

TABS

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Cover picture: Close-up of restored magnificence in the Smetana Theatre, Prague. The reconstruction and re-equipment of this theatre will be described in our next issue, incidentally our hundredth.

That Place gets Uglier!

"I was getting used to it . . . It isn't bad when the Sun shines on it . . . but hearing someone praise it makes it worse . . . I get crosser and crosser. . . . Who lets them do it?" The authentic voice of the young critic in the street—or rather on the bridge in this case, for the stenographic "sonnet" to Elizabeth and Hayward with which our office resounded was composed upon Waterloo Bridge.

About the only thing we got out of our schooldays from studying Classical Greek was the enthusiasm of Herodotus the tourist on gazing upon the Pyramids. Here was a historian in remote history—455 B.C. no less—describing monuments which even to him and his age belonged to ancient history—well over two thousand years before.

What a good thing that these were able to survive to our time so that we too have been able to enjoy them. What an even gooder thing that their simple pyramidal shape and their great scale was something that all generations for all that time could appreciate. Suppose it had been otherwise, a perfectly foul design, think of the misery they might have caused, especially if sited in a built-up area!

Think of the job of pulling them down—would this have ever been undertaken, even in the name of redevelopment? No, like those concrete bunkers in Vienna or those other relics of war—the Nissen hut foundations which scar our own countryside—they would have remained. It would not have been economic to remove them; the developers would have sought fresh woods and pastures new.

These thoughts of demolition have been provoked by the nightmare of a distinguished architect friend of ours who awoke to the terror that the dreadful buildings going up around us were not just bad dreams but endurance vile. Not for them a playful tap with a cast iron ball on a chain to collapse in a cloud of rubble, dust and re-usable bricks. Blandiloquent remarks on the benefits of science in the shape of

thermic lances and laser beams to cut up the concrete to sizes suitable for carting away pose the questions: whither and with what? No doubt with outside super-trucks to some outside less than super rockery.

It is all too probable, however, that demolition will not automatically follow when the building has served its useful time. After all, if Centre Point can survive towering up in the air for eight years *when new*, without beginning a useful life—without a single occupant, it is not difficult to imagine it continuing to stick up there when the last computer has decided to decentralise and take itself off and with it the last intact pane of glass. What happens then? Probably London Pride will take over—*Saxifraga umbrosa*, of course, there is not very much civic evidence of the other kind about nowadays. So there it will be—not the biggest aspidistra but the biggest pergola umbrosa in the world.

However, our primary concern in TABS must not be with tower blocks (except when they constitute an unneighbourly 380 ft. threat) but with stage towers and the buildings—the theatres—of which they form such a distinctive feature. Do the proud builders realise the permanency of what they are doing when they rush in to make their theatre take shape?

Surely the selection of the architect for the new theatre is a matter for extreme care and concern. Not just a matter of knowing Mr. X, FRIBA, down the road who did that shopping centre, or Y, ARIBA, who happens to occupy a drawing board in the basement of the town hall, or even the famed Sir Z who is seldom out of the national press.

There is a well-established way of going about this difficult task—the architectural competition—conducted under the auspices of their own professional institution. It is strange that the last theatre to go up in this country as the result of such a competition was the Shakespeare Memorial Theatre, Stratford-upon-Avon, way back in 1932.

Theatre is now faced with a choice of lighting control systems claiming to simplify the process of designing lighting and subsequently reproducing it for performance.

What do these dimmer memory systems, whether by this firm or others, offer in fact? The answer is obviously, "dimmer memory", but it is worthwhile considering what that does for us—for theatre lighting. The usual answer would be that it simplifies operation by removing the drudgery of writing down a plot and of setting up presets to follow that plot. This saves time, ensures accuracy of subsequent reproduction and makes the theatre less dependent on a particular operator. The show merely becomes a matter of waggling the crossfader to and fro at the appropriate speed. It has in fact been envisaged that the lighting control itself without an intermediary in the shape of the operator might be prodded into action directly from the prompt corner. The new controls thus quite literally become labour saving, man hours being reduced or even the man himself, the operator, vanishing altogether from the scene.

Never mind all that however, the real question lies deeper. Memory system controls can make the work simpler, but will they? In many cases, especially at this very moment, they will, but used properly, in a manner to really justify the expenditure, they will demand a virtuoso operator of a skill and devotion to duty the like of which has scarcely yet been found. Furthermore, he will tend to require more not less rehearsal time. We shall now proceed to tell you why this is so.

We should remind ourselves that there have been two forces at work to limit the number of lighting changes; first the limitation of the imagination of the director/lighting man *doing* the lighting, and secondly the inability of the operator/control—the switchboard—to realise them. As a result the lighting is often a long way behind what might be done with the lamps over the stage. There are exceptions when the designers of the lighting have come to terms with the players of the lighting. That

is they have understood what can be expected of the operator/control combination in that particular theatre. The right amount to keep him on his toes but not to cause him to stumble.

Fortunately, with memory systems it is easy to work out some landmark—a cue number—to home on and get back on course. Or it would be if the show were split in the orthodox way into a number of pictures, but will it be?

For a long time there has been a type of cue known as the "follow on". In these circumstances even the most rigorous of traditional stage managers recognises he can only start the required chain reaction and the man at the control does a "solo" piece bringing in or out this, that or the other at the behest of the action on the stage or, less satisfactorily, at the behest of the second hand of a clock. The lighting changes follow on or lap over at such a rate that it is impossible to do them by signal.

To consider the problem let us examine the lighting of a battle scene. Actors rush hither and thither slashing and being slashed to the accompaniment of their own yelps together with music *agitato* or musique *concreto* and other noises. The theatre is full of noises, but even half an eye on the stage shows that it remains obstinately half empty. If there was ever a time when the Pilbrow "multi-lantern complexity" had to do a Bentham "conceal more than it reveals" it is in a battle scene. Remember even Beethoven met his Waterloo when composing one. Lighting cue has to step hard upon lighting cue to reveal just that glimpse of yet another part of the playing field on which the battle is really lost. To fire and extinguish the requisite pools of light, store them as you may in your computer, requires the hand of an operator who knows every moment and movement intimately—knows it as intimately on the first night as on the last. There is only one way he can gain that knowledge; he must be in on the rehearsals. He is not just working the lighting *upon* the actors but working *among* the actors. He is, for that sequence, one of them.

The modern theatre building is a hyper-sophisticated and very expensive architectural, mechanical and electronic monument, all designed to conjure up a rainbow. But a rainbow that shifts and fades, and reappears in unexpected places. Sometimes it seems ridiculous to hope that so heavy and inert a piece of real-estate can catch that rainbow as it moves rapidly over the landscape of society's changing dreams.

Visiting the several grand new regional civic theatres, or as one leans on the parapet of Waterloo Bridge pondering the huge mushrooming concrete of the new National Theatre, all one's doubts centre round one question—was this the right theatre to build *now*? And if often one cannot resist the answer no, it is good to remember the dilemma of those responsible. I served on the Building Committee of the National Theatre and I remember those endless and agonising meetings as though they had taken place in the shadow of the ruins of some newly shattered tower of Babel. 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. We could all speak of vivid personal dreams of private theatres that held our fancy that week, but to analyse objectively the purpose of a National Theatre over the next century and design an appropriate house for it—that seemed for a long time almost impossible.

There are two reasons why things have come to such a pass. Theatre, like all the other arts, is in a state of change so rapid and chaotic that there is no tradition for the individual to lean on. Secondly, nearly all the new theatres that have gone up belong to a race never seen in this land until fifteen years ago—the large publicly-subsidised civic theatre, serving a new public with new fare. When they were designed we had no experience and little knowledge of what the beast was like, what were its greatest dangers, what its richest advantages. And we have always been

**Transcript of a recent BBC Radio 3 Broadcast.*

reluctant to learn from the continent of Europe, where the animal has been breeding more or less happily for over a century. Clearly it is now urgent that we should collect and make available all the experience gained from these new theatres, to assist anyone contemplating another. Or—and this is the interesting question—as we near the end of the major theatre building boom, with several still in the pipe-line, should there be many more? Isn't it time we stopped lumbering our grandchildren with our mistakes—understandable mistakes, but mistakes nevertheless? Don't we need something different, something less expensive, less daunting, less expressive of civic or national pride, more reflective of changing taste—something perhaps less permanent? In future shouldn't we try to retain a certain lightness and sense of improvisation, and sometimes build in materials that do not require a bomb to move them? In short shouldn't we *stop* building for posterity?

Let me give you some examples. When the late Sir Tyrone Guthrie undertook the Shakespeare Festival at Stratford Ontario (incredibly already twenty years ago) he started in a tent. He was already deeply committed to the evolution of a better theatre. At the Edinburgh Assembly Hall of the Church of Scotland he had improvised a temporary open stage—with the audience on three sides—which worked so well that the first production became a legend—and now in Canada he created an open stage in a tent with equal success. Then, and only then, when it had proved itself in design and economics, was money raised to transform the tent into a permanent theatre. Even then the change did not stop. He floated his theatre again at Minneapolis in an improved form, which was not too well copied at Chichester, and which finally came to shore last year after his death in what is really the Tyrone Guthrie Memorial Theatre—The Sheffield Crucible. And even there one asks oneself—is this any longer the theatre we need, that was so great an achievement in its day?

Or again when ten years elapses between the design and the opening, as it did with the new Birmingham Repertory Theatre, why does it look so hopelessly old-fashioned? Or why does a visit to the Nottingham Playhouse, for so long the blue-eyed child, excite one much less than it did a few years ago? And what will they look like after a hundred? On the other hand, why is the Roundhouse, that poorly-situated open space in Chalk Farm, one of the most sought-after theatres in London? Why is the Young Vic so successful a building, when local development limited its projected life to five years? Of the new commercial theatres, why did the Royalty get turned into a cinema so quickly, and what will happen to the New London Theatre when it is not so new?

Or a personal example. In Manchester, a new civic theatre is due to open in two years. It will cost less than half the price of the Birmingham and Sheffield theatres, yet it will do the same job. How?

The 69 Theatre Company is negotiating a twenty-one-year lease of the hall of the old Royal Cotton Exchange—once the temple of Manchester's industrial wealth. It has an uninterrupted space larger than Manchester Cathedral, with sixty-foot marble columns, three huge domes, and an acre of parquet floor. Here there really might be theatre, because it isn't one. It had none of the old assumptions—it was just a space. Richard Negri, who is creating the theatre for the Company, has designed an extraordinary structure that will rise under the great dome without touching walls or ceiling. It will be a 700-seat, steel-framed auditorium, which will have a wholly flexible ground floor—with movable stage and seating—and the rest of the audience seated on four different levels, giving the most intimate theatre for its capacity anywhere in the world. Most exciting of all perhaps, is the relationship of this small concentrated space with the huge volume in the hall outside it, from which it is only partly separated—almost like an open-air theatre indoors. And the pleasure of being able to use the rest of this old building for the restaurants, bars, box office, dressing rooms, exhibition space—and the delight

for the audience of wandering round the largest foyers in the country, of such extraordinary character!

Is using such a building a terrible vote of no confidence in our ability to create good new buildings this half-century, apart from cost? Yes, partly. But also the fun and joy of escaping for once from boarded concrete and modern finishes. Nostalgia it is not, since the theatre itself is so modern. Perhaps more the love of marrying the old and the new, the traditional and the revolutionary, the past and the future.

Be that as it may, *if* it is not as good as we think, it is not built in concrete. It can be modified after a while if we wish, even radically, and after twenty-odd years, it will not necessarily have to serve any longer. Our children can build what *they* like, and must then have.

Do not mistake me. I know we are lucky to have such a place—that they don't exist everywhere—that it might not suit every theatre company—that we are extremely fortunate to have a City Council and a large group of local citizens enlightened enough to understand and support such a scheme. All that is true. But what example it may have for some other towns is in *not* building immediately a monument of glass and concrete at colossal expense, where an awful and final decision must be taken for the audiences of the twenty-first century. Some such there must be, but the sad fact is that whereas many theatres left by the last century are good theatres of their type, most theatres of any type that we build tend to be second rate. Technically of course they are of unparalleled sophistication and with vastly improved amenities, but as places where human beings communicate with each other, and where they can be consumed by a common theatrical experience, they are usually much inferior to the Bristol Old Vic or Drury Lane. So the planning requirement that forces developers to replace a demolished theatre with a new one gives little comfort, since with the best will in the world, which there isn't, the new theatre will nearly always be worse than the old.

That may seem so provocative and controversial a statement that some further

justification is required for it. Even architects find it difficult to understand why it should be so difficult to design a good theatre. Well then, put it this way. An awful lot of passion, energy, inspiration and judgement is needed to create a successful theatre season. How much more must it need to create successfully the whole context within which one season is only a detail. Above all it needs a consuming sense of purpose (which everything from the lighting to the lavatories must reflect). The economic and political realities of getting any theatre built at all are complex enough, but to maintain within those realities the freedom to build a good theatre is another matter, and it is amazing how many and insistent are the practical pressures to make it a bad one. And then, *if* that is done, to be able to know clearly, in the confusion of our time, what kind of theatre will make a strong but true statement, and to pursue that ideal unshaken and undeflected through its creation at second-hand by consultants who have no personal experience of your vision, through the nightmare of cutting back on costs and the labyrinth of building and fire regulations, and then at the end to be able to demonstrate visibly the purpose that underlay it all in the work of a new company! No-one can be much more than inadequate for such a task.

I have noticed, recently, that two artistic directors of new regional theatres have said that they are more interested in the possibilities of the studio theatre included in the complex than in the main auditorium. Leaving aside the trendy irresponsibility of such remarks, nothing could show more clearly our dilemma. We are creating in such theatres, unless we are careful, a polarisation between the large, expensive, grand, square and boring on the one hand, and the intimate, cheap, informal, exciting, left-wing on the other. My view is that such polarisation is a disaster. It is integration of culture we need, not more disintegration; apart from the death-knell it must be for the whole company. At Manchester, for instance, there will be no studio theatre—the work that would be done there will be fed into

the main auditorium—hopefully renewing what is old, and integrating what is new. But where the main auditorium is too big, too grand, and lacks intimacy, it is impossible for a repertory company to do its best work in it. In any case excessive size is suicide from a management point of view. It forces the management to pursue what it believes to be a "popular" policy in the desperate effort to fill all those seats. On Saturday nights they may be very nice—but what about all the other performances? Very soon instead of the management running the theatre, it runs them.

And what about the management? Even the organisational structure of British theatre has changed more in the last two decades than at any time since the sixteenth century. The pattern of what used to be an entirely commercial theatre has dissolved into the split European tradition of the serious subsidised theatre and the boulevard commercial. Regional civic theatre is playing a much larger part than ever before in the national scene. So used are we now to this state of flux, with a National theatre, a London branch of the Royal Shakespeare, the Royal Court, and no less significantly, a Nottingham, a Birmingham, and a Sheffield appearing almost overnight, that we assume it is a normal situation. It is not. The crust, and the arteries, are already hardening in front of our eyes. The great danger of subsidised theatre is institutionalisation, which can lead directly to fossilisation. We are not only building huge, inflexible, hard-to-demolish buildings, but huge, inflexible, hard-to-demolish institutions. The new National Theatre on the South Bank, for instance, which will run three auditoria, pull a Government grant in the same category as Covent Garden, and pay enough employees to make the Festival Hall look like a flea-pit, reminds one organisationally more of a battleship than a theatre. We *need* a securely-based major company that can embody the best of established British theatre. We *need* the big regional theatres, preferably well designed, as the cornerstones of a national pattern. But the more heavy and permanent the theatres and the companies we create,

the more our cultural life depends on our realising the equal importance of flexibility, both in bricks and mortar, and in people—the importance of more transitory operations and of less permanent buildings. From a palace you can build an empire, but you will not often find a manger anywhere but in a stable.

But there is yet another danger in building for posterity. Theatre is a public art. It is useless except in so far as there is an audience to receive it at the very moment of its creation—tonight. Tomorrow it has vanished for ever—only tattered scripts and fading memories are left. Our audience will probably be drawn from a minority of the population, but at the moment it is a smaller minority than it should be. When the theatre is good there are many hundreds of thousands, probably millions, who would find it an astonishing experience to be there but would never think of going. Publicity does not touch them, reviews are not read, and the small amount on their rates that keeps the theatre alive is considered an imposition. Some of them may simply be past playgoers long since disillusioned by their experiences, but the vast majority have hardly ever been to a theatre in their lives. The barrier to overcome is not just one of habit, though that is bad enough, but of anti-intellectual and anti-snob prejudice. And if that prejudice has some justification in theatre history, we shall overcome it not only by the shows we put on (because in my experience it is not by plays aspiring too high that they are alienated) but by the way we contact them as potential customers, and by the kind of place to which we invite them. It is not just a question of avoiding nineteenth-century social barriers embalmed in theatre design tradition, but of trying to imagine to what kind of place we would all most be drawn for an evening—what kind of building and atmosphere has the most life, warmth and immediacy. Despite the trade union booking tradition in Germany, I wonder if the German type of civic theatre is what is most attractive in all towns in this country. Does the imposing monument encourage the timid playgoer? Or have the Roundhouse and

the Young Vic found another secret of success and not just for the young? There has been much talk of fun palaces, and perhaps there is a quarter truth in the idea. The small minority loves going to Covent Garden or the National, for social and nostalgic reasons, as well as theatrical, but perhaps many of us would find more interest and excitement in less conventional surroundings. Tents, halls, gardens, rooms, warehouses—why have so many of one's most vital experiences been in them, again on both sides of the absent foot-lights. And I am not actually advocating fringe and basement theatre, which is often very boring, but trying to find how their informality can be applied to more major activities. Maybe our new civic theatres need to retain some of the joy and freedom, some of the sense of a direct experience built on few assumptions, that those earlier experiences taught us. The designer said of the new Royal Exchange scheme that it should be "almost a theatre". Perhaps we need more buildings that are "almost" theatres. There is one sense, however, in which we must and do build for posterity, but that is not in brick.

Above all we must try to give to the young vivid memories of a vital experience in the theatre, that after our day will influence them and their work, not in form but in spirit. What else is education? And that applies on both sides of the vanishing curtain. Young audiences, and young professionals, and young trainees. No monuments in posterity are worth having, except a contribution to that invisible and living body of human wisdom which will itself shape the future. The only link between all man's history and all his future is ourselves. There is our long-term responsibility. Build there, my heart, and let posterity build its own theatres.

And so, looking round at the buildings we have already left for our great-grandchildren these last years, we may well ask what they will say of them, and of us. If we are not very 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."

The City of Cardiff

Frederick Bentham

This is the first time ever that TABS has undertaken to cover a whole city in an article, and when we explain that the editorial team arrived at 11.07 on the Welsh Pullman and departed at 18.00 hours it will be realised that the coverage was extensive but not intensive.

We have lived for a long time with a Welsh "problem" in TABS. There has been so little of our kind of theatrical activity going on in the Principality. A year ago, however, it became obvious that we should be hard put to do justice to the rich seam of new theatres opening up right across Wales. We were just pondering on steaming in summertime up legendary railways like the Vale of Rheidol, the Talylyn and the Ffestiniog as transport from one new Thespian castle to another when the phone rang and it was the Deputy City Architect of Cardiff demanding to know when TABS intended to do his city. Overawed that our attentions were not only welcomed but awaited we said we would come right away, and the tale we now unfold results from his personally conducted tour.

It came as a slight shock to find that Cardiff's Trevor Ineson came from Yorkshire! Since the other half of the TABS team Barbara Berrington came from Lancashire this may have historically restored the balance somewhat, but the regional accents into which my companions dropped added from time to time a piquant touch.

Cardiff has a fine open Civic Centre with Portland stone buildings of Neo-Grec style which become more and more "Neo" and less and less "Grec" as we come to the more recent additions. There is this wonderful isthmus of green park which runs with the River Taff right down from Cathays Park along by the Civic Centre and University past the Castle to die out at Cardiff Arms Park. This last is the rugby football stadium and unusually near the centre of the city. A comfortable walk thus covers most forms of entertainment, instruction and administration—and indeed the main shopping centre as well. It is a pity that we

do not hear more reference to the example of Cardiff by the town planning experts. Perhaps it is the "Neo-Grec" that puts them off but the first instalment—the City Hall—was built in 1904 so they ought to be more charitable.

We began on the periphery right up against a railway line which forms a "natural" boundary at the new Sherman Theatre for the Drama Department of the University of South Wales and Monmouthshire. The other half of the building houses the Students' Union. There is internal access at first-floor level from the Union and at ground-floor level a central entrance on the street for the public. The theatre was almost ready for hand-over. Just that state which alas highlights the faults in a new building rather than the excitements inherent in its newness. A tour by those who are to occupy it can sometimes become a catalogue of niggling small mishaps, some on the drawing board and more in execution by the various trades. The building of a theatre is like the production of an opera perforce spread out in a lot of very separate rooms. The players are determined to take their own time and pursue their own way in the interpretation of the composition. The conductor can only rush hither and thither hoping at least that they will all finish together. Building one of the Pyramids was simple compared with building a new theatre. Those Egyptians had none of the modern services and their associated trades to contend with and above all, or perhaps one should say below all, the ultimate occupant could be expected to take it lying down, so to speak.

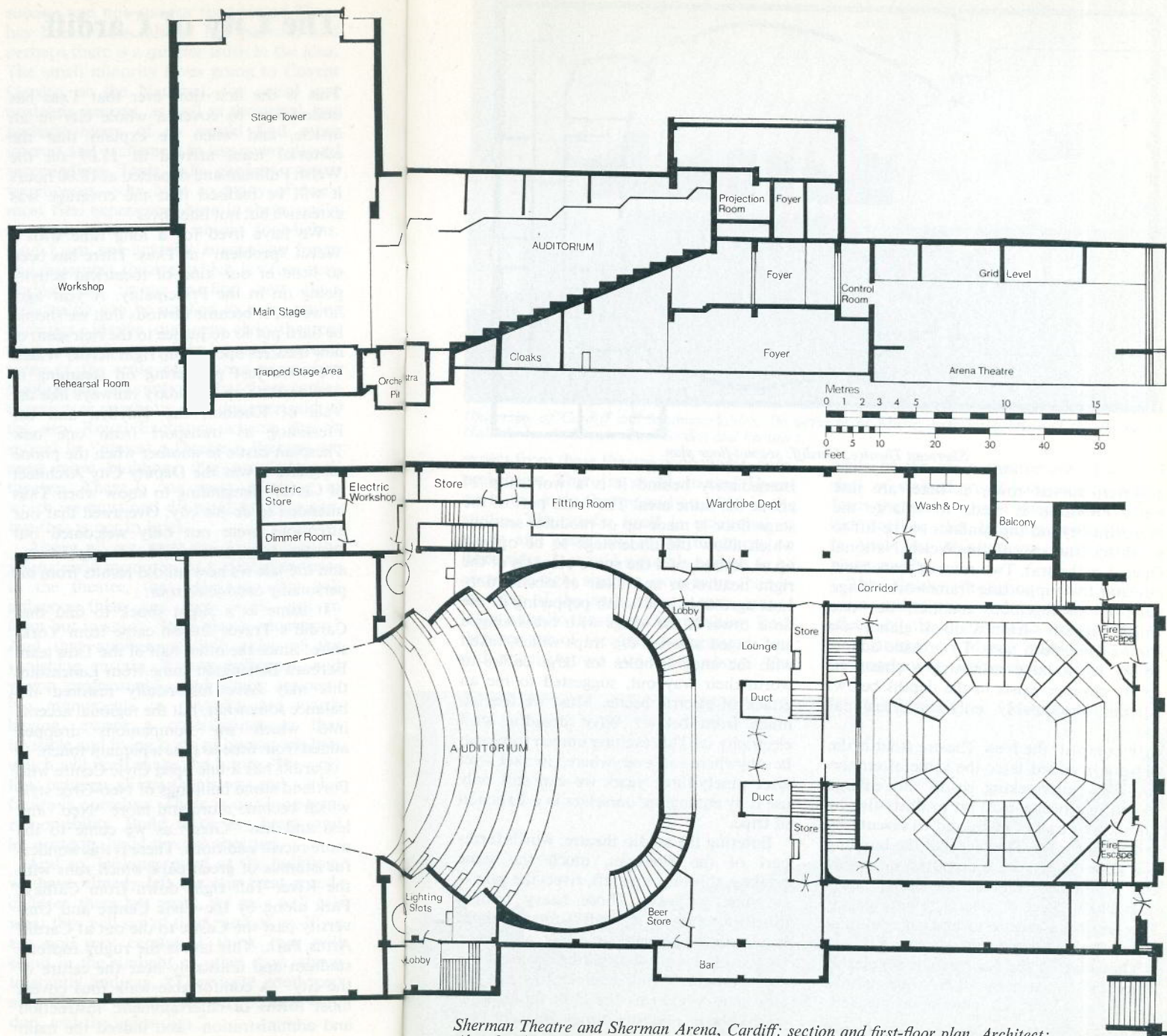
Not so theatre people! I am convinced that at heart theatre people are wary of new theatres. They feel uncomfortable with all the new paint and polish about. Knocking in the first nail in a pristine surface savours of vandalism, yet they must push the place around—make it their home even if they only strut that particular stage for a brief hour.

The complex consists of the Sherman

Theatre and the Studio Theatre which is referred to as the Sherman Arena. There are parallels between the use of this theatre and of the MacRobert Centre at Stirling University*. It is defined as being for (a) exemplary professional use, (b) the academic and recreational use of the University, (c) community theatre, (d) conference and festival centre, (e) the British Film Institute. In addition there is a small exhibition gallery and the arena roof has been constructed with the idea of using that too as an open-air space.

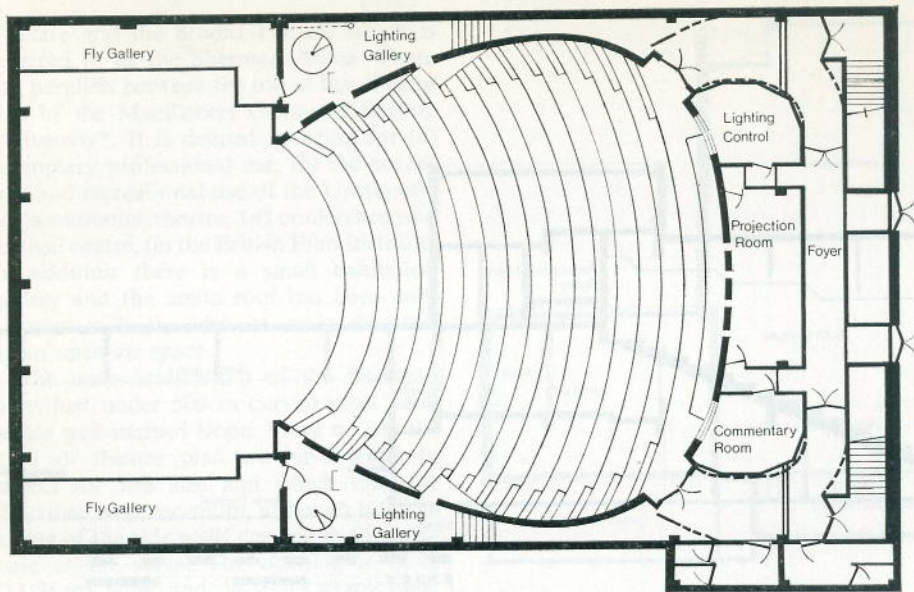
The main auditorium of the Sherman seats just under 500 in curved rows on a single well-stepped slope. More or less the kind of theatre plan we have come to expect for this size and which must be described as proscenium, although it is just a case of the side walls curving in to terminate at the stage. The opening is 38 ft. (11.56 m) wide and 18 ft. (5.43 m) high. The top of the opening is formed (visually) by a lighting bridge two or three feet on its auditorium side—an excellent way of overcoming the problems of the crowded first few feet downstage. Theatre Projects, the theatre consultants, do not intend to be caught out over the forestage either; another bridge follows and then the main and usual one further out right across the auditorium. Two vertical lighting slots to each side sweep right down over the gangways with more respect perhaps for the facial lighting of the actors than for the craniums of the taller members of the audience. These slots can also be opened up to poke a television camera through from the passage outside. It seems a marvellous idea to keep these intrusive beasts out of view from those who have actually taken the trouble to go to the theatre.

There is an orchestra lift to form a curved forestage. I prefer a more aggressive confrontation made up of a series of straight lines. On a drawing it looks as if a curve fits the lines of the seating rows better, but a curve is a soft edge and one that argues with straight edges in scenery. A show should stand out in front of its audience and not lose itself in it. For the seating,



Sherman Theatre and Sherman Arena, Cardiff: section and first-floor plan. Architect: Alex Gordon and Partners.

*TABS, Vol. 29, p. 130.



Sherman Theatre, Cardiff: second-floor plan.

however, curved rows, as here, are just right. Provision is made to enlarge the orchestra beyond the confines of the lift to a full 65 (the size of the Welsh National Opera† orchestra). Two rows of seats come out and the supporting frameworks hinge back in an ingenious manner, but one which suggests—from a quick glance on site—a Herculean task. To provide adaptability for a large orchestra a chasm of empty cubeage exists in the depths below. All this, presumably, only for occasional use.

In contrast, the New Theatre (that is the old one!) visited later the same afternoon employs “interlocking rostra” to enlarge the normal twelve-man pit to thirty-five by losing two rows of stalls and to seventy by losing four rows. The fact that the building was there to impose a compromise naturally stimulated human ingenuity better than did a sheet of clean drawing paper. The result is a theatre technician’s solution rather than an engineer’s.

The stage at the Sherman is regular in shape, 35 ft. deep by 80 ft. wide, with a 48 ft. grid and 23 counterweight sets.

†TABS, Vol. 27, No. 2, describes their Cardiff headquarters.

Immediately behind it is a workshop of about the same area. The main part of the stage floor is made up of modular sections which allow the understage to be opened up as desired, and the space below is of the right headroom and clear of obstruction. Less agreeable is a lavish peppering of the floor towards the wings with brass-hinged and ringed wooden dip traps which, taken with the integral holes for large cables to worm their way out, suggested to me an attack of electric beetle. Must we feed so much from below? What dreadful stuff electricity is! This exciting unseen force can be anywhere—is everywhere, in fact—yet after ninety-three years we can still only use it by entangling ourselves in a Laocoön of tripe.

Entering the studio theatre, which forms part of the Sherman, much the same tyranny, this time up aloft, rivets the gaze—or mine, at least. Those heavy bridges (Sheffield come to Cardiff?) for that light insubstantial pageant to glow and fade. Of course, it is not the lighting equipment—the spotlights—that demand this but the lone man who trips the light fantastic to adjust them, one at a time. The technical equipment throughout is, as one would

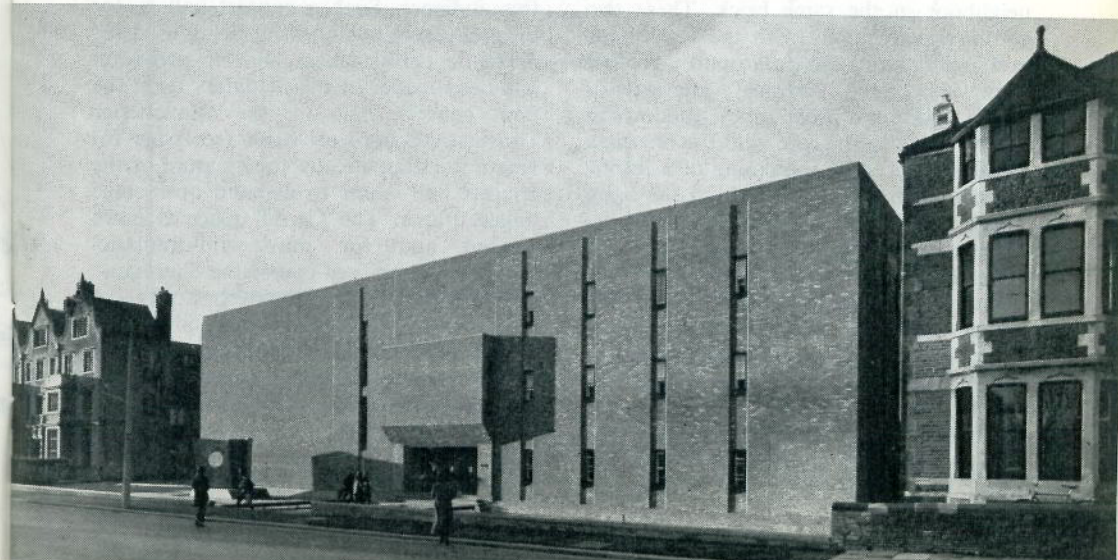


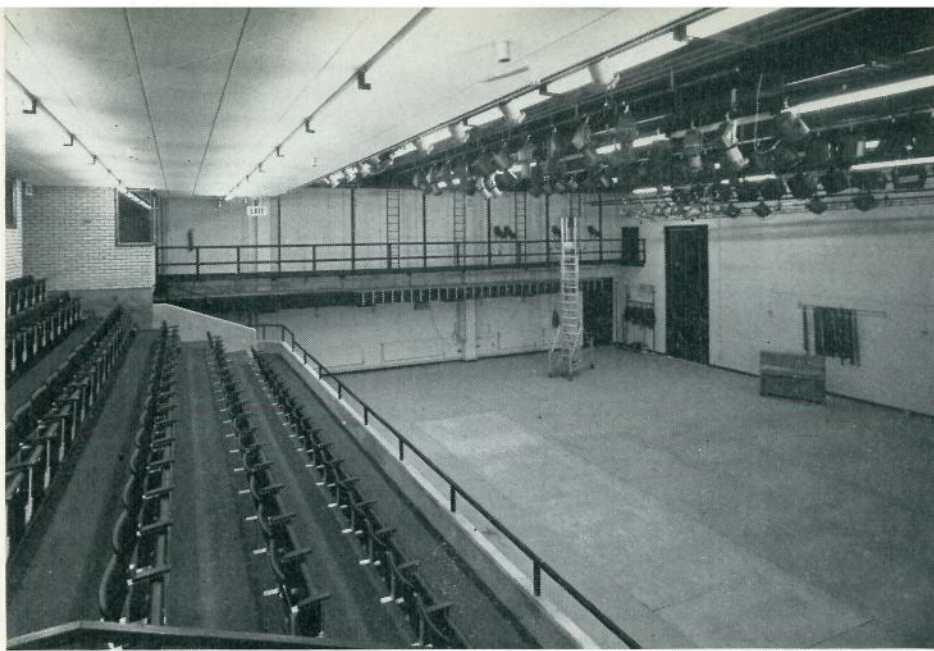
University of Cardiff and Monmouthshire. Department of Music, exterior below and the Rehearsal Hall above. Architect: Alex Gordon and Partners.

expect from these theatre consultants, comprehensive. There is an 80-channel Three-set in the main theatre and an SP60 in the studio. The studio itself is octagonal in shape and there are to be bleachers on three sides. It would certainly appear to be about the right size but, even more than in the case of the main theatre, one cannot judge a studio theatre without a show. Both theatres are of the dark background type with much brown and black about. The

walls of the main theatre are of vertical slats of stained wood—any colour comes from the seats. I must emphasize that we did not see this building complete and in use. For this reason there are no photographs.

The finish throughout the building seems rather poor, and no doubt this is an effect of the battle with costs; in the Department of Music building a short distance away—completed a little earlier





The Bute Theatre, Cardiff.

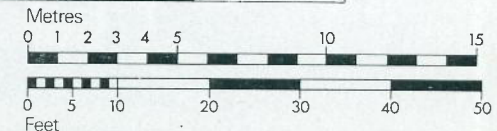
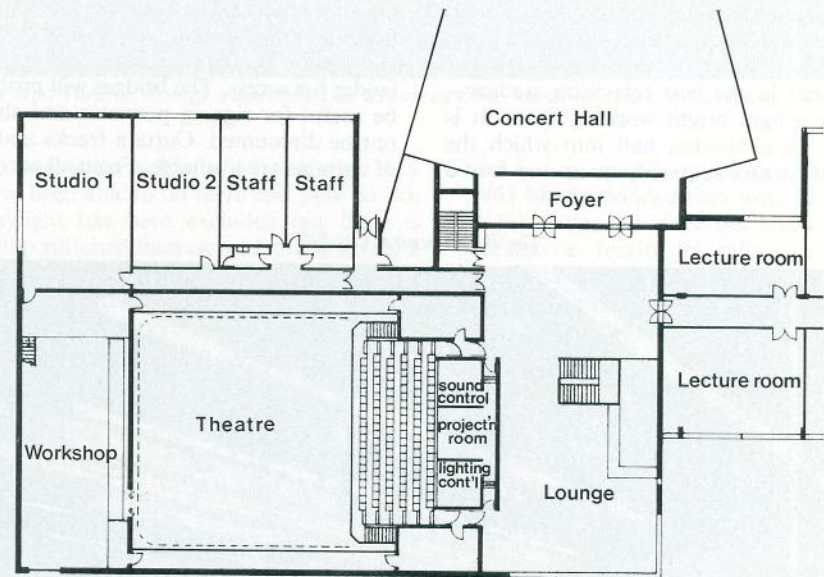
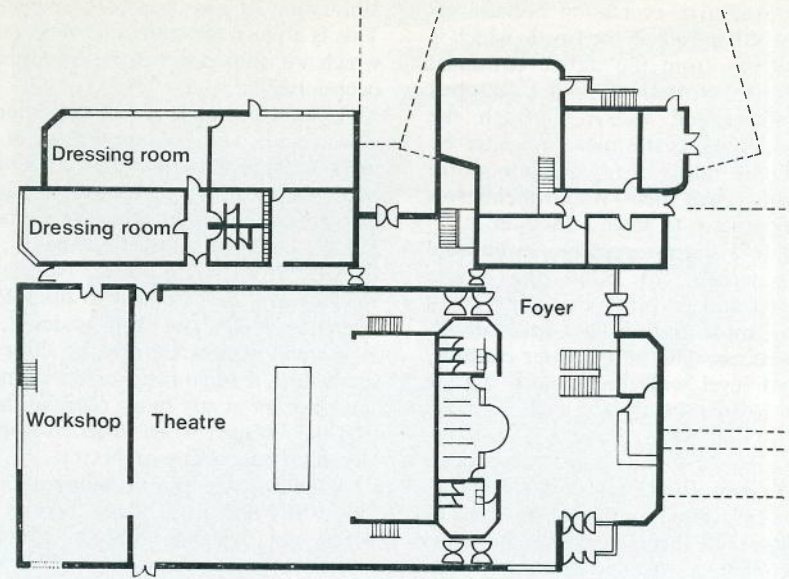
for the same university and by the same architects (Alex Gordon & Partners), the finishes and workmanship are superb. The doors throughout are particularly good and their heavy well-finished nature must go a long way to provide acoustic separation of the various practice rooms and lecture theatres.

This is an imposing brick building which relates well to its large Victorian neighbour in the same brick. These two contrast interestingly with the rest of the exercises in stone classic around the other three sides of the "campus". The exterior design does put a premium on windows as indeed was also the case with the Sherman Theatre. There was something of a feeling of being rather shut away from the light. Acceptable, indeed essential for a theatre audience, is this the right atmosphere for a place of daily work and above all for young students? For example, some other new theatres have acquired a dismal reputation with actors just because the dressing rooms do not have windows. In the present case they have daylight rather than windows for the-looking-out-of since they are long, narrow and high up. Of course, excluding

the noise of city traffic is a major pre-occupation these days and in these surroundings. The Sherman also has a railway at the back to contend with!

The concert hall in the photograph referred to as the Rehearsal Hall is called upon only occasionally to accommodate four hundred people on the flat using stackable chairs. There is a separate entrance and foyer direct to the street for this audience. Such a concert hall is, for once, unlikely to find itself being used for dramatic performances and no provision has been made. In this it differs from the new concert hall in the Manchester University School of Music (see page 76) where the dramatically stark nature of the concert hall seems to demand open-stage music drama. The Cardiff place is more relaxed and for music-with-dramatic-goings-on there is of course the Sherman.

We now turn to the Welsh College of Music and Drama, the first instalment of whose new building, the Bute Theatre, went into action recently. This building by the City Architect's Department has a beautiful situation, overlooking Cathays Park, a short walk from the Castle. "Short



Welsh College of Music and Drama. Plans of the Bute Theatre, Cardiff—the concert hall has yet to be built. Architect: the City Architect's Department.

walk” is a relative expression because we mean from that end of the Castle which is furthest down from the public entrance! We ourselves crossed the moat, climbed some railings and walked through the courtyard of the castle mews to enter by the back, or rather the workshop door. Incidentally, these mews would themselves make a fine place to stage a show in.

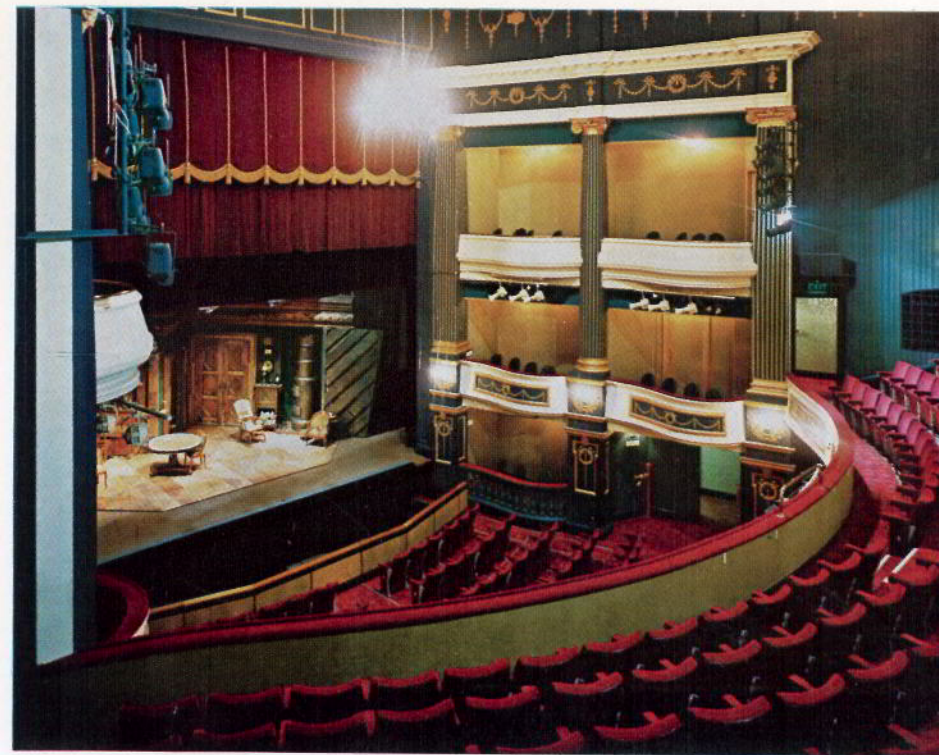
The Bute Theatre represents an unusual decision—namely, to build the studio theatre first and go on to the concert hall later on; most authorities opt for the reverse process. The public enter centrally at ground level with the theatre on the left and go up one floor for the concert hall out at the back. There is also to be an open-air theatre out there. “The back” is a rotten expression because this is where the park lies. The studio theatre with its windowless wall therefore forms the street façade while the associated dressing rooms, workrooms and practice rooms overlook the park. One is very aware in this building of the green world just outside. Most studio theatres are dark places, but this one represents that other approach—encountered in the best television studios—namely a light bright working space. It is almost an exhibition hall into which the kind of theatre required, or at any rate a

simulation of one, has to be constructed. This is a place for study and rehearsal into which an audience will be admitted only occasionally.

A small balcony, giving the impression of a terrace, and holding 6 rows of tip-up seats (120 in all), provides a permanent audience area. It is planned, however, to elevate the choir up there sometimes and put the audience on the floor below, facing back to front so to speak. Normally the balcony will be extended to floor level by bleachers pulled out from under it. There is a small removable area of floor which can make a separation of performer and audience, or at any rate a riser for the front of the stage when needed—or even accommodate a tiny orchestra.

A lighting gantry runs along each of the side walls and from these there is ladder access to lighting bridges running at intervals across the studio. The lighting bridges are for much of the time too high to carry the lights directly, and in any case are equipped with antipersonnel metal flooring not to kneel upon. However, there are plenty of lighting bars and a tower ladder for access. The bridges will probably be useful for rigging purposes and should not be discounted. Curtain tracks and sets of curtains are available. From all accounts

The Bute Theatre, Cardiff.



The New Theatre, Cardiff: refurbished for its role as Civic Theatre by the City Architect's Department.

the users seem well satisfied with what they have been able to do there and plan to do. Daylight has been excluded but there is well positioned fluorescent lighting giving a high level of light for working. This is right, but there ought also to be some permanent, decorative and pretty, tungsten lighting at the fixed seating end to give the place a real theatrical feel when set up ready to admit an audience. Fluorescent lighting is fine for the *working* theatre but not the *playing* theatre. This is the kind of studio where there is a lot to do to make it feel like a theatre but where there are no built-in obstructions to this aim in the form of a strong architectural character of its own or of over-clever adaptable mechanics.

We then moved on to Cardiff's *real* theatre. This is the New Theatre which opened in 1904 with Beerbohm Tree in *Twelfth Night*. It was not a particularly distinguished example of this kind of theatre

and was in a pretty run-down state when in 1963 Mecca decided they would like to use it for Bingo. In fact the word “Bingo” became a tocsin to rally the faithful. Cardiff awakened almost too late to the fact that although they hardly used their theatre they did not want to lose the place. The City put in a Trust to run it for three years as an experiment—the Trust is still there and today we see this truly Civic theatre putting on true theatre.*

Within the confines of the tightly packed site much improvement front of house has taken place. The most obvious to the public is, as our photograph shows, the re-decorated and re-seated auditorium. Back-stage there has been added an oil-fired boiler, radiators in dressing rooms said

*A survey of the productions and audience attendance has been published with the support of the Welsh Arts Council, entitled *New Theatre Cardiff Audience Survey '72*.



The Caricature Theatre, Cardiff.

previously to be without any heating whatever, extra toilets, an SP 80 3-preset control, counterweight lines and other items, to quote them more or less in their order of importance. The orchestra pit arrangements have been referred to earlier in this article.

Seating has been reduced from 1,420 to 1,180. Of these 252 are in the upper circle. The proscenium is 30 ft. wide and 21 ft. high, and the grid is 53 ft. Width between fly rails is 41 ft. and the overall width 72 ft. Depth to dock wall upstage is 40 ft. and to back wall 54 ft. The setting up of *fleckenlicht*, a touring JP 60 in the corner and a sylvan glade on the stage proclaimed the Royal Ballet in possession of the New on the afternoon of our visit.

There were more fairies at the bottom—and indeed in the top and middle of the old warehouse which formed our next whistle stop. The Caricature Theatre is bursting to the seams with fairies. Until this moment I have to confess that I have been rather “off”

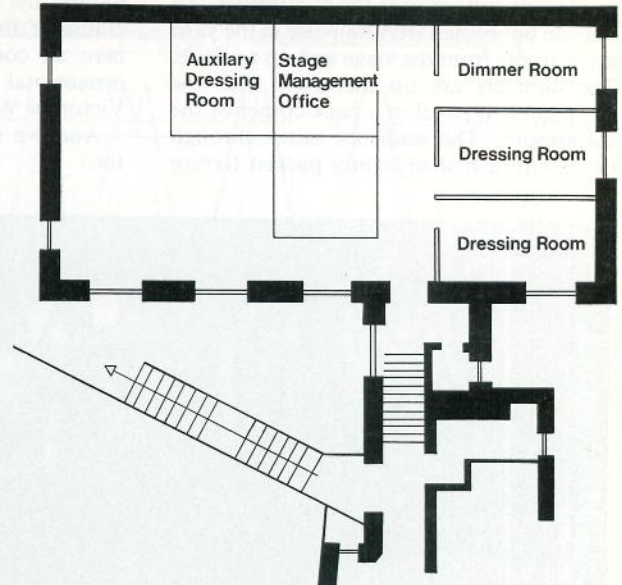
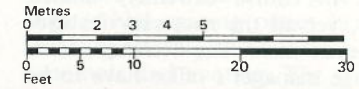
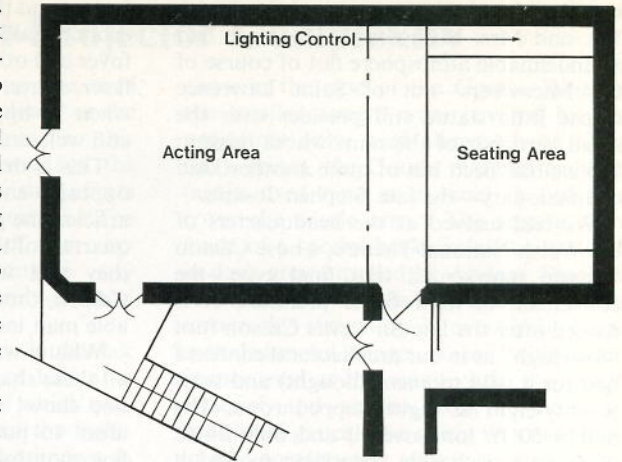
puppets and indeed a non-believer in fairy folk generally. But this building was for the fairies a veritable united nations headquarters whose tales then proved to be just about as disunited. With a gentle and far-away expression—like James Barrie’s *Mary Rose*—Jane Phillips, the Director, opened up a cupboard here and a showcase there and launched forth at each new trophy into a hair-raising summary of the dread deeds that particular character (usually elderly and emaciated in aspect) might be expected to do to *Little Princess Snowdrop* with such a probable weapon as an icicle. There was also *Blodeuwedd*, surely a very local fairy king, whose wife was not only “unfaithful” but rather more unusually “made of flowers”!

The key to a puppet theatre is of course the puppets and the standard of design of these was high indeed while the charming theatre in the photograph speaks for itself. Puppets are put on exhibition during performances so that they can be examined

by the children close-to as well. There were references to black theatre, to thrust stage productions, to television and to touring operation on a large scale chiefly in full-sized theatres. These are no toys, and certainly while eyeing puppets based on Dürer and listening abstractedly to the story of a “baby dragon who grows up and has adventures” one wondered if anyone was aware what potential was here cocooned in gossamer.

A chance question on lighting puppets (I have never known how it should be done in all these years!) brought “*Mary Rose*” back in a flash from her *Island - That - Likes - To - Be - Visited*.

Crisply and with technical assurance did she speak of Junior 8s, thyristors, Patterns 23 and 45 (mainly flat on from out front), and above all of telescopic stands (an ideal height for puppet scenery!). Woe betide the Rank Strand works manager had he been there. He would soon have learnt what icicles are about! Apparently these stands can crack and fail, but to redress this evil we are glad to say our Minispots came in for praise. It soon became apparent that the Jane Phillips of this context is someone who really knows where she intends going and that neither the fairies (which in an aside she confessed to being rather sick of at times) nor the more earthy puppets of Poland and Czechoslovakia are likely to have it all their own way in this powerful medium of theatrical expression. The Caricature represents real pioneering, and an immense amount of enthusiasm and work must have been necessary to bring it to where we now saw it. The enterprise was still so to speak “Off Civic Centre”.



The Welsh National Theatre: Casson Studio, Cardiff.

So too was the Casson studio theatre—our last stop:

“I found that the street was not as desirable a one as I could have wished it to be. The general air of the place reminded

me forcibly of the days when I lived with Mr. and Mrs. Micawber." The place had an indefinable atmosphere not of course of the Micawbers—not of Saint Lawrence whose little statue still presides over the small yard nor of the nuns whose mission it once had been but of quite another kind of missionary—the late Stephen Joseph.

We had arrived at the headquarters of the Welsh National Theatre, whose Casson Theatre represented that final type—the conversion of improbable premises. It is named after the late Sir Lewis Casson (not "Sir Hugh" as in our architectural context I had for a wild moment thought) and seats seventy-eight as eight stepped rows. The hall is 50 ft. long overall and only 24 ft. wide, so it is hardly surprising to find it used as an open end stage.

Space is of course extremely limited throughout, yet all the necessary features of a theatre are there. The dressing rooms and the stage manager's office have to be on the upper floor over the auditorium. An outside but roofed iron staircase in the yard gives access from the stage end up to these. The dimmers are up there too with the JP 20 control panel in a back corner of the auditorium. The audience enter through the last of a row of tightly packed terrace

houses and this house has been skilfully and economically converted into a box office, foyer and other facilities, with offices on the floor above. All was on a tiny scale but, when lit up, no doubt suitably theatrical and welcoming.

This is the Mission Theatre, right at the opposite end from where we began this article. The premises will remain the headquarters of the company, but when it opens they will use the Sherman. Bless thee, Casson, thou art translated. This is adaptable man indeed!

What a way to examine theatre in a city: all these shapes, sizes and ages and yet not one show! Everywhere preparations were afoot to put the actor on the stage, in a few months' or weeks' time or that very night. Only one building was self-sufficient—a show in itself—Cardiff Castle. Is there anything more theatrical than its Victorian Gothic? The towering battlements, the arena, the great banquet hall, the library, the nursery (incidentally, the faery cradle of the Caricature) and our picture here all conceived with loving care and ornamental extravaganza by that great Victorian William Burgess.

And we managed to see some of that too!

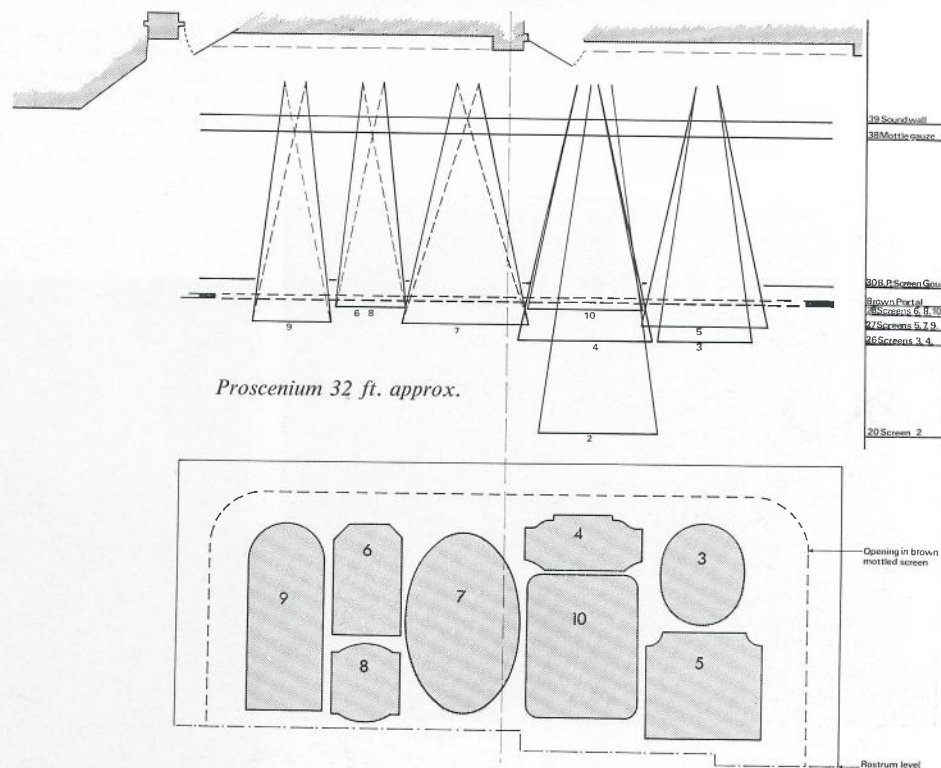


A Multi-Projector Complexity

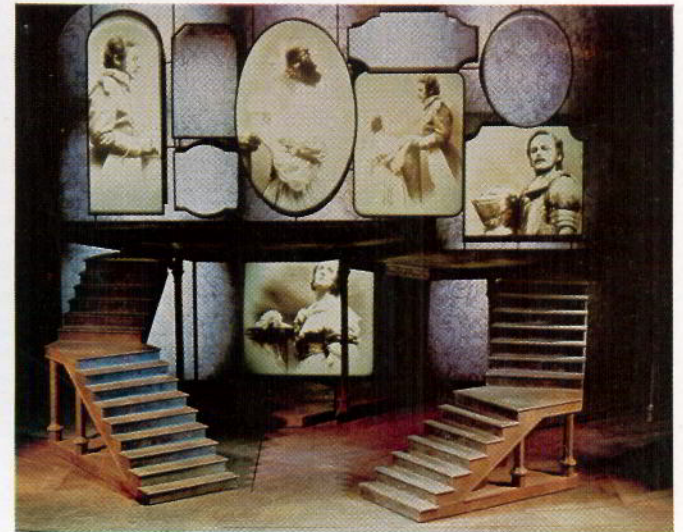
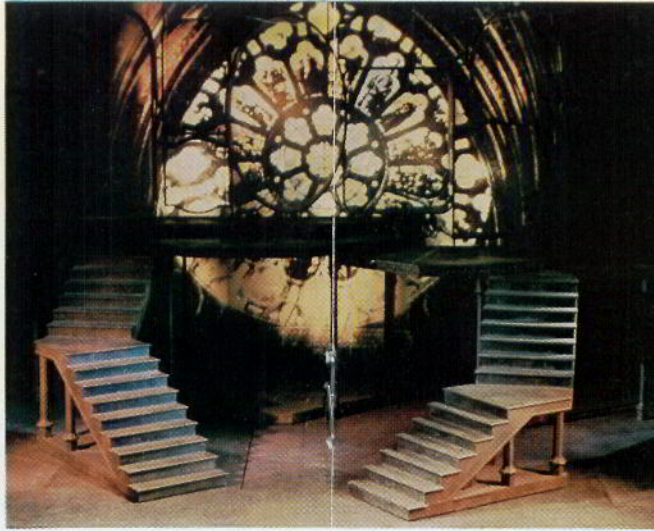
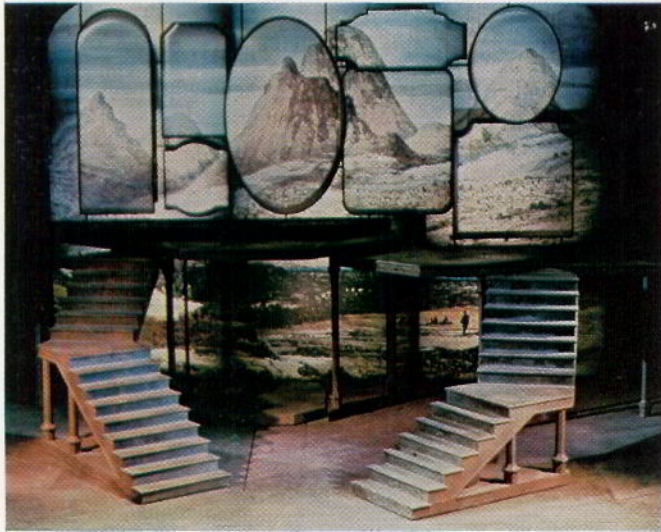
A remarkable projection set-up was used for the production of *I and Albert* at the Piccadilly Theatre, London, earlier this year. As is not unusual nowadays the projectors were used to get visual effects unobtainable by any other means. The following short description of the very ingenious set-up should remove any illusions that projection is merely a cheap substitute for painted scenery.

Projection took place from 36 Kodak Carousels, used a maximum of half at a time. There were ten screens of which one, pierced with nine holes, formed the back-cloth. This cloth full of holes was known as "the Gouda"—which merely proves that the production team were better at projection than at cheese! All screens were flown out at one time or another though this in fact happened only once during the

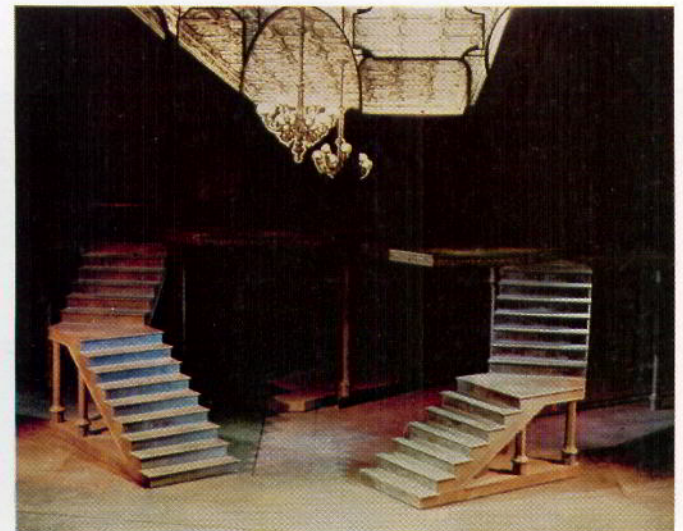
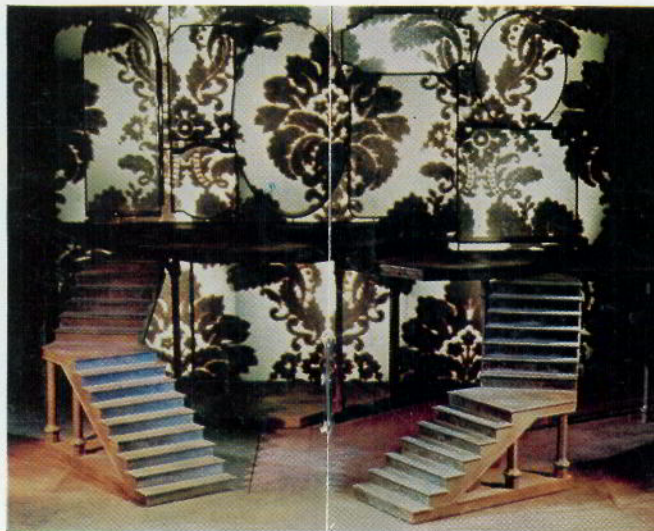
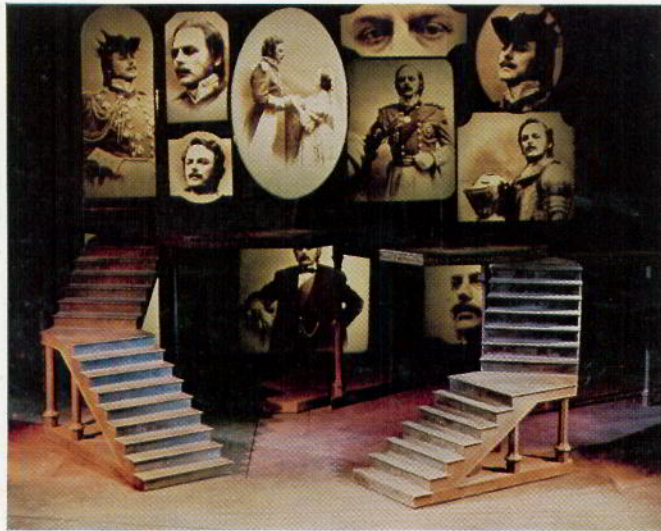
show in the case of the Gouda. Whereas the smaller screens were covered by two projectors only, used alternately to allow for a preset, the Gouda required eighteen (again used nine at a time) in order to cover the whole area. The screens were made of a special back-projection material in dark grey supplied by Andrew Smith & Harkness. This was formed into the various screens by stretching it over inch-square extruded-metal shapes, faced with metal frames used at the rear to grip the screen material and at the front to hold an additional gauze. The gauze was necessary to give an attractive texture to screens not lit at a particular time. The Gouda holes also had to be framed to give clear edges, light metal spacing pieces being used to keep apart the narrow margins between one hole and another. The Gouda screen



I and Albert: plan and elevation showing screen and back projection layout for Piccadilly Theatre.



I and Albert at the Piccadilly Theatre, London. Each scene was built up of multiple projection. Masking to fit the various shaped screens was done in the slides themselves. Thus some slides might have a black border to make the projected image, say, oval, whereas others would have a corresponding black oval slap in their centre. The precise planning and working out to achieve this can be appreciated. (Photos by Theatre Projects.)



itself was also covered with gauze.

Downstage of the screens there was masking in the shape of portals and the rostrum structure. The plan view of the stage shows that the small screens were flown in at various distances from the Gouda screen. No change of focus was necessary, although as can be seen in one case a projector was called on at various times to do screens 10, 4 and 2 representing a considerable diversity of focal distance.

The projectors used were modified Kodak Carousels with special fans to cope with the Sylvania 1,200-watt 120 volt tungsten halogen lamps with which they were fitted. These boosted projectors made a considerable noise so they were carried on the rear wall of the stage on a light metal structure with a special sound wall immediately downstage—projection being through ports in the wall. Downstage again of this was a mottled gauze which remained in position throughout. At one time while individual war pictures were being projected on some of the front screens the space between the sound wall, the mottled gauze and the Gouda was filled with smoke. Then everything was flown out except the mottled gauze and of

course the sound wall and a projection of the Union Jack was formed in mid-swirling-air so to speak. The lenses of the carousels were shining more or less directly at the audience and some were flashed to give the impression of shell bursts.

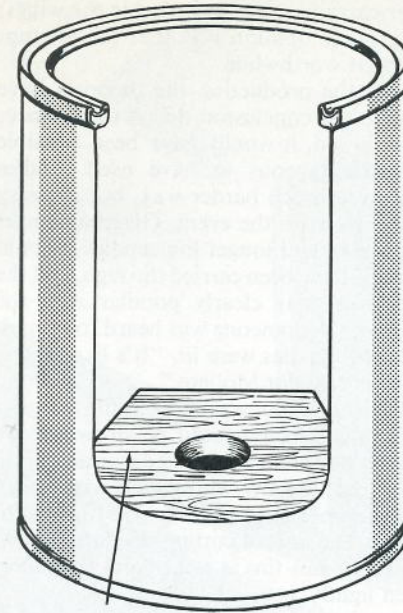
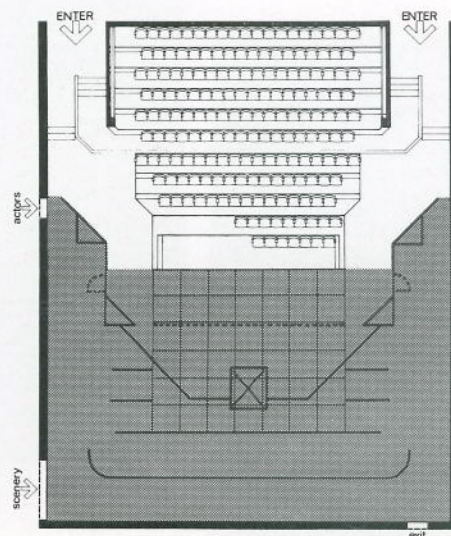
Each carousel had its own local dimmer unit mounted underneath it and the whole was controlled from a special panel with a dimmer lever and an advance and a retard push per projector. There were two rows of these associated with the two sets of eighteen carousels and representing Preset A and Preset B. Masters were provided for the dimmers in each preset and for advancing the slides as a whole in each preset. It became apparent that when this method is used again a retard for an entire preset will be necessary since that well-known rehearsal cue “go back” could involve using eighteen retard pushes individually. A spare carousel was in fact also used as a monitor to show by its position which number had been reached. The production was designed by Luciana Arrighi and the projection scheme was devised and executed by Theatre Projects Lighting under the direction of Robert Ornbo who also lit the show.

How Far that Little Candle . . .

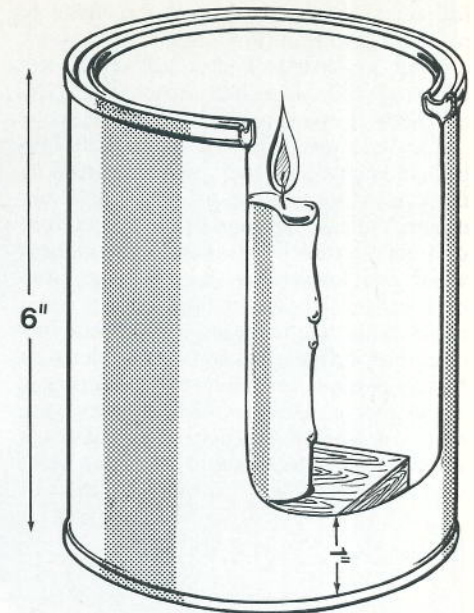
Cliff Dix

The hundredth production by the Hull University Drama Department, a new English translation of Molière's *Le Malade Imaginaire* by the head of department, included, on the third night of the run, an experiment which, while it could hardly have been said to be successful, was at least interesting and informative. As part of the widespread celebration of Molière's tricentenary it was decided to attempt to light that night of the run with candles.

For this production the studio was used in a proscenium form with a deep forestage (see plan). The front two rows of seats were struck out on the prompt side to provide a space in the pit for the three musicians. The pros towers or “periaktoi” were juggled to give the pros line shown while retaining the two pros doors. The symmetrical box set was in fact opened out slightly at its



Wood block drilled to receive candle and wedged in tin.



Opening calculated to give a beam spread of approx. 90°.

downstage ends on the night of the candles to allow the “booms” to be fitted in. The cyc. was in use, being visible through the windows in the back wall (these were either side of the alcove U.C.) and over the top of the set which had a profile top cut to resemble an old type bedroom screen.

Owing to the nature of the Gulbenkian Centre*, essentially a studio theatre catering for a non-paying public, the fire regulations are perhaps less stringent than in the professional theatre. Precautions were taken, of course. The two hundred or so candles used were contained within suitably doctored paint tins with a carefully calculated opening cut into them. The candles were supported in wooden blocks and these blocks were submerged in water in the tins in the manner of the old style nightlights. Nightlights were used for the five chandeliers—after a trial run revealed that candles tended to drip wax onto the heads of unsuspecting actors.

The main problem as far as brilliance was concerned lay in our inability to devise any suitable way of angling candle-light

*Hull Gulbenkian Centre, TABS, Vol. 27, No. 4.

downwards. We finally settled for a 60 candle power set of floats with a further sixty-odd paint tin holders arranged in the form of booms on either side of the pros. It is interesting to note that where candle holders of this design are positioned one above the other the water in the upper ones will shortly show signs of boiling which, while useful for the interval coffee, hardly provides the desired effect. The tins were eventually staggered to increase the spacing and this seemed to overcome the problem. However, since the nightlight chandeliers gave out much less light than the candles (despite makers' claims to the contrary) and gave most of that upwards toward the grid, almost all the light took the form of side-light or came upwards to illuminate the actors' chins.

Even with the ventilating system off and the doors shut problems were encountered with draughts, which were in large part due to convection currents rising from the lower flames. This caused candles which had burned for about four hours on test to gutter and give up the ghost after two hours on the night. The original plan had been to

follow the cues through on the SP80 as normal without putting any of the masters up, but a worried director led us to start the show with some half dozen Patt. 223s on check at about point 2, just to fill in.

The light given out was admittedly low but adequate and very much more soft than any Fresnel lens or frost could be, mainly I suspect because of the large number of light sources. This gave a roundness which could never have been fully imitated by Electrics. It was regrettable that, when the burning rate exceeded the expectations of all but the most pessimistic, the decision had to be made to abandon the experiment at the interval. Despite one or two worrying moments when it was discovered that even sodden wood blocks could smoulder when wicks reached them (causing an army of

water-carrying crew to gather in the wings) the general opinion was that the attempt had been worthwhile.

Since the production the theorists have come to the conclusion that if the finances had allowed, it would have been possible and advantageous to have used candles made of a much harder wax, but it's easy to be wise after the event. Given a shorter length play and longer life candles it could certainly have been carried through, and the experiment was clearly popular with the audience. As someone was heard to remark when the candles were lit, "It's like a huge birthday cake for Molière."

The second half was spent in the fear that the ultimate irony would befall us and we should be plunged into darkness by a power cut! To any who would wish to try the experiment there is only one warning to extend. The task of cutting openings in two hundred paint tins is not one to be undertaken lightly!

The author, Cliff Dix, is a second year student of Drama at Hull University with a particular interest in lighting.

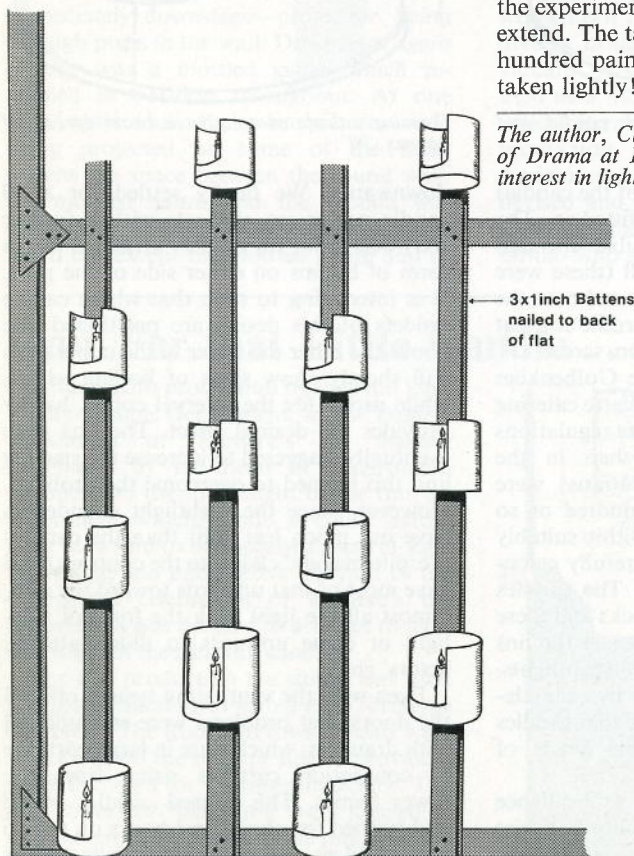
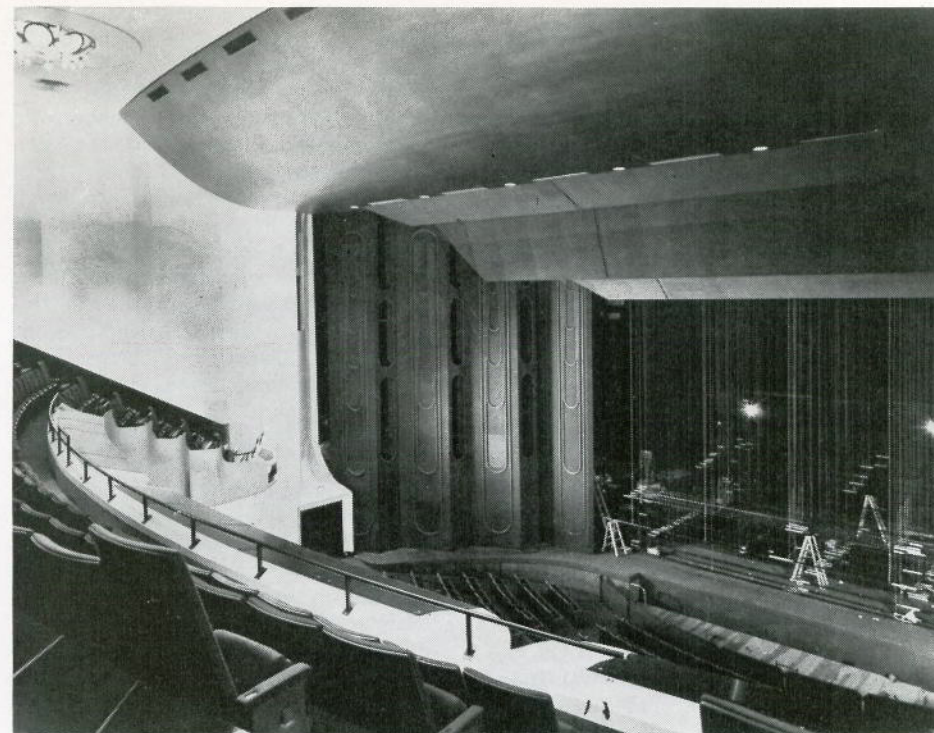


Diagram showing the arrangement of candle-holders in O.P. wing.



Via the New Broadway

Richard Pilbrow

Ralph Alswang, the American theatre consultant, was courteously showing me around his new Uris Theatre in the centre of New York's theatre district. The whole of this part of New York has been declared a "theatre zone", and a new building code described by Ralph as "kind of Goddam wonderful" now applies. A property developer who is willing to include a theatre in his building can, if it is judged to be theatrically satisfactory, obtain various relaxations of the normal office building restrictions to compensate him for the expense and loss of space incurred in building the theatre. This has encouraged a remarkable spate of new theatre building in the centre of Manhattan where property values are enormously high.

Another aspect of this most enlightened piece of legislation, introduced by Mayor Lindsay's administration, has been the re-

working of the fire code and of the rules about such things as safety curtains. The Uris Theatre is the first to open under these new regulations.

One's first impression of the theatre is its size. By English standards it is a very large auditorium. Seating 1,860 people, it has stalls and a single balcony. The ends of the balcony curve round in a rather attractive manner into boxes that descend towards the stage. The auditorium is quite shallow but very wide.

My trip around the theatre started in the prompt corner. The first, and perhaps most significant, thing from a staging point of view in the theatre is the fact that there is no fire curtain. Instead, as well as the normal sprinkler system, there is a special deluge drencher system across the top of the proscenium that in the event of fire produces a high pressure wall of water. In

addition, in the prompt corner, there is a sophisticated fire control system giving control of the sprinklers and drencher as well as a public address system and a communications system specifically to be used in the event of fire. A fireman has to be on duty at this panel throughout the performance but, by way of compensation, the open stage, unprotected by a fire curtain, does not have the stringent restrictions to the use of totally non-inflammable material in the way that we would have here in London.

A number of other advantages stem from the absence of a fire curtain. Firstly, the proscenium wall is not a fire wall. In fact, the whole proscenium is demountable with the sides being able to be removed to give an enormous end stage 62 ft. in width. Next, the absence of the fire curtain means there is no need to have a solid wall beneath for it to land on. The entire stage is built of telescopic manually-removable sections, which allows the stage floor to be removed entirely or adjusted in height as the designer requires. There is no wall between the orchestra pit and the under-stage, and so, if desired, the whole space from the front of the orchestra to the back of the stage can be made any shape or height; thus giving at all times a facility similar to that in the Piccadilly Theatre, London (when special permission can be obtained not to use the fire curtain).*

To the front of the stage there are two elevators that form either an orchestra pit or a large fore-stage. The sight line from the balcony allows action to take place right to the front of this fore-stage and also into the front part of the stalls so that a *Hair*-like mixture of actor and audience can take place in full view of the whole house.

The floor of the stage, as mentioned, is simply demountable or adjustable with telescopic supports underneath. This appeared to be a particularly neat system, although unfortunately the building stood without a roof for quite a long period and a good deal of rust has been allowed to foul up the easy working of the supporting system.

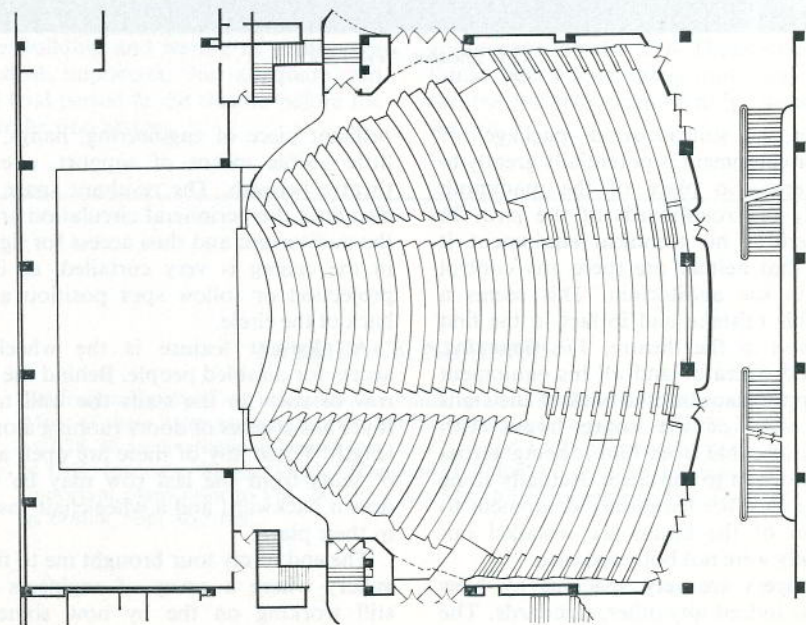
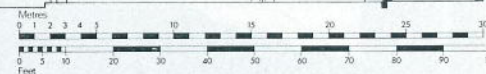
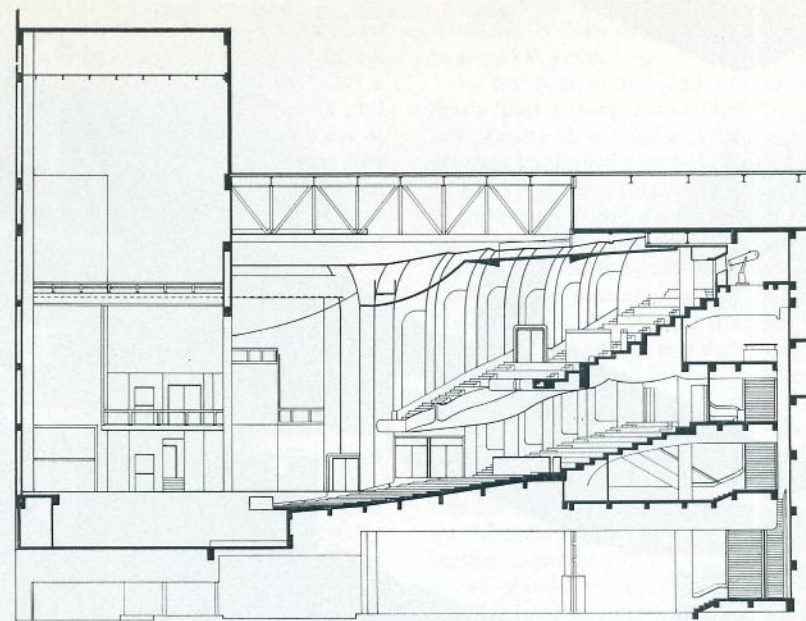
*TABS, Vol. 27, No. 1.

The sides of the proscenium are made up of three movable towers each side which can carry their own lighting. The towers are 40 ft. high and are moved with an air compressor on air cells in the manner of a hovercraft. Sight lines allow the proscenium to be reduced in width to 42 ft. In fact, the air towers can be moved right off stage to provide two small side stages for spectacular effect either side of the front of the stalls. The proscenium is, of course, wider than we would welcome in this country. However, the American attitude on such matters is entirely different. There are few prosceniums, if any, in New York smaller than about 35 ft. and the normal, even intimate, house in New York has a proscenium of between 40 and 50 ft. in width. Indeed, as many production managers here will know from working on American productions crossing the Atlantic, it is often a problem squashing down an American set design into the 30-35 ft. proscenium common in London.

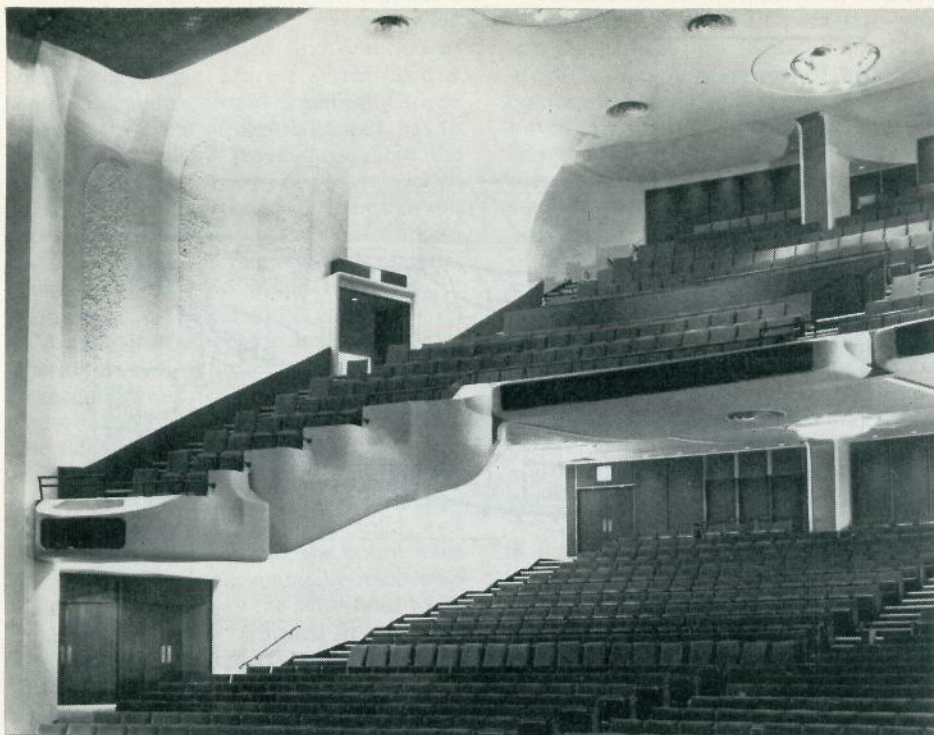
Behind the proscenium towers which actually form the front part of the auditorium, is working space with fly galleries to operate the flying that is possible above the orchestra pit or fore-stage. This fore-stage grid is normally masked by adjustable, floating, ceiling panels.

By English standards, the technical installation can hardly be said to exist. There is no lighting control system and no sound or communications system, although the latter is presently being installed as an afterthought. Commercial theatres in New York still have no permanent lighting, and for each show enormous old resistance roadboards are trundled into the theatre and miles of cable are rigged up as required for the show. Ralph very much wanted to break this tradition at the Uris and install a remote control system, but, as he says, he "lost that battle". He remains confident that the situation must change in the years to come.

A development of great interest to him is the portability of the latest thyristor remote control systems. It is clear that the principle of renting all the electrical equipment and bringing it in for each production is one that is not likely to pass away too soon.



Uris Theatre, New York: plan and section. Note the absence of the conventional fire curtain and proscenium fire wall; here and in the photograph page 63. Architect: Emery Roth & Sons; Designer: Ralph Alswang.



Uris Theatre, New York.

However, a suitcase-sized package of thyristor equipment is potentially greatly to be preferred in place of the mammoth unwieldy old roadboards of the past. In that there is no technical equipment it follows that neither are there any control rooms in the auditorium. This seems a regrettable mistake and in fact in the first production in the theatre, *Via Galactica*, the sound operator and all his equipment were simply placed at the back of the stalls in full view of the entire house with festoons of cable from him looping across the auditorium to the stage. Actually some trunking runs for temporary equipment to the front of the house are installed but apparently were not bothered with.

The foyers are very spacious by New York, or indeed any other, standards. The theatre is most cleverly constructed underneath 45 storeys of office skyscraper block above. The whole upper part, thanks to a

brilliant piece of engineering, hangs, with little visible means of support, over the theatre beneath. The resultant space does also limit the peripheral circulation around the auditorium and thus access for lighting in the ceiling is very curtailed, as is the projection or follow spot position at the back of the circle.

A pleasant feature is the wheelchair access for disabled people. Behind the back row of seats in the stalls the wall to the foyer has a series of doors running along its length. When any of these are open a pair of seats from the last row may be withdrawn backward and a wheelchair inserted in their place.

The end of my tour brought me to the fly gallery where a covey of engineers were still working on the by now somewhat notorious "hydrofloat" flying system. This is the new and potentially very exciting flying system employing hydraulic cylinders

directly motivating a nylon clad steel rope passing through the cylinder. Its potential is that it appears to offer a comparatively low cost mechanical flying system with a consequent reduction in labour costs and eliminating the time consuming process of loading and unloading counterweights. For the opening production all had been disaster as the flying battens had simply failed to raise the weights as specified and had operated in an extremely bumpy and irregular manner. The problems seemed overwhelming but almost all related to over-hasty installation and insufficient time for bedding down and testing. The second installation of hydrofloat at the Cultural Centre in New Orleans appeared to be working with almost none of the bugs apparent in the system in New York at all. I observed some test runs under full load which appeared to be very satisfactory. By now it is hoped the installation will be functioning correctly. The moral seemed to be not that the Theatre should turn its back on new technical development, but that if a new piece of equipment is proposed it should be specified in the highest possible engineering detail and then time allowed for the building and testing of prototypes and, most important, for adequate run in and trial period in the theatre before the first production arrives.

The flying system can be operated either from the fly floor or from a remote console in the O.P. corner.

So my tour ended. My impression was firstly that it was miraculous that such a new theatre should exist in the centre of the greatest capitalistic land-hungry city in the world. Next, the remarkable enlightenment of the fire code and the freedom it gives for design of the entire proscenium zone. Lastly, it raised the question in my mind of the size and seating capacity of theatres. The Uris is too large and spacious for my taste, but I had to wonder whether the frequently reiterated English preference for a maximum 30-ft. proscenium and 400 or 500 seat capacity is necessarily always so much to be preferred. While I would prefer the Uris capacity to be contained in a smaller and more compact space, maybe we "theatricals" have a duty to maximise seating capacity and consequently income, so we should try more strenuously to fit the maximum number of seats in the minimum space available. The success of many of our best old theatres in London stems from the ingenuity with which our ancestors crammed people in every nook and corner. So the Uris Theatre made me think, "Let's have many more seats in the theatre, but let's cram them in as snugly as we can."

TABS BACK NUMBERS

We frequently give TABS references for buildings described earlier in our journal. Most of these issues are out of print, but the last six years covered by Vols. 25-27 and 28-30 are available in bound form at £2.50 and £2.00 respectively, post free in U.K. (overseas 90p per single volume or £1.30 for two or three volumes). All important plans prior to Vol. 28, No. 1 (i.e. March 1970) appear in *New Theatres in Britain*, 50p, post free.

Lighting by Logic: II

Bob Anderson

Timetables—or How Short is the Longest Path?

Question:

If it takes six weeks for the actors to learn their lines, four weeks to build and paint the scenery and at least three days for the dress rehearsal and getting everything sorted out before the first night, will it be all right to book the Town Hall for two months hence?

The answer is of course wanted immediately. The Chairman is on the phone to say he is having lunch with a man from the Council who knows the man who books the hall, and if we can just decide on the date he will be able to get everything fixed up and save the postage. The new and inexperienced secretary of the Greencorn Players is being asked to make a decision and wants your advice.

Have you decided? It sounds all right the way he has put it. But wait. Who is going to produce? Ask the Chairman!

He says, "Why not Arthur again?"

Arthur is in charge of English at the Grammar School and has made quite a good job of his last two productions. He has already hinted that he wants to do *Present Laughter* and has probably talked over most of the parts with at least three actors apiece already so there should be no delay casting. And *Present Laughter* would be just the thing for August. August! Won't people be on holiday? And doesn't Arthur run the Scout Troop and doesn't the poster in the Church Hall say that they are going camping in Ireland—or was it Iceland? Either way we can't expect Arthur to find time to run rehearsals and pack trek carts and suchlike.

The phone growls. The Chairman never could stand the sound of silence. A decision must be made!

"John! Are you there?" Make him think the line went dead.

"Did you hear me? I said, Do you think we can possibly rely on getting a good cast together until after the holiday period? I can't see that we can get much rehearsal in until September, so wouldn't it be safer

to try for a date in November? And you know how hot it gets back-stage in summer."

The Chairman once tried his hand at stage management one fairly mild February and claimed to have suffered from heat-stroke, probably brought on by the effort of his own inefficiency.

The silence from the other end of the phone shows, too late, that this last allusion was not a good idea. Someone must have been indiscreet! So. Crossing fingers on both hands . . .

"Perhaps we could just manage it in August, but Arthur did say he hoped you would be free to S.M. for him." This may not be true but it works. The Chairman hastily agrees that November will give everybody much more of a chance to get to an unprecedented peak of perfection and rings off complaining about being five minutes late for lunch. Now, assuming that he does remember to ask for the November date our only problem is to get Arthur to agree to produce, convince the committee about his choice of play, collect a cast and put on the performance. Oh! and Arthur must be reminded that he wants the Chairman as Stage Manager!

Two days later, the Secretary, fortified by a pint of his favourite brew and with a second glass at his elbow, relates this experience to his friend the Lighting Director—a man with a well-deserved reputation within the club for getting things organised. The Lighting Director sees a chance to show off his knowledge of Critical Path Analysis and sets about explaining things to the Secretary. His explanation went something like this.

Recipe for Critical Path Analysis

First take a quantity of simple statements describing all the things to be done in one department between now and the finished performance. For example for the Actors we can say for a start that in the special case of the Greencorn Players:

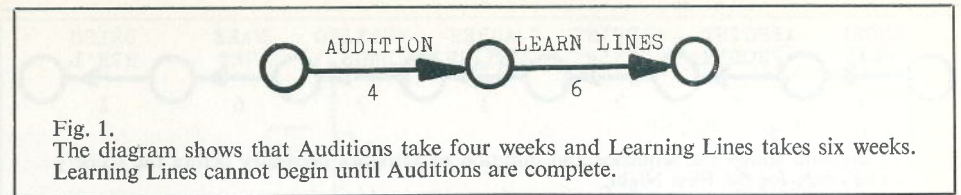


Fig. 1.
The diagram shows that Auditions take four weeks and Learning Lines takes six weeks. Learning Lines cannot begin until Auditions are complete.

- A1. Six weeks are needed to learn lines.
- A2. Auditions must be complete before an actor will bother to learn a part.
- A3. Auditions take four weeks.

To show these ideas diagrammatically, and this for us is the main point of the technique, draw two arrows as Fig. 1.

The length does not matter, but convention has it that time flows from left to right. The label describes what is going on—the Activity. The number states how long it should take in weeks. Only whole weeks are counted.

Now look at further statements:

- A4. The producer must be appointed before auditions can begin.
- A5. Two weeks are required to pin down our producer. (Of course everyone knows that Arthur will do the job, but since we find that this is the time of his Scout trip we shall leave it in.)
- A6. The play must be chosen before the producer is approached.
- A7. Choosing the play will take three weeks. (Again this is probably a formality for the Greencorn Players but there seems to be time to spare so we will leave it in for the sake of the logic.)

- A8. Moves are learned after the actors are word perfect.
- A9. Learning moves takes three weeks.
- A10. One week is necessary on stage with scenery for dress-rehearsals after the moves have been learned.

When all these are put together they look like Fig. 2.

This illustrates the simple conclusion that nineteen weeks must elapse between deciding to put on the play and having actors ready for the first night *if*, and only *if*, the statements A1 to A10 are reasonably true. Clearly if they are made by the wrong person they could be quite contentious, even disastrous.

Moral: Get these statements direct from the horse's mouth, from the man or woman who will have to keep to the timetable when it is settled. And also, to make sure that everyone sees the consequences of his chosen rate of work, let him see what the implications are for everyone else. Be honest. Quote times exactly and show everyone the result without inflation. You can agree on the safety factors later.

So far this could be written down like a simple train timetable listing arrivals and departures in order, and coming to the same conclusion. But suppose you have to make a connection. Try the design path now. Again you need a set of basic statements.

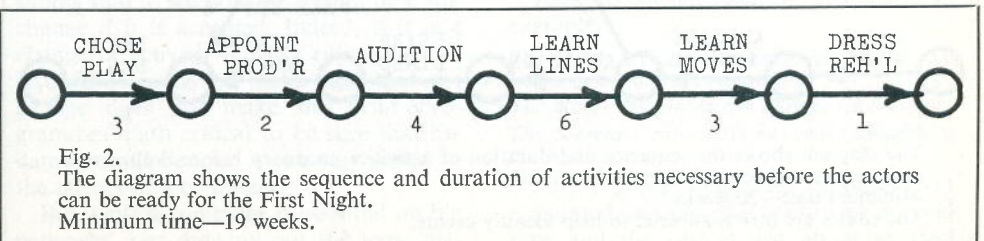


Fig. 2.
The diagram shows the sequence and duration of activities necessary before the actors can be ready for the First Night. Minimum time—19 weeks.



Fig. 3.
The diagram shows the sequence and duration of activities necessary before the scenery can be ready for the First Night.
Minimum time—20 weeks.

- D1. A designer is required and should be appointed in consultation with the producer. Allow two weeks.
- D2. The designer will need four weeks to agree a design idea acceptable to the producer and within the budget.
- D3. The designer will need two weeks to make working drawings from his basic ideas.
- D4. Workshops will need six weeks to finish the set after receipt of working drawings.
- D5. The set must be complete in time for the dress rehearsal.

The design path is shown in Fig. 3.

Design and construction take one week longer than the actors and, if the statements made are true, the job cannot be done any sooner.

Now make the connection and join up the two paths. Fig. 4 shows how this looks. The longest time is still the design path so the actors have a week to spare.

But the logic is still not complete. Rehearsals involving moves can only be done when the ground plan is fixed and this must be shown. Combining junctions 9 and 5 will not do since this would then

show that the next design activity, Detail Drawings, cannot start until the actors have learned their lines! The problem is overcome by a dashed arrow known as a Dummy which takes up zero time. This is included in Fig. 5 which also shows other activities to make up a reasonably complete network.

If you check Fig. 5 the longest time required is still the twenty weeks taken by the design and construction team and this is acknowledged by calling it the Critical Path. From now on it needs watching!

Critical Path Analysis was first used seriously in America in the late 'fifties and played an important part in the early missile projects. It is now used as an everyday tool by the new scientific managers moving into even the most traditional industries. Perhaps you think a bar-chart* would be easier to understand? But the

**A bar-chart shows all paths as separate parallel lines drawn to scale so that the beginning and end of each activity line up with their predicted dates. This is an excellent and widely-known method of drawing timetables although it cannot easily make clear how the activities depend on each other. The main snag is that even relatively unimportant changes to activity times may require the whole thing to be redrawn.*

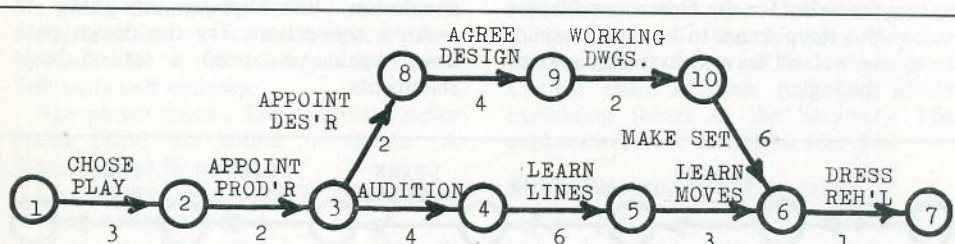


Fig. 4.
The diagram shows the sequence and duration of activities necessary before both actors and scenery can be ready for the First Night.
Minimum time—20 weeks.
The circles are now numbered to help identify events.

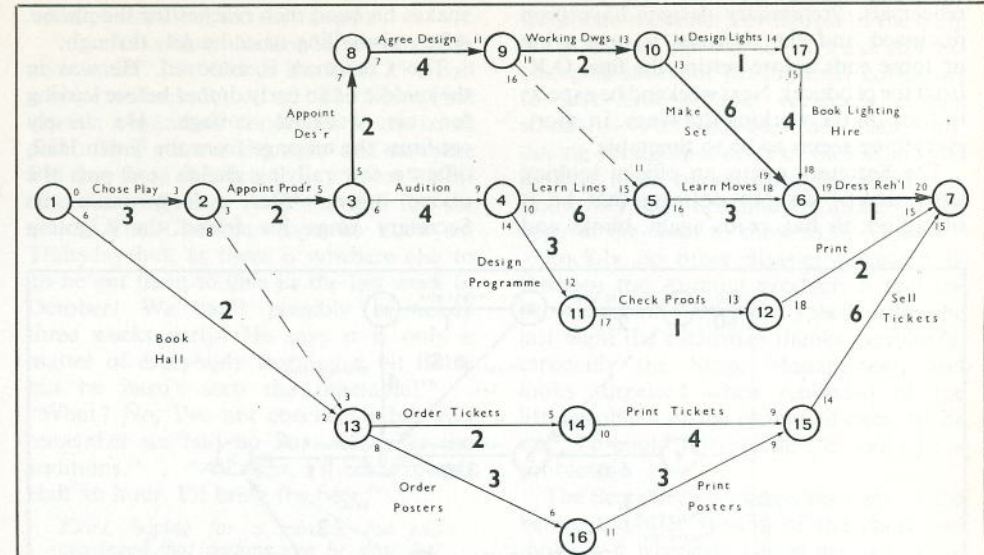


Fig. 5.
C P A Diagram for the main activities necessary to put on a play.
Minimum time—20 weeks.

The *Critical Path* shown by the thick line is the time needed between starting to choose the play at Event 1 and the First Night—Event 7. If the First Night is fixed for twenty weeks after the start none of the activities along the Critical Path may take longer than the scheduled time without endangering the opening.

Calculation: The little figures by the heads of the arrows show the earliest time after the start (1) by which the activity can be finished. They are calculated by adding the time for the activity to that shown for the latest arrow into the start of the activity. The little figures at the tails of the arrows show the latest time that the activity can start to meet the required date. They are calculated by subtracting the time for the activity from the earliest following activity. If a computer is used it is given a list of all the activities identified by the numbers in the circles together with their times. It then calculates all possible paths according to the rules of the game.

point of Fig. 5 is that it is a logic chart that should remain true regardless of the times allocated for each activity. If a new estimate for the time for printing programmes is obtained, it only needs a simple sum to see how the overall time will change if it is accepted. Indeed, if it is a change of activity off the Critical Path, it is only necessary to make sure that the change does not make the Print Programmes' path critical to be sure that the date can still be met. A job very suited to the talents of a computer.

But while a computer is essential on big networks, just drawing out the logic dia-

gram for his problem has taught many a manager all he needs to know about the danger points of his timetable. And when things go wrong he has a ready made route map to help sort it out again.

Back to the Greencorn Players for an example.

The Time: A Friday evening in late August, ten weeks before the opening night.

The Place: The Greencorn Players Club Office. The Secretary enters. He has called in to check the post.

All is going well. The Producer was appointed and the play confirmed in good time and the cast is just about to start

rehearsals. Preliminary designs have been discussed and the designer is now tying up loose ends before getting the final O.K. from the producer. Next weekend he expects to start on the working drawings. In short, everything seems to be to timetable.

The Secretary opens an official looking letter, reads, sits not noticing that he is sitting on his hat, reads again, blinks and

shakes his head then reaches for the phone. After misdialling twice he gets through.

The Chairman is annoyed. He was in the middle of an early dinner before leaving for his weekend cottage. He tersely confirms the message from the Town Hall, offers a few rallying clichés and puts the phone down. After a long pause the Secretary rings his friend the Lighting

Director and tries to explain the situation without sounding too distraught.

“... Yes. Fine, thanks. How are things your end?”... “Good. Er, look, I’ve had a bit of a shock. It’s all off! The Town Hall say it’s a standard condition. In the small print. They reserve the right and now the PM has fixed the date.”... “What? Yes! The election! They need the hall for the count. The Chairman says he knew on Thursday but, as there is nowhere else to go he got them to give us the last week in October! We can’t possibly be ready three weeks early! He says it is only a matter of everybody working a bit faster but he hasn’t seen the timetable!”... “What? No, I’ve not checked it but you remember we had no float left after the auditions.”... “All right, I’ll come round. Half an hour. I’ll bring the beer.”...

Exits, hoping for a miracle but still convinced that nothing can be done but call everything off.

Forty-five minutes later the first beer can has been emptied, the print of the CPA chart is covered with new figures, and the Lighting Director is delivering a lecture on the interchangeability of time and re-

sources. For the next half-hour they telephone the other key figures in the club. At 8.30 they go out for a meal still exchanging ideas for getting their colleagues to save time without recklessly cutting standards. At 9.00 they are back producing yet another draft of their chart and making more phone calls. By 10.00 they know they have won and are making a fair copy of the chart to show to the others.

Luckily no other disaster turns up to threaten the Autumn production and the show goes off well. In a speech after the last night the Chairman thanks everybody, especially the Stage Management, and looks surprised when reminded of the little problem of the change of date. As he said, he could not see that it could be a problem.

The Secretary still keeps his copy of the before-and-after version of the chart and looks at it whenever things get bad. Since he read up the subject he sees his problems as rather trivial, but nevertheless all new productions are analysed and the Critical Path reviewed weekly, just in case.

Fig. 6 shows the final solution and explains how it was worked out.

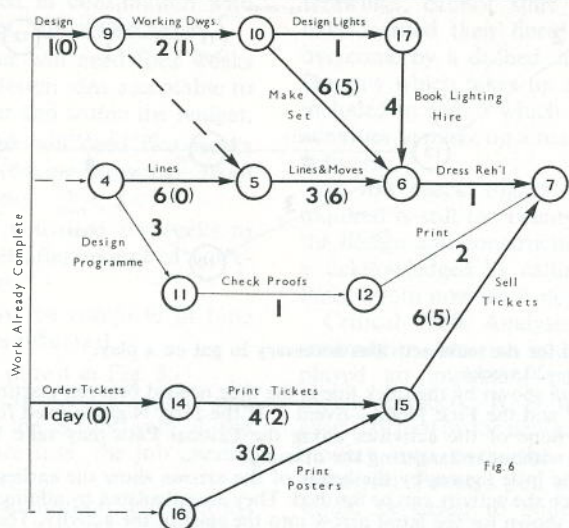


Fig. 6. The Situation Before and After the Performance Date was Changed.

The activity times negotiated to meet the new First Night are shown in brackets.

As usually happens towards the end of a timetable most departments have wasted their spare time and more than one path is critical. Only the Poster order was placed earlier than absolutely necessary. The Ticket order, on the other hand, has not been posted and is therefore late. All paths have now to be reduced to 7 weeks! This was done as follows:

Actors: The Dress Rehearsal week cannot be changed so the nine weeks of separate Lines and Moves rehearsals have to be telescoped into six weeks of combined rehearsal. The Producer agrees to this provided he gets his Groundplan immediately.

Design: Workshop say they can only reduce their time if they can spend money on special tools and buy in a door flat. The treasurer has to agree and one week is saved. The Designer says he can produce sketches within a week giving all the essential ordering information and will follow up with the remaining details during the following week while construction gets under way. This saves the other two weeks needed. To make sure that this corner-cutting does not lead to misunderstandings, a special conference is called. The Lighting Designer is briefed at this meeting so that he can still give the customary four weeks notice to be sure of getting the hired equipment he will need.

Programmes: They have a week to spare anyway and are no problem.

Tickets: Strictly speaking the tickets should have been ordered, but luckily the order had not been posted and was hastily altered to the new dates. It was delivered by hand to the printers the following Monday who agreed to take only two weeks instead of their usual month. This left only five weeks to sell tickets but this was agreed to be enough.

Posters: A phone call followed up by a letter changed the dates and a two week delivery promise was obtained. Even if the posters are late, however, the tickets could be put on sale for a short period without disaster. Strictly the diagram logic should be changed to show this possibility.

THE LIGHT OF EXPERIENCE

Stage Lighting, 32 pages, A4, fully illustrated, obtainable free and post free on request from Rank Strand.

There have long been accusations that our literature is too detailed on the one hand or too sparse on the other. The customer—so we are told—does not want to wade through a host of technical detail. On the other hand the telegraphese of, for example, the *Tab's Compendium* is “not salesy enough. . .!” We (that is, the Editor and his staff) find modern marketing leaflets infuriating. Enormous pictures are artistically focused mainly on the user rather than the equipment, and even though this is a lightly clad female it is a poor substitute for real information or for a real female. Vainly one plunges [*sic*] through page after page of décor

hoping to find out what the thing may do.

All this is but a prelude to the announcement that we have devised a new catalogue and you are welcome to send for it. On the surface we have full-page full-colour glossy photographs for the man with the cheque book while the other pages contain the essential detail of what the equipment does. We stress “essential” because we have come to believe that the lines and lines of small type describing how a lamp-house is constructed or the size of the various nuts and bolts which hold it together are not particularly stimulating to those who practise the art or provide the money for that art. For those who wish to spot every “I” and flood every “T” there are sturdy down-to-earth data sheets to be had against enquiries for specific equipment.

Verdi Adds About Fifty

Francis Reid

Britain is engaged on the biggest theatre building spree since the turn of the century. The new theatres fall into two categories, the Playhouse Civic and the Playhouse Educational. In vain do we await the first Civic Opera, but in Manchester's new Northern College of Music we have an educational opera house which is the first purpose-built English opera house since Glyndebourne.

Since I was a lad there have been rumblings of a Festival Opera House in Edinburgh, but, for convenience in importing ready-made productions, this is likely to be a German Opera House which may or may not be the appropriate form for British Civic Opera. Indeed, there is some doubt whether the import of a ready-made package is the right way to acquire opera for a festival. For specially produced Festival Opera the magnificent Snape* Maltings is close to the ideal setting and it may well be that the Snape building form will turn out to be closer to a suitable British Civic Opera theatre than the traditionally orthodox form of opera house.

After all, what is so special about an opera house? I suppose that it is largely a question of size. Leaving aside the artistically significant but statistically small questions of activities such as chamber opera and opera-in-the-round, the housing requirements of main stream opera of the seventeenth to twentieth centuries rest mainly on *size*:

Stage size because the locations of an evening's opera usually encompass larger horizons than Aunt Edna's drawing room or her kitchen sink; and there are likely to be more performers around: Shakespeare gave *Macbeth* three witches, Verdi adds about fifty.

Pit size for a band of musicians ranging from about thirty to a hundred with seventy around average.

Auditorium size to give enough space to hold the sound and to accommodate the

two thousand or so people required to cover at least the petty cash aspects of the cost of a night at the opera.

Dressing room size to accommodate a lot of maxi people whose costumes are not mini.

Ancillary areas size for all the storage, construction and administrative problems of a medium that thinks in terms of repertoire Gods and Queens rather than long-run detectives and dollies.

Audience circulation areas tend to escalate in magnificence to include crush bars and chandeliers related more to the former social aspects of opera than to its present artistic significance.

And of course all this calls for an increase in *lighting size*: bigger switchboards and more lanterns (although I would personally prefer to see bigger lanterns rather than more lanterns).

One of the more regrettable tendencies of modern life and indeed something which has become a suicidal tendency in modern industry is to equate optimum size with maximum size. That evolutionary animal disaster, the giant sloth, is not without his contemporary industrial counterpart; there are moments when his shadow lurks over the theatrical scene.

English opera houses (if and when) will certainly have their magnitude limited by financial constraints but will their magnitude be restricted in the right directions? As I go around new theatres, whether to watch or to work, I become more and more certain that the key to success is *proportion* and if I have any reservations about this Manchester opera house then they are doubts of proportion.

The place is obviously going to be a reference point for the brief writers and architects of future British opera houses. To them I would like to suggest that the key decision in an opera theatre is optimum proscenium opening. Opera is big and the opening should be wide, but wide openings are expensive to fill, and even with island staging in a black surround, the long walk



Northern College of Music: Opera Theatre.

to centre stage can be difficult to accomplish in four bars of allegro. There is an optimum somewhere: Manchester (45 ft.) is the maximum, Glyndebourne (29 ft.) is the minimum, and I suspect that the optimum is closer to Glyndebourne than to Manchester.

The Manchester auditorium is bold and impressive: the green mass of 628 seats isolated from dark brick walls by intensive downlighting gives an impression of size, space and even grandeur. The building sets out to avoid intimacy; this could be disaster in a playhouse but is appropriate for opera.

The stage tower (grid at 50 ft.) is 77 ft. wide and contains an acting area 45 ft. wide by 26 ft. deep. Beyond the 20 ft. high proscenium arch on each side there is 16 ft. of wing space with full flying height (the counterweighted bars are 55 ft. in length) and on the OP there is a further 18 ft. of full-depth dock. In other words the proscenium opening of 45 ft. is set within a total stage width of 95 ft. Upstage of the fly tower there is a 30 ft. rear stage

with 22 ft. of height. The pit is 22 ft. by 46 ft. and designed to hold 60-70 musicians in comfort; a motorised pit lift forms an optional 16 ft. deep fore-stage.

Thus the basic dimensions are clearly suitable for the handling and display of operatic wares, and any misgivings I may have about the stage/auditorium in architectural terms (assuming the brief to be correct) centre on the form of the proscenium. In most recent theatres, the proscenium has been formed by the natural termination of the auditorium walls and ceiling. Here the proscenium frame forms what amounts to a false proscenium within the natural frame. Unfortunately this inner frame is solid; better perhaps to have adopted the form of a German-style movable masking frame, preferably carrying lighting units. I suspect that the need to mask-in for smaller-scale works will sometimes give rise to a "show pros"—forming a third proscenium arch!

Lighting control from a spacious control gallery is by a Lightset 120 and it is a relief to find a theatre which has been

*TABS, Vol. 25, No. 3.



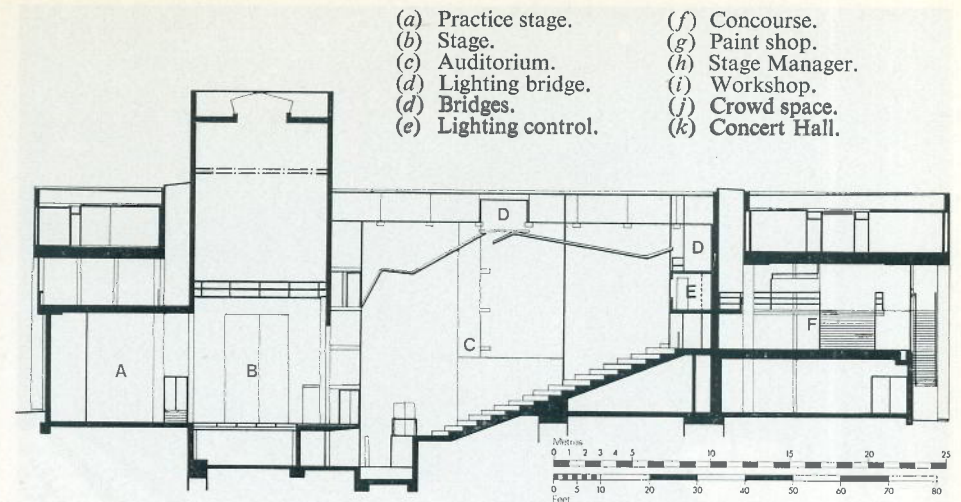
Northern College of Music:
Concert Hall. Photo by cour-
tesy ENVIRONMENT.

given the optimum control system rather than the maximum or minimum. The roof of the control suite forms a useful rear lighting bridge and there is a well-positioned forward lighting bridge in the ceiling, although unfortunately it was not possible to make this bridge run the full width of the auditorium. This length restriction is particularly sad because of the inadequacies of the side F.O.H. lighting facilities. The single auditorium booms are so far back and so recessed that they will only hit the opposite sides of the stage and will do so at a relatively flat angle. Practically all our recent playhouses have had their side walls designed around lighting requirements with satisfactory results both for the architecture and the lighting. It is a pity that our

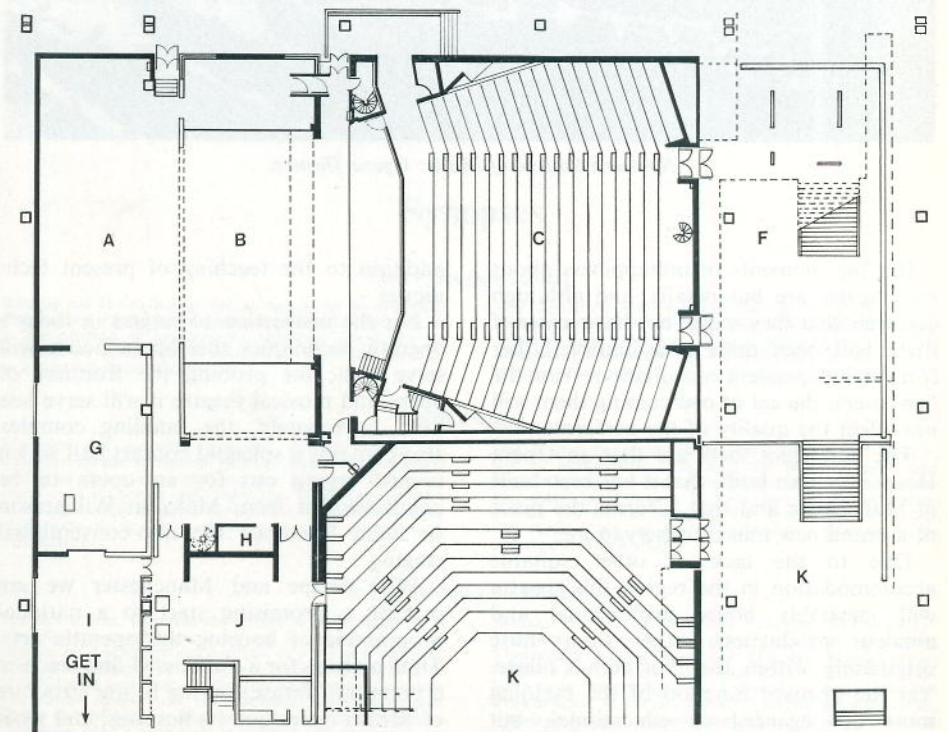
first new opera house marks a backward step in this respect. How long before scaffolding appears on the wall?

Walking around the theatre before opening, one had the feeling that the lighting layout was more akin to a magnified school stage than to an opera house, but then one realised that the lighting had been hung in this way for the contractor's testing and that by the first opera the large supply of lanterns (too many Fresnels perhaps?) would be hung in a more operative way.

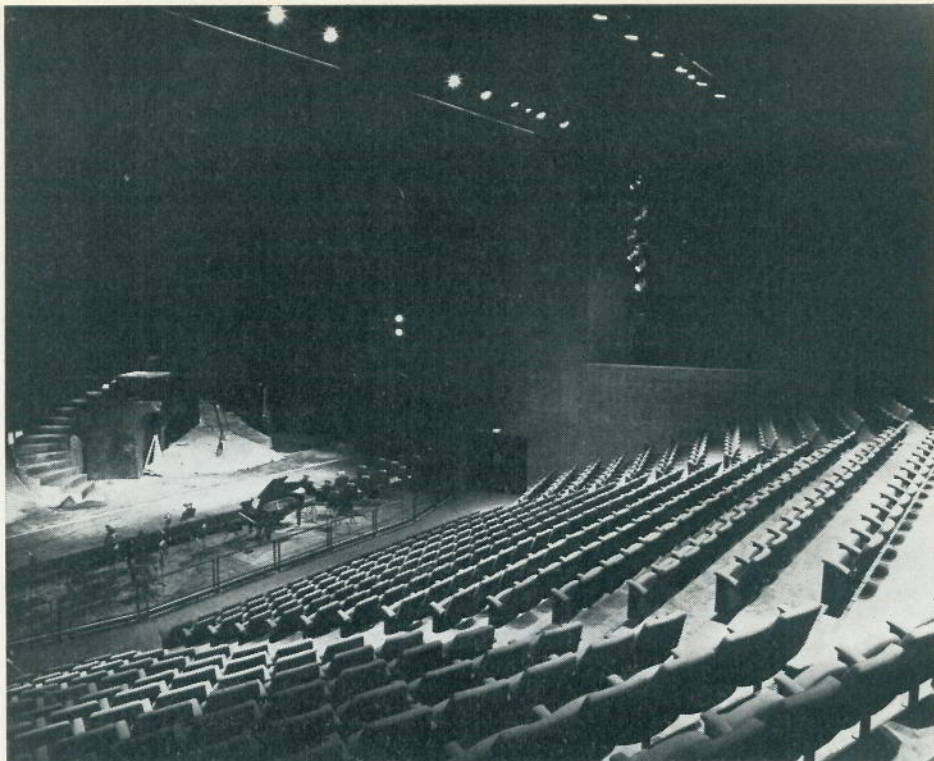
Dressing room accommodation is adequate if bleak and functional but storage space is minimal and the get-in weaves a path through machinery which is firmly bolted to the floor.



- | | |
|-----------------------|--------------------|
| (a) Practice stage. | (f) Concourse. |
| (b) Stage. | (g) Paint shop. |
| (c) Auditorium. | (h) Stage Manager. |
| (d) Lighting bridge. | (i) Workshop. |
| (e) Bridges. | (j) Crowd space. |
| (k) Lighting control. | (k) Concert Hall. |



Northern College of Music, Manchester: Section and composite plan showing Opera Theatre and part of Concert Hall. Architect: Bickerdike, Allen, Rich & Partners.



Northern College of Music: Opera Theatre.

But my moments of unhappiness about this theatre are but details, and although one feels that they might not have arisen if there had been more consultation either from an independent consultant or from the final users, the act of overcoming them will not affect the quality of the performances.

The important facts are that an Opera House has been built, that it has been built in Manchester and that it forms the pivot of a brand new music conservatoire.

Due to the lack of other suitable accommodation in the region this theatre will inevitably house professional and amateur productions other than those originating within the Northern College. Yet the primary function of the building must be regarded as educational, but educational in the wider sense implied in a university: research and experiment in

addition to the teaching of present techniques.

For the instruction of singers in today's operatic techniques this opera house will serve well; for probing the frontiers of opera and musical theatre it will serve less well. Fortunately, the building complex also contains a splendid concert hall which is just crying out for an opera to be commissioned from Malcolm Williamson or John Taverner for non-conventional staging.

With Snape and Manchester we are making a promising start to a national programme of housing the operatic arts. Time perhaps for a *Talk-out* (I find teach-in a pompous phrase) on the future structure of British opera and its housing; and what better place to hold such a discussion than in Manchester's new opera house.

Correspondence

More Self Control

Dear Sir,

As the technology of Memory Lighting Control System is advanced, each system tends to sprout its own complement of special "attractions". Nowhere has this been more apparent than in the U.S.A. where three years ago I saw the Light Pen and Video display when they first appeared in the C.B.S. System. However, the latest benefits of technology are only viable if they make sense ergonomically and I draw my own obvious conclusions from the fact that I have not since that time seen a Light Pen used for the same purpose.

During a more recent visit to the U.S.A. in April of this year, I had the good fortune to exchange views with several Auditorium Managers. It transpired that one feature currently under discussion is the recording of cue *sequence*. In other words, as each lighting plot is recorded, the number of the next cue in sequence is also identified in the memory. The introduction of such a facility is relatively innocuous from the technical point of view but I find the arrangement quite inconsistent with the operational requirement. Surely, in North America, where they are largely depen-

dent on touring shows with last-minute lighting rehearsals, the predominant requirements of a control system must be speed and flexibility. The recording of cue sequence seems to me to be contrary to both these objectives. How do you break sequence easily if the actor misses lines or a singer leaves out a song? With modern memory control system, the Lighting Director can set up basic lighting patterns, after which the scene required can be established as a combination of these elements. It may well be necessary to continue this flexibility into the show itself. However, there is no substitute for the written plot sheet—not in this case for recording dimmer levels but to indicate the sequence and timing of cues. Pencil and rubber alterations are still the most easily understood in the heat of the moment. My plea therefore is that the user should be aware that the facility he is asking for is really consistent with the style of operation required and not merely a technological gimmick.

Yours, etc.,
DAVID K. BAKER
Brentford, Middx.

Synopses

That Place gets Uglier!

Stimulé par le cauchemar des architectes et les souvenirs d'Hérodote, l'Éditeur se demande si le libre exercice de la compétition en architecture, méthode qui a fait ses preuves, ne serait pas la solution au dilemme actuel de la construction des théâtres.

Der Alldruck eines Architekten und Erinnerungen an Herodot erregen in dem Redakteur die Frage, warum das Problem der modernen Theaterarchitektur nicht mit der altbewährten Methode des Wettbewerbes der Architekten gelöst werden kann.

Self Control

L'arrivée des memory systèmes soulève autant de questions qu'elle en résout, mais les nouveaux problèmes sont plus de nature artistique que pratique. L'Éditeur argue qu'il est temps que l'opérateur de l'éclairage fasse davantage corps avec la représentation, participant aux répétitions dès le début—en fait, un acteur comme ceux qu'il éclaire.

Das Kommen der Speichersysteme stellt soviel Fragen, wie es beantwortet, nur sind die neuen Fragen von künstlerischer und nicht praktischer Natur. Der Redakteur meint, dass es nun Zeit ist, dass der Beleuchtungsmeister ein wahres Mitglied der Vorführung wird, der von Anfang an, an Proben teilnimmt—Künstler unter denen, die er beleuchtet.

On Not Building for Posterity

Michael Elliott, directeur du "Theatre '69 Company" à Manchester, considère où en est la construction des théâtres en Angleterre aujourd'hui. N'y aurait-il pas lieu, avant d'envisager d'autres grands projets, d'examiner la possibilité de parrainer des théâtres expérimentaux moins somptueux situés dans des bâtiments de construction moins durable, pour leur permettre de se développer librement, côte à côte avec le théâtre conventionnel, en vue d'un futur qui n'aura peut-être que faire de nos mégalithes.

Michael Elliott, Direktor der "Theatre '69 Company" Manchester, gibt einen Überblick über modernen Theaterbau in Grossbritannien. Ehe man weitere, grosse Projekte unternimmt, möchte er, dass man die Möglichkeit von provisorischen, weniger anspruchsvollen Theaterarten, in weniger haltbaren Gebäuden, untersucht,—sodass neben den konventionellen Theater die ungefesselte Begeisterung für die Zukunft aufwachen kann—eine Zukunft, die vielleicht keine Zeit für unsere Steinhäufen haben mag.

The City of Cardiff

Une explosion de théâtres au Pays de Galles, plus un téléphone de l'architecte de la ville de Cardiff, poussèrent l'Éditeur à analyser l'activité théâtrale de la capitale galloise. Son article décrit le "New" théâtre de 1904, intégralement rénové, le Théâtre Sherman de 450 places récemment construit et son studio dans le campus universitaire, et englobe les divers spectacles: l'armée militaire du château de Cardiff, la Salle de concert, le studio dramatique d'un collège de musique, un autre studio anciennement un couvent, et le superbe théâtre à marionnettes.

Ein Anfall von Theaterbauern in Wales und ein Telefonanruf des Stadtarchitekten von Cardiff veranlassten den Redakteur, sich das Tun und Treiben der Theater in der walisischen Hauptstadt anzusehen. Dieser Artikel beschreibt das neu ausgestattete "New" Theatre, in 1904 gebaut, das neue Sherman Theatre und das dazugehörige Studio in der Universität und weitere Bühnen jeder Art, von der Militärszene im Schloss, über die Konzerthalle, ein Dramastudio in einer Musikakademie, ein weiteres in einem ehemaligen Klostergebäude untergebracht, bis zu einem hervorragenden Marionettentheater.

A Multi-Projector Complexity

Description des installations complexes de projection montées pour la récente présentation de "I and Albert" au Piccadilly Theatre, à l'aide de 36 Kodak Carousels spéciaux (avec des ampoules de 120 volts 1200 watt) contrôlés par un présélecteur spécial.

Eine Beschreibung der komplizierten Projektionsanlage bei dem jüngst aufgeführten Stück "I and Albert" im Piccadilly Theatre, welches 36 Kodak Carousells mit 1200 Watt, 120 Volt Lampen benutzt, die mit einer besonderen Vorwahlsteuerungsanlage bedient werden.

How Far that Little Candle . . .

Cliff Dix décrit une expérience au Studio-Théâtre Gulbenkian à Hull, où une représentation du *Malade Imaginaire* a marqué le tricentenaire de la mort de Molière. L'éclairage de cette pièce est un ensemble d'ingéniosité et de bougies.

Cliff Dix beschreibt ein ungewöhnliches Experiment in dem Gulbenkian Studiotheater in Hull, wo man den 300-jährigen Todestag Molières mit einer Aufführung von "Le Malade Imaginaire" gefeiert hat. Diese Aufführung wurde mit Erfindungsgabe und Kerzen beleuchtet.

Via the New Broadway

Le "Uris Theatre" à New-York, le premier à être construit selon les nouvelles mesures de sécurité, comprend entre autres un mur d'eau sous haute pression à la place du rideau métallique. Il doit son existence aux réglementations qui encouragent les constructeurs à incorporer un théâtre à un ensemble de gratte-ciel. Richard Pilbrow décrit ce théâtre de 1860 places et compare les méthodes du théâtre moderne américain et anglais.

Das Uris Theatre in New York ist das Erste, das laut der neuen Sicherheitsregeln gebaut wurde. Es hat eine Wand aus Hochdruckwasser bestehend statt Feuervorhang und existiert nur dank jenes Gesetzes, welches Unternehmer dazu anhält, Theater in ihre Wolkenkratzerbürogebäude einzubauen. Richard Pilbrow beschreibt dieses 1860 Plätze enthaltende Theater und vergleicht moderne amerikanische Theatermethoden mit denen in Grossbritannien.

Lighting by Logic: II

Bob Anderson poursuit son étude sur la logique d'un ordinateur. Il l'applique cette fois-ci à l'organisation et la réorganisation de l'emploi du temps pour inclure chaque action depuis l'idée initiale à la Première.

Bob Anderson entwickelt seine Ideen über die Anwendung von Computerlogik im Theater weiter, indem er deren Gebrauch für das Organisieren und Umändern von Plänen behandelt, sodass jede Handlung von der ersten Idee bis zur Premiere eingegriffen werden kann.

The Light of Experience

Ce paragraphe est en réalité une annonce: nous venons d'éditer un nouveau catalogue, qui peut s'obtenir sur demande. Il a été préparé en tenant compte de l'expert en marketing et du technicien de l'éclairage. A première vue, c'est un ensemble de grandes photos en couleur sur papier glacé pour l'homme au carnet de chèques, mais d'autres pages donnent les détails principaux sur l'équipement et son usage.

Dieser kleine Beitrag kommt eigentlich auf die Mitteilung hinaus, dass wir einen neuen Katalog herausgegeben haben, den wir Ihnen gerne nach Verlangen schicken würden. Der Katalog ist einerseits vom Standpunkt des Marktforschers, andererseits von dem des Beleuchters gedacht. Beim ersten Eindruck fallen grosse, glänzende, farbige Photos auf, für den Mann mit dem Scheckbuch, aber anderswo findet der Beleuchter die notwendigen Beschreibungen über den Gebrauch der Geräte. Kataloge in deutscher Sprache sind natürlich durch 3001 Salzdahm Salzbergstrasse zu erhalten.

Verdi Adds About Fifty

Francis Reid examine le problème des dimensions que pose la construction d'un Opéra et analyse le nouvel Opera House du Northern College of Music de Manchester, où les étudiants joueront devant un auditoire de 628.

Francis Reid drückt sich über das Problem der Dimensionen beim Bau von Opernhäusern aus und berichtet über das neue Opernhaus im Northern College of Music Manchester, wo die Studenten vor einem 628 starken Publikum auftreten werden.