most important in the book.

Chapter 15 also describes some of the skills that are invaluable in preparing for a

meeting to ensure that it is effective and not time-wasting. These skills are taught (it does not take long) in management training courses all over the country. In this way, as in others that Miss Sweeting describes, the theatre would be wise to be more outward looking, readier to take advantage of what is going on elsewhere. This particular type of link will produce a return—probably at no cost—since many instructors on these courses would be happy to help a manager diagnose his problems whether they concern staff or selling or economics or programme.

Charm and Splendour

"Musical Comedy" by Raymond Mander and Joe Mitchenson. (Peter Davies. 63s.)

Mander and Mitchenson describe their book as "a story in pictures". Alas, the 230 pictures give a disappointingly limited view of musical comedy and its successor the "musical" because the authors seem to be much more interested in the stars of the musical comedy stage than in what went on upon the stage itself. More than half of the 230 illustrations are pictures of the stars. Turning the pages one is continually disappointed by the paucity of photographs showing the entire stage and giving some idea of a production as a whole.

Much of the glamour of the musical comedies was due to the lavishness with which they were staged. Most lavish of all was *White Horse Inn* at the Coliseum. For the first time since its installation 27 years before, full use was made of the theatre's vast triple revolving stage. Surely we could have had a picture of the splendidly effective finale described in the programme as "A trip round the lake in the paddle-steamer showing the Alps, the Forester's Hut, the Mountainside and the Village Fair", giving the audience the illusion of being passengers in the boat making a circular tour of the lake. Instead,

Miss Sweeting has a hard look at the world of theatre but, paradoxically, leaves one looking outward. Many concerns now realise that their most priceless asset is their staff and they go to great lengths, through training and planned promotion, to make the most of their asset. In the inevitably and rightly individualist world of the theatre this can only rarely happen yet it seems to be a tragic contradiction that an art designed to enrich our lives should be so prodigal in squandering the talent of those whom the audience cannot see.

by Norman Marshall

all we see is a quarter-page photograph of two of the stars.

Two almost equally spectacular productions, *Casanova* and *Waltzes from Vienna*, are treated a little better, but the half-page photograph of the Venetian Carnival in *Casanova* is too small to give a proper impression of the vast crowd of revellers; and particularly disappointing is the cramped illustration of the finale of *Waltzes from Vienna*. This was a considerable feat of stage engineering. The entire orchestra (and it was a very large orchestra) dressed in the costume of the period, were raised from the orchestra pit on a lift which moved on to the stage and carried them smoothly upstage, still playing for all they were worth, until they reached the back of the set when another lift raised them to a height where they dominated the stage filled with the huge company waltzing to "The Blue Danube". Mander and Mitchenson don't describe this on their caption to the illustration, but they do mention the tremendous earthquake in *The Mousmé*. As a small boy it was my first musical comedy, and I still vividly remember not only the earthquake but the hurricane which

followed it, bending the trees in its blast, stripping them of their leaves, and sweeping the whole company across the stage in its onrush. It was a sad disappointment to find that the only illustration of *The Mousmé* was a full-page portrait of Cicely Courtneidge as Miyo Ko San. It seems to me a pity that all but one of the 21 full-page illustrations are pictures of stars.

Coming to the present day, another disappointment was a dull little picture of two of the characters in *Man of La Mancha* instead of a full stage scene including that remarkable stairway which descended from the flies. But maybe I am being too insistent on mechanical ingenuities. The settings of most of the musical comedies relied upon charm, colourfulness, splendour. In the early part of the book there are some enchanting pictures of scenes from *The Beauty of Bath*, *The Prince of Pilsen*, *The Dairymaids*, *The Belle of Mayfair*, *The Arcadians*, *The Girl from Utah* and *The Dollar Princess*. These not only show the whole of the set but also give a lively impression of the glamorous choruses of those days.

As the book progresses pictures such as these become fewer and fewer. Photographs in which the full company appear are apt to be cut off just above the heads of the performers so that one gets little idea of the set. Then the numbers of people in the photographs tend to grow smaller, and more and more they consist of tight little groups photographed close up. The reason for this change in the style of stage photographs is that in the days when there were many glossy weeklies with plenty of pages there was a demand for pictures showing an entire scene for reproduction on the full page. And there was the *Stage Pictorial* which always made a feature of these photographs. But as the number of these magazines dwindled what the press representatives needed were photographs which would show up effectively on newsprint—which meant solo portraits or small groups.

In spite of this it is a great pity that managements have not made a practice of having full stage photographs taken for their own records and for possible reproduction in books about the theatre. The two most exciting photographs in this book are of "Slaughter on Tenth Avenue" in *On your Toes* and the Chinese dream sequence in *Careless Rapture*. Taken from unusual dramatic angles they give a superb impression of the set, the lighting and the surging movement on the stage. It would be difficult to find comparable photographs among the records of more recent musicals.

It must not give the impression that this is just a picture book. It begins with a preface by Noel Coward which is (it hardly needs saying) immensely entertaining. Then in 28 pages the authors with beautiful clarity and conciseness give a history of the development of musical shows from Milton's *Comus* to *Hair*. At the end of the book there is a list of the 74 musicals which have achieved 500 performances and over in London 1894-1968. Finally there is an exceptionally readable index, printed in bold capitals and spaciouly laid out, which gives the directors, the designers and the choreographers of the musicals illustrated as well as their sources (books, plays, etc.) together with the composers, authors and lyricists.

Altogether this is an immensely valuable documented record of a form of entertainment which, in spite of its unfailing popularity, has been curiously neglected by theatrical historians.

The Art of Stage Lighting (Pitman 70s.)

Sorrow has been expressed at the way the above work went out of print last autumn. Whether this was the effect of Pitman's presses which printed too few or overwhelming public demand the author does not know. Anyway it is in print again and application should be made to booksellers not to us. In USA the distributors are now The Taplinger Publishing Co. Inc. 29 East 10 Street, New York NY 10003.