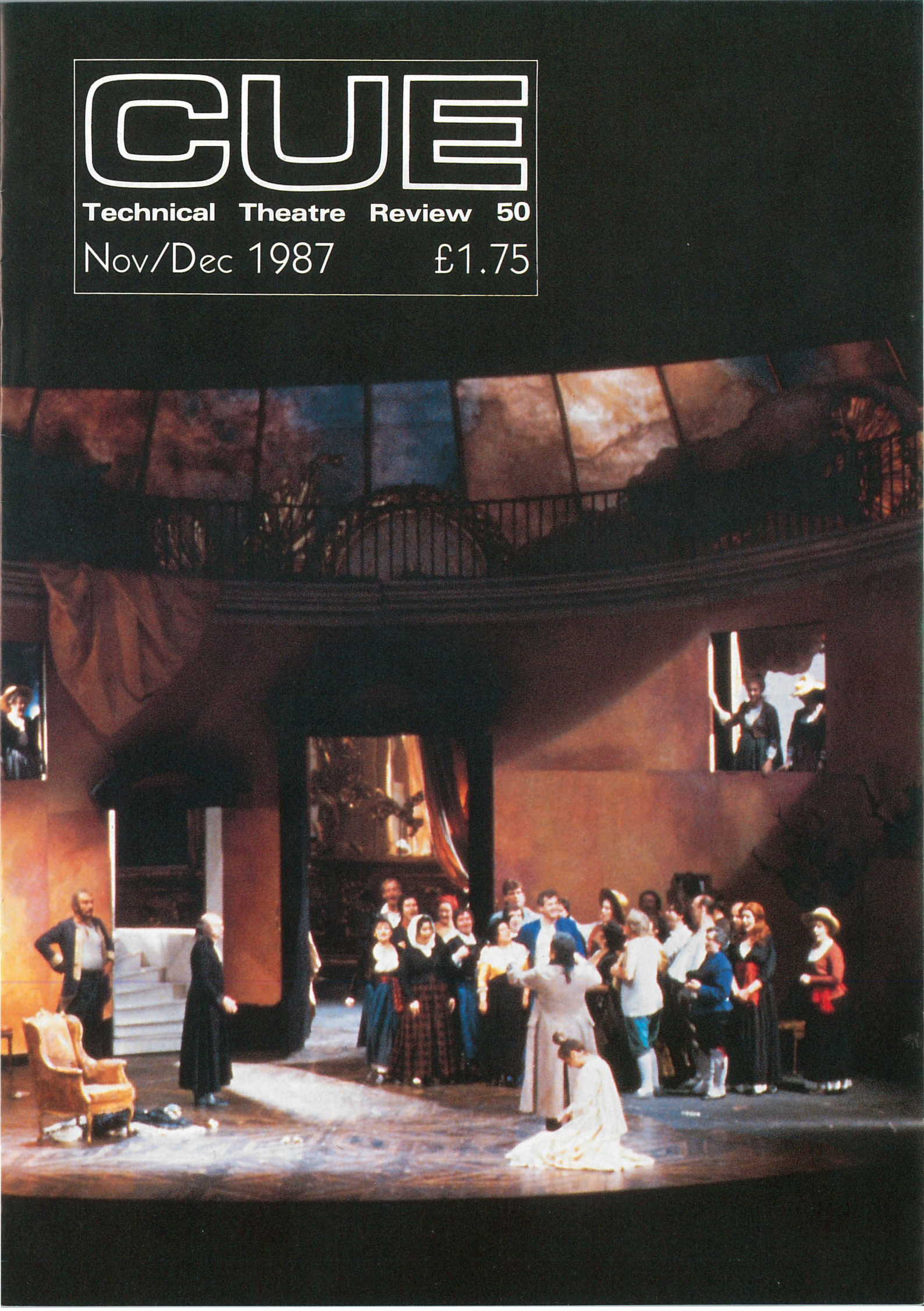
CUE

Technical Theatre Review 50

Nov/Dec 1987 £1.75



Cover:
BERNARD HAITINK conducts his first performance as Music Director of The Royal Opera with the Company's new production of Mozart's *Le nozze di Figaro.*

West German director JOHANNES SCHAAF is the producer, with an Austro-German design team: XENIA HAUSNER (scenery), PETER PABST (costumes) and FRANZ PETER DAVID (lighting) – all of the new 'Figaro' production team are working in Great Britain for the first time. Photograph by Zoë Dominic.

CONTENTS

Cue is an independent magazine published bi-monthly by Twynam Publishing Ltd.

Available on subscription
UK £10.50 per annum (6 issues)
Europe and Overseas £13.00 ($25 U.S.)

Editorial Board

James Twynam (Managing)

Francis Reid

Jeremy Twynam

Editorial,
Advertising and Subscription Office:
Twynam Publishing Ltd.,
Kitemore, Faringdon, Oxfordshire SN7 8HR
Telephone 0367 21141

CUE
Technical Theatre Review 50
Nov/Dec 1987 £1.75

An artistic necessity

September 1979 saw the advent of CUE. The first independent bi-monthly to offer even handed discussion of back-stage affairs. A forum where experts in all branches of theatre could debate relevant and sometimes controversial topics.

This is CUE 50, still in a time of rapidly changing technology in which we still see lots of innovative hardware arriving in the market place. Much of it will provide our theatre administrators with new opportunities in the exercise of their management and production skills.

But what of the technicians and designers who link these technological marvels to the business of a stage production?

In this context it was never more true to say that professionalism does not lie in the tools but in the person using them. This last decade has seen the emergence of that professionalism in equal partnership with the actor. . . for long an artistic necessity.

The quest for yesterday's and tomorrow's theatre

FRANCIS REID visits Exhibitions in London and Oldham

I have been back to the Theatre Museum several times since reviewing the opening for Cue and it never fails to give pleasure. Admittedly at each visit the foyer seems more of a visual disaster and its waste of space more inexplicable, but once underground my theatric senses succumb. At each visit I find some new joys. It is not that the exhibits are constantly changing (they don't, although there has been some fine tuning including the implant of a C.D. lighting board into the Cafe) nor that there is too much to take in on a single visit (although there is). No it is because, although museums are essentially about discovery, the effect on the sensibilities of many of the objects displayed becomes enhanced with familiarity.

The Museum has its critics. Most of them are theatre people with narrow specialist interests and they delight in listing for me what is not there. My own concern is not so much the absence of specific items but of a lack of the gutsy naive tastelessness that was at the heart of so much of yesterday's theatre. (I, for one, lament its passing. But that is irrelevant.) Is the Museum's approach to theatre history perhaps a little too over coloured by current views of what the role of theatre in today's society should be?

Gielgud as *Hamlet*, New Theatre 1934. (photo by Yvonne Gregory)

Gielgud with Gwen Ffrangcon Davies in *Richard of Bordeaux*, New Theatre, 1933. (Caricature by Sheriffs)

The Museum's two galleries for special exhibitions have made their first changeover. The Gielgud Gallery now appropriately houses **JOHN GIELGUD: A CELEBRATION OF HIS WORK IN THE THEATRE.** which will run until 28th August 1988. Only some of his roles (over 130) and the productions he has been associated with as actor, or director, or both (over 200) can be featured but the riches displayed encompass all the facets of his greatness. There is ephemera to help recall great nights that we enjoyed and ephemera to remind us of great nights that we missed. All the standard techniques of a theatre museum are deployed, including all the Ps (photographs, paintings, and all kinds of print including programmes and posters) plus set models and a carousel slide show. Accompanied by a taped explanation of just why it is so important to be Ernest. And there is an extended family tree which I found to be full of clarification together with some surprises. An exhibition as elegant and eloquent as Sir John himself.

Sir John returns to the west end stage in the spring but we have lost that great actor, dramatist and director from the same golden age, **EMLYN WILLIAMS**. It is good to find the Theatre Museum marking his death with a showcase of memorabilia in the portrait gallery. Hopefully this is the start of their marking events by an appropriate mini-display. It would be particularly useful to have small retrospectives on the occasion of major revivals.

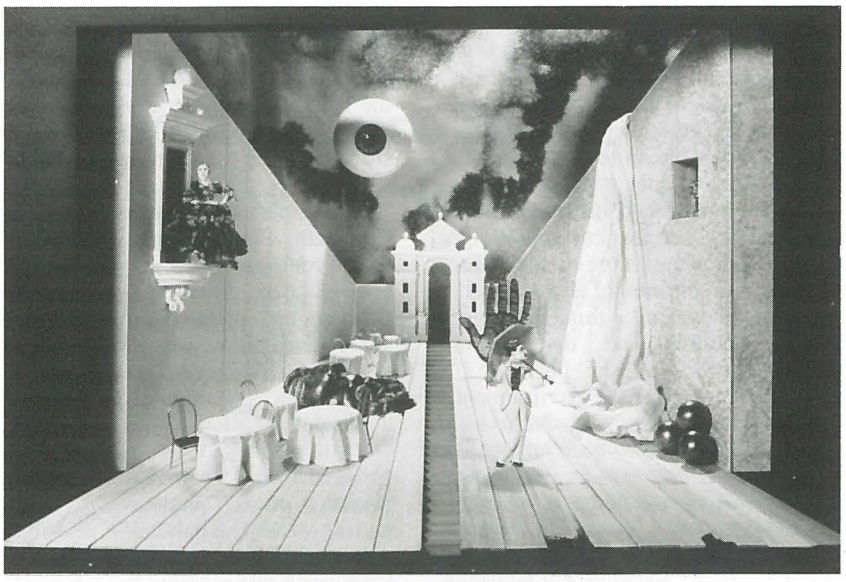
Sir John Gielgud is patron of the **LINBURY PRIZE FOR STAGE DESIGN** whose winners are on exhibition in the Irving Gallery until 31st January. The purpose of this new award, sponsored by the Sainsbury family's Linbury Trust, is to encourage young designers in a very positive way by using an open competition to select a small group for exhibition. To be thus selected is potentially an enormous career boost with the opportunity of having work seen under such auspicious circumstances by producing managements, directors and choreographers. And selection carries the added possibility of qualifying for a prize. The first prize of £10,000 and the two additional ones of £5,000 and £3,000 are quite chunky sums in relation to the fees normally available to a young designer.

The competition was open to those working in stage design including students, and artists working in the decorative, applied and fine arts. Those entering the competition were asked to produce preliminary drawings and plans of set and costume designs for drama (Camino Real, The Seagull or The Tempest), opera (The Turn of the Screw or La Traviata) or dance (Daphnis & Chloe or A Midsummer Night's Dream). The successful entrants were then commissioned to make models of their designs and given help with the costs.

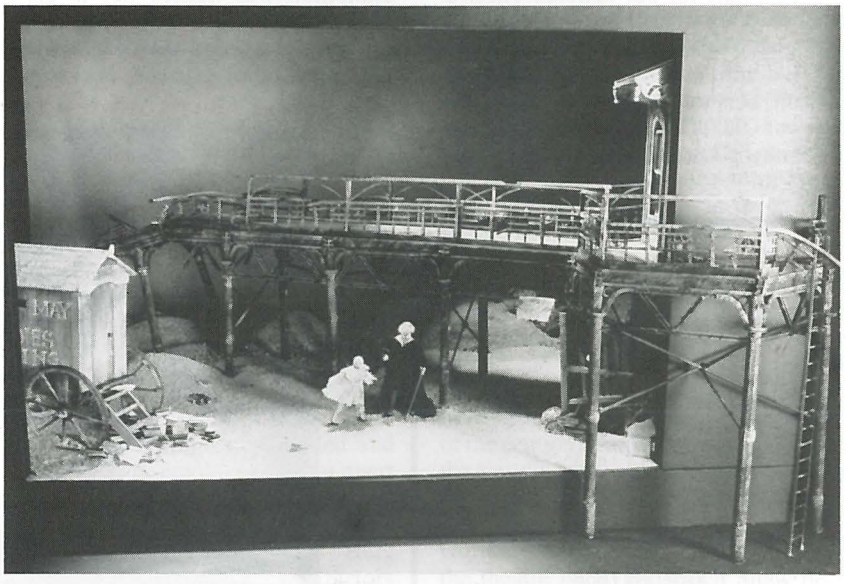
The Keeper of the Theatre Museum (Alexander Schouvaloff) chaired a judging panel of Designers (Nicholas Georgiadas, Yolanda Sonnabend & Carl Toms) and Directors (Di Trevis and James Roose-Evans).

The prizes went to Patrick Connellan, Sarah Ashpole and Demetra Maraslis Hersey. The other winners on exhibition were Luca Antonucci, Hilary Baxter, Paul Bonomini, Damian Doran, Charles Edwards, Jacqueline Gunn, Jane Heather, Sonja Klaus, John Knowles, Charles Maude, Paul Minter, Ruari Murchison, David Neat, Andrew Papademitri, Nigel Prabhavalkar, Shaun Ray, Frank Rowland, Dee Sidwell, Maxim Stewart, Anthony Ward and Colin Whitley.

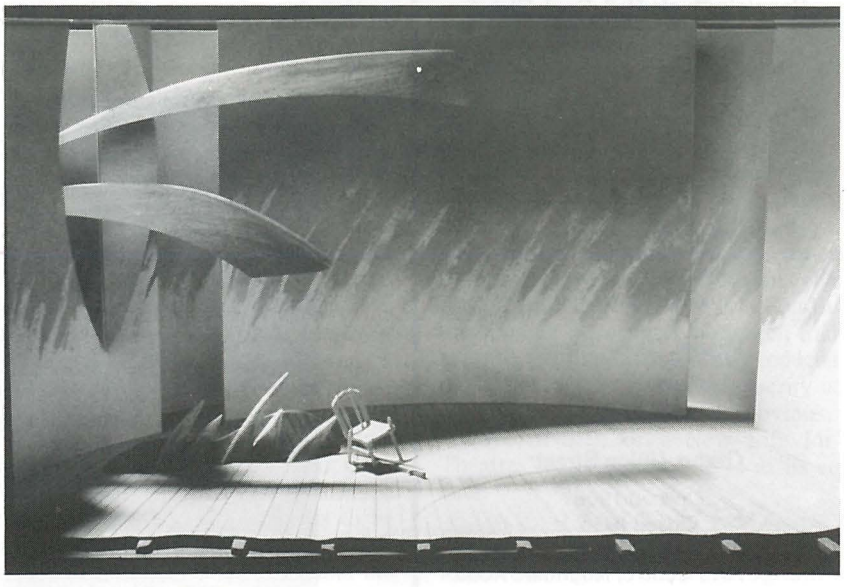
On the evidence of this exhibition, how fares the visual future for our theatre? Very healthy indeed, I'd say. I welcome the wide range of styles and the quality of imagination. I am relieved by the increasing use of paint. There is a flight from minimalism but the sets remain free from clutter. I note the growth of story boarding in exhibitions and



Anthony Ward's design for Camino Real *– one of the 24 designs selected for the Linbury exhibition.*



Dee Sidwell's design for The Tempest.



Another design for The Tempest *by David Neat.*

hope that designers will increasingly use this technique to demonstrate to directors, actors and (especially) lighting designers, just how they hope their sets will be used at key moments during the progress of the production. I would like to see British acting style escape more frequently from the confines of barely heightened naturalism, and so I welcome evidence that costume design drawings are showing more tendency to escape from the confines of dressmaker's reality. But, above all, this exhibition constantly reassures me that young designers are firmly in the business of offering actors a supportive environment. (In the process of developing decor into scenography there have been moments during the last couple of decades when extreme minimalism has left actors rather cruelly exposed.)

Touring has always been at the heart of British theatre. Would it not therefore be rather appropriate for our national Theatre Museum to offer a short London run to interesting regional exhibitions of local theatre? Exhibitions such as that mounted by Oldham Leisure Services to mark the centenary of Oldham Coliseum and running in the Library's Local Interest Centre until February 7th.

Called simply **OLDHAM THEATRES** it traces the history of Oldham's nine theatres, of which only two, the 1887 *Coliseum* and the 1975 *Grange Arts Centre* remain open. So, although specifically about Oldham, the story could be that of many a British town.

The names are universal: Adelphi, Coliseum, Empire, Gaiety, Grand, Palace and of course Royal. Every town had at least one of these, many towns had several, Oldham had them all. A 1922 ordnance survey map showed their locations and the potted biographies of each one included reminiscences by regular members of their audiences.

Ephemera on show included the usual posters, prints, photographs, newspaper cuttings, etc. The inevitable, and rightly so, box office. And a series of tableaux including a box set with a backstage glimpse, a dressing room and a design studio. The exhibition was housed not in an elegant room but in a hall with something of the threadbare flavour that was for so long characteristic of so many backstage areas.

The slight distancing of the sound tapes of musical comedy numbers helped enormously. The display includes considerable material on Oldham's regional playhouse, the Coliseum, whose centenary motivates the exhibition, and James Carter has written a well illustrated history of this famous theatre, available at £2.95 from the Local Studies Library. This book, like the whole exhibition, encapsulates the general story of the joys and frustrations of the development of any rep (to use a good old honest but now somewhat devalued word).

Oldham Theatres probably fails to match the exhibition criteria of the V & A who are the Theatre Museum's masters. But it is strong in those elusive traces of naievety and tacky cheerfulness which are at the heart of popular theatre but seem to be missing from the tasteful elegance that has been imposed upon our theatre history by the art historians.

But then theatre does rather stand at the crossroads of art and hokum.

Theatre, Eagle Street

Opened circa 1810
Closed circa 1840

Working Men's Hall/Theatre Royal, Horsedge Street

Opened 1844
Closed circa 1958

Adelphi/Gaiety, Union Street

Opened 1868
Closed 1920

People's Music Hall, Rock Street

Opened circa 1870
Closed circa 1896

Colosseum/Coliseum, Fairbottom Street

Opened 1887

Empire, Waterloo Street

Opened 1897
Closed circa 1960

Palace, Union Street

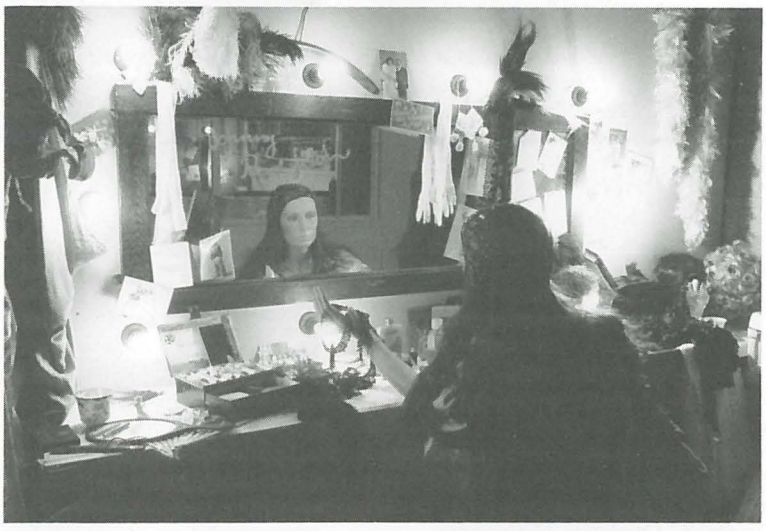
Opened 1908
Closed 1935

Grand, Union Street

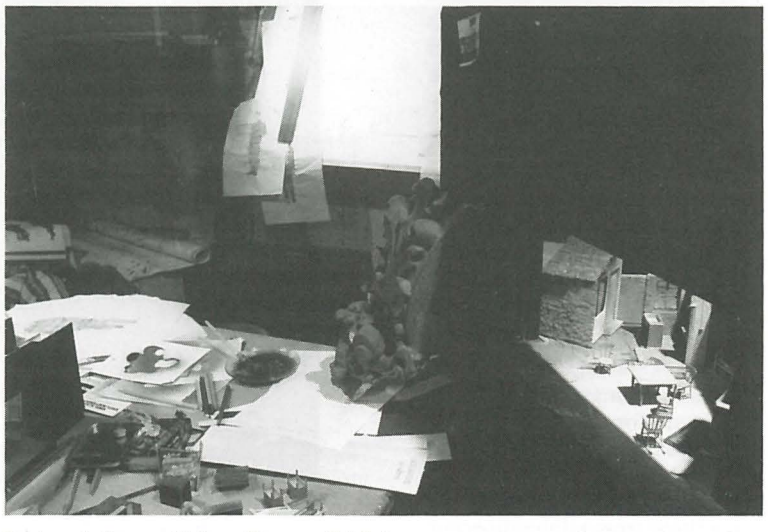
Opened 1908
Closed 1936

Grange Arts Centre, Rochdale Road

Opened 1975



Dressing Room, Oldham Theatres Exhibition.



Designer's Room, Oldham Theatres Exhibtion.

How the Committees and Consultants Hijacked Theatre Architecture in the '60s plus a rescue plan for the late '90s

An extended version of the article entitled "On not building for Posterity" in the December issue of Theatre Crafts by IAIN MACKINTOSH, *design director of* Theatre Projects Consultants of London, New York, Los Angeles & Toronto

Most modern theatres were and still are conceived by committee and designed by committee. The director, unless a guru like Peter Brook in Paris (Bouffes du Nord, the late 70s or, most recently at the Majestic in Brooklyn for 'The Mahabharata'), Peter Stein in Berlin (the Schaubuhne, mid 70s), Richard Schechner in New York (the Performing Arts Garage late 60s), or Michael Elliott in Manchester (the Royal Exchange, early 70s), gets shut out by the Building Committee while the architect is often neutered by a committee of consultants. The committees rule. Is this OK?

Perhaps we can best answer this by asking further questions. What today do we think of this first generation of committee designed theatres which opened in the 60s and early 70s? How do they differ from the pre-committee, pre-consultant theatres?

Make no mistake, this is the first generation where control of theatre architecture has been taken from both the leaders of the profession and the architects. Once before, in the late 18th century, the design consultant tried. Algarotti in 1767, Dumont in 1774, Roubo in 1771, Patte in 1782, Noverre in 1783 and Saunders in 1790 lectured patrons and architects equally on what made a good theatre. The effect was to encourage increases in capacity and to emphasise the romance of the scenic picture at the expense of the humanity of the individual performer.

Once the upheavals, both aesthetic and social, of the early 19th century were over, theatre architecture settled down into an almost universal mode which lasted for nearly a century to be ended by the First World War in Europe and the Moving Picture in America.

Eighteenth century theatres being sadly rare, the theatrical inheritance in both America and Britain largely consists of those theatres built between 1870 and 1914 in Britain, 1890 and circa 1925 in America. Between 1930 and 1970 80% to 90% of these buildings were destroyed. Today what remains are generally treasured. It is worth recalling how these pre-committee theatres were built and who called the shots.

Secrets of Success

The architects then were specialists. J B McElfatrick (1829 to 1906), who built or worked on well over 300 theatres in North America, and Frank Matcham (1854 to 1920), who built nearly 200 in Britain plus a few in the colonies, were also in charge in that they were ruled by neither committee nor consultant. But they were supported by an army of craftsmen and a web of practices which, because they were not questioned, enabled the architects to have such a phenomenal high output of buildings.

The owners who employed them, although concerned about capacity, also recognised the limits imposed by technology, safety, real estate prices in city centres and most of all the craft of acting itself. The technical needs of the great touring companies, whether interpreted by the Syndicate in America or managers like Moss in Britain, were straightforward: thus in America it was simple to state the physical needs of a house if one hoped to qualify for a place on Henry Irving's next tour. Machinists backstage got the installation they needed and plentiful labour was employed to fit a quart of scenery into a pint pot of a stage. The house itself matched precisely the powers of projection of the actors and singers. Here the specialist plasterwork contractors offered a range of styles so that the astute architect could rapidly ring the changes from 'Louis XIV' to 'Second Empire' to 'Italian Renaissance' but, despite their different decorative liveries, these theatres were remarkable for their homogeneity as well as for their practicality.

The architects of such theatres were rarely thought of as serious architects by other more academic architects. In Britain only Phipps made it to the DNB. Few of the theatres devised this way are masterpieces. The exceptional quality of theatres such as the new Amsterdam in New York or Wyndham's in London is only now just beginning to be recognised, the architectural press's adulation for the restoration of Semper's Opera House in Dresden being a significant departure. But although not great architecture these buildings constituted successful architecture, if success is to be measured by the extent to which the building enhances the activity it houses and the frequency the architect is asked to repeat the same formula elsewhere for somebody else.

No committees here and no prima donnas either. Rather a consensus on what a theatre auditorium should be: a festively decorated room with, at one end, a gilded and curtained proscenium arch. Beyond lay the magic of the actors' world which, when the great curtain was raised, would engulf and transport the audience. Nothing much had changed in the treatment of the room since 1767 when Algarotti had written "in fine the architects principal care should be to leave no article unremedied that might in any way impede the view; and at the same time to let no gaping chasm appear by any space remaining unoccupied and lost to every serviceable purpose. Let him also contrive that the audience may appear to form part of the spectacle to each other, ranged as books are in a library."

Yet, after all that plethora of design advice at the end of the 18th century, nobody in the 19th century wrote down what a theatre should be, they just built them and used them, over 500 in Britain and 2000 or more in America. Even the innovators at the turn of the century spent little time in questioning the buildings themselves. Shaw, Chekhov, Ibsen and O'Neill were campaigning for a New Theatre not new theatres and even Gordon Craig, who was a fervent admirer of the theatre of Irving which Shaw decried, was concerned with new scenography rather than new buildings.

Changes in the Twenties and after the Second World War

Two traumas changed all this: the first World War, which swept away so many traditions and social conventions in Europe, and the Moving Picture, which altered the geometry of the room to emphasise sightlines to the screen with its consequent demotion of the audience from an active to a passive role. In post first World War Europe the contrast between an unbroken tradition prior to 1914 and a drastically reduced rate of theatre building when prosperity at last returned in the late 20s, is obvious. The 'CURTAINS!!!, or a New Life for Old Theatres' naturally took 1914 as its cut off date.

In North America the change in room architecture, brought about by the moving pictures at a time when live theatre was still booming, is less easy to perceive. The League of Historic American Theatres considered both 1910 and 1915 before

plumping on 1920 as its cut-off date for its own national register of historic theatres. In America there is a problem of definition of what is a live theatre when so many movie palaces were equipped with flytowers for what was to be end of the vaudeville while other theatres, which had been designed as live theatres, had projection equipment installed shortly before their openings. It is not the presence of a flytower or of a projection room which determines whether a theatre of the twenties in America is a live theatre or a movie theatre. What distinguishes one from the other are a myriad of architectural devices which in a live theatre ensure that the audience is active, animated and ever present, and in a movie theatre, ensure that the audience, once it has been suitably amazed by the decor, is packed in as efficiently as possible and as passive as sardines in a tin.

This vital distinction between active and passive was forgotten in the second and bigger chance in how theatres were planned which was to come later, after the second great intermission, that caused by the second World War. When theatre rebuilding did re-start in the English speaking world in the late 50s and 60s there was little tradition to go on. The old theatres were still being destroyed, and, perhaps because they were thought to be failures, were considered irrelevant to the design of the new ones. Most important the process had a new client, in the public minded committee rather than the commercial owner, and a new breed of architect. No longer was he a specialist but more often a leader of this profession who often regarded the commission to design a theatre as a reward due after a lifetime of commercial work.

'Modern' Theatres

The new theatres conceived in both Britain and America in the 50s and 60s can be divided into five main categories. First, there are the specialist houses such as the Guthrie thrust theatre of Stratford, Ontario or the in-the-round Arena, Washington. Second are the prestige houses, such as the Vivian Beaumont at Lincoln Center in New York or the Barbican and Olivier Theatres in London. Third are the mid-scale routine houses which served repertory companies in Britain or campuses in America. Fourth are the large multi-purpose houses seating over 2000 which were supposed to be all things to all men and are of a type unique to North America. Fifth are the studio theatres, black boxes or whatever, which are not the subject of this article and are relevant here only insofar as their evolution influenced the first four categories. For each category the commissioning committees (civic authorities, citizens groups, independent trustees or academics) and the design team committees rapidly evolved stock responses.

Only in the first category, the specialist theatre, do successes from the 60s outnumber failures, quite simply because they demanded a single minded approach. You can't hedge your bets with a theatre in the round or a thrust stage demanding 200 degrees encirclement and a tight focus. In all the other categories the theatres of the 60s and 70s are generally disappointments. In 1973, on BBC Radio, Michael Elliott, who conceived the supremely successful in-the-round Royal Exchange in Manchester, spoke an eloquent epitaph on those concrete battleships in a talk entitled 'On Not Building for Posterity': ''Looking around at the buildings we have already left our great grandchildren these last years, we may well ask what they will say of them and of us. If we are not careful, I think they will stand in the sunlight of other days, shrug tolerantly and say 'they were good men according to their lights but the men were dull and the lights dim'.''

Ironically this is most glaringly true of the prestige theatres which had the most distinguished design teams. Eero Saarinen and Joe Mielziner sound like star casting to any

committee but the Beaumont is a handicap rather than an asset in its present form: the statistics of 22 years' endeavour show failure is more likely than success for any production opening in this house. The Olivier has proved equally intractable for the actor. Successes that sit well in this indoor Greek arena, such as 'Pravda' and 'Antony and Cleopatra', are in the minority. Once again this is the consequence of a committee approach. Michael Elliott, who was on that building committee, recalled "those endless and agonising meetings. . .every illustrious and experienced voice spoke in a different language not only from his fellows but different from his own the month before or the month after." The problems are different at the Barbican which with its wide stage and perfect sightlines lacks any of the faults of the much maligned but strangely enduring main house at Stratford-upon-Avon (1932, modified in 1951, 1962, 1976 and almost every year since). The Barbican would be fine if the taste of today was for the epic theatre of the 60s when it was conceived (which it isn't) and the economics to todays' salaries and subsidies likewise (which they aren't to the extent of calling to question the RSC's continuing tenancy of the Barbican).

Whose fault? Not the architect's since the Barbican now is exactly the way Peter Hall and John Bury wanted it to be when they sketched the design in 1964/5/6 in the light of their rightly successful production of 'The Wars of the Roses' at Stratford. Nevertheless the theatre profession generally prefer to blame the architect. They are fond of quoting such buildings as Frank Lloyd Wright's Kalita Humphreys Theatre, Dallas (1959) which has come in for more than its share of scorn at the very real impracticalities of its design. And yet if the theatre profession is to seek out the failure of the 60s then perhaps their keenest criticism ought to be reserved not at the obvious shortcomings of the prestige houses but at the third and fourth categories of building, the routine committee commissioned and committee designed campus theatres or repertory houses and the monstrous all-American multi-purpose theatres. For here it is their blandness and their very practicality which in the end may be more damaging than the eccentricities or excesses of the earlier category.

The architects did what they were told. The owner committees asked for low cost back stages and a bit of glamour in the front of house and this is what they got. In the auditorium itself the consultants arrived with their new sciences and their wild promises. Here the analysis of failure is more complex.

Catalogue of Error

The acoustician, more evident then in America than in Britain, promised the moon. "While the term multi-purpose is still often taken to imply second best, a sizeable number of first rate facilities can be rapidly changed to accommodate a variety of events from music to drama by the use of such devices as moveable walls or ceilings, demountable orchestra shells and adjustable sound absorption. It is easily possible to shift the emphasis from romantic to baroque during a brief intermission and, three or four hours later, to have a stage fully rigged for drama or opera" – Richard Talaske, Ewart Wetherill and William Cavanagh in 'Halls for Music Performance', 1982. This is acoustics as alchemy. With a committee that wanted a building that would be all things to all men, it is small wonder that the American architect dutifully embraced the acoustician and, lest he interfere with this magic, translated the acoustician's model into brick and plaster producing, well, theatres that look like acoustic models.

The acousticians have not been the only ones to get their way in the gang bang of architecture. The lighting designers dug up the ceiling. The sound men festooned the proscenium with clusters which emphasised the frame just when others are trying to escape from it. Engineers asked for the problems of stages, forestages, flying etc to be defined precisely so they could provide solutions: result the sort of massive equipment which is ideally suited to the scenography of a decade or two ago. Strangely the older pre-1920 theatres seem to take the next generation of new technology in their stride in a way the fashionable theatres of the 60s can't.

And then there were the claims of the theatre designer himself, whether he was the architect or the theatre design consultant. Asked for theatres that would serve equally for modern comedy and for classical tragedy, for Shakespeare and for the avant garde, for musicals and for two handers, for romantic illusion and the new realism, they reacted with drawings which show how theatre seating could be made flexible and the acting area adaptable. They had read the textbooks which offer two dimensional diagrams that distinguish between 'restoration', 'classical', 'Greek', 'Roman', 'thrust', 'in-the-round', etc. The consequence was those bland box-of-trick black boxes in which wedges of seats were certainly moved around but only to produce the same bland effect in different permutations.

Reactions to 'modernism'

This somewhat jaundiced view of design by committee has left to the last ingredient 'X' which drained most theatres of the 60s of any character whatsoever. This was 'modern architecture'. Today it is easy to deride the brutalism of a quarter of a century ago but it must be remembered that the functionalist architect of this age just past was an honourable man, true to his materials and with vision of the future that ought to be. He had studied the European 'bauhaus' and 'villes radieuses'. Corbusier, Walter Gropius and Norman Bell Geddes shaped his vision, usually through projects rather than actual buildings. Add a whiff of socialism in Europe and the WPA movement in America with their emphasis on the 'democratic' single tier, (where only those more democratic than others who sit at the front have any contact with the performance), and, presto, decoration is banished because of its frivolity, multi-layered forms because of their social divisiveness and no back bone remains to resist the claims of all those functionalist consultants.

Small wonder that in Britain and America the truly innovative theatre people retreated either into renovated old theatres (in Britain more new plays came out of the 1888/1952 Royal Court Theatre seating 442 over the years 1956-1986 than from any new theatres) or into 'found space' which they adapted into small cohesive theatres devoid of architecture (though it must be said that a few wise architects lowered their profiles, pretended to be the maintenance man and cunningly injected some style into otherwise prosaic conversions). Pre-1920, pre-committee theatres apart, it was the garages, railway sheds, gasometers, munition factories and any old warehouses which were preferred to anything the modern architect could offer. It is said that at one of those building committee meetings of Britain's National Theatre the irate architect challenged Peter Brook with the question: "I suppose you would prefer a bomb site in Brixton to anything I could design?" Peter Brook: "Yes".

So much for the 60s, now for the 80s. Can we detect in more recent buildings any difference? Immediately we run into the problem of the lack of perspective. Theatres cannot be judged as a success or failure as theatres until at least 5 years have passed, something to be remembered when most accounts of new theatres which are entered in the second book are no more than "puffs" from owners' or architects' PR offices during the opening weeks. Hence, while we can judge the 60s and perhaps agree with Michael Elliott, it is more difficult to assess the present. Inevitably for anyone who is in the thick of these things one can only exchange a historical perspective for a personal perspective, trying all along to keep the bias of one's own taste under some control.

The recent past

This used to be difficult for the advocate of what was labelled 'the courtyard' movement. (The labelling was deliberate and took place in the opening year of the Cottesloe in 1976 when a label seemed to be the best way to attract attention.) There was opposition. An article in the USITT Theatre Design & Technology issue of summer 1978 "Old and New: The Rejection of the Fan Shaped Auditorium and the Reinstatement of the Courtyard Form" called down the wrath of George Izenour on the author and on the other 'romantics' – his word – who sailed with him. A later article in the Architectural Record of June 1984 "Putting

the Fun Back into Functionalism and Restoring Humanity to Design for the Performing Arts'', prompted a warning from acoustician and vital theatre consultant Peter George (also British born) to the architects of America that this sort of thing could damage your health. But by 1987 one could look at the work of many North American architects – Joel Barrett in Calgary[1], Ron Thom in Toronto[2], Ben Thompson in St Paul, Hugh Hardy almost everywhere, and, most recently, Barton Myers in Portland to see that there is a movement to reintroduce a festive three dimensional quality to theatre architecture. Add the work of Levitt Bernstein at Manchester and at Bracknell[3] in England and of Michael Reardon at Stratford[4] (The Swan, 1986) and one realises that almost all the major architects and their theatre design consultants have abandoned the cinema like geometry of the single tier, with its concomitant underpopulated sidewalls.

On the other side the commissioning committees, who are rarely fools however foolish they may seem 25 years later, do now listen, do now visit other theatres, both old and new, and do respond to empirical and aesthetic as opposed to functionalist theorising. All have learnt from the experience of restoring old theatres. Even the stage designers no longer ask for everything within twenty feet of their sets to be painted black, a 60s fashion which usually had the opposite effect from that intended, distancing rather than connecting. Technicians are less prone to fight the last war and now open their eyes to new opportunities rather than mentally re-equipping their old theatres when asked to advise on the equipment for a new one.

So far so good and yet we've got one hell of a long way to go to re-engage the support of those actors and directors who will lie down in front of a demolition bulldozer but would probably aim the thing at the offices of most architects. Nearly half a century of selling the actor short needs a lot of repair. My favourite actor's quote on a committee designed theatre is that by actor manager Balliol Holloway on the Memorial Theatre Stratford, now the Royal Shakespeare Theatre, shortly after its opening in 1932 and before it was put right in 1951: ''What we eventually got when the architects, pressure groups, quacks and empirics had finished with us was the theatre, of all theatres in England in which it is hardest to make an audience laugh or cry.'' After acting on the stage he added: ''You can just about see the boiled shirts in the front row: it is like acting to Calais from the cliffs of Dover.'' Later he defined more precisely the problem of ''the acreage of blank walls between the proscenium arch and the ends of the circle which completely destroy all contact between actors and audience. It is doubly hard on the actor that the audience does not realise this and is aware only of the actors' comparative ineffectiveness''. It is not difficult to see why actors often hate the very theatres which delight architects, technicians and acousticians.

(1) CUE 40 (2) CUE 23 (3) CUE 31 (4) CUE 41

But there are hopeful signs that performers are beginning to trust us all again. Inevitably one quotes from one's own experience. At the St Lawrence Centre, Toronto the 'modern' Greco-football stadium of 1971 was replaced, in 1983, with a 'traditional' orchestra + balcony + three boxes each side, to the general delight of the actors of this major resident company though not to the surprise of the design team which had reduced the volume of the auditorium by nearly 50% while increasing the seating capacity. At Calgary the theatres are actor friendly and the paradox that good theatres have some seats with bad sightlines while theatres with perfect sightlines are usually bad theatres has been learnt the hard way. At the Martha Cohen in Calgary director Michael Dobbin was asked earlier this year whether he would change anything in his two and a half year old theatre: he answered 'Nothing'.

Yet none of this is a cause for complacency. The new problem is rising costs. Now we must strip theatres of their inessentials and get down to the basic job of helping the actor and the audience.

A rescue plan

I believe that Michael Elliott had the key to this: we must stop building for posterity. How do we do this?

First we must give some power back to the Director who as user is just as important as the owner committee. He or she must in return spend much more time on planning the new theatre than he does on his latest production. The Director might then take the trouble to educate himself in theatre architecture. The whole building process should also be speeded up, which it could be if the building is going to be cheaper. This means cutting down on all those endless corridors of offices for the marketing department, leaving them in another part of the town to be housed in a later addition to the main building if things go well. This means an easing up on expensive finishes, on soporific comfort in the auditorium seating, on VIP suites, etc. etc. In short it means accepting the standards of the Fringe or of off-off-Broadway rather than those of the airport hotel.

Most significantly it means a re-shaping of attitudes to flexibility in auditorium and stage design. The boast that ''our'' auditorium can do anything acoustically or theatrically should be examined rigorously. What is needed are more marginally adaptable theatres excellent for a few things rather than acceptable for all things. This means stopping adding flytowers to courtyards or complex forestages to proscenium theatres. It also means getting into new buildings the feeling of improvisation learnt through the conversion of 'found space'. The result should be a good theatre which can be altered substantially without resorting to dynamite when fashion changes in 10 to 15 years' time.

Easy to say? A recipe for anarchy? Maybe. But I believe that a 'loose fit' approach can be made to work providing the new buildings in which the theatrical experience is to be erected are themselves harmonious spaces. We need to re-examine those harmonies which were familiar to architects from Vitruvius to Jefferson. We need to look again at the magic of 'ad quadratum', the mysteries of sacred geometry, power of square root of 2 and square root of 3 as design tools, the purity of the double cube, etc. etc. In a space that has been designed to be elegant and harmonious in the purity of its form, theatre folk can erect their scaffolds in whatever form they choose, not insanely inflexible in the German mechanical pushbutton sense but adaptable or even disposable after a dozen or more seasons. The freedom of theatre director and designer would lie in how they took advantage of the opportunities afforded by pure space.

The architect and his design committee of consultants should perhaps no longer try to stick their work together into a whole which gains cohesiveness at the expense of character. Rather should the architect or design consultant of the space and the stage designers of the theatre event give each other room to manoeuvre and be serviced by technical consultants who, trained to distinguish between the ephemeral and the semipermanent, ask for the minimum to be 'hard wired' or 'cast in concrete'. The commissioning committee, on the other hand, will play only if such resulting structures are substantially cheaper and vastly more exciting than those recent stone and marble monuments for posterity.

The concept of 'loose fit' architecture will only work if all of us, owners, architects and theatre people alike, reassess the mystery of the audience and actor relationship.

I've ended previous articles with a quotation from Peter Brook's ''Empty Space'' of 1958 and I make no apologies for using it again. It is only sad that he articulated his warning before so many bland over-finished over-mechanical theatres opened their dull doors to disenchanted audiences in the 60s and 70s. ''It is not a question of good buildings and bad: a beautiful place may never bring an explosion of life, while a haphazard hall may be a tremendous meeting place. This is the mystery of theater, but in the understanding of this mystery lies the only science. . . It is not a matter of saying analytically what are the requirements, how best they could be organised – this will usually bring into existence a tame, conventional, often cold hall. The science of theatre-building must come from studying what it is that brings about the most vivid relationships between people.'' At last people are reacting to those words of this wisest of gurus. To judge by the 'cunningness of his team's recent adaptation of the 1904 Majestic in Brooklyn for 'The Mahabharata', Brook has lost none of his skills at reinvigorating the twin arts of theatremaking and of theatregoing.

REIDing SHELF

Michael Forsyth's **AUDITORIA** is a survey of the various architectural styles with which the recent decade has met the challenge of housing the performing arts. Theatre and Concert Hall Architecture is a subject noted for arousing passions and polemics. Consequently, progress has been via a sequence of rather extreme reactions. It is very useful, therefore, to have this objective overview based on a sequence of case studies. It offers information rather than opinion: although Michael Forsyth draws attention to the options and comments on the pluses, minuses and interactions, he does not reveal his own preferences.

I personally welcome the book particularly for the acoustic base of so much of its argument. This is an area in which I do not think I stand alone in my confusion, and so I found myself immensely helped by Michael Forsyth's clarification of recent acoustic discoveries and their implementation in specific cases.

Auditoria is a valuable addition to the bibliography of theatres and concert halls. Its A4 pages allow an abundance of illustration by plan and photograph, accompanied by the basic dimensions and creative team credits of each case study listed in a standard format. A pity however that the paper has a slight tendency to allow print to bleed. But that is a very minor quibble about a book which is an indispensable reference for anyone who specifies, builds or just uses theatres or concert halls.

Kenneth Tynan is a key figure in the post-war flowering of British theatre. As a critic he recorded the great burst of new drama, and then as literary manager was a leading member of Olivier's creative team who founded the National Theatre. He desired, rather deeply, an involvement more actively close to the central mechanism of a play's performance, preferably as director. But that, while perhaps satisfying him, would have been a waste for us. Directors we had in plenty. Our need was Tynan the animateur who beavered away in so many directions, usually simultaneously, to stimulate a forward progression of our theatre and its relation to society. We had the necessary serious visionaries and the enablers who could guide them through the establishment games of bureaucratic snakes and funding ladders. What we needed was a flamboyant articulate spokesman. Unafraid to enthuse or to scourge. No less serious in intent but entertaining in its pursuit. Ken Tynan was an artist and therefore aware of the limitations of a purely logical approach.

In **THE LIFE OF KENNETH TYNAN**, Kathleen Tynan offers us not just a detailed, well researched biographical record but an analysis of both the public and private personna of her husband. Although a wife, his second, she is able to adopt a surprisingly objective viewpoint. Surprising and indeed courageous because life with Ken Tynan was a complex and volatile affair. He was as eager to probe the nuances of his own attitudes, desires, ambitions and responses as he was to analyse a play and its performance. In his post-NT years his physical decline was apparently matched by a dissatisfaction for what he considered to be a failure to find a more creative role. An inevitable question (and I cannot detect an answer in the book) must be why he never wrote a play.

At the memorial service, Tom Stoppard suggested that Tynan was the product of our time but our time was of his making. There is a kernel of truth here that survives the immediate generosity of a funeral tribute. Tynan's pen was prolific: there is a vast heritage of fact and comment about how our theatre was and how it related to the civilian life of its time. His work is currently in that out-of-print, rarely-read and little-regarded limbo that awaits every writer or composer in the years immediately following their death. We must wait a little longer, not only for the pleasure of rediscovering these fiery, witty and perceptive critiques but also for access to his unpublished journals. Meanwhile we have Kathleen Tynan's superb example of the biographers craft (no!, not just craft but *art* – she too knows when logic is not enough) giving us confidence that the editing of the rest of his works will be in capable hands.

Ronald Bergen's *illustrated companion* to **THE GREAT THEATRES OF LONDON** is generously illustrated with colour photographs guaranteed to titillate all lovers of theatre architecture. With a target market of theatregoers in general and London tourists in particular, the potential sales allow high quality printing to be offered at a lower price than is normal for this type of book. Fifty four theatres rate full essays and there are notes on a further fourteen beyond the mainstream. The style is slick and informative. How, when and why built. Hits and flops. It takes about 600 to 1200 words according to the lifestyle of a particular theatre. Concise yet still room for a few judicious quotes and comments to stimulate any theatreperson's thoughts.

For example, Shaw on Phipps (Her Majesty's): 'He has the good taste – a very rare quality in England where artistic matters are in question – to see that a theatre which is panelled, and mirrored, and mantelpieced like the first-class saloon of a Peninsula and Oriental liner or a Pullman drawing room car, is no place for Julius Caesar, or indeed for anything except tailor-made drama and farcical comedy.' Or Edward Fitzgerald on Macready's assumption of the management of Covent Garden in 1837: 'It was the application of the limelight that really threw open the realms of glittering fairyland to the scenic artist.' And I, for one, did not know that the failure of Noel Coward's first west end play was blamed on the economy-conscious Lady Wyndham (Dorothy Moore) who removed half the stage lighting.

However it is primarily for the pictures that I will conserve this book on my theatre shelf. Their importance is that, with the proper exception of a few historicals, they are all photographs of the theatres as they are today. The shows advertised on the canopies and set on the stages are either still running or came off very recently. This could make the book a valuable record when today joins yesterday. For the technical theatre buff, perhaps the most interesting feature is the evidence of just how standard the advance lighting bar has become during the last decade, with very few (if notable) exceptions.

Looking set to inhabit one of the greatest of these London theatres – Her Majesty's – for the foreseeable future is Andrew Lloyd Webber's *Phantom*. So it is not surprising that this show should rate what is probably the most comprehensive and plushiest souvenir yet to appear for a west end musical. George Perry's **THE COMPLETE PHANTOM OF THE OPERA** is a luxuriously illustrated 170-page A4 hardback. Apart from full pictorial documentation of this latest phantom, including an account of the show's genesis and a full libretto, there is considerable material on Charles Garnier's Paris Opera and Gaston Leroux's novel *Le Fantome de l'Opera* which inspired the films and the subsequent current phantom industry. (I remember the 1975 pleasure of visiting the Opera's centenary exhibition in the foyer. I missed then, and so failed to report in Tabs, as I then was, on an important fact for which I am indebted to this new book: when the unfinished Opera was taken over as an arsenal for the siege, the vital food supplies included a million litres of wine.) A very nice bit of bookery: I want to see *Phantom* even more after reading it. But, oh dear, I wish I could plan my life far enough ahead to match such a hit's advance booking schedule.

In her introduction to the **THE ACTOR AND HIS TEXT**, Cicely Berry writes of

her concern of the gap between the life that is going on imaginatively within the actor in order to create the reality of the character he is playing, and the life that he gives the text which he has to speak. As Voice Director of the Royal Shakespeare Company she has successfully explored the problem and now shares her solutions with us. She accompanies her explanations with exercises and so the book will appeal both to those who just wish to extend their knowledge of an actor's ways and means, and to actors anxious to extend their technique. The exercises make it something of a do-it-yourself handbook and while a one-to-one session with Cicely Berry must be a uniquely dynamic experience, her enthusiasm and conviction come bubbling through on a subject which, being about the spoken word, is not an obvious one for cold print.

LEONARD BERNSTEIN made it young and made it big. Nobody has made it younger or bigger in such a wide range of music. Which makes life hard for his biographer. Bernstein's only real problem seems to have been the routine one of a father who would rather have his son follow him into the cosmetics business. So Michael Freedland does not go wart hunting but simply records Bernstein's life, drawing extensively on quotes of those who knew and worked with the composer-maestro. Amidst the successes he must have had his bad times: we get the hints but are spared the details. It is a cheerful optimistic book but its author stops short, if only just, of sycophancy. But why not. It is surely in order for a biographer to choose the path of idolatory provided it is followed with truth and sincerity. Anyway, I too am something of a Bernstein fan: he gave me West Side Story and helped me to get inside Mahler.

AUDITORIA. Designing for the Performing Arts. Michael Forsyth. Mitchell (A Batsford Subsidiary). £35 (UK).

THE LIFE OF KENNETH TYNAN. Kathleen Tynan. Weidenfeld & Nicolson. £16.95 (UK).

THE GREAT THEATRES OF LONDON. An Illustrated Companion. Ronald Bergan. Multimedia Books & Admiral. £9.95 (UK).

THE COMPLETE PHANTOM OF THE OPERA. George Perry. Research by Jane Price. Special photography by Clive Barda. Pavilion. £12.95 (UK).

THE ACTOR AND HIS TEXT. Cicely Berry. Harrap. £6.95 (paperback) (UK).

LEONARD BERNSTEIN. Michael Freedland. Harrap. £12.95 (UK).

The Stage Lighting Handbook

Francis Reid. A & C Black £9.95

In the Autumn 1976 issue of Sightline I reviewed the first edition of this book. I said then that the "Handbook" is a practical guide to the problems of lighting a show written by a practical man of the theatre". Since then my own copy has been dipped into occasionally and loaned frequently.

The second edition I'm afraid seems to have come and gone without my noticing and now a third edition has come along. Depressingly the third edition costs £9.95 against the £3.50 of the original. Apart from inflation however the third edition is rather larger than the first and so can be thought of as probably better value for money still.

As before the approach is practical with few digressions. This is not to say that the book is a dry text book. Like its forerunner it is eminently readable. Many of the asides will strike a responsive chord in the experienced lighting man's heart while perhaps guiding the less experienced not to take it too seriously.

Naturally after ten years the book has been considerably revised. For example the equipment chapter has been brought up to date and the "worked examples" changed to be more in line with 1980s practice. These latter are more useful to my mind in that they show a play and a musical where some of the rules need to be broken yet which still underline the validity of those rules.

A chapter has been added on dance lighting which sums up very neatly the lighting problems and the conventional solutions of that form of theatre. The chapter on lighting thrust and theatre in the round is perhaps rather brief suggesting that the author is really more at home when working in a "real theatre" with a proscenium! At the time of writing though I am engaged in advising a school on the various options available to its drama department and Francis' suggestions of ignoring the proscenium stage and moving into the hall "in the round" are providing a sensible solution to some of the school's problems.

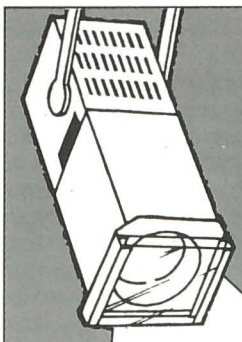
The stress laid on style and organisation in the first edition is repeated here. My own experience seems to agree with Francis when he says that it is far preferable to think things out in advance than to cobble them up at the last minute (my words). Francis puts it more succinctly ". . .it is much better to have a plan to alter than to have no plan at all" and "But it is easier for the team to sit down and discuss it together in the first place". The question of organisation is related also to more practical points such as ensuring that the equipment is in good order before (and after) the fit up.

Style is more difficult to define but is rightly referred to regularly throughout the book. Far too many productions are lit – initially at least – in a style totally at variance with the sets, costumes or even production. This may be due to lack of communication the need for which is also stressed. I quoted above the remark about discussing in advance. Two other sentences from the book should be posted up in every production office – "But the director must have the ultimate decision" and "Like all committees it has a precise, optimum number of members".

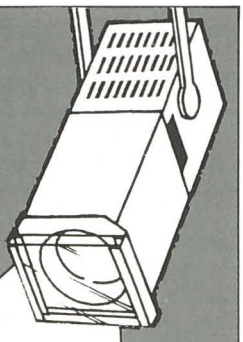
Perhaps the best part of the book, for the more experienced at least is the Checklist at the back. If nothing else it provides an excellent syllabus for a course in lighting design!

I ended my review of the first edition by saying "I shall strongly recommend this book to the beginners that I teach formally and to those I meet otherwise, be they amateur or professional." I feel exactly the same about this new edition. The enlargement over the original makes it more attractive as a textbook yet is has lost none of its appeal as a primer.

Philip L. Edwards



ENTER THE ROSCO SUPERGEL COMPETITION



WIN A FREE TRIP TO USITT MARCH 23rd-26th 1988

FIRST PRIZE

3 DAY TRIP TO UNITED STATES INSTITUTE OF THEATRE TECHNOLOGY CONFERENCE, IN DISNEYLAND.

10 RUNNER-UP PRIZES

TOP OF THE RANGE POLAROID CAMERAS

Rosco need your help in their continuous search for a better understanding of colour and world-wide creative and technical use of gel in theatre and television.

Please fill in coupon and enter the competition. The purpose is to contribute to the next edition of the Supergel Guide, sharing the interchange around the world.

Please send me a free copy of the Rosco Supergel Pocket Guide, together with an entry form.

Name_____

Company_____

Address_____

rosco Supergel

C

ROSCOLAB LIMITED
69/71 UPPER GROUND LONDON SE1 9PQ
TEL: 01-633 9220
TELEX: 895-3352 ROSLAB G

Students of the Arts to take enterprise courses

ANTHONY MCCALL

The winds of change seem to be blowing through the corridors of higher education once again. And not before time. But overdue though it may be, we must nevertheless welcome the recent moves made by the Manpower Services Commission to equip our students better for the outside world.

Together with the Secretaries of State for Education and Science and for Employment, the MSC has hammered out its most detailed proposals yet on how to inject some commercial and entrepreneurial attitudes into all areas of higher education: courses, lecturers and students alike. This will affect arts as well as science students, who will be able to learn business, management and enterprise skills as part of their courses, starting in the autumn of 1988.

The aim, according to Geoffrey Holland, the MSC's director, is that "every person seeking a higher qualification (at first or subsequent degree level) should be able to acquire key management/business competences and develop associated aptitudes". Students would undertake "project-based work in the real economy", such as a piece of market research, and would be assessed jointly by employers and colleges. The scheme is entitled the Enterprise Plan.

Holland says that the suggestions outlined in his paper are not really new. For many institutions have already started out along the road to an Enterprise Plan. What is new, he stresses, is "a national programme which will draw these individual initiatives together and allow institutions to establish the best practice and learn from each other". He adds, "The essence of the programme therefore must be flexibility and the opportunity for each institution to prepare its own Enterprise Plan in its own way and to develop its thinking through its own experience and the observation of others".

How did all this enthusiasm for enterprise come about, one may ask? The genesis of the proposal goes back to spring 1987, when an informal meeting took place between the Secretaries of State for Education and Science and for Employment and a number of senior representatives of higher education. The subject under discussion was how the work of higher education might link more closely with that of small firms and enterprise. As the meeting went on it became clear that the focus of attention really should have been, "How, in an enterprise economy, do we develop more *enterprising graduates*?". (The italics are Mr Holland's, not mine).

They recognised that it would be hard work to introduce an Enterprise Plan across all courses in each institution, but they felt it was vital to set ambitious objectives. Without ambition, little of real value would come to fruition. They chose to introduce an Enterprise Plan over a period of five years, with each participating institution. Their logic appeared sound: if such a project were not launched, there was a real danger that it would be "to the eventual disadvantage of both graduates and the economy".

Another equally important point, Mr Holland feels, is the need for institutions to integrate the development of enterprise skills and aptitudes into the mainstream learning activities of their students. Enterprise skills and aptitudes are not acquired through a series of 'bolt-on' modules, he adds, but they are the product of the whole institution's approach to learning. "Enterprising graduates emerge from an enterprising system of education. From this belief stems the expectation that institutions will need to concentrate more on staff development than on devising new items of curriculum".

These are all splendid sentiments, indeed they echo Cue's own views over a number of years. But where will the funds come from or the right guiding influences to ensure that such a scheme gets off the ground and achieves tangible, worthwhile results?

I quote Geoffrey Holland. He recognises "that the programme will require substantial resourcing if the necessary developmental work is to be undertaken. Over a five-year period the MSC should therefore be prepared to contribute perhaps up to £1m per higher education institute, dependent upon the scale of development activity proposed. However, the importance of external finance from industry and commerce cannot be understated".

He goes on, "Once the main developmental work has been completed, the programme will need to be administered and there will be a continuing need to update and enhance the knowledge and skills of the staff involved. Industry and commerce will need to be involved and committed to the programme's continued existence and development after its initial five-year period." To ensure viability, once MSC funding is withdrawn, Holland proposes that industry and commerce should contribute from the very start, with their contribution growing to the point where they eventually have "a major financial stake in the programme". This would effectively ensure that they, as interested parties, would keep a lively and close involvement in the scheme. A good

GEOFFREY HOLLAND – Director Manpower Services Commission

Geoffrey Holland was appointed Director of the MSC in October 1981. He is a Second Permanent Secretary.

Mr Holland chaired the Youth Task Group which resulted in the design of the Youth Training Scheme. He played a leading part in the design of the Community Programme and has been involved in the development of the Technical and Vocational Education Initiative (TVEI), the Adult Training Strategy, and has been actively involved in the development of the Restart Programme. He is on the board of the Open College.

His first MSC post was as Director of Planning and Intelligence in the Training Services. In 1976 he became head of the MSC's Planning and Policy Branch and chaired the MSC's Working Party on Young People and Work.

Mr Holland was Director of Special Programmes with responsibility for the implementation of the Youth Opportunities Programme and the Community Enterprise Programme.

safeguard against 'theoretical' entrepreneurism.

But there are other safeguards. The concept of 'enterprise' is interpreted as follows – and remember, we are discussing the realms of higher education, not the production-line, where productivity is more straightforward to assess. Higher education institutions interpret 'enterprise' broadly. It is: "any arrangement or activity within the institution which encourages students and teachers to appreciate the economic and business setting within which they are exercising, or will exercise, their skills; to acquire specific competences to enable them to take full advantage of the opportunities which may arise; and to develop their initiative, imagination and flair in an 'enterprising' context:

"In practice, these activities include relevant **project work** for students in industry/commerce; the promotion of **sandwich courses**; creation of, and support for, **new enterprises** of one kind or another through which students/lecturers can develop and market skills and products; the offer of **consultancy**, undertaken by students/lecturers for industry/commerce (perhaps overseen by an especially established company); the introduction into the **curriculum** of **material** to raise the level of business, economic, technological awareness among students."

But to return to the question of where the right guiding influence, the inspiration, would come from, Geoffrey Holland sees the answer in the following terms.

"The arrangements for managing the programme would be central to its success, and would need to be robust and clear. A senior individual within each participating institution/organisation (the programme is to be optional: colleges could opt in or stay out, it would be up to them) would be responsible for the programme's implementation. The Programme Director would report at a high level within each college; and would have a close and established relationship with other managers in the organisation with like functions. The post would be full-time. The Director would be responsible for providing the MSC with all relevant information about the progress of the project and the expenditure of support grant."

Since the Enterprise Plan would be supported by the MSC only for a limited period, it would need to be solidly supported and cost-effective. (Indeed, cost-effectiveness will be a factor in determining which proposals the MSC will support). "We would hope to begin our support for a substantial number of projects in each of the three years 1988/89, 1989/90 and 1990/91" says the MSC. "Assuming projects do continue for five years, the whole programme would last at least until 1994/95".

Any universities or colleges currently running courses on drama, the theatre or other fine arts subjects related to the world of theatre may be interested to note the following criteria laid out for funding the project. They are:

a) That the MSC should not fund students support under this scheme, except in very limited cases where new approaches. . . are being piloted for which no other student support arrangements are available.

b) That financial support should only be available for *clearly identified* developmental activities leading to *clear relevant outputs* within the Enterprise Plan.

c) That there should, over the period of each proposal, be evidence of substantial and growing contributions from industry/commerce.

Within these parameters the MSC should be prepared to contribute to each project up to perhaps about £200,000 a year for each of the five years, according to Holland's paper. In addition to a firm commitment to the Plan from those (including industry) involved in its design, there would be a requirement for a contribution from industry/commerce in cash or personnel of at least 25% of the MSC contribution in each year and rising substantially from the third year of the programme.

So it is clear that getting such a project on its feet will need drive and resourcefulness on the part of all participating bodies, including the MSC, of course. Are they all up to it? Only time will tell, but the signs are auspicious so far. Holland sees need for (I quote), "careful and sensitive, but energetic management by the MSC. The central management team will need to liaise closely with all the bodies involved; monitor the projects; promote the initiative within higher education and industry – and much more besides. I propose to establish a modestly-sized central team within the MSC drawing significantly on external, seconded expertise".

"The Commission and the management team should be advised by a small expert group drawn from higher education institutions and industry/commerce and with representatives from the DES, the Welsh Office and Scottish Education Department. The group would operate non-bureaucratically and have as its main function advice on the selection of individual proposals".

Any educational institutions interested in participating in an Enterprise Plan could begin to consider their approach and to lay some foundations for development, even if they cannot take part until the following scholastic year. There are guidelines available for potential applicants from the MSC (Manpower Services Commission, 236 Grays Inn Road, London WC1X 8HL. Tel: 01-278 3222).

The Enterprise Plans would work as follows. Written proposals need to be submitted, showing:

a) How the aims of the initiative are currently being fostered within the organisation;

b) What the precise objectives of the organisation's Enterprise Plan are;

c) What priorities the organisation would adopt, and why;

d) What new or enhanced activities MSC support would finance; and how (and on what timescale) these will contribute to meeting the objectives;

e) How it is proposed to monitor and evaluate the new activities.

And to spur educationalists into considering taking part in an Enterprise Plan, Geoffrey Holland sums up his vision as a mixture of pragmatism and idealism, as follows.

'I have set out a model which would build on current work in this field to offer individuals seeking higher qualifications the

chance to acquire competences and skills, and develop aptitudes and qualities appropriate for an enterprise economy.

"The objectives of the proposal are straightforward but critically important – and very challenging. They are:

a) That *every person seeking* a higher qualification (at first or subsequent degree level) should be able to acquire key management/business competences and develop associated aptitudes; and

b) That these competences and aptitudes should be acquired at least in part through *project-based work in the real economy* and that they should be *jointly assessed* by employers and higher education".

Lastly, he adds, "With a sense of realism, must come a sense of urgency and of purpose. I believe we should set ourselves a clear (though broad) target and aim to achieve it within seven years from the start of the programme. Hitting the targets I have proposed should have major direct benefits, and highly desirable spin-offs".

Both Norman Fowler and Kenneth Baker at the employment and education ministries respectively, have given the MSC scheme their "full support". In a letter to the MSC in October, Fowler underlined the importance of securing "the maximum publicity for this programme, for the benefit both of higher education institutions and of industry and commerce".

So it is up to Cue readers to put the word about.

CORRESPONDENCE

Dear Sir

It was most illuminating to learn about your New York reader, Mr Louis Fleming, and his involvement in arts sponsorship in North America. His own experience, related through your letters columns, of launching publicly-funded projects, for example in Ontario, and the conclusions he draws from them, make interesting reading.

But I wonder if he missed the point I was making when I berated the present British government's arts policy. My criticism was simple: that it is badly thought-out, badly explained and worst of all, not practical or perhaps even counter-productive. Mr Fleming seems to think I prefer state subsidies to self-help. Not so. But I feel that central and local government funding have a vital role to play, which self-help is unlikely to take on. *Both* government funding and self-help deserve to grow. If they did, everyone would benefit: the arts community, business, society (or if you like, the consumer), and in the end even the government, thanks to this industry's ability to generate employment, to stimulate other industries which live off it, and its importance as an export earner (as we shall later).

Let's look at Mr Fleming's premise that the days of depending on state funding are, or should be, drawing to a close. Let's think of being responsible for our own future for a change instead of constantly bemoaning our fate and complaining to the funding bodies. Long live self-help, he says.

Superficially, the idea is beguiling. But for the foreseeable future, most arts activities such as large-scale or innovatory companies and orchestras will continue to need substantial subsidy. Why? Because they innovate to a greater or lesser degree: a 'difficult' area for sponsorship in its present state of evolution. So whatever the true costs of staging a live performance, charging £50 or £100 per ticket for a concert, will soon empty seats. Change cannot be expected at once; it will need phasing in.

But if the subsidy system were to change, one could foresee the need for quite a good deal of explaining and educating to show everyone what self-help will mean in everyday terms. By everyone, I mean performers and support staff and even the general public, because self-help should no doubt involve those who want to enjoy the arts as well as those who create it and put it on.

So how has Margaret Thatcher's government chosen to launch this major new initiative towards self-help and self-determination? The answer is, not very professionally. Without spelling out how and why the New Deal will tangibly benefit the arts and how it will work (that is to say, ensuring that the complex mechanisms of checks and balances will be deployed to maintain the well-being of the arts), our Arts Minister Richard Luce lays himself wide open to criticism and misunderstanding. He can scarcely be surprised that he is attacked on all sides, given his dismal performance so far.

For example, how can he expect the entire British arts industry to stride out along his lovely yellow brick road, merrily ignoring the (manifestly huge) potholes and without knowing exactly where it leads – or whether they will ever get to their destination (financial health) at all? There is no detail, no explanation.

What makes my criticism (and that of virtually every major figure in the UK arts establishment and the press) of Mr Luce's ideas so painful, is that there is so much that *could* be done to improve the funding, efficiency, and sense of drive of the arts in Britain.

The need for such a drive is there. Mr Fleming and I are in complete agreement about this, let's be quite clear. But you cannot innovate successfully if you do not grasp the details, or even the essentials of your subject. And this seems to be Mr Luce's problem.

In North America the scene is substantially different. The laws governing business and businessmen's corresponding attitudes, the outlook of society, the education system, the role of the arts and even people's motivations are different from many European countries, not least Britain. For largely historical reasons, North American society has a deeply-rooted tradition of self-help. Mr Fleming tells us he was born in Britain, but moved to North America in 1946. The fact is, he seems out of touch with the British scene – despite his subscription to Cue magazine!

I can sympathise with his dislike for the endless complaining about underfunding that seems to emanate from the arts world. It could put one in mind of spoilt children, complaining until they get more. But there is more to it than

meets the eye, much more.

The British attitude to everything is governed by reason and compromise. We couldn't lavish huge sums of money on extravagant arts projects if we tried; it isn't in our make-up. The French, Germans or Americans can: they will get caught up in national pride, the need to support their cultural heritage or the expression of community spirit. Those straightforward feelings do not exist here, not when you're discussing the arts. Instead, we have 'sensible' things like the world-renowned National Health Service. The National Theatre only became a reality in the 1970s, and this from the country with the world's foremost theatre tradition!

Unlike North America, we also carry with us the legacy of a still deeply-divisive class system (no-one is too sure why), which some arts projects seem to exacerbate rather than heal, with accusations of 'elitism' spilling over from an already-poisoned sense of jealousy. All this is scarcely believable by the standards of the New World, I know. I lived there for eight years myself, and more recently I lived for five years in continental Europe. So I'm not speaking as an insular 'Little Englander', unaware of how others live outside this small island (the way some of my countrymen do).

To return to funding, though, one must seek to strike a balance between treating the arts industry like the coal mining industry, or the computer industry on the one hand, and like a bunch of mad professors from academia on the other. It is none of these. It is neither an unskilled labour force we are dealing with; nor an industry that has access to rapid economic growth and commensurate financial rewards through acquisitions, mergers, stock market flotations or even worldwide sales figures; nor are we talking about geniuses who can't get organised enough to comb their hair or do up a shoelace.

Yet the subsidised arts have grown into a flourishing industry that also promotes various immensely profitable spin-off industries – such as movies, TV, video and recording to name only a few ('Amadeus' became a huge commercial success as a play then as a film, and 'Les Miserables' is setting new records for the number of commercial productions being staged – from Tel Aviv to Sydney). Likewise, innumerable stars are 'born' in our drama and music schools or in subsequent early careers in different corners of live entertainment. Without the world of the subsidised arts, in all its complex inter-connected forms, the Andrew Lloyd-Webbers, Kiri te Kanawas and a host of comedians and actors would never have been trained or provided with the publicity platform to launch themselves into such lucrative industries.

That talent comes overwhelmingly from the subsidised areas of the arts because these are the areas which can best innovate. And to come full circle, the leisure industry in Britain, of which the arts is a vital, high-profile part, is the third largest sector of the economy – and it is booming. Yet our government cannot see the importance of supporting it, of keeping its lifeblood flowing of encouraging this world-class source of export, if only for hard-headed commercial reasons, it is an exceptional 'investment', a source of employment, a world-class export.

But let's look at another, less commercial, side of the question. What wider purpose do the arts serve, if any?

Depending on your personal view as to the importance of the arts in society (for example, are they a luxury, or do they define a society's ability to be civilized?) and what role they should play (populist or *avant-garde*), there is a tendency among creative people of all kinds to be out-of-touch with where their monies come from and the whys and wherefores of the funding process. The other side of the same coin is that the administrators and financial people can seem equally out-of-touch with the stress and sheer hard work of getting an original piece of artistic work ready for the public. Will the twain ever meet? And is there any good reason why they should? That's another debate.

Where Mr Fleming has misunderstood my point about arts sponsorship in today's Britain, I suspect, is in this fundamental area: there can be no question about the usefulness of 'challenge funding', but simply how and when it should be applied. It has been used with admirable success to encourage ABSA (Association for Business Sponsorship of the Arts) schemes, like their scheme that matches grants to encourage industry's investment.

But we must know before we set off in a new direction exactly how and why we are going there. This must be translated into everyday facts and figures. We are still waiting for the Arts Ministry to find someone capable of explaining its New Deal.

Arts administrators in Britain obviously welcome the chance to develop more fund-raising programmes. Indeed progress is being made every year, of which we can be proud. But quantum leaps won't happen overnight *on their own* and therefore they seem highly unlikely to supplant government subsidies for a long while, unless attitudes change first in business and society at large – as I mentioned above.

Yes, we must continue to press for change, for many good reasons. But let's move forward together with clear objectives and, why not, with the Confederation of British Industry or the Institute of Directors on our side. Such arguments must carry conviction and weight. At present we have neither.

Yours faithfully,

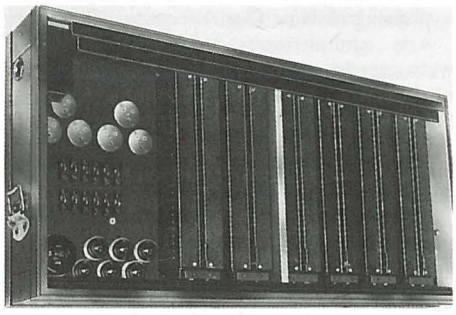
Anthony McCall
17 Green End, Kingsthorpe Village, Northampton NN2 6RD

CONTROL BOARD ALPHABET

Concluding Francis Reid's ABC for 1987

T is for **Twenty Nine King Street** so long the womb of British boards conceived by Applebee, Bentham and Woody out of Strand with Mansell and Leggett prominent among the midwives. T is also for the A5 **Tabs** which registered these births and recorded their philosophy. Its A5 blossomed into A4 on moving next door to number **Thirty Two**. It was a T called **Twynam** who put every Tabs to bed and then bestowed much of the Tabs spirit on Cue.

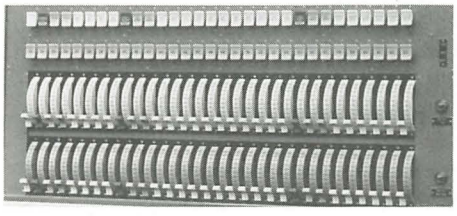
Teak boards took their name from the wood on which their slider resistance dimmers were mounted. The link between a liquid dimmer and its control handle was a **tracker wire** and these were also used for



Teak Board

some other directly operated boards, particularly Bordonis (qv). **Tracking** is the means by which a computer board charts the progress of a channel's level through a sequence of cues. As a general matter of philosophy, American boards tend to compute changing levels whereas the Brits record complete states.

Transformer dimmers were load independent but expensive. **Thyratron valve dimmers** were also load independent



Tablet switches engraved with function or channel number.

but unstable. And their instability was of an unforgiveable kind: they failed on rather than off. Thyratrons chopped the waveform in the manner of the **Thyristor** which is very stable (to old board operators, almost to the point of boredom) and is the only dimmer

Getting a Threeset wing into Cheltenham Everyman Theatre

considered for the past twenty years except when finance dictates its **Triac** cousin.

Three-way **Tablet** switches, which eliminated labels by having space for engraved channel numbers, were used for forming groups on most of the Strand electronic boards of the 1950s and early 60s. **Threeset** provided three presets, each with three groups and (a victory for the user over Strand's then current Bentham philosophy) these groups could be formed independently within each preset rather than be common to all presets.

U is for **up-a-point**, perhaps the most frequent request from a lighting designer to a board operator.

V is for the thyratron **valves** and **variable loads** already mentioned. And it is for **variac**, the proprietary name for a brand of rotary autotransformers used at mains voltage as dimmers, and at low voltage for mastering choke boards with a large control current requirement.

W is for the **watering can** used for the daily maintenance of liquid dimmers by topping up the evaporation losses from prolonged running on check.

Woody was J. T. Wood whose 3-valve (one-per-phase) thyratron valve board of the early fifties, although somewhat prone to instability, opened a window on the future with its proportional crossfading between presets and its glimpse of the multi-presetting that would soon be computerised into infinite-presetting. As a pioneering exporter, Woody ensured that British stage lighting technology became familiar all over the world (Saloon bar mythology has him emerging from the sea, pattern 23 in one hand and sheet of cinemoid 17 in the other.)

Another Strand W is **Weston (Paul)** who has near witch-doctor powers (based on commonsense) for healing sick boards. Strong but totally unconfirmed rumours maintain that the processor racks at some early memory demonstrations contained nothing more memorable than Paul's own personal digits.

And, finally,

X Y Z

provided the standard group coding for boards with three groups per preset.

addendum

Many are the gaps in this ABC, particularly the exotic names bestowed upon today's boards. Before anyone else proclaims their most dastardly omission, let me offer mine. How did I ever miss out dimmer **curve** when so many of us spent so much of the sixties agonising over which law it should obey. (One day, Fred Bentham even lead us one-by-one into a darkened theatre to take a choose-the-curve test). I have always been happy enough with the S curve which is produced, so they tell me, by letting a dimmer do what comes naturally. But it's all old hat now that a board's software can allow each dimmer to have its own curve. I wonder if there are curve buffs who actually do this?

NT NATIONAL THEATRE +10

A report on how the technical installation at the National Theatre has performed in ten years of use.

BOB ANDERSON

Ten, nearer eleven, years ago Britain's National Theatre opened after one hundred and twenty five years of talk and ten years detailed design and planning. It was architecturally and technically ambitious, very different from the conventional nineteenth century theatres of London's west end but also, in scale and financing, from the post-second-world-war theatres built in the provinces. Three auditoria were built together with generous dressing rooms, wardrobe, workshops and offices to make a self contained theatrical kingdom with its own company and resources; equally able to stage new works or the classics on proscenium or open stage, to experiment in a studio space or to welcome visiting companies. After ten years the artistic achievements of the enterprise are on record for all to see and applaud, but how did the technical installations work out?

The technical innovations at the National were well reported during the building phase and the plans laid by the development team and theatre consultants Theatre Projects met with general approval, though mixed with varying amounts of doubt and envy. After the three auditoria had opened and the achievements were there, more-or-less, to be seen, the doubters were apparently proved to have been right, at least about the stage machinery. It wasn't ready and some said it never would be.

Now, ten years later, how much of the original technical installation has proved it's worth; how much had to be thrown out; and what could have been done better?

Lightboard

First, an undoubted success.

In the early 1970's when the choice of lighting control for the two main theatres had to be made, computer memory systems were only just gaining acceptance in theatre. Q-File led in the television world but it's adaption for theatre had not gone far enough in the eyes of many top theatre lighting designers. Strand's DDM and MMS were at a similar stage of development and the same seemed to be true of the very few overseas manufacturers in the business. So, since Richard Pilbrow knew what he wanted and since Strand, still smarting at the bite Thorn had taken out of their market, wanted to develop a new generation board, Theatre Projects wrote a specification and Strand accepted the challenge. This is not the place for the story of that development: sufficient to record that the Strand team led by David Baker and Martin Moore produced convincing prototypes and the South Bank Theatre Board were persuaded to place the contract – the first of their affirmations of faith in British engineering and the new technology of the computer age.

Lightboard used a mini-computer, the DEC PDP-11, plus a lot of Strand made controls and interface boards. Innovations included the first theatre use of VDU data displays, formatted to avoid cluttering the screen with information about unused circuits; the option to compose lighting using individual dimmers (called sockets for clarity), groups of dimmers, and fully balanced memories all together on a 'palette' control; complex cross fades with up to twenty-four sets of lights starting at different times and moving at different speeds; a stalls control with full facilities; and a discontinuous socket numbering system that allowed, for example, sockets on Bridge 1 to be numbered 101, 102, 103 etc. and Bridge 2 to be 201, 202, 203 etc. Patching was avoided as a matter of principle with the result that there were 498 dimmers in the Lyttleton and 720 dimmers in the Olivier, plus houselight and non-dim circuits also controlled from Lightboard.

Lightboard worked and worked well and established a new high standard for dimmer memory control systems. The Strand Galaxy and Gemini of today owe everything to the precedents established by Lightboard. Not that it didn't have any faults. Two bitter lessons were learned. Control rooms and computer rooms must be properly cooled and mains supplies for lighting computers have to be well protected from the dirty waveforms generated by the dimmers. These problems were solved fairly rapidly, but the former probably left a legacy of overheated components that, by the mid 1980's, resulted in a growing maintenance burden for NT staff.

Maintenance

Maintenance was, of course, recognized as a special problem at the National. Two Lightboards plus a smaller control for the Cottesloe; computer controlled flying systems in both big theatres and the complex drum revolve in the Olivier could be expected to require more attention than could be provided by operational staff or maintenance contracts. A special systems engineering department had to be organised and this was set up, a year or two after the complex opened, by Douglas Isham, a professional engineer, previously with the Royal Air Force. He set about organising staff and a maintenance policy appropriate to the complexity of the equipment and the intensive use generated by the repertoire system and long days and nights of rehearsal. His policy combined providing in-house expertise to solve routine problems, a generous holding of spares, full co-operation with manufacturer's maintenance teams and adequate installed backup systems that could be used to continue performance or rehearsal without serious disruption. Ian Napier, a systems maintenance expert was recruited to take charge of the details.

At first the problem of back-up for the Lightboard seemed straightforward. A ten fader peg matrix connected to every dimmer was provided in both control rooms and seemed good enough because the presumed high reliability of the computers, duplication within the control system, readily available plug in spares and the knowledge to use these effectively was expected to more-or-less eliminate sustained failure. And, with a few significant exceptions, this was the case for many years. However, computer manufacturers are notorious for making their systems obsolescent and as a consequence spares and the manufacturer's ability to repair even small faults became, during the early-1980's, progressively harder to obtain, putting a growing strain on the maintenance team. Nevertheless, since the Lightboard was highly thought of and since there seemed to be no satisfactory alternative on the market it was decided to improve the back-up.

Galaxy had been launched by then and this incorporated a sophisticated back-up panel. So, although in Germany complete Galaxy boards were installed as Lightboard back-ups, The NT settled on the Galaxy back-up alone, connected alongside the Lightboard and peg-matrix. Now, once rehearsed on Lightboard and copied into the Galaxy-backup, near perfect repetitions could again be guaranteed. A good idea that worked well except for one problem, it took a lot of time and trouble to manually copy the Lightboard memories into back-up and although a routine was set up to do this overnight

before the first preview and to update before the first-night proper, there were occasional errors and a lot of unwelcome additional work. By the middle of 1986 it was clear that the end for the Lightboards could not be postponed for long and further difficulties obtaining spares resulted in a crisis and a decision to change. Galaxy-2 was chosen as being the closest match to the facilities of Lightboard and also because the NT had always enjoyed good relations with Strand and were able to negotiate excellent prices. The changeovers took two days each and were completed in the Olivier in January and in the Lyttleton in October this year. The Lightboards, after over ten years excellent service are no-more, at least in Britain.

The original Strand XTM dimmers remain and give reliable service though new control cards may soon be needed as components drift and loose reliability. So far, there has been no need to consider adding extra dimmers, though, now control capacity is available from the new Galaxy, plans to add two 24 way racks in the Olivier dimmer room are being studied. The power allocation of some 800kW to each theatre has proved generous.

Pan-Tilt-Focus

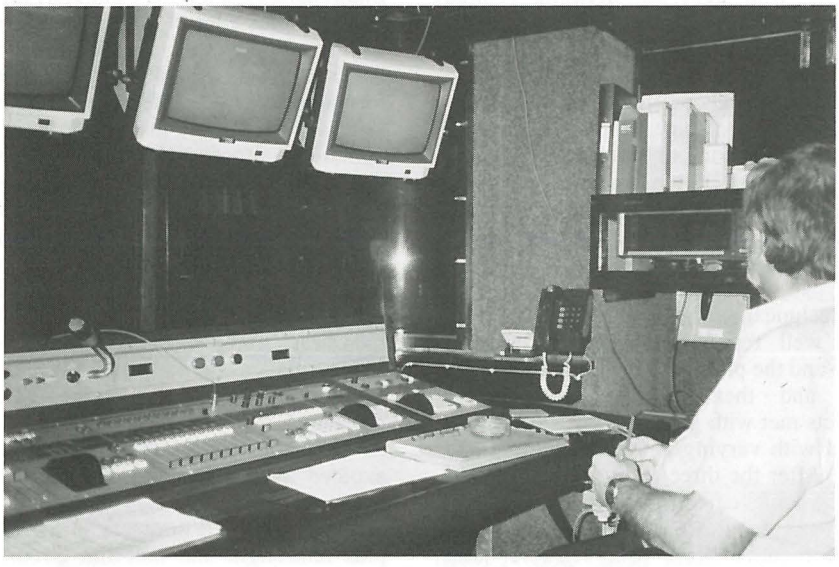
One feature of Lightboard that made the choice of a replacement more than usually difficult at the NT was another of it's pioneering features, its' ability to memorise and remotely control colour change and pan, tilt and focus on special spotlights. Over the years the Olivier theatre had made great use of this and a replacement had to be included in any new system. Unfortunately, though now available on Galaxy 3, Strand could not, in 1986, provide remote position control with Galaxy-2. So, Ian Napier's team produced their own system. Using their knowledge of the Lightboard, NT staff selected commercially available microprocessor boards and engineered a PTF replacement that would operate all existing mechanisms and use existing data wiring. For good measure they were able to improve performance and speed of operation. For reliability two systems were made with the second system installed ready for immediate use.

Power Flying

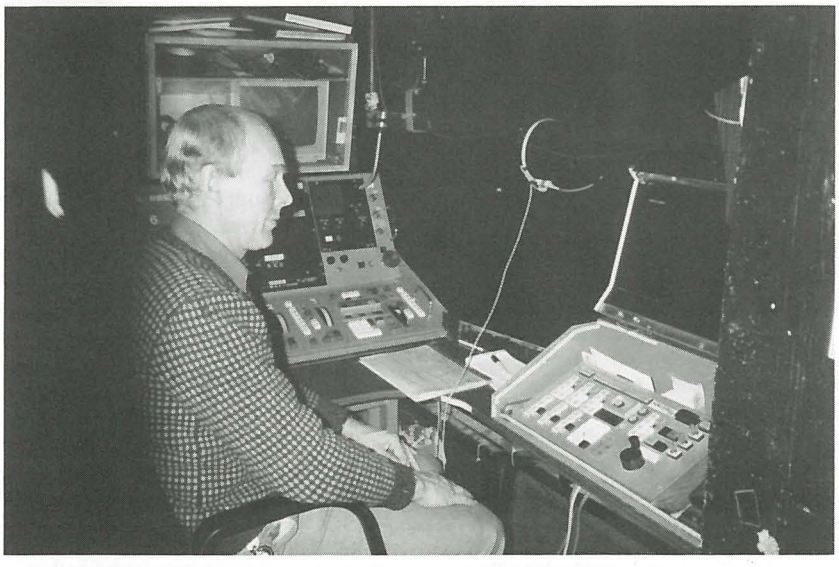
With minor exceptions, British theatre did not use power for scenery movement in the 1960s so, as with the lighting control, once the theatre building committee decided they wanted power flying, Theatre Projects Consultants, led by Richard Brett, had to write specifications and obtain tenders from firms willing and deemed able to design equipment from scratch. A much more difficult task than coaxing Strand, the local and vastly expert lighting company to improve on its already world beating products.

For the Lyttleton a standard double purchase counterweight system was installed with the intention that they would be fitted with power drives and computer control. This failed to happen and eventually the counterweights were made single purchase and are hand operated – a decision in line with current practice in most similar theatres and generally judged right and proper by designers and stage crews. However, recently simple Delstar hydraulic drives have been added to the house tabs and two main lighting bars.

In the Olivier, a direct lift motorised system was installed successfully and now forms a reliable and essential part of that theatre's staging facilities. As designed, some 153 electric hoists can be connected to 35 variable speed power units – cyclo-converters – through a contactor patching matrix and moved and positioned under computer memory control; a system not unlike a part of the lighting control. Early experience, once the system had been commissioned and put into use, was that though reliable for most of the time, faults when they did occur could have alarming safety implications or could lock up scenery movement and probably stop the show. Again, backup facilities had to be improved and failsafe operation of both primary and back-up emphasised. With the help of the original constructor and with additional equipment engineered by new specialist contractors under the direction of Ian Napier and NT maintenance staff both objectives were realised before the end of 1982. The back-up system, though not quite as versatile as the primary system, carries NT policy of duplication of all critical components as far as possible so that any failure in all but primary lifting components can be bypassed and the show continued as rehearsed.



The new Galaxy in the Olivier control room. The right hand panel Controls Colour change and Pan/Tilt/Focus through the NT's own control electronics in the box on the wall centre right.



The Olivier Power Flying control position. Systems Engineer Ian Napier facing the in-house designed back-up control panel with the original control on his left.

Drum Revolve

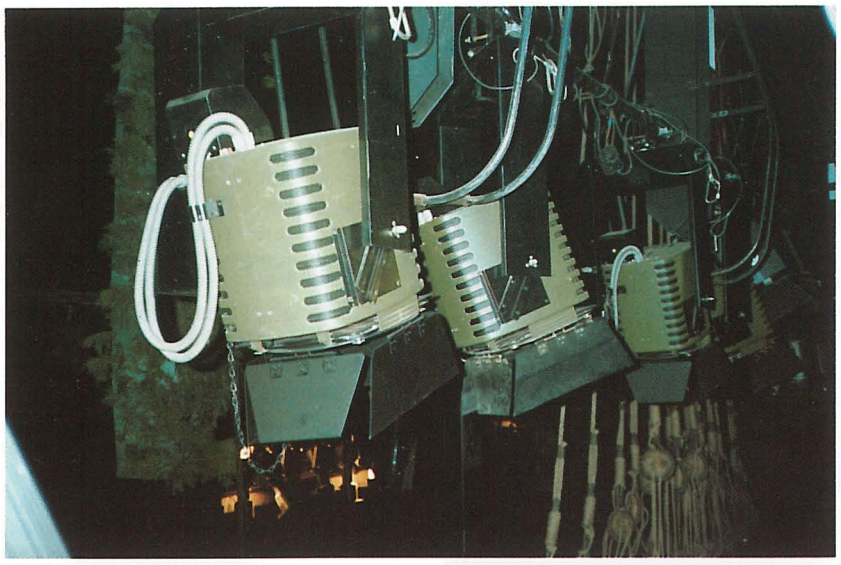
The other special feature of the Olivier theatre is the revolving stage containing two elevators able to lift scenery from below – stage storage into the acting area. This enormous structure extends for three floors below stage and is capable of several complex movements to turn and lift standing scenery. It now works completely as intended though completion and commissioning was not easy and involved major redesign, particularly in respect of safety features. The work was completed five years ago but integration into production schedules was approached cautiously and took some time to be accepted. The elevators were brought into regular use to change scenery between shows when the main scenery lift failed some years ago and remains available for this use whenever required. The revolve is regularly used as part of several current productions. Combined use of revolve and elevators is being considered for use in a production early in 1988. As with other systems, the main changes introduced by the NT engineers were concerned with provision of backup drives and control and devising safe methods of work. Clutch coupled secondary drive motors were added to the two elevators and a capstan-like cable hauling system devised for emergency drum rotation. Three television cameras give the operator views of danger areas and a digital selection device has been added to improve the accuracy of position set-up. In the future Ian Napier hopes he will receive approval to change more of the old analogue control system to modern digital micro-processor components and to complete the link up with the computer flying system so that complex combined changes can at last be presented.

Lighting Rigs

Lighting rigging in all theatres is on well designed catwalks and galleries wherever possible and these continue to be well used. In the Lyttleton there has been little change but two major changes have been made in the Olivier.

First, although extensive, the FOH lighting bridges left gaps in important positions towards the rear of the circle and it has recently been found possible to fit in new bridges within the petal-like ceiling structure. At the same time the exposed side 'toblerone' lighting booms were thought distracting and fell out of favour and alternative suspensions and masking added for side lighting along the tops of the splay side walls.

The major change, however, has been in the over-stage rigging. Because of the shape and height of the Olivier stage the original design provided television-type short power-hoisted lighting bars interleaved with the scenery flying system. These worked well but even when rigged from the tallest tallescope available the lightning hung well below the optimum height; it being impracticable to focus by guesswork and then raise the hoist further. The answer had to be a bridge and this was added last year. Fixed two-thirds the way up stage at fly gallery level the bridge provides direct walk-on access to three lighting rails pointing down stage and two on the up stage side. Permanent wiring was installed by Show Contracts Ltd. connected back to the original dimmers. Downstage, ten remote control Patt 243s are hung on six of the remaining short hoists giving easily adjustable main cover. Mid-stage, long bars can be hung on scenery hoists when needed. Surprisingly, the remote control Patt 243s are the originals delivered in 1978 and no new units have been purchased, the main reason being that nothing was available at reasonable cost. Perhaps things will now soon change if the Strand and Charlie Paton PALS co-operation announced in CUE 49 comes to anything. The other short bars remain but as their dimmer circuits have been diverted to the new stage bridge they find little use.



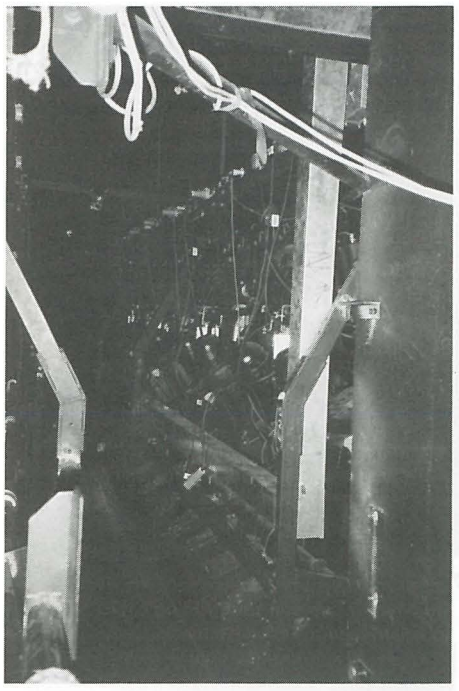
The remotely controlled Patt 243s on the Olivier No.1 bar.

Overall, lighting policy has been to provide a saturated fixed cover with space for specials allocated to each show. Two colour cover is retained in the Lyttleton but recently the Olivier has changed to single cover with remote colour change on every lantern. Few if any of the original CCT and Strand lanterns have been scrapped but there have been many additional units purchased. The Olivier now has 75 2kW Strand Cadenza profile spotlights as basic cover and 69 1kW Harmonys for steep secondary washes. In the Lyttleton 76 2kW Cadenzas have just been purchased as basic cover. Lack of rigging space will probably prevent further additions unless more rails can be added. When necessary, changeovers between afternoon rehearsal and evening performance can now be completed inside two hours.

Decorative Lighting

At the time of opening the architectural press spoke appreciatively of the lighting treatment in auditoria, foyers and externally though some of the public found it rather dark, especially in the bar areas. Richard Pilbrow and Tony Corbett of Light Limited were credited, with the architects, for the design. Regular visitors will know that over the years many additional lights have been added, unobtrusively, to meet the needs of exhibition and to fill dark spots, but the concept remains largely unchanged despite the need for theatrical precision when re-lamping the many low voltage Par 36 fittings. The maintenance electricians and management deserve congratulation for the care they take with this. Unchanged also is the programmed switching and dimming

The Olivier Drum Revolve controls. The VDU on the left and electronics crate top right were added to give digital position input and greater safety. Three television screens out of picture on the right add views of understage areas to the direct view of the stage from the perch.



The new lighting bridge built above the Olivier stage.

system that gives eight lighting states in the foyer areas from a simple push button selection panel and the backstage worklight control also functions as designed though both systems suffered in the early years from inadequate ventilation and under-rating of components and some alteration and rewiring was necessary. It is easy to forget that such controls have to operate 24 hours a day all the year round in a theatre of this type.

Externally, however, the floodlighting was not a success, requiring too-frequent re-lamping. After a period of patchy in-adequacy it was replaced by Philips metal halide fittings that give an effect that is tidy if not spectacular. Spectacle, or at least show-biz type raz-a-ma-taz is provided by the moving advertising sign overlooking the river added several years after the opening and, one hears, despite objections from the Architect and other purists. From the engineering viewpoint this is now judged a complete success and a new, larger all colour version may be on the way.

Success

For this first and only attempt at the design and construction of a British National Theatre the outcome judged after ten years use must be acclaimed a success. Critics, and there have been many over the years must remember that, in the words of the Theatre Projects publicity of the time,

> "The National Theatre opened in 1976 before it was complete. This sheet describes the final installation as intended."

A familiar, understandable and seemingly inevitable story. Consequently the technical contractors who had taken great risks to design the new equipment faced much greater costs and delay trying to finish and carry out tests while the theatres were in use. Inevitably, there had not been sufficient foresight to entirely eliminate mistakes and these had to be faced and remedied. Luckily most contractors completed their obligations without excessive delay and the management, the South Bank Theatre Board, were eminently fair in paying additional costs.

Of the original theatre engineering concepts only the Lyttleton power flying had to be entirely abandoned and the alternative, classical manual counterweights, can be seen to be the better solution. Everything else worked and gives or has given good service. The Lightboards and dimmer installations set a new high standard and boosted the reputations of designer and manufacturer world wide. The operating methods made possible became the norm for this type of theatre and all wanted Light-board facilities though most had to wait some years before they were affordable. Ten years (more since the Lightboards were commissioned well before the opening) is a good life for this class of equipment. The Olivier flying system has proved eminently satisfactory, especially if the difficulty of finding an alternative, even today, is properly considered, and with continuing good maintenance, should have a long life ahead of it. The drum revolve, though much more difficult to complete, now works well, but it has not yet been used enough for its value to be assessable. It probably needs the new control system that the NT team are planning to become fully reliable but, if finally accepted as a necessary part of the Olivier scenic style, it should last well into the twenty first century. It is worth noting that the Olivier stage has been permanently raised by about 300mm to improve sightlines and this required alteration to the revolve and to the adjustable stage edge and safety rails and many other details that were part of the original design. Unremarked, but in regular use are the raking stage, stage lifts, moving proscenium and the truck revolve in the Lyttleton and these too can have unlimited life if required. The stage management, worklight and communications systems in both theatres have already given good value and, it seems, leave little to be desired. Replacement when necessary, should be straightforward.

The Cottesloe, without any technically spectacular equipment and despite it's much criticised black box decor also works and has scored many artistic success. As in the main theatres, the lighting control has been replaced, a Strand 180 way Gemini this time, and now has a full complement of dimmers. Many lanterns have been transferred from the larger theatres and 60 Strand Preludes purchased to give saturation cover. The seating, once labour intensive to change, has acquired a new set of rostra with integral fold away seating and the first of three hydraulic lifts to change levels.

The sound installation should, of course, be mentioned but this author has to admit that he has no qualifications to do it justice. Obvious, however, even to the lay observer, is the move of the Olivier sound desk out of the control room to a permanent rear stalls position and, I am told, several complete changes of mixer and other hardware.

So the consultants got it more-or-less right and the contractors delivered; eventually. The remaining component in this success is the teams of directors, designers and staff who have used the facilities so creatively and efficiently. To them must also go congratulations. And, in this article last but not least, the NT management must be thanked for treating maintenance seriously and recognising that the expensive, power-ful and potentially dangerous equipment rightly judged necessary for efficient operation of the enterprise deserves (and got) a competent and dedicated team of engineering specialists to keep it in order.

The main lesson, stressed by Doug Isham, is that a national repertoire theatre must demand the highest reliability from its technical suppliers and then make plans for backup operation when the inevitable failure occurs. Even the 97% reliability record achieved on most systems at the National leaves an embarrassing 3% when the backup is needed. The problem is to provide a backup that will work when it is required and be just good enough to permit performance of all the essential cues; but it must not be so expensive that it takes money better spent elsewhere. Lighting systems can now provide this need. The challenge remains for the designers and purchasers of special one-off stage machinery items.

My thanks to Chief Engineer Doug. Isham, Systems Engineer Ian Napier, and their staff for help and information about the NT maintenance operation and to Peter Radmore, in charge of lighting in the Olivier, for providing more details about the operating problems and the changes to the lighting rigs.

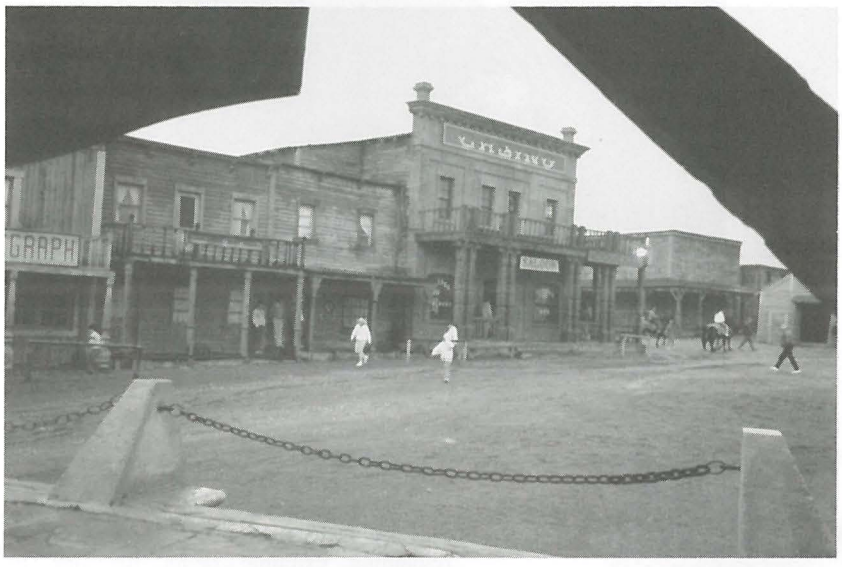
PAELLA WESTERNS

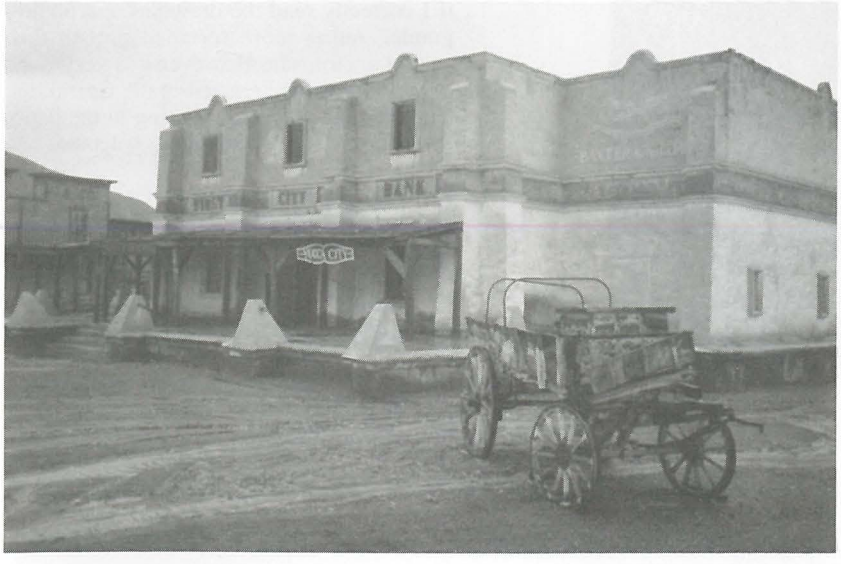
Theatric Tourist FRANCIS REID Rides into Yucca City

It was raining and the stunt men were on holiday. But then, as this series has so often noted, it is the lot of the theatric tourist to arrive the day after and depart the day before. Nevertheless I did a macho-crash through the saloon's swing doors (their hinges authentically misaligned by some careful propman) and advanced on the bar, my pentax motor whirring, to spit out my order: 'Cafe con leche, por favore'. No Betty Grable clone come hithered me from the galleried upstairs, and no dude ranger came crashing through the bannisters – although the cartwheel chandelier was obviously just waiting for some athletic cowboy swinger to upset the plans of the unshaven visitor from outa town.

This was Yucca City on the (normally) arid dusty plains of Almeria in southern Spain. It was built to facilitate the production of spaghetti westerns – the "spaghetti" being a reference to the ethnic origins of the directors rather than to the cuisine favoured by mediterranean cowpersons.

Here you can find every location needed to make a western movie. There is a saloon to wreck and a hotel to stay in while you contemplate which of the several banks to rob. The sherriff has an office and a saddler to outfit the posse. The gaol is somewhat cramped, but not to worry – there is not one gallows but two and the second one, although a little way from city centre is a triple job. The cemetery is close at hand. For the more law abiding there is lots of commerce including, of course, the general store. Alas the architecture and furnishings of the church suggest that the more affluent members of Yucca society are not seekers after salvation. But perhaps the new school will change that.





Movie sets in Spain's Yucca City.

The township's facades are convincing and most have interiors which need but minimal dressing to become authentic sets. Construction, painting and, above all, the expertise with which the sets have been distressed are a tribute to the film designer's art and craft: everything looks genuinely weathered.

This is where westerns such as Fistful of Dollars, Nightriders, and The Good The Bad and the Ugly were made. The sets include every urban location likely to be required, and the surrounding landscape is not only wild west look-alike but is sufficiently arid to be lightly populated and therefore available for the U.S. Cavalry to take on the Injuns without fear of disturbing the locals or getting their TV aerials in shot. Until, that is, the local people began to feel, with justification, that they were being exploited. They soon discovered just how easy it was to provoke an anguished scream of *CUT!* by driving their cars, or even just pushing their prams or bicycles into shot. This helped to bring the era of Almeria as a cheap movie location to an end some years ago. But the area is now back in action: not just for feature films but for videos of the kind that market cars as suitable furniture for a lunar landscape.

In making Yucca City at Tabernas into a tourist attraction, marketed as *Mini-Hollywood*, the temptation to tart it all up has been resisted. It could so easily have been turned into some sort of Disneyland model village. The saloon has an active bar to lay dusty throats and one apparently authentic building on the outskirts was not, I think, common in the pioneering days of the west: a Helladaria selling ice cream. I did not see and therefore cannot speak for the stuntpersons, surviving refugees from the great days of filming, who normally perform a daily shoot-out on horseback. But

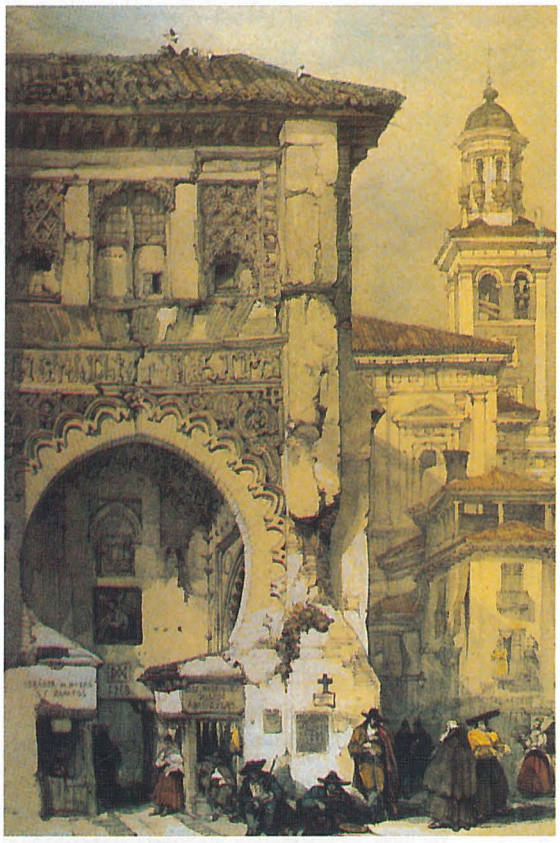
the western soundtracks do a lot for the showbiz atmosphere – even if the sunset that I drove, rather than rode, off into was somewhat watery.

And from the O.K. Corral to the Classic Corral. . . . .

A couple of days later, the november noonday sun was graciously warming the building crew at work on the renovations of the Corral del Carbon in Granada. Built at the beginning of the 14th century as an inn for merchant moors, and a storehouse for their merchandise, the Alhondiga Gioga was the most important hostelry in Muslem Granada. It acquired its present name of 'Charcoal Yard' when it became the centre of the charcoal trade from 1531 (although some guide-books refer to it as a coal yard).

In the 16th century, with the restoration of christianity, it was used as a playhouse before becoming domestic accommodation. The balconied courtyard is in the style of a Spanish Theatre of the classical era, the remaining example being the one in Almagro which I have been trying to route myself through for some years. Almagro is, if I correctly read the drawings and photographs, rather more rectangular than this square in Granada. However it is very easy to imagine a stage erected in the Corral del Carbon and an audience sitting in the patio and crowding its overhanging balconies.

The theatre in the Alhambra Gardens is by far the most modern building there. But despite its extreme youth (barely quarter of a century) its restraint allows it to survive juxtaposition within the surrounding mediaeval magic of Arabia. Inside the palaces, it is not difficult to imagine the balletic performances given by the ladies of the household as an entertainment and probably an audition.



Entrance to Corral del Carbon (19th Century Engraving)

Entrance to Corral del Carbon Today

Restoration of the 14th century Corral del Carbon which was used as a 16th century Playhouse.

ISSN 0144-6088 © Twynam Publishing Ltd., Kitemore, Faringdon, Oxfordshire SN7 8HR (Registered No. 988460 England)
Phototypeset by Getset (BTS) Ltd., Eynsham, Oxford, and printed in England by Holywell Press Ltd., Oxford.