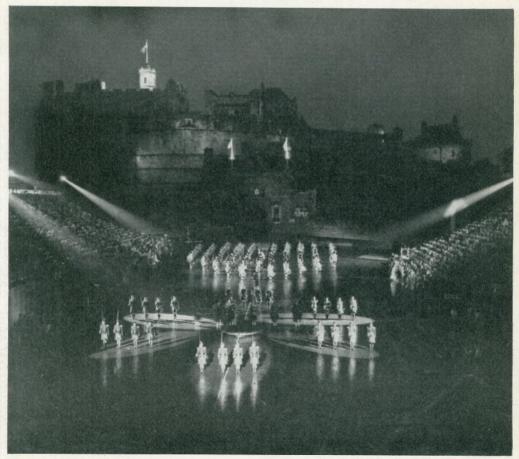


THE BEST

December 1970 Vol. 28 No. 4



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Editor: Frederick Bentham

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Cover Picture: Edinburgh Military Tattoo 1970
Lighting by eight prototype Follow
Spots with 1000W CSI sources.
(Photograph Glasgow Herald)

This Happy Breed

On the bus journey the traveller—the traveller? well, the air package—cannot but be struck by the large numbers of lights suspended over the golden road to Schipol airport. This ends in a confrontation with a maze of artificial lights. Two packaged thoughts come to mind; the first about "night being turned into day", which it isn't, and secondly "what a good thing all this must be for that Dutch firm at Eindhoven", which it is.

Of course artificial light does not turn night into day, light distribution from umpteen multiple sources cannot resemble that of the single giant source which, although its Maker continuously shifts it about and interposes irresolutely a variety of filters and diffusers, gives us day. Flying into London or any large city on a clear night there ranges far and wide a firmament, whatever that is, a myriad of man-made stars. Yet what we see from aloft are merely the larger lamps; within edifice and houselet there too are constellations both major and minor. Even the smallest room boasts its lamp so that you can see what you are doing there—though why you should want to is open to question.

Is there any greater engineering friend to man than this power to create ample light at any time and anywhere. The means to remove the inconvenience of, nay rather the terror of, the pitch black. Prattle about the joys of nature's own unsullied night and we mean the bright starlight or the romantic product of the moon. Night, until man comes along and contaminates it, is black and just as impenetrable as peasoup fog.

Contamination is the wrong word to use, because illuminating engineers are benevolent fellows leading with kindly lights. It is indeed curious that the sixty-one-year-old Illuminating Engineering Society should be so little known, unlike the other engineering

institutions, boasting no palace of its own. The truth is that lighting is borderline engineering. Break the rules of electrical engineering and you can get vourself a corpse, a fire or a power cut. Break the laws of illuminating engineering and there is a good chance the result is a work of art. This it is that makes lighting lovable to those who feel the call—it can be fun or serious and scientific according to taste. It is possible to have A-stream and Bstream lighting. To write learned papers on it and have them published in Lighting Design and Technology with masses of figures and curves to illumine the texts or at the other extreme to illumine figures and curves of the sexes in theatre and studio.

If those who practice this arcane technology are a rum and ill-sorted but happy breed they are nevertheless human enough to conform to the inhuman custom of our time, namely the holding of international conferences. Mind you, the principal of these, the C.I.E. conference, is held but once in every four years. Maybe this is why that organisation—the Commission International de l'Eclairage-has survived for 53 years now. Three years of "hols" between each conference year provides time enough to forget, for example, the oaths sworn beneath the blasted oaks of Ye Tudor Inne in that convention hotel in Washington D.C. "Never, never another conference, no never another one" and other vows of a like nature taken in the thirty or so languages of the delegates (French or English only if they disciplined themselves to obey the rules and stick to the official C.I.E. languages).

It would be incorrect to convey the notion that every one took such an oath, we cannot see the Americans doing it. They love conferences, "conventions" as they call them, and pursue, distance no object, a rota of New York, Chicago and Los Angeles as an excuse to hold one each year on most any subject including those

dear to the heart of TABS readerstheatre and lighting. Conventions have even been known to stray with enthusiasm over the 49th parallel where the "gettogether lunch" is prone to be washed down with iced water to which nothing more stimulating has been added than a shot of chlorine. Nor is there just one per annum per locum; in our line there are at least four musts — U.S.I.T.T., S.M.P.T.E., A.E.T.A. and I.E.S. This last, the American I.E.S., although already faced with 1971 as the year of the quadrennial C.I.E. international conference (at Barcelona in September) have come up with the notion of holding another international one called "Lighting 2000" in New York before it at the end of May. An odd notion you may say but an even odder notion was to choose the very man who pens these words as the "Area Vice Chairman for the United Kingdom"—the U.K. is our oyster! This sounds very grand until it is discovered that the Chairmen, Sub-Chairmen, Vice-Chairmen and Co-Chairmen total thirty in all. We would rather perhaps have preferred to be a "Co-Chairman" and you will

have no doubt which "Co" we would willingly represent. By the way the Publicity Chairman is our own Philip Rose in Canada though there may be some doubt whether this editorial constitutes quite the publicity he has in mind.

Another conference to be held next year is that of I.T.I. They have been holding one every two years since they—the International Theatre Institute—were set up by U.N.E.S.C.O. just after the Second World War. This will be the first they have held here and there is talk of a thousand delegates. Next year is obviously going to be a year for which forms will have to be filled up and decisions made; to opt for, spend on and ultimately lie on, a bed with bthrm. htl. 2nd. cl. or bed without in htl. 1st. cl. or perhaps only a bthrm. in a de luxe.

The year one thousand nine hundred and seventy-one thus promises a worldwide movement at which the hearts of some beat faster in anticipation of re-converging delights, while others, we suspect, beat it as fast as possible in the opposite direction.

Giselle Blues

Of all the famous classical ballets the one with the most ballet music is Giselle. A man called Adam (we are rather proud of ourselves for remembering this) got it just right for dancing but it is not the kind of music to derive much pleasure from as a selection upon the concert platform. In this it differs greatly from much other classical ballet which is as well known as pièces d'orchestre as scènes de ballet. An essential ingredient to the success of Giselle is moonlight for Wilis. (Not the sergeant of Iolanthe but a peculiar Mittel European ante-common market wraith.) Now moonlight, as every balletomane but not the moon itself knows, is blue-and for the Royal Ballet's Giselle at Covent Garden only one particular blue. One which is bluer than No. 40 and greener than No. 61 and of about the same density. This has now been distilled as Cinemoid No. 68

Giselle Blue—a new Rank Strand Electric colour.

At this the knowledgeable reader will have become restless-Giselle was first performed in 1841 and even at Covent Garden they have been doing it for years and years. What's all this about a new colour? The answer lies in the fact that for some years their need for this one colour was catered for by a rival. This source has dried up long since and the gallant Rank Strand have done a long delayed leap (entrechat funebre?) to the rescue. The new colour is not however "Special Réserve" for Bill Bundy the Technical Director at the Royal Opera House but is available to all. No certificate is necessary to prove that the ballet is being performed. Therefore, if you wish to give your production, whatever it may be, a touch of the Giselles then Cinemoid No. 68 is your colour.



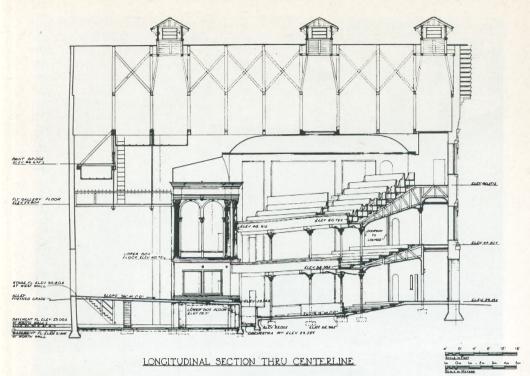
Ford's Theatre, Washington, D.C.

by Philip Rose

On January 30th, 1968, the curtain rose for the first time in over a hundred years at Ford's Theatre, Washington. The last time actors and audience had faced each other across the footlights was the night Abraham Lincoln was assassinated in April 1865. The re-opening was the culmination of a dream for many who had worked for the restoration of the theatre. Not just the rebuilding of a shrine but of a living theatre to bridge the interruption of history.

That Lincoln was at the theatre that night was not an isolated formal occasion. He loved the theatre, and frequently was to be seen enjoying plays and opera. "It rests me," he said. "I love to be alone and yet to be with the people. A hearty laugh relieves me, and I seem better able after it to bear my cross."

After the night of tragedy and chaos, the theatre was closed. There was a spontaneous revulsion on the part of the people against the building, and those prophets of doom who had foretold disaster when it was converted to a theatre from a Baptist Church. felt even more righteous than they had when a fire two years earlier had gutted the building. The Government of the day took a hand in ensuring that the building would not serve again as a theatre, by leasing it shortly after the assassination and subsequently converting it into an office building. They eventually purchased it and it had a chequered career as a store for military records and an army medical museum. On June 9th, 1893, an odd coincidence occurred. Edwin, the brother of Lincoln's assassin, John Wilkes Booth died



The photograph on page 109 together with the reconstructed section on this page and the plans which follow are taken from the Historic Structures Report "Restoration of Ford's Theatre" 1963, obtainable from U.S. Government Printing Office, Washington D.C.

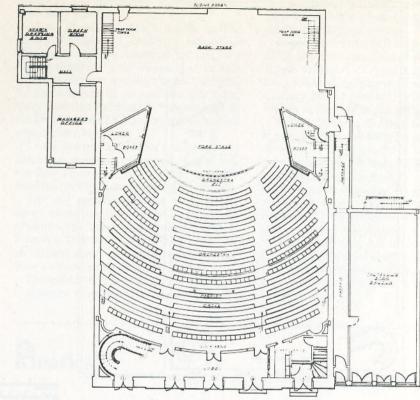
and at the same time the interior of the theatre collapsed killing and injuring a number of Government employees.

In 1932 the Lincoln Museum was installed on the first floor of the building, and so it continued until the late Fifties, when a movement started to renovate and rebuild the theatre, mainly as an architectural and historical exercise. Various feasibility studies were carried out and eventually in 1964 Congress passed an act for the restoration of the theatre. However, feeling was growing that the restoration should not be just an historical rebuilding but that the theatre should be restored as a living playhouse.

The original plans had long since disappeared although there were in existence a number of photographs by the great civil war photographer Matthew Bradey. Contemporary records such as newspaper cuttings, lithographs, diaries and various

writings were researched. Living descendants of persons associated with Ford's Theatre in one capacity or another were contacted. A great fund of information was patiently put together, probably no less useful than a set of the original plans would have been. Needless to say, there were numerous building problems. The whole of the interior had to be removed, a new basement was dug, and although original methods and materials were used as much as possible, today's building and safety codes required some changes. The stage grid, for example, although to a large extent a re-creation of the original wooden structure, has steel beams in strategic positions. However, many of the original roof beams remain.

In his original theatre, Ford managed to pack in nearly 2,000 people, with some 400 of them being squeezed into the gallery. The restored theatre seats about 700. It is



THE STATE OF THE S

DRAWN BY WA A DEADAY

FIRST FLOOR PLAN

said that people were smaller a hundred years ago than they are today, and with Ford's views on seating capacity they would need to have been. With the exception of the gallery the audience are seated on cane bottom chairs, which fortunately are cushioned. The chairs had to be made slightly larger than the original ones, to cope with the results of twentieth-century affluence on the human anatomy.

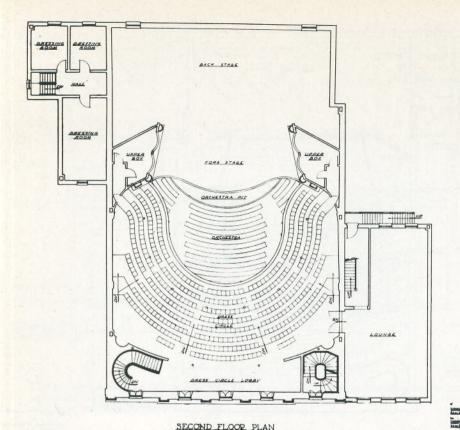
In the rebuilding gas has given way to electricity, and the comfort of the actors has been assured by making no attempt to re-create the original dressing rooms.

The result of four years and three million dollars is a charming nineteenth century theatre, which would be easily recognisable by Ford and Lincoln. To me it has two distinct personalities. My first visit was on a Saturday morning, as one of a continuous stream of visitors entering off

the street through a narrow lobby into the auditorium.

One was obviously visiting an historic site. Inside are members of the National Park Service, discussing the theatre and answering questions, and at times giving formal presentations to large organised groups. People enter as into a church. Bantering, bouncing boys become hushed and wide-eyed as they glance up at the box where Lincoln was assassinated, flag-draped and bearing the engraving of George Washington which hung in the box on the fatal night. Visitors can trace the route of John Wilkes Booth to the Presidential box, and stare in through a curved window, and picture Lincoln leaning back in his rocker for the loud laugh to which Booth had deliberately timed his entrance.

On the other side of a front drop across the proscenium, I had a glimpse of the





B BY LAPAN J. FALLING

other face of Ford's Theatre. Whilst the visitors were gazing at the spot where history was made, a group of actors were busy reading for the next play.

Although the National Parks Service is responsible for the theatre, it does in cooperation with the Ford's Theatre Society, present a theatrical season from October until April each year. The Society is non-profit making with a Board of Trustees under the Presidency of the hardworking and charming Mrs. Don Hewitt, and is dedicated to Ford's Theatre as a living home for American theatre.

This year, as in previous years, the season is being presented by the Circle in the Square Company. Four productions are billed, James Whitmore in Will Rogers' USA, by Paul Shyre, Kesselring's Arsenic and Old Lace, William Gibson's John and Abigail, and the season will end with a

musical of Carson McCullers', Member of the Wedding.

The stage is the same in terms of space and shape as it was in the original building. The rigging consisting of hemp line sets is probably much as it was in Ford's day.

Today's lighting is "by electricity" of course, and generally follows the pattern of most U.S. road houses in that it is rigged for a production or season. However, the vertical booms and ceiling slots in the auditorium have been carefully located, to be both practical and aesthetically acceptable. The stage plan is not unlike many late eighteenth and nineteenth-century opera and play houses, having a large forestage flanked by boxes. A well known Broadway producer, on being shown over the restored theatre, wondered why a modern thrust stage had been incorporated. He was a trifle surprised to learn that our theatrical

ancestors had anticipated some of today's "modern" theatrical forms.

Those members of the Circle in the Square Company I spoke to seemed to literally exude an uncommon joy and love for the theatre. On my second visit, as part of a near capacity audience to see a delightful performance of *Arsenic and Old Lace*, there was that indefinable "something" in the air which one finds in successful theatres where everything fits.

I collected my ticket from a computerised box office, now occupying part of what was the Star Tavern, in which Booth strengthened his resolve before entering the theatre.

The set, on a truck, had been pushed down stage and now almost completely obscured the flag-draped Presidential box. It took a little while to adjust to sitting on an upright chair, although stepping of the floor ensures reasonable sight lines.

The gallery is not used by the audience. It contains a considerable amount of light-

ing equipment installed specifically for a Sound and Light presentation, which runs during the summer months.

It opened for the first time on July 21st, 1970, and there are four shows every day. It tells the story of April 14th, 1865. Both the audio and lighting is controlled from a Century Strand Memo/Q Memory control system at the rear of the gallery.

Ford's Theatre will never escape the part it played in an American tragedy, yet one detects that it will resume its course and go on to create its own theatrical history as a home for American theatre.

For the events leading up to the night of April 14th, 1865, we must go to the records of history. How far have we come in the century since? The original intent of John Wilkes Booth and his associates was to kidnap Lincoln and hold him to ransom for the release of Confederate prisoners. History may change the characters, but not it seems the plot!

Kinetics?

Act II: As Isolde enters she sees only two things: the burning torch set as a signal for Tristan and enveloping darkness. She does not see the castle park, the luminous distance of the night. For her it is only horrible emptiness that separates her from Tristan. Only the torch remains irrefutably just what it is: a signal separating her from the man she loves. Finally, she extinguishes it. Time stands still. Time, space, the echoes of the natural world, the threatening torch—everything is wiped out. Nothing exists, for Tristan is in her arms.

How is this to be scenically realised so that the spectator, without resorting to logical reasoning, without conscious mental effort, identifies himself unreservedly with the inner meaning of these events?

At the rise of the curtain a large torch stage centre. The stage is bright enough so that one can recognise the actors clearly but not bright enough to dim the torch's flare. The forms that bound the stage are barely visible. A few barely perceptible lines indicate trees.

by Frederick Bentham

By degrees the eye grows accustomed to the scene. Gradually it becomes aware of the more or less distinct mass of a building adjoining the terrace. During the entire first scene Isolde and Brangäne remain on this terrace, and between them and the foreground one senses a declivity but one cannot determine its precise character. When Isolde extinguishes the torch the setting is shrouded in a half-light in which the eye loses itself.

Isolde is submerged in this whispering darkness as she rushes to Tristan. During the first ecstasy of their meeting they remain on the terrace. At its climax they approach (the audience). By almost imperceptible degrees they leave the terrace and by a barely visible flight of steps reach a sort of platform near the foreground. Then, as their desire appeases itself somewhat and only one idea unites them, as we grow more and more aware of the Death of Time, they finally reach the extreme foreground, where—we notice it for the first time—a bench awaits them. The tone of the whole

secret, shadowy space surrounding them grows even more uniform; the forms of the terrace and the castle are hardly perceptible.

Whether because of the contrast of deepened darkness induced by extinguishing the torch, or perhaps because our eye has followed the path that Tristan and Isolde have just trod-however that may be, in any case we feel how softly they are cradled by every object about them. During Brangane's song the light grows still dimmer: the bodily forms of the people themselves no longer have a distinct outline. Then (page 162, first ff, of the orchestra) suddenly a pale glimmer of light strikes the right side of stage rear: King Mark and his men-at-arms break in. Slowly the cold colourless light of day increases. The eye begins to recognise the main outlines of the stage setting and its colour begins to register in all its harshness. Then as Tristan with the greatest effort at self-mastery realises that he is after all among the living, he challenges Melot to a duel.

In the setting, cold in colour, hard as bone, only one spot is shaded from the dawning day and remains soft and shadowy, the bench at the foot of the terrace.

That those words are the very evocation of the powers of stage lighting will be attested by anyone who has sincerely tried to "do" lighting. Yet with equal sincerity how often can they claim to have brought off something of the sort or even to have been given the chance to attempt it or anything remotely like it. Let us continue with another description.

This was about the most difficult scene to light I have known: it took more time than the remaining twelve scenes of the Opera together, Also the "check" has to work smoothly and accurately to the score, arriving at particular points at particular bars-twice out of six times it got mistimed by a few seconds. In this most Maeterlinckian of scenes atmosphere is everything-miss the subtle effect of twilight going breathlessly into a night heavy with storm-opening too with a calm sunsetmiss all that, and your audience had better keep its eyes shut and listen to the words. Three people meet on a terrace overlooking the sea and discuss the weather, two of them lovers meeting for the first time: they allude only to the weather, lighthouses, ships setting sail, the bustle of mariners in the port far below, but the unfolding of the whole drama is symbolised meteorologically in that seven minutes at most!

Opening extract is Adolphe Appia 1899 as quoted by Lee Simonson in 1932*. The second is from H. Proctor-Gregg's description† of the lighting for *Pelleas et Melisande* in 1927. I have to admit that in a long working life of absorbed interest in stage lighting I have not ever seen anything of this sort on the stage. This does not mean that no one was doing it but merely that I did not see it.

Here lies the problem; if such lighting was well done then the audience should not see it, like the 32 ft. open on a large organ it makes its presence felt rather than trumpeting aloud. Unfortunately I suspect that such lighting cannot be seen largely because it isn't there to be seen or to be felt.

Whether the use of stage lighting today represents any advance on that of previous decades it is quite impossible to tell. What lighting could Appia have used if he had managed to reform Bayreuth productions in 1900? As it was this had to await Wieland Wagner fifty years later and those fifty years had a devil of a lot of technical developments to show. But the best then, whatever the decade and the resources, was probably always very good and the best today is very good. There was lighting of varying admixtures of no-inspiration and no-skill then and the same is true today. The only certain thing is that a lot more equipment is used today—the general lighting levels are immensely higher.

This, because light is prone to scatter, tends to deprive us today of the power of darkness. Notice how in the Appia description for Tristan most of the writing is about darkness—deliberate teasing of the eye. The visual equivalent of the pianissimo. In theatre we seldom see any use of dark today and maybe the argument of seeing the actors face there has to be conceded, but in opera the reverse applies and even though singers nowadays do act to a greater extent than they used to it is

secondary. In a long aria acting, except with the voice, evaporates after the first few bars in the kind of opera we are talking about. Now it is true that there is a lot of dark about in some opera houses but most of it appears to be by accident rather than design. One of the big contributions to the accident is the vast abyss of light represented by the orchestra over which one peers at the goings on beyond.

Visually to attempt any subtlety under these conditions is like admitting the traffic noise outside during the playing of the music. We go to a lot of trouble to sound-proof our concert halls, and presumably any new opera house would receive the same treatment, yet the glare of the orchestra remains. This does not matter in an opera where the physical presence of the orchestra is part of the show but where its music is the only contribution required, this light is serious.

Skill in composing pictures using lighting is a natural to the good stage lighting man. Where so much remains to be done is in the changing from one picture to another so that the change is not just a means of getting there but conveys a message to the audience in the process. Not just a revelation of this and an obfuscation of that at the right moment. The phrasing of the change may have to do the entire trick.

At this point it may be said that such finesse has had to await the arrival of the modern instant dimmer memory systems. but the control itself is only part of the problem—it is sheer time for the operator to rehearse that is lacking. Under certain circumstances his is a virtuoso role—what musician, dancer or actor could tolerate such scant rehearsal time as the operator gets to rehearse his changes with all the targets for the lighting present. It would not be questioned that without any target there is no light, of course—nothing for it to reflect back from into the eyes of the audience, but it is not generally appreciated that half the target is not necessarily better than no target.

The Appia exhibition at the Victoria and Albert museum cannot convey the importance of this process of a lighting change. It is possible to see in the designs for *The*

Ring of 1892 the lighting itself. Three or four designs do show the same set under different lighting but the nature of the changing process needs Appia's full, probably overfull, description of what to do. It would be marvellous if one of our two opera houses were to set out to stage Appia's concept. Of course it may be said that this was ultimately done at Basle in 1923 but if the two models (the only two in the exhibition) are to provide the evidence then this was never done properly. The models show a puny plain backcloth and masking by several intrusive legs and borders, not the wide all embracing cyclorama really needed. Was Appia really content with this?

If Adolphe Appia in the 1890s knew about the powers of light, then in my opinion it is obvious that the artists of 1970. whose work is on view at the Hayward Gallery, do not. The title of the exhibition is "Kinetics", and although there is no particular reason to associate this with artificial light the fact is that most of them do use the stuff as an integral part. Indeed, without it the works would have no existence. What seems so pitiful is the lack of knowledge on the one hand of the scientific and engineering principles to bring to bear and on the other hand of the human emotional response, curiosity if you like, likely to be aroused in the public. Perhaps this arises from "doing your own thing" but should the Arts Council fork out on such a chancy basis? Such engineering as appears is on a primitive level and there does not seem to be a single exhibit which does not run through its entire repertoire in a matter of only minutes, and in consequence is reduced thereafter to providing stimuli which can be classed either as "deadly monotony" or "the fidgets". This latter class—a need of youth—is well catered for by commercial devices anyway, some of which have been made by Strand Electric for years and years.

If a device resembling a corkscrew continues to turn it soon becomes as stimulating as one would expect a continuously turning corkscrew to be, minus the promise of corkine withdrawal from bottle.

^{*} The Stage is Set.

[†] Stage Lighting. C. Harold Ridge, 1930.

Poverty of mechanical genius produces repetition and it is an essential of rapid motion that the repeat shall be either wide spaced in time or where the thing has a "beat" the effect between beats must not be an exact repeat. A sort of visual equivalent to English change ringing on bells might be attempted. We used this technique on James Gardner's Lumascope in Battersea in 1953.* In that case the repeat was twelve minutes. The alternative to prolonged variations is slow change and this too was ignored entirely by the exhibition.

There was nothing in the Hayward Gallery which exhibited the profundity of some of John Healey's work as exhibited in London 1965 for example.

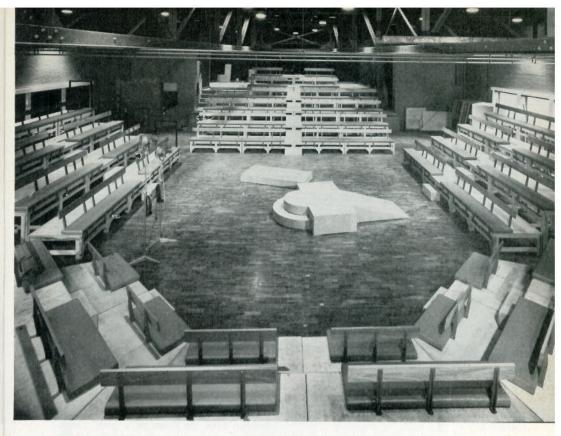
Characteristic of "doing your own thing" is the display just inside the door of the exhibition. Purporting to show a history of kinetics it presents random and hastily flung together information in a kinetic way. The result is an exhibition display as an end in itself. It was as effective in clouding the issue as the typography and layout in some of our architecture and design journals. Captions appeared on separate screens from the material they described and since there were several story lines going at once it was necessary to wait to recognize something, which one knew, then identify its caption and lock on to extract the juice from that particular story.

Quite apart from the mode of display the material presented was so poverty stricken that one wondered whether the object was not rather to present a few historical crackpots for a good laugh. Now whatever we do, and indeed my own rather scathing notice of this exhibition must not aid this, we must not fall into the belief that a practitioner in these strange arts must be either dotty or a charlatan.

It is, of course, very easy to assume that there are eternal verities. A painting is a painting and will be for evermore, or a sculpture is a sculpture—the one exerting physically a two-dimensional discipline within which no holds are barred and the other permitting a third dimension but without the addition of colour. Tortured metal has been O.K. as sculpture for some time, but movement of one bit relative to another is not vet acceptable except as a plaything. Music it is (was?) believed should have no visual side and if it does then, as in an opera house, it must be the senior partner. Anyway humans can legitimately sing and dance to music. whereas machines?

We need not dwell on this except to make the point that whoever it was who popped up for a few seconds as a slide with his gas organ on one of the screens at the Hayward Gallery was one of a long line of experimenters who tried to fit instrumental music with an instumental visual counterpart. Yet another colour-music inventor. Even in 1937 Adrian Klein's book on this subject had 286 pages and 47 illustrations. In fact, colour-music did not feature in the Kinetics exhibition itself except that some concrête electroniques were audible and spilt around the concrete galleries; however, as with the introductory display it was not clear what noises belonged to what.

Within a year of my sixtieth birthday wandering lost among the kinetics, I could not suppress a feeling that the various compositions—Cinereticolo spettrale No. 4, Alternance Tri-Optique C, Continuel lumière forme en contorsion, and indeed all the others of the eighty on display, were by young men with long hair and whiskers. The wise Adolphe Appia aged sixty-four in the frontispiece to the Victoria and Albert booklet for his exhibition looks like a stern Bernard Shaw-elsewhere we are shown him in 1890 as a young man with whiskers: the influence of what he felt, said and wrote then, but was not encouraged to do, we still feel today; is there perhaps working within that Kinetics exhibition. . . . ?



Rowlinson School

by E. W. Walker

The Rowlinson Campus is situated in a pleasant residential area on the southern side of the City of Sheffield, in which there is a mixture of private and Corporation housing development. The original boys' Technical School, opened in 1953 has been re-organised as a mixed Comprehensive School for 1,800 pupils between the ages of 11 and 18 and now provides sixth form facilities for a group of local Schools. The School, its associated centres for sixth form, adult education, parent teachers' association, youth and sport which comprises the campus, will provide a focal point for the cultural, educational and recreational needs of the local community.

The site and buildings of the present

School have been remodelled and greatly extended to provide first-class facilities for every kind of activity. At the centre of this complex rises the Drama Workshop and ancillary amenities. The problems facing the City Architects Department were not uncommon. Facilities were to be provided for a host of multi-purpose activities but alas financial resources were limited and a tight budget enforced. Months of consultations with various bodies took place, including talks with the Department of Education and Science. Other Drama Workshop centres were visited until eventually a mental picture was formed of the requirements and desires of the ultimate users. There can be no guarantee that this recipe spells success but it is reasonable to

^{*}Built on 120 ft. wide by 60 ft. high framework with 5,000 lamps as a Coronation festivity for one year only, it was not taken out of service until 1970 after eighteen years. The cost of almost total reconstruction having then put it beyond the GLC Park's budget.



Rowlinson School, Sheffield. View towards control room showing fixed and temporary seating tiers.

assume that the right ingredients have been included.

The original School boasted a large assembly hall, having a floor area of 5,700 square feet with a roof height of 30 ft. above auditorium floor level. Situated at one end was a proscenium arch with conventional raised stage area. The architect considered that re-modelling and extending this space would prove more economical than erecting a new building and therefore capital could be diverted towards providing better facilities and equipment.

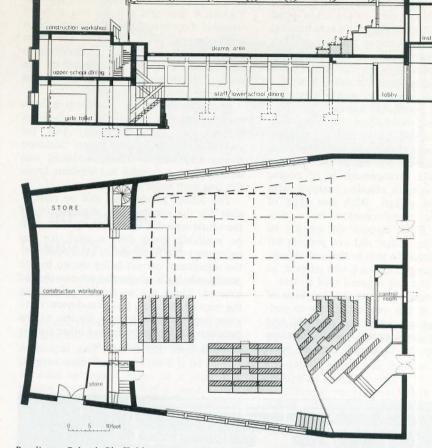
Ideas were transferred to the drawing board and from a single-storey building emerged a multi-storey complex. A new auditorium floor was installed 10 ft. above the existing floor in the form of a raft supported on pillars. The existing assembly hall ceiling was removed and whilst this exposed 6 ft. deep open roof trusses, space was increased. The space below the new floor was allocated to staff and lower school dining.

At the stage end two new floors were

introduced which provide three levels, the lower to take the form of a girls' cloak-room, powder room and toilets, the middle level upper school dining and the highest level a construction workshop. Storage space was not overlooked and a reasonable balance was achieved.

The resultant drama area became 4,000 square feet with a roof height of 19 ft. It should be noted that the roof trusses reduced the actual clear height to 12 ft. Undaunted it was decided to install a tubular steel lighting grid on a 9 ft. 6 in. square module. The grid to be internally wired to provide a total of 48 socket outlets and fixed at a height of 16 ft. This meant that the grid was above the bottom cord level of the trusses, but the trusses were sufficiently spaced to minimise the possibility of interference. It will thus be possible to suspend lighting equipment over any selected area and provide the necessary flexibility to cater for the many varying forms of production presentation.

Portable lighting equipment includes twenty Patt. 23/II Profile spots (fifteen fitted



Rowlinson School, Sheffield. Architects: Corporation of Sheffield Architects Dept. (B.Warren A.R.I.B.A.) Top half of plan shows grid level. Bottom half seating level.

with iris diaphragms) and ten Patt. 123 Fresnel spots (including five barn door fitments). An assortment of telescopic stands, adaptors and flexible leads are included and of course additional equipment can be added funds permitting.

A control room is situated at one end, built on to a section of permanent tiering, it is well situated and provides a good allround view of the working area. This room houses a JP.30 control. The desk has two presets of 30 dimmer control levels with a master potentiometer to each. A 60-

socket patching panel complements the desk and three auxiliary dimmer boards in the form of Junior 8s complete the system.

An endless perimeter curtain track encompasses the bulk of the floor area from which will be suspended a 72 ft. wide flax Cyclorama cloth and twelve 10 ft. plain Bolton Twill Leg Curtains. It will be possible to arrange the cloth or leg curtains on any of the four sides of the track or at any corner. When not in use these will bunch or store along one side.

Audience facilities have been given due

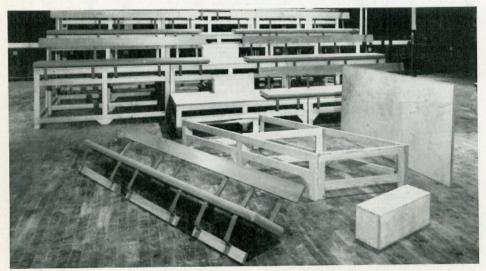
thought, and three permanent tiers forming three sides of an octagon advance forward from the control room. A 3 ft. tread depth and 16-in. riser height allow good sight lines. The first tier of this construction finishes 5 ft. 4 in. above auditorium floor level but rostrum units extend the tiering, and also form tiers on the other sides. Folding rostrum units increase flexibility and can be stored in space allocated, beneath the permanent tiering.

Upholstered bench-type seat units were specially designed for use with the rostrum and permanent tiering and are simply but securely fitted on the treads. The essence of the whole arrangement is of course speed and ease in erection coupled with simplicity in design. With this type of arrangement transformation from proscenium to arena layouts will quickly be achieved. The budget did not provide for modern interior finishes to the auditorium, the bare ageing brickwork was painted, as was the ceiling and exposed roof trusses.

It is important to note that the aims of the school in this connection are to promote student self-confidence, character and personality development. Whilst serious drama may be produced for an adult audience, a typical function could involve two lecturers supervising 40 students split into four groups of independent activity. Viewed in this light priority was given to essential functional elements with décor taking second place. However the room still manages to retain a comfortable atmosphere and the brightness of the seating upholstery fabric attracts attention from other areas.

Access to the drama workshop is from the lower floor (there are hoisting facilities for scenery and equipment) and the journey through dining areas, common rooms and activity areas, designed and decorated in a tasteful but modern form, fills one with eager anticipation.

The school headmaster will be responsible for the running and organisation of the whole complex and all the facilities will be available seven days a week for the enjoyment and fulfilment of all. Judging by the significant interest being shown by the community as a whole the scheme should succeed. There are no similar projects in the immediate area and Rowlinson is to some degree a pilot scheme. Success will be measured by the emergence of other similar projects in surrounding areas.



Rowlinson School, Sheffield. Folding rostrums and bench seating units.

In an English Country Garden

by Francis Reid

An operatic experience at Hintlesham Hall, Suffolk

There are some strange Opera Houses in Britain: not for us an elaborate system of municipal and state opera companies in purpose-built theatres. Could it be that as we tend to regard opera as a somewhat bizarre art form, we feel a need to experience it in a bizarre setting. At any rate, in the past few years, I have found myself involved in operatic lighting in such locations as a Welsh castle, a Sussex manor, a Suffolk maltings, a particularly ill-conceived set of Assembly Rooms in N.W.1, and the Town Hall at Tobermory.

This last was the peak of my operatic career: I have lit Mozart's Marriage of Figaro in some exalted places, but it was only in Tobermory with three Patt. 23s, two Patt. 45s and a couple of 500/watt floods that I ever got the garden scene right. The Aros Hall in Tobermory may be one of our smaller opera houses, but its technical adaptability would gladden the hearts of the A.B.T.T.: "Will you be having the proscenium?" they enquired as we stepped off the boat, and lo! within one man-hour it had been erected. And to anyone seeking a system of fully adaptable

lighting positions, I can suggest nothing finer than a series of stags' heads along the auditorium walls: the antlers are quite splendid both to hook the lanterns on and to support the cable runs.

Although we perform opera in strange places, we usually contrive to do it indoors, but there is one spot in Suffolk—Hintlesham Hall—where they have defied the English weather for twenty summers, and that explains how my diary comes to contain details of the first performance for some 200 years of Handel's Atalanta.

Monday. Arrive at Hintlesham about noon with our do-it-yourself-opera-house lighting kit in the boots of two cars: four Patt. 264s, four Patt. 23/Ns, six Patt. 23s, twelve Patt. 123s, two Patt. 223s, a pile of assorted brackets, a crate of cable and a Mini-T 18. Julian, who is the other half of our two-man lighting team has never been to Hintlesham before, and is visibly shaken by the "opera-house": we hastily retreat to "The George" for a lighting conference. The stage is a ramshackle affair of rotting timber with a proscenium of classical intent; the flys are a flapping tarpaulin.

and although the wings have a roof, there is a sudden drop of three feet from the stage. The orchestra pit is an emptied swimming pool with a plywood roof: there is no auditorium, but this does not seem to be worrying the management. At each side of the garden stands a timber lighting tower.



House full with lighting towers.

The set has been erected and consists of a series of Perspex shapes painted in a sort of broken-up brown. "What is it?" asks Julian, and I reply, "Stylised pastoral" with a confidence which I hope will conceal the fact that contrary to all the rules, I have not read the opera nor drawn a lighting layout and that my entire notes consist of "Double cover cool and warm, separate centre and edges, silver Mercury special upstage centre".

We pile our three 6-way Mini-T racks on a chair in the wings and put the control desk centre stage so that we can check out circuits as we go: no need to put the desk F.O.H. until we are ready to do cues. No possibility of rigging conventional spotbars so we hang lanterns in the wings, aiming to double-cover the stage cool and warm in three bands, upstage, midstage and downstage. The Perspex set should be backlit and I scratch my head about the impossibilities of a backlighting bar: then I realise that I can place the lanterns (223s) on the lawn behind the stage and light upwards because unwanted light and shadows will be directed up into the sky.

For the F.O.H., I decide on one Patt. 264 in cool and one in warm from each side, a pair of Patt. 23/Ns concentrating centre and a pair of Patt. 23/Ns with gobos to

break up the edges and generally soften some of the hard shadows which will inevitably be thrown on the set from such a simple lighting layout. No need to toil with drill and metal cutters for the gobos:



The orchestra pit.

they only have to last a week, so cooking foil and nail scissors will do the trick.

For colour I decide on 40 and 61 as the colds and 52 and double 50 for the warms; 38 for the gobos. In fact I have not enough lamps completely to double cover in the two tones so I resort to an old trick from my early days as a pantomime stage manager at understaffed mid-week matinees—put 42 in some lamps, because in a cool scene it tends to look blue and in a warm scene, pink.



The prompt corner.

Everything is rigged and most of it lights first time. "Now for focusing!' I cry enthusiastically, then realise it is a sunny July evening: we retire to "The George" for another lighting conference.

Tuesday. In the early hours of the morning I awake to the sound of thunder, lightning and pounding rain: the knowledge

that a mixture of polythene bags and cooking foil is protecting the hired equipment does not prevent a nightmare in which I am unloading a tangled pile of rusty metal at the Kennington stores under the eyes of two very large men with a gong. The rain continues intermittently during the evening piano dress rehearsals: there is



The control room.

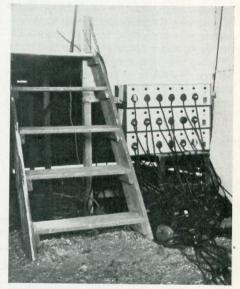
still no auditorium and we huddle in anoraks under umbrellas while the brave singers serenade us with the Handelian delights of a pastoral life. With the entry of Mercury, the heavens take their cue and the rain stops. By closing time at "The George", we can remove the polythene and focus the lamps.

By 1 a.m. we are ready for hot soup and Cue 1. Act One is to take place in daylight, and after an hour for dinner we will start Act Two in twilight and catch that magical moment when the artificial light gradually takes over from daylight. By the end of Act Three it will be 11 p.m. and really dark enough for the fireworks: for *Atalanta* has fireworks in the script, Handel has provided fireworks music (not *the* fireworks music but some equally splendid stuff for oboes, trumpets and drums), and there is no licensing authority to stop us.

So we plot the cues in all the wrong lighting conditions; not only will we have a completely different set of natural light conditions at our performance, but they will differ from performance to performance according to weather, clouds, etc. I am glad that we are using a Mini-T from the front: last time I came to Hintlesham it was four Junior 8s in the wings. By half

past two we have plotted some twenty-five cues and are frozen.

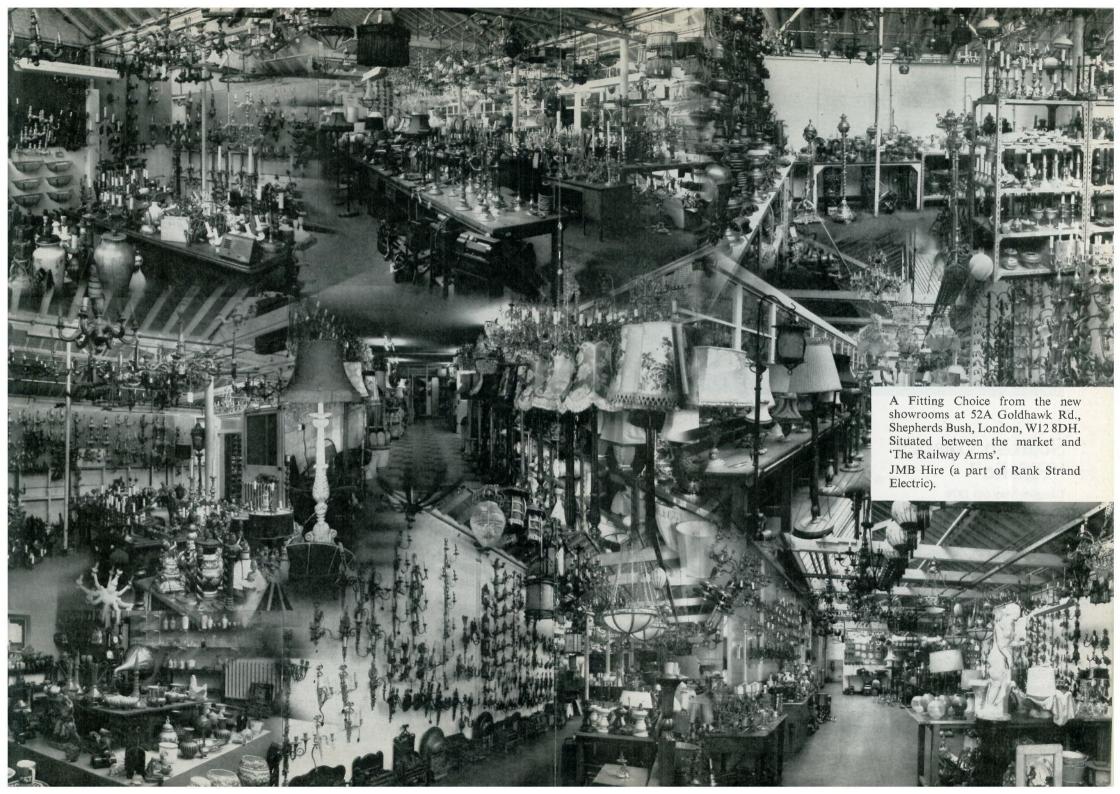
Wednesday. Full dress rehearsal. But not for the lights. The orchestra must travel to Nottingham overnight and so we must rehearse from 7 until 10. This means we will not see the lighting plot under anything resembling the progress of twilight. So it does not matter that I miss Cue 1: the orchestra stands have the wrong plugs on them and I am in the pit. I enjoy this and wallow in the sound enriched by the wood of the duckboards below and low roof above. I then take my place at the lighting control, now temporarily set-up in the middle of the auditorium which has been erected today—a marquee with one side missing. I perform many dextrous

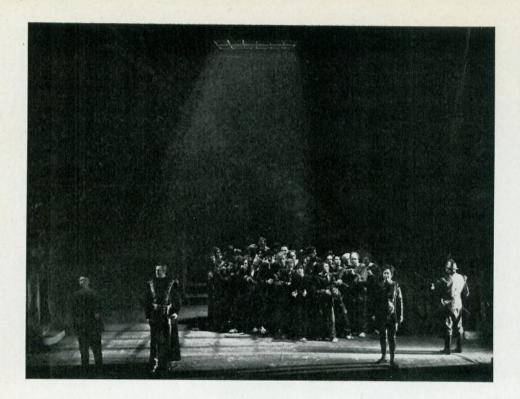


The dimmer room.

feats with my fingers; but nothing appears to happen on the stage, for there is much too much daylight. However, I get to know the show and get some idea of timing the light changes with the music; and above all get to grips with the basic problem of any switchboard operator who has a system without instant memory facilities: the amount of time available between cues.

Thursday. Rest day for the singers today: no need to go to Hintlesham, so I





Scottish Opera's "Fidelio"

Glasgow May 5th 1970

"It is as imaginatively lit an operatic production as I have ever seen..." William Mann in The Times. The following is Charles Bristow's description of how he went about lighting it:—

Peter Ebert, the producer, is Artistic Director for Scottish Opera apart from being Intendant in Stadtoper, Augsburg, and we had worked together in 1969 with his designer Hans-Ulrich Schmückle on *The Trojans* and on *Don Giovanni* for the Nederlands Opera.

Hans-Ulrich Schmückle wrote to me in March 1970 with a typically clear description of his view of the lighting as designer.

"There are a few points about the Fidelio designs of which I enclose the

by Charles Bristow

drawings and floor plans. The important thing seems to me as far as the lighting is concerned, that the first scene, which is Rocco's house, jutting out from the fortress walls, must be very bright in contrast to Scene 2 The Prison Yard. The change from Scene 1 to Scene 2 only takes a few seconds. I have planned it technically so that the house piece from Scene 1 will be hung, so there will be no gap between Scenes 1 and 2. During Scene 2 I should like a strong shaft of light through the ceiling mesh for the prisoners' chorus. With this I hope to make a substitute to the necessary scene change which for technical reasons is impossible in every theatre. During the Prisoners' Chorus one must be aware of a bit of the natural elements as the sun breaks through and shines in the dreary fortress.

"For the Florestan dungeon a wall comes in. The grave is as in the floor plan. It seems to me that the only important thing is a very concentrated light on Florestan and later on Pizarro. This scene is purely a question of follow spots. The most important for lighting is the Finale of the opera. The great door that closes the set at the back is raised, to the music, (like a drawbridge) and as a background stands the chorus with the liberator Fernando. I plan to use our transparent backcloth as we did in Amsterdam for *Don Giovanni*.

"It seems important to me, Charley, that you borrow the wide-angle spot from Amsterdam. If you have any other ideas about this, do let me know. It's important to get an impression of exceptional brightness shining from the back into the dim prison yard. The people storm the Bastille and free the political prisoners from their cells.

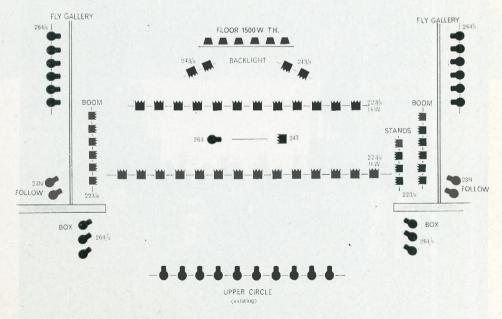
"This Finale has to have an exceptionally vivid symbolic strength.

"I don't think it's good to work with sunrises or anything like that. Just the brilliance of the light wall should be enough."

This was amplified in discussion by Peter Ebert over the model and I tried to deliver the goods.

To make the best of our resources the scenery was built in and for Augsburg where Herr Schmückle could supervise it but in such a way as to suit the Scottish Opera Tour as well.

Fidelio is about darkness and light and the contrast of freedom and captivity. The first scene played in front of a French flat was bright and natural to be followed by the dark and dingy prison yard. This was low key on the principals in 51, 60 and 67. There was a grille in the first soffit through



Lighting layout "Fidelio" Scottish Opera, Kings Theatre, Glasgow 1970.

which I sent a shaft of light (one 2 kW Patt. 243) down to give a pattern on the stage floor, into which the confined prisoners could move with a sense of hope. Two other signs of the freedom outside were possible. There was a small door at the back which when opened for Pizarro's entrance showed the full intensity of the back-lit translucent cloth lighted from below with 9 kW of Tungsten Halogen floods emphasising the heavy and dreary lot of those within. Again down stage left was another door which opened for the finale to Act 1 to give a strong directional light (four Patt. 223) on to the principals and the prisoners. In the prison scene I again used the grille in the soffit and concentrated one Patt. 264 in 60 and 17 on to Florestan.

In the last scene the great door at the back was raised to disclose the brilliantly back-lit screen, this time in its entirety. The sheer intensity was a shock and had colossal impact being musically inspired and put everyone momentarily into silhouette. Once however the effect had been established we reduced the sky imperceptibly to resolve the balance.

Although normally I am against follow spots we used them with discretion in this production. We had two Patt. 23N diffused each side on the fly galleries for the principals.

The rig was the existing down stage spot bar plus two other spot bars over the stage and a six-way boom each side. We hardly used the F.O.H. but put six 264s three in each side box.



Finale, Scottish Opera's Fidelio.



Twin Theatres in Sweden

Stadsteatern Norrköping and Linköping

January 1st, 1970, saw the opening performance at the Norrköping Stadsteater using brand new technical equipment including IDM lighting control for the first time. Two days later the nearby town of Linköping had their opening performance using similar equipment.

Norrköping and Linköping are situated in the Östergotland region of Sweden about 100 and 125 miles respectively to the by Tyr Martin, Technical Director

south of Stockholm. The former is the largest town in that area although the latter is the capital.

The Linköping Stadsteater, seating 469 was opened in 1905, two years before the Norrköping Stadsteater which seats 743. Both were the work of Axel Anderberg who was also the architect of the Swedish Royal Opera, Stockholm. For many years the two theatres functioned separately as parts of

the national touring circuit and did not have their own companies. In 1947 a single company was formed to play in the two theatres. Since then the pattern has been for two productions to be originated simultaneously in the two towns, and then be exchanged after perhaps three or four weeks. The company also tours small productions to all schools in Östergotland, and hence is very much identified as belonging to that region. An expansion in 1969 enabled the company to take over premises in Norrköping and convert them to a studio theatre known as the Lilla Teater.

There are plans for a similar move in Linköping as soon as suitable premises can be found.

As the larger of the two theatres, Norrköping was chosen to be the centre for administration, rehearsal, scenery construction and storage. Consequently almost all the company live at Norrköping where the theatre disposes a number of flats. Two hours before curtain up at Linköping each night, a special bus leaves for the forty-minute journey there from Norrköping and returns shortly after the fall of the final curtain.



Norrköping Stadsteater, Sweden. Lighting suspension bar can be seen round the upper circle. Photo on previous page shows stage manager's observation point in the stage box.

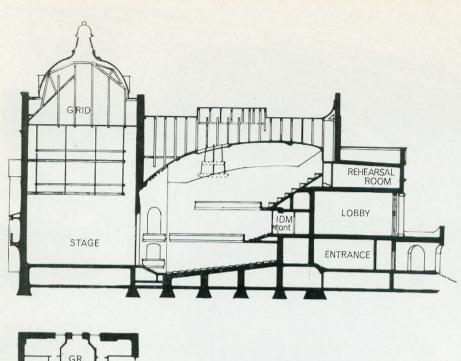


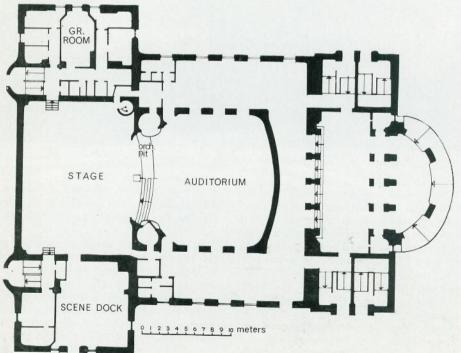
Linköping Stadsteater showing lighting suspension bar immediately overhead.

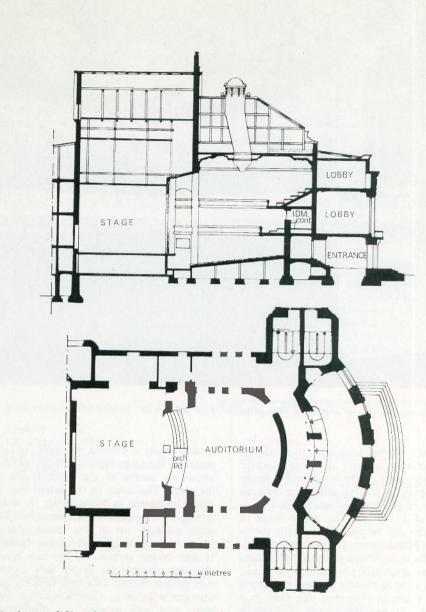
The present company includes over 40 actors and over 50 administrative and technical personnel. Guest directors and actors are often engaged for productions, and for musical productions, dancers and orchestra must also be specially engaged. The present director John Zacharias has been with the theatres since 1953. His policy is to present a wide variety of productions, which he can do thanks to the excellent subsidy from the state and the towns, amounting to over 60 per cent of the annual expenditure. Recent productions include, Fiddler on the Roof, Antigone, Cabaret, La Traviata, The Hostage, Merry

Wives of Windsor, Man of La Mancha, Värmlänningarna a Swedish folk story, Blodsbröllop, a Spanish play, and King John.

A special grant was made available to the two theatres last year to enable them to almost completely replace their inadequate technical equipment. This included new stages, grids, flying equipment, stage machinery, sound installations, lighting controls and lanterns. A decision was taken to carry out this re-equipping in such a way that the two theatres should be technically identical as far as possible. Scenic designers must always carry out







Norrköping (left) and Linköping plans (above) drawn to same scale for comparison. Architect: Axel Anderberg.



At Linköping the stage manager's observation box is located behind the louvres seen in the photograph.

their work bearing Linköping in mind; the technical re-equipment planning however was based more on the considerably larger Norrköping stage. The difference between the two stages gets perhaps its best illustration if I say that the whole stage in Linköping can be placed inside the cyclorama in Norrköping.

Careful thought was given to the location of technical control positions. As a result, there is in each theatre a stage manager's control room in a prompt side stalls box position, a movable stage machinery control console in an O.P. wing position and a lighting control room at the rear of the dress circle.

The stage manager has a very good view of the stage, also closed circuit television

contact from a camera mounted on the centre of the stage lighting bridge and has immediate access to the prompt side of the stage. The latter to the extent that in Värmlänningarna at Norrköping, the stage manager played in chorus scenes. The stage manager sits at the sound control which has ample plot spaces and built-in 16-way cueing system. Within easy reach also are controls for house tabs motor. iron curtain motor, rehearsal lighting and emergency lighting. Communication systems, also well located, are production control talkback, dressing room control and internal telephone. One job that the stage manager is spared however is prompting. as in accord with European practice there is an understage prompt box with a hood

in the centre of the footlights. The flying and mechanical equipment is all of Finnish manufacture. The control console for the latter includes raise and lower motor control pushes and indicators for proscenium lighting bridge, cyclorama lighting bar, black wrap-round cyclorama and white wrap-round cyclorama. There are also duplicate tab and working light controls and some cue light controls. The control console has about 10 ft. of flexible control cable and is fitted with a master keyswitch to prevent unauthorised operation.

Both theatres have the proscenium lighting bridge and towers. Each tower at Norrköping may be moved 6 ft on stage so that the proscenium opening is reduced to the same dimension as at Linköping, about 26 ft.

The new stage lighting installations in both theatres use entirely Rank Strand equipment and were supplied by Swedish agents, Torsten Hammarlund A.B. of Stockholm. Bridge and towers mount more than forty Patt. 23 and Patt. 123. For cyclorama lighting and backlighting of the stage, Patt. 249 tungsten halogen softlights and Patt. 223 Fresnels are provided. The cyclorama lighting bar is double and has protective rails so that lanterns cannot be

knocked or damaged by flying scenery. A large cable trough is mounted above the centre of the structure and the cables for the lanterns coil from the grid into this trough as the bar is raised, in the same style that is now found in German theatres and in some television studios.

There is a variety of F.O.H. positions, most important of which are horizontal bars on the side walls of the upper circle and vertical booms on the auditorium side of the boxes. Another lighting barrel runs along the whole horseshoe shape of the underside of the upper circle front, although at Linköping in particular this position gives a very low angle for lanterns. Further barrels are fitted along the rear wall of the upper circle and along the front edges of the dress circle boxes. Normal complement of F.O.H. lanterns at each theatre is four Patt. 293, thirty Patt. 264 and two Patt. 265 follow spots.

The lighting of productions is usually carried out by the director of the play in conjunction with whichever of the two lighting directors have been allocated to that play. These men, Lars-Ivar Johanson and Walter Sarmell are also the I.D.M. operators and will change theatres with the productions on which they are working.

Stadsteatern Norrköping and Linköping (Duplicate installations)

Control
120 Channel IDM
(250 instant dimmer memories)

Lilla Teater Norrköping Control 20 Channel 2 Preset J.P.

Östergotland School Touring Company Touring Control Ten/20 40 F.O.H.
20 Proscenium bridge
20 Proscenium towers
80 Flys, Grid, Cyclorama, Dips and
F.O.H. patched from 40 dimmers

20 Circuits distributed into studio

20 Channel 10 Dimmer



Boxed to take away

A description of the new Leeds Playhouse

by Peter Woodham*

The opening of the Leeds Playhouse on September 17th was the realisation of a plan started in 1964. Most of the intervening period has been spent in campaigning for support and surmounting the obstacles and disappointments which fate and the authorities so often put in the path of theatre planners. Originally the theatre was to share a site with a new municipal concert hall. but cuts in public spending shelved the plan. and the campaigners were faced with the alternative of either waiting ten years for the Arts Centre, or finding temporary premises. After a fruitless search a stroke of fortune came through the very financial recession which had blocked the original plan; Leeds University, lacking funds to build a

second sports hall on the campus, generously offered the site rent-free for a minimum of ten years. But there were conditions; these were that the Theatre Committee should build the shell of the projected sports hall, put their theatre inside it and take it away on the expiry of the lease, leaving the shell. William Houghton-Evans, the architect of the Leeds Playhouse. is at one with the Editor of Tabs in seeing theatre design as one of the few remaining opportunities for exciting "one-off" architecture, with a striking shape to relieve the increasing flat monotony of our towns. But his brief boiled down to this: Construct a box 90 by 100 by 40 feet, and into this fit a 750-seat theatre complete with dressing rooms, fover, bar and restaurant-all the interior to be removable for erection else-

where. It was, he says, "Rather like being presented with a packing crate, and asked to design the contents to suit." The task was further complicated by the fact that the site negotiations were not completed until well into 1969. That the plans were produced and the building erected on time was undoubtedly due to the fact that Mr. Houghton-Evans had been a member of the Committee throughout the period of preparation, when the basic ideas for the theatre were discussed. It had long been decided that what was wanted was not so much a proscenium, but rather a Greek shape of theatre, and it was largely this decision which made it possible to fit the required features into the predetermined

The basic internal construction is simple steel and timber members, protected from fire by plasterboard, and easily removable. But there is no appearance of a temporary fit-up; the large entrance fover with coffee and snack bars leads to a lobby on either side from which one can either enter the auditorium at ground level, or mount the stairs to the upper entrances and to the bar and restaurant. The auditorium is steeply raked, achieving the desired Greek theatre form, and providing space underneath for fover and bar. The bars' concrete block walls are concealed behind dark purple drapes, and the luxurious seats (by Rank Strand, of course) are deep blue; there is a general effect of richness and comfort. Seats in the front row are removable, and wheel chairs can come straight in to take their place. There is also a toilet for the disabled.

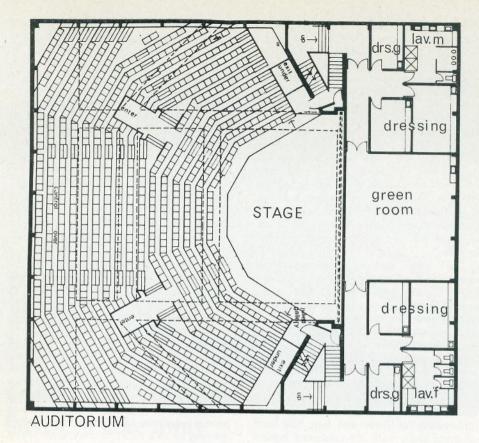
The front edge of the thrust stage outlines the main acting area, a circle some 35 feet in diameter. The seating surrounds this acting area in an arc of 120°, and this partial encirclement and steep rake gives a strong feeling of contact between auditorium and stage, and concentrates the attention on the acting area, despite the width of the opening behind. This "proscenium" is equipped with a monster two-piece safety curtain 51 feet wide and, one would have thought, of limited value since most of the scenery in use, and all the flying are on the audience side of it. Behind

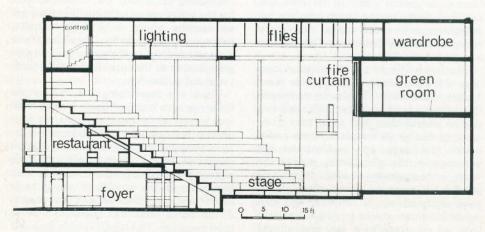
this curtain is an area of 90 by 24 feet with dock doors at one end. This was originally intended to be the workshop, but the acquisition of an empty cinema nearby mercifully removed the necessity, and it now forms part of the stage area. The forestage is in sections and removable, and it is claimed that the theatre can thus be converted to a proscenium arch form, either using the full 51 feet, or masking in to a more conventional width. Technically this is possible, but the sight lines would drastically reduce the number of usable seats. and the backstage height of 17 feet and lighting outlets restricted to dips would impose scenic limitations. These drawbacks are fully realised, and there is no intention at present to attempt a production in this form. The area serves as a store for scenery in use in the repertoire, and has great possibilities for back projection. There are dark draw tabs and masking wings through which actors and trucked scenic units can emerge into the acting area.

The "proscenium" opening is flanked by staircase towers. These, having to be entirely incombustible, are in reinforced concrete and are the only part of the interior that cannot be unbolted and removed intact. As well as giving access to dressing rooms, wardrobe and flys, each has a door opening on to a Juliet balcony, from which removable steps descend to the side gangways. The towers also serve to house the ventilating ducts and the counterweights for the safety curtain. On the first floor are six dressing rooms, a large green room, toilets and shower baths. The floor above is mostly devoted to the wardrobe, and also gives access to the catwalks over the forestage and auditorium.

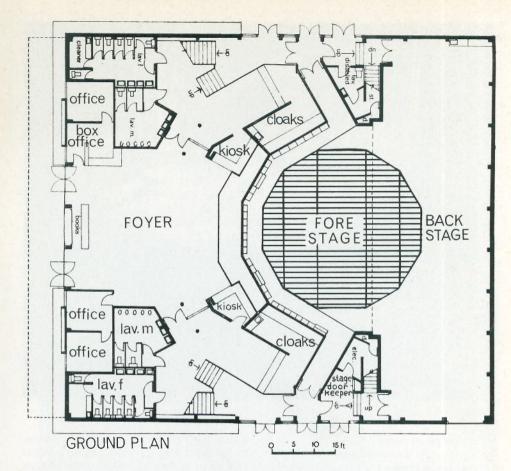
There is a rope flying system over the forestage with 9 sets of lines; four have 40 foot barrels while the other 5 have the lines divided between two 20 foot barrels each. In its present form this would be a difficult system to work if a production called for a great deal of flying, and distracting, with the flymen on the catwalk in view of most of the audience. But there is one motor-driven barrel, and it is hoped in time to motorise more. This is particularly desirable for those barrels which carry a heavy load

^{*} Mr. Woodham is production manager at The Royal Academy of Dramatic Art.





Leeds Playhouse. Architect: W. Houghton-Evans, M.A., A.R.I.B.A., A.M.T.P.I. 140



of lanterns. The control room is suspended under the roof at the rear of the auditorium. Unfortunately access is only possible by the two catwalks from the proscenium.

This room is nearly 50 feet long, and in addition to the lighting and sound control, it has been equipped by the National Film Institute with three full sized film projectors. The screen, which is 38 by 16 feet, is stored against the rear wall of the stage when not in use. The lighting control is an LP 100, at present with only two presets, the third to be installed when funds permit. Six of the circuits are 5kW for backstage and the catwalks. The rest are 1 kW. In spite of the need for economy, it seems a pity that in view of the comparatively small added expense, these were not increased to 2kW.

There are 52 lighting positions spaced evenly across two catwalks, one over the edge of the forestage and one further back over the seating. Not all these positions are entirely satisfactory; from some the angle is very steep, and roof trusses interfere with the beams from some others. In the area of the flys there are three 12-way boxes, and these are used to supply the flown lanterns mentioned above. Side lighting on the forestage is limited to a bank of four spots on each side wall of the auditorium. and these are four patt, 23's slung under each Juliet balcony. With the catwalks 32 feet above stage level, it was found that a lower F.O.H. position was needed to light the front edge of the stage, and a 10-way barrel has been fixed to the front of the control box. With 12 dips backstage, the



Brian Currah's set for Henry IV (Pirandello) at the Leeds Playhouse.

total number of outlets is 132; the 52 catwalk positions mentioned above are fed directly to the board, and the rest terminate at a 48-way patch panel. In addition, there are 12 independent circuits switched from the control box, and distributed between the catwalks and the stage. These can supply the optical effect motors. The equipment includes 12 colour-change wheels. Since these are all sited along the rear catwalk, close to the control rooms it may well be found desirable to move some to positions with more difficult access in the future. The department also boasts 3 S.T.C. Starphones which prove immensely useful as a Stage Manager/Control box intercom, for setting lanterns, and if necessary for communication with the workshop five minutes' walk away.

As for more conventional sound equipment, there is an elaborate installation with two tape decks, two turntables, a 6-way

mixer, five 70W amplifiers and six speakers.

The Stage Manager suffers from the usual difficulties of the thrust-stage form. The cue board is fixed behind the proscenium arch but even were it the recommended ABTT portable, it is difficult to know where it could be sited except behind some convenient piece of scenery. Perhaps one will have to accept that the button-pushing part of stage management will have to go up into the control box eventually.

The architect has fulfilled his brief, restrictions and all, with remarkable success. The foyers with their exhibitions and the restaurant and bar (the former open all day, the latter during normal licensing hours) are spacious and attractive and should become the rendezvous the organizers hope for. The auditorium packs in 750 seats but is more contained and intimate than this number would suggest. One could wish for more means of exit, but perhaps the crush

at the upper doors was due to the audience, being new, not having discovered the lower ones. As for the stage, the freeing of the rear area cannot seriously be regarded as making a completely adaptable theatre, but it adds enormously to the flexibility of the basic form. There are criticisms, here, as with every theatre, but for the most part the faults, if faults they prove to be with experience, can be put right with little difficulty and at moderate expense.

Thanks to careful cost analysis, the whole project has been carried out within the budget estimate of £150,000. At the opening, one heard some of the organisers

describing the whole achievement as a miracle; it is certainly a theatre of which they can be justly proud.

Leeds Playhouse Stage Lighting Circuits

FOH $72 \times 1 \text{ kW}$ $3 \times 5 \text{ kW}$

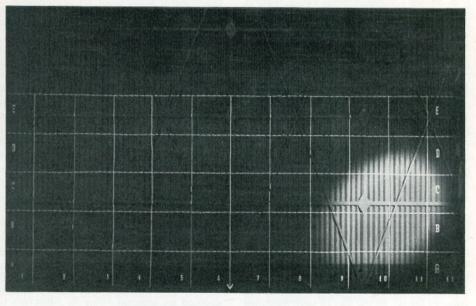
Stage $42 \times 1 \text{ kW}$ $2 \times 5 \text{ kW}$

Rear Stage $12 \times 2 \text{ kW}$

 $1 \times 5 \text{ kW}$ 52 circuits direct to outlets

80 circuits via 48 channel patch

Control LP 100/2 Preset 240 v 300 A



Dual Role for the Safety Curtain

One of the many problems associated with repertoire is the daily repositioning and refocusing of spotlights between different productions. Although it is possible to record pan, tilt and focus with some accuracy and also relate the positioning of the beam to the scenery, it is rather difficult to make a full plot of the precise settings of shutters, barndoors, and that rather intangible variable which can only be described as "beam quality".

The refocusing problems are particularly acute in the case of F.O.H. lighting in opera houses where for much of the day the safety

curtain is lowered to permit orchestral rehearsals in the pit.

Bengt Hoeberg, Technical Director of the Royal Theatre, Copenhagen, has solved the problem in an ingenious way by the use of photographs. The safety curtain has a reference grid painted on it and a photograph is taken of each spotlight beam on this curtain for each production.

The F.O.H. lamps can then be set accurately by adjusting the beam until it is exactly as the photograph.

Animal, Vegetable or Mineral

by Elizabeth Sweeting

Reprinted from the ABTT News Letter Vol. 4 No. 2. Miss Sweeting is the Administrator of the Oxford Playhouse, from 1961 itself a university theatre.

If "University Theatre" were a subject in Twenty Questions, even the impetuous Anona Winn and the patiently ingenious David Franklin would be hard put to it to lead the team to an answer even with many more questions than twenty. Is it a place? Is it people? Is it a fantasy? Is it a flop? Who does it? Why do they do it? For whom do they do it? What do they do? Who benefits from what they do?

Considering the number of drama departments, drama studios and theatres used by university companies in Great Britain, and the number of buildings activities which are projected, some attempt at valuation is overdue. The Arts Council has recently recognised the strong potential, whether for good or not so good, that this comparatively new sector of theatre presents, and a meeting of those concerned—some 70 or so at a rough count—was held early in the year.

The morning meeting was confined to those who use and manage university theatres and drama departments. In the afternoon we were joined by representatives of professional companies who have encountered us in various capacities. It was a moment for speaking up, and speak some of us did. In the way of such meetings—and probably this is right—no firm conclusions were drawn, only the one which became increasingly obvious, that we were all so disparate that we would have to meet again with some prepared lines of discussion.

Some of the views put forward were significant. There were those who conceived of university theatre as an empty space where students could slop paint, improvise happenings and muck in to their heart's content. There were those who have

professional theatre companies working side by side with students and wanted to know whether the twain could ever meet. There was even a *cri de coeur* from someone who presumably had had a theatre thrust upon him and appealed to us to tell him what to do with it. What indeed! What is, could be or should be the relation between a theatre, the university, and the community encircling the university?

As I know from my study-tours of university theatres on the Continent and in the United States, recognition of theatre as a performing art, not an extension of the English department in animated texts, has been a very slow process. It is still an uneasy relationship with the academic even perhaps in those universities which have a drama department. It is still more uneasy where drama flourishes spontaneously and independently as in Oxford and Cambridge. There is a tributary to professional theatre through the products of this activity in the form of distinguished actors and directors too numerous to name, but they are a by-product and not a direct academic contribution.

As well as the relationship between university and theatre, which might be deemed an internal affair by objectors to the whole thing, there is now a changing relationship between the university and the community. The activities of a vociferous and anarchical section have caused a breach between the students and the public. The campus is thought of as a compound where the natives are hostile. At the same time, some universities are beginning to think of their theatres as serving the area and themselves as patrons of the arts.

This is where much of the central problem of purpose lies and the key is in the

planning of the building for its users and its audience and in the formulation of policy to this end. Universities can be laws unto themselves. They are accustomed to the appointment of architects and to a proliferation of new buildings for their special academic needs. It occurs to them all too seldom, alas, that theatres have hitherto not been automatically within their province, that a choice has to be considered in the future use of the building such as does not confront them to such a degree in the planning of a Physics laboratory, or an Engineering building. Nor are their usual architects necessarily qualified to make the decisions for them, since they hope for a firm brief from the client. Consequently, we have some mighty odd buildings, so we have some mighty odd things going on inside them, and the university either has to foot a huge bill for ensuing loss or feels that it was right at the beginning and theatre is a waste of time.

A certain amount of face-saving brings about the inadequacy of some buildings. If theatre is not recognised as an art which has to have specialised and imaginative provision peculiar to itself, the theory is that the building will become respectable if academic activities also can be held there. Let us have lectures, conferences, demonstrations (not the sit-in kind, but the serious gatherings of specialists). Let it be multi-purpose, because the respectable purposes, the academic kind, will justify the expenditure. Unfortunately, these other activities too need their special provisions. which can interfere with those needed for drama, opera, music, ballet. So no-one is happy, nothing draws an audience, money is lost and everyone is held blameworthy for the unhappy denouement. I add as a note that universities have no obligation to consult the A.B.T.T.* as have those theatre builders who seek Arts Council help.

But if the sights are higher and the university theatre is to serve the community by including professional theatre where no such facilities are provided by Town, then

Gown must begin to learn the unaccustomed vocabulary of theatre building practice and finance. It must accept its responsibility to provide a place of public recourse with all the facilities which the theatre-going public of today expects from its new professional theatres. It must be prepared to provide the expensive stage equipment which makes it possible for good touring companies to present productions of a high standard. It must employ professional theatre staff and try to understand the know-how of this alien race. Above all, it must be prepared from the start to accept its responsibility not only in terms of the réclame of artistic patronage, but in hard cash. The theatres must. if they are to serve students also, be of a moderate size, with the restricted box office capacity this will involve. Student users are more likely to be student audiences if they have a proprietary feeling about their theatre, though goodness knows what will bring them in when they do not even support their own companies wholeheartedly.

Already theatres of this size and with a purpose wavering uncertainly towards professional use are springing up round the country. There is the demise of the big. old-fashioned touring theatres going on at the same time, but the connection between the two processes has not yet been made. It could well be that university theatres are those to which we shall have to look in the future to maintain a new pattern of touring, perhaps through a new kind of DALTA* which deals not with the big national companies, who will always need big theatres, but with the Prospects, the Ballet Ramberts, the major regional theatre companies who are increasingly on the move.

So—we in the university theatre world must hurry up and sort ourselves out. In this we shall probably need the help that we have not yet sought—from the Arts Council, the local authority, the A.B.T.T. So far we have "just growed", but we are getting big now, and there are many of us. We could have an effective future and one

^{*} Members of The Association of British Theatre Technicians, 9 Fitzroy Square, London W1P6AE give their services to the Architectural and Planning Committee to report on theatre plans.

^{*} Dramatic and Lyric Theatres Association.

of importance to the professional theatre, but not if we go on our own sweet way.

I have named no names, purposely, because we are all milling about in our

labyrinth, and we must all somehow find the way out. To say we must put our heads together would mix the metaphor, but that is what we must do and we need other heads together with our own.

The summaries of the following university theatres give an indication of their variety of form and size and are therefore relevant to Miss Sweeting's article. They are taken from "New Theatres in Britain" published by Rank Strand at 10s. where the plans and photographs can be studied.

These plans have since been made up into photographic murals, size $4' 6'' \times 2' 6''$ all reproduced to a common scale for comparison. There are three to a set, price £40 the set including postage.

Brighton, Gardner Centre (1969)

University of Sussex Theatre Workshop Studio of 6,822 sq. ft. forms part of Arts Centre comprising Art Gallery, Painting and Sculpture studios, Music Practice Rooms, Administration Offices and Dressing Rooms. Three stages, one large at one end and two smaller at the other. Seating is all movable bleacher type.

Bristol, Vandyck (1967)

Theatre laboratory for Drama Department of University converted from printing works. End stage 30 ft. wide with 36 ft. high grid. Over the auditorium of proscenium form there are three transverse catwalks joined down the centre. Seating blocks and rostrums provide for 100/175 people in various formations.

Canterbury, Gulbenkian Theatre (1969)

University of Kent theatre adjoining Cornwallis lecture theatre. Thrust stage 25 ft. deep to back wall, opening to rear part 38 ft. wide by 13 ft. high. 342 seats.

Exeter, Northcott (1968)

University theatre for resident professional company. Wide proscenium stage, the floor of which is at the lowest auditorium level. Proscenium 52 ft. by 21 ft. 48 ft. grid. 433 fixed seats. Adaptable to thrust or in-the-round by placing seating tiers on the stage. Floor in front of the tabs lowers to form orchestra pit.

Hull, Gulbenkian Centre (1969)

Adaptable theatre for use of University Drama Dept. Fixed seating as nucleus for proscenium stage with movable bleachers to make other forms. 40 ft. high grid over main area. Proscenium formed by positioning periaktoi which also carry lighting. Seats 200 in the four forms. Centre stage 31 ft. by 28 ft.

Lancaster, Nuffield Studio (1969)

For university drama study "off the page on to the stage" and visits from professional companies. Large open studio space 75 ft. square by 24 ft. high, with 54 removable traps in centre area of 50 ft. square and 5 ft. deep. Movable motor-driven revolve. Five fixed lighting and suspension bridges 18 ft. clear to floor below; joined by eight moving bridges.

London University, Goldsmiths' College (1964) University theatre. Conversion of a chapel. 260 fixed seats with further 60 added when thrust stage 14 ft. 6 in. deep is lowered hydraulically to floor level. Proscenium 30 ft. Permanent cyclorama.

Manchester University (1965)

University theatre for professionals and amateurs. Open end stage 52 ft. 6 in. wide but with house tabs. Two thrust lifts to form seating, orchestra or Elizabethan stage. Seats 300 approx. in one tier for the principal forms.

Oxford, Playhouse (1964)

University theatre for professionals and amateurs. Mainly interior reconstruction of the earlier theatre of 1938. 700 seats in two tiers. 28 ft. proscenium with orchestra/forestage lift. Entrances and Juliet balconies in proscenium framing. 37 ft. grid.

Southampton, Nuffield (1964)

University theatre for professionals and amateurs. Proscenium opening 30 ft. wide by 15 ft. high. Grid 32 ft. Two lifts to form extra seating, orchestra or Elizabethan stage. Seats 420–500 approx. in one tier, for both picture frame and thrust forms with terrace sides.

University College London, Central Collegiate Theatre (1968)

Academic and student use for both music and drama. Continuous continental type seating in both stalls and balcony for 599. Exposed catwalk ceiling obscured by "blinder" type decorative lighting. Large orchestra/forestage lift 42 ft. by 18 ft. Proscenium 30 ft. by 25 ft. high. Stage 32 ft. deep. Although 80 ft. wide with 60 ft. grid, awkward shaped site cramps rest of backstage.

Correspondence

Squaring the Circle

May I take up one or two of the points made by Alfred Emmet about theatre in the round. First of all, the original size of the theatre in the library at Scarborough was determined by reconciling two factors. First the dimensions of an auditorium with a capacity big enough to give a reasonable income for performances there, and second the practicable minimum size of an acting area for the kind of plays and size of cast envisaged during the length of the company's stay in Scarborough. The small size of the acting area at Scarborough does cause practical problems when working there, though obviously not with every play. An acting area consisting of a rectangle 18 ft. by 21 ft. (suggested as "reasonable" by Stephen Joseph) would simply be a better proposition for most plays in the average British theatre's repertoire. In generously cast Shakespeare however, there must be some anxious moments. It would however be useful to hear from Alan Ayckbourn who has now worked at the Scarborough theatre over a 15-year period.

Clearly the problem in designing a permanent theatre in the round is in making an acting area which is going to be large enough for Shakespeare's Henry V and small enough for a claustrophobic two-hander, or Gaslight. The one element of adaptability I would like to see in a new theatre in the round would be a removable front row and I am certainly considering this in preparing for the rehousing of the Victoria Theatre, Stoke-on-Trent. The front row at the present Victoria Theatre is on a level 7 in. higher than the acting area and

only very big feet come over the ledge. We've often played on tour with audiences much closer and on the same level. It would be pleasant to have a front row consisting of say benching on the same level as the acting area which could be there for some productions and taken away for others. Be sure that we will keep the readers of Tabs in touch with our plans for the new Stoke theatre, as we guess they will be of more general interest.

As far as definition of the rectangular theatre in the round is concerned, Stephen Joseph's reply to this query was always to point out that "round" was used in the *geographical* rather than the *geometrical* sense. As geography seems to be dominating our descriptions of theatre forms these days, with peninsular and island stages. I guess this usage still makes

sense.

Yours sincerely,
PETER CHEESEMAN
Artistic Director,
Victoria Theatre, Stoke-on-Trent.

Dear Sir,

In my review of Dictionnaire des Arts du Spectacle in Tabs, Vol. 28, No. 3, I referred to the French Expert Member of the C.I.E. committee as being listed as a collaborator in this work. M. Georges Leblanc was in fact quoted in the introduction as having been good enough to answer various questions put to him by the author, but neither he nor his committee had any knowledge of the work until it was published.

Yours faithfully, K. R. ACKERMAN

Synopsis

This Happy Breed

Commentaire du rédacteur sur les Conférences Internationales d'Éclairage de l'année prochaine.

Redaktionelle Abhandlung über die international Beleuchtungskonferenz, die nächstes Jahr in Barcelon stattfinden soll.

Ford's Theatre, Washington D.C.

Ce théâtre fut fermé après l'assassination du Président Lincoln, la nuit du 14 avril 1865, et servit par la suite d'entrepôt. Cet article décrit le théâtre récemment récouvert au public, après complète restauration. Dieses Theater wurde nach dem Mord von President Lincoln am 14 April 1865 geschlossen und diente dann als Speicher. Der Artikel beschreibt das Theater, das kürzlich nach gründlicher Weiderherstellung wieder eröffnet wurde.

Kinetics—Frederick Bentham

L'exposition actuelle du travail pionnier d'Adolphe Appla dans le domaine de projets de scène et d'éclairage de théâtre est analysée à côté d'une exposition kinétique qu'on peut également visiter à Londres en ce moment. Die zur Zeit stattfindende Ausstellung, die das bahnbrechende Schaffen von Adolfe Appia im Gebiet von Scenographie und Bühnenbeleuchtung illustriert, wird gewürdigt und nebst einer Kinetik-Ausstellung beschrieben, die auch in London läuft.

Rowlinson School-E. W. Walker

M. Walker décrit la conversion d'une salle aux buts multiples en un théâtre adaptable pour cette École Secondaire à Sheffield. Une scène de 400 m² avec un système d'éclairage au plafond a été construite avec des sièges en gradin et des plateformes mobiles avec des bancs pour varier.

Die Umgestaltung einer bestehenden Mehrzweckhalle in ein veränderbares Theater für diese Oberschule in Scheffield wird beschrieben. Eine 400 Quadratmeter grosse Bühne mit Aufhängungsstangen für Leuchten wurde angelegt, teilweise mit befestigten Sitzen, und teilweise mit beweglichen Podien mit Bänken um Variationen zu ermöglichen.

In an English Country Garden-Francis Reid

L'auteur, qui est connu dans le théâtre professionnel comme dessinateur d'éclairage, décrit avec humour l'éclairage d'une représentation en plein air de "l'Atlanta" de Haendel, dans le jardin de Hintlesham Hall dans le Suffolk.

Der Verfasser, ein bekannter Beleuchtungsmeister im Berufstheater beschreibt mit Humor die Beleuchtung einer hochseriösen Darbietung von Händel's "Atlanta" im Park von Hintlesham Hall, in der Grafchaft Suffolk in Osten Englands.

Scottish Opera's "Fidelio"-Charles Bristow

Les instructions du dessinateur pour l'éclairage de cet opéra sont indiquées et l'auteur en donne l'interprétation.

Der Auftrag für die Beleuchtung dieser Oper wird angegeben und der Verfasser beschreibt, wie er ihn verwirklicht hat.

Stadsteatern, Norrköping-Linköping-Tyr Martin

L'auteur est le Directeur Technique de ces deux théâtres en Suède. La même compagnie et son personnel de production, domiciliés à Norrköping sont au service de ceux-ci. Bien que de grandeurs différentes, ils sont équipés identiquement du point de vue technique et chacun possède un système de contrôle d'éclairage IDM. Les installations et les méthodes d'échange de leurs productions sont décrites en détail.

Der Autor ist Technischer Oberleiter der 2 Theater in Schweden welche sich ein in Norrköping ansässiges Darstellerensemble mit dazugehörigen Technikern teilen. Die Theater sind zwar nicht gleichgross, aber auf technischer Seite gleich ausgestattet und haben je ein IDM Lichtsteurungsystem. Die Installationen sowie die Austauschmethoden werden beschrieben.

Leeds Playhouse

Cet article décrit le théâtre récemment ouvert. Il contient 750 places et une scène ouverte, aménagées dans une construction de forme pour ainsi dire carrée. En fait ce bâtiment, fait partie de l'université, située non loin de là, et sera plus tard la salle de gymnastique.

Der Artikel beschreibt dieses kürzlich eröffnete Stadttheater, in welchem 750 Sitze und eine spornförmige Bühne in einem Gerbände mit fast quadratischem Grundriss untergebracht werden mussten. Dieses soll später in eine Turnhalle für die in der Nähe liegenden Universität umgewandelt werden.

Dual Role of the Safety Curtain

L'utilisation du quadrillage sur le rideau de fer pour reproduire l'éclairage du devant de la salle pour la représentation.

Die Abbildung eines Netzes auf dem eisernen Vorhang um die Einstellungen der Beleuchtungskörper im Zuschauerraum für Vorstellungen zu simulieren.

Animal, Vegetable or Mineral-Elizabeth Sweeting

L'auteur qui est l'Administratrice de l'Oxford Playhouse donne un bref aperçu sur une réunion de ceux qui s'intéressent aux Théâtres Universitaires du Royaume-Uni et sur les relations difficiles et mal définies entre le Théâtre Universitaire, le Théâtre classique et la communauté environnante. Une confusion de buts est peutrère la raison pour la diversité de styles dans les théâtres qui ont été construits ou proposés récemment. Il faut définir les lignes de discussion pour co-ordonner les buts disparates, surtout si de tels théâtres doivent servir la communauté et établir un nouveau modèle de troupes en tournée sur une échelle professionnelle.

Der Verfasser, Verwaltungsleiter des Oxford Playhouse Theater, berichtet zusammenfassend über ein Treffen von Fachleuten der Universitätstheater in Grossbritanien sowie über die sensible, schemenhafte Relation zwischen Universitätstheater, akademischer Fakultät und der bürgerlichen Gemeinde. Verwirrung über den Zweck der Theater ist vielleicht die Ursache für die Mannigfaltigkeit von Stil und Ausstattung der Häuser welche in der letzten Zeit gebaut und geplant wurden.

Vorgeplante Diskussionspunkte sind erforderlich, um die verschiedenen Ziele zu ko-ordinieren und zu erreichen, besonders wenn solche Theater einerseits der Öffentlichkeit dienen, anderseits einen neuen Stil von Tourneeaufführungen von professioneller Güte bieten sollen.

Squaring the Circle

Une lettre de Peter Cheeseman sur les dimensions optimales pour le "Théâtre en rond".

Beitrag von Peter Cheeseman über Optimalgrössen für Rundtheater.

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