

TABS

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Curtains for Tabulus

THE THEATRE MUSEUM was born in 1974 as Britain's National museum devoted to the performing arts. It is administered by the Victoria and Albert Museum and the Curator is Alexander Schouvaloff. The Theatre Museum is temporarily housed within the "V & A" but in Spring 1980 it will move to the heart of London's theatreland in Covent Garden where it will occupy the old Flower Market now being refurbished and adapted with funds provided by the Government through the Department of Education & Science. The Museum includes many important collections, probably the best known being those made by Gabrielle Enthoven and Harry H. Beard. In anticipation of the Museum's move to a more spacious home, various pieces of historical lighting equipment are being collected and it is intended that these will be restored to working order wherever possible. Our cover is a Theatre Museum poster made from a montage of typical items of theatre ephemera.

Editor: Francis Reid

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We took Mrs. Tabulus to the theatre last night. "Look," she said, "the Tabs are in."

We naturally thought she was referring to this magazine and for a moment we were overcome with not a little joy and pride (suitably diluted with modesty) at the idea of a theatre manager perceptive enough in his audience care to realise that some of them might wish to read the light.

"Where?" we replied, looking around for a leggy saleslady with a feather on her T-spot.

"Not *Tabus*, you one-track-minded twit," she said with just a touch of the rising decibels, "but TABS ... HOUSE TABS ... CURTAINS."

Mrs. Tabulus was once a stage manager and so she talks about the tabs being in rather than the curtain being down. And indeed the curtain *was* down—rich folds of scarlet plush softly lit by a pair of barn-doored fresnels in 10 pink (or was it faded 11). Alas, no footlights, for upright is the only truly magical mystery tab warmers. But mystery enough. What lay behind these tabs? What would be revealed when they were flown out? We grew all warm and cosy with anticipation.

A rare pleasure because house-tabs are in disgrace: a device only to be used by the avant garde or the occasional older director with a concern for sensual pleasures rather than intellectual fashions. Exposure of the stage setting to the view of the arriving audience has become the norm. Surely not a fear that too much anticipation might breed anticlimax? Perhaps a gentle preparation for scenery that has become representational to the point of being vestigial? So we are required to sit and stare at an expensive

surround that has been carefully designed not to mask. If it is an itchy play, some of the Equity members may already be scratching themselves in carefully rehearsed casual poses—at a time when everyone knows they should be up in their dressing rooms preparing to face us by downing a stiff gin.

But last night was magic. As live chords leaped from the pit the houselights dimmed to half, holding their final fade until they could glide to nothing on a sinuous oboe entry. The tab dressing fade was timed precisely so that the rise of the tabs was an exact follow-on to the black-out. The goboed stage was empty for one breath-catching second before the actors appeared as the foh lighting curved softly in. Before hearing one word, we were hooked.

(And if we may offer an "aside" to disciples of the Theatre of Disillusion ... first hook your audience, then you can control their alienation.)

But now we must move from curtain rise to curtain fall. Not to the final curtain—just to an act drop, or if we have a tabtrack let's take a call in running tabs. Is there a semiconductor in the pit? Ah, Good Evening, Sir! It's been a long vamp till ready, has it not? Well, my tabs starts at the double bar, repeat until exit—there's no false tabs, so cut-off and dead segue into the next editor. Elex, a slow fade to blues please, then iris out, count two, and fuf. Everybody standing by? Right, here we go ...

Theatre-persons in general and light-persons in particular, Tabulus has had his hour upon your stage. A four-year run is pushing the luck of any performer and I must needs take my call before you, my patient audience, start to throw things. No curtain speeches. Just a quick bow of thanks for lending me your ears.

THE THEATRE MUSEUM

respectfully presents

ROYAL BOX

For practical purposes, the story of the British theatre starts in the reign of the first Elizabeth. Since then, not one monarch has opposed the theatre; two have lacked interest in it; the others have all been playgoers and at least four have given it such strong support that royal patronage may be said to have contributed more than any other single factor to the strength and vitality of the contemporary British stage.

Four hundred years ago, powerful forces tried to ban all secular plays. Royal support enabled the entertainers to gain a firm hold which even Cromwell's soldiers could not entirely dislodge. Without royal help it might have been a different story. Sir Edmund Chambers, the great authority on the Elizabethan theatre, has written: 'The palace was the point of vantage from which the stage won its way, against the linked opposition of pulpit and municipality, to economic independence.'

Elizabeth I allowed and encouraged the first public theatres, even though she did not go to them herself. She paid for innumerable performances at her Court, with Shakespeare many times an actor in the company. The Stuarts with Prodigal extravagance (one performance of a Court masque could cost the equivalent of £250,000 today) introduced music, dancing and scenery to theatrical performances and paved the way for opera, ballet and musical spectacles.

Charles II made the world of influence



Fireworks and Illuminations on the Thames at Whitehall 1749. George II's barge is the top right hand one. *Harry R Beard Collection*

acknowledge that to write a good play was a worthwhile literary achievement. His taste for witty comedies of manners shows itself in British writing to this day. The first all-nude play (written by the Earl of Rochester) was

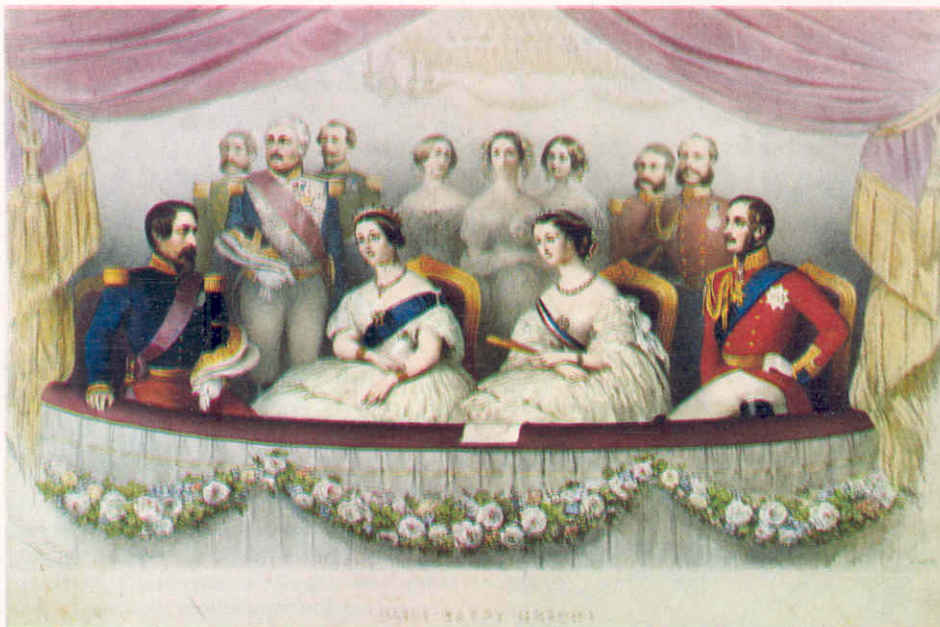
almost certainly performed at his Court.

Victoria, first by her company and then in widowhood by the bestowal of honours, made it clear that a position won in the theatre was a position won in society. Few honours lists have been more controversial than the one in 1895 which included Sir Henry Irving's name, but from that day actors were rogues and vagabonds no longer.

Small wonder that in revolutionary times the theatres were royalist strongholds; that it was a long-observed custom for every theatrical performance to end with a prayer for the King, (and for playbills to end with the words "Vivat Rex"); that it was the theatre which, alone among many aspects of public life once controlled by the throne, remained subject to the monarch's direct authority without reference to Parliament until as recently as 1968 (when the licensing powers of the Lord Chamberlain were abolished).

No monarch has influenced (or been influenced by) the stage in quite such a personal way as Charles II; no other has been such a dedicated theatregoer as the young Victoria; no other has seen more changes in entertainment styles and techniques, and helped more readily to confirm them, than Edward VII.

Most of the monarchs, it is true, must be regarded as lowbrow, and it is their consorts who have often had a more intellectual taste.



State visit of Queen Victoria, Prince Albert, the Emperor Napoleon and his Empress at the Royal Italian Opera, 1855. Hand coloured lithograph by Lemercier after the painting by M Alophé. *Harry R Beard Collection*

The first Elizabeth was the only one with much enthusiasm for Shakespeare; farce and broad comedy have been the true prefer-

ences of almost all the kings. Melodrama and Italian opera were Victoria's favourites, and George VI was best pleased by the

Crazy Gang.

But from Elizabeth to Elizabeth, they have almost all enjoyed the theatre in one form or another, and a surprising number (including the present Queen) have taken part in stage performances. Artistically, economically, socially the British theatre owes its royal patrons so much that one might almost say it owes them everything.

Ian Bevan

Mr Bevan's article and the accompanying illustrations form part of a souvenir portfolio published by the Theatre Museum in connection with their *Royal Box Exhibition* at the Victoria and Albert Museum.



Royal Gala Performance programme, 1903.
Gabrielle Enthoven Collection



Her Majesty the Queen arriving at the National Theatre for the official opening 1976.
Photographer Nobby Clarke

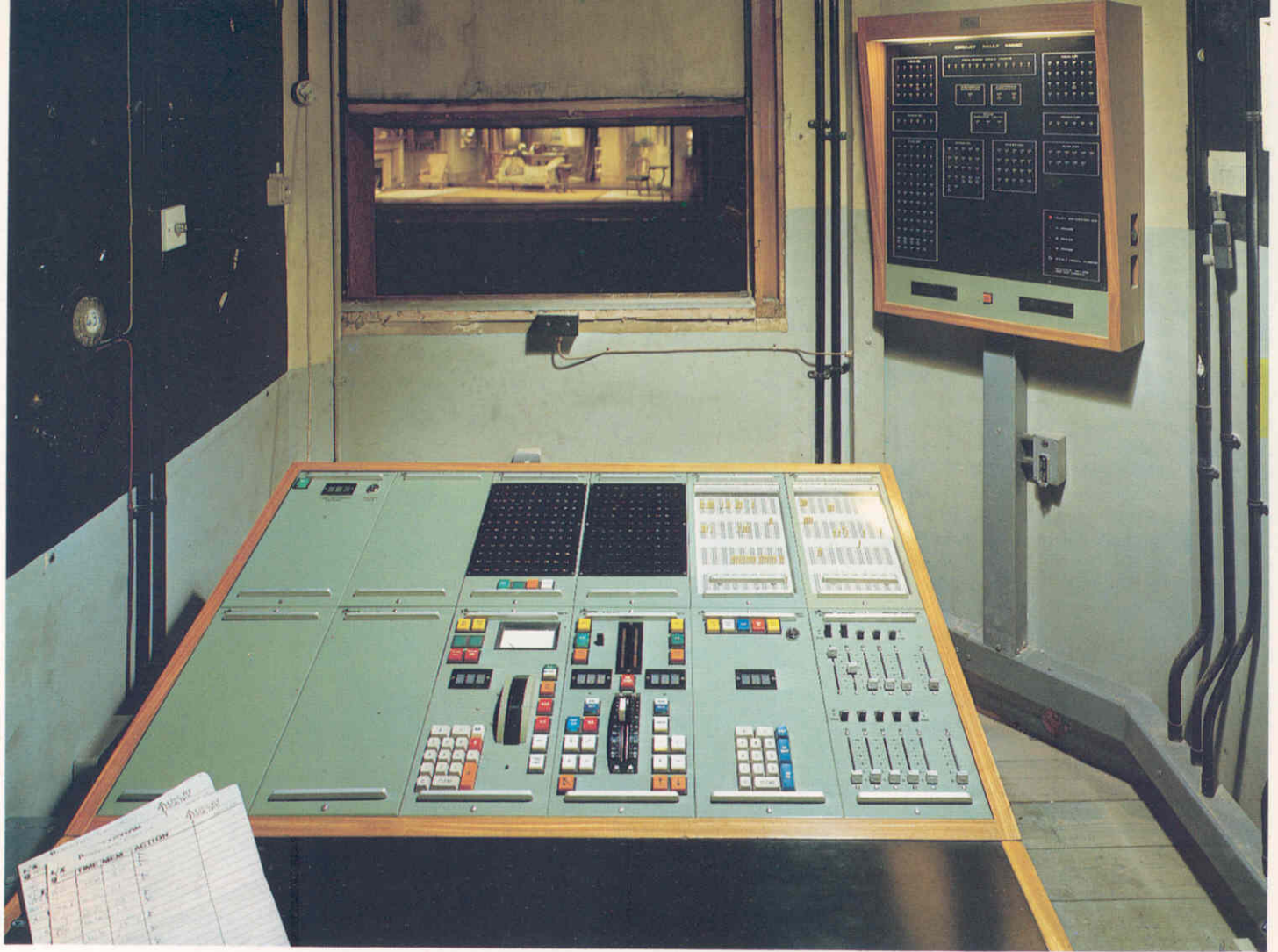


PRODUCING A ROYAL PANTOMIME

This photograph appeared in TABS in April 1948 as an illustration to an article "Producing a Royal Pantomime" by the late Hubert Tannar, M.V.O., Master of the Royal School at Windsor Castle. Mr. Tannar was author and producer of the Royal Pantomimes performed in the Waterloo Chamber of Windsor Castle from 1941 to 1944. In the photograph from right to left (as they now are): The Queen, The Queen Mother and Princess Margaret. The article was reprinted in TABS of April 1952 at the time of Her Majesty's accession to the throne and with it the text of a letter to Mr. Tannar:

"Thank you so much for sending us a copy of TABS. I enjoyed reading the article so much, and it brought back many happy memories. . . .

*Yours very sincerely,
Elizabeth"*



Control room (before re-decoration) at the Albery Theatre showing MMS and wall mounted Fault Mimic Panel.

NEW at the ALBERY Theatre

The *Albery Theatre*, one of London's most elegant and successful playhouses, was opened in 1903 as the "New" Theatre. It was renamed the "Albery" 70 years later as a tribute to the late Sir Bronson Albery under whom it had such a distinguished history—today continued under the direction of his son, Sir Donald Albery, and grandson Ian Albery.

The new lighting control at the Albery Theatre is a 200-channel MMS with 150 memories. Channel access is by keyboard with "@" facility which allows the keyboard to be used for setting the level as well as selecting the required channel—by tapping out, for example, "76 @ 7". There is the usual wheel for instant level modification and a rate playback module gives flexible recall of memories on cue. All this is a standard selection of MMS modules. The system, however, includes some interesting and unusual innovations devised and specified by Ian Albery and Stan Coppin, Chief Engineer for the Albery Theatre—and realised electronically by David Bertenshaw and his team at Rank Strand's Brentford

engineering department. The first of these is a minor but potentially very useful modification to the back-up master module: each master has a three-position switch to group to X or Y grandmaster faders or to hold independent of these grandmasters.

Secondly, the houselights (primary and secondary) and backstage working lights can be programmed as can various non-dim circuits for effects and other purposes.

Thirdly, a *Remote Playback Terminal* allows any recorded memories to be played back from any preferred position in the theatre as an alternative to the main control room. This unit has a recorded speed facility, but instant manual override of speed (at a factor of 5:1) is, of course, included.

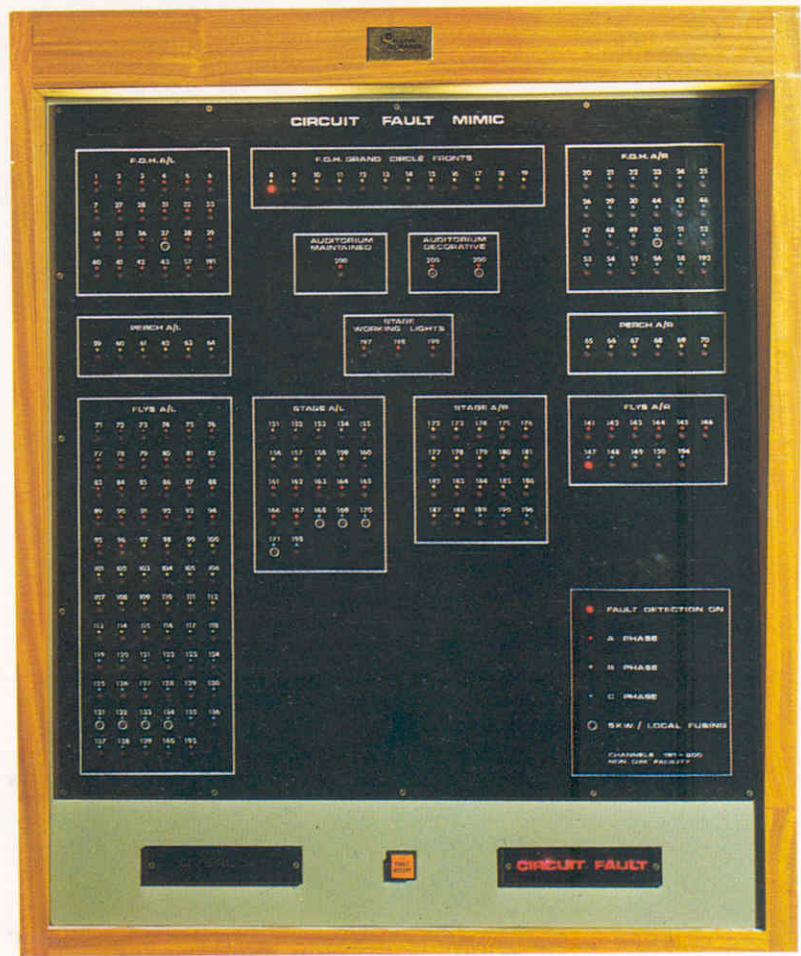
The economic way to buy electricity for a theatre is by maximum demand or installed load tariffs. To benefit from these tariffs, it is essential that the agreed maximum demand or installed load rating is not exceeded. The Albery Theatre's MMS has been fitted with a *Maximum Demand Limiter*. When the system is approaching its maximum load an "overload" sign begins to flash and there is

an audible buzzer warning. The MMS operator would then inform the lighting designer and production manager so that a decision could be taken on whether any likely artistic gain in using more light would justify the increase in expenditure on electricity which would arise from any increase in the maximum demand setting. Once any preset overload figure is reached, the sign stops flashing but remains alight while a proportional cut is automatically applied to all circuits so that the total load is kept within the maximum demand limit.

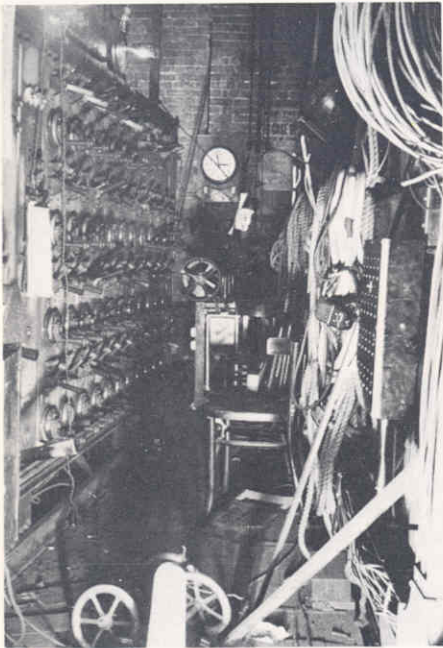
The most important facility, however, is the *Circuit Fault Mimic*. This is so important that it must be regarded as a considerable breakthrough in lighting control technology. The normal mimic in memory systems (or the positions of the presetting faders on manual systems) indicates only that a channel is alive to the extent that the circuit is being fed with electricity. It does not indicate whether that electricity is being accepted by a lamp: the lamp filament may be blown or the lantern may not be plugged in. The Circuit Fault

Mimic looks at the output of the memory on any cue and indicates any circuit that is alive at the desk but not alive on stage. The layout of this special panel corresponds to the geographical position of the socket outlets: a red light indicates any channel which is alive but not lighting. To draw the operator's attention to the wall-mounted panel, a sign flashes until the operator pushes a "fault accepted" push. The flashing then stops but the fault indicator remains alight until the fault is cleared.

There are repeater warning signs for both Circuit Fault and Overload in the Chief Electrician's office and workshop area backstage and also on the remote terminal. Although the desk is for 200 ways, only 140 STM dimmers have been installed. This will normally be sufficient since the Albery is used principally for plays. It can, however, house musicals and has done so in the past with distinction—"Oliver", for example; and plays in repertoire as in the recent seasons by the National Theatre and Prospect. For musicals or for a particularly complex play, up to an extra 60 dimmers can be added by using Mini 2 6-way dimmer packs for which the dimmer room includes shelving with power supplies, load tails, and control connections.



The Circuit Fault Mimic Panel laid out to correspond to the geographical position of the socket outlets in the theatre. Each channel is colour coded to show its phase and a red light indicates any channel which is alive but not lighting. There are also clear master warning signs to draw the operator's attention to circuit faults and overload conditions.



This switchboard, photographed immediately before being dismantled, tallies with a detailed description dated 1904. It was on a concrete side gallery at high level on stage left with the regulator downstairs and the tracker wire operated liquid dimmers upstage. The 40 dimmers were each controlled by a handwheel, suggesting French origin and very reminiscent of a gas plate. Each horizontal row of handwheels had mechanical mastering, with self-release from the shaft at the limit of travel. The electrician in 1904 was Mr. Howey "well known for artistic colour blending", helped no doubt by the fact that this theatre was equipped for 4 colour circuits (white, amber, red and blue lamps) instead of the usual three colours.



In the early '50's a Strand Electronic control was installed with a two preset desk, with fixed groups of 12, at the rear of the stalls. Each

dimmer had three gas-filled Thyatron valves, one to each phase of the supply. After a relatively short period of service this was replaced by the first System PR, with a similar looking desk, but providing another preset in advance of the lighting in use. The 134 dimmers were servo-driven through magnetic clutches with a polarised relay to determine the direction and amount of travel necessary to match the intensity level setting of fader levers at the desk.

Lighting Design in Germany

Recent issues of the *Bühnentechnische Rundschau* have been carrying discussions on the possible role of the Lighting Designer in the German theatre. *Bühnentechnische Rundschau* is the world's senior technical theatre periodical (founded 1907) and is the official magazine of the Deutsche Theater-technische Gesellschaft and the German section of the OISTT. It is widely read in all the German speaking countries of central Europe and the rest of us eagerly study its photographs and plans, struggling to translate interesting items about our individual specialities.

The Lighting Designer, as established in North America and Great Britain and fast emerging elsewhere (particularly in Australia) is not a normal member of the production team in Germany or the other countries of Central Europe influenced by the German theatre tradition.

The historical reason for this is that the German Theatre has always been a public repertoire theatre with permanent companies resident in their own theatre building under the patronage first of the Court and then of the taxpayer. Britain and America, however, have favoured a private theatre where one entrepreneur packages an entertainment to display within the bricks and mortar of another entrepreneur's theatre building. The need for a lighting designer arose under this Anglo-American system not so much to improve the quality of the lighting but to get it organised. It is significant that in Britain, lighting designers were first employed in private theatres rather than in subsidised theatres and that they were employed to save money by achieving better results in less time by planning in advance.

In theory, a theatre organisation which is resident in its own theatre should be able to carry out detailed advance planning. In practice, such planning has always been possible in all departments except lighting where the problem has been to get many directors and scene designers to think about lighting and communicate their thoughts if they have any. This stems from two causes: firstly a conviction among many directors and designers that lighting cannot be imagined so they have to see something before they can decide anything; and secondly, since lighting is added to the production at such a late point in the rehearsal schedule, they must keep a firm grip on it or they might acquire something which they do not like but which it is too late to do anything about.

However, where director and designer have had the opportunity of working with a good specialist lighting designer, they have been converted to the idea with the result that no production of any consequence is mounted without assistance from designated lighting designer—except in theatres which have remained with the German tradition.

I have seen a lot of beautiful and exciting lighting in German theatres—much of it more dramatic in conception than a lot of the flat, almost television style, lighting that

has become rather too common for my taste in many Anglo-American theatres. But I have also seen in Germany some excellently directed and designed productions which have been spoiled (indeed killed might not be too strong a word) by lighting which looks rather as if the designer had lit the scenery with the fixed spotlights and the director had lit the actors with the follow spotlights—without director and designer meeting to say as much as a “Good Morning” to each other.

Reporting in TABS on the 1976 Bühnentechnische Tagung conference in Karlsruhe, I said “... the profession of Lighting Designer is poised for take-off in the German theatre. The younger lighting technicians are anxious to contribute art as well as craft to the productions, and the younger directors are behind them. The movement started in Ballet, is extending to Drama and will reach Opera in due course.”

What emerged in the informal discussions in Karlsruhe was a feeling that for lighting to make its full contribution to a production, it must be discussed and planned as an integral part of the production rather than something to be hastily applied at the lighting rehearsal in the manner than one might perhaps spread jam on a piece of bread.

What is emerging in the current discussion in the pages of *Bühnentechnische Rundschau* is that the lighting must be more closely integrated, from the early planning stages, with the director and designer's total conception of the production. The debate is not whether this should happen but how it should happen: how the traditional organisation and personnel framework should be adapted to ensure fulfilment of the potential of stage lighting.

Having grown up with the development of stage lighting in Britain, including a ten-year residency in an opera house (with distinguished German guest directors and designers) at a time when that opera house was in transition towards lighting design, I would like to offer a few personal thoughts to my German colleagues. . . .

● Giving a person the title Lighting Designer does not automatically make him a designer of lighting.

- Lighting design is a two-part process involving (1) the conception of a lighting style appropriate to the style of a particular production and its scenic design, and (2) the realisation of this concept within the framework of the production's budget and schedule.
- The lighting designer is both an artist and a craftsman and this must be reflected in his training.
- Specialist training courses should be available for experienced theatre personnel who demonstrate an aptitude for lighting design.
- Because lighting design is so concerned with communication, the ability to handle words and people is as important as proficiency with light and electricity.
- The most important single feature of lighting design is advance planning.
- A lighting designer working in a repertoire theatre must be prepared to work within the restrictions imposed by the scheduling of different daily performances and rehearsals.
- The lighting designer's responsibility in a repertoire theatre does not end with the first performance. A repertoire theatre requires a team of lighting designers to share the work load and they should move between opera, plays and dance.
- To stimulate by cross-fertilisation of ideas, a repertoire theatre should invite guests to augment the resident lighting designers for a proportion of the season's new productions (possibly 20%?).
- The lighting designer is an essential contributing member of the production team but he must always remember that it is the Director who bears the ultimate responsibility for the production—so he may often find himself in the position of having to implement the director's wishes, even if he believes that the director is wrong.
- Lighting designers cannot be created overnight by legislation. They have to become indispensable by the quality of their contribution to the productions.

FRANCIS REID



Hamburg's Schauspielhaus, perhaps Germany's leading playhouse, will install a lightboard in 1978.

Light Entertainment

CLIFF DIX

"Journey" was the second Sound-Light Show to be staged by the Centre for the Arts in Birmingham. A few days before the first night two things happened. "Light Fantastic" opened at the Royal Academy, and Tabs fell through the letter box. "Light Fantastic" makes a sound-light show designer want to burn the plan, but with the budget to consider it's back to Brum and the 264's and 223's. Few visitors to the Centre for the Arts arrive by paddle steamer, but we have the advantage over "Swan Hill" of being indoors; something not to be sneezed (!) at in a British climate, as Robin Close so rightly pointed out in the Spring edition of Tabs.

When I first read Mr. Close's article I thought that I was going to be taking issue with him, but I realise that he and I see the future of the Sound Light genre in a different "light". It is because of this that I would recommend Light Fantastic to all those of us involved in lighting design as a career.

Mr. Close details the execution of *Son et Lumiere*, a tried and trusted format generally concerned with the history of a specific building. Light Fantastic's light shows, and to some extent Fred Bentham's colour music, dispense completely with a narrative and use only the audience's willingness to be enthralled by a board operator's dexterity to prevent boredom.

I believe that a Sound Light show requires the existence of a plot/story line and a studio theatre within which the production can create its own environment. (Journey's set was mainly a discontinuous drum of canvas enclosing the auditorium and the stage, with a number of screens backing the stage area.) This approach does away with many of the difficulties that church *Son et Lumieres* encounter. You design your set to do the job—and do not run into so many problems with the siting of equipment. I don't really agree with Mr. Close that you must hide the gear; if the audience are watching the lanterns then there is something wrong with what you are doing, anyway the Centre for the Arts sound light shows are partly teaching exercises. It is easy to fall into the trap whereby the effects are triumphs of subtlety discernable only to other lighting designers. . . . "If in doubt, turn it out . . . and keep it moving".

If you perform in an existing studio or theatre you do away with much of the expense of hiring control equipment, cables, sound gear and luminaires (a word I use in this instance to include both lanterns and unorthodox light sources). I believe in the 15W pygmy lamp and the Christmas tree fairy light.

Working with an established venue solves problems of fire regulations, seating, (I agree

with Mr. Close that church pews are hard, but are they more comfortable than a certain popular type of tubular steel, canvas seated, stacking chair?) and, probably, some of the "use of recorded material" licences. Using existing disc music saves a lot on the budget . . . unless like us you have your own recording studios . . . and guarantees a certain level of quality.

But building a set brings problems of another kind. Churches and the like contain this wealth of unexpected detail and fascinating corners. A light show set tends to lack this, and this discrepancy has to be made up with projection, long live the gobo.

After "Cycle", my first sound light show, I swore never to do it again without a set that could be altered remotely during the action. The second night of "Journey" found me saying the same thing.

I feel that the sound light show in studio theatres has great potential when using an abstract set, motorised so as to form a slowly changing environment for the light to perform in. After all, with Quad the sound moves, and with dexterity the light moves—the set must follow the trend.

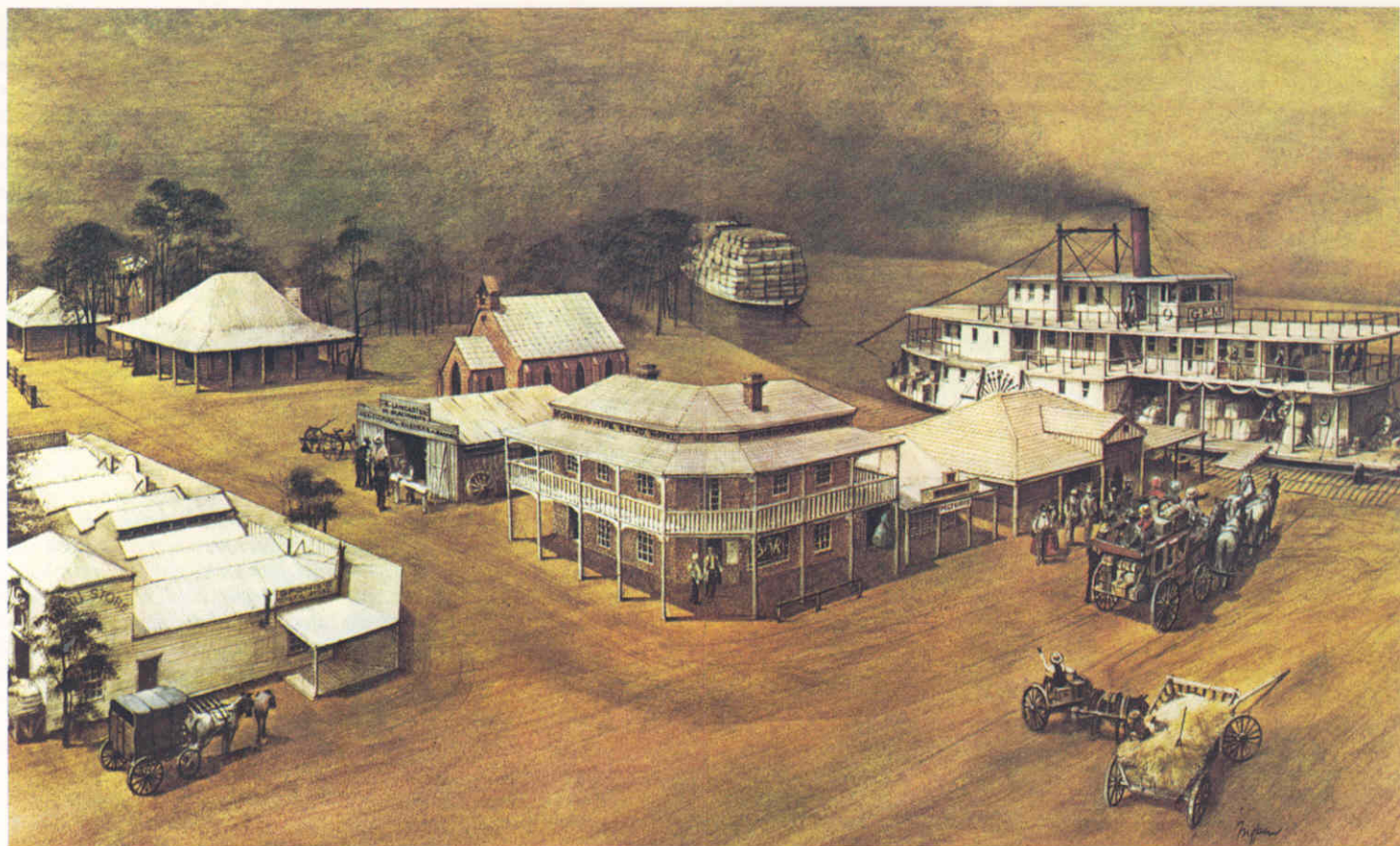
Surprisingly perhaps, the sound light show as I have described it here, attracts audiences—without the benefit of "Save our transept from falling down" appeals. (Journey broke even by the third performance) and because most of the gear you need is lying around your theatre hire charges are low (generally only the specials). I add my voice to Mr. Close—"keep it short", but let's see some of the studio theatres in this country trying a genre that has the potential of being exciting but relatively inexpensive and adding some challenge and interest to the life of your board operator.

There are few rules to the game—but a couple are basic: the board operator must have an unrestricted view of the stage—we found the view from our control room very awkward with Journey (after the rig had gone up, of course) which made the whole production something of a "Journey into the Unknown", and the sound operator should if possible be in the auditorium so that the levels can be accurately juggled each night and should be able to read music. In a show of this type the technical side has to be "spot on": because you are asking your audience to look, listen and notice. And because the sound light show attracts a somewhat specialist audience, those interested in lighting and sound themselves as well as those who are out for an evening's entertainment, it's essential that neither the lighting designer nor the sound recordist confine themselves to known effects, but are

prepared to take risks, to dare to try the unusual.

Sound, of course, is essential. Nature has equipped us to shut out the efforts of the lighting man, but not supplied ear-lids. Most theatre technicians would agree that sound is the poor relation of electricians: a sorely neglected field which is only just getting the consideration it deserves. I've suggested that a story line is an integral part of what I see to be the future of the sound light show and that sound off disc may be partly the answer to a director's nightmare. There is a tendency, popularised by "Tommy" for "pop groups" to record at least one side of the LPs as a coherent whole, and, given performing rights, this, like the Pickwick Pen, comes as a boon and a blessing to men. This, and the fact that synthesisers and electric instruments can be plugged straight to sound systems for recording original material, and are now standard equipment for arts centres, reduces the need for high quality acoustically treated recording studios. With Journey we found that some passages in the music would stand on their own in either a blackout or with just a general cover for a few moments. Both lighting and sound are, independently able to provoke emotive responses in an audience. Together, and freed from the possibly dusty if interesting confines of the history of the building in which the light show is staged, the director can work his will on the listener, changing his mood from laughter to tears in seconds. Journey was probably artistically, if not financially, a greater success than Cycle because of its sound. We ran Cycle from an entirely original tape of specially commissioned piano music which despite being supplemented by various electronically produced tones (17 cycle telephone ringing generators playing a leading role), tended to be a bit thin. This problem was overcome in Journey, which by utilising disc, opened up the possibility of using the sound of a full orchestra.

I look forward to the time, not far off now, when the need for a mobile set for this sort of show is alleviated by the proper utilisation of the hologram: when the genuinely 3-dimensional illusion on stage can be cross faded from one shape to another with the ease with which we now mix from one electrician's state to another, and when our control over our sound systems becomes as comprehensive as it is now for light. The ability to vary direction and quality, as well as intensity or volume, infinitely is a standard requirement for all new sound systems. Meanwhile let us thrash out our requirements in the sound light show, a testing but rewarding exercise for both man and machine, which really put the whole production team on the "rack".



A 'Gem' of a Job

DENIS IRVING

It all began late in 1969 when we received a telephone call from a consultant, asking about the feasibility of providing exterior lighting around a large area which was controllable in a fashion intended to lead groups of spectators from one area to another. The theory was that one started in a blackout, faded up in an area which attracted the viewers to that area, when they would be treated to a short commentary and lighting sequence related to a particular exhibit. The lighting then would fade down and another area fade up some distance away, whereupon the obedient customers would then walk from the then dark location into the light. All fine in theory, but giving plenty of opportunity for alternative occupations to looking at the contents of the folk museum, where it was intended.

The folk museum, or Pioneer Settlement as it is now called, is in the city of Swan Hill on the banks of the River Murray, which forms the border between Victoria and New South Wales, in the South Eastern part of Australia. The Settlement covers approximately 10 acres, in which are re-constructed a number of buildings of various kinds, the original starting point being a paddle boat, the "Gem", which has been moored in a now land-locked section of water and used as a restaurant and head office of the project. Various areas around the Settlement contain a church, blacksmith's shop, Cobb & Co. coaching office, saddlery, bank, early types

of dwelling, aboriginal camp, pioneer hut, and various examples of early types of agricultural machinery, shearing sheds and the like, which form interesting exhibits during the day, but which would look rather strange if simply floodlight at night, because the floodlighting would be substantially out of character with the genuine museum pieces which form the main exhibits.

Having acknowledged that floodlighting would not be a satisfactory way of getting visitors to the Settlement after dark, the Committee running the Settlement invited the architect and a prominent author, the late George Farwell, and a consultant, Mr. Tom Brown, to come up with alternative proposals, and their suggestion was a presentation based on European *Son et Lumiere*, but varied in order to resolve the difficulties of getting people around a large site covering a number of small exhibits, and this was where the original inquiry arose about using lighting to lead the people from one place to another.

The next step was that we were invited to participate in the planning of the presentation, most of which took place as a series of discussions on site, in temperatures of the order of 110°F in the shade, with a level of illumination provided by the sun which made it seem rather strange to be discussing the results that might be achievable by using Patt. 123s at about half light.

After walking around the site innumerable

times studying buildings from various angles, and forcing the unfortunate author to re-write his script at least a dozen times, there finally emerged a basic script and plot which took into consideration 15 areas of interest around the Pioneer Settlement, and these are shown on the accompanying diagram. Having regard not only to the risks associated with allowing members of the public to walk around the place after dark, but also considerations for the young, the aged or the infirm, the problem of transporting people from area to area was overcome by the Settlement staff designing and constructing their own personnel transporter, which is vaguely reminiscent of the early "toast rack" type open top trams, excepting that it is propelled by a car engine and hydraulic drive rather than pulled by an ancient quadruped. For each performance, then, the procedure now is that the patrons, having paid their money, are conducted to seats on board the aforementioned transporter, which has additional trailer sections that can be hooked on depending on the size of the audience, the minimum capacity being 20 and maximum 55. Once the audience is seated, and all the tickets collected and various other administrative details settled, the driver makes a short preliminary announcement and pushes a button which starts a central tape recorder designed to relay background music and initial commentary via radio link to loudspeakers



Cobb and Co Coach House and sales office.

on the transporter. The transporter sets off through the darkness and eventually stops in front of the first area, which is Cobb & Co. coach house and sales office. As the transporter reaches the appropriate viewing position, a second operator pushes a local control button which fades out the link sound emanating from the transporter speakers, and starts a second tape recorder relaying music and dialogue through fixed speakers mounted around the area which is then visible. The same control button starts up an automatic lighting sequence which brings various parts of the installation into view as appropriate, and in keeping with the

commentary. Once the sequence for that area is complete, all the lighting fades out and the sound fades away, and an automatic change-over system re-starts background music fed to the transporter. This is the driver's cue to set off into the darkness again to the second area, whereupon the process repeats, and of course different dialogue and lighting for that area is seen, and then off the transporter goes again. This continues in a generally similar fashion around the 15 areas of interest, the last one being the paddle steamer "Gem", which is of course home base.

The idea is not primarily to floodlight

units, but merely to use a mixture of lighting, dialogue, music and sound effects to evoke some of the atmosphere and feelings of the people that were current at the time the buildings were in use, and to try and recapture some of their attitudes and problems. Anyone wishing to know more about any of the exhibits or to obtain more information, is of course welcome to re-visit the Settlement the following day in daylight hours.

The programme runs for about 35 minutes, and although it cannot start until after dark, which means a fairly late start in the height of the Australian summer, it has been running an average of three performances per night since the formal opening in May 1971, on some occasions reaching the extent of five or six performances in one evening, depending on the number of people present. A total of around 130,000 attendances were logged by January this year, the current rate being about 2,800 per month. The photographs show the appearance of some of the areas under performance lighting, but it is difficult for a photograph to recapture the sensation of being out in the open and experiencing the presentation as a whole.

The technical planning of the installation had to be very basic, because as usual with this class of business, the capital available was very low indeed, an added difficulty being the extremes of weather conditions which the installation had to withstand. In winter time the temperatures overnight can be well below freezing, and in summer the shade temperatures are well over 110°F which means that anything enclosed, at least during the day, can get rather hot, which as any electronics engineer will know, is detrimental to equipment whether or not it be in operation at the time. There were also



incidental problems like keeping spiders (red-back, usually poisonous), ants and other creepy crawlies out of the control push button stations, and stopping the visiting children from stealing the pilot lamps.

Because the design of the Settlement itself is expanding and additional areas being created, the basic technical planning premise was to treat each area as an independent unit of itself, so that by altering the audio recording sequence it would be possible to change the route of the transporter and the running order of the programme, without having to rebuild the control equipment. Also it must be remembered that all of this was planned prior to the availability of relatively simple digital memories which are commonplace today. Each area, therefore, had associated with it a dimmer rack which carried dimmers where necessary, stepping relays and timing devices, which were preset by screwdriver and stopwatch to achieve the desired operating sequence. All the audio is pre-recorded, and the timing for each occasion is fixed, unlike that for a live performance. The decision was deliberately taken not to use coded impulses from the audio machines to operate the lighting, due to the difficulty of altering any sequences on site should that be required.

The lighting for the areas is by a mixture of conventional stage lighting lanterns and by weatherproof reflector lamps from a Japanese source, these latter fitted with special hoods and colour filter holders. The stage lanterns were 223s, 123s or 23s depending on application. The weatherproofing problem was solved by fabrication of fibreglass housings, which keep the worst of the elements away from what is essentially indoor equipment, at the same time of course providing happy homes for the aforementioned reptiles and creepy crawlies.

Alongside we reproduce two typical equipment lists and sequence descriptions which are part of the original preparation for the establishment.

The original sequence timing used up-down-preset cards with analogue capacitor discharge operation. These, and early trigger cards for the JTM dimmers, proved to drift erratically with time and temperature. Hence, we recently designed and supplied new timers using digital counting techniques, and fitted later pattern trigger cards of greater stability.

The two Ferrograph Series 7 recorders continue to operate most reliably, but the original loudspeakers have had to be replaced because of climatic effects on the cones and voice coils.

Work is now in hand to provide for new additional areas, and to find a means of operating the "area start" function from the transporter whilst in motion. It must be remembered that a fully automatic system is not acceptable, as the transit time from area to area can vary considerably for many reasons, e.g. driver differences; flat tyres; loss of passengers; weather conditions and so on.

The project is believed to be the only "Sound and Light" (in Australia, "Son et Lumiere" is a meaningless foreign phrase) anywhere with a captive mobile audience, and can be regarded as a successful experiment.

AREA 1 COBB & CO.—SADDLER

Sequence

- A. Fade up Coach House inside and outside over 10 seconds (Patt. 223 Clr. 51, and 2 × 200 watt Eye Lights Clr. 51).
- B. At 38 seconds switch on inside and outside of Cobb & Co. (1 × 200 watt Eye Light Clr. 1/3 inside, 1 × 300 watt Eye Light Clr. 24 on exterior tree, 1 × P. 223 Clr. 4 on pole cross lighting).
- C. At 1 minute 12 seconds fade up Saddler's Shop inside and outside (1 500-watt Eye Light Clr. 3 on standard and 1 × 200 watt Eye Light Clr. 2 inside).
- D. At 1 minute 38 seconds switch-fade all lanterns to blackout. Fade down over 10 seconds.

Equipment

- 2 Patt. 223
- 5 200-watt Eye Lights
- 1 500-watt Eye Light
- 1 Control Station
- 1 Control rack, comprising
 - 2 JTM. 20 Dimmers
 - 1 Stepping Relay
 - 3 Timers

AREA 5 BLACKSMITH'S SHOP— KIM'S SHOP

Sequence

- A. At 5 seconds switch on interior (Patt. 123 and Flame Flicker) and fade up exterior of Blacksmith's Shop (1 Patt. 123 Clr. 40 plus 1 500-watt Eye Light Clr. 43 under trees) over 10 seconds.
- B. At 40 seconds switch off/fade down interior and exterior of Blacksmith's Shop over 5 seconds, and switch on Coffin (Patt. 101 Clr. 38).
- C. At 48 seconds switch off Coffin and fade up Kim's Barber Shop (1 Patt. 223 Clr. 3) over 10 seconds.
- D. At 1 minute 32 seconds fade down Barber's Shop over 10 seconds.

Equipment

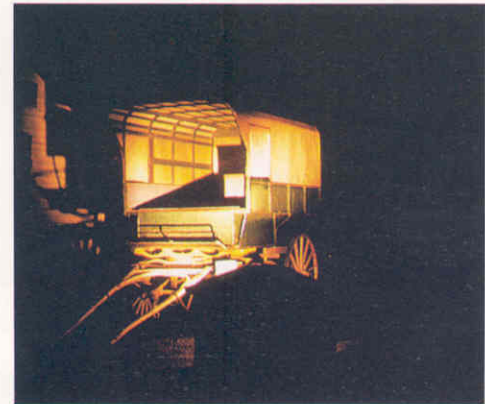
- 1 Patt. 223
- 1 Patt. 123
- 1 Patt. 123 and Flame Flicker
- 1 500-watt Eye Light
- 1 Patt. 101
- 1 Control Station
- 1 Control Rack comprising
 - 2 JTM. 20 Dimmers
 - 4 Stepping Relays
 - 4 Timers.



Mallee Root Stable.



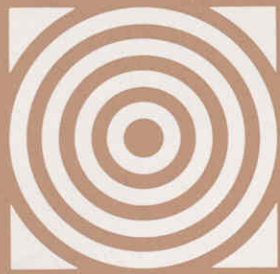
Shearing Shed.



Travelling School Building.



Traction Engine.



SOCIETY OF BRITISH THEATRE DESIGNERS

The Society of British Theatre Lighting Designers was founded in 1961. In 1975 the word "lighting" was dropped and the resultant *Society of British Theatre Designers* under the Chairmanship of John Bury, Head of Design at the National Theatre, includes the majority of Britain's scenic, costume and lighting designers. The Society held its first exhibition in London during the summer of 1977. This was an open exhibition: there was no selection committee and any member who wished to

exhibit was free to do so up to an individual limit based on a wall area of 4 square metres with a maximum depth of 2 metres from the wall. A cross-section of over 70 members working with National, Regional and Fringe theatres were represented and the exhibition, opened by Sir John Gielgud, was seen by over 1000 visitors. In many cases the exhibits included not only the original models and sketches but performance photographs showing the realised design. Making a selection for *Tab* was not easy

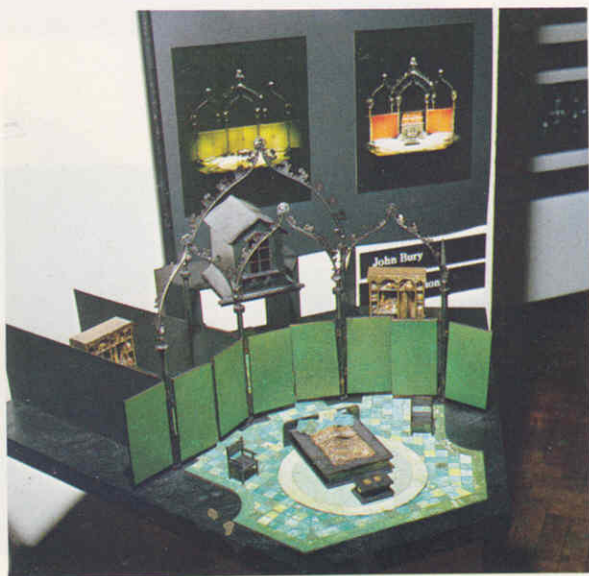
but we have tried to convey some impression of the width of the differing design styles that were on show. Selection was also influenced by the suitability of a particular exhibit for photography, often a basic matter of being able to position a camera—and several particularly interesting models could not be done photographic justice under the lighting conditions. Nevertheless we hope that we have managed to capture something of the overall flavour of the exhibition.



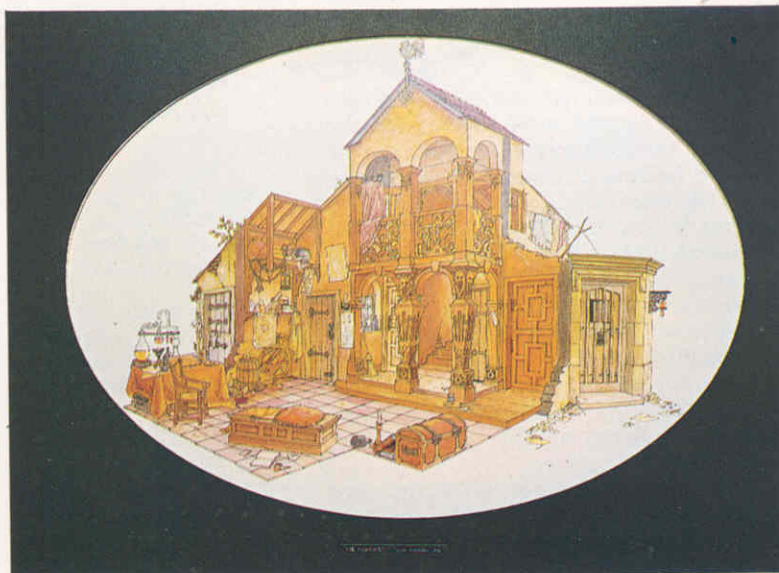
Carolyn Richardson *Charley's Aunt*, Thorndike Theatre, Leatherhead.



John Napier *The Big Wolf*, Royal Court Theatre, London.



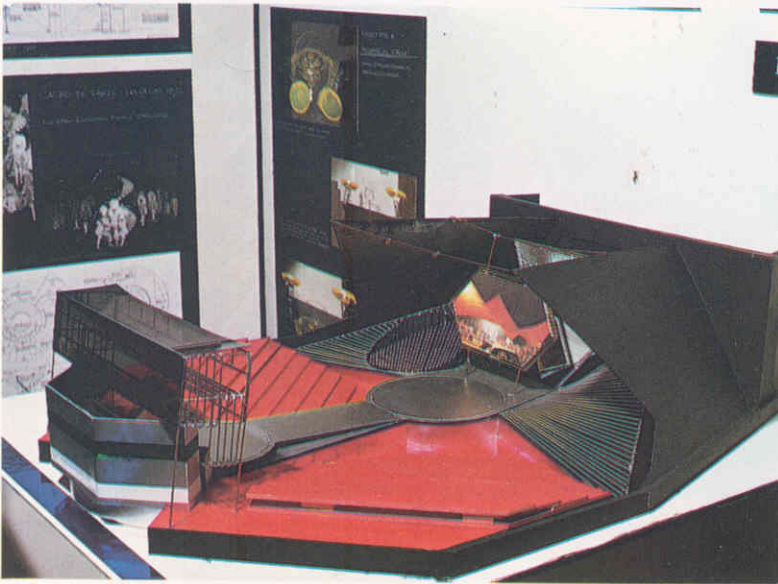
John Bury *Volpone*, National Theatre, London.



John Elvery *The Alchemists*, Leeds Playhouse.



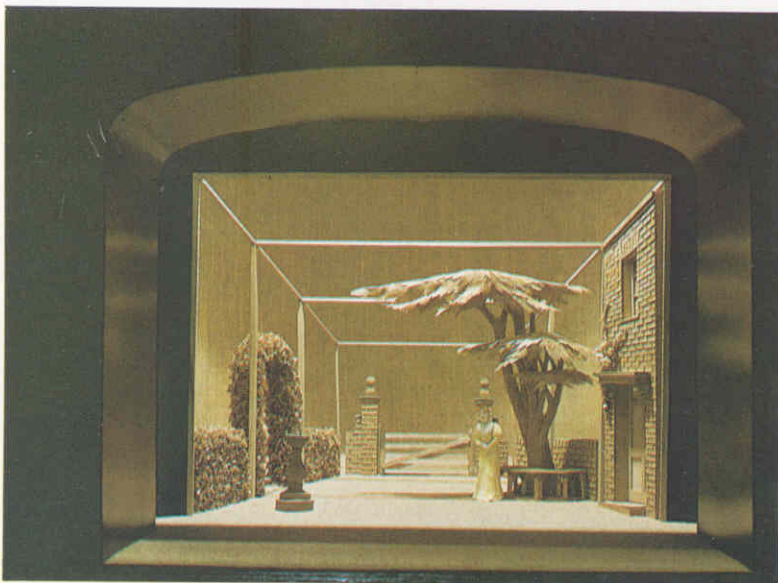
Andrew McAlpine *Made in Islington* and *Panic in Portobello*, Common Stock Theatre Co.



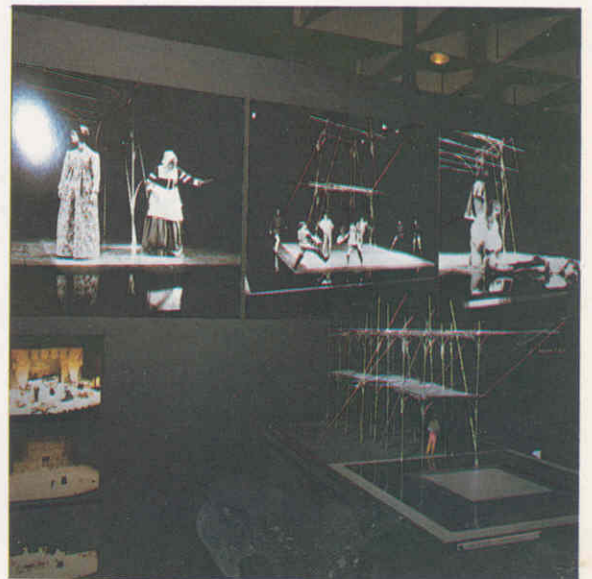
Paul Staples *Into the Eighties*.



Pamela Howard *Blues Whites and Reds (Planchon)*, Birmingham Rep.



John Elvery *Mrs. Warren's Profession*, Bristol Old Vic



Adrian Vaux *Romeo and Juliet*, Haymarket, Leicester.

London Opera Centre

GRAHAM WALNE

If your taxi driver has grey hair ask for the old Troxy Cinema, Stepney, then sit back and listen to memories of one of the largest cine variety theatres of the thirties. Younger drivers need to be asked for "The London Opera Centre, Commercial Road"—the building's function from 1963 until next year.

On my first taxi ride I considered my new appointment as lighting consultant on all the Centre's productions and tutor to the stage management course—taking over from the editor. The first test came at Christmas 1975 with the first known London production of the 17th century opera "Alceste" by Lully.

Among the restrictions imposed by theatres on those who work within, lack of space must be very common, but at the Centre it is the opposite which becomes a problem, for the auditorium has been turned into one of the largest performing areas in England, 100-ft deep and 100-ft at its widest point with 60-ft to the roof.

These staggering dimensions are achieved by continuing the stage (still with grid, three revolves, orchestra and organ lift) over the stalls to the edge of the circle where a wall turns the rear stalls into Covent Garden's specialist paint shop—so big that full cloths can easily be spread out on the floor.

The audience is usually confined to the front circle since the rear is now wardrobe and lecture theatre accommodation, but there are still 600 seats.

I was the only member of the production team who had not previously worked in this cavern and their confidence was to sustain me over those dreadful moments when you really wonder if all those neat little drawings are actually going to do anything they're supposed to.

The sets were by David Myerscough-Jones, a senior BBC designer, and they made excellent use of the vast space. Undoubtedly a television background freed the designs from the possible inhibitions that a theatre designer might have suffered. They simply took the form of steps, ramps and rostra but covering an area 80 ft by 80 ft and reaching up to 15 ft from stage level, descending also below. It was a magical area, vast one moment and intimate the next and a tremendous lighting challenge physically as well as artistically. The director was the venerable Billy Chappel whose previous production, "The Fairy Queen", was lit by the editor*. Billy directed from the

**Fairy Queen* used the full 100-ft of depth from stage backwall to circle front which gave some splendid entrances. I also lit one of the Centre's earlier productions—a 1965 Gluck/Milhaud double bill for which we put the orchestra in the pit, the scenery on the centre of the three revolves and the audience where you would expect to find them. The London Opera Centre is certainly an adaptable opera house. The conventional apparatus of the operatic stage is undoubtedly essential for a permanent repertoire opera company, but for festivals or other "one-offs" give me a big space and some scaffolding—Ed.

stage itself—the journey "out front" taking 20 minutes—and thus only really saw the lighting at dress rehearsal; fortunately he liked what he saw.

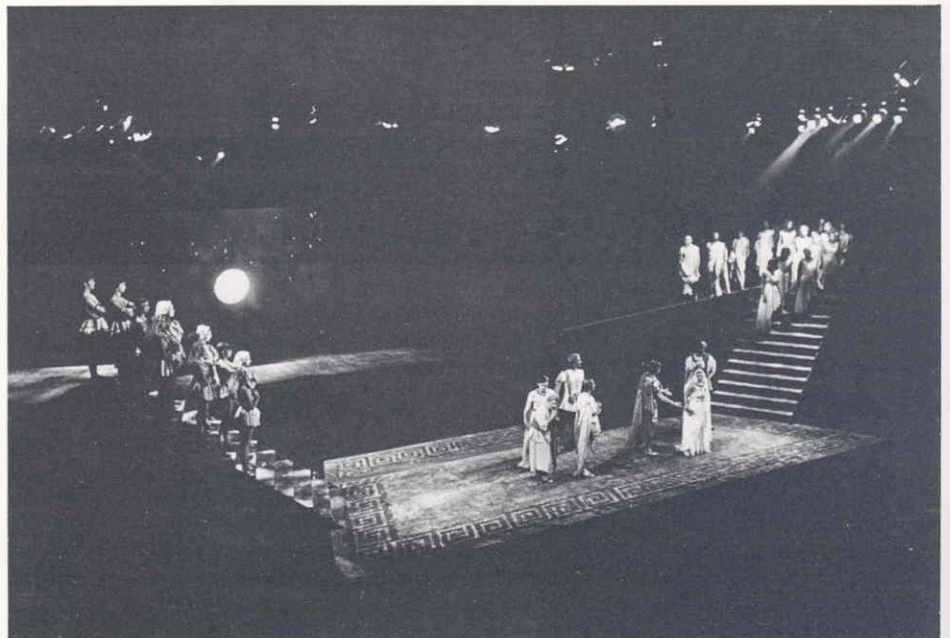
He kept the brief very simple. There was to be a backlit battle, some ships and a river, plenty of gobos, a moon and stars and a hell

scene and a storm for good measure. Just about every basic effect in the catalogue and I used all of them with glee.

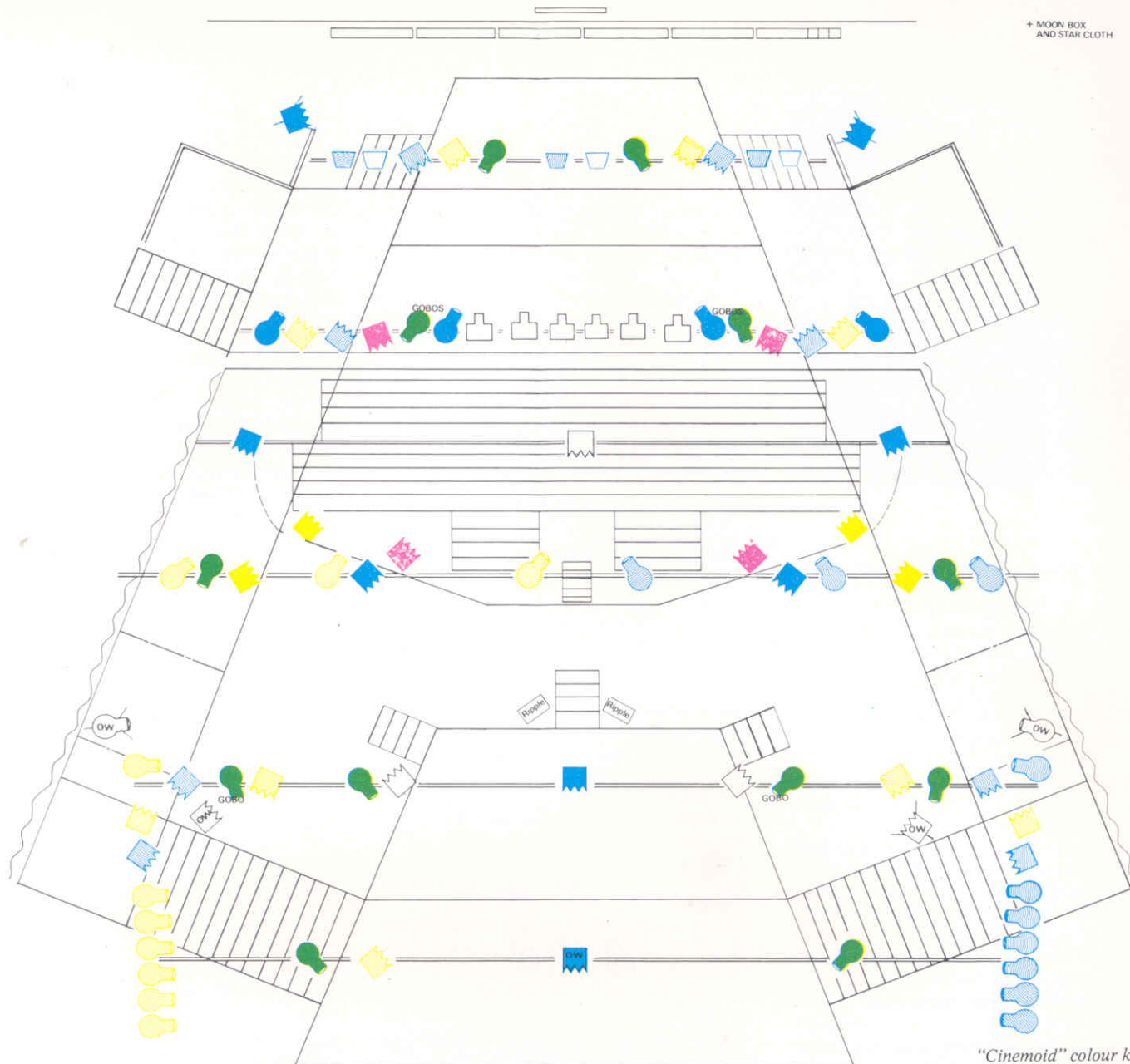
At first the sheer size was daunting but the methodical one-spot-at-a-time planning soon cut the area down to size. Lighting was easier than I thought—simply because all



The London Opera Centre as used for rehearsals. One opera set on the auditorium floor and another behind the proscenium.



Alceste. (Photographs Reg Wilson)



"Cinemoid" colour key

Blue	.....	19, 32 or 61
Pale blue	.....	17, 40 or 67
Red	.....	6
Yellow	.....	47 or 58
Pale yellow	.....	3 or 51
Green	.....	38
White	.....	42 or no filter



Alceste lighting layout.

the spots were in view and so easier to check. The real problem was rigging and setting in the auditorium itself where each of the five winched bars at 36 ft out necessitated the erection and dismantling of the tallescope each time to cope with the varying levels below. The rigging and operating were faultlessly carried out by two stage management students, whilst their five contemporaries either constructed the set or ran the show under the ever-organised eye of their production manager David Gauld.

For me the real pleasure in this production was not successfully creating some magical moments in a vast cavern, but in achieving a rapport with the designer. David understood my problems and did not attempt to dismiss them as many designers do as "typical electrics bloodymindedness".

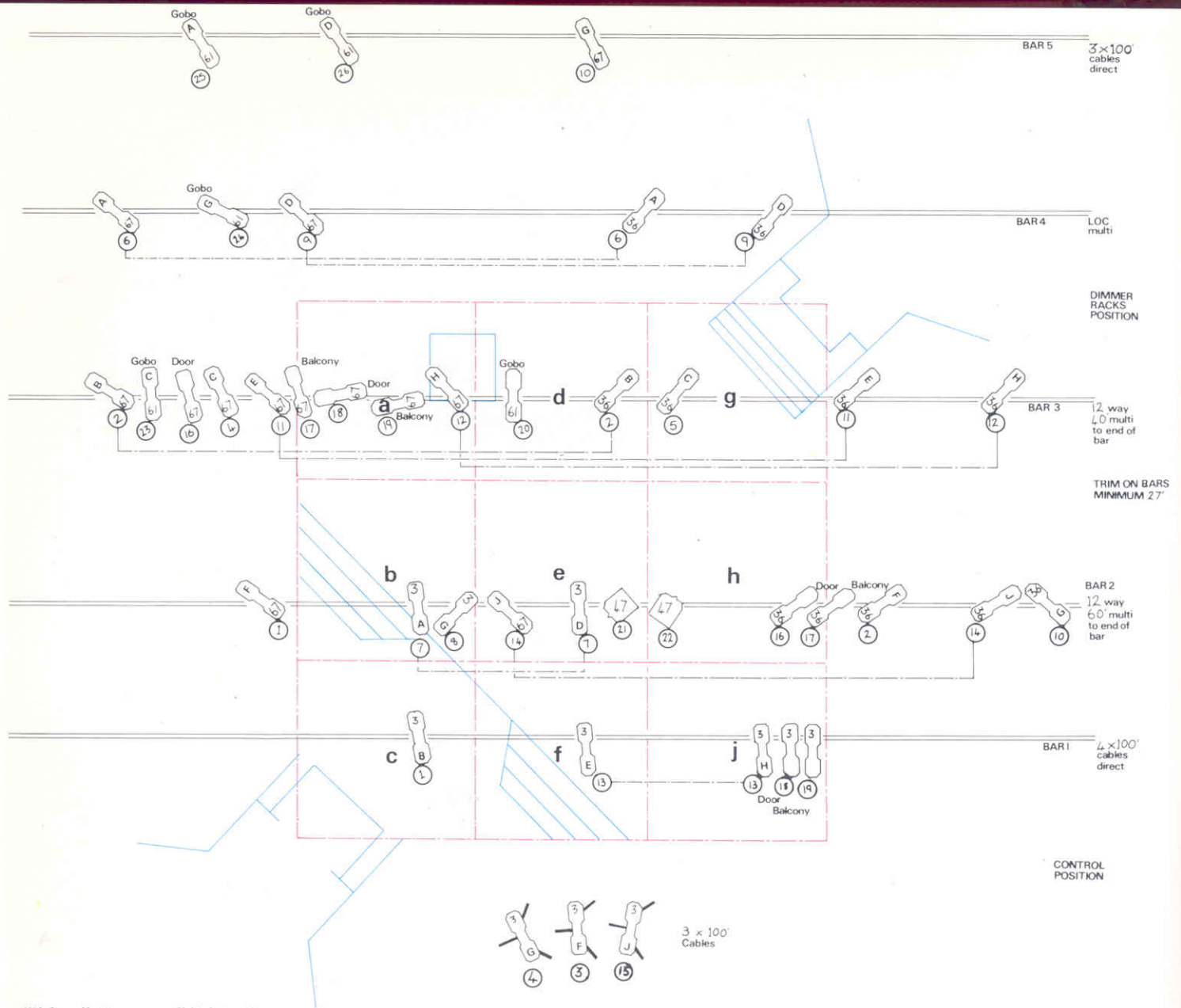
Moreover, he communicated his designs without making them holy writ.

The following year's production was a complete contrast since director Charles Hamilton chose to do "Il fratello innamorato" in the round, somewhat of a first for opera and certainly a first for me. The acting area was still quite large at 40 ft square with the audience on all four sides. Entrances were made from two house pieces set on the diagonal by Tim Reed—the other two corners being occupied with orchestra and lighting control.

At first I tried the conventional four spots per module formula—with 8 ft square as a module, but allowing for 20 specials on the houses etc. that made 120 spots in all and my hire budget only came to one-third of that total. So there was nothing for it but to

increase the module size—eventually to a ridiculous 13 ft square—and decrease the number of spots on each to three at 120° apart. This actually worked well because each area received either front fill and threequarter backlight or frontlight and centre backlight.

The choice of lantern was less successful. I wanted a small lens to cut down audience glare but still needed a lot of light on those vast 13 ft square modules. So I reserved 764's but eventually they were unobtainable and I accepted with pleasure some Leko's except their pairing made a mess of my trio circuitry. However, on the day these, too, were unavailable and we eventually settled for 264w's with T/H lamps, not bad but the worst of the three choices. Fortunately four 743's were found to provide some of the



"Il fratello innamorato" lighting layout.

missing punch during daylight scenes.

Colour was another compromise: how to achieve hot sun and moonlight from the same lanterns which were out of colour changing—reach both physically and economically? The answer was to key all from one direction in three straw—and hardly use at night—all from another in 67 blue used quite high at night—and the last third in 36

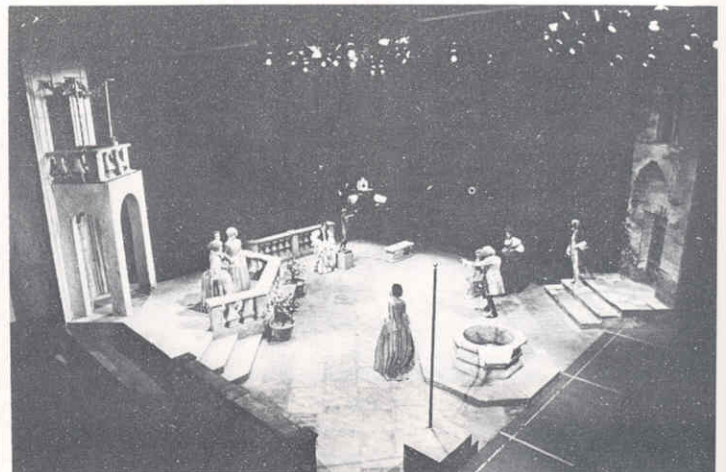
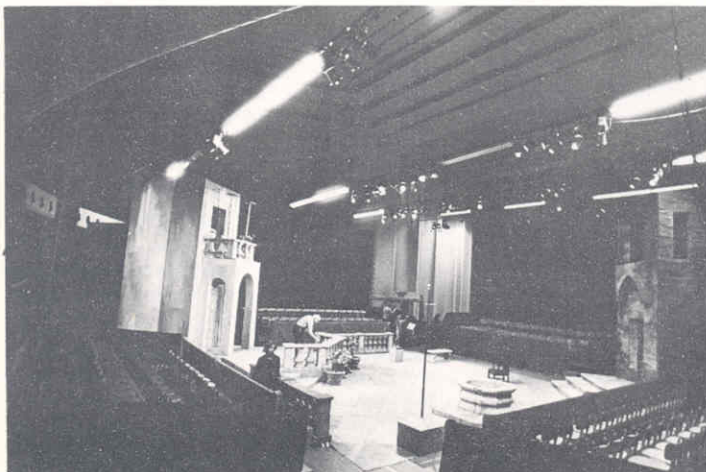
which blended with both. Thus each character not only received good rim and fill light but also good directional colour balance. The moonlight scenes were keyed in with a spread of five gobos with singers actually trained to stand in the correct pools.

On reflection I would have sacrificed the cost of several control ways, in view of the straightforward cues, to more lanterns which

might have provided the crispness it really needed.

The London Opera Centre is closing. I, for one, shall miss it. Selfishly it has stretched my lighting physically, and economically—and most important—I enjoyed every second of it. Those taxi drivers will miss it, too.

"Il fratello" (left) under working lights and (right) under performance lights.



The Jersey Stage

FRANCIS REID

The theatre has never aroused much enthusiasm in Jersey announces one of the better guide books to the Island. Not an encouraging omen for the contemporary *theatric tourist*—but more encouraging than most of the published literature which fails to mention theatre at all. Yet summer visitors to Jersey will find themselves propositioned by theatrical posters wherever they set their gaze.

Theatrical activity got under way in Jersey in the eighteenth century in adapted premises and during the nineteenth century a sequence of three Theatres Royal were duly consumed by fire in accordance with the international custom of that century. A guide book for 1896 informs the traveller that the last of these “in outward appearance is far from prepossessing but it is beautifully fitted up within and it is usually occupied by good companies”.

The present St. Helier *Opera House* was opened in 1900 with a performance by the Island's most famous thespian daughter, Lillie Langtry (known as “Jersey Lilly” from the Millais painting). An impressively calligraphed list of “memorable events” in the Jersey Museum records this opening and the 1904 Shakespeare season by the Bensons. But of events after 1905, when “Mrs. Charles Sugden appeared in three absolutely distinct characters in one evening”, the list is silent. In fact the Opera House, doubling as concert hall as well as theatre, has staged appearances by many of the greats of the twentieth century.

There was a cinema period and influences of early Odeon are evident in most of the remodelled plaster work, although the circle fronts appear to be genuine 1900. With backstage stonework probably dating from earlier theatres on the site, a curved circle

but straight gallery, and some unorthodox box configurations, the Opera House is a theatre archaeologist's delight—and challenge. (Incidentally, at the other end of the town the street nameplate for Regent Road bears the alternative “Ruelle de la Comedie”: now that must surely be the starting point for a theatre history trail!)



The Opera House recently had her proscenium arch widened by 8 ft, a new lighting control room (SP 80) installed, and the whole theatre generally refurbished and decorated. It is an intimate theatre—more intimate than its 734 seats would suggest and this is probably because the circles do not have excessive overhang. Des O'Connor used this intimacy to the full and there is no greater pleasure in a theatre than when a star grabs his audience by their vitals and orchestrates their pleasure with relaxed yet professionally calculated precision.

The other Jersey stages are much newer: both in years and in physical form. Recent times have seen much philosophising by theatrical pundits on the subject of thrusting the stage through the proscenium towards the audience. What the learned treatises on the subject usually overlook is that the thrust stage is well established as the standard for entertainment “rooms” where the show is



played to an audience who are not just seated but tabled too.

Light Entertainers depend on audience contact and that means getting out among them. To compete with chicken in the basket, a comedian has to get close to the eater—although a sip of gin and tonic can add to audience appreciation of the female dancing form. An appreciation enhanced by a staging form that brings the performer close to the audience and stresses the third dimension.

There are several entertainment rooms sited around Jersey Island and the plushiest is *Caesar's Palace* at the picturesque Greve De Lecq bay. The dance floor is an elevator which rises to become a thrust stage. Also motorised is a bandwagon which can travel through the proscenium on to the thrust and, although there is no flying space, finale treads are motorised to hinge down ingeniously from above the stage. A four-sided lighting rig provides colour from Patt 23s and 123s with bash from T-Spots—a full load for the 24-way Mini 2 and Discoplus.

With sightlines limiting scenery, the open stage is dependent for its visual effects on lighting and costumes. There is no nudity in Jersey shows: the *Caesar's Palace* dancers are dressed with an expensive minimum which is much more erotic than if they were dressed at minimum expense. In the television age, going on holiday means seeing television names in a live show: Billy Dainty could do no wrong in the eyes of his audience and his visuals, such as funny walks and slow motion tennis, gained enormously from the thrust stage.

While *Caesar's Palace* aims for a touch of elegance in its presentation, *Swanson's Music Hall* looks for its atmosphere to the earlier days of Variety with “hissing, booing, and cheering at the discretion of the Chairman” and a lady billed as “foot juggler extraordinary”. And indeed, the juggling that she did with her feet was rather extraordinary. After all, in the world of the music hall, there is nothing quite as ordinary as juggling with mere hands. However, an ambidextrous theatre technologist contrives to work lighting board, sound mixer and



Caesar's Palace.

follow spot. As the board is an early Strand Saturable Reactor, this is no mean feat. Or do I mean feet? Either way it falls just a very little short of foot juggling.

Jersey's Mr. Entertainment is Dick Ray, a wearer of many hats including that of Producer of the shows mentioned above. Another of his hats is that of Mr. Jersey Rank Strand Electric and so there is nothing skimped about the lighting rigs for the shows. Nor indeed anywhere else in Jersey: it really is quite difficult to sit down for a meal or a drink anywhere on the island without noticing a pattern something or other—but spotlights only, for Dick Ray is too dedicated a reader of TABS to settle for the uncontrollable light of floods.

Bonaparte's Disco in Fort Regent is entirely, yes entirely, lit by Pattern 105 Minispots.

Fort Regent is Jersey's newest entertainment centre: a vast leisure complex adapted from the shell of the nineteenth century fort built on the heights overlooking St. Helier town and harbour. You can eat and drink in many styles; you can swim, skate, dance or disco; you can shop, play giant chess, or visit exhibitions on themes as diverse as dolls, fish, Henry VIII, or postal history. Or you can watch the continuous live entertainment which includes a Wild West Show in two versions to suit the change of audience age between matinee and evening performances. All this under cover from the rain which falls on holiday from time to time, even in Jersey. Outside the roofed area there are gardens, aviaries and all the fun of the fair. A further area has been roofed over (something of an engineering feat) and its outfitting will include sports facilities and a stage facing extensive retractable seating. Fort Regent makes extensive use of theatrical lighting equipment and getting to the complex has an air of theatrical anticipation—travel is by gaily coloured cable car.



But the Jersey stage is not just professional summer shows: there is a thriving amateur and educational theatre. Victoria College, in particular, has a strong dramatic tradition and their new Howard Davis Theatre is nearing completion. This is an imaginative adaptation of an existing hall—and do most successful small modern theatres not arise from imaginative adaptations of existing halls rather than from blank-sheeted drawing boards? There is a simple end stage and an existing upper recessed level has been incorporated in such a way that it can be used for productions that demand it, but will not be obtrusive in



Inside Fort Regent.

productions that do not. The lighting, controlled by a 30-way Mini 2 plus, consists of the right lanterns in the right positions. And it is not always that TABS can report that! But then any establishment that already has a theatre studio as well

proportioned and equipped and welcoming as Victoria College's Mummery obviously knows what it is doing.

As does the Jersey theatre scene as a whole—the proof of the entertainment is in the fullness of the houses.



Wunderbar lads! Und von more time!

Organo ad Libitum or Prometheus not yet unbound

FREDERICK BENTHAM

Inspiring words which frequently appeared in the Organ Concertos Handel composed to loose the organist from his continuo role. What has "organ ad lib" to do with lighting you may ask—though you won't if you know my work! Way back in Wartime December 1940 Robert Nesbitt could have been heard calling over the rehearsal system at the London Palladium: "Mr. Bentham (very polite we were then), I want you to do something here"—or words to that effect. He could have said, "Switchboard ad lib", but as I was seated at my Light Console at the right-hand end of the Grand Circle, "Organ ad lib" would not have been all that way out on our lighting plot.

After the show had opened and Nesbitt was away producing his innumerable pantomimes the great George Black himself came up to me during a matinee—which wasn't difficult since there was one every day and three houses on Wednesdays, Thursdays and Saturdays. He said that the finale needed livening up and would I do something with the lights. This in spite of the entire cast including Tommy Trinder, Bebe Daniels and Ben Lyon, chorus, showgirls and other acts crowded on the stage, which counter-revolved around the lift which came up in the centre. In other words all the machinery in action in the manner that was to become, years later, so familiar every Sunday night on the television. Nothing simpler—by setting four pistons to take the acting area floods (Patt 56s) as four diagonal lines of light and flashing to blackout it was possible by the evening show to turn the light round and round in rhythm to the music for the finale chorus. Fun to do? Of course it was: and the importance of fun for the switchboard operator is part of what this article is about.

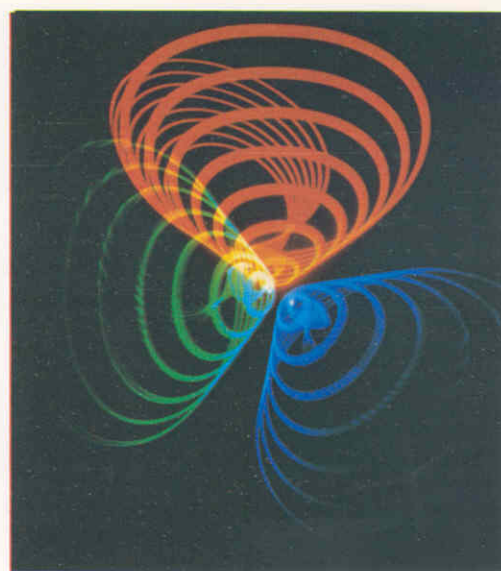
In those far-off days my Light Console at the Palladium was probably the only lighting control that represented any real temptation to rebel against the thralldom of the average lighting plot. There under the fingers was the power to paint the stage with light before one's very eyes. Other switchboards were backstage, normally on a perch behind a false pros. on the extreme side or even buried beneath the stage thereby denying the operators anything of the show except bumps overhead. Note "operators" in the plural. Two were usual on the house board but on a heavy show with portables six or more could be common. To sit out front either among the orchestra as in the Lisbon Opera house or among the audience as at the Palladium, not to be shut away from the light was heady stuff—let alone the other powers known to be lying there to be unlocked from the keys by agile fingers. Was this not the instrument upon which lighting to *Bugle Call Rag* or *Twelfth Street Rag* had been played as early as 1935. In the case of the Palladium it certainly was:

because that particular Light Console had been rescued from under the ruins of the bombed Strand Electric theatre.

However, I do not want this article to become a tale of the past but rather a provocation for the present. So let us glance around and we find three shows for solo laser, of all things, advertised in London alone, and an accolade for a lighting operator from Bernard Levin. This last arose from a play by Tom Stoppard with full symphony orchestra under Andre Previn (who else!) staged for one night only at the Royal Festival Hall. Levin in the *Sunday Times* said: "The Festival Hall is no place for a play. Yet Mr. Nunn and his cast... needed no allowances; the devilishly complicated lighting-plot and constant switching between three acting areas worked with apparent effortless smoothness." A tribute to the MMS control and its operator.

We have become accustomed to seeing the name of the lighting designer writ large among the credits these days but it is high time that the executant who nightly brings his elaborate plot to life had *his* name on the programme. Some readers will feel that this is nonsense, especially today, when everything is recorded on some memory control or other. This is to ignore that quality, rightly prized on the stage—timing. It matters not whether the cue is to take a count of 5 or 6—be it seconds or minutes—the operator will have to ensure that it makes its presence felt and concludes in exact conformity with the spirit of the action, or of the words or music, that night. He or she is accompanying a live show. Even where, as in Lightboard, the speed of the lighting change can be memorised; it will be the manual override nevertheless which *makes* the cue theatrically. Full automation only belongs to that other world of the laser and the synthesizer. The world of an icy precision which at the moment is unaware of what it is being precise about.

London has had four major doses of lasers as the whole show and nothing but the show in the past 8 months. First, *Light Fantastic* at Burlington House and now at this moment *Laserium* at the Planetarium, *Lovelight* at the Metropole Cinema, Victoria and *Laserlight Circus* at the New London in Drury Lane. The first was mainly holograms—3D pictures—of Post Office telephones, water taps and other stationary objects on modest-sized sheets of glass around a large dark room. There was an interlude from time to time of laser/music using the actual beams of the lasers across the room from picture rail height. Something of the same sort sans music went on in the courtyard outside each night. It is this show, more or less, which has turned up as 1977's fourth London entrant. It has an appearance of being re-assembled in rather a hurry not to lose out on the laser novelty bandwagon.

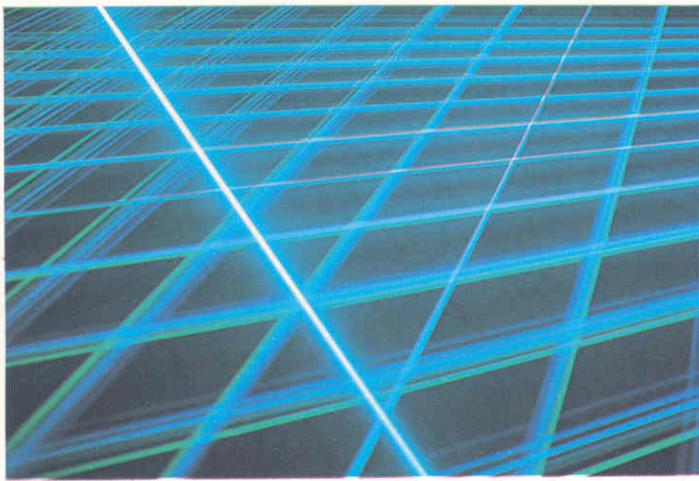


Drawn by Laser "pencil"—a pattern from *Laserium* at the London Planetarium 1977.

Personally I think that given more time the technique used here (as it happens by the only British team of the three) is more likely to produce a show with laser significance artistically. This is because they appear far more interested in the beams of light than what happens at the ends of them. The other two display teams rely upon moving pictures drawn out by the end of the laser beam at the point where it impinges on some sort of screen. In this latter form had the audience not been primed in advance that lasers were at work they would assume that they were looking at some kind of abstract, or in some parts of the Metropole show—of cartoon, film.

This prompts the question: without the magic word would they pay £1.25 for an hour of show at the Planetarium, £1 at the Metropole for 75 minutes plus a few holograms or £1.50 for, say, 30 minutes of show and some rather more interesting holograms at the New London theatre? One of these latter is of the more exciting and more complicated type to make in which the image, in this case a dagger, comes out in front of the glass instead of behind as in a mirror. There are nowhere near as many holograms in this *Laser Circus* as there were in *Light Fantastic* earlier at Burlington House. But in any case holograms and the 3-D effect which results did not and do not form any part of the 'music'/laser shows.

Let us consider the instrument on which the shows at the Planetarium and Metropole are based. It starts with the very intense virtually parallel beam emitted by, say, a 2-watt krypton-argon laser. The colours are produced prismatically and even granting that the source represents an extraordinary efficient conversion of energy into light, it is obvious that 2 watts is not going to produce much light when spread around something as large as the 67 ft diameter sky dome cyclorama of the Planetarium. The beam is only intense in its unmodulated state but as such it is a ray of light ending in a very bright dot. This gets us nowhere but by diverting this dot and taking into account the persistence of vision of the human eye, it can



Laser beams in action in Laser Circus at the New London Theatre 1977.

be used as a light pen. Curiously, the beam is moved about *mechanically* by a very old device—a pair of oscilloscope mirrors. Something which preceded the cathode-ray oscilloscope by many a year. Using the pair as x and y the dot is moved horizontally and vertically to trace out the circles, loops, whirls and waves that adjustable time bases can initiate.

This is brash stuff which the laser pours out all too easily and even under the direction of an artist it would have as much soul as a machine-woven carpet or a dose of synthesizer tone. These effects soon pall even where as in the present case there are four (I think) pairs of oscilloscope mirrors to play with. There is another kind of effect—more delicate—which I tend to classify as “Aurora Borealis” which resembles gauze drifting about in coloured light. Some effects obviously rely on breaking-up glasses being placed in the beam. Once one gets away from outline drawing the intensity drops. This is a great drawback because at times of musical climax one tends to want good solid chunks of bright colour or pattern to spread over the whole field—a direct equivalent of full organ or orchestra.

Lovelight at the Metropole brings in another technique which is either not used or at any rate not obvious in the *Laserium* show. For this, to quote the free programme: “One has first to start at the drawing board. The drawings are then translated into electronic signals via a graphic computer system, which records the signals onto magnetic tape, and which are then mixed and synchronised with the original music soundtrack for automatic playback. It is these stored electronic signals on the magnetic tape which drives the mirrors to direct the laser beam onto the projection area in such a way as to describe the images for all to see.”

Unfortunately, the drawings made on the drawing board in the first place appear to have been poor. Indeed, as artist’s drawings, the human figures and animals are downright bad—even a sketch of a flying saucer was without character. Line drawing in outline without any hatching as shadow requires real talent. I cannot help thinking that if the display had been projected on the

normal cinema screen instead of on a great circular disc semi-overhead, the show would have been judged by the standards of an average cartoon film and failed utterly to come up to them. There was no continuity of character or shape in the vague attempts at a story. One scrawl followed another, all was change—the general impression was of snippets of this and that slung together by engineers in a laser coma. It was called a “musical”, but one simply could not imagine that anyone ever sat down and wrote it. Yet there was 2/3rds of a page of American credits and they really *do* know how to do musicals over there.

I was accompanied at this show by a recent graduate of one of our technical universities who is an amateur theatre enthusiast, and he was glad to have seen it so that in years to come he would know how bad these shows used to be! On the other hand on the way out at *Laserium* I overheard someone of the same age, say: “I must get Mum to come”.

To sum up; in these two shows the audience is asked to look at a series of moving projections for some of which the laser is particularly suitable and for others a theatre effects projector or a cinema projector would be more suitable. Once we need to leave lines and hatching for more solid colour whether in pools or all-over, the laser equipment would have to be forsaken for orthodox stage lighting equipment. Indeed, the normal Planetarium horizon floodlighting is used there but only as a sort of “house tabs” at the beginning and end of the show. Significant perhaps, that the equivalent of a blackout in this case is to put the lights up! Incidentally, the resident Zeiss projector is called upon to add stars from time to time. To me the dim outline of this great projector as it lifted itself up and swivelled around was the most dramatic part of the show.

For the fourth show the auditorium of the New London theatre is used. Or rather it isn’t; for one stands in a circular flat-floored space entirely walled-off by a cyclorama. A very good cyc it is too, showing no joins whatever. All that can be seen of the theatre is part of its peculiar adjustable ceiling overhead and this is obstructed in the centre by two revolving mirror-edged boxes. Six

lasers project their beams high up well clear of the audience. The standing area is bounded by a parapet just clear enough of the cyc to allow space for stage ground-rows and some profile spots. The ground-rows flood the cyc to indicate that your slice of continuous performance has come to an end. The spots are lit in rather a desultory way from time to time to project light across the feet of the audience. Smoke is also introduced occasionally from down there. The pencil beams, mainly green in colour, move portentously around singly or severally—either pencil sharp or as a multiple fan. What happens on the cyclorama really contributes little.

It is my opinion that a cyclorama of black drapes would often be more effective therefore and certainly provision should be made for turning the cyclorama black during the show either by drawing drapes across or pivoting it in vertical sections—*Chorus Line* fashion. The periaktoi approach could provide a third cyc, of plastic mirrors perhaps. Even more important, the laser beams must be able to take a greater variety of angle. Variations on a more or less horizontal theme are not sufficient. I missed the descending ceiling effect of *Light Fantastic* and one should cage the audience within a surround of vertical rods of light. Such things do not demand further technological development of the laser but rather much greater artistic creativity.

There is also the problem which caused the *Evening Standard* to write a lot of stupid nonsense under “The Greater London Killjoy troupe have struck again”. One trouble is that the laser beam could perhaps be dangerous if *directly* intercepted by the eyes of the audience. As strobe-light, once used with abandon, is now known to have bad effects on some at certain frequencies I do not think we can blame authority for caution. Nor are the panic associations of smoke likely to make it a welcome audience additive: yet this is such stuff as beams are made on.

In the early thirties people used to queue to see the flickering orange bus-ticket sized head and shoulder pictures of Baird 45-line television. Now with a continuous variety of costly productions in full colour in their very own homes it is often a case of a yawn and

"nothing on the box tonight". What is the kind of message we who play around with solo lighting of one kind and another can hope to get across and with it regularly entertain and stimulate?

I seldom get an excuse to talk about my theories of Colour Music—my lifetime sideline—so here, for once, goes. Quite apart from the nature of the display itself I have always held (and this for 50 years now!) that *there is no direct relationship between the music we hear and what we may expect to see*. Or as Thomas E. Minter of the University of Iowa has put it:

"If there can be one conclusion drawn from most of the artistic attempts at correlation of audible and visual information, it is that effective and natural co-ordination is difficult to achieve."*

I myself cannot find any direct relationship whether we are considering the keyboards with their coloured octaves as predetermined by Remington, Klein and others in the past or some arbitrary direct electronic linkage of today. For example:

"... routing two sets of signal information or two similar components of the same information (e.g. left and right stereo channels of recorded music) to the vertical and horizontal inputs of a cathode-ray tube."*

Why should this give the slightest impression of the music? Or for that matter the linking of the three primary colours so that one looks after the treble, one the middle and the other the bass? All we get visually from such linkages is what the machine or computer, using the parameters programmed into it, makes of the sounds going on at the time. It is *sounds* not music that the machine is "listening to".

A much better start is a remark of Appia's when he was designing scenery for Wagner's *Siegfried*: "It is not necessary to represent a forest; what one must give the spectator is not a forest but a man in the atmosphere of a forest." What therefore my audiences used to get was a visual impression of the emotion the music created in me. This involved planning and rehearsal in advance but what came out at each performance was the result of the coming together with a particular audience—it was a *live* show, for all the technology that might be employed. Although I enjoyed playing my "pieces" so much that I would not have wanted them repeated by some form of automation I can allow, of course, that this could be a way of creating a suitable visual interpretation in the hands of an artist. The resources he might want to deploy could perhaps only be handled by assembling a matrix of visual effects triggered or "played" by tape to correspond to something like the electronic audio essays of a Stockhausen or a Mike Oldfield.

This automation is not for me and it would in any case run counter to the serious lighting purpose behind the "organo ad libitum" idea. In the present context therefore I assume the presence of a man at

the switchboard and this switchboard might be anything from a Mini-2 upward. Incidentally, I played my variations (see photos on right) to the Tchaikovsky 4th quite happily three years ago on one of these although it was originally conceived for, and played to an audience on, my Light Console. (On June 15th 1935 as a matter of fact.)

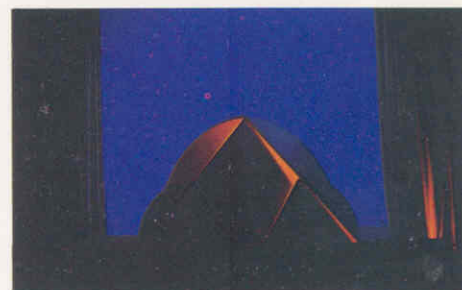
It would be a great pity if this art of light used solo got tied up with lasers. There is much more full-blooded emotion to be unleashed from a modern stage lighting installation than from the chill precision of the laser's probing finger. Of course, if there happens to be a laser projector around and there is a particular composition, or moment in one, which suits it then use it. But don't force everything onto the laser. Survey the forces, maybe even the humble batten will be more appropriate—it certainly will, if it is a wash of light we are after. Think what might be done, with what and to which piece of music or audio essay.

The visual images which result may evoke a forest, a cathedral or just a mood but the vital thing is not so much the images, patterns or colours, but the rate of change and the relative intensity of one with another. Colour Music is essentially *the art of lighting change*. It is the dimmers—not the light sources—that hold the real key. Because the audience can be allowed to become dark-adapted we do not necessarily need much light. In a crescendo it is not the brightness we have to end up with that is important but the lack of it when we begin. This is something quite impossible in normal theatre work where the stage is always mined somewhere or other with actors, singers or dancers demanding to be illuminated. Because of them a whole range of effects obtainable from a modern stage lighting installation can *never* be used.

Just as Colour Music has been a misnomer so too would the more modern expression "Light Show" be inappropriate. What our show really is (or at any rate mine were) is a Dark Show or Dark Music! An essay in degrees of darkness and an exploration of the world of half-light. The eye is teased and tormented. What are we really looking at? Is that effect, just glimpsed, going to return for a better look and when? No wonder when the light does really *come*, we come with it. The return of a visual image is most important. As the cloud-capp'd towers, the gorgeous palaces, the solemn temples, the great globe itself and the rest of the unsubstantial pageant fades and is transformed one must wish to see some of it, like motifs in music, return and develop before our revels are ended in the twinkling of an eye or like autumn sunsets exquisitely dying.

These things are not for theatre and yet they are: because most stage lighting installations could be and indeed *must be* used this way occasionally for the good of the operator's soul. It is bad for morale not to allow him or her to unleash the forces locked up in a modern control and lighting installation. To condemn an operator to a life of punching the crossfade button is to ensure that his motivation either becomes the pay packet on Friday or he goes berserk one dark night and rapes the show from end to end with lighting.

What can the Lightboards at the National really do when an operator is let loose to play them all-out? Overwhelm the play and players that is certain. So why not give them a chance of a spot to themselves occasionally and replace some of those pre-show recitals and poetry readings in the Lyttelton with renderings of light music—from neither Palm Court nor Laser.



Stage lighting variations on a 3-D set designed for colour music 1935-1976.

* Kinetic images from sound. Wireless World, July 1977.

Give me a grandmaster and battens any day

MERVYN GOULD

For the past few months I have not been directly concerned with either the mechanics or the process of lighting "the show" or "the stage"—the latter seems to be taken literally by some tyros straight from drama school. Their overlapping circles pencilled on the ground plan light the stage floor beautifully, but take no account of what is going on 5½ feet above stage level.

The fact that I have not been directly involved in this—save for one lighting rig "somewhere in the fens"—means that for about the first time in my rather chequered career I have been an outsider looking in to the measured movements and arcane mysteries of the resident electrical staffs. In addition, having been touring virtually continuously, I have had several interesting moments when the aforementioned electricians have tried to fob me off with some peculiar reasons why they, their equipment or their board, could not possibly do the things I hoped.

Not that I must appear guiltless in this. As a former resident myself, I must admit that sheer negligence and simple obstruction were certainly in my armoury of devices against visiting no-goods and puffed-up freelancers on expenses. So I suppose it's poetic justice that I have, in turn, received the treatment. What disturbs me, though, is that it tends to fall into two categories: the culpable or accidental obstruction, and the far more worrying and time-wasting variety, which is the obstruction caused through ignorance.

In my last outpourings in these pages ("Get it in, Get it up, Get it on"), I bemoaned the lack of a certain attitude towards the show. Perhaps I was wrong. The right attitude towards getting a show on is often there, coupled with enthusiasm, but the knowledge is not. Or, a little knowledge, but not quite enough.

To give an example. A young "Technical Assistant" (and don't ask me for a job description of that title, as I haven't a clue) on the board for a Sunday Concert got an instruction from me over the cans to go down to reds and ambers on cue for the next number. (Incidentally, a much more difficult operation on a SP, CD, or similar modern board than on a grandmaster.) Before I could give the cue he had faded down. When I asked what the * * * he thought he was doing, he said that he liked to get down to the cue state by the beginning of the song. Very laudable, I told him, but I was doing instant lighting design while running the corner; and if he didn't know the conventions of Variety style lighting, he should learn them before trying to improve on them. Also, I said, a 20-second fade down to reds and ambers whilst the Artiste was talking might look artistically right to the operator, but I felt that it had considerably lessened my chances of getting a drink from the Artiste concerned, who

would of course blame me. Anyway, readers in the know will be able to reconstruct the general terms of my monologue. Incidentally, I was later proved right about the lack of a drink.

Another little moment of joy with the electrician was when I found an attempt at a back-lighting bar being rigged during a Monday fit-up for "The Chiltern Hundreds". Had this bar been requested, I asked. Oh no, was the answer, but he thought it would look nice. So did I, except that four Pattern 76s would look odd in a drawing room set as there was no space to fly them out, and if I put in a border to mask them they couldn't light anything. Moreover, he had not yet rigged Bar I or the flood bar that *had* been asked for. And the show was opening that night.

What was "Fuff", I was once asked as I downed a lunchtime pint after a heavy fit-up. After two or three sentences that seemed to be getting nowhere, the board operator departed to fetch the lighting plot I had given him (written on the back of a box-office card, naturally), having first refilled my pint before he left—I do so admire these young people willing to learn from their elders. I explained to him what a Full Up Finish was, and why they were scattered through the plot: and although I didn't mind in the least, it did occur to me to wonder why and how no-one had told him before. I know there is no longer a Variety Circuit, but there are still enough shows going the rounds that use a similar type of lighting and the language to go with it, apart from the Olde Tyme shows and one night stands.

Those of us who go around getting the shows on have to face the fact that most of the provincial theatres have staffs that are getting younger. Even five years ago you could get a crew that had, in the main, been together for 10 years or so. Now, even in some Number Ones, it's more likely to be a bunch of teenagers or whoever can be enticed from the dole queue. Alternatively, you take a show into a non-touring house only to hear ad nauseam the phrases: "We never do that here" (of masking); or "We don't do it that way here" (tab dressing); "We've only got a few/none at all of them" (pin-hinges and screw-eyes). "Why no screw eyes?" you ask, foolishly. "We never . . ." Well, you get the picture. These kind of answers always come from the guys who are newest in the business or have never worked any other date. Ignorance is understandable, but why such biased ignorance?

At the other extreme from the 17-year-old showman at a Number One who is doing something quite vital for your tour of, say, Chu Chin Chow, is your lissom young thing straight from Drama School who really wants to act, my dear, but some sordid financial necessity has forced him/her to accept an offer to tour as ASM/Wardrobe,

probably as a quick way of getting an Equity card. "Of course, it's the understudying I'm *really* interested in, darling, and naturally with this bloody wardrobe to sort out at each date, I simply cannot be available on Mondays during the fit-up. Anyway, at my drama school they said that in modern theatre, productions should always run for at least three weeks with a full production weekend before. I don't know how people can *do* tours like this."

After you have listened to that kind of thing; done most of the get-in and fit-up single handed because it's faster that way; sorted out the dressing rooms ("No, I'm sorry we have a company of 21 plus two musicians, so three dressing rooms will not do . . . what about getting the House Manager to move out of the four dressing rooms he's made into a flat"); found the Publicity Manager (who's also in charge of Bars and Catering, so make a friend of him) to find out why there are no posters for your show up in the town, and the foh displays are still for the previous week; just as you are about to go up the Tallescope to focus (the electrician has to operate the board for insurance reasons and the ASM can't focus because he's doing the washing); just then there is likely to be a phone call from your management to tell you that the company coach has broken down, heaven knows when it will arrive, and because the cast are furious at the delay and have been on to Equity about payment of extra travelling time, will you please dismiss the casual staff at 1 p.m. to save going into overtime.

One hazard not often mentioned, but quite often encountered, is that of going to a date which is well equipped according to the reference books, or one's friends, but which is curiously bare when your show arrives. Eventually you find, after a strange muttered conversation, either that the manager with an eye towards saving on the electricity bill, has loaned all the lanterns to a local school production; or, more likely, that the Chief has hired everything out to last week's show. In that instance, all you can do is talk loftily about going back to basics, and how you will light the show in a stylised way this week, reflecting inwardly all the time that a shorter focussing session means more time in the pub.

Of course, in this business you live as much by how you get on with people as what you know or do. Once you are on good terms with the Company Stage Management or Resident Staff as the case may be, most of your problems are solved before they arise. The touring grapevine is so efficient that, returning to a date you have worked before, the staff are ready to fall on your neck and extract the maximum amount of booze from you, not to mention warn of staff changes in the theatres next on your tour list.

Notwithstanding all this camaraderie,

sometimes the fit-up is brought to a standstill by circumstances outside your control. Hands up those of you who can tell me at which tour date I was, ready to start focussing at 11.45 one Monday morning, when the electrician mournfully told me that there was no power to the production

lighting. There was a time switch which fed the board during off-peak hours only!

Now if that circumstance, ladies and gentlemen, is not the best cue you have ever heard for an urgent and immediate technical discussion at the nearest hostelry . . . ?

Some Came Running

REG BARTRAM

England is very public minded when it comes to "loos". If you doubt that statement, go travelling elsewhere. Perhaps it has something to do with the amount of beer consumed in England but there are "loos" aplenty, for free and generally clean. Northern Europe cannot compare, although passable in this department, but in France and the Latin countries it becomes a real battle with victory only achieved at times through sheer cheekiness, prompted by desperation. Furthermore, when you are lucky enough to chance on some well hidden "loo", you have to pay—not much, but if you're short of small change the female custodians rarely offer a refund. I remember one place at Avignon where you are quoted three rates; so many francs to stand, so many to sit and so many to wash your hands and the old crone stalked you to see if you were doing the right thing at the right rate. Very off-putting for an Anglo Saxon!

However, from Turkey and eastwards to Katmandu, the problem is aggravated on two counts—firstly, the strange food plays hell with your insides; secondly, having found a "loo", it's in such a state that only the desperate would use it. No problem at all to the locals out there, for the side of the street provides ample facilities and they find our shyness rather amusing. The one small grain of comfort is that "W.C." seems to be a printed universal sign and the spoken "Toilet?" is generally understood. Just another of those things the guide books do not mention, perhaps they are printed for the benefit of those who only leave their International type hotels for short and supervised bursts.

Circumstances seem to have channelled my interest in Archaeology to the extent of now admitting a latrine-mindedness in this field and I seem to have discovered a parallel in ancient times between England and the Continent. Walking along Hadrian's Wall I was ecstatic to find a regimental bath house and latrine, lovingly restored by an English team where you can buy a postcard showing an artist's impression of the whole thing as a going concern, including men unconcernedly going about their business. You have about the same chances of finding the remains of a latrine on archaeological sites in Italy, Greece or Turkey as you have of finding a modern one in the nearby towns. Were the people always thus, or are modern excavators being rather coy? Even stranger when you consider the regard the Romans supposedly had for plumbing. I'm not forgetting that wonderful example which can be viewed in Rome where the gentlemen sat

around on marble seats with marble armrests and continued their conversation, but try asking "Where is the women's latrine?" Scout around any ancient theatre site looking for ancient latrines, it's not much good asking questions, you mostly receive queer looks. How can you build a 16,000-seat theatre and not worry about where all those people are going to rush to during interval?

The guide at the ancient theatre site of Epidaurus insisted that we climb to the upper tiers of seats whilst she demonstrated the "perfect" acoustics. I climbed and sat and had a few minutes to contemplate the scene, to the accompaniment of the guide's hand claps and shouts, she standing in the centre of the orchestra. Behind me and around the topmost tier was an array of follow spots and fixed spots, fed by temporary leads, originating from a builder's-type shed and I wondered what mystery there was in the way of control—perhaps a row of tumbler switches? Down below, on the remains of the main stage, some rostrums and brown painted flats were occupying a miserable portion of the space available; also some sound leads snaking about and connecting covered boxes which could only mean a P.A. system. When I climbed down the guide queried me, "The acoustics were perfect, yes?" "Very good," I replied, "tell me though, why then is all this sound system for tonight's performance?" The answer to that one was the acoustics were only perfect when you spoke from the orchestra, but from back there, indicating the main stage, they were not so good and that is why the ancient Greek actors always spoke from the orchestra. Well, I suppose I asked for that. I share most theatre technician's cynicism over the study of acoustics and admit it is based on the unforgivable sin of ignorance. Exactly why were these basically simple shaped open air theatres supposedly so good—or were they? I remember reading of one which had an array of bronze urns sprinkled around and let into the stone seating of the auditorium to act as "resonators". I've lost the reference now and cannot remember which place it was nor from which period, but it seemed very clever—it also demonstrated that they must have had problems. I could not find the remains of any latrines at Epidaurus, I didn't expect to, but it was perhaps unfortunate that I had those bronze "resonators" on my mind at this time and a very mischievous thought entered my mind—and perhaps is still there.

BOOKS

PROJECTIONS by E. M. Feher.

Privately printed in Canada (enquiries to the author at 250 Davenport Road, Toronto).

This volume consists of two related works bound together. In the first part, subtitled "Towards a Theatre of Light", there is an historical survey of the "Masters of Optics" followed by the "Masters of Light"—first in painting and then in theatre. The second part covers the "History, Theory and Practice of Projections". Lots of trigonometry, lens data, equipment surveys, screen techniques, case histories and experimental projects. The first part of the book contains a lot of useful thinking and the second part is crammed with useful fact. It is not, however, an easy book to read: partly due to its being printed by duplication of a double-spaced typescript, and partly because the author's literary styles requires intense concentration from the reader. If, at first reading, you can grasp *His work communicated the fact that he absorbed the fundamental lesson. By using the multiple energies provided by modern technology, he freed the process of communication from its linearity which was imposed by necessity in verbal communication*, then this is the book for you. The passage, incidentally, is about Svoboda. Unfortunately, I have to take this kind of stuff very slowly indeed and so I have laid the book aside for the long winter evenings. But I do intend to struggle because I think that there is a lot of truth buried within the pages.

STAGE SCENERY, MACHINERY, AND LIGHTING:

A guide to Information Sources. Editor: Richard Stoddard. Published by Gale Research Co., Book Tower, Detroit, Michigan 48226.

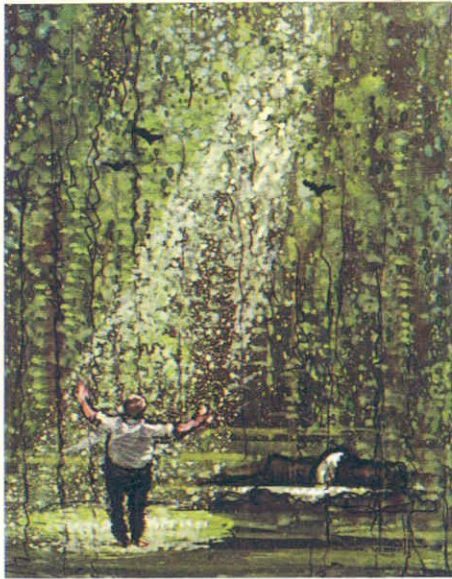
There are 1,621 entries in this bibliography, spread over three sections: (i) General References; (ii) Scenery and Stage Machinery; (iii) Stage Lighting and Projected Scenery. Each section is further subdivided and in the case of stage lighting this is into General Histories, Before 1900, 1900 to 1950, After 1950, and Manuals and Textbooks of Current Practice. There are three indices based on Author, Subject and Person. Bibliographies are not intended for systematic cover-to-cover reading—except perhaps by a handful of specialist bibliophiles. So I have dipped at random and can report: (1) the references that I would expect to find are included; (2) I found the annotations on these entries to be crisp and correct; and (3) there are many references, previously unknown to me, that I am agog to follow up. So it gets a prominent place on my book shelves.

THE COMPLETE GUIDE TO BRITAIN'S NATIONAL THEATRE
Published by Heinemann for the National Theatre.

THE NATIONAL THEATRE
Architect's Journal Vol 165 No 2
NATIONAL THEATRE SPECIAL ISSUE
Architectural Review Vol CLXI No 959

The architecture of the National Theatre has not been featured in *Tabs* because the editor felt that it would be given saturation coverage elsewhere. The lighting control was described fully in Autumn 1975 and details of the lighting installation are on the coming shortly list. No doubt, experimental features like the Olivier's flying and revolve will be discussed when the productions begin to take fuller advantage of the new technology. Meanwhile the three volumes listed above contain a lot of facts, background and opinion. The first has a touch of the sycophancy to be expected from an in-house sponsored publication, but the other two are special numbers from the respected periodicals of our architectural establishment. Additionally Fred Bentham has, of course, been active with his pen and you can take your pick of his flavours in *Sightline, Theatre Design and Technology, or Bühnentechnische Rundschau*.

Tabman's Farewell Diary



Tabman revealed

In response to continual requests from both his readers, Tabman has reluctantly agreed to stand revealed within these diary pages. The scene is a 1977 evocation of 1963: the opera is "Pelleas et Melisande" and the bats are a clue to the identity of the opera house. The painter who has caught the shape of the tabman and the characteristic cut of his trousers is Charles Bravery, the master scenic artist of our age. Charles's friends and admirers will be delighted to know that he is enjoying a Suffolk retirement—as this signature from a recent letter shows.



Romantic magic

At heart I am just an old bit of theatrical tat who knows no greater pleasure than to wallow in the spectacle of the full panoply of theatre technology working to create magic in the romantic style. So my Tabwoman and I celebrated our twenty wedded years by going to Vienna for an Einspänner followed by *Freischütz* at the Staatsoper. The Wolf's Glen was super but we would have gone just for the pit horns.

Let's all go paint the National

What a pity that the architect of the National Theatre does not like colour. It does not matter over much that the open-house and opera-house auditoria are bleakly grey: they are temples to the recent passing fancy for purity of sightline and so it is probably intentional that they do not become exciting until the houselights go out. But the black *studio*, based on the idea that an audience is rather more than the sum of its parts, just begs for some attention from the paint pots. And could it be—oh no, surely not—that audience relationships in the upper galleries have been sacrificed to a puritanism that admits only load-bearing structural members. But this performance space has looked for inspiration to an age when annual remodelling was carried out by scenic artist and master carpenter. So it is surely just a matter of time.



Olympia restored

In late 1974, when Tabman was doing a bit of lighting design in the Dublin Olympia, the proscenium arch responded in the only way that a proscenium arch can make its feeling known—by collapsing. It looked like the end of a distinguished theatre but Dublin performers and public would not accept the seemingly inevitable demolition of their 100-year-old theatre. Funds were raised and a sparkling restored Olympia lives on. With architect Seamus Byrne in our photograph is Lorcan Bourke, Managing Director of the Olympia and (we would guess) main driving force behind the restoration. In fact, *Bourke* is the Irish word for *Theatre*, and so it is

hardly surprising that there is an organisation called Bourke Strand Electric.

Living for pleasure

In this diary I have described only a few pleasures of my life. There have been moments of non-pleasure and some displeasure but I have allowed a selective memory to leave such experiences in shadows. I am an optimist, a hedonist and, I suppose, something of an escapist. I am told that this shows in my choice of office.



A thank you

In writing TABS I have often had a difficult search for words but never such a problem as finding an adequate way to express my thanks to James Twynam. I only agreed to have a go in the editorial chair because I knew that he would be there to see me through. From the scraps of paper and half-baked ideas that I have tipped on to his desk he has done me proud with his design flair and production efficiency. It has been a valued partnership and it will continue to be a valued friendship. Thank you, James.

Tabman's last cue

And so the moment has come to drop the tabs on this diary. Tabman must move on to his next production. Thank you all for being such a lovely audience.

