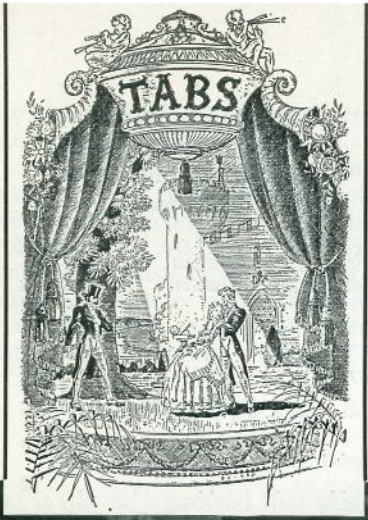

TABS

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TABS

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Cover picture: Die Frau öhne Schatten
at the Royal Opera House, Covent Garden

You tell us what you damn well want and we will build it!

These words, or something rather like, opened a well timed outburst by Fred Lebensold, the architect, at the Montreal Theatre Colloquium. Provoked beyond endurance by references to faults of this and that architect at this and that theatre he had no doubt been listening intently to the various theatre pundits in vain hope of picking up some clues as to what should be done. As readers will gather from Percy Corry's review, which follows, few such clues were to be found. Indeed the more the theatre people talked the less clear the architect's brief became.

All this prompts us to pose the question " How many of the admittedly large number of faults built into theatres all over the world actually had their origin in something theatre people said? " This could happen in two ways. Firstly, some feature or idea that got built-in was beloved of one director only, to others it was an anathema or even a physical hindrance. Secondly, advice to the architects was couched in such wild and abstract terms as to be impossible to interpret properly on paper with, in consequence, disastrous results when ultimately built.

All in all, no doubt an occasional theatre architect is wilful and wayward—especially if he is an artist—but one suspects that more faults have their origin in undisciplined thinking aloud of the theatre artists themselves. The test to apply to any ideas for theatre planning is not " does it sound fine? " but " does it detail finely on paper? " Ultimately, the building will take shape not from rhetorical exhortations delivered to the workers on the site nor from beautiful perspective drawings but from detailed plans over which

both the architect and his theatre clients have spent many, many hours of careful study.

One of the hurdles is often the inability of non-architects to read drawings intelligently. To help them at this stage there is the ABTT, a second instalment of whose *Theatre Planning*,* has just been published. In addition the ABTT's Architectural and Planning Committee exists to comment on the detailing on the plans. This is a safeguard, not to regiment or impose a commonplace universality over all theatre plans but to ensure that each scheme provides, within its own terms, a practical theatre to work in.

MONTREAL — EXPOsure '67

by Percy Corry

Let it not be suspected that this title implies criticism of Canada's impressive international exhibition. Expo '67 rates superlatives in any language. The superlatives would be less appropriate if applied to Colloquium '67, international exhibitionism by theatre people called from many lands to discuss " Theatre: Why? Theatre: What Kind? Theatre: Where and How? Theatre: Form? " and the technical and mechanical problems of theatre. It was stated initially, with rather reckless optimism, that the interrogative form was intended to provoke answers to questions often posed but rarely resolved. The programme suggested that the questions would be directly related to the design, siting and building of theatres, their form, their equipment and their use. In the event the questions were either ignored completely or were interpreted sufficiently widely to induce an excess of abstract volubility. Not surprisingly, many of those who had travelled hopefully many thousands of miles from many distant lands, complained plaintively or aggressively that they had been left completely mystified and deprived of any of the assistance they had hoped for in solving the practical problems involved in what they had fondly believed to be theatre.

Occasionally somebody would attempt to introduce a note of realism into the discussion but a politely restrained reception or a frosty silence made it evident that he was being tolerated as one who had not yet realised that *the theatre no longer exists to provide entertainment*! By contrast, the intellectual obscurities of those who appreciated this shattering truth, were acclaimed vociferously by a majority of the enlightened.

It is difficult to provide an objective summary of the main contributions to what was rarely a debate: it could better be described as a glib extravaganza. The main impression gained was that if the comments of the special pleaders were taken seriously they and most other people of the theatre would find themselves talked out of their jobs.

* *Theatre Planning II ABTT, 9 Fitzroy Square, London, W.1.* (£1 1s. 0d., *post free.*)

The Colloquium, and the rot, were started on the first day by a well-known British dramatist who, in the course of a paper which occupied an hour of rather stilted reading, was apparently trying to explain why he, a frail and sensitive artist, bludgeoned by the brutalities of human conflict, had been rendered theatrically impotent: later in the week he appeared to prove this by outlining an epic scene which he was considering for two characters, one dead and both dumb. The dramatist's plaintive pleas were followed by half an hour of French volubility which appeared to mystify the translators as much as some of us lesser mortals.

There was a well-known director who complained that his creative efforts were blunted by boredom if he had to work consistently on any type of stage, open or enclosed. He wanted facilities not only for pushing around an acquiescent audience at ground level but for having it, if he so willed, in the cellar, on the ceiling or whatever. The intention, no doubt, was to reduce the audience, if any, to a state of gibbering imbecility to match the performance. This mistaken assumption that audiences will always be willing to pay for the privilege of providing fun for directors with " creative " urges would probably be shared by the other director who seemed to be suggesting quite seriously that audiences in the cheaper seats should be deliberately made uncomfortable to make sure that they stayed awake and became emotionally responsive. One could wish that audiences generally would react more violently and emotionally than he wished when they are condemned to discomfort or when what happens on the stage is unbearable. Contempt for audiences seems to be an essential part of the new wave philosophies. Audience reaction is, of course, to stay away from theatres.

We were told by one earnest contributor that theatre architecture is a waste of time: theatre must just " happen " in the streets or in the market place. That is, of course, where theatre began—but it didn't just happen. Somebody had something to say that mattered.

We were told by one famous designer that the theatre is quite dead, but he then appeared to be suggesting artificial respiration in the form of his designs for theatres buried in the ground or submerged in the sea.

It was suggested, apparently quite seriously, that the best form of theatre could be a sceneless void in which lighting would concentrate solely on the actor who would rush around in a frenzy of optical projection.

It was affirmed that theatre is now occupying its second line of defence, forced to take up these fortress positions by competition. This assertion may well prove to be a godsend to those harassed administrators of theatres that are vainly struggling for survival on a miserable subsidy of a million bucks a year. In their efforts to cajole the Treasury into letting the taxpayers finance the fun they may quote Tynan as authority and demand that theatre subsidies should now be debited to national Defence Budgets, in which millions would be chickenfeed.

During that week of dreary verbal effluence it became increasingly evident that if the theatre is to justify the world-wide communal effort and expense by significant achievement it will have to get rid of a lot of the cant and nonsense with which it is becoming bedevilled. It might be an excellent idea to prohibit all conferences called to discuss theatre of any sort for a period of about ten years. During that time theatres of every type could get on with the real job of providing entertainment of as wide a variety as possible to as wide an audience as it was possible to attract.

The theatre has no divine right to survival and it has no divine right to demand largesse from the communal treasury to enable it to indulge whatever extravagant nonsense it may fancy. The theatre's worst enemies are probably to be found among its friends, but one can still believe that it will survive and even thrive in spite of them.

MORE ABOUT INSTANT DIMMER MEMORY

We thought that TABS readers would like to see a photograph of the memory and here it is. Not that there is much to see, for the 3,000 r.p.m. magnetic drum and the coding and decoding logic for 250 memories, each of 32 discrete steps in respect of 250 channels are all accommodated in the cabinet in the photograph. On the top are the automatic tape-punching and programming machines for

repertoire playing. A complete production can be stored in 40 minutes on the reel shown. These machines are not part of the memory but a useful auxiliary and it is possible to envisage in an opera house a library of reels containing the plots of all operas and ballets.

The magnetic memory drum is used to give the instant facilities but it should not be thought that it is not permanent and has to be continually re-programmed—this only has to take place when the programme changes. In fact the magnetic drum holds its memories until something is recorded to replace them. As an example, when the Instant Dimmer Memory control (IDM/DL described in last issue of TABS) was taken over to Montreal recently to be demonstrated to some 300 people in the National Theatre School theatre, some of the effects had been magnetically recorded in our demonstration theatre and these were combined with those over there to form the same performance—a separation of some 3,000 miles in space and 30 days in time.

Many Strand Instant Dimmer Memory systems have been ordered and are being made. These include the Haymarket Theatre, London (120 channels), New Theatre, Oslo (140), Opera House, Budapest (220), and also television studios, notably the new Yorkshire Television Centre in Leeds. These contracts have been obtained in the last two months since the introduction of the IDM/DL system and are in addition to the IDM/R systems for the National Centre of Performing Arts in Ottawa announced in TABS, Vol. 24, No. 3. We also make other controls—lots of them. So many in fact that **Westinghouse Brake & Signal Co. Ltd. have considered it worthwhile** to make for us our own special Thyristor device to incorporate in the thousands of dimmers we make.

In describing the new memory system and (unusual for TABS) dwelling on its commercial success we must not forget its origin—the long series of Strand group memory systems which have been considered essential and have been developed to suit any Theatre or TV studio for lighting control. Whilst just at this moment the new control is being installed the last two of its progenitors are being commissioned in BBC TV Centre Studio 6 and in Rediffusion's Studio 5A.

TABS INDEX

A subject index to articles in TABS, Vols. 22–24 (1964–1966), is available together with details of the few back-numbers still in print and how they can be obtained. A few copies of the previous index for Vols. 15–21 (1964–1966) are still available.

Requests should be addressed direct to TABS, 29 King Street, Covent Garden, London, W.C.2.

EXIT THE BOXES

by Sean McCarthy

Over the last hundred years the changing designs of theatres have been the subject of both criticism and praise alike. Domed ceilings have opened, prosceniums have come and gone, orchestra pits have sunk and risen again and apron stages have swept out into the auditorium, " just as they did in Shakespeare's day ". As far as back stage areas are concerned, machinery has had a great influence in design. Whether the production be by Kean, Irving, Poel or Guthrie, machinery—by that I mean anything from a revolve to a Pattern 23 spot—has had a definite hold on style. The auditorium has also been at the dictate of the engineer. The architect has had to satisfy his critics both aesthetically and mathematically.

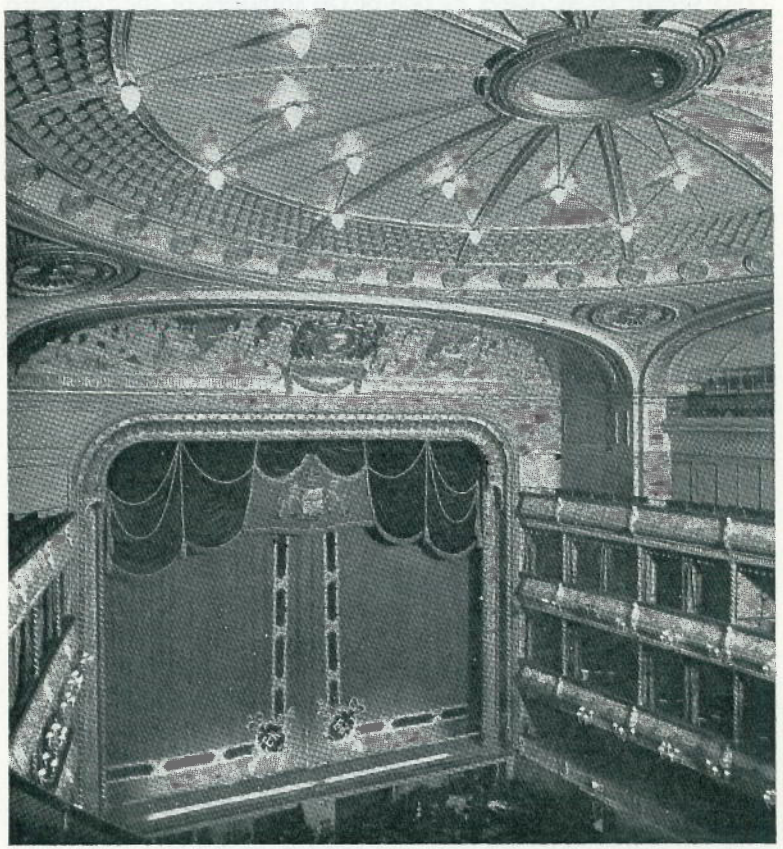
I regard E. M. Barry as one of the founders of the " modern auditorium " in this country. If you consider his Covent Garden of 1858 grandiose, then study the pompous splendour of the Albano alterations to the previous theatre, carried out in 1847. Barry writes of the building in 1860: " The shape of the auditory was a matter of much consideration, the faults of a horseshoe shape being obvious in regard to the position of the side boxes. Plans more or less approaching to a circle or to an ellipse were tried and laid aside, and **different schemes of arrangement canvassed. The** result was that the **horseshoe form was at length resolved on,** notwithstanding the disadvantages above alluded to." Having accepted the box system as necessary for Italian Opera in London, although the " great resort of fashion ", he rid his plans of the clumsy colonnaded stage **boxes and the heavily domed ceiling of the previous building and** produced a spacious auditory, as free from social considerations as box office receipts would allow. " The refreshments are served at the further end of the room instead of being in a separate saloon inaccessible to the ladies. The object sought by this rendering a passage through the crush room imperative to all, was to cause it to be forbidden to none; and the result has fully answered the expectation, inasmuch as all classes of spectators may now be seen resorting to it for refreshment."

Barry was asked to judge the competition for the design of the original Shakespeare Memorial Theatre. It is far from surprising that the winning entry by Dodgshun and Unsworth, built in 1879, had no stage boxes and a very unimposing proscenium.

The idea of stage boxes—and in a playhouse this usually meant the most expensive seats—was that they should be self-contained and afford a commanding, if somewhat distorted view of the stage action. The front pit floor seats, or stalls fauteuils, and front or dress circle seats, were the next most popular and expensive and were linked together by their own passageways and saloons. In fact stalls patrons might well have had to go to their seats by way of the dress circle and the staircases down behind the boxes, in order to avoid the

pit. The pit, behind the stalls, consisted of inexpensive bench seating. The stalls themselves had only crept in since Kemble's attempt to reform the pit at the new Covent Garden Theatre in 1809, by raising the price from 3*s*. 6*d*. to 4*s*. The O.P. (Old Prices) Riots ensued and he was forced to back down. The Bancrofts tried to abolish the pit seating at the Haymarket as late as 1880 and even then were greeted with a first-night storm of protest that was to echo for the next ten years.

It was important that every inch of space be used, and it was usual for the area behind the boxes to be converted into stairways from the dress circle. Perhaps the most splendid example of this is the Bristol Hippodrome. Here four great columns support six boxes, either side of the stalls, masking a maze of stairways serving at least four levels of seating. If one looks at Frank Verity's Scala Theatre,



" . . . *the faults of a horseshoe shape being obvious in regard to the position of the side boxes. . . .*" *Barry on his Covent Garden Opera House auditorium.*

" . . . *perhaps the most splendid example . . . is the Bristol Hippodrome.*"

perhaps a better example of lavish cantilever, the staircases are still there, running down under the boxes.

Large-scale cantilever balconies brought financial happiness and artistic revolution to the late Victorian theatre. If you could see better through the abolition of unsightly and interfering pillars or columns, then you could obviously pay more. Tier was built on top of tier to accommodate extra seating. An early and classic example is C. J. Phipps's 1897 re-build of Her Majesty's—try the back row of the gallery if you doubt my word!

In order to support a balcony it is necessary to give it a backbone in the form of an iron girder. In the old horseshoe plan this girder was shaped and supported by iron columns running down into the foundations. It was soon realised that if one increased the strength of the girder, by enlarging and straightening it, it would be possible to run it from wall to wall of the auditorium and so take the complete weight of the balcony on these two outer load-bearing walls. This

also meant that by strengthening the walls larger balconies could be accommodated than would otherwise have been the case. To keep costs down this meant placing the pit floor well below street level and, quite often, the stage as well.

The pit and stalls area could now widen, and suspended ceilings covered the entire area, regardless of size. Balconies closed up towards the proscenium with the straightening and were only held at bay by the stage boxes. Again Bristol serves as a useful example.

With the " ironing out " of the horseshoe and the widening of the auditorium it was possible to increase the width of the proscenium. Prior to 1900, the opening had rarely crept past 30 ft. The New Theatre (1903), had a 31 ft. 6 in. proscenium, the Scala 30 ft. 6 in., the Prince's (1911), 31 ft. 10 in. Many small provincial theatres must have felt they were being ousted, being unable to cope with such large productions on tour.

Theatre safety was now a nation-wide topic. The International Fire Prevention Congress, held in London in July 1903, produced a four-point plan.

" The Congress considers:

(1) That the first essential for the safety of the public attending theatres is the provision of easy means of exit from the auditorium by *direct* and clear routes of exit as distinct from circuitous routes.

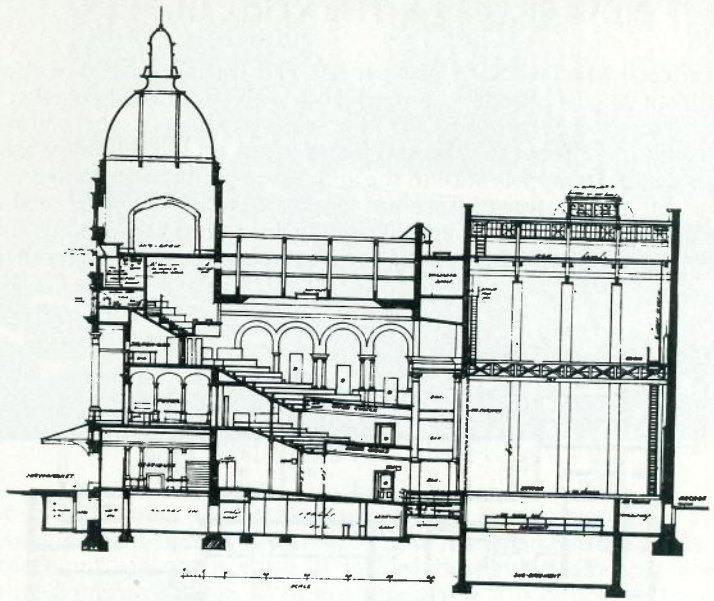
(2) The next in importance to the provision of exits, the safety of the public requires the provision of suitable fire watches and careful fire survey with the view to the prevention of fire.

(3) That the safeguard third in the scale of importance is the provision of automatic sprinklers over the stage.

(4) That questions of suitable construction, fitting, and equipment only rank after the above three primary safeguards for the protection of the public."

In London alone, 400,000 people nightly visited places of entertainment. L.C.C. regulations, laid down in July 1902 " provided for half of the boundaries of theatres being open thoroughfares, one of which should be 40 ft. and the other not less than 20 ft. wide ". For this reason the triangular site was favourite, or else the building had to be set back from the main road frontage, which was expensive ground, even in those pre-war days.

The advent of war brought an end to the small touring company. Matheson Lang and Ben Greet joined forces with the Old Vic Shakespeare Company: Benson finished at Stratford. When work was resumed after the war, the position had changed. The cinema was proving so profitable a medium that it was only the lavish touring productions which paid their way in the provincial theatres. A new atmosphere grew up around the Streatham Hill Theatre (1929), with its 41 ft. 6 in. proscenium, and Golders Green, re-opening in 1923 with *The Merry Widow* and a 37 ft. 6 in. proscenium. The London Coliseum (54 ft. 10 in. prosc.) reopened in 1931 with Stoll's version of *White Horse Inn.*



Section: " . . . 1897 re-build of Her Majesty's—try the back row of the gallery. . . ."

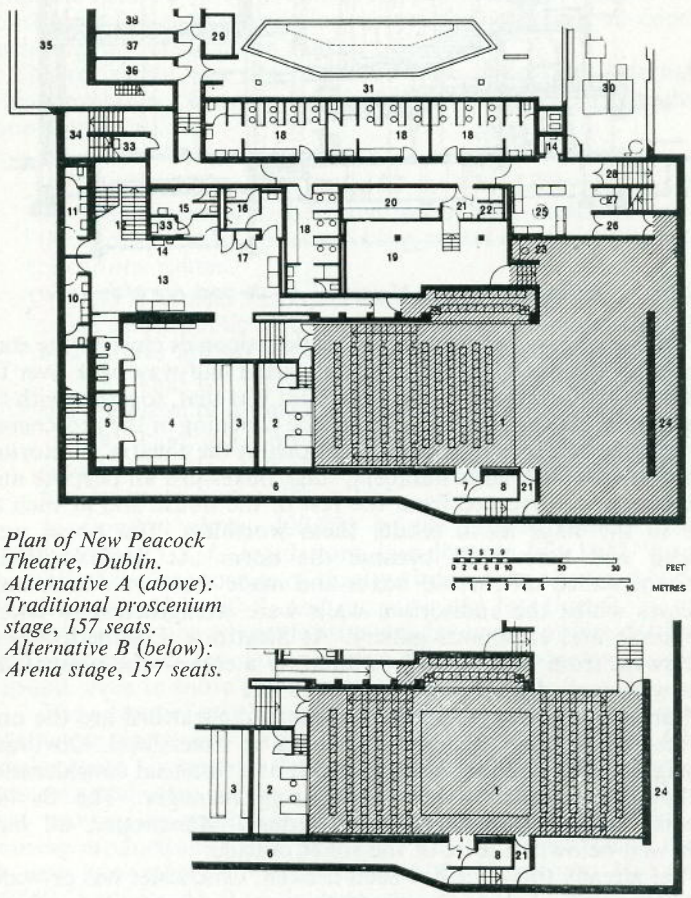
With such large prosceniums the old balconies close to the stage were out of the question. If the circle started half-way back over the stalls it would be large enough. The result was that, together with the straightening effect of the circle front, the widening of the proscenium arch and the relaxing of social conditions in the theatre auditorium by catering for such large numbers, stage boxes lost all purpose and, if built, were so divorced from the rest of the house and at such an angle to the stage as to render them worthless. The boxes were dropped and bare walls became the norm. At Sadler's Wells, Matcham walled off the old boxes and made them into back-stage staircases whilst the auditorium walls were strengthened to take a large circle and enormous gallery. At Stratford, Elizabeth Scott's circle swept from wall to wall with hardly a curve—the present slip boxes were tacked on at a later date (1951).

Surprisingly enough, Sadler's Wells and Stratford are the only two theatres of their period with stages at street level. Obviously the height of the building was too much of a financial consideration —although a headache for the touring manager. The Saville, Phoenix, Oxford New, and Opera House, Manchester, all have stages well below the level of the street outside.

Yet already this style has been broken. Chichester has provided yet another train of thought—the Barbican should provide another—and although times of change are difficult and dangerous, they are perhaps, the most exciting times in the theatre.

NEW PEACOCK THEATRE, DUBLIN

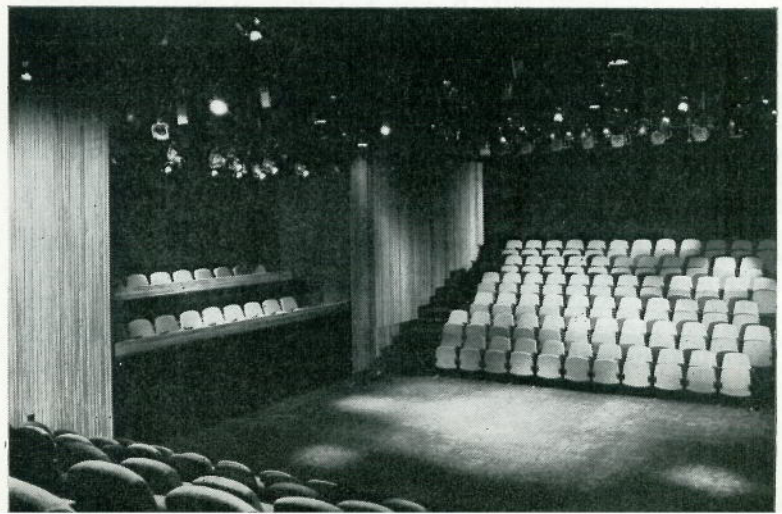
Architects: Michael Scott & Partners. The stage is in two sections the front one of which is hinged and motorised mechanically to turn over and form steps for the seating which is then moved manually. In the arena form wall panels shut off the side stage areas to give uniform appearance to the auditorium and these run away off stage on tracks for proscenium usage. Similarly hinged ceiling pieces are lowered in to unfold and form a complete ceiling over the stage area with the lighting for the arena already set under them.

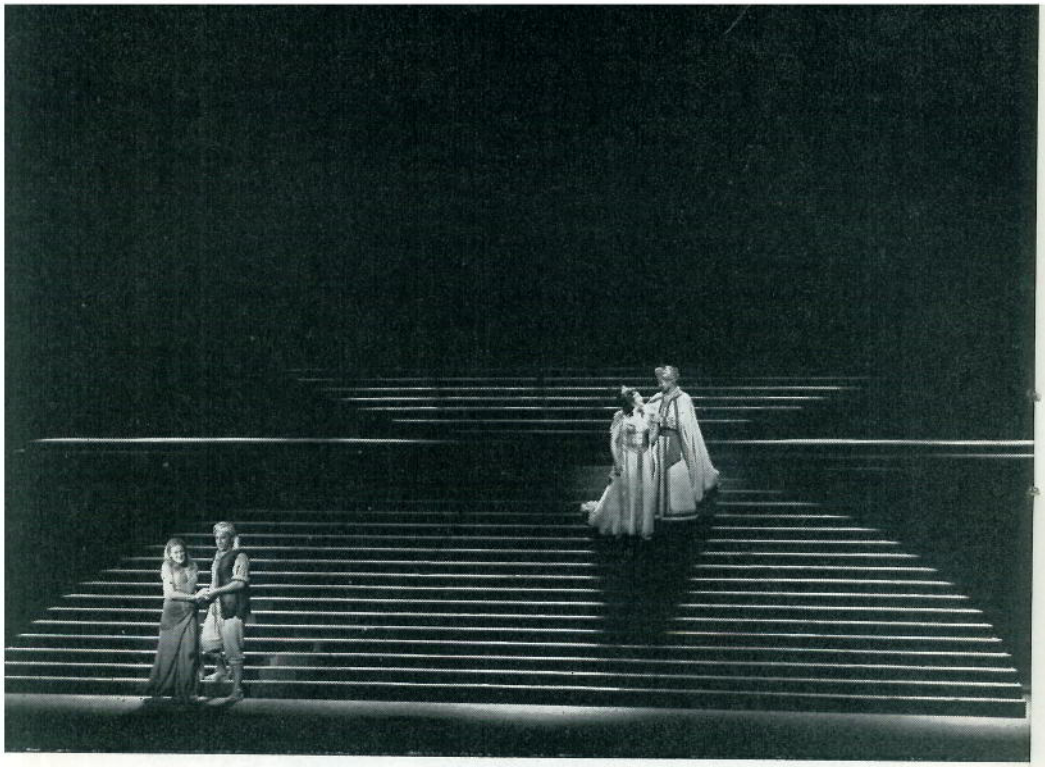


Plan of New Peacock Theatre, Dublin. Alternative A (above): Traditional proscenium stage, 157 seats. Alternative B (below): Arena stage, 157 seats.

The large number of mechanical aids and devices necessary even in such a small theatre as this (157 seats) to change from arena to proscenium without a sense of makeshift should be noted. These are no doubt justifiable, as in this case where it is desired to try out various forms of presentation, but the site is so very cramped. The way in which the Peacock has been squeezed in under the Abbey Theatre (TABS, Vol. 24, No. 3) itself being most ingenious. The exercise, however, carries a warning plain to see for those who glibly talk of automated adaptable theatres of 300, 500 or more seats.

Lighting control: 40 Thyristor dimmer channels 3 preset. The outlets are arranged to give complete four-point covering of the arena stage with change-over switches to select a different lantern rig for the proscenium. There are 120 spotlights in all.





DESIGN BY SVOBODA

by Frederick Bentham

London has now seen three productions with décor by Josef Svoboda, in addition to the glimpses afforded by the visiting company from Prague. Even before the two most recent, *Die Frau öhne Schatten* and *The Three Sisters*, were put on and his exhibition was staged at the R.I.B.A., the impact of the name Svoboda was sufficient to impart a lift to any discussion on scene design. Reports had, of course, been brought back by those who, like myself, have been lucky enough to see his work in Prague, but although the amount of his work in other countries has grown latterly this hardly explains how a scene designer becomes such a world figure.

What gets Svoboda talked about is his daring imagination in using all the techniques which the theatre, as he found it, so readily provides. Instead of redesigning the place so that he can do anything he likes he takes it as it is and still does anything he likes. To my mind this is what is remarkable about Svoboda, not his flights of fancy, as such, but the practical realisation of them within the discipline of the well-known proscenium theatre. The National Theatre, Prague, is no super theatre chock full of machinery but a very ordinary one. Any machinery for in-scene changes has to be created as part of the scenery and be capable of prompt striking and setting when the production takes its place in the repertoire.

As far as one can make out Svoboda is a master of the traditional means of stage transformation, the gentle manpower push here or pull there, rather than the £20,000 concept of motors and gearing. No doubt this will provoke the remark that he probably has plenty of labour in Prague, whereas lack of manpower makes machines essential elsewhere. This is nonsense of course; what reduction in staff do our Western opera houses show? Indeed some of our mechanical extravaganzas demand extra staff, specially skilled who work day and night to assemble and dismantle them each time the production is staged. As far as I can see only one London production in recent years can claim to have used machinery to reduce the labour force and that was Donmar's *Jorrocks* at the New Theatre, London; in any case intended for a run not for repertoire.

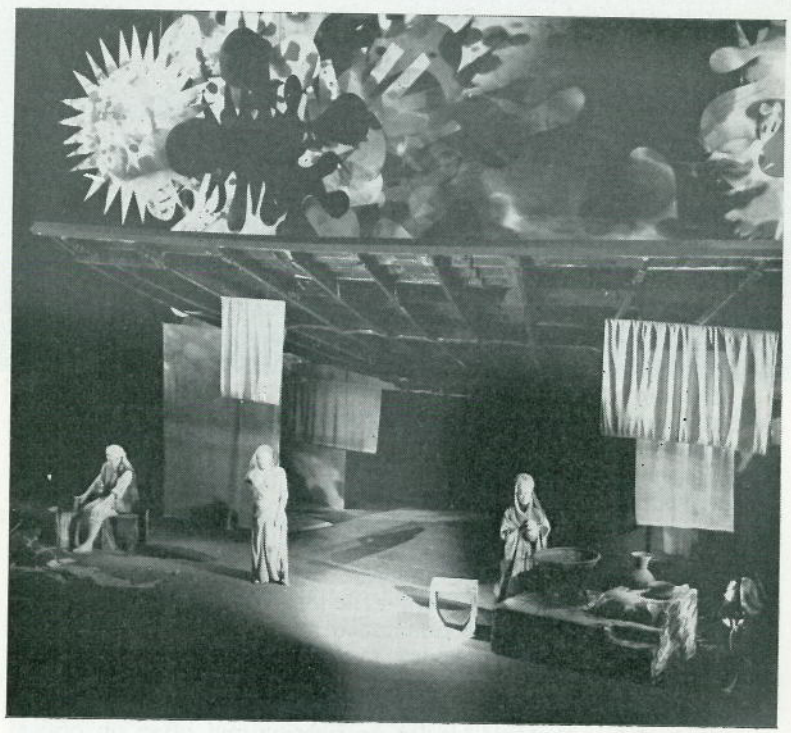
Much has been said of the production of *Romeo and Juliet* at the National Theatre, Prague, but it is such a good example of this designer's use of simple mechanics that it must be referred to here. In any case a short film with an English commentary exists on Svoboda's work for the production so that it can be said to be permanently available for study.

The production runs continuously with the various structures forming the décor, all of which *appear* substantial, gliding on or off. Particularly effective is the balcony which advances and recedes into the abyss created by back lighting and the black drape background (page 18). Much use is made of the apron stage which rises and falls and has within it a further independent section.

The movement to effect the various changes of this complex set has a pace and rhythm which gives the effect not of scene changes, as such, but rather the opening of new aspects and vistas as the onlooker might feel if he moved around or as the buildings for some reason acquired a new significance. Going backstage, the simple means, guide tracks of electric conduit for example, were everywhere apparent and yet the rigidity of the scenery was never in question as actors jumped and climbed thereon. The following afternoon I attended a matinee of an opera—*The Bartered Bride* of course—for which the same theatre functioned as an opera house. Totally different more or less orthodox cyclorama sets being used. All apron structures had been replaced by the large orchestra. That evening another opera *Russalka* was staged.

Svoboda's sets depend a lot on lighting and often on optical projection but except for the massed low-voltage narrow beam (Nedervolt) units used for back lighting one would not have considered the installation in the Prague National Theatre particularly elaborate. It certainly cannot be numbered among the monsters we all know. For this I think the use of manned spots to light the acting area, especially the apron and downstage is responsible. This is not so much a case of following as of repositioning. Each lamp is on a dimmer and when faded out is redirected for its next entry. The lanterns in question are sited mainly in the top boxes at the sides. This use of manned spotting is quite usual in Eastern European theatre.

The other assistance may arise from the lower levels of artificial lighting used generally in Prague which may mean that audiences are conditioned to this. However, Richard Pilbrow elsewhere in this issue of TABS takes up this matter. Mr. Pilbrow is, of course, responsible for the de-luxe lighting for Josef Svoboda's set for *The Three Sisters* currently in the repertoire in the National Theatre (Old Vic) London. The principle is a basic set of stretched cords which is modified by lighting and items added or removed to form three scenes. No one could claim that these are in any way naturalistic, and yet this is just what their impact turns out to be. This is only



another way of saying that *The Three Sisters* has for the exterior scene of the last act the finest impressionist set I have ever seen on the stage. The play of the light among the vertical cords, and the moiré interference shimmer which their deployment in depth caused, perfectly evoked the sunlight in the autumn woods.

Of course staging in orthodox proscenium theatres presents its problems. The sets for *Die Frau öhne Schatten* gain considerably as one descends even as little a distance as from the grand tier to stalls circle in Covent Garden. The increased effect of the vertical sight line was surprising. On the other hand at the Old Vic an ascent to the

Die Frau öhne Schatten *at Royal Opera House, Covent Garden. The settings by Josef Svoboda are based on the step arrangement shown at the head of this article. Above and below additional pieces have been dropped in and a gauze used at mid-stage. Backlighting and optical projections are also used. For scenes as opposite the downstage steps are raised to reveal interiors on the underside.*

Romeo and Juliet, *National Theatre, Prague, some of the mobile components.*

dress circle would have its advantages since there would then be a cut-off to remove the need for the borders—all too visible in the strong light. The Old Vic has horseshoe balconies and the views from the long arms of these get worse and worse as one approaches the stage. Not only are the P side windows in Act I completely invisible as might be expected, but the whole of the downstage area around the piano as well. Svoboda works in the theatre of confrontation but he has certainly encountered two ghastly examples over here. Some hint of the proper form of theatre of this type is shown by the special theatres built in Prague and in the Montreal Expo for Laterna Magica, another creation of his. Straight rows of seats on a small well stepped floor face a wide stage with a large opening. This has to be for we are concerned with a picture no matter how wide and three-dimensional it may be.

I asked Douglas Cornelissen, the Stage Director at the National Theatre, how he found Svoboda to work with and the answer was, as is always the case of whoever one asks this question, " charming and altogether a delightful experience ". This, in spite of something of language difficulty and the apparent complexity of his sets to rig. Closer examination shows that they are essentially the work of a professional with long experience of what may be expected of a stage. They work and it turns out in the event that nothing unreasonable has been demanded.

My own encounter with Svoboda occurred before his accident at Covent Garden when I wanted to find out what form his working paper, which was to have been the topic for my morning as a moderator in the Montreal Colloquium, was to take. There would be no written paper, he said. He would speak extempore, no doubt from the heart but, in his case, from the head also.

A MULTI-LANTERN COMPLEXITY — WHY?

by Richard Pilbrow

Take a space. Plunge it into darkness, excluding all natural light. Gather around it or before it an audience and call it a stage.

This is the starting point for Lighting in the modern theatre; where stories are still told by actors to spectators using the spoken word, movement, song, dance or mime. Sometimes these human actions are reinforced by the use of costume, properties or scenery, to emphasise character or feeling, to provide an environment for the actor, or to illustrate the background to the story.

From the days of the sixteenth-century, when theatre first moved " indoors ", off the streets and out of the courtyards, the chief problem facing the stage director has been how to achieve visibility. How in the darkness, were the audience to see the actors? From perhaps a single candle to row upon row of gas jets was a long period of theatrical and technical development, and with the coming of electricity, rows of electric lamps only replaced the gas jets with, as many people felt at the time, a less satisfactory effect.

Why since the days of Craig and Appia at the turn of the century, since the avant-garde directors of the twenties, since the emergence of a newly independent figure, the Lighting Designer, in the fifties, have the techniques of stage lighting become so complex; and why every year is new equipment developed, paid for with ever-growing expense by theatrical producers, even those who in the commercial sphere have every inclination toward economy?

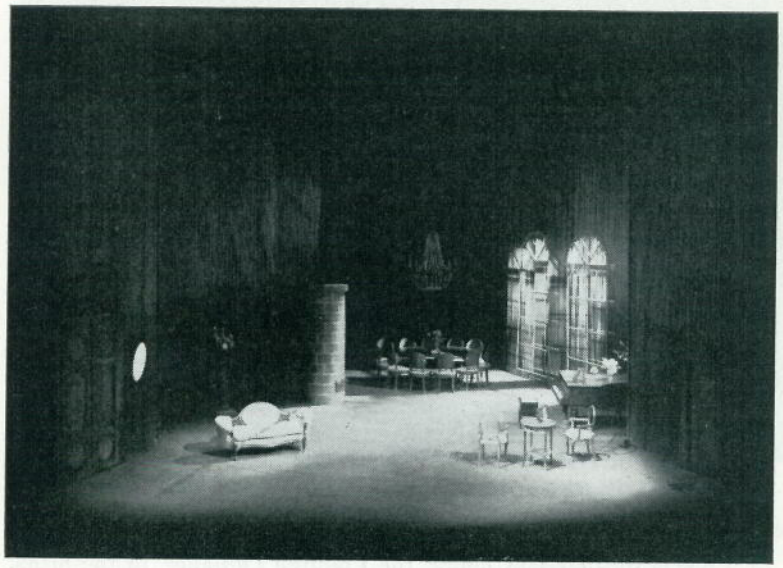
The invention and development of the spotlight and the dimmer have enabled the artist to control the light surrounding the actor to a degree undreamt of in the past. It is now possible to create artificially many—not all—of the effects of light in nature; or, using the inspiration of natural light, to employ light upon the stage, dramatically, in a quite new way.

Why should this new use of light be of any particular significance? Because Light is almost the beginning of experience. Light is essential in order that things may be seen. Little exists for the human being unless he can see, and for this, light is essential. Furthermore, man reacts instinctively not only to the scene lit, but to *how* the scene is lit.

Probably because of the primary importance of vision, the brain reacts very powerfully and subconsciously to the quality of light, to its intensity, colour and distribution.

Consider the emotional response, to the view through a window on a grey cloudy day, as compared to a dazzling sunlit summer morning. The view can be the same, the response is quite different. The difference is Light.

Until the comparatively recent sophistication of electric light, the stage only crudely used the " power " of light to reinforce the actor's performance. The light could grow brighter or dimmer, it could change colour, but probably do no more. Now the artist in the



The Three Sisters, *National Theatre, London. Setting: Josef Svoboda. Lighting: Richard Pilbrow. Basic setting of cords as interior Act I above and exterior Act III below. General impression is much lighter than our blocks, in fact, convey.*

theatre has a " palette " of light at his command that grows continuously more sensitive. An actor can stand, sharply modelled and contrasted with his background, perhaps as if in sunshine against shadow. The sunshine can evoke the feeling of the tropics or of the arctic. With the manipulation of a few controls the light can change, merging the actor into his surroundings, giving perhaps the feeling of a misty moment before dawn.

Furthermore, because in theatre we are dealing with art and not nature, the use of light on the stage can itself be selective, as any art selects from the natural world. We are used, in nature, to natural light filling the whole of our vision, more or less equally or at least at random. As in a painting, but on the stage in three dimensions, the artist can within his framework select his light, using it how, where and with what character he chooses.

To pursue further the parallel with painting, it is not always necessary for lighting to be used naturalistically. The style of lighting employed in any production will be that dictated by the author of the play (or music), or chosen by director and designer to best reveal his intentions.

There is a further reason why the New Lighting has such promise for modern stagecraft. Accepting that lighting allows the audience to see the actor, and affects even subconsciously how the audience reacts to him; accepting that like some form of three-dimensional painting a pattern of light can be woven around the actor creating visual and emotional atmosphere, linking the actor, the costumes and the scenery; Lighting can also change. The light patterns reaching the eyes of the audience can alter, refreshing or jarring the eye by their contrasts. Areas of the stage can be emphasised, discovered or discarded, mood can be abruptly or subtly affected.

The theatrical performance can be accompanied by the movement of light in its changing intensity, colour and distribution in a way that could almost be described as having an affinity with a musical accompaniment.

Through the influence of lighting, stagecraft has already changed out of all recognition throughout the world in twenty-five years. But the evident crudity of present efforts and the limitations indicate that the change in lighting and staging is still only just beginning.

Where, in practice, has the pursuit of these ideals led the lighting designer? To begin to illuminate the actor, to ensure that the audience will be able to see him, it is commonly accepted that some form of spotlight should be used because anything more diffuse than this would not only light the actor, but probably his surroundings, indiscriminately. This may be undesirable, if we are attempting to select what part of the stage we want the audience to focus upon. By using focusable spotlights to point out to the audience which part of the stage they should be watching, the lighting is attempting to carry out some of the duties of the camera in film and television work. It is attempting to bring into " close up " part of the action

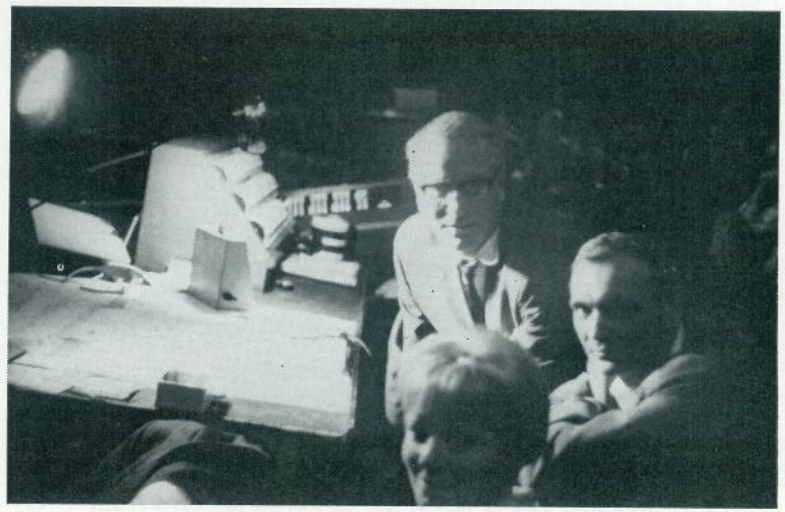
just as a camera might focus or zoom in towards the central feature of a scene. With film the camera itself is acting as a *selector* for the audience; within the confines of the stage the lighting is fulfilling a similar function.

A minimum of two spotlights are needed to illuminate most naturally the human face without flattening out the features. These lanterns are probably best placed to the front and to each side of the actor, about 45° above his eye-line and 45° to each side of him, in fact 90° apart. If the actor is to remain stationary through the performance, these two spots may be considered sufficient, but if he is going to move about or if he is going to be joined by others, then other areas of the stage will need their own two " acting area " spots. In fact the whole stage is best organised into " Acting Areas " all adjoining each other. The size of each area is governed by two things. How big an area will the spotlights chosen cover under the particular circumstances? Or how large an area, or how many different areas, of what size, is the designer required to handle differently from a lighting point of view.

Under normal circumstances one might divide a proscenium **stage into 3 to 5 areas across and 2 to 3 areas deep. Perhaps 15 areas.** This, with two spotlights each, could require 30 lanterns. But if more than one scene is involved, it is possible that the second scenic

The Three Sisters *backstage showing part of lighting behind windows of Act I and beyond them the basic cord formation.*

arrangement will be a quite different shape to the first. An acting area chosen may now have a wall running right across it, and the spots set to it may be blocked or look very unsightly. This factor could cause duplication, or more, of all the equipment finally chosen to light the first scene.



Sir Laurence Olivier (director) and Josef Svoboda (designer) at a rehearsal of The Three Sisters. *Stalls control of stage lighting beyond left. Snapshot by Richard Pilbrow.*

What has the designer achieved with his thirty lanterns? He can illuminate an actor anywhere on the stage. If most of them are on separate dimmers, he can light any part of the stage separately, or light an area brighter than its neighbour. Some crude sense of direction and modelling can be achieved by having all the lanterns to the actor's left, for example, brighter than those on his right. Different colours can be used on either side and by altering the dimmers alone some sense of colour change can be achieved. (Great restraint has to be used here, as an actor can look extremely peculiar with one side of his face a different colour to the other.) To truly achieve a completely different colour over the entire stage there is really no alternative (at this time) to again duplicating the thirty spotlights with different colour media. So it can be seen that thirty lanterns have really only " laid on " the picture. Visibility has been achieved, but very little else. The audience can see the actor, but the stage will appear surprisingly flat, dull and lifeless.

In nature, light is nearly always seen " created " by a multitude of sources. A man on a sunlit day is not only lit by the sun. True, the sun is by far the most powerful source, but the whole picture is also

made up by the cooler softer light from the whole sky, reflection from the ground, and reflections from objects around him. Upon the stage, to create an effect that may appear similar, the designer could start with his two spots. Now he will see the man, not in the sun, but lit by two spots! Perhaps he might start building his composition with a very powerful lantern to simulate the direct sunshine and place it above and behind the man. This will highlight him, making the hair glow just as the sun did itself, and also if powerful enough, throw a strong shadow forward on the ground. But he still won't appear in the open air. Next perhaps he will recreate the " sky " light. The acting area spots have begun this, but two more lanterns perhaps high to either side of the man in cool tones will assist. " Reflection from the ground " might best come from the now much maligned footlight or perhaps from a comparatively low frontal angle.

Side lighting might complete the modelling effect and complete the impression of golden sunlight around our actor. This treatment can then be repeated as often as *separate* areas are required. The light from some angles can cover several areas at once and various compromises are always possible for economy. If a similar effect is required in a different colour range (for example, moonlight), the whole may have to be duplicated, though perhaps with lanterns of a lower intensity.

Other visual effects both realistic and non-realistic may call for various types of lantern and various—perhaps unconventional—angles. A dramatic sunset might use powerful lanterns from a very low angle. Shafts of sunlight through trees might require a battery of special parallel beam lanterns casting narrow shafts of light onto the stage, or a dappled sense of light and shade might be achieved with shadow projections from a profile spot. These special effects might use satisfactorily the acting area, modelling and fill-in lighting of the other scenes, or they may require secondary lighting from different angles and in different colour tones of their own.

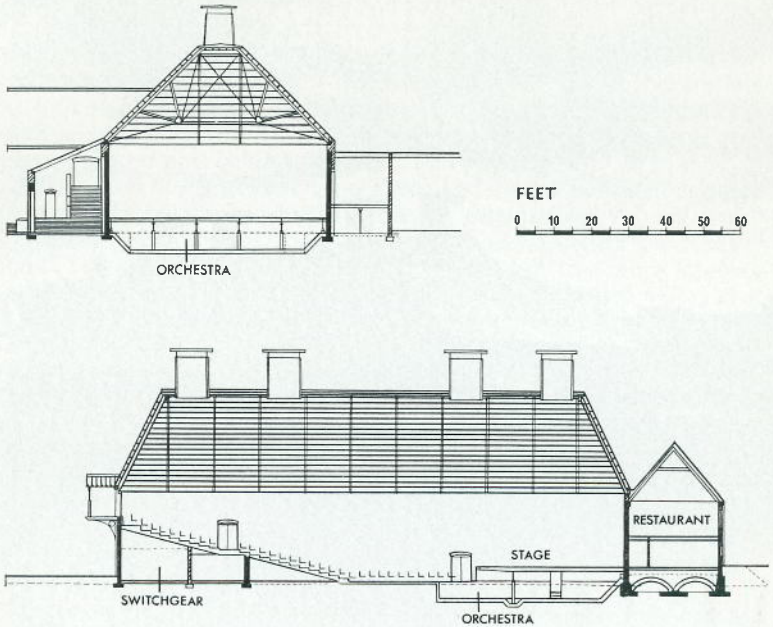
By the time the lighting designer has planned his way right through the script considering the position of every actor on the stage at every moment and with what distribution, colour and intensity of light he should be surrounded, a pattern of a considerable number of lighting units will be on the plan before him. But when he arrives at the theatre, and the set has been built and all the lanterns on his plan have been focused, he will be able to fill the entire space in which the actor moves with a light that appears to envelop him, making the air around him alive with an atmosphere that should successfully reflect the author's and the director's intention. The actors will be very clearly seen, modelled in an almost photographic manner to allow even those sitting at the back of the theatre to observe every detail of their expression. The setting will have acquired life and character, not simply forming a background to the performer, but with the lighting encompassing him and supporting him in his performance.

THE MALTINGS CONCERT HALL, SNAPE

by Stephen Reiss

In an introduction to the Programme Book of the first Aldeburgh Festival in 1948, Eric Crozier wrote: "Is it over-fanciful to look forward, through a series of annual Festivals, to Aldeburgh as the centre of the Arts in East Suffolk, with its own theatre for the annual visit of its Festival artists? To judge by the enthusiasm of local support in the past nine months, I do not think it is." It took 19 years for this prophecy to come true, much longer than many people must have hoped at the time, but how fortunate that it did not happen before! For it was not until 1965 that the Festival had the chance of acquiring the ideal site—the Snape Maltings.

There is a second reason for being thankful that the decision to build was delayed so long. For many years, right up until 1959 in fact, it was assumed that it was primarily a theatre or opera house that the Festival needed and not a concert hall. Between 1959 and 1965, however, the thinking of the three Artistic Directors (Benjamin Britten, Peter Pears and Imogen Holst) underwent a radical change. I believe that this was due to three main factors. Firstly, *Noye's Fludde* had been successfully produced in Orford Church, thus proving that operatic forms do not necessarily require a proscenium. Secondly, a plan for improving the staging facilities of the



The stage is an open platform 58 ft. 6 in. wide × 40 ft. deep extending from wall to wall with no further wing space beyond. Access to the stage from dressing rooms is via three doors at the rear. In addition there is a scene door leading to loading bay upstage actor's left. Architect: Arup Associates. The foyer is shown in the photograph below.

Jubilee Hall was successfully put into effect. And, thirdly, the success of the Russian soloists and of an outstanding new generation of native artists seemed to compel a wider recognition.

Thus, it had already been decided that we needed a concert hall rather than a theatre when the Maltings unexpectedly came on to the market.

The potentiality of these buildings, which were of course very well known to us, was immediately apparent. If we hesitated momentarily, it was partly because we realised the hazards of a conversion and partly because, with no money in the bank, it was a major decision to be taking. However, the more we thought about it the more certain we became that this was a unique opportunity we could not afford to miss. In December 1965, therefore, we asked Arup Associates to prepare and supervise the necessary plans; the hall to be ready for use by the 1967 Festival! A pretty tall order but, thanks to the co-operation of a great many people and the mild 1966-7 winter, they did it.

Derek Sugden, the engineer in charge, has described the way in which the planning of the hall developed.* "Many post-war auditoria have failed," he says, "because they have tried to fulfill too many functions and have not succeeded in fulfilling any one properly. It was agreed that The Maltings should be a concert hall, and, although opera lighting was to be provided, it was felt that the single auditorium space would create its own type of opera production. As the design developed this became clearer, and the introduction of any temporary proscenium within the auditorium would have been quite wrong.

"Our main aim in the design was to create a single auditorium which would take a large symphony orchestra and chorus and yet keep the building, both inside and outside, in sympathy with the traditions at Snape. In producing the plan for the conversion we tried to use the existing walls of the Malt House wherever possible. The internal walls, the brick hoppers and the suspended drying floors were removed down to the lowest floor-level. This left a large space of 135 ft. × 60 ft. for the auditorium and a space 19 ft. wide running the full length for the foyer, lavatories and cloakrooms.

" At first we thought it would be necessary to design a large, removable stepped floor in order to provide a level surface for stereophonic recording. This idea was quickly abandoned when Decca said they were quite happy with the space on the stage and the flat area in front of it. We could now provide a permanently stepped floor, creating at the rear of the auditorium a space underneath for the lavatories, plant-room and sub-station. Thus the foyer could be left completely free for circulation.

"The roof design became the key to the whole building, and we looked for a design that would keep the shape of the old roof. Studies were also made of various heating and ventilating schemes

** 1967 Aldeburgh Festival Programme Book. He has also described the plans in greater detail in the June issue of the* Arup Journal.

Snape Concert Hall. View during Aldeburgh Festival.

at this early stage to ensure that we could use roof ventilators similar to the old Malt House smoke hoods. The old roof trusses had been mainly of heavy timbers reinforced with the later addition of steel tie-rods. We felt that the design of this roof, wholly exposed within the auditorium, should be in the same materials and of very direct and simple construction.

"The final solution was for a timber and steel roof with a flat top, similar to the old roof, to accommodate the ventilators. The roof trusses are constructed of Douglas fir and all the ties are of high-tensile steel. . . .

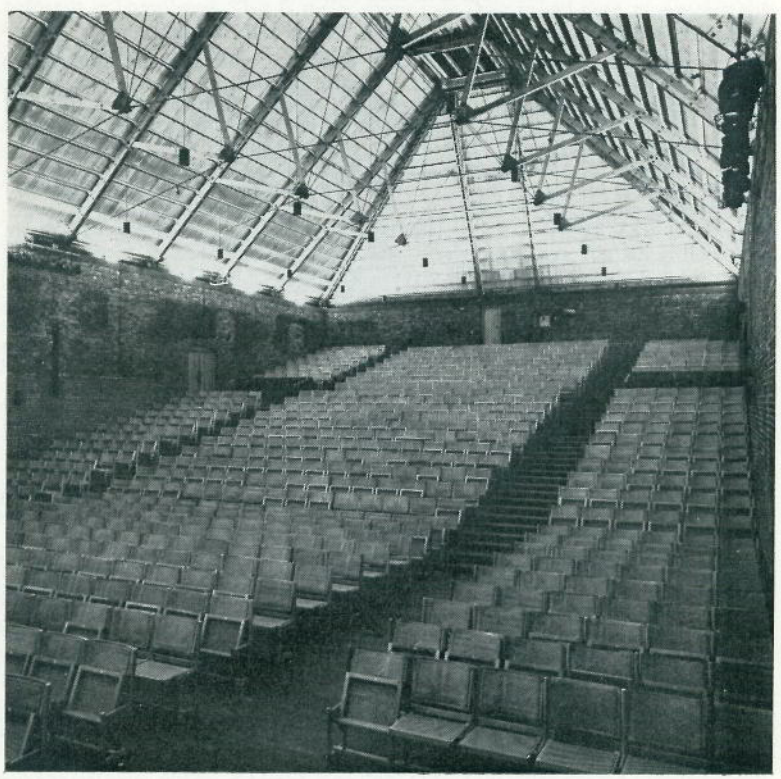
"There are no finishing materials, as such, at Snape; the fabric of the **building** forms the finish both inside and out. The roof and the pine joists in the foyer are exposed and left natural. The brick walls in the auditorium have been patched and raised with old red facing bricks saved from the demolition, and the new piers and arches in the foyer have been built in new red facing bricks. All the old walls have been grit-blasted and finished with a sealer to restore the

original soft red colour of the bricks.

"The stage and auditorium floor are finished with a hardwood, but for quietness the sections under the fixed seating have been covered with cork. The foyer floor and staircase are finished with red pammets which are continued outside in deep steps to form the main entrance.

"Seating in the concert hall presented a formidable problem because it had to look right in a building which still retained a marked mid-nineteenth-century atmosphere. Then it was suggested that perhaps the right material was cane, as used at Bayreuth. Wolfgang Wagner, the director at Bayreuth, sent us photographs of the seating there and assured us of its robustness—most of the chairs still in use are those originally made in 1876. We prepared some designs with cane seats and ash frames and these have been made by a firm in Ipswich. To maintain the same character throughout the building we have chosen Thonet bentwood cane chairs for the orchestra and restaurant."

Showing stepped seating and in foreground, right, stage lighting which hangs from continuous bar along the side walls.



Needless to say, we were more concerned about the sound of the building than with its appearance. People seem to imagine that acoustics cannot be calculated in advance and that it is merely a matter of luck whether they turn out right. I believe that this is quite untrue and that it is no mere coincidence that the sound in many modern concert halls is dry and shallow. The air space is invariably cramped for reasons of economy and the materials used are too hard, too smooth or too thin. Acoustics, like appearances, are a matter of taste and it is necessary to declare in advance whether you are primarily concerned with clarity or with richness of sound. It is also relevant to forecast whether you are likely to be playing to a full or an empty house. We took the optimistic view and, on the first year's showing, our hopes seem to have been justified.

Arups interpreted our requirements, both visually and aurally, with extraordinary veracity. This was in no small way due to the fact that Mr. Sugden is himself an enthusiastic concert-goer and understood exactly what we were trying to achieve.

BOOK REVIEWS

" Theatre in the Round "—Stephen Joseph. Barrie and Rockliff. 30s.

If ever an author's name and his title were closely allied in public estimation we have it here; if ever anyone deserved a theatre to work in and in the form for which he has campaigned Stephen Joseph is that man. Both in conversation and here in the written word he is a single-minded enthusiast and quotes a remark: " The man's mad, quite mad." This was from the audience when he talked to a Townswomen's Guild Conference. It is however too simple a view of a dedicated campaigner who knows the history as well as the practice of Theatre. When you meet him the dedication is there all right and backed by plentiful logical argument but it is not sullied by a dogmatic rejection of other or any forms of Theatre and such is his gift and his sincerity that even the most ardent picture frame supporter will read this book—his credo—with interest and growing admiration. It should not be thought that his talent is lost to the theatre in general by his preoccupation with one form as he has done most of his work in conventional theatres—mainly, he says, owing to the absence of a home to prove his case. Even in the Department of Drama at Manchester University where he lectures he is tied to a conventional layout.

His plan for the book gives the arguments both historical and personal which have lead him to favour " in-the-round", followed by a summary of his practical efforts to establish it during the last fifteen years both in a temporary home and on tour as a lodger. He then explains the various layouts relevant either to the space available or to the seating capacity required and gives planning notes which list—and suggest remedies for—all the snags likely to be found either in an existing conversion or in setting out to build from scratch.

This section includes a Fish and Chip Theatre specified far more precisely than a Fun Palace. Lighting and sound are covered in fine detail and always with a view to practical economy rather than from the " my art demands everything " approach. His view of " all night " technical rehearsals is that they are a case of " persistence trying to stand in for knowledge and efficiency". I still think that sound effects are overplayed both here and in both senses elsewhere in the theatre. He then goes on to outline problems of production and acting and of stage management and considers carefully whether certain plays are unsuitable for this form of presentation. One by Saroyan I saw years ago at the Pembroke, Croydon, certainly was; being set " on the stage of a deserted theatre".

Lastly he returns to the argument with some detailed economics. Just as Leslie Hotson in *Shakespeare's Wooden O* made us want to see Shakespeare performed in that style, so Stephen Joseph would be the man to show us first-class actors in his form of theatre.

Despite his disappointments there is little doubt that today in schools and colleges it is theatre-in-the-round that teachers want even though it is too often " sicklied o'er " with the demand for *all* forms to be available in an *adaptable* drama space. Wherever you are, one form whatever it is must be easier. It is to workers in the educational field of drama that I strongly recommend this book and similarly to architects who are concerned with school buildings. Especially is this valid at the moment with the expansion to cater for the extra year at school. Instead of serving one-purpose drama with many forms the one form in-the-round serves many purposes.

We might ask critically would Leicester (275 seats), Worcester (353 seats) or Hampstead (160 seats) be better or seat more, in-the-round?

To disclose my own view, I have a feeling that any form of theatre is acceptable provided that the play, the production and above all the acting are sufficiently good and can be seen and heard. Stephen's case rests on his claim that the latter two are easier to satisfy for more people, in-the-round.

B. E. BEAR

" The Drama Studio "—Richard Courtney. Pitman. 35s.

With the ever-changing pattern and complexities of life the architect is often hard pressed to produce a solution to a problem which will not be out of date before it is completed. This is never more true than in the field of educational building.

Whilst Mr. Courtney's book deals with but a small section of educational building, it is a vitally important one and one that has in the past been sadly neglected. Ask any proud parent who has come to see his child in the " School Play " and had the misfortune to arrive late only to spend the rest of the evening wriggling uncomfortably on a modern stacking chair gazing bleakly at the back of the neck of the parent in front. The multi-purpose hall, like the multi-purpose theatre, is not usually a great success.

The seed in Mr. Courtney's book is in the early chapters. The premises set out of the various play " shapes " adopted by children of different age groups are fascinating and, to one architect at least, a complete revelation. Once these premises are accepted, the book germinates naturally through a brief but lucid history of arena, open end and proscenium stages with the addition of " L ", amphitheatre and transverse stages. The ageless arguments of the professional theatre in relation to these various forms at once becomes more cogent. One must assume, however, that from an educational point of view each form must have its use in the development of the child.

From here on *The Drama Studio* is largely a book of fact and each drama teacher or producer must work within his own interpretation of these facts. For the architect, however, it is less and yet more involved. He must accept these facts as a specialist guide to his solution to the problem just as he accepts the facts of the structural or heating engineer. If these facts are wrong, he is not always in a position to know and yet he must bear the ultimate responsibility for the failure of his building in the eyes of its users.

Mr. Courtney then completes the first section of the book by dealing with the audience problem, acoustics and sight lines. It may appear elementary that any " performer " either adult or child should be seen and heard by his audience. If only this were always so! The diagrams and tables in this section, as indeed throughout the entire book, are splendidly simple and provide exactly the right information required by the architect without becoming too bogged down in technicalities that are usually the province of the specialist.

In the second part of the book, Mr. Courtney deals with the actual physical problems of the building. Here again one can have nothing but praise for the clear and concise way in which each part of the " Studio " is described, its function analysed and a workable solution offered. Little or nothing is omitted, general lighting, colour schemes and their effects on productions, materials for

the floors, heating and ventilating, right through to the complexities of the Home Office *Manual of Safety Requirements* and the G.L.C. regulations. Part two continues with a more detailed description of the furniture and equipment that should be provided within the physical shell of the studio. Once more we have solid facts, rostra, platforms, bleachers, chairs, their pros and cons, sizes, shapes and even who supply them.

The final section of this part is devoted to the more technical problems, yet at the same time the very things that bring the building to life. Lighting, sound control and scenic equipment. The serried array of switches, dimmers, lanterns, tapes and amplifiers from whose hard plastic and metal soul comes the magic that is the living theatre. Here, complete with diagrams and illustrations are the simpler forms of control boards, lanterns, sound equipment, their capabilities and uses and their ideal positions within the building.

Part three, in the logical progression, is taken up by actual suggested examples of studios and their equipment for the three main educational divisions, from the fairly simple requirements of the primary school, through secondary to the near professional theatre standards of the college and university.

For architects dealing with educational buildings and also for the future staff of these completed buildings " it really is all there "!

W. F. KEMP A.R.I.B.A.

The Reader's Guide Series. Theatre, by David Cheshire. Clive Bingley, 25s.

Mr. Cheshire has crammed into 100 pages potted reviews of much of the available literature about theatre. Accepting its limitations as dealing largely with British theatre, and excluding books about opera, ballet and drama (" plays studied for their literary interest ") it still has to cover a vast field of reference and criticism.

As a basic reference book it seems to work fairly well. Using the index, the names of books covering any subject can quickly be found. So it proves to be an instant and effective reference to other works about theatre, with Mr. Cheshire's preferences, discriminating remarks and warnings about titles concisely given.

The book is divided into six principal sections—general reference, histories, dramatic criticism, biographies and autobiographies, theory and current periodicals. But it seems that to gain most value it needs to be read through—an unlikely possibility for busy directors, stage-technicians or actors. Each category is dealt with in a continuous script—the names of books being boldly set. Author's names sometimes get lost in the erudite criticism, and although publishers are given, prices are not.

I felt that a little more attention to layout could have made the book easier to use. Why not, for instance, run headings across the tops of pages so that their category is clearly given—saving constant references back. Incidently, Theatre of the Absurd and of Cruelty are noticeable by their absence—perhaps because no-one has written about them. And Happenings—that theatrical manifestation of the visual arts—is surprisingly present.

Except for these carping criticisms the book fulfils some real needs. Written in a practical and enquiring way, it attempts to link together the literature, history and development of theatre in some unusual ways.

A subjective book and therefore stimulatingly critical. But on the whole it succeeds in its objective of giving a helping hand into the mass of print with which we seem to need to surround ourselves.

JOHN ENGLISH

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