

Theatre Architecture and Stage Setting

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A few Words of Explanation

It is necessary for the writer of this paper to make it clear at the outset that he is not an architect. Consequently, a lot of the material in this paper has had to be based on the opinions of other experts, and on the practical experience of this writer as a stage producer and director for the last 25 years.

General Approach

There is not the slightest doubt in the mind of any worker in the field of theatre that there is a most deplorable lack of theatre halls in the country. A great deal of effort is being made by the Government to ease this unfortunate state of affairs. Plans have been made and are still being made to provide theatres, built by government money or government support. It is not within the scope of this paper to analyze these plans.

We shall restrict ourselves therefore to the type of theatre for which, in the opinion of this writer, there is the greatest need today in India. Before we go into any further details, this writer feels that the type of theatre he suggests should be built by the Government, or at least the major part of the money should come from the Government for this purpose. As far as possible, there should be standardization in the designing of the stage to enable and encourage a production designed in one city or centre to be put over in another.

Once such theatres are built and the necessary financial arrangements made for their maintenance, these theatres should not be under any further control of the Government. These theatres should be platforms for any or all types of shows and should be open to all and every dramatic group who can pay the rent of these theatres. Needless to say, rent should be as nominal as possible.

The Suggested Type of Theatre

It is true of almost any building that its solid form lives on, long after the purpose for which it was designed has died; in the theatre this is particularly true. Provision therefore must be made for a building which, while satisfying the needs of the present, will not hinder the developments of the future. The technology of using machine-made pre-fabricated units should help here, and maximum use of these could be made so that the theatre may change its clothing from time to time both easily and cheaply. The theatre building should be as alive and capable of growth as the drama which it enshrines.

Whereas the use of the auditorium is not likely to change to any great extent during the lifetime of the building, it is possible that the back-stage area of the theatre will need to undergo alterations to conform to new requirements in scenic design, and to this end the

theatre design must be kept as simple as possible. The main point for any architect to bear always in mind is that the stage designer's most urgent requirement is uninterrupted space. Given plenty of flat stage space, a good flying system and the correct form of proscenium opening, any form of dramatic effort can be adequately mounted without the need or the provision of any complicated machinery.

The basic fact must be appreciated that a building which is designed to function adequately as a theatre cannot be used to serve any other purpose. It is wrongly supposed that the provision of a multi-purpose hall will satisfy the need for a theatre in any particular centre. This is a particularly mistaken notion. A building which is properly suited to its use as a theatre would be quite useless for other purposes. What is needed is a theatre which is built to cater for a high standard of drama for the citizenry of the city or the town. Such a theatre should be built with the aid of a government grant. It is expected to be self-supporting, once it has become established.

Before designing the theatre, the architect must know the type of shows most likely to be put on, as this factor will influence the entire design. We can safely presume that such a theatre will be widely used, and that in majority of cases, the present-day naturalistic or semi-naturalistic box-set form of play will be performed. This will naturally affect the design.

What of the Future?

Can the form of the play of the future be assessed with any certainty? The general tendency has been towards intimacy of production, with an offshoot towards spectacle when the use of naturalistic scenery was in its heyday. In general, however, the play has tended to concentrate on the spoken word and on the actor-audience contact. Has this fact affected the style of the plays? It can safely be said that where experiments have been made, the tendency has been towards a greater contact between the audience and the actor, away from the spectacular production.

Scenery has progressed from the traditional painted scene, through a tide of naturalism, to the present-day built-up set. It now wavers between the fully-built naturalistically painted setting, the abstract architectural setting and the form provided by a few essential properties set before curtains or a cyclorama, together with the use of experimental lighting. Will the present conventions remain, or may we return to a state where the scenes are once again changed in full view of the audience?

The answer to this and other related questions will decide the equipment which we must provide in the new theatre. Unfortunately, the theatre is one place where fads and fashions are in their element and what is preached today is condemned tomorrow. Care must therefore be taken in the choice of theatre form to ensure that the new building, which provides for the current fashion, be it 'space' play or other form, will not become a white elephant by the passage of time.

Other Limitations

Apart from the restrictions imposed by the style of production, there are a number of other

restrictions which will tend to limit the design of the theatre. These may be referred to briefly under the headings of site restrictions and local authorities' rules and regulations.

The site usually chosen in no way provides for a large back-stage space which is an essential part of any modern theatre, and without which the theatre would not be able to perform its functions adequately. We have found, to our own dismay, that in many cases the sites chosen for the theatres have been selected by persons unacquainted with theatrical requirements, and the architect called upon to design a theatre on such a site has found himself unnecessarily hampered by restrictions inherent in the site, with the result that the design of the theatre has suffered and has proved to be quite useless for its special purpose.

Our proposed theatre of the future should be situated amidst the hustle and bustle of ordinary every day life, and should be planned with a view to adding to the recreational amenities of the city or the town. If possible, it should form part of an entertainment centre, and might be grouped with such buildings as museum, art gallery and library.

The Theatre Building

Before we go into the structural details of the theatre to be built, it is necessary to understand what is meant by the term 'theatre'. The word implies the entire realm of dramatic expression. There will be in this building two complementary groups of people, the actors and the audience. The relationship between these two groups is relatively simple: the one group should perform and act, the other should see and hear.

In the early theatre forms, the circus, the classical theatre, the pageant and others, this relationship was clearly and truthfully expressed. Later on, the desire for commercial profits led theatre managers to alter and enlarge the size and shape of the theatre, with the result that this actor-audience relationship was lost. It is therefore imperative that in our proposed theatre, the number of audience should be limited and by this means provide for the necessary intimacy inherent in the primary relationship between the actor and the audience. This intimacy may be defined as the identification of the playgoer with the emotion and movement of the play and of the performer in a manner so close that he feels himself to be literally committed to the outcome of the plot as though he were personally involved. It cannot be too strongly emphasized that in the theatre the audience makes as essential a contribution to the production as do the actors.

Whatever the demerits of the picture-frame stage, the box-set form of play is an integral part of it, and if we are to provide for this type of production, then our new theatre must necessarily allow for the masking requirements of the box-set, and the sitting arrangement of the audience in the auditorium must be so related to the stage as to allow all persons to see the entire frame.

Scenic Effects

Scenic effects may be achieved by varied methods; a lone actor may appear on the flat stage area set against a cyclorama suggesting infinite distance; coloured lights on abstract scenery may provide quick and noiseless changes of scene, or many yards of painted canvas may be

required to represent the locale. All forms of setting should be possible on the stage of our proposed theatre but whatever form is used, the essential functions are the same: to set the place or the 'mood' and to provide the necessary variations in the levels of the acting area.

The Stage

The Stage of a contemporary theatre is divided into two main sections:

1. The acting area: the area on which the action of the play takes place in view of the audience.
2. The working area: the area used for the storage of scenery and furniture, and for the assembly of actors prior to their appearance on the acting area. This area should not be visible to the audience.

The Acting Area

The ideal space for the acting area is a flat rectangular surface. As plays of all types and periods will be performed in the theatre we are contemplating, provision must be made for their proper presentation. The difficulty usually arises when the distance between the actor playing in a box-set and the audience seated beyond the fore-stage is too great for the intimate relationship which must be established between them.

As stated before, the ideal acting area should be flat. There seems to be a belief common among architects that a sloping floor is essential to give the audience better sight-lines but this is not so. The presence of a sloping stage in a modern theatre means that the scenery, even the simplest form of set, must be specially built if it is to stand vertically on the stage. Unless this is done, the whole room will lean precariously towards the audience, and pictures, candelabra, etc., will call attention to this by hanging in their normal vertical positions. Also, the sloping stage is a decided disadvantage if tracks, revolves and other methods of moving scenery are to be used. It can therefore be said that the sloping stage creates more problem than it solves. The question of sight-lines for the spectators can be dealt with quite simply by ramping or sloping the floor of the auditorium.

A considerable space is needed around the acting area, where several packs and build-up pieces of scenery may be stored, furniture and properties placed ready for immediate use, effects worked, and where actors may congregate before making their entrances. The stage-design should make the distance through which each piece of scenery may be moved as short as possible so as to economize on labour and time, the essence of any scene change being great speed.

The Stage Plan

As most local authorities require that the stage and the scenery should be separated from the audience by a fire-resisting wall and curtains, the main acting area will necessarily be placed directly behind this wall, known as the proscenium wall, which separates the stage from the auditorium. What will be the size of the main acting area, and where will the rear and side walls of the stage be placed in relation to it?

An ideal width for the contemporary form of a box setting is 30 ft and an average depth

is from 16 to 20 ft to the rear wall of the room, with a further 5 to 10 ft behind this for halls, gardens, etc., thus making it an acting area 30 ft wide by 25 to 30 ft deep. A distance of half the width of the acting area is ample allowance on either side. In the case of a 30 ft wide acting area, this would be 15 ft taking the total width of the stage to 60 ft. Up-stage of the main acting area, there must be provision for a 'no-man's-land' of some 15 to 20 ft in depth before reaching the position of the cyclorama and behind this a further 5 ft to allow for the movement of actors from one side of the stage to the other, and also to provide space for the storage of scenery. Thus, the total depth from proscenium wall to rear wall will be between 50 to 60 ft. The total stage space must be completely open and must not be interrupted by pillars, columns, piers or walls; there must be no projections from the wall and any necessary fittings must be built in flush to present a smooth wall surface. The stage should be directly connected to the workshop area by an opening 10 to 12 ft wide by 25 ft high; this opening should be fitted with a fire-resistant door or sliding shutter.

While dealing with the actual working area of the stage, it will be as well to mention the need to set aside an area directly behind the proscenium wall on the prompt side of the stage for the use of the stage director and the prompter. The space allotted may be an enclosed area approximately 3 ft wide by 6 to 9 ft long, capable of being rendered both light and sound proof and at the same time allowing for the greatest possible view both of the acting area and of the wing space. Here should be provided the necessary telephonic and cut-light communications with the various working areas of the stage and of the front-of-house. In addition, provision should be made here for the installation of an electric clock, and for the release mechanism operating the safety curtain. This is the nerve of the theatre, as the stage director is responsible for the smooth running of the entire show. It should control the entrance of the stage both from the dressing room, so that the stage manager may easily assemble and check the actors, and also from the front-of-house.

The Stage in Section

Flying space above the stage is an important feature of our contemporary theatre as it was in those of the past, and it may well be that the theatre of the future will require a similar flying system. The architect who does not allow for this possibility in the design of a new theatre is unnecessarily restricting both the use of the stage space and of the scenic effects which can be devised on it. The provision of some kind of system for hanging or flying scenery above the stage is essential in any theatre.

(a) The Flying System

In the modern theatre, the old fashioned form of rope lines, already described, is replaced by a counter-weight in which wire is used in place of rope, the lines at the stage-end being connected to a metal barrel, and at their opposite end to a counter-weight to which additional weights may be added to balance the weight of scenery attached to the barrel. Once the weight of the scenery to be flown has been counter-weighted, it can be raised into the air by the action of one man pulling on a working line. With a counter-weight system it is possible

to fly the back wall of a set or, by using several lines, to ply an entire set.

The main consideration in the design of the theatre should be to provide as flexible a stage as it is possible to conceive and, bearing this point in mind, it is essential to concentrate the available financial resources on providing maximum working space rather than an expensive machinery.

(b) *Cyclorama or Sky-cloth*

The question of the cyclorama requires special attention. There are two main forms in use today: one build solidly of fibrous plaster on a light frame, the other formed of canvas. The purpose of cyclorama or sky-cloth is to present to the audience a perfectly smooth surface, which when evenly lit, gives an appearance of unlimited distance and space.

Although a cyclorama can be used in almost any form of play, it may occasionally be found to be in the way, and as our aim is to include only such items that place minimum restrictions on the general use of the stage area, it may be best to use the canvas variety which can be easily flown or taken down and removed when not required. A perfectly made canvas cyclorama, properly tied to a shaped batten at the top and tightly laced through the bottom to eyelets into the stage, can give excellent results.

The Relation of the Stage to the Auditorium

The exact physical link between the stage and the auditorium is the most important element in the theatre. From this angle, let us examine the disadvantages of present picture frame stage which is in general use in modern theatres.

Firstly, the stage is set behind an ornate frame forming the proscenium opening, which sets the actors in a world apart, and like a picture frame cuts them off from the audience. Secondly, the area of dead stage between the setting and the audience creates further separation. Thirdly, the distracting chasm of the sunken orchestra pit with its railings, desks, lights, chairs and musicians creates virtually a physical barrier. Fourthly, the width of the front gangway makes it difficult for the actor to establish contact with his audience. It would be a great deal better if the orchestra pit were entirely removed, and only a narrow gangway separated the first row of seating from the front of the stage. To reduce the amount of dead stage in front of the setting, the front edge of the stage must line through with the proscenium wall. The stage being then directly connected with the spectator, the necessary feeling of intimacy could be achieved without bringing the front row of the audience right on top of the actors.

To ensure that the audience can see the stage as comfortably as possible, the stage floor should not be designed at a greater height than 3 ft above the floor level of the front row seats. All members of the audience including those in the front rows should be able to see the actual floor of the stage and not, as in so many contemporary theatre, only down to the knees of the up-stage actors.

For plays where a large fore-stage is needed, an area may be built up to the level of the main stage with rostrum units. It would seem therefore that the front rows of seating may

need to be arranged on a flat area of floor, on which the fore-stage may be built. The fore-stage may be anything from 10 to 15 ft in depth depending on the design of the auditorium. As it is extremely likely that the play of the future will make far greater use of the fore-stage, set in close contact with the audience, than do the plays of the present, the design of our proposed theatre should make every allowance for this possibility.

The Proscenium Opening

Consideration must now be given to the main element in this vital link, the proscenium opening. For the box-set type of play, where the working area of the stage must be concealed from the audience, the proscenium wall used as a masking element is a necessary feature but there may come a time when concealment of the working area is no longer required. How can this factor be allowed for?

While considering the size of the acting area, it was suggested that 30 ft was a reasonable width for a contemporary theatre setting. Considering that the width is kept at 30 ft, it will be advisable to have a proscenium opening of the same size, which will then easily accommodate any touring play that may visit the theatre. The more the size of theatre is standardized, the easier will be the work of the designer who must design settings for tours. While 30 ft is the normal width of a set, it will be necessary, from time to time, to stage a production such as some form of ballet or pageant which could well do with a wider opening. It is therefore advisable to keep the actual structural opening in the proscenium wall as large as possible, for it is reasonably a simple job to mask this opening down to the required size, whereas once built too small, no alternations can afterwards be made except at great expense.

The larger width of proscenium opening suggested above should not exceed 40 ft and the exact height should be studied in relation to the sight-lines from the rear of the auditorium, and also from the point of view of providing an opening of pleasant proportions. It should be noted that the width of the acting area will have to be correspondingly widened when a larger width of proscenium opening is used, and the stage dimensions must be adjusted accordingly.

The Auditorium

To provide the right kind of atmosphere, the seating capacity of the auditorium should be limited to a maximum of 700 persons. It is a great deal better to have a small theatre constantly full than to provide a large building which may be only two-thirds full for the greater part of the year. A full-house has an excellent effect on any theatre company, a half-empty house can have disastrous results.

(a) Its Shape

The shape of the auditorium will be limited by two main factors:

1. That every member of the audience shall be able to see the whole of the acting area.
2. That every member of the audience shall be close enough to the actors to experience the necessary feeling of intimacy. Having eliminated the orchestra pit, it should

now be possible to place the front row of seats between 6 and 10 ft from the front edge of the stage. The overall width of the seating should not be greater than 30 ft, the width of the average proscenium opening, and ideally, this width should be maintained till the rear of the auditorium. However, to ensure that the persons seated at the rear of the theatre may still be placed as near to the stage as possible, a compromise must be made and the seating fanned out very slightly to give more space for seats nearer the stage, but this should not be overdone.

The main point that must always be borne in mind by the theatre architect is that every person who has paid for a seat is entitled to see the entire play, and even the people seated on the extremities of the rows should be able to see the entire acting area. There is nothing more exasperating for a scenic designer than having to design sets for a theatre which has bad sight-lines, or for a member of the audience who, through no fault of the scenic designer, is unable to see the whole of the setting and is condemned to follow much of the play by sound alone.

(b) Boxes, Circle and Gallery

The depth of the auditorium should not be too great and it may be necessary to introduce a circle or gallery, with an allocation of seats of, say, 500 downstairs and 200 upstairs. Sight-lines from the circle must be closely watched to ensure that full vertical visibility is maintained from all seats, not only of the actor on stage level but also of an actor playing on a raised balcony, with head-room under, and the rear of the acting area.

(c) Decoration and Comfort

In general, the tendency in the new theatre should be to equal the comfortable conditions provided in the modern cinema. While comfort is always desirable, any tendency on the part of the audience to lounge should be held in check and the design of the seats should be such that the audience are encouraged to sit up and take notice of the play.

(d) Lighting

The architect should be well advised to consult a qualified stage lighting expert at a very early stage in the design and not after the building is ready as is very often done.

In our proposed theatre, provision must be made for a number of lighting points into which may be plugged the leads or cables of the lights used on the stage. These points are usually arranged below the level of the stage, and are reached through small metal trap doors or 'dips'. Three or four dips should be spaced out on either side of the acting area, and a further three dips arranged across the stage where the cyclorama will stand. In addition to these, plug points should be spaced out along the on-stage edge of the fly-gallery into which the cables from any overhead lighting may be plugged, and further points should be located on the grid itself.

When the design of the inner proscenium is being considered, it should be made possible for spots or vertical lighting strips to be fixed to the up-stage side of this unit in such a way that their lights may be directed into the set.

Concluding Words

The writer of this paper is well aware that he has well exceeded the limit of 3000 words but the subject given was too vast to be dismissed in a smaller paper. There is one more point this writer would like to make in the context of all that he has enumerated above. The tendency to build open-air theatre, as are being put up in some of our cities, is most detrimental to the growth of a vital theatre movement. If the essential requisite for a well-designed theatre is intimacy between the actor and the audience, nothing can destroy it more effectively than the open-air theatres we have seen put up, with their booming microphones and with a flat level ground for audiences to sit upon.

DISCUSSION

Adi Marzban: I do not propose to tell you again what I have written in my paper. I just take the floor to emphasize a few of our needs, and they are:

1. Dr Mulk Raj has asked for 100 theatres, Shri Sombhu Mitra wants 500. I say, let us for the present be satisfied with the actual starting of some at least. Theatres all over the country are what we need today. These theatres should not be merely play houses but houses which besides theatrical performances will house libraries, museums, art galleries relevant to the art of drama.
2. I have given you a plan of a theatre that should be immediately built in different centres of the country. It does not mean that because I have chalked out a plan of a particular type, I am opposed to any other. I welcome every type, be it experimental, national, school theatre or open-air theatre.
3. Care must be taken against rules and regulations imposed by local authorities, against thoughtless selection of sites and thoughtless construction of the stage and the auditorium.
4. Whatever the demerits of the picture-frame stage are, we cannot avoid it as long as we stick to box-set productions. A moderate sized auditorium is imperative for fostering that intimacy which the picture-frame stage spoils to some extent by raising artificial barriers between the actors and the audience. But it is unavoidable when you use the realistic settings and change them out of the sight of the audience. I don't think that the audience today would like to see the settings changed before their very eyes causing interruptions to the play itself. If you are prepared to do away with the settings completely, you can also do away with the picture-frame settings. If you stick to the former, you will have to tolerate the latter despite its drawbacks. The only rescue lies in an auditorium of not too big a size.
5. All forms of settings should be possible on the stage of the proposed theatre. But whatever form is used, the essential point to be kept in mind is the provision of as flexible a stage as it is possible to conceive and, bearing this point in mind, it is essential to concentrate the available financial resources in providing maximum working space rather than expensive machinery.

6. I have given some concrete suggestions in my paper and I will not waste your time by recapitulating them. Thank you.

K. Narain Kale: If intimacy means proximity, I am for it. But if it means fraternization, I am against it. I have seen actors bowing to their acquaintances amongst the audience before they start to play their parts. I hope we are not asked to take it as intimacy.

Adi Marzban: I did not mean it, Sir. It cannot be denied that the audience makes an essential contribution to the production as do the actors. When the wave of emotions created by the actors get an appropriate response from the bulk of the audience, an intimacy is established between the two. Then only does a drama takes shape. This cannot be achieved if the audience fails to receive the emotional wave due to distance or disturbed sight or false notice from the actors. Recently in Bombay while looking at the arrangements made by a Government official for a big show, I was foolish enough to refer to this intimacy. I was immediately silenced by the officer, "What are you talking about intimacy? I have fitted six loudspeakers!"

Dina Pathak: Once upon a time we were asked to give a performance of a Bhavai play. We wanted to use the centre of the auditorium as our acting space. So we wanted that some of the seats should be removed from the central part of the auditorium and all the seats should be placed on four sides of the acting space. A real Bhavai performance, you know, is held like that. But the hall was under the supervision of P.W.D. The officer in-charge denied to give us the facility we had asked for. The seats were not fixed to the floor. They could be easily re-arranged but the officer refused to do so and we were forced to give our performance on the picture-frame stage. Needless to say that the performance proved to be a failure. I relate this incident to bring to your notice how we are treated by officials who turn out to be drama experts by virtue of their official position. Shri Adi Marzban wants theatres to be so built that the intimacy between the actors and the audience might not be disturbed. I totally agree with him. But I want to know, does he envisage an auditorium where seats could be re-arranged in accordance with the need of a play?

Adi Marzban: In my paper, I have only indicated what might be the possible plan. There are alternatives and variations. But I would like to tell you that do not please propose to perform all the forms of drama. There are certain forms which should be performed in open-air theatres as there are certain forms which must be performed in walled-in houses and the stage must be on one end of the auditorium. When I wrote about the theatre building, I thought of a modern theatre and modern plays. Most of our folk plays do not need any theatre hall or a stage as we understand them. We want a few theatres immediately now. I have only given you an idea of a type of theatre that will help us to start work just now. As we progress, we might think of other possible types too.

Dr. Mulk Raj Anand: I thank Shri Adi Marzban for the concrete suggestions he has put forward. Let us have some theatres of the type Adi Marzban has recommended. That would be a very good beginning.