

The background of the cover is a classical painting. It depicts a woman with curly hair, wearing a white, flowing dress with a red sash, holding an open book. She is surrounded by several cherubs (putti) in various poses, some holding books. The scene is set against a dark, atmospheric background with soft lighting on the figures.

# CUE

**Technical Theatre Review**

November/December 1982 £1.25



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The cover shows a part of the painting 'Mrs Bilington as St. Cecilia' by Sir Joshua Reynolds which features strongly in *The Royal Opera House Retrospective 1732-1982*, an exhibition staged at the Royal Academy in Piccadilly from 7 December 1982 to 6 February 1983. The exhibition is subtitled *250 years of actors, singers, dancers, managers and musicians at Covent Garden as seen by the artist*. It has been devised by the same two experts who devised *The Georgian Playhouse 1730-1830* at the Hayward in 1975, Geoffrey Ashton and Iain Mackintosh who has also written the cover story.

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# CUE

## Technical Theatre Review

### November/December 1982 20.

## PANTOMIME, PROFITS . . . . . . and POLICEMEN

*Policemen, too, have been the favourite objects of ill-treatment. They have been subjected to every form of indignity, been cuffed, pelted, kicked, bonnetted – but all things considered have borne it with considerable good humour.*

This is not an extract from an 1982 report on the state of law and order in our inner cities. The year is 1864, the magazine is *Punch*, and the subject is pantomime. Dear pantomime, our only truly indigenous national theatre form. Probably our last truly bankable theatrical asset. The panto advance relieves autumn cash flow crises, while the ice cream profits ease the chill that can blow through box office takes when credit card statements reveal the cost of our annual extravagances at the season of trees, turkeys and trimmings.

But can this panto profit continue? The signals, long at amber, are now firmly red – rich saturated primary number six red. The consequences of recycling insufficient of the punters' pounds back into the production pot. Comedians' jokes are an area that might well benefit from an investment programme. Rehearsals are shrinking: soon they will be vestigial. And how about budgeting for a rediscovery of technological magic?

Panto is too important to treat as a terminally decaying golden goose. Not only is it the first theatrical experience for many children, it is the only annual theatrical experience for many adults. The Arts Council and the Regional Arts Association must surely add pantomime to their agenda agonies.

Meanwhile CUE extends Seasonal Greetings to all theatrefolk, whether workers or watchers – and especially to all those policemen who, twice daily, will be passed through the mangle in the laundry scene to re-emerge as flat cut-outs.

# Autolycus

## American initiative

In keeping with the ancient Greek traditions which considered drama competitions as integral a part of the Olympic Games as discus throwing, the organizers of the 1984 Summer Olympics in Los Angeles are arranging artistic events to accompany the athletics.

There will be exhibitions of dance, painting, theatre, music and photography, with dance – appropriately – given pride of place as the art form most closely associated with athletics. No fewer than 11 dance companies have been invited to an eight-week dance festival, including the Dance Theatre of Harlem (the marvellous all-black classical company), the Winnipeg Ballet, Merce Cunningham's company and the ever-inventive Twyla Tharp company.

There may even be a taste of opera as well, with the avant-garde composer, Robert Wilson, giving the world premiere of his new opera. The organizing committee has commissioned 15 artists, including Robert Rauschenberg and Roy Lichtenstein to create posters for the Games that are expected to be available in January.

Hollywood has made an effort to help, too, by postponing its usual spring movie festival, Filmex, to the summer so it can take place during the Games instead.

It seems appropriate that the Americans should initiate such a move, in a way, since they have long considered sport as an integral part of showbusiness. Look at the big-name boxers, footballers, baseball players and so forth next time you're in Joe Allen's, either in London or New York. With the growing power of the popular media, the difference between Jimmy Connors and Daley Thompson, Luciano Pavarotti (who also sings Italian love songs, remember, and made his first Hollywood movie recently) and Mikhail Baryshnikov, the so-called "sex bomb" and "darling" of dance in America, is getting smaller by the day. For instance, all of them have enormous showbusiness rating; all of them are used, in different ways, to throw weight, glamour or notoriety into events like gala evenings, chat shows, commercials and so forth. It is the cult of the personality. Sebastian Coe is making commercials; swimmer Sharon Davies is writing for women's magazines; Una Stubbs and Lionel Blair will spend the rest of their lives on TV quiz shows, playing charades; and opera singers and dancers are expected to become more and more "interesting" and glamorous for the benefit of *Daily Mail* and *Paris Match* readers. Where will it all end?

The 1984 Los Angeles Games may provide interesting pointers, since media coverage will no doubt be enormous – in-

cluding that of the cultural goings-on. Could it possibly set a precedent?

## French initiative

Monsieur Mitterand's decentralisation of local government in France during the summer and the head-on battle he thereby brought upon himself with the likes of Jacques Chirac, mayor of Paris, (who understandably wasn't keen on being demoted to petty officialdom) must not be taken as proof that the French will always resist attempts at decentralisation. We've uncovered some heartening news of successful decentralisation, not merely in the arts, which has aimed at regional centres and companies for some time, but in the stuffy field of broadcasting.

The top brass decided to experiment this summer, and transmit live coverage of the top French music festival, that of Aix-en-Provence, for a whole month or more. So they moved whole fleets of lorries and trailers out of Paris down to Aix, not far from Marseilles, and turned France Musique, the French answer to Radio 3, into an enormous, sprawling electronic campsite, struggling against intriguing odds to turn out a day-long diet of music, just as if they were back at the studios in Paris. And the marvel is, it worked.

Traditionally, listeners (who include an Autolycus contributor) are offered a similar musical output to that of Radio 3 for some 19 hours a day, seven days a week. True, the addition of personal views and philosophizing on the varying merits of different scores (. . . "I would say that Beethoven sums up the deepest yearnings of the human soul . . ." etc. etc.) is unspeakably tedious compared to the drier, more analytical approach of the BBC, but this is a quibble, for it is the music that counts. Point being, France Musique undertook an enormous burden of live outside broadcasts – with interesting results.

For starters, their heavy cable lines got under everyone's feet, meaning that simple acts like closing a door became impossible a lot of the time. Engineers with headphones over their ears running about all day long, did little to soothe singers' or musicians' temperaments – especially since, thanks to France Musique, every performance was going out "live", instead of to the customary close-knit audience of music buffs. The audience had grown from a few thousand each night, to a few million – a disconcerting prospect for performers at the best of times, let alone every night of the week.

The heat in Provence is considerable, in the height of summer, and it can literally drain you if you aren't used to it. Which is exactly what it did to the performers. The

new artistic director of the festival found to his dismay, that many of the singers, especially, simply could not muster the energy to perform in the evening *as well as* rehearse the next morning. It was either one or the other: Result: performances did not all come together as they might have done, which was annoying when France Musique was standing there with microphones to pick up the slightest mistakes for listeners in Normandy, Alsace and Dauphiné (that's around Grenoble, actually). One or two star names were interviewed about this, and related how professionally embarrassing it had all been – *mais qu'est-ce qu'on peut faire?* Moral: never forget what a taxing business performing can be – even if the Côte d'Azur seems a blissful prospect.

The exercise was deemed a hit, all the same, and the French, who rightly argue that their best music festival (for which, they, the taxpayers must fork out, anyway) should be made available on the French airwaves, have agreed to try again next year. Just why France Musique deems it necessary however, to move everything, telephone switchboard, transmitters, the lot down to Provence for the festival, Autolycus finds hard to rationalise. Unless, why of course, they're all down on the coast getting away from the microphones!



If like most of us you don't aspire to owning original paintings there's still a lot of satisfaction and enjoyment to be had from those faithfully executed printed copies which modern printing processes are capable of producing.

Take the one shown here for example. It's a poster-size (31 x 23") reproduction from an original screen print by Anthony Benjamin. Full size it is a stunning abstract on a surrealist landscape evocative of the best modern scenography. A limited number of copies have been produced on heavy paper and are available at the remarkably modest price of £2.25 including postage and packing from Rosco, 69/71 Upper Ground, London SE1 9PQ.

# A quarter millenium at Covent Garden

IAIN MACKINTOSH

Air Canada has air-lifted our cover girl to Burlington House. Painted between 1786 and 1789 she had left these shores for New York in 1848 to decline into relative obscurity in Fredericton, New Brunswick. Now she is back and epitomises the celebratory mood of *The Royal Opera House Retrospective 1732-1982*, now showing in the Private Rooms of the Royal Academy, 7 days a week (save for the Christmas holidays) until 6 February 1983.

Mrs Billington made her Covent Garden debut on 13 February 1786 in Bickerstaffe's *Love in a Village*, a ballad opera in the tradition of *The Beggar's Opera* - more a musical of the day in contrast to the more serious Italian Opera which, until early in the nineteenth century, was confined to the King's Theatre in the Haymarket. Mrs Billington was an immediate sensation. A critic reported that she '*at once took the position of the first and best of all stage singers in my time. The pure and flowing melodies of Arne acquired new grace from her execution of them. The majestic movement "In Love should you meet a fine pair" produced an effect which literally haunted the ear. In addition to all this, she was a lovely woman and graceful in all she did.*'

Within the year Reynolds was painting her portrait. He had already completed his *Sarah Siddons as the Tragic Muse* (Royal Academy 1784). This painting was to be its musical equivalent. The ravishing result was shown in 1789. Everyone loved it except for Haydn who thought the cherubs should have been listening rather than singing themselves; however, even their wicked faces contribute to the painting's sensuality. In the years to come Mrs Billington was to have a picturesque career including marriage to a singing teacher who died in apoplexy in Naples, an engagement at the San Carlo, close friendship with Lady Hamilton, a second French husband and a strange death in 1811, some say beaten to death by the second husband, on her estate near Venice. Reynolds' portrait shows a woman to whom such things could well happen.

Rediscovering Mrs Billington was one of the greatest pleasures in putting this exhibition together. In my partner's miraculous card index there was a smudgy photocopy of a bad photograph of a painting by Reynolds, size unknown. But the card did show where it was; in a small art gallery in a remote town in the Canadian maritimes - the sort of place you fly over rather than to. My Theatre Projects Consultants business taking me often to Toronto I diverted myself to Fredericton in mid June and one wet Monday morning at nine o'clock presented myself at the Gallery. There she was, larger than life, and so now, thanks to a great extent to Air Canada, here she is in the Reynolds Room of the Royal Academy presiding over an exhibition of over 200 items: paintings, engravings, sculpture and photographs.

Another dimension, which makes the return of this picture so appealing, is that she represents the spirit of music and opera despite being painted in the first century of

Covent Garden's life when the theatre was primarily a playhouse. Handel was certainly in charge of music in the first years of the theatre's life but this was the product of personality and financial clashes at London's real opera house in the Haymarket rather than evidence of a tradition of serious opera at Covent Garden. The Theatre Royal Covent Garden, (the theatre's title until 1847 when it became the Royal Italian Opera) enjoyed a near monopoly of drama because its founder, John Rich, held one of the two patents granted under Charles II. Rich held the Davenant Patent, used successively at the Duke's Theatre, Dorset Gardens and Covent Garden, while Drury Lane had, since 1663, operated under the Killigrew Patent. The Patents served two purposes: they granted a joint monopoly, which was the next best thing to the subsidy of princely patronage but which ceased to be effective after the liberalising Theatres Act of 1843, and they also set the two theatres apart from all other places of entertainment in granting them their rights direct from the Crown and therefore outside the jurisdiction of any licensing authority. (In this respect the Patents are still valid, hence the fact that 'Item No. 1' in this exhibition is the Davenant Patent, thought lost until recently, now found and here on loan from a private foundation in Philadelphia.)

The illustration on the next page suggests

what the first Covent Garden felt like as a theatre in its early years. The year is 1747, the close of the only season for which David Garrick was a member of the Covent Garden company (from Autumn 1747 to Summer 1776 he ran the opposition at Drury Lane). The stage is tiny, the proscenium only 26 feet wide. The scale was not much larger than the Criterion Theatre today although double the number of persons could be, and were, crammed in.

Such literal presentations of actors and audience are rare of Covent Garden as they are of almost all eighteenth-century theatres. But, fortunately for us, the great artists of the late eighteenth and early nineteenth centuries, painted the great actors, singers and dancers. The immortality of one artist gave a degree of immortality to the other. Thus in this celebratory exhibition the theatrical painter is our Prospero, conjuring up those who have long since melted into air. The reader of CUE who ventures into the Royal Academy will find himself in the greatest Green Room imaginable.

It is difficult to write an appreciation of an exhibition with which one has slept for so long but which at the time of writing (November) has not yet given birth. There is a fully illustrated 144-page catalogue, 20 pages in colour, with both individual entries and also comprehensive essays. Although there is no space here for even a summary it may be worth drawing attention to two

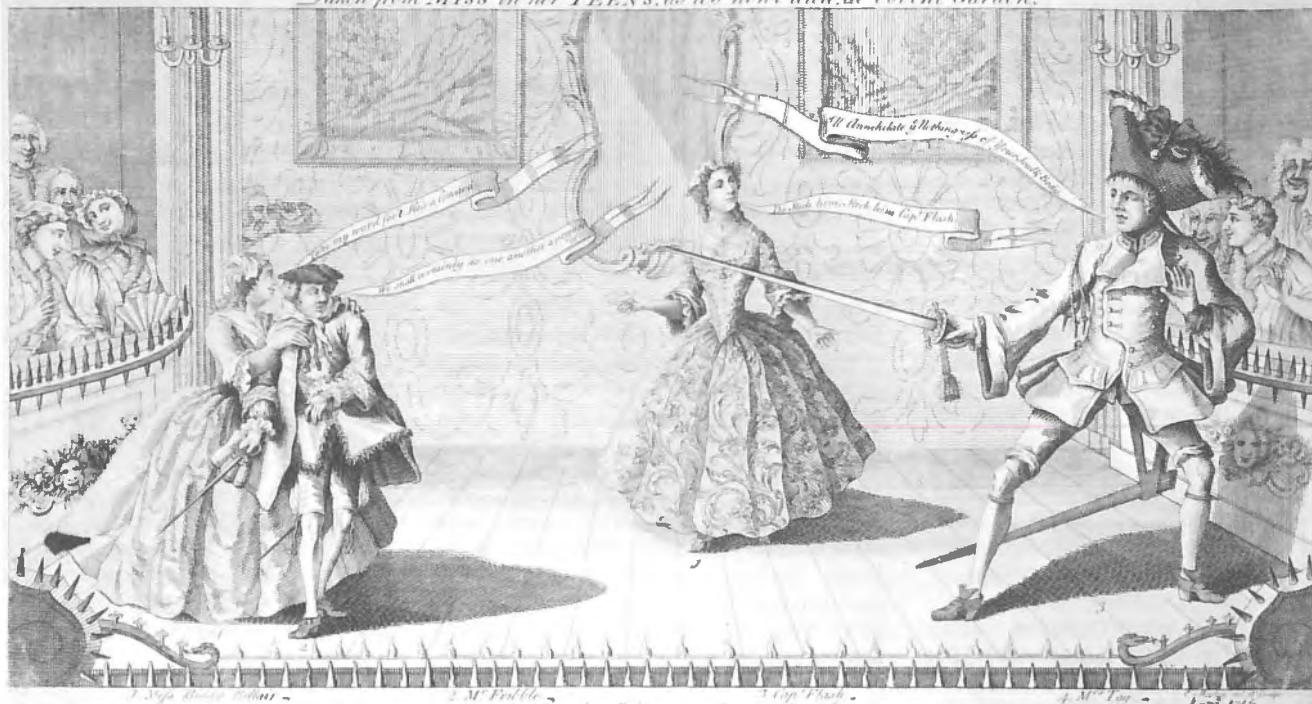
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THE MODERN DUEL.  
Taken from MISS in her TEENS, as it's now, acted at Covent Garden.



aspects of our theme. For although first rate theatrical painting provides the central theme to the 250-year story there are other dimensions.

The first is the architectural sub-text. The author had long been irritated by the reference to the 'three' Covent Garden theatres – the first of 1732, Smirke's neo-classical theatre of 1809 and the present theatre by Barry of 1858. But this is an oversimplification that positively misleads. Not only was the first auditorium gutted and rebuilt in 1782, but what was virtually a new building was put up in 1792 by Holland, who was shortly to rebuild Drury Lane at a similarly greater scale in 1794. Holland's Covent Garden Theatre burnt down in 1808 and the auditorium of the

new theatre that replaced the old continued a tradition (Holland's) rather than creating a new one.

Similarly the transition from all-purpose big theatre to Opera House did not, as some suppose, take place on the building of the present theatre by E. M. Barry in 1858. Then the manager, Frederick Gye, asked of his architect no more than a replacement for the theatre he had lost. This was the Albano opera house auditorium inserted in 1847 into Smirke's older theatre. Indeed Albano's opera house of 1847 with its six tiers of boxes was, if anything, even bigger and grander than Barry's with four tiers.

The exhibition and accompanying catalogue redefine the turning points in the architecture – 1792 not 1808 and 1847 not

1858 – by establishing Chapter headings which correspond both to the changes in style of acting and of painting and also to the developments in policy. Thus the period 1732 to 1947 fits neatly into three parts and the three parts into three rooms at the Royal Academy.

This leaves the last 35 years. Since 1947 the Royal Opera House Covent Garden has been our largest single state-supported theatrical organisation. The achievements have been immense. Opera and Ballet in London had been previously episodic, dependent on individual talent like Beecham or on hazardous finance such as that raised by the Grand Opera Syndicate. Since 1947 we have had the continuity of two great companies, the Royal Ballet and the Royal Opera, which have not merely attained but maintained international stature. But there have been no great theatrical painters to record the great performers. Accordingly in this exhibition we have decided to take the theatrical photographer seriously and rely on his or her eye to give us more than a documentary account of singers and dancers. We hope that his or her own insight into movement, into performance and into beauty itself will show that the theatrical photographer has inherited the role of the theatrical painter. You must decide whether the seventy-six photos which we have selected succeed in doing this.

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# COMFORT AND CONFIDENCE

Concluding this CUE series, FRANCIS REID adds a reminder that the actor is a human individual in an increasingly technological environment.

Spotlights in ideal positions. Pointed precisely. Angles just right. Beams softly tuned. Colours delicately toned. Areas clearly selected. Atmosphere appropriate.

Enough? Not quite. There is another vital ingredient. The actor must have comfort and confidence.

Lighting that is 'comfortable' to an actor is in fact rather in the nature of a controlled discomfort. Or perhaps 'professional discomfort' would be a more appropriate phrase. An actor needs to feel a touch of glare in the eyes to believe that character can be projected. A sensitive actor feels the light. Feels it enough to be aware of the degree of personal visibility. But not whether the balance between the characters is correct. A sensitive actor who has studied lighting will develop an awareness of the sculptural quality of the light in the acting environment. (*aside*: it is my sad personal observation that the acting schools teach less about the nature of design than the design schools teach about the nature of acting.)

Apart from sensing the eye light, the actor may need some help in feeling comfortable. For example, in some auditoria the foh lighting angles from ceiling bridges and side wall booms can be excellent in lighting design terms but have a disconcerting black hole just where the audience is. Especially in comedy, there is little comfort in standing at the point of command to embrace an audience void surrounded by a series of light arches (rather like goalposts) getting larger as they recede from the actor – a most disturbing inversion of the laws of perspective.

There is a possible solution that I have used with some success – although I have had to measure that success by the cheerful uncomplaining disposition of my actors since any discussion with them might destroy the cheat, but honest cheat, upon which the method is based. As observed earlier in this series, horizontal light from the front of a low balcony is unsuitable as a component of normal actor lighting whether for visibility, sculpting or atmosphere. Well, at least from the audience viewpoint. But a little glow can be comforting to the actors. Fresnels on a flooded beam angle but with top and bottom barn-doors squashed to a slot and hitting straight in, no crossing, at eye level. A very small proportion of the total light. With 50 or 60 foh from top and sides bashing in with palest tints at about point 8, I have used half a dozen fresnels with middle saturation filters at about point 2½. (I refer, naturally, to points on the only civilised dimmer curve, i.e. the one that gives me personal operational satisfaction – the old Strand 'S' curve.)

A low-intensity of light from this angle

does practically nothing for the actor except induce a cosy comfort. With filtering, the technique can be used to encourage the actor to feel chilly misery but is rarely required since sadness tends to be a more introverted emotion than joy. On the other hand, happiness and comedy are somewhat dependent on the actor receiving positive response of the kind that does not come from a void: eye-level lights help to provide an audience focus. (This is surely a statement to provoke a cry of rubbish in a reader or twain.)

This actor comfort was one of the important functions of footlights. They often gave more positive help to the actor in this way than their negative influence as a barrier to the actor/audience relationship. (Do I hear further cries of rubbish?).

In passing it should perhaps be noted that the lighting for drama exercises in schools is frequently used to create a working ambience for the actors (there is no audience). I am surprised that lighting is not used more often to create a working ambience for the actors in the workshop sessions that are now a regular part of the creative process in the rehearsal room. There seems to be some case for a simple emotional lighting from time to time to stimulate the search for character. Once discovered, the character has to be projected by the actor's technical ways and means. At this point, lighting would become an aid for the audience rather than the actor. But I fantasise.

What is not fantasy is that the transfer from the rehearsal room to the stage is something of a traumatic experience for any actor. It is not easy to come to grips quickly with the projection demands of an audience room while acclimatizing to a technological environment where various elements have to be integrated with each other and with the actors in what is often a ludicrously short time. This is where confidence is vital. The actor must have confidence in the lighting designer. Indeed the actor must have confidence in the whole production team. Perhaps in theory it might be thought enough for the actor to have confidence in the director who controls the whole production team. But increasingly complex technology and ever tighter schedules mean that the director just has to delegate large areas of responsibility in order to concentrate on the totality.

Lighting is a particularly important element in the confidence area: most other contributions produce designs in a graphic form which is understandable to the non-specialist. The performances can be seen growing in the rehearsal room and the designs taking shape in the workshops. But the lighting cannot be realised until a very late point in the production process. As one director once put it, somewhat brutally but

truthfully, "plotting lighting cues becomes easier after the first half hour or so: one then begins to know what one has not got."

Intensive planning is the main requirement to overcome this, but actor confidence is a vital adjunct. The actor must be able to accept from the lighting designer "yes we have a problem here, but we are working on it and the idea *will* work." The main way to get confidence is naturally to ensure that at the next rehearsal all is right. But the actor's confidence must be sufficient to survive several interventions of Murphy's Rehearsal Law which states that unrelated disasters tend to occur to the same actor at the same cue daily.

Actor/lighting designer confidence can come in various ways. A little, inevitably, from reputation (but this has been known to work inversely!). Mutual confidence is easier in a company with regular actors and staff. Otherwise it is a matter of the lighting designer showing concern by regular attendance at rehearsals (often difficult due to the low fees which have always been a feature of freelance lighting design in Britain). And talking to the actors informally from time to time – showing interest, knowledge and concern for the actor's problems. The actor is rightly worried by the mass of anonymous faces that can surround a production desk in an otherwise deserted auditorium – wearing 'cans' and chanting numbers. But if the faces are familiar and have regularly shared a beer, a joke and a moan, the threat is diminished.

It may be a much frayed cliché but we need to repeat it daily: *theatre is a people industry*.

...And as this is  
Christmas CUE...

## A FEW THOUGHTS ON LIGHTING PANTOMIME



If anyone has anything important to say, they will come down front! If the lines are particularly important, they will be delivered into a microphone, probably centre. With twice daily full houses of responsive lungs lubricated with ice-cream, this is the only road to actor survival. So follow spots and a bit of frontal bash will look after faces, leaving the rest of the rig to wash in

the bold extravagances of colour that panto demands . . . and are a joy for any lighting designer to have a chance to give.

For solo songs, remember the old dodge of a coloured full-body follow spot for the costume, with a tighter pale tinted one for the face.

I only ever do without footlights in panto if their presence will impair the sightlines to the dancers' legs.

Battens with heavy saturated, near primary colour are useful for toning the cloths, cuts and borders.

If the scenery is from stock, it will need increasingly saturated filters as it grows older.

The hangings, especially downstage, are usually too close to allow much scope for backlight, but downlighting is possible and often essential from bar one to get some depth into the shallow playing area downstage of the frontcloths.

There can be so many flying pieces that side lighting usually has to focus straight across rather than on a diagonal.

When the chorus are standing still (i.e. listening or singing but not dancing) it is often better to treat them as scenery for lighting purposes.

Gobo texture is virtually an essential component of the palette for shading over the joins and cut-off edges that appear as an inevitability of a hanging plot that has to favour scenery rather than lights.

The memory board, with its ability to do a quick recall of lighting states that include excruciating levels like "2½ double plus with a just a tickle more", has enabled the most unlikely spot bar focussings to make a painting contribution to the front cloths.

And please join me in shedding a tear for any pantomime unfortunate enough to have its principal boy played by a boy. (Even worse, one theatre this year is having its Mother Goose played by a girl: *is nothing sacred!*)

# Aspects of the Acoustic Design at Plymouth

RICHARD COWELL

The acoustic design for the main auditorium at the Theatre Royal Plymouth emerged from an interesting range of influences – many of which are common to other projects, some of which are unique. The design development included some fundamental research, some use of new techniques and, of course, the application of established principles. This article describes some of the more interesting features of the acoustic design.

As many readers will know, the building, designed by the Peter Moro Partnership, is located adjacent to the Derrys Cross roundabout in the centre of Plymouth and contains two auditoria – the main theatre auditorium and a small studio theatre. The larger auditorium is a 1296-seat theatre, with a moving ceiling. The ceiling can be lowered to cut off the upper gallery, leaving 768 seats in the lower two tiers. These are linked by raised side stalls on one side, lending asymmetry to the lower auditorium.

The stage is brought forward into the auditorium with the front taking the form of three sides of an irregular octagon, each parallel to the seating arrangement in the auditorium. The forward part of the stage is a lift allowing scope for an orchestra pit.

## Intended function of the auditorium

The auditorium was to be designed primarily as a major drama theatre to accommodate not only the local theatre company but also touring companies. Within the confines of achieving this requirement, the building was also to allow scope for as wide a variety of complementary functions – e.g. musical concerts of limited scale, opera/opera, cabaret/light entertainment – as possible.

## Design Targets

The acoustic design targets were therefore set mainly for a drama theatre. However, to allow for the other functions (and bearing in mind that the acoustic needs of a concert hall are quite different from those appropriate for speech) some means of adjustment to the acoustics was necessary.

At the preliminary design stages the volume of the auditorium was low and it became clear that any substantial increase in volume was not compatible with the relevant financial restraints. Indeed, it was found that balconies would need to involve relatively deep overhangs to accommodate the audience. As a result, the volume per seat is very low, even for speech. Therefore, even if the ceiling were treated as a solid

construction which could be opened to include the volume above it, this resulting total volume was not enough to suit music. Options were therefore to consider (a) use of the fly tower volume, (b) use of reverberation enhancement using loudspeakers. The use of the fly tower was considered but the quality and timing of the sound returning from the tower was not sufficiently appropriate in itself to solve the problem. This did not mean that a contribution from the tower could not be helpful, and it has proved possible to take advantage of some of the reverberation in the tower, provided it is controlled. To avoid a 'booming' or 'ringing' tower during use as a theatre, it was necessary to introduce some sound absorption on a permanent basis. This took the form of permanent lining of the tower with exposed wood-wool panels. Being a touring theatre, reliance on fly tower contents alone to deaden the reverberation was not enough although the contents remain an influence on the feedback from the tower.

It therefore became apparent that music – particularly romantic music – was unlikely to sound well without an alternative form of reverberation control. At this stage it was decided to consider electro-acoustic reverberation enhancement. The Assisted Resonance (AR) system, born and bred in the Royal Festival Hall London (and subsequently used in a number of other halls in the UK and overseas) was considered to have the best track record and to be the most likely to succeed in the building. The system works on the basis that sound is collected by an array of resonators containing microphones, each dealing with a given bandwidth of the relevant frequency range (63–1303 Hz), and is amplified and fed back via loudspeakers in a manner which prolongs the decay of room modes and therefore prolongs reverberation.

Therefore, reverberation time targets were set on the basis that the natural room acoustics would suit drama. A reverberation time at mid-frequencies close to 1 second was intended with a very small increase at low frequencies. Assisted

RICHARD COWELL is a Principal of ARUP ACOUSTICS. He carried out much of the architectural acoustics design before the Spring of 1980 while still employed by Sound Research Laboratories Ltd of Colchester. The work was completed in association with Sound Research Laboratories.

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Resonance was to be used to raise the RT by up to 100% in the lower octaves (which are more important to the warmth of the music) and 50–60% at mid-frequencies.

Other acoustic targets for use of the auditorium for speech included emphasis of the early sound i.e. taken as the sound reaching the listener within 50 milliseconds of receipt of the direct sound, control on noise from mechanical services to a limit of PNC 20 + 2dB, adequate sound insulation from external noise and elimination of obvious acoustic faults. In the case of music, the low noise levels and elimination of faults remain important but a greater proportion of later sound (reaching the listener after 80 milliseconds) is preferred. The Assisted Resonance contributes to this requirement. Another important element of good acoustics for music is strong lateral reflection to the listener. Within the many constraints of the design this was to be encouraged. Some provision was needed to throw reflections back to performers. In the case of an orchestra, an element of enclosure was needed to help players hear each other and to contain the sound sufficiently to avoid undue disturbance by the large volume of the fly tower.

#### Form of the auditorium

Acoustic requirements played their part in influencing the geometry. In particular, the concept of a moving ceiling presented questions about its shape and its role, if any, in distribution of sound from the stage.

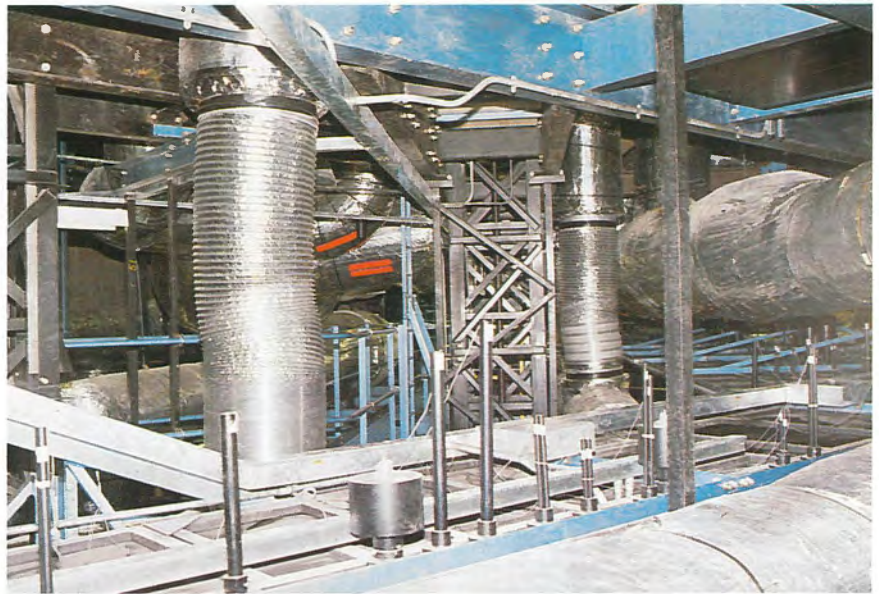
One of the features of thrust stages in large auditoria tends to be the absence of extensive side wall surfaces sufficiently close to the performer to reinforce the sound to the listener without such a long delay as to cause 'fogging' of the sound. Where performers come forward on stage, and can then face away from part of the audience, there is also a tendency to lose the speech clarity. With careful design, a ceiling can provide useful reflections to all seats to overcome these limitations.

However, a moving ceiling makes this provision more complicated. The geometry needs to ensure that with both upper and lower positions, reflections (from a wide variety of positions on the stage) are distributed without focussing or without 'dead' spots.

Calculations were carried out to find appropriate geometry for reflecting ceiling panels. The recurring conflict between sound reflection and location of lighting bridges was complicated by the movement of the ceiling. However, with careful adjustments to the geometry of the ceiling planes it was possible to suggest a means of satisfying both.

#### An acoustic model

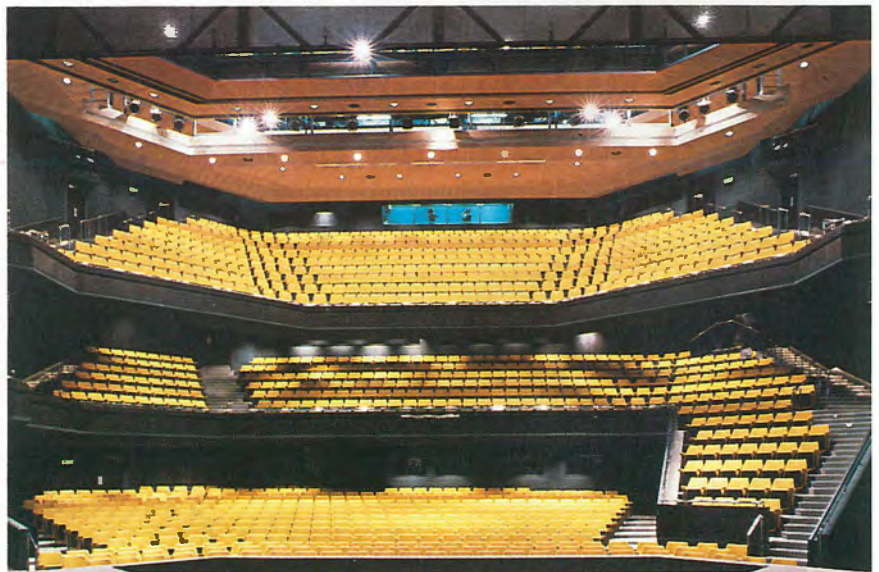
Because of the importance of sound reflection from the ceiling, concern about the effects of deep balconies and interest in the proportion of 'early' to 'late' sound reaching the listener, an acoustic model was proposed. The author was aware of some experimental work being carried out on techniques for modelling acoustics in the Department of Architecture at the Univer-



*Flexible duct terminations above the moving ceiling. Some of the Assisted Resonance elements can be seen in the foreground.*



*The tall lightweight screens behind and around the orchestra provide diffuse mid/high-frequency reflection.*



*Performers' view of the auditorium.*

sity of Cambridge. Most of the work had been done on large models e.g. 1:8 scale, although trials at 1:50 were under way. By scaling the wavelength of the sound by convenient factors and drying out a model sufficiently to counter absorption by the air itself (which is substantial at very high frequencies), signals can be fed into the model and scaled measurements taken. Based on experience of sound absorption by the various materials and seats at full scale, substitutes are selected for construction of the model to match this absorption at the smaller scale.

The particular benefit of the smaller 1:50 scale is that the size is sensible for building within a reasonable time. The model also offers the Design Team potential for study of a number of non-acoustic aspects of the design. We therefore decided to construct a varnished timber model to 1:50 which included the ceiling and scope for its movement to both the intended positions. Arrangements were made for tests to be carried out at Cambridge University. Absorption by seating was modelled and a variety of sound source and listener positions were checked in terms of sound distribution, 'early' to 'late' sound energy ratios and the influence of minor changes in the geometry. An attempt at reverberation time prediction was also made.

As a result, modifications were made to the ceiling and account was taken of measurements which indicated very strong 'early' sound, good sound distribution and reverberation times possibly not as short as might be predicted by conventional calculation (perhaps as a result of screening of many seats by the overhang).

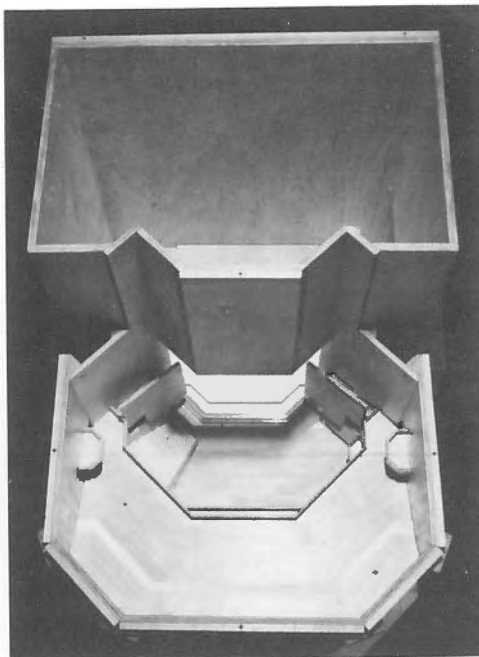
Although the model could not provide entirely confident prediction of the room acoustics characteristics, and a large number of assumptions had been made (particularly about the role of the fly tower on the auditorium), the trends and clues offered very helpful support to the assessments being made at the time.

#### Under-balcony reinforcement

At this stage, there emerged a number of particular points of interest. It was felt that the deep balcony overhang would tend to encourage less successful listening beneath. As a result, a passive sound reinforcement system tied in with show relay was introduced under the balconies. This system is designed to throw tiny quantities of sound down to the listener from above with appropriate delay and frequency content to be similar to a reflection from an overhead panel. It is passive in as much as it does not need adjustment by the sound operator during performance. A similar principle was followed for the Assisted Resonance system. Loudspeakers feeding multi-channel AR signals were interspersed with the show relay feed loudspeakers under the balcony.

#### Orchestral enclosure

A further challenge was the orchestral enclosure. Here it was not necessary to collect the sound and throw it out to the audience. With such a small volume,



*The 1:50 scale model of the auditorium at Cambridge University afforded much valuable information on acoustic performance.*

loudness was not an issue. What was needed was sufficient containment to avoid undue domination by the fly tower and means for the orchestral players to hear one another, thus allowing them to establish the necessary blend. There was substantial evidence that players receive cues from other players primarily via mid/high frequency reflections, and any enclosure or partial enclosure should be able to provide diffuse mid/high frequency reflection.

Another influence on the design was the need for ease of installation and dismantling. Eventually it was decided that a combination of tall lightweight screens behind and around the orchestra and a lightweight overhead reflector could do what was needed. Following experience with lightweight structural fabric for buildings, one option seemed to be to stretch a very tough impervious fabric over frames almost like a drumskin. This had many attractions in terms of quick assembly and demountability, the material is very durable and cables and threads behind allowed some adjustment of the tension and thereby some adjustment of the acoustic response. Laboratory tests on the fabric had been carried out and, although there was a fear that the 'drumskin' might continue to drum audibly after the music stopped, this was found not to be so.

A number of options for the overhead diffusing reflector were considered. Two strong candidates suggested by the Architect were (a) a space frame with lightweight panels built in and (b) an inflatable element which used the convex profile of a series of ribs to diffuse the sound. The latter was selected and the final arrangement involves structural fabric screens plus an inflatable overhead reflector hung almost horizontal (slightly higher at the forestage end) with lighting frames clipped on below. This was an unusual approach to say the least. Certainly, the

acoustic results have been good and experience of its use should allow scope for the best geometry to be refined. The screens have been sized to allow them also to be used below the stage behind the orchestra in the pit, and the overhead reflector can be deflated and hung in the fly tower.

#### Assisted resonance

The Assisted Resonance installation is based on the principles applied for previous systems. However, during the design period, the designers/suppliers of the system - AIRO Ltd. - developed improvements in the controls incorporating self-monitoring and diagnostic test procedures and a wide range of facilities for adjustment and control. As a result, the Client has a sophisticated tool for reverberation control and considerable scope for adjustments as a result of experience in use.

#### Services noise control

In general, established techniques were used for control of noise from services. Large ductwork was necessary to reduce air velocities. Extensive jobsite attenuation and acoustic lagging were introduced. The movement of the ceiling posed particular problems on the final feeds to the moving part of the ceiling. Large flexible extendable ductwork was used, carefully aligned and cut to such a length as was needed to avoid buckling or distortion which might encourage air noise close to the terminal.

#### Dry runs

The building has extensive technical facilities and it was agreed with the Client that a number of dry run performances should take place to iron out difficulties prior to opening the building. This offered a useful opportunity to commission the acoustics of the auditorium during a variety of performances, selected for their differing content - speech, amplified speech, classical music, a rock band, variety, opera etc.

The room acoustics, sound insulation and control of noise from services were found to be close to design targets, and early listening has been very encouraging. Assisted Resonance has been introduced gradually with the musical events, again with encouraging results and appropriate settings have been recommended. There are probably many combinations of stage arrangements and different uses of the auditorium still to be tried, but the pattern of events to date suggests that acoustic design has made a valuable contribution to the success of the building. Time will tell.

CLIENT	: City of Plymouth
ARCHITECTS	: Peter Moro Partnership
THEATRE CONSULTANTS	: Carr and Angier
STRUCTURAL/SERVICES CONSULTANTS	: Ove Arup & Partners
Q.S.	: Davis Belfield & Everest
ACOUSTIC CONSULTANTS	: Sound Research Laboratories Ltd.

# THREE MASTERTHEATRES

FRANCIS REID'S theatric tourism takes him to Bibiena's Bayreuth and Cuvilliés' Munich – and to an anonymous Venetian jewel on the Dalmatian island of Hvar.

## MARKGRAFLICHES OPERNHAUS IN BAYREUTH

Photographs of Bayreuth's 'other' opera house – Bibiena's Margravine's Theater – had led me to believe to expect an ornate auditorium filled with such an extravagance of decorative detail that any performance on the stage would almost certainly be an anticlimax. So I was amazed and delighted to find that, on the contrary, the auditorium seemed to have a dignified restrained elegance with colouring really rather discreet.

I should not have been surprised. This has happened to me quite frequently and I keep hoping, even believing, that I have developed a compensating eye for the overstated images that are inherent in much colour photography. I have always assumed that the apparently heightened colour of a photograph is due mainly to the concentration of image that stems from miniaturisation, partly to conversion to two dimensions and perhaps a little to the contrast with the environment in which the photograph is viewed. A glossy print, whether colour or monochrome, also seems to distort the elegance that is a feature of the good examples of highly decorative theatre architecture. Let me add that all this is pure speculation: it is some thirty years since I dabbled in theories of perception.

The Bayreuth Opera House was commissioned by the Margravine, Princess Wilhelmine. She was the sister of Frederick the Great for whom Knobelsdorff had just completed the great Berlin opera house. The Margravine sent for the plans and Knobelsdorff is thought to have visited

Bayreuth. However, it was Giuseppe Galli Bibiena who was engaged to build the theatre. Or rather to furnish it. The stone shell is by another hand, almost certainly Joseph Saint-Pierre. Bibiena's function was to furnish this shell with a timber-framed interior of stage and auditorium. This was a period when theatre design involved both the auditorium and the stage scenery: Giuseppe Bibiena was nominally the architect while his son Carlo was the decorator. Work commenced in 1745, the theatre opened in 1748 and Carlo Bibiena remained for some ten years in Bayreuth as stage designer.

It was a report of the size of the stage that attracted Wagner to Bayreuth. The baroque theatre could not have been more unsuitable for his concept of music drama, but he saw the potential of the town for a festival and it was in this opera house that he conducted Beethoven's ninth symphony in 1872 to celebrate the laying of the foundation stone for his new theatre on the hill.

There was a major restoration in 1936. The theatre had been subject to some adaptation over the years to make it suitable for the changing fashions in mounting productions. In 1936, the auditorium was once again restored to a flat floor and the orchestra pit raised to its original level. During this restoration the original colours and a series of decorative elements were rediscovered.

The overall impression is of green and gold. The green is a delicate grey green. Most of the decorative work is flat painting with some gold work in relief. There are panels of cool blue and flashes of red. It is extraordinarily elegantly beautiful.

The theatre is used for occasional performances, particularly concerts, and the lighting errs (if that is the word!!) towards modern safety standards. But to sit there, as the casual tourist can, listening to eighteenth-century music, even when merely recorded, is magic. It takes little imagination (and for anyone who has been to Drottningholm – see CUE 9 – it takes virtually no imagination at all) to evoke the ambience of the 500 wall brackets that were delivered in 1748 by the 'Court and University Tinsmith in Erlangen' for gilding by the 'Court Cabinet Gilder and Ornamental Painter'.

Alas the original stage machinery is not preserved; but we must be grateful that the continual adaptations that kept this a practical working theatre over two centuries changed only the stage and not the audi-

torium.

The foyers are simple in the extreme with unadorned flat balustrading – eighteenth-century architects understood the need to preserve the dramatic impact of the auditorium (our own National Trust have recently tested this theory by painting the foyers and staircases of its Bury St Edmunds Theatre in the same colour as the auditorium – and proved that this *does* reduce that essential moment of excitement that one must experience on stepping inside any performance room.)

## CUVILLIÉS THEATER IN MUNICH

This same contrast from cool but inviting foyers to warm dramatic auditorium can be seen in Munich as the theatre which was originally the 'Residenz Theater' but has become the 'Old Residenz Theater' or now more universally called after its architect the *Cuvilliés Theater*. However, in this case the foyers are not the originals from 1753 since the theatre was reassembled on a new site in 1958 after being dismantled in 1943 as a precaution against war damage.

The Cuvilliés Theater as it now stands is closer to its original 1753 condition than at any time in its two centuries of extensive usage as a performance space in a major theatrical city. The stage was modified from time to time to take account of the changing practices in staging and this included the installation of the first revolving stage in the western world for an 1896 performance of 'Don Giovanni'. The auditorium was altered and refurbished several times including a 1779 retreat by the orchestra pit into the space previously occupied by the forestage. There was a thorough restoration in 1801. The performances were transferred to the new adjacent National Theatre in 1819 only to return in 1823 when the new theatre was destroyed in a blaze. The old theatre suffered only heat damage but required considerable refurbishment. There was further closure in 1831, this time for 25 years when it became a scenery store. An 1856 reconstruction became the basic form for nearly ninety years subject only to various improvements to lighting, heating and stage equipment.

The lighting has gone full cycle from the original series of small chandeliers hanging from the ceiling through (1801) a single chandelier that could be drawn up and (1856) gas-lit sconces and chandelier that were converted to electricity (1883) and lasted until destruction by air raids (1944)

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— and now back to a series of eight ‘Maria Theresa’ chandeliers. The only difference from the originals being that they can all be drawn up above the sightline as the house dims for the start of the performance. The mid-eighteenth-century audience expected them to remain alight and impair the sightline throughout the performance. That the modern lighting is much brighter than the original seems to matter less in this theatre than in other historic theatres: there is so much well executed relief detail in Cuvilliés’ theatre that one almost feels that he was looking forward to a time when it would be seen in a fuller light.

For this is not an auditorium using painting techniques developed for low levels of trembling ambient light. All the decorations are three dimensional relief work, including the drapes whose folds are hard construction. The background painting is off-white marbling shot with brown so that the overwhelming impression is of gold-brown with red from the carved ‘drapes’ and the purplish red lining to the boxes.

The auditorium is a horseshoe with four tiers of boxes, the royal box occupying two storeys in the middle of the entrance wall facing the stage. Boxes on the first tier are decorated on themes from the four seasons, while those on the second tier are based on the four continents and mythological concepts of day, night, earth, air, fire and water.

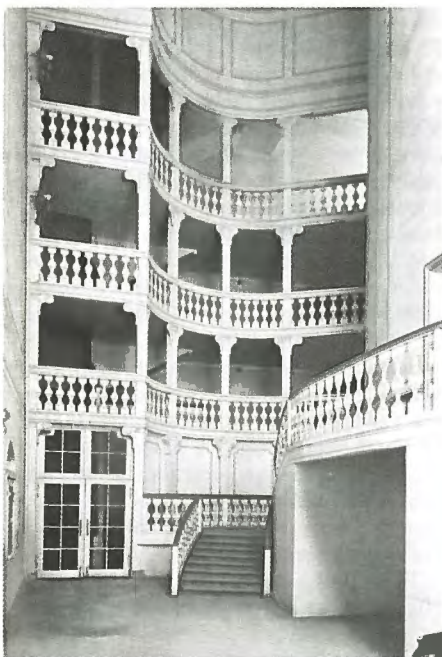
In 1943 the panelling from the boxes and all other wooden parts of the theatre were removed from Munich for safety. Only those parts of the theatre which were made of artificial marble or stone remained. Early in 1944 the auditorium was provided with makeshift fittings so that performances could continue. But this provisional theatre lasted only six weeks before a bomb exploded on the stage, hurling the safety curtain against the royal box by the force of the explosion. An hour later the destruction



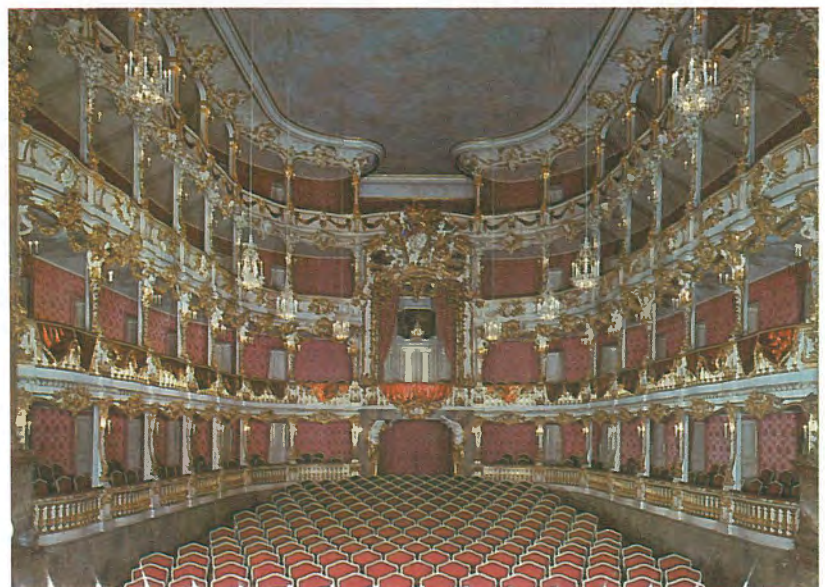
Bibiena's *Markgrafliches Opernhaus* in Bayreuth



Looking from the stage of Bibiena's Bayreuth Opera House towards the Margrave's central box.



Two dimensional unadorned balustrading in the foyer at Bayreuth. The simple foyers of baroque theatres emphasised the theatricality of the auditorium decorations.



The auditorium of Munich's *Cuvilliés Theater* with the Elector's Box centre.

was completed by an incendiary bomb.

In 1951 a new Residenz Theatre was opened on the site but to a totally new design. Between 1956 and 1958 the Cuvilliés' Theater was reconstructed within another part of the Residenz. All the essential parts had been saved and could be fitted into a shell constructed to the original design from archival material including eighteenth-century drawings. Indeed the accretions and alterations over the years were thereby not reproduced and so the theatre was recreated to the 1755 original as far as was possible within the safety and performance requirements of a modern twentieth-century opera house.

The restored theatre opened on June 14th 1958 with a performance of Mozart's 'Figaro' and the occasion marked the 800th anniversary of Munich. The stage is completely new and is linked to scene storage and workshop facilities shared with the new Residenz and National theatres. The acting area is a 40-foot revolve and the orchestra pit is an elevator which can sink 3 rows for a small pit or 5 for a bigger one. Alternatively it can rise to form a forestage. The theatre is used as the intimate stage of the National Theater. In 1961 I saw a performance of Mozart's 'Entführung' (or 'Seraglio' if you prefer) and it was one of the knockout experiences of my theatregoing life. My only slight misgiving, and I noted it at the time, was that everything seemed just a little too clean, a little too fresh, a little too sparkling. Twenty-one years later the decorations are fractionally, but only fractionally, worn. This summer painters were at work freshening the foyers, although the un-freshened portions would qualify as pristine in most other cities of the world.



View from elector's box in the *Cuvilliés Theater*

## ARSENAL THEATRE IN HVAR

The stone lintel above the door of this theatre carries the carved inscription *Anno Secundo Pacis MDCXII*. The peace referred to was the resolution of a serious rebellion by an agreement giving certain basic civil rights to both nobles and commoners alike. Hvar Theatre was opened in 1612, the second year of that peace.

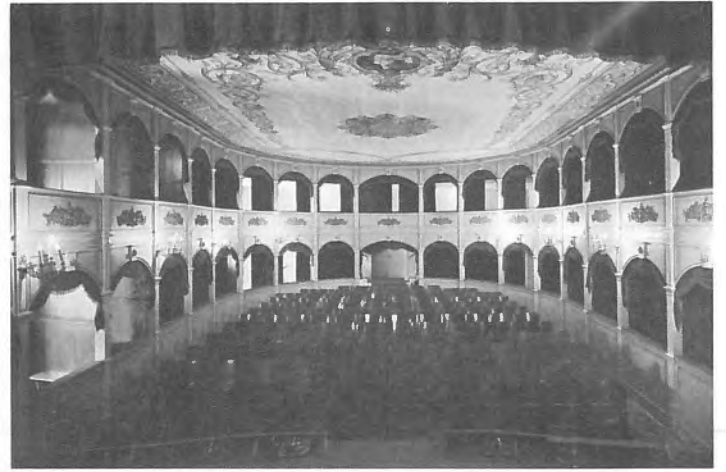
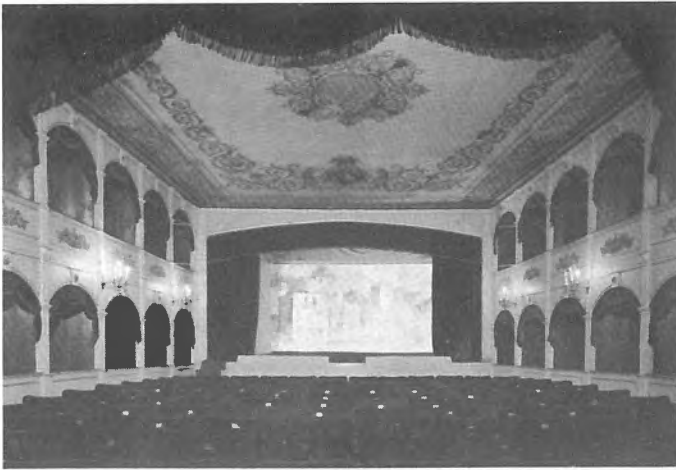
The theatre is located in the upper storey of the Arsenal which formed a covered dock for the city's naval galley. The theatre is therefore adjacent to the harbour although the ground floor of the arsenal has become a cinema. The present interior of the theatre dates from a restoration in 1803, with some subsequent refurbishing being carried out in 1900 and 1955. Only occasional performances take place, mainly concerts, but the theatre may be visited daily.

Current stalls seating is wooden tip-ups on flat parquet flooring. The stage is old timbers but there is no evidence of machinery, while the lighting equipment features open lamp batten and some outdoor type floods on rusty scaffolding poles.

The auditorium is a simple courtyard with the corners rounded off. The proscenium is unstressed with the top virtually formed by the cessation of the low ceiling



The Arsenal in *Hvar*, the harbour town of Hvar Island, off the Dalmatian coast of Yugoslavia. The upper storey dates from 1612 and was built to house the theatre. The lower storey originally formed a dock for a naval galley and is now a cinema.



The interior of the *Hvar Theatre* is largely unchanged since 1803.

with only the slenderest of soffit arches. The boxes are literally 'boxes' with a particularly enclosed feeling. The box fronts are of the palest blue with gold linings. Most of the decorative work is in moulding rather than simple painting. The box openings are draped with red swags and the internal box walls are also red – a simple design on the box walls appears to have been washed over with red paint. The box ledges are protected with red textured carpet of recent manufacture.

The auditorium we have today is cer-

tainly very close to its 1803 style. But how does this relate to the original of 1612 (less than thirty years after Palladio's *Vicenza* and less than thirty years before the *Teatro SS Giovanni E Paulo* in Venice whose plans are probably our earliest of a boxed horseshoe)?

Well, the Island of Hvar, then called Lesina, was an important port on the Venetian trading routes through the Adriatic. Margarete Baur-Heinhold's '*Baroque Theatre*', a text that is reluctant to speculate, is confident enough to state that

*the basic structure can be regarded as original. Certainly the Hvar Theatre of today gave me the FEEL that I had previously constructed from looking at plans and prints of early eighteenth-century Venetian theatres.*

Groping for an adjective, I can only come up with the inevitable *magic!*

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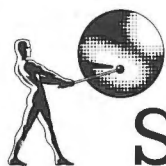
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# The Saga of Prague

PETER MAIR

1976 started a month late in Prague, and by so doing considerably advanced both the international status and the self esteem of the British theatre designer.

To explain: in the '60s the Czech Ministry of Culture had instituted an international exhibition of theatre design and architecture in Prague. Work from all over the world would be shown, and it would be competitive with prizes awarded by an international jury. It would also recur every four years and be called the Prague Quadrennial or PQ.

The early PQ's took place without British participation. The reason for this was that although British designers were producing some of the most exciting and innovative work yet seen, there was no effective organisation in this country which could, or at least was prepared to, get together a British entry which could properly represent the many directions in which British design flourished, and shoulder the work necessary to fund, ship and display the exhibits. To be sure, an embryo designers' society was in being, but its membership was minimal and it had anyway set its central task as bettering the conditions of employment of British designers.

However as each succeeding PQ took

ceding congresses of the theatre designers' and technicians' international body, l'Organisation Internationale des Scénographes et Techniciens de Théâtre (OISTT), whose secretariat is Prague based. PQ was missing us, and we were missing out.

One of those who knew that our apparent insularity must be brought to an end was John Bury, the National Theatre's Head of Design, and then as now the motor power of the British designers' search for improved status and recognition, and a passionate believer that theatre should be a comprehensible and rewarding experience, transcending both language and national boundaries. With Ralph Koltai, and the team of Timothy O'Brien and Tazeena Firth, all disciples to the cause, he decided that there must be a British presence in Prague at the PQ in 1975. Since no organisation existed to do the job, they would simply go themselves with their own work, raising the ever necessary finances as they went and persuading and cajoling help in kind where needed. Metal stands for models were made and donated by an engineering company: perspex covers to go over the models came from the workshops of a major theatre: a vital grant was offered by the British Council, and many other



*The triumphant British team with their trophy at the Waldstein Palace ceremony in Prague 1979.*

place it became more and more strange to colleagues in other lands that the country which claimed to lead the world in theatre was nevertheless so reticent about putting itself on the line. Were we being snobs, or Little Englanders? Or had we perhaps lost courage in our claims of supremacy? It was also becoming clear that the PQ's were offering a unique opportunity for designers and indeed other theatre workers from the world over to come together to discuss and compare, in the presence of one another's achievements, their methods, systems, problems, customs, attitudes. The value of these occasions was heightened by coin-

panies, organisations and individuals contributed.

The enthusiasm of the British entrants for their adventure started to send out irresistible vibrations. Why should Britain not also be seen at the student section of PQ 75, or the architectural? At London's Central School of Art & Design, Theatre Design Department Head, John Gunter, picked up the vibrations and responded by gaining permission and funds for tutor Peter Avery and the second year students to go to Prague. At Theatre Projects, Iain Mackintosh organised an architectural entry.

Thus it was that Britain arrived at PQ75

— in January '76. Instead of warm spring weather, it was a bitterly cold Prague winter. Czechoslovakia had spent 1975 celebrating the thirtieth anniversary of their liberation from the Nazis, and over-pressured time had squeezed the Quadrennial from its springtime slot. Accordingly, the Ministry of Culture with Orwellian ease had simply rewritten the calendar so that, for the world's designers at least, 1975 continued into January, and PQ75 took place in month thirteen.

As the British team, and the many supporters who had flown to Prague with them, set about installing their exhibition in the small wedge-shaped corner allocated by the PQ organisers in the Brussels Pavilion, Julius Fucik Park of Culture, it was hard to know what to expect. The main intention in coming had been to show the flag, and that was being achieved. But what would result? Would the financially enforced simplicity of the British exhibition tell for or against? Certainly some countries had spent fortunes on designing their exhibitions — East Germany (acres of pine and fitted carpets) and the USA particularly come to mind. Then there was the startlingly exciting work of some of the Soviet and Japanese designers for instance. How would Britain's small offering be compared to these? That British participation was welcome there could be no doubt, if only due to the gentle chiding as to a child who's stayed out too long: "at last you're here. Where have you been?" But would the tardy guest please or disappoint?

Two days later the answer was given, clear and unequivocal: while the Soviet Union gained the top prize, the Golden Troika, the British entrants were jointly awarded the Gold Medal for set design. The popularity of this verdict amongst the delegates from other countries could not be doubted. The elation and pride felt by the British contingent was unmatched. That they had come was good; that they had been welcomed was better; that they had been chosen was best.

The British success at PQ75, far from being an end, was only a beginning. Immediately, harnessing the enthusiasm the PQ award had fuelled, it was decided that a proper designers' organisation must be set up. The success in Prague had brought with it a duty to the international theatre community, a duty which that community clearly expected to be fulfilled. British theatre design had come into the market place, and substantiated the claims to be a world leader. It must now be prepared to contribute fully and efficiently to international exchange of views and information. It must make available its knowledge and expertise and examine that of others. Without a strong and representative organisation this could not happen. Further, the respect shown to Britain in Prague had naturally given a boost to British designers' self respect. A proper organisation could harness that self respect and pride to work for long overdue improvements in the conditions of employment of designers in Britain.

Thus was born the Society of British



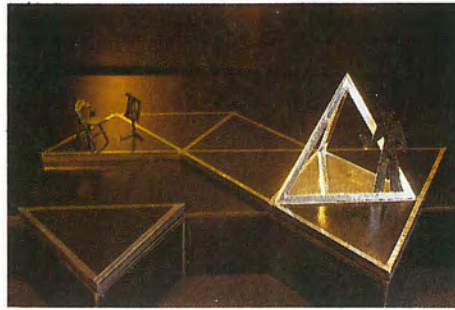
Front cloth for "Mother Goose" Theatre Royal Norwich. Designer Inigo Monk

Theatre Designers, and it immediately set about the first crucial task, to know itself and its aspirations. About four hundred and fifty designers were identified working or available for work in Britain. Within a year over half had joined the Society. A process of consultation and ballot was carried out to ascertain the representation the membership desired to work on the matter of conditions of employment. Should the SBTDo do the job itself or would an existing union be more satisfactory? The membership voted to be represented by Equity, who had already taken directors on board. The SBTDo also needed to learn more about the work its members and other designers were producing, and accordingly an exhibition with open participation was mounted at the Central School of Art & Design in 1977. This exhibition while interesting seemed rather unplanned and haphazard and didn't attract the success that had been hoped for it. This spurred the SBTDo to plan, with financial assistance from the Arts Council, a further better planned and properly designed exhibition at the Riverside Studios, again open to all comers, for February 1979. The next PQ was to take place in June of that year, and this time it was essential that the British contribution should represent the full range of design work going on in Britain. The work on display at Riverside, in addition to showing off contemporary British design to all who cared to know (and in the event well over 2,000 cared enough to visit the exhibition), would also provide the opportunity for selection of much of the work to go to Prague.

During this period the SBTDo also began,



The Golden Triga, top prize for the best national team exhibiting at the Prague Quadrennial, awarded last time to the British competitors.



Model of set for 'Facade' for The Childrens Music Theatre, Edinburgh Festival 1981. Designer James E. Grey.

in conjunction with the Association of British Theatre Technicians to whom it became affiliated, to organise specialist theatre study tours, mainly to countries in which a theatre worker travelling independently might find local bureaucracy a problem with regard to any really worthwhile contact with his opposite numbers. Since 1976 visits have been made to the Soviet Union, East Germany, China and India. The SBTDo was everywhere recognised and respected, and the British success at PQ75 opened many doors, and provided many welcomes. Where practical, the tours were planned to coincide with meetings of the OISTT, or the opening of a showing of Britain's award-winning work from Prague, for this exhibition was toured extensively both in the UK and overseas, with theatre organisations in many countries queuing for the chance to display the British designs.

The return to Prague in June 1979 took place in a heat wave. The city looked glorious, and the Original Pilsen Beer was nectar. The British contingent, numbering eight designers, and again many supporters, felt this time that they were present as a member of an international family, rather than the slightly tentative stranger who had knocked on the door in January 1976. The work to be exhibited while certainly the best available was intended primarily to demonstrate the different areas, scales and styles of British theatre design. Britain had received her prize at PQ75, and it was not expected that honour would be once more bestowed. The pleasure of participation would be reward enough. But it didn't work out that way. At a ceremony in the beautiful Wallenstein Palace, and to great acclaim, the British exhibition was awarded



Set design for 'Terra Nova', Chichester Festival Theatre 1980. Designer Pamela Howard.



Costume design for pimp and whore "Berliner Requiem" Ballet Rambert 1982. Designer Pamela Marre.

the Golden Troika.

There may be many reasons for achievement and success, but it is hopefully not immodest to suggest that Britain's high standing in international theatre has been further enhanced and consolidated by our successes in Prague, and by the work of the SBTDo in fostering links with colleagues and sister organisations overseas. More than ever British designers are invited to work in Europe, the Americas, Australia. Britain is currently on the Executive of the OISTT. The winning exhibition from PQ79 is still on an extended tour of the world. To all who have participated in any way in all this, there can be no doubt that international contact is not only fruitful but essential. Britain is a world leader in theatre and many other countries look to us for guidance and assistance. We in turn must keep close touch with the achievements of others if we are to avoid complacency, and remain vital and innovative. (Is it not ludicrous therefore that for the second time in a decade The British Centre of the International Theatre Institute is threatened with closure due to lack of proper funding? But that's another matter).

What of the future? Mathematically inclined readers will have realised that 1983 returns the Prague Quadrennial to Centre Stage, and Britain will once again participate. Before that the SBTDo is organising another exhibition of contemporary British theatre design, with commercial sponsorship and Arts Council funds, to take place at the Round House in London from 24th February to 19th March. Whether or not glory will again be Britain's in Prague cannot yet be told, but one thing is certain: the value of international cooperation and shared knowledge will be enhanced, theatre will be the richer for it, and that richness will help feed the vitality of what theatregoers see on the British stage.

(Peter Mair is an Associate Member of the Society of British Theatre Designers, and a Drama Officer at the Arts Council of Great Britain).



# REIDing SHELF

Its anniversary time in Covent Garden with 250 elapsed years since John Rich opened the first of the three theatres on the site that has become the home of our national opera and ballet companies. Celebrations include **THE COVENT GARDEN ALBUM** of images from performances across all these years of one of the world's greater theatres. For much of the 'thirties, Covent Garden had *The World's Greatest Theatre* thrust upon it by what we would now call its marketing officer. In fact while this may have been a period when 'most of the greatest singers of the day appeared and many of the greatest operas ever written were performed', the policy of the house and the quality of its productions might perhaps be tactfully described as 'ad hoc'. But the last 35 years or so have seen an exciting performing arts renaissance in this country and the Royal Opera House is in the forefront: truly now one of the world's greatest opera houses. And one that has at last become able to start taking the first steps to acquire staging facilities that are both adequate and humane.

The 245 pictures include all the familiar classic prints and photos from the era of John Rich to that of John Tooley – but good to have them together and so well reproduced. As a bonus there is a dozen pages of potted biography of the three houses. This album is a delight for anyone whose theatre interests run to opera, ballet or architecture.

When Yeats reached the Olympian heights of trying to light a play, I remember on one particular occasion a dawn effect was required, and he tried it this way and he tried it that way, and still nothing was to his liking. Indeed, it didn't look like a dawn to me. But finally, at the back of the stage a strange kind of red, roseate glow started coming up. And Yeats suddenly leapt in his seat and said: 'Yes, that's it! That's what I want, that's what I want!' . . . to be interrupted by the electrician, who stuck his head out from the side and said: 'Well, you can't have it – the place is on fire!'

That is one of the quotes (in this case by Denis Johnston) from **THE BOOK OF THEATRICAL QUOTES** in which Gordon Snell has collected entertaining snippets: some factual, some witty, all interesting. Most are from books or broadcasts, but some of the anecdote has a genuine flavour of the saloon bar where much of our theatre heritage is passed on with relish and timing. Young fresh students of theatre will learn a lot from this book and so will bits of old tat like me. I began with an electrician's contribution to scenography, let me end with some advice from Alec Guinness to the set designers:

Rostrums, apart from cluttering the stage, tend to produce a one-foot-up, one-foot-down sort of acting which I find peculiarly dispiriting. I have very few conversations on the stairs in my own house, and see no good reason for making God's gift to an actor – a

flat square stage – into something like the entrance to the Athenaeum.

Room, room, brave gallants all,  
pray give us room to rhyme.

For the mummies, the actor/audience relationship was a simple matter of negotiating for a performance space. For much of the present century it has been a major area of agonising for theatrical thinkers. Arnold Aronson in **THE HISTORY AND THEORY OF ENVIRONMENTAL SCENOGRAPHY** has set out to record the experimental productions that sought to break through what their creators saw as the limits of frontal staging. He acknowledges the difficulties of his task in a preface . . .

The major difficulty in doing such a broad survey is that its parameters are hard to determine. There seems to be no point at which it can be said that all information has been thoroughly exhausted. For every performance that is mentioned here, some scholar will know of another such production that predates it. There is, unfortunately, no one name to search out, no single, inclusive library entry that will yield all the relevant information. For discovering records of past environmental productions I was dependent on the recommendations of fellow historians and frequently on sheer accident and coincidence – happening across a magazine article when it was least expected, for instance. Because of this, it is sure that there are many important productions that chance has not led me to discover.

I reproduce this extract because not only does it so clearly state the fundamental difficulty in producing a book of this kind, but it also demonstrates the absolute need for trying to do so. Aronson has indeed had a very good shot at doing it. He has searched out the details of the key experiments, analysed them and distilled the information that we need to know. Including, in many cases, the unsolved problems acknowledged by the participants.

His book is not concerned with the many thrusting stages that merely carry the action through the proscenium frame. His *environmental* performances take place in non-frontal situations where the spectator frequently has to look more than forty-five degrees to the right or left in order to view the whole production. Found spaces, transformed spaces, happenings, annular stages, Max Reinhardt, Norman Bel Geddes, Meyerhold, Gropius, Okhlopov, the Living Theatre, Grotowski, and many many more. They are all here and many of the points made are well illustrated. Aronson has done a clever and essential job in getting it all into one smallish volume. This book is the starting point for anyone concerned with total concepts of performance space, whether a practising environmental scenographer or just a committed student of acting, direction or design.

And, lastly, the book that is so splendid

that I am holding it for that prime reading time of my personal year, the Christmas holiday. How do I know that this one is so marvellous if I have not yet read it? Because I have dipped and each and every dip has assured me that this is a book to be devoured. I am referring to **THE NOEL COWARD DIARIES**. Nearly 700 pages of them covering the years 1945 to 1969, plus some briefer entries for the war years.

My dipping, which has included some complete years in addition to single days, has discovered two flavours. One, perhaps rather obvious, is an impression of an older theatre world – albeit one that was changing throughout the time span of this book. The other, much less tangible, is an insight into the world of performance: the heights and depths involved in creating, sustaining and surviving. Under the sophisticated veneer, there are agonies and ecstasies so raw that any stageperson will immediately identify.

For even the most successful dramatists and composers, death marks the beginning of a period of neglect that will ultimately be followed by a period of rediscovery. But, in Coward's case, this cycle took place within his lifetime. The post-war development of theatre involved a reaction against his dramatic style. But, once the new angrier mode of performance was established, his own particular talents could once again be recognised. The fundamentals of performance had not changed and neither had the internal churnings of performing people. Therefore much of his diary is concerned with recording actual manifestations of timeless truths.

Graham Payn and Sheridan Morley have edited impeccably with footnotes that explain everyone mentioned: people that my generation can identify but who will become increasingly obscure to future readers. And without doubt these diaries will be one of the invaluable sources for any future theatrelover trying to reconstruct the flavour of the first twenty years of the post-war showbiz industry. And recorded with such wit and elegance! With these diaries and a decent bottle or two, this could be a cosy Christmas!

**THE COVENT GARDEN ALBUM.** 250 Years of Theatre, Opera and Ballet. Lord Drogheda, Ken Davison, Andrew Wheatcroft. Published by Routledge & Kegan Paul. £5.95. (UK) (Paperback)

**THE BOOK OF THEATRICAL QUOTES.** Notes, Quotes and Anecdotes of the Stage. Compiled by Gordon Snell. Published by Angus & Robertson. £5.95 (UK) (Paperback)

**THE HISTORY AND THEORY OF ENVIRONMENTAL SCENOGRAPHY.** Arnold Aronson. UMI Research Press, Ann Arbor, Michigan. Distributed in UK by Bowker Publishing Company, Erasmus House, Epping, CM16 4BU. £25 (UK)

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## Big Apple on a Small Scale

ANDREW BROOK

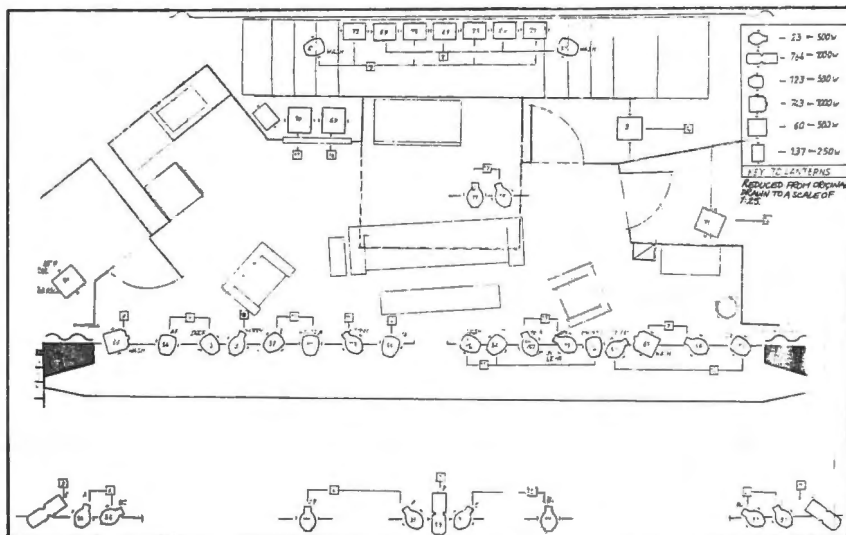
The get-in weekend but a week away, a final production meeting was called to make sure properties, stage manager, set and lighting had no last-minute problems. All hire orders had been confirmed and an outline of the get-in weekend was handed out. The production, Neil Simon's *Barefoot in the Park*. The month, April 1982.

The plot revolves around the hectic life of Paul and Corrie Bratter, and all the mishaps that happen to them when they rent a top-floor apartment in New York. Perhaps before looking at the lighting we should wander onto the stage and accustom ourselves with the set.

It is a one-room apartment on the top floor of an old brownstone in the East Forties off Third Avenue. The set, designed by Kenneth Hardy, is some thirty feet across the proscenium and sixteen feet in depth. The room is dominated by a skylight upstage centre, to the right is a smaller window. Outside the skylight is a ledge backed by a cyclorama. The main door is downstage right and opens onto the landing. Upstage left are two more doors, the upstage one leading to the bathroom, the other to the bedroom. Above the bathroom door is an upside down radiator. Downstage left is a small combustion stove and a telephone. The kitchen is upstage right and consists of a sink, an old gas stove and a battered refrigerator. The room has been freshly papered and painted, but not carefully. This is how we find the stage in Act 1. It is about 5 p.m. on a February afternoon. Act II takes place four days later and is divided into two scenes, one set at 7 p.m. and the second at 2 a.m. the same night. The apartment has been furnished and though a pot-pourri of various styles, periods and prices it is tasteful and comfortable. The final act is set the following afternoon and takes place at about 5 p.m.

The power distribution is located in the stage left wing and is single phase with a

loading of 18kW. A consultation with my script and rehearsal notes showed that only two lighting states were required outside the skylight, that of afternoon and night. The story was much the same inside the apartment, this time three lighting states were required. Late afternoon, moonlight and lamplight. To save on lanterns and circuits it would be possible to rebalance and drop circuits from the afternoon state to give lamplight for Act II. Specials? With a location like New York and the thought of a skyline sent me scurrying to locate the latest gobo lists. Another look at my rehearsal notes and the set plan showed that it would not be possible to project a gobo skyline. The main problem being that in both Act I and III the ledge outside the skylight is used by two members of the cast, so putting an end to gobo projection from the front onto the cyclorama. Even the most optimistic estimate only gave six inches behind the cyc, so back projection was also ruled out. In the end I settled for a cold wash in cinemoid 69 (ariel blue) with four circuits of 73 (straw tint) giving the impression of a winter sunset over the city. Act II was set at night and the sky had to be heavy with snow clouds, so a bright blue wash would have been very unwise. The most obvious answer, short of leaving the cyc dark, was to use a moon, a simple case of a circular mask in a pattern 23. One thing to take into account was that the mask would have to be pre-distorted to compensate for the projection angle. Nothing worse than bringing up the cyclorama lighting in front of the designer and director, only to have to explain away the egg shape outside the window! The moon was given cinemoid 17 (steel blue) and the hint of blue around it was 19 (dark blue). The dark blue was frosted to soften it out and the whole thing was very effective. The only thing I overlooked was that the moon was in the same place at both 7 p.m. and 2 a.m. in the morning, it did not move an inch! Oh well,





Act II, Scene 1



Act II, Scene 2



Act III

no one seemed to notice, it was so effective when the tabs went out to reveal the apartment lit only in moonlight that I think I was forgiven. Anyway, neither the designer or director spotted it.

Inside the apartment I decided to let the walls of the set fade up into darkness, so keeping the audiences attention firmly in the main acting area around the sofa, chairs and skylight. Something to take special notice of in any production are the door backings. At least once in the production run one of the cast is likely to forget to close a door, so revealing the backing for longer than intended. In this case the backings were lit by pattern 60 floods, each rated at 500W, and frosted. Battens were used to support the backings to the main set and stop them from flexing when doors were opened. These were also modified to hang the floods from. The lanterns in the bedroom and bathroom backings were powered from cables run from number one bar. To give the effect of light coming up from the stairs below the landing, the main door backing flood was placed on the floor. As it was to remain on in every scene it was run off a local 13-amp socket, saving a circuit on the control board. At several times in Act II the stage has to be lit only in moonlight, and this was provided by two pattern 23 profiles on the number one bar. One lantern was focused onto the sofa, the other onto the wall below the skylight. Colours were cinemoid 19 on the sofa and 67 (steel tint) with 69 in the same frame. Two standard table lamps were used in Act II. These were plugged into sockets on the floor and run off the board, each lamp had a 15W bulb and cinemoid 3 wrapped round the inside of the shade. The two 1000W fresnels on the number one bar were to wash the main acting area, cinemoid 69 was used to lighten the white in the costumes as well as to compensate for the 'pinkish' light coming from the Front of the House. All the other lanterns on the number one bar were used for lighting specific areas of the set, such as the doors or the telephone table. The colours were cinemoid 3 (straw), 52 (gold tint), 53 (pale salmon) and 54 (pale rose). Front of the House lighting was focused in a basic three-area wash, stage right, stage centre and stage left. Colours were 52, 53, 54 and 17, with two lanterns in 36 (pale lavender). Pale lavender being a neutral colour can appear both warm and cold.

With all this down on paper it only left the choice of control board. Twenty-four channels seemed ideal but another ten minutes with pencil and rubber brought this down to eighteen.

Once all the hire charges were totalled up the cost was very reasonable, with 40% of the lanterns coming from stock. Given the type of set and the width of the stage it would have been nice to put in some backlight, but power distribution and budget dictated otherwise.

With plans and lighting notes back in their folder the coffee appeared and the production meeting came to a close. The conversation turned to more general matters.

# Floating Theatre

SIMON SHAW

At first sight this floating, touring theatre which brings drama and other entertainment to the inhabitants of the Stockholm archipelago, resembles a collection of floating boxes.

The Teaterbåt – once a royal steam yacht, the 'Nyttig', was converted by Per Edström in 1966 so that it could be manoeuvred in the shallow waters and approaches to the small islands. The boat is 25 metres in length, with a beam of 15 metres and a draft of 2.5 metres and travels at a modest 5 knots between the islands. It will accommodate an audience of just under 200 in its three-sided arena and its company of 10 give up to 150 performances during the summer.

The most popular play of all is *Faust*, but the repertoire includes comedies for the many children who come flocking to be entertained at every port of call.

No less than eighty places were visited last year and whilst adults are charged a small entrance fee all children are allowed on to the boat for their special entertainments completely free.

Incidentally, those who do not wish to pay for entrance to the productions on the boat are allowed to pay in kind – that is, they are allowed to give the equivalent in fish, potatoes, vegetables, wood or fruit. And even working on the boat for a couple of hours is taken as being token payment for watching the performances.

Of course, there are those who criticise the whole idea of a floating theatre, especially when it is subsidized to some extent by public funds. Others regard it as a gimmick but the inhabitants of the Stockholm archipelago take it all very seriously as constituting a vital element in the cultural life of the area.

Not only Swedes watch the performances here. Visitors to Sweden are often among the enthusiastic audiences who come aboard.

Per Edström is very proud of the fact that he and his players were invited by a Chinese cultural delegation to bring the



Teaterbåt all the way by sea to China where it would then bring its performances to people in the vicinity of the Yellow River.

This exciting venture would certainly never have got off the ground were it not for the energy of Per Edström. A visionary and a jack-of-all-trades on the boat, he has the drive and charisma which attracts sup-

port for his venture from the most unlikely sources.

Every member of the cast is expected to play his part in running the boat. It's not enough to be a good actor, but one must also be a very handy seaman if one is to be accepted by Per Edström in his productions. The maintaining of the boat and the steering as well as more domestic duties aboard all have to be attended to by each and every member of the cast.

The inside of the boat is truly a fantastic storeroom of things needed for dramatic productions. There are bookshelves which bulge with volumes of plays, theatrical costumes of all kinds needed for modern and medieval plays, boxes of programmes for the public as well as a vast array of all sorts of props needed for the stage.

All these are packed in with nautical charts, paraffin lamps and telescopes and other equipment needed for getting the boat safely from island to island.

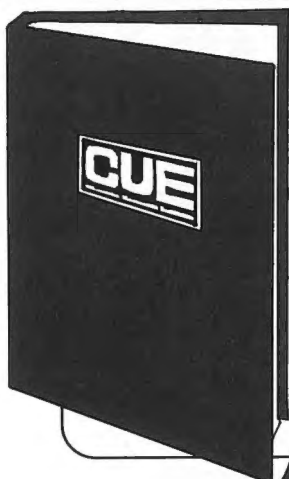
Someone once said that this Teaterbåt is very much like a small circus with a distinct tang of salt to it all, intermixed with the idea of a touring theatre with premieres night after night.

Per Edström is proud of his venture. He is the sole captain of the ship, and he is responsible for steering the ship through the most awkward of places between the archipelago traffic lanes which he does expertly from the bridge of the ship which is also the roof of the theatre.

And to make certain that no accidents occur at sea, the Teaterbåt is fitted with the most modern nautical equipment such as radar, radio telephone and up-to-date charts of the area.

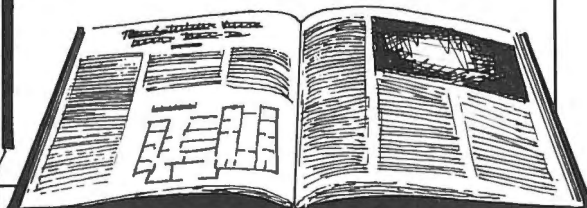
As the Teaterbåt makes its way to an island, it is always greeted, by an enthusiastic crowd of people who turn up with the children and pet animals ready to enjoy the performance on the decks of this unique ship. People will queue for hours on the quayside awaiting the arrival of the boat, so eager are they for a taste of culture. When the boat eventually leaves for its journey to another island, the audience clamour to know when it will return.

The arrival of the Teaterbåt is a major event in the lives of everyone who lives in this special island world of the Baltic, where its standard of drama and entertainment is appreciated by everyone.



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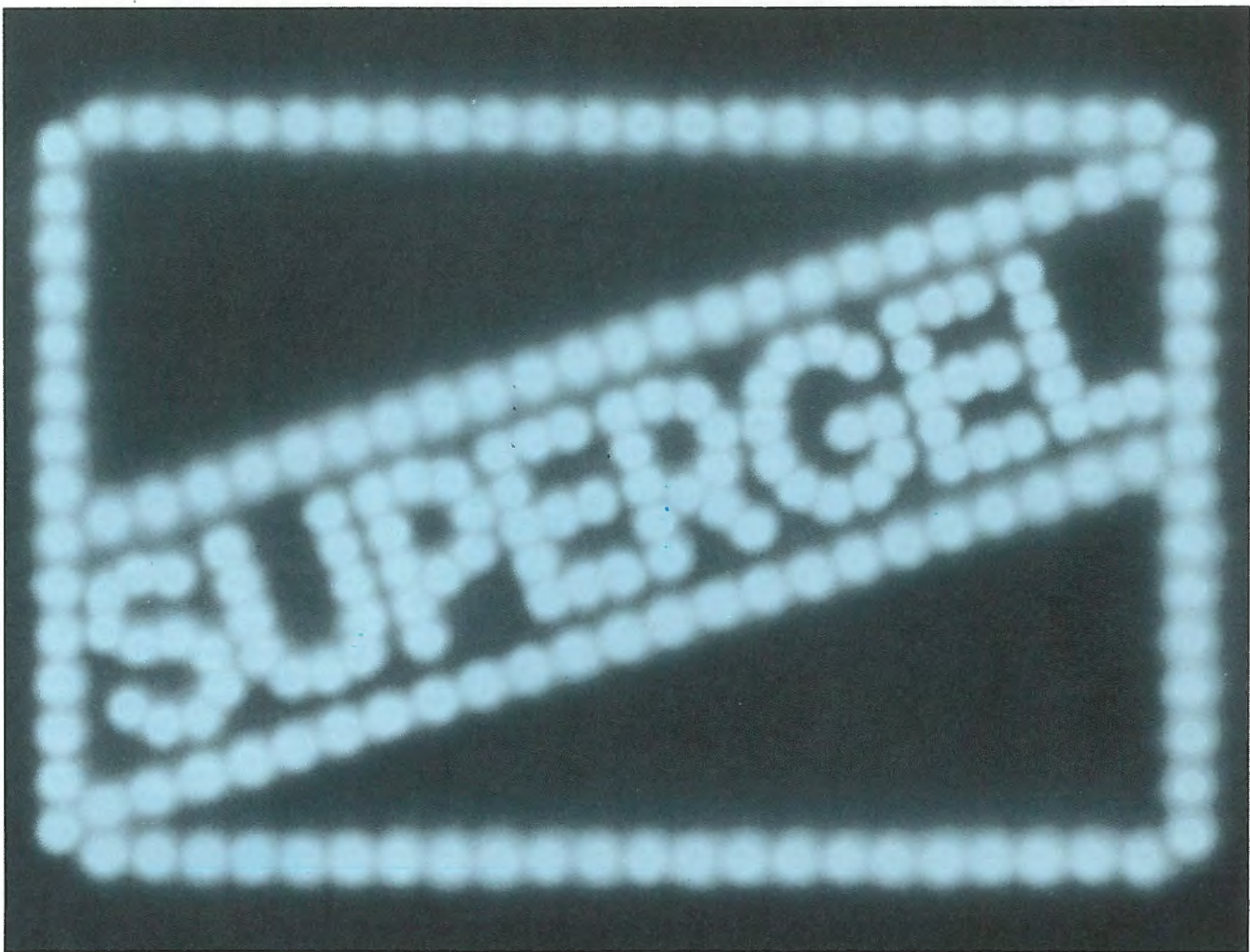
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## ABTT TRADE FAIR

a Postscript by JIM LAWS

First off: my cards on the table. As a second time, upper floor 8' x 4' stall-holder for whom trips to London are infrequent, with a respect for tradition and a business in stage lighting, this could be *spot the bias time*. Hopefully, the Editorial Pencil is adept at purging the excesses of the provincial philistine, so these then are personal impressions of a busy week in NW1.

The Round House is one of those few but remarkable buildings which is suitable for and adaptable to many functions, some probably not yet dreamed of. It is exactly right for the ABTT trade fair (once equipment is in and if the show is not in the wettest week since the Ark). It deserves more money for upkeep, starting with the blitz-style car park with juvenile sharks demanding telephone number money for the privilege of lodging your motor in mud and loose ferro-concrete. This and the roof, which leaks not only water but creosoted goo on some stands, are the things which would make all the difference to the ambience. After all, we brought our own decor to the party; what some found annoying was to have it drenched - Theatre Despatch's main exhibit was out of action in 2 days due to internal flooding. Perhaps the surely substantial Bar profits could be diverted to provide roof repairs.

These comments are only meant as friendly asides to the main point; the Round House is a terrifically atmospheric structure and its loss as a performance space would be considerable. If it should have to close then surely it should re-open as the British Theatre Museum. All the room, height, odd corners and functional tackyness of a true Theatre are there, unlike the vacuum-packed bunker earmarked for the job in Covent Garden some years hence. Let's have your letters on this! In the meantime, the ABTT Exhibition does well in the Round House - *caveat exhibitor!*

This year there were some interesting additions to the ranks of stall-holders and the stalls themselves had a bright air about them. There seemed to be a great emphasis on movement; anyone with a spot to rotate or to flash was keen to do so - all the time. Apart from Pancan, who after all came to do nothing else but to pan cans differently and objectively, did the swingers and flashers gain anything from this non-stop movement? Use it to attract your customer maybe, but literature which blushes red and green before your eyes is not easy to concentrate on, and information, however simple, is often needed by people who maybe come to London for this one occasion in the year to find out what's new. TBA, with their new "soloist" control, were one of the few in the Year Of The Chase to give thought to how this now popular facility would be put to sensible use. The Soloist brings order to the potentially unruly art of sequence programming.

There was another side effect from all the gratuitous sealed-beam calisthenics; where in all the Round House could you find a

blackout or even an unchanging white-out? There were many spotlights on display, all of them bright black boxes trying hard to look unself-conscious about their superficial sameness. The proof of the spot is in the beam however and it was impossible to test most of the products, let alone to compare them with their clones ten yards away. Here's another improper suggestion; next year it should be compulsory for each manufacturer to provide a sample of each of his main range to be put in a trial area alongside everyone else's. This area would be suitably shaded at one end, with tricky angles to light into. Perhaps in the Round House a piece of the gallery could be given over to the lights, aimed over the rail to a curtained area beneath. As far as I can remember, CCT used the rear of the stalls in the Shaftesbury as a trial area, and great was the pleasure in being able to study a lantern as a theatrical instrument rather than as an art object.

I mentioned earlier the pleasing number of new stall-holders. Flint Hire & Supply Ltd had a super array of ironmongery on display and it was refreshing to find someone who is open on Sundays, which is quite often when things go wrong or missing on a fit-up. Nevilles Textiles from Nottingham was another firm to add a splash of colour with their wide variety of fabrics and trimmings. Also on the top deck, the acme of self confidence, was Donmar Productions Ltd., who said all they wanted to say with the aid of two potted palms, chat show furniture and dapper staff in suit and bow tie. Perhaps it was because of their collective neatness and detail without fuss that I recalled their stands easiest after the Show.

It was good to see the Stage Management Association and the ABTT itself with stalls as this event is beyond doubt the recruitment opportunity of the year. Why, however, were the Society of British Theatre Designers and the new Association of Lighting Designers not there? Both of these Societies should be looking for new members and showing what they can offer those following their respective professions. All aspects of Theatrical Design are practised to a high standard by a surprising number of people in Great Britain and it would be good to see them better represented there by their societies and associations. Maybe next year . . .

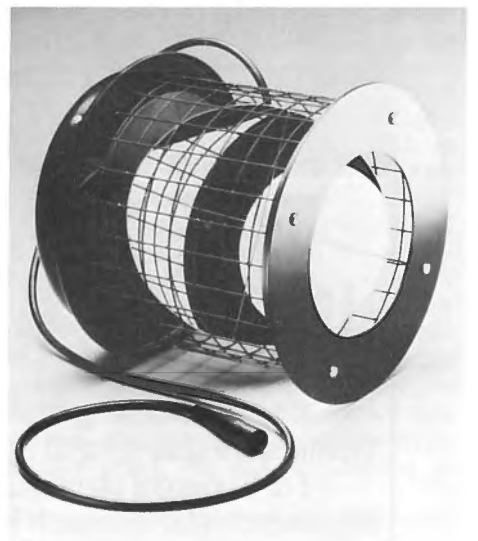
This revue has been about the Trade Show as a whole, rather than a gallop round the products. Hard- & Soft-ware can and will find its own markets, but not until next year will so many working technicians be together in one place and it is vital that they are given the best opportunity to absorb the state of the technical arts. More than any other event, this show is for users of equipment. They may be purchasers but if not they certainly influence purchasing either through their management or as hirers. All concerned with the show should think on the fact that, after the razzmatazz has died, lessons learned and contacts made could help a Little Theatre in Yorkshire as well as a Conference Centre in London.

*Jim Laws is a partner of Ancient Lights, Attleborough, Norfolk.*

# PRODUCT NEWS

## ABTT Best Product Award Winner

**Pancan**, winner of the ABTT Best Product of the Year award, is unique in that it offers control and movement of the beam of light from a luminaire (not the luminaire itself) by means of a tilting elliptical mirror surface which mounts, with a motor drive system, on the front of a Parcan or spotlight. As would be expected there is a small light loss of between 5 and 6 per cent compared with a direct beam. Direction control is by a proportional joystick with two speeds for precise setting or fast-moving effects. The control unit, designed by Electrosonic, is capable of moving eight mirrors simultaneously via a splitter box. Computerised control via the Apple microprocessor is available for the user who wishes to operate a large number of Pancans through an unlimited number of movement or position cues at the press of a button.



More information from the manufacturers, Pancan, Manton House, Marlborough, Wilts, or from their distributors, Electrosonic, Donmar and Cerebrum.

## Rosco Scenic Products

**Roscolab** are introducing the **Rosco-Haussman** range of theatre materials to the UK. These are moulding and filling products for use by sculpture and scenic practitioners to achieve a variety of textures easily and precisely. The foam system enables leather and wood textures and characteristics to be simulated. Information sheets on all Rosco scenic products are available from Roscolab, 69/71 Upper Ground, London SE1 9PQ.

## Major contract for Rank Strand and Tele-Stage

The Electrical Contracting Department of Rank Strand has recently completed the technical wiring linking stage lighting, their Galaxy 144 Channel Lighting Control, 72 × 2.5kW, 56 × 5kW and 12 × 10kW dimmers, socket outlets, communications out-stations, film projectors and screens at St. David's Hall, Cardiff, the National Concert and Conference Hall of Wales.

The auditorium at St. David's seats 2000 and is equipped with a variable stage that can be re-arranged with the aid of ten hydraulic lifts, supplied and installed by Tele-Stage Associates, also part of the Rank Strand group.

## Wraps off at CCT

CCT have taken the wraps off their eagerly awaited Multiset control system and its Auto Preset option. This completely modular system, developed jointly with Dynamic Technology, is available in such a variety of combinations and permutations as to make a truly tailored installation economically possible for any size of theatre.

One version, the Multiset with Auto Preset is shown above. For full system details write for their new brochure.

## Follow that Spot

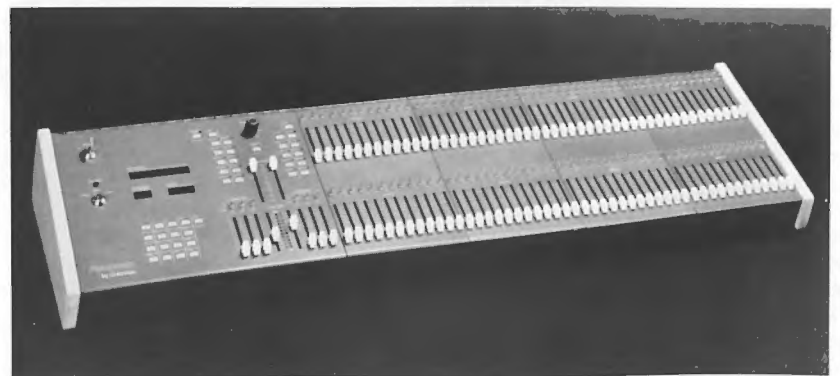
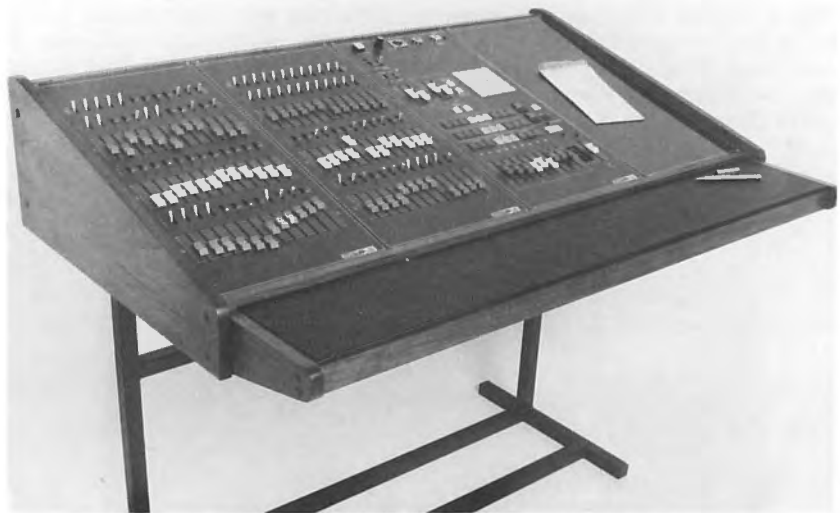
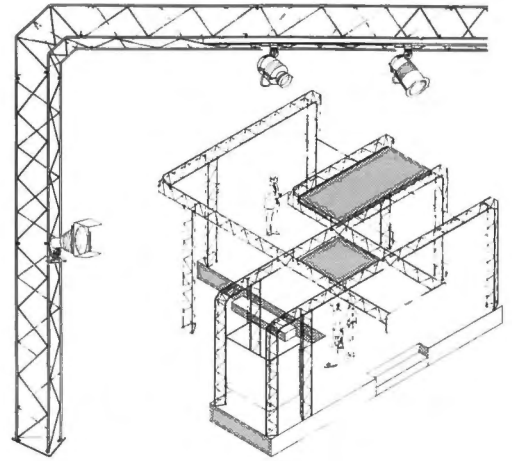
A new luminaire from CCT nicely rounds off their Minuette range by meeting the requirement for a small, very compact and easily manoeuvrable Follow Spot. This efficient little unit is designed round a standard, easily available, 20V 150W TH lamp with integral dichroic reflector. Beam candle power is in the order of 10,000 and the zoom lens system is adjustable between 14° and 30°. Standard model features an electronic dimmer and separate black-out switch, built-in four-frame colour magazine, iris and gobo slot.

## The new Patchman by Colortran

Colortran UK have introduced a new low-cost portable lighting control system called **Patchman**. Facilities include two Preset three-group manual and further eight Presets of electronic memory. The name of the system is explained by the "softpatch" section which allows up to 512 dimmers to be software patched to the control channels, which can be any multiple of 12 to a maximum of 96. This gives the control a great capacity for use as a back-up to more powerful memory systems, such as the new Colortran Dimension Five. The price of Patchman is comparable with conventional Preset controls. Colortran UK, PO Box 5, Burrell Way, Thetford, Norfolk IP24 3RB.

## Modular Fit-up System

Cerebrum Lighting is marketing **Structura**, a new lightweight triangular trussing system for permanent or temporary lighting suspensions required for stage, display or exhibition work. Three standard lengths (400 mm, 600 mm and 1200 mm) are available with appropriate accessories for assembling a wide variety of structures. Spans up to 10 metres are possible. Further details from Cerebrum Lighting (Sales & Hire) Ltd., 168 Chiltern Drive, Surbiton, Surrey KT5 8LS.



# Between Cues

The thoughts of Walter Plinge

## COMEDY PRESERVED

Timing and movement are the bones of comedy and mime. Can an exhibition recapture the essence of a visual comedian? I never saw Karl Valentin work, so I cannot vouch for the accuracy of the portrait that emerges from his centenary exhibition in Munich's City Museum. But I came away with so strong an impression of his work that he seemed almost as familiar as my childhood hero in the same genre, Dave Willis. But the exhibition had a wider value than Valentin alone: from the juxtaposition of displayed material it was possible to put together an impression of the architectural, production and acting styles of a whole era of light entertainment. Fortunately the films, both silent and sound, owed little to the art of the cinematographer: they were shot as simple records of his matured stage acts. Like the classic of the desk and chair



whose legs are alternately shortened in the hope of achieving a match.

## DEMOCRATIC FISHING

I have never disguised my lack of competitive spirit. Including a lack of desire to enter into a trial of wits with a fish. This was apparently shared by a fisherman in Sibenik harbour who demonstrated his equality with the fish by what appeared to be random throwing of his five-pronged harpoon. The elegance of his stance in the prow of his boat and the gracious trajectory of his javelin were reminiscent of an earlier performing art recorded on vases and friezes. But today's concepts require an alienation effect: the boat was fibreglass, the propulsion was a ferocious outboard, and the steersman was a girl.


## BOOKALIKE

Reid has never recommended Helene Hanff's *Underfoot in Show Business* so Walter must tell you that it has been allocated honoured residence on the depression relieving shelf of the plingular library. I grabbed a copy at Heathrow in some haste because my last call had been flashing for so long that I was in danger of being off rather than taking off. The book did not seem over stuffed with words, its pages were all about being stage struck so I could identify, and the author had gathered good notices for a play that I had decided was not me. But after reading the book, that play *84 Charing Cross Road* moved into priority one. The book is full of witty reality – and there are very few pro books that you can say that about. The play is a lovely evening – and in a lovely theatre (the intimate elegance of Sprague's Ambassadors with its


witty boxes is really rather more to my taste than the alleged matchlessness of Matcham). And marvel of marvels: Doreen Mantle played H. Hanff exactly, yes exactly, as I had projected her from the book.

## LYRIC ANNIVERSARIES

*Prosit!* on the occasion of their 75th anniversary to the *Buhntechnische Rundschau*, doyen of theatre technology journals. For some twenty years I have been fascinated by BTR pictures which have frequently stimulated me to struggle to translate the juicier bits of text. It is a magazine all about the stage technology of something that does not exist in Britain: purpose-built lyric theatres. Our theatre is virtually all dramatic although opera is showing some signs of growth. Goodness me, we have now had a permanent national

  
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opera company for nearly 27 years! So let us couple this toast with another one: to the Covent Garden Theatre Site which has housed the whole gamut of performance across its 250 years.

## NATIONAL READING LIGHTS (Reprise)

If the National Theatre or their Theatre Consultants read CUE, either they do not read this page or they prefer to ignore the plingular advice which is all included in our modest cover charge – just about the only consumer durable which can claim more than three years of zero inflation. What I am moaning about is that the quite splendid Performing Arts Book Fair was for a second year lit by a job lot of anglepoises. Come on NT, how about ringing TP. Or TP, ring them if they don't ring you. Otherwise the licensing authority might step in and that would be a terrible thing indeed since the second book fair was even better than the first and so it must become an annual.

## GARGLING TO STARDOM

One of my own purchases at the NT Book Fair was a little pamphlet containing some valuable hints for actors. All my readers are, I am certain, aware that *Gargles* are always preferable to drinks, and stimulants of an alcoholic nature should always be shunned. But we all know an actor or two who might with advantage study the list of 39 emotions which can be conveyed by a careful deployment of the craft of facial expression. For example, are all academies of dramatic art aware that *DESPAIR* bends brows, clouds the forehead, rolls the eyes, bites lips, head hung on breast, fist clenched, and the whole body strained and violently agitated; bitterness of tones. This part must not be over-acted. This wisdom comes from 'The Golden Road to The Stage' written by a Mr A. E. Bennett who is described as 'Author of How to Play the Piano without a Tutor, etc.'