

CUE

Technical Theatre Review



November – December 1979

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Our cover shows the actdrop for Wilkie Collin's play 'The Lighthouse', painted by Clarkson Stanfield (1793 - 1867). Above, his portrait. His great contributions to the English theatre are discussed on page 4.

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CUE

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2.

November - December 1979

Spear-carriers forward

By some curious concatenation of euphoric circumstances (thank you, Mr. Leonard Sachs) this issue contains news and comment on the opening or re-opening of three theatres, the Wolsey at Ipswich, the Opera House at Buxton and the Lyric at Hammer-smith. All of which is encouraging for architects, contractors, suppliers of equipment, civic dignitaries and their committees at large, but may prove less so for managements, actors and actresses, authors and a public more or less agog with apathy. 'What is the good,' a director we know said once, 'of having a live theatre if the audience is so obviously dead?'

Certainly what we gather from the weirdly eclectic schedules of forthcoming attractions we have to hand is that managements are working very hard at the business of running with the hare and hunting with the hounds. the Hare being related nostalgically to the late, loved and lamented Robertson of that name. And the Hounds being, of course, the post-punk ultrasonic Country & Western group now causing a sensation in Little Rock (Arkansas).

Perhaps what causes this disorientation is a lack of new scripts for new plays by new people. This is a good reason for CUE to join the Evening News and Thames Television in sponsoring the London Student Drama Festival. Entries for plays, entertainments or whatever will be accepted up to December 1st this year; selection of student productions will be by members of the Companies at the Young Vic, the Royal Court and the Riverside Studios; and the culmination of events will be the staging of eleven of the most meritorious productions, during the Festival Fortnight from February 18th - March 1st 1980, at University College's elegantly functional Collegiate Theatre. Concurrently there will be workshops, discussions etc. in all the disciplines of theatre work, from playwriting, through directing and acting, to coping with the Collegiate's basic lighting rig of 200 lanterns.

There is still time (just) for any budding Peter Hall, Peter Shaffer or Peter Nichols to participate and alert his relatives. Although the Festival is not a competition CUE is providing two special awards, one for lighting and the other for sound.

The three efficient and enthusiastic student organisers are Graham Frost, Jane Gibbings and Eric Graham and more information and tickets can be obtained from them (not us please) at U.L.U. Building, Malet Street, London WC1 7HY telephone 01-580-9551.

Clarkson Stanfield and the Spectacularists

ANTHONY PUGH

Clarkson Stanfield died, full of honours, in 1867. He got his first retrospective at the Royal Academy only three years later. It was accorded him, one supposes, more for his fame and respectability as an easel-painter of great moody seascapes, romantic battle scenes and melodramatic mountains than for his remarkable contributions to the English theatre, which began some fifty years earlier, and whose effects certainly didn't end when we got to Cinerama and laser-painting on clouds.

In a most scholarly and sometimes tantalising way — because the fate of theatre scenery has always been to be cannibalised directly — the impressive exhibition of the works of Stanfield and some of his contemporaries at the Sunderland Museum (the admirable catalogue by Pieter van der Merwe and Roger Took is still available) records our many debts to his fecundity and versatility.

Stanfield was a man of many parts who turned up in the history of the theatre at exactly the right time. In the period of the Regency, when the population of London rose joyfully from one million to three, the passion of a new kind of mass-audience to be entertained, tantalised and titillated and generally astonished was happily matched to a passion of 'showmen' to invent and exploit. Wonder followed wonder. Not only in theatres (there were, by decree, only three *legitimate* theatres where tragedies and comedies could be staged, Covent Garden, Drury Lane and the Theatre Royal), but in every kind of exhibition hall, arena or booth. Visual surprises were all the rage. It became a matter not so much of the play being the thing but the scenery and scenic effects themselves. Thus, as early as 1781, the scenic director at Drury Lane, Phillipe de Louthembourg, introduced his *Eidophusikon*, a sort of moving picture machine which 'animated' romantic views in a stage area 6ft wide, 8ft deep, 3ft high. Not to be outdone, the Irish portrait-painter Robert Barker 'invented' his — the first — *Panorama* in 1794. Erected in its own building near Leicester Square, the Rotunda, this virtually enclosed its gaping audience in a vast circular oil-painting (283ft in circumference) and tromped their eyes with a 360° aspect of the country or the town. A refinement, the *moving Panorama*, in which the picture moved from the sides by means of rollers, appeared at Drury Lane in 1800. Surprisingly it was not till the middle of the century that the Panorama reached its apotheosis (now moving up and down as well) under the direction of the celebrated Albert Smith who used it to deliver improving travelogues at Egyptian Hall in Piccadilly to an audience of thousands.

Clarkson Stanfield himself began to

make *his* name as a spectacularist with the technique called *Diorama*, which had been brought to London by 'the Professor of Light', Louis Daguerre, in 1823. Here the trick was to paint your scene with translucent pigment so that, as if by magic, it

changed in form or mood, depending on whether it was lit from the front or the back. With the new and wonderful gas-lighting, introduced at Drury Lane as early as 1817, a whole new spectrum of special effects was possible — and Stanfield, in his

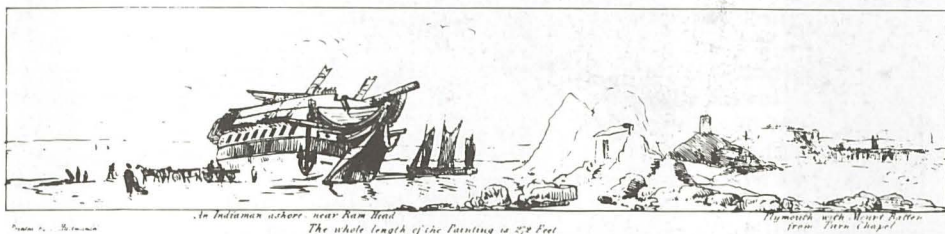
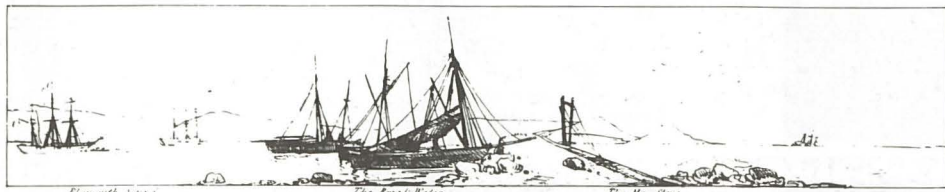
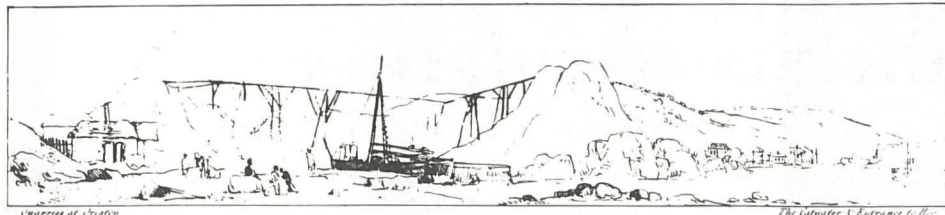


As a painter of marine subjects, Stanfield has been compared not unfavourably with Turner. This watercolour (about 1835) suggests well the dramatic effects he also achieved in his scenic painting.



Stanfield's design for 'Agincourt' in Macready's Henry Vth produced at Covent Garden in 1839. The design appears to be scaled at 1/2 in: 1ft was probably realised on stage as a pair of flats 21ft high and 28ft wide.

THE KEY PLATE TO THE PRINCIPAL OBJECTS IN THE MOVING DIORAMA OF
THE PLYMOUTH BREAKWATER.
 Painted by W. Clarkson Stanfield, from Drawings taken by W. S. Reynolds Esq. & now Exhibiting at
 THE NEW THEATRE ROYAL, DRURY LANE.



Stanfield's famous Dioramas were mostly painted to accompany pantomimes at Drury Lane. This one, which moved between rollers, was 272ft long.

long career, used every one of them.

It was the theatre's good fortune that in Stanfield it found a painter with the skills and (unusually so) the taste to exploit all this invention of a mechanical nature.

Between 1816 when, after a little trouble with a closed shop, he got taken on as a scene-painter at the Royalty Theatre in Stepney (he moved to the Royal Cobourg, which became the Old Vic, in 1819) and

1843, when he was working for Macready at Covent Garden, Stanfield was concerned with the scenery for some 170 shows, involving over 500 individual scenes. In addition there were his famous dioramas, which were 'educational' rather than theatrical. They were exhibited, mostly at Drury Lane, during interludes in pantomimes, and by means of vast unrolling canvases up to 300ft long and 20ft high took the audience on 20-minute trips of a 'documentary' kind. 'These paintings,' said *The Examiner* of Stanfield's work, 'belong in one word to the highest order of art, and but for their unhappily frail materials would realise its highest objects'.

Well, not quite the highest, perhaps. But well above average height. Clarkson Stanfield, despite what must have been appalling commercial disciplines and pressures of time, seems never to have lowered his standards. As a painter, as a topographer, or, indeed, as a mildly romantic realist. His back-drops are never less than very good *paintings* in their own right, capable of being taken down, cut down in size, and proudly 'hung' in a private house (as Stanfield's friend Charles Dickens did with the act drop for Wilkie Collin's play 'The Lighthouse' which appears on our cover).

Concerned with his status as a Royal Academician, Stanfield seems in his later years to have abandoned scene-painting as something not quite respectable. But since by then he had made it a craft not only respected but wholly admired this matters very little.

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CUE

Elvetham Mysteries

PASTORAL – HISTORICAL – EVANGELICAL – ELECTRICAL

JAMES LAWS

Tuesday, 5th September 1978

Phone call from Mike Flanagan of the Christchurch Players concerning the lighting of an open air production in July '79 called The Elvetham Mysteries.

This was the start of one of the longest and most rewarding jobs I have ever undertaken. I shall continue the diary through to the first night and then discuss the problems, and the ways we met them.

Wednesday, 6th September

Rang Jim Northwood (Director's husband and Technical Manager) and quickly found the project to be ambitious. 750 seats – stage 60ft x 30ft + Arena, 100 Actors, professional designer (Clare Jeffery), to run from 28th July to 5th August 1979 in Elvetham Park, on the site of a water pageant staged for Queen Elizabeth I in 1591. Lovely setting, but problem No. 1: Electricity doesn't grow on trees.

Saturday, 23rd September

Visited site, occupied by cattle, probably since 1591. Ambient noises of (depending on wind) Motorway, Railway, Farn-

coln Cycle, which will be performed at Elvetham, is a collection of 20 plays first performed in Medieval times by local trade guilds to depict biblical scenes, mostly concerning Christ's progress from Baptism to Resurrection. The last play is Doomsday, which shows the good and the bad being judged and the bad are then herded into Hell.

November 1978

Site meeting for those who have volunteered for electrical jobs on the production. A motley crew of 10 of us assemble in the field and I lean heavily on their imagination to describe the towers, stage and tents that will grow out of the mire and thistles. We offer to buy each other insect repellent for Christmas and I return home happy that we should have person-power for 6 or 8 followspots. S.E.B. quote is very high – around £1,000, to include hiring of cable. When we inform them that we have a cable lent to us by Pirelli they retort that the price of copper has gone up and to hire and fit the transformer *alone* will now be £950. I thought that Monopoly was child's play until I discovered the Electricity Board. . .

several hundred square yards. Morris Men are sought to add to the medieval ambience. A brief flirtation with generated power proves unproductive, but the S.E.B. decide that their sums were wrong and drop price to £800.

May – June 1979

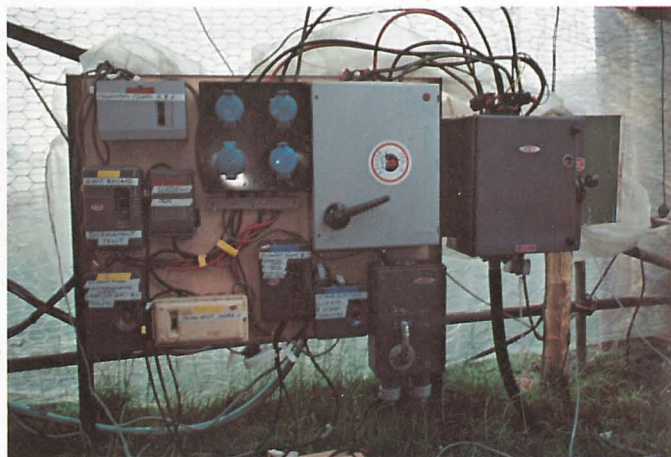
Flurry of activity – Meet Director for exact lighting requirements. A kindly local contractor lends us two 150 amp switches, one of which is mounted on the S.E.B. pole on a waterproof casing. Just time for a holiday and return to find cable in and power on. 5-hour meeting with Roland Smith, human dynamo and engineer, thrashes out power and local distribution. Seek second hand switchgear and buy a job lot in Brighton. Order 800 metres of cable. Appoint Mike Flanagan as lighting co-ordinator and together we work out who will do which lighting production jobs. Arrange 'final' equipment hire lists – equipment converges on Elvetham from 6 different directions. Write out detailed cue lists.

7th July 1979

Build main switchboard for power distribu-



Goose eye view of an alien structure.



Main distribution at the base of tower E.

borough and Blackbushe Airfields and geese on lake upstage centre. Sound reinforcement mooted. Nearest houses 200 metres but look hopefully at modest national grid pylons in same field a mere 100 metres distant. Consult voltage drop tables. Must remember wellies next time.

October 1978

Explore possibilities of S.E.B. supplying power – the pylon will yield 150 amp 3 phase which is the minimum to aim for. Jim Northwood approaches Pirelli to lend us 100 metres of 95mm² 4 core armoured cable. I ask for 3 scaffolding lighting stands – one of which is 40ft high. This is rejected as unsightly. Write to Paul Carter at Coventry as he lit a Mystery Cycle in the old Cathedral the previous summer. The Lin-

Letter from Paul Carter of Coventry is very helpful; the main advice being that lots of followspots, minimum colour and really effective waterproofing will be needed. All of which is absolutely correct.

December 1978 – April 1979

Quiet months. Agreed: 4 towers 30ft high with 2 followspots on each. During this lull we rock our boat slightly by deciding to move to Norfolk and I resign my full time job with the Horseshoe Theatre Co., Basingstoke. After initial alarm from the Production Committee we all agree that it is unlikely that we can move before August and having no job will leave me more time to attend to everything. Just so. Meanwhile the project continues to grow, with an alarming number of tents spread over

tion and deliver to site, where stage is taking shape, towers are marked out and scaffolding contractors have started work. 10 car loads of lights to site so far.

14th July and week

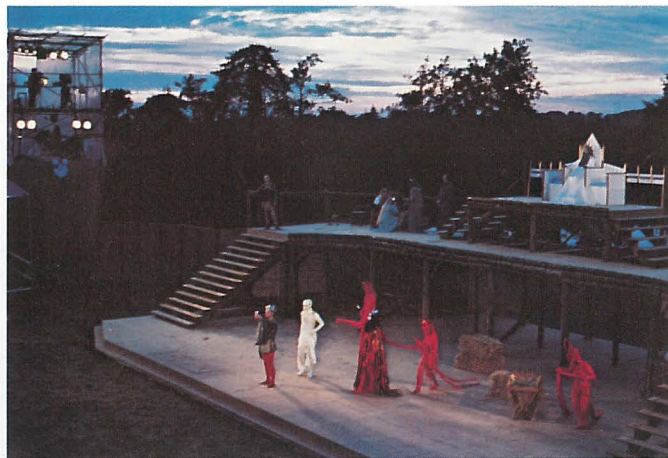
David Lunn and I start the previous evening marking out the main cable loom which will span from tower to tower. Then the full team arrives for rigging and over the weekend it all goes up into the towers. We watch a rehearsal on Sunday afternoon. By Monday everything on production lighting works and most of it is focused that night. Scaffolders hold us up and weather protection is scanty. First lighting rehearsal on Wednesday with all 10 operators (8 followspots, 2 on control). By Friday evening all are somewhat tired but mostly we know



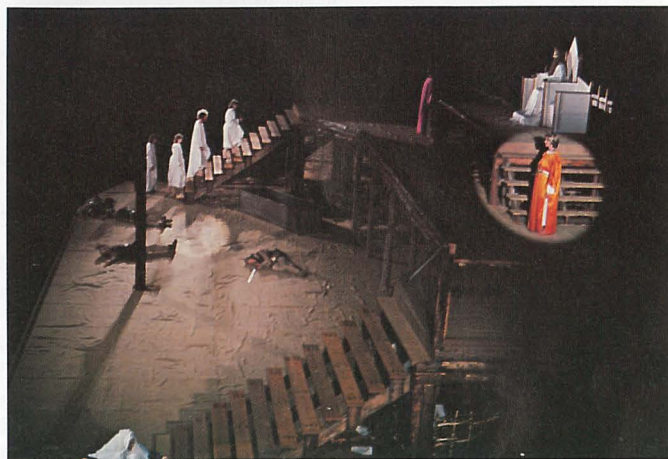
Christ bears the cross.



Trial scene viewed from the control desk.



The magic moment never the same each night.



The Ascension showing use of levels and shadow of the cross.

what we're doing.

21st July and week

Technical rehearsals, Dress rehearsals and as tents arrive – wire them in. The last tents arrived only on the morning of the first night (Friday 27th) so full load was not applied until 9 p.m. that night.

July 27th to 5th August

A very pleasant period – we had some anxious moments with rain but plastic bags on every joint worked wonders. Rubber gloves were standard issue on some nights. However, the memories that remain are always the good ones; watching the Morris Men performing conveniently near the Beer Tent before the show for instance and the arrival of the three kings in the arena on horseback. The magic moment (never the same each night) when our lighting began to take over from the Almighty's, first on the shadows and then more decisively on the faces and the brilliant costumes. The nightly arrival and alighting of the geese on the lake. The last supper with its spectacle of acres of table and robed figures and the diminishing of light to 8 pinspots during the last seven words from the cross. The herding of the bad souls to Hell with the only coloured light in the show to simulate the burning coals. The procession of cars streaming for miles from Elvetham whilst we folded down the rainproofing and made all fast for the night.

6th of August

Came the morning after the night before

(last nights are never proper without parties) and eight of us assembled to take it all down again. My contract gave me 48 hours to get off site, but in fact we had it all loaded and stored in one day's work. My own hardware contribution was then driven straight to Norfolk, and the rest dispersed to the four winds. There is nothing as sad as a semi-derelict site being systematically dismembered.

As you will have realised from the Diary, this was not your usual sort of fit-up. The special problems encountered and techniques used are as follows.

If you have loads, prepare to shed them now.

Despite the cost (don't blame me, I didn't vote Labour in 1945), I am certain that electricity from the mains was the only answer. A generator would have been slightly cheaper, but power was needed all night for security, beer glass cleaning, etc., so problems would have arisen. The voltage drop was not noticeable – certainly there was enough light around. We took the precaution of fitting load ammeters to each phase so that the switchboard operator was able to reduce load if necessary. We drew 120 amps per phase maximum. Apart from working lights we kept each tower to a single phase. The number of 15 amp cables in the loom was reduced by siting dimmer racks on the towers whose lights they were powering. As it was, the loom was heavy enough to need 6 people to haul it up.

I hear you calling me

A 12 way ring intercom was used and luckily we didn't need our emergency radio sets except during rehearsals. Show relay was minimal and to the dressing tent only. Call Girl was dispatched around the site brandishing the number of the next play (1 to 20) and the relevant actors assembled. Apart from one case of appendicitis and someone being stranded by an unfortunate tide whilst water ski-ing (he arrived with a



Dress rehearsal – sundry pageants, follow spots, operators and cast await their cue.

minute to spare) we had no hiccups from a cast of 100.

Coming in on a wing and a prayer.

The geese were only one of the reasons why those of us with technical backgrounds thought that sound reinforcement would be essential. The Artistic Ones were correct in their phoo phooing, but only just. The structure of the stands and particularly the stage floor gave voices just that extra lift and the only inaudibility was during heavy rain.

You're never alone with a Strand

particularly if it was made pre 1964 because it always takes 2 to pull it up into the bowels of the scaffolding tower. The rig is itemised later and it represents a tussle between my conscience and my bank balance. Being in the happy dual position of lighting designer and supplier I was, of course, able to use my own stock where possible and this includes many substantial testimonies to the durability of lanterns built in the grand old days of The Strand Electric and Engineering Co. and The Major Equipment Co. The Pattern 93N made a good followspot for the individual figures (particularly Christ) and we evolved the layout of one 93N and one 2kW 293 or C.C.T. Silhouette 15° per tower, on the top level. Each followspot had its own dimmer, and cue sheets were so adept at reading off the cue sheets that we were able to plot in Act 1 cues with no prior rehearsal, when it was found that the sun packed up earlier than we hoped. On a dull day the lights took effect from about 7.30, on a bright evening from about 8.15, so one

lesson must be to plot both acts from the start.

Raindrops kept falling on our heads.

Waterproofing has been mentioned before and I consider it to be an essential part of the proceedings that towers be covered rear, sides and top with firmly tied tarpaulins. The roof should slope to the rear and overhang the front by 2ft at least. The front should also have a let down/pull up covering which can be lashed off securely overnight. We had nothing but trouble from the plastic covered chicken wire provided and badly secured by the scaffolding contractors and one dimmer rack overheated through over-zealous but necessary polythene covering. Every joint in the installation should be covered with self-amalgamating tape or a plastic bag (hung entry down, or water collects inside and the connection is sitting in an arrangement suitable for conveying goldfish from fairgrounds). Cables should be as few and as long (i.e. with as few joints) as possible. Understatement of the year: You will be somewhat surprised at the amount of cable you get through.

Where their caravan has rested.

We thought we'd met our Portaloo when the hire firm told us that we needed a 60 amp supply to their de luxe model. In fact by pulling the water heater and frost stat fuses we made it a manageable 400 watts. The large marquee (100ft x 28ft) was lit with four 500 watt Major Patt 60 type pointing at the roof and reflecting down, plus a lavish 100 watts for special make up. The Pattern 137 in various quantities

sufficed for beer, refreshments, crafts, props and box office. Sunfloods were used for general site and car park. Most cables looped over head, borne on trees and scaffolding poles, but some had to be trenched. At one time, 4 electric boilers for tea making were threatened, with their attendant 60 amp load, but they proved unobtainable so gas was used, to our relief.

Hartily in agreement.

The licencing authority, Hart District Council, had little experience of outside public events except Fleet Carnival and they considered our emergency lighting of 2 exit signs powered by floating car battery and 4 floods run off a 1.8 K.V.A. generator entirely adequate. The requirements will vary with the district, so be sure that you know what the council specifies well before the event.

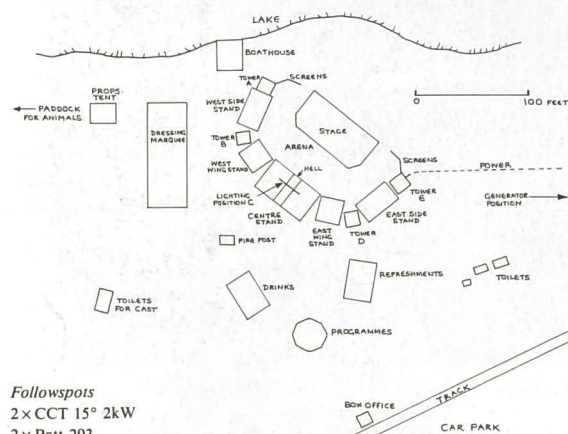
Paint the stage with light

And the arena too, but use a 20ft brush. The acting areas measured about 20ft square and the average applied load was about 9 watts per square ft. In conventional theatre 50 watts per square ft. would not be unusual. With a relatively small supply for the show area to be lit, I started with a very detailed talk with the Director, Kay Northwood, to establish exactly what she expected, to offer her some ideas as they had occurred in reading the script, and to decide what corners I could usefully cut. There was the arena, for crowd scenes and processions, 100ft x 30ft, the stage 60ft x 25ft, the stairs 20ft x 8ft leading to the platform 60ft x 15ft where trial scenes took place and, on high, God and the Trinity throne area 12ft x 8ft. The arena, stage and platform were each divided into 3 areas and lit from each tower. The stairs had one special spot each and God had 4 specials, one from each tower. Hell's mouth had its own red lights, used only at the end of the last play.

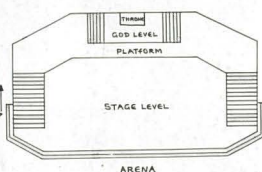
From this it may seem that we had a very simple and boring plot, but the 8 followspots added such focus that some very dramatic moments were achieved. The switchboard used was a 48 way 3 preset 2 group type which was entirely adequate for the 85 cues. The main acting area light came from 12 x Patt 243 and the side light from Patt 143 and various members of the Pageant or Vignette family. Everything was at 1 kW except 6 x Patt 243, 4 x followspots at 2 kW and 2 x Cremer Fresnel and 2 x 23N at 500 watt. What seems an odd collection of lanterns worked together quite well, except that some more narrow angle profiles would have been useful on the platform level. However good the hardware was however, it would have been useless without the dedication of the large lighting team that turned up every night in all weathers to drive it. They made a great contribution to a very successful and happy community production.

James Laws and his wife Pat Cowan are proprietors of Ancient Lights Theatre and Drama Lighting Service of Ayleborough, Norfolk.

Photography by Mike Flanagan and David Lunn. Site Plan by Andi Stainsby.



ELVETHAM SITE PLAN



STAGE PLAN

Followspots

2 x CCT 15° 2kW
2 x Patt 293
4 x Patt 93N

Fixed lighting for Stage & Arena

6 x Patt 243 2kW Stage
8 x Patt 243 1kW Arena
8 x Patt 223 Arena
6 x Patt 143 Stage
12 x Patt 58/N10 Pageants
Stage/Arena
2 x Cremer 1/2kW Fresnels Arena
6 x CCT 30° 1kW Platform
4 x Patt 263 Mk1 Platform
4 x Patt 93/93N Stairs/God
2 x Patt 53 2kW Hell
2 x Patt 23N God

Site lighting

7 x 500W Sunflood
18 x Patt 137
4 x Major W5

	B	A	U	A	Stage	Scen	Ref	Ref	A	B	D	E
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The Wolsey Theatre, Ipswich

RODERICK HAM
Architect RIBA AA Dipl.

The Ipswich Theatre Company worked for many years in the old Mechanics Institute under very trying conditions. The public found there quite a pleasant auditorium with, despite less than perfect sight lines, a theatrical atmosphere which made a contribution to their enjoyment of the productions. This was the one asset the old building could claim. In all other departments it was woefully inadequate. The stage was tiny and inconvenient, the foyer practically non-existent, and the staff had to work in the attic in Dickensian conditions.

The new site on Civic Drive has long been reserved for a theatre. It was part of the grand Civic Centre layout and by its prominent position seemed to demand a building with some monumental pretensions. But opinions had changed and the funds available had diminished in value when we were appointed as architects. A more modern approach to theatre design was appropriate and funds dictated it. The site still implied a certain formality of approach and our problem has been to reconcile civic aspirations with the character of a repertory theatre and a limited budget. We have developed an idiom in contrast to the rest of the civic buildings which has more in common with the older buildings in the town.

We decided to have pitched roofs for various reasons, both practical and visual. They are more efficient than flat roofs which are notoriously liable to leak and expensive to maintain. But the main reasons were architectural. Theatres being a collection of large volumes and small cells are difficult to resolve into a satisfactory external shape. The Wolsey Theatre is sited so that it can be looked on from above and an untidy collection of flat roofs would have been unacceptable. Pitched roofs imply a geometrical discipline which we accepted and made a feature of the design. We also wanted a strong low eaves line to reduce the apparent height of the building and give it a human scale.

Our only real regret is that circumstances have prevented us from constructing the two walled gardens in our design. The one at the north end would have given the actors and staff some privacy and a small outdoor protected area to relax in. The Theatre Trust have been unable to find the money for this. The other walled garden was to be a public one separating the theatre from the busy traffic on Civic Drive. This would have had many advantages over unprotected landscaping which soon fills with waste paper and wind-blown rubbish. With a wall to protect them shrubs, trees and flowers flourish and people would be attracted to come and have lunch there where they would inevitably be influenced by the theatre publicity. The



serpentine wall would have helped to link the building to its surroundings in an interesting and unpretentious way. However, this area does not lie within the site allocated to the theatre and the council does not favour the idea of a walled garden.

The main lines of the auditorium and the stage were decided by Martin Carr of Carr and Angier, the theatre consultants, before we were appointed as architects. It was a concept with which, from our own experience of theatre design, we were very

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... very little has been masked from the audience.

sympathetic. The audience and the performance are in one space surrounded by a common enclosure. The single seating tier is steeply stepped to accommodate 400 focused on a generously sized stage. The two are linked by two tiers of galleries which go right round the back of the stage. The middle gallery can be used for more seating on either side, bringing the total capacity to 436 or it can be brought into the performance and used as part of the acting area to provide, for instance, a Juliet balcony. The balustrades can be unbolted and removed if necessary for a particular production. Part of a set could be a grand staircase from the balcony to the stage for actors to make a spectacular entrance. The top balcony is for technical operations and gives access to the two lighting galleries. Provision has been made to suspend scenery over the stage area but there is no conventional fly tower. Very little has been masked from the audience; the works are there to be seen as is the structure of the building, the roof and the ventilation ducting.

It would have been technically possible to design the auditorium without columns or at least without columns showing, but we deliberately chose to make them a feature of the design. This is partly from a desire to exhibit the works of the building but also to use the structure to articulate the space within. The auditorium is quite wide from wall to wall and could, if treated in a bare and featureless manner, have a rather forbidding character which would need a great deal of scenic treatment to give it any theatrical atmosphere. The introduction of columns and the wooden balustrades forms a tracery round the inner volume of the auditorium. The dark green walls behind them recede and no longer sharply define the boundaries of the auditorium. The roof

structure is all there to be seen but the lighting galleries and the steelwork soften the hard edges and an air of mystery remains. In this way a theatrical atmosphere has been achieved without the use of any of the traditional devices of decorative additions, baroque plasterwork and crystal chandeliers. The form of the stage and auditorium is not traditional but the visitor will nevertheless find the interior theatrical

and not alienating as has regrettably been the case in many new auditoria.

There is an inner stage which can be used as part of the stage setting and will also serve to store scenic items for the current production. The section of the middle balcony at the rear of the main stage can be hoisted up completely out of sight into a recess in the top balcony. The opening between the main and inner stage is thus enlarged and provides opportunities for scenic treatment in considerable depth. The space under the balcony can be part of the action or can be screened off to suit the type of production. For some plays a set can be built entirely on the main stage masking off all the balcony fronts.

The stage floor is made up of sections which can be removed to provide entrances from below. It is possible to dismantle the whole of the main stage and to build a set rising from the floor of the stage basement. It would also be possible by removing the front floor panels of the stage to form an orchestra pit, but this has not been considered as a simple or frequent operation. The building is for a resident community repertory company, not for large scale musicals, opera and ballet. That is not to say that touring companies of the right scale will not be able to play there successfully. There are many travelling ballet and opera groups who with a little ingenuity would be able to perform there perfectly satisfactorily. However the building has not been designed as a venue for the English National Opera or the Royal Ballet or any company depending upon the extensive use of flying scenery and painted cloths.

The lighting and sound control rooms are situated at the rear of the auditorium, from where they have a complete view of the



The columns are a feature of the design.

stage. They have immediate access to the technical galleries and thence to the back stage areas.

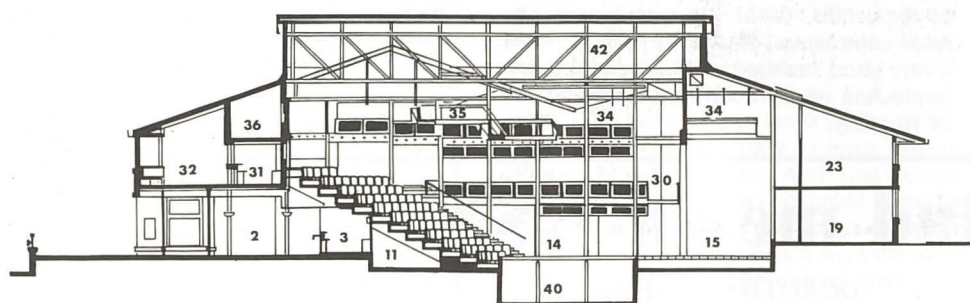
The auditorium seating is arranged in the now generally accepted 'continental' layout of long rows without a central aisle. This way the best seats are not lost to a gangway. The slightly wider spacing of the rows allows members of the audience to pass in front without obliging others to stand up to let them pass.

Our object has been to create a space which will be stimulating to all who participate in the theatrical experience; the actors by the intense focusing of the audience upon them; the directors by the opportunities for a variety of approaches to productions offered by the building with the

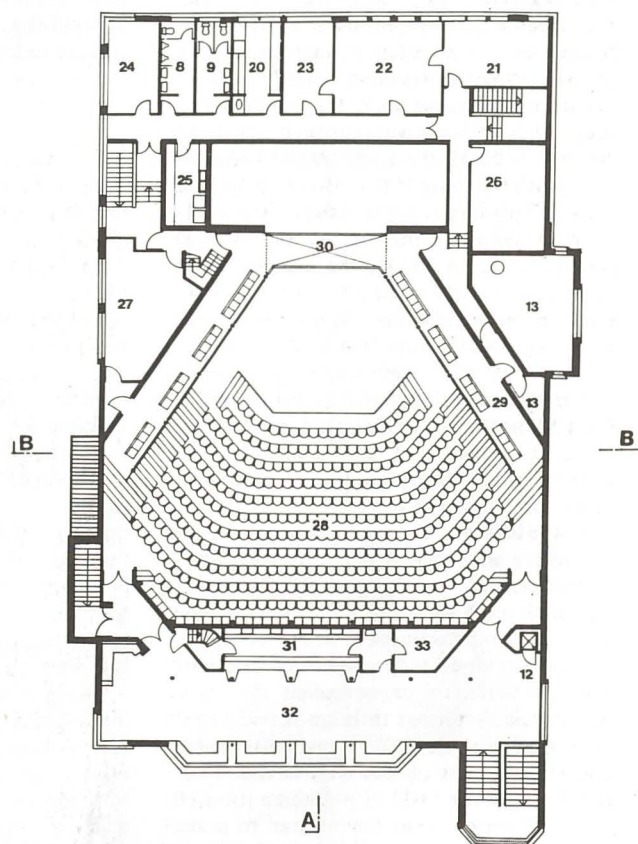
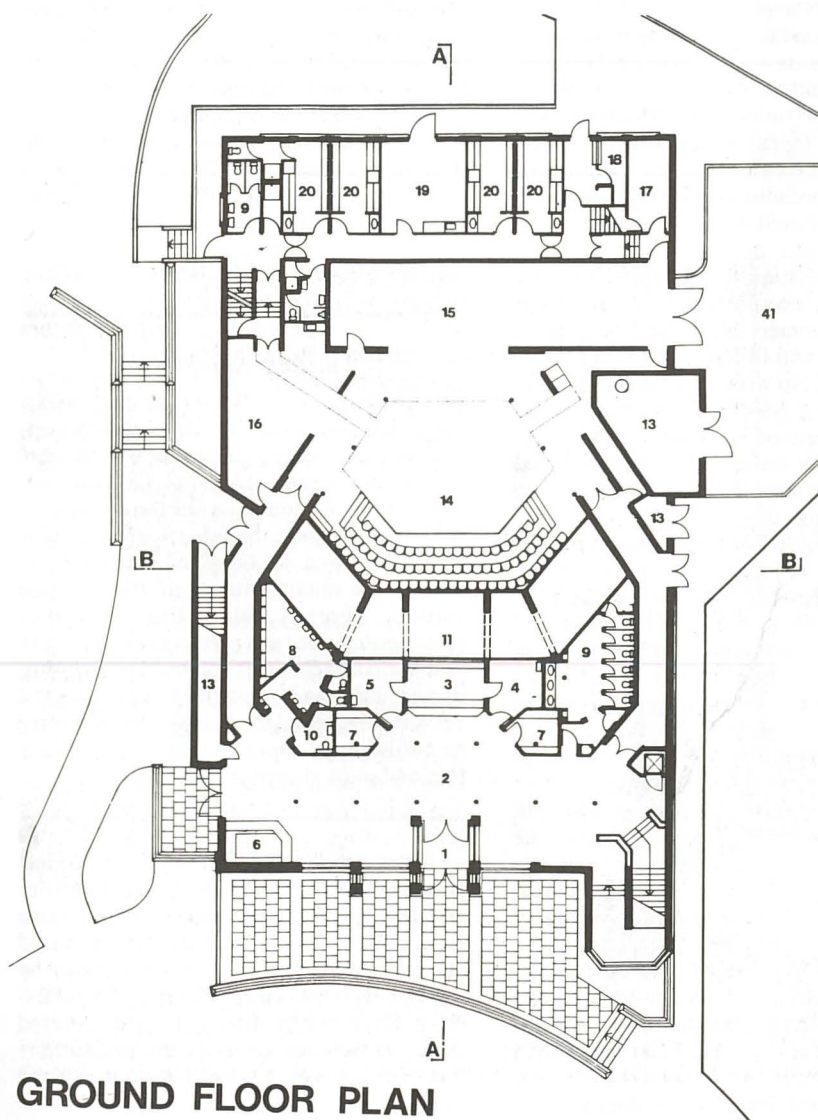
minimum of re-arrangements; to designers, technicians and stage management for the range of possibilities implicit in the design of the stage facilities, and not least to the audience who will find the theatre different from what they have become used to yet retaining a familiar theatrical flavour.

The foyers are arranged on two levels connected by a staircase which projects from the building. At ground floor level the main entrance leads to the box office flanked by cloak rooms. At either side are the lavatories and in the south west corner is a coffee bar. The process of buying a ticket should be as painless as possible and to add to the pleasure the buyer can relax with a cup of coffee and a snack while admiring the view of the Ipswich skyline from

1. Entrance Lobby
2. Main Foyer
3. Box Office
4. Front of House Manager
5. Front of House Staff
6. Coffee Bar
7. Coat Store
8. Men's Lavatory
9. Women's Lavatory
10. Lavatory for Disabled
11. Void
12. Hoist
13. Plant
14. Main Stage
15. Inner Stage
16. Side Stage (wings)
17. Stage Manager
18. Stage Door Keeper
19. Green Room
20. Dressing Room
21. Artistic Director
22. General Office
23. Administrator's Office
24. Production Manager
25. Laundry
26. Office
27. Wardrobe
28. Auditorium
29. Balcony
30. Movable Bridge
31. Bar
32. Upper Foyer
33. Bar Store
34. Technicians' Gallery
35. Lighting Gallery
36. Control Lighting and Sound Room
40. Stage Basement
41. Car Park
42. Automatic Smoke Vent



SECTION AA



FIRST FLOOR PLAN

the large windows of the foyer. On the first floor foyer where the view is even better there is a bar where drinks will be served before and after the show and during intervals. As with the auditorium, the foyers also feature columns which have both structural and architectural purposes. These spaces are used by small groups of people chatting informally together, there is no need for clear sight lines and the columns help to divide the space up into smaller scale areas emphasising the informality of the activities there.

For fire protection reasons the steel stanchions which are hollow tubes are cased in fibrous plaster and this material has been used to make light fittings in the form of bowls cast around the top of the columns. The floors are carpeted to a design by the architects and all the box office and bar fittings have been designed to harmonize with the character of the building which is one of simple materials enlivened by colour. Walls are generally common bricks painted with emulsion paint in various shades of green,

the joinery timber is all stained dark green to show the natural grain of the softwood, concrete is painted with white textured paint and the woodwool slabs of the roof are painted dark green in the public areas and left unpainted elsewhere. All the structural steelwork and the plastered columns are painted a bright pinky red.

Apart from an area of false ceiling over the ground floor foyer and the fire proofing of the columns, there is virtually no plastering in the building. Back stage the walls are in common brick and the partitions in concrete blockwork painted white, the ceilings are unpainted and the floors are black asphalt.

All this austerity is in order to keep to a very tight budget. Having accepted that all materials must be economical we had to wrest a character from them by the design of the details. Within these limitations the main contractors, Haymills, have achieved a very good standard of finish and the first impression of the building will not be one of frugality.

Externally we used a good quality light red facing brick with dark brown mortar, plain concrete sills and lintels, softwood doors and windows stained with green preservative, and blue-black asbestos 'slates'. We would have liked to have used natural slates but the cost would have been prohibitive.

As architects we wish the theatre company many successful years of creative endeavour and the public many years of exciting entertainment. The struggle to find the money for the project (less than half the price of a footballer) has been a hard one and we hope the people of Ipswich will be as proud of their new theatre as we are to have designed it.

Architects: Roderick Ham and Finch
Quantity Surveyors: Davis Belfield and Everest
Theatre Consultants: Carr and Angier
Structural Mechanical and Electrical Engineers: Edwards & Blackie
Main Contractor: Haymills (Contractors) Ltd.

Find me an ASM

DOROTHY TENHAM

In a publication like 'Cue' which is obviously going to be read by working theatre people, there is a danger that I am about to preach to the converted. To the converted, I apologise in advance. To the yet unthinking few, I ask you to consider the evidence and hopefully arrive at more positive and constructive conclusions than the converted have done to date.

Why do so many good Stage Managers, at all levels of Stage Management, leave the theatre? With all the good training courses now available, why is it so difficult to find good SM's? What can be done about it all?

These are questions put to me at least once a fortnight by people who seem to think that, because of my previous attachment to one particular SM Course, I can wave a wand, give them constructive answers and solve their staffing problems. Conditions have improved considerably for Stage Management in the last decade. Their terms of employment and salaries are no longer shameful. Much hard work over many long hours has been put in by the representatives on the Equity sub-committee which deals patiently with SM's problems.

It does seem to me, though, that as fast as these improvements have come in through the door, a great deal of what my generation used to recognise as job satisfaction has flown out through the window. No longer can an ASM expect to do the interesting variety of jobs that we did. They no longer get the thrill of pride in a job well done that comes with having had to make some of the equipment to do the job with in the first place. They are no longer required to be mini inventors. Some of my own past ASM's are now authorities in their own right on specialised technical inventions used as everyday equipment by their suc-

cessors. What a lot we have to answer for - it's called 'Progress'!

Specialisation is almost held to be a necessity these days and from student days onwards, would-be SM's are led to believe that there is something special about specialising. I repeat what many have heard me say before - what's so very wrong and ignoble in specialising in Stage Management? Why should sound consultants and lighting designers be encouraged to invent their own mystique; talking their own Americanised, electronic-type language and blinding newcomers with their science of abbreviations and initials rather than using plain English? No wonder it bores the pants off many young ASM's so that they wonder where the magic of working in the theatre has gone. They must feel very bewildered and find themselves facing a straight choice of either being thought limited and old fashioned - 'good in the rehearsal room!' - or having to join in the specialist race and become someone they don't really want to be - excellent sound operator/board operator/mic. controller etc. If this is where their gift lies - fair enough. But I can't help feeling that a lot of young ASM's are morally pressurised into this choice and a lot of good ASM's are lost to the theatre in this way.

Surely it is possible to relax a little and allow the SM team to share once more the fun of being competent at more than one aspect of their work. The undoubted improvement in the technical machinery used in most theatres surely has been acknowledged loudly and long enough for the HOD's who are in charge of it to feel frightened no longer that some young ASM will cause wilful damage. Their specialised knowledge is no longer beyond the comprehension of most intelligent young people.

This generation takes computers and their like for granted. They would very much appreciate someone letting them have a go on the swings instead of always being given the job of looking after the roundabouts. Or is this what the established members of the fairground are afraid of? Could it be that somewhere along the line, some of these people, who are 'only ASM's', may prove to be better all-rounders than their predecessors? I think it is a risk worth taking.

The 240 volt Par 64

In our last issue 'Walter Plinge' whilst enthusing about the Par 64 lamp in general was not so complimentary about the 240 volt version compared to the 120 volt one.

This was, of course, a subjective view of the writer, albeit based on considerable experience, and we have since heard from one of the manufacturers of the 240 volt version, Thorn Lighting Ltd., that they have carried out tests proving that their 240 volt lamp matches 120 volt versions in terms of life, light and robustness. We have not yet seen the test data but we look forward to publishing a more precise assessment of Par 64 lamps shortly.-(Editor)

Cue in Greenwich

Readers in Greenwich are blessed with another theatre publication of the same name. Our namesake is a well produced calendar of plays and events published by the Greenwich Theatre, Crooms Hill, LONDON SE10 at 25p. Each having discovered the other we have agreed to live in harmony but wish to make it clear that neither is the other.

Oh, Panto, I Love You

FRANCIS REID

Pantomime is probably Britain's only truly indigenous theatre form. Its roots may be international but the annual Christmas grafting of vaudeville performances on to a fairy tale base, within a framework of fairly rigorous traditions, is uniquely British. I think that I only fully became aware of this when, some years ago, I lay on the stage floor of the Palace Theatre in Devizes as a dead rat. The scene was Morocco and I had just been killed by Dick Whittington's cat. After general rejoicing the male dame with a gag line from a TV cat-food commercial made a comedy exit with the cat, an acrobatic actor in a skin who, on Highgate Hill at the climax of Act One, had performed tricks with a genuine Alsatian dog. The female principal boy then stepped forward with the Emperor of Morocco and his daughter to sing a medley of Scottish songs with no further excuse than the memorable couplet:

And now with faces wreathed in smiles,
We'll take the road unto the Isles.

I just don't seem to be able to get the Christmas spirit this year my mother would announce without fail on or about the 5th of December in every, but every year. She would then rectify her problem with a flurry of cake mixing, pudding bashing, present agonising and tree selection. My Christmas spirit problem has always been simpler – unless I am involved in a pantomime, my only Christmas spirit is the kind that comes out of a bottle.

In my first twenty five years in theatre, I have only missed doing pantomime at five Christmases: but I have compensated to some extent in the remaining twenty Christmases by doing thirty eight pantos. The word *doing* covers stage managing, lighting, some directing . . . and even (with a lack of talent that I have been hitherto at some pains to keep hidden under a bushel) *acting*.

No, I have never been the back legs of a pantomime horse. Nor indeed the front legs neither. But I *have* been sundry sheriffs, robbers, brokers men, major domos and demons. Mostly in forgotten theatres. There is great satisfaction to be gained from leaping about in front cloth as a Demon King (blue floats and a green lime) and shouting down a Saturday night hissing full-house. Although the edge can be taken off one's ego if the Principal Boy (played, of course, by a she-of-the-splendid-thighs) is heard to whisper in the wings 'Oooh, isn't he cuddly!'

Playing King Rat was only part of the package that the management of Dick Whittington received in return for their weekly outlay of £18. I was also the Company Stage Manager, the Deputy Stage

Manager, ASM, electrician, carpenter, prop man . . . and the £18 was not for my services alone: it was a joint salary to be shared with my (pregnant) wife who was the wardrobe mistress. I was a member of Equity at the time, but I did not object to the contract (bashed out before my very eyes on a piece of flimsy copy paper by the impressario in person utilising a minimum of fingers): the salary was, after all, above the going rate for panto and above most of the Equity minima where any minima existed.* But I learned a great deal about the craft of stage management – if you are the only touring stage manager and are on stage as an actor at the climax of the transformation scene, you have to learn fast to survive Monday nights. And that panto tour of the west country included conventional hemp flying, tumble flying and rolled flying – all in theatres which were devoted to film, apart from the annual weeks of panto and the local operatic society.

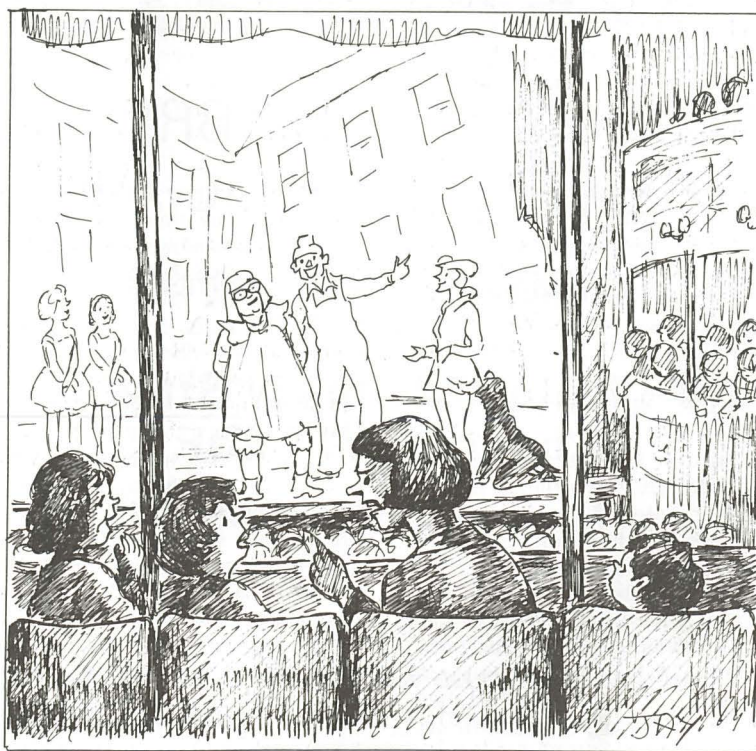
My pantomime debut was at the Grand Theatre, Luton. Like so many children, pantomime was my first ever theatrical experience and I have been addicted to it ever since, apart from a couple of years

** At an earlier point in my career I had worked for a management who, in a moment of alcoholic optimism, stamped a rep company's insurance cards with heavily franked Brooke-Bond Dividend Tea Stamps.*

when I was between child and adult appreciation of its peculiar traditions. So strong was my determination to include pantomime in my first year's experience of theatre that I turned down the opportunity of remaining at the tiny Watergate Theatre for *Cranks*, thus missing the experience of working with John Cranko and John Piper and subsequently transferring to the West End. (I caught up with Cranko and Piper a year or so later in the English Opera Group, but it was to be a full decade before I finally got a toehold in the West End). So, donating the remains of my faithful old yellow pullover to be incorporated in a Piper scenic collage, I signed on as ASM and Sheriff in *Mother Goose* for two weeks in Luton, followed by a week at the Royal County in Bedford.

The role of sheriff did not make excessive demands upon my acting talents. As the door to Mother Goose's cottage was constructed of somewhat sagging canvas, my knocking upon it had to be supplemented by a barely synchronised contribution from the orchestra pit. After repeated knocking and improvised interruptions from within on the theme of 'I'm not in' (Oh yes she is, oh no I'm not, oh yes she is), Mother Goose opened the door. 'I've come for the rent,' I announced dramatically. 'The Rent?' 'Spent!' she replied, slamming the door. More knocking. Door opens. Custard pie. I exit with paper plate sticking to my face. If there was any more dialogue to the part, I certainly do not recall it. But I clearly remember joining on the end of the front line for the first scene finale, and totally failing to synchronise my feet to the very basic choreography that accompanied the singing of *Today has been a lovely day*.

There were other early experiences like



"Well, Dick Whittington's really a girl and the cook's a man, and the cat's somebody dressed up, and Idle Jack's idle just because they are. And if you ask any more silly questions I'll take you home!"



A Wish for Jamie, Howard & Wyndham's hit pantomime that ran for two consecutive three-month Christmas seasons at Glasgow Alhambra then toured and spawned a whole decade of *Jamie* pantomimes. The author was stage manager of the first (1961) of these productions and one night accidentally fired a bomb in the wrong scene. This drawing, made by a member of the Alhambra's electrics crew, somewhat exaggerates the consequences although the dancers (Western Theatre Ballet) certainly corpsed more than somewhat.

Bad Robber at Weston-super-Mare where the waves break over the stage door but you learn how to fall off the schoolroom trick bench, and work the ghost (it's behind you) gag. And a three month run in Edinburgh feeding Stanley Baxter in crossovers teaches you a thing or two about timing.

Then it was stage managing the biggies for Howard & Wyndham and becoming assistant to their great Producer and

Director, Freddie Carpenter. Then lighting the Sam Newsome Coventry Epics. Then . . . but, oh let's draw a veil over panto in the seventies. Yes, panto lives on and it's great fun but a lot of it is enough to make an old theatre technician shed more than a crocodile tear. Far too often nowadays it is treated as an easy way to make a bit of bread to prop up the less popular parts of the theatre season.



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So, let's get back to memory lane . . .
do you remember . . .

. . . the matinee showman who, told to *strike the fire in the change*, asked *What?* It was explained that he should pick up the fire, coil the cable carefully, and put the fire on the prop table. So he walked on in the middle of the big gypsy encampment scene and, oblivious to actors and audience alike, carried out his instructions in an efficient if somewhat slow and deliberate manner.

. . . then there was this fellow Francis Reid who, during performance 99, grabbed the switch for the Act Two bomb tank instead of the Act One flash box. Pity about the electrician who had sat on the bomb tank to read his evening paper during the previous 98 performances.

. . . the pensioner's matinee when the tuttu ladies were doing their Tchaikovsky dance amid delicate gauze cuts and a haze of blue light. Slowly the back blacks parted to reveal the great Jimmy Cullen (resident SM of Glasgow Alhambra) requesting guidance from his maker. After which they slowly



One of the many attractive pantomime posters from Howard & Wyndham's chronicle of 60 years of Pantomime production '1888-1948'.

closed. The fairies did not seem to be unduly perturbed . . . and neither, frankly, did the pensioners.

. . . the night when a famous director forgot to switch off his rehearsal microphone and the entire sound system, including the dressing rooms, relayed his whispered aside to his assistant *Well, this fairy would have no place at the top of my Christmas tree.*

. . . the *Genie of the lamp* whose G-string got caught in the star mechanism of the star-trap.

Oh, panto, I love you. Where else could the Demon King sing Don Giovanni's *La chi darem* as *Give me thy hand, oh fairy.*

And a Merry Christmas to one and all.

A multi-purpose Sound System

DAVID COLLISON

The O'Keefe Centre for the Performing Arts in Toronto, is undoubtedly one of the major theatres in Canada. Not only is it the home of the Canadian Opera Company and the National Ballet of Canada who both perform seasons there every year, but it is an important venue for tours of musicals and plays and for international entertainers of the calibre of Harry Belafonte, Liza Minelli, Liberace, Tom Jones etc.

Ever since the theatre opened in 1960 it has been dogged by an audibility problem which is due to the sheer size of the auditorium coupled with some inherent acoustic deficiencies.

The original sound system appears to have been totally inadequate and an update of the loudspeaker installation in 1970 obviously did not provide the answer.

I was approached in 1976 to make an appraisal and add my findings to the already thick file of reports which the management of the O'Keefe had commissioned during the previous eight to ten years from various eminent acousticians and sound designers from Canada and the States.

Mission Impossible

When I first walked into the 3,212 seater auditorium the words 'Mission Impossible' flashed on to my mental screen and I wondered why I had left behind the cosy little West End theatres like the Palace and the Theatre Royal, Drury Lane.

To give some idea of the size, if you take a line from the centre of the front edge of the stage on the diagonal to the farthest seat at the rear corner of the balcony the distance is approximately 155 feet (47 metres). Whereas if you take the same measurement in the National Theatre's Lyttelton auditorium the distance is somewhere around 62 feet (19 metres).

Furthermore, being a fan shaped auditorium and with a balcony holding roughly one third of the audience, well over two thirds of the seats are in the rear half of the house — sixty feet from the stage and beyond.

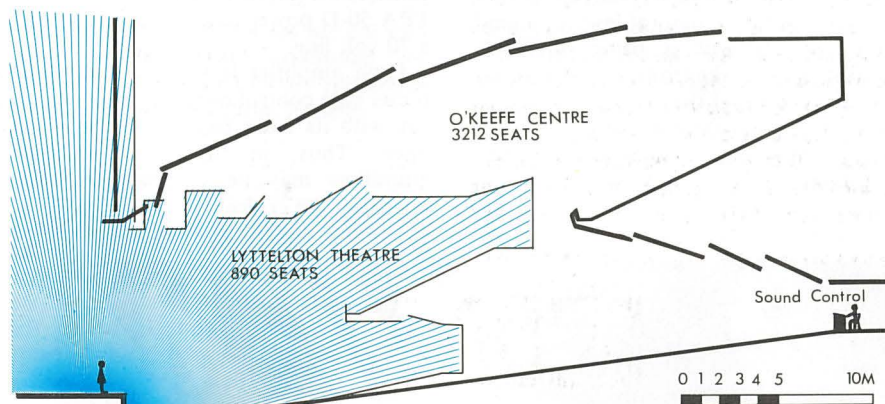
The proscenium opening is 60ft wide by 30ft high and the stage area is 125ft wide (including scene dock) by 56ft. Stage floor to grid is 85ft.

Taking all these factors into account it was obvious that most performers finding themselves facing such a large auditorium on one of Canada's largest stages would be thankful for a very efficient Sound Reinforcement system.

I decided from the outset that the requirements for Sound Reinforcement and for the singer/entertainer (or 'Vegas Act' as it is often called) were entirely different. For the reinforcement of a play, musical or

even opera (would you believe?) an extremely even coverage of 'uncoloured' sound is vital together with loudspeakers providing a very good feedback rejection. Whereas, for the close microphone technique employed by recording artistes feedback is not such a problem but it is necessary to provide a big full frequency range sound with plenty of bass to cope with the amplification of musical instruments.

The existing loudspeaker system consisted of a central array of bass bins and multicellular mid/high frequency horns suspended above the orchestra pit. This arrangement is favoured by many American and Canadian sound designers because a



complete coverage of the auditorium is possible from a point source thereby minimizing conflicting sound paths which can create unwanted reflections, standing waves and phase cancellations.

But although it is certainly possible to obtain a very even distribution of sound from a central array it has always been my contention that *theatrically* it does not work. I have also had a theory that for successful Reinforcement part of the secret is to have the loudspeakers positioned as low as possible (and therefore necessarily at the sides) so as to be in the same height relationship to the audience as the original sound source — the performer. This not only assists the illusion of the sound coming from the stage but it automatically takes advantage of any natural acoustic gain from reflections off ceilings which have been designed for that purpose.

But an overhead array, particularly with such a wide proscenium opening, is vital for filling in that first centre wedge of the auditorium and for focusing the apparent source of the sound into the stage.

Four loudspeaker systems

So the final scheme as presented and accepted by the management of the O'Keefe Centre called for four separate loudspeaker systems which, in various combinations, would cope with the different requirements. They were as follows:-

1. Central Array

The original overhead central position above the proscenium was retained, but a large section of the ceiling panel and superstructure was cut away in order to make possible a direct shot to every seat in the house. The only loudspeakers utilized from

the old system were two ALTEC bass bins each with two 15" bass drivers which date back to the original 1960 system. These are supplemented with two JBL bass bins with single 15" drivers, and six JBL radial horns for the mid frequencies associated with six JBL pressure units for the highs. The horns, mounted above each other in an arc for minimum phase cancellation, are utilized as follows: one pair cover the balcony (the required vertical distribution of only about twenty degrees is obtained by bolting the two horns together which effectively increases the energy by 6 dB within the 20 degrees), a similarly arranged pair covers the rear stalls under the balcony, and two single horns cater for the mid and front stalls where progressively less sound pressure level is required. The front horn may be muted from the control console if the front block of seats is removed for an extended forestage or for an orchestra pit.

2. Stereo Music System

The second loudspeaker system comprises JBL bass bins and horns mounted in

specially built towers on the sides of the forestage just in front of the stage proper. With four bass bins and four horns on either side this constitutes a high power system with essentially the same performance characteristics as the central array.

3. Stereo Reinforcement System

For a totally natural sound with a very controlled coverage of the auditorium BOZAK three-way 'concert' columns (having six bass, nine mid range and eight high frequency drivers) are used. Three per side are mounted in the towers along with the bass bins and horns already mentioned. The centre of the beam of sound from the loudspeaker is directed at the rear of the auditorium; thus the maximum amount of energy is focused where it is most needed and amplification decreases progressively as you move nearer to the front.

Two columns are sited for optimum coverage of the Balcony and two for the main area of the Stalls. A triangle of seats in the front near the stage is catered for by the remaining pair.

4. Rear Enhancement System

Because the auditorium is so large it is very difficult to obtain a natural level of sound at the rear without it being obviously amplified towards the front, and vice versa. So we decided to set the overall sound level so that it is comfortable throughout the main part of the auditorium and then add an 'enhancement' system to provide an extra boost at the rear. This consists of twin rows of loudspeakers set flush into the

ceilings above the rear Balcony and Stalls seating areas. Each of these four rows of 8" cone loudspeakers (some 55 in all) is fed via a digital delay line set so that the sound from the main system arrives momentarily *in advance* of the sound from the ceiling speakers. The resultant effect is therefore an unobtrusive enhancement of the natural ceiling reflections.

Apart from the general increase in level of some 2-3 dB there is also a restoration of some of the higher frequencies which have been absorbed en route from the stage. Thus the articulation factor is greatly improved.

Although designed primarily for Speech Reinforcement it has been found that even with performers using a close microphone technique the Enhancement system appears to improve the acoustics in these relatively low ceiling areas.

Amplification

All the main loudspeakers, including outlets for portable stage monitors and effects speakers, are driven by H/H S-500D power amplifiers; some eighteen in all. The enhancement system is driven by four H/H TPA 50-D power amplifiers operating into a 70 volt line.

Each amplifier is fed via a screwdriver preset gain control on a separate panel, and run with its front panel gain control fully open. Thus, in the event of failure, amplifiers may be interchanged without upsetting the critical overall balance.

Graphic equalizers were incorporated in

the amplifier chains to the central array and enhancement systems following tests with pink noise and an IVIE spectrum analyser (confirmed by ears).

Mixing Console

The original intention was for the mixing console to be installed in the centre of the auditorium where the operator could properly balance a stereo mix, but the economics of the permanent loss of ten prime seats proved a powerful argument for an alternative position at the rear of the Orchestra. However, all the wiring is run via a junction box in a room below the centre of the seating slab for a possible future move. The mixer, designed by Theatre Projects for Rank Strand Sound, has twenty-four mic/line input channels (with full equalization and three auxiliary sends) selectable in mono or stereo as appropriate to eight group output channels. The mono outputs are normalised via a patch field to amplifiers associated with the Central Array and the Enhancement, and the stereo outputs are normalised to the stereo music and reinforcement systems. The two remaining outputs are each fitted with four rotary gain controls for selection to any combination of four power amplifiers which connect to socket outlets on stage for portable effects loudspeakers.

An unusual feature on the mixer is the flexible sub-grouping arrangement. By depressing an internally-lit push button on the groups, any of Groups A-F may be connected to become a Sub Group Master contributing to Groups G and H. Thus Group G and H become the main stereo output and may be suitably patched to one of the loudspeaker systems. A pan control associated with each sub grouping push button assigns the sub group to left or right. The mixer can become 24 into 6 into 2. Or, perhaps more typically, 24 into 4 into 2 with the Central Array and Enhancement remaining as separate output groups.

In addition to the twenty four main input channels there is a 40 channel sub mixer comprising 10 triple input microphone modules with level controls only and 10 single mic/line input modules with treble/mid/bass tone adjustment. Routing of any combination of submix channels to the main mixer is via a pin matrix. The console therefore has a total input capacity of 63 channels (assuming the submixer is all patched to only one channel of the main mixer).

The 530 way mini jack patch panel has been designed with as much 'normaling' as possible so that it is possible to plug up 40 microphones on stage such that they will appear on the mixer without the necessity for any patch cords in the jackfield. Another 20 circuits in the orchestra pit are also 'normalled' to the mixer. Insertion points for the main inputs and group outputs also appear on the patchfield which can be used for external signal processing equipment.

An additional feature of the patching is that the entire jackfield is connected in sections by multiway plugs and sockets to the installed wiring and the console. This



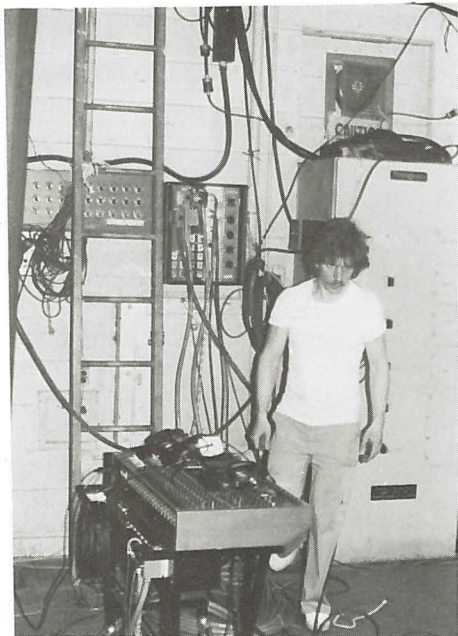
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Worried Sound Man with foldback monitor mixer off stage right



63 input, 8 group mixing desk at the rear of the stalls

extensive use of multiway connectors is a flexible arrangement for interface with touring sound systems.

Patching of foldback monitoring to the stage from two auxiliary sends is via the patchfield either directly into the monitor amplifier/loudspeaker system or as line level feeds into a portable monitor mixer.

The Monitor Foldback Mixer

A separate monitor mixer may be connected via multiconnectors down stage left or right. It has 16 inputs with variable cross-point routing to four group outputs. Each of the standard input modules has simple three-band boost and cut equalization plus input sensitivity and mic./line selector switch.

The system is planned such that selection of all microphones used by the monitor mixer is set up at the main jackfield under the control of the main sound operator. This was done to prevent some of the 'surprises' which can occur when such patching is done on stage.

Echo Units

A Master Room Dual Echo Unit housed with the amplifier racks provides two separate mono signals or may be combined for stereo operation. Normally one would be reserved for the main sound system and the other used with the stage monitoring system. Reverberation times can be remotely varied at the Mixing Console from 1-3 seconds on one half of the unit and 2-5 seconds on the other half.

Stage Outlets

There are three four-compartment Technical Facilities Panels, one either side of the stage and one in the orchestra pit, for microphones, loudspeakers, communica-

tions and power. Microphones for use with on-stage orchestras are connected via 20-way plug boxes on multicore extensions from the Technical Facilities Panels.

Communications

The communications system was specially designed to be compatible with the American CLEARCOM system used by many touring companies. It comprises a single channel headset system with belt-packs which may be plugged in at a number of key technical positions. It also incorporates a second channel which appears with the first at selected locations where loudspeaking outstations are fitted. At these outstations the technician can, if he so wishes, listen to a mix of Channel A (all the headsets) and Channel B. He may talk to either channel by means of a two position-and-off key switch. The control unit has a 'crash call' facility by means of which the stage manager will automatically be heard at full listening level at each outstation.

Testing the Loudspeaker System

It is seldom that one gets the chance to experiment with different types of loudspeaker systems properly installed in a large auditorium. And it was extremely gratifying to find that all my theories appeared to be justified.

The column loudspeakers together with some 'fill-in' from the central array and the enhancement system provided better than plus/minus 2 dBA variation throughout the entire auditorium with a broad band measurement of pink noise. With a talker standing some twenty feet away from the 'float' microphones we measured towards the rear of the auditorium a lift of some 16 dB in the voice without any apparent shifting of the source image or colouration

of the sound. And that is quite impressive.

The Music System utilizing the centre and side bass bins and horns provided a broad band variation of plus/minus 2 dBA throughout. Measurements of taped music showed peaks of 122 dBA in the centre of the auditorium with no signs of distortion or clipping.

The System in Use

We were warned that no matter how excellent a sound installation most of the leading singer/entertainers would want to use their own equipment. It has been somewhat of a surprise that during the last few months performers like Rosemary Cluny, Engelbert Humperdinck, Cleo Laine, and Johnny Dankworth have used the system to the full and Paul Anka, Cher and Johnny Mathis have used the amplifier/loudspeaker installation tied in to their own mixers. The reason for not using the system complete is partly due to a local union ruling which precludes a visiting sound engineer from using the installed mixer.

Cleo Laine's manager told me that on their previous visit to the O'Keefe Centre they only used ten microphones and spent the entire three-hour orchestral rehearsal trying to obtain a good sound. This time they were using thirty-eight microphones plus four separate mixes of foldback monitoring, and, apart from a few comments on the orchestral balance, they were able to concentrate entirely on their music.

I was in Toronto whilst Johnny Mathis and Cleo Laine were performing and I was very content to see in the press reviews for both of these excellent performers little phrases like 'excellent diction', 'crystal clear voice', and 'sounding better than ever'. It is from this kind of reflected glory that a sound man receives his accolade. For a sound system which is noticed is usually a bad one.

A Restoration and the Birth of a Festival at Buxton

DEREK SUGDEN

Buxton is a very special place. It was a Roman Spa used in Elizabethan times where Mary Queen of Scots took the waters whilst a prisoner at Chatsworth. It had its heyday in the eighteenth century when the Duke of Devonshire built the Crescent and reached its zenith at the turn of the nineteenth century when Matcham built the Opera House in 1903.

It is the highest borough in England standing one thousand feet above sea level with a collection of buildings all constructed before the first world war and tied together by a street pattern which always brings one to the forecourt of the Opera House and that 'green lung' and river which sweeps in, without any apparent interruption, from the surrounding Derbyshire hills.

My first impression on visiting Buxton in July 1977 is still very vivid – a marvellous Opera House, amongst some quite extraordinary buildings in a town which had missed all the horrific development of the last twenty years that has torn the heart out of some of our most lovely towns and cities.

The Opera House is the last building of a remarkable group linked by a conservatory designed by Edward Milner and Sir Joseph Paxton and overlooks the 'green lung' which terminates in the Pavilion Gardens. The other buildings in this group are a Playhouse, the shell of which dates from 1892, the Pavilion itself designed by Edward Milner in 1871 and a steel framed octagonal Concert Hall designed by Robert Rippon Duke in 1876.

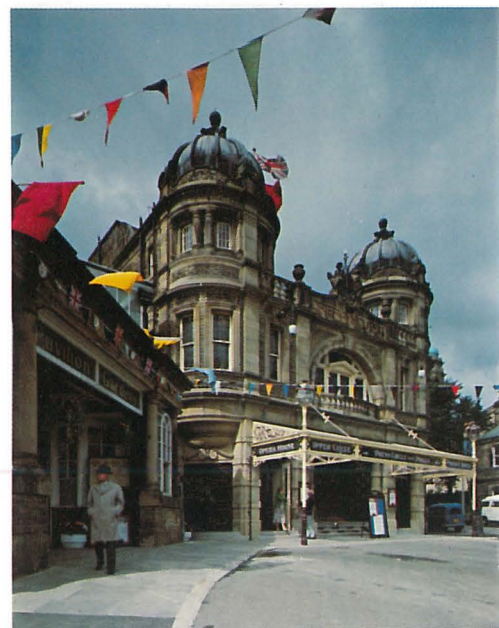
When Matcham's Opera House opened in June 1903 there was accommodation for twelve hundred people: eighty in the stalls,

five hundred in the pit, one hundred and forty in the dress circle, two hundred in the upper circle and two hundred and fifty in the gallery, plus some thirty standing in the upper circle. The price of a seat in the gallery was 6d.

Matcham's design has remained virtually intact, apart from the introduction of a projection box for the cinema. The seating however has been replaced over the years. Gone too is the class structure of Matcham's seating design. Originally there had been individual seats only in the four rows of the orchestra stalls and the dress circle, the rest of the house being in traditional benches. Slowly this caste system had been eroded and the benches replaced with individual seats, except in the gallery. In the upper circle, a raised timber floor had been introduced above the concrete risers giving a greater width between seat rows but requiring a handrail above the resters. As well as being badly designed and detailed, this handrail seriously impaired the sight lines from the upper circle.

In addition to a few but damaging deviations from Matcham's design, the Opera House had been badly neglected for decades. Fortunately, the house had been well constructed in masonry, concrete and structural steelwork, and apart from some isolated cracking of the gallery floor slabs due to the increased load from the projection room, the structure of the building itself was in good condition.

In the Autumn of 1977 Arup Associates were asked to prepare a report on its restoration and opening in time for the 1979 Summer Festival.



The brief can be summarised as 'The provision of an orchestra pit as large as the geometry and acoustic of the auditorium would allow, and the restoration of the Opera House as near as possible to Matcham's original design'.

The main constructional work was confined to the orchestra pit. After the first detailed surveys of this area, it was decided to design a steel frame which could be inserted without interfering with the existing stage structure. A system of steel cantilevered beams was designed such that the beams could be placed beneath the existing timber beams. The new orchestra-rail was moved approximately three feet into the auditorium giving a twelve feet extension of the orchestra pit beyond the edge of the stage. This gave an orchestra pit of some eight hundred square feet and provided room for eighty players. The programme and budget did not allow for an orchestra pit lift which would have been ideal, preferably in two sections, to allow different configurations of a forestage for theatrical work. The area behind the new orchestra pit wall was planned for a future band-room, lavatories and instrument store.



The brief can be summarised as "The provision of an orchestra pit as large as the geometry and acoustic of the auditorium will allow and the restoration of the Opera House as near as possible to Matcham's original design" (photography M. Charles).

The rest of the constructional work was concerned with extensive repairs to the auditorium front-of-house areas and dressing rooms.

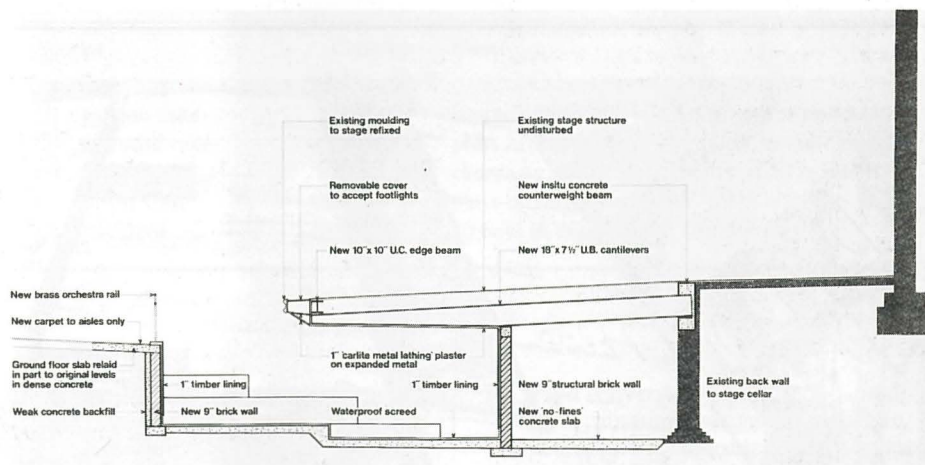
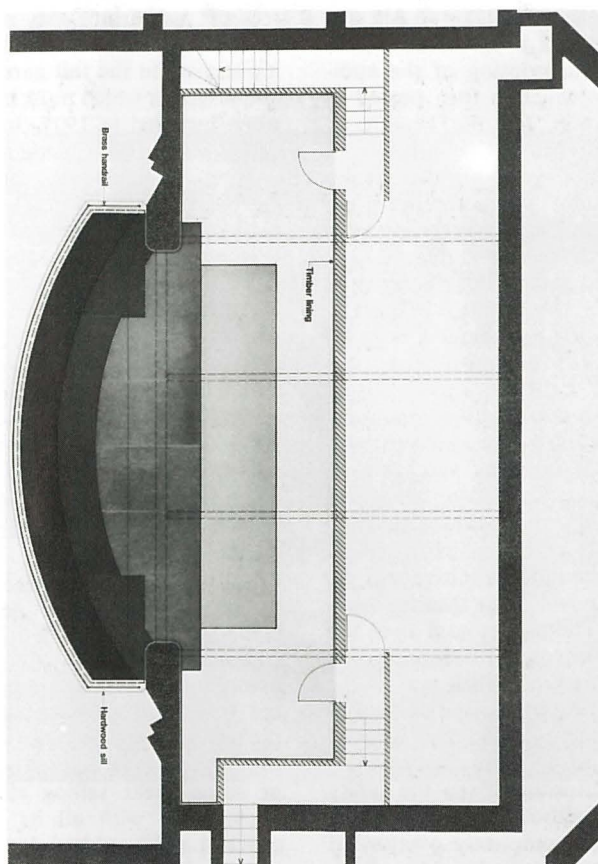
The whole of the electrical installation was renewed and in the auditorium new positions for modern stage lighting were introduced and appropriate decorative light fittings were reinstated throughout the building. On stage there is a choice of lighting controls, either the reconditioned Grand Master of the 1930's or the opportunity to connect into a portable modern memory system.

A new heating system was designed using the old radiators. The Cost Plan did not allow for any major mechanical ventilation in the auditorium so the original natural ventilation system was reinstated by restoring the gas fired sunburner in the centre of the dome. This was dismantled, cleaned, modified for North Sea gas and put back into service under the guidance of Brian Benn of Theatre Projects Consultants Ltd. and in the inspiration of Terence Rees author of 'Theatre Lighting in the Age of Gas'. It is now controlled by a modern electronic system from the restored projection box. A new mechanical ventilation system, with the necessary sound attenuation, was provided in the orchestra pit.

An appreciable amount of research was done in arriving at a scheme for the decorations, and restoration of the furnishings. There were many descriptions in the Technical Press of 1903 which describe the house as being in cream, gold and blue, and with more detailed descriptions in the Local Press of striped seating coverings and blue silk curtains to the boxes. A real breakthrough, however, was the discovery in one of the boxes of a pale grey-blue carpet, with a darker blue classical motif which fitted descriptions given by local people who still remember the house when it was first opened. This carpet proved to have been made by a firm in Brighouse who undertook to weave a new carpet to the identical colour and pattern on an old loom of 1907.

All the seating, apart from the fixed gallery benches, was removed and either replaced with restored seats of the period or with the removed seats restored and recovered. The seats were covered with a velvet fabric, chosen to match the dark blue of the carpet. Existing brasswork was restored where possible but a new brass orchestra rail was designed together with new brass restor rails at the ends of the aisles and gangways. The existing tabs were vacuum cleaned in position and fit quite well with the new colour scheme. In the foyer, the ceiling pictures were cleaned and old wallpaper removed to expose the original white marble of the walls and staircase. Pale blue wallpaper was used in the panels which had originally been covered in pale blue silk.

Matcham was no purist where architectural style was concerned and juxtaposed classical and art nouveau forms with enormous confidence and panache. All the stained glass panels and windows were restored and their combination with classical forms can be seen in the upper circle and dress circle bar. Although in a



PLAN & SECTION OF NEW ORCHESTRA PIT

somewhat sorry state, the original 'Mackintosh' like sofas in the upper circle saloon have been retained.

Acoustic measurements taken in October 1977 indicated a powerful direct sound with a very good distribution throughout the house. For such a small intimate compact auditorium, the reverberation time of 1.1 secs. is quite high. The restoration of the auditorium attempted to keep this to a maximum by limiting the carpet to the aisles and using a weave with an absorbency coefficient of only 0.2. The big challenge was to produce a pit which would provide a natural balance between the stage and the pit sound and, at the same time, provide a comfortable acoustic for the orchestra,

especially those under the stage. As yet, no measurements have been taken but conductor, orchestral players, singers and audience seem impressed with the acoustic performance of the house. In wandering around the Opera House during the second performance of Lucia the sound was powerful, even and clear, but perhaps the violins could have done with a little more shine.

The author is a partner of Arup Associates responsible for the reconstruction and restoration of the Buxton Opera House.

A technical note on the back-stage areas by Iain Mackintosh of Theatre Projects Consultants Limited appears overleaf. — (Ed.)

Back-stage at Buxton

When a new theatre is built or an old one completely renovated it is customary to prepare a simple description of the auditorium and stage which is then posted in theatrical directories for the benefit of managers, both business and technical, who thereby can calculate whether the theatre will fit their pocket and their show the theatre's stage or pit; However, in this instance, very little has been done to the stage area beyond general refurbishments. Hence, orchestra pit apart, previously published guides to the technical installation of the Opera House, Buxton, still apply.

There are two reasons why reconditioning rather than wholesale replacement was chosen. Firstly, there was not enough money, second the back-stage area and equipment were in a remarkably fine state of preservation. The stage flying system continues to be the most primitive and yet the best proven known in the theatre: ropes and manpower. The timber grid over the stage, flying galleries and crossover bridges are all original: the timbers are vast, some 42 feet long of 6 inches by 1 foot solid. The flying is at 7 inch centres. The stage is raked at 1:24 as it should be in all theatres with this form of auditorium. Even the safety curtain is original although the mechanism to lift it has been completely overhauled and smoke seals fitted at the sides where

there were none before. At the sides of the stage can be seen the fork arms for sliding scenery on from the side, a vestigial reminder of the Georgian system of changing scenery in the full gaze of the audience and a system which must have been archaic when installed in 1903. In the auditorium provision has been made for modern stage lighting spotlights and, though no attempt has been made to conceal them from view, the positions have been carefully chosen so as to obtrude as little as possible and still do their job.

All traces of the original traps had vanished from under the stage and hence there was no conflict between conservation and modern practice when the new pit was installed. It is this new pit which also indicates the direction that future renovation will take: an improvement rather than a restoration which aims to increase both the excellence of presentation as well as the range of entertainment the management can provide to the Buxton audience.

There is at present no provision for sound effects and only the most essential communications network for the stage management — not quite speaking tubes but very nearly. A complete renovation of the technical area is yet to come, meanwhile the Opera House stage resembles the deck of some great sailing clipper, still rope hauled and with all its original timbers checked and scrubbed down.

A Strand Grand Master of 1938 has been

completely reconditioned and will provide good service for another quarter of a century or until the cost of spare parts becomes prohibitive.

Strictly speaking it is not a Grand Master but a hybrid of two types: Colour Master and the earlier Bracket Handle with a total of 42 circuits.

Modern electronic systems would offer considerable advantages of circuit handling but the local people are familiar with the old machine, it does its job and the 54 permanently wired circuits can be patched to it or to touring dimmer packs up to the limit of the 150A 3 phase supply available.

IAIN MACKINTOSH

Buxton Opera House Limited

Chairman: Mrs. Margaret Millican
Vice Chairman: Mr. Michael Williams

Interior Contract
Architects and Engineers and
Quantity Surveyors: Arup Associates
Theatre Consultants: Theatre Projects
Consultants Limited

Exterior Contract
Director of Planning: Mr. Maurice A. Brennan,
DipTP(Leeds), FRTP, FACS
Architect: Mr. Antony Walker
Supervising Officer: Mr. Howard Walker
Quantity Surveyors: D. Rogers Associates

Main Contractor for
Interior and Exterior
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The Apotheosis of a School Gymn

I have no immediate plans to commission a new theatre – I have a theatre already, thank you very much, and although it is rather old it can teach most of them younger upstart playhouses a thing or two.

However, if I *were* needing a theatre I think that I would just pop up to Edinburgh and knock on the door of some chaps called Law and Dunbar-Nasmith (they have a likely young lad name of Colin Ross associated with them, but he has not yet gotten his name on to the brass plate).

Now these chaps in Edinburgh obviously know a thing or two about building theatres. They did a great job in Inverness and now, would you believe, they have built a school theatre that upstages our National Theatre.

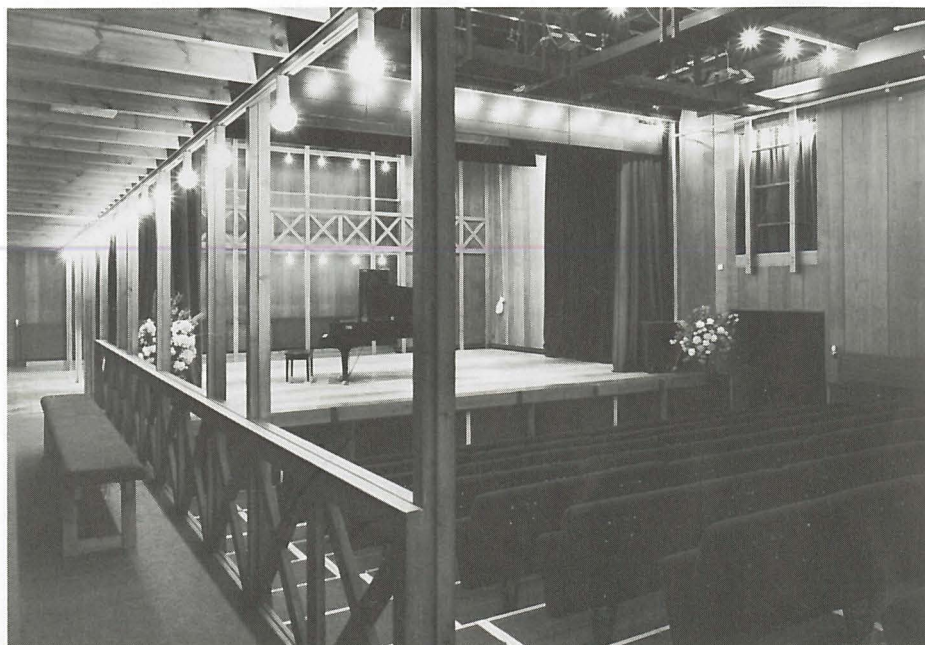
I exaggerate not.

Now I do agree that it does not take much to upstage the Lyttleton – that poor copy of a 1950s German provincial opera house. The Olivier is more debatable but my own personal feeling is that there was no need to go as far as pouring concrete to prove that the much hallowed Bel Geddes ground-plan was a theory that could well have remained theoretical. The NT foyers are super for street theatre and itinerant musicians but for genuine sit-down theatre the Cottesloe is the NT tops – only one basic fault: no colour.

And this is where Law and Dunbar-Nasmith (not to forget their man Ross) have been so clever. They have built a Coloured Cottesloe. And they have built it for the kind of money that, in NT terms, is the pettiest of petty cash.



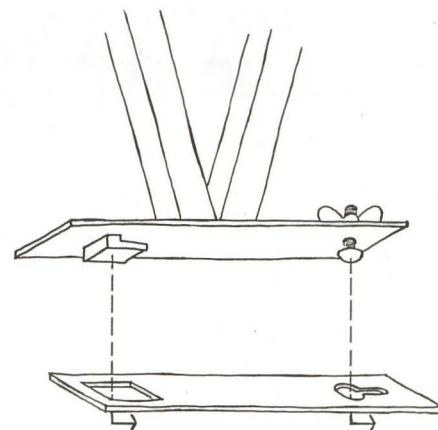
Format	Capacity		Event
	Adults	Boys	
(1) straight rake	239	273	concerts/musicals using small pit for up to 32
(2) extended rake	299	341	plays behind pros. arch, cinema, recitals on stage
(3) full pit	179	205	chorus on stage, full orchestra of 50 in pit
(4) thrust stage	239	270	plays on thrust stage with fourth wall in position
(5) flat floor	N/A	N/A	40 boys in examination; social events



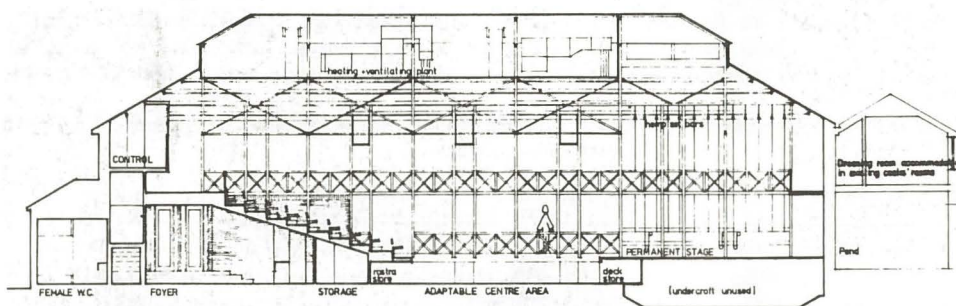
It is a conversion job. Loretto School has lost a Gymnasium but gained a theatre. To someone who always stuck firmly on top of the vaulting horse, a school gymnasium is one of the more gruesome structural achievements of mankind. Therefore to convert into one of mankind's finer temples – a theatre – is a manifestation of civilisation at its purest.

This is an adaptable theatre and it is genuinely adaptable: there is an excellent handbook which describes each boy-move with clear words and clear graphics. This is not one of those allegedly adaptable theatres where the form-changing is so complex that the building very quickly settles down into one fixed form. This theatre is used in all its planned shapes as detailed in the accompanying table (seating capacities based on 15 adults or 17 boys per row).

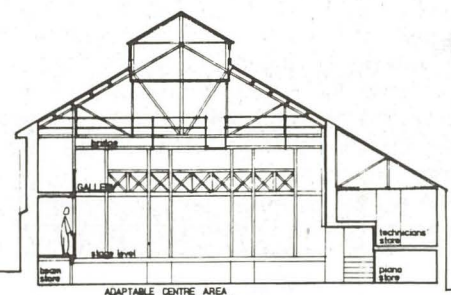
Loretto is an audience's theatre – a theatre which is as sympathetic to inter-audience relationships as it is sympathetic to actor-audience relationships. The only flaw in this is the asymmetry of having a



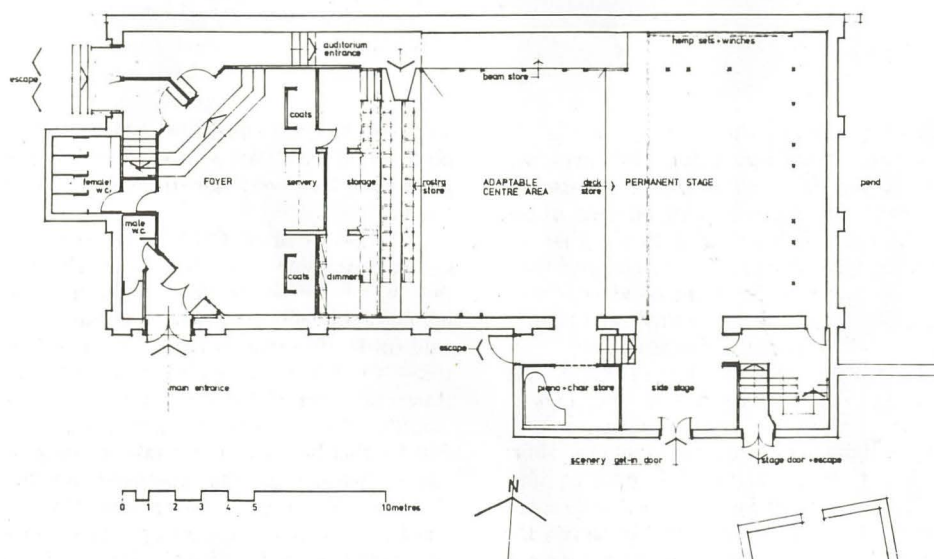
There are 40 removable bench chair units. They require two boys per chair unit to carry and locate in base plates fixed to the adaptable flooring components. They are stored, vertically on end, in the raised store off the side stage (sliding door).



CENTRE LINE SECTION



CROSS SECTION



PLAN AT ENTRANCE LEVEL

shallow side gallery on only one side. This resulted out of necessity (restricted width of the existing building's shell) but I suspect that the team have over compensated in their rationalisation. I accept the lack of symmetry as a necessity but I will not jump on to the dreadful asymmetric bandwagon which I suspect to be a gathering force among theatre activists.

No need to discourse upon the lighting, sound and stage equipment — its all good stuff with some excellent lighting bridges.

Come on Cottesloe, give yourself a coat of paint and grow a few non-structural members. We just cannot have a British National Theatre upstaged by an old Scottish Gymnasium.

FRANCIS REID

Architects: Law and Dunbar-Nasmith
Main Contractor: Campbell & Smith
Construction Co. Ltd.

Electrical Contractor:
(including production lighting)
Arthur McKay & Co. Ltd.

Sound Communications,
Stage Equipment and Drapes: Northern Light
Painter: James Sandie

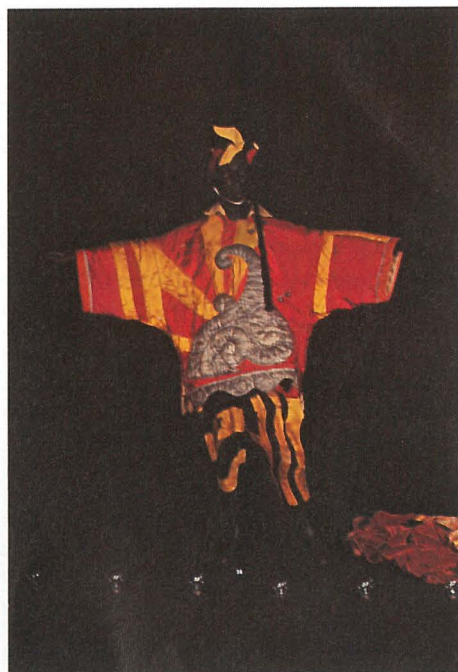
'ETONNE-MOI'

said Diaghilev

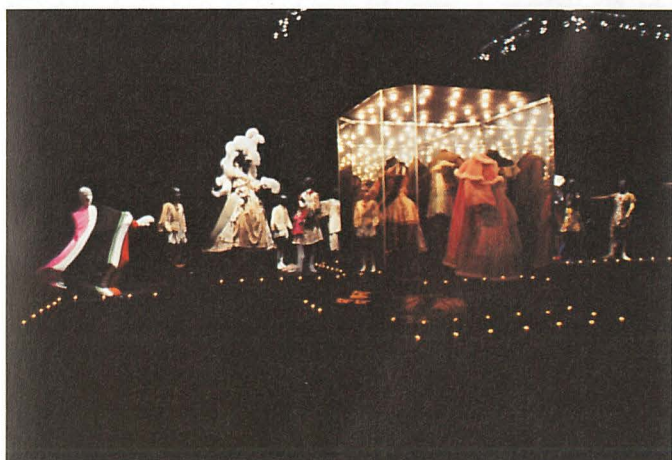
Leotards are properly functional, no doubt, and T-shirts and tights are all very well in their own sweaty way, but, despite the extra purities of bodily movement they may help to convey, and with due allowances for the stringent economy ballet has to practise in, it seems unlikely that they will be treasured in tissue and affectionately inscribed to whomsoever is the Cyril Beaumont of our times. After all, Diaghilev was usually in far worse a mess financially than any of our modern choreographers and impresarios, but just look at the costumes *he* commissioned and the people he commissioned them from. . . .

The exhibition of Dance costumes of three centuries (called 'Parade'), put on as part of the Edinburgh Festival by the Theatre Museum of the V & A reminds us poignantly of just how glamorous ballets used to look. Curiously the effects of sheer visual delight might not have been recaptured half as well had not Alexander Schouvaloff, who planned the exhibition, John Paterson, who designed its staging, and Philip Dyer, who displayed the costumes themselves, taken the very fullest advantage of that very modern box of tricks, the microprocessor.

'It's all very well to peer at collections of



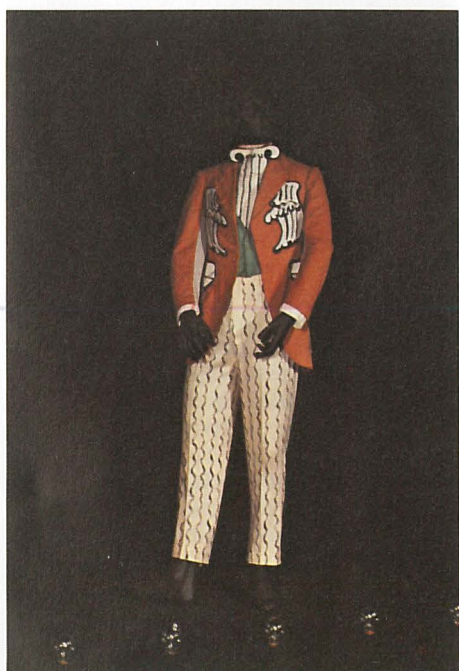
Pablo Picasso's costume for the Chinese Conjurer, worn by Leonide Massine in the Diaghilev ballet Parade (1917).



A general view of how the costumes were presented 'out of the darkness came light'. In the left foreground, a group of costumes for The Sleeping Princess (1921) by Leon Bakst.



Scenery and costumes for Chout, a Diaghilev ballet of 1921, were designed by Michel Larionov. Lydia Sokolova danced the part of 'the Buffoon's wife' (left).



Giorgio di Chirico designed this 'costume for male guest' in the ballet Le Bal (1929), choreographed by George Balanchine.

ordinary day-clothes in a dimly lit museum,' Alexander Schouvaloff says 'but our costumes — by Bakst or Picasso or whoever — were meant to be seen under bright stage lighting, and that's how we wanted them to look. The trouble was that, from a conservation point of view — one doesn't take liberties with Pavlova's tutu — bright light is lethal to fabrics.'

John Paterson's solution to this double problem was to hide his 62 costumes in virtually blackout conditions, using very bright light very suddenly for very short periods to bring them vividly back to life.

'The exhibition had to be open 7 days a week for a month,' he says. 'To satisfy the conservationists, this might have meant I was restricted to a steady 10 to 25 Lux — pretty gloomy for all. By using figure-framing spots in very short bursts — stereo-sound music operated them in tandem — I

was able to go up to 85 to 100 Lux. The good thing was that, as a by-product, the general effect was kinetic rather than static.'

In a later issue of CUE, John Paterson will be describing in detail how he achieved the many surprising 'dramatisations by light' an exhibition of this kind so often calls for (and so seldom gets). The annoying thing is that the loving collection of lovely things in 'Parade' has not yet been seen in London. Alexander Schouvaloff is hopeful. But he also hopes it won't take as long to come through as the go-ahead on his Theatre Museum's move to Covent Garden. The plans are all approved. The contractor is ready. If only Mr. St John Stevas, when he hears the word culture, wasn't so ready to reach for his Treasury big gun.

Autolycus

Revivals, survivals, and many happy returns

'Tempora mutantur et nos mutamur in illis?' Rubbish! Hang around anywhere in show business, at any theatre, fashion-show, or discotheque and everything is *exactly* as it was – and us with it. If the British ambition in terms of work is 'less of just the same for more money', our aspiration for our leisure pursuits is obviously 'more of just the same for less effort'. Hence all those old films and repeats of repeats on TV. Hence the blessed (and profitable) survivals in the theatre like 'The Mousetrap' and 'No sex, please, we're British' ('the longest running comedy in the world' if you don't count 'The Frogs', which was written, no less, to poke fun at Euripides). Hence all these revivals. And that goes for people as well as shows. Not just 'Hello Dolly', you notice, but Dolly and Carol Channing. Not just 'My Fair Lady', but My Fair Lady and Anna Neagle (and Rex Harrison somehow involved). There is also the matter of 'Beatlemania and Brian Rix and of Tommy Steele reviving Tommy Steele.

Any excuse for a birthday, that's us. 'Though one remembers sometimes that it was more fun to blow out the candles on the birthday cake than to eat it.

This issue of CUE has a full measure of revivals, survivals and birthdays to report on. From Frank Matcham's Opera House at Buxton to a parade of Ballet costumes, mostly of Diaghilev's period, in Edinburgh (Diaghilev would have been 100 this year, and it is 25 years since Richard Buckle put on his Diaghilev Exhibition and scented the air with Mitsuoka in the *same* Edinburgh building).

Now, incidentally, comes the news that Strand are reviving *their* London Lighting Lectures at the ICA (tickets from RSE's Mr. J. Powley) on Mondays through November. Our own Francis Reid talks on the 19th. This is his 25th anniversary in the business. In CUE 3 he will be writing about that other happy survivor on the London scene, The Talk of the Town, which is now celebrating its *own* 21st birthday.

Altogether we don't know whether to feel young or old. . . .

Chalybeate springs eternal

It has not gone unnoticed that the gala opening night of the first Buxton festival went off in gloriously, incorrigibly theatrical fashion. The Minister for the Arts, Norman St. John Stevas, one of the evening's lesser lights if you glanced down the guest list, expressed himself greatly relieved when the replacement principal soprano in Donizetti's 'Lucia di Lammermoor' came through the ordeal unscathed. She had arrived two hours before curtain-up, fresh from Munich, unrehearsed and unfamiliar

with the part, to replace the much-heralded new discovery who had been smitten with flu that very morning. In the event everything went well.

The theme of the festival was (loosely) the works of Sir Walter Scott and the programme came out nicely balanced between the two venues at which events were centred throughout the festival fortnight. At the concert hall, a glass and ironwork rotunda dressed up in black and white and pale blue, the BBC Northern Symphony Orchestra gave us, safely but with some verve, a Berlioz overture (the seldom-heard 'Rob Roy'), a Beethoven violin concerto, and Mendelssohn's Scottish symphony. At the Opera House (which Derek Sugden writes about on another page) with its generous trimmings of gilt and cherubs, 'Lucia' was the undisputed jewel in the festival crown. What lingers in the memory, stimulated by the house's blend of intimacy and sharp acoustics, were the ebullience of the choral singing, and the sprightliness of the playing in the pit. Also, of course, the comfortable sight of tightly-packed rows of very Northern faces (standing room sold out by 10 o'clock in the morning. And best seats hit £8, mind). On the fringe of the festival (or should it be the side-whiskers?) the very jolly opera for children, 'The Two Fiddlers' by Peter Maxwell Davies, seem particularly worth remembering.

Finally, perhaps, it is Buxton that one remembers as the main event on the programme. A thousand feet up, with the Derbyshire Dales crowding in on it from all sides, its cascading river, its park floodlit, and, at its centre, an opera house that much travelled Brian Benn of Theatre Projects has described as 'the prettiest this side of Salzburg', the town is a faintly Victorian extravaganza in its own right. It also has citizens with a lot more energy and determination than most towns of its size. This was something admiringly remarked on by the Arts Council's director of festivals, Keith Jeffrey.

Plans for next year are to extend the length of the festival to four weeks (book now), and to retain the idea of a literary theme to tie events together. Paying allegiance to The Bard, the 1980 operas will be 'Hamlet' by the French 18th century composer Ambroise Thomas, and Berlioz's 'Beatrice and Benedict'. Nobody could complain that in the matter of programming, the company at Buxton, drawn from Welsh National and Scottish Opera, was being unadventurous.

Enter pursued by a growl

The rebuilding of the new Lyric Theatre in Hammersmith, West London (opened by the Queen in October) has prompted a good deal of criticism from disgruntled local ratepayers, some of whom have contributed

unwillingly to the theatre's costs.

Why, they demand, has Hammersmith Borough Council lavished 3.2 million on rebuilding the Lyric, not to mention a £320,000 grant for the first year, when down the road the Riverside Studios, also subsidised by the council, is already successfully providing 'theatrical amenities for them as want it'.

Local prophets of doom regard the council's heavy financial stake in the theatre as a proverbial waste of ratepayer's money.

Why not use the money to provide better sports facilities, they mutter. One local worthy even suggested the new theatre should be given to the Poles. The Poles? Yes, he said, the large Polish community thereabouts could do with a theatre of their own. Its very hard to find productions of You Never Can Tell or Macbeth in Polish you know. Even the Lyric's opponents looked slightly askance at this somewhat eccentric idea.

It was left to the local Conservative candidate, Mr. Jeremy Cripps, doubtless keen to make political capital from the controversy, to restore sanity to the debate. 'Beer and bingo are fine,' he exclaimed, 'but we need more than that. With the support of the Arts Council and of local businesses, with the right artistic policies, with expansion of restaurant facilities and the exploitation of television possibilities, I see no reason why the Riverside Studios and the new Lyric Theatre should not both flourish and attract people to Hammersmith as the Mermaid Theatre has drawn people to Blackfriars.'

Not surprisingly, Bill Thomley, the artistic administrator of the Lyric, concurs. When the new theatre was unveiled to the press he said that while his theatre would undoubtedly draw upon the same kind of audience as the Riverside, it would be producing different plays. Where's the competition if the same audience visits both theatres, he argued. 'We are delighted to be cheek by jowl with the Riverside,' he added.

But Mr. Thomley did admit that the Lyric could never be self-supporting, even with full houses every night. 'We will have to take the rough with the smooth,' he said, adding that it was about time the Arts Council, which has so far refused the Lyric a grant, made a contribution to West London.

He emphasised his desire to create a programme which would appeal to the locals in particular, as he hoped they would form the backbone of regular audiences. It was not his intention that the Lyric should be a 'try out theatre' where successful plays transfer to the West End.

Whether the programme appeals to the good people of Hammersmith and its environs remains to be seen. The councillors and theatre people, who comprise the independent trust which administers the Lyric, are clearly optimistic. And that's what show business is all about.

Spanner in the wireworks

The 'Fringe' at this year's Edinburgh Festival was bigger and, some would say, better than ever before. But the hasty construction of auditoria in buildings which were never intended to house a theatre is not without its problems.

Generous spirits would describe what happened at the 'Wireworks' as a slight technical hitch. Those who don't mince their words, including our man at the Fringe, likened the incident to 'a complete and utter cock-up'.

The old Wireworks factory, just off the Royal Mile, is a popular venue because of its close proximity to the Festival box office. The group which hired it was planning to stage anything up to nine shows a day and thus a good deal of money was involved.

Preparations for the construction of the stage and seating seemed to be going well until the organisers made a discovery which sent painful distress signals in the direction of various wallets.

Their inspection revealed the balcony to be three feet higher than planned, with the result that none of the upstairs audience would be able to see much of the stage. 'The sight lines were hopeless,' said our man with his eye on the proceedings. 'The balcony was useless.'

And as if this wasn't bad enough, further inspection revealed that a number of the scaffold-poles supporting the upper tier were firmly planted through the middle of seats below, or, at any rate, where the seats were supposed to be.

Tearing their hair out with frustration were three dedicated technicians from Cambridge University who set to, working for three days and nights to modify the disastrous structure as best they could.

Not the least of their worries was the British Safety Council which together with the Festival Police, the Edinburgh Fire Brigade and the city's building control inspectors were breathing down the Fringe Festival's collective neck.

Some of their demands were mind-bending in their complexity. Floors, for example, must be able to support 83 lbs per square foot on fixed seating areas and 104 lbs per square foot on walkways and exit passageways. In the event of fire an audience making a bolt for it presumably exerts a heavier load on the aisles than it does in the stalls.

Needless to say the diligent safety inspectors, brandishing their fine tooth-combs, unearthed various irregularities in some of the temporary theatres. The Cambridge Footlights Revue lost 60 seats in St. Mary's Hall, St. Mary's Street, when it was deemed to be overcrowded.

Firemen weighed in by insisting that net curtain props in one production be squirted with an anti-inflammable spray. They even held a match to the curtains as a final test.

Edinburgh newspapers warned - 'Fringe is a Death Trap' and the Fringe retaliated with outraged cries of 'too strict, too strict'. But the regulations were satisfied and the shows went on.

Books

What was it really like

FREDERICK BENTHAM

Lighting in the Theatre, Gosta M. Bergman
(Published by Almqvist & Wiksell International, Stockholm, Sweden)

Theatre Lighting in the Age of Gas, Terence Rees. (Published by The Society for Theatre Research, 14 Woronzow Rd. NW8)

In the Theatre any nostalgia in respect of earlier performances must be haunted by the question 'What was it really like?' This even concerns shows seen in youth let alone those we missed and any praised with enthusiastic tone from all centuries but our own. Artistic interpretation is bound to differ but what concerns me here is the means used - the 'works' or what we call in our neat way the technological installation. In music we can find or recreate the sackbuts, viols, krumphorns, forte-pianos and all the rest and then listen to the resulting sound. But what of our equivalent in theatre - scenery and lighting? We have pictures of scenery but due to perspective drawing it may be difficult to disentangle what was backcloth and what was made up of wings or cut-cloths. In the case of lighting we usually don't have a clue and I think most people think they didn't have any in the sense we would apply the word to our stage. The extraordinary thing is that they were not content with just illumination, they did things with their primitive light sources - in other words there were lighting effects!

To aid us in our what-was-it-like quest we have two books, *Lighting in the Theatre* by Gosta M. Bergman and *Theatre Lighting in the Age of Gas* by Terence Rees. Gosta Bergman covers the whole period of artificial light in the theatre but all the real detail belongs to the early days of candles and oil. He arrives at gaslight on page 252 and on page 300 enters modern times with the darkening of the auditorium and endeavours to cover everything from then on in but ninety pages. Terence Rees concentrates on gaslighting with some introduction of candles and oil lamps and a chapter on 'The incandescent carbon-filament electric lamp' as an epilogue, so to speak.

I feel very strongly that the two books are complementary and that any reference library shelf labelled History would be incomplete without both. In spite of the comprehensive treatment gaslighting receives from Rees nevertheless Bergman has something to add. This arises from his different approach to lighting. He begins his book with illumination and talks of Luminance, the Candela, Dazzle, Shadow

and Photometry right at the start. He can therefore apply terms like 'luminous efficiency' to smokey sources of the kind from which we would congratulate ourselves if any light emerged at all!

The snuffless wick did not appear until 1820 and woe betide you if you did not wield your snuffers at regular and frequent intervals. Tests are quoted which show a reduction in light from tallow candles from 100 per cent to 39 per cent after 11 minutes and to 16 per cent after 29. In other words after half an hour the light had been checked down to one sixth - an involuntary twilight for Gods and Stalls alike. Tallow candle flux is given as 10 lumens while the carbon filament lamp of the 1880s gave 160. This would be poor when compared with any small lamp today but must have seemed very bright indeed. The gas sources used in theatre battens and floats were of the batwing family and not the incandescent mantle some of us remember from a brighter if gassy boyhood.

Smoke and smell was a feature of tallow but only the Court could afford wax. Not that modern man would find *any* candles easy to use in stage lighting as witness Cliff Dix's amusing account in *Tabs*¹ of an experiment in lighting Moliere in Hull entirely by this means. The point is made in Bergman's book that 'Theatre depended (until electricity) on the assistance of the living, flickering, mobile flame of light - a perpetually moving light'. Even the gas jet was not steady but in any case the effect of movement must have been aggravated by heat haze. Immense amounts of heat had to be got rid of and Terence Rees describes in detail fittings like the giant sun-burner in the auditorium dome whose heat could not only be 'directly carried off through a tube communicating with the open air' but which went on to ventilate the auditorium in the process. Unfortunately the displaced air had to be replaced and the draughts in the regions below can be readily imagined.

Both books are well illustrated and in the case of Rees there are detailed descriptions and specifications which make it almost a do-it-yourself handbook. Not only is the gas jet end - the burner, solo or in chorus - dealt with meticulously and the gasplate with the various means of connecting thereto but also the kind of duties and lighting plots you could be called upon to perform. However, be it ever so sophisticated for its time, it was all very primitive. Indeed even today the really important part, the lights, still lag sadly behind the control end. We can have everything with

¹*Tabs*, Vol. 31, No. 2, June 1973.

chips except our lanterns or luminaires, call them what you will.

The best way of summing up early stage lighting and effects is to say that imagination was way ahead of the means. They, which included the pioneer lighting designers, were always attempting and possibly achieving the impossible. What is more they did this at considerable risk to life, limb and property. So much relied on what we would call a naked flame. Add to this the use of fireworks, lycopodium and magnesium flares and then go and sit on a gasbag to increase the pressure for the limelight. Explosive mixtures waited upon the unwary, the ingredients being conveyed in very dubious flexible pipes and temporary connections. There are hair-raising descriptions of even a simple daily ritual like lighting the sunburner over the auditorium. Nor were the technicians the only ones at risk, the costumes of chorus and ballet girls were vulnerable in extreme especially as they were the more likely to be in or near the wings.

Outside the North end of the St. Gothard tunnel one can see a memorial to the 800 men who lost their lives during the nine and a half years it took to blast the same number of miles through the Swiss Alps. Perhaps we should put up a memorial to the 'small army of theatrical personnel who, if not actually killed by what was popularly called the *devouring element* were at least disfigured by it. They were the victims of a mixture of indifference and incompetence at both administrative and managerial levels'. In the meantime the least we can do is to read and ponder well the twelve pages which make up the Rees chapter 11, Accidents. Turn the page and we arrive at 'The incandescent carbon-filament electric lamp' – the Swan lamp whose centenary some of us are celebrating at the moment but that of its arrival in the theatre under the auspices of Mr. D'Oyly Carte has to wait a couple of years yet.

What the electric lamp brought which no one could really dispute was safety and respite from the immense amounts of heat but it did not in its early days (shape of electronics to come!) necessarily bring reliability. And this was a reason for some return to gas and of course it lingered on in some theatres as secondary lighting. Incidentally, the streets around Covent Garden are still lit with the stuff. A question which did turn up in respect of both gas and the new electric light was 'Too much light?' and this is with us still. It is a strange thought that what made the development of the equipment so difficult was not so much the production of light but of dark. The now common adjustable beam spotlight is a device for shadowing part of the stage instead of allowing light to spew everywhere from battens, floats and lengths as it had to in times past. What has always made a stage switchboard particularly complicated to design and manufacture has been the need to dim lights instead of just switching on or off like everyone else does. It may be that the history of lighting in the theatre should be seen as a struggle to gain the power to practice the Art of Stage Obfuscation!

PIT, BOXES & GALLERY. The Story of the Theatre Royal, Bury St. Edmunds, by Iain Mackintosh. Published by The National Trust. £1.75 (by post from the Theatre, £2.00).

I first read *Pit, Boxes & Gallery* on the eve of an interview for the job of Administrator of the Theatre Royal at Bury St. Edmunds. I am writing this review of the book at my desk in the Administrator's office below the 1819 scene dock and the absence of my window is the only nit that I can pick in the superb Richard Leacroft drawing which recreates how this theatre must have looked for at least its first decade.

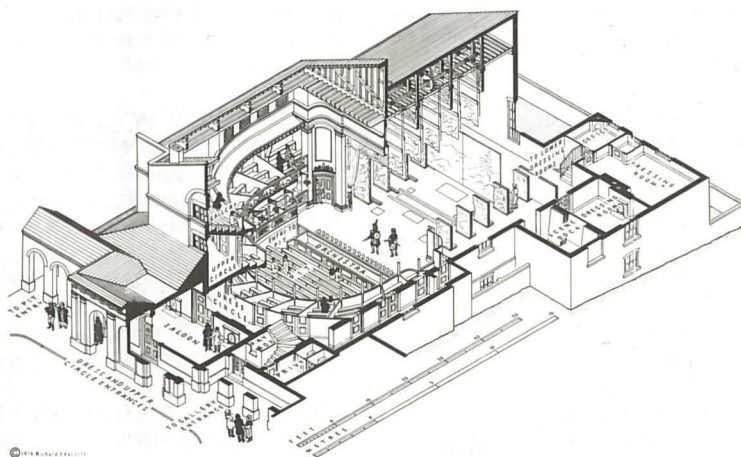
The two events are not unconnected: the book and the job. If I had any doubts that I should, could or would administer Bury, then this book dispelled them. After reading the text and ogling the pictures, I undertook all the appropriate rituals like touching wood, crossing fingers, and hoping that some benevolent divinity was hard at work shaping my end.

The reading of this book brought no stunning revelations – just cosy confirmations of the joys of the Georgian Theatre in general and Bury's Theatre Royal in particular. I am no new convert to the ideology of shallow-tiered horseshoe intimacy (to be fully polemical, the only wedge auditorium that really works for me is the Colchester Mercury). My Georgian conversion began

backed by an extensive scenic stage. The gradual retreat of this forestage until Bertie Crewe's cosmetic remodelling in 1906 to produce a low-budget imitation of an Edwardian theatre. Closure in 1925 and restoration in 1965. Now in the care of The National Trust, an active working community theatre presenting the complete spectrum of spoken and musical performances.

All this is dealt with by Iain Mackintosh in detail that is compellingly readable. And the particular events at Bury are related within a reference framework of general theatre history.

Bury is often described as the last surviving *Regency* playhouse. Iain Mackintosh stresses the *Georgian* aspects. One cannot deny that it obviously had all the Georgian features but nevertheless it is surely a regency theatre in that it looks forward to a post-Georgian theatre age. Can we not speculate that the uniquely *curved* proscenium walls and doors were planned to enable a simple conversion to a proscenium-framed stage? Architect Wilkins was his own client: his brief was probably heavily influenced by his actors but not dictated by them. The actors were resisting the retreat of the acting area to its new position within the scenic stage, but Wilkins must have realised the inevitable. His positioning of the proscenium doors may have given them undue prominence



in the early fifties with discovery of Richard Southern's *The Georgian Playhouse* and a 1956 visit to the (then) unrestored Georgian Theatre in Richmond, Yorkshire. Southern's book did not mention Bury because William Wilkins's masterpiece had been hibernating as a beer barrel store, asleep and forgotten since 1925.

Iain Mackintosh, author of *Pit, Boxes & Gallery* has now assumed Dr. Southern's mantle as our leading Georgian Theatre architectural expert – a status earned by his consulting work at Bury, his projection of the Georgian form within contemporary Inverness, his Cottesloe concept and, above all, his Hayward Gallery exhibition of 1975. If there is a divinity shaping his end, Mackintosh's apotheosis will be the restoration of the Old Vic.

The basic facts of the Bury Theatre's history are simple to state. Built 1819 in the Georgian mode with an acting forestage thrusting well into the auditorium and

but it also made them simple to convert. With one clever stroke William Wilkins must have endeared himself to his actors while anticipating the future tastes of his audience.

I rejoice that the enthusiasts of 1965 (and these enthusiasts included Mackintosh) went for a working compromise rather than a museum reconstruction. As a result we have Georgian intimacy coupled with contemporary comforts and technology. I personally am now lucky enough to enjoy this building daily and I cannot deny that it excites me to be a small brick in the continuing heritage of this marvellous building. With every year that passes, Bury's Theatre Royal becomes an even more vital part of Britain's theatrical heritage – Actors and Audiences alike (and even the more discerning pundits) agree that there are few places as theatrically exciting as a full house at the Theatre Royal, Bury St. Edmunds.

FRANCIS REID

Tempered with reality

BRIAN BENN

THE STAGING HANDBOOK BY FRANCIS REID. 160 Pages, published by Pitman, price £3.95.

One of the most difficult types of book to review is that of specialist technology, aimed at a wide spectrum of readers. It is a statement of how things are, and apart from comment of style, presentation and errors in fact, the reviewer is forced to read it all most carefully in order to judge its success as a source of information. This can be a dreary chore.

In his new book, Francis Reid describes the complex and idiomatic process of presenting a stage performance, and fleshes out the titles and functions of the players in this private drama with a lightness of touch and a strong measure of commonsense. His common theme, running through the three sections of Organising, Staging Departments and Staging Process, is the combination of planning and communication.

As to style, Reid has firmly held back on the comments on the ridiculous or overblown that mark his earlier work, using a gently serious approach to make his point: 'As soon as a theatre starts to receive subsidised income, there can be a temptation for financial control to become a little less stringent. . . .'

or

'Schedules are not imposed: they are agreed. A successful schedule must not only be realistic, it must be agreed by all participants to be realistic. . . .'

or

'The only true solution to the inadequate stage is to accept its limitations and adopt a scenic style that tries to make imaginative use of what exists. . . .'

Having explained the how and the who in the first two sections, Reid then devotes some excellent chapters to demonstrating how the basic processes are shaded in different forms of presentation, ranging from straight plays through musicals, opera and ballet to the one-night stand and the amateur production. This section illustrates both ends of a long scale, using original schedules to illuminate the complexities of handling 'non-available' opera singers in repertoire, and a vivid couple of days at the Piccadilly Theatre when the theatre was being rebuilt coincidentally with the production of *Man of La Mancha*. Even the Albery paint was ordered 'TO BE DRY BY 9.00 A.M.', and no doubt it complied. Another theatre faced with a more rapid planning session is illustrated by a hand-written panto cue list, containing the memorable instruction 'ELEX 3 - Bleed with oboe'.

The presentation of the book is pretty good and familiar to Pitman readers. It is free of typographical howlers and the illustrations are as good as the size and cost of

the book will carry. Not all the photographs are fully identified, which is a small shame. The numerous key words in the chapters are italicized, but in a type face which actually makes them less visible. My favourite illustrations were a photograph of a flyman apparently wearing a sporran (or an athletic support with a dual purpose), and that golden oldie of young Bristow grimly trying to free his hand from a Grand Master colour bank clutch.

As to fact, I must record that Reid has done his homework, apart from a slight lapse in the text where he confuses his brails with his breasts, but disentangles them in the good glossary. The index is cross referenced to the glossary, and the keen reader gets a further reading list of fifteen of the best current books.

The most stove-enamelled old stager will find interest in this book, especially anyone with passing curiosity of work outside their speciality and the jargon and pressures common to others. Reid succeeds in describing and tabulating a very odd environment and its occupants. The learner of any age now has a handbook to use as a check against their opinions of their own excellence.

CORRESPONDENCE

From Mr. Percy Corry

Dear James,

Congratulations on your first issue. Your CUE is interestingly varied and should meet with approval and I hope with commercial success.

Even if the old TABS had survived it was clear that some attempt would have been needed to broaden the appeal. This thought prompts me to offer a modest suggestion for your consideration.

Past issues of TABS have had many articles in which designers have described what they have done and how they did it but lighting, settings, costumes etc. have never had the independent appraisal they deserve. Just occasionally they receive a few lines of approval at the end of press criticisms. The critics restrict their opinions mainly to the script, the acting and general interpretation. It would be a welcome novelty to reverse the emphasis and to have informed critical opinion devoted mainly to the visual and technical details of productions with some assessment of their contribution to or deviation from the general interpretation. This extension of theatre criticism could be stimulating and, perhaps at times, provocative recognition of the work of designers and technicians. It would, I suggest, be necessary to have a critic who is able and willing to provide regular reviews of current productions: reviews that have impartial authority and candour. I hope he would not be anonymous nor be concealed by a nome de plume.

With best wishes.

Yours sincerely,

PERCY CORRY,

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PRODUCT NEWS

Multi-mini-luminaire complexity

The Pattern 123 is dead — long live the Model 803, and Model 833. And Microspot, Minuette 6" Theatre Fresnel, S.F.R. J.F.R. and Spotpak. If there's anyone we've left out, we'd be glad to hear from you in time for our next issue. The point is that the choice of Bread and Butter 500 watt Soft-Edge spotlights has never been so wide and diverse. We hope to correlate performances in a later issue, meanwhile we will establish the pedigrees of the runners in the soft beam stakes for fill-lights costing less than £50.

In the beginning, there was the Pattern 45 and Pattern 123 from Strand Electric, the SFR from Furse and the SE5 from Major. All these took a T1 lamp, all (except the Pattern 45) had a reflector; light output and beam angles for the other three being fairly similar at around 12°–40°. If memory serves, the first attempt at utilising the new generation of T/H. small-envelope lamps was by Lancelyn Lighting of Oxford; using the small A1/2479 and A1/244 lamps. Later the 2000 hour M class lamps were used in what could truly in 1976 be called the Microspot range. This type is still one of the cheapest on the market and has several solid virtues particularly its range of beam angles, 10°–80°, its cable lampholder arrangements and its positive tilt lock. It is available with Fresnel and plano-convex lenses and with lampholders for Par 38, Par 36 (650W. 120V) and internally silvered reflector spots. There are frames for hanging quantities from one stand, and a 12ft. stand will soon be available. About 5,000 of these luminaires have been sold over the last 3 years, a fair number for a small firm.

The next company to market a compact Fresnel spotlight was C.C.T. with their Minuette, which was featured in these pages in the previous issue. Suffice it to say that C.C.T. persuaded Thorn to produce the T18 Lamp, which has the robust qualities needed for theatre and since production of the T18 has been stabilised, the lanterns using it have become very worthwhile units.

Side by side with this micro-world, the battle of the giants has been taking place, with the P28 Lamp Cap dictating a longer lamp house and lens. Rank Strand have two new 6" Fresnels. The Model 833 (suggested lamp T1, 500 watts) and the Model 803 (suggested lamp T/13 650 watts). These two are sold at widely different prices, the 833 competing with Microspot and Minuette at below £30 and the 803 in the senior league at over £40. The polarisation of these lamps into the two price groups is curious, particularly as the 833 and the 803 are virtually the same lantern, the only

apparent differences being that to accommodate the recommended lamp, the 833 has no reflectors, and for economy it has no rear handle. It must also have a restricted lamp carriage (again because of the T1?) as its beam angle variation is much smaller than you would expect of the poor relation to the 803. Incidentally, the Rank Strand range is now excellently documented in a multi-colour handout which unfolds to show mostly in diagram form, all the photometric and other data you would need on all their range of spots, floods, projectors, lighting boards and sundries. The Lux/Throw/spread graphs are complex at first, but enable comparisons with other lamps in their range (and other makes) to be made easily. Perhaps other firms will now consider such clear illustration of their wares.

The other firm to enter the 500 watt market with a conventionally sized product is Berkey-Colortran of Thetford. The difference between their 6" Fresnel and Rank Strands 803 is that the Berkey is rated to 1 kw and carries the option of a P28 or a GX 9.5 Lampholder. The makers claim that

the Borosilicate lens is extremely efficient and photometric data provided appears to support this, especially in the Spot focus. the colour runners, whilst not so light-leak proof as the C.C.T. Starlette 1kw, allow the same barndoors to be used on both lamps. Perhaps this is a coincidence, but it would be nice to think that standardisation had been considered. If and when Berkey bring out a maximum 500 watt Fresnel it will be interesting to see how close or different their product is from the Microspot and Minuette.

And now for something slightly different — I suppose the Furse Spotpak could be called a mini-convertible. *Two into one will go* says the publicity — a *Profile and Fresnel in one lamp* and *The total flexibility of this spotlight enables obscure and original lighting effects to be produced*. Granted, this lantern is built specifically for the schools market and some of our lighting education was pretty 'obscure', but some quite strong claims are made for this lantern. Price-wise Furse has placed their new baby in the upper price bracket which, with the two lenses and three beam masking plates provided, is to be expected. The reflector is adjustable in relationship to the lamp and the lens so that peaking the beam can be achieved. So far so good. Close examination reveals the effects of compromise. In the Fresnel mode, the beam variation is 9°–27°, which is not a lot compared with the opposition. Swap the lens over and a hard-edged 17° is achieved,

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but masks have to be inserted to vary the beam, and to use said masks, the top lid must be removed. Hardly *simple to train and adjust* specially on top of a ladder. With the entire top section off, there must be a chance of hitting the lamp whilst finding the locating tabs to slide the mask into. With no top slot there is also no possibility of using an iris, so the *flexibility* extends only to a limited variation of soft edge and hard edge beam and use for gobo work.

All this talk of hard edges brings us onto Profiles, Mini, 1980's for the use of. Four snappy new lights have the ageing Pattern 23 truly at bay. Already it has conceded its 'N' qualities to the Models 823 and 813, both good for 650 watts in the same lamp-house which stunned the world in the 50's – initially 500 watts was considered too hot for such a small back end. The Rank Strand 823 has a stepped lens for a slightly soft beam of 11° and the 813 has a twin lens system to zoom between 15.5° – 19.5° hard edge. Both these units are in a higher price bracket than any lanterns mentioned so far.

Parallel with the Mini-Fresnel development is the R&D work which has recently created the Mini-Ellipse (Berkey) and the Minuette Profile (C.C.T.). The Berkey has wide angles-variable from 50° to 30° in 3 fixed slots within the lens barrel. This wide angle would make it very useful for Gobo work and the Mini-can screw-base lamp certainly produces a lot of useful light. When the long-life version of the lamp arrives in 240 volt rating, this should indeed

be a good shuttered profile *for short throw applications*.

The C.C.T. Minuette profile is in fact a marriage of the Minuette Fresnel body and the 1kw Silhouette optics, and it is designed for longer throws with its 11° – 30° zoom which is continuously variable and adjustable without removing the lens tube, unlike the Mini-Ellipse. Trials against a freshly polished Pattern 23 and 23N with T17 lamp revealed it to be brighter for the same beam width, and of course the beam of a 23 nearly-N (23 NW?) of your choice could be readily set up. The only niggles were small ones and they seem to have been thought about by the manufacturer – the pre-production model which we tested was not balanced, otherwise it could have been used as a small followspot, but we understand that a heavy rear handle will be available to suit this application. The lamp peaking knob had to be set to one end of its travel for the lamp to be inserted and removed from the reflector interior. The lamp-tray securing button is easy to undo but on all the Minuette range the lack of a finger grip makes it sometimes difficult to snap the assembly back together. Ironically this lack of finger grip is due to the demands of the European market. C.C.T. are also marketing a novel 'Pebble-convex' Minuette, this will have beam angles variable from 12° to 65° with the characteristics of a severely colouved Fresnel. Barndoors may be used.

This has been a long review of a lot of

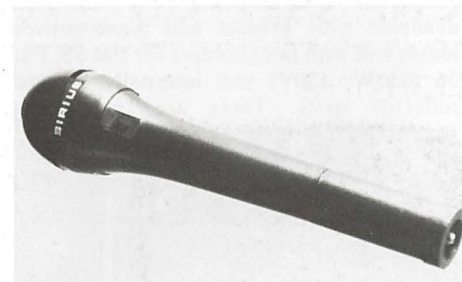
small luminaires, most of them fairly new and very British. We hope that the opportunity we have taken of comparing them will be useful to those who will buy or, more important, to the lucky people who will use them. In the meantime the Pattern 123 lives on in our Theatres, as the Morris 1000 does in our streets.

Silent Tipping

It is high time that we had an interval, or at least made an attempt to woo you non-technocrats back from the . . . wherever you go between CUES. So what better than to consider the seating? Race Furniture Limited have supplied the tip-up pedestal chairs for the Sir Jack Lyons Theatre at the Royal Academy of Music in London. They leave plenty of leg-room between their ten rows in an auditorium seating nearly 300. As the theatre is used primarily for opera performances by the R.A.M.'s students, the silent tipping action should be a conductor's dream. They are covered in red velvet to match the house tabs; we are sure that the audience will feel a sense of occasion in the Sir Jack Lyon's Theatre Auditorium.

A star is shortly to be born

E.D.C. of Wareham, Dorset, are manufacturers of the Cygnus & Minkom radio microphones. They are shortly to add to their range with the Sirius system, which utilises the Shure R97 microphone element in a hand held transmitter section, with an audio compressor and internal aerial. There is no trailing antenna. A range of coloured sleeves and windshields is available.



The receiver section is similar to the Cygnus receiver, but it is smaller and lighter and can be contained in a shoulder pack. Output is switchable between 300-200 ohms balanced, 600 ohms balanced, ODB at 600 ohms unbalanced and 260 mv into 47K ohm load. A diversity system is available which will take some of the headaches out of live mixing and indicates that the system is likely to sell in the broadcasting field as well as the cabaret and rock music markets. Available as an optional extra, the diversity system monitors the output of the individual microphone receivers and selects the strongest signal to the audio output. The basic system is likely to start at below £500 per unit and delivery time will shorten from the present 18-20 weeks once production gets underway. Details of the EDC Cygnus Radio Microphone System were given in Hugh Ford's review in the July 1979 issue of Studio Sound, pages 94-98.

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Testing, Testing, E.M.O.

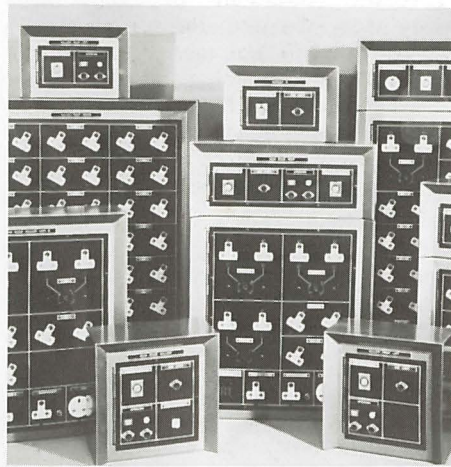
'The majority of faults in professional audio systems occur in interconnections.' So say E.M.O. of Durham City in their description of their new cable tester. We would certainly agree that the most tedious and time consuming breakdowns are in leads that have developed faults. The E.M.O. tester will check 3 pole XLR and Jacks by plug-in fuse links and other continuity problems by use of test leads and should be a great time saver.



Wolsey CUES

C.T.L. (Control Technology) Ltd. of Maidstone, Kent, have made the Stage Managers Communication system and special Facilities Boxes for the new Wolsey Theatre, Ipswich. The consultants, Carr & Angier, are delighted with the finish of the system and the ease with which it was

installed and commissioned. The facilities of the equipment are reasonably complex for a regional theatre — the stage manager's desk can be used from 5 different locations for instance. The special outlet boxes with recessed panels (see illustration) are particularly neat and we understand that C.T.L. are carrying out the same good work at Oundle, where the Congregational Church is being converted to the Stahl theatre by Oundle School.



News Flash

Lancelyn Lighting, Oxford are launching a new Flash Box. It uses conventional flash powder, operates on low voltage and costs £17.50. It can be used with LeMaitre detonators, and renewable interiors will be available at around £5.

CORRESPONDENCE

Dear Sir,

Your note of Balearic Horseshoes (page 31 of the very excellent first issue) prompts me to write about another horseshoe which I came across on a visit to Funchal in Madeira, in September 1978.

The newly restored Teatro Baltazar Dias had, so we were informed, been reopened shortly before our arrival with a performance of 'Twelfth Night'. This was directed by Dr. Leopold Kielanowski.

Outside, the theatre is in a dignified 'Empire' style; inside, if a badly smudged newspaper photograph is to be believed, it is, once again, the horseshoe of boxes.

'The excellent stage lighting was donated by the Gulbenkian Foundation,' reports the Madeira Island Bulletin. This journal, published largely for the benefit of tourists, also carried the following comment by Dr. Leopold:

'The Teatro Baltazar Dias was a magnificent setting for the play and it pleases me to see it restored to its original purpose. I think that it is not well known that in fact there was ambitious and distinguished theatre in Madeira during the 19th and early years of the 20th century, but unfortunately it died out. I will never forget after a rehearsal in February (1978) climbing an old stairway at the back of the stage to the loft and finding an original poster of Eleanora Duse pasted to the wall.'

One wonders how many other 'horseshoes' remain to be discovered in unexpected locations.

Yours etc.,

J., B. Smith,

50 Union Street, Swindon, Wilts. SN1 3LD

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Between Cues

The thoughts of
Walter Plinge

Royal Advertising

The Plinge Award for Autumn Advertising is shared by two Theatres Royal... Bristol and Norwich. Bristol with a small repertoire by its own company requires only an eye-catching poster with a simple listing of show titles to ensure a clean clear sell. Norwich with a vast varied mixed programme has to get across a more detailed message and so uses full-page newspaper ads in colour. Both Theatres earn full marks for imagination, impact, and information. Unlike the Edinburgh Festival which has adopted a new trivial squiggle meaningless logo. Apart from the logo, Plinge enjoyed this year's Edinburgh and so he wrote the rest of this page between cues at the Festival's Troilus & Cressida – one of the longer and less poetic pieces of Mr. Shakespeare.



McCandless Lights On

Stanley McCandless is alive and well and living with the University of Rhode Island Summer Theatre Ensemble. Recommended reading for their lighting crew: chapter five of Howard Bay's *Stage Design*. There is probably more lighting sense concentrated in this single chapter than in all the other lighting books (including Plinge's) lumped together.

Raising Standards

The Rector's pulpit announcements included an anniversary reminder of the Raising of the Standard of Prince Charles Edward Stuart. The linking theme at this year's Edinburgh Festival was, after all, war. But the main business of the Sunday

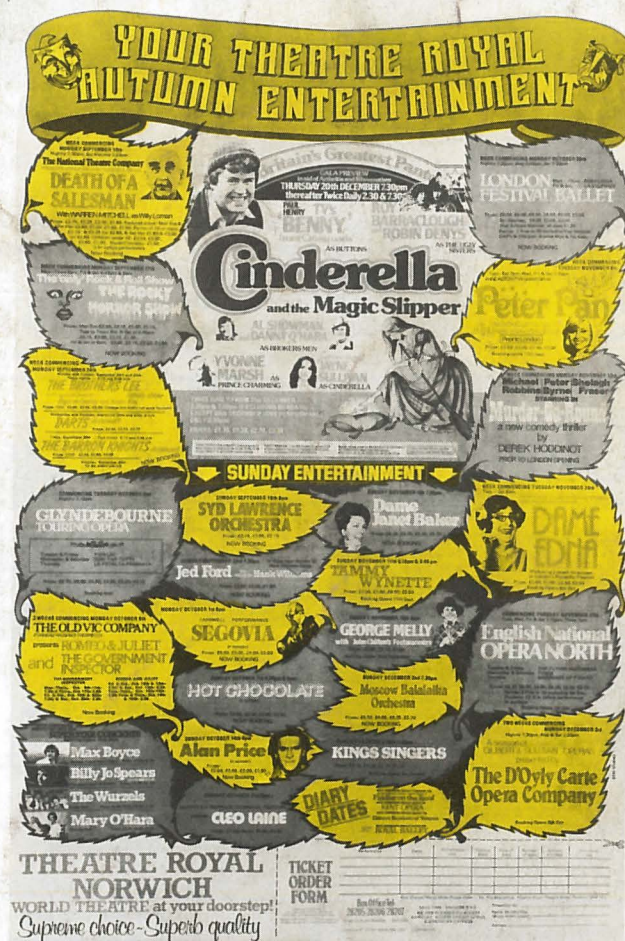
morning was Haydn's Mass in the Time of War played not as a concert piece but within the context of the Mass. Authenticity of context. Authenticity of scale. Authenticity of architectural environment. This is the stuff that festivals are made of.

Lighting Anonymous

Enjoyed the live music at *Dancers Anonymous*. Enjoyed what I could see of the choreography. Didn't see much though. Never did so many dancers miss so few light pools. Lighting Designer was anonymous too. Poor chap (or chappess) . . . must have had a frustrating afternoon.

Plinge goes a-haunting

My first appearance on any stage was as Covetousness in Marlowe's *Faustus*. My single speech in this neuter part must have been reasonably acceptable because, although I never graduated to leading lady, I did enjoy a respectable career as an up-stager of leading ladies by going well over the top in my portrayals of sundry maids, aunts and grandmothers. Then my voice broke and I was relegated to playing a series of breathless messengers. My passion at school, however, was certainly not to act: I wanted a slice of the real action, I wanted a bash at the scenery and lights. No way. My curriculum was based on classics and biology: by mutual consent I took no part in woodwork, metalwork or technical drawing. Therefore I was totally barred from any association with stage technology. The only way to get in on the school play was to act. I have been overcompensating ever since by ruthlessly pursuing a career in theatre technology without qualifications of any kind, and on the most rudimentary



Procession Management

The prompt corner was a street corner, or a T-junction to be more precise. The bands of music were assembled to the left and the carnival floats to the right. The stage manager (probably not his title, but certainly his function) cued them as required to form a well-balanced procession. Simple really. Wish it had been my idea.

knowledge of mechanics and electrics. Having survived on this basis, I am now turning my unqualified attention to theatre administration without the slightest knowledge of the basic principles of accountancy or marketing. But I ramble . . . the purpose of this paragraph is to relate how (nearly) forty years on I found that old stage in Edinburgh and declaimed Marlowe to an empty auditorium. Did it make me feel good? No, rather silly actually.